Drainage Services Department

Agreement No. SPW 07/2019
Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1

Monthly EM&A Report
April 2021

(Version 1)

Certified By 

(Environmental Team Leader:
Mr. KS Lee)

REMARKS:

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

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

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Ref.: DSDSWHS1EM00_0_0112E.21

14 May 2021

By E-mail and Fax (3922 9797)

AECOM Asia Company Limited
8/F., Grand Central Plaza, Tower 2,
138 Shatin Rural Committee Road
Sha Tin, New Territories, Hong Kong

Attention: Mr CHANG Ping Wah

Dear Mr CHANG,

Re: Contract No. SPW 08/2019
Independent Environmental Checker for
Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1

Monthly EM&A Report for April 2021

Reference is made to the Environmental Team's submission of Monthly EM&A Report for April 2021 (Version 1) certified by the ET Leader and provided to us via e-mail on 14 May 2021.

Please be informed that we have no adverse comments on the captioned submission. We write to verify the captioned submission in accordance with Condition 3.4 of FEP-02/474/2013.

Thank you for your attention. Please do not hesitate to contact us should you have any queries.

Yours sincerely,
For and on behalf of
Ramboll Hong Kong Limited

Y H Hui
Independent Environmental Checker

c.c.

DSD	Attn.: Ms Konica Cheung	(By Fax: 3104 6420)
Cinotech	Attn.: Mr K. S. Lee	(By Fax: 3107 1388)

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EXECUTIVE SUMMARY

Introduction

1. This is the 16th EM&A Report prepared by the Environmental Team, Cinotech Consultants Ltd., for Agreement No. SPW 07/2019 "Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1". This report summarized the monitoring results and audits findings of the EM&A programme under the issued further EP No. FEP-02/474/2013 and in accordance with the Updated EM&A Manual during the reporting month of April 2021.

Summary of Main Works Undertaken and Key Measures Implemented

2. The main works undertaken during the reporting period are as follows:

Table I Summary Table for Major Site Activities in the Reporting Month

Contract No.	Contract Title	Site Activities
DC/2018/06	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sludge Treatment Facilities and 132kV Primary Substation	• ELS and excavation works • Wall and slab construction • RC works • Pipe laying • Pipe jacking work
DC/2018/07	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sewage Treatment Facilities	• ELS and construction of inlet reception chamber • Trench excavation • Road and drainage works • Diversion of inlet works • Process pipe of CHR and CHS • Pre-drilling work and foundation work • Pre-bored H piles • Cable diversion works • Alternation of existing powerhouse • Demolition work of existing main facilities • Sheet pile installation
DE/2018/03	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities	• Break concrete pavement and ramp • Construct sump pit and curb
DE/2018/04	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - E&M Works for Sewage Treatment Facilities	• Construction of temporary filtrate equalisation tank • Installation of temporary primary sludge thickener and its accessories • Retrofitting the existing primary sedimentation tank no. 4 and 6

3. Implementation of the key mitigation measures during the reporting period are as follows:

Air Quality
- Stockpiles were covered by impervious sheets.
- Water spraying on haul road was done to minimize dust generation.

Waste Management
- Chemicals were stored in drip trays properly.
- Unused waste and materials were removed to maintain the tidiness of the site.

Summary of Exceedances, Investigation and Follow-up

4. Exceedance of Action/Limit levels during the reporting month (April 2021) and the investigation results and/or follow-up actions:

Air Quality Monitoring
- No Action/Limit Level exceedance for 1-hour TSP was recorded.
- No Action/Limit Level exceedance for 24-hour TSP was recorded.

Construction Noise Monitoring
- No Action/Limit Level exceedance for day time construction noise monitoring was recorded in the reporting month.

Ecological Monitoring
- No Action and Limit Level exceedance was triggered.

Complaint Handling, Prosecution and Public Engagement

Table II Summary of Complaint/Summons/Prosecution in the Reporting Month

Event	Event Details		Follow-up/ Remedial Actions	Status/ Remarks
	Number	Brief Description		
Complaints Received	0	-	-	-
Notification of Summons and Prosecutions Received	0	-	-	-
Public Engagement Activities	0	-	-	-

Reporting Changes

5. There were no reporting changes during the reporting month.

Future Key Issues

6. The key works or activities will be anticipated in the next reporting period are as follows:

Table III Summary Table for Site Activities in the Next Reporting Period

Contract No.	Contract Title	Site Activities
DC/2018/06	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sludge Treatment Facilities and 132kV Primary Substation	• Excavation Works • Wall and slab construction • RC works • Pipe laying • Pipe jacking work
DC/2018/07	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sewage Treatment Facilities	• ELS and construction of inlet reception chamber • Trench excavation • Road and drainage works • Diversion of inlet works • Process pipe of CHR and CHS • Pre-drilling work and foundation work • Cable diversion works • Demolition work of existing main facilities • Alternation of existing powerhouse • Pre-bored H piles • Sheet pile installation
DE/2018/03	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities	• Relocate container includes, remove shrubs and laying blinding • Trial pits excavation • Construct wheel washing facilities • Setup of piling works, mobilization of plant and equipment • Socket H Pilling • Installation of EOT crane (LA-05-02) • Installation of F.S. equipment
DE/2018/04	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - E&M Works for Sewage Treatment Facilities	• Installation of temporary filtrate equalisation tank • Installation of temporary primary sludge thickener and its accessories. • Retrofitting the existing primary sedimentation tank no. 4 and 6

1 INTRODUCTION

Background

1.1 The Further Expansion of Shek Wu Hui Effluent Polishing Plant (SWHEPP) is a designated Project (DP) under F.1 and F.2 of Part 1, Schedule 2 of Environmental Impact Assessment Ordinance (EIAO). The "North East New Territories New Development Areas" Environmental Impact Assessment (NENT NDAs EIA) Report (Registered No.: AEIAR-175/2013) covered the assessment for the Further Expansion of SWHSTW Phase 1A, 1B and 2, and the associated Environmental Monitoring and Audit (EM&A) Manual was approved on 18 October 2013.

1.2 The existing Shek Wu Hui Sewage Treatment Works (SWHSTW) is operated and maintained 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 year. In 2009, the expansion of SWHSTW was completed and its design capacity was 93,000m^2/day at average dry weather flow (ADWF). After the Resource Allocation Exercise 2017, the existing SWHSTW is proposed to be upgraded from secondary to tertiary treatment level as the new SWHEPP at 3 stages: Main Works Stage 1, Stage 2 and Stage 3.

1.3 A Further Environmental Permit (EP) (Permit No. FEP-02/474/2013) was issued on 15 February 2018 to DSD as the Permit Holder to assume the responsibility for construction and operating the SWHEPP Project up to a capacity of 190,000m^3/day. The updated Environmental Monitoring and Audit (EM&A) Manual was prepared in accordance with Condition 2.3 of the Further EP. The site layout plan for the Project is shown in **Figure 1.1**.

1.4 Cinotech Consultants Ltd. was designated as the Environmental Team (ET) to undertake the EM&A works for "Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1" (hereinafter called the "Project").

Purpose of the Report

1.5 This is the 16th Monthly EM&A Report which summarises the impact monitoring results and audit findings for the EM&A programme during the reporting period in April 2021.

Project Organizations

1.6 Different Parties with different levels of involvement in the project organization include:

- Permit Holder – Drainage Services Department (DSD)
- Supervisor Representative – AECOM Asia Company Limited (AECOM)
- Environmental Team (ET) – Cinotech Consultants Limited (Cinotech)
- Independent Environmental Checker (IEC) – Ramboll Hong Kong Limited (Ramboll)
- Contractors
  - Contract No.: DC/2018/06 - Kwan Lee - Chun Wo Joint Venture (KLCWJV)
  - Contract No.: DC/2018/07 - Kwan Lee - Chun Wo Joint Venture (KLCWJV)
  - Contract No.: DE/2018/03 - Jardine Engineering Corporation Limited (JEC)
  - Contract No.: DE/2018/04 - Bestwise Envirotech Limited (Bestwise)

1.7 The key contacts of the Project are shown in **Table 1.1**.

Table 1.1 Key Project Contacts

Party	Role	Contact Person	Phone No.
DSD	Permit Holder	Ms. Konica Cheung	2594 7463
AECOM	Supervisor Representative	Ms. Bianca Choi	3907 6141
Cinotech	Environmental Team	Mr. KS Lee (ETL)	2151 2091
		Ms. Betty Choi	2151 2072
Ramboll	Independent Environmental Checker	Mr. YH Hui	3465 2850
KLCWJV	Contractor (DC/2018/06)	Ms. Ruby Hui	6218 6408
KLCWJV	Contractor (DC/2018/07)	Ms. Shirley Kong	5162 5933
JEC	Contractor (DE/2018/03)	Ms. Juliet Ting	6826 7319
Bestwise	Contractor (DE/2018/04)	Mr. Albus Cheung	9731 0831

1.8 The Organizational Structure for Environmental Management is shown in **Figure 1.2**.

Construction Activities undertaken during the Reporting Month

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

Table 1.2 Summary Table for Major Site Activities in the Reporting Month

Contract No.	Contract Title	Site Activities
DC/2018/06	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sludge Treatment Facilities and 132kV Primary Substation	• ELS and excavation works • Wall and slab construction • RC works • Pipe laying • Pipe jacking work
DC/2018/07	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sewage Treatment Facilities	• ELS and construction of inlet reception chamber • Trench excavation • Road and drainage works • Diversion of inlet works • Process pipe of CHR and CHS • Pre-drilling work and foundation work • Pre-bored H piles • Cable diversion works • Alternation of existing powerhouse • Demolition work of existing main facilities • Sheet pile installation

Contract No.	Contract Title	Site Activities
DE/2018/03	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities	• Break concrete pavement and ramp • Construct sump pit and curb
DE/2018/04	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - E&M Works for Sewage Treatment Facilities	• Construction of temporary filtrate equalisation tank • Installation of temporary primary sludge thickener and its accessories • Retrofitting the existing primary sedimentation tank no. 4 and 6

Summary of EM&A Requirements

1.10 The EM&A programme requires construction noise monitoring, air quality monitoring, water quality monitoring, ecological monitoring and environmental site audit, etc. The EM&A requirements for each parameter are described in the following sections, including:

- All monitoring parameters;
- Action and Limit levels for all environmental parameters;
- Event Action Plans;
- Environmental mitigation measures, as recommended in the Project EIA Report.

1.11 The advice on the implementation status of environmental protection and pollution control/mitigation measures is summarized in Section 8 of this report.

1.12 This report presents the monitoring results, observations, locations, equipment, period, methodology and QA/QC procedures of the monitoring parameters of the required environmental monitoring works and audit works for the Project in April 2021.

Statues of Environmental Licensing and Permitting

1.13 All permits/licenses obtained for the Project are summarized in **Table 1.3**.

Table 1.3 Summary of Environmental License and Permit

Contract No.	Permit / License No.	Valid Period		Status
		From	To	
Environmental Permit (EP)				
All	FEP-02/474/2013	15 Feb 2018	N/A	Valid
Notification of Construction Works under Air Pollution Control Ordinance (APCO)				
DC/2018/06	449210 (Portion A & C)	23 Sep 2019	N/A	Valid
DC/2018/06	449211 (WM1)	23 Sep 2019	N/A	Valid
DC/2018/07	449210	23 Sep 2019	N/A	Valid
DE/2018/03	455843 (WA3)	6 May 2020	N/A	Valid
DE/2018/03	457212 (WA1-B)	15 Jun 2020	N/A	Valid

Contract No.	Permit / License No.	Valid Period		Status
		From	To	
DE/2018/03	460065 (Sidestream)	16 Sep 2020	N/A	Valid
DE/2018/04	460181	Notified EPD on 17 Sep 2020	N/A	Valid
Billing Account for Construction Waste Disposal				
DC/2018/06	7035390	11 Oct 2019	N/A	Valid
DC/2018/07	7035985	9 Dec 2019	N/A	Valid
DE/2018/03	7035700	6 Nov 2019	N/A	Valid
DE/2018/04	703621912	2 Jan 2020	N/A	Valid
Registration of Chemical Waste Producer				
DC/2018/06	5213-624-K3371-01	14 Nov 2019	N/A	Valid
DC/2018/07	5213-624-K3371-02	6 Jan 2020	N/A	Valid
DE/2018/03	5213-624-T3861-01	14 Apr 2020	N/A	Valid
DE/2018/04	5213-624-B2592-01	7 Jul 2020	N/A	Valid
Effluent Discharge License				
DC/2018/06	WT00035431-2019 (Portion C)	27 Jul 2020	31 Jan 2025	Valid
DC/2018/06	WT00035718-2020 (Portion A)	2 Apr 2020	30 Apr 2025	Valid
DC/2018/07	WT00035727-2020	1 Apr 2020	30 Apr 2025	Valid
DE/2018/03	WT00037220-2020	16 Mar 2021	31 Jan 2026	Valid
Construction Noise Permit (Use of Powered Mechanical Equipment)				
DC/2018/06 & DC/2018/07	GW-RN0753-20	30 Oct 2020	11 Apr 2021	Expired on 11 Apr 2021
DC/2018/06 & DC/2018/07	GW-RN0181-21	12 Apr 2021	11 Jul 2021	Valid
DC/2018/06	GW-RN0223-21	1 Apr 2021	30 Apr 2021	Valid
DE/2018/03	GW-RN0274-21	28 Apr 2021	27 Jul 2021	Valid
DE/2018/04	GW-RN0231-21	1 Apr 2021	6 Apr 2021	Expired on 6 Apr 2021
Admission Ticket for Disposal of Special Waste				
DC/2018/07	16113	17 Feb 2021	16 Jun 2021	Valid

2 AIR QUALITY

Monitoring Requirement

2.1 According to the Updated EM&A Manual of SWHEPP, 1-hour and 24-hour Total Suspended Particulates (TSP) monitoring were conducted to monitor the air quality for this Project. For regular impact monitoring, a sampling frequency of at least once in every six days at all of the monitoring stations for 24-hour TSP monitoring. For 1-hour TSP monitoring, the sampling frequency of at least three times in every six days shall be undertaken when the highest dust impact occurs. **Appendix A** shows the established Action/Limit Levels for the environmental monitoring works.

Monitoring Locations

2.2 Four designated monitoring stations were selected for air quality monitoring programme. **Table 2.1** describes the air quality monitoring locations, which are also depicted in **Figure 2**.

Table 2.1 Air Quality Monitoring Locations

Monitoring Stations	Location	Location of Measurement
AM1(1)	Wai Loi Tsuen	Ground Level
AM2(1)	Fu Tei Au	Ground Level
AM1a(2)	Site Boundary of the Shek Wu Hui STW (East)	Ground Level
AM2a(2)	Site Boundary of the Shek Wu Hui STW (North)	Ground Level

Remarks: (1) For 1-hour TSP monitoring; (2) For 24-hour TSP monitoring

Monitoring Parameters and Frequency

2.3 **Table 2.2** summarizes the monitoring parameters, monitoring period and frequencies of impact air quality monitoring. The monitoring schedule is shown in **Appendix B**.

Table 2.2 Frequency and Parameters of Air Quality Monitoring

Monitoring Stations	Parameter	Period	Frequency
AM1 & AM2	1-hour TSP	0700 – 1900	3 times/day, once every 6 days
AM1a & AM2a	24-hour TSP	24 hours	Once every 6 days

Monitoring Equipment

2.4 High Volume Samplers (HVS) in compliance with the specification stipulated in the EM&A Manual, Section 2.2.2, were used to carry out 24-hour TSP monitoring. Direct reading dust meter were also used to measure 1-hour average TSP levels. The 1-hour sampling was determined by HVS to check the validity and accuracy of the results measured by direct reading method.

2.5 Wind data monitoring equipment was set on rooftop (about 4/F) of the SWHSTW control room building 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 sectors of 22.5 degrees each.

2.6 **Table 2.3** summarizes the equipment to be used for air quality monitoring. Copies of calibration certificates are attached in **Appendix C**.

Table 2.3 Air Quality Monitoring Equipment

Equipment	Model and Make	Quantity
1-hour TSP Dust Meter	Sibata Model No.: LD-5R	2
HVS Sampler	GMW Model: GS 2310	1
	TISCH Model: TE 5170	1
Calibrator	TISCH Model: TE-5025A	1
Wind Anemometer	Global Water Instrumentation WE800	1

Monitoring Methodology

1-hour TSP Monitoring

Measuring Procedures

2.7 The measuring procedures of the 1-hour dust meter are in accordance with the Manufacturer's Instruction Manual as follows:

(Sibata Model No.: LD-5R)

- The 1-hour dust meter is placed at least 1.3 meters above ground.
- Set POWER to "ON" and make sure that the battery level was not flash or in low level.
- Allow the instrument to stand for about 3 minutes and then the cap of the air sampling inlet has been released.
- Push the knob at MEASURE position.
- Set time/mode setting to [BG] by pushing the time setting switch. Then, start the background measurement by pushing the start/stop switch once. It will take 6 sec. to complete the background measurement.
- Push the time setting switch to change the time setting display to [MANUAL] at the bottom left of the liquid crystal display. Finally, push the start/stop switch to stop the measuring after 1 hour sampling.
- Information such as sampling date, time, count value and site condition were recorded during the monitoring period.

Maintenance/Calibration

2.8 The following maintenance/calibration is required for the 1-hour dust meter:

- Check and calibrate the meter by HVS to check the validity and accuracy of the results measured by direct reading method at 2-month intervals throughout all stages of the air quality monitoring.

24-hour TSP Monitoring

Instrumentation

2.9 High volume samplers (HVS) (TISCH Model: TE-5170) complete with appropriate sampling inlets was employed for 24-hour TSP monitoring. The sampler was composed of a motor, a filter holder, a flow controller and a sampling inlet and its performance specification complied with that required by USEPA Standard Title 40, Code of Federation Regulations Chapter 1 (Part 50). Moreover, the HVS also met all the requirements in Section 2.2 of the Annex II Specification.

2.10 The positioning of the HVS samplers are as follows:

- A horizontal platform with appropriate support to secure the samplers against gusty wind shall be provided;
- No two samplers shall be placed less than 2 meter apart;
- The distance between the sampler and an obstacle, such as buildings, must be at least twice the height that the obstacle protrudes above the sampler;
- A minimum of 2 metres of separation from walls, parapets and penthouses is required for rooftop samplers;
- A minimum of 2 metres of separation from any supporting structure, measured horizontally is required;
- No furnace or incinerator flue is nearby;
- Airflow around the sampler is unrestricted;
- The sampler is more than 20 metres from the dripline;
- Any wire fence and gate, to protect the sampler, shall not cause any obstruction during monitoring;
- Permission must be obtained to set up the samplers and to obtain access to the monitoring stations; and
- A secured supply of electricity is needed to operate the samplers.

Operating/analytical procedures for the operation of HVS

2.11 Operating/analytical procedures for the air quality monitoring are highlighted as follows:

- Prior to the commencement of the dust sampling, the flow rate of the high volume sampler was properly set (between 1.1 m^3/min. and 1.4 m^3/min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50.
- For TSP sampling, fiberglass filters with a collection efficiency of > 99% for particles of 0.3μm diameter were used.
- The power supply was checked to ensure the sampler worked properly. On sampling, the sampler was operated for 5 minutes to establish thermal equilibrium before placing any filter media at the designated air monitoring station.
- The filter holding frame was then removed by loosening the four nuts and a weighted and conditioned filter was carefully centered with the stamped number upwards, on a supporting screen.
- The filter was aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter. Then the filter holding frame was tightened to the filter holder with swing bolts. The applied pressure should be sufficient to avoid air leakage at the edges.

- The shelter lid was closed and secured with the aluminum strip.
- The timer was then programmed. Information was recorded on the record sheet, which included the starting time, the weather condition and the filter number (the initial weight of the filter paper can be found out by using the filter number).
- After sampling, the filter was removed and sent to the HOKLAS laboratory (High Precision Chemical Testing Limited) for weighing. The elapsed time was also recorded.
- Before weighing, all filters were equilibrated in a conditioning environment for 24 hours. The conditioning environment temperature should be between 25°C and 30°C and not vary by more than ±3°C; the relative humidity (RH) should be < 50% and not vary by more than ±5%. A convenient working RH is 40%.

Maintenance/Calibration

2.12 The following maintenance/calibration is required for the HVS:

- The high volume motors and their accessories were properly maintained. Appropriate maintenance such as routine motor brushes replacement and electrical wiring checking were made to ensure that the equipment and necessary power supply are in good working condition.
- High volume samplers were calibrated at bi-monthly intervals using TE-5025A Calibration Kit throughout all stages of the air quality monitoring.

Results and Observations

2.13 Impact air quality monitoring was conducted at four monitoring stations as scheduled. The monitoring schedule is shown in **Appendix B**.

2.14 No Action/Limit Level exceedance was recorded for all 1-hour TSP monitoring in the reporting month.

2.15 No Action/Limit Level exceedance was recorded for all 24-hour TSP monitoring in the reporting month.

2.16 The air temperature, precipitation and the relative humidity data was obtained from daily extract of Ta Kwu Ling Station in Hong Kong Observatory Climate Information Service, where the wind speed and wind direction were recorded by the installed Wind Anemometer at rooftop (about 4/F) of the SWHSTW control room building. This weather information for the reporting month is summarized in **Appendix D**.

2.17 The monitoring data and graphical presentations of 1-hour and 24-hour TSP monitoring results are shown in **Appendix E** and **Appendix F** respectively.

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

Table 2.4 Major Dust Source during Air Quality Monitoring

Monitoring Stations	Major Dust Source
AM1 - Wai Loi Tsuen	Road Traffic at Sheung Shui Tung Hing Road
AM2 - Fu Tei Au	N/A
AM1a - Site Boundary of the Shek Wu Hui STW (East)	Vehicle Movement within SWHSTW
AM2a - Site Boundary of the Shek Wu Hui STW (North)	N/A

Comparison of EM&A Result with EIA Prediction

2.19 The air monitoring data was compared with the predictions in the EIA Report (as approved in 2013) as summarised in **Tables 2.5** and **Table 2.6**.

Table 2.5 Comparison of 1-hr TSP Monitoring Data with Predictions in EIA Report (As Approved in 2013)

Monitoring Stations	ASR ID	Predicted 1-hr TSP Concentration in EIA Report (as Approved in 2013), dB(A), µg/m^3	Reporting Month (April 2021), µg/m^3
AM1 - Wai Loi Tsuen	N/A	N/A(1)	26.4 - 72.6
AM2 - Fu Tei Au	FLN-E28	255	24.2 - 74.8

Remarks:
(1) No 1-hr TSP concentration was predicted in EIA Report (As Approved in 2013).

Table 2.6 Comparison of 24-hr TSP Monitoring Data with Predictions in EIA Report (As Approved in 2013)

Monitoring Stations	Predicted 24-hr TSP Concentration in EIA Report (as approved in 2013), dB(A), µg/m^3	Reporting Month (April 2021), µg/m^3
AM1a - Site Boundary of the Shek Wu Hui STW (East)	N/A(1)	11.9 - 84.8
AM2a - Site Boundary of the Shek Wu Hui STW (North)	N/A(1)	32.5 - 58.5

Remarks:
(1) No 24-hr TSP concentration was predicted in EIA Report (as approved in 2013).

2.20 The 1-hour TSP concentration at AM2 in the reporting month was lower than the prediction in the EIA Report (As Approved in 2013). The 1-hour TSP concentrations at AM1 as well as 24-hour TSP concentrations at AM1a and AM2a were not predicted in the EIA Report (As Approved in 2013).

3 NOISE

Monitoring Requirements

3.1 According to the Updated EM&A Manual, construction noise monitoring was conducted to monitor the construction noise arising from the construction activities. The regular monitoring frequency for each monitoring station shall be on a weekly basis and conduct one set of measurements between 0700 and 1900 hours on normal weekdays. **Appendix A** shows the established Action and Limit Levels for the environmental monitoring works.

Monitoring Locations

3.2 Noise monitoring was conducted at three designated monitoring stations in the reporting period. **Table 3.1** and **Figure 3** show the locations of these stations.

Table 3.1 Noise Monitoring Stations

Monitoring Stations	Location	Location of Measurement
NM1	Wai Loi Tsuen	Ground Level
NM2	Fu Tei Au	Ground Level
NM3	Man Kok Village	Ground Level

Monitoring Parameters, Frequency and Duration

3.3 **Table 3.2** summarizes the monitoring parameters, frequency and total duration of monitoring. The noise monitoring schedule is shown in **Appendix B**.

Table 3.2 Frequency and Parameters of Noise Monitoring

Monitoring Stations	Time Period	Duration	Frequency	Parameter	Measurement
NM1	0700-1900 hrs on normal weekdays	30 minutes	Once per week	L_{10}(30 min.) dB(A) L_{90}(30 min.) dB(A) L_{eq}(30 min.) dB(A)	Free Field
NM2					Free Field
NM3					Free Field

Monitoring Equipment

3.4 Integrating Sound Level Meter was used for impact noise monitoring. The meters were Type 1 sound level meter capable of giving a continuous readout of the noise level readings including equivalent continuous sound pressure level (L_{eq}) and percentile sound pressure level (L_x) that also complied with International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1) specifications. **Table 3.3** summarizes the noise monitoring equipment being used. Copies of calibration certificates are attached in **Appendix G**.

Table 3.3 Noise Monitoring Equipment

Equipment	Model and Make	Quantity
Integrating Sound Level Meter	BSWA 308	3
Calibrator	ST-120	2

Monitoring Methodology and QA/QC Procedure

3.5 The monitoring procedures are as follows:

- The monitoring station was normally be at a point 1m from the exterior of the sensitive receivers building façade and be at a position 1.2m above the ground.
- For free field measurement, the meter was positioned away from any nearby reflective surfaces. All records for free field noise levels were adjusted with a correction of +3 dB(A).
- The battery condition was checked to ensure the correct functioning of the meter.
- Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:
  - Frequency weighting: A
  - Time weighting: Fast
  - Time measurement: 30 minutes
- Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement was more than 1.0 dB, the measurement would be considered invalid and repeat of noise measurement would be required after re-calibration or repair of the equipment.
- The wind speed was frequently checked with the portable wind meter.
- At the end of the monitoring period, the L_{eq}, L_{90} and L_{10} were recorded. In addition, site conditions and noise sources were recorded on a standard record sheet.
- Noise monitoring would be cancelled in the presence of fog, rain, and wind with a steady speed exceeding 5 m/s, or wind with gusts exceeding 10 m/s. Supplementary monitoring would be provided to ensure sufficient data would be obtained.

Maintenance and Calibration

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

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

3.8 Immediately prior to and following each noise measurement the accuracy of the sound level meter was checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements were accepted as valid only if the calibration levels from before and after the noise measurement agree to within 1.0 dB.

Results and Observations

3.9 No Action/Limit Level exceedance was recorded for all construction noise monitoring in the reporting month.

3.10 Noise monitoring results and graphical presentations are shown in **Appendix H**.

3.11 The major noise sources identified at the noise monitoring stations are shown in **Table 3.4**.

Table 3.4 Other Noise Source Identified during Noise Monitoring

Monitoring Stations	Major Noise Source
NM1	Railway Noise and Road Traffic at Sheung Shui Tung Hing Road
NM2	N/A
NM3	Road Traffic at Po Wan Road

3.12 All the Construction Noise Levels (CNLs) reported in this report were adjusted with the corresponding baseline level (i.e. Measured Leq – Baseline Leq = CNL), in order to facilitate the interpretation of the noise exceedance. The baseline noise level and the Noise Limit Level at each designated noise monitoring station are presented in **Table 3.5**.

Table 3.5 Baseline Noise Level and Noise Limit Level for Monitoring Stations

Monitoring Stations	Baseline Noise Level, dB (A) (at 0700 – 1900 hrs on normal weekdays)	Noise Limit Level, dB (A) (at 0700 – 1900 hrs on normal weekdays)
NM1	63.4	75
NM2	58.0	
NM3	63.4	

Comparison of EM&A Result with EIA Prediction

3.13 The noise monitoring data was compared with the predictions in EIA Report (as approved in 2013) as summarised in **Table 3.6**.

Table 3.6 Comparison of Noise Monitoring Data with Predictions in EIA Report (As Approved in 2013)

Monitoring Stations	NSR ID	Predicted Mitigated Construction Noise Levels in EIA Report (as Approved in 2013), dB(A)	Reporting Month (April 2021), Leq (30min) dB(A)
NM1 - Wai Loi Tsuen	N/A	N/A(1)	53.2 –57.5
NM2 - Fu Tei Au	N/A	N/A(1)	55.8 –57.4
NM3 – Man Kok Village	FN-18	66-75	56.2 –60.4

Remarks:
(1) No construction noise level was predicted in EIA Report (As Approved in 2013).

3.14 The results at NM3 were lower than the range of the predicted mitigated construction noise levels in the EIA Report (As Approved in 2013). Construction noise levels at NM1 and NM2 were not predicted in the EIA Report (As Approved in 2013).

4 ECOLOGY

Monitoring Requirements

4.1 According to the Updated EM&A Manual, waterbird species which use rivers near the Project Site were identified and recorded. The monitoring requirement in the EM&A Manual is shown in **Table 4.1**. **Appendix A** shows the established Action/Limit Levels for ecological monitoring works.

Table 4.1 Monitoring of Measures to Minimise Disturbance to Waterbirds on Ng Tung, Sheung Yue and Shek Sheung Rivers during Construction Phase

Phase	Methodology
Construction	Weekly transect at both high and low tides 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.

4.2 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 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** and summarized in **Table 4.2**. The photo of each transect is provided in **Appendix J**.

Table 4.2 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

4.4 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 B**.

Monitoring Methodology

4.5 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.

4.6 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.

4.7 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).

4.8 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

4.9 The number and species of waterbirds utilizing the rivers fluctuate every day naturally. Therefore, the survey data were collectively analysed 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 4.3**.

Table 4.3 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

4.10 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.

4.11 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.

Results

4.12 For this reporting month, the numbers of species and individuals recorded were provided in **Table 4.4**. The photo record of waterbirds can be found in **Appendix J**.

Table 4.4 Total Bird Species and Abundance in the Reporting Month

	Number of Species	Abundance
All Avifauna	42	519
Waterbirds	14	194

4.13 **Table 4.5** presents the abundance of representative species.

Table 4.5 Abundance of Representative Waterbirds in the Reporting Month

Species Name	Common Name	Chinese Name	Abundance
Egretta garzetta	Little Egret	小白鷺	79
Ardea cinerea	Grey Heron	蒼鷺	2
Ardeola bacchus	Chinese Pond Heron	池鷺	48
Phalacrocorax carbo	Great Cormorant	普通鸕鷀	0
Ardea alba	Great Egret	大白鷺	15
Bubulcus coromandus	Eastern Cattle Egret	牛背鷺	25

Analysis

4.14 The result of student t-tests for all waterbirds and representative waterbirds are compiled in **Table 4.6** and **4.7** respectively. Further details are provided in **Appendix I**.

Table 4.6 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	0.068	✓	✓
	Seasonal	0.779	✓	✓

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 4.7 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% (-2.353)	99% (-4.541)	Seasonal	95% (-2.353)	99% (-4.541)	
Little Egret	-1.100	✓	✓	-0.200	✓	✓	✓
Grey Heron	N/A*						
Chinese Pond Heron	-1.529	✓	✓	-2.561	✓	✓	✓
Great Cormorant	N/A*						
Great Egret	1.464	✓	✓	1.419	✓	✓	✓
Eastern Cattle Egret	-0.626	✓	✓	1.680	✓	✓	✓

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 Summer.

4.15 No Action Level and Limit Level was triggered for ecological monitoring in the reporting month.

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

Observations

4.17 Waterbird behaviour observed during ecological monitoring are listed below:

- Flying
- Foraging
- Soaring
- Resting

4.18 The anthropogenic activities observed during ecological monitoring are listed in **Table 4.8**.

Table 4.8 Observations during Ecological Monitoring in the Reporting Month

Location	Observations	
	Project Related	**Non-project Related**
T1 (PC1, PC2)	N/A	Fishing and jaywalking
T2 (PC3, PC4)	Excavation and crane	Fishing and jaywalking
PC5	Excavation and crane	N/A
T3 (PC6, PC7)	N/A	Fishing and jaywalking

5 WATER QUALITY

Monitoring Requirement

5.1 According to the Updated EM&A Manual, no water monitoring is required before the commencement of outfall construction at Ng Tung River.

5.2 Site audits were carried out on a weekly basis to monitor and audit the timely implementation of water quality mitigation measures within the site boundaries of this Project. The summaries of site audits are attached in **Appendix K**.

6 WASTE MANAGEMENT

Monitoring Requirement

6.1 According to the Updated EM&A Manual, waste management would be the contractor's responsibility to ensure that all wastes produced during the construction works for the Project are handled, stored and disposed of in accordance with good waste management practices, EPD's regulations and requirements. No monitoring for waste management is required for the Project. An environmental management plan (EMP) should be prepared and submitted to the Supervisor for approval. The monitoring and auditing requirements of the EMP should be followed with regard to the management of C&D material.

Waste Management Status

6.2 Site audits were carried out on a weekly basis to monitor and audit to ensure that proper storage, transportation and disposal practices of waste materials generated during construction activities, such as construction and demolition (C&D) materials and general refuse are being implemented. The summaries of site audits are attached in **Appendix K**.

6.3 The amount of wastes generated by the major site activities of this Project during the reporting month is shown in **Appendix L**.

7 LANDSCAPE AND VISUAL

Audit Requirement

7.1 According to the Updated EM&A Manual, site audits would be undertaken during the construction phase of the Project to check that the proposed landscape and visual mitigation measures are properly implemented and maintained as per their intended objectives. Particularly audits would be carried out during site clearance when proposed tree felling and transplantation may occur. Site inspections would be undertaken at least once every two weeks during the construction period.

7.2 Site audits were carried out on a weekly basis to monitor and audit the timely implementation of landscape and visual mitigation measures within the site boundaries of this Project. The summaries of site audits are attached in **Appendix K**.

8 ENVIRONMENTAL AUDIT

Site Audits

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

8.2 Site audits for Contract No. DC/2018/06 and DC/2018/07 were conducted on 8, 14, 20 & 27 April 2021 in the reporting month, whereas that for Contract No. DE/2018/03 and DE/2018/04 were conducted on 7, 13, 20 & 27 April 2021 in the reporting month. Joint site inspection with the representative of IEC was conducted on 27 April 2021. No non-compliance was observed during the site audit.

Implementation Status of Environmental Mitigation Measures

8.3 According to Environmental Permits, the approved EIA Report (Register No.: AEIAR-175/2013), and the Updated EM&A Manual of the Project, the mitigation measures detailed in the documents are recommended to be implemented during the construction phase. An Environmental Mitigation Implementation Schedule (EMIS) is provided in **Appendix N**.

8.4 The ET weekly site inspections were carried out during the reporting month and the observations and recommendations are summarized in **Tables 8.1 - 8.4**. Refer to **Appendix K** for the site inspection summary reports in the reporting month.

Table 8.1 Observations and Recommendations of Site Audit of Contract No. DC/2018/06

Parameters	Date	Observations and Recommendations	Follow-up
Water Quality	N/A	There was no observation in the reporting period.	N/A
Air Quality	N/A	There was no observation in the reporting period.	N/A
Noise	N/A	There was no observation in the reporting period.	N/A
Waste / Chemical Management	27 Apr 2021	Chemicals should be stored in drip tray at Portion C.	Follow-up actions will be reported in the next month.
Ecology and Fisheries	N/A	There was no observation in the reporting period.	N/A
Visual and Landscape	N/A	There was no observation in the reporting period.	N/A
Permits /Licences	N/A	There was no observation in the reporting period.	N/A

Table 8.2 Observations and Recommendations of Site Audit of Contract No. DC/2018/07

Parameters	Date	Observations and Recommendations	Follow-up
Water Quality	N/A	There was no observation in the reporting period.	N/A
Air Quality	N/A	There was no observation in the reporting period.	N/A
Noise	N/A	There was no observation in the reporting period.	N/A
Waste / Chemical Management	N/A	There was no observation in the reporting period.	N/A
Ecology and Fisheries	N/A	There was no observation in the reporting period.	N/A
Visual and Landscape	N/A	There was no observation in the reporting period.	N/A
Permits /Licences	N/A	There was no observation in the reporting period.	N/A

Table 8.3 Observations and Recommendations of Site Audit of Contract No. DE/2018/03

Parameters	Date	Observations and Recommendations	Follow-up
Water Quality	N/A	There was no observation in the reporting period.	N/A
Air Quality	N/A	There was no observation in the reporting period.	N/A
Noise	N/A	There was no observation in the reporting period.	N/A
Waste / Chemical Management	N/A	There was no observation in the reporting period.	N/A
Ecology and Fisheries	N/A	There was no observation in the reporting period.	N/A
Visual and Landscape	N/A	There was no observation in the reporting period.	N/A
Permits /Licences	N/A	There was no observation in the reporting period.	N/A

Table 8.4 Observations and Recommendations of Site Audit of Contract No. DE/2018/04

Parameters	Date	Observations and Recommendations	Follow-up
Water Quality	N/A	There was no observation in the reporting period.	N/A
Air Quality	N/A	There was no observation in the reporting period.	N/A
Noise	N/A	There was no observation in the reporting period.	N/A
Waste / Chemical Management	30 Mar 2021	Waste accumulated should be removed at Portion B-3-B.	The condition was observed to be improved/rectified by the contractor during the audit session on 7 Apr 2021.
Ecology and Fisheries	N/A	There was no observation in the reporting period.	N/A
Visual and Landscape	N/A	There was no observation in the reporting period.	N/A
Permits /Licences	N/A	There was no observation in the reporting period.	N/A

Implementation Status of Event and Action Plans

8.5 The Event and Action Plans for air quality, construction noise, ecological monitoring and landscape and visual are presented in **Appendix M**.

Air Quality Monitoring

- No Action/Limit Level exceedance for 1-hour TSP was recorded.
- No Action/Limit Level exceedance for 24-hour TSP was recorded.

Construction Noise Monitoring

- No documented complaint on construction noise was received; no Action Level exceedance for day time construction noise monitoring was recorded.
- No Limit Level exceedance for day time construction noise monitoring was recorded in the reporting month.

Ecological Monitoring

- No Action and Limit Level was triggered.

Landscape and Visual Monitoring

- No non-conformity for landscape and visual was recorded.

9 ENVIRONMENTAL NON-CONFORMANCE

Summary of Complaint, Warning, Notification of any Summons and Successful Prosecution

9.1 No environmental complaints, warning, notifications of summons and successful prosecutions were received in the reporting month.

9.2 The summary of environmental complaint, warning, summon and notification of successful prosecution for the Project is presented in **Appendix O**.

Summary of Exceedance

9.3 The summary of exceedance record in reporting month is shown in **Appendix P**.

10 FUTURE KEY ISSUES

10.1 Tentative construction programmes for the next three months are provided in **Appendix Q**.

10.2 Major site activities undertaken for the coming months are summarized in **Table 10.1**.

Table 10.1 Summary Table for Site Activities in the Next Reporting Period

Contract No.	Contract Title	Site Activities
DC/2018/06	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sludge Treatment Facilities and 132kV Primary Substation	• Excavation Works • Wall and slab construction • RC works • Pipe laying • Pipe jacking work
DC/2018/07	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sewage Treatment Facilities	• ELS and construction of inlet reception chamber • Trench excavation • Road and drainage works • Diversion of inlet works • Process pipe of CHR and CHS • Pre-drilling work and foundation work • Cable diversion works • Demolition work of existing main facilities • Alternation of existing powerhouse • Pre-bored H piles • Sheet pile installation
DE/2018/03	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities	• Relocate container includes, remove shrubs and laying blinding • Trial pits excavation • Construct wheel washing facilities • Setup of piling works, mobilization of plant and equipment • Socket H Pilling • Installation of EOT crane (LA-05-02) • Installation of F.S. equipment
DE/2018/04	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - E&M Works for Sewage Treatment Facilities	• Installation of temporary filtrate equalisation tank • Installation of temporary primary sludge thickener and its accessories. • Retrofitting the existing primary sedimentation tank no. 4 and 6

10.3 Key environmental issues in the coming months include:

- Stockpile accumulation on-site;
- Water spraying for dust generating activities and on haul road;
- Wastewater and runoff discharge from site;
- No disposition of slurry at the existing Shek Wu Hui Sewage Treatment Works;
- Coverage of open manholes to avoid dirty runoff to drainage system;
- Noise from operation of the equipment, especially for excavation works and machinery onsite;
- Accumulation of general refuse and construction waste on-site;
- Proper storage of construction materials on-site; and
- Storage of chemicals/fuel and chemical waste/waste oil on-site.

Monitoring Schedule

10.4 The tentative environmental monitoring schedule for the next month is shown in **Appendix B**.

11 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

11.1 This is the 16th Monthly EM&A Report which presents the EM&A works undertaken during the reporting month in accordance with the Updated EM&A Manual and the requirement under EP.

Air Quality Monitoring

11.2 No Action/Limit Level exceedance was recorded for all 1-hour and 24-hour TSP monitoring in the reporting month.

Construction Noise Monitoring

11.3 No Action/Limit Level exceedance was recorded for all noise monitoring in the reporting month.

Ecology

11.4 No Action and Limit Level exceedance was triggered for all ecological monitoring in the reporting month.

Site Audit

11.5 4 ET joint weekly environmental site inspections were conducted in the reporting month.

Complaint, Notification of Summons and Successful Prosecution

11.6 No environmental complaints, notifications of summons and successful prosecutions were received in the reporting month.

Recommendations

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

Air Quality

- Regular water spraying on haul road and dry surfaces should be applied to minimize dust generation.
- Stockpiles should be covered by impervious materials.

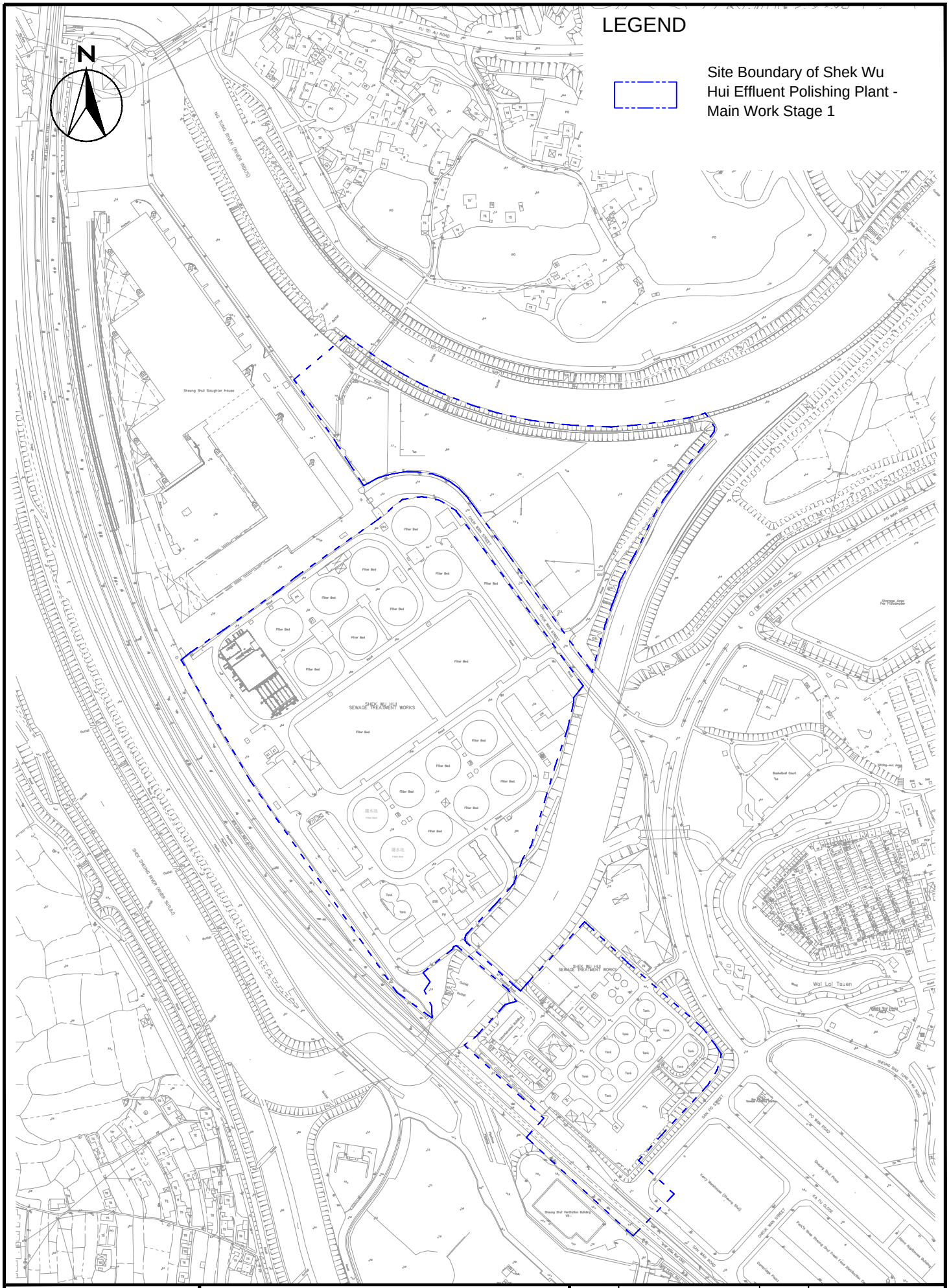
Water Quality

- Stagnant water should be removed and pumped through the sedimentation tank.
- Wastewater should be pumped and collected in the sedimentation tank before discharge.
- Muddy water should not be discharged into the surrounding rivers.
- No slurry should be disposed of at the existing Shek Wu Hui Sewage Treatment Works.

Waste Management

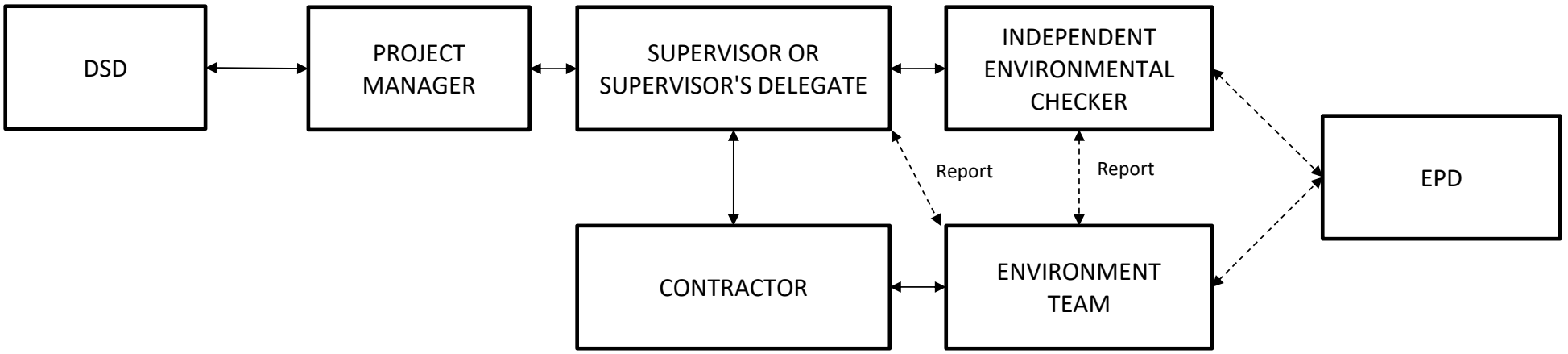
- General refuse and construction waste accumulation should be avoided.
- Chemicals should be stored in drip trays properly.

FIGURES



CINOTECH Cinotech Consultants Limited	Agreement No. SPW07/2019 Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 Site Layout	SCALE: 1:4000@A4	DATE: OCT 2019
		CHECK: JM	DRAWN: SY
		JOB No.: MA19019	FIGURE NO.: 1.1
			REV: -

F:/Project_drawings

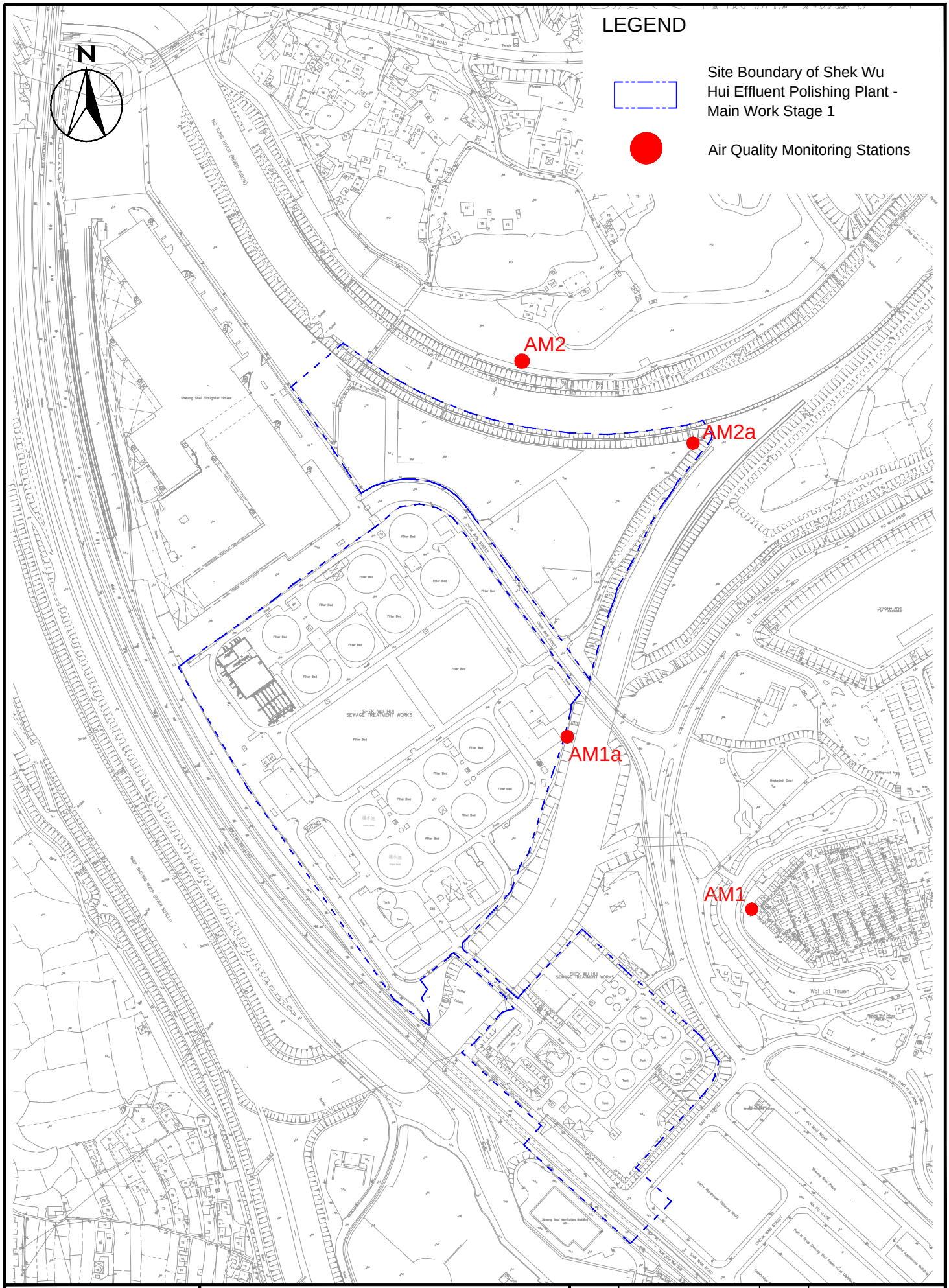


CINOTECH

Agreement No. SPW07/2019
Shek Wu Hui Effluent Polishing Plant- Main Works Stage 1

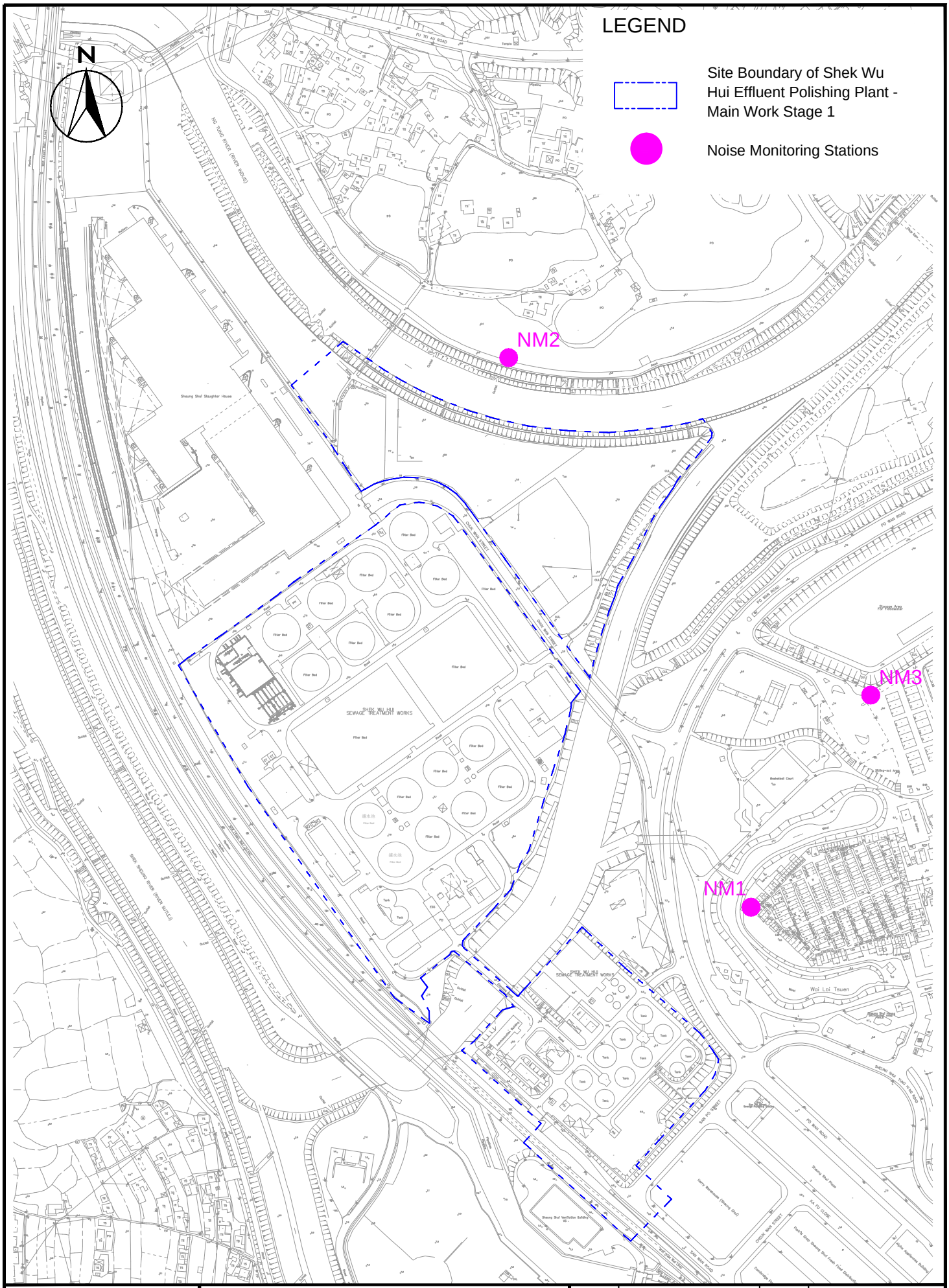
Project Organisation For Environmental Monitoring and Audit

SCALE	N.T.S.	**DATE**	Sep 2019
CHECK	JM	**DRAWN**	SY
JOB NO.	MA19019	**FIGURE NO.**	1.2



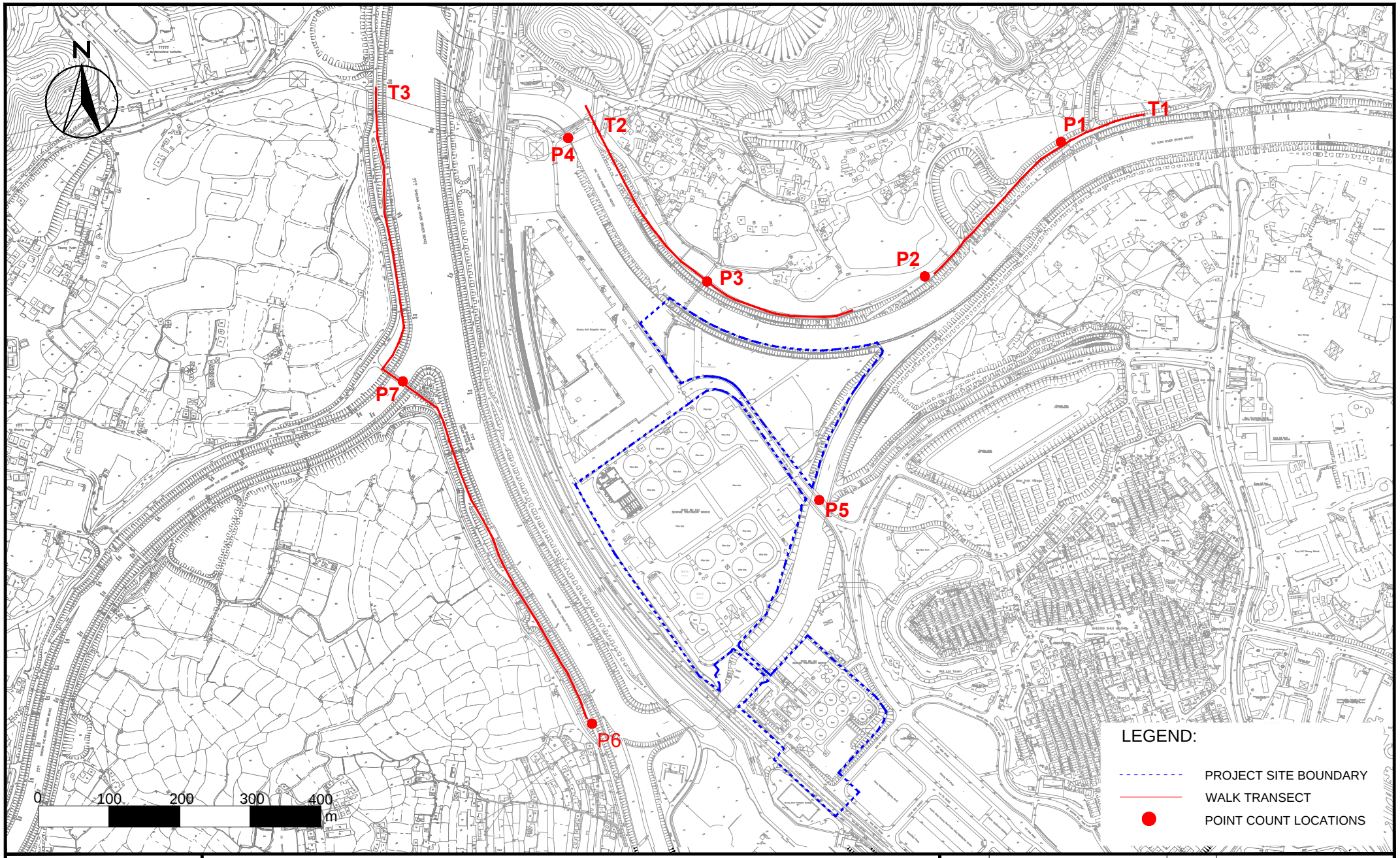
CINOTECH Cinotech Consultants Limited	Agreement No. SPW07/2019 Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 Location of Air Quality Monitoring Stations	SCALE: 1:4000@A4	DATE: OCT 2019
		CHECK: JM	DRAWN: SY
		JOB No.: MA19019	FIGURE NO.: 2 / REV: -

F:/Project_drawings



CINOTECH Cinotech Consultants Limited	Agreement No. SPW07/2019 Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 Location of Noise Monitoring Stations	SCALE: 1:4000@A4	DATE: OCT 2019
		CHECK: JM	DRAWN: SY
		JOB No.: MA19019	FIGURE NO.: 3
			REV: -

F:/Project_drawings



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Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1

Survey Location for Impact Ecological Monitoring

SCALE	1:7000 @ A4	DATE	Jan 2020
CHECK	BC	DRAWN	JM
JOB No.	MA19019	FIGURE NO. 4	REV -

APPENDIX A
ACTION AND LIMIT LEVELS

Appendix A - Action and Limit Levels

Table A-1 Action and Limit Levels for 1-hour TSP

Location	Action Level, µg/m^3	Limit Level, µg/m^3
AM1	320	500
AM2	322	

Table A-2 Action and Limit Levels for 24-hour TSP

Location	Action Level, µg/m^3	Limit Level, µg/m^3
AM1a	189	260
AM2a	187	

Table A-3 Action and Limit Levels for Noise during Construction Period

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

*Remarks:

- 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 have to be followed.
- Reduce to 70 dB(A) for schools and 65 dB(A) during school examination periods.

Table A-4 Action and Limit Levels of Disturbance to 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 the 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 survey data.

APPENDIX B
ENVIRONMENTAL MONITORING SCHEDULES

Agreement No. SPW 07/2019
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
Impact Air, Noise and Ecology Monitoring Schedule (April 2021)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1-Apr	**2-Apr**	**3-Apr**
				1 hr TSP x 3 24 hrs TSP		
4-Apr	**5-Apr**	**6-Apr**	7-Apr	8-Apr	9-Apr	10-Apr
			1 hr TSP x 3 Noise 24 hrs TSP	Ecology		
11-Apr	12-Apr	13-Apr	14-Apr	15-Apr	16-Apr	17-Apr
	24 hrs TSP Ecology	1 hr TSP x 3 Noise				24 hrs TSP
18-Apr	19-Apr	20-Apr	21-Apr	22-Apr	23-Apr	24-Apr
	1 hr TSP x 3 Noise		24 hrs TSP	1 hr TSP x 3	Ecology	
25-Apr	26-Apr	27-Apr	28-Apr	29-Apr	30-Apr	
	Ecology	24 hrs TSP	1 hr TSP x 3 Noise			

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

Air Quality Monitoring Station
1-hr TSP
AM1 - Wai Loi Tsuen
AM2 - Fu Tei Au

24-hr TSP
AM1a - Site Boundary of the Shek Wu Hui STW (East)
AM2a - Site Boundary of the Shek Wu Hui STW (North)

Noise Monitoring Station

NM1 - Wai Loi Tsuen
NM2 - Fu Tei Au
NM3 - Man kok Village

Agreement No. SPW 07/2019

Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1

Tentative Impact Air, Noise and Ecology Monitoring Schedule (May 2021)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1-May
2-May	3-May	4-May	5-May	6-May	7-May	8-May
	24 hrs TSP	1 hr TSP x 3 Noise			Ecology	24 hrs TSP
9-May	10-May	11-May	12-May	13-May	14-May	15-May
	1 hr TSP x 3 Noise Ecology			24 hrs TSP	1 hr TSP x 3	
16-May	17-May	18-May	**19-May**	20-May	21-May	22-May
	Ecology	24 hrs TSP		1 hr TSP x 3 Noise		
23-May	24-May	25-May	26-May	27-May	28-May	29-May
	24 hrs TSP Ecology	1 hr TSP x 3 Noise				24 hrs TSP
30-May	31-May					
	1 hr TSP x 3 Noise					

Air Quality Monitoring Station

1-hr TSP

AM1 - Wai Loi Tsuen

AM2 - Fu Tei Au

24-hr TSP

AM1a - Site Boundary of the Shek Wu Hui STW (East)

AM2a - Site Boundary of the Shek Wu Hui STW (North)

Noise Monitoring Station

NM1 - Wai Loi Tsuen

NM2 - Fu Tei Au

NM3 - Man kok Village

APPENDIX C
COPIES OF CALIBRATION CERTIFICATES FOR AIR QUALITY MONITORING

CINOTECH CONSULTANTS LIMITED

Certificate of Calibration

It is certified that the item under calibration has been calibrated by corresponding calibrated High Volume Sampler

Description: Digital Dust Indicator — Date of Calibration 1-Apr-21

Manufacturer: Sibata Scientific Technology LTD. — Validity of Calibration Record 1-Jun-21

Model No.: LD-5R

Serial No.: 8Y2374

Equipment No.: SA-01-04 — Sensitivity 0.001 mg/m3

High Volume Sampler No.: A-01-03 — Before Sensitivity Adjustment 652

Tisch Calibration Orifice No.: 3864 — After Sensitivity Adjustment 652

Calibration of 1 hr TSP		
Calibration Point	**Laser Dust Monitor** Mass Concentration (µg/m3) **X-axis**	**HVS** Mass concentration (µg/m^3) **Y-axis**
1	54.0	108.0
2	49.0	103.0
3	43.0	96.0
Average	**48.7**	**102.3**

By Linear Regression of Y on X

Slope , mw = **1.0934** **Intercept, bw =** **49.1209**

Correlation coefficient* = **0.9991**

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (µg/m^3)	102.3
Particaulate Concentration by Dust Meter (µg/m^3)	48.7
Measureing time, (min)	60.0

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, (µg/m3)] **2.1**

In-house method in according to the instruction manual:

The Dust Monitor was compared with a calibrated High Volume Sampler and The result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Those filter papers are weighted by HOKLAS laboratory (HPCT Litimed)

Calibrated by: _____

Technical Officer (Wong Shing Kwai)

Approved by: _____

Project Manager (Henry Leung)

CINOTECH CONSULTANTS LIMITED

Certificate of Calibration

It is certified that the item under calibration has been calibrated by corresponding calibrated High Volume Sampler

Description: Digital Dust Indicator — Date of Calibration: 1-Apr-21

Manufacturer: Sibata Scientific Technology LTD. — Validity of Calibration Record: 1-Jun-21

Model No.: LD-5R

Serial No.: 972778

Equipment No.: SA-01-07 — Sensitivity: 0.001 mg/m3

High Volume Sampler No.: A-01-03 — Before Sensitivity Adjustment: 735 CPM

Tisch Calibration Orifice No.: 3864 — After Sensitivity Adjustment: 735 CPM

Calibration of 1 hr TSP		
Calibration Point	**Laser Dust Monitor**	**HVS**
	Mass Concentration (µg/m3) **X-axis**	Mass concentration (µg/m^3) **Y-axis**
1	52.0	108.0
2	48.0	103.0
3	41.0	96.0
Average	**47.0**	**102.3**

By Linear Regression of Y on X

Slope , mw = **1.0806** **Intercept, bw =** **51.5430**

Correlation coefficient* = **0.9982**

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (µg/m^3)	102.3
Particaulate Concentration by Dust Meter (µg/m^3)	47.0
Measureing time, (min)	60.0

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, (µg/m3)] **2.2**

In-house method in according to the instruction manual:

The Dust Monitor was compared with a calibrated High Volume Sampler and The result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Those filter papers are weighted by HOKLAS laboratory (HPCT Litimed)

Calibrated by: _____

Technical Officer (Wong Shing Kwai)

Approved by: _____

Project Manager (Henry Leung)

TISCH Environmental

RECALIBRATION DUE DATE:
January 11, 2022

Certificate of Calibration

Calibration Certification Information				
Cal. Date:	January 11, 2021	**Rootsmeter S/N:** 438320	**Ta:** 297	°K
Operator:	Jim Tisch		**Pa:** 750.1	mm Hg
Calibration Model #:	TE-5025A	**Calibrator S/N:** **3864**		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4470	3.2	2.00
2	3	4	1	1.0210	6.4	4.00
3	5	6	1	0.9140	8.0	5.00
4	7	8	1	0.8670	8.8	5.50
5	9	10	1	0.7140	12.9	8.00

Data Tabulation

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H\left(Ta/Pa\right)}$ (y-axis)
0.9860	0.6814	1.4073	0.9957	0.6881	0.8899
0.9818	0.9616	1.9902	0.9915	0.9711	1.2585
0.9797	1.0719	2.2251	0.9893	1.0824	1.4071
0.9786	1.1288	2.3337	0.9883	1.1399	1.4757
0.9732	1.3630	2.8146	0.9828	1.3765	1.7798
QSTD	**m=**	**2.06566**	**QA**	**m=**	**1.29348**
	b=	**0.00315**		**b=**	**0.00199**
	r=	**0.99996**		**r=**	**0.99996**

Calculations

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

For subsequent flow rate calculations:

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

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

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

RECALIBRATION

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

isch Environmental, Inc.
45 South Miami Avenue
illage of Cleves, OH 45002

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

High-Volume TSP Sampler

5-POINT CALIBRATION DATA SHEET

File No. MA19019/17/0009

Project No. AM1a - Site boundary of the Shek Wu Hui STW (East)

Date: 6-Mar-21 Next Due Date: 6-May-21 Operator: SK

Equipment No.: A-01-17 Model No.: GS2310 Serial No. 3460

Ambient Condition			
Temperature, Ta (K)	293	Pressure, Pa (mmHg)	764.5

Orifice Transfer Standard Information					
Serial No.	3864	Slope, mc	0.05846	Intercept, bc	-0.00313
Last Calibration Date:	11-Jan-21	**mc x Qstd + bc = [ΔH x (Pa/760) x (298/Ta)]$^{1/2}$**			
Next Calibration Date:	11-Jan-22	**Qstd = {[ΔH x (Pa/760) x (298/Ta)]$^{1/2}$ -bc} / mc**			

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	[ΔH x (Pa/760) x (298/Ta)]$^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of water	[ΔW x (Pa/760) x (298/Ta)]$^{1/2}$ **Y-axis**
1	13.1	3.66	62.68	9.8	3.17
2	10.3	3.25	55.58	7.4	2.75
3	8.1	2.88	49.30	5.6	2.39
4	5.3	2.33	39.89	3.4	1.87
5	2.8	1.69	29.01	1.9	1.39

By Linear Regression of Y on X

Slope , mw = **0.0530** **Intercept, bw =** **-0.1932**

Correlation coefficient* = **0.9980**

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

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

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

mw x Qstd + bw = [ΔW x (Pa/760) x (298/Ta)]$^{1/2}$

Therefore, Set Point; W = (mw x Qstd + bw)^2 x (760 / Pa) x (Ta / 298) = **4.26**

Remarks:

Conducted by: SK Wong Signature: Date: 6 March 2021

Checked by: Henry Leung Signature: Date: 6 March 2021

High-Volume TSP Sampler

5-POINT CALIBRATION DATA SHEET

File No. MA19019/24/0009

Project No. AM2a - Site Boundary of the Shek Wu Hui STW (North)

Date: 6-Mar-21 Next Due Date: 6-May-21 Operator: SK

Equipment No.: A-01-24 Model No.: TE 5170 Serial No. 1659

Ambient Condition			
Temperature, Ta (K)	293	Pressure, Pa (mmHg)	764.5

Orifice Transfer Standard Information					
Serial No.	3864	Slope, mc	0.05846	Intercept, bc	-0.00313
Last Calibration Date:	11-Jan-21	**mc x Qstd + bc = [ΔH x (Pa/760) x (298/Ta)]$^{1/2}$**			
Next Calibration Date:	11-Jan-22	**Qstd = {[ΔH x (Pa/760) x (298/Ta)]$^{1/2}$ -bc} / mc**			

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	[ΔH x (Pa/760) x (298/Ta)]$^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of water	[ΔW x (Pa/760) x (298/Ta)]$^{1/2}$ **Y-axis**
1	13.2	3.67	62.91	10.3	3.25
2	10.8	3.32	56.91	8.3	2.91
3	8.3	2.91	49.90	5.9	2.46
4	6.1	2.50	42.79	4.0	2.02
5	3.0	1.75	30.02	1.8	1.36

By Linear Regression of Y on X

Slope , mw = 0.0581 **Intercept, bw = -0.4184**

Correlation coefficient* = 0.9990

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

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

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

mw x Qstd + bw = [ΔW x (Pa/760) x (298/Ta)]$^{1/2}$

Therefore, Set Point; W = (mw x Qstd + bw)^2 x (760 / Pa) x (Ta / 298) = **4.23**

Remarks:

Conducted by: SK Wong Signature: Date: 6 March 2021

Checked by: Henry Leung Signature: Date: 6 March 2021

Certificate of Calibration - Wind Monitoring Station

Description:	BM3 - Control Room at SWHSTW
Manufacturer:	Global Water Instrumentation
Model No.:	WE800 Weather Station
Serial No.:	1517001963
Equipment No.:	SA-03-01
Date of Calibration	29-Oct-2020
Next Due Date	29-Apr-2021

1. Performance check of Wind Speed

Wind Speed, m/s		Difference D (m/s)
Wind Speed Reading (V1)	Anemometer Value (V1)	D = V1 – V2
0.0	0.0	0.0
1.5	1.5	0.0
2.0	2.1	-0.1
3.5	3.5	0.0

2. Performance check of Wind Direction

Wind Direction (^{o})		Difference D (^{o})
Wind Direction Reading (V1)	Marine Compass Value (V1)	D = W1 - W2
0	0	0.0
90	90	0.0
180	180	0.0
270	270	0.0

Test Specification:

1. Performance Wind Speed Test - The wind meter was on-site calibrated against the anemometer

2. Performance Wind Direction Test - The wind meter was on-site calibrated against the marine compass at four direction

Calibrated by: _____ Wong Shing Kwai

Approved by: _____ Henry Leung

APPENDIX D
WEATHER INFORMATION

APPENDIX D –
WEATHER CONDITIONS DURING THE MONITORING PERIOD

I. General Information from Hong Kong Observatory

Date	Mean Air Temperature (°C)	Mean Relative Humidity (%)	Precipitation (mm)
1-Apr-21	26.7	79	Trace
2-Apr-21	26.9	79	0
3-Apr-21	26.9	74	0
4-Apr-21	24.7	86	0.8
5-Apr-21	22.4	84	0.7
6-Apr-21	23.9	77	0
7-Apr-21	23.1	76	0
8-Apr-21	23.2	74	0
9-Apr-21	21.0	82	7.5
10-Apr-21	22.4	65	0
11-Apr-21	23.1	73	0
12-Apr-21	24.6	80	0
13-Apr-21	25.9	77	0
14-Apr-21	24.6	84	Trace
15-Apr-21	22.2	91	8.3
16-Apr-21	22.8	88	1.5
17-Apr-21	22.8	88	2.5
18-Apr-21	23.2	67	Trace
19-Apr-21	22.5	67	0
20-Apr-21	23.4	73	0
21-Apr-21	24.5	74	0
22-Apr-21	25.2	74	0
23-Apr-21	27.3	75	0
24-Apr-21	25.4	82	Trace
25-Apr-21	24.7	85	0.9
26-Apr-21	23.4	80	0.3
27-Apr-21	23.2	90	5.7
28-Apr-21	24.4	88	4.2
29-Apr-21	24.1	74	0.1
30-Apr-21	25.6	77	0

* The above information was extracted from the daily extract of Ta Kwu Ling Station in Hong Kong Observatory Climate Information Service.

APPENDIX D –
WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction	Wind Speed (m/s)
1-Apr-21	0:00	SW	0.1
1-Apr-21	1:00	ENE	0.1
1-Apr-21	2:00	SSW	0.1
1-Apr-21	3:00	S	0.1
1-Apr-21	4:00	SW	0.1
1-Apr-21	5:00	SSW	0.1
1-Apr-21	6:00	S	0.1
1-Apr-21	7:00	SW	0.1
1-Apr-21	8:00	W	0.5
1-Apr-21	9:00	SSW	2.3
1-Apr-21	10:00	SW	3.4
1-Apr-21	11:00	SW	0.2
1-Apr-21	12:00	SSE	0.5
1-Apr-21	13:00	SW	0.6
1-Apr-21	14:00	NW	0.7
1-Apr-21	15:00	SW	2.6
1-Apr-21	16:00	SSW	1.6
1-Apr-21	17:00	WSW	0.7
1-Apr-21	18:00	SSW	0.2
1-Apr-21	19:00	SSW	0.1
1-Apr-21	20:00	SSW	0.2
1-Apr-21	21:00	WSW	0.1
1-Apr-21	22:00	SW	0.1
1-Apr-21	23:00	E	0.1
2-Apr-21	0:00	ENE	0.1
2-Apr-21	1:00	ENE	0.1
2-Apr-21	2:00	E	0.1
2-Apr-21	3:00	E	0.1
2-Apr-21	4:00	E	0.1
2-Apr-21	5:00	NNW	0.1
2-Apr-21	6:00	E	0.1
2-Apr-21	7:00	ENE	0.1
2-Apr-21	8:00	SE	0.1
2-Apr-21	9:00	WSW	0.1
2-Apr-21	10:00	WSW	0.6

APPENDIX D –
WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction	Wind Speed (m/s)
2-Apr-21	11:00	ESE	0.8
2-Apr-21	12:00	W	1.5
2-Apr-21	13:00	W	0.6
2-Apr-21	14:00	WSW	2.7
2-Apr-21	15:00	W	1.1
2-Apr-21	16:00	WSW	0.3
2-Apr-21	17:00	SSW	0.6
2-Apr-21	18:00	WSW	0.4
2-Apr-21	19:00	SW	0.1
2-Apr-21	20:00	SSW	0.1
2-Apr-21	21:00	SW	0.1
2-Apr-21	22:00	SSW	0.1
2-Apr-21	23:00	E	0.1
3-Apr-21	0:00	NNE	0.1
3-Apr-21	1:00	WNW	0.1
3-Apr-21	2:00	W	0.1
3-Apr-21	3:00	SW	0.1
3-Apr-21	4:00	WSW	0.1
3-Apr-21	5:00	NNE	0.1
3-Apr-21	6:00	W	0.1
3-Apr-21	7:00	NE	0.1
3-Apr-21	8:00	SW	0.1
3-Apr-21	9:00	SW	0.1
3-Apr-21	10:00	WSW	0.1
3-Apr-21	11:00	WNW	0.1
3-Apr-21	12:00	SSW	1.1
3-Apr-21	13:00	W	1.2
3-Apr-21	14:00	WNW	2.2
3-Apr-21	15:00	SW	2.2
3-Apr-21	16:00	W	3.6
3-Apr-21	17:00	WNW	0.2
3-Apr-21	18:00	WNW	0.1
3-Apr-21	19:00	W	0.1
3-Apr-21	20:00	W	0.1
3-Apr-21	21:00	SW	0.1

APPENDIX D –
WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction	Wind Speed (m/s)
3-Apr-21	22:00	SSW	0.1
3-Apr-21	23:00	SSW	0.1
4-Apr-21	0:00	SW	0.1
4-Apr-21	1:00	SW	0.1
4-Apr-21	2:00	SW	0.1
4-Apr-21	3:00	SW	0.1
4-Apr-21	4:00	SW	0.1
4-Apr-21	5:00	SW	0.1
4-Apr-21	6:00	WNW	0.1
4-Apr-21	7:00	NE	0.1
4-Apr-21	8:00	E	0.2
4-Apr-21	9:00	NE	0.2
4-Apr-21	10:00	NNE	0.2
4-Apr-21	11:00	E	0.1
4-Apr-21	12:00	NE	0.1
4-Apr-21	13:00	E	0.1
4-Apr-21	14:00	ESE	0.1
4-Apr-21	15:00	ENE	0.1
4-Apr-21	16:00	E	0.1
4-Apr-21	17:00	E	0.1
4-Apr-21	18:00	ESE	0.1
4-Apr-21	19:00	E	0.2
4-Apr-21	20:00	ESE	0.1
4-Apr-21	21:00	ENE	0.1
4-Apr-21	22:00	WNW	0.1
4-Apr-21	23:00	ENE	0.1
5-Apr-21	0:00	ESE	0.1
5-Apr-21	1:00	E	0.1
5-Apr-21	2:00	ENE	0.1
5-Apr-21	3:00	NE	0.1
5-Apr-21	4:00	NE	0.1
5-Apr-21	5:00	E	0.2
5-Apr-21	6:00	E	0.1
5-Apr-21	7:00	E	0.2
5-Apr-21	8:00	E	0.2

APPENDIX D –
WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction	Wind Speed (m/s)
5-Apr-21	9:00	SE	0.2
5-Apr-21	10:00	ESE	0.2
5-Apr-21	11:00	E	0.2
5-Apr-21	12:00	E	0.2
5-Apr-21	13:00	SE	0.5
5-Apr-21	14:00	ENE	0.2
5-Apr-21	15:00	E	0.1
5-Apr-21	16:00	E	0.2
5-Apr-21	17:00	SE	0.1
5-Apr-21	18:00	ENE	0.1
5-Apr-21	19:00	ENE	0.1
5-Apr-21	20:00	E	0.1
5-Apr-21	21:00	ESE	0.1
5-Apr-21	22:00	NE	0.1
5-Apr-21	23:00	E	0.1
6-Apr-21	0:00	ENE	0.1
6-Apr-21	1:00	NE	0.1
6-Apr-21	2:00	SSE	0.1
6-Apr-21	3:00	ENE	0.1
6-Apr-21	4:00	E	0.1
6-Apr-21	5:00	E	0.1
6-Apr-21	6:00	ENE	0.1
6-Apr-21	7:00	ESE	0.1
6-Apr-21	8:00	ESE	0.1
6-Apr-21	9:00	ESE	0.1
6-Apr-21	10:00	SSE	0.1
6-Apr-21	11:00	ENE	0.1
6-Apr-21	12:00	ENE	0.1
6-Apr-21	13:00	SE	0.1
6-Apr-21	14:00	SSW	0.1
6-Apr-21	15:00	NNE	0.1
6-Apr-21	16:00	NE	0.1
6-Apr-21	17:00	SE	0.1
6-Apr-21	18:00	E	0.1
6-Apr-21	19:00	E	0.1

APPENDIX D –
WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction	Wind Speed (m/s)
6-Apr-21	20:00	SE	0.1
6-Apr-21	21:00	ESE	0.1
6-Apr-21	22:00	E	0.2
6-Apr-21	23:00	E	0.4
7-Apr-21	0:00	ESE	0.2
7-Apr-21	1:00	ENE	0.1
7-Apr-21	2:00	S	0.1
7-Apr-21	3:00	SE	0.1
7-Apr-21	4:00	NE	0.1
7-Apr-21	5:00	ENE	0.9
7-Apr-21	6:00	SE	0.1
7-Apr-21	7:00	E	0.6
7-Apr-21	8:00	E	0.8
7-Apr-21	9:00	ESE	0.1
7-Apr-21	10:00	S	0.1
7-Apr-21	11:00	SSE	0.1
7-Apr-21	12:00	ESE	0.7
7-Apr-21	13:00	S	0.1
7-Apr-21	14:00	E	0.4
7-Apr-21	15:00	ESE	1.0
7-Apr-21	16:00	E	0.1
7-Apr-21	17:00	E	0.1
7-Apr-21	18:00	ESE	0.8
7-Apr-21	19:00	ENE	0.1
7-Apr-21	20:00	E	0.2
7-Apr-21	21:00	S	0.1
7-Apr-21	22:00	SE	0.1
7-Apr-21	23:00	E	0.1
8-Apr-21	0:00	E	0.1
8-Apr-21	1:00	ESE	0.2
8-Apr-21	2:00	E	0.1
8-Apr-21	3:00	ESE	0.1
8-Apr-21	4:00	NE	0.1
8-Apr-21	5:00	ESE	0.1
8-Apr-21	6:00	ENE	0.1

APPENDIX D –
WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction	Wind Speed (m/s)
8-Apr-21	7:00	ENE	0.1
8-Apr-21	8:00	ENE	0.1
8-Apr-21	9:00	SE	0.1
8-Apr-21	10:00	E	0.1
8-Apr-21	11:00	E	0.1
8-Apr-21	12:00	SSE	0.1
8-Apr-21	13:00	E	0.4
8-Apr-21	14:00	ENE	0.1
8-Apr-21	15:00	E	0.1
8-Apr-21	16:00	ESE	0.2
8-Apr-21	17:00	E	0.1
8-Apr-21	18:00	NE	0.4
8-Apr-21	19:00	ESE	0.1
8-Apr-21	20:00	NE	0.3
8-Apr-21	21:00	NE	0.2
8-Apr-21	22:00	NE	0.2
8-Apr-21	23:00	ENE	0.2
9-Apr-21	0:00	W	0.1
9-Apr-21	1:00	ENE	0.1
9-Apr-21	2:00	ENE	0.4
9-Apr-21	3:00	NE	0.1
9-Apr-21	4:00	ENE	0.2
9-Apr-21	5:00	ENE	0.2
9-Apr-21	6:00	ENE	0.2
9-Apr-21	7:00	N	0.2
9-Apr-21	8:00	ENE	0.2
9-Apr-21	9:00	ENE	0.3
9-Apr-21	10:00	E	0.4
9-Apr-21	11:00	E	1.0
9-Apr-21	12:00	E	0.4
9-Apr-21	13:00	NE	0.4
9-Apr-21	14:00	E	0.3
9-Apr-21	15:00	E	0.3
9-Apr-21	16:00	ESE	0.3
9-Apr-21	17:00	ESE	0.2

APPENDIX D –
WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction	Wind Speed (m/s)
9-Apr-21	18:00	ENE	0.2
9-Apr-21	19:00	ENE	0.1
9-Apr-21	20:00	E	0.1
9-Apr-21	21:00	ESE	0.1
9-Apr-21	22:00	E	0.1
9-Apr-21	23:00	E	0.1
10-Apr-21	0:00	ENE	0.1
10-Apr-21	1:00	E	0.1
10-Apr-21	2:00	ENE	0.1
10-Apr-21	3:00	ESE	0.1
10-Apr-21	4:00	SE	0.1
10-Apr-21	5:00	SE	0.2
10-Apr-21	6:00	E	0.1
10-Apr-21	7:00	ESE	0.3
10-Apr-21	8:00	NE	0.1
10-Apr-21	9:00	SE	0.1
10-Apr-21	10:00	SSE	0.4
10-Apr-21	11:00	SSE	0.1
10-Apr-21	12:00	S	0.2
10-Apr-21	13:00	SSE	0.1
10-Apr-21	14:00	SSE	0.6
10-Apr-21	15:00	SSE	0.9
10-Apr-21	16:00	SE	0.3
10-Apr-21	17:00	ENE	0.1
10-Apr-21	18:00	S	0.5
10-Apr-21	19:00	ESE	0.1
10-Apr-21	20:00	E	0.1
10-Apr-21	21:00	SE	0.8
10-Apr-21	22:00	ESE	0.1
10-Apr-21	23:00	SE	0.2
11-Apr-21	0:00	ENE	0.1
11-Apr-21	1:00	SSE	0.1
11-Apr-21	2:00	ENE	0.1
11-Apr-21	3:00	E	0.1
11-Apr-21	4:00	ENE	0.2

APPENDIX D –
WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction	Wind Speed (m/s)
11-Apr-21	5:00	ESE	0.1
11-Apr-21	6:00	WSW	0.1
11-Apr-21	7:00	NE	0.1
11-Apr-21	8:00	ESE	0.1
11-Apr-21	9:00	E	0.1
11-Apr-21	10:00	E	2.9
11-Apr-21	11:00	ESE	0.1
11-Apr-21	12:00	E	0.1
11-Apr-21	13:00	ESE	0.2
11-Apr-21	14:00	ENE	0.1
11-Apr-21	15:00	ENE	0.1
11-Apr-21	16:00	E	0.1
11-Apr-21	17:00	ENE	0.2
11-Apr-21	18:00	NE	0.1
11-Apr-21	19:00	ENE	0.1
11-Apr-21	20:00	E	0.1
11-Apr-21	21:00	ESE	0.1
11-Apr-21	22:00	E	0.1
11-Apr-21	23:00	ENE	0.1
12-Apr-21	0:00	NE	0.1
12-Apr-21	1:00	E	0.1
12-Apr-21	2:00	NNE	0.1
12-Apr-21	3:00	ENE	0.1
12-Apr-21	4:00	ESE	0.1
12-Apr-21	5:00	NNE	0.1
12-Apr-21	6:00	NNW	0.1
12-Apr-21	7:00	E	0.1
12-Apr-21	8:00	ENE	0.4
12-Apr-21	9:00	SE	0.1
12-Apr-21	10:00	SE	0.1
12-Apr-21	11:00	ESE	0.2
12-Apr-21	12:00	SE	0.5
12-Apr-21	13:00	E	0.1
12-Apr-21	14:00	SSE	0.2
12-Apr-21	15:00	SSW	0.1

APPENDIX D –
WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction	Wind Speed (m/s)
12-Apr-21	16:00	SSE	0.1
12-Apr-21	17:00	ENE	0.2
12-Apr-21	18:00	SE	0.1
12-Apr-21	19:00	E	0.1
12-Apr-21	20:00	E	0.1
12-Apr-21	21:00	E	0.1
12-Apr-21	22:00	SE	0.1
12-Apr-21	23:00	E	0.1
13-Apr-21	0:00	NNE	0.1
13-Apr-21	1:00	SW	0.1
13-Apr-21	2:00	W	0.1
13-Apr-21	3:00	W	0.1
13-Apr-21	4:00	ENE	0.1
13-Apr-21	5:00	W	0.1
13-Apr-21	6:00	S	0.1
13-Apr-21	7:00	SW	0.1
13-Apr-21	8:00	ESE	0.1
13-Apr-21	9:00	WSW	0.1
13-Apr-21	10:00	SSE	0.1
13-Apr-21	11:00	WSW	0.9
13-Apr-21	12:00	WNW	0.2
13-Apr-21	13:00	W	0.2
13-Apr-21	14:00	NW	0.2
13-Apr-21	15:00	W	3.7
13-Apr-21	16:00	WNW	0.4
13-Apr-21	17:00	WSW	0.4
13-Apr-21	18:00	SW	0.1
13-Apr-21	19:00	WSW	0.1
13-Apr-21	20:00	ENE	0.1
13-Apr-21	21:00	ESE	0.1
13-Apr-21	22:00	WNW	0.1
13-Apr-21	23:00	WSW	0.1
14-Apr-21	0:00	SW	0.1
14-Apr-21	1:00	#N/A	0.1
14-Apr-21	2:00	E	0.1

APPENDIX D –
WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction	Wind Speed (m/s)
14-Apr-21	3:00	SW	0.1
14-Apr-21	4:00	ENE	0.1
14-Apr-21	5:00	ENE	0.1
14-Apr-21	6:00	E	0.1
14-Apr-21	7:00	E	0.1
14-Apr-21	8:00	ENE	0.2
14-Apr-21	9:00	SE	0.1
14-Apr-21	10:00	SW	0.1
14-Apr-21	11:00	E	0.5
14-Apr-21	12:00	ESE	0.1
14-Apr-21	13:00	ESE	0.5
14-Apr-21	14:00	S	0.1
14-Apr-21	15:00	NW	0.1
14-Apr-21	16:00	#N/A	0.2
14-Apr-21	17:00	E	0.1
14-Apr-21	18:00	E	0.1
14-Apr-21	19:00	E	0.2
14-Apr-21	20:00	E	0.1
14-Apr-21	21:00	N	0.1
14-Apr-21	22:00	E	0.1
14-Apr-21	23:00	ENE	0.2
15-Apr-21	0:00	ESE	1.0
15-Apr-21	1:00	SSE	0.1
15-Apr-21	2:00	ENE	0.1
15-Apr-21	3:00	ESE	0.1
15-Apr-21	4:00	ESE	0.6
15-Apr-21	5:00	NE	0.1
15-Apr-21	6:00	ENE	0.1
15-Apr-21	7:00	ENE	0.2
15-Apr-21	8:00	E	0.1
15-Apr-21	9:00	E	0.1
15-Apr-21	10:00	E	0.2
15-Apr-21	11:00	ENE	0.2
15-Apr-21	12:00	ESE	0.7
15-Apr-21	13:00	SSE	0.1

APPENDIX D –
WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction	Wind Speed (m/s)
15-Apr-21	14:00	ESE	0.1
15-Apr-21	15:00	E	0.4
15-Apr-21	16:00	E	0.1
15-Apr-21	17:00	E	0.1
15-Apr-21	18:00	E	0.1
15-Apr-21	19:00	SE	0.1
15-Apr-21	20:00	E	0.1
15-Apr-21	21:00	SE	0.1
15-Apr-21	22:00	ESE	0.1
15-Apr-21	23:00	ESE	0.1
16-Apr-21	0:00	E	0.1
16-Apr-21	1:00	E	0.1
16-Apr-21	2:00	ENE	0.1
16-Apr-21	3:00	ENE	0.3
16-Apr-21	4:00	E	0.1
16-Apr-21	5:00	E	0.1
16-Apr-21	6:00	ENE	0.1
16-Apr-21	7:00	E	0.1
16-Apr-21	8:00	E	0.1
16-Apr-21	9:00	ESE	0.1
16-Apr-21	10:00	ESE	0.1
16-Apr-21	11:00	ESE	0.1
16-Apr-21	12:00	E	0.1
16-Apr-21	13:00	SE	0.4
16-Apr-21	14:00	SSE	0.2
16-Apr-21	15:00	ENE	0.1
16-Apr-21	16:00	E	0.1
16-Apr-21	17:00	SSW	0.3
16-Apr-21	18:00	E	0.1
16-Apr-21	19:00	E	0.1
16-Apr-21	20:00	SE	0.1
16-Apr-21	21:00	ENE	0.1
16-Apr-21	22:00	ENE	0.1
16-Apr-21	23:00	ENE	0.1
17-Apr-21	0:00	SE	0.1

APPENDIX D –
WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction	Wind Speed (m/s)
17-Apr-21	1:00	E	0.1
17-Apr-21	2:00	ESE	0.1
17-Apr-21	3:00	E	0.1
17-Apr-21	4:00	NE	0.1
17-Apr-21	5:00	E	0.1
17-Apr-21	6:00	E	0.1
17-Apr-21	7:00	SSE	0.1
17-Apr-21	8:00	E	0.1
17-Apr-21	9:00	ENE	0.1
17-Apr-21	10:00	ESE	0.1
17-Apr-21	11:00	SE	0.1
17-Apr-21	12:00	SSE	0.1
17-Apr-21	13:00	S	0.1
17-Apr-21	14:00	E	0.1
17-Apr-21	15:00	SE	0.1
17-Apr-21	16:00	ENE	0.1
17-Apr-21	17:00	ENE	0.1
17-Apr-21	18:00	E	0.1
17-Apr-21	19:00	ENE	0.1
17-Apr-21	20:00	E	0.1
17-Apr-21	21:00	SSE	0.1
17-Apr-21	22:00	ENE	0.1
17-Apr-21	23:00	E	0.1
18-Apr-21	0:00	ESE	0.1
18-Apr-21	1:00	E	0.1
18-Apr-21	2:00	E	0.1
18-Apr-21	3:00	WSW	0.1
18-Apr-21	4:00	ESE	0.1
18-Apr-21	5:00	E	0.1
18-Apr-21	6:00	E	0.1
18-Apr-21	7:00	NE	0.1
18-Apr-21	8:00	ENE	0.2
18-Apr-21	9:00	SSE	0.5
18-Apr-21	10:00	SSE	0.6
18-Apr-21	11:00	ESE	0.4

APPENDIX D –
WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction	Wind Speed (m/s)
18-Apr-21	12:00	SSE	0.5
18-Apr-21	13:00	E	0.1
18-Apr-21	14:00	NNW	0.1
18-Apr-21	15:00	NNE	0.4
18-Apr-21	16:00	NNE	0.1
18-Apr-21	17:00	ESE	0.1
18-Apr-21	18:00	ESE	0.1
18-Apr-21	19:00	ENE	0.1
18-Apr-21	20:00	SE	0.1
18-Apr-21	21:00	E	0.1
18-Apr-21	22:00	E	0.5
18-Apr-21	23:00	E	0.4
19-Apr-21	0:00	SE	0.1
19-Apr-21	1:00	SE	0.3
19-Apr-21	2:00	NE	0.1
19-Apr-21	3:00	ENE	0.5
19-Apr-21	4:00	ESE	0.1
19-Apr-21	5:00	ESE	1.2
19-Apr-21	6:00	ESE	0.3
19-Apr-21	7:00	E	0.1
19-Apr-21	8:00	SE	0.1
19-Apr-21	9:00	ESE	0.9
19-Apr-21	10:00	NE	0.6
19-Apr-21	11:00	E	0.1
19-Apr-21	12:00	SSE	0.1
19-Apr-21	13:00	E	0.1
19-Apr-21	14:00	ENE	0.4
19-Apr-21	15:00	E	0.1
19-Apr-21	16:00	E	0.1
19-Apr-21	17:00	SE	0.1
19-Apr-21	18:00	NW	0.1
19-Apr-21	19:00	ESE	0.1
19-Apr-21	20:00	E	0.7
19-Apr-21	21:00	ENE	0.1
19-Apr-21	22:00	ESE	0.9

APPENDIX D –
WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction	Wind Speed (m/s)
19-Apr-21	23:00	ESE	0.1
20-Apr-21	0:00	SSW	0.1
20-Apr-21	1:00	E	0.1
20-Apr-21	2:00	ENE	0.1
20-Apr-21	3:00	ENE	1.1
20-Apr-21	4:00	E	0.1
20-Apr-21	5:00	E	0.1
20-Apr-21	6:00	E	0.1
20-Apr-21	7:00	SE	0.2
20-Apr-21	8:00	E	0.1
20-Apr-21	9:00	ESE	0.1
20-Apr-21	10:00	E	3.1
20-Apr-21	11:00	ESE	0.4
20-Apr-21	12:00	ESE	0.2
20-Apr-21	13:00	ENE	0.2
20-Apr-21	14:00	E	0.5
20-Apr-21	15:00	ESE	0.1
20-Apr-21	16:00	SE	0.1
20-Apr-21	17:00	SSE	0.1
20-Apr-21	18:00	S	0.1
20-Apr-21	19:00	ESE	0.1
20-Apr-21	20:00	ENE	0.1
20-Apr-21	21:00	NNW	0.1
20-Apr-21	22:00	E	0.5
20-Apr-21	23:00	E	0.1
21-Apr-21	0:00	NE	0.1
21-Apr-21	1:00	ENE	0.3
21-Apr-21	2:00	ESE	0.1
21-Apr-21	3:00	ENE	0.1
21-Apr-21	4:00	ESE	0.1
21-Apr-21	5:00	ESE	0.1
21-Apr-21	6:00	ENE	0.1
21-Apr-21	7:00	E	0.1
21-Apr-21	8:00	S	0.1
21-Apr-21	9:00	E	0.4

APPENDIX D –
WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction	Wind Speed (m/s)
21-Apr-21	10:00	SSE	0.3
21-Apr-21	11:00	S	0.9
21-Apr-21	12:00	SE	0.4
21-Apr-21	13:00	S	0.2
21-Apr-21	14:00	S	0.1
21-Apr-21	15:00	SSE	0.1
21-Apr-21	16:00	SE	0.2
21-Apr-21	17:00	S	0.9
21-Apr-21	18:00	E	0.5
21-Apr-21	19:00	ESE	0.1
21-Apr-21	20:00	E	0.1
21-Apr-21	21:00	E	0.1
21-Apr-21	22:00	E	0.1
21-Apr-21	23:00	E	0.1
22-Apr-21	0:00	ESE	0.1
22-Apr-21	1:00	ESE	0.1
22-Apr-21	2:00	E	0.1
22-Apr-21	3:00	ENE	0.1
22-Apr-21	4:00	E	0.1
22-Apr-21	5:00	E	0.1
22-Apr-21	6:00	E	0.2
22-Apr-21	7:00	SE	0.6
22-Apr-21	8:00	E	0.1
22-Apr-21	9:00	S	0.1
22-Apr-21	10:00	ESE	0.1
22-Apr-21	11:00	SSW	0.1
22-Apr-21	12:00	W	0.7
22-Apr-21	13:00	SW	1.9
22-Apr-21	14:00	WNW	3.1
22-Apr-21	15:00	W	2.7
22-Apr-21	16:00	SSW	0.3
22-Apr-21	17:00	WNW	1.5
22-Apr-21	18:00	W	0.4
22-Apr-21	19:00	WSW	0.2
22-Apr-21	20:00	SW	0.1

APPENDIX D –
WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction	Wind Speed (m/s)
22-Apr-21	21:00	W	0.1
22-Apr-21	22:00	SSW	0.1
22-Apr-21	23:00	W	0.1
23-Apr-21	0:00	WSW	0.1
23-Apr-21	1:00	SW	0.1
23-Apr-21	2:00	SW	0.1
23-Apr-21	3:00	SW	0.1
23-Apr-21	4:00	WSW	0.1
23-Apr-21	5:00	WSW	0.1
23-Apr-21	6:00	WSW	0.1
23-Apr-21	7:00	WSW	0.1
23-Apr-21	8:00	WNW	0.1
23-Apr-21	9:00	SW	0.2
23-Apr-21	10:00	SW	0.1
23-Apr-21	11:00	N	0.2
23-Apr-21	12:00	W	2.7
23-Apr-21	13:00	SW	1.5
23-Apr-21	14:00	SW	0.3
23-Apr-21	15:00	WSW	0.1
23-Apr-21	16:00	NW	0.1
23-Apr-21	17:00	WNW	0.1
23-Apr-21	18:00	ESE	0.1
23-Apr-21	19:00	E	0.1
23-Apr-21	20:00	E	0.1
23-Apr-21	21:00	E	0.1
23-Apr-21	22:00	ENE	0.1
23-Apr-21	23:00	SSE	0.1
24-Apr-21	0:00	E	0.6
24-Apr-21	1:00	SE	0.1
24-Apr-21	2:00	SSE	0.1
24-Apr-21	3:00	E	0.1
24-Apr-21	4:00	ENE	0.1
24-Apr-21	5:00	E	0.1
24-Apr-21	6:00	ENE	0.1
24-Apr-21	7:00	E	0.2

APPENDIX D –
WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction	Wind Speed (m/s)
24-Apr-21	8:00	ENE	0.1
24-Apr-21	9:00	NE	0.2
24-Apr-21	10:00	SE	2.2
24-Apr-21	11:00	SE	0.2
24-Apr-21	12:00	SE	0.5
24-Apr-21	13:00	ESE	0.1
24-Apr-21	14:00	ENE	0.2
24-Apr-21	15:00	#N/A	0.1
24-Apr-21	16:00	E	0.7
24-Apr-21	17:00	ESE	0.7
24-Apr-21	18:00	SSE	0.1
24-Apr-21	19:00	E	0.6
24-Apr-21	20:00	ENE	0.1
24-Apr-21	21:00	ENE	0.1
24-Apr-21	22:00	E	0.1
24-Apr-21	23:00	E	0.1
25-Apr-21	0:00	ENE	0.1
25-Apr-21	1:00	E	0.1
25-Apr-21	2:00	E	0.1
25-Apr-21	3:00	E	0.1
25-Apr-21	4:00	NE	0.1
25-Apr-21	5:00	ENE	0.1
25-Apr-21	6:00	E	0.1
25-Apr-21	7:00	ENE	0.1
25-Apr-21	8:00	ESE	0.1
25-Apr-21	9:00	E	0.2
25-Apr-21	10:00	S	0.3
25-Apr-21	11:00	ESE	0.1
25-Apr-21	12:00	ENE	0.1
25-Apr-21	13:00	SE	0.1
25-Apr-21	14:00	S	0.1
25-Apr-21	15:00	ESE	0.1
25-Apr-21	16:00	SW	0.1
25-Apr-21	17:00	ESE	0.9
25-Apr-21	18:00	ESE	1.2

APPENDIX D –
WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction	Wind Speed (m/s)
25-Apr-21	19:00	E	0.3
25-Apr-21	20:00	ESE	0.1
25-Apr-21	21:00	NNE	0.1
25-Apr-21	22:00	SE	0.1
25-Apr-21	23:00	NE	0.1
26-Apr-21	0:00	ESE	0.1
26-Apr-21	1:00	E	0.1
26-Apr-21	2:00	ENE	0.2
26-Apr-21	3:00	ENE	0.2
26-Apr-21	4:00	NE	0.2
26-Apr-21	5:00	ESE	0.9
26-Apr-21	6:00	ENE	0.1
26-Apr-21	7:00	E	0.1
26-Apr-21	8:00	ENE	1.0
26-Apr-21	9:00	NE	0.1
26-Apr-21	10:00	N	0.1
26-Apr-21	11:00	SE	0.2
26-Apr-21	12:00	S	0.1
26-Apr-21	13:00	SE	0.4
26-Apr-21	14:00	ESE	2.2
26-Apr-21	15:00	S	0.1
26-Apr-21	16:00	ESE	0.2
26-Apr-21	17:00	ENE	0.1
26-Apr-21	18:00	ENE	0.1
26-Apr-21	19:00	WNW	0.1
26-Apr-21	20:00	ESE	0.1
26-Apr-21	21:00	ESE	0.1
26-Apr-21	22:00	SE	0.1
26-Apr-21	23:00	ESE	0.1
27-Apr-21	0:00	ESE	0.1
27-Apr-21	1:00	E	0.2
27-Apr-21	2:00	E	0.1
27-Apr-21	3:00	E	0.2
27-Apr-21	4:00	E	0.2
27-Apr-21	5:00	E	0.2

APPENDIX D –
WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction	Wind Speed (m/s)
27-Apr-21	6:00	E	0.3
27-Apr-21	7:00	ENE	0.3
27-Apr-21	8:00	ENE	0.5
27-Apr-21	9:00	NE	0.5
27-Apr-21	10:00	E	0.4
27-Apr-21	11:00	ENE	0.4
27-Apr-21	12:00	ENE	0.6
27-Apr-21	13:00	ESE	0.5
27-Apr-21	14:00	ESE	0.6
27-Apr-21	15:00	ESE	0.5
27-Apr-21	16:00	NE	0.4
27-Apr-21	17:00	ESE	0.4
27-Apr-21	18:00	E	0.3
27-Apr-21	19:00	E	0.2
27-Apr-21	20:00	NE	0.2
27-Apr-21	21:00	SE	0.2
27-Apr-21	22:00	SSE	0.2
27-Apr-21	23:00	ENE	0.2
28-Apr-21	0:00	E	0.1
28-Apr-21	1:00	ENE	0.2
28-Apr-21	2:00	ENE	0.1
28-Apr-21	3:00	ESE	0.1
28-Apr-21	4:00	NNE	0.1
28-Apr-21	5:00	E	0.1
28-Apr-21	6:00	E	0.1
28-Apr-21	7:00	E	0.1
28-Apr-21	8:00	ESE	0.1
28-Apr-21	9:00	SSE	0.1
28-Apr-21	10:00	E	0.3
28-Apr-21	11:00	SSW	0.1
28-Apr-21	12:00	SE	0.6
28-Apr-21	13:00	S	0.1
28-Apr-21	14:00	SSE	0.1
28-Apr-21	15:00	SE	0.1
28-Apr-21	16:00	E	0.1

APPENDIX D –
WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction	Wind Speed (m/s)
28-Apr-21	17:00	WSW	0.2
28-Apr-21	18:00	#N/A	0.3
28-Apr-21	19:00	SW	0.4
28-Apr-21	20:00	SW	0.4
28-Apr-21	21:00	NW	0.5
28-Apr-21	22:00	N	0.4
28-Apr-21	23:00	NNE	0.4
29-Apr-21	0:00	NNE	0.7
29-Apr-21	1:00	ESE	0.5
29-Apr-21	2:00	ENE	0.5
29-Apr-21	3:00	NE	0.4
29-Apr-21	4:00	#N/A	0.4
29-Apr-21	5:00	NE	0.3
29-Apr-21	6:00	NE	0.4
29-Apr-21	7:00	NE	0.3
29-Apr-21	8:00	NNE	0.4
29-Apr-21	9:00	NE	0.3
29-Apr-21	10:00	ENE	0.3
29-Apr-21	11:00	NNE	0.3
29-Apr-21	12:00	NE	0.9
29-Apr-21	13:00	#N/A	0.3
29-Apr-21	14:00	NNW	0.3
29-Apr-21	15:00	WNW	0.5
29-Apr-21	16:00	W	0.9
29-Apr-21	17:00	SSW	0.7
29-Apr-21	18:00	SW	0.1
29-Apr-21	19:00	WSW	0.1
29-Apr-21	20:00	ENE	0.1
29-Apr-21	21:00	ESE	0.2
29-Apr-21	22:00	SE	0.1
29-Apr-21	23:00	ENE	0.1
30-Apr-21	0:00	E	0.1
30-Apr-21	1:00	ESE	0.1
30-Apr-21	2:00	ENE	0.1
30-Apr-21	3:00	E	0.1

APPENDIX D –
WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction	Wind Speed (m/s)
30-Apr-21	4:00	W	0.1
30-Apr-21	5:00	SSW	0.1
30-Apr-21	6:00	S	0.1
30-Apr-21	7:00	W	0.1
30-Apr-21	8:00	WSW	0.1
30-Apr-21	9:00	ESE	0.1
30-Apr-21	10:00	ESE	0.1
30-Apr-21	11:00	WNW	0.1
30-Apr-21	12:00	WNW	1.0
30-Apr-21	13:00	W	0.1
30-Apr-21	14:00	WSW	1.6
30-Apr-21	15:00	W	1.9
30-Apr-21	16:00	WSW	1.3
30-Apr-21	17:00	W	0.6
30-Apr-21	18:00	SSW	0.1
30-Apr-21	19:00	SW	0.1
30-Apr-21	20:00	WNW	0.1
30-Apr-21	21:00	SSW	0.1
30-Apr-21	22:00	NNW	0.1
30-Apr-21	23:00	WSW	0.1

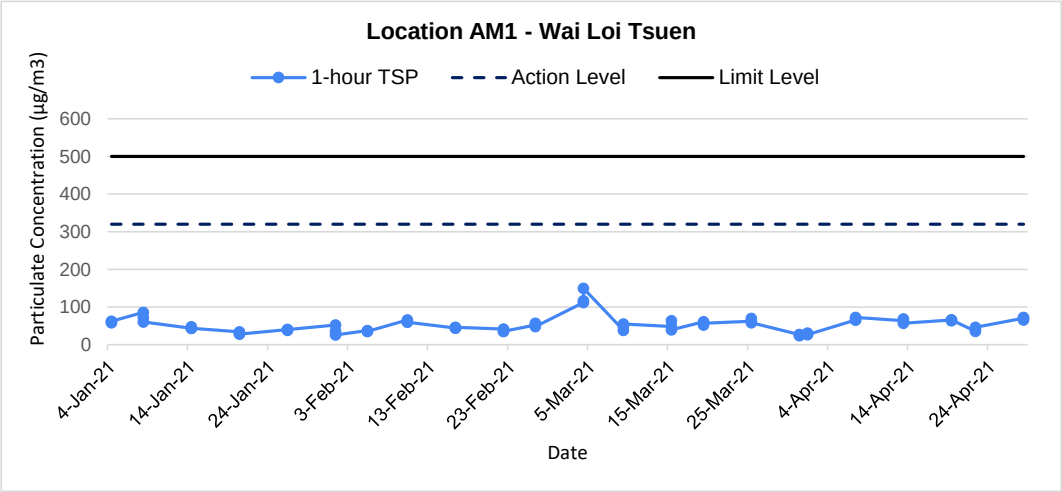
APPENDIX E
1-HOUR TSP MONITORING RESULTS AND GRAPHICAL PRESENTATIONS

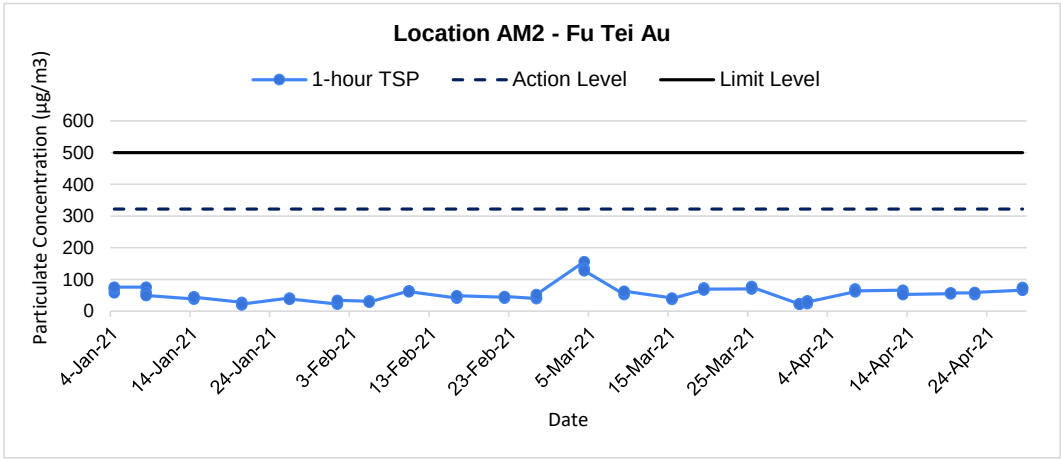
Appendix E - 1-hour TSP Monitoring Results

Location AM1 - Wai Loi Tsuen			
Date	Time	Weather	Particulate Concentration (µg/m^3)
1-Apr-21	9:05	Sunny	30.8
1-Apr-21	10:05	Sunny	28.6
1-Apr-21	11:05	Sunny	26.4
7-Apr-21	9:30	Cloudy	66.0
7-Apr-21	10:30	Cloudy	66.0
7-Apr-21	11:30	Cloudy	72.6
13-Apr-21	9:15	Sunny	63.8
13-Apr-21	10:15	Sunny	68.2
13-Apr-21	11:15	Sunny	57.2
19-Apr-21	9:15	Sunny	66.0
19-Apr-21	10:15	Sunny	63.8
19-Apr-21	11:15	Sunny	66.0
22-Apr-21	9:10	Sunny	35.2
22-Apr-21	10:10	Sunny	41.8
22-Apr-21	11:10	Sunny	46.2
28-Apr-21	9:20	Cloudy	70.4
28-Apr-21	10:20	Cloudy	66.0
28-Apr-21	11:20	Cloudy	72.6
		Average	56.0
		Maximum	72.6
		Minimum	26.4

Location AM2 - Fu Tei Au			
Date	Time	Weather	Particulate Concentration (µg/m^3)
1-Apr-21	13:00	Sunny	33.0
1-Apr-21	14:00	Sunny	24.2
1-Apr-21	15:00	Sunny	28.6
7-Apr-21	13:15	Cloudy	61.6
7-Apr-21	14:15	Cloudy	70.4
7-Apr-21	15:15	Cloudy	63.8
13-Apr-21	13:40	Sunny	66.0
13-Apr-21	14:40	Sunny	59.4
13-Apr-21	15:40	Sunny	52.8
19-Apr-21	13:20	Sunny	55.0
19-Apr-21	14:20	Sunny	57.2
19-Apr-21	15:20	Sunny	57.2
22-Apr-21	14:00	Sunny	57.2
22-Apr-21	15:00	Sunny	52.8
22-Apr-21	16:00	Sunny	59.4
28-Apr-21	13:35	Cloudy	66.0
28-Apr-21	14:35	Cloudy	74.8
28-Apr-21	15:35	Cloudy	72.6
		Average	56.2
		Maximum	74.8
		Minimum	24.2

1-hr TSP Concentration Levels





Title: Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1	Date: Apr 2021	Project No.: MA19019	CINOTECH
Graphical Presentation of 1-hour TSP Monitoring Results		Appendix: E	

APPENDIX F
24-HOUR TSP MONITORING RESULTS AND GRAPHICAL PRESENTATIONS

Appendix F - 24-hour TSP Monitoring Results

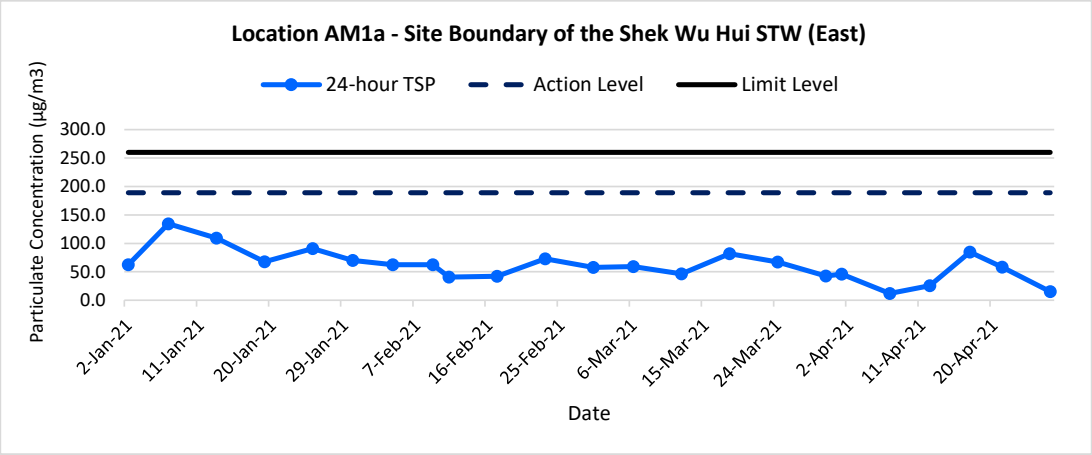
Location AM1a - Site Boundary of the Shek Wu Hui STW (East)

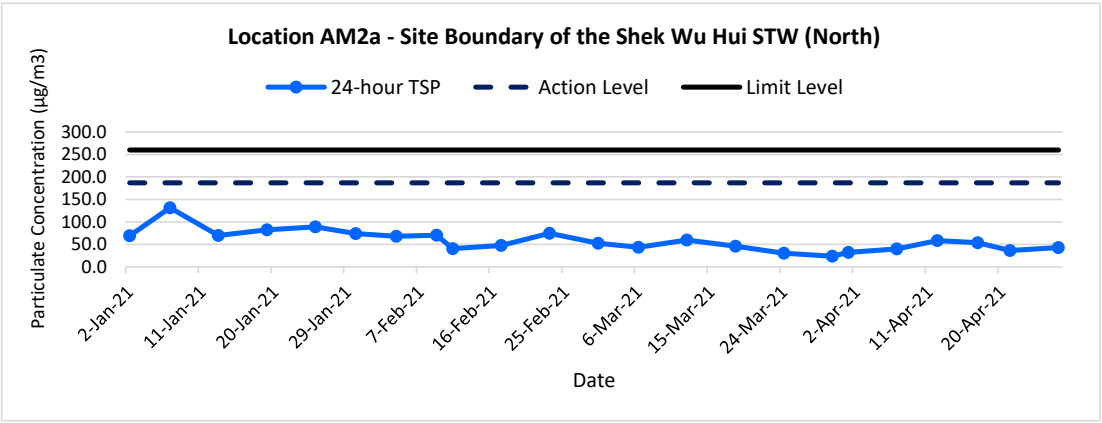
Start Date	Weather Condition	Air Temp. (K)	Atmospheric Pressure, Pa (mmHg)	Filter Weight (g)		Particulate weight (g)	Elapse Time		Sampling Time (hrs.)	Flow Rate (m^3/min.)		Av. Flow (m^3/min)	Total vol. (m^3)	Conc. ($\mu g/m^3$)
				Initial	Final		Initial	Final		Initial	Final			
1-Apr-21	Cloudy	299.8	757.6	2.6827	2.7620	0.0793	10076.8	10100.8	24.0	1.20	1.20	1.20	1728.2	45.9
7-Apr-21	Sunny	296.2	762.3	2.6826	2.7034	0.0208	10100.8	10124.8	24.0	1.21	1.21	1.21	1742.9	11.9
12-Apr-21	Sunny	298.3	762.1	2.6826	2.7267	0.0441	10124.8	10148.8	24.0	1.21	1.20	1.21	1737.1	25.4
17-Apr-21	Sunny	296.0	762.6	2.6825	2.8304	0.1479	10148.8	10172.8	24.0	1.21	1.21	1.21	1743.7	84.8
21-Apr-21	Sunny	297.9	759.4	2.6651	2.7657	0.1006	10172.8	10196.8	24.0	1.21	1.20	1.21	1735.4	58.0
27-Apr-21	Cloudy	296.8	761.9	2.6535	2.6803	0.0268	10196.8	10220.8	24.0	1.21	1.21	1.21	1740.8	15.4
													Min	11.9
													Max	84.8
													Average	40.2

Location AM2a - Site Boundary of the Shek Wu Hui STW (North)

Start Date	Weather Condition	Air Temp. (K)	Atmospheric Pressure, Pa (mmHg)	Filter Weight (g)		Particulate weight (g)	Elapse Time		Sampling Time (hrs.)	Flow Rate (m^3/min.)		Av. Flow (m^3/min)	Total vol. (m^3)	Conc. ($\mu g/m^3$)
				Initial	Final		Initial	Final		Initial	Final			
1-Apr-21	Cloudy	299.8	757.6	2.6810	2.7373	0.0562	20295.5	20319.5	24.0	1.20	1.20	1.20	1729.4	32.5
7-Apr-21	Sunny	296.2	762.3	2.6762	2.7464	0.0702	20319.5	20343.5	24.0	1.21	1.21	1.21	1742.8	40.3
12-Apr-21	Sunny	298.3	762.1	2.6788	2.7804	0.1017	20343.3	20367.3	24.0	1.21	1.20	1.21	1737.5	58.5
17-Apr-21	Sunny	296.0	762.6	2.6377	2.7314	0.0937	20367.5	20391.5	24.0	1.21	1.21	1.21	1743.4	53.8
21-Apr-21	Sunny	297.9	759.4	2.6715	2.7348	0.0633	20391.5	20415.5	24.0	1.21	1.20	1.21	1735.9	36.4
27-Apr-21	Cloudy	296.8	761.9	2.6417	2.7163	0.0746	20415.5	20439.5	24.0	1.21	1.21	1.21	1740.8	42.9
													Min	32.5
													Max	58.5
													Average	44.1

24-hr TSP Concentration Levels





Title	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1	Date	Project No.	MA19019
	Graphical Presentation of 24-hour TSP Monitoring Results		Appendix	F

CINOTECH

APPENDIX G
COPIES OF CALIBRATION CERTIFICATES FOR NOISE MONITORING

Equipment no.: N-12-01

Calibration Certificate

0024993

Customer : Cinotech Consultants Limited RM 1710, Technology Park, 18 On Lai Street, Shatin, N.T. Hong Kong Customer Code : SVEC09005	Object 1 : BSWA 308 SLM Serial No. /Ref. No. : 570183 / 550233 Object 2 : Serial No. /Ref. No. : Manufacturer : BSWAtech
Date of calibration: 07/10/2020 Date of the recommended re-calibration: 07/10/2021	Certificate No.: 0024993 Handle by: E0002

Measuring results

Reference value	Indication value	Deviation	Allowed deviation	Object
94.0dB	93.4dB	-0.6dB	+/- 1.5dB	1
114.0dB	113.2dB	-0.8dB	+/- 1.5dB	1

Measuring equipment

index	Calibrator / Master	Traceability
1	Master Sound Meter, SVAN949,sn:8571	IEC61672
2	Sound Calibrator, SV30A sn:32580	IEC60942

Ambient conditions

Temperature (20...26)°C Humidity (20...60)%RH

Measuring procedure

Calibrated by Type 1 Sound Calibrator with Master Sound Level Meter under 1kHz Frequency.

Uncertainty

+/- 0.2 dB for probability not less than 95%.

Conformity

1.The resulted values were those obtained at the time of test and applies only to the item calibrated.
2.The measurement uncertainty was calculated according to the regulations of GUM with the coverage factor k=2 and contains the uncertainty of the measuring procedure and the uncertainty of the measuring system.
3.The equipment being used in this calibration are regularly calibrated by laboratory according to ISO/IEC17025.
4.HKAS has accredited this laboratory (HOKLAS 267) for specific calibration activities as listed in the HOKLAS directory of accredited laboratories.
5.The calibrations certificate may not be reproduced.

Measured value(s) within **the allowable deviation.**

Performed by

Calibration Technician Mr. K.L. Ng

Approved by

Mr. K.S. Ng

Quality Manager

Appleone Calibration Laboratory Ltd. Rm1309, 13/F, No.77 Wing Hong St, Kln, HKSAR Tel: +852 2370 4437 Fax: +852 2114 0393

Equipment no.: N-12-02

Calibration Certificate

0024995

Customer : Cinotech Consultants Limited RM 1710, Technology Park, 18 On Lai Street, Shatin, N.T. Hong Kong Customer Code : SVEC09005	Object 1 : BSWA 308 SLM Serial No. /Ref. No. : 570187 / 550841 Object 2 : Serial No. /Ref. No. : Manufacturer : BSWAtech
Date of calibration: 07/10/2020 Date of the recommended re-calibration: 07/10/2021	Certificate No.: 0024995 Handle by: E0002

Measuring results

Reference value	Indication value	Deviation	Allowed deviation	Object
94.0dB	93.1dB	-0.9dB	+/- 1.5dB	1
114.0dB	113.1dB	-0.9dB	+/- 1.5dB	1

Measuring equipment

index	Calibrator / Master	Traceability
1	Master Sound Meter, SVAN949,sn:8571	IEC61672
2	Sound Calibrator, SV30A sn:32580	IEC60942

Ambient conditions

Temperature (20...26)°C Humidity (20...60)%RH

Measuring procedure

Calibrated by Type 1 Sound Calibrator with Master Sound Level Meter under 1kHz Frequency.

Uncertainty

+/- 0.2 dB for probability not less than 95%.

Conformity

1.The resulted values were those obtained at the time of test and applies only to the item calibrated.
2.The measurement uncertainty was calculated according to the regulations of GUM with the coverage factor k=2 and contains the uncertainty of the measuring procedure and the uncertainty of the measuring system.
3.The equipment being used in this calibration are regularly calibrated by laboratory according to ISO/IEC17025.
4.HKAS has accredited this laboratory (HOKLAS 267) for specific calibration activities as listed in the HOKLAS directory of accredited laboratories.
5.The calibrations certificate may not be reproduced.

Measured value(s) within **the allowable deviation.**

Performed by

Calibration Technician Mr. K.L. Ng

Approved by

Mr. K.S. Ng

Quality Manager

Appleone Calibration Laboratory Ltd. Rm1309, 13/F, No.77 Wing Hong St, Kln, HKSAR Tel: +852 2370 4437 Fax: +852 2114 0393

Equipment no.: N-12-03

Calibration Certificate

0024996

Customer : Cinotech Consultants Limited RM 1710, Technology Park, 18 On Lai Street, Shatin, N.T. Hong Kong Customer Code : SVEC09005	Object 1 : BSWA 308 SLM Serial No. /Ref. No. : 570188 / 550850 Object 2 : Serial No. /Ref. No. : Manufacturer : BSWAtech
Date of calibration: 07/10/2020 Date of the recommended re-calibration: 07/10/2021	Certificate No.: 0024996 Handle by: E0002

Measuring results

Reference value	Indication value	Deviation	Allowed deviation	Object
94.0dB	92.9dB	-1.1dB	+/- 1.5dB	1
114.0dB	112.8dB	-1.2dB	+/- 1.5dB	1

Measuring equipment

index	Calibrator / Master	Traceability
1	Master Sound Meter, SVAN949,sn:8571	IEC61672
2	Sound Calibrator, SV30A sn:32580	IEC60942

Ambient conditions

Temperature (20...26)°C Humidity (20...60)%RH

Measuring procedure

Calibrated by Type 1 Sound Calibrator with Master Sound Level Meter under 1kHz Frequency.

Uncertainty

+/- 0.2 dB for probability not less than 95%.

Conformity

1.The resulted values were those obtained at the time of test and applies only to the item calibrated.
2.The measurement uncertainty was calculated according to the regulations of GUM with the coverage factor k=2 and contains the uncertainty of the measuring procedure and the uncertainty of the measuring system.
3.The equipment being used in this calibration are regularly calibrated by laboratory according to ISO/IEC17025.
4.HKAS has accredited this laboratory (HOKLAS 267) for specific calibration activities as listed in the HOKLAS directory of accredited laboratories.
5.The calibrations certificate may not be reproduced.

Measured value(s) within **the allowable deviation.**

Performed by

Calibration Technician Mr. K.L. Ng

Approved by

Mr. K.S. Ng

Quality Manager

Appleone Calibration Laboratory Ltd. Rm1309, 13/F, No.77 Wing Hong St, Kln, HKSAR Tel: +852 2370 4437 Fax: +852 2114 0393

Equipment no.:N-13-01

Calibration Certificate

0025247

Customer : Cinotech Consultants Limited RM 1710, Technology Park, 18 On Lai Street, Shatin, N.T. Hong Kong Customer Code : SVEC09005	Object 1 : ST-120 sound calibrator Serial No. /Ref. No. : 181001608 Object 2 : Serial No. /Ref. No. : Manufacturer : Soundtek
Date of calibration: 05/11/2020 Date of the recommended re-calibration: 05/11/2021	Certificate No.: 0025247 Handle by: E0002

Measuring results

Reference value	Indication value	Deviation	Allowed deviation	Object
94.0dB	93.7dB	-0.3dB	+/- 0.3dB	1
114.0dB	113.6dB	-0.4dB	+/- 0.5dB	1

Measuring equipment

index	Calibrator / Master	Traceability
1	Master Sound Meter, SVAN949,sn:8571	IEC61672
2	Sound Calibrator, SV30A sn:32580	IEC60942

Ambient conditions

Temperature (20...26)°C Humidity (20...60)%RH

Measuring procedure

Calibrated by Type 1 Sound Level Meter and 1kHz Sound Source .

Uncertainty

+/- 0.2 dB for probability not less than 95%.

Conformity

1.The resulted values were those obtained at the time of test and applies only to the item calibrated.
2.The measurement uncertainty was calculated according to the regulations of GUM with the coverage factor k=2 and contains the uncertainty of the measuring procedure and the uncertainty of the measuring system.
3.The equipment being used in this calibration are regularly calibrated by laboratory according to ISO/IEC17025.
4.HKAS has accredited this laboratory (HOKLAS 267) for specific calibration activities as listed in the HOKLAS directory of accredited laboratories.
5.The calibrations certificate may not be reproduced.

Measured value(s) within **the allowable deviation.**

Performed by

Calibration Technician Mr. K.L. Ng

Approved by

Quality Manager

Equipment no.:N-13-02

Calibration Certificate

0025249

Customer : Cinotech Consultants Limited RM 1710, Technology Park, 18 On Lai Street, Shatin, N.T. Hong Kong Customer Code : SVEC09005	Object 1 : ST-120 sound calibrator Serial No. /Ref. No. : 181001636 Object 2 : Serial No. /Ref. No. : Manufacturer : Soundtek
Date of calibration: 05/11/2020 Date of the recommended re-calibration: 05/11/2021	Certificate No.: 0025249 Handle by: E0002

Measuring results

Reference value	Indication value	Deviation	Allowed deviation	Object
94.0dB	93.7dB	-0.3dB	+/- 0.3dB	1
114.0dB	113.6dB	-0.4dB	+/- 0.5dB	1

Measuring equipment

index	Calibrator / Master	Traceability
1	Master Sound Meter, SVAN949,sn:8571	IEC61672
2	Sound Calibrator, SV30A sn:32580	IEC60942

Ambient conditions

Temperature (20...26)°C Humidity (20...60)%RH

Measuring procedure

Calibrated by Type 1 Sound Level Meter and 1kHz Sound Source .

Uncertainty

+/- 0.2 dB for probability not less than 95%.

Conformity

1.The resulted values were those obtained at the time of test and applies only to the item calibrated.
2.The measurement uncertainty was calculated according to the regulations of GUM with the coverage factor k=2 and contains the uncertainty of the measuring procedure and the uncertainty of the measuring system.
3.The equipment being used in this calibration are regularly calibrated by laboratory according to ISO/IEC17025.
4.HKAS has accredited this laboratory (HOKLAS 267) for specific calibration activities as listed in the HOKLAS directory of accredited laboratories.
5.The calibrations certificate may not be reproduced.

Measured value(s) within **the allowable deviation.**

Performed by

Calibration Technician Mr. K.L. Ng

Approved by

Quality Manager

APPENDIX H
NOISE MONITORING RESULTS AND GRAPHICAL PRESENTATIONS

Appendix H - Noise Monitoring Results

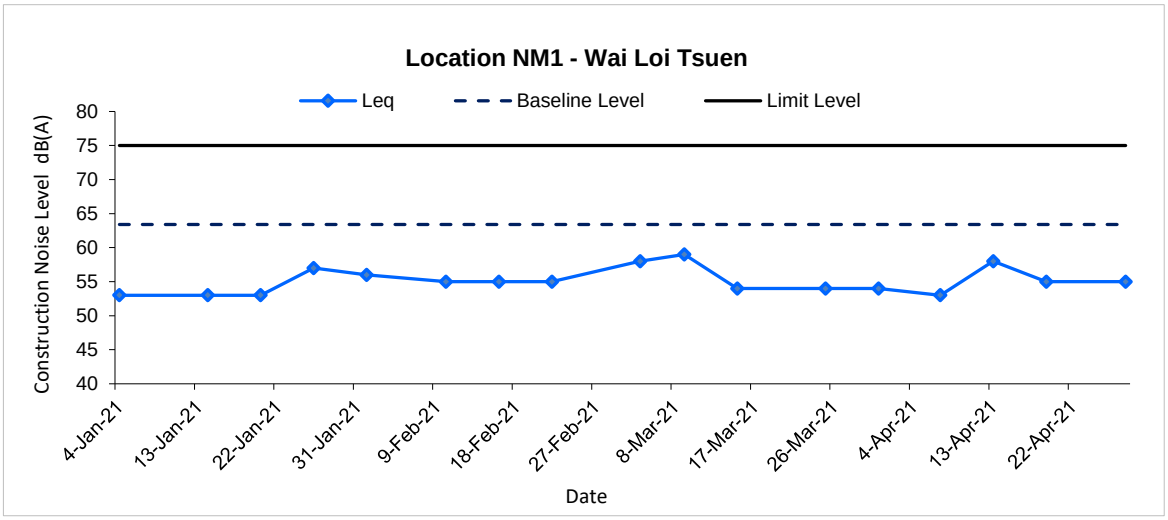
(0700-1900 hrs on Normal Weekdays)

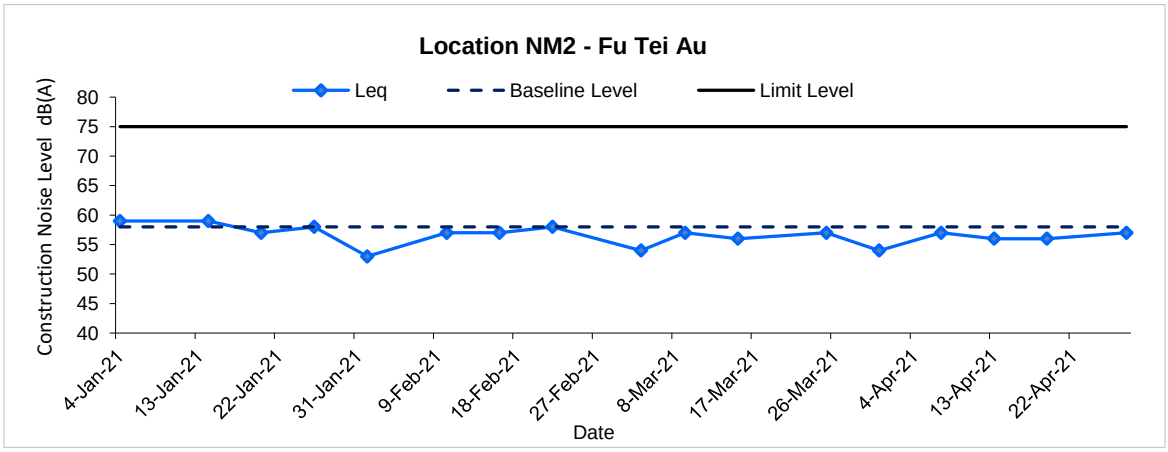
Location NM1 - Wai Loi Tsuen							
Date	Time	Weather	Unit: dB (A) (30-min)				
			Measured Noise Level			Baseline Level	Construction Noise Level
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
7-Apr-21	11:30	Cloudy	53.2	55.1	50.8	63.4	53.2 Measured ≦ Baseline
13-Apr-21	10:00	Sunny	57.5	59.8	54.3	63.4	57.5 Measured ≦ Baseline
19-Apr-21	13:10	Sunny	54.8	56.7	51.9	63.4	54.8 Measured ≦ Baseline
28-Apr-21	9:45	Cloudy	55.4	57.9	50.3	63.4	55.4 Measured ≦ Baseline

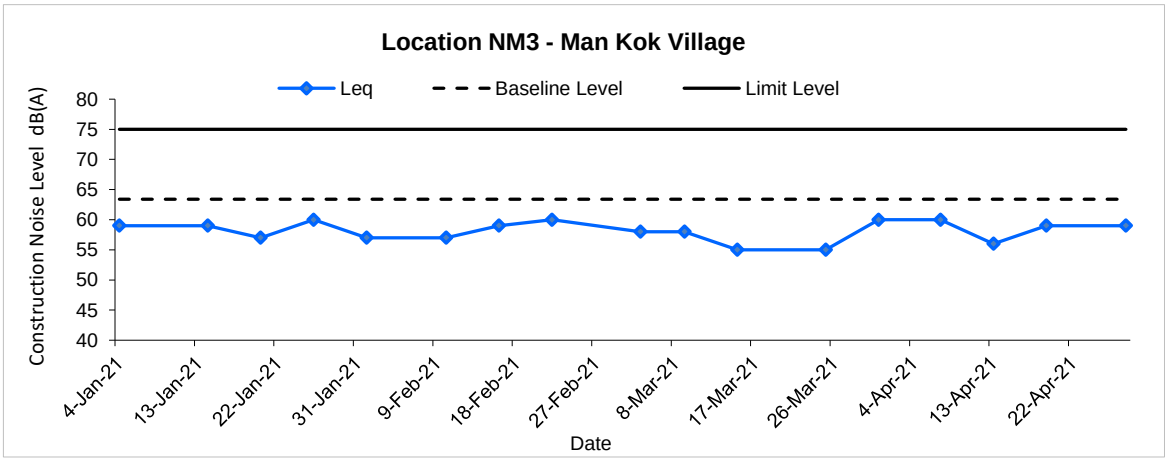
Location NM2 - Fu Tei Au							
Date	Time	Weather	Unit: dB (A) (30-min)				
			Measured Noise Level			Baseline Level	Construction Noise Level
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
7-Apr-21	13:45	Cloudy	57.4	60.4	51.4	58.0	57.4 Measured ≦ Baseline
13-Apr-21	11:00	Sunny	55.8	58.5	53.2	58.0	55.8 Measured ≦ Baseline
19-Apr-21	15:15	Sunny	55.9	58.6	51.6	58.0	55.9 Measured ≦ Baseline
28-Apr-21	11:25	Cloudy	56.7	59.3	51.2	58.0	56.7 Measured ≦ Baseline

Location NM3 - Man Kok Village							
Date	Time	Weather	Unit: dB (A) (30-min)				
			Measured Noise Level			Baseline Level	Construction Noise Level
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
7-Apr-21	14:45	Cloudy	60.4	63.7	51.5	63.4	60.4 Measured ≦ Baseline
13-Apr-21	13:00	Sunny	56.2	59.2	53.7	63.4	56.2 Measured ≦ Baseline
19-Apr-21	14:05	Sunny	59.0	60.5	55.6	63.4	59 Measured ≦ Baseline
28-Apr-21	10:30	Cloudy	58.6	61.5	50.8	63.4	58.6 Measured ≦ Baseline

Noise Levels







Title	Date	Project
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 Graphical Presentation of Construction Noise Monitoring Results	Apr 2021	No. MA19019 Appendix H

CINOTECH

APPENDIX I
ECOLOGICAL MONITORING RESULTS AND ANALYSIS

MA19019 - Ecological Monitoring Result and Analysis

Table I: Recorded Bird Species and their Abundance in the Reporting Month					
Scientific Name	**Common Name**	**Chinese Name**	**Waterbird**	**Point Count Abundance**	**Transect Abundance**
Acridotheres cristatellus	Crested Myna	八哥		111	+++++
Actitis hypoleucos	Common Sandpiper	磯鷸	*	7	+
Anthus hodgsoni	Olive Backed Pipit	樹鷚		11	+
Apus nipalensis	House Swift	小白腰雨燕		6	+
Ardea alba	Great Egret	大白鷺	*	15	+
Ardea cinerea	Grey Heron	蒼鷺	*	2	+
Ardeola bacchus	Chinese Pond Heron	池鷺	*	48	++++
Bubulcus coromandus	Eastern Cattle Egret	牛背鷺	*	25	+++
Buteo japonicus	Eastern Buzzard	普通鵟	*	0	+
Centropus sinensis	Greater Coucal	褐翅鴉鵑		2	+
Columba livia	Domestic Pigeon	原鴿		1	
Copsychus saularis	Magpie Robin	鵲鴝		0	+
Corvus macrorhynchus	Jungle Crow	大嘴烏鴉		1	+
Corvus torquatus	Collared Crow	白頸鴉	*	3	+
Dicrurus macrocercus	Black Drongo	黑卷尾		1	+
Egretta garzetta	Little Egret	小白鷺	*	79	+++++
Egretta intermedia	Intermediate Egret	中白鷺	*	0	+
Eudynamys scolopacea	Common Koel	噪鵑		6	++
Gallinula chloropus	Common Moorhen	黑水雞	*	2	+
Garrulax perspicillatus	Masked Laughing Thrush	黑臉噪鶥		7	++
Hierococcyx sparverioides	Large Hawk Cuckoo	大鷹鵑		12	++
Himantopus himantopus	Black-winged Stilt	黑翅長腳鷸	*	9	+
Hirundo rustica	Barn Swallow	家燕		44	+++++
Lonchura striata	White-rumped Munia	白腰文鳥		8	
Milvus migrans	Black Kite	黑鳶	*	4	+
Motacilla alba	White Wagtail	白鶺鴒		16	+
Myophonus caeruleus	Blue Whistling Thrush	紫嘯鶇		1	
Nycticorax nycticorax	Black-crowned Night Heron	夜鷺	*	0	+
Orthotomus sutorius	Common Tailorbird	長尾縫葉鶯		16	+
Passer montanus	Eurasian Tree Sparrow	樹麻雀		0	+
Phylloscopus fuscatus	Dusky Warbler	褐柳鶯		4	+
Phylloscopus inornatus	Yellow-browed Warbler	黃眉柳鶯		4	+
Phylloscopus proregulus	Pallas's Leaf Warbler	黃腰柳鶯		6	+
Pica pica	Magpie	喜鵲		1	+
Prinia inornata	Plain Prinia	純色鱲鶯		1	+
Psittacula eupatria	Alexandrine Parakeet	亞歷山大鸚鵡		0	+
Pycnonotus jocosus	Crested bulbul	紅耳鵯		15	++
Pycnonotus sinensis	Chinese Bulbul	白頭鵯		11	++
Streptopelia chinensis	Spotted Dove	珠頸斑鳩		30	+++
Sturnus nigricollis	Black-necked Starling	黑領椋鳥		3	+
Tringa ochropus	Green Sandpiper	白腰草鷸	*	0	+
Zosterops japonicus	Japanese White-eye	暗綠繡眼鳥		7	+
			Total Point Count Abundance	519	
			Total Waterbirds	194	

*For waterbird

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

Remarks: (1) According to S4.7 of the approved Baseline Monitoring Report (Ecology), "waterbirds" was defined as "waterbirds and wetland-depende species", which was referenced to Monthly Waterbird Monitoring Biannual Reports prepared by the Hong Kong Bird Watching Society (Anon, 2018) 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 usi 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.

MA19019 - Waterbird Ecological Monitoring Result

Monitoring Month Apr
Season Summer

Table II : 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	8 Apr 2021	15:00	High	61	**145**	13
		10:00	Low	84		17
#2	12 Apr 2021	14:30	High	39	**131**	9
		11:00	Low	92		12
#3	23 Apr 2021	13:00	High	45	**108**	14
		9:00	Low	63		17
#4	26 Apr 2021	13:30	High	48	**135**	16
		10:30	Low	87		18
				Overall Total	**519**	

Table III: Total Waterbird Abundance from Point Count					
Survey Information				**Numbers of Waterbirds**	
No.	**Date**	**Time**	**Tide Level**	**Individuals Recorded**	**Total**
#1	8 Apr 2021	15:00	High	13	**49**
		10:00	Low	36	
#2	12 Apr 2021	14:30	High	23	**61**
		11:00	Low	38	
#3	23 Apr 2021	13:00	High	10	**34**
		9:00	Low	24	
#4	26 Apr 2021	13:30	High	17	**50**
		10:30	Low	33	
				Overall Total	**194**
				Average	**49**

Table IV: T-Test Analysis for All Waterbirds

Baseline Data
Monthly Average Abundance (Apr) 48.13
Seasonal Average Abundance (Summer) 44.18

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 distrubution when compared to the baseline monitoring data.

H_1 The data collected does not falls within the normal distrubution 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	
T-values of Data in Reporting Month			95%	99%
Abundance	Monthly	0.068	✓	✓
	Season	0.779	✓	✓
		Overall:	✓	✓

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.

MA19019 - Waterbird Ecological Monitoring Result

Monitoring Month Apr
Season Summer

Table V: Abundance of Representative Waterbirds from Point Count

Representative Species			Recorded Abundance							Baseline Data	
Species Name	**Common Name**	**Chinese Name**	**8 Apr 2021**	**12 Apr 2021**	**23 Apr 2021**	**26 Apr 2021**		**Total**	**Average**	**Avg (Apr)**	**Avg (Summer)**
Egretta garzetta	Little Egret	小白鷺	19	23	17	20		79	20	21	20
Ardea cinerea	Grey Heron	蒼鷺	1	1	0	0		2	1	0	1
Ardeola bacchus	Chinese Pond Heron	池鷺	12	15	8	13		48	12	14	16
Phalacrocorax carbo	Great Cormorant	普通鸕鷀	0	0	0	0		0	0	0	0
Ardea alba	Great Egret	大白鷺	3	6	2	4		15	4	3	3
Bubulcus coromandus	Eastern Cattle Egret	牛背鷺	4	11	7	3		25	6	7	3

Table VI: 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 distrubution when compare to the baseline monitoring data.

H_1 The data collected does not falls within the normal distrubution when compare to the baseline monitoring data.

If t-test value for a specific representative is <u>smaller</u> 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)

Representative Species			T-value	Confidence Level		T-value	Confidence Level		Overall
Species Name	Common Name	Chinese Name	Monthly	95%	99%	Seasonal	95%	99%	
Egretta garzetta	Little Egret	小白鷺	-1.100	✓	✓	-0.200	✓	✓	✓
Ardea cinerea	Grey Heron	蒼鷺	N/A*						
Ardeola bacchus	Chinese Pond Heron	池鷺	-1.529	✓	✓	-2.561	✕	✓	✓
Phalacrocorax carbo	Great Cormorant	普通鸕鷀	N/A*						
Ardea alba	Great Egret	大白鷺	1.464	✓	✓	1.419	✓	✓	✓
Bubulcus coromandus	Eastern Cattle Egret	牛背鷺	-0.626	✓	✓	1.680	✓	✓	✓

Remarks

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

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

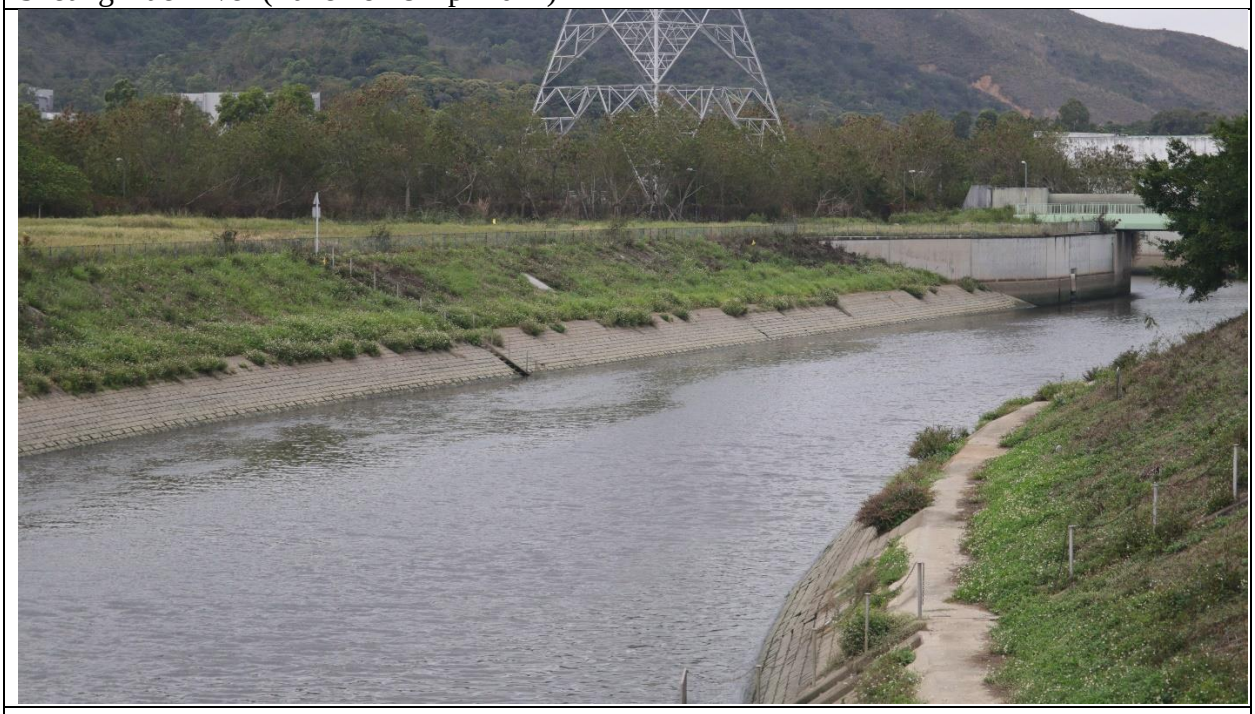
✕ = T-value falls outside the confidence level, the impact monitoring data shows significant difference to the baseline data.

APPENDIX J
PHOTO RECORDS OF ECOLOGICAL MONITORING

Appendix J - Photo Records of Ecological Monitoring

Part A - Conditions of Rivers

Sheung Yue River (Taken on 8 Apr 2021)



Ng Tung River (Taken on 8 Apr 2021)

Shek Sheung River (Taken on 23 Apr 2021)

Part B – Waterbird Species

Ardea alba (Taken on 8 Mar 2021)

Ardea cinerea (Taken on 8 Apr 2021)

Egretta garzetta (Taken on 23 Apr 2021)

Ardeola bacchus (Taken on 8 Apr 2021)

Actitis hypoleucos (Taken on 8 Apr 2021)

	
Bubulcus coromandus (Taken on 23 Apr 2021)	*Himantopus himantopus* (Taken on 8 Apr 2021)

Part C – Human Activities & Site Conditions

Excavation & Crane (Project-related, taken on 8 Apr 2021)

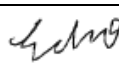
Fishing & Jaywalking (Non-project-related, taken on 23 Apr 21)

APPENDIX K
SITE AUDIT SUMMARY

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	210408
Date	8 April 2021 (Thursday)
Time	9:30 – 11:45

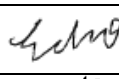
Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Water Quality	
	• No environmental deficiency was identified during the site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during the site inspection.	
	D. Noise	
	• No environmental deficiency was identified during the site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during the site inspection.	
	F. Ecology and Fisheries	
	• No environmental deficiency was identified during the site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during the site inspection.	
	H. Permits /Licences	
	• No environmental deficiency was identified during the site inspection.	
	I. Others	
	No follow-up items from the previous site inspection (ref no.: 210330).	

	Name	Signature	Date
Recorded by	Ms. Echo Hung		8 April 2021
Checked by	Mr. Eric Yan		9 April 2021

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	210414
Date	14 April 2021 (Wednesday)
Time	9:30 – 11:30

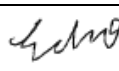
Ref. No.	**Non-Compliance**	**Related Item No.**
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Water Quality	
	• No environmental deficiency was identified during the site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during the site inspection.	
	D. Noise	
	• No environmental deficiency was identified during the site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during the site inspection.	
	F. Ecology and Fisheries	
	• No environmental deficiency was identified during the site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during the site inspection.	
	H. Permits /Licences	
	• No environmental deficiency was identified during the site inspection.	
	I. Others	
	No follow-up items from the previous site inspection (ref no.: 210408).	

	Name	Signature	Date
Recorded by	Ms. Echo Hung		14 April 2021
Checked by	Mr. Eric Yan		15 April 2021

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	210420
Date	20 April 2021 (Tuesday)
Time	9:30 – 11:00

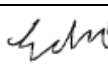
Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Water Quality	
	• No environmental deficiency was identified during the site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during the site inspection.	
	D. Noise	
	• No environmental deficiency was identified during the site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during the site inspection.	
	F. Ecology and Fisheries	
	• No environmental deficiency was identified during the site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during the site inspection.	
	H. Permits /Licences	
	• No environmental deficiency was identified during the site inspection.	
	I. Others	
	No follow-up items from the previous site inspection (ref no.: 210414).	

	Name	Signature	Date
Recorded by	Ms. Echo Hung		20 April 2021
Checked by	Mr. Eric Yan		21 April 2021

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	210427
Date	27 April 2021 (Tuesday)
Time	9:30 – 11:00

Ref. No.	**Non-Compliance**	**Related Item No.**
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Water Quality	
	• No environmental deficiency was identified during the site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during the site inspection.	
	D. Noise	
	• No environmental deficiency was identified during the site inspection.	
	E. Waste / Chemical Management	
210427-R1	• Chemicals should be stored in drip tray at Portion C.	E6iv
	F. Ecology and Fisheries	
	• No environmental deficiency was identified during the site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during the site inspection.	
	H. Permits /Licences	
	• No environmental deficiency was identified during the site inspection.	
	I. Others	
	No follow-up items from the previous site inspection (ref no.: 210420).	

	Name	Signature	Date
Recorded by	Ms. Echo Hung		27 April 2021
Checked by	Ms. Betty Choi		28 April 2021

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	210408
Date	8 April 2021 (Thursday)
Time	9:30 – 11:45

Ref. No.	**Non-Compliance**	**Related Item No.**
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Water Quality	
	• No environmental deficiency was identified during the site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during the site inspection.	
	D. Noise	
	• No environmental deficiency was identified during the site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during the site inspection.	
	F. Ecology and Fisheries	
	• No environmental deficiency was identified during the site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during the site inspection.	
	H. Permits /Licences	
	• No environmental deficiency was identified during the site inspection.	
	I. Others	
	No follow-up items from the previous site inspection (ref no.: 210330).	

	Name	Signature	Date
Recorded by	Ms. Echo Hung		8 April 2021
Checked by	Mr. Eric Yan		9 April 2021

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	210414
Date	14 April 2021 (Wednesday)
Time	9:30 – 11:30

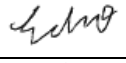
Ref. No.	**Non-Compliance**	**Related Item No.**
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Water Quality	
	• No environmental deficiency was identified during the site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during the site inspection.	
	D. Noise	
	• No environmental deficiency was identified during the site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during the site inspection.	
	F. Ecology and Fisheries	
	• No environmental deficiency was identified during the site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during the site inspection.	
	H. Permits /Licences	
	• No environmental deficiency was identified during the site inspection.	
	I. Others	
	No follow-up items from the previous site inspection (ref no.: 210408).	

	Name	Signature	Date
Recorded by	Ms. Echo Hung		14 April 2021
Checked by	Mr. Eric Yan		15 April 2021

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	210420
Date	20 April 2021 (Tuesday)
Time	9:30 – 11:00

Ref. No.	**Non-Compliance**	**Related Item No.**
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Water Quality	
	• No environmental deficiency was identified during the site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during the site inspection.	
	D. Noise	
	• No environmental deficiency was identified during the site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during the site inspection.	
	F. Ecology and Fisheries	
	• No environmental deficiency was identified during the site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during the site inspection.	
	H. Permits /Licences	
	• No environmental deficiency was identified during the site inspection.	
	I. Others	
	No follow-up items from the previous site inspection (ref no.: 210414).	

	Name	Signature	Date
Recorded by	Ms. Echo Hung		20 April 2021
Checked by	Mr. Eric Yan		21 April 2021

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	210427
Date	27 April 2021 (Tuesday)
Time	9:30 – 11:00

Ref. No.	**Non-Compliance**	**Related Item No.**
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Water Quality	
	• No environmental deficiency was identified during the site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during the site inspection.	
	D. Noise	
	• No environmental deficiency was identified during the site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during the site inspection.	
	F. Ecology and Fisheries	
	• No environmental deficiency was identified during the site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during the site inspection.	
	H. Permits /Licences	
	• No environmental deficiency was identified during the site inspection.	
	I. Others	
	No follow-up items from the previous site inspection (ref no.: 210420).	

	Name	Signature	Date
Recorded by	Ms. Echo Hung		27 April 2021
Checked by	Ms. Betty Choi		28 April 2021

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	210407
Date	7 April 2021 (Wednesday)
Time	10:00 – 11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Water Quality	
	• No environmental deficiency was identified during the site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during the site inspection.	
	D. Noise	
	• No environmental deficiency was identified during the site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during the site inspection.	
	F. Ecology and Fisheries	
	• No environmental deficiency was identified during the site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during the site inspection.	
	H. Permits /Licences	
	• No environmental deficiency was identified during the site inspection.	
	I. Others	
	No follow-up items from the previous site inspection (ref no.: 210330).	

	Name	Signature	Date
Recorded by	Ms. Echo Hung		7 April 2021
Checked by	Mr. Eric Yan		8 April 2021

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	210413
Date	13 April 2021 (Tuesday)
Time	10:00 – 11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Water Quality	
	• No environmental deficiency was identified during the site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during the site inspection.	
	D. Noise	
	• No environmental deficiency was identified during the site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during the site inspection.	
	F. Ecology and Fisheries	
	• No environmental deficiency was identified during the site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during the site inspection.	
	H. Permits /Licences	
	• No environmental deficiency was identified during the site inspection.	
	I. Others	
	No follow-up items from the previous site inspection (ref no.: 210407).	

	Name	Signature	Date
Recorded by	Ms. Echo Hung		13 April 2021
Checked by	Mr. Eric Yan		14 April 2021

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	210420
Date	20 April 2021 (Tuesday)
Time	10:30 – 11:30

Ref. No.	**Non-Compliance**	**Related Item No.**
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Water Quality	
	• No environmental deficiency was identified during the site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during the site inspection.	
	D. Noise	
	• No environmental deficiency was identified during the site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during the site inspection.	
	F. Ecology and Fisheries	
	• No environmental deficiency was identified during the site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during the site inspection.	
	H. Permits /Licences	
	• No environmental deficiency was identified during the site inspection.	
	I. Others	
	No follow-up items from the previous site inspection (ref no.: 210413).	

	Name	Signature	Date
Recorded by	Ms. Echo Hung		20 April 2021
Checked by	Mr. Eric Yan		21 April 2021

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	210427
Date	27 April 2021 (Tuesday)
Time	10:30 – 11:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Water Quality	
	• No environmental deficiency was identified during the site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during the site inspection.	
	D. Noise	
	• No environmental deficiency was identified during the site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during the site inspection.	
	F. Ecology and Fisheries	
	• No environmental deficiency was identified during the site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during the site inspection.	
	H. Permits /Licences	
	• No environmental deficiency was identified during the site inspection.	
	I. Others	
	No follow-up items from the previous site inspection (ref no.: 210420).	

	Name	Signature	Date
Recorded by	Ms. Echo Hung		27 April 2021
Checked by	Ms. Betty Choi		28 April 2021

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	210407
Date	7 April 2021 (Wednesday)
Time	10:00 – 11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Water Quality	
	• No environmental deficiency was identified during the site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during the site inspection.	
	D. Noise	
	• No environmental deficiency was identified during the site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during the site inspection.	
	F. Ecology and Fisheries	
	• No environmental deficiency was identified during the site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during the site inspection.	
	H. Permits /Licences	
	• No environmental deficiency was identified during the site inspection.	
	I. Others	
	Following up on the previous site inspection (ref no.: 210330): Item 210330-R1 was rectified/improved by the Contractor.	

	Name	Signature	Date
Recorded by	Ms. Echo Hung		7 April 2021
Checked by	Mr. Eric Yan		8 April 2021

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	210413
Date	13 April 2021 (Tuesday)
Time	10:00 – 11:00

Ref. No.	**Non-Compliance**	**Related Item No.**
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Water Quality	
	• No environmental deficiency was identified during the site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during the site inspection.	
	D. Noise	
	• No environmental deficiency was identified during the site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during the site inspection.	
	F. Ecology and Fisheries	
	• No environmental deficiency was identified during the site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during the site inspection.	
	H. Permits /Licences	
	• No environmental deficiency was identified during the site inspection.	
	I. Others	
	No follow-up items from the previous site inspection (ref no.: 210407).	

	Name	Signature	Date
Recorded by	Ms. Echo Hung		13 April 2021
Checked by	Mr. Eric Yan		14 April 2021

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	210420
Date	20 April 2021 (Tuesday)
Time	10:30 – 11:30

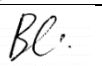
Ref. No.	**Non-Compliance**	**Related Item No.**
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Water Quality	
	• No environmental deficiency was identified during the site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during the site inspection.	
	D. Noise	
	• No environmental deficiency was identified during the site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during the site inspection.	
	F. Ecology and Fisheries	
	• No environmental deficiency was identified during the site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during the site inspection.	
	H. Permits /Licences	
	• No environmental deficiency was identified during the site inspection.	
	I. Others	
	No follow-up items from the previous site inspection (ref no.: 210413).	

	Name	Signature	Date
Recorded by	Ms. Echo Hung		20 April 2021
Checked by	Mr. Eric Yan		21 April 2021

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	210427
Date	27 April 2021 (Tuesday)
Time	10:30 – 11:30

Ref. No.	**Non-Compliance**	**Related Item No.**
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Water Quality	
	• No environmental deficiency was identified during the site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during the site inspection.	
	D. Noise	
	• No environmental deficiency was identified during the site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during the site inspection.	
	F. Ecology and Fisheries	
	• No environmental deficiency was identified during the site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during the site inspection.	
	H. Permits /Licences	
	• No environmental deficiency was identified during the site inspection.	
	I. Others	
	No follow-up items from the previous site inspection (ref no.: 210420).	

	Name	Signature	Date
Recorded by	Ms. Echo Hung		27 April 2021
Checked by	Ms. Betty Choi		28 April 2021

APPENDIX L
WASTE FLOW TABLE

Name of Department: DSD

Contract No. DC/2018/06

Monthly Summary Waste Flow Table for 2021

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	10.034	0.000	0.000	8.257	1.777	0.606	0.000	0.000	0.002	0.000	0.038
Feb	3.703	0.000	0.000	2.871	0.833	0.071	2.120	0.000	0.000	0.000	0.024
Mar	4.644	0.000	0.000	2.190	2.454	0.037	0.000	0.000	0.006	0.000	0.044
Apr	0.211	0.000	0.023	0.000	0.188	0.160	0.000	0.000	0.008	0.000	0.042
May											
Jun											
Sub-total	18.592	0.000	0.023	13.317	5.252	0.874	2.120	0.000	0.016	0.000	0.148
Jul											
Aug											
Sep											
Oct											
Nov											
Dec											
Total	18.592	0.000	0.023	13.317	5.252	0.874	2.120	0.000	0.016	0.000	0.148

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 2021

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	0.836	0.000	0.000	0.000	0.836	0.301	21.25	0.000	0.002	0.000	0.006
Feb	0.911	0.000	0.000	0.000	0.911	0.376	39.35	0.000	0.000	0.000	0.007
Mar	0.954	0.000	0.000	0.000	0.954	0.202	0.00	0.000	0.003	0.000	0.016
Apr	0.550	0.000	0.000	0.046	0.504	0.000	0.00	0.000	0.008	0.000	0.009
May											
Jun											
Sub-total	3.251	0.000	0.000	0.046	3.205	0.879	60.60	0.000	0.013	0.000	0.038
Jul											
Aug											
Sep											
Oct											
Nov											
Dec											
Total	3.251	0.000	0.000	0.046	3.205	0.879	60.60	0.000	0.013	0.000	0.038

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

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

Monthly Summary Waste Flow Table for 2021 (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	9.53 T	0	0	0	9.53 T	0	0	0	0	0	0
Feb	3.47T	0	0	0	3.47 T	0	0	0	0	0	0
Mar	14.79T	0	0	0	14.79T	0	0	0	0	0	0
Apr	7.21T	0	0	0	7.21T	0	0	0	0	0	0
May											
June											
Sub-total	35T	0	0	0	35T	0	0	0	0	0	0
July											
Aug											
Sept											
Oct											
Nov											
Dec											
Total	35T	0	0	0	35T	0	0	0	0	0	0

Forecast of Total Quantities of C&D Materials to be Generated from the Contract*										
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)
TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA

Notes:
(1) The performance targets are given in PS Clause 6A.27.8(14).
(2) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
(3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material
(4) The *Contractor* shall also submit the latest forecast of the total amount of C&D materials expected to be generated from the Works, together with a breakdown of the nature where the total amount of C&D materials expected to be generated from the Works is equal to or exceeding 50,000 m^3. (PS Clause 6.21.7(4)(b) refer

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

Monthly Summary Waste Flow Table for 2021 (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	230.16	0	0	0	230.16	0	0	0	0	0	1.54
Feb	175.98	0	100	0	75.98	0	0	0	0	0	3.63
Mar	11.98	0	0	0	11.98	0	0	0	0	0	1.35
Apr	0	0	0	0	0	0	0	0	0	0	1.48
May											
June											
Sub-total	418.12	0	100	0	318.12	0	0	0	0	0	8.00
July											
Aug											
Sept											
Oct											
Nov											
Dec											
Total	418.12	0	100	0	318.12	0	0	0	0	0	8.00

APPENDIX M
EVENT AND ACTION PLANS

Appendix M - Event Action Plans

Table M-1 Event/Action Plan for Air Quality

Event	Action			
	ET	IEC	ER	Contractor
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 Contractor.	1. Rectify any unacceptable practice; 2. Amend working methods if appropriate.
Action level being exceeded by two or more consecutive sampling	1. Identify source; 2. Inform 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 IEC and Contractor on remedial actions required; 7. If exceedance continues,	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.

Appendix M - Event Action Plans

Event	Action			
	ET	IEC	ER	Contractor
	arrange meeting with IEC and ER; 8. If exceedance stops, cease additional monitoring.			
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 ER informed of the results.	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.
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;	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. In consolidation with the	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within three working days of notification;

Appendix M - Event Action Plans

Event	Action			
	ET	**IEC**	**ER**	**Contractor**
	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.	necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures.	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.	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.

Appendix M - Event Action Plans

Table M-2 Event/Action Plan for Construction Noise

Event	Action			
	ET	IEC	ER	Contractor
Action Level	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. Require Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures are properly implemented.	1. Submit noise mitigation proposals to IEC; 2. Implement noise mitigation proposals.
Limit Level	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	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;	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem;	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;

Appendix M - Event Action Plans

Event	Action			
	ET	**IEC**	**ER**	**Contractor**
	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.	3. Supervise the implementation of remedial measures.	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.	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.

Appendix M - Event Action Plans

Table M-3 Event/Action Plan for Ecology

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.

Appendix M - Event Action Plans

Table M-4 Event/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 non-conformity 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.

Appendix M - Event Action Plans

Event	Action			
	ET	**IEC**	**ER**	**Contractor**
Repeated Non-conformity	1. Identify source; 2. Inform the Contractor, IEC and ER; 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 N
ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

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	Status
Air Quality Impact							
S2.3.1.3	Dust suppression measures stipulated in the Air Pollution Control (Construction Dust) Regulation and good site practices:	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) Regulation	^
	Any excavated or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading;						^
	Any dusty 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;						^
	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;						^

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	Status
S2.3.1.3	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;	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) Regulation	^
	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;						N/A
	Any skip hoist for material transport should be totally enclosed by impervious sheeting;						N/A
	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;						N/A
	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;						N/A
	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						N/A
	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	Status
Noise Impact							
S3.2.1.1	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)	^
S3.2.1.2	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.						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	Status
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 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	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;						^
	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;						^

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	Status
S4.2.1.4	Proper locations for discharge outlets of temporary wastewater treatment facilities well away from sensitive receivers should be identified;	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	^
	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;						N/A
	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.						N/A
	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						^

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	Status
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	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	Status
Waste Management							
S6.2.2.1	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	Contractor	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	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	Contractor	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	Status
6.2.4.1	Waste, such as soil, should be handled and stored well to ensure secure containment, thus minimizing the potential of pollution;	Minimize waste impacts arising from waste storage	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	WDO	^
	Stockpiling area should be provided with covers and water spraying system to prevent materials from wind-blown or being washed away; and						^
	Different locations should be designated to stockpile each material to enhance reuse.						^
S6.2.4.2	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						^
	Disposal of waste should be done at licensed waste disposal facilities.						^
S6.2.5.2	Maintain temporary stockpiles and reuse excavated fill material for backfilling;	Minimize waste impacts from excavated and C&D materials	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						N/A
	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	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 from building demolition and new building construction	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	^

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	Status
S6.2.5.3	The use of wooden hoardings shall not be allowed. An alternative material, such as metal, aluminium or alloy etc, could be used.	Minimize waste impacts from building demolition and new building construction	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	^
	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	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 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	Status
Landscape and Visual							
S7.3.1.1	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	Status
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	^
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 man-made 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 works should comply with GWO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.						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	Status
S7.3.2.1	MM7 - Compensatory Planting 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	Status
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.	To screen undesirable views of the works site.	Designer	Work Sites	Construction phase		^
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		^

Remarks: EM&A Programme under FEP-02/474/2013	
^	Compliance of mitigation measure;
N/A N/A(1)	Not applicable at this stage; Not observed;
*	Recommendation was made during site audit but improved/retified by the contractor;
#	Recommendation was made during site audit but not yet improved/retified by the contractor;
X	Non-compliance of mitigation measure;
●	Non-compliance but rectified by the contractor.

APPENDIX O
SUMMARIES OF ENVIRONMENTAL COMPLAINT, WARNING, SUMMON AND NOTIFICATION OF SUCCESSFUL PROSECUTION

Agreement No. SPW 07/2019

Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1

Appendix O – Summary of Environmental Complaint, Warning, Summon and Notification of Successful Prosecution

Reporting Month: April 2021

Log Ref.	Location	Received Date	Details of Complaint/Warning/Summon and Prosecution	Investigation/Mitigation Action	Status
1	Expansion Site of SWHSTP (Portion C)	18 March 2020	Muddy water was suspected to be discharged from the expansion site of SWHSTP to Shek Sheung River, manholes and foul drains nearby	• 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	Complaint Investigation Report (CIR) was submitted in April 2020

Appendix O – Summary of Environmental Complaint, Warning, Summon and Notification of Successful Prosecution

Log Ref.	Location	Received Date	Details of Complaint/Warning/Summon and Prosecution	Investigation/Mitigation Action	Status
2	SWHEPP	19 February 2021	Significant odour nuisance was suspected to be emitted from the construction activities of SWHEPP	• 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	CIR was submitted in March 2021

Remarks: No environmental complaint/warning/summon and prosecution was received in the reporting period.

APPENDIX P
SUMMARY OF EXCEEDANCE

Agreement No. SPW 07/2019
Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1

Appendix P – Summary of Exceedance

Reporting Month: April 2021

(A) Exceedance Report for Air Quality
(NIL in the reporting month)

(B) Exceedance Report for Construction Noise
(NIL in the reporting month)

(C) Exceedance Report for Ecology
(NIL in the reporting month)

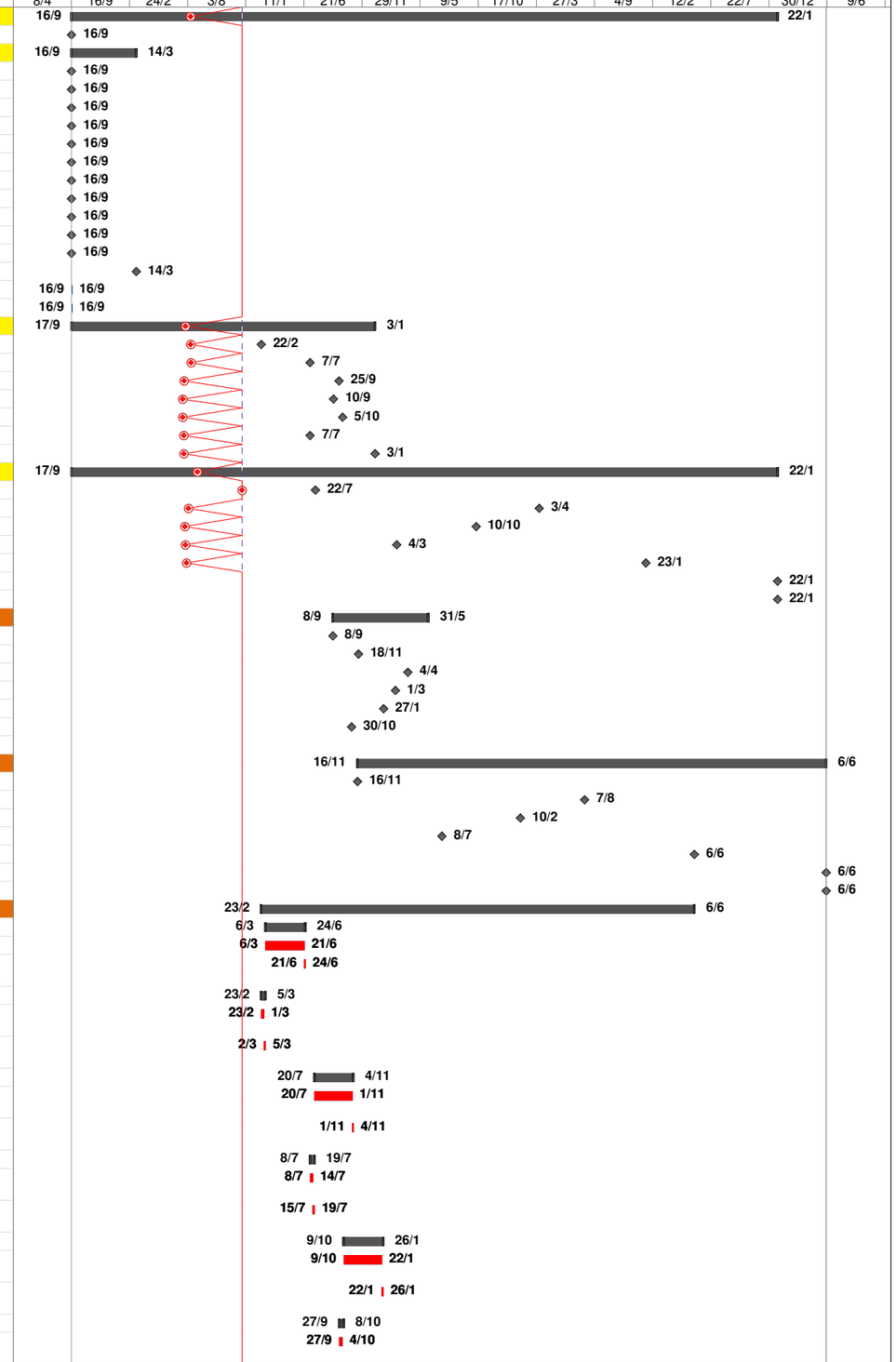
APPENDIX Q
TENTATIVE CONSTRUCTION PROGRAMME

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

Executive Summary (Status Date: 20/03/2021)

群利－俊和聯營體
KL－CW JV

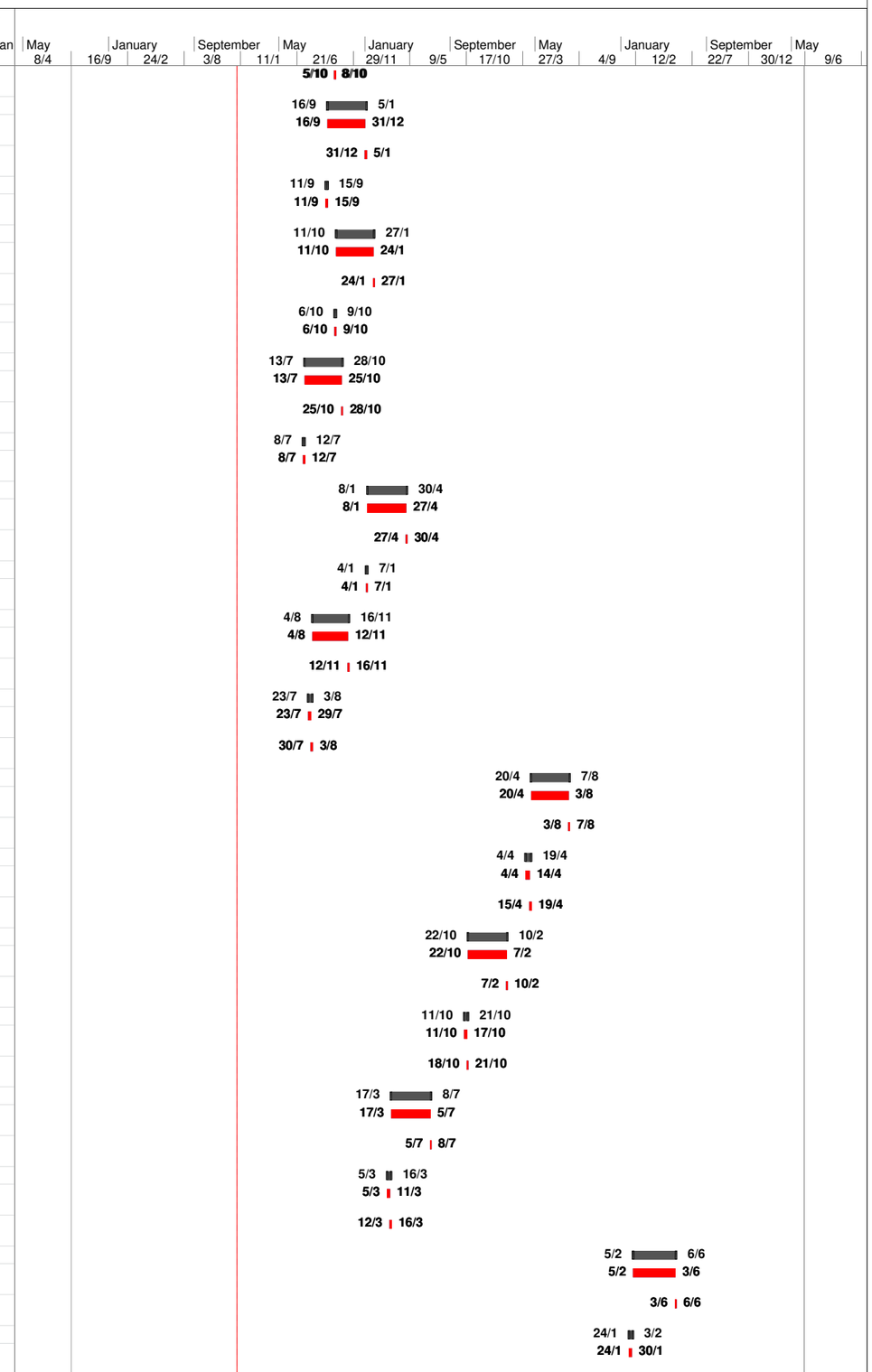
ID	KD	Task Name	Duration	Start	Finish	Actual Start	Actual Finish	Total Slack	Predecessors	Successors	% Comple	Time Risk Allowan
1		**Contract Dates**	**1956 days**	**Mon 16/9/19**	**Wed 22/1/25**	**Mon 16/9/19**	**NA**	**0 days**			**36%**	
2		Starting Date	0 days	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days		4,5FS+181 days,6,7,8,9,1	100%	
3		**Access Date (cal. day)**	**180 days**	**Mon 16/9/19**	**Sat 14/3/20**	**Mon 16/9/19**	**Sat 14/3/20**	**0 days**			**100%**	
4		Portion A-1	0 days	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days	2		100%	
5		Portion A-2	0 days	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days	2FS+181 days		100%	
6		Portion C-1A	0 days	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days	2		100%	
7		Portion C-1B	0 days	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days	2		100%	
8		Portion C-2A	0 days	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days	2		100%	
9		Portion C-2B	0 days	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days	2		100%	
10		Portion C-2C	0 days	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days	2		100%	
11		Portion C-2D	0 days	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days	2		100%	
12		Portion C-3	0 days	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days	2		100%	
13		Portion C-4	0 days	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days	2		100%	
14		Portion C-5	0 days	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days	2		100%	
15		Portion C-6	0 days	Sat 14/3/20	Sat 14/3/20	Sat 14/3/20	Sat 14/3/20	0 days	2FS+181 days	436,411	100%	
16		Works Area WA1	1 day	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days	2		100%	
17		Works Area WA2-A	1 day	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days	2		100%	
18		**Key Date (cal. day)**	**840 days**	**Tue 17/9/19**	**Mon 3/1/22**	**Tue 17/9/19**	**NA**	**0 days**			**45%**	
19		KD1A (525 days after starting date)	525 days	Tue 17/9/19	Mon 22/2/21	Tue 17/9/19	NA	0 days	2FS+1 day	55	63%	
20		KD2A (660 days after starting date)	660 days	Tue 17/9/19	Wed 7/7/21	Tue 17/9/19	NA	0 days	2FS+1 day	61	50%	
21		KD3A (740 days after starting date)	740 days	Tue 17/9/19	Sat 25/9/21	Tue 17/9/19	NA	-119.5 days	2FS+1 day	67	42%	
22		KD3B (725 days after starting date)	725 days	Tue 17/9/19	Fri 10/9/21	Tue 17/9/19	NA	-111.5 days	2FS+1 day	73	42%	
23		KD3C (750 days after starting date)	750 days	Tue 17/9/19	Tue 5/10/21	Tue 17/9/19	NA	-112.5 days	2FS+1 day	78	41%	
24		KD3D (660 days after starting date)	660 days	Tue 17/9/19	Wed 7/7/21	Tue 17/9/19	NA	-118.5 days	2FS+1 day	83	47%	
25		KD3E (840 days after starting date)	840 days	Tue 17/9/19	Mon 3/1/22	Tue 17/9/19	NA	-116.5 days	2FS+1 day	88	37%	
26		**Completion Date (cal. day)**	**1955 days**	**Tue 17/9/19**	**Wed 22/1/25**	**Tue 17/9/19**	**NA**	**0 days**			**29%**	
27		Section 1 of Works (675 days after starting date)	675 days	Tue 17/9/19	Thu 22/7/21	Tue 17/9/19	NA	0 days	2FS+1 day	93	82%	
28		Section 2 of Works (1,295 days after starting date)	1295 days	Tue 17/9/19	Mon 3/4/23	Tue 17/9/19	NA	0 days	2FS+1 day	99	25%	
29		Section 3 of Works (1,120 days after starting date)	1120 days	Tue 17/9/19	Mon 10/10/22	Tue 17/9/19	NA	-121.5 days	2FS+1 day	105	28%	
30		Section 4 of Works (900 days after starting date)	900 days	Tue 17/9/19	Fri 4/3/22	Tue 17/9/19	NA	-122.5 days	2FS+1 day	111	35%	
31		Section 5 of Works (1,590 days after starting date)	1590 days	Tue 17/9/19	Tue 23/1/24	Tue 17/9/19	NA	-123.5 days	2FS+1 day	32,33,117	20%	
32		Defect Liability Period	365 days	Wed 24/1/24	Wed 22/1/25	NA	NA	0 days	31		0%	
33		Soft Landscape Establishment Works	365 days	Wed 24/1/24	Wed 22/1/25	NA	NA	0 days	31		0%	
34	*	**Planned Completion - Key Date (cal. day)**	**264.5 days**	**Wed 8/9/21**	**Tue 31/5/22**	**NA**	**NA**	**-198 days**			**0%**	
35	KD1A	KD1A (525 days after starting date)	0 days	Wed 8/9/21	Wed 8/9/21	NA	NA	-198 days	53FF,246FF,460FF		0%	
36	KD2A	KD2A (660 days after starting date)	0 days	Thu 18/11/21	Thu 18/11/21	NA	NA	-134 days	59FF,514FF,515FF		0%	
37	KD3A	KD3A (740 days after starting date)	0 days	Mon 4/4/22	Mon 4/4/22	NA	NA	-191 days	65FF,267FF		0%	
38	KD3B	KD3B (725 days after starting date)	0 days	Tue 1/3/22	Tue 1/3/22	NA	NA	-171.5 days	71FF,288FF		0%	
39	KD3C	KD3C (750 days after starting date)	0 days	Thu 27/1/22	Thu 27/1/22	NA	NA	-113.5 days	76FF,301FF		0%	
40	KD3D	KD3D (660 days after starting date)	0 days	Sat 30/10/21	Sat 30/10/21	NA	NA	-115 days	81FF,329FF		0%	
41	KD3E	KD3E (840 days after starting date)	0 days	Tue 31/5/22	Tue 31/5/22	NA	NA	-147.5 days	86FF,314FF,342FF,348FF,354F		0%	
42	*	**Planned Completion - Section of the Works (cal. day)**	**1298 days**	**Tue 16/11/21**	**Fri 6/6/25**	**NA**	**NA**	**-116.5 days**			**0%**	
43	SW1	Section 1 of Works (675 days after starting date)	0 days	Tue 16/11/21	Tue 16/11/21	NA	NA	-116.5 days	91FF,433FF		0%	
44	SW2	Section 2 of Works (1,295 days after starting date)	0 days	Mon 7/8/23	Mon 7/8/23	NA	NA	-125.5 days	97FF,520FF,532FF		0%	
45	SW3	Section 3 of Works (1,120 days after starting date)	0 days	Fri 10/2/23	Fri 10/2/23	NA	NA	-122.5 days	103FF,170FF,303FF,315FF,331		0%	
46	SW4	Section 4 of Works (900 days after starting date)	0 days	Fri 8/7/22	Fri 8/7/22	NA	NA	-125.5 days	109FF,367FF,372FF,376FF,413	482	0%	
47	SW5	Section 5 of Works (1,590 days after starting date)	0 days	Thu 6/6/24	Thu 6/6/24	NA	NA	-134.5 days	115FF,248FF,271FF,291FF,304	8,49	0%	
48		Defect Liability Period	365 days	Thu 6/6/24	Fri 6/6/25	NA	NA	0 days	47		0%	
49		Soft Landscape Establishment Works	365 days	Thu 6/6/24	Fri 6/6/25	NA	NA	0 days	47		0%	
50		**Delaying Events Other than Change of Works Information**	**964.5 days**	**Tue 23/2/21**	**Thu 6/6/24**	**NA**	**NA**	**-99.5 days**			**0%**	
51		**Inclement Weather to KD1A**	**87.5 days**	**Sat 6/3/21**	**Thu 24/6/21**	**NA**	**NA**	**-97.5 days**			**0%**	
52		Delay and Disruption of Works before Feb 2021	84.5 days	Sat 6/3/21	Mon 21/6/21	NA	NA	-97.5 days	56	53	0%	
53	KD1A	Delay and Disruption of Works for the month of Feb 2021 (NCE no.165)	3 days	Mon 21/6/21	Thu 24/6/21	NA	NA	-97.5 days	52	35FF	0%	
54		**Other Events affected to KD1A**	**10 days**	**Tue 23/2/21**	**Fri 5/3/21**	**NA**	**NA**	**-97.5 days**			**0%**	
55		Unforeseen Social Activities in Hong Kong in November 2019 (NCE no. 0003)	6 days	Tue 23/2/21	Mon 1/3/21	NA	NA	-97.5 days	19	56	0%	
56		Special Arrangement for Work After CNY due to Spread of Novel Coronavirus (PMI no.005)	4 days	Tue 2/3/21	Fri 5/3/21	NA	NA	-97.5 days	55	52	0%	
57		**Inclement Weather to KD2A**	**89.5 days**	**Tue 20/7/21**	**Thu 4/11/21**	**NA**	**NA**	**-99.5 days**			**0%**	
58		Delay and Disruption of Works before Feb 2021	86.5 days	Tue 20/7/21	Mon 1/11/21	NA	NA	-99.5 days	62	59	0%	
59	KD2A	Delay and Disruption of Works for the month of Feb 2021 (NCE no.165)	3 days	Mon 1/11/21	Thu 4/11/21	NA	NA	-99.5 days	58	36FF	0%	
60		**Other Events affected to KD2A**	**10 days**	**Thu 8/7/21**	**Mon 19/7/21**	**NA**	**NA**	**-99.5 days**			**0%**	
61		Unforeseen Social Activities in Hong Kong in November 2019 (NCE no. 0003)	6 days	Thu 8/7/21	Wed 14/7/21	NA	NA	-99.5 days	20	62	0%	
62		Special Arrangement for Work After CNY due to Spread of Novel Coronavirus (PMI no.005)	4 days	Thu 15/7/21	Mon 19/7/21	NA	NA	-99.5 days	61	58	0%	
63		**Inclement Weather to KD3A**	**89.5 days**	**Sat 9/10/21**	**Wed 26/1/22**	**NA**	**NA**	**-99.5 days**			**0%**	
64		Delay and Disruption of Works before Feb 2021	86.5 days	Sat 9/10/21	Sat 22/1/22	NA	NA	-99.5 days	68	65	0%	
65	KD3A	Delay and Disruption of Works for the month of Feb 2021 (NCE no.165)	3 days	Sat 22/1/22	Wed 26/1/22	NA	NA	-99.5 days	64	37FF	0%	
66		**Other Events affected to KD3A**	**10 days**	**Mon 27/9/21**	**Fri 8/10/21**	**NA**	**NA**	**-99.5 days**			**0%**	
67		Unforeseen Social Activities in Hong Kong in November 2019 (NCE no. 0003)	6 days	Mon 27/9/21	Mon 4/10/21	NA	NA	-99.5 days	21	68	0%	



Critical Split | Task | Milestone | Summary | Critical

Executive Summary (Status Date: 20/03/2021)

ID	KD	Task Name	Duration	Start	Finish	Actual Start	Actual Finish	Total Slack	Predecessors	Successors	% Comple	Time Risk Allowan
68		Special Arrangement for Work After CNY due to Spread of Novel Coronavirus (PMI no.005)	4 days	Tue 5/10/21	Fri 8/10/21	NA	NA	-99.5 days	67	64	0%	
69		**Inclement Weather to KD3B**	**89.5 days**	**Thu 16/9/21**	**Wed 5/1/22**	**NA**	**NA**	**-93.5 days**			**0%**	
70		Delay and Disruption of Works before Feb 2021	86.5 days	Thu 16/9/21	Fri 31/12/21	NA	NA	-93.5 days	73	71	0%	
71	KD3B	Delay and Disruption of Works for the month of Feb 2021 (NCE no.165)	3 days	Fri 31/12/21	Wed 5/1/22	NA	NA	-93.5 days	70	38FF	0%	
72		**Other Events affected to KD3B**	**4 days**	**Sat 11/9/21**	**Wed 15/9/21**	**NA**	**NA**	**-93.5 days**			**0%**	
73		Special Arrangement for Work After CNY due to Spread of Novel Coronavirus (PMI no.005)	4 days	Sat 11/9/21	Wed 15/9/21	NA	NA	-93.5 days	22	70	0%	
74		**Inclement Weather to KD3C**	**89.5 days**	**Mon 11/10/21**	**Thu 27/1/22**	**NA**	**NA**	**-93.5 days**			**0%**	
75		Delay and Disruption of Works before Feb 2021	86.5 days	Mon 11/10/21	Mon 24/1/22	NA	NA	-93.5 days	78	76	0%	
76	KD3C	Delay and Disruption of Works for the month of Feb 2021 (NCE no.165)	3 days	Mon 24/1/22	Thu 27/1/22	NA	NA	-93.5 days	75	39FF	0%	
77		**Other Events affected to KD3C**	**4 days**	**Wed 6/10/21**	**Sat 9/10/21**	**NA**	**NA**	**-93.5 days**			**0%**	
78		Special Arrangement for Work After CNY due to Spread of Novel Coronavirus (PMI no.005)	4 days	Wed 6/10/21	Sat 9/10/21	NA	NA	-93.5 days	23	75	0%	
79		**Inclement Weather to KD3D**	**89.5 days**	**Tue 13/7/21**	**Thu 28/10/21**	**NA**	**NA**	**-93.5 days**			**0%**	
80		Delay and Disruption of Works before Feb 2021	86.5 days	Tue 13/7/21	Mon 25/10/21	NA	NA	-93.5 days	83	81	0%	
81	KD3D	Delay and Disruption of Works for the month of Feb 2021 (NCE no.165)	3 days	Mon 25/10/21	Thu 28/10/21	NA	NA	-93.5 days	80	40FF	0%	
82		**Other Events affected to KD3D**	**4 days**	**Thu 8/7/21**	**Mon 12/7/21**	**NA**	**NA**	**-93.5 days**			**0%**	
83		Special Arrangement for Work After CNY due to Spread of Novel Coronavirus (PMI no.005)	4 days	Thu 8/7/21	Mon 12/7/21	NA	NA	-93.5 days	24	80	0%	
84		**Inclement Weather to KD3E**	**89.5 days**	**Sat 8/1/22**	**Sat 30/4/22**	**NA**	**NA**	**-93.5 days**			**0%**	
85		Delay and Disruption of Works before Feb 2021	86.5 days	Sat 8/1/22	Wed 27/4/22	NA	NA	-93.5 days	88	86	0%	
86	KD3E	Delay and Disruption of Works for the month of Feb 2021 (NCE no.165)	3 days	Wed 27/4/22	Sat 30/4/22	NA	NA	-93.5 days	85	41FF	0%	
87		**Other Events affected to KD3E**	**4 days**	**Tue 4/1/22**	**Fri 7/1/22**	**NA**	**NA**	**-93.5 days**			**0%**	
88		Special Arrangement for Work After CNY due to Spread of Novel Coronavirus (PMI no.005)	4 days	Tue 4/1/22	Fri 7/1/22	NA	NA	-93.5 days	25	85	0%	
89		**Inclement Weather to Section 1 of the Works**	**86.5 days**	**Wed 4/8/21**	**Tue 16/11/21**	**NA**	**NA**	**-96.5 days**			**0%**	
90		Delay and Disruption of Works before Feb 2021	83.5 days	Wed 4/8/21	Fri 12/11/21	NA	NA	-96.5 days	94	91	0%	
91	SW1	Delay and Disruption of Works for the month of Feb 2021 (NCE no.165)	3 days	Fri 12/11/21	Tue 16/11/21	NA	NA	-96.5 days	90	43FF	0%	
92		**Other Events affected to Section 1 of the Works**	**10 days**	**Fri 23/7/21**	**Tue 3/8/21**	**NA**	**NA**	**-96.5 days**			**0%**	
93		Unforeseen Social Activities in Hong Kong in November 2019 (NCE no. 0003)	6 days	Fri 23/7/21	Thu 29/7/21	NA	NA	-96.5 days	27	94	0%	
94		Special Arrangement for Work After CNY due to Spread of Novel Coronavirus (PMI no.005)	4 days	Fri 30/7/21	Tue 3/8/21	NA	NA	-96.5 days	93	90	0%	
95		**Inclement Weather to Section 2 of the Works**	**89.5 days**	**Thu 20/4/23**	**Mon 7/8/23**	**NA**	**NA**	**-99.5 days**			**0%**	
96		Delay and Disruption of Works before Feb 2021	86.5 days	Thu 20/4/23	Thu 3/8/23	NA	NA	-99.5 days	100	97	0%	
97	SW2	Delay and Disruption of Works for the month of Feb 2021 (NCE no.165)	3 days	Thu 3/8/23	Mon 7/8/23	NA	NA	-99.5 days	96	44FF	0%	
98		**Other Events affected to Section 2 of the Works**	**10 days**	**Tue 4/4/23**	**Wed 19/4/23**	**NA**	**NA**	**-99.5 days**			**0%**	
99		Unforeseen Social Activities in Hong Kong in November 2019 (NCE no. 0003)	6 days	Tue 4/4/23	Fri 14/4/23	NA	NA	-99.5 days	28	100	0%	
100		Special Arrangement for Work After CNY due to Spread of Novel Coronavirus (PMI no.005)	4 days	Sat 15/4/23	Wed 19/4/23	NA	NA	-99.5 days	99	96	0%	
101		**Inclement Weather to Section 3 of the Works**	**89.5 days**	**Sat 22/10/22**	**Fri 10/2/23**	**NA**	**NA**	**-99.5 days**			**0%**	
102		Delay and Disruption of Works before Feb 2021	86.5 days	Sat 22/10/22	Tue 7/2/23	NA	NA	-99.5 days	106	103	0%	
103	SW3	Delay and Disruption of Works for the month of Feb 2021 (NCE no.165)	3 days	Tue 7/2/23	Fri 10/2/23	NA	NA	-99.5 days	102	45FF	0%	
104		**Other Events affected to Section 3 of the Works**	**10 days**	**Tue 11/10/22**	**Fri 21/10/22**	**NA**	**NA**	**-99.5 days**			**0%**	
105		Unforeseen Social Activities in Hong Kong in November 2019 (NCE no. 0003)	6 days	Tue 11/10/22	Mon 17/10/22	NA	NA	-99.5 days	29	106	0%	
106		Special Arrangement for Work After CNY due to Spread of Novel Coronavirus (PMI no.005)	4 days	Tue 18/10/22	Fri 21/10/22	NA	NA	-99.5 days	105	102	0%	
107		**Inclement Weather to Section 4 of the Works**	**89.5 days**	**Thu 17/3/22**	**Fri 8/7/22**	**NA**	**NA**	**-99.5 days**			**0%**	
108		Delay and Disruption of Works before Feb 2021	86.5 days	Thu 17/3/22	Tue 5/7/22	NA	NA	-99.5 days	112	109	0%	
109	SW4	Delay and Disruption of Works for the month of Feb 2021 (NCE no.165)	3 days	Tue 5/7/22	Fri 8/7/22	NA	NA	-99.5 days	108	46FF	0%	
110		**Other Events affected to Section 4 of the Works**	**10 days**	**Sat 5/3/22**	**Wed 16/3/22**	**NA**	**NA**	**-99.5 days**			**0%**	
111		Unforeseen Social Activities in Hong Kong in November 2019 (NCE no. 0003)	6 days	Sat 5/3/22	Fri 11/3/22	NA	NA	-99.5 days	30	112	0%	
112		Special Arrangement for Work After CNY due to Spread of Novel Coronavirus (PMI no.005)	4 days	Sat 12/3/22	Wed 16/3/22	NA	NA	-99.5 days	111	108	0%	
113		**Inclement Weather to Section 5 of the Works**	**89.5 days**	**Mon 5/2/24**	**Thu 6/6/24**	**NA**	**NA**	**-99.5 days**			**0%**	
114		Delay and Disruption of Works before Feb 2021	86.5 days	Mon 5/2/24	Mon 3/6/24	NA	NA	-99.5 days	118	115	0%	
115	SW5	Delay and Disruption of Works for the month of Feb 2021 (NCE no.165)	3 days	Mon 3/6/24	Thu 6/6/24	NA	NA	-99.5 days	114	47FF	0%	
116		**Other Events affected to Section 5 of the Works**	**10 days**	**Wed 24/1/24**	**Sat 3/2/24**	**NA**	**NA**	**-99.5 days**			**0%**	
117		Unforeseen Social Activities in Hong Kong in November 2019 (NCE no. 0003)	6 days	Wed 24/1/24	Tue 30/1/24	NA	NA	-99.5 days	31	118	0%	



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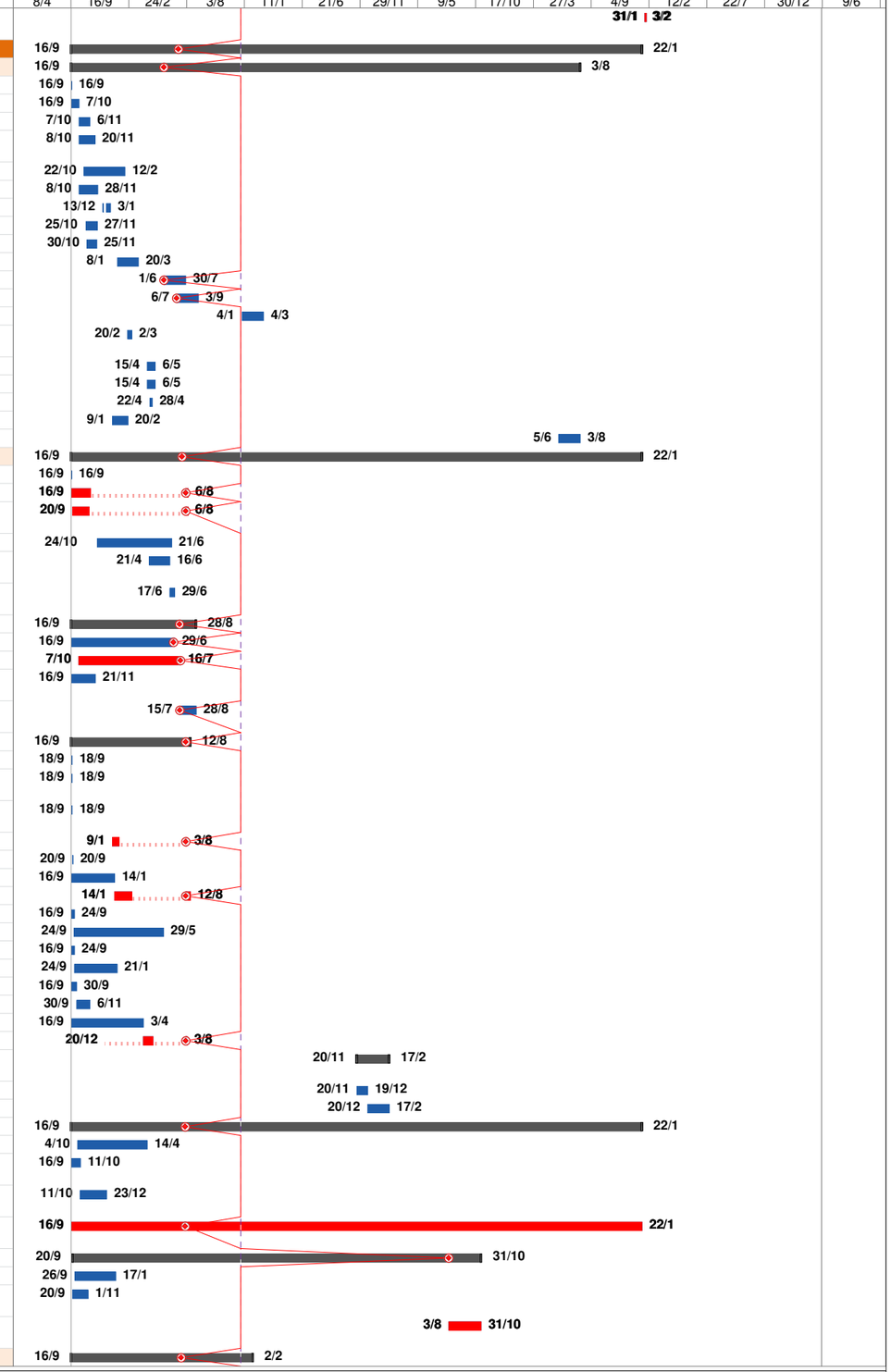
Executive Summary (Status Date: 20/03/2021)

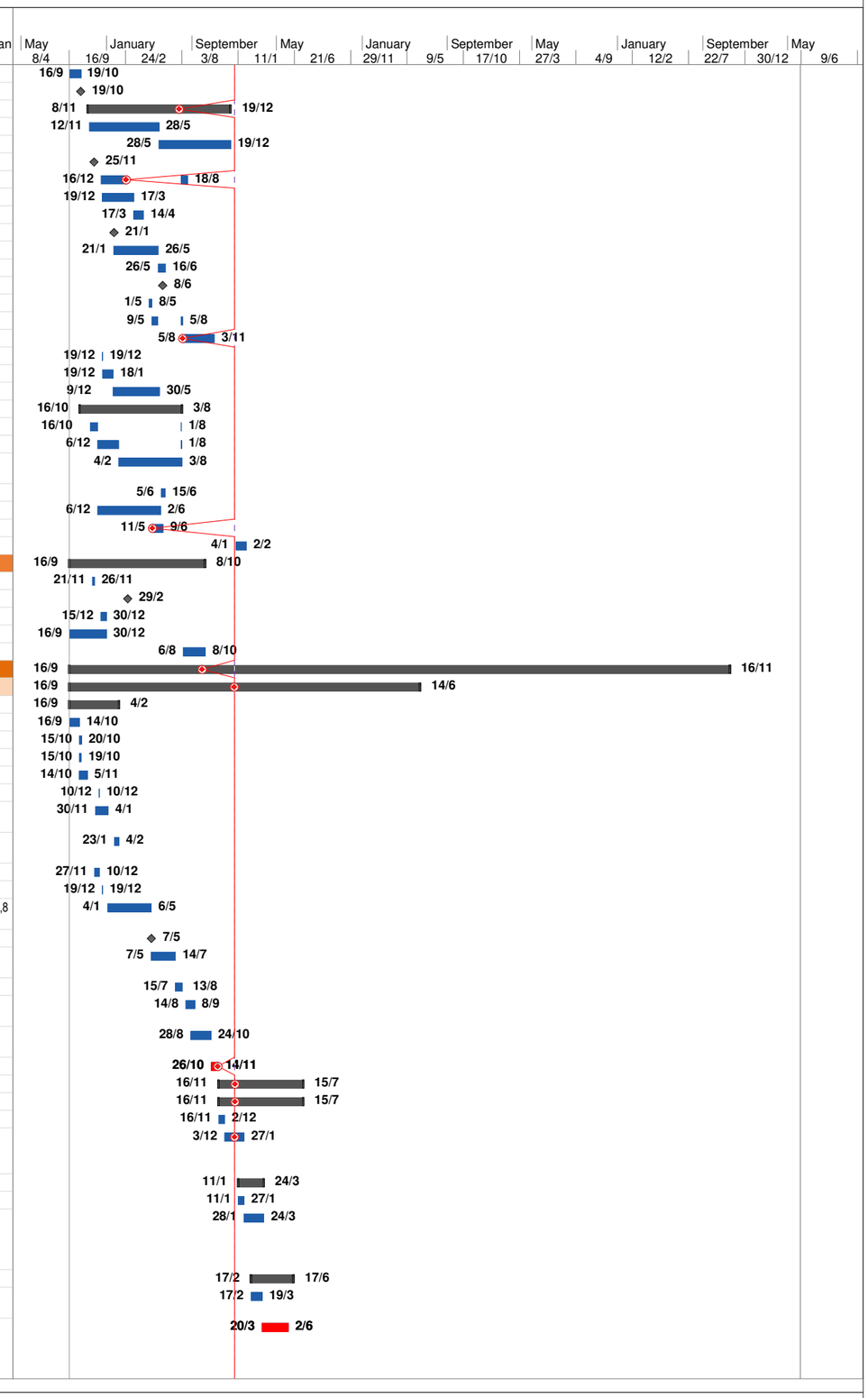
ID	KD	Task Name	Duration	Start	Finish	Actual Start	Actual Finish	Total Slack	Predecessors	Successors	% Comple	Time Risk Allowan
118		Special Arrangement for Work After CNY due to Spread of Novel Coronavirus (PMI no.005)	4 days	Wed 31/1/24	Sat 3/2/24	NA	NA	-99.5 days	117	114	0%	
119		**Submissions (cal. day)**	**1590 days**	**Mon 16/9/19**	**Mon 22/1/24**	**Mon 16/9/19**	**NA**	**0 days**			**68%**	
120		**Subletting Package**	**1418 days**	**Mon 16/9/19**	**Thu 3/8/23**	**Mon 16/9/19**	**NA**	**104 days**			**68%**	
121		Prepare & Submit Subletting Procedures	1 day	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days	2	122	100%	
122		PM Review & Accept Subletting Procedures	21 days	Mon 16/9/19	Mon 7/10/19	Mon 16/9/19	Mon 7/10/19	0 days	121	124,126,123,125,133,139	100%	
123		Subletting for Preliminary Works (Instrumentation Monitoring etc.)	30 days	Mon 7/10/19	Wed 6/11/19	Mon 7/10/19	Wed 6/11/19	0 days	122		100%	
124		Subletting for Drainage Diversion Works for UV System no.1& Effluent Pumping Station No.1 (NCE no. 3)	44 days	Tue 8/10/19	Wed 20/11/19	Tue 8/10/19	Wed 20/11/19	0 days	122	429	100%	
125		Subletting for the Temporary Site accommodation	114 days	Tue 22/10/19	Wed 12/2/20	Tue 22/10/19	Wed 12/2/20	0 days	122	213	100%	
126		Subletting for Pre-drilling Works (NCE no.3)	52 days	Tue 8/10/19	Thu 28/11/19	Tue 8/10/19	Thu 28/11/19	0 days	122	127SS+15 days,128SS+1	100%	
127		Subletting for Pre-bored Socketed Steel H-Pile	13.98 days	Fri 13/12/19	Fri 3/1/20	Fri 13/12/19	Fri 3/1/20	0 days	126SS+15 days	494,257,279,297,310,322	100%	
128		Subletting for Contractor's Designer for Temporary Works (NCE no.3)	32 days	Fri 25/10/19	Wed 27/11/19	Fri 25/10/19	Wed 27/11/19	0 days	126SS+15 days	131,130,144,136	100%	
129		Subletting for Independent Checking Engineer (NCE no.3)	27 days	Wed 30/10/19	Mon 25/11/19	Wed 30/10/19	Mon 25/11/19	0 days	122	231,261,282,299,313,324	100%	
130		Subletting for Sheetpile and ELS Works	58 days	Wed 8/1/20	Fri 20/3/20	Wed 8/1/20	Fri 20/3/20	0 days	128	231,261,282,299,313,324	100%	
131		Subletting for R.C Works	60 days	Mon 1/6/20	Thu 30/7/20	NA	NA	73 days	128	283,300,314,502,371,347	0%	
132		Subletting for External Waterproofing	60 days	Mon 6/7/20	Thu 3/9/20	NA	NA	55 days	2	236,239,242,262,315,354	0%	
133		Subletting for ABWF & BS Works	60 days	Mon 4/1/21	Thu 4/3/21	NA	NA	168 days	122	247,270,290,303,315,331	0%	
134		Subletting for External Works including pipeworks and road works for UV System no.1 (Diversion)	12 days	Thu 20/2/20	Mon 2/3/20	Thu 20/2/20	Mon 2/3/20	0 days	122	429,135	100%	
135		Subletting for Drainage and Pipe works at UV System no.1	22 days	Wed 15/4/20	Wed 6/5/20	Wed 15/4/20	Wed 6/5/20	0 days	134		100%	
136		Subletting for Pipeworks, Utilities, and Roadworks	22 days	Wed 15/4/20	Wed 6/5/20	Wed 15/4/20	Wed 6/5/20	0 days	128	472,469,470,471,468	100%	
137		Subletting for trenchless construction	7 days	Wed 22/4/20	Tue 28/4/20	Wed 22/4/20	Tue 28/4/20	0 days	122	436	100%	
138		Subletting for Traffic Management Consultant	43 days	Thu 9/1/20	Thu 20/2/20	Thu 9/1/20	Thu 20/2/20	0 days	122	151	100%	
139		Subletting for Hard Landscape and Soft Landscape	60 days	Mon 5/6/23	Thu 3/8/23	NA	NA	104 days	122	483	0%	
140		**Statutory Submission, Submission & Approval**	**1590 days**	**Mon 16/9/19**	**Mon 22/1/24**	**Mon 16/9/19**	**NA**	**0 days**			**62%**	
141		Prepare and Submit Subcontractor Management Plan (SMP)	1 day	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days	2	253	100%	
142		Prepare and Submit Interface Management Plan	60 days	Mon 16/9/19	Thu 6/8/20	Mon 16/9/19	NA	0 days	2	253	90%	
143		Prepare, submit & approve the layout plan of the Temporary Site accommodation	51 days	Fri 20/9/19	Thu 6/8/20	Fri 20/9/19	NA	0 days	2	213	90%	
144		Prepare, submit & accept the ELS design for deep excavation	207 days	Thu 24/10/19	Sun 21/6/20	Thu 24/10/19	Sun 21/6/20	0 days	128	231,261,282,299,313,324	100%	
145		Prepare, submit & accept the Method Statement for Drainage Diversion Works	57 days	Tue 21/4/20	Tue 16/6/20	Tue 21/4/20	Tue 16/6/20	0 days	2	146,429	100%	
146		PM approve the Method Statement for Drainage Diversion Works	13 days	Wed 17/6/20	Mon 29/6/20	Wed 17/6/20	Mon 29/6/20	0 days	145	429	100%	
147		TTA Management	348 days	Mon 16/9/19	Fri 28/8/20	Mon 16/9/19	NA	439 days			85%	
148		Excavation Permit Application for San Wan Road (Portion A)	288 days	Mon 16/9/19	Mon 29/6/20	Mon 16/9/19	NA	499 days		521	99%	
149		Excavation Permit Application for Chuk Wan Street (Portion C)	284 days	Mon 7/10/19	Thu 16/7/20	Mon 7/10/19	NA	0 days	2FS+21 days		80%	
150		Prepare TTA Plan, submit & approve for footpath for Stage 1 - Drainage Diversion	67 days	Mon 16/9/19	Thu 21/11/19	Mon 16/9/19	Thu 21/11/19	0 days	2	429	100%	
151		Prepare TTA Plan, submit & approve for carriageway at San Wan Road for CLP 13kV substation	45 days	Wed 15/7/20	Fri 28/8/20	Wed 15/7/20	NA	439 days	138	523	0%	
152		**Environmental Aspect Submissions**	**332 days**	**Mon 16/9/19**	**Wed 12/8/20**	**Mon 16/9/19**	**NA**	**0 days**	**2**		**98%**	
153		Notification to EPD for Works Commencement	1 day	Wed 18/9/19	Wed 18/9/19	Wed 18/9/19	Wed 18/9/19	0 days	2	253	100%	
154		Apply & approve for Registration as a Chemical Waste Producer	1 day	Wed 18/9/19	Wed 18/9/19	Wed 18/9/19	Wed 18/9/19	0 days	2	253	100%	
155		Apply & approve for a Billing Account for Disposal of Construction Waste	1 day	Wed 18/9/19	Wed 18/9/19	Wed 18/9/19	Wed 18/9/19	0 days	2	253	100%	
156		Apply & approve for Effluent Discharge Licence	21 days	Thu 9/1/20	Mon 3/8/20	Thu 9/1/20	NA	0 days	2	253	90%	
157		Prepare & submit of Project Layout Plan & O-Chart for EP	1 day	Fri 20/9/19	Fri 20/9/19	Fri 20/9/19	Fri 20/9/19	0 days	2	253	100%	
158		Prepare & submit Construction Noise Permits	121 days	Mon 16/9/19	Tue 14/1/20	Mon 16/9/19	Tue 14/1/20	0 days	2	159	100%	
159		Approval of Construction Noise Permits	60 days	Tue 14/1/20	Wed 12/8/20	Tue 14/1/20	NA	0 days	158	253	80%	
160		Prepare, submit Site Management Plan for Trip Ticket System	9 days	Mon 16/9/19	Tue 24/9/19	Mon 16/9/19	Tue 24/9/19	0 days	2		100%	
161		Approval of Site Management Plan for Trip Ticket System	249 days	Tue 24/9/19	Fri 29/5/20	Tue 24/9/19	Fri 29/5/20	0 days		253	100%	
162		Prepare & submit approve Waste Management Plan	9 days	Mon 16/9/19	Tue 24/9/19	Mon 16/9/19	Tue 24/9/19	0 days	2	163	100%	
163		Approval of Waste Management Plan	119 days	Tue 24/9/19	Tue 21/1/20	Tue 24/9/19	Tue 21/1/20	0 days	162	253	100%	
164		Prepare & submit Environmental Management Plan	15 days	Mon 16/9/19	Mon 30/9/19	Mon 16/9/19	Mon 30/9/19	0 days	2	165	100%	
165		Approval of Environmental Management Plan	37 days	Mon 30/9/19	Wed 6/11/19	Mon 30/9/19	Wed 6/11/19	0 days	164	253	100%	
166		Prepare& submit for Temporary Drainage and Management Plan	201 days	Mon 16/9/19	Fri 3/4/20	Mon 16/9/19	Fri 3/4/20	0 days	2	167	100%	
167		Approval of Temporary Drainage and Management Plan	30 days	Fri 20/12/19	Mon 3/8/20	Fri 20/12/19	NA	0 days	166	429	90%	
168		**Prepare, submit & approve for the FSD submissions for CLP 132kV Substation**	**90 days**	**Sat 20/11/21**	**Thu 17/2/22**	**NA**	**NA**	**357.5 days**			**0%**	
169		Prepare and submit arrangement and schedule to FSD	30 days	Sat 20/11/21	Sun 19/12/21	NA	NA	357.5 days		170	0%	
170		FSD approve the arrangement and schedule	60 days	Mon 20/12/21	Thu 17/2/22	NA	NA	357.5 days	169	45FF	0%	
171		**Trees Related Submissions**	**1590 days**	**Mon 16/9/19**	**Mon 22/1/24**	**Mon 16/9/19**	**NA**	**0 days**			**36%**	
172		Initial Tree survey and report submission	194 days	Fri 4/10/19	Tue 14/4/20	Fri 4/10/19	Tue 14/4/20	0 days	2	210	100%	
173		Prepare and submit and approve the Method Statement of Erection of the protective fencing	26 days	Mon 16/9/19	Fri 11/10/19	Mon 16/9/19	Fri 11/10/19	0 days	2	210	100%	
174		Prepare and submit and approve the Method Statement of Tree felling, Preservation, Prunning works & Transplanting	74 days	Fri 11/10/19	Mon 23/12/19	Fri 11/10/19	Mon 23/12/19	0 days	2	210,252	100%	
175		Submit Yearly Tree Risk Assessment and Inspection Report	1590 days	Mon 16/9/19	Mon 22/1/24	Mon 16/9/19	NA	0 days	2		20%	
176		**Others**	**1138 days**	**Fri 20/9/19**	**Mon 31/10/22**	**Fri 20/9/19**	**NA**	**0 days**			**64%**	
177		Approval for Lighting Removal at Portion C-1A of the Site from Hyd	114 days	Thu 26/9/19	Fri 17/1/20	Thu 26/9/19	Fri 17/1/20	0 days	2	223	100%	
178		Prepare, submit & approve for commencement of Works near MTRCL protection zone at Sun Wan Road from MTRCL	43 days	Fri 20/9/19	Fri 1/11/19	Fri 20/9/19	Fri 1/11/19	0 days	2	491	100%	
179		Prepare, submit & approve for commencement Works along the riverbank by DSD	90 days	Wed 3/8/22	Mon 31/10/22	NA	NA	0 days		478,479,481,480FS+124 days	0%	
180		**Procurement**	**506 days**	**Mon 16/9/19**	**Tue 2/2/21**	**Mon 16/9/19**	**NA**	**198 days**			**81%**	



Critical Split | Task | Milestone | Summary | Critical

Executive Summary (Status Date: 20/03/2021)

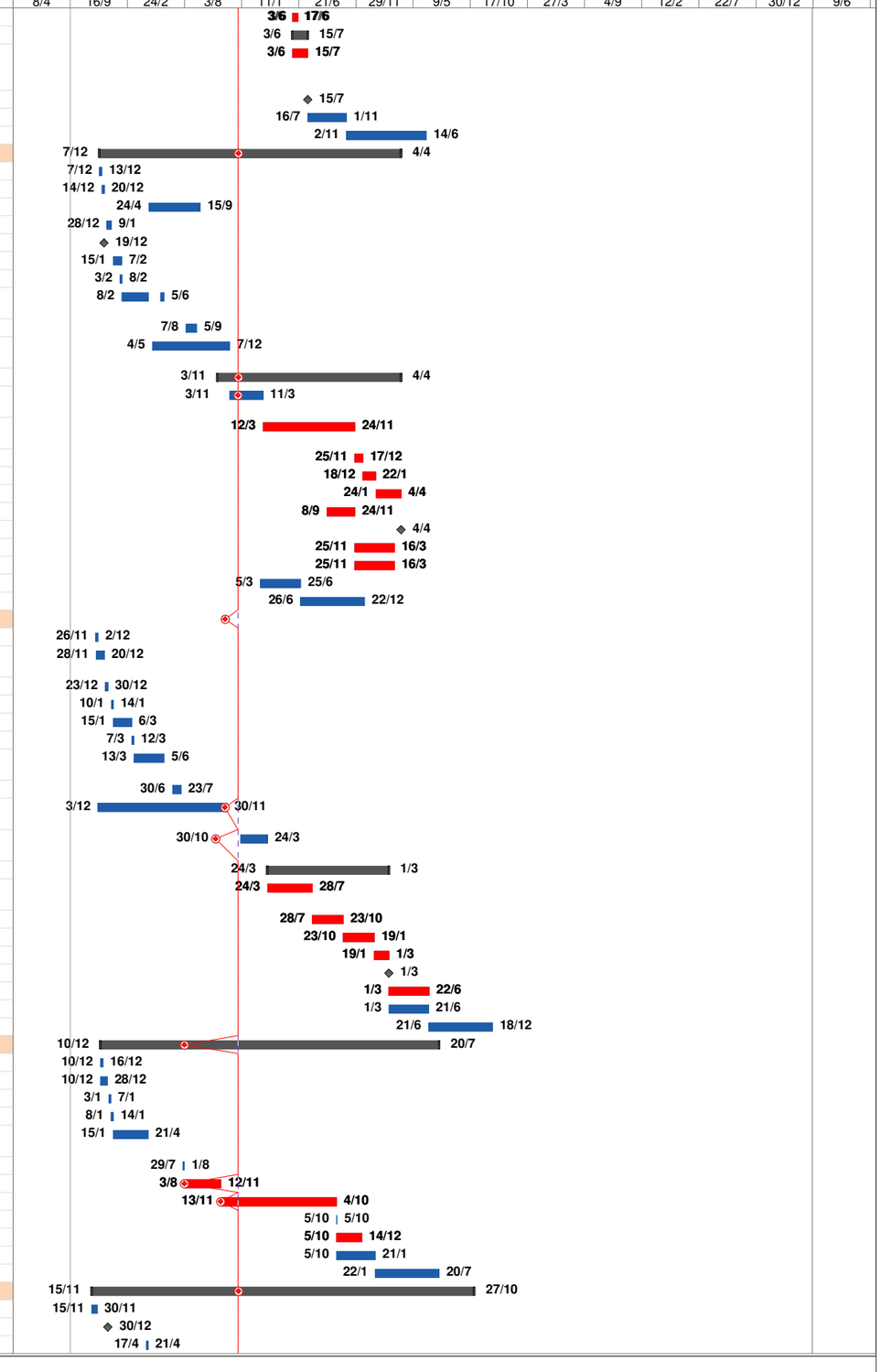
ID	KD	Task Name	Duration	Start	Finish	Actual Start	Actual Finish	Total Slack	Predecessors	Successors	% Comple	Time Risk Allowan
181		Prepare and submit the Procurement Procedure	34 days	Mon 16/9/19	Sat 19/10/19	Mon 16/9/19	Sat 19/10/19	0 days	2	182	100%	
182		PM Review & Accept Procurement Procedure	0 days	Sat 19/10/19	Sat 19/10/19	Sat 19/10/19	Sat 19/10/19	0 days	181	183,200,204,205,206,207	100%	
183		**Pipe works material**	**408 days**	**Fri 8/11/19**	**Sat 19/12/20**	**Fri 8/11/19**	**NA**	**8 days**	**182**		**78%**	
184		Prepare & submit concrete pipe material particular	199 days	Tue 12/11/19	Thu 28/5/20	Tue 12/11/19	Thu 28/5/20	0 days	2	185	100%	
185		Approval of concrete pipe material	205 days	Thu 28/5/20	Sat 19/12/20	Thu 28/5/20	Sat 19/12/20	0 days	184	186	100%	
186		Procurement, deliver & testing of concrete pipe material (1st batch)	0 days	Fri 8/11/19	Mon 25/11/19	Fri 8/11/19	Mon 25/11/19	0 days	185	428,429	100%	
187		Procurement, deliver & testing of concrete pipe material (remaining)	247 days	Mon 16/12/19	Tue 18/8/20	Mon 16/12/19	NA	127 days		469	29%	
188		Prepare & submit ductile iron pipe material particular	90 days	Thu 19/12/19	Tue 17/3/20	Thu 19/12/19	Tue 17/3/20	0 days	2	189	100%	
189		Approval of ductile iron pipe material	28 days	Tue 17/3/20	Tue 14/4/20	Tue 17/3/20	Tue 14/4/20	0 days	188	190	100%	
190		Procurement, deliver & testing of ductile iorn pipe material	0 days	Wed 18/12/19	Tue 21/1/20	Wed 18/12/19	Tue 21/1/20	0 days	189	471	100%	
191		Prepare & submit HDPE pipe material particular	127 days	Tue 21/1/20	Tue 26/5/20	Tue 21/1/20	Tue 26/5/20	0 days	2FS+120 days	192	100%	
192		Approval of HDPE pipe material	21 days	Tue 26/5/20	Tue 16/6/20	Tue 26/5/20	Tue 16/6/20	0 days	191	193	100%	
193		Procurement, deliver & testing of HDPE pipe material	0 days	Fri 8/5/20	Mon 8/6/20	Fri 8/5/20	Mon 8/6/20	0 days	192	470,471	100%	
194		Prepare & submit stainless steel pipe material particular	8 days	Fri 1/5/20	Fri 8/5/20	Fri 1/5/20	Fri 8/5/20	0 days	2	195	100%	
195		Approval of stainless steel pipe material	21 days	Sat 9/5/20	Wed 5/8/20	Sat 9/5/20	Wed 5/8/20	0 days	194	196	100%	
196		Procurement, deliver & testing of stainless steel pipe material	90 days	Wed 5/8/20	Tue 3/11/20	NA	NA	54.8 days	195	468	0%	
197		Prepare & submit mild steel steel pipe material particular	1 day	Thu 19/12/19	Thu 19/12/19	Thu 19/12/19	Thu 19/12/19	0 days	2	198	100%	
198		Approval of mild steel pipe material	30 days	Thu 19/12/19	Sat 18/1/20	Thu 19/12/19	Sat 18/1/20	0 days	197	199	100%	
199		Procurement, deliver & testing of mild steel pipe material	133 days	Mon 9/12/19	Sat 30/5/20	Mon 9/12/19	Sat 30/5/20	0 days	198	468	100%	
200		**Prefabricated steel reinforcement**	**292.61 day**	**Wed 16/10/19**	**Mon 3/8/20**	**Wed 16/10/19**	**Mon 3/8/20**	**0 days**	**182**		**100%**	
201		Prepare & submit steel reinforcement material particular	21 days	Wed 16/10/19	Sat 1/8/20	Wed 16/10/19	Sat 1/8/20	0 days	2FS+60 days	202	100%	
202		Approval of prefabricated steel reinforcement material supplier	60 days	Fri 6/12/19	Sat 1/8/20	Fri 6/12/19	Sat 1/8/20	0 days	201	203	100%	
203		Procurement, deliver & testing of prefabricated steel reinforcement material	180 days	Tue 4/2/20	Mon 3/8/20	Tue 4/2/20	Mon 3/8/20	0 days	202	502,412,376,371,366,360	100%	
204		Prepare, submit and approve the water proofing material	11 days	Fri 5/6/20	Mon 15/6/20	Fri 5/6/20	Mon 15/6/20	0 days	182	283,300,314,502	100%	
205		Prepare, submit and approve the concrete mix	180 days	Fri 6/12/19	Tue 2/6/20	Fri 6/12/19	Tue 2/6/20	0 days	182	283,300,314,502	100%	
206		Prepare, submit and approve the metal works material	30 days	Mon 11/5/20	Tue 9/6/20	NA	NA	124 days	182	207,283,300,314,502	0%	
207		Prepare, submit and approve the ABWF works material	30 days	Mon 4/1/21	Tue 2/2/21	NA	NA	198 days	206,182	247,270,290,303,315,331	0%	
208		**Site Preliminary Works**	**315.1 days**	**Mon 16/9/19**	**Thu 8/10/20**	**Mon 16/9/19**	**Thu 8/10/20**	**0 days**			**100%**	
209		Mobilization for Hoarding	5 days	Thu 21/11/19	Tue 26/11/19	Thu 21/11/19	Tue 26/11/19	0 days	2	210	100%	
210		Hoarding Erection at Portion C	0 days	Wed 27/11/19	Sat 29/2/20	Wed 27/11/19	Sat 29/2/20	0 days	209,172,173,174,211,129		100%	
211		Project Signboard Erection	11 days	Sun 15/12/19	Mon 30/12/19	Sun 15/12/19	Mon 30/12/19	0 days	182	210	100%	
212		Utility applications and Connection	87 days	Mon 16/9/19	Mon 30/12/19	Mon 16/9/19	Mon 30/12/19	0 days	2	213FF	100%	
213		Construction of Site Accommodation in Works Area	52 days	Thu 6/8/20	Thu 8/10/20	Thu 6/8/20	Thu 8/10/20	0 days	143,212FF,125		100%	
214	*	**Construction Works of Portion C of the Site**	**1526 days**	**Mon 16/9/19**	**Sat 16/11/24**	**Mon 16/9/19**	**NA**	**0 days**			**16%**	
215	*	**UV System No. 1 & Effluent Pumping Station No. 1**	**811 days**	**Mon 16/9/19**	**Tue 14/6/22**	**Mon 16/9/19**	**NA**	**480 days**			**58%**	
216		**Preliminary Works**	**114 days**	**Mon 16/9/19**	**Tue 4/2/20**	**Mon 16/9/19**	**Tue 4/2/20**	**0 days**			**100%**	
217		Site Clearance & Site Set Up (NCE no. 0005, 0006)	23 days	Mon 16/9/19	Mon 14/10/19	Mon 16/9/19	Mon 14/10/19	0 days	2	218	100%	
218		Tree Felling Works	6 days	Tue 15/10/19	Sun 20/10/19	Tue 15/10/19	Sun 20/10/19	0 days	217	219	100%	
219		Trial Pit Excavation & UU Detection Works	5 days	Tue 15/10/19	Sat 19/10/19	Tue 15/10/19	Sat 19/10/19	0 days	218	220	100%	
220		Temporary Footpath Diversion	20 days	Mon 14/10/19	Tue 5/11/19	Mon 14/10/19	Tue 5/11/19	0 days	219	221,224	100%	
221		Temporary diverted foorpath open to public	1 day	Tue 10/12/19	Tue 10/12/19	Tue 10/12/19	Tue 10/12/19	0 days	220	223,222	100%	
222		Additional Liaison and diversion of HyD Street Light Cables (NCE no. 0007)	28 days	Sat 30/11/19	Sat 4/1/20	Sat 30/11/19	Sat 4/1/20	0 days	221	223	100%	
223		Removal of Existing Street light and Provision of Temporary Street light (PMI no.005, NCE no. 0022)	8 days	Thu 23/1/20	Tue 4/2/20	Thu 23/1/20	Tue 4/2/20	0 days	177,221,222	428	100%	
224		Predrilling Works (8no, 1rig, 3days/drillhole/rig) (NCE no. 10)	12 days	Wed 27/11/19	Tue 10/12/19	Wed 27/11/19	Tue 10/12/19	0 days	220	225	100%	
225		Installation of Monitoring Points	1 day	Thu 19/12/19	Thu 19/12/19	Thu 19/12/19	Thu 19/12/19	0 days	224	227,226	100%	
226		Sheetpile Installation (FSP IV, 2200sq.m, 1 Rig)- stage 1 (NCE no. 18A, 22 & 25, 27)	97 days	Sat 4/1/20	Wed 6/5/20	Sat 4/1/20	Wed 6/5/20	0 days	225	228,230	100%	6.5,2.5,8
227		Setting up plant for pre-bored socked H-pile Installation	0 days	Mon 4/5/20	Thu 7/5/20	Mon 4/5/20	Thu 7/5/20	0 days	225,228SS-5 days		100%	
228		Pre-bored Socketed H-Pile Installation (34 Nos, 1 Rig, 3days/rig/pile) (NCE no. 32, 41, 49)	57 days	Thu 7/5/20	Tue 14/7/20	Thu 7/5/20	Tue 14/7/20	0 days	127,431,226	229,321,227SS-5 days,462	100%	40
229		Pile Loading Test	26 days	Wed 15/7/20	Thu 13/8/20	Wed 15/7/20	Thu 13/8/20	0 days	228,311FS+5 days	340FS+5 days,230	100%	
230		Sheetpile Installation (FSP IV, 2200sq.m, 1 Rig)- stage 2 (NCE no. 10,55)	22 days	Fri 14/8/20	Tue 8/9/20	Fri 14/8/20	Tue 8/9/20	0 days	229,226	231FS-10 days	100%	17
231		ELS Works (incl. Strut (4-layers) Installation & Excavation (3,700 cu.m) (NCE no.69)	48 days	Fri 28/8/20	Sat 24/10/20	Fri 28/8/20	Sat 24/10/20	0 days	144,130,129,230FS-10 days	232	100%	8
232		Additional Sump Pit (NCE no.77, 92)	17 days	Mon 26/10/20	Sat 14/11/20	Mon 26/10/20	NA	0 days	231	235	94%	15,2
233		**R.C. Structure (370sq.m) (CE no. 26)**	**194 days**	**Mon 16/11/20**	**Thu 15/7/21**	**Mon 16/11/20**	**NA**	**-23 days**			**58%**	
234		**Below Ground Level Stage no.1 @ -1.10mPD**	**194 days**	**Mon 16/11/20**	**Thu 15/7/21**	**Mon 16/11/20**	**NA**	**-23 days**			**58%**	**5**
235		Base slab Construction (162 sq.m) (PMI 0224)	15 days	Mon 16/11/20	Wed 2/12/20	Mon 16/11/20	Wed 2/12/20	0 days	232	236	100%	
236		Walls and Slabs Construction @-1.10mPD to +2.50mPD [CHAX puddle (DN 1200 -> DN1600) (NCE no.0038)] (NCE no. 46, 100)	45 days	Thu 3/12/20	Wed 27/1/21	Thu 3/12/20	Wed 27/1/21	0 days	235,132	238SS+30 days	100%	
237		**Below Ground Level Stage no.2 @ +1.50mPD**	**60 days**	**Mon 11/1/21**	**Wed 24/3/21**	**Mon 11/1/21**	**Wed 24/3/21**	**0 days**			**100%**	**5**
238		Base slab Construction (170sq.m)	15 days	Mon 11/1/21	Wed 27/1/21	Mon 11/1/21	Wed 27/1/21	0 days	236SS+30 days	239	100%	
239		Walls and Slabs Construction @+1.5mPD to +4.9mPD [Additional CHA & CHL puddle (DN350), Additional CHLA puddle (DN150) NCE no.0038], (NCE no. 46, 100, 108, 115,120,165)	45 days	Thu 28/1/21	Wed 24/3/21	Thu 28/1/21	Wed 24/3/21	0 days	238,132	241SS+14 days,432,466	100%	33
240		**Below Ground Level Stage no.3 @ +3.80mPD**	**97 days**	**Wed 17/2/21**	**Thu 17/6/21**	**Wed 17/2/21**	**NA**	**0 days**			**28%**	**5**
241		Base slab Construction (15 sq.m + 40 sq.m) (NCE no. 0083,114)	27 days	Wed 17/2/21	Fri 19/3/21	Wed 17/2/21	Fri 19/3/21	0 days	239SS+14 days	242	100%	14
242		Walls and Slabs Construction @+3.80mPD to +7.4mPD [CHAW puddle (DN1200-> DN1400), CHBA puddle (DN300), CHAY puddle (DN700 -> DN800) (NCE no.0038)], (NCE no. 46, 100, 120, 130)	58 days	Sat 20/3/21	Wed 2/6/21	NA	NA	-116 days	132,241	243,245	0%	21



Critical Split | Task | Milestone | Summary | Critical

Executive Summary (Status Date: 20/03/2021)

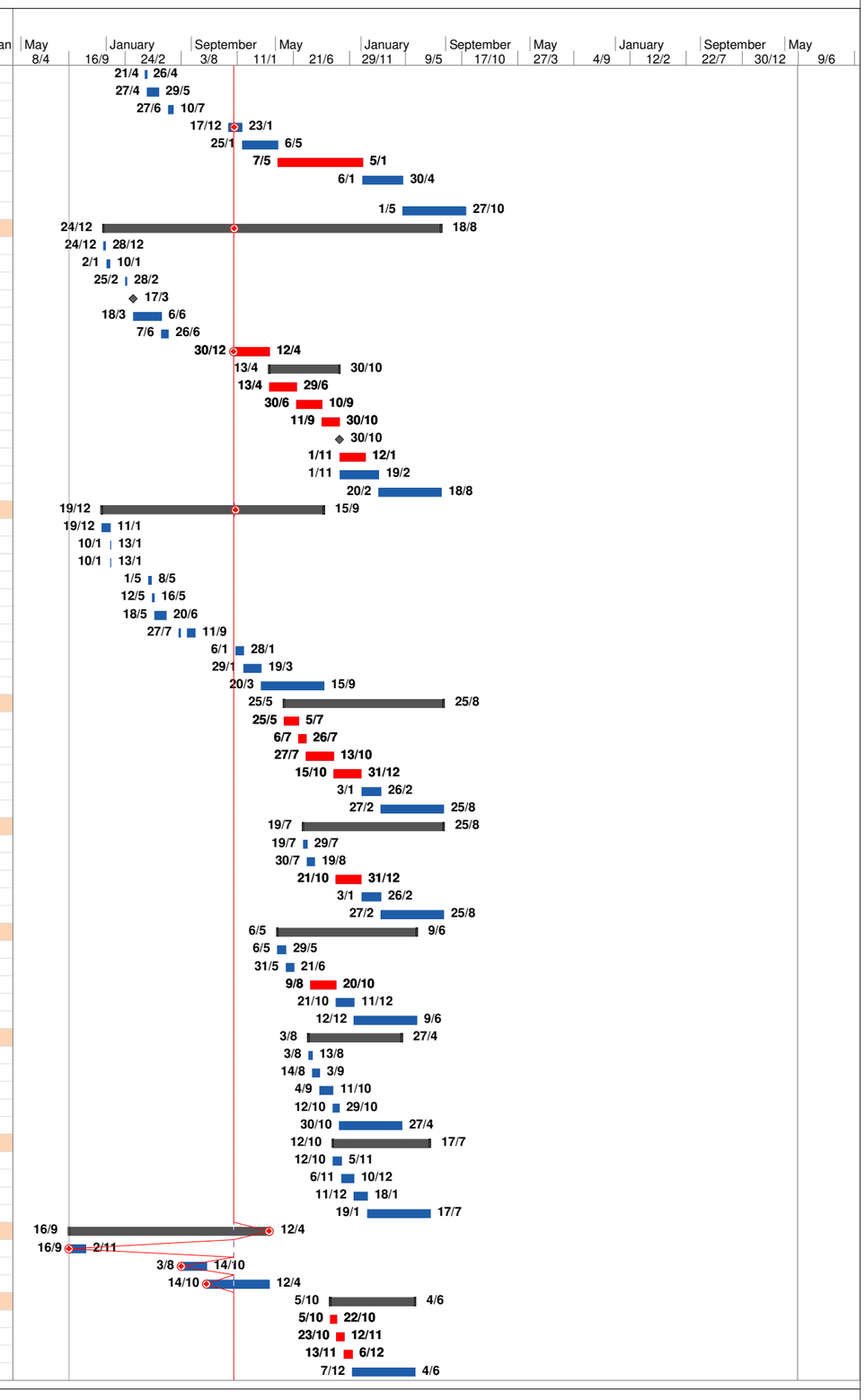
ID	KD	Task Name	Duration	Start	Finish	Actual Start	Actual Finish	Total Slack	Predecessors	Successors	% Comple	Time Risk Allowan
243		Extraction of Sheetpiles	12 days	Thu 3/6/21	Thu 17/6/21	NA	NA	0 days	242		0%	
244		**Above Ground Level @ +7.4mPD**	**35 days**	**Thu 3/6/21**	**Thu 15/7/21**	**NA**	**NA**	**-116 days**			**0%**	**4**
245	KD1A	Walls, Slabs and staircase Construction @+7.4mPD to 16.4mPD [Additional SP1-3 puddle (DN100 x 2 & DN80) (NCE.0038)], [NCE no. 46], [NCE no.100]	35 days	Thu 3/6/21	Thu 15/7/21	NA	NA	-116 days	242	246,247	0%	
246	KD1A	**Allow access to Contarctor DE/2018/03 for E&M Installation**	**0 days**	**Thu 15/7/21**	**Thu 15/7/21**	**NA**	**NA**	**47 days**	**245**	**35FF**	**0%**	
247	SW1	ABWF Works & BS Works & Apply Internal Anti-corrosion Protective Lining	90 days	Fri 16/7/21	Mon 1/11/21	NA	NA	480 days	207,133,245	248	0%	
248	SW5	Surrounding Site formation works and road works	180 days	Tue 2/11/21	Tue 14/6/22	NA	NA	480 days	247	47FF	0%	
249	*	**Sludge Digesters and Distribution Chamber**	**688 days**	**Sat 7/12/19**	**Mon 4/4/22**	**Sat 7/12/19**	**NA**	**534 days**			**38%**	
250		Site Clearance & Site Set Up	6 days	Sat 7/12/19	Fri 13/12/19	Sat 7/12/19	Fri 13/12/19	0 days	251SF		100%	
251		Trial Pit Excavation & UU Detection Works	6 days	Sat 14/12/19	Fri 20/12/19	Sat 14/12/19	Fri 20/12/19	0 days	253SF	250SF	100%	
252		Tree Transplanting Works (TC080)(NCE no.50 & 51)	120 days	Fri 24/4/20	Tue 15/9/20	Fri 24/4/20	Tue 15/9/20	0 days	174	261FS-8 days	100%	
253		Predrilling Works (50no., 4rig, 3 days/drillhole/rig)(NCE no. 10)	10 days	Sat 28/12/19	Thu 9/1/20	Sat 28/12/19	Thu 9/1/20	0 days	126,141,142,153,154,155,157,1	254,251SF,259	100%	
254		Installation of Monitoring Points	0 days	Thu 19/12/19	Thu 19/12/19	Thu 19/12/19	Thu 19/12/19	0 days	253	257	100%	
255		Sheetpile Installation- stage 1	24 days	Wed 15/1/20	Fri 7/2/20	Wed 15/1/20	Fri 7/2/20	0 days			100%	
256		Setting up plant for pre-bored socked H-pile Installation	6 days	Mon 3/2/20	Sat 8/2/20	Mon 3/2/20	Sat 8/2/20	0 days		257	100%	
257		Pre-bored Sockedted H-Pile Installation (127nos, 3rig, 3days/rig/pile) (NCE no. 18A,25)	69 days	Sat 8/2/20	Fri 5/6/20	Sat 8/2/20	Fri 5/6/20	0 days	127,254,259SS+20 days,256	258,411	100%	6
258		Pile Loading Test	26 days	Fri 7/8/20	Sat 5/9/20	Fri 7/8/20	Sat 5/9/20	0 days	257,340SS+10 days	261	100%	
259		Sheetpile Installation- stage 2 (NCE no. 10, 24, 27,32,33, 40, 41, 49, 55, 69)	182 days	Mon 4/5/20	Mon 7/12/20	Mon 4/5/20	Mon 7/12/20	0 days	253	257SS+20 days,312FS+8 days,261	100%	
260		Construction of Digestors	421 days	Tue 3/11/20	Mon 4/4/22	Tue 3/11/20	NA	0 days			16%	
261		ELS Works (incl. Strut (4-layers) Installation & Excavation (17,600 cu.m)) (NCE no.92,131,165)	75 days	Tue 3/11/20	Thu 11/3/21	Tue 3/11/20	Thu 11/3/21	0 days	144,130,258,129,252FS-8 days,259	262	100%	2,3
262		Construction of Digesters Tank no.1,2,3,4 & external waterproofing works (NCE no. 110)	210 days	Fri 12/3/21	Wed 24/11/21	NA	NA	0 days	261,203,132	263,266SS+180 days	0%	30
263		Water Test	20 days	Thu 25/11/21	Fri 17/12/21	NA	NA	0 days	262	264	0%	
264		Apply Internal Anti-corrosion Protective Lining	28 days	Sat 18/12/21	Sat 22/1/22	NA	NA	0 days	263	265	0%	
265	KD3A	Construction of Roof Slab	58 days	Mon 24/1/22	Mon 4/4/22	NA	NA	0 days	264	267	0%	
266		Construction of Digestors & Distribution Chamber	78 days	Wed 8/9/21	Wed 24/11/21	NA	NA	0 days	262SS+180 days	268,269	0%	
267	KD3A	**Allow access to Contarctor DE/2018/03 for E&M Installation**	**0 days**	**Mon 4/4/22**	**Mon 4/4/22**	**NA**	**NA**	**0 days**	**265**	**37FF**	**0%**	
268		Drainage System (within Bldg/ Structure) Installation	90 days	Thu 25/11/21	Wed 16/3/22	NA	NA	0 days	266		0%	
269		FRP Walkway & Miscellanous Installation	90 days	Thu 25/11/21	Wed 16/3/22	NA	NA	0 days	266		0%	
270	SW3	ABWF Works & BS Works, incl. External Linning	90 days	Fri 5/3/21	Fri 25/6/21	NA	NA	382 days	207,133	271	0%	
271	SW5	Surrounding Site formation works and road works	180 days	Sat 26/6/21	Wed 22/12/21	NA	NA	762 days	270	47FF	0%	
272	*	**Sludge Dewatering Building**	**875 days**	**Tue 26/11/19**	**Wed 9/11/22**	**Tue 26/11/19**	**NA**	**357 days**			**47%**	
273		Site Clearance & Site Set Up	6 days	Tue 26/11/19	Mon 2/12/19	Tue 26/11/19	Mon 2/12/19	0 days	2	274	100%	
274		Predrilling Works (39no.4rig, 3days/drillhole/rig)(additional length NCE no.10)	20 days	Thu 28/11/19	Fri 20/12/19	Thu 28/11/19	Fri 20/12/19	0 days	126,273	276,275	100%	
275		Additional Predrilling Works (11no.)	8 days	Mon 23/12/19	Mon 30/12/19	Mon 23/12/19	Mon 30/12/19	0 days	274	276	100%	
276		Installation of Monitoring Points	4 days	Fri 10/1/20	Tue 14/1/20	Fri 10/1/20	Tue 14/1/20	0 days	274,275	281FS-3 days,277	100%	
277		Sheet Pile Installation- stage1 (NCE NO. 18A, 22 & 25, PMI no.005)	52 days	Wed 15/1/20	Fri 6/3/20	Wed 15/1/20	Fri 6/3/20	0 days	276	279,278	100%	
278		Setting up plant for pre-bored socked H-pile Installation	5 days	Sat 7/3/20	Thu 12/3/20	Sat 7/3/20	Thu 12/3/20	0 days	277	279,409SS-14 days	100%	
279		Pre-bored Socketed H-Pile Installation (202 Nos, 4 Rig, 3days/rig/pile) (NCE no. 18A, 25, 27 & 32)	67 days	Fri 13/3/20	Fri 5/6/20	Fri 13/3/20	Fri 5/6/20	0 days	127,278,277	309,280	100%	24
280		Pile Loading Test	20 days	Tue 30/6/20	Thu 23/7/20	Tue 30/6/20	Thu 23/7/20	0 days	279	282	100%	
281		Sheet Pile Installation- stage2 (NCE no. 10, 14, 32, 41, 49, 55, 69)	295 days	Tue 3/12/19	Mon 30/11/20	Tue 3/12/19	Mon 30/11/20	0 days	276FS-3 days	411,282	100%	56
282		ELS Works (incl. Strut (3-layers) Installation & Excavation (25,000 cu.m)) (NCE no.165)	62 days	Fri 30/10/20	Wed 24/3/21	Fri 30/10/20	Wed 24/3/21	0 days	144,130,280,129,281	283,284,468,469,470,472	100%	10,2
283		R.C. Structure	276 days	Wed 24/3/21	Tue 1/3/22	Wed 24/3/21	NA	-118.5 days	204,205,206,131,282,203	290,289	4%	10
284		Basement Consturction & external waterproofing works (NCE no. 110)	100 days	Wed 24/3/21	Wed 28/7/21	Wed 24/3/21	NA	-118.5 days	282	285	10%	30
285		Ground Floor Construction @ +7.55mpD	72 days	Wed 28/7/21	Sat 23/10/21	NA	NA	-118.5 days	284	286	0%	
286		1/F Construction @ +15.3m mPD	72 days	Sat 23/10/21	Wed 19/1/22	NA	NA	-118.5 days	285	287	0%	
287	KD3B	Roof Construction @ +25.65mPD	32 days	Wed 19/1/22	Tue 1/3/22	NA	NA	-118.5 days	286	389,288	0%	
288	KD3B	**Allow access to Contarctor DE/2018/03 for E&M Installation**	**0 days**	**Tue 1/3/22**	**Tue 1/3/22**	**NA**	**NA**	**0 days**	**287**	**38FF**	**0%**	
289		Allow access to Contarctor DE/2018/03 for E&M Installation	90 days	Tue 1/3/22	Wed 22/6/22	NA	NA	0 days	283		0%	
290	SW3	ABWF Works & BS Works	89 days	Tue 1/3/22	Tue 21/6/22	NA	NA	90.5 days	283,207,133	291	0%	
291	SW5	Surrounding Site formation works and road works	180 days	Tue 21/6/22	Sun 18/12/22	NA	NA	401.5 days	290	47FF	0%	
292	*	**Combined Heat Power Building**	**770 days**	**Tue 10/12/19**	**Wed 20/7/22**	**Tue 10/12/19**	**NA**	**450 days**			**14%**	
293		Site Clearance & Site Set Up	6 days	Tue 10/12/19	Mon 16/12/19	Tue 10/12/19	Mon 16/12/19	0 days	2,294SF		100%	
294		Predrilling Works (15no. 2rig, 3days/drillhole/rig) (NCE no. 10)	15 days	Tue 10/12/19	Sat 28/12/19	Tue 10/12/19	Sat 28/12/19	0 days	126FS+28 days	295,293SF	100%	
295		Installation of Monitoring Points	4 days	Fri 3/1/20	Tue 7/1/20	Fri 3/1/20	Tue 7/1/20	0 days	294	297	100%	
296		Setting up plant for pre-bored socked H-pile Installation (NCE no. 10)	6 days	Wed 8/1/20	Tue 14/1/20	Wed 8/1/20	Tue 14/1/20	0 days		297	100%	
297		Pre-bored Socketed H-Pile Installation (50 Nos, 2 Rig 3days/rig/pile) (NCE no. 18A, 22, 25, PMI no.005)	77 days	Wed 15/1/20	Tue 21/4/20	Wed 15/1/20	Tue 21/4/20	0 days	127,295,296,494	298	100%	6
298		Pile Loading Test	4 days	Wed 29/7/20	Sat 1/8/20	Wed 29/7/20	Sat 1/8/20	0 days	297	299	100%	
299		Excavation for Pile Cap (2,060 cu.m)	85 days	Mon 3/8/20	Thu 12/11/20	NA	NA	0 days	144,130,298,129	300	0%	10
300	KD3C	R.C. Structure	263 days	Fri 13/11/20	Mon 4/10/21	NA	NA	0 days	204,205,206,131,299,203	302,303,301,379	0%	10
301	KD3C	**Allow access to Contarctor DE/2018/03 for E&M Installation**	**1 day**	**Tue 5/10/21**	**Tue 5/10/21**	**NA**	**NA**	**93.5 days**	**300**	**39FF**	**0%**	
302		Drainage System (within Bldg/ Structure) Installation	60 days	Tue 5/10/21	Tue 14/12/21	NA	NA	0 days	300		0%	
303	SW3	ABWF Works & BS Works & Apply Internal Anti-corrosion Protective Lining	90 days	Tue 5/10/21	Fri 21/1/22	NA	NA	209 days	300,207,133	304,45FF	0%	
304	SW5	Surrounding Site formation works and road works	180 days	Sat 22/1/22	Wed 20/7/22	NA	NA	552 days	303	47FF	0%	
305	*	**Sewage Pumping Station**	**873 days**	**Fri 15/11/19**	**Thu 27/10/22**	**Fri 15/11/19**	**NA**	**368 days**			**27%**	
306		Site Clearance & Site Set Up	14 days	Fri 15/11/19	Sat 30/11/19	Fri 15/11/19	Sat 30/11/19	0 days	2	307	100%	
307		Predrilling Works (4no.1rig, 3days/drillhole/rig)	0 days	Mon 2/12/19	Mon 30/12/19	Mon 2/12/19	Mon 30/12/19	0 days	126FS+14 days,306	308	100%	
308		Installation of Monitoring Points	4 days	Fri 17/4/20	Tue 21/4/20	Fri 17/4/20	Tue 21/4/20	0 days	307		100%	



Critical Split | Task | Milestone | Summary | Critical

Executive Summary (Status Date: 20/03/2021)

ID	KD	Task Name	Duration	Start	Finish	Actual Start	Actual Finish	Total Slack	Predecessors	Successors	% Comple	Time Risk Allowan
309		Setting up plant for pre-bored socked H-pile Installation	5 days	Tue 21/4/20	Sun 26/4/20	Tue 21/4/20	Sun 26/4/20	0 days	279	310	100%	
310		Pre-bored Socketed H-Pile Installation (22 Nos, 1 Rig, 3days/rig/pile)	27 days	Mon 27/4/20	Fri 29/5/20	Mon 27/4/20	Fri 29/5/20	0 days	127,309	311	100%	6
311		Pile Loading Test	11 days	Sat 27/6/20	Fri 10/7/20	Sat 27/6/20	Fri 10/7/20	0 days	310,323FS+5 days	313,229FS+5 days,312	100%	
312		Sheet Pile Installation	30 days	Thu 17/12/20	Sat 23/1/21	Thu 17/12/20	Sat 23/1/21	0 days	311,259FS+8 days	313	100%	
313		ELS Works (incl. Strut (3-layers) Installation & Excavation (1,440 cu.m))	80 days	Mon 25/1/21	Thu 6/5/21	Mon 25/1/21	Thu 6/5/21	0 days	144,130,311,129,312	314	100%	10
314	KD3E	R.C. Structure & waterproofing works	200 days	Fri 7/5/21	Wed 5/1/22	NA	NA	-3 days	204,205,206,131,342,313,203	315,41FF	0%	10
315	SW3	ABWF Works & BS Works & Apply Internal Anti-corrosion Protective Lining (NCE no. 165)	92 days	Thu 6/1/22	Sat 30/4/22	NA	NA	131 days	207,133,314,132	316,45FF	0%	3
316	SW5	Surrounding Site formation works and road works	180 days	Sun 1/5/22	Thu 27/10/22	NA	NA	453 days	315	47FF	0%	
317	*	**Workshop No. 2**	**783 days**	**Tue 24/12/19**	**Thu 18/8/22**	**Tue 24/12/19**	**NA**	**425 days**			**20%**	
318		Site Clearance & Site Set Up	3 days	Tue 24/12/19	Sat 28/12/19	Tue 24/12/19	Sat 28/12/19	0 days	2	319	100%	
319		Predrilling Works (10no.1rig, 3days/drillhole/rig) (NCE no. 10)	8 days	Thu 2/1/20	Fri 10/1/20	Thu 2/1/20	Fri 10/1/20	0 days	126,318	320	100%	
320		Installation of Monitoring Points	4 days	Tue 25/2/20	Fri 28/2/20	Tue 25/2/20	Fri 28/2/20	0 days	319	322,321	100%	
321		Setting up plant for pre-bored socked H-pile Installation	0 days	Tue 10/3/20	Tue 17/3/20	Tue 10/3/20	Tue 17/3/20	0 days	320,228	322	100%	
322		Pre-bored Socketed H-Pile Installation (36 Nos, 2 Rig, 3days/rig/pile)	64 days	Wed 18/3/20	Sat 6/6/20	Wed 18/3/20	Sat 6/6/20	0 days	127,320,321	323,339	100%	6
323		Pile Loading Test	16 days	Sun 7/6/20	Fri 26/6/20	Sun 7/6/20	Fri 26/6/20	0 days	322,495FS+5 days	324,311FS+5 days	100%	
324		Excavation for Pile Cap (1,800 cu.m) (NCE no. 85,165)	81 days	Wed 30/12/20	Mon 12/4/21	Wed 30/12/20	NA	-84 days	144,130,323,129	326,468,469,470,472,471	50%	56
325		**R.C. Structure**	**166 days**	**Tue 13/4/21**	**Sat 30/10/21**	**NA**	**NA**	**0 days**			**0%**	**10**
326		Ground Floor Construction @ +6.30mpD	64 days	Tue 13/4/21	Tue 29/6/21	NA	NA	0 days	324,203	327	0%	
327		First Floor Construction @ +13.50mpD	62 days	Wed 30/6/21	Fri 10/9/21	NA	NA	0 days	326	328	0%	
328	KD3D	Roof Construction @+19.00mPD	40 days	Sat 11/9/21	Sat 30/10/21	NA	NA	0 days	327	330,331,329	0%	
329	**KD3D**	**Allow access to Contarctor DE/2018/03 for E&M Installation**	**0 days**	**Sat 30/10/21**	**Sat 30/10/21**	**NA**	**NA**	**0 days**	**328**	**40FF**	**0%**	
330		Drainage System (within Bldg/ Structure) Installation	60 days	Mon 1/11/21	Wed 12/1/22	NA	NA	0 days	328		0%	
331	SW3	ABWF Works & BS Works & Apply Internal Anti-corrosion Protective Lining	90 days	Mon 1/11/21	Sat 19/2/22	NA	NA	187 days	207,133,328	332,45FF	0%	
332	SW5	Surrounding Site formation works and road works	180 days	Sun 20/2/22	Thu 18/8/22	NA	NA	523 days	331	47FF	0%	
333	*	**Thermal Hydrolysis Pretreatment**	**515 days**	**Thu 19/12/19**	**Wed 15/9/21**	**Thu 19/12/19**	**NA**	**697 days**			**39%**	
334		Site Clearance & Site Set Up	18 days	Thu 19/12/19	Sat 11/1/20	Thu 19/12/19	Sat 11/1/20	0 days	2	335,336	100%	
335		Predrilling Works (3no.1rig, 3days/drillhole/rig) (NCE no. 10)	1 day	Fri 10/1/20	Mon 13/1/20	Fri 10/1/20	Mon 13/1/20	0 days	126FS+24 days,334	337	100%	
336		Additional Predrilling Works (4no.) (NCE no. 12)	1 day	Fri 10/1/20	Mon 13/1/20	Fri 10/1/20	Mon 13/1/20	0 days	334	337	100%	
337		Installation of Monitoring Points	6 days	Fri 1/5/20	Fri 8/5/20	Fri 1/5/20	Fri 8/5/20	0 days	335,336	339	100%	
338		Setting up plant for pre-bored socked H-pile Installation	5 days	Tue 12/5/20	Sat 16/5/20	Tue 12/5/20	Sat 16/5/20	0 days		339	100%	
339		Pre-bored Socketed H-Pile Installation (15 Nos, 1 Rig, 3days/rig/pile)	0 days	Mon 18/5/20	Sat 20/6/20	Mon 18/5/20	Sat 20/6/20	0 days	127,337,338,322	340	100%	6
340		Pile Loading Test	25 days	Mon 27/7/20	Fri 11/9/20	Mon 27/7/20	Fri 11/9/20	0 days	339,229FS+5 days	341,258SS+10 days	100%	
341		Excavation for Pile Cap (160 cu.m)	20 days	Wed 6/1/21	Thu 28/1/21	Wed 6/1/21	Thu 28/1/21	0 days	144,130,340,324	342	100%	
342	KD3E	R.C. Plinth	40 days	Fri 29/1/21	Fri 19/3/21	Fri 29/1/21	Fri 19/3/21	0 days	341	314,343,41FF	100%	
343	SW5	Surrounding Site formation works and road works	180 days	Sat 20/3/21	Wed 15/9/21	NA	NA	860 days	342	47FF	0%	
344	*	**Ferric Chloride Dosing Facilities**	**374 days**	**Tue 25/5/21**	**Thu 25/8/22**	**NA**	**NA**	**0 days**			**0%**	
345		Excavation for Raft Footing (105 cu.m)	34 days	Tue 25/5/21	Mon 5/7/21	NA	NA	0 days	2	346	0%	
346		Plate Load Test	18 days	Tue 6/7/21	Mon 26/7/21	NA	NA	0 days	345	347	0%	
347		R.C. Structure	66 days	Tue 27/7/21	Wed 13/10/21	NA	NA	0 days	346,131,203	348	0%	5
348	KD3E	Steel Roof Structure (On-site Fabrication)	65 days	Fri 15/10/21	Fri 31/12/21	NA	NA	0 days	347	349,41FF	0%	
349	SW3	ABWF Works & BS Works	45 days	Mon 3/1/22	Sat 26/2/22	NA	NA	181 days	348,207,133	350,45FF	0%	
350	SW5	Surrounding Site formation works and road works	180 days	Sun 27/2/22	Thu 25/8/22	NA	NA	516 days	349	47FF	0%	
351	*	**Fire Hydrant and Booster Pump Room**	**329 days**	**Mon 19/7/21**	**Thu 25/8/22**	**NA**	**NA**	**50 days**			**0%**	
352		Excavation for Raft Footing (160 cu.m)	10 days	Mon 19/7/21	Thu 29/7/21	NA	NA	50 days	2,358	353,399	0%	
353		Plate Load Test	18 days	Fri 30/7/21	Thu 19/8/21	NA	NA	50 days	352	354	0%	
354	KD3E	R.C. Structure & waterproofing works	60 days	Thu 21/10/21	Fri 31/12/21	NA	NA	0 days	353,131,360,203,132	355,41FF	0%	5
355	SW3	ABWF Works & BS Works	45 days	Mon 3/1/22	Sat 26/2/22	NA	NA	181 days	354,207,133	356,45FF	0%	
356	SW5	Surrounding Site formation works and road works	180 days	Sun 27/2/22	Thu 25/8/22	NA	NA	516 days	355	47FF	0%	
357	*	**Transformer and Switchroom**	**324 days**	**Thu 6/5/21**	**Thu 9/6/22**	**NA**	**NA**	**40 days**			**0%**	
358		Excavation for Raft Footing (310 cu.m)	20 days	Thu 6/5/21	Sat 29/5/21	NA	NA	40 days	2,384	359,352	0%	
359		Plate Load Test	18 days	Mon 31/5/21	Mon 21/6/21	NA	NA	40 days	358	360	0%	
360	KD3E	R.C. Structure	60 days	Mon 9/8/21	Wed 20/10/21	NA	NA	0 days	359,131,386,203	361,354,41FF	0%	5
361	SW3	ABWF Works & BS Works	45 days	Thu 21/10/21	Sat 11/12/21	NA	NA	241 days	360,207,133	362,45FF	0%	
362	SW5	Surrounding Site formation works and road works	180 days	Sun 12/12/21	Thu 9/6/22	NA	NA	593 days	361	47FF	0%	
363	*	**Water Meter Cabinet**	**217 days**	**Tue 3/8/21**	**Wed 27/4/22**	**NA**	**NA**	**35 days**			**0%**	
364		Excavation for Raft Footing (6 cu.m)	10 days	Tue 3/8/21	Fri 13/8/21	NA	NA	35 days	2	365	0%	
365		Plate Load Test	18 days	Sat 14/8/21	Fri 3/9/21	NA	NA	35 days	364	366	0%	
366		R.C. Structure	30 days	Sat 4/9/21	Mon 11/10/21	NA	NA	35 days	365,131,203	367,370	0%	3
367	SW4	ABWF Works & BS Works	15 days	Tue 12/10/21	Fri 29/10/21	NA	NA	101 days	366,207,133	368,46FF	0%	
368	SW5	Surrounding Site formation works and road works	180 days	Sat 30/10/21	Wed 27/4/22	NA	NA	636 days	367	47FF	0%	
369	*	**Guard House**	**224 days**	**Tue 12/10/21**	**Sun 17/7/22**	**NA**	**NA**	**35 days**			**0%**	
370		Excavation to Formation	21 days	Tue 12/10/21	Fri 5/11/21	NA	NA	35 days	2,366	371	0%	
371		R.C. Structure	30 days	Sat 6/11/21	Fri 10/12/21	NA	NA	35 days	131,370,203	372	0%	3
372	SW4	ABWF Works & BS Works	30 days	Sat 11/12/21	Tue 18/1/22	NA	NA	35 days	371,207,133	373,46FF	0%	
373	SW5	Surrounding Site formation works and road works	180 days	Wed 19/1/22	Sun 17/7/22	NA	NA	555 days	372	47FF	0%	
374	*	**Coolers Pumping Station**	**463.61 day**	**Mon 16/9/19**	**Mon 12/4/21**	**NA**	**NA**	**526 days**			**0%**	
375		Excavation for Raft Footing (185 cu.m)	40 days	Mon 16/9/19	Sat 2/11/19	NA	NA	526 days	2	376,394	0%	
376	SW4	R.C. Structure	60 days	Mon 3/8/20	Wed 14/10/20	NA	NA	305.39 days	375,131,203	396,377,46FF	0%	5
377	SW5	Surrounding Site formation works and road works	180 days	Wed 14/10/20	Mon 12/4/21	NA	NA	1016.39 days	376	47FF	0%	
378	*	**Waste Gas Buner**	**195 days**	**Tue 5/10/21**	**Sat 4/6/22**	**NA**	**NA**	**0 days**			**0%**	
379		Excavation for Raft Rooting (75cu.m)	15 days	Tue 5/10/21	Fri 22/10/21	NA	NA	0 days	2,300	380,404	0%	
380		Plate Load Test	18 days	Sat 23/10/21	Fri 12/11/21	NA	NA	0 days	379	381	0%	
381	KD3E	R.C. Plinth	20 days	Sat 13/11/21	Mon 6/12/21	NA	NA	0 days	380,131	406,382,41FF	0%	
382	SW5	Surrounding Site formation works and road works	180 days	Tue 7/12/21	Sat 4/6/22	NA	NA	598 days	381	47FF	0%	



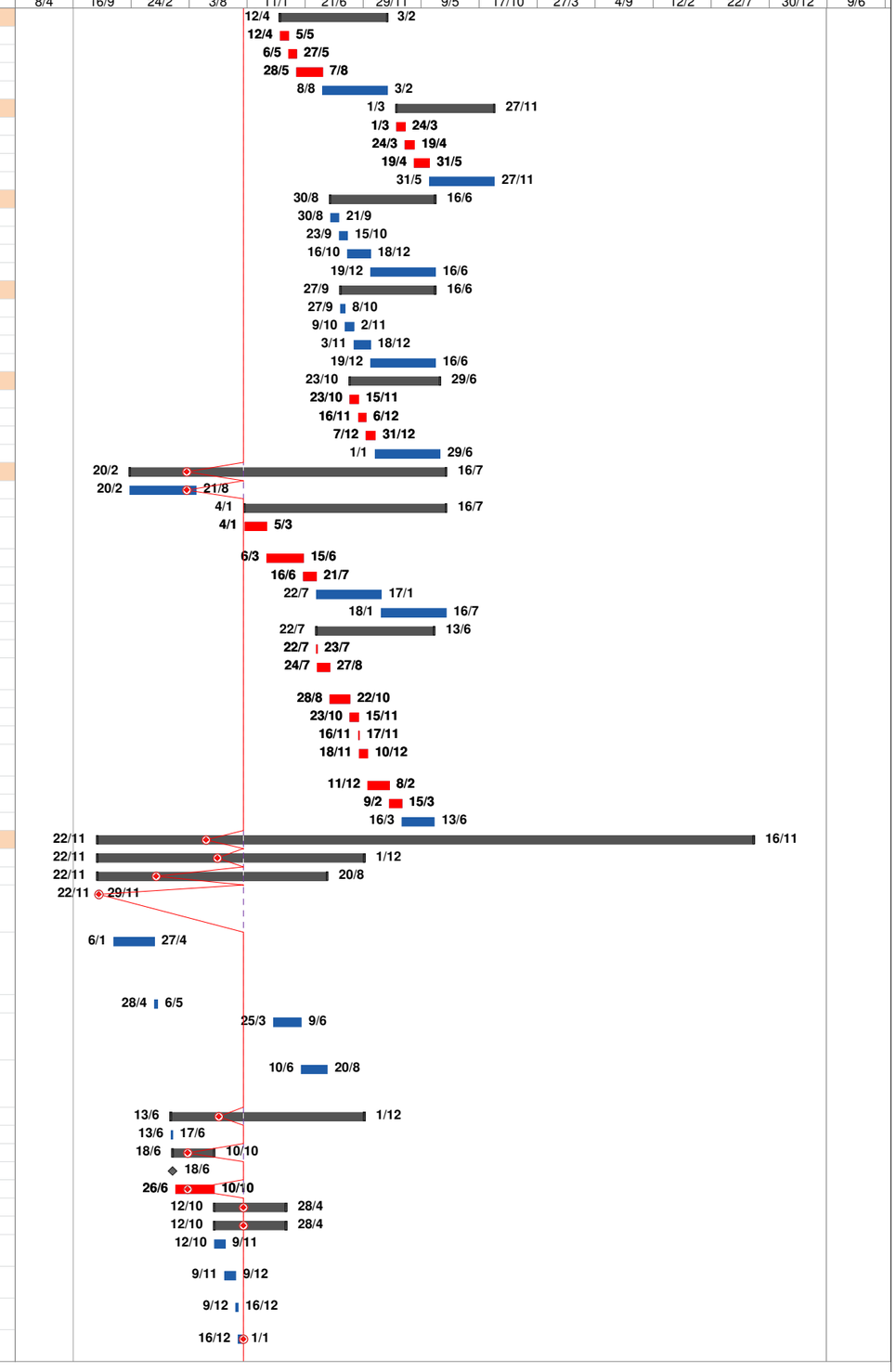
Critical Split | Task | Milestone | Summary | Critical

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

Executive Summary (Status Date: 20/03/2021)

群利－俊和聯營體
KL－CW JV

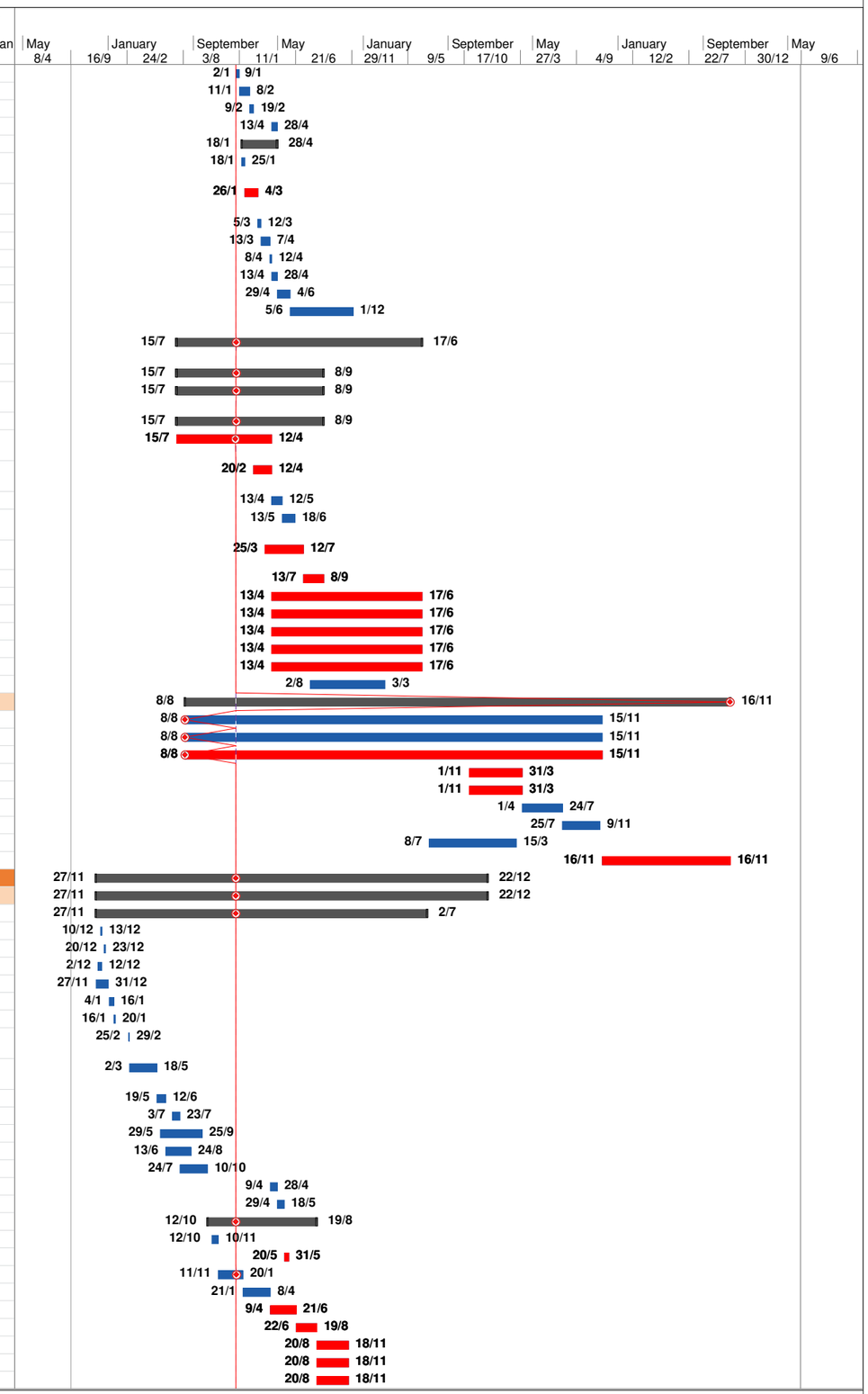
ID	KD	Task Name	Duration	Start	Finish	Actual Start	Actual Finish	Total Slack	Predecessors	Successors	% Comple	Time Risk Allowan
383	*	**Plant Services Water System**	**243 days**	**Mon 12/4/21**	**Thu 3/2/22**	**NA**	**NA**	**0 days**			**0%**	
384		Excavation for Raft Footing (800 cu.m)	20 days	Mon 12/4/21	Wed 5/5/21	NA	NA	0 days	2	385,358	0%	
385		Plate Load Test	18 days	Thu 6/5/21	Thu 27/5/21	NA	NA	0 days	384	386	0%	
386	KD3E	Basement Construction @+1.20mPD	60 days	Fri 28/5/21	Sat 7/8/21	NA	NA	0 days	385,131	360,387,41FF	0%	
387	SW5	Surrounding Site formation works and road works	180 days	Sun 8/8/21	Thu 3/2/22	NA	NA	719 days	386	47FF	0%	
388	*	**Deodorization System No. 11**	**221.5 days**	**Tue 1/3/22**	**Sun 27/11/22**	**NA**	**NA**	**-118.5 days**			**0%**	
389		Excavation for Raft Footing (1,280 cu.m)	20 days	Tue 1/3/22	Thu 24/3/22	NA	NA	-118.5 days	2,287	390	0%	
390		Plate Load Test	18 days	Thu 24/3/22	Tue 19/4/22	NA	NA	-118.5 days	389	391	0%	
391	KD3E	R.C. Plinth	34 days	Tue 19/4/22	Tue 31/5/22	NA	NA	-118.5 days	390,131	392,41FF	0%	
392	SW5	Surrounding Site formation works and road works	180 days	Tue 31/5/22	Sun 27/11/22	NA	NA	422.5 days	391	47FF	0%	
393	*	**Biogas Holder**	**234 days**	**Mon 30/8/21**	**Thu 16/6/22**	**NA**	**NA**	**9 days**			**0%**	
394		Excavation for Raft Footing (1,120 cu.m)	20 days	Mon 30/8/21	Tue 21/9/21	NA	NA	9 days	2,375	395	0%	
395		Plate Load Test	18 days	Thu 23/9/21	Fri 15/10/21	NA	NA	9 days	394	396	0%	
396	KD3E	R.C. Plinth	55 days	Sat 16/10/21	Sat 18/12/21	NA	NA	9 days	395,131,376	397,41FF	0%	
397	SW5	Surrounding Site formation works and road works	180 days	Sun 19/12/21	Thu 16/6/22	NA	NA	586 days	396	47FF	0%	
398	*	**H2S Removal System**	**211 days**	**Mon 27/9/21**	**Thu 16/6/22**	**NA**	**NA**	**9 days**			**0%**	
399		Excavation for Raft Footing (396 cu.m)	10 days	Mon 27/9/21	Fri 8/10/21	NA	NA	9 days	2,352	400	0%	
400		Plate Load Test	20 days	Sat 9/10/21	Tue 2/11/21	NA	NA	9 days	399	401	0%	
401	KD3E	R.C. Plinth	40 days	Wed 3/11/21	Sat 18/12/21	NA	NA	9 days	400	402,41FF	0%	
402	SW5	Surrounding Site formation works and road works	180 days	Sun 19/12/21	Thu 16/6/22	NA	NA	586 days	401	47FF	0%	
403	*	**Deodorization System No. 12**	**201 days**	**Sat 23/10/21**	**Wed 29/6/22**	**NA**	**NA**	**0 days**			**0%**	
404		Excavation to Formation	20 days	Sat 23/10/21	Mon 15/11/21	NA	NA	0 days	2,379	405	0%	
405		Plate Load Test	18 days	Tue 16/11/21	Mon 6/12/21	NA	NA	0 days	404	406	0%	
406	KD3E	R.C. Plinth	20 days	Tue 7/12/21	Fri 31/12/21	NA	NA	0 days	405,131,381	407,41FF	0%	
407	SW5	Surrounding Site formation works and road works	180 days	Sat 1/1/22	Wed 29/6/22	NA	NA	573 days	406	47FF	0%	
408	*	**Underpass & Pump House**	**711 days**	**Thu 20/2/20**	**Sat 16/7/22**	**Thu 20/2/20**	**NA**	**453 days**			**13%**	
409		Temporary Storage for H pile works and access for DSD	150 days	Thu 20/2/20	Fri 21/8/20	Thu 20/2/20	NA	100 days	278SS-14 days	411	85%	
410		**Stage 1 (Bay A1 - B2)**	**452 days**	**Mon 4/1/21**	**Sat 16/7/22**	**NA**	**NA**	**-9 days**			**0%**	
411		Sheet Pile Installation + ELS Works (incl. Strut (2-layers) Installation & Excavation	50 days	Mon 4/1/21	Fri 5/3/21	NA	NA	-9 days	15,281,257,409	412	0%	
412		R.C. Structure	80 days	Sat 6/3/21	Tue 15/6/21	NA	NA	-9 days	411,131,203	413	0%	10
413	SW4	Backfilling and Road works reinstatement	30 days	Wed 16/6/21	Wed 21/7/21	NA	NA	-9 days	412	417,414,46FF	0%	
414		Surrounding Site formation works and road works	180 days	Thu 22/7/21	Mon 17/1/22	NA	NA	556 days	413	415	0%	
415	SW5	ABWF & BS Works	180 days	Tue 18/1/22	Sat 16/7/22	NA	NA	556 days	414	47FF	0%	
416		**Stage 2 (Bay B3)**	**264 days**	**Thu 22/7/21**	**Mon 13/6/22**	**NA**	**NA**	**-9 days**			**0%**	
417		TTA implementation at Chuk Wan Street southeast bound	2 days	Thu 22/7/21	Fri 23/7/21	NA	NA	-9 days	413	418	0%	
418		Sheet Pile Installation + ELS Works (incl. Strut (2-layers) Installation & Excavation (300 cu.m))	30 days	Sat 24/7/21	Fri 27/8/21	NA	NA	-9 days	417	419	0%	
419		R.C. Structure	45 days	Sat 28/8/21	Fri 22/10/21	NA	NA	-9 days	418	420	0%	
420		Backfilling and Reinstatement Works	20 days	Sat 23/10/21	Mon 15/11/21	NA	NA	-9 days	419	421	0%	
421		TTA Implementation at Chuk Wan Street northwest bound	2 days	Tue 16/11/21	Wed 17/11/21	NA	NA	-9 days	420	422	0%	
422		Sheet Pile Installation + ELS Works (incl. Strut (2-layers) Installation & Excavation	20 days	Thu 18/11/21	Fri 10/12/21	NA	NA	-9 days	421	423	0%	
423		R.C. Structure	45 days	Sat 11/12/21	Tue 8/2/22	NA	NA	-9 days	422	424	0%	
424	SW4	Backfilling and Road works reinstatement	30 days	Wed 9/2/22	Tue 15/3/22	NA	NA	-9 days	423	425,46FF	0%	
425	SW5	ABWF & BS Works	90 days	Wed 16/3/22	Mon 13/6/22	NA	NA	589 days	424	47FF	0%	
426	*	**Pipe Works and Utility Installation**	**1470 days**	**Fri 22/11/19**	**Sat 16/11/24**	**Fri 22/11/19**	**NA**	**0 days**			**6%**	
427		**Pipe Works At Chuk Wan Street**	**601 days**	**Fri 22/11/19**	**Wed 1/12/21**	**Fri 22/11/19**	**NA**	**634 days**			**37%**	
428		**Drainage Diversion (Existing Drainage Culvert)**	**516 days**	**Fri 22/11/19**	**Fri 20/8/21**	**Fri 22/11/19**	**NA**	**71.5 days**	**223,186**		**47%**	
429		Stage 1 - Drainage Diversion of Drainage btw Reconstructed Storm Water Manhole SMH1003177A and Reconstructed Storm Water Manhole MHD33 - A	7 days	Fri 22/11/19	Fri 29/11/19	Fri 22/11/19	Fri 29/11/19	0 days	124,145,150,146,134,167,186	430	100%	
430		Stage 1 - Drainage Diversion of Drainage btw Reconstructed Storm Water Manhole SMH1003177A and Reconstructed Storm Water Manhole MHD33 - A and Additional concrete surround at MH18, MH16 and additional manhole (Type 1) (NCE no. 8, 17)	90 days	Mon 6/1/20	Mon 27/4/20	Mon 6/1/20	Mon 27/4/20	0 days	429	431	100%	
431	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	430	228	100%	
432	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	60 days	Thu 25/3/21	Wed 9/6/21	NA	NA	71.5 days	239	433	0%	
433	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	60 days	Thu 10/6/21	Fri 20/8/21	NA	NA	71.5 days	432	43FF	0%	
434	**SW4**	**Trenchless Work for Pipe Installation**	**438 days**	**Sat 13/6/20**	**Wed 1/12/21**	**Sat 13/6/20**	**NA**	**634 days**		**46FF**	**33%**	
435		Installation of Monitoring Points	4 days	Sat 13/6/20	Wed 17/6/20	Sat 13/6/20	Wed 17/6/20	0 days		437	100%	
436		**Construction of Temporary Jacking Pit**	**95 days**	**Thu 18/6/20**	**Sat 10/10/20**	**Thu 18/6/20**	**NA**	**0 days**	**15,137**		**31%**	
437		Trial Pit Excavation & UU Detection Works	0 days	Thu 18/6/20	Thu 18/6/20	Thu 18/6/20	Thu 18/6/20	0 days	2,435	438	100%	
438		Pit Construction (11m x 9m)	89 days	Fri 26/6/20	Sat 10/10/20	Fri 26/6/20	NA	0 days	437	441	31%	
439		**Pipe Jacking Operation**	**160 days**	**Mon 12/10/20**	**Wed 28/4/21**	**Mon 12/10/20**	**NA**	**253 days**			**65%**	
440		Twin DN900 DI pipe (CHAT & CHAU)	160 days	Mon 12/10/20	Wed 28/4/21	Mon 12/10/20	NA	253 days			89%	
441		Setting Up of Entrance Ring & Gantry, and Trenchless Equipment (NCE no.55,69)	24 days	Mon 12/10/20	Mon 9/11/20	Mon 12/10/20	Mon 9/11/20	0 days	438	442	100%	
442		Pipe Jacking Operation for CHAT DN900 DI pipe (30m, 3m/day) (NCE no.92)	26 days	Mon 9/11/20	Wed 9/12/20	Mon 9/11/20	Wed 9/12/20	0 days	441	445,444,443	100%	6
443		Setting Up of Entrance Ring & Gantry, and Trenchless Equipment	7 days	Wed 9/12/20	Wed 16/12/20	Wed 9/12/20	Wed 16/12/20	0 days	442	444	100%	
444		Pipe Jacking Operation for CHAU DN900 DI pipe (30m, 3m/day)	16 days	Wed 16/12/20	Fri 1/1/21	Wed 16/12/20	Fri 1/1/21	0 days	442,443	445	100%	



Critical Split | Task | Milestone | Summary | Critical

Executive Summary (Status Date: 20/03/2021)

ID	KD	Task Name	Duration	Start	Finish	Actual Start	Actual Finish	Total Slack	Predecessors	Successors	% Comple	Time Risk Allowan
445		Installation of grouting pipe and rail	7 days	Sat 2/1/21	Sat 9/1/21	Sat 2/1/21	Sat 9/1/21	0 days	442,444	446	100%	
446		Pipe Laying Works	25 days	Mon 11/1/21	Mon 8/2/21	Mon 11/1/21	Mon 8/2/21	0 days	445	447	100%	
447		Formwork Erection and grouting works	7 days	Tue 9/2/21	Fri 19/2/21	Tue 9/2/21	Fri 19/2/21	0 days	446		100%	
448		Backfilling works	14 days	Tue 13/4/21	Wed 28/4/21	NA	NA	253 days	455SS		0%	
449		**Pipe Jacking Operation for DN2200 MS pipe (CHAV)**	**80 days**	**Mon 18/1/21**	**Wed 28/4/21**	**Mon 18/1/21**	**NA**	**253 days**			**27%**	
450		Setting Up of Entrance Ring & Gantry, and Trenchless Equipment	7 days	Mon 18/1/21	Mon 25/1/21	Mon 18/1/21	Mon 25/1/21	0 days		451	100%	
451		Pipe Jacking Operation for twin DN2200 DI pipe	30 days	Tue 26/1/21	Thu 4/3/21	Tue 26/1/21	NA	0 days	450	452	10%	6
452		Installation of grouting pipe and rail	7 days	Fri 5/3/21	Fri 12/3/21	Fri 5/3/21	Fri 12/3/21	0 days	451	453	100%	
453		Pipe Laying Works	18 days	Sat 13/3/21	Wed 7/4/21	Sat 13/3/21	NA	253 days	452	454	25%	
454		Formwork Erection and grouting works	4 days	Thu 8/4/21	Mon 12/4/21	NA	NA	253 days	453	456,455	0%	
455		Backfilling works	14 days	Tue 13/4/21	Wed 28/4/21	NA	NA	253 days	454	456,448SS	0%	
456		Reinstatement of Temporary Launching Pit	30 days	Thu 29/4/21	Fri 4/6/21	NA	NA	635 days	454,455	457	0%	
457	SW5	Surrounding Site formation works and road works	180 days	Sat 5/6/21	Wed 1/12/21	NA	NA	783 days	456	47FF	0%	
458		**Process Pipeworks, All Sewerage, Utilities & Roadworks in Portion C of the Site**	**570 days**	**Wed 15/7/20**	**Fri 17/6/22**	**Wed 15/7/20**	**NA**	**-83 days**			**7%**	
459		**Process Pipeworks**	**344 days**	**Wed 15/7/20**	**Wed 8/9/21**	**Wed 15/7/20**	**NA**	**0 days**			**35%**	
460	**KD1A**	**Connection pipe at UV System no.1 & Effluent Pumping Stataion no.1**	**344 days**	**Wed 15/7/20**	**Wed 8/9/21**	**Wed 15/7/20**	**NA**	**0 days**		**35FF**	**35%**	
461		**Effluent Pipe(approx. 70m, dia 300-1600)**	**421 days**	**Wed 15/7/20**	**Wed 8/9/21**	**Wed 15/7/20**	**NA**	**0 days**			**35%**	
462		Twin DN900 +DN2200 (CHAT, CHAU, CHAV) (+0.2mPD) (NCE, 60,62,66)	220 days	Wed 15/7/20	Mon 12/4/21	Wed 15/7/20	NA	0 days	228	464,463FF	65%	
463		DN150,350 (CHA, CHL, CHLA) Pipe Laying (+4.8mPD)	40 days	Sat 20/2/21	Mon 12/4/21	Sat 20/2/21	NA	-39 days	462FF		35%	
464		CHAM, CHAN Pipe Laying (+2.0mPD)	25 days	Tue 13/4/21	Wed 12/5/21	NA	NA	69 days	462	465	0%	
465		Concrete Pipe between MHD26 and SMH1003177A (+3.6mPD)	30 days	Thu 13/5/21	Fri 18/6/21	NA	NA	69 days	464		0%	
466		DN800(CHAY), DN1600 (CHAX), DN350 (CHBA) Pipe Laying (NCE no. 84)	86 days	Thu 25/3/21	Mon 12/7/21	NA	NA	0 days	239	467	0%	
467		DN1400(CHAW)	50 days	Tue 13/7/21	Wed 8/9/21	NA	NA	0 days	466		0%	
468	SW4	Remaining Effluent Pipes & testing works	350 days	Tue 13/4/21	Fri 17/6/22	NA	NA	-83 days	136,282,324,196,199	46FF	0%	
469	SW4	Stormdrain Pipeworks & testing works	350 days	Tue 13/4/21	Fri 17/6/22	NA	NA	-84 days	136,282,324,187	46FF	0%	
470	SW4	Sewerage Pipeworks, manhole, protective lining & testing works	350 days	Tue 13/4/21	Fri 17/6/22	NA	NA	-84 days	136,282,324,193	46FF	0%	
471	SW4	Watermain Pipeworks & testing works	350 days	Tue 13/4/21	Fri 17/6/22	NA	NA	-84 days	136,282,324,190,193	46FF	0%	
472	SW4	Cable & Other Underground Utility Pipeworks	350 days	Tue 13/4/21	Fri 17/6/22	NA	NA	-84 days	136,282,324	46FF	0%	
473	SW4	Pipe Bridge No.1	175 days	Mon 2/8/21	Thu 3/3/22	NA	NA	1 day	2	46FF	0%	
474	*	**Remaining Works & Landscape Works**	**1261 days**	**Sat 8/8/20**	**Sat 16/11/24**	**NA**	**NA**	**0 days**			**0%**	
475	SW5	Irrigation System	970 days	Sat 8/8/20	Wed 15/11/23	NA	NA	55 days	2FS+265 days	47FF	0%	
476	SW5	Hard Landscape Works	970 days	Sat 8/8/20	Wed 15/11/23	NA	NA	55 days	2FS+265 days	47FF	0%	
477	SW5	Soft Landscape Works	970 days	Sat 8/8/20	Wed 15/11/23	NA	NA	0 days	2FS+265 days	483,47FF	0%	
478		Outfall for Effluent Pipes	124 days	Tue 1/11/22	Fri 31/3/23	NA	NA	0 days	179		0%	
479		Slope Formation Works near Outfall	124 days	Tue 1/11/22	Fri 31/3/23	NA	NA	0 days	179		0%	
480		Removal of invasive trees along River Embankment (NCE no. 37)	90 days	Sat 1/4/23	Mon 24/7/23	NA	NA	61 days	179FS+124 days	481	0%	
481	SW5	Retaining Wall along River Embankment, street furniture & road works	90 days	Tue 25/7/23	Thu 9/11/23	NA	NA	61 days	179,480	47FF	0%	
482	SW5	Remaining Site formation works, road works and boundary fence wall	250 days	Fri 8/7/22	Wed 15/3/23	NA	NA	314.5 days	46	47FF	0%	
483		Establishment Works (365 Calendar Days)	291 days	Thu 16/11/23	Sat 16/11/24	NA	NA	0 days	477,139		0%	
484	*	**Construction of Portion A of the Site**	**911 days**	**Wed 27/11/19**	**Thu 22/12/22**	**Wed 27/11/19**	**NA**	**180.5 days**			**26%**	
485	*	**CLP 132kV Substation**	**911 days**	**Wed 27/11/19**	**Thu 22/12/22**	**Wed 27/11/19**	**NA**	**180.5 days**			**26%**	
486		**Internal Works**	**766 days**	**Wed 27/11/19**	**Sat 2/7/22**	**Wed 27/11/19**	**NA**	**200.5 days**			**34%**	
487		Site Clearance & Site Set Up	4 days	Tue 10/12/19	Fri 13/12/19	Tue 10/12/19	Fri 13/12/19	0 days	2	488	100%	
488		Additional Tree Felling Works (NCE no.29)	4 days	Fri 20/12/19	Mon 23/12/19	Fri 20/12/19	Mon 23/12/19	0 days	487	490	100%	
489		Trial Pit Excavation & UU Detection Works	0 days	Mon 2/12/19	Thu 12/12/19	Mon 2/12/19	Thu 12/12/19	0 days	2	491	100%	
490		Additional Demolition of existing warehouse structure (NCE no.002)	28 days	Wed 27/11/19	Tue 31/12/19	Wed 27/11/19	Tue 31/12/19	0 days	488	491	100%	
491		Predrilling Works (11no., 1rig, 3days/drillhole/rig) (NCE no. 10)	11 days	Sat 4/1/20	Thu 16/1/20	Sat 4/1/20	Thu 16/1/20	0 days	126,489,178,490	492	100%	
492		Installation of Monitoring Points	4 days	Thu 16/1/20	Mon 20/1/20	Thu 16/1/20	Mon 20/1/20	0 days	491	493	100%	
493		Setting up plant for pre-bored socked H-pile Installation (PMI no.005, NCE no. 0022)	5 days	Tue 25/2/20	Sat 29/2/20	Tue 25/2/20	Sat 29/2/20	0 days	492	494	100%	
494		Pre-bored Socketed H-Pile Installation (41 Nos, 2 Rig, 3days/rig/pile) (NCE no. 18A, 19, 25 & 27))	61 days	Mon 2/3/20	Mon 18/5/20	Mon 2/3/20	Mon 18/5/20	0 days	127,493	495,297,497	100%	6
495		Pile Load Test	22 days	Tue 19/5/20	Fri 12/6/20	Tue 19/5/20	Fri 12/6/20	0 days	494	496,323FS+5 days,498	100%	
496		Sheetpile Installation Stage 1 (NCE no. 10, 23, 36)	18 days	Fri 3/7/20	Thu 23/7/20	Fri 3/7/20	Thu 23/7/20	0 days	495,129	499	100%	6
497		CHP Cable Diversion Works (NCE no.23, 36, 32, 41)	101 days	Fri 29/5/20	Fri 25/9/20	Fri 29/5/20	Fri 25/9/20	0 days	494		100%	
498		Watermain diversion and relocation of water meter (NCE no. 15, 36)	60 days	Sat 13/6/20	Mon 24/8/20	Sat 13/6/20	Mon 24/8/20	0 days	495		100%	
499		Excavation Works Stage 1 (NCE no.16, 49, 55)	66 days	Fri 24/7/20	Sat 10/10/20	Fri 24/7/20	Sat 10/10/20	0 days	496	502,503	100%	8
500		Sheetpile Installation Stage 2	20 days	Fri 9/4/21	Wed 28/4/21	NA	NA	1 day	506	501	0%	
501		Excavation Works Stage 2	20 days	Thu 29/4/21	Tue 18/5/21	NA	NA	1 day	500	504	0%	
502		R.C. Structure (880 sq.m)	253 days	Mon 12/10/20	Thu 19/8/21	Mon 12/10/20	NA	-50 days	204,205,206,131,203,499		58%	10
503		Installation of earthmat (Bay 1)	14 days	Mon 12/10/20	Tue 10/11/20	Mon 12/10/20	Tue 10/11/20	0 days	499	505	100%	
504		Installation of earthmat (Bay 2)	10 days	Thu 20/5/21	Mon 31/5/21	NA	NA	0 days	501		0%	
505		Basement (NCE no.79, 86)	58 days	Wed 11/11/20	Wed 20/1/21	Wed 11/11/20	Wed 20/1/21	0 days	503	506	100%	
506		Ground Floor	60 days	Thu 21/1/21	Thu 8/4/21	Thu 21/1/21	Thu 8/4/21	0 days	505	507,500	100%	
507		First Floor	60 days	Fri 9/4/21	Mon 21/6/21	Fri 9/4/21	NA	-113 days	506	508	25%	
508		Roof Floor (461sq.m)	50 days	Tue 22/6/21	Thu 19/8/21	NA	NA	-113 days	507	509,514,510,515FS+63 d	0%	
509		ABWF Works	75 days	Fri 20/8/21	Thu 18/11/21	NA	NA	0 days	508,207,133		0%	
510		BS Works	75 days	Fri 20/8/21	Thu 18/11/21	NA	NA	0 days	508,133		0%	
511		Backfilling reinstatement & road works	75 days	Fri 20/8/21	Thu 18/11/21	NA	NA	0 days	508		0%	



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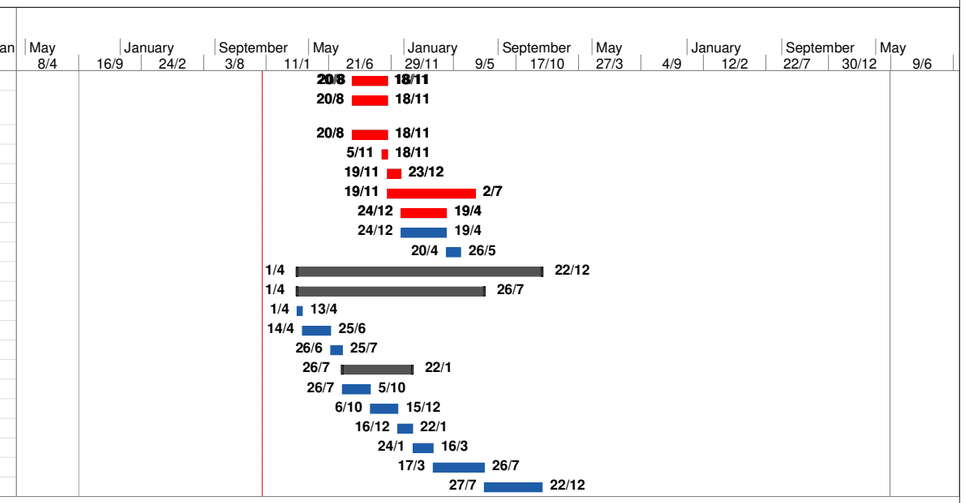
Executive Summary (Status Date: 20/03/2021)

ID	KD	Task Name	Duration	Start	Finish	Actual Start	Actual Finish	Total Slack	Predecessors	Successors	% Comple	Time Risk Allowan
512		Installation of telephone line/ direct link for FSD Inspection	75 days	Fri 20/8/21	Thu 18/11/21	NA	NA	0 days	508		0%	
513		Building Services Installation Works (incl. Fire Services, Plumbing, Drainage, etc.) & FSD Inspection	75 days	Fri 20/8/21	Thu 18/11/21	NA	NA	0 days	508		0%	
514	KD2A	Architectual Works	75 days	Fri 20/8/21	Thu 18/11/21	NA	NA	-113 days	508	516,517,36FF	0%	
515	KD2A	Prehandover to CLP	12 days	Fri 5/11/21	Thu 18/11/21	NA	NA	0 days	508FS+63 days	36FF	0%	
516		**Handover to CLP for Electrical System Installation**	30 days	Fri 19/11/21	Thu 23/12/21	NA	NA	0 days	514	519,518	0%	
517		**E&M Installation, Testing & Commissioning by CLP**	180 days	Fri 19/11/21	Sat 2/7/22	NA	NA	0 days	514		0%	
518		Testing & Commissioning of the E&M Works	90 days	Fri 24/12/21	Tue 19/4/22	NA	NA	0 days	516		0%	
519		ABWF Works - External Finishing	90 days	Fri 24/12/21	Tue 19/4/22	NA	NA	230.5 days	516,207,133	520	0%	
520	SW2	Inspection and Handover to CLP	30 days	Wed 20/4/22	Thu 26/5/22	NA	NA	230.5 days	519	532,44FF	0%	
521		**External Works**	**513 days**	**Thu 1/4/21**	**Thu 22/12/22**	**NA**	**NA**	**180.5 days**	**148**		**0%**	
522		**Road Widening Works (NCE no. 20)**	388 days	Thu 1/4/21	Tue 26/7/22	NA	NA	180.5 days			0%	
523		Trial Pit Excavation & UU Detection Works	7 days	Thu 1/4/21	Tue 13/4/21	NA	NA	181 days	151	524	0%	
524		Diversion of existing UU (i.e. 3no. Street light)	60 days	Wed 14/4/21	Fri 25/6/21	NA	NA	181 days	523	525	0%	
525		Temporary Site Access	30 days	Sat 26/6/21	Sun 25/7/21	NA	NA	220.5 days	524	527	0%	
526		**Drainage Works**	**150 days**	**Mon 26/7/21**	**Sat 22/1/22**	**NA**	**NA**	**180.5 days**			**0%**	
527		Trench Excavation and ELS works	60 days	Mon 26/7/21	Tue 5/10/21	NA	NA	180.5 days	525	528	0%	
528		Pipe Laying Works	60 days	Wed 6/10/21	Wed 15/12/21	NA	NA	180.5 days	527	529	0%	
529		Backfilling and Reinstatement Works	30 days	Thu 16/12/21	Sat 22/1/22	NA	NA	180.5 days	528	531,530	0%	
530		Cable & Other Underground Utility Pipeworks	42 days	Mon 24/1/22	Wed 16/3/22	NA	NA	180.5 days	529	531	0%	
531		Road Works	105 days	Thu 17/3/22	Tue 26/7/22	NA	NA	180.5 days	529,530	532	0%	
532	SW2	Construction of New Boundary Wall	125 days	Wed 27/7/22	Thu 22/12/22	NA	NA	180.5 days	520,531	44FF	0%	



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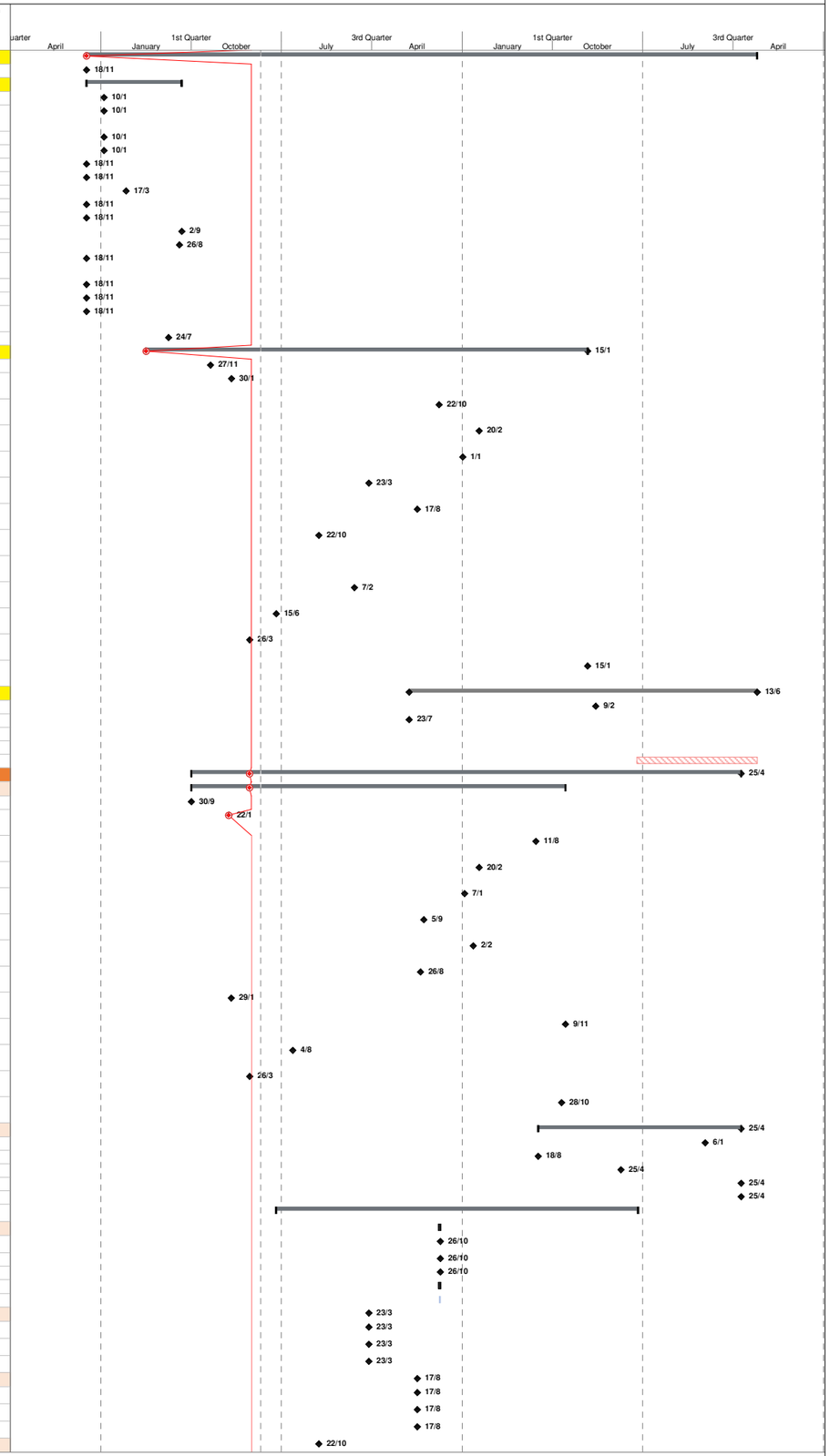
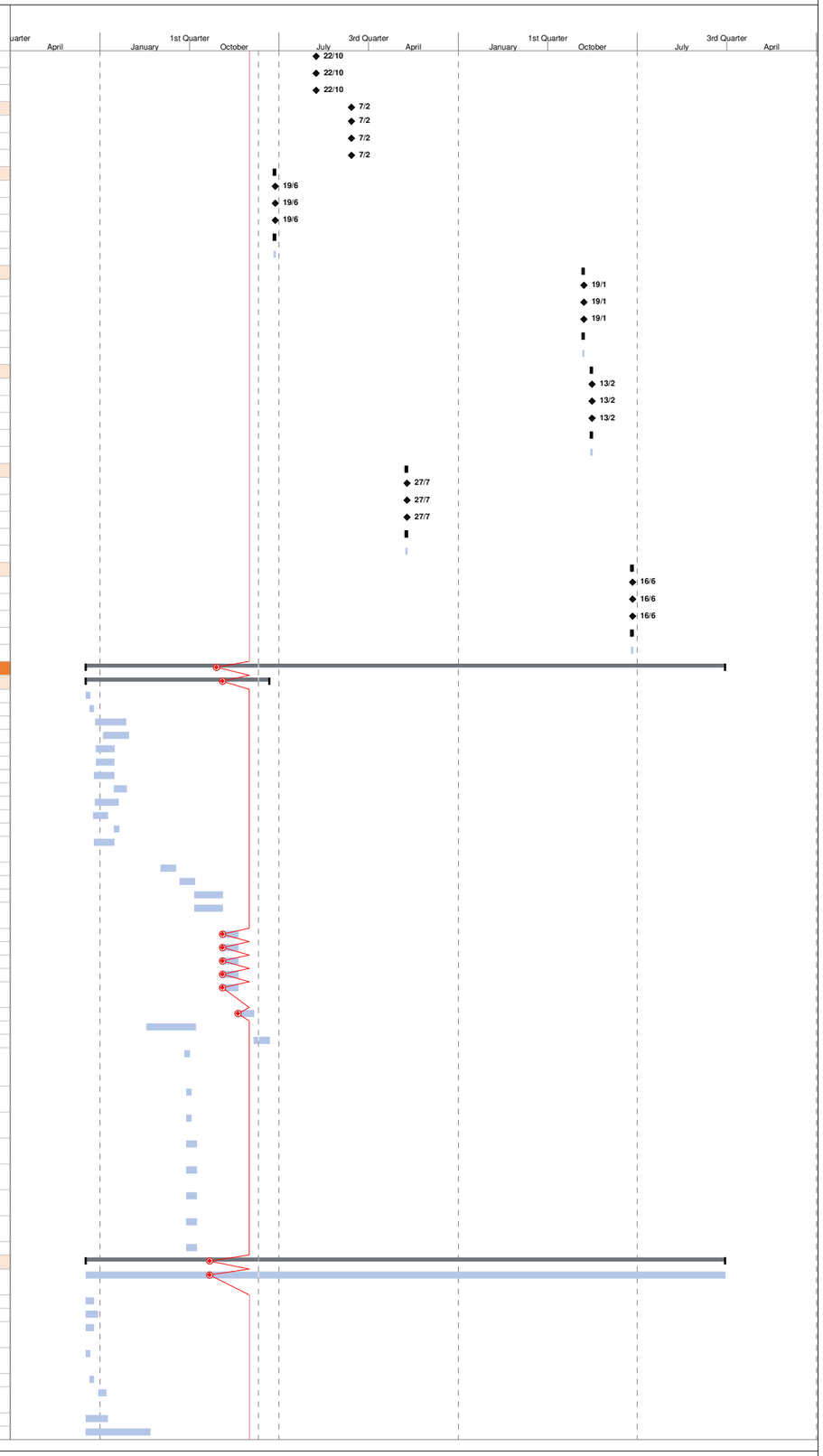
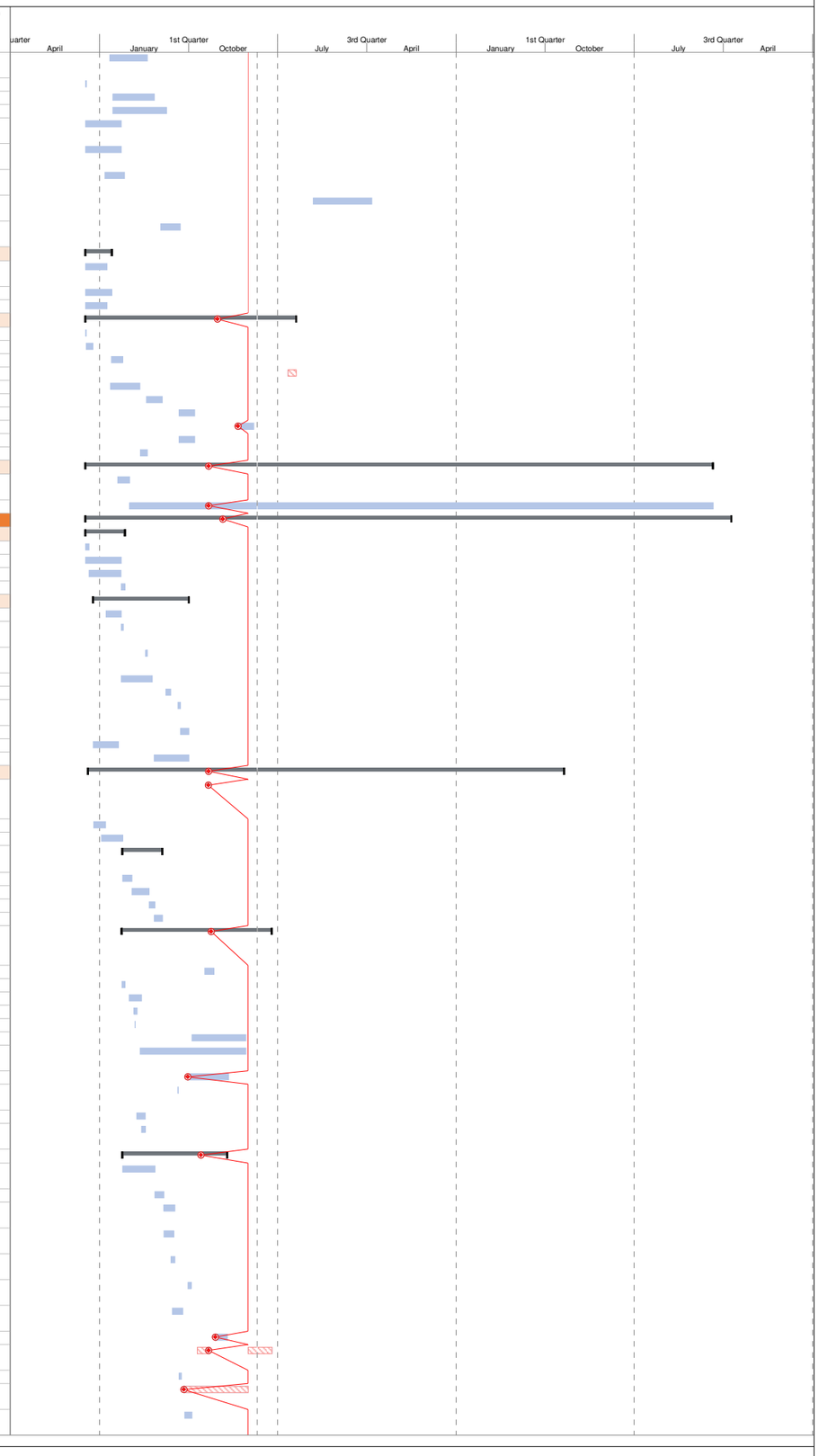
ID	Activity ID	Key Date	Task Name	CE for Inclement Weather	NCE/E	PMI/CE no.	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete	Individual Critical Path
1	**CD-1000**		**Contract Dates**				**1651.5 days**	**Mon 18/11/19**	**Fri 13/6/25**	**Mon 18/11/19**	**NA**			**0 days**		**0%**	
2	CD-1010		Starting Date				0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19		8,9,13FS+290 days,14FS+310	0 days		100%	
3	**CAD-1000**		**Access Dates (cal. day)**				**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	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	2	191	0 days		100%	
5	CAD-1020		Portion B-1A (Area for the works for Sidestream Treatment Facilities by Others				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	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	2	286,297	0 days		100%	
7	CAD-1040		Portion B-2A (Area for the pipe-jacking works by others)				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	Mon 18/11/19	Mon 18/11/19	2	323	0 days		100%	
9	CAD-1060		Portion B-4 (Bioreactor No. 2A & 2B)				0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	2	338	0 days		100%	
10	CAD-1070		Portion B-5 (Membrane Facilities Building No.2)				0 days	Tue 17/3/20	Tue 17/3/20	Tue 17/3/20	Tue 17/3/20	2	373,390,395	0 days		100%	
11	CAD-1080		Portion B-6 (SAS Pumping Station)				0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	2	404	0 days		100%	
12	CAD-1090		Portion B-7 (Ancillary structures)				0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	2	427	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	Wed 2/9/20	Wed 2/9/20	2FS+290 days	490FS-1 day	0 days		100%	
14	CAD-1110		Portion B-8 (Alternation for existing Membrane Facilities Building No.1)				0 days	Wed 26/8/20	Wed 26/8/20	Wed 26/8/20	Wed 26/8/20	2FS+311 days	492FS-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	Mon 18/11/19	Mon 18/11/19	2	483	0 days		100%	
16	CAD-1130		Portion B-9 (remainder works in Zone B)				0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	2	493,508	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	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	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	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)**				**1339.5 days**	**Sat 16/5/20**	**Mon 15/1/24**	**Sat 16/5/20**	**NA**			**514.5 days**		**0%**	
21	CKD-1010		KD1A completion of AR3 in Portion B-1 (375 days after starting date)				0 days	Fri 27/11/20	Fri 27/11/20	Fri 27/11/20	Fri 27/11/20	2FS+376 days		0 days		100%	IW
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)				0 days	Sat 30/1/21	Sat 30/1/21	Sat 30/1/21	Sat 30/1/21	2FS+439.5 days		0 days		100%	IW
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)				0 days	Sat 22/10/22	Sat 22/10/22	NA	NA	2FS+1069.5 days	67	961 days		0%	IW
24	CKD-1040		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	NA	NA	2FS+1191 days		843.5 days		0%	IW
25	CKD-1050		KD1E completion of civil and structural works of Bioreactor in Portion B-4 (1,140days after starting date)				0 days	Sun 1/1/23	Sun 1/1/23	NA	NA	2FS+1141 days		893.5 days		0%	IW
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)				0 days	Wed 23/3/22	Wed 23/3/22	NA	NA	2FS+856.5 days	70	1178 days		0%	MFB, IW
27	CKD-1070		KD1G completion of civil and structural works of MFB in Portion B-5 (1002.5 days after starting date)				0 days	Wed 17/8/22	Wed 17/8/22	NA	NA	2FS+1003.5 days	74	1031 days		0%	MFB, IW
28	CKD-1080		KD1H completion of civil and structural works of SAS Pumping Station in Portion B-6 (703.5 days after starting date)				0 days	Fri 22/10/21	Fri 22/10/21	NA	NA	2FS+704.5 days	78	1330 days		0%	IW
29	CKD-1090		KD1I completion alternation works for existing Power House in Portion B-7A (179.5days after access date of B-7A)				0 days	Sat 16/5/20	Sat 16/5/20	Sat 16/5/20	Sat 16/5/20	2FS+180.5 days		0 days		100%	IW
30	CKD-1100		KD1J completion of auxiliary facilites in Portion B-7 (811.5 days after starting date)				0 days	Mon 7/2/22	Mon 7/2/22	NA	NA	2FS+812.5 days	82	1222 days		0%	IW
31	CKD-1110		KD2A completion of effluent pipes to UV system and connection to its downstream in Portion B-9 (574.5 days after starting date)				0 days	Tue 15/6/21	Tue 15/6/21	NA	NA	2FS+575.5 days	89	1455 days		0%	IW
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)				0 days	Fri 26/3/21	Fri 26/3/21	Fri 26/3/21	Fri 26/3/21	2FS+495 days		0 days		100%	IW
33	CKD-1130		KD3A completion of all utilities and road works (1519 days after starting date)				0 days	Mon 15/1/24	Mon 15/1/24	NA	NA	2FS+1520 days	95	510.5 days		0%	IW
34	**CCD-1000**		**Completion Date (cal. Day)**				**1056 days**	**Sat 23/7/22**	**Fri 13/6/25**	**NA**	**NA**			**0 days**		**0%**	
35	CCD-1010		Section 1 of the Works (1,543.5 after starting date)				0 days	Fri 9/2/24	Fri 9/2/24	NA	NA	2FS+1544.5 days	101	0 days		0%	MFB, IW
36	CCD-1020		Section 2 of the Works (977.5 after starting date)				0 days	Sat 23/7/22	Sat 23/7/22	NA	NA	2FS+978.5 days	107	0 days		0%	MFB, IW
37	CCD-1030		Section 3 of the Works (1,667.5 after starting date)				0 days	Wed 12/6/24	Wed 12/6/24	NA	NA	2FS+1668.5 days	39FS+1 day,113,38FS+1 day	0 days		0%	IW
38	CCD-1040		Defects Liability Period				365 days	Thu 13/6/24	Fri 13/6/25	NA	NA	37FS+1 day		0 days		0%	IW
39	CCD-1050		Landscape Establishment Works				365 days	Thu 13/6/24	Fri 13/6/25	NA	NA	37FS+1 day		0 days		0%	IW
40	**PD-1000**	*	**Planned Completion**				**1668 days**	**Wed 30/9/20**	**Fri 25/4/25**	**Wed 30/9/20**	**NA**			**48.5 days**		**9%**	
41	**PCD-1000**	*	**Planned Completion - Key Dates (cal. day)**				**1135 days**	**Wed 30/9/20**	**Thu 9/11/23**	**Wed 30/9/20**	**NA**			**67 days**		**99%**	
42	PKD-1010	KD1A	KD1A completion of AR3 in Portion B-1 (300days after starting date)				0 days	Wed 30/9/20	Wed 30/9/20	Wed 30/9/20	Wed 30/9/20	200FF		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)				0.5 days	Fri 22/1/21	Fri 22/1/21	Fri 22/1/21	Fri 22/1/21	202FF,285FF,275FF,282FF,240FF,238FF		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	Fri 11/8/23	Fri 11/8/23	NA	NA	320FF,319FF,311FF,315FF		-294 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	NA	NA	334FF,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 7/1/23	Sat 7/1/23	NA	NA	362FF,365FF,363FF,364FF		-6 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	Mon 5/9/22	Mon 5/9/22	NA	NA	400FF		-167 days		0%	MFB
48	PCD-1070	KD1G	KD1G completion of civil and structural works of MFB in Portion B-5 (950days after starting date)				0 days	Thu 2/2/23	Thu 2/2/23	NA	NA	401FF		-170 days		0%	MFB
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	Fri 26/8/22	Fri 26/8/22	NA	NA	425FF,424FF		-309 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)				1 day	Fri 29/1/21	Fri 29/1/21	Fri 29/1/21	Fri 29/1/21	490FF		0 days		100%	
51	PCD-1100	KD1J	KD1J completion of auxiliary facilites in Portion B-7 (800days after starting date)				0 days	Thu 9/11/23	Thu 9/11/23	NA	NA	464FF,463FF,442FF,441FF,475FF,474FF		-641 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	Wed 4/8/21	Wed 4/8/21	NA	NA	494FF,496FF		-47.8 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)				1 day	Fri 26/3/21	Fri 26/3/21	Fri 26/3/21	Fri 26/3/21	483FF,487FF,488FF,489FF		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	NA	NA	507FF		79 days		0%	
55	**PCD-1000**	*	**Planned Completion Date (cal. Day)**				**616 days**	**Fri 18/8/23**	**Fri 25/4/25**	**NA**	**NA**			**-392 days**		**0%**	
56	PCD-1010	SW1	Section 1 of the Works (1,460 after starting date)				0 days	Mon 6/1/25	Mon 6/1/25	NA	NA	443FF,476FF,470FF,437FF,458FF,452FF		-333 days		0%	MFB
57	PCD-1020	SW2	Section 2 of the Works (900 after starting date)				0 days	Fri 18/8/23	Fri 18/8/23	NA	NA	502FF,505FF,506FF,504FF,503FF,322FF		-392 days		0%	MFB
58	PCD-1030	SW3	Section 3 of the Works (1,590 after starting date)				0 days	Thu 25/4/24	Thu 25/4/24	NA	NA	492FF,509FF,510FF,511FF		47 days		0%	
59	PCD-1040	DLP	Defects Liability Period				0 days	Fri 25/4/25	Fri 25/4/25	NA	NA	512FF,149FF		48.5 days		0%	
60	PCD-1050		Landscape Establishment Works				0 days	Fri 25/4/25	Fri 25/4/25	NA	NA	512FF		48.5 days		0%	
61	**ET-1000**		**Effects from Inclement Weather and Other Time Affected Events**				**1097 days**	**Tue 15/6/21**	**Sun 16/6/24**	**NA**	**NA**			**362 days**		**0%**	IW
62	**ET1C-1000**		**Effects to KD1C**				**4 days**	**Sat 22/10/22**	**Wed 26/10/22**	**NA**	**NA**			**961 days**		**0%**	IW
63	**ET1C-1100**		**Inclement Weather to KD1C (cal. Day)**				**0 days**	**Wed 26/10/22**	**Wed 26/10/22**	**NA**	**NA**			**961 days**		**0%**	IW
64	ET1C-1110		Delay and Disruption of Works before March 2021				0 days	Wed 26/10/22	Wed 26/10/22	NA	NA	67	65	961 days		0%	IW
65	ET1C-1120		Delay and Disruption of Works in March 2021				0 days	Wed 26/10/22	Wed 26/10/22	NA	NA	64		961 days		0%	IW
66	**ET1C-1200**		**Other Events to KD1C (not all)**				**4 days**	**Sat 22/10/22**	**Wed 26/10/22**	**NA**	**NA**			**961 days**		**0%**	**IW**
67	ET1C-1210		Special working arrangement due to COVID-19 in January 2020				4 days	Sat 22/10/22	Wed 26/10/22	NA	NA	23	64	961 days		0%	IW
68	**ET1F-1000**		**Effects to KD1F**				**0 days**	**Wed 23/3/22**	**Wed 23/3/22**	**NA**	**NA**			**1178 days**		**0%**	**IW**
69	**ET1F-1100**		**Inclement Weather to KD1F (cal. Day)**				**0 days**	**Wed 23/3/22**	**Wed 23/3/22**	**NA**	**NA**			**1178 days**		**0%**	**IW**
70	ET1F-1110		Delay and Disruption of Works before March 2021				0 days	Wed 23/3/22	Wed 23/3/22	NA	NA	26	71	1178 days		0%	IW
71	ET1F-1120		Delay and Disruption of Works in March 2021				0 days	Wed 23/3/22	Wed 23/3/22	NA	NA	70		1178 days		0%	IW
72	**ET1G-1000**		**Effects to KD1G**				**0 days**	**Wed 17/8/22**	**Wed 17/8/22**	**NA**	**NA**			**1031 days**		**0%**	**IW**
73	**ET1G-1100**		**Inclement Weather to KD1G (cal. Day)**				**0 days**	**Wed 17/8/22**	**Wed 17/8/22**	**NA**	**NA**			**1031 days**		**0%**	**IW**
74	ET1G-1110		Delay and Disruption of Works before March 2021				0 days	Wed 17/8/22	Wed 17/8/22	NA	NA	27	75	1031 days		0%	IW
75	ET1G-1120		Delay and Disruption of Works in March 2021				0 days	Wed 17/8/22	Wed 17/8/22	NA	NA	74		1031 days		0%	IW
76	**ET1H-1000**		**Effects to KD1H**				**0 days**	**Fri 22/10/21**	**Fri 22/10/21**	**NA**	**NA**			**1330 days**		**0%**	**IW**



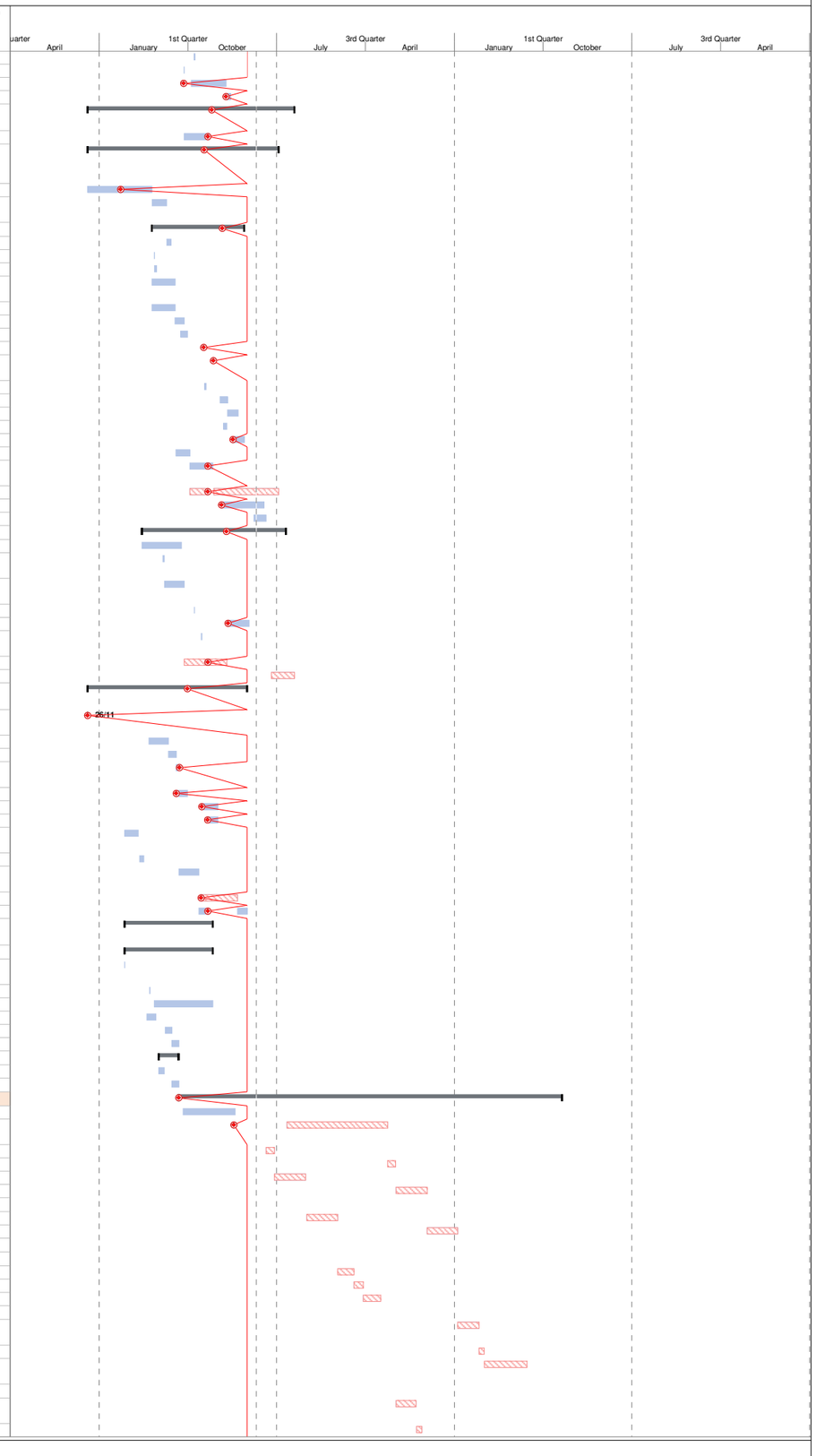
ID	Activity ID	Key Date	Task Name	CE for Inclement Weather	NCE/E	PMI/CE no.	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete	Individual Critical Path
77	**ET1H-1100**		**Inclement Weather to KD1H (cal. Day)**				**0 days**	**Fri 22/10/21**	**Fri 22/10/21**	**NA**	**NA**			**1330 days**		**0%**	**IW**
78	ET1H-1110		Delay and Disruption of Works before March 2021				0 days	Fri 22/10/21	Fri 22/10/21	NA	NA	28	79	1330 days		0%	IW
79	ET1H-1120		Delay and Disruption of Works in March 2021				0 days	Fri 22/10/21	Fri 22/10/21	NA	NA	78		1330 days		0%	IW
80	**ET1H-1000**		**Effects to KD1J**				**0 days**	**Mon 7/2/22**	**Mon 7/2/22**	**NA**	**NA**			**1222 days**		**0%**	**IW**
81	**ET1H-1100**		**Inclement Weather to KD1J (cal. Day)**				**0 days**	**Mon 7/2/22**	**Mon 7/2/22**	**NA**	**NA**			**1222 days**		**0%**	**IW**
82	ET1H-1110		Delay and Disruption of Works before March 2021				0 days	Mon 7/2/22	Mon 7/2/22	NA	NA	30	83	1222 days		0%	IW
83	ET1H-1120		Delay and Disruption of Works in March 2021				0 days	Mon 7/2/22	Mon 7/2/22	NA	NA	82		1222 days		0%	IW
84	**ET2A-1000**		**Effects to KD2A**				**4 days**	**Tue 15/6/21**	**Sat 19/6/21**	**NA**	**NA**			**1455 days**		**0%**	**IW**
85	**ET2A-1100**		**Inclement Weather to KD2A (cal. Day)**				**0 days**	**Sat 19/6/21**	**Sat 19/6/21**	**NA**	**NA**			**1455 days**		**0%**	**IW**
86	ET2A-1110		Delay and Disruption of Works before March 2021				0 days	Sat 19/6/21	Sat 19/6/21	NA	NA	89	87	1455 days		0%	IW
87	ET2A-1120		Delay and Disruption of Works in March 2021				0 days	Sat 19/6/21	Sat 19/6/21	NA	NA	86		1455 days		0%	IW
88	**ET2A-1200**		**Other Events to KD2A (not all)**				**4 days**	**Tue 15/6/21**	**Sat 19/6/21**	**NA**	**NA**			**1455 days**		**0%**	**IW**
89	ET2A-1210		Special working arrangement due to COVID-19 in January 2020				4 days	Tue 15/6/21	Sat 19/6/21	NA	NA	31	86	1455 days		0%	IW
90	**ET3A-1000**		**Effects to KD3A**				**4 days**	**Tue 16/1/24**	**Fri 19/1/24**	**NA**	**NA**			**510.5 days**		**0%**	**IW**
91	**ET3A-1100**		**Inclement Weather to KD3A (cal. Day)**				**0 days**	**Fri 19/1/24**	**Fri 19/1/24**	**NA**	**NA**			**510.5 days**		**0%**	**IW**
92	ET3A-1110		Delay and Disruption of Works before March 2021				0 days	Fri 19/1/24	Fri 19/1/24	NA	NA	95	93	510.5 days		0%	IW
93	ET3A-1120		Delay and Disruption of Works in March 2021				0 days	Fri 19/1/24	Fri 19/1/24	NA	NA	92		510.5 days		0%	IW
94	**ET3A-1200**		**Other Events to KD3A (not all)**				**4 days**	**Tue 16/1/24**	**Fri 19/1/24**	**NA**	**NA**			**510.5 days**		**0%**	**IW**
95	ET3A-1210		Special working arrangement due to COVID-19 in January 2020				4 days	Tue 16/1/24	Fri 19/1/24	NA	NA	33	92	510.5 days		0%	IW
96	**ETS1-1000**		**Effects to Section 1 of the Works**				**4 days**	**Fri 9/2/24**	**Tue 13/2/24**	**NA**	**NA**			**486 days**		**0%**	**IW**
97	**ETS1-1100**		**Inclement Weather to Section 1 of the Works (cal. Day)**				**0 days**	**Tue 13/2/24**	**Tue 13/2/24**	**NA**	**NA**			**486 days**		**0%**	**IW**
98	ETS1-1110		Delay and Disruption of Works before March 2021				0 days	Tue 13/2/24	Tue 13/2/24	NA	NA	101	99	486 days		0%	IW
99	ETS1-1120		Delay and Disruption of Works in March 2021				0 days	Tue 13/2/24	Tue 13/2/24	NA	NA	98		486 days		0%	IW
100	**ETS1-1200**		**Other Events to Section 1 of the Works (not all)**				**4 days**	**Fri 9/2/24**	**Tue 13/2/24**	**NA**	**NA**			**486 days**		**0%**	**IW**
101	ETS1-1210		Special working arrangement due to COVID-19 in January 2020				4 days	Fri 9/2/24	Tue 13/2/24	NA	NA	35	98	486 days		0%	IW
102	**ETS2-1000**		**Effects to Section 2 of the Works**				**4 days**	**Sat 23/7/22**	**Wed 27/7/22**	**NA**	**NA**			**1052 days**		**0%**	**IW**
103	**ETS2-1100**		**Inclement Weather to Section 2 of the Works (cal. Day)**				**0 days**	**Wed 27/7/22**	**Wed 27/7/22**	**NA**	**NA**			**1052 days**		**0%**	**IW**
104	ETS2-1110		Delay and Disruption of Works before March 2021				0 days	Wed 27/7/22	Wed 27/7/22	NA	NA	107	105	1052 days		0%	IW
105	ETS2-1120		Delay and Disruption of Works in March 2021				0 days	Wed 27/7/22	Wed 27/7/22	NA	NA	104		1052 days		0%	IW
106	**ETS2-1200**		**Other Events to Section 2 of the Works (not all)**				**4 days**	**Sat 23/7/22**	**Wed 27/7/22**	**NA**	**NA**			**1052 days**		**0%**	**IW**
107	ETS2-1210		Special working arrangement due to COVID-19 in January 2020				4 days	Sat 23/7/22	Wed 27/7/22	NA	NA	36	104	1052 days		0%	IW
108	**ETS3-1000**		**Effects to Section 3 of the Works**				**4 days**	**Wed 12/6/24**	**Sun 16/6/24**	**NA**	**NA**			**362 days**		**0%**	**IW**
109	**ETS3-1100**		**Inclement Weather to Section 3 of the Works (cal. Day)**				**0 days**	**Sun 16/6/24**	**Sun 16/6/24**	**NA**	**NA**			**362 days**		**0%**	**IW**
110	ETS3-1110		Delay and Disruption of Works before March 2021				0 days	Sun 16/6/24	Sun 16/6/24	NA	NA	113	111	362 days		0%	IW
111	ETS3-1120		Delay and Disruption of Works in March 2021				0 days	Sun 16/6/24	Sun 16/6/24	NA	NA	110		362 days		0%	IW
112	**ETS3-1200**		**Other Events to Section 3 of the Works (not all)**				**4 days**	**Wed 12/6/24**	**Sun 16/6/24**	**NA**	**NA**			**362 days**		**0%**	**IW**
113	ETS3-1210		Special working arrangement due to COVID-19 in January 2020				4 days	Wed 12/6/24	Sun 16/6/24	NA	NA	37	110	362 days		0%	IW
114	**SUB-1000**		**Submissions (cal.day)**				**1956 days**	**Mon 18/11/19**	**Wed 26/3/25**	**Mon 18/11/19**	**NA**			**78.5 days**		**50%**	
115	**SUBS-1000**		**Subletting Package**				**562 days**	**Mon 18/11/19**	**Tue 1/6/21**	**Mon 18/11/19**	**NA**			**638 days**		**76%**	
116	SUBS-1010		Prepare & submit subletting procedure				12 days	Mon 18/11/19	Fri 29/11/19	Mon 18/11/19	Fri 29/11/19	2	117	0 days		100%	
117	SUBS-1020		PM review and accept subletting procedure				12 days	Sat 30/11/19	Wed 11/12/19	Sat 30/11/19	Wed 11/12/19	116	138,118,121,120,119	0 days		100%	
118	SUBS-1030		Subletting for demolition works				93 days	Tue 17/12/19	Wed 18/3/20	Tue 17/12/19	Wed 18/3/20	117,150	327,428,286,373,490,346	0 days		100%	
119	SUBS-1040		Subletting for UU diversion for Inlet Works No.1				78 days	Fri 10/1/20	Fri 27/3/20	Fri 10/1/20	Fri 27/3/20	117	202	0 days		100%	
120	SUBS-1050		Subletting for Inspection pit excavation				56 days	Thu 19/12/19	Wed 12/2/20	Thu 19/12/19	Wed 12/2/20	117,150	204,122	0 days		100%	
121	SUBS-1060		Subletting for Preliminary Works (topographic surveying)				54 days	Fri 20/12/19	Tue 11/2/20	Fri 20/12/19	Tue 11/2/20	117,150	155,188,125,126,127,123	0 days		100%	
122	SUBS-1070		Subletting for AR3 access road				0 days	Fri 13/12/19	Tue 11/2/20	Fri 13/12/19	Tue 11/2/20	120	123,200	0 days		100%	
123	SUBS-1080		Subletting for pre-drilling works				38 days	Thu 6/2/20	Fri 20/3/20	Thu 6/2/20	Fri 20/3/20	121,122	419,328,385,124	0 days		100%	
124	SUBS-1090		Subletting for Contractor designer for temporary works and ICE				71 days	Mon 16/12/19	Mon 24/2/20	Mon 16/12/19	Mon 24/2/20	123	332,361,423,445,454,433,46	0 days		100%	
125	SUBS-1100		Subletting for independent BIM consultant				0 days	Wed 11/12/19	Thu 23/1/20	Wed 11/12/19	Thu 23/1/20	121	183	0 days		100%	
126	SUBS-1110		Subletting for independent BIM services				15 days	Tue 14/1/20	Wed 26/2/20	Tue 14/1/20	Wed 26/2/20	121	183	0 days		100%	
127	SUBS-1120		Subletting for Design, Supply & Install of Temporary Activated Carbon Deodorization Units (E&M Works)				0 days	Fri 13/12/19	Tue 11/2/20	Fri 13/12/19	Tue 11/2/20	121	128,129	0 days		100%	
128	SUBS-1130		Subletting for pre-bored H pile works				45 days	Sun 5/7/20	Tue 18/8/20	Sun 5/7/20	Tue 18/8/20	127	299,329,357,386,420	0 days		100%	
129	SUBS-1140		Subletting for Sheetpile installation works				45 days	Tue 1/9/20	Thu 15/10/20	Tue 1/9/20	Thu 15/10/20	127	302,330,359,422,130,131	0 days		100%	
130	SUBS-1150		Subletting for ELS works for Inlet Works No.1				85 days	Fri 16/10/20	Fri 8/1/21	Fri 16/10/20	Fri 8/1/21	129	304	0 days		100%	
131	SUBS-1160		Subletting for ELS works for Membrance Facilities Building and other buildings				85 days	Fri 16/10/20	Fri 8/1/21	Fri 16/10/20	Fri 8/1/21	129	332,361,423,132,133,134,13	0 days		100%	
132	SUBS-1170		Subletting for structural works for Inlet Works Building				48 days	Sat 9/1/21	Thu 25/2/21	NA	NA	131	307	42 days		0%	
133	SUBS-1180		Subletting for structural works for Primary Sedimentation Tanks				48 days	Sat 9/1/21	Thu 25/2/21	NA	NA	131	333	610 days		0%	
134	SUBS-1190		Subletting for structural works for Bioreactors				48 days	Sat 9/1/21	Thu 25/2/21	NA	NA	131	362	39 days		0%	
135	SUBS-1200		Subletting for structural works for Membrance Facilities Building				48 days	Sat 9/1/21	Thu 25/2/21	NA	NA	131	396	203 days		0%	
136	SUBS-1210		Subletting for structural works for SAS pumping house and ancillary structures				48 days	Sat 9/1/21	Thu 25/2/21	NA	NA	131	424,137	10 days		0%	
137	SUBS-1220		Subletting for ABWF works				48 days	Fri 26/2/21	Wed 14/4/21	NA	NA	136	321,335,369,426,452,458,43	638 days		0%	
138	SUBS-1230		Subletting for Process Pipeworks, Utilities and Roadworks				150 days	Fri 22/5/20	Sun 18/10/20	Fri 22/5/20	Sun 18/10/20	117	483,494,502,503,504,505,50	0 days		100%	
139	SUBS-1240		Subletting for Landscape Hardworks and Softworks				48 days	Thu 15/4/21	Tue 1/6/21	NA	NA	137	510,511,512	638 days		0%	
140	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)				15 days	Tue 15/9/20	Tue 29/9/20	Tue 15/9/20	Tue 29/9/20		340	0 days		100%	
141	SUBS-1260		Subletting for Diversion of Power supply for existing Slaghter House pump station (CE 034)				14 days	Mon 21/9/20	Sun 4/10/20	Mon 21/9/20	Sun 4/10/20			0 days		100%	
142	SUBS-1270		Subletting for Decommission of exisiting power and signal systems in leachate Pump station switch room (PMI 039)				14 days	Mon 21/9/20	Sun 4/10/20	Mon 21/9/20	Sun 4/10/20		407	0 days		100%	
143	SUBS-1280		Subletting for Diversion of Existing DN250 Leachate Raising Main (PPMI 025)				31 days	Mon 21/9/20	Wed 21/10/20	Mon 21/9/20	Wed 21/10/20			0 days		100%	
144	SUBS-1290		Subletting for Construction of Cable trough for CLP 11kv Cable Diversion (PPMI 041)				31 days	Mon 21/9/20	Wed 21/10/20	Mon 21/9/20	Wed 21/10/20		408,420	0 days		100%	
145	SUBS-1300		Subletting for Demolition of Existing Pillar box and its concrete plinth (CE 030)				31 days	Mon 21/9/20	Wed 21/10/20	Mon 21/9/20	Wed 21/10/20		409	0 days		100%	
146	SUBS-1310		Subletting for Excavation to locate existing underground cable near SAS Pump Station (PPMI 038)				31 days	Mon 21/9/20	Wed 21/10/20	Mon 21/9/20	Wed 21/10/20		410	0 days		100%	
147	SUBS-1320		Subletting for Diversion of pumping system sewerage (PPMI 083)				31 days	Mon 21/9/20	Wed 21/10/20	Mon 21/9/20	Wed 21/10/20		414	0 days		100%	
148	**SUBA-1000**		**Statutory Submission, Submission and Approval**				**1956 days**	**Mon 18/11/19**	**Wed 26/3/25**	**Mon 18/11/19**	**NA**			**78.5 days**		**43%**	
149	SUBA-1010		Liaison with operator of SWHSTW and obtain their consent of associated method statement of major activities				1584 days	Mon 18/11/19	Wed 26/3/25	Mon 18/11/19	NA	2	59FF	67.5 days		19%	
150	SUBA-1020		Prepare and submit Subcontractor Management Plan (SMP)				24 days	Mon 18/11/19	Wed 11/12/19	Mon 18/11/19	Wed 11/12/19	2	118,121,120	0 days		100%	
151	SUBA-1030		Prepare and submit Interface Management Plan				36 days	Mon 18/11/19	Mon 23/12/19	Mon 18/11/19	Mon 23/12/19	2		0 days		100%	
152	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	Mon 18/11/19	Wed 11/12/19	2	191	0 days		100%	
153	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	Mon 18/11/19	Fri 29/11/19	2	154	0 days		100%	
154	SUBA-1060		PM review and accept the method statement				0 days	Sat 30/11/19	Wed 11/12/19	Sat 30/11/19	Wed 11/12/19	153	203,204	0 days		100%	
155	SUBA-1070		Prepare and submit combine underground services drawing for PM's review the alignment				23 days	Thu 26/12/19	Sat 18/1/20	Thu 26/12/19	Sat 18/1/20	121		0 days		100%	
156	SUBA-1080		Prepare and submit method statement for demolition existing structures				66 days	Mon 18/11/19	Wed 22/1/20	Mon 18/11/19	Wed 22/1/20	2	373,327,428,286,490,346	0 days		100%	
157	SUBA-1090		Prepare and submit method statement for structural works for buildings				197 days	Mon 18/11/19	Mon 1/6/20	Mon 18/11/19	Mon 1/6/20	2		0 days		100%	



ID	Activity ID	Key Date	Task Name	CE for Inclement Weather	NCE/E	PMI/CE no.	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete	Individual Critical Path
158	SUBA-1100		Prepare and submit method statements to MTRC regarding the works within railing protection boundary				92 days	Sat 1/2/20	Mon 25/5/20	Sat 1/2/20	Mon 25/5/20	2	327,428,490,286,346	0 days		100%	
159	SUBA-1110		Prepare and submit & approve Safety Management Plan				3 days	Mon 18/11/19	Wed 20/11/19	Mon 18/11/19	Wed 20/11/19	2		0 days		100%	
160	SUBA-1120		Prepare and submit Excavation and lateral support (ELS) proposal				128 days	Mon 10/2/20	Tue 16/6/20	Mon 10/2/20	Tue 16/6/20	2		0 days		100%	
161	SUBA-1130		Prepare and submit Dewatering proposal for basement construction				165 days	Mon 10/2/20	Thu 23/7/20	Mon 10/2/20	Thu 23/7/20	2		0 days		100%	
162	SUBA-1140		Prepare and submit Pre-construction condition survey of existing structures/ services				0 days	Mon 18/11/19	Fri 6/3/20	Mon 18/11/19	Fri 6/3/20	188		0 days		100%	
163	SUBA-1150		Prepare and submit Settlement and movement monitoring proposal of existing structures/ services				110 days	Mon 18/11/19	Fri 6/3/20	Mon 18/11/19	Fri 6/3/20	188		0 days		100%	
164	SUBA-1160		Prepare and submit design of structure elements of the temporary activated carbon deodourization unit				60 days	Mon 18/11/19	Mon 16/3/20	Mon 18/11/19	Mon 16/3/20	2FS+60 days		0 days		100%	
165	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	NA	NA		492	332 days		0%	
166	SUBA-1180		Prepare of RSE and structural design for alternation and additional (A&A) works at Main Power House				60 days	Mon 6/7/20	Thu 3/9/20	Mon 6/7/20	Thu 3/9/20		490	0 days		100%	
167	**SUBE-1000**		**Environmental Aspect Submissions**				**81 days**	**Mon 18/11/19**	**Thu 6/2/20**	**Mon 18/11/19**	**Thu 6/2/20**			**0 days**		**100%**	
168	SUBE-1010		Prepare, submit & approve Site Management Plan for Trip Tricket System				66 days	Mon 18/11/19	Wed 22/1/20	Mon 18/11/19	Wed 22/1/20	2		0 days		100%	
169	SUBE-1020		Prepare, submit & approve Waste Management Plan				81 days	Mon 18/11/19	Thu 6/2/20	Mon 18/11/19	Thu 6/2/20	2		0 days		100%	
170	SUBE-1030		Prepare, submit & approve Environmental Management Plan				66 days	Mon 18/11/19	Wed 22/1/20	Mon 18/11/19	Wed 22/1/20	2		0 days		100%	
171	**SUBP-1000**		**Procurement**				**648 days**	**Mon 18/11/19**	**Thu 26/8/21**	**Mon 18/11/19**	**NA**			**642 days**		**81%**	
172	SUBP-1010		Prepare and submit the Procurement Procedure				2 days	Mon 18/11/19	Tue 19/11/19	Mon 18/11/19	Tue 19/11/19	2	173	0 days		100%	
173	SUBP-1020		PM Review & Accept Procurement Procedure				21 days	Tue 19/11/19	Tue 10/12/19	Tue 19/11/19	Tue 10/12/19	172	174,175,176,177,178,179,18	0 days		100%	
174	SUBP-1030		Prepare, submit and approve the pipe works material				34 days	Thu 6/2/20	Tue 10/3/20	Thu 6/2/20	Tue 10/3/20	173	202,483,503,504,506,505,50	0 days		100%	
175	SUBP-1040		Prepare, submit and approve the water proofing material				25 days	Mon 2/8/21	Thu 26/8/21	NA	NA	173	314,318	-73 days		0%	
176	SUBP-1050		Prepare, submit and approve the concrete mix material				90 days	Mon 3/2/20	Sat 2/5/20	Mon 3/2/20	Sat 2/5/20	173	307,362,424,396	0 days		100%	
177	SUBP-1060		Prepare, submit and approve the rebar material				49 days	Sat 23/5/20	Fri 10/7/20	Sat 23/5/20	Fri 10/7/20	173	307,362,424,396	0 days		100%	
178	SUBP-1070		Prepare, submit and approve the metal works material				48 days	Tue 1/9/20	Sun 18/10/20	Tue 1/9/20	Sun 18/10/20	173	307,362,424,396	0 days		100%	
179	SUBP-1080		Prepare, submit and approve the ABWF works material				48 days	Mon 1/3/21	Sat 17/4/21	NA	NA	173	321,335,369,426,452,458,43	773 days		0%	
180	SUBP-1090		Prepare, submit and approve the protective lining to concrete				48 days	Tue 1/9/20	Sun 18/10/20	Tue 1/9/20	Sun 18/10/20	173	307,362,424,396	0 days		100%	
181	SUBP-1100		Prepare, submit and approve the multi-part covers				21 days	Tue 5/5/20	Mon 25/5/20	Tue 5/5/20	Mon 25/5/20	173		0 days		100%	
182	**SUBB-1000**		**BIM**				**1562 days**	**Mon 18/11/19**	**Fri 28/2/25**	**Mon 18/11/19**	**NA**			**89.5 days**		**16%**	
183	SUBB-1010		Prepare, submit and approve the proposal of details of Common data environment (CDE)				37 days	Mon 18/11/19	Wed 1/4/20	Mon 18/11/19	Wed 1/4/20	125,126	184	0 days		100%	
184			Prepare and submit BIM submission				1451 days	Thu 2/4/20	Fri 28/2/25	Thu 2/4/20	NA	183		89.5 days		14%	
185	**C-1000**	*	**Construction Works (Working day)**				**1986 days**	**Mon 18/11/19**	**Fri 25/4/25**	**Mon 18/11/19**	**NA**			**48.5 days**		**37%**	
186	**CPW-1000**		**Preliminary Works**				**121 days**	**Mon 18/11/19**	**Tue 17/3/20**	**Mon 18/11/19**	**Tue 17/3/20**			**0 days**		**100%**	
187	CPW-1000		Initial Survey				10 days	Mon 18/11/19	Thu 28/11/19	Mon 18/11/19	Thu 28/11/19	2	188	0 days		100%	
188	CPW-2000		Condition Survey				89 days	Mon 18/11/19	Fri 6/3/20	Mon 18/11/19	Fri 6/3/20	121,187	189,162,163,190	0 days		100%	
189	CPW-3000		Installation of Monitoring Markers				78 days	Fri 29/11/19	Thu 5/3/20	Fri 29/11/19	Thu 5/3/20	188		0 days		100%	
190	CPW-4000		Tree Felling Works			22, 235	9 days	Sat 7/3/20	Tue 17/3/20	Sat 7/3/20	Tue 17/3/20	188		0 days		100%	
191	**CAR-0000**	*	**Access Road (AR3), B-1**				**238 days**	**Thu 12/12/19**	**Wed 30/9/20**	**Thu 12/12/19**	**Wed 30/9/20**	**4,152**		**0 days**		**100%**	
192	CAR-1000		Site setup and clearance wroks			05	38 days	Mon 20/1/20	Fri 6/3/20	Mon 20/1/20	Fri 6/3/20		193	0 days		100%	
193	CAR-1001		Awaiting for AECOM instruction for alignment confirmation for road works			055	5 days	Mon 17/2/20	Thu 12/3/20	Mon 17/2/20	Thu 12/3/20	192	194	0 days		100%	
194	CAR-1002		Additional Works in Access Road AR3 to Settle Left-in Material by Contract DC/2016/07		031	215-1	4 days	Thu 21/5/20	Mon 25/5/20	Thu 21/5/20	Mon 25/5/20	193	195	0 days		100%	
195	CAR-2000		Drainage and Utilities Works				75 days	Sat 7/3/20	Tue 9/6/20	Sat 7/3/20	Tue 9/6/20	194	196	0 days		100%	
196	CAR-2000a		Trimming of Existing Sheet Piles in Access Road AR3			215-2	20 days	Tue 14/7/20	Wed 5/8/20	Tue 14/7/20	Wed 5/8/20	195	197	0 days		100%	
197	CAR-2000b		Installation of Multi-part Cover and Manhole Cover of Chamber RP6 and Associated Concreting Works in Portion B-1			215	7 days	Fri 28/8/20	Fri 4/9/20	Fri 28/8/20	Fri 4/9/20	196	198	0 days		100%	
198	CAR-2001		Diversion of Existing Underground Cables in Portion B-1A			036	172 days	Thu 5/3/20	Wed 30/9/20	Thu 5/3/20	Wed 30/9/20	197	200	0 days		100%	
199	CAR-2002		Additional U-channel, beam barrier and footway concrete pavement			055	60 days	Thu 12/12/19	Wed 26/2/20	Thu 12/12/19	Wed 26/2/20		200	0 days		100%	
200	CAR-3000	KD1A	Roadworks				133 days	Fri 24/4/20	Wed 30/9/20	Fri 24/4/20	Wed 30/9/20	122,199,198	42FF	0 days		100%	
201	**CIW-0000**	*	**Inlet Works No.1, B-2**				**1188 days**	**Tue 26/11/19**	**Tue 28/11/23**	**Tue 26/11/19**	**NA**			**59 days**		**47%**	
202	**CIW-1000**		**Diversion Works (1. Inlet Trunk Sewer, Leachate Rising Mains, Sludge Pipes, Tank Drains and Pipelines near Primary Sludge Thinkeners)**				**459 days**	**Tue 26/11/19**	**Wed 16/6/21**	**Tue 26/11/19**	**NA**	**174,119**	**43FF**	**36 days**		**59%**	
203	CIW-1100		Utilities scanning to idenify existing UU arrangement				0 days	Fri 13/12/19	Sat 18/1/20	Fri 13/12/19	Sat 18/1/20	154	204SS,206	0 days		100%	
204	CIW-1200		Trial pits to locate the collection points				0 days	Mon 6/1/20	Tue 10/3/20	Mon 6/1/20	Tue 10/3/20	154,203SS,120	222,241	0 days		100%	
205	**CIW-1300**		**Installation and Commissioning of Temporary Activated Carbon Deodorization Unit for the Existing Inlet Works**				**98 days**	**Wed 11/3/20**	**Sat 11/7/20**	**Wed 11/3/20**	**Sat 11/7/20**			**0 days**		**100%**	
206	CIW-1310		Construction of concrete plinth				24 days	Wed 11/3/20	Wed 8/4/20	Wed 11/3/20	Wed 8/4/20	203	207	0 days		100%	
207	CIW-1320		Installation of Deodorizer				40 days	Thu 9/4/20	Sat 30/5/20	Thu 9/4/20	Sat 30/5/20	206	208	0 days		100%	
208	CIW-1330		Testing & commissioning				15 days	Mon 1/6/20	Wed 17/6/20	Mon 1/6/20	Wed 17/6/20	207	209FS-1 day	0 days		100%	
209	CIW-1340		Demolishment of the existing carbon deodorization unit				20 days	Wed 17/6/20	Sat 11/7/20	Wed 17/6/20	Sat 11/7/20	208FS-1 day		0 days		100%	
210	**CIW-1400**		**Diversion of Inlet Trunk Sewer (approx. 40m 1800mm dia concrete pipe, 4 deep manholes and Inlet Reception Chamber)**				**374 days?**	**Mon 9/3/20**	**Sat 12/6/21**	**Mon 9/3/20**	**NA**			**2 days?**		**63%**	
211	CIW-1405		Joint Initial Survey arrangement with MTRCL				24 days	Thu 19/11/20	Wed 16/12/20	Thu 19/11/20	Wed 16/12/20		212	0 days		100%	
212	CIW-1410		Remedial Works for uncharted sludge Pipe leakage		008	41	8 days	Mon 9/3/20	Tue 17/3/20	Mon 9/3/20	Tue 17/3/20	211	213	0 days		100%	
213	CIW-1420		Diversion of uncharted DN250 sludge pipe		008	41	27 days	Tue 31/3/20	Thu 7/5/20	Tue 31/3/20	Thu 7/5/20	212	220,214,215	0 days		100%	
214	CIW-1421		Diversion of uncharted 2" water pipe			024	9 days	Wed 15/4/20	Fri 24/4/20	Wed 15/4/20	Fri 24/4/20	213	220	0 days		100%	
215	CIW-1422		Additional Underground Utility Scanning for existing sludge pipe			32	1 day	Sat 18/4/20	Sat 18/4/20	Sat 18/4/20	Sat 18/4/20	213		0 days		100%	
216	CIW-1423		HV Cable Diversion for Inlet Works			84	135 days	Sat 10/10/20	Wed 24/3/21	Sat 10/10/20	Wed 24/3/21		299,217	0 days		100%	
217	CIW-1423a		Exposing, Removal and Diversion of Existing Cables near Inlet Works No. 1			236	268 days?	Mon 4/5/20	Wed 24/3/21	Mon 4/5/20	Wed 24/3/21	216		0 days?		100%	
218	CIW-1424		Diversion of Existing Sludge Rising Main and Sewerage System			81	102 days	Mon 28/9/20	Sat 30/1/21	Mon 28/9/20	NA		298,299,252,268,269	47 days		0%	
219	CIW-1425		Demolition of Deodorization System and Facilities between Existing Primary Sludge Thickeners and Primary Sludge Pump Pit			037	1 day	Fri 28/8/20	Fri 28/8/20	Fri 28/8/20	Fri 28/8/20			0 days		100%	
220	CIW-1430		Removal of concrete surround and uncharted sludge pipe			030	20 days	Fri 24/4/20	Tue 19/5/20	Fri 24/4/20	Tue 19/5/20	213,214	221	0 days		100%	
221	CIW-1440		Remedial works for uncharted pipe and unforeseen water seepage		021	273	10 days	Fri 8/5/20	Tue 19/5/20	Fri 8/5/20	Tue 19/5/20	220	222,223	0 days		100%	
222	**CIW-1450**		**Trench Excavation for 1800mm dia pipeline and manholes**				**262 days**	**Wed 11/3/20**	**Tue 26/1/21**	**Wed 11/3/20**	**NA**	**204,221**		**52 days**		**88%**	
223	CIW-1450a		Sheetpile installation (on hold due to identification of uncharted obstruction)		045	028	80 days	Wed 11/3/20	Thu 18/6/20	Wed 11/3/20	Thu 18/6/20	221	224	0 days		100%	
224	CIW-1450b		Trench Excavation for 1800mm dia pipeline and manholes				22 days	Thu 18/6/20	Wed 15/7/20	Thu 18/6/20	Wed 15/7/20	223	225,237	0 days		100%	
225	CIW-1450c		Identification of uncharted concrete surround and pipes near MHA01		045	028	29 days	Thu 16/7/20	Tue 18/8/20	Thu 16/7/20	Tue 18/8/20	224	228,233,237	0 days		100%	
226	CIW-1450d		Removal of existing DSD drawpits near IRC & exposure of CLP calbes with installation of additional temporary support		051		26 days	Thu 16/7/20	Fri 14/8/20	Thu 16/7/20	Fri 14/8/20			0 days		100%	
227	CIW-1450e		Removal of uncharted concrete surround and pipes near MHA01 and Sheetpile installation		045		10 days	Fri 7/8/20	Tue 18/8/20	Fri 7/8/20	Tue 18/8/20		228,233	0 days		100%	
228	CIW-1450f		Revised type of pipe bedding between Manholes no. MHA01 and MHA02		078	096	7 days	Mon 28/9/20	Wed 7/10/20	Mon 28/9/20	Wed 7/10/20	227,225	229	0 days		100%	
229	CIW-1450g		Replace top soil with Grade 200 Rockfill below Formation level of the proposed pipe between MHA01 and MHA02		072,07	079	28 days	Tue 11/8/20	Fri 11/9/20	Tue 11/8/20	Fri 11/9/20	228	231	0 days		100%	
230	CIW-1450h		Grade 200 Rockfill in ELS cofferdam of IRC		161		28 days	Tue 22/12/20	Tue 26/1/21	NA	NA		231	52 days		0%	
231	CIW-1451		Construct M/H MHA01, MHA02, MHA04 and Inlet Reception Chamber				88 days	Tue 27/10/20	Sat 12/6/21	Tue 27/10/20	NA	229,233,232,234,230	272	-58 days		34%	
232	CIW-1452		Enlarged size of Manhole MHA02		022	052	6 days	Tue 1/9/20	Mon 7/9/20	Tue 1/9/20	Mon 7/9/20		231	0 days		100%	
233	CIW-1453		Additional Works for Manhole MHA01 Constructin and Pipe Connection to Manhole MHA01		094,14		160 days	Wed 16/9/20	Wed 31/3/21	Wed 16/9/20	NA	225,227	231	0 days		0%	
234	CIW-1454		Additional Works for IRC and Pipe Connection to IRC from Existing Manhole FMH1004115		096		17 days	Fri 18/9/20	Fri 9/10/20	Fri 18/9/20	Fri 9/10/20		235,237,231	0 days		100%	



ID	Activity ID	Key Date	Task Name	CE for Inclement Weather	NCE/E	PMI/CE no.	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete	Individual Critical Path
235	CIW-1455		Removal of left-in sheetpiles at IRC		111		3 days	Mon 19/10/20	Wed 21/10/20	Mon 19/10/20	Wed 21/10/20	234		0 days		100%	
236	CIW-1456		Compliance Test for DN1800 Precast Concrete Pipe		077	065	1 day	Fri 18/9/20	Fri 18/9/20	Fri 18/9/20	Fri 18/9/20			0 days		100%	
237	CIW-1457		Lay 1800mm dia concretre pipe				88 days	Thu 17/9/20	Mon 25/1/21	Thu 17/9/20	NA	224,225,234	238	101 days		0%	
238	CIW-1458		Connection to existing Inlet Chamber				12 days	Tue 26/1/21	Mon 8/2/21	NA	NA	237	43FF,298	101 days		0%	
239	**CIW-1500**		**Diversion of Leachate Rising Main, Sludge Pipes and Tank Drain**				**517 days**	**Tue 26/11/19**	**Tue 24/8/21**	**Tue 26/11/19**	**NA**			**-22 days**		**57%**	
240	CIW-1510	KD1B	Diversion of Tank Drain MHD8.5 (approx. 70m CHES1 & CHES2)				63 days	Sat 19/9/20	Fri 4/12/20	Sat 19/9/20	NA	267	43FF,298	154 days		94%	
241	**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)**				**475 days**	**Tue 26/11/19**	**Tue 6/7/21**	**Tue 26/11/19**	**NA**	**204**		**-16 days**		**58%**	
242	CIW-1500b		Joint Initial Survey arrangement with MTRCL				158 days	Tue 26/11/19	Wed 10/6/20	Tue 26/11/19	Wed 10/6/20			0 days		100%	
243	CIW-1500c		Site Clearance & inspection pit excavation under conforming alignments				36 days	Fri 12/6/20	Sat 25/7/20	Fri 12/6/20	Sat 25/7/20			0 days		100%	
244	**CIW-1511**		**Tank Drain Diversion near MTRCL track**				**233 days**	**Thu 11/6/20**	**Mon 22/3/21**	**Thu 11/6/20**	**NA**			**68 days**		**72%**	
245	CIW-1511a		Excavation of trial pit near MHD9.5 (TP45 & 47)		044	040	12 days	Mon 27/7/20	Sat 8/8/20	Mon 27/7/20	Sat 8/8/20		246,250	0 days		100%	
246	CIW-1511b		Uncharted cables found near MTRC track and identification		044		1 day	Thu 18/6/20	Thu 18/6/20	Thu 18/6/20	Thu 18/6/20	245		0 days		100%	
247	CIW-1511c		Excavation of trial pit near MHD8.5				5 days	Fri 19/6/20	Wed 24/6/20	Fri 19/6/20	Wed 24/6/20		248	0 days		100%	
248	CIW-1511d		Lower the ground surface, opening and additional trial pit (TP38)		046		60 days	Thu 11/6/20	Fri 21/8/20	Thu 11/6/20	Fri 21/8/20	247	249	0 days		100%	
249	CIW-1511e		Excavation of Trial Pits near Manhle MHA04 and MH09			040	60 days	Thu 11/6/20	Fri 21/8/20	Thu 11/6/20	Fri 21/8/20	248		0 days		100%	
250	CIW-1511f		Additional Trial Pit between MHD9.5 and MHA04		095		25 days	Fri 21/8/20	Fri 18/9/20	Fri 21/8/20	Fri 18/9/20	245	251	0 days		100%	
251	CIW-1511g		Trimming of existing concrete surround		085	051	19 days	Tue 8/9/20	Tue 29/9/20	Tue 8/9/20	Tue 29/9/20	250	259	0 days		100%	
252	CIW-1511h		Potential Delay for Construction of Manhole MHD9.5		145		61 days	Wed 18/11/20	Sat 30/1/21	Wed 18/11/20	NA	218		108 days		0%	
253	CIW-1511i		Compliance Test for DN675 and DN825 Precast concrete pipe			232	1 day	Fri 18/12/20	Fri 18/12/20	NA	NA		261	0 days		0%	
254	CIW-1511j		Unsuit excavated material from MHD9.5 to MHD9		127		4 days	Fri 20/11/20	Tue 24/11/20	Fri 20/11/20	Tue 24/11/20			0 days		100%	
255	CIW-1511k		Revise design of manhole MHD9.5		167		20 days	Thu 7/1/21	Fri 29/1/21	Thu 7/1/21	Fri 29/1/21		256	0 days		100%	
256	CIW-1511l		Additional works for breaking concrete surround		167		25 days	Sat 30/1/21	Wed 3/3/21	Sat 30/1/21	Wed 3/3/21	255		0 days		100%	
257	CIW-1511m		Additional work to prevent backflow from MHI1 to MHD9.5		176		9 days	Mon 18/1/21	Wed 27/1/21	Mon 18/1/21	Wed 27/1/21			0 days		100%	
258	CIW-1511n		Sewage overflow incident of MHD11		180		30 days	Tue 16/2/21	Mon 22/3/21	Tue 16/2/21	NA			68 days		0%	
259	CIW-1512		Additional Special manhole for tank drain (NCE)				35 days	Mon 24/8/20	Mon 5/10/20	Mon 24/8/20	Mon 5/10/20	251	260,261	0 days		100%	
260	CIW-1513		Breaking of concrete surround of cables (0.8mx0.8mx70m) (NCE)				60 days	Tue 6/10/20	Tue 15/12/20	Tue 6/10/20	NA	259		145 days		78%	
261	CIW-1514	KD1B	Construction of tank drain along revised alignment (NCE)				221 days	Tue 6/10/20	Tue 6/7/21	Tue 6/10/20	NA	259,253	262SS+80 days,43FF,298	-16 days		21%	
262	CIW-1515		Replacement of rock fill material (NCE)				105 days	Tue 12/1/21	Sat 22/5/21	NA	NA	261SS+80 days	263SS+80 days	15 days		0%	
263	CIW-1516		Backfilling with concrete bedding (NCE)				30 days	Thu 22/4/21	Fri 28/5/21	NA	NA	262SS+80 days		15 days		0%	
264	**CIW-1520**		**Diversion of Sludge Pipes**				**364 days**	**Mon 11/5/20**	**Thu 29/7/21**	**Mon 11/5/20**	**NA**			**0 days**		**59%**	
265	CIW-1520a		Excavation of trial pit and identification of connection point		064		103 days	Mon 11/5/20	Wed 9/9/20	Mon 11/5/20	Wed 9/9/20		266	0 days		100%	
266	CIW-1520b		Trench excavation for twin DN250 sludge pipe and stopped by AECOM		064		4 days	Wed 15/7/20	Sat 18/7/20	Wed 15/7/20	Sat 18/7/20	265	267	0 days		100%	
267	CIW-1520c		Additional hole drilling works and identification of connetion point				53 days	Mon 20/7/20	Fri 18/9/20	Mon 20/7/20	Fri 18/9/20	266	240	0 days		100%	
268	CIW-1520d		Substandard DI 250 Leachate Pipe		120		127 days	Tue 20/10/20	Wed 24/3/21	Tue 20/10/20	Wed 24/3/21	218		0 days		100%	
269	CIW-1520e		Substandard DI 500 Sewage Pipe		133		50 days	Mon 1/2/21	Tue 6/4/21	NA	NA	218		58 days		0%	
270	CIW-1520f		Encounter of uncharted concrete pipe within sheetpile cofferdam at MHA04		123		2 days	Tue 10/11/20	Wed 11/11/20	Tue 10/11/20	Wed 11/11/20		271	0 days		100%	
271	CIW-1520g	KD1B	Resumption and construction of sludge pipe construction				253 days	Sat 19/9/20	Thu 29/7/21	Sat 19/9/20	NA	270	43FF,298	-36 days		23%	
272	CIW-1530	KD1B	Diversion of Leachate Rising Main				60 days	Tue 15/6/21	Tue 24/8/21	NA	NA	231	299SS+40 days	-58 days		0%	
273	**CIW-1600**		**Diversion of pipelines near Primary Sludge Thickeners (approx. 180m long 150mm to 375mm concrete pipes)**				**399 days**	**Tue 26/11/19**	**Wed 31/3/21**	**Tue 26/11/19**	**NA**			**60 days**		**43%**	
274	CIW-1610		Trench Excavation from M/H MHD1E to MHD5 (approx. 90m long with M/Hs MHD1A, 1B, 1C, 1D & 1E)				0 days	~~Tue 26/11/19~~	~~Tue 26/11/19~~	NA	NA			0 days		0%	
275	CIW-1620		Manholes construction and Pipe laying				50 days	Tue 2/6/20	Fri 31/7/20	Tue 2/6/20	Fri 31/7/20		43FF,282,276	0 days		100%	
276	CIW-1621		Temporary Diversion of Existing DN200 Filitrate Rising Main			034	20 days	Sat 1/8/20	Mon 24/8/20	Sat 1/8/20	Mon 24/8/20	275	277,278	0 days		100%	
277	CIW-1622		E&M Equipment at Primary Sludge Thickeners to be Dismantled and Returned to DSD/ST1			039	60 days	Tue 25/8/20	Thu 5/11/20	Tue 25/8/20	NA	276		179 days		15%	
278	CIW-1623		Pipeline Diversion Works near Primary Sludge Thickening Tank		114		30 days	Tue 25/8/20	Mon 28/9/20	NA	NA	276	279,280	168 days		0%	
279	CIW-1624		Uncharted underground utilities at Proposed MHD5B		126		41 days	Thu 12/11/20	Thu 31/12/20	NA	NA	278	280SS+15 days	133 days		0%	
280	CIW-1625		Uncharted underground utilities near Proposed MHD5B		141		26 days	Mon 30/11/20	Thu 31/12/20	NA	NA	279SS+15 days,278	281	133 days		0%	
281	CIW-1630		Trench Excavation from M/H MHD1E to MHD5 (approx. 90m long with M/Hs M1A to M3B)		012		32 days	Thu 19/3/20	Wed 29/4/20	Thu 19/3/20	Wed 29/4/20	280	282,283	0 days		100%	
282	CIW-1640		Manholes construction and Pipe laying		012	058	12 days	Mon 4/5/20	Sat 16/5/20	Mon 4/5/20	Sat 16/5/20	281,275	43FF,285	0 days		100%	
283	CIW-1650		Trench Excavation from MHD5 to MHD9.5 (approx. 90m long with M/Hs MHD5A & 5B)				50 days	Wed 2/9/20	Mon 2/11/20	Wed 2/9/20	Mon 2/11/20	281,287,292,293,294,296	322SS	0 days		100%	
284	CIW-1660		Provision of Pumping System from Screen to Flume Channel			87	90 days	Tue 10/11/20	Mon 1/3/21	Tue 10/11/20	NA		285	0 days		0%	
285	CIW-1670	KD1B	Manholes construction and Pipe laying				50 days	Tue 3/11/20	Wed 31/3/21	Tue 3/11/20	NA	282,284	43FF	60 days		48%	
286	**CIW-2000**		**Decommission and Demolition of Existing Faciliates and Structures**				**222 days**	**Thu 19/3/20**	**Tue 15/12/20**	**Thu 19/3/20**	**Tue 15/12/20**	**6,118,156,158**		**0 days**		**100%**	
287	**CIW-2100**		**Primary Sludge Thickening Tank No.1 and No.2**				**222 days**	**Thu 19/3/20**	**Tue 15/12/20**	**Thu 19/3/20**	**Tue 15/12/20**		**283**	**0 days**		**100%**	
288	CIW-2101		Additional Works for Temporary Diversion of Bypass Pipe near Primary Sludge Thickeners		012		45 days	Thu 19/3/20	Sun 17/5/20	Thu 19/3/20	Sun 17/5/20			0 days		100%	
289	CIW-2110		Removal of E&M equipment of primary sludge thickening tank		020		1 day	Thu 4/6/20	Thu 4/6/20	Thu 4/6/20	Thu 4/6/20		290	0 days		100%	
290	CIW-2120		Decommission and Demolition the tank		052		150 days	Thu 18/6/20	Tue 15/12/20	Thu 18/6/20	Tue 15/12/20	289	292	0 days		100%	
291	CIW-2130		Demolition of structure no.2				24 days	Mon 18/5/20	Mon 22/6/20	Mon 18/5/20	Mon 22/6/20			0 days		100%	
292	CIW-2200		Primary Sludge Pump Pit				18 days	Wed 22/7/20	Tue 11/8/20	Wed 22/7/20	Tue 11/8/20	290	293,294,283,295	0 days		100%	
293	CIW-2300		Septic Tank				18 days	Wed 12/8/20	Tue 1/9/20	Wed 12/8/20	Tue 1/9/20	292	283	0 days		100%	
294	**CIW-2400**		**Diesel Tank**				**53 days**	**Thu 2/7/20**	**Tue 1/9/20**	**Thu 2/7/20**	**Tue 1/9/20**	**292**	**283**	**0 days**		**100%**	
295	CIW-2410		Transfers of Remaining Diesel Fuel of Existing Diesel Tank		001		15 days	Thu 2/7/20	Tue 21/7/20	Thu 2/7/20	Tue 21/7/20	292	296	0 days		100%	
296	CIW-2420		Demolition of diesel tank				18 days	Wed 12/8/20	Tue 1/9/20	Wed 12/8/20	Tue 1/9/20	295	**283**	0 days		100%	
297	**CIW-3000**	*	**Inlet Works No.1 Building (1)**				**961 days**	**Wed 2/9/20**	**Tue 28/11/23**	**Wed 2/9/20**	**NA**	**6**		**59 days**		**0%**	
298	CIW-3100		Predrilling (32nrs, 3rigs, 2.5days/drillhole/rig)				0 days	Tue 15/9/20	Mon 22/2/21	Tue 15/9/20	Mon 22/2/21	238,240,261,271,218	299SS+40 days	0 days	1	100%	
299	CIW-3200		Pre-bored H piles (188nos, 1.5rigs, 2days/rig/pile) & remaining diversion works at Stage 2 & 3				250 days	Fri 19/2/21	Tue 7/6/22	Fri 19/2/21	NA	128,298SS+40 days,216,218,272SS+40 days	304,300SS+80 days,301	-522 days	5	0%	
300	CIW-3400a		Pile Load Test at stage 1				21 days	Sat 29/5/21	Wed 23/6/21	NA	NA	299SS+80 days	301,302	-240 days		0%	
301	CIW-3400b		Pile Load Test at stage 2 & 3				21 days	Wed 8/6/22	Sat 2/7/22	NA	NA	300,299	304,303,317	-522 days		0%	
302	CIW-3300a		Sheetpile Installation at stage 1(3,840sq.m, 1rigs, 50sqm/rig/day)				80 days	Thu 24/6/21	Mon 27/9/21	NA	NA	129,300	304,305	-219 days		0%	
303	CIW-3300b		Sheetpile Installation at stage 2 & 3				80 days	Mon 4/7/22	Fri 7/10/22	NA	NA	301	306	-522 days		0%	
304	CIW-3500		**ELS works (strutting 4 layers, excavate soil 7445cu.m)**				**77 days**	**Sat 2/10/21**	**Tue 4/1/22**	**NA**	**NA**	**302,299,130,301**		**0 days**	**5**	**0%**	
305	CIW-3510		Phrase C (Grid A1 to G3) - Excavation to -3.3mPD and blinding				77 days	Sat 2/10/21	Tue 4/1/22	NA	NA	302	309	-154 days		0%	
306	CIW-3520		Phrase B (Grid G3 to L7) - Excavation to -7.5mPD and blinding				77 days	Sat 8/10/22	Mon 9/1/23	NA	NA	303	313	-522 days		0%	
307	CIW-3600		**R.C. Structure works**				**296 days**	**Thu 2/9/21**	**Thu 1/9/22**	**NA**	**NA**	**132,176,177,180,178**		**0 days**	**5**	**0%**	
308	CIW-3610		**Phase C (Grid G3 to L7)**				**105 days**	**Thu 2/9/21**	**Sat 8/1/22**	**NA**	**NA**			**0 days**		**0%**	
309	CIW-3611		Rebar fix and formwork and concreting for the pile cap (G/F)				40 days	Wed 5/1/22	Wed 23/2/22	NA	NA	305	310	-154 days		0%	
310	CIW-3612		Rebar fix and formwork and concreting upto +13.45mPD (1/F)				25 days	Thu 24/2/22	Thu 24/3/22	NA	NA	309	311	-154 days		0%	
311	CIW-3613		Rebar fix and formwork and concreting upto +25.80mPD (R/F)				40 days	Fri 25/3/22	Tue 17/5/22	NA	NA	310	44FF,320	-154 days		0%	
312	CIW-3620		**Phase B (Gride A1 to G3) (621 sqm)**				**193 days**	**Wed 5/1/22**	**Tue 30/8/22**	**NA**	**NA**			**0 days**		**0%**	
313	CIW-3621		Rebar fix and formwork and concreting for the Inlet Works structure upto Ground Level				54 days	Tue 10/1/23	Thu 16/3/23	NA	NA	306	314	-522 days		0%	
314	CIW-3622		Apply waterproofing membrance and backfilling				14 days	Fri 17/3/23	Sat 1/4/23	NA	NA	313,175	315	-522 days		0%	
315	CIW-3623		Rebar fix and formwork and concreting for the Inlet Works structure upto Roof Level				105 days	Mon 3/4/23	Fri 11/8/23	NA	NA	314	320,321,44FF	-522 days		0%	
316	CIW-3630		**Phase A (G1 to L3) (662 sqm)**				**260 days**	**Wed 5/1/22**	**Sat 19/11/22**	**NA**	**NA**			**0 days**		**0%**	
317	CIW-3631		Rebar fix and formwork and concreting for the Inlet Works structure upto Ground Level				54 days	Mon 4/7/22	Sat 3/9/22	NA	NA	301	318	-365 days		0%	
318	CIW-3632		Apply waterproofing membrance and backfilling				14 days	Mon 5/9/22	Wed 21/9/22	NA	NA	317,175	319	-365 days		0%	



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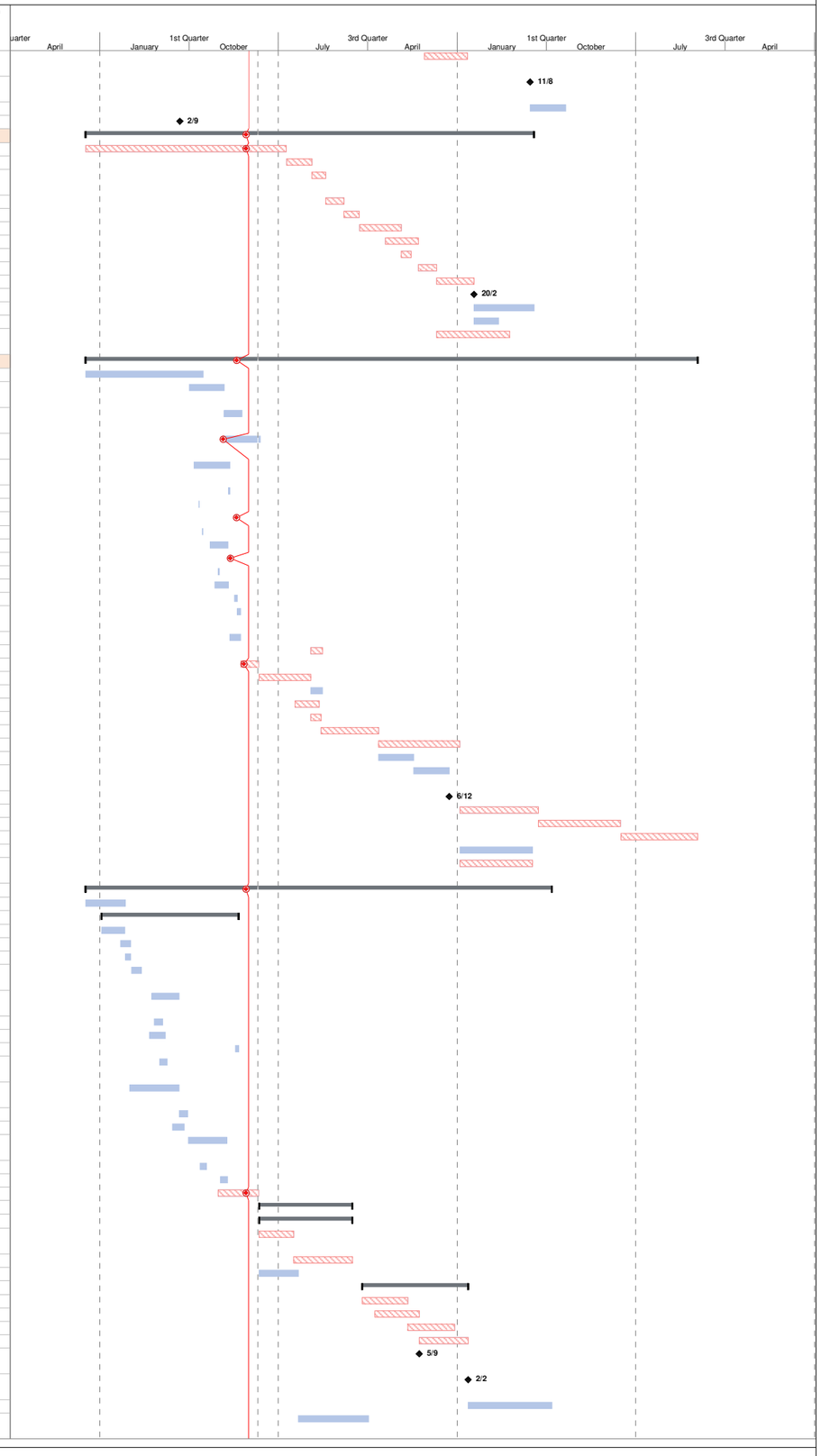
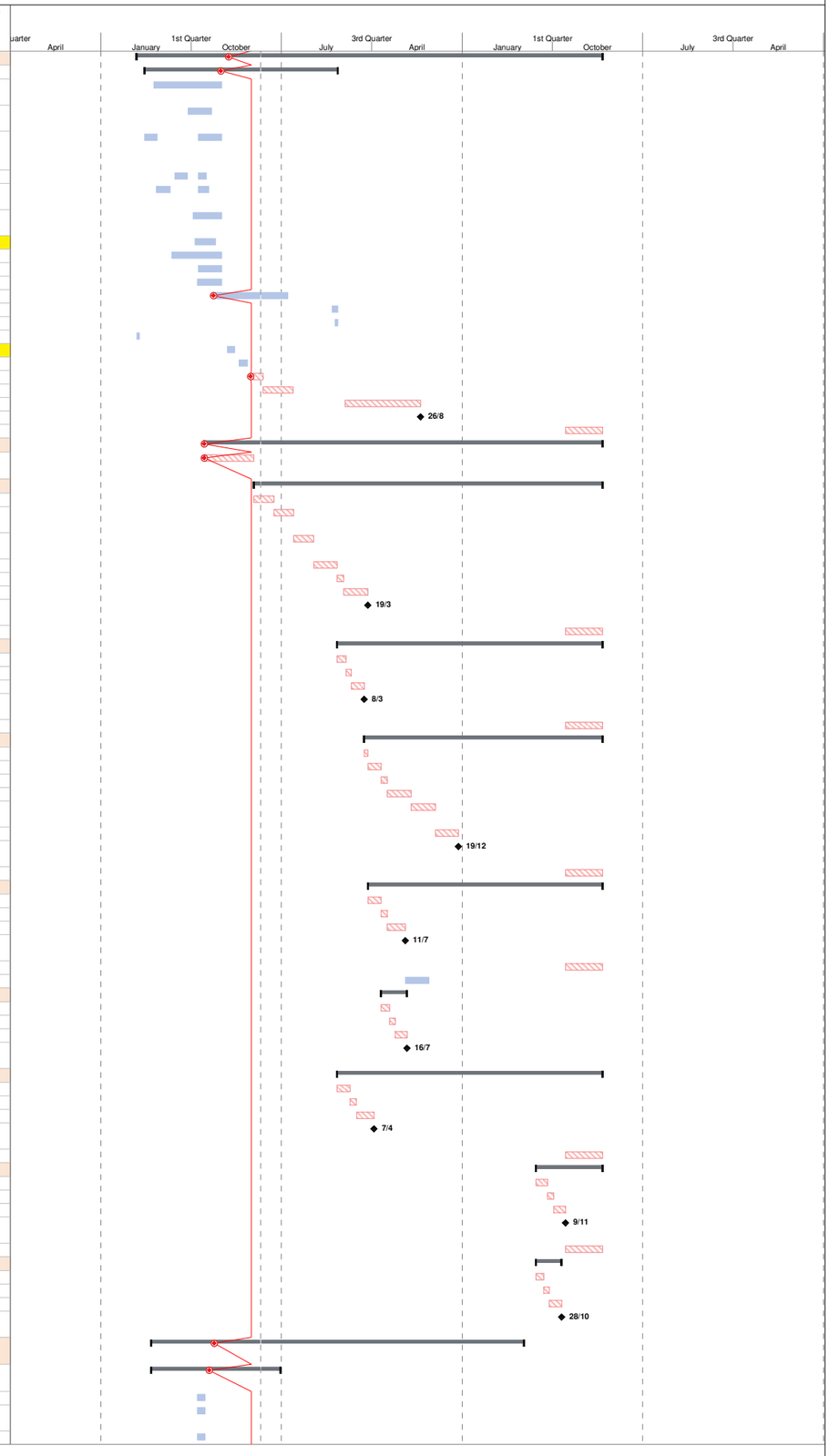
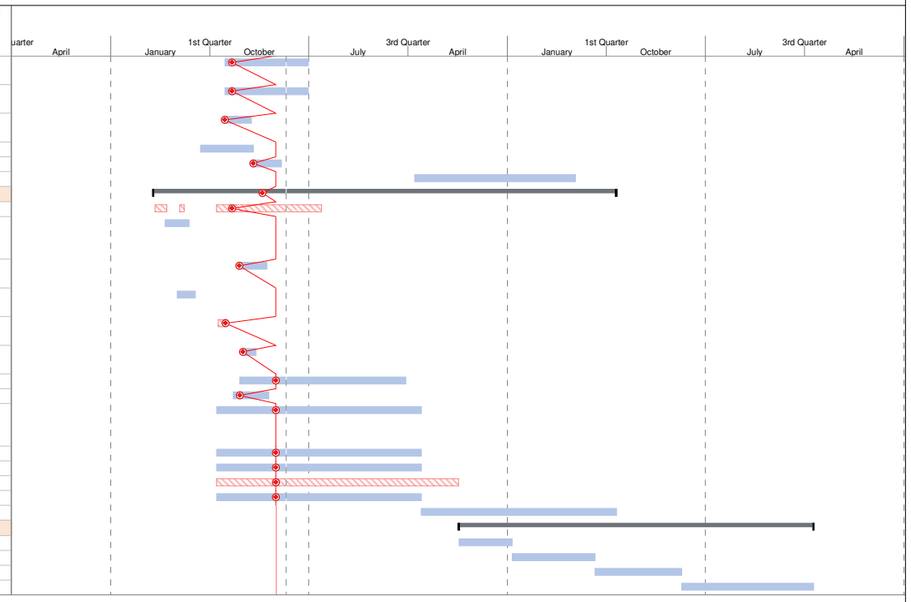
319	CIW-3633	KD1C	Rebar fix and formwork and concreting for the Inlet Works structure upto Roof Level				105 days	Thu 22/9/22	Tue 31/1/23	NA	NA	318	321,44FF,320	-365 days		0%	
320	CIW-3700	KD1C	Allow access to Contractor DE/2018/04 for E&M installation and T&C works				0 days	Fri 11/8/23	Fri 11/8/23	NA	NA	319,315,311	44FF,478,472	-522 days		0%	
321	CIW-3800	SW1	ABWF works + BS works				90 days	Sat 12/8/23	Tue 28/11/23	NA	NA	319,179,137,315	56FF	59 days		0%	
322	CIW-3900	SW2	Process Pipe CHE chainage 0-20 & CHF chainage 0-20				0 days	Wed 2/9/20	Wed 2/9/20	Wed 2/9/20	Wed 2/9/20	283SS	57FF	0 days		100%	
323	**CPS-0000**	*	**Primary Sedimentation Tanks, B-3 (2)**				**1115 days**	**Mon 18/11/19**	**Wed 23/8/23**	**Mon 18/11/19**		**NA 8**		**139 days**		**32%**	
324	CPS-1000		Operation of the Existing Primary sedimentation Tanks				615 days	Mon 18/11/19	Sat 24/7/21	Mon 18/11/19		NA 2	325	-323 days		80%	
325	CPS-1100		Identification of existing cables near Primary Sedimentation Tank			88	65 days	Mon 26/7/21	Mon 11/10/21	NA		NA 324	326	-261 days		0%	
326	CPS-1200		Reinstatement and re-commissioning of existing Primary Sedimentation Tank No. 4 and 6 (by others)				35 days	Tue 12/10/21	Mon 22/11/21	NA		NA 325	327	-261 days		0%	
327	CPS-2000		Demolition of existing primary sedimentation tanks no. 1 & 2				45 days	Tue 23/11/21	Mon 17/1/22	NA		NA 118,156,158,326	328	-261 days		0%	
328	CPS-3000		Predrilling (68nrs, 3rigs, 3days/drillhole/rig)				38 days	Tue 18/1/22	Sat 5/3/22	NA		NA 327,123,419	329	-261 days	1	0%	
329	CPS-4000		Pre-bored H piles (205nos, 4rigs, 2days/pile/rig)				102 days	Mon 7/3/22	Tue 12/7/22	NA		NA 328,128,420	330FS-40 days,332,331	-261 days	5	0%	
330	CPS-5000		Sheetpile Installation (FSP-II, 3360sq.m, 1rigs, 50sqm/rig/day)				85 days	Wed 25/5/22	Fri 2/9/22	NA		NA 329FS-40 days,129	332	-261 days		0%	
331	CPS-6000		Pile Load Test				26 days	Wed 13/7/22	Thu 11/8/22	NA		NA 329	332	-242 days		0%	
332	CPS-7000		ELS works (20000cu.m soil with 2 layers wailing / strutting)				45 days	Sat 3/9/22	Fri 28/10/22	NA		NA 329,131,331,330,124	333,337	-261 days	3	0%	
333	CPS-8000	KD1D	R.C. Structure works				92 days	Sat 29/10/22	Mon 20/2/23	NA		NA 332,133	334,335,45FF,336	0 days	3	0%	
334	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	NA		NA 333	45FF	0 days		0%	
335	CPS-10000	SW1	ABWF works + BS works				150 days	Tue 21/2/23	Wed 23/8/23	NA		NA 333,179,137	56FF	139 days		0%	
336	CPS-11000	SW1	Flowmeter Chamber no.1				60 days	Tue 21/2/23	Sat 6/5/23	NA		NA 333	56FF	229 days		0%	
337	CPS-12000	SW2	Process Pipe CHG chainage 0-50, CHH chainage 0-80, CHI chainage 0-95 & CHJ chianage 0-40				180 days	Sat 29/10/22	Fri 9/6/23	NA		NA 332	57FF	-261 days		0%	
338	**CBR-0000**	*	**Bioreactors No.2A & 2B, B-4 (3)**				**1516 days**	**Mon 18/11/19**	**Mon 6/1/25**	**Mon 18/11/19**		**NA 9**		**135.5 days**		**29%**	
339	CBR-1000		Operation of 2no. Existing 800mm air mains over bioreactor no.2				360 days	Mon 18/11/19	Wed 11/11/20	Mon 18/11/19	Wed 11/11/20	2	342FF	0 days		100%	
340	CBR-2000		Construction of Removable Steel Shutter in the Common Channel of BR2 and 3			67	86 days	Thu 1/10/20	Fri 15/1/21	Thu 1/10/20	Fri 15/1/21	140	341	0 days		100%	
341	CBR-3000		Construction of Isolation Wall in Existing common channel of BR2 (PPMI 061)			66	43 days	Sat 16/1/21	Wed 10/3/21	Sat 16/1/21	Wed 10/3/21	340		0 days		100%	
342	CBR-4000		Diversion of rising main, drainage pipes, and foam collection & surplus activated sludge pipes				90 days	Wed 13/1/21	Wed 5/5/21	NA		NA 339FF	343FF	1219.5 days		0%	
343	CBR-4100		Take Down E&M Equipment & cables in Bioreactor BR2 and Return to DSD		55	95, 210	90 days	Thu 15/10/20	Mon 1/2/21	Thu 15/10/20	Mon 1/2/21	342FF	353	0 days		100%	
344	CBR-4200		Installation of monitoring points before demolition of BR2		113	219	5 days	Wed 27/1/21	Mon 1/2/21	Wed 27/1/21	Mon 1/2/21	351	345	0 days		100%	
345	CBR-4300		Condition Survey for BR2				1 day	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	344	353	0 days		100%	
346	**CBR-5000**		**Demolition of existing bioreactor no.2**				**50 days**	**Sat 19/12/20**	**Mon 22/2/21**	**Tue 10/11/20**		**NA 118,156,158**		**37 days**		**69%**	
347	CBR-5100		Identification and removal of existing cables		121	210	35 days	Tue 10/11/20	Sat 19/12/20	Tue 10/11/20	Sat 19/12/20		350,348	0 days		100%	
348	CBR-5200		Diversion of existing lighting cable and Earthing ducts_stage 1			264	43 days	Fri 4/12/20	Tue 26/1/21	Fri 4/12/20	Tue 26/1/21	347	353	0 days		100%	
349	CBR-5210		Diversion of existing lighting cable and Earthing ducts_stage 2				50 days	Thu 4/2/21	Fri 9/4/21	Thu 4/2/21	NA			-37 days		0%	
350	CBR-5300		Plugging and demolition of existing DN800 air main			91	4 days	Mon 28/12/20	Thu 31/12/20	Mon 28/12/20	Thu 31/12/20	347		0 days		100%	
351	CBR-5400		Overflow incident from BR1 to BR2 works area no.1		154		33 days	Fri 18/12/20	Thu 28/1/21	Fri 18/12/20	Thu 28/1/21		344	0 days		100%	
352	CBR-5410		Overflow incident from BR1 to BR2 works area (Feb 2021)		173		8 days?	Tue 16/2/21	Wed 24/2/21	Tue 16/2/21	Wed 24/2/21		353	0 days?		100%	
353	CBR-5500		Demolition of existing pipe bridge, partition wall and base slab (Stage 1)				26 days	Tue 2/2/21	Sat 6/3/21	Tue 2/2/21	Sat 6/3/21	348,345,352,343	356	0 days		100%	
354	CBR-5520		Removal of additional concrete fill infill within the partition walls		174		26 days?	Tue 2/2/21	Sat 6/3/21	Tue 2/2/21	Sat 6/3/21			0 days?		100%	
355	CBR-5600		Demolition of surrounded walls and channel of BR2 (Stage 2)				30 days	Fri 8/10/21	Fri 12/11/21	NA		NA 357		-216 days		0%	
356	CBR-6000		Predrilling (36nrs, 3rigs, 2days/drillhole/rig)				44 days	Mon 1/3/21	Fri 30/4/21	Mon 1/3/21		NA 353	357	-319 days	1	20%	
357	CBR-7000		Pre-bored H piles (157nos, 2rigs, 2days/pile/rig)				131 days	Mon 3/5/21	Thu 7/10/21	NA		NA 356,128,386	359FS-39 days,361,360,355,	-319 days	5	0%	
358			Additional diversion of DN600 tank drain pipes between BR2A & 2B			204	30 days	Fri 8/10/21	Fri 12/11/21	NA		NA 357		1061.5 days		0%	
359	CBR-8000		Sheetpile Installation (3000sq.m, 1rigs, 50sqm/rig/day)				60 days	Sat 21/8/21	Tue 2/11/21	NA		NA 357FS-39 days,129	361	-314 days		0%	
360	CBR-9000		Pile Load Test				26 days	Fri 8/10/21	Mon 8/11/21	NA		NA 357	361	-319 days		0%	
361	CBR-10000		ELS works (18100cu.m soil with 4 layers wailing / strutting)				140 days	Tue 9/11/21	Tue 3/5/22	NA		NA 357,359,131,360,124	362,363	-319 days	3	0%	
362	CBR-11000	KD1E	R.C. Structure works				205 days	Wed 4/5/22	Sat 7/1/23	NA		NA 134,176,177,361,180,178	369,46FF,366,367,368,370	-319 days	5	0%	
363	CBR-11010	KD1E	Additional plugging works and end wall construction		152		90 days	Wed 4/5/22	Fri 19/8/22	NA		NA 361	46FF,364	20 days		0%	
364	CBR-11020	KD1E	Additional backfill works after end wall construction at BR2 common channel		172		90 days	Sat 20/8/22	Tue 6/12/22	NA		NA 363	46FF,365	20 days		0%	
365	CBR-12000	KD1E	Allow access to Contractor DE/2018/04 for E&M installation and T&C works				0 days	Tue 6/12/22	Tue 6/12/22	NA		NA 364	46FF	20 days		0%	
366	CBR-13000	SW1	Flowmeter no. 2-4				195 days	Mon 9/1/23	Tue 5/9/23	NA		NA 362	367	-262 days		0%	
367	CBR-14000	SW1	Gate Valve Chamber no.1-3				195 days	Wed 6/9/23	Tue 14/5/24	NA		NA 362,366	368	-262 days		0%	
368	CBR-15000	SW1	Plug Valve Chamber no.1-2				195 days	Thu 16/5/24	Mon 6/1/25	NA		NA 362,367	56FF	-262 days		0%	
369	CBR-16000	SW1	ABWF works + BS works				180 days	Mon 9/1/23	Fri 18/8/23	NA		NA 362,179,137	56FF	143 days		0%	
370	CBR-17000	SW2	Process Pipe CHQ chainage 65-170, CHP chainage 60-130, CHO chainage 65-140, CHL chainage 0-35 & CHK chianage 0-50				180 days	Mon 9/1/23	Fri 18/8/23	NA		NA 362	57FF	-319 days		0%	
371	**CMF-0000**	*	**Membrane Facilities Building, B-5**				**1160 days**	**Mon 18/11/19**	**Tue 17/10/23**	**Mon 18/11/19**		**NA 2**		**94 days**		**38%**	MFB
372			Operation of existing Final Sedimentation Tanks no.3 & 4			26	98 days	Mon 18/11/19	Tue 17/3/20	Mon 18/11/19	Tue 17/3/20	2		0 days		100%	MFB
373	**CMF-1000**		**Demolition of existing final sedimentation tanks no. 3 & 4**				**340 days**	**Mon 6/1/20**	**Sun 28/2/21**	**Mon 6/1/20**	**Sun 28/2/21**	**156,118,10**		**0 days**		**100%**	**MFB**
374	CMF-1100		Confirmation of Decommission Schedule	68		30	58 days	Mon 6/1/20	Mon 16/3/20	Mon 6/1/20	Mon 16/3/20		375	0 days		100%	MFB
375	CMF-1200		Provision of new submersed pump	68		26	27 days	Wed 4/3/20	Fri 3/4/20	Wed 4/3/20	Fri 3/4/20	374	376	0 days		100%	MFB
376	CMF-1205		Assistant to decommissioning of Final Sedimentation Tank No. 3 and 4	68		7	14 days	Wed 4/3/20	Fri 3/4/20	Wed 4/3/20	Fri 3/4/20	375	377	0 days		100%	MFB
377	CMF-1300		Additional dismantling works to retain specified electrical and mechanical equipment	75	013		21 days	Tue 7/4/20	Wed 6/5/20	Tue 7/4/20	Wed 6/5/20	376	378	0 days		100%	MFB
378	CMF-1400		Additional pluging works for DN 1200 Conc. S&S pipe at wash water pumping station chamber	76, 77, 144	015		70 days	Mon 8/6/20	Sat 29/8/20	Mon 8/6/20	Sat 29/8/20	377	379	0 days		100%	MFB
379	CMF-1500		Diversion of wash water main	76, 77		032	21 days	Mon 15/6/20	Fri 10/7/20	Mon 15/6/20	Fri 10/7/20	378	380	0 days		100%	MFB
380	CMF-1600		Isolation wall for RAS Channel No.1	76, 77		035	40 days	Mon 1/6/20	Sat 18/7/20	Mon 1/6/20	Sat 18/7/20	379	384	0 days		100%	MFB
381	CMF-1710		Removal of DN1400 Bioreactor No. 2 Effluent Pipe			043	8 days	Fri 19/2/21	Sun 28/2/21	Fri 19/2/21	Sun 28/2/21			0 days		100%	MFB
382	CMF-1800		Exposed and disconnet uncharted existing cable between FST3 and FST 4	77	007	038	20 days	Thu 2/7/20	Fri 24/7/20	Thu 2/7/20	Fri 24/7/20			0 days		100%	MFB
383	CMF-1110		Demolition of structure no. 3 & 4	68, 75, 76, 77, 144			122 days	Wed 1/4/20	Sat 29/8/20	Wed 1/4/20	Sat 29/8/20		385	0 days		100%	MFB
384	CMF-1900		Removal of Existing DN150 SAS Rising Main at RAS Channel No. 1	212		060	23 days	Mon 31/8/20	Fri 25/9/20	Mon 31/8/20	Fri 25/9/20	380	386	0 days		100%	MFB
385	CMF-2000		Predrilling (83nrs, 4rigs, 2.5days/drillhole/rig)	144, 212			31 days	Mon 10/8/20	Mon 14/9/20	Mon 10/8/20	Mon 14/9/20	123,383	386	0 days	1	100%	MFB
386	CMF-3000		Pre-bored H piles (171nos, 2rigs, 1.5days/pile/rig) [Extended working hours 0700-1900 & shortern pile length]	212, 308, 309			96 days	Mon 28/9/20	Sat 23/1/21	Mon 28/9/20	Sat 23/1/21	385,128,384	357,387,388	0 days	5	100%	MFB
387	CMF-3100		Change of Layout of Basement of MFB no. 2		102		17 days	Tue 3/11/20	Sat 21/11/20	Tue 3/11/20	Sat 21/11/20	386		0 days		100%	MFB
388	CMF-4000		Pile Load Test				19 days	Mon 4/1/21	Mon 25/1/21	Mon 4/1/21	Mon 25/1/21	386	392	0 days		100%	MFB
389	CMF-5000		Installation of sheetpile [with pre-boring]		112		100 days	Mon 28/12/20	Fri 30/4/21	Mon 28/12/20	NA		392	-119 days		70%	MFB
390	**CMF-6000**		**ELS works**				**234 days**	**Mon 3/5/21**	**Sat 12/2/22**	**NA**		**NA 10**		**-119 days**	**5**	**0%**	**MFB**
391	**CMF-6100**		**Pharse A (A1 to N6) - Excavation to -11mPD and blinding**		**112**	**45**	**234 days**	**Mon 3/5/21**	**Sat 12/2/22**	**NA**	**NA**		**394SS**	**-119 days**		**0%**	**MFB**
392	CMF-6110		Soil Excavation [Extended working hours 0700-1900 & reduction of excavation volume]				88 days	Mon 3/5/21	Mon 16/8/21	NA		NA 389,131,388	393	-119 days		0%	MFB
393	CMF-6120		Additional Rock Excavation [2200 cu.m, 7.5cu.m/group x 2]		112		146 days	Tue 17/8/21	Sat 12/2/22	NA		NA 392	396	-119 days		0%	MFB
394	CMF-6200		Pharse B (A6 to N10) - Excavation to -1.9mPD and blinding				100 days	Mon 3/5/21	Mon 30/8/21	NA		NA 391SS	397,403	45 days		0%	MFB
395	**CMF-7000**		**RC Structure works**				**262 days**	**Tue 15/3/22**	**Thu 2/2/23**	**NA**		**NA 10**		**-144 days**	**5**	**0%**	**MFB**
396	CMF-7100	KD1F	Phase A - from B2 - Level 1				112 days	Tue 15/3/22	Mon 1/8/22	NA		NA 135,176,177,180,178,393	397SS+30 days,398,400	-144 days		0%	MFB
397	CMF-7110	KD1F	Phase B - from B1 - Level 1				112 days	Sat 23/4/22	Mon 5/9/22	NA		NA 396SS+30 days,394	399,400	-144 days		0%	MFB
398	CMF-7120	KD1G	Phase A - from Level 1 to Roof				120 days	Tue 2/8/22	Thu 22/12/22	NA		NA 396	401,402	-114 days		0%	MFB
399	CMF-7130	KD1G	Phase B - from Level 1 to Roof				120 days	Tue 6/9/22	Thu 2/2/23	NA		NA 397	401,402	-144 days		0%	MFB
400	CMF-8000	KD1F	Allow access to Contractor DE/2018/04 for E&M installation and T&C works (from B2-level 1)				0 days	Mon 5/9/22	Mon 5/9/22	NA		NA 396,397	47FF	-142 days		0%	MFB
401	CMF-9000	KD1G	Allow access to Contractor DE/2018/04 for E&M installation and T&C works (from Level to Roof)				0 days	Thu 2/2/23	Thu 2/2/23	NA		NA 398,399	48FF	-144 days		0%	MFB
402	CMF-10000	SW1	ABWF works + BS works				210 days	Fri 3/2/23	Tue 17/10/23	NA		NA 179,137,398,399	56FF	94 days		0%	MFB
403	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 chainage 0-50				176 days	Tue 31/8/21	Sat 2/4/22	NA		NA 394	57FF	87 days		0%	MFB



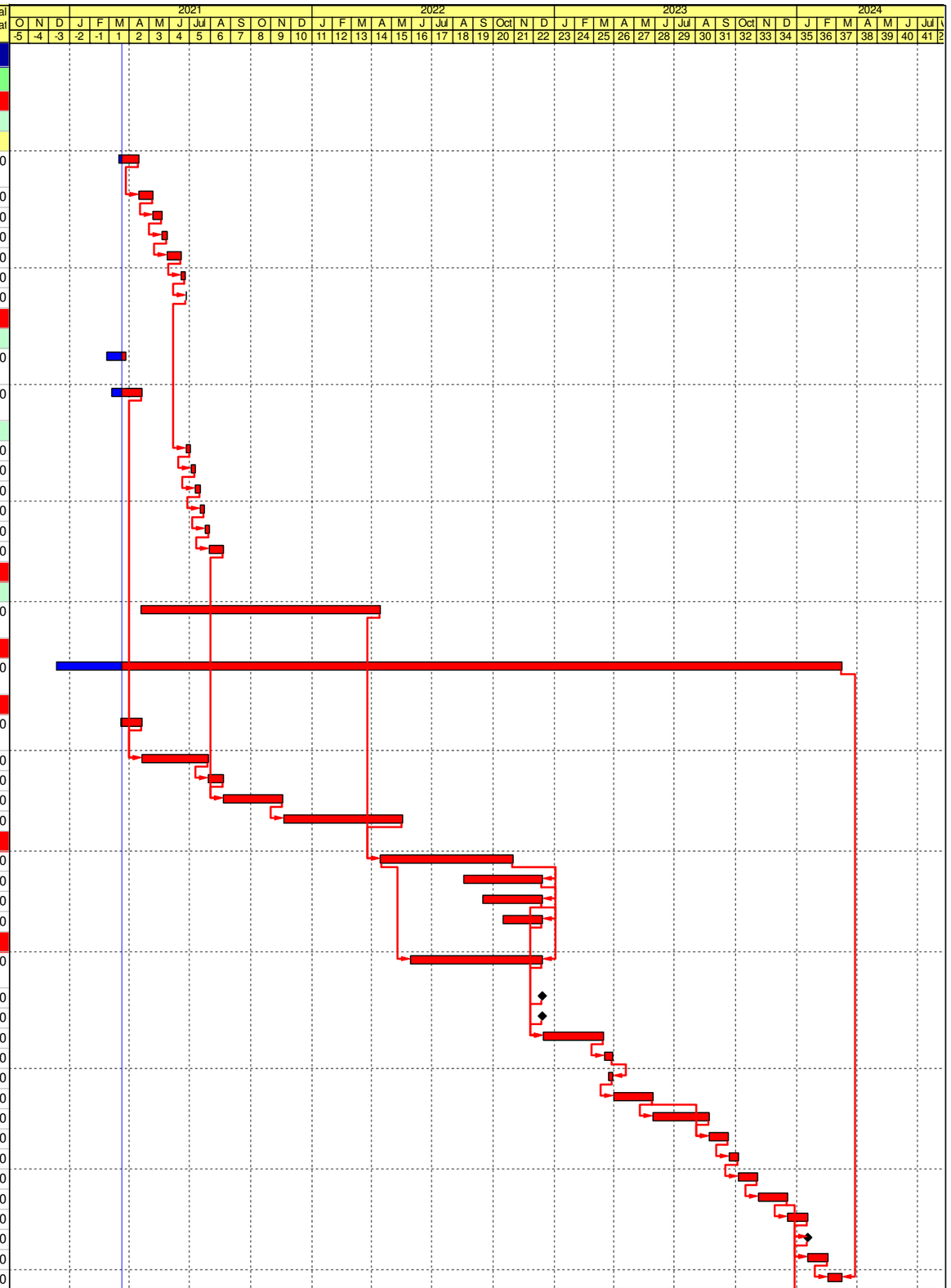
ID	Activity ID	Key Date	Task Name	CE for Inclement Weather	NCE/E	PMI/CE no.	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete	Individual Critical Path
404	**CSA-0000**	*	**SAS Pumping Station, B-6**				**1148 days**	**Sat 18/4/20**	**Thu 29/2/24**	**Sat 18/4/20**	**NA**	**11**		**-15 days**		**62%**	
405	**CSA-1000**		**Additional Preliminary Works**				**482 days**	**Tue 12/5/20**	**Sat 18/12/21**	**Tue 12/5/20**	**NA**			**0 days**		**82%**	
406	CSA-1100		Diversion of Existing SAS Rising Main near SAS Pumping Station (PPMI 025)	68, 75, 76		69	170 days	Tue 9/6/20	Thu 31/12/20	Tue 9/6/20	Thu 31/12/20		420	0 days		100%	
407	CSA-1200		Decommission of exisiting power and signal systems in leachate Pump station switch room (PPMI 039)	312, 309, 310		74	58 days	Mon 21/9/20	Mon 30/11/20	Mon 21/9/20	Mon 30/11/20	142	420	0 days		100%	
408	CSA-1300		Construction of Cable trough for CLP 11kv Cable Diversion (PPMI 041)	75, 76, 77, 144, 212, 309, 310		61	91 days	Tue 12/5/20	Thu 31/12/20	Tue 12/5/20	Thu 31/12/20	144	420	0 days		100%	
409	CSA-1400		Demolition of Existing Pillar box and its concrete plinth (PPMI 014)	144, 212, 3(		30	53 days	Wed 12/8/20	Sat 14/11/20	Wed 12/8/20	Sat 14/11/20	145	420	0 days		100%	
410	CSA-1500		Excavation to locate existing underground cble near SAS Pump Station			78	59 days	Wed 17/6/20	Sat 21/11/20	Wed 17/6/20	Sat 21/11/20	146	420	0 days		100%	
411	CSA-1600		Diversion of Existing DN80 Permeate Rising Main near SAS Pumping station			89	72 days	Tue 6/10/20	Thu 31/12/20	Tue 6/10/20	Thu 31/12/20		420	0 days		100%	
412	CSA-1800		Trench Excavation near SAS for diversion of 11kV cable by CLP	309, 310		97	53 days	Mon 12/10/20	Sat 12/12/20	Mon 12/10/20	Sat 12/12/20		420	0 days		100%	
413	CSA-1700		Relocation of Oil Interceptor Near Existing Compressor House	144, 212, 3(		70	125 days	Mon 3/8/20	Thu 31/12/20	Mon 3/8/20	Thu 31/12/20		420	0 days		100%	
414	CSA-1900		Diversion of pumping system sewerage	212, 309, 31		83	81 days	Wed 23/9/20	Thu 31/12/20	Wed 23/9/20	Thu 31/12/20	147	422,420,415	0 days		100%	
415	CSA-1910		Diversion of Existing copper pipe near proposed SAS pumping station	309, 310	107	225	61 days	Mon 19/10/20	Thu 31/12/20	Mon 19/10/20	Thu 31/12/20	414		0 days		100%	
416	CSA-1920		Pipework of proposed SAS Pumping Station - 13 nos. of puddles			221	180 days	Mon 7/12/20	Mon 19/7/21	NA	NA		424SS+30 days	42 days		0%	
417	CSA-1930		Additional DN150 Rising main for SAS			220/69	15 days	Thu 2/12/21	Sat 18/12/21	Thu 2/12/21	Sat 18/12/21		424SS+30 days	0 days		100%	
418	CSA-1940		Additional DN90 PE pipe diversion			89	7 days	Sat 11/12/21	Sat 18/12/21	Sat 11/12/21	Sat 18/12/21			0 days		100%	
419	CSA-2000		Predrilling (4nrs, 1rig, 4days/drillhole/rig)	68			7 days	Sat 18/4/20	Sat 25/4/20	Sat 18/4/20	Sat 25/4/20	123	328,420	0 days		100%	
420	CSA-3000		Pre-bored H piles (12nos, 1rigs, 4days/pile/rig)				19 days	Mon 18/1/21	Mon 8/2/21	Mon 18/1/21	Mon 8/2/21	128,419,144,408,406,407,409,410,411,41	329,421	0 days	2	100%	
421	CSA-4000		Pile Load Test				22 days	Tue 23/2/21	Fri 19/3/21	Tue 23/2/21	Fri 19/3/21	420	423,422	0 days		100%	
422	CSA-5000		Sheetpile Installation (FSP-II, 690sq.m, 40sqm/day)				28 days	Tue 30/3/21	Wed 5/5/21	Tue 30/3/21	NA	129,421,414	423	-122 days		0%	
423	CSA-6000		ELS works (1300cu.m soil with 2 layers wailing / strutting)				75 days	Thu 6/5/21	Wed 4/8/21	NA	NA	422,131,421,124	424	-122 days	2	0%	
424	CSA-7000	KD1H	R.C. Structure works				186 days	Mon 10/1/22	Fri 26/8/22	NA	NA	136,176,177,423,180,178,416SS+30 days	425,426,49FF	-251 days	5	0%	
425	CSA-8000	KD1H	Allow access to Contractor DE/2018/03 for E&M installation and T&C works				0 days	Fri 26/8/22	Fri 26/8/22	NA	NA	424	49FF	-251 days		0%	
426	CSA-9000	SW1	ABWF works + BS works				90 days	Fri 10/11/23	Thu 29/2/24	NA	NA	424,179,137,476SS	56FF	-15 days		0%	
427	**CAS-0000**	*	**Ancillary Structures, B-7**				**980 days**	**Mon 9/11/20**	**Thu 29/2/24**	**NA**	**NA**	**12**		**-260 days**		**0%**	
428	**CAS-1000**		Demolition of Existing Faciliates and Structures (leachate pump pit & pumping station)				120 days	Mon 9/11/20	Wed 7/4/21	NA	NA	118,156,158	453,429,465,471,438	-260 days		0%	
429	**CFS-1000**	*	**Fire Services Sprinkler Pumping Room (12)**				**860 days**	**Thu 8/4/21**	**Thu 29/2/24**	**NA**	**NA**	**428**		**-260 days**		**0%**	
430	CDS-1000		Demolition of Existing Leachate Pump Pit			241	50 days	Thu 8/4/21	Mon 7/6/21	NA	NA		431	-260 days		0%	
431	CDS-1100		Provision of Flowmeter chamber, gate valve chamber and associated seweage			85	50 days	Tue 8/6/21	Fri 6/8/21	NA	NA	430	432	-260 days		0%	
432	CDS-1200		Identify and Decommission the power, signal and instrumentation systems of SSSH pump			86	50 days	Sat 7/8/21	Wed 6/10/21	NA	NA	431	433	-260 days		0%	
433	CFS-2000		Excavation for Raft Footing (800cu.m)				60 days	Thu 7/10/21	Thu 16/12/21	NA	NA	124,432	434,466,439	-260 days		0%	
434	CFS-3000		Plate load test				14 days	Fri 17/12/21	Wed 5/1/22	NA	NA	433	435	-36 days		0%	
435	CFS-4000	KD1J	R.C. structure works				60 days	Thu 6/1/22	Sat 19/3/22	NA	NA	434	437,436,51FF	-36 days	2	0%	
436	CFS-5000	KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works				0 days	Sat 19/3/22	Sat 19/3/22	NA	NA	435	51FF	-36 days		0%	
437	CFS-6000	SW1	ABWF works + BS works				90 days	Fri 10/11/23	Thu 29/2/24	NA	NA	179,137,435,476SS	56FF	-15 days		0%	
438	**CEG-0000**	*	**Emergency Generator House (11)**				**650 days**	**Fri 17/12/21**	**Thu 29/2/24**	**NA**	**NA**	**428**		**-260 days**		**0%**	
439	CEG-1000		Excavation for Raft Footing (100cu.m)				20 days	Fri 17/12/21	Wed 12/1/22	NA	NA	124,433	440	-260 days		0%	
440	CEG-2000		Plate load test				14 days	Thu 13/1/22	Fri 28/1/22	NA	NA	439	441	-260 days		0%	
441	CEG-3000	KD1J	R.C. structure works				30 days	Sat 29/1/22	Tue 8/3/22	NA	NA	440	442,51FF,443,445	-260 days	1	0%	
442	CEG-4000	KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works				0 days	Tue 8/3/22	Tue 8/3/22	NA	NA	441	51FF	-26 days		0%	
443	CEG-5000	SW1	ABWF works + BS works				90 days	Fri 10/11/23	Thu 29/2/24	NA	NA	179,137,441,476SS	56FF	-15 days		0%	
444	**CCS-1000**	*	**Chemical System No.1 (10)**				**586 days**	**Wed 9/3/22**	**Thu 29/2/24**	**NA**	**NA**			**-260 days**		**0%**	
445	CCS-1100		Excavation for Raft Footing (20cu.m)				10 days	Wed 9/3/22	Sat 19/3/22	NA	NA	124,441	446,454	-260 days		0%	
446	CCS-1110		Diversion of Leachate Rising Main near SSSH			241	30 days	Mon 21/3/22	Thu 28/4/22	NA	NA	445	447	-260 days		0%	
447	CCS-1200		Plate load test				14 days	Fri 29/4/22	Tue 17/5/22	NA	NA	446	448	-260 days		0%	
448	CCS-1300	KD1J	R.C. structure works				60 days	Wed 18/5/22	Thu 28/7/22	NA	NA	447	51FF,452,449	-260 days	2	0%	
449	CCS-1310		Construction of Flowmeter chamber, gate valve chamber and associated sewerage			085	60 days	Fri 29/7/22	Mon 10/10/22	NA	NA	448	450	-260 days		0%	
450	CCS-1310		Demolition of SSSH Pump Pit and Associated Sewerage System			086	60 days	Tue 11/10/22	Mon 19/12/22	NA	NA	449	451	-260 days		0%	
451	CCS-1400	KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works				0 days	Mon 19/12/22	Mon 19/12/22	NA	NA	450	51FF	-260 days		0%	
452	CCS-1500	SW1	ABWF works + BS works				90 days	Fri 10/11/23	Thu 29/2/24	NA	NA	179,137,448,476SS	56FF	-15 days		0%	
453	**CCS-2000**	*	**Chemical System No.2 (13)**				**576 days**	**Mon 21/3/22**	**Thu 29/2/24**	**NA**	**NA**	**428**		**-130 days**		**0%**	
454	CCS-2100		Excavation for Raft Footing (100cu.m)				30 days	Mon 21/3/22	Thu 28/4/22	NA	NA	124,445	455,461	-130 days		0%	
455	CCS-2200		Plate load test				14 days	Fri 29/4/22	Tue 17/5/22	NA	NA	454	456	-125 days		0%	
456	CCS-2300	KD1J	R.C. structure works				45 days	Wed 18/5/22	Mon 11/7/22	NA	NA	455	457,51FF,458,459	-125 days	2	0%	
457	CCS-2400	KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works				0 days	Mon 11/7/22	Mon 11/7/22	NA	NA	456	51FF	-125 days		0%	
458	CCS-2500	SW1	ABWF works + BS works				90 days	Fri 10/11/23	Thu 29/2/24	NA	NA	179,137,456,476SS	56FF	-15 days		0%	
459	CCS-2600	SW1	Demolition of existing chemical room				60 days	Tue 12/7/22	Tue 20/9/22	NA	NA	456	56FF	412 days		0%	
460	**CDS-0000**	*	**Deodorization System No.3A (8)**				**64 days**	**Fri 29/4/22**	**Sat 16/7/22**	**NA**	**NA**			**-130 days**		**0%**	
461	CDS-2000		Excavation for Raft Footing (400cu.m)				20 days	Fri 29/4/22	Tue 24/5/22	NA	NA	124,454	462	-130 days		0%	
462	CDS-3000		Plate load test				14 days	Wed 25/5/22	Fri 10/6/22	NA	NA	461	463	-130 days		0%	
463	CDS-4000	KD1J	Footing works				30 days	Sat 11/6/22	Sat 16/7/22	NA	NA	462	464,51FF	-130 days		0%	
464	CDS-5000	KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works				0 days	Sat 16/7/22	Sat 16/7/22	NA	NA	463	51FF	-130 days		0%	
465	**CTC-0000**	*	**Temporary Chemical Dosing System (5)**				**650 days**	**Fri 17/12/21**	**Thu 29/2/24**	**NA**	**NA**	**428**		**-51 days**		**0%**	
466	CTC-1000		Excavation for Raft Footing (300cu.m)				30 days	Fri 17/12/21	Mon 24/1/22	NA	NA	124,433	467	-51 days		0%	
467	CTC-2000		Plate load test				14 days	Tue 25/1/22	Sat 12/2/22	NA	NA	466	468	-51 days		0%	
468	CTC-3000	KD1J	R.C. structure works				45 days	Mon 14/2/22	Thu 7/4/22	NA	NA	467	469,51FF,470	-51 days	1	0%	
469	CTC-4000	KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works				0 days	Thu 7/4/22	Thu 7/4/22	NA	NA	468	51FF	-51 days		0%	
470	CTC-5000	SW1	ABWF works + BS works				90 days	Fri 10/11/23	Thu 29/2/24	NA	NA	179,137,468,476SS	56FF	-15 days		0%	
471	**CFB-0000**	*	**Fire Hydrant and Booster Pump Room (19)**				**164 days**	**Sat 12/8/23**	**Thu 29/2/24**	**NA**	**NA**	**428**		**-522 days**		**0%**	
472	CFB-1000		Excavation for Raft Footing (200cu.m)				30 days	Sat 12/8/23	Fri 15/9/23	NA	NA	124,320	473	-522 days		0%	
473	CFB-2000		Plate load test				14 days	Sat 16/9/23	Wed 4/10/23	NA	NA	472	474	-522 days		0%	
474	CFB-3000	KD1J	R.C. structure works				30 days	Thu 5/10/23	Thu 9/11/23	NA	NA	473	475,476,51FF	-522 days	1	0%	
475	CFB-4000	KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works				0 days	Thu 9/11/23	Thu 9/11/23	NA	NA	474	51FF	-522 days		0%	
476	CFB-5000	SW1	ABWF works + BS works				90 days	Fri 10/11/23	Thu 29/2/24	NA	NA	474,179,137	56FF,443SS,470SS,437SS,4	-15 days		0%	
477	**CDS1-0000**		**Deodorization System No.1 (6)**				**64 days**	**Sat 12/8/23**	**Sat 28/10/23**	**NA**	**NA**			**-512 days**		**0%**	
478	CDS1-1000		Excavation for Raft Footing (400cu.m)				20 days	Sat 12/8/23	Mon 4/9/23	NA	NA	320	479	-512 days		0%	
479	CDS1-2000		Plate load test				14 days	Tue 5/9/23	Wed 20/9/23	NA	NA	478	480	-512 days		0%	
480	CDS1-3000	KD1J	Footing works				30 days	Thu 21/9/23	Sat 28/10/23	NA	NA	479	481	-512 days		0%	
481	CDS1-4000	KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works				0 days	Sat 28/10/23	Sat 28/10/23	NA	NA	480	51FF	-512 days		0%	
482	**CAA-0000**	*	**Additional and Alternation Works for Existing Facilities (B-7A, B-8, B-8A)**				**918 days**	**Mon 1/6/20**	**Thu 6/7/23**	**Mon 1/6/20**	**NA**			**577.5 days**		**41%**	
483	**CAA-1000**	**KD2B**	**B-8A Alternation works for existing Air Blower House No.2 (Pipeline CHTA, approx. 133m DN800 D.I.)**				**320 days**	**Mon 1/6/20**	**Mon 28/6/21**	**Mon 1/6/20**	**NA**	**15,138,174**	**53FF**	**1175.5 days**		**53%**	
484	CAA-1100		Change of pipe bridge design		057		135 days	Mon 1/6/20	Tue 10/11/20	Mon 1/6/20	Tue 10/11/20		487,488,489	0 days		100%	
485	CAA-1200		Additional inspection pit to veriify the connection point to existing (CE xxx)				135 days	Mon 1/6/20	Tue 10/11/20	Mon 1/6/20	Tue 10/11/20		487,488,489	0 days		100%	
486	CAA-1300		Additional MBV installation (CE xxx)				135 days	Mon 1/6/20	Tue 10/11/20	Mon 1/6/20	Tue 10/11/20		487,488,489	0 days		100%	



ID	Activity ID	Key Date	Task Name	CE for Inclement Weather	NCE/E	PMI/CE no.	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete	Individual Critical Path
487	CAA-1400		Alternation works for existing Air Blower House No.2 (Pipeline CHTA, approx. 133m DN800 D.I.)				185 days	Wed 11/11/20	Mon 28/6/21	Wed 11/11/20	NA	484,485,486	53FF	1175.5 days		9%	
488	CAA-1500	KD2B	Re-alignmnet of DN800 Temporary Air Main (CHTA) and Provision of FRP Staircases			064	185 days	Wed 11/11/20	Mon 28/6/21	Wed 11/11/20	NA	484,485,486	53FF	1175.5 days		9%	
489	CAA-1600	KD2B	Elevated Section of DN800 Temporary Air Main (CHTA) across existing Bioreactor's Distibution Chamber No. 2 (PPMI 044)		017	062	60 days	Wed 11/11/20	Fri 22/1/21	NA	NA	484,485,486	53FF	1300.5 days		0%	
490	CAA-2000	KD1I	B7-A Alternation works for exisiting Power House				120 days	Fri 4/9/20	Thu 28/1/21	Fri 4/9/20	Thu 28/1/21	13FS-1 day,118,156,158,166	50FF,491	0 days		100%	
491	CAA-2100		Additional works for Power House			224	60 days	Fri 29/1/21	Thu 15/4/21	NA	NA	490		1235.5 days		0%	
492	CAA-3000	SW3	Alternation works for existing Membrane Facilities Building No.1				360 days	Tue 19/4/22	Thu 6/7/23	NA	NA	14FS-1 day,165	58FF	269 days		0%	
493	**CUU-0000**	*	**External Underground Service, Utilities, Road/Drain**				**1041 days**	**Mon 27/4/20**	**Sat 28/10/23**	**Mon 27/4/20**	**NA**	**16**		**482.5 days**		**34%**	
494	CUU-1000	KD2A	Process Pipes CHR and CHS (approx. 93m twin DN900 D.I.)				272 days	Mon 27/4/20	Wed 4/8/21	Mon 27/4/20	NA	174,138	506SS+48 days,504SS+48 d	-39.8 days		27%	
495	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		029		54 days	Sat 30/5/20	Mon 3/8/20	Sat 30/5/20	Mon 3/8/20			0 days		100%	
496	CUU-1000b		Trenchless work for Process Pipes CHR and CHS (approx. 7m twin DN900 D.I.) (PPMI 040)			255	60 days	Mon 21/12/20	Sat 6/3/21	NA	NA		52FF	82 days		0%	
497	CUU-1001		Removal of Abandoned DN1800 Concrete Pipe and Concrete Mass near Existing UV Disinfection Channel at CHR & CHS Process Pipe Works Area			033	43 days	Thu 2/7/20	Thu 20/8/20	Thu 2/7/20	Thu 20/8/20			0 days		100%	
498	CUU-1002		Grouting for Sheung Shui Slaughter House Boundary Walls along CHR & CHS Pipes Works Area (PPMI 064)				20 days	Fri 23/10/20	Mon 16/11/20	Fri 23/10/20	NA			0 days		84%	
499	CUU-1003		Ground settlement near CHR CHS Open trench due to leakage of water main at SSSH		080		30 days	Thu 31/12/20	Thu 4/2/21	NA	NA			1289.5 days		0%	
500	CUU-1004		Delay Delivery of DI pipes due to COVID-19		076		372 days	Tue 22/12/20	Fri 25/3/22	Tue 22/12/20	Fri 25/3/22		502FF	0 days		100%	
501	CUU-1005		Change alignment and fittings for CHDO1 and CHDO2		074		78 days	Fri 4/12/20	Thu 11/3/21	Fri 4/12/20	NA		502FF	403 days		20%	
502	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				457 days	Mon 19/10/20	Fri 6/5/22	Mon 19/10/20	NA	174,494SS+48 days,138,500FF,501FF	57FF,507	63 days		30%	
503	CUU-3000	SW2	Drainage				457 days	Mon 19/10/20	Fri 6/5/22	Mon 19/10/20	NA	174,494SS+48 days,138	57FF,507	63 days	5	30%	
504	CUU-4000	SW2	Sewerage				457 days	Mon 19/10/20	Fri 6/5/22	Mon 19/10/20	NA	494SS+48 days,174,138	57FF,507	63 days	5	30%	
505	CUU-5000	SW2	Waterworks				542 days	Mon 19/10/20	Wed 17/8/22	Mon 19/10/20	NA	494SS+48 days,174,138	509FS+2 days,57FF	-22 days	5	30%	
506	CUU-6000	SW2	Cable Ducts				457 days	Mon 19/10/20	Fri 6/5/22	Mon 19/10/20	NA	494SS+48 days,174,138	507,57FF	63 days	5	30%	
507	CUU-7000	KD3A	Roadworks				440 days	Sat 7/5/22	Sat 28/10/23	NA	NA	506,503,504,502	54FF	64 days	5	0%	
508	**CLW-0000**	*	**Landscaping Works**				**794 days**	**Sat 20/8/22**	**Fri 25/4/25**	**NA**	**NA**	**16**		**37 days**		**0%**	
509	CLW-1000	SW3	Irrigation System				120 days	Sat 20/8/22	Fri 13/1/23	NA	NA	505FS+2 days,174	510,58FF	37 days		0%	
510	CLW-2000	SW3	Hard Landscaping Works				185 days	Sat 14/1/23	Wed 30/8/23	NA	NA	509,139	511,58FF	37 days	5	0%	
511	CLW-3000	SW3	Soft Landscaping Works				185 days	Thu 31/8/23	Thu 25/4/24	NA	NA	510,139	512,58FF	37 days	5	0%	
512	CLW-4000	DLP	Establishment Works (365 days)				365 days	Fri 26/4/24	Fri 25/4/25	NA	NA	511,139	59FF,60FF	48.5 days	5	0%	



Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float
SWH - Main Works Stage 1 Sidestream Treatment Facilities & E&M Works for Sludge Treatment Facilities							
Section 3 - Complete Design, Construction & T&C for Sidestream Facilities							
Major Subcontractor / Supplier Procurement							
Civil & Building Contractor							
For Main Civil Works							
AS512590f	Submit Tender proprosal of Civil Contractor (Main Civil Works)	30	17-Mar-21 A	15-Apr-21	21-Mar-21	15-Apr-21	0
AS512600f	Review & Accept the Tender proprosal of Civil Contractor (Main Civil Works)	21	16-Apr-21	06-May-21	16-Apr-21	06-May-21	0
AS512610f	Tender Invitation of Civil Contractor (Main Civil Works)	14	07-May-21	20-May-21	07-May-21	20-May-21	0
AS512620f	Submission of Tender Report	7	21-May-21	27-May-21	21-May-21	27-May-21	0
AS512630f	Review & Accept the Tender Report by PM	21	28-May-21	17-Jun-21	28-May-21	17-Jun-21	0
AS512640f	Contract Preparation	7	18-Jun-21	24-Jun-21	18-Jun-21	24-Jun-21	0
AS512650f	Civil Contractor (Main Civil Works) Award	1	25-Jun-21	25-Jun-21	25-Jun-21	25-Jun-21	0
Design & Submission							
Civil / Structural							
AS160330	Review & Accept of Foundation Design / Drawings by ICE & PM	10	26-Feb-21 A	26-Mar-21	21-Mar-21	26-Mar-21	0
AS160350e	Review & Accept of Foundation Design / Drawings by DSD (incl. BCM)	45	06-Mar-21 A	19-Apr-21	27-Mar-21	19-Apr-21	0
ELS							
AS512160e	Prepare & Submit ELS Plan to ICE	7	26-Jun-21	02-Jul-21	26-Jun-21	02-Jul-21	0
AS512170e	Review & Comment on ELS Plan by ICE	7	03-Jul-21	09-Jul-21	03-Jul-21	09-Jul-21	0
AS512180e	Revise & Re-submit ELS Plan to ICE	7	10-Jul-21	16-Jul-21	10-Jul-21	16-Jul-21	0
AS512190e	Review & Accept of ELS Plan by ICE	7	17-Jul-21	23-Jul-21	17-Jul-21	23-Jul-21	0
AS512200e	Prepare & Submit ELS Plan to PM	7	24-Jul-21	30-Jul-21	24-Jul-21	30-Jul-21	0
AS512210e	Review & Accept of ELS Plan by PM	21	31-Jul-21	20-Aug-21	31-Jul-21	20-Aug-21	0
Major Plant & Materials Procurement							
E&M Process							
AS153100	Procurement, Manufacture & Delivery of Deammonification Sidestream Treatment Facilities	360	19-Apr-21	13-Apr-22	19-Apr-21	13-Apr-22	0
Ground Settlement, Tilting & Utility Monitoring							
AS153200f	Ground Settlement, Tilting & Utility Monitoring	1184	12-Dec-20 A	09-Mar-24	21-Mar-21	09-Mar-24	0
Civil Works Construction							
AS161145g	Minor Civil Works & Preperation Works for Piling	31	20-Mar-21 A	19-Apr-21	21-Mar-21	19-Apr-21	0
AS161150g	Piling Works	100	20-Apr-21	28-Jul-21	20-Apr-21	28-Jul-21	0
AS161155g	Post-drilling, Proof test & remaining works	23	29-Jul-21	20-Aug-21	29-Jul-21	20-Aug-21	0
AS161160	Excavation / ELS	90	21-Aug-21	18-Nov-21	21-Aug-21	18-Nov-21	0
AS161180	Substructure / Superstructure	180	19-Nov-21	17-May-22	19-Nov-21	17-May-22	0
E&M Installation							
AS154100	E&M Installation of Deammonification Sidestream Treatment Facilities	200	14-Apr-22	30-Oct-22	14-Apr-22	30-Oct-22	0
AS154240	Installation of Control & Monitoring System	120	17-Aug-22	14-Dec-22	17-Aug-22	14-Dec-22	0
AS154260	Installation of CCTV System	90	16-Sep-22	14-Dec-22	16-Sep-22	14-Dec-22	0
AS154270	Installation of Gas Detection System	60	16-Oct-22	14-Dec-22	16-Oct-22	14-Dec-22	0
Testing & Commissioning							
AS155100	SAT for Deammonification Sidestream Treatment Facilities (Ref. to PS6B.1.18.3)	200	29-May-22	14-Dec-22	29-May-22	14-Dec-22	0
AS155105e	Existing sludge dewatering facilities Ready (by DE/2018/04 Contract)	0		14-Dec-22		14-Dec-22	0
AS155110e	Plant service water from zone B/C Ready (Zone B by DE/2018/04 Contract)	0		14-Dec-22		14-Dec-22	0
AS155120a	Process Start Up	92	15-Dec-22	16-Mar-23	15-Dec-22	16-Mar-23	0
AS155140a	Submission & Acceptance of Process Start Up Report	14	17-Mar-23	30-Mar-23	17-Mar-23	30-Mar-23	0
AS155160a	Notice for Commencement of Phase 1 Commissioning Tests	7	24-Mar-23	30-Mar-23	24-Mar-23	30-Mar-23	0
AS155200	Phase 1 Commissioning Tests	60	31-Mar-23	29-May-23	31-Mar-23	29-May-23	0
AS155210e	Phase 1 Re-commissioning Tests (If Failure)	84	30-May-23	21-Aug-23	30-May-23	21-Aug-23	0
AS155220a	Submission & Acceptance of Phase 1 Commissioning Tests Report	30	22-Aug-23	20-Sep-23	22-Aug-23	20-Sep-23	0
AS155240a	Phase 1 Post Commissioning	14	21-Sep-23	04-Oct-23	21-Sep-23	04-Oct-23	0
AS155260a	Submission & Acceptance of Phase 1 Post Commissioning Report	30	05-Oct-23	03-Nov-23	05-Oct-23	03-Nov-23	0
AS155300	Phase 2 Commissioning Tests	45	04-Nov-23	18-Dec-23	04-Nov-23	18-Dec-23	0
AS155320a	Submission & Acceptance of Phase 2 Commissioning Tests Report	30	19-Dec-23	17-Jan-24	19-Dec-23	17-Jan-24	0
AS155330e	Commissioning of new Anaerobic Digesters (2 nos.) in Zone C Finished	0		17-Jan-24		17-Jan-24	0
AS155340a	Phase 3 Commissioning Tests	30	18-Jan-24	16-Feb-24	18-Jan-24	16-Feb-24	0
AS155360a	Submission & Acceptance of Phase 3 Commissioning Tests Report	22	17-Feb-24	09-Mar-24	17-Feb-24	09-Mar-24	0



JEC

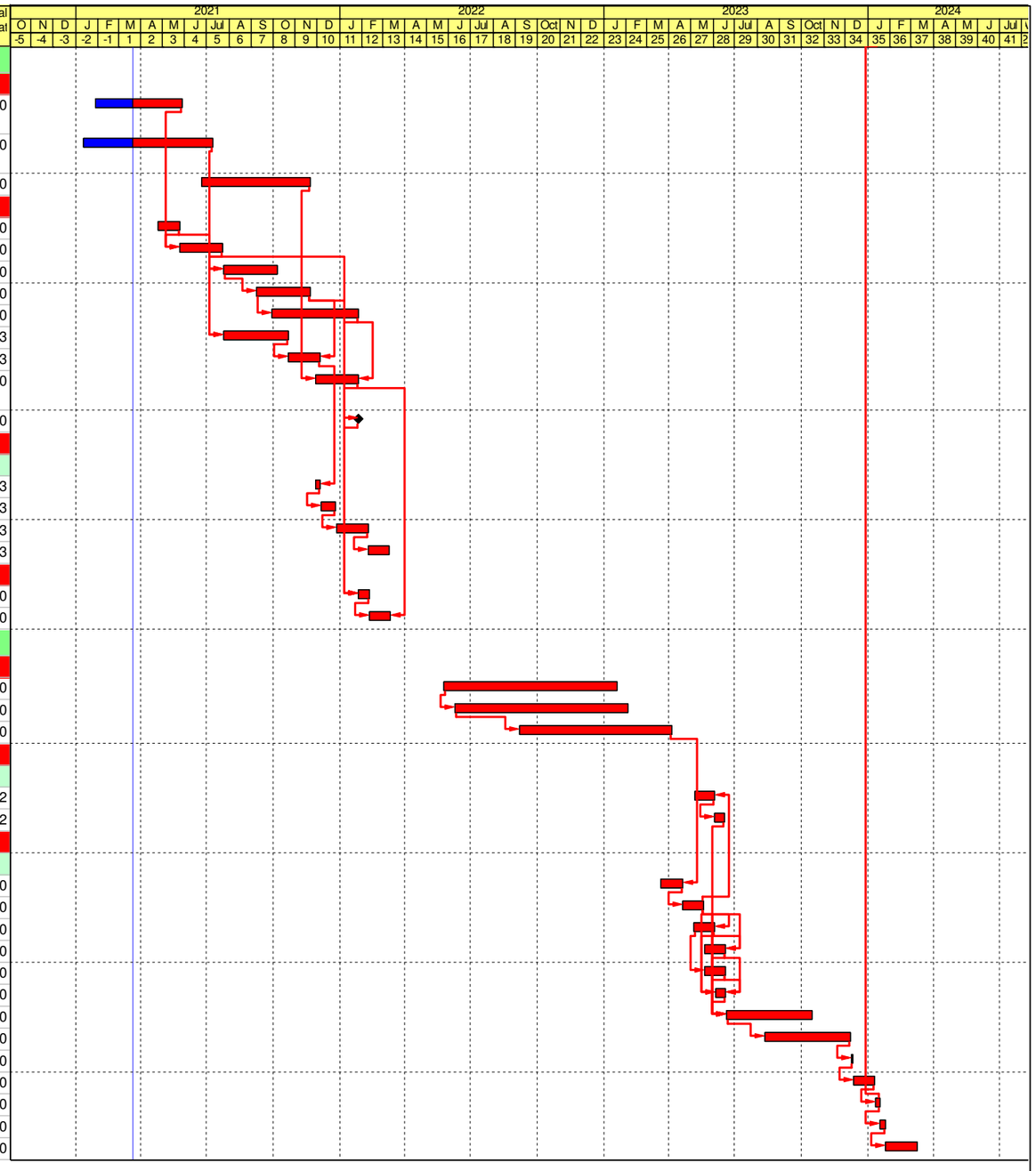
File Name: DE/2018/03 RP R8
Layout: DE1803 RP (Mar 2021) - CP

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 Sluge Treatment Faciliteis
Revised Programme - as at 20 Mar 2021 (Critical Path)

Date	Revision	Checked	Approved
02-Dec-20	Rev.4	LT	KM
30-Dec-20	Rev.5	LT	KM
26-Jan-21	Rev.6	LT	KM
26-Feb-21	Rev.7	LT	KM
29-Mar-21	Rev.8	LT	KM

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float
Section 4 - Complete Construction & T&C for UV System No.1 & EP Station No. 1							
Major Plant & Materials Fabrication & Delivery							
AS104180	Fabrication & Delivery of EOT Cranes (2T & 5T) (S19)	120	28-Jan-21 A	27-May-21	21-Mar-21	27-May-21	0
AS104300	Fabrication & Delivery of Pipeworks & Associated Valves	180	11-Jan-21 A	09-Jul-21	21-Mar-21	09-Jul-21	0
AS104320	Fabrication & Delivery of Elec. Materials	150	24-Jun-21	20-Nov-21	24-Jun-21	20-Nov-21	0
E&M Installation							
AS106100	Mobilisation	30	25-Apr-21	24-May-21	25-Apr-21	24-May-21	0
AS106120	E&M Installation of EOT Cranes (5T)	60	25-May-21	23-Jul-21	25-May-21	23-Jul-21	0
AS106160	E&M Installation of Lift-up Pumps & Associated Pipeworks / Valves	75	24-Jul-21	06-Oct-21	24-Jul-21	06-Oct-21	0
AS106180	E&M Installation of Transfer Pumps & Associated Pipeworks / Valves	75	08-Sep-21	21-Nov-21	08-Sep-21	21-Nov-21	0
AS106210	E&M Installation of UV System	120	29-Sep-21	26-Jan-22	29-Sep-21	26-Jan-22	0
AS106220	FS Installation - Conduits, Trunking, & Pipeworks	90	24-Jul-21	21-Oct-21	27-Jul-21	24-Oct-21	3
AS106240	FS Installation - Cable Laying, Termination, Associated Fitting & Field Devices	45	22-Oct-21	05-Dec-21	25-Oct-21	08-Dec-21	3
AS106280	BS Fitting Installation - Cable Laying, Termination, Associated Fitting & Field Devices	60	28-Nov-21	26-Jan-22	28-Nov-21	26-Jan-22	0
AS106290g	Ready for Power Energization	0		26-Jan-22		26-Jan-22	0
Statutory Submission / Inspection							
FSD Submission & Inspection							
AS107100	Prepare & Submit FS/314, FS/501 & FS/501a	7	29-Nov-21	05-Dec-21	02-Dec-21	08-Dec-21	3
AS107110a	FSD Review & Approval of FS/314, FS/501 & FS/501a	21	06-Dec-21	26-Dec-21	09-Dec-21	29-Dec-21	3
AS107200	F.S. Inspection, Defects Rectification & Re-inspection	45	27-Dec-21	09-Feb-22	30-Dec-21	12-Feb-22	3
AS107300	Issuance of Acceptance Letter	28	10-Feb-22	09-Mar-22	13-Feb-22	12-Mar-22	3
Testing & Commissioning							
AS107400	SAT for UV System No. 1 & Effluent Transfer Pumping Station No. 1	15	27-Jan-22	10-Feb-22	27-Jan-22	10-Feb-22	0
AS107500	System Commissioning Tests	30	11-Feb-22	12-Mar-22	11-Feb-22	12-Mar-22	0
Section 5 - Complete all remaining Works (incl. T&C)							
Biogas Storage & Pre-Treatment (BSPT)							
AS504500	E&M Installation of Biogas Storage Tank 1	240	25-May-22	19-Jan-23	25-May-22	19-Jan-23	0
AS504520	E&M Installation of Biogas Storage Tank 2	240	09-Jun-22	03-Feb-23	09-Jun-22	03-Feb-23	0
AS504540	E&M Installation of Biogas Storage Tank 3	210	07-Sep-22	04-Apr-23	07-Sep-22	04-Apr-23	0
Statutory Submission / Inspection							
EMSD Submission / Inspection							
AS509420a	Application for Approval of Use of Notifiable Gas Installation (Form 105)	28	06-May-23	02-Jun-23	08-May-23	04-Jun-23	2
AS509440a	EMSD Inspection - Gas Holding Tanks	14	03-Jun-23	16-Jun-23	05-Jun-23	18-Jun-23	2
Testing & Commissioning							
T&C of E&M Process							
AS510500	SAT for Biogas Storage System	30	21-Mar-23	19-Apr-23	21-Mar-23	19-Apr-23	0
AS510600	System Commissioning Tests for Biogas Storage System	30	20-Apr-23	19-May-23	20-Apr-23	19-May-23	0
AS510800	System Commissioning Tests for Sludge Digestion System	30	05-May-23	03-Jun-23	05-May-23	03-Jun-23	0
AS511000	System Commissioning Tests for Gas Burning System	30	20-May-23	18-Jun-23	20-May-23	18-Jun-23	0
AS511200	System Commissioning Tests for CHP System	30	20-May-23	18-Jun-23	20-May-23	18-Jun-23	0
AS512100	Seeding	14	05-Jun-23	18-Jun-23	05-Jun-23	18-Jun-23	0
AS512200a	Process Start Up - Digester 1	120	19-Jun-23	16-Oct-23	19-Jun-23	16-Oct-23	0
AS512500a	Process Start Up - Digester 2	120	11-Aug-23	08-Dec-23	11-Aug-23	08-Dec-23	0
AS512600a	Notice to Commence Phase 1 System Commissioning - Digester 2	3	09-Dec-23	11-Dec-23	09-Dec-23	11-Dec-23	0
AS512700a	Phase 1 System Commissioning - Digester 2	30	12-Dec-23	10-Jan-24	12-Dec-23	10-Jan-24	0
AS512800a	Phase 2 System Commissioning - Digester 1 & 2	7	11-Jan-24	17-Jan-24	11-Jan-24	17-Jan-24	0
AS512900a	Notice to Commence Plant Commissioning	7	18-Jan-24	24-Jan-24	18-Jan-24	24-Jan-24	0
AS513000a	Plant Commissioning Tests	45	25-Jan-24	09-Mar-24	25-Jan-24	09-Mar-24	0



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 Sluge Treatment Faciliteis
Revised Programme - as at 20 Mar 2021 (Critical Path)

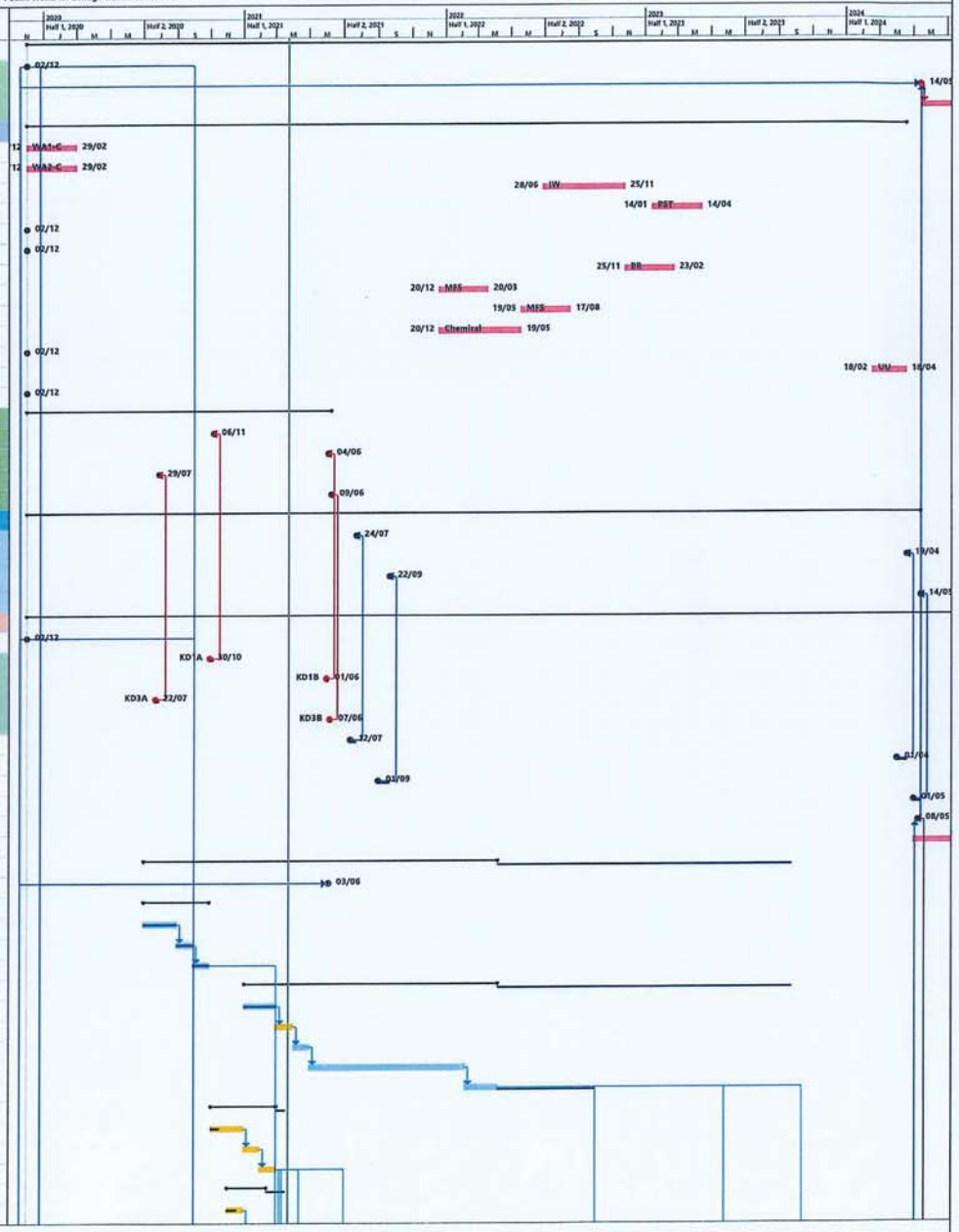
Date	Revision	Checked	Approved
02-Dec-20	Rev.4	LT	KM
30-Dec-20	Rev.5	LT	KM
26-Jan-21	Rev.6	LT	KM
26-Feb-21	Rev.7	LT	KM
29-Mar-21	Rev.8	LT	KM

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

AECOM

ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Float Time	Predecessors	Successors	Resource Names
1	1	DE/2018/04 - Contract Master Programme	1990 days	Mon 02/12/19	Tue 13/05/25	0 days			
2	2	*Starting Date*	*0 days*	Mon 02/12/19	Mon 02/12/19	*0 days*		*355+1625 edays,62*	
3	3	*Completion Date*	*0 days*	Tue 14/05/24	Tue 14/05/24	*0 days*	*255+1625 edays,3*	*4*	
4	4	*Defect Dates with respect to Completion Date*	*365 days*	Tue 14/05/24	Tue 13/05/25	*0 days*	*3*		
5	5	Access Dates	1599 days	Mon 02/12/19	Thu 18/04/24	0 days			
6	6	Access Date for Works Area WA1-C	90 days	Mon 02/12/19	Sat 29/02/20	0 days			
7	7	Access Date for Works Area WA2-C	90 days	Mon 02/12/19	Sat 29/02/20	0 days			
8	8	Access Date for Portion B-2, Inlet Works No. 1	150 edays	Tue 28/06/22	Fri 25/11/22	0 edays			
9	9	Access Date for Portion B-3, PST No. 1~4	90 edays	Sat 14/01/23	Fri 14/04/23	0 edays			
10	10	Access Date for Portion B-3A, Existing PST No. 4 and No. 6	0 days	Mon 02/12/19	Mon 02/12/19	0 days			
11	11	Access Date for Portion B-3B, Temporary Filtrate Lifting Well and Eq. Tank	0 days	Mon 02/12/19	Mon 02/12/19	0 days			
12	12	Access Date for Portion B-4, BR 2A & 2B	90 edays	Fri 25/11/22	Thu 23/02/23	0 edays			
13	13	Access Date for Portion B-5A, MFB No. 2 below 1st floor level	90 edays	Mon 20/12/21	Sun 20/03/22	0 edays			
14	14	Access Date for Portion B-5B, MFB No. 2 remaining portion	90 edays	Thu 19/05/22	Wed 17/08/22	0 edays			
15	15	Access Date for Portion B-7 & 7B, Chemical Dosing, Concrete Plinth for DOs, Chemical Sys 1 & 2	150 edays	Mon 20/12/21	Thu 19/05/22	0 edays			
16	16	Access Date for Portion B-7A & 7B, area for modification of existing emergency generator elect	0 edays	Mon 02/12/19	Mon 02/12/19	0 edays			
17	17	Access Date for Portion B-9B, underground pipework	60 edays	Sun 18/02/24	Thu 18/04/24	0 edays			
18	18	Access Date for B-10, existing sludge thickening building	0 edays	Mon 02/12/19	Mon 02/12/19	0 edays			
19	19	Key Dates	555 days	Mon 02/12/19	Wed 09/06/21	0 days			
20	20	KD1A - Submission of civil and dimensional requirement drawings, electrical schematic drawing	340 edays	Mon 02/12/19	Fri 06/11/20	0 edays	31FF		
21	21	KD1B - Submission of remaining civil and dimensional requirement drawings, electrical schema	550 edays	Mon 02/12/19	Fri 04/06/21	0 edays	32FF		
22	22	KD3A - Completion of E&M installation works of existing power house in Portions B-7A and B-7	240 edays	Mon 02/12/19	Wed 29/07/20	0 edays	33FF		
23	23	KD3B - Completion of all work for reprovision of the existing Primary Sedimentation Tanks No.	555 edays	Mon 02/12/19	Wed 09/06/21	0 edays	34FF		
24	24	Sectional Completion Dates	1625 days	Mon 02/12/19	Tue 14/05/24	0 days			
25	25	Section 1 - Completion of the design of E&M Works for all works as defined in WI_GP Cl. 10.1(a	600 edays	Mon 02/12/19	Sat 24/07/21	0 edays	35FF		
26	26	Section 2 - Completion of all works for Inlet Works, PST No. 1~4, BR No. 2A & 2B, MFB No. 2, te	1600 edays	Mon 02/12/19	Fri 19/04/24	0 edays	36FF		
27	27	Section 3 - Completion of all works for retrofitting of the existing PST...etc (660 days after starti	660 edays	Mon 02/12/19	Wed 22/09/21	0 edays	37FF		
28	28	Section 4 - Completion of Work for remainder of the works (1625 days after starting date)	1625 edays	Mon 02/12/19	Tue 14/05/24	0 edays	38FF		
29	29	DE/2018/04 - the Contractor's Programme (w/ Defects Date of Planned Completion Date)	1977 days	Mon 02/12/19	Wed 30/04/25	0 days			
30	30	*Starting Date*	*0 days*	Mon 02/12/19	*Mon 02/12/19*	*0 days*		*623,1975S+30 eday*	
31	31	Planned Key Date Completion Date - KD1A	0 days	Fri 30/10/20	Fri 30/10/20	7 days		20FF	
32	32	Planned Key Date Completion Date - KD1B	0 days	Tue 01/06/21	Tue 01/06/21	3 days		21FF	
33	33	Planned Key Date Completion Date - KD3A	0 days	Wed 22/07/20	Wed 22/07/20	7 days		22FF	
34	34	Planned Key Date Completion Date - KD3B	0 days	Mon 07/06/21	Mon 07/06/21	2 days		23FF	
35	35	Planned Sectional Completion Date - Section 1	0 days	Mon 12/07/21	Mon 12/07/21	11 days		25FF	
36	36	Planned Sectional Completion Date - Section 2	0 days	Mon 01/04/24	Mon 01/04/24	18 days		26FF	
37	37	Planned Sectional Completion Date - Section 3	0 days	Wed 01/09/21	Wed 01/09/21	21 days		27FF	
38	38	Planned Sectional Completion Date - Section 4	0 days	Wed 01/05/24	Wed 01/05/24	13 days		28FF	
39	39	Planned Completion Date	0 days	Wed 08/05/24	Wed 08/05/24	5 days	1271,1272,1273,1	3	
40	40	*Defect Dates with respect to planned completion date*	*365 days*	Wed 01/05/24	Wed 30/04/25	*0 days*			
41	41	Part A: Procurement and Delivery of Major Plant and Materials	645 days	Wed 01/07/20	Wed 06/04/22	535 days			
42	42	Planned Completion Date for Procurement of major plant and materials	0 days	Thu 03/06/21	Thu 03/06/21	0 days	305S+550 days		
43	43	General - stoplogs and penstocks, C11, EQT013	120 days	Wed 01/07/20	Wed 28/10/20	0 days			
44	44	Submission for acceptance of purchasing package	60 days	Wed 01/07/20	Sat 29/08/20	0 days		45	
45	45	Invitation of quotations for purchasing package	30 days	Sun 30/08/20	Mon 28/09/20	0 days	44	46	
46	46	Acceptance of conforming quotation (Completed)	30 days	Tue 29/09/20	Wed 28/10/20	0 days	45	248	
47	47	General - instrumentations except use at BR, C11, EQT035-1	460 days	Sat 02/01/21	Wed 06/04/22	535 days			
48	48	Submission for acceptance of purchasing package	60 days	Sat 02/01/21	Tue 02/03/21	0 days		49	
49	49	Invitation of quotations for purchasing package	30 days	Wed 03/03/21	Thu 01/04/21	0 days	48	50	
50	50	Acceptance of conforming quotation	30 days	Fri 02/04/21	Sat 01/05/21	0 days	49	51	
51	51	Manufacturing and Factory Acceptance Test of Plant	280 days	Sun 02/05/21	Sat 05/02/22	0 days	50	52	
52	52	Shipping and Delivery of Plant	60 days	Sun 06/02/22	Wed 06/04/22	178 days	51	330,460,742	
53	53	General - pipework and valves, C11, ref. EQT036 (Rev. 5)	120 days	Mon 02/11/20	Mon 01/03/21	17 days			
54	54	Submission for acceptance of purchasing package	60 days	Mon 02/11/20	Thu 31/12/20	0 days		55	
55	55	Invitation of quotations for purchasing package	30 days	Fri 01/01/21	Sat 30/01/21	0 days	54	56	
56	56	Acceptance of conforming quotation	30 days	Sun 31/01/21	Mon 01/03/21	0 days	55	248,294,523,646,64	
57	57	General - electric actuators, C11, ref. EQT042	72 days	Wed 02/12/20	Thu 11/02/21	35 days			
58	58	Submission for acceptance of purchasing package	30 days	Wed 02/12/20	Thu 31/12/20	0 days		59	



Project: DE/2018/04
Date: Thu 25/03/21

Task | Milestone | Project Summary | Late | Critical Split | Manual Progress | Milestone (Actual)
Milestone, Tentative | Summary | Manual Summary | Critical | Progress | Slack (Float) | Slack

Status Date Sat 20/03/21

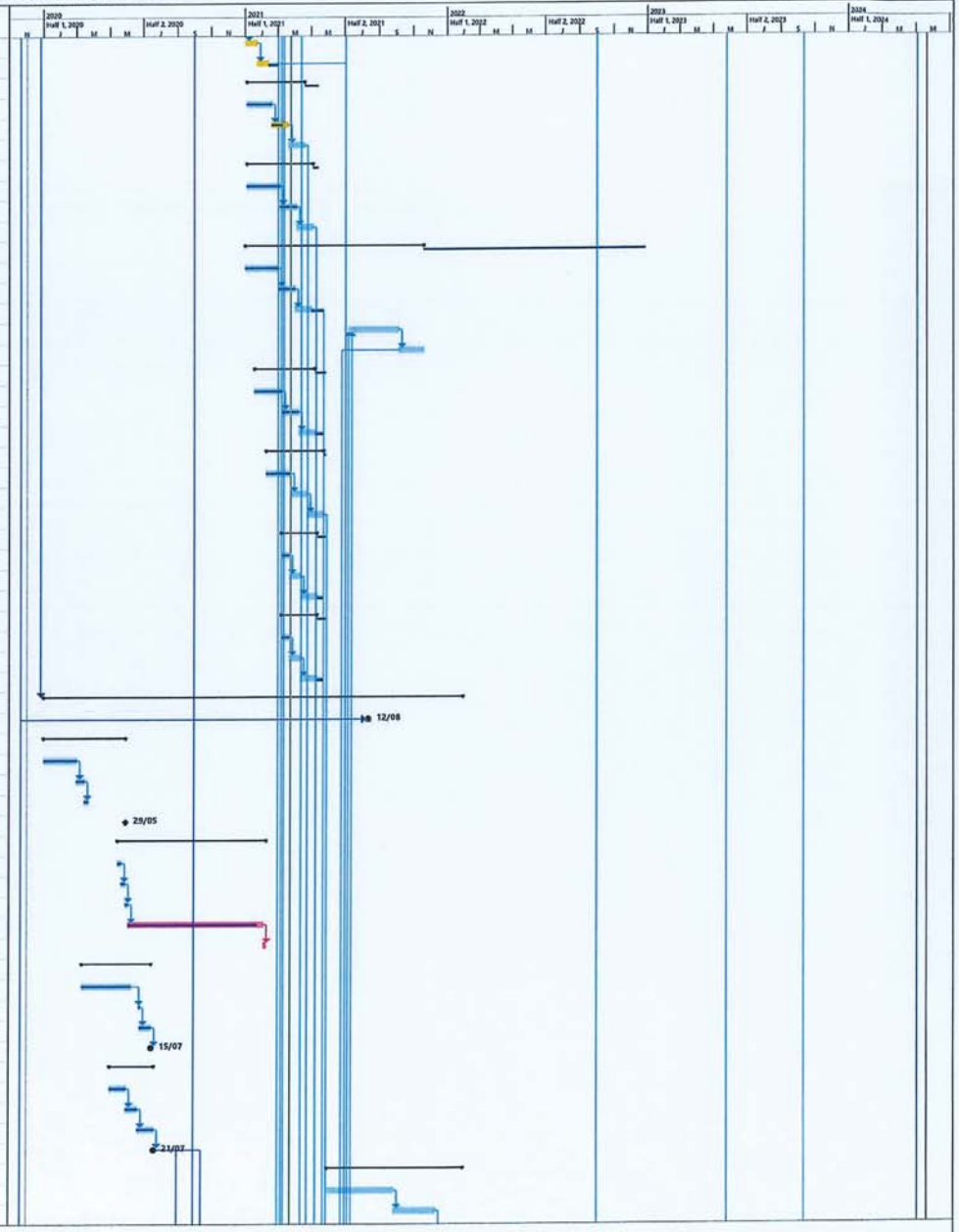
DE_2018_04 Revised PG- (Rev 8, 2021-03)

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

AECOM

ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Float Time	Predecessors	Successors	Resource Names
59	5.12.5.2	Invitation of quotations for purchasing package	21 days	Fri 01/01/21	Thu 21/01/21	0 days	58	60	
60	5.12.5.3	Acceptance of conforming quotation	21 days	Fri 22/01/21	Thu 11/02/21	18 days	59	248,294,523,646,64	
61	5.12.6	General - HV Switchboards, C9, ref. EQT031 (Rev. 5)	105 days	Mon 04/01/21	Sun 18/04/21	25 days			
62	5.12.6.1	Submission for acceptance of purchasing package	45 days	Mon 04/01/21	Wed 17/02/21	0 days		63	
63	5.12.6.2	Invitation of quotations for purchasing package	30 days	Thu 18/02/21	Fri 19/03/21	0 days	62	64	
64	5.12.6.3	Acceptance of conforming quotation	30 days	Sat 20/03/21	Sun 18/04/21	0 days	63	651,252	
65	5.12.7	General - LV Switchboards, C9, ref. EQT033 (Rev. 5)	120 days	Mon 04/01/21	Mon 03/05/2	10 days			
66	5.12.7.1	Submission for acceptance of purchasing package	60 days	Mon 04/01/21	Thu 04/03/21	0 days		67	
67	5.12.7.2	Invitation of quotations for purchasing package	30 days	Fri 05/03/21	Sat 03/04/21	0 days	66	68	
68	5.12.7.3	Acceptance of conforming quotation	30 days	Sun 04/04/21	Mon 03/05/21	0 days	67	251,526,397,650	
69	5.12.8	General - VSDs & Passive Type Harmonic Filters, C11, ref. EQT034 (Rev. 5)	323 days	Fri 01/01/21	Fri 19/11/21	403 days			
70	5.12.8.1	Submission for acceptance of purchasing package	60 days	Fri 01/01/21	Mon 01/03/21	0 days		71	
71	5.12.8.2	Invitation of quotations for purchasing package	30 days	Tue 02/03/21	Wed 31/03/21	0 days	70	72	
72	5.12.8.3	Acceptance of conforming quotation	30 days	Thu 01/04/21	Fri 30/04/21	23 days	71	249,395,524,647	
73	5.12.8.4	Manufacturing and Factory Acceptance Test of Plant	90 days	Thu 08/07/21	Tue 05/10/21	0 days	249,395,524,647	74	
74	5.12.8.5	Shipping and Delivery of Plant to LVSB Sub-Contractor	45 days	Wed 06/10/21	Fri 19/11/21	0 days	73	2875S-90 edays	
75	5.12.9	General - 11kV/380V Stepdown Power Transformers, C11, EQT032 (Rev. 5)	110 days	Mon 18/01/21	Fri 07/05/21	20 days			
76	5.12.9.1	Submission for acceptance of purchasing package	50 days	Mon 18/01/21	Mon 08/03/21	0 days		77	
77	5.12.9.2	Invitation of quotations for purchasing package	30 days	Tue 09/03/21	Wed 07/04/21	0 days	76	78	
78	5.12.9.3	Acceptance of conforming quotation	30 days	Thu 08/04/21	Fri 07/05/21	16 days	77	249,647	
79	5.12.10	General - UPS, C11, EQT061 (Rev. 5)	105 days	Mon 08/02/21	Sun 23/05/21	4 days			
80	5.12.10.1	Submission for acceptance of purchasing package	45 days	Mon 08/02/21	Wed 24/03/21	0 days		81	
81	5.12.10.2	Invitation of quotations for purchasing package	30 days	Thu 25/03/21	Fri 23/04/21	0 days	80	82	
82	5.12.10.3	Acceptance of conforming quotation	30 days	Sat 24/04/21	Sun 23/05/21	0 days	81	249,395,524,647	
83	5.12.11	General - HV Cables, C11, EQT041 (Rev. 5)	65 days	Mon 08/03/21	Tue 11/05/21	16 days			
84	5.12.11.1	Submission for acceptance of purchasing package	14 days	Mon 08/03/21	Sun 21/03/21	0 days		85	
85	5.12.11.2	Invitation of quotations for purchasing package	21 days	Mon 22/03/21	Sun 11/04/21	0 days	84	86	
86	5.12.11.3	Acceptance of conforming quotation	30 days	Mon 12/04/21	Tue 11/05/21	12 days	85	249,647	
87	5.12.12	General - LV Cables, C11, EQT042 (Rev. 5)	65 days	Mon 08/03/21	Tue 11/05/21	16 days			
88	5.12.12.1	Submission for acceptance of purchasing package	14 days	Mon 08/03/21	Sun 21/03/21	0 days		89	
89	5.12.12.2	Invitation of quotations for purchasing package	21 days	Mon 22/03/21	Sun 11/04/21	0 days	88	90	
90	5.12.12.3	Acceptance of conforming quotation	30 days	Mon 12/04/21	Tue 11/05/21	12 days	89	249,395,524,647	
91	5.13	Part B: Subletting of major sub-contract works	761 days	Wed 01/01/20	Sun 30/01/22	0 days	7,30		
92	5.13.1	Planned Completion Date for major sub-contract works	0 days	Thu 12/08/21	Thu 12/08/21	0 days	2SS+620 days,3055		
93	5.13.2	General - Independent BEAM Plus Consultant (04SC007)	150 days	Wed 01/01/20	Fri 29/05/20	0 days			
94	5.13.2.1	Submission for acceptance of proposed Independent BEAM Plus Consultant	60 edays	Wed 01/01/20	Sun 01/03/20	0 edays		95	
95	5.13.2.2	Acceptance of proposed Independent BEAM Plus Consultant	14 edays	Sun 01/03/20	Sun 15/03/20	0 edays	94	96	
96	5.13.2.3	Engagement with an Independent BEAM Plus Consultant	7 days	Sun 15/03/20	Sat 21/03/20	0 days	95		
97	5.13.2.4	Actual Date for engagement with an Independent BEAM Plus Consultant (Completed)	0 days	Fri 29/05/20	Fri 29/05/20	0 days			
98	5.13.3	General - Conduction of Pump sump physical model test	270 days	Fri 15/05/20	Mon 08/02/2	0 days			
99	5.13.3.1	Submission for acceptance of proposed hydraulic laboratory to conduct the test	7 edays	Fri 15/05/20	Fri 22/05/20	0 edays		100	
100	5.13.3.2	Invitation to quotations for provision of service	7 edays	Fri 22/05/20	Fri 29/05/20	0 edays	99	101	
101	5.13.3.3	Acceptance of proposed hydraulic laboratory	6 days	Fri 29/05/20	Wed 03/06/20	0 days	100	102	
102	5.13.3.4	Commencement of detailed proposal and conduction of test (Extended)	245 days	Thu 04/06/20	Wed 03/02/21	0 days	101	103	
103	5.13.3.5	Acceptance of hydraulic Report (Extended)	5 days	Thu 04/02/21	Mon 08/02/21	0 days	102		
104	5.13.4	General - Independent Checking Engineer (04SC004)	127 days	Wed 11/03/20	Wed 15/07/20	0 days			
105	5.13.4.1	Submission for acceptance of proposed Independent Checking Engineer	90 edays	Wed 11/03/20	Tue 09/06/20	0 edays		106	
106	5.13.4.2	Acceptance of proposed Independent Checking Engineer	1 eday	Wed 24/06/20	Thu 25/06/20	0 edays	105	107	
107	5.13.4.3	Engagement with an Independent Checking Engineer	21 days	Thu 25/06/20	Wed 15/07/20	0 days	106	108	
108	5.13.4.4	Actual Date for engagement with an ICE (Completed)	0 days	Wed 15/07/20	Wed 15/07/20	0 days	107		
109	5.13.5	General - Lifting Appliances (04SC008)	81 days	Fri 01/05/20	Tue 21/07/20	0 days			
110	5.13.5.1	Submission for acceptance of subcontract works package	30 edays	Fri 01/05/20	Sun 31/05/20	0 edays		111	
111	5.13.5.2	Invitation of tender for subcontract works	21 edays	Sun 31/05/20	Sun 21/06/20	0 edays	110	112	
112	5.13.5.3	Acceptance of conforming tender	30 edays	Sun 21/06/20	Tue 21/07/20	0 edays	111	113	
113	5.13.5.4	Sub-contract work commencement date (Completed)	0 days	Tue 21/07/20	Tue 21/07/20	0 days	112	253,398,527,652,1	
114	5.13.6	General - Mechanical Installations	244 days	Tue 01/06/21	Sun 30/01/22	0 days			
115	5.13.6.1	Submission for acceptance of subcontract works package	120 days	Tue 01/06/21	Tue 28/09/21	0 days		116	
116	5.13.6.2	Invitation of tender for subcontract works	75 days	Wed 29/09/21	Sun 12/12/21	0 days	115	117	

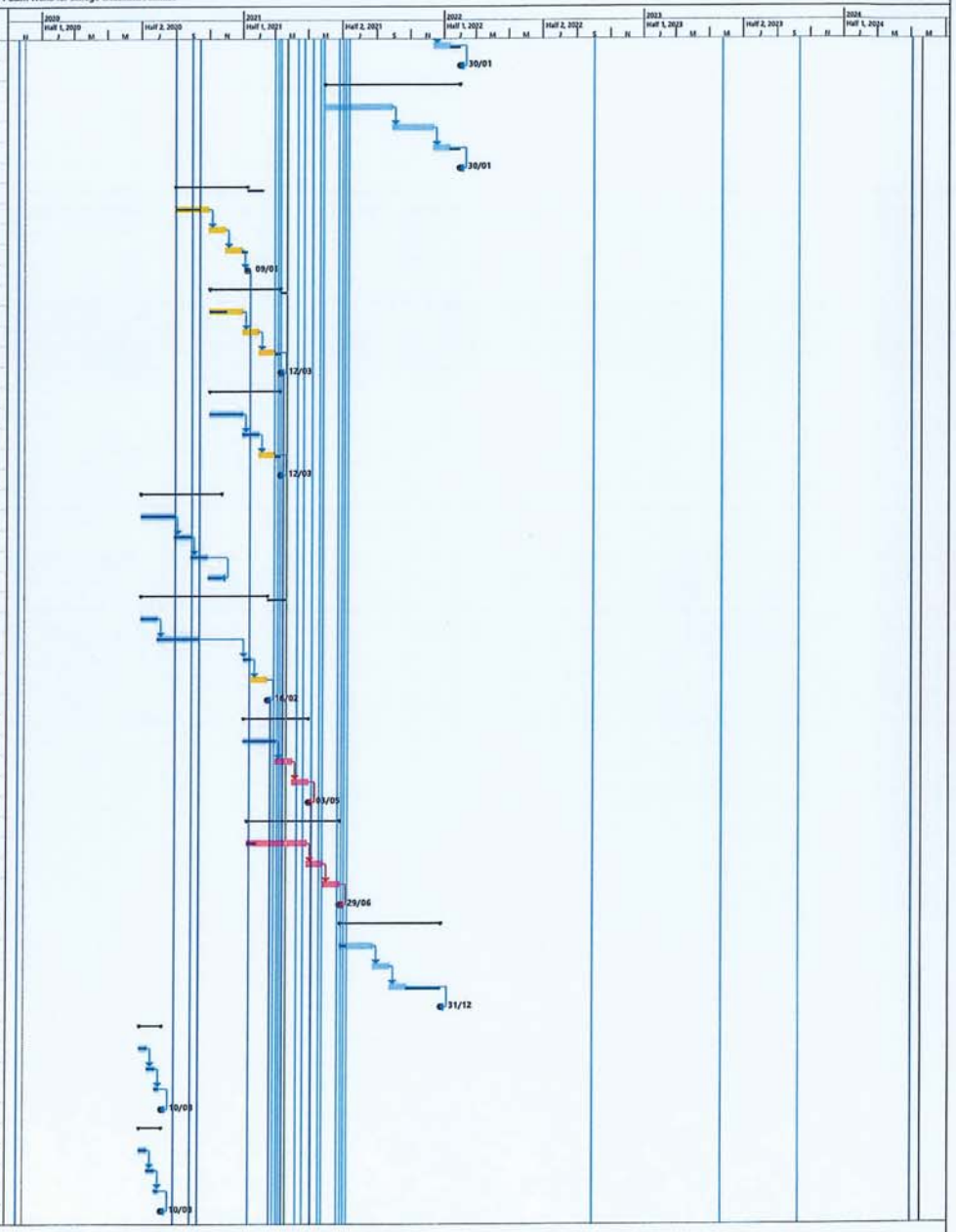


Baseline
Project: DE/2018/04
Date: Thu 25/03/21

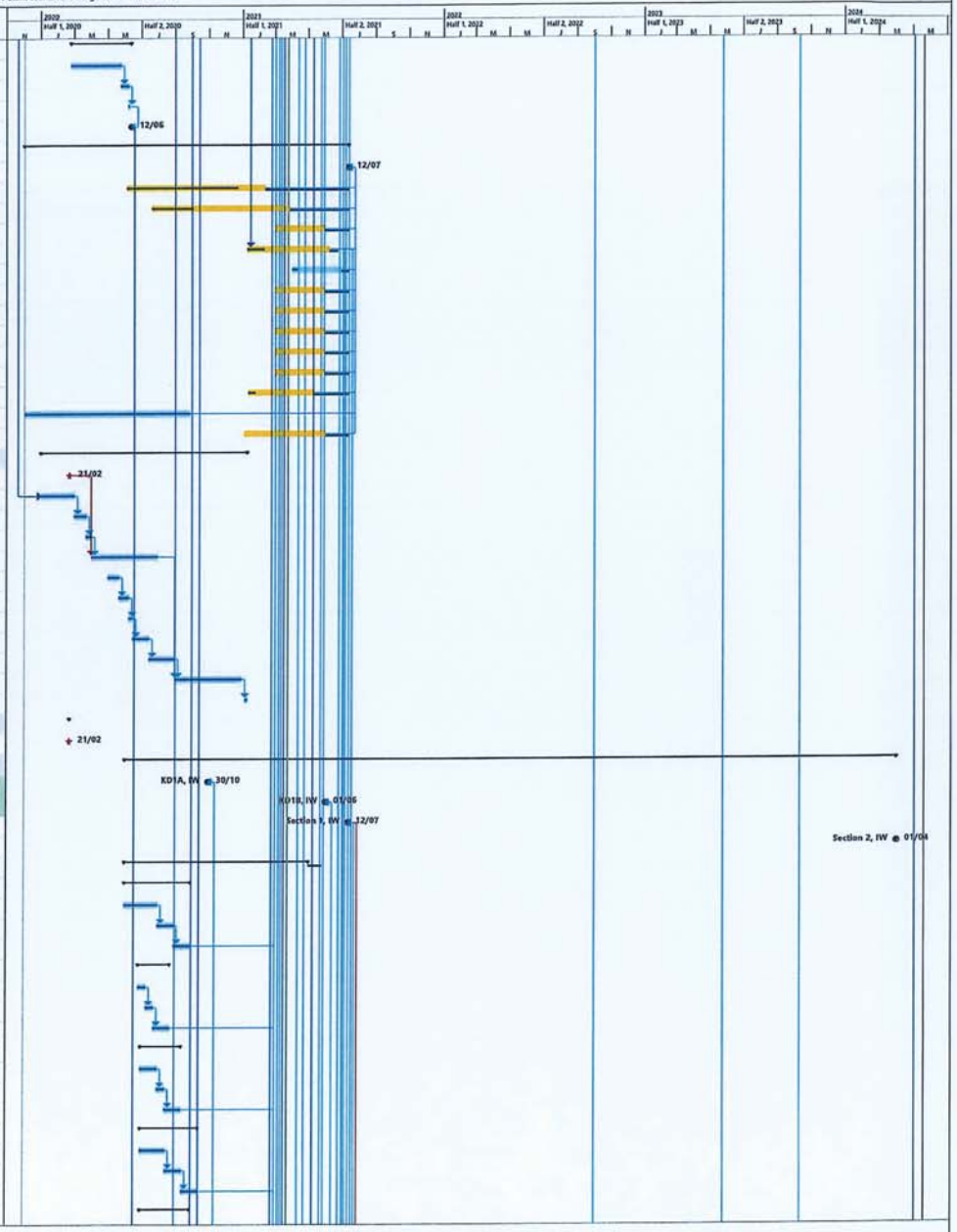
Task | Milestone | Project Summary | Late | Critical Split | Manual Progress | Milestone (Actual)
Milestone, Tentative | Summary | Manual Summary | Critical | Progress | Slack (Float) | Slack

Status Date Sat 20/03/21

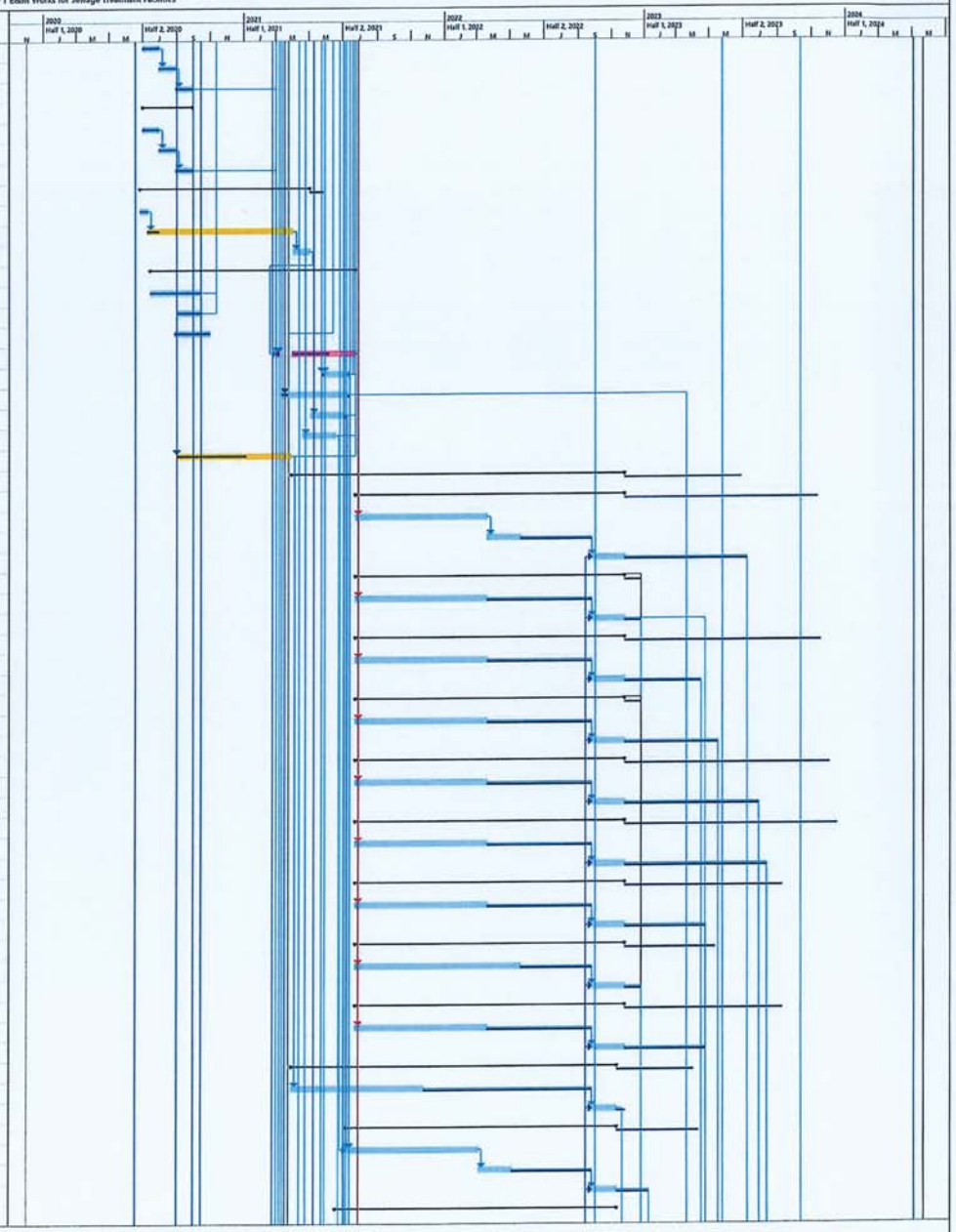
ID	O	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Float Time	Predecessors	Successors	Resource Names
117	117	5.13.6.3	Acceptance of conforming tender	30 days	Mon 13/12/21	Tue 11/01/22	19 days	116	118FF	
118	118	5.13.6.4	Sub-contract work commencement date	1 day	Sun 30/01/22	Sun 30/01/22	0 days	117FF		
119	119	5.13.7	General - Electrical Installations	244 days	Tue 01/06/21	Sun 30/01/22	0 days			
120	120	5.13.7.1	Submission for acceptance of subcontract works package	120 edays	Tue 01/06/21	Wed 29/09/21	0 edays		121	
121	121	5.13.7.2	Invitation of tender for subcontract works	75 edays	Wed 29/09/21	Mon 13/12/21	0 edays	120	122	
122	122	5.13.7.3	Acceptance of conforming tender	30 edays	Mon 13/12/21	Wed 12/01/22	18.38 edays	121	123FF	
123	123	5.13.7.4	Sub-contract work commencement date	1 day	Sun 30/01/22	Sun 30/01/22	0 days	122FF		
124	124	5.13.8	General - Facility Computerized Systems (SCADA, CMMS, PMS, IDMS)	130 days	Tue 01/09/20	Sat 09/01/21	30 days			
125	125	5.13.8.1	Submission for acceptance of subcontract works package	60 edays	Tue 01/09/20	Sat 31/10/20	0 edays		126	
126	126	5.13.8.2	Invitation of tender for subcontract works	30 edays	Sat 31/10/20	Mon 30/11/20	0 edays	125	127	
127	127	5.13.8.3	Acceptance of conforming tender	30 edays	Mon 30/11/20	Wed 30/12/20	10 edays	126	128	
128	128	5.13.8.4	Sub-contract work commencement date	0 days	Sat 09/01/21	Sat 09/01/21	0 days	127	185	
129	129	5.13.9	General - Building Services Installations	130 days	Mon 02/11/20	Fri 12/03/21	12 days			
130	130	5.13.9.1	Submission for acceptance of subcontract works package	60 edays	Mon 02/11/20	Fri 01/01/21	0 edays		131	
131	131	5.13.9.2	Invitation of tender for subcontract works	30 edays	Fri 01/01/21	Sun 31/01/21	0 edays	130	132	
132	132	5.13.9.3	Acceptance of conforming tender	30 edays	Sun 31/01/21	Tue 02/03/21	10 edays	131	133FF	
133	133	5.13.9.4	Sub-contract work commencement date	0 days	Fri 12/03/21	Fri 12/03/21	0 days	132FF	250,396,525,649,75	
134	134	5.13.10	General - Mechanical Ventilation and Air Conditioning Installation	130 days	Mon 02/11/20	Fri 12/03/21	0 days			
135	135	5.13.10.1	Submission for acceptance of subcontract works package	60 edays	Mon 02/11/20	Thu 31/12/20	0 days		136	
136	136	5.13.10.2	Invitation of tender for subcontract works	30 edays	Thu 31/12/20	Sat 30/01/21	0 edays	135	137	
137	137	5.13.10.3	Acceptance of conforming tender	30 days	Sun 31/01/21	Mon 01/03/21	10 days	136	138FF	
138	138	5.13.10.4	Sub-contract work commencement date	0 days	Fri 12/03/21	Fri 12/03/21	0 days	137FF		
139	139	5.13.11	General - Emergency Power Generator Set (04SC006)	146 days	Wed 01/07/20	Mon 23/11/20	0 days			
140	140	5.13.11.1	Submission for acceptance of subcontract works package	60 edays	Wed 01/07/20	Sun 30/08/20	0 edays		141	
141	141	5.13.11.2	Invitation of tender for subcontract works	30 edays	Sun 30/08/20	Tue 29/09/20	0 edays	140	142	
142	142	5.13.11.3	Acceptance of conforming tender	30 edays	Tue 29/09/20	Thu 29/10/20	0 edays	141	143FF	
143	143	5.13.11.4	Sub-contract work commencement date (Completed)	24 days	Sat 31/10/20	Mon 23/11/20	0 days	142FF		
144	144	5.13.12	General - Plumbing Installation (Rev. 5)	231 days	Wed 01/07/20	Tue 16/02/21	36 days			
145	145	5.13.12.1	Submission for acceptance of subcontract works package	30 edays	Wed 01/07/20	Fri 31/07/20	0 edays		146	
146	146	5.13.12.2	Invitation of tender for subcontract works	75 edays	Fri 31/07/20	Wed 14/10/20	0 edays	145	147	
147	147	5.13.12.3	Retender of subcontract works (Rev. 5)	14 days	Mon 04/01/21	Sun 17/01/21	0 days	146	148	
148	148	5.13.12.4	Acceptance of conforming tender	30 edays	Sun 17/01/21	Tue 16/02/21	0 edays	147	149FF	
149	149	5.13.12.5	Sub-contract work commencement date (Extended)	0 days	Tue 16/02/21	Tue 16/02/21	0 days	148FF	1225	
150	150	5.13.13	General - Fire Services Installation (Rev. 5)	120 days	Mon 04/01/21	Mon 03/05/21	0 days			
151	151	5.13.13.1	Submission for acceptance of subcontract works package	60 days	Mon 04/01/21	Thu 04/03/21	0 days		152	
152	152	5.13.13.2	Invitation of tender for subcontract works	30 days	Fri 05/03/21	Sat 03/04/21	0 days	151	153	
153	153	5.13.13.3	Acceptance of conforming tender	30 days	Sun 04/04/21	Mon 03/05/21	0 days	152	154FF	
154	154	5.13.13.4	Sub-contract work commencement date	0 days	Mon 03/05/21	Mon 03/05/21	0 days	153FF	1176	
155	155	5.13.14	General - Lightning Protection System and Main Earthing System (Rev. 8)	170 days	Mon 11/01/21	Tue 29/06/21	0 days			
156	156	5.13.14.1	Submission for acceptance of subcontract works package (Rev. 8)	109.38 edays	Mon 11/01/21	Fri 30/04/21	0 edays		157	
157	157	5.13.14.2	Invitation of tender for subcontract works (Rev. 8)	30 edays	Fri 30/04/21	Sun 30/05/21	0 edays	156	158	
158	158	5.13.14.3	Acceptance of conforming tender (Rev. 8)	30 edays	Sun 30/05/21	Tue 29/06/21	0 edays	157	159FF	
159	159	5.13.14.4	Sub-contract work commencement date (Rev. 8)	0 days	Tue 29/06/21	Tue 29/06/21	0 days	158FF		
160	160	5.13.15	General - CCTV Installation	183 days	Thu 01/07/21	Fri 31/12/21	0 days			
161	161	5.13.15.1	Submission for acceptance of subcontract works package	60 edays	Thu 01/07/21	Mon 30/08/21	0 edays		162	
162	162	5.13.15.2	Invitation of tender for subcontract works	30 edays	Mon 30/08/21	Wed 29/09/21	0 edays	161	163	
163	163	5.13.15.3	Acceptance of conforming tender	30 edays	Wed 29/09/21	Fri 29/10/21	63 edays	162	164FF	
164	164	5.13.15.4	Sub-contract work commencement date	0 days	Fri 31/12/21	Fri 31/12/21	0 days	163FF		
165	165	5.13.16	General - Civil Construction Work for underground pipework	40 days	Wed 01/07/20	Mon 10/08/20	0 days			
166	166	5.13.16.1	Submission for acceptance of subcontract works package	14 days	Wed 01/07/20	Tue 14/07/20	0 days		167	
167	167	5.13.16.2	Invitation of tender for subcontract works	14 days	Wed 15/07/20	Tue 28/07/20	0 days	166	168	
168	168	5.13.16.3	Acceptance of conforming tender	7 days	Wed 29/07/20	Tue 04/08/20	0 days	167	169FF	
169	169	5.13.16.4	Sub-contract work commencement date (Completed)	0 days	Mon 10/08/20	Mon 10/08/20	0 days	168FF		
170	170	5.13.17	General - Civil Construction Work for Temp. Filtrate Eq. System	40 days	Wed 01/07/20	Mon 10/08/20	0 days			
171	171	5.13.17.1	Submission for acceptance of subcontract works package	14 days	Wed 01/07/20	Tue 14/07/20	0 days		172	
172	172	5.13.17.2	Invitation of tender for subcontract works	14 days	Wed 15/07/20	Tue 28/07/20	0 days	171	173	
173	173	5.13.17.3	Acceptance of conforming tender	7 days	Wed 29/07/20	Tue 04/08/20	0 days	172	174FF	
174	174	5.13.17.4	Sub-contract work commencement date (Completed)	0 days	Mon 10/08/20	Mon 10/08/20	0 days	173FF		



ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Float Time	Predecessors	Successors	Resource Names
175	5.13.18	Mis - Modification of existing power house	189 days	Mon 24/02/20	Fri 12/06/20	0 days			
176	5.13.18.1	Submission for acceptance of subcontract works package	90 days	Mon 24/02/20	Sat 23/05/20	0 days		177	
177	5.13.18.2	Invitation of tender for subcontract works	14 days	Sun 24/05/20	Sat 06/06/20	0 days	176	178	
178	5.13.18.3	Acceptance of conforming tender	1 day	Sun 07/06/20	Sun 07/06/20	0 days	177	179FF	
179	5.13.18.4	Sub-contract work commencement date (Completed)	0 days	Fri 12/06/20	Fri 12/06/20	0 days	178FF	1147	
180	5.14	Part C: General Design Submissions	589 days	Mon 02/12/19	Mon 12/07/2	0 days			
181	5.14.1	Planned Sectional Completion Date - Section 1	0 days	Mon 12/07/21	Mon 12/07/21	0 days	182FF,183FF,184FI		
182	5.14.2	CDS001 - General Design Parameters	250 edays	Fri 05/06/20	Wed 10/02/21	152.38 edays		181FF	
183	5.14.3	CDS020 - Electrical Installation Typical Details	250 edays	Mon 20/07/20	Sat 27/03/21	107.38 edays		181FF	
184	5.14.4	CDS009 - Detailed Design for Plant Service Water System	90 edays	Mon 01/03/21	Sun 30/05/21	43.38 edays		181FF	
185	5.14.5	CDS012 - Detailed Design for SCADA System	150 edays	Sat 09/01/21	Tue 08/06/21	14.38 edays	128	181FF,249FF,395FF,	
186	5.14.6	CDS13-1 - Detailed Design for CCTV System	90 edays	Thu 01/04/21	Wed 30/06/21	12.38 edays		181FF	
187	5.14.7	CDS13-2 - Detailed Design for Gas Detection and Monitoring System	90 edays	Mon 01/03/21	Sun 30/05/21	43.38 edays		181FF	
188	5.14.8	CDS14-1 - Detailed Design for Power monitoring system (PMS)	90 edays	Mon 01/03/21	Sun 30/05/21	43.38 edays		181FF	
189	5.14.9	CDS14-2 - Detailed Design for Computerized maintenance and management (CMMS)	90 edays	Mon 01/03/21	Sun 30/05/21	43.38 edays		181FF	
190	5.14.10	CDS14-3 - Detailed Design for Information and documents management system (IDMS)	90 edays	Mon 01/03/21	Sun 30/05/21	43.38 edays		181FF	
191	5.14.11	CDS031 - Detailed Design for MVAC System	90 edays	Mon 01/03/21	Sun 30/05/21	43.38 edays		181FF	
192	5.14.12	CDS042 - Detailed Design for Lightning Protection System	120 edays	Mon 11/01/21	Tue 11/05/21	62.38 edays		181FF	
193	5.14.13	Design submissions for E&M installation works of existing sludge thickening building	300 edays	Mon 02/12/19	Sun 27/09/20	0 edays		181FF	
194	5.14.14	Design Submission for Earthing and Lightning (Rev. 8)	147.38 edays	Mon 04/01/21	Mon 31/05/21	42 edays		181FF	
195	5.15	Works Area WA1-C	374 days	Wed 01/01/20	Fri 08/01/21	0 days			
196	5.15.1	Actual Access / Handover Date	1 day	Fri 21/02/20	Fri 21/02/20	0 days		200	
197	5.15.2	Submission for acceptance of subcontract works package (Site Office) (04SC003)	60 days	Wed 01/01/20	Sat 29/02/20	0 days	255+30 edays,305S	198	
198	5.15.3	Invitation of quotations for subcontract works (Site Office)	21 days	Sun 01/03/20	Sat 21/03/20	0 days	197	199	
199	5.15.4	Acceptance of conforming quotation (Site Office)	10 days	Sun 22/03/20	Tue 31/03/20	0 days	198	200	
200	5.15.5	Design and Fabrication of the Contractor's Site Accommodations	120 days	Wed 01/04/20	Wed 29/07/20	0 days	196,199	206	
201	5.15.6	Submission for acceptance of subcontract works package (Site Office Foundation)	20 days	Fri 01/05/20	Wed 20/05/20	0 days		202	
202	5.15.7	Invitation of quotations for subcontract works (Site Office Foundation)	18 days	Thu 21/05/20	Sun 07/06/20	0 days	201	203	
203	5.15.8	Acceptance of conforming quotation (Site foundation)	7 days	Mon 08/06/20	Sun 14/06/20	0 days	202	204	
204	5.15.9	Design and Construction of the Contractor's Site Office foundation	30 days	Mon 15/06/20	Tue 14/07/20	0 days	203	205	
205	5.15.10	Construction of Contractor's Site Office foundation (Completed)	47 days	Wed 15/07/20	Sun 30/08/20	0 days	204	206	
206	5.15.11	Site installation of the Contractor's Site Accommodations (MIC) (Rev. 5)	120 days	Mon 31/08/20	Mon 28/12/20	0 days	200,205	207	
207	5.15.12	Anticipated date of working at site (Rev. 5) (Completed)	4 days	Tue 05/01/21	Fri 08/01/21	0 days	206		
208	5.16	Works Area WA2-C	1 day	Fri 21/02/20	Fri 21/02/20	0 days			
209	5.16.1	Actual Access / Handover Date	1 day	Fri 21/02/20	Fri 21/02/20	0 days			
210	5.17	Inlet Works No. 1, Portion B-2 (PS 6B.2.1)	1400 days	Mon 01/06/20	Mon 01/04/24	0 days			
211	5.17.1	Planned Key Date Completion Date - KD1A, IW	0 days	Fri 30/10/20	Fri 30/10/20	0 days	245FF,246FF		
212	5.17.2	Planned Key Date Completion Date - KD1B, IW	0 days	Tue 01/06/21	Tue 01/06/21	0 days	247FF		
213	5.17.3	Planned Sectional Completion Date - Section 1, IW	0 days	Mon 12/07/21	Mon 12/07/21	0 days	248FF,249FF,250FI		
214	5.17.4	Planned Sectional Completion Date - Section 2, IW	0 days	Mon 01/04/24	Mon 01/04/24	0 days			
215	5.17.5	Selection of Suppliers for major plant and materials for Inlet Works No. 1	335 days	Mon 01/06/20	Sat 01/05/21	25 days			
216	5.17.5.1	Inlet Works - Inlet Pumps (Marking Scheme Approach), C11, ref. EQT006	120 days	Mon 01/06/20	Mon 28/09/20	0 days			
217	5.17.5.1.1	Submission for acceptance of purchasing package including proposed marking scheme	60 days	Mon 01/06/20	Thu 30/07/20	0 days		218	
218	5.17.5.1.2	Invitation of quotations for purchasing package	30 days	Fri 31/07/20	Sat 29/08/20	0 days	217	219	
219	5.17.5.1.3	Acceptance of conforming quotation (Completed)	30 days	Sun 30/08/20	Mon 28/09/20	0 days	218	248	
220	5.17.5.2	Inlet Works - mechanical raked bar screens, C11, ref. EQT052	58 days	Fri 26/06/20	Sat 22/08/20	0 days			
221	5.17.5.2.1	Submission for acceptance of purchasing package	14 days	Fri 26/06/20	Thu 09/07/20	0 days		222	
222	5.17.5.2.2	Invitation of quotations for purchasing package	14 days	Fri 10/07/20	Thu 23/07/20	0 days	221	223	
223	5.17.5.2.3	Acceptance of conforming quotation (Completed)	30 days	Fri 24/07/20	Sat 22/08/20	0 days	222	248	
224	5.17.5.3	Inlet Works - screening conveyors and Diverters, C11, ref. EQT053	74 days	Wed 01/07/20	Sat 12/09/20	0 days			
225	5.17.5.3.1	Submission for acceptance of purchasing package	30 days	Wed 01/07/20	Thu 30/07/20	0 days		226	
226	5.17.5.3.2	Invitation of quotations for purchasing package	14 days	Fri 31/07/20	Thu 13/08/20	0 days	225	227	
227	5.17.5.3.3	Acceptance of conforming quotation (Completed)	30 days	Fri 14/08/20	Sat 12/09/20	0 days	226	248	
228	5.17.5.4	Inlet Works - screening screw type compactors, C11, ref. EQT003	105 days	Wed 01/07/20	Tue 13/10/20	0 days			
229	5.17.5.4.1	Submission for acceptance of purchasing package	45 days	Wed 01/07/20	Fri 14/08/20	0 days		230	
230	5.17.5.4.2	Invitation of quotations for purchasing package	30 days	Sat 15/08/20	Sun 13/09/20	0 days	229	231	
231	5.17.5.4.3	Acceptance of conforming quotation (Completed)	30 days	Mon 14/09/20	Tue 13/10/20	0 days	230	248	
232	5.17.5.5	Inlet Works - grit removal system, C11, ref. EQT004	90 days	Wed 01/07/20	Mon 28/09/20	0 days			



ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Float Time	Predecessors	Successors	Resource Names
233	5.17.5.5.1	Submission for acceptance of purchasing package	30 days	Wed 01/07/20	Thu 30/07/20	0 days		234	
234	5.17.5.5.2	Invitation of quotations for purchasing package	30 days	Fri 31/07/20	Sat 29/08/20	0 days	233	235	
235	5.17.5.5.3	Acceptance of conforming quotation (Completed)	30 days	Sun 30/08/20	Mon 28/09/2(	0 days	234	248	
236	5.17.5.6	Inlet Works - grit classifiers, C11, ref. EQT005	90 days	Wed 01/07/20	Mon 28/09/2(	0 days			
237	5.17.5.6.1	Submission for acceptance of purchasing package	30 days	Wed 01/07/20	Thu 30/07/20	0 days		238	
238	5.17.5.6.2	Invitation of quotations for purchasing package	30 days	Fri 31/07/20	Sat 29/08/20	0 days	237	239	
239	5.17.5.6.3	Acceptance of conforming quotation (Completed)	30 days	Sun 30/08/20	Mon 28/09/2(	0 days	238	248	
240	5.17.5.7	Inlet Works - Fixed Bar Screen, C11, ref. EQT046 (Rev. 8)	310 days	Fri 26/06/20	Sat 01/05/21	25 days			
241	5.17.5.7.1	Submission for acceptance of purchasing package	14 days	Fri 26/06/20	Thu 09/07/20	0 days		242	
242	5.17.5.7.2	Invitation of quotations for purchasing package	266 days	Fri 10/07/20	Thu 01/04/21	0 days	241	243	
243	5.17.5.7.3	Acceptance of conforming quotation (Rev. 8)	30 days	Fri 02/04/21	Sat 01/05/21	0 days	242	248	
244	5.17.6	Design Submissions for IW	374 days	Wed 15/07/20	Fri 23/07/21	0 days			
245	5.17.6.1	Electrical schematic drawings for Inlet Works No. 1	90 days	Wed 15/07/20	Mon 12/10/2(	0 days		211FF	
246	5.17.6.2	CDS080-1 - Civil and dimensional requirements drawings for Inlet Works No. 1 up to +8.0 r	45 days	Tue 01/09/20	Thu 15/10/20	0 days		211FF	
247	5.17.6.3	CDS081-1 - Civil and dimensional requirements drawings for Inlet Works No. 1	210 days	Fri 28/08/20	Thu 25/03/21	0 days		212FF	
248	5.17.6.4	CDS002 - Detailed Design for Inlet Works No. 1	144 edays	Mon 01/03/21	Fri 23/07/21	0 edays	56,223,227,219,23	256,278,263,266,2(	
249	5.17.6.5	CDS021 - Detailed Design for Electrical Installations for Inlet Works No. 1	45 edays	Sun 23/05/21	Wed 07/07/21	0.63 edays	72,78,82,86,90,18	73,295,287,298,213	
250	5.17.6.6	CDS034-1 - Detailed Design for Electrical Installations B5 at Inlet Works No. 1	120 edays	Fri 12/03/21	Sat 10/07/21	2.38 edays	133	348,213FF	
251	5.17.6.7	CDS025-1 - Detailed Design for LV Switchboards for Inlet Works No. 1	60 edays	Mon 03/05/21	Fri 02/07/21	5.63 edays	68	287,213FF	
252	5.17.6.8	CDS026-1 - Detailed Design for HV Switchboards for Inlet Works No. 1	60 edays	Sun 18/04/21	Thu 17/06/21	0.63 edays	64	291,213FF	
253	5.17.6.9	CDS050-1 - Detailed Design for Lifting Appliances - Inlet Works No. 1	210 edays	Tue 01/09/20	Tue 30/03/21	0 edays	113	284,213FF	
254	5.17.7	Manufacturing and Delivery of Plant & Materials	605 days	Tue 30/03/21	Thu 24/11/22	215 days			
255	5.17.7.1	Inlet Pumps, EQT006	489 days	Sat 24/07/21	Thu 24/11/22	352 days			
256	5.17.7.1.1	Manufacturing of Inlet Pumps, EQT006	240 days	Sat 24/07/21	Sun 20/03/22	0 days	248	257	
257	5.17.7.1.2	Factory Acceptance Test of Plant (to be witnessed by PM)	60 days	Mon 21/03/22	Thu 19/05/22	129 days	256	258	
258	5.17.7.1.3	Shipping and Delivery of Plant to site	60 days	Mon 26/09/22	Thu 24/11/22	225 days	257,30SSS-60 eda	323	
259	5.17.7.2	Mechanical Raked Bar Screen, EQT052	489 days	Sat 24/07/21	Thu 24/11/22	31 days		319	
260	5.17.7.2.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sat 24/07/21	Sun 20/03/22	189 days	248	261	
261	5.17.7.2.2	Shipping and Delivery of Plant to site	60 days	Mon 26/09/22	Thu 24/11/22	31 days	260,30SSS-60 eda	321,324	
262	5.17.7.3	Screening Conveyors and Diverters, EQT053	489 days	Sat 24/07/21	Thu 24/11/22	357 days			
263	5.17.7.3.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sat 24/07/21	Sun 20/03/22	189 days	248	264	
264	5.17.7.3.2	Shipping and Delivery of Plant to site	60 days	Mon 26/09/22	Thu 24/11/22	143 days	263,30SSS-60 eda	322	
265	5.17.7.4	Screening Screw Type Compactors, EQT003	489 days	Sat 24/07/21	Thu 24/11/22	31 days		319	
266	5.17.7.4.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sat 24/07/21	Sun 20/03/22	189 days	248	267	
267	5.17.7.4.2	Shipping and Delivery of Plant to site	60 days	Mon 26/09/22	Thu 24/11/22	173 days	266,30SSS-60 eda	327	
268	5.17.7.5	Grit Removal System, EQT004	489 days	Sat 24/07/21	Thu 24/11/22	373 days			
269	5.17.7.5.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sat 24/07/21	Sun 20/03/22	189 days	248	270	
270	5.17.7.5.2	Shipping and Delivery of Plant to site	60 days	Mon 26/09/22	Thu 24/11/22	246 days	269,30SSS-60 eda	325	
271	5.17.7.6	Grit Classifiers, EQT005	489 days	Sat 24/07/21	Thu 24/11/22	387 days			
272	5.17.7.6.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sat 24/07/21	Sun 20/03/22	189 days	248	273	
273	5.17.7.6.2	Shipping and Delivery of Plant to site	60 days	Mon 26/09/22	Thu 24/11/22	260 days	272,30SSS-60 eda	326	
274	5.17.7.7	DI Pipework, EQT036	489 days	Sat 24/07/21	Thu 24/11/22	288 days			
275	5.17.7.7.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sat 24/07/21	Sun 20/03/22	189 days	248	276	
276	5.17.7.7.2	Shipping and Delivery of Plant to site	60 days	Mon 26/09/22	Thu 24/11/22	151 days	275,30SSS-60 eda	328	
277	5.17.7.8	Stoplogs and Penstocks, EQT013	489 days	Sat 24/07/21	Thu 24/11/22	168 days			
278	5.17.7.8.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Sat 24/07/21	Thu 19/05/22	129 days	248	279	
279	5.17.7.8.2	Shipping and Delivery of Plant to site	60 days	Mon 26/09/22	Thu 24/11/22	31 days	278,30SSS-60 eda	319	
280	5.17.7.9	Valves, EQT036	489 days	Sat 24/07/21	Thu 24/11/22	288 days			
281	5.17.7.9.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sat 24/07/21	Sun 20/03/22	189 days	248	282	
282	5.17.7.9.2	Shipping and Delivery of Plant to site	60 days	Mon 26/09/22	Thu 24/11/22	151 days	281,30SSS-60 eda	328	
283	5.17.7.10	Lifting Appliances	590 days	Tue 30/03/21	Wed 09/11/2	143 days			
284	5.17.7.10.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Tue 30/03/21	Wed 24/11/2	305 days	253	285	
285	5.17.7.10.2	Shipping and Delivery of Plant to site	45 days	Mon 26/09/22	Wed 09/11/2	16 days	284,30SSS-60 eda	309	
286	5.17.7.11	LV Switchboards	490 days	Thu 08/07/21	Wed 09/11/2	153 days			
287	5.17.7.11.1	IW - Manufacturing of Plant	240 days	Thu 08/07/21	Fri 04/03/22	0 days	249,251,74SS-90 e	288	
288	5.17.7.11.2	IW - Factory Acceptance Test of Plant (to be witnessed by PM)	60 days	Sat 05/03/22	Tue 03/05/22	145 days	287	289	
289	5.17.7.11.3	IW - Shipping and Delivery of Plant to site	45 days	Mon 26/09/22	Wed 09/11/2	60 days	30SSS-60 edays,28	334	
290	5.17.7.12	HV Switchboards, EQT031	510 days	Fri 18/06/21	Wed 09/11/2	0 days			

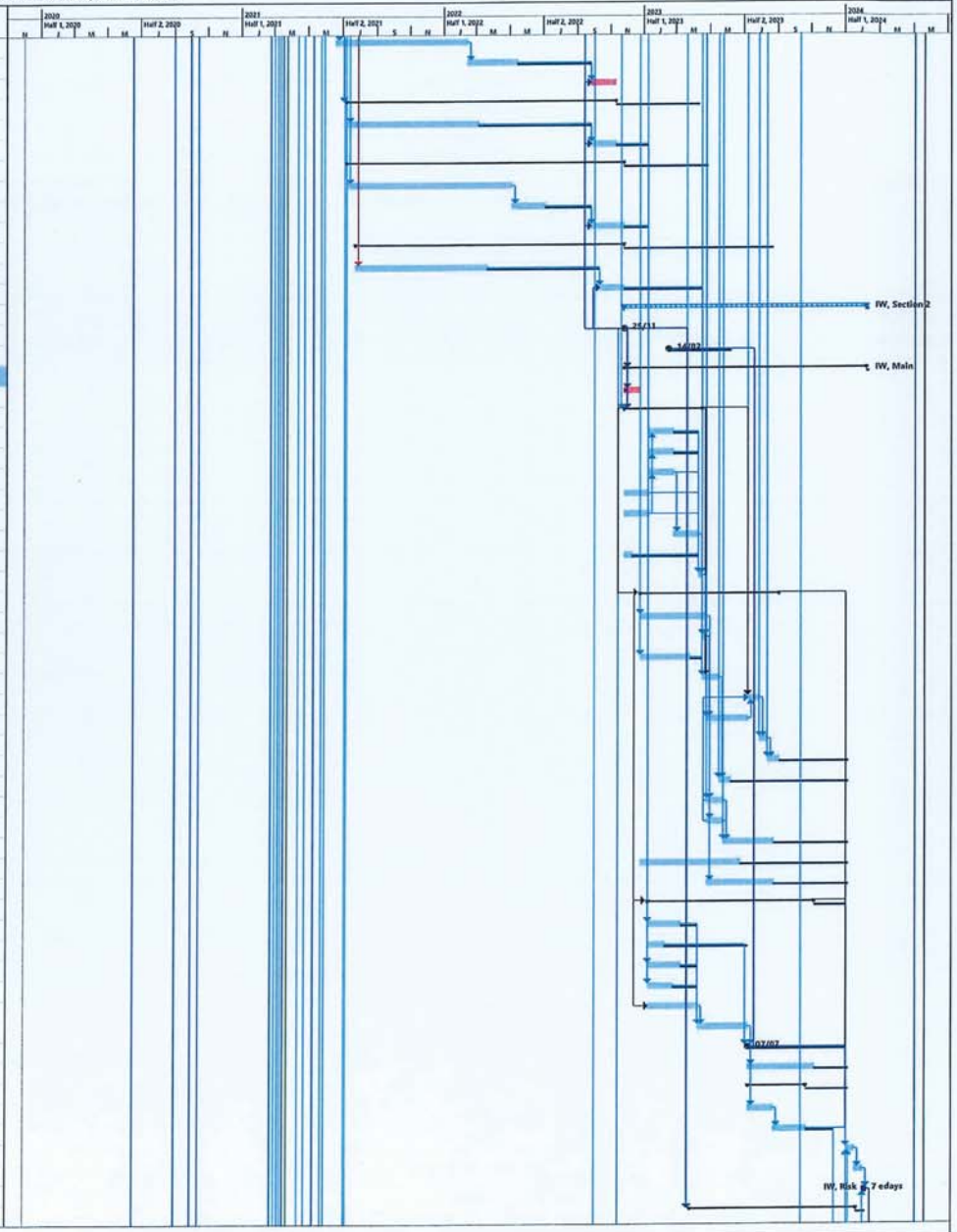


Task | Milestone | Project Summary | Late | Critical Split | Manual Progress | Milestone (Actual)
Milestone, Tentative | Summary | Manual Summary | Critical | Progress | Slack (Float) | Slack

Baseline
Project: DE/2018/04
Date: Thu 25/03/21

Status Date Sat 20/03/21

ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Float Time	Predecessors	Successors	Resource Names
291	5.17.7.12.1	IW - Manufacturing of Plant	240 days	Fri 18/06/21	Sat 12/02/22	0 days	252	292	
292	5.17.7.12.2	IW - Factory Acceptance Test of Plant (to be witnessed by PM)	90 days	Sun 13/02/22	Fri 13/05/22	135 days	291	293	
293	5.17.7.12.3	IW - Shipping and Delivery of Plant to site	45 days	Mon 26/09/22	Wed 09/11/22	0 days	292,30SSS-60 eda		
294	5.17.7.13	11kV/380V Stepdown Power Transformers, EQT032	490 days	Thu 08/07/21	Wed 09/11/22	153 days	56,60		
295	5.17.7.13.1	IW - Manufacturing and Factory Acceptance Test of Plant	240 days	Thu 08/07/21	Fri 04/03/22	205 days	249	296	
296	5.17.7.13.2	IW - Shipping and Delivery of Plant to site	45 days	Mon 26/09/22	Wed 09/11/22	60 days	295,30SSS-60 eda	336	
297	5.17.7.14	PLC System	505 days	Thu 08/07/21	Thu 24/11/22	153 days			
298	5.17.7.14.1	Manufacturing of Plant, PLC for IW	300 days	Thu 08/07/21	Tue 03/05/22	0 days	249	299	
299	5.17.7.14.2	Factory Acceptance Test of Plant, PLC for IW (To be witnessed by PM)	60 days	Wed 04/05/22	Sat 02/07/22	85 days	298	300	
300	5.17.7.14.3	Shipping and Delivery of Plant to site	60 days	Mon 26/09/22	Thu 24/11/22	45 days	30SSS-60 edays,29	337	
301	5.17.7.15	Fixed Bar Screen, EQT046	489 days	Sat 24/07/21	Thu 24/11/22	270 days			
302	5.17.7.15.1	IW - Manufacturing and Factory Acceptance Test of Plant	240 days	Sat 24/07/21	Sun 20/03/22	204 days	268	303	
303	5.17.7.15.2	IW - Shipping and Delivery of Plant to site	45 days	Tue 11/10/22	Thu 24/11/22	143 days	302,30SSS-45 eda	320	
304	5.17.8	Site Installation Work	440 days	Fri 25/11/22	Wed 07/02/24	5 days			
305	5.17.8.1	Tentative Civil Handover Date, Portion B-2, Inlet Works No. 1 (Rev. 5)	1 day	Fri 25/11/22	Fri 25/11/22	0 days		309,307,348FS+120	
306	5.17.8.2	Tentative Civil Handover Date, HV cables draw pits from MFB2 to IW	1 day	Tue 14/02/23	Tue 14/02/23	113 days		340FF+30 days	
307	5.17.8.3	Commencement of E&M Installation at Inlet Works No. 1	419 days	Sat 26/11/22	Wed 07/02/24	5 days	305		
308	5.17.8.3.1	Provision of Temporary Water Supply, Electricity Supply, Lighting, Welfare facilities etc.,	30 days	Sat 26/11/22	Sun 25/12/22	0 days	305		
309	5.17.8.3.2	Installation of Lifting Appliances at Inlet Works No. 1	142 days	Sat 26/11/22	Sun 16/04/23	0 days	305,285	318SS+30 days,322	
310	5.17.8.3.2.1	1/F EOT Crane LA-01-01 SWL 5t	45 days	Tue 10/01/23	Thu 23/02/23	45 days	313,314	317	LA - A x 4~6 men
311	5.17.8.3.2.2	1/F EOT Crane LA-01-02 SWL 5t	45 days	Tue 10/01/23	Thu 23/02/23	45 days	313,314	317	LA - B x 4~6 men
312	5.17.8.3.2.3	1/F EOT Crane LA-01-03 SWL 5t	45 days	Tue 10/01/23	Thu 23/02/23	0 days	313,314	315,317	LA - C x 4~6 men
313	5.17.8.3.2.4	UG EOT Crane LA-01-04 SWL 10t	45 days	Sat 26/11/22	Mon 09/01/23	0 days		310,311,312,317	LA - A x 4~6 men
314	5.17.8.3.2.5	UG EOT Crane LA-01-05 SWL 10t	45 days	Sat 26/11/22	Mon 09/01/23	0 days		310,311,312,317	LA - B x 4~6 men
315	5.17.8.3.2.6	1/F Retractable Crane LA-01-06 SWL 10t	45 days	Fri 24/02/23	Sun 09/04/23	0 days	312	317	LA - C x 4~6 men
316	5.17.8.3.2.7	Submission of T&C Plan and Procedures of LA for acceptance	14 days	Sat 26/11/22	Fri 09/12/22	121 days		317	
317	5.17.8.3.2.8	T&C, Loading Test for Lifting Appliances	7 days	Mon 10/04/23	Sun 16/04/23	0 days	310,311,312,313,3	320	LA - B x 4~6 men
318	5.17.8.3.3	Mechanical Installations for Inlet Works No. 1	250 days	Mon 26/12/22	Fri 01/09/23	0 days	309SS+30 days	333SS+14 days,345	
319	5.17.8.3.3.1	Installation of penstocks and stoplogs (Penstock 35nos, Stoplogs 37 nos), EQT013	120 days	Mon 26/12/22	Mon 24/04/23	0 days	265,259,279	328,329,332	ME - E x 4~6 men
320	5.17.8.3.3.2	Installation of fixed bar screen (x1), EQT046	7 days	Mon 17/04/23	Sun 23/04/23	0 days	317,303	324	ME - D x 2~4 men
321	5.17.8.3.3.3	Installation of mechanical raked coarse bar screens (x4), EQT052	90 days	Mon 26/12/22	Sat 25/03/23	22 days	261	322	ME - A x 4~6 men
322	5.17.8.3.3.4	Installation of screening conveyors (x6), EQT053	30 days	Mon 17/04/23	Tue 16/05/23	0 days	309,321,264	327	ME - A x 4~6 men
323	5.17.8.3.3.5	Installation of inlet pumps (x5), EQT006	21 days	Sat 08/07/23	Fri 28/07/23	0 days	309,328SS+14 day	325	ME - B x 4~6 men
324	5.17.8.3.3.6	Installation of mechanical raked fine bar screens (x4), EQT052	75 days	Mon 24/04/23	Fri 07/07/23	0 days	320,261	323	ME - B x 4~6 men
325	5.17.8.3.3.7	Installation of grit removal system (x3), EQT004	14 days	Sat 29/07/23	Fri 11/08/23	0 days	323,270	326	ME - B x 4~6 men
326	5.17.8.3.3.8	Installation of grit classifiers (x2), EQT005	21 days	Sat 12/08/23	Fri 01/09/23	127 days	325,273		ME - B x 4~6 men
327	5.17.8.3.3.9	Installation of compactors (x2), EQT003	21 days	Wed 17/05/23	Tue 06/06/23	214 days	322,267		ME - A x 4~6 men
328	5.17.8.3.3.10	Installation of pipework and valves, EQT036	30 days	Tue 25/04/23	Wed 24/05/23	0 days	319,276,282	323SS+14 days,330	ME - D x 2~4 men
329	5.17.8.3.3.11	Pipework pressure tests	30 days	Tue 25/04/23	Wed 24/05/23	0 days	319	323SS+14 days,330	ME - D x 2~4 men
330	5.17.8.3.3.12	Installation of instrumentations, EQT035-1	90 days	Thu 25/05/23	Tue 22/08/23	137 days	328,329,52		ME - A x 4~6 men
331	5.17.8.3.3.13	Installation of Platforms, Covers etc, EQT050	180 days	Mon 26/12/22	Fri 23/06/23	197 days			ME - D x 2~4 men
332	5.17.8.3.3.14	Site Acceptance Tests - mechanical aspects including alignment and levels checks, leal	120 days	Tue 25/04/23	Tue 22/08/23	137 days	319		ME - D x 2~4 men
333	5.17.8.3.4	Electrical Installations for Inlet Works No. 1	300 days	Mon 09/01/23	Sat 04/11/23	58 days	318SS+14 days	145	
334	5.17.8.3.4.1	Installation of LV Switchboards, IW	60 days	Mon 09/01/23	Thu 09/03/23	30 days	289	339	LV - A x 4~6 men
335	5.17.8.3.4.2	Modification of HV Switchboards, MFB No. 1 (Rev. 8)	30 days	Mon 09/01/23	Tue 07/02/23	150 days		340	LV - A x 4~6 men
336	5.17.8.3.4.3	Installation of Transformer, IW, EQT032	60 days	Mon 09/01/23	Thu 09/03/23	30 days	296	339	EE - A x 4~6 men
337	5.17.8.3.4.4	Installation of PLC Panels, IW	45 days	Mon 09/01/23	Wed 22/02/23	45 days	300	339	EE - B x 4~6 men
338	5.17.8.3.4.5	Installation of cable trays and cable containments	90 days	Mon 09/01/23	Sat 08/04/23	0 days	318SS	339	EE - C x 4~6 men
339	5.17.8.3.4.6	Cables laying and terminations	90 days	Sun 09/04/23	Fri 07/07/23	0 days	334,316,337,338	340,343,341	EE - C x 4~6 men
340	5.17.8.3.4.7	Energisation of LV Switchboards, IW	0 days	Fri 07/07/23	Fri 07/07/23	178 days	339,306FF+30 day	345	LV - A x 4~6 men
341	5.17.8.3.4.8	Site Acceptance Tests - Electrical aspects including voltage and current tests, equipme	120 days	Sat 08/07/23	Sat 04/11/23	63 days	339		LV - A x 4~6 men
342	5.17.8.3.5	SCADA Systems, Inlet Works	105 days	Sat 08/07/23	Fri 20/10/23	78 days			
343	5.17.8.3.5.1	Configuration of PLC System, IW	45 days	Sat 08/07/23	Mon 21/08/23	0 days	339	344	PLC - A x 1 man
344	5.17.8.3.5.2	Site Acceptance Test for PLC System at Inlet Works No. 1	60 days	Tue 22/08/23	Fri 20/10/23	51 days	343	345,1262	
345	5.17.8.3.6	Site Acceptance Test for E&M Equip & Instrumentations calibration, IW	15 days	Tue 02/01/24	Tue 16/01/24	0 days	318,333,340,470,5	346	
346	5.17.8.3.7	System Commissioning for E&M Equip at Inlet Works No. 1	15 edays	Tue 16/01/24	Wed 31/01/24	0 edays	345	347	
347	5.17.8.3.8	Risk Allowances for completion of Processing Plant at Inlet Works No. 1	7 edays	Wed 31/01/24	Wed 07/02/24	0.63 edays	346,355	1258	
348	5.17.8.3.9	Building Services Installations for Inlet Works No. 1	300 days	Sun 26/03/23	Fri 19/01/24	17 days	305FS+120 days,2		

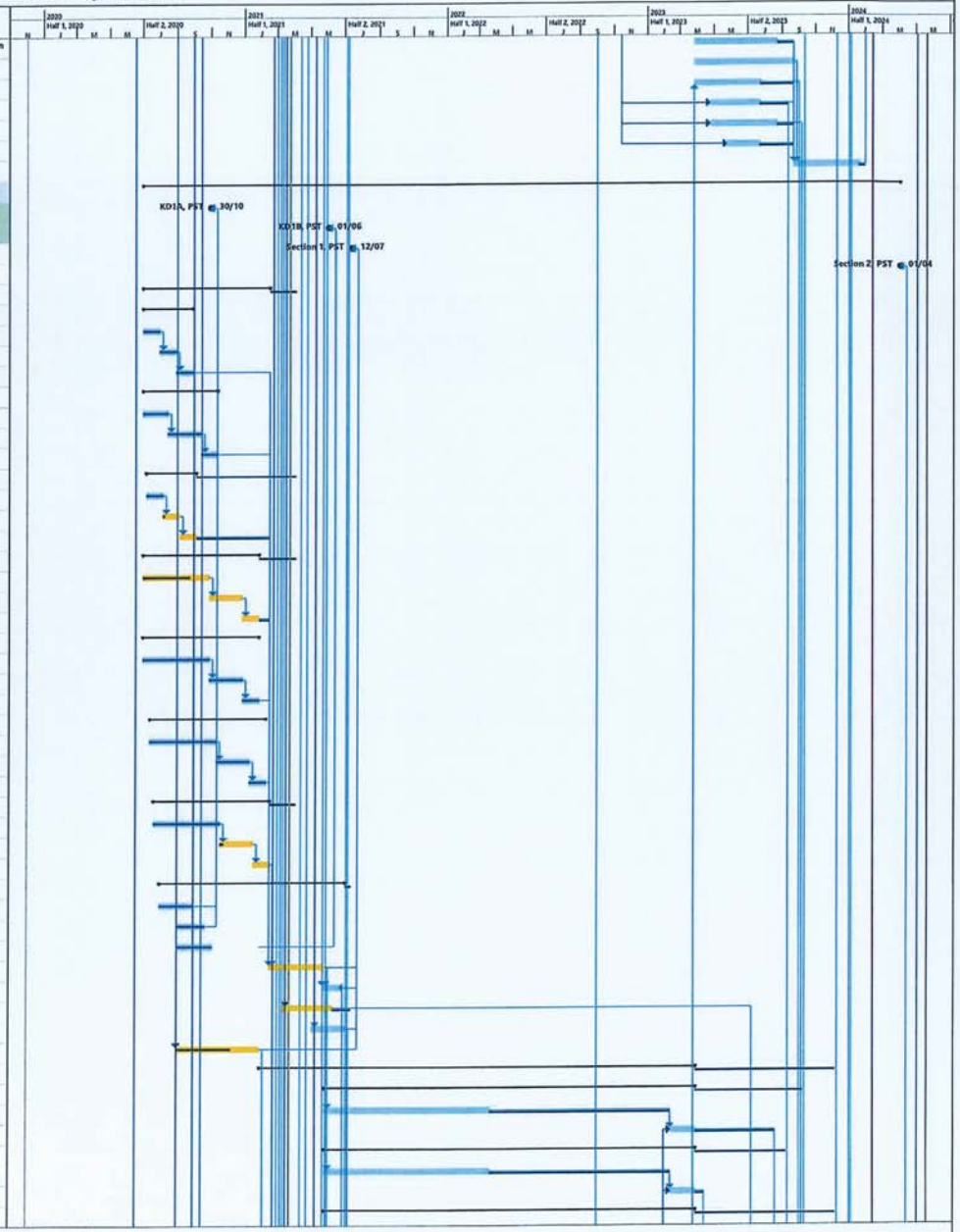


Task | Milestone | Project Summary | Late | Critical Split | Manual Progress | Milestone (Actual)
Milestone, Tentative | Summary | Manual Summary | Critical | Progress | Slack (Float) | Slack

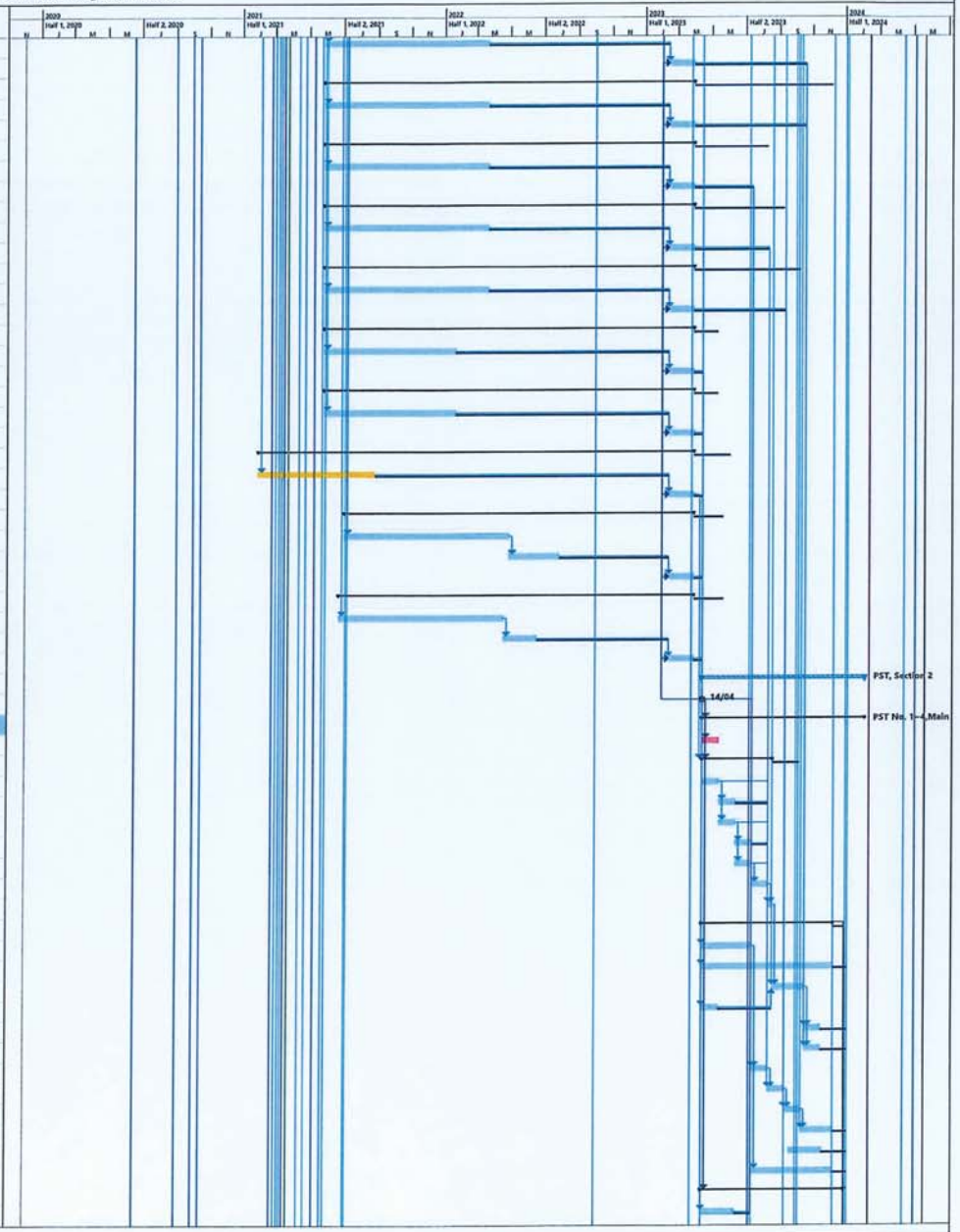
Project: DE/2018/04
Date: Thu 25/03/21

Status Date Sat 20/03/21

ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Float Time	Predecessors	Successors	Resource Names
349	5.17.8.3.9.1	Mechanical Ventilation and Air Conditioning System, IW	150 days	Sun 26/03/23	Tue 22/08/23	30 days		355	MVAC - B x 4~6 men
350	5.17.8.3.9.2	Lighting and Power Distribution System, IW	180 days	Sun 26/03/23	Thu 21/09/23	0 days		355	BS - A x 4~6 men
351	5.17.8.3.9.3	Plumbing Installation, IW	120 days	Sun 26/03/23	Sun 23/07/23	60 days	1229	1231,355	Pb - A x 4~6 men
352	5.17.8.3.9.4	CCTV Installation (5 indoor +5 outdoor Cameras), IW	90 days	Mon 24/04/23	Sat 22/07/23	51 days	305SS+150 days	355,1261	BS - B x 4~6 men
353	5.17.8.3.9.5	Fire Services Installation, IW	120 days	Mon 24/04/23	Mon 21/08/23	31 days	305SS+150 days	1182,1194,1195,35	FS - A x 4~6 men
354	5.17.8.3.9.6	Earthing and Lightning Protection System, IW	60 days	Wed 24/05/23	Sat 22/07/23	61 days	305SS+180 days	355	BS - C x 2~4 men
355	5.17.8.3.9.7	Testing and Commissioning of Building Services Installations, IW	120 days	Fri 22/09/23	Fri 19/01/24	12 days	349,350,351,352,3	347	BS - C x 2~4 men
356	5.18	Primary Sedimentation Tanks No. 1 ~ 4, Portion B-3 (PS 682.2)	1371 days	Wed 01/07/20	Mon 01/04/24	0 days			
357	5.18.1	Planned Key Date Completion Date - KD1A, PST No. 1~4	0 days	Fri 30/10/20	Fri 30/10/20	0 days	391FF,392FF		
358	5.18.2	Planned Key Date Completion Date - KD1B, PST No. 1~4	1 day	Tue 01/06/21	Tue 01/06/21	0 days	393FF		
359	5.18.3	Planned Sectional Completion Date - Section 1, PST No. 1~4	0 days	Mon 12/07/21	Mon 12/07/21	0 days	396FF,395FF,394FF		
360	5.18.4	Planned Sectional Completion Date - Section 2, PST No. 1~4	0 days	Mon 01/04/24	Mon 01/04/24	0 days	404FF		
361	5.18.5	Selection of Suppliers for major plant and materials for PST No. 1~4	230 days	Wed 01/07/20	Mon 15/02/21	47 days			
362	5.18.5.1	PST - lamella plate settlers, C11, ref. EQT014	90 days	Wed 01/07/20	Mon 28/09/20	0 days			
363	5.18.5.1.1	Submission for acceptance of purchasing package	30 days	Wed 01/07/20	Thu 30/07/20	0 days		364	
364	5.18.5.1.2	Invitation of quotations for purchasing package	30 days	Fri 31/07/20	Sat 29/08/20	0 days	363	365	
365	5.18.5.1.3	Acceptance of conforming quotation (Completed)	30 days	Sun 30/08/20	Mon 28/09/20	0 days	364	394	
366	5.18.5.2	PST - reciprocating type bottom scrapers, C11, ref. EQT014	135 days	Wed 01/07/20	Thu 12/11/20	0 days			
367	5.18.5.2.1	Submission for acceptance of purchasing package	45 days	Wed 01/07/20	Fri 14/08/20	0 days		368	
368	5.18.5.2.2	Invitation of quotations for purchasing package	60 days	Sat 15/08/20	Tue 13/10/20	0 days	367	369	
369	5.18.5.2.3	Acceptance of conforming quotation (Completed)	30 days	Wed 14/10/20	Thu 12/11/20	0 days	368	394	
370	5.18.5.3	PST - surface scum skimmers, C11, ref. EQT015	90 days	Tue 07/07/20	Sun 04/10/20	181 days			
371	5.18.5.3.1	Submission for acceptance of purchasing package	30 days	Tue 07/07/20	Wed 05/08/20	0 days		372	
372	5.18.5.3.2	Invitation of quotations for purchasing package	30 days	Thu 06/08/20	Fri 04/09/20	0 days	371	373	
373	5.18.5.3.3	Acceptance of conforming quotation	30 days	Sat 05/09/20	Sun 04/10/20	134 days	372	394	
374	5.18.5.4	PST - scum collector pipes, C11, ref. EQT015	210 days	Wed 01/07/20	Tue 26/01/21	67 days			
375	5.18.5.4.1	Submission for acceptance of purchasing package	120 days	Wed 01/07/20	Wed 28/10/20	0 days		376	
376	5.18.5.4.2	Invitation of quotations for purchasing package	60 days	Thu 29/10/20	Sun 27/12/20	0 days	375	377	
377	5.18.5.4.3	Acceptance of conforming quotation	30 days	Mon 28/12/20	Tue 26/01/21	20 days	376	394	
378	5.18.5.5	PST - piston type primary sludge pumps, C11, ref. EQT016	210 days	Wed 01/07/20	Tue 26/01/21	0 days			
379	5.18.5.5.1	Submission for acceptance of purchasing package	120 days	Wed 01/07/20	Wed 28/10/20	0 days		380	
380	5.18.5.5.2	Invitation of quotations for purchasing package	60 days	Thu 29/10/20	Sun 27/12/20	0 days	379	381	
381	5.18.5.5.3	Acceptance of conforming quotation (Completed)	30 days	Mon 28/12/20	Tue 26/01/21	0 days	380	394	
382	5.18.5.6	PST - drain pumps, C11, ref. EQT007	210 days	Tue 14/07/20	Mon 08/02/21	0 days			
383	5.18.5.6.1	Submission for acceptance of purchasing package	120 days	Tue 14/07/20	Tue 10/11/20	0 days		384	
384	5.18.5.6.2	Invitation of quotations for purchasing package	60 days	Wed 11/11/20	Sat 09/01/21	0 days	383	385	
385	5.18.5.6.3	Acceptance of conforming quotation (Completed)	30 days	Sun 10/01/21	Mon 08/02/21	0 days	384	394	
386	5.18.5.7	PST - air blowers, C11, ref. EQT018	210 days	Tue 21/07/20	Mon 15/02/21	47 days			
387	5.18.5.7.1	Submission for acceptance of purchasing package	120 days	Tue 21/07/20	Tue 17/11/20	0 days		388	
388	5.18.5.7.2	Invitation of quotations for purchasing package	60 days	Wed 18/11/20	Sat 16/01/21	0 days	387	389	
389	5.18.5.7.3	Acceptance of conforming quotation	30 days	Sun 17/01/21	Mon 15/02/21	0 days	388	394	
390	5.18.6	Design Submissions for PST No. 1~ 4	336 days	Sat 01/08/20	Fri 02/07/21	10 days			
391	5.18.6.1	Electrical schematic drawings for PST No. 1 ~4	60 days	Sat 01/08/20	Tue 29/09/20	0 days		357FF	
392	5.18.6.2	CDS080-2 - Civil and dimensional requirements drawings for PST No. 1~4 up to +8.0 mPD	50 days	Tue 01/09/20	Tue 20/10/20	0 days		357FF	
393	5.18.6.3	CDS081-2 - Civil and dimensional requirements drawings for PST No. 1 ~ 4	150 days	Tue 01/09/20	Thu 28/01/21	0 days		358FF	
394	5.18.6.4	CDS003 - Detailed Design for Primary Sedimentation Tanks No. 1~4	100 edays	Mon 15/02/21	Wed 26/05/21	0.63 edays	365,369,373,377,3	401,404,407,410,41	
395	5.18.6.5	CDS022 - Detailed Design for Electrical Installations for PST No. 1~4	30 edays	Sun 23/05/21	Tue 22/06/21	0.63 edays	72,82,90,185FF	73,435,359FF	
396	5.18.6.6	CDS034-2 - Detailed Design for Electrical Installations BS at PST No. 1~4	90 edays	Fri 12/03/21	Thu 10/06/21	32.38 edays	133	477,359FF	
397	5.18.6.7	CDS025-2 - Detailed Design for LV Switchboards for PST No. 1~4	60 edays	Mon 03/05/21	Fri 02/07/21	0.63 edays	68	431,359FF	
398	5.18.6.8	CDS050-2 - Detailed Design for Lifting Appliances - PST No. 1 ~ 4	150 edays	Tue 01/09/20	Fri 29/01/21	0 edays	113	428,359FF	
399	5.18.7	Manufacturing and Delivery of Plant & Materials	790 days	Fri 29/01/21	Wed 29/03/23	253 days			
400	5.18.7.1	Lamella Plate Settlers, EQT014	672 days	Thu 27/05/21	Wed 29/03/23	193 days			
401	5.18.7.1.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Thu 27/05/21	Tue 22/03/22	327 days	394	402	
402	5.18.7.1.2	Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	143 days	401,439SS-60 eday	453	
403	5.18.7.2	Reciprocating Type Bottom Scrappers, EQT014	672 days	Thu 27/05/21	Wed 29/03/23	163 days			
404	5.18.7.2.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Thu 27/05/21	Tue 22/03/22	327 days	394	405	
405	5.18.7.2.2	Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	16 days	404,439SS-60 eday	454	
406	5.18.7.3	Surface Scum Skimmers, EQT015	672 days	Thu 27/05/21	Wed 29/03/23	253 days			



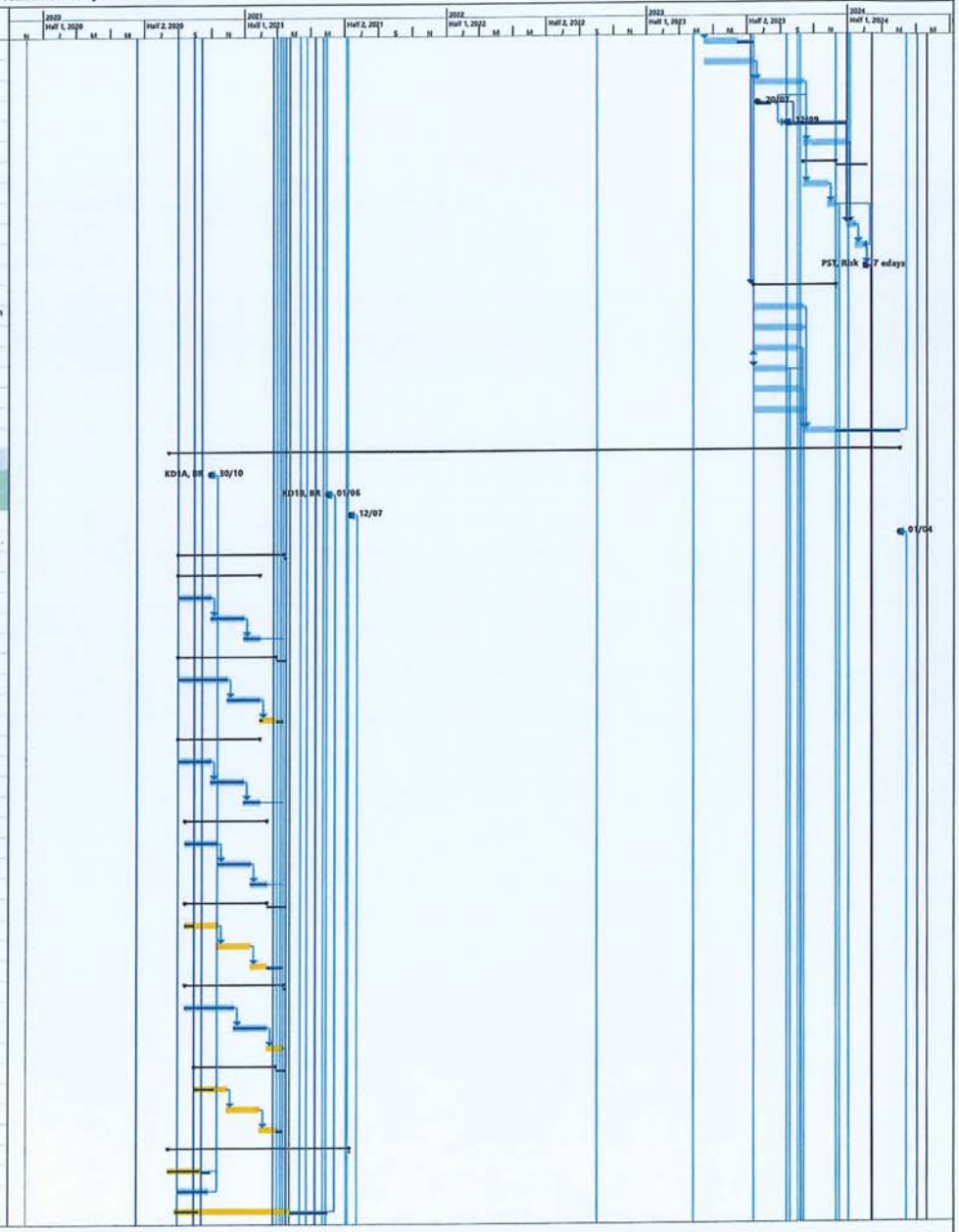
ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Float Time	Predecessors	Successors	Resource Names
407	5.18.7.3.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Thu 27/05/21	Tue 22/03/22	327 days	394	408	
408	5.18.7.3.2	Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	203 days	407,439SS-60 eda	455	
409	5.18.7.4	Surface Scum Collection Pipes, EQT015	672 days	Thu 27/05/21	Wed 29/03/23	253 days			
410	5.18.7.4.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Thu 27/05/21	Tue 22/03/22	327 days	394	411	
411	5.18.7.4.2	Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	203 days	410,439SS-60 eda	456	
412	5.18.7.5	Piston Type Primary Sludge Pumps, EQT016	672 days	Thu 27/05/21	Wed 29/03/23	133 days			
413	5.18.7.5.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Thu 27/05/21	Tue 22/03/22	327 days	394	414	
414	5.18.7.5.2	Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	106 days	413,439SS-60 eda	457	
415	5.18.7.6	Drain Pumps, EQT007	672 days	Thu 27/05/21	Wed 29/03/23	163 days			
416	5.18.7.6.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Thu 27/05/21	Tue 22/03/22	327 days	394	417	
417	5.18.7.6.2	Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	136 days	416,439SS-60 eda	458	
418	5.18.7.7	Air Blower, EQT018	672 days	Thu 27/05/21	Wed 29/03/23	193 days			
419	5.18.7.7.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Thu 27/05/21	Tue 22/03/22	327 days	394	420	
420	5.18.7.7.2	Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	166 days	419,439SS-60 eda	459	
421	5.18.7.8	Stoplogs and Penstocks, EQT013	672 days	Thu 27/05/21	Wed 29/03/23	43 days			
422	5.18.7.8.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Thu 27/05/21	Fri 21/01/22	387 days	394	423	
423	5.18.7.8.2	Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	16 days	439SS-60 edays,42	451	
424	5.18.7.9	Valves, EQT036	672 days	Thu 27/05/21	Wed 29/03/23	43 days			
425	5.18.7.9.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Thu 27/05/21	Fri 21/01/22	387 days	394	426	
426	5.18.7.9.2	Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	16 days	425,439SS-60 eda	452	
427	5.18.7.10	Lifting Appliances	798 days	Fri 29/01/21	Wed 29/03/23	66 days			
428	5.18.7.10.1	Manufacturing and Factory Acceptance Test of Plant	210 days	Fri 29/01/21	Thu 26/08/21	535 days	398	429	
429	5.18.7.10.2	Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	16 days	428,439SS-60 eda	442	
430	5.18.7.11	LV Switchboards	635 days	Sat 03/07/21	Wed 29/03/23	53 days			
431	5.18.7.11.1	PST - Manufacturing of Plant	300 days	Sat 03/07/21	Thu 28/04/22	0 days	397	432	
432	5.18.7.11.2	PST - Factory Acceptance Test of Plant (to be witnessed by PM)	90 days	Fri 29/04/22	Wed 27/07/22	200 days	431	433	
433	5.18.7.11.3	PST - Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	16 days	432,439SS-60 eda	464	
434	5.18.7.12	PLC System	645 days	Wed 23/06/21	Wed 29/03/23	53 days			
435	5.18.7.12.1	Manufacturing of Plant, PLC for PST	300 days	Wed 23/06/21	Mon 18/04/22	0 days	395	436	
436	5.18.7.12.2	Factory Acceptance Test of Plant, PLC for PST (To be witnessed by PM)	60 days	Tue 19/04/22	Fri 17/06/22	240 days	435	437	
437	5.18.7.12.3	Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	16 days	436,439SS-60 eda	465	
438	5.18.8	Site Installation Work	298 days	Fri 14/04/23	Mon 05/02/24	0 days			
439	5.18.8.1	Tentative Civil Handover Date, Portion B-3, PST No. 1~4 (Rev. 5)	1 day	Fri 14/04/23	Fri 14/04/23	0 days		442,477FS+90 days,	
440	5.18.8.2	Commencement of E&M Installation at PST No. 1~4	297 days	Sat 15/04/23	Mon 05/02/24	0 days	439		403
441	5.18.8.2.1	Provision of Temporary Water Supply, Electricity Supply, Lighting Welfare facilities etc.,	30 days	Sat 15/04/23	Sun 14/05/23	0 days	439		
442	5.18.8.2.2	Installation of Lifting Appliances at PST No. 1~4	127 days	Sat 15/04/23	Sat 19/08/23	50 days	439,429		
443	5.18.8.2.2.1	Basement EOT Crane LA-02-01 SWL 10t	30 days	Sat 15/04/23	Sun 14/05/23	0 days		444,445,449	LA - A x 4~6 men
444	5.18.8.2.2.2	Coping Level EOT Crane LA-02-02 SWL 5t	30 days	Mon 15/05/23	Tue 13/06/23	60 days	443	449	LA - A x 4~6 men
445	5.18.8.2.2.3	Coping Level EOT Crane LA-02-03 SWL 5t	30 days	Mon 15/05/23	Tue 13/06/23	0 days	443	446,447,449	LA - B x 4~6 men
446	5.18.8.2.2.4	Coping Level EOT Crane LA-02-04 SWL 5t	30 days	Wed 14/06/23	Thu 13/07/23	30 days	445	449	LA - A x 4~6 men
447	5.18.8.2.2.5	Coping Level EOT Crane LA-02-05 SWL 5t	30 days	Wed 14/06/23	Thu 13/07/23	0 days	445	448,449	LA - B x 4~6 men
448	5.18.8.2.2.6	Coping Level EOT Crane LA-02-06 SWL 2t	30 days	Fri 14/07/23	Sat 12/08/23	0 days	447	449	LA - A x 4~6 men
449	5.18.8.2.2.7	T&C, Loading Test for Lifting Appliances at PST No. 1~4	7 days	Sun 13/08/23	Sat 19/08/23	0 days	443,444,445,446,4	453	LA - A x 4~6 men
450	5.18.8.2.3	Mechanical Installations at PST No. 1~4	260 days	Sat 15/04/23	Sun 10/12/23	20 days		474	
451	5.18.8.2.3.1	Installation of penstocks and stoplogs (Penstock 18nos, Stoplogs 14 nos), EQT013	90 days	Sat 15/04/23	Thu 13/07/23	0 days	423	457,462	ME - E x 4~6 men
452	5.18.8.2.3.2	Installation of pipework and valves, EQT036	240 days	Sat 15/04/23	Sun 10/12/23	27 days	426		ME - B x 4~6 men
453	5.18.8.2.3.3	Installation of lamella plate settlers (x4), EQT014	60 days	Sun 20/08/23	Wed 18/10/23	0 days	454,449,402	455,456	ME - A x 4~6 men
454	5.18.8.2.3.4	Installation of reciprocating type bottom scrapers (x4), EQT014	30 days	Sat 15/04/23	Sun 14/05/23	97 days	405	453	ME - A x 4~6 men
455	5.18.8.2.3.5	Installation of surface scum skimmers (x1), EQT015	30 days	Thu 19/10/23	Fri 17/11/23	50 days	453,408		ME - A x 4~6 men
456	5.18.8.2.3.6	Installation of scum collector pipes (x1), EQT015	30 days	Thu 19/10/23	Fri 17/11/23	50 days	453,411		ME - B x 4~6 men
457	5.18.8.2.3.7	Installation of piston type primary sludge pumps (x3), EQT016	30 days	Fri 14/07/23	Sat 12/08/23	0 days	451,414	458	ME - C x 4~6 men
458	5.18.8.2.3.8	Installation of drain pumps (x1), EQT007	30 days	Sun 13/08/23	Mon 11/09/23	0 days	457,417	459	ME - C x 4~6 men
459	5.18.8.2.3.9	Installation of air blowers (x2), EQT018	30 days	Tue 12/09/23	Wed 11/10/23	0 days	458,420	460	ME - C x 4~6 men
460	5.18.8.2.3.10	Installation of instrumentations, EQT035-1	60 days	Thu 12/10/23	Sun 10/12/23	27 days	459,52		ME - C x 4~6 men
461	5.18.8.2.3.11	Installation of Platforms, Covers etc., PST, EQT050	60 days	Thu 21/09/23	Sun 19/11/23	48 days			ME - F x 4~6 men
462	5.18.8.2.3.12	Site Acceptance Tests - mechanical aspects including alignment and levels checks, leal	150 days	Fri 14/07/23	Sun 10/12/23	27 days	451		ME - D x 2~4 men
463	5.18.8.2.4	Electrical Installations for PST No. 1~4	260 days	Sat 15/04/23	Sat 30/12/23	0 days	439	474	
464	5.18.8.2.4.1	Installation of LV Switchboards, PST	60 days	Sat 15/04/23	Tue 13/06/23	30 days	433	467	LV - A x 4~6 men



Baseline
Project: DE/2018/04
Date: Thu 25/03/21

Task | Milestone | Project Summary | Late | Critical Split | Manual Progress | Milestone (Actual)
Milestone, Tentative | Summary | Manual Summary | Critical | Progress | Slack (Float) | Slack

ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Float Time	Predecessors	Successors	Resource Names
465	5.18.8.2.4.2	Installation of PLC Panel, PST	60 days	Sat 15/04/23	Tue 13/06/23	30 days	437	467	
466	5.18.8.2.4.3	Installation of cable trays and cable containments, PST	90 days	Sat 15/04/23	Thu 13/07/23	0 days		467	
467	5.18.8.2.4.4	Cables laying and terminations, PST	90 days	Fri 14/07/23	Wed 11/10/23	0 days	464,465,466	469FS-30 days,472,	
468	5.18.8.2.4.5	Tentative Civil Handover Date, LV cables draw pits from IW to PST	1 day	Thu 20/07/23	Thu 20/07/23	24 days		469FF+30 days	
469	5.18.8.2.4.6	Energisation of LV Switchboards, PST	1 day	Tue 12/09/23	Tue 12/09/23	109 days	467FS-30 days,468	474	LV - A x 4^6 men
470	5.18.8.2.4.7	Site Acceptance Tests - Electrical aspects including voltage and current tests, equipme	80 days	Thu 12/10/23	Sat 30/12/23	2 days	467	345	LV - A x 4^6 men
471	5.18.8.2.5	SCADA Systems, PST No. 1^4	60 days	Thu 12/10/23	Sun 10/12/23	57 days			
472	5.18.8.2.5.1	Configuration of PLC System	45 days	Thu 12/10/23	Sat 25/11/23	0 days	467	473	PLC - B x 1 man
473	5.18.8.2.5.2	Site Acceptance Test for PLC System at PST No. 1^4	15 days	Sun 26/11/23	Sun 10/12/23	0 days	472	475FF,1262	
474	5.18.8.2.6	Site Acceptance Test for E&M Equip and Instrumentations calibrations at PST No. 1^4	15 edays	Sat 30/12/23	Sun 14/01/24	0.63 edays	450,463,469	475	
475	5.18.8.2.7	System Commissioning for E&M Equip at PST No, 1^4	15 days	Mon 15/01/24	Mon 29/01/24	0 days	474,473FF	476	
476	5.18.8.2.8	Risk Allowances for Completion of Processing Plant at PST No. 1^4	7 edays	Mon 29/01/24	Mon 05/02/24	2.63 edays	475	1258	
477	5.18.8.2.9	Building Services Installations for PST No. 1^4	150 days	Fri 14/07/23	Sun 10/12/23	2 days	439FS+90 days,39		
478	5.18.8.2.9.1	Mechanical Ventilation and Air Conditioning System, PST	90 days	Fri 14/07/23	Wed 11/10/23	0 days		484	MVAC - B x 4^6 men
479	5.18.8.2.9.2	Lighting and Power Distribution System, PST	90 days	Fri 14/07/23	Wed 11/10/23	0 days		484	BS - A x 4^6 men
480	5.18.8.2.9.3	Plumbing Installation, PST	80 days	Fri 14/07/23	Sun 01/10/23	0 days	1229	1231,484	Pb - B x 4^6 men
481	5.18.8.2.9.4	CCTV Installation (9 indoor + 2 outdoor Cameras), PST	60 days	Fri 14/07/23	Mon 11/09/23	0 days	439FS+60 days	484,1261	BS - B x 4^6 men
482	5.18.8.2.9.5	Fire Services Installation, PST	85 days	Fri 14/07/23	Fri 06/10/23	0 days		1182,1194,1195,48	FS - A x 4^6 men
483	5.18.8.2.9.6	Earthing and Lightning Protection System, PST	90 days	Fri 14/07/23	Wed 11/10/23	0 days		484	BS - C x 2^4 men
484	5.18.8.2.9.7	Testing and Commissioning of Building Services Installations, PST	60 days	Thu 12/10/23	Sun 10/12/23	113 days	478,479,480,481,4	360FF	BS - C x 2^4 men
485	5.19	Bioreactors No. 2A & 2B, Portion 8-4 (PS 682.4)	1326 days	Sat 15/08/20	Mon 01/04/24	0 days			
486	5.19.1	Planned Key Date Completion Date - KD1A, BR 2A & 2B	0 days	Fri 30/10/20	Fri 30/10/20	0 days	520FF,521FF		
487	5.19.2	Planned Key Date Completion Date - KD1B, BR 2A & 2B	0 days	Tue 01/06/21	Tue 01/06/21	0 days	522FF		
488	5.19.3	Planned Sectional Completion Date - Section 1, BR 2A & 2B	0 days	Mon 12/07/21	Mon 12/07/21	0 days	523FF,524FF,525F		
489	5.19.4	Planned Sectional Completion Date - Section 2, BR 2A & 2B	0 days	Mon 01/04/24	Mon 01/04/24	0 days	595FF,594FF		
490	5.19.5	Selection of Suppliers for major plant and materials for BR 2A & 2B	193 days	Tue 01/09/20	Fri 12/03/21	6 days			
491	5.19.5.1	BR - pre-treatment fine screens (Marking Scheme Approach), EQT019	150 days	Tue 01/09/20	Thu 28/01/21	0 days			
492	5.19.5.1.1	Submission for acceptance of purchasing package	60 days	Tue 01/09/20	Fri 30/10/20	0 days		493	
493	5.19.5.1.2	Invitation of quotations for purchasing package	60 days	Sat 31/10/20	Tue 29/12/20	0 days	492	494	
494	5.19.5.1.3	Acceptance of conforming quotation (Completed)	30 days	Wed 30/12/20	Thu 28/01/21	0 days	493	523	
495	5.19.5.2	BR - air diffusion system (Marking Scheme Approach), EQT017	180 days	Tue 01/09/20	Sat 27/02/21	19 days			
496	5.19.5.2.1	Submission for acceptance of purchasing package including proposed marking scheme	90 days	Tue 01/09/20	Sun 29/11/20	0 days		497	
497	5.19.5.2.2	Invitation of quotations for purchasing package	60 days	Mon 30/11/20	Thu 28/01/21	0 days	496	498	
498	5.19.5.2.3	Acceptance of conforming quotation	30 days	Fri 29/01/21	Sat 27/02/21	13 days	497	523	
499	5.19.5.3	BR - submersible mixers, C11, EQT020	150 days	Tue 01/09/20	Thu 28/01/21	0 days			
500	5.19.5.3.1	Submission for acceptance of purchasing package	60 days	Tue 01/09/20	Fri 30/10/20	0 days		501	
501	5.19.5.3.2	Invitation of quotations for purchasing package	60 days	Sat 31/10/20	Tue 29/12/20	0 days	500	502	
502	5.19.5.3.3	Acceptance of conforming quotation (Completed)	30 days	Wed 30/12/20	Thu 28/01/21	0 days	501	523	
503	5.19.5.4	BR - mixed liquor return pumps, C11, EQT008	150 days	Mon 14/09/20	Wed 10/02/21	0 days			
504	5.19.5.4.1	Submission for acceptance of purchasing package	60 days	Mon 14/09/20	Thu 12/11/20	0 days		505	
505	5.19.5.4.2	Invitation of quotations for purchasing package	60 days	Fri 13/11/20	Mon 11/01/21	0 days	504	506	
506	5.19.5.4.3	Acceptance of conforming quotation (Completed)	30 days	Tue 12/01/21	Wed 10/02/21	0 days	505	523	
507	5.19.5.5	BR - scum removal systems, C11, EQT021, EQT022	150 days	Mon 14/09/20	Wed 10/02/21	36 days			
508	5.19.5.5.1	Submission for acceptance of purchasing package	60 days	Mon 14/09/20	Thu 12/11/20	0 days		509	
509	5.19.5.5.2	Invitation of quotations for purchasing package	60 days	Fri 13/11/20	Mon 11/01/21	0 days	508	510	
510	5.19.5.5.3	Acceptance of conforming quotation	30 days	Tue 12/01/21	Wed 10/02/21	30 days	509	523	
511	5.19.5.6	BR - aeration blowers (Marking Scheme Approach), EQT039	180 days	Mon 14/09/20	Fri 12/03/21	6 days			
512	5.19.5.6.1	Submission for acceptance of purchasing package including proposed marking scheme	90 days	Mon 14/09/20	Sat 12/12/20	0 days		513	
513	5.19.5.6.2	Invitation of quotations for purchasing package	60 days	Sun 13/12/20	Wed 10/02/21	0 days	512	514	
514	5.19.5.6.3	Acceptance of conforming quotation	30 days	Thu 11/02/21	Fri 12/03/21	0 days	513	523	
515	5.19.5.7	BR - instrumentations, C11, EQT035-2	150 days	Thu 01/10/20	Sat 27/02/21	19 days			
516	5.19.5.7.1	Submission for acceptance of purchasing package	60 days	Thu 01/10/20	Sun 29/11/20	0 days		517	
517	5.19.5.7.2	Invitation of quotations for purchasing package	60 days	Mon 30/11/20	Thu 28/01/21	0 days	516	518	
518	5.19.5.7.3	Acceptance of conforming quotation	30 days	Fri 29/01/21	Sat 27/02/21	13 days	517	523	
519	5.19.6	Design Submissions for BR 2A & 2B	330 days	Sat 15/08/20	Sat 10/07/21	2 days			
520	5.19.6.1	Electrical schematic drawings for BR No. 2A & 2B	60 days	Sat 15/08/20	Tue 13/10/20	17 days		486FF	
521	5.19.6.2	CDS080-3 - Civil and dimensional requirements drawings for BR 2A&2B up to +8.0 mPD	55 days	Tue 01/09/20	Sun 25/10/20	0 days		486FF	
522	5.19.6.3	CDS081-3 - Civil and dimensional requirements drawings for BR 2A & 2B	210 days	Fri 28/08/20	Thu 25/03/21	68 days		487FF	

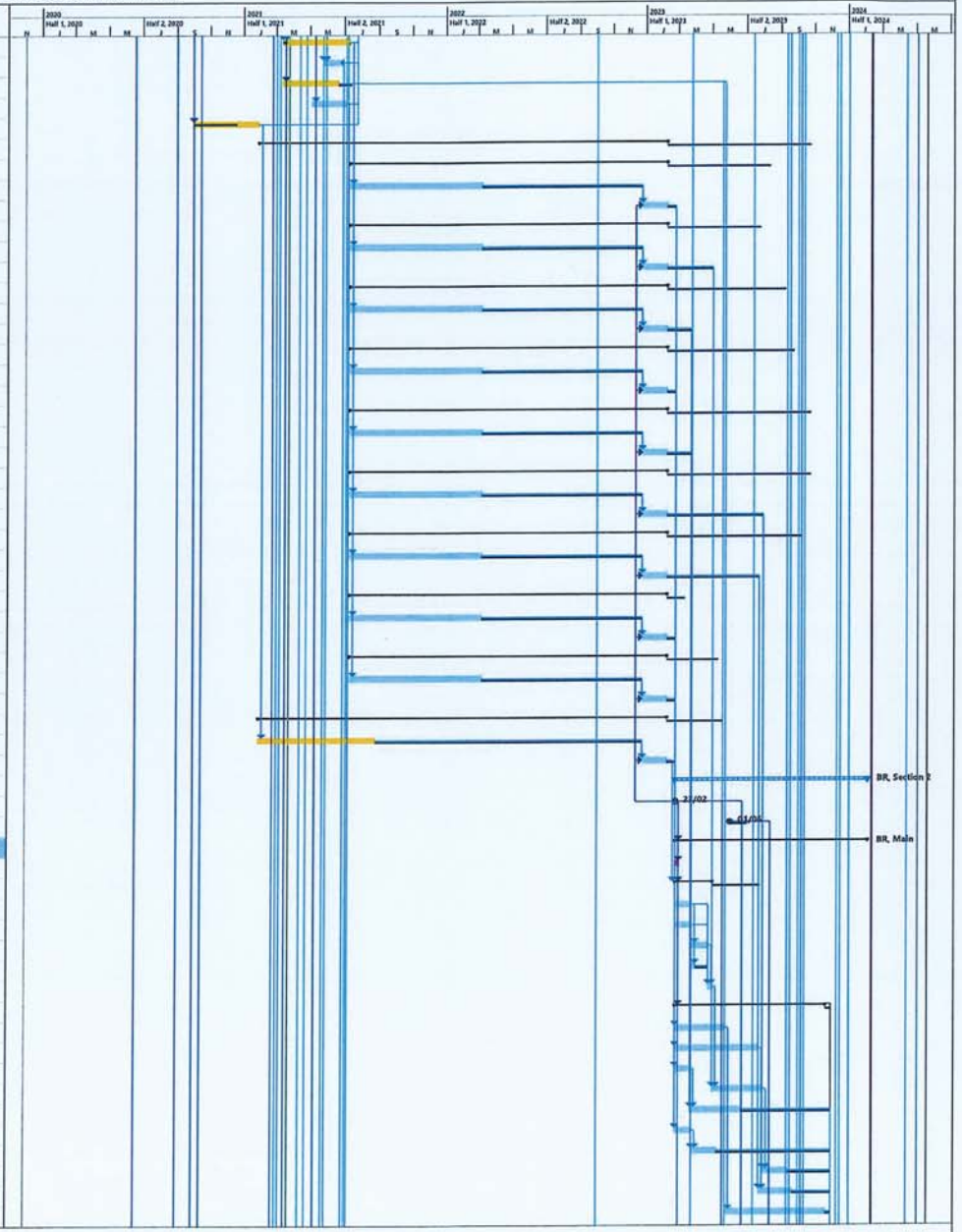


Task | Milestone | Project Summary | Late | Critical Split | Manual Progress | Milestone (Actual)
Milestone, Tentative | Summary | Manual Summary | Critical | Progress | Slack (Float) | Slack

Project: DE/2018/04
Date: Thu 25/03/21

Status Date Sat 20/03/21

ID	IO	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Float Time	Predecessors	Successors	Resource Names
523	523	5.19.6.4	CDS004 - Detailed Design for Bioreactor 2A and 2B	120 edays	Fri 12/03/21	Sat 10/07/21	0.63 edays	494,498,502,506,5	530,533,536,539,54	
524	524	5.19.6.5	CDS023 - Detailed Design for Electrical Installations for BR No. 2A & 2B	30 edays	Sun 23/05/21	Tue 22/06/21	0.63 edays	72,82,90,185FF	73,488FF,697	
525	525	5.19.6.6	CDS034-3 - Detailed Design for Electrical Installations BS at BR No. 2A & 2B	100 edays	Fri 12/03/21	Sun 20/06/21	22.38 edays	133	589,488FF,590	
526	526	5.19.6.7	CDS025-3 - Detailed Design for LV Switchboards for BR 2A and 2B	60 edays	Mon 03/05/21	Fri 02/07/21	0.63 edays	68	683,688FF	
527	527	5.19.6.8	CDS050-3 - Detailed Design for Lifting Appliances - BR 2A & 2B	120 edays	Thu 01/10/20	Fri 29/01/21	0 edays	113	557,488FF	
528	528	5.19.7	Manufacturing and Delivery of Plant & Materials	740 days	Fri 29/01/21	Tue 07/02/23	258 days			
529	529	5.19.7.1	Pre-treatment Fine Screens, EQT019	577 days	Sun 11/07/21	Tue 07/02/23	185 days			
530	530	5.19.7.1.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sun 11/07/21	Mon 07/03/22	292 days	523	531	
531	531	5.19.7.1.2	Shipping and Delivery of Plant to site	45 days	Sun 25/12/22	Tue 07/02/23	16 days	530,560SS-60 eda	573	
532	532	5.19.7.2	Air Diffusion System, EQT017	577 days	Sun 11/07/21	Tue 07/02/23	168 days			
533	533	5.19.7.2.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sun 11/07/21	Mon 07/03/22	292 days	523	534	
534	534	5.19.7.2.2	Shipping and Delivery of Plant to site	45 days	Sun 25/12/22	Tue 07/02/23	83 days	533,560SS-60 eda	574	
535	535	5.19.7.3	Submersible Mixer, EQT020	577 days	Sun 11/07/21	Tue 07/02/23	213 days			
536	536	5.19.7.3.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sun 11/07/21	Mon 07/03/22	292 days	523	537	
537	537	5.19.7.3.2	Shipping and Delivery of Plant to site	45 days	Sun 25/12/22	Tue 07/02/23	44 days	536,560SS-60 eda	575	
538	538	5.19.7.4	Mixed Liquor Return Pumps, EQT008	577 days	Sun 11/07/21	Tue 07/02/23	228 days			
539	539	5.19.7.4.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sun 11/07/21	Mon 07/03/22	292 days	523	540	
540	540	5.19.7.4.2	Shipping and Delivery of Plant to site	45 days	Sun 25/12/22	Tue 07/02/23	16 days	539,560SS-60 eda	576	
541	541	5.19.7.5	Sum Removal System, EQT021, EQT022	577 days	Sun 11/07/21	Tue 07/02/23	258 days			
542	542	5.19.7.5.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sun 11/07/21	Mon 07/03/22	292 days	523	543	
543	543	5.19.7.5.2	Shipping and Delivery of Plant to site	45 days	Sun 25/12/22	Tue 07/02/23	46 days	542,560SS-60 eda	577	
544	544	5.19.7.6	Aeration Blowers, EQT039	577 days	Sun 11/07/21	Tue 07/02/23	258 days			
545	545	5.19.7.6.1	Manufacturing and Factory Acceptance Test of Plant (to be witnessed by PM)	240 days	Sun 11/07/21	Mon 07/03/22	292 days	523	546	
546	546	5.19.7.6.2	Shipping and Delivery of Plant to site	45 days	Sun 25/12/22	Tue 07/02/23	173 days	545,560SS-60 eda	578	
547	547	5.19.7.7	Instrumentations, EQT035-2	577 days	Sun 11/07/21	Tue 07/02/23	243 days			
548	548	5.19.7.7.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sun 11/07/21	Mon 07/03/22	292 days	523	549	
549	549	5.19.7.7.2	Shipping and Delivery of Plant to site	45 days	Sun 25/12/22	Tue 07/02/23	166 days	548,560SS-60 eda	579	
550	550	5.19.7.8	Stoplogs and Penstocks, EQT013	577 days	Sun 11/07/21	Tue 07/02/23	33 days			
551	551	5.19.7.8.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sun 11/07/21	Mon 07/03/22	292 days	523	552	
552	552	5.19.7.8.2	Shipping and Delivery of Plant to site	45 days	Sun 25/12/22	Tue 07/02/23	16 days	551,560SS-60 eda	571	
553	553	5.19.7.9	Valves, EQT036	577 days	Sun 11/07/21	Tue 07/02/23	93 days			
554	554	5.19.7.9.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sun 11/07/21	Mon 07/03/22	292 days	523	555	
555	555	5.19.7.9.2	Shipping and Delivery of Plant to site	45 days	Sun 25/12/22	Tue 07/02/23	16 days	554,560SS-60 eda	572	
556	556	5.19.7.10	Lifting Appliances	740 days	Fri 29/01/21	Tue 07/02/23	101 days			
557	557	5.19.7.10.1	Manufacturing and Factory Acceptance Test of Plant	210 days	Fri 29/01/21	Thu 26/08/21	485 days	527	558	
558	558	5.19.7.10.2	Shipping and Delivery of Plant to site	45 days	Sun 25/12/22	Tue 07/02/23	16 days	557,560SS-60 eda	564	
559	559	5.19.8	Site Installation Work	348 days	Thu 23/02/23	Mon 05/02/24	0 days			
560	560	5.19.8.1	Tentative Civil Handover Date, Portion B-4, BR2A & 2B (Rev. 5)	1 day	Thu 23/02/23	Thu 23/02/23	0 days		564,570,581,589FS-	
561	561	5.19.8.2	Tentative Civil Handover Date, LV cables draw pits from MFB2 to BR2	1 day	Thu 01/06/23	Thu 01/06/23	30 days		584FF+30 days	
562	562	5.19.8.3	Commencement of E&M installation at Bioreactor No. 2A & 2B	347 days	Fri 24/02/23	Mon 05/02/24	0 days	560		
563	563	5.19.8.3.1	Provision of Temporary Water Supply, Electricity Supply, Lighting, Welfare facilities etc.,	7 days	Fri 24/02/23	Thu 02/03/23	0 days	560		
564	564	5.19.8.3.2	Installation of Lifting Appliances at BR 2A & 2B	67 days	Fri 24/02/23	Mon 01/05/23	85 days	560,558		
565	565	5.19.8.3.2.1	Coping Level EOT Crane LA-03-01 SWL 5t	30 days	Fri 24/02/23	Sat 25/03/23	0 days		567,568,569	LA - A x 4~6 men
566	566	5.19.8.3.2.2	Coping Level EOT Crane LA-03-02 SWL 5t	30 days	Fri 24/02/23	Sat 25/03/23	0 days		567,568,569	LA - B x 4~6 men
567	567	5.19.8.3.2.3	Coping Level EOT Crane LA-03-03 SWL 5t	30 days	Sun 26/03/23	Mon 24/04/23	0 days	565,566	569	LA - A x 4~6 men
568	568	5.19.8.3.2.4	Coping Level Mobile A-frame LA-03-04 SWL 4t	7 days	Sun 26/03/23	Sat 01/04/23	23 days	565,566	569	LA - B x 4~6 men
569	569	5.19.8.3.2.5	T&C, Loading Test for Lifting Appliances at Bioreactor No. 2A & 2B	7 days	Tue 25/04/23	Mon 01/05/23	0 days	565,566,567,568	574	LA - B x 4~6 men
570	570	5.19.8.3.3	Mechanical Installations for E&M Equip at BR 2A & 2B	270 days	Fri 24/02/23	Mon 20/11/23	10 days	560	586	
571	571	5.19.8.3.3.1	Installation of penstocks and stoplogs (Penstocks 8nos, Stoplogs 8nos), EQT013	90 days	Fri 24/02/23	Wed 24/05/23	0 days	552	580	ME - E x 4~6 men
572	572	5.19.8.3.3.2	Installation of pipework and valves, EQT036	150 days	Fri 24/02/23	Sun 23/07/23	0 days	555	579	ME - C x 4~6 men
573	573	5.19.8.3.3.3	Installation of pre-treatment fine screens (x4)	28 days	Fri 24/02/23	Thu 23/03/23	0 days	531	575	ME - A x 4~6 men
574	574	5.19.8.3.3.4	Installation of air diffusion system (x2), EQT017	90 days	Tue 02/05/23	Sun 30/07/23	0 days	569,534	578	ME - D x 2~4 men
575	575	5.19.8.3.3.5	Installation of submersible mixers (x16), EQT020	90 days	Fri 24/03/23	Wed 21/06/23	162 days	573,537	586	ME - B x 4~6 men
576	576	5.19.8.3.3.6	Installation of mixed liquor return pumps (x6), EQT008	30 days	Fri 24/02/23	Sat 25/03/23	0 days	540	577	ME - A x 4~6 men
577	577	5.19.8.3.3.7	Installation of scum removal systems (x2), EQT022	45 days	Sun 26/03/23	Tue 09/05/23	205 days	576,543	586	ME - B x 4~6 men
578	578	5.19.8.3.3.8	Installation of aeration blowers (x4), EQT039	45 days	Mon 31/07/23	Wed 13/09/23	78 days	574,546	586	ME - D x 2~4 men
579	579	5.19.8.3.3.9	Installation of instrumentations, EQT035-2	60 days	Mon 24/07/23	Thu 21/09/23	70 days	572,549	586	ME - D x 2~4 men
580	580	5.19.8.3.3.10	Site Acceptance Tests - mechanical aspects including alignment and levels checks, leal	180 days	Thu 25/05/23	Mon 20/11/23	10 days	571	586	ME - D x 2~4 men

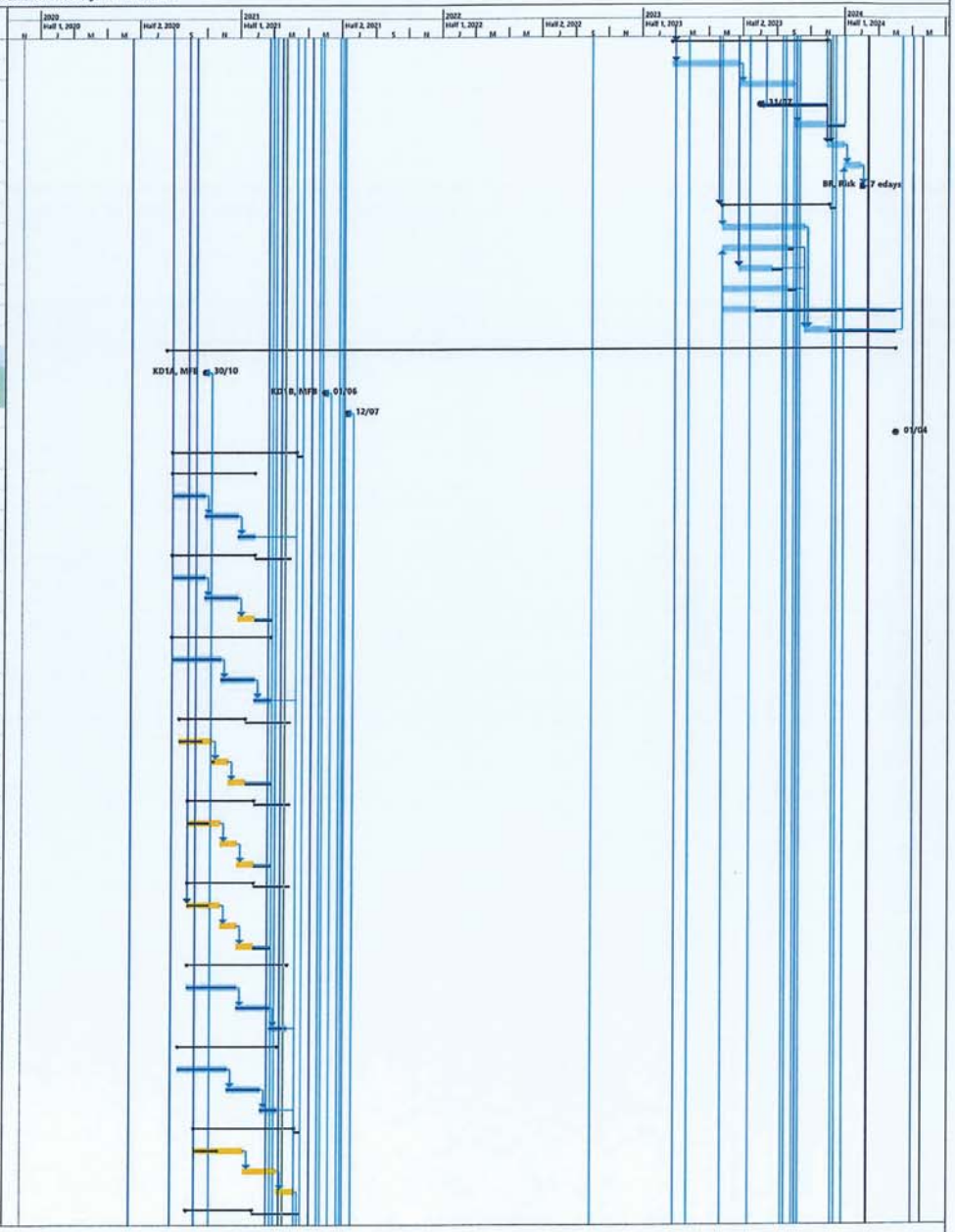


Baseline
Project: DE/2018/04
Date: Thu 25/03/21

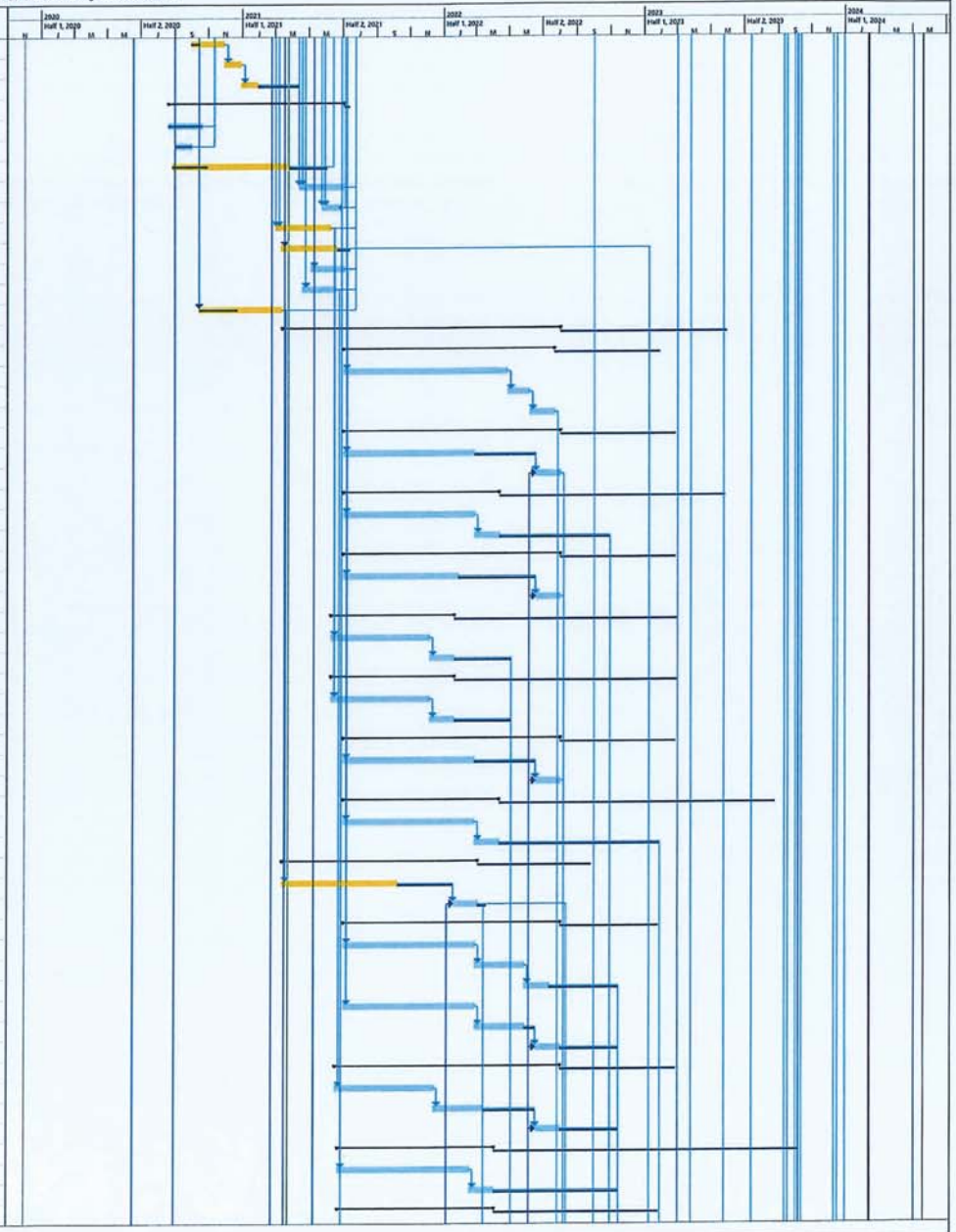
Task | Milestone | Project Summary | Late | Critical Split | Manual Progress | Milestone (Actual)
Milestone, Tentative | Summary | Manual Summary | Critical | Progress | Slack (Float) | Slack

Status Date Sat 20/03/21

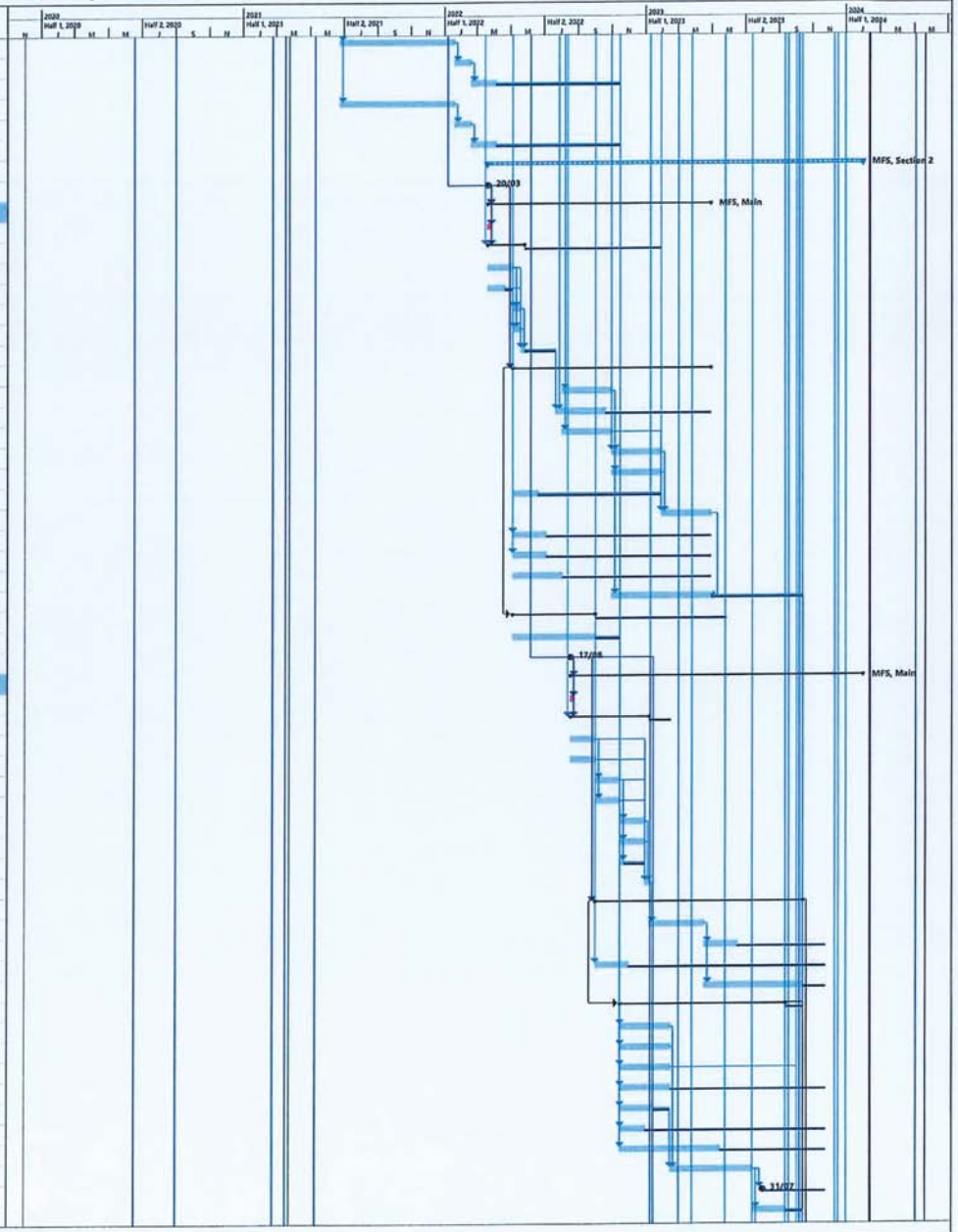
ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Float Time	Predecessors	Successors	Resource Names
581	5.19.8.3.4	Electrical installations for E&M Equip at BR 2A & 2B	280 days	Fri 24/02/23	Thu 30/11/23	0 days	560	586	
582	5.19.8.3.4.1	Installation of cable trays and cable containments	120 days	Fri 24/02/23	Fri 23/06/23	0 days	560	583	
583	5.19.8.3.4.2	Cables laying and terminations	100 days	Sat 24/06/23	Sun 01/10/23	0 days	582	585,756	
584	5.19.8.3.4.3	Energisation of LV Switchboards, BR2	1 day	Mon 31/07/23	Mon 31/07/23	122 days	561FF+30 days	586	LV - A x 4^6 men
585	5.19.8.3.4.4	Site Acceptance Tests - Electrical aspects including voltage and current tests, equipme	60 days	Mon 02/10/23	Thu 30/11/23	32 days	583	345	LV - A x 4^6 men
586	5.19.8.3.5	Site Acceptance Test for E&M Equip at BR 2A & 2B	30 edays	Thu 30/11/23	Sat 30/12/23	0.63 edays	570,575,577,578,5	587	
587	5.19.8.3.6	System Commissioning for E&M Equip at BR 2A & 2B	30 days	Sun 31/12/23	Mon 29/01/24	0 days	586,758	588	
588	5.19.8.3.7	Risk Allowances for Completion of Processing Plant at BR 2A & 2B	7 edays	Mon 29/01/24	Mon 05/02/24	2.63 edays	587	1258	
589	5.19.8.3.8	Building Services Installations for BR 2A & 2B	195 days	Thu 25/05/23	Tue 05/12/23	12 days	560FS+90 edays,5		
590	5.19.8.3.8.1	Lighting and Power Distribution System, BR2	150 days	Thu 25/05/23	Sat 21/10/23	0 days	525	595	BS - A x 4^6 men
591	5.19.8.3.8.2	Plumbing Installation, BR2	120 days	Thu 25/05/23	Thu 21/09/23	10 days	1229	1231,595	Pb - A x 4^6 men
592	5.19.8.3.8.3	CCTV Installation (7 indoor + 2 outdoor Cameras), BR2	60 days	Sat 24/06/23	Tue 22/08/23	20 days	560FS+120 days	595,1261	BS - B x 4^6 men
593	5.19.8.3.8.4	Fire Services Installation, BR2	120 days	Thu 25/05/23	Thu 21/09/23	15 days		1182,1194,1195,59	FS - B x 4^6 men
594	5.19.8.3.8.5	Lightning Protection System, BR2	60 days	Thu 25/05/23	Sun 23/07/23	253 days		489FF	BS - C x 2^4 men
595	5.19.8.3.8.6	Testing and Commissioning of Building Services Installations, BR2	45 days	Sun 22/10/23	Tue 05/12/23	118 days	590,591,592,593	489FF	BS - C x 2^4 men
596	5.20	Membrane Facilities Building, Portion B-5 (PS 68.2.4)	1320 days	Fri 21/08/20	Mon 01/04/24	0 days			
597	5.20.1	Planned Key Date Completion Date - KD1A, MFB No. 2	0 days	Fri 30/10/20	Fri 30/10/20	0 days	643FF,644FF		
598	5.20.2	Planned Key Date Completion Date - KD1B, MFB No. 2	0 days	Tue 01/06/21	Tue 01/06/21	0 days	645FF		
599	5.20.3	Planned Sectional Completion Date - Section 1, MFB No. 2	0 days	Mon 12/07/21	Mon 12/07/21	0 days	646FF,647FF,648FF		
600	5.20.4	Planned Sectional Completion Date - Section 2, MFB No. 2	0 days	Mon 01/04/24	Mon 01/04/24	0 days			
601	5.20.5	Selection of Suppliers for major plant and materials for MFB	224 days	Tue 01/09/20	Mon 12/04/21	11 days			
602	5.20.5.1	MFS - hollow fibre membrane modules (Marking Scheme Approach), ref. EQT023	150 days	Tue 01/09/20	Thu 28/01/21	0 days			
603	5.20.5.1.1	Submission for acceptance of purchasing package including proposed marking scheme	60 days	Tue 01/09/20	Fri 30/10/20	0 days		604	
604	5.20.5.1.2	Invitation of quotations for purchasing package	60 days	Sat 31/10/20	Tue 29/12/20	0 days	603	605	
605	5.20.5.1.3	Acceptance of conforming quotation (Completed)	30 days	Wed 30/12/20	Thu 28/01/21	0 days	604	646	
606	5.20.5.2	MFS - air scour blowers, C11, ref. EQT040	150 days	Tue 01/09/20	Thu 28/01/21	65 days			
607	5.20.5.2.1	Submission for acceptance of purchasing package	60 days	Tue 01/09/20	Fri 30/10/20	0 days		608	
608	5.20.5.2.2	Invitation of quotations for purchasing package	60 days	Sat 31/10/20	Tue 29/12/20	0 days	607	609	
609	5.20.5.2.3	Acceptance of conforming quotation	30 days	Wed 30/12/20	Thu 28/01/21	32 days	608	648	
610	5.20.5.3	MFS - permeate pumps, C11, ref. EQT024	180 days	Tue 01/09/20	Sat 27/02/21	0 days			
611	5.20.5.3.1	Submission for acceptance of purchasing package	90 days	Tue 01/09/20	Sun 29/11/20	0 days		612	
612	5.20.5.3.2	Invitation of quotations for purchasing package	60 days	Mon 30/11/20	Thu 28/01/21	0 days	611	613	
613	5.20.5.3.3	Acceptance of conforming quotation (Completed)	30 days	Fri 29/01/21	Sat 27/02/21	0 days	612	646	
614	5.20.5.4	MFS - compressed air system, C11, ref. EQT029	120 days	Tue 15/09/20	Tue 12/01/21	81 days			
615	5.20.5.4.1	Submission for acceptance of purchasing package	60 days	Tue 15/09/20	Fri 13/11/20	0 days		616	
616	5.20.5.4.2	Invitation of quotations for purchasing package	30 days	Sat 14/11/20	Sun 13/12/20	0 days	615	617	
617	5.20.5.4.3	Acceptance of conforming quotation	30 days	Mon 14/12/20	Tue 12/01/21	48 days	616	648	
618	5.20.5.5	MFS - chemical storage tanks, C11, ref. EQT025	120 days	Thu 01/10/20	Thu 28/01/21	65 days			
619	5.20.5.5.1	Submission for acceptance of purchasing package	60 days	Thu 01/10/20	Sun 29/11/20	0 days		620	
620	5.20.5.5.2	Invitation of quotations for purchasing package	30 days	Mon 30/11/20	Tue 29/12/20	0 days	619	621	
621	5.20.5.5.3	Acceptance of conforming quotation	30 days	Wed 30/12/20	Thu 28/01/21	32 days	620	648	
622	5.20.5.6	MFS - chemical dosing pumps, C11, ref. EQT026	120 days	Thu 01/10/20	Thu 28/01/21	65 days			
623	5.20.5.6.1	Submission for acceptance of purchasing package	60 days	Thu 01/10/20	Sun 29/11/20	0 days	2,30	624	
624	5.20.5.6.2	Invitation of quotations for purchasing package	30 days	Mon 30/11/20	Tue 29/12/20	0 days	623	625	
625	5.20.5.6.3	Acceptance of conforming quotation	30 days	Wed 30/12/20	Thu 28/01/21	32 days	624	648	
626	5.20.5.7	MFS - return activated sludge pumps (Marking Scheme Approach), ref. EQT010	180 days	Thu 01/10/20	Mon 29/03/21	0 days			
627	5.20.5.7.1	Submission for acceptance of purchasing package	90 days	Thu 01/10/20	Tue 29/12/20	0 days		628	
628	5.20.5.7.2	Invitation of quotations for purchasing package	60 days	Wed 30/12/20	Sat 27/02/21	0 days	627	629	
629	5.20.5.7.3	Acceptance of conforming quotation (Completed)	30 days	Sun 28/02/21	Mon 29/03/21	0 days	628	646	
630	5.20.5.8	MFS - membrane tank drain pumps, C11, ref. EQT009	180 days	Tue 15/09/20	Sat 13/03/21	0 days			
631	5.20.5.8.1	Submission for acceptance of purchasing package	90 days	Tue 15/09/20	Sun 13/12/20	0 days		632	
632	5.20.5.8.2	Invitation of quotations for purchasing package	60 days	Mon 14/12/20	Thu 11/02/21	0 days	631	633	
633	5.20.5.8.3	Acceptance of conforming quotation (Completed)	30 days	Fri 12/02/21	Sat 13/03/21	0 days	632	646	
634	5.20.5.9	Plant Service Water System - booster pumps, C11, ref. EQT030	180 days	Thu 15/10/20	Mon 12/04/21	11 days			
635	5.20.5.9.1	Submission for acceptance of purchasing package	90 days	Thu 15/10/20	Tue 12/01/21	0 days		636	
636	5.20.5.9.2	Invitation of quotations for purchasing package	60 days	Wed 13/01/21	Sat 13/03/21	0 days	635	637	
637	5.20.5.9.3	Acceptance of conforming quotation	30 days	Sun 14/03/21	Mon 12/04/21	0 days	636	646	
638	5.20.5.10	Plant Service Water System - hydro-pneumatic pressure tanks, C11, ref. EQT030	120 days	Thu 01/10/20	Thu 28/01/21	85 days			



ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Float Time	Predecessors	Successors	Resource Names
639	639	5.20.5.10.1	Submission for acceptance of purchasing package	60 days	Thu 01/10/20	Sun 29/11/20	0 days		640	
640	640	5.20.5.10.2	Invitation of quotations for purchasing package	30 days	Mon 30/11/20	Tue 29/12/20	0 days	639	641	
641	641	5.20.5.10.3	Acceptance of conforming quotation	30 days	Wed 30/12/20	Thu 28/01/21	74 days	640	646	
642	642	5.20.6	Design Submissions for MFB No. 2	316 days	Fri 21/08/20	Fri 02/07/21	10 days			
643	643	5.20.6.1	Electrical schematic drawings for MFB No. 2	60 days	Fri 21/08/20	Mon 19/10/20	0 days		597FF	
644	644	5.20.6.2	CDS080-4 - Civil and dimensional requirements drawigns for MFB no. 2 up to +8.0 mPD	30 days	Tue 01/09/20	Wed 30/09/20	0 days		597FF	
645	645	5.20.6.3	CDS081-4 - Civil and dimensional requirements drawings for MFB No. 2	210 days	Fri 28/08/20	Thu 25/03/21	68 days		598FF	
646	646	5.20.6.4	CDS005 - Detailed Design for Membrane Filtration System, Pumps and Membrane Module	80 edays	Mon 12/04/21	Thu 01/07/21	0.63 edays	605,613,629,633,6	655,659,662,665,67	
647	647	5.20.6.5	CDS024 - Detailed Design for Electrical Installations for MFB No. 2	30 edays	Sun 23/05/21	Tue 22/06/21	0.63 edays	72,82,78,86,90,18	73,694,700,599FF	
648	648	5.20.6.6	CDS008 - Detailed Design for Membrane Filtration System, Air Blowers, Dosing Systems et	100 edays	Mon 01/03/21	Wed 09/06/21	0.63 edays	609,617,621,625,5	668,671,599FF	
649	649	5.20.6.7	CDS034-4 - Detailed Design for Electrical Installations B5 at MFB No. 2	100 edays	Fri 12/03/21	Sun 20/06/21	22.38 edays	133	763,599FF	
650	650	5.20.6.8	CDS025-4 - Detailed Design for LV Switchboards for Membrane Filtration System	60 edays	Mon 03/05/21	Fri 02/07/21	0.63 edays	68	686,599FF	
651	651	5.20.6.9	CDS026-2 - Detailed Design for HV Switchboards for MFB No. 2	60 edays	Sun 18/04/21	Thu 17/06/21	0.63 edays	64	599FF,690	
652	652	5.20.6.10	CDS050-4 - Detailed Design for Lifting Appliances - MFB No. 2	150 edays	Thu 15/10/20	Sun 14/03/21	0 edays	113	680,599FF	
653	653	5.20.7	Manufacturing and Delivery of Plant & Materials	506 days	Sun 14/03/21	Mon 01/08/22	301 days			
654	654	5.20.7.1	Hollow Fibre Membrane Modules, EQT023	385 days	Fri 02/07/21	Thu 21/07/22	191 days			
655	655	5.20.7.1.1	MFS - Manufacturing of Plant	300 days	Fri 02/07/21	Wed 27/04/22	0 days	646	656	
656	656	5.20.7.1.2	MFS - Factory Acceptance Test of Plant (to be witnessed by PM)	40 days	Thu 28/04/22	Mon 06/06/22	0 days	655	657	
657	657	5.20.7.1.3	MFS - Shipping and Delivery of Plant to site	45 days	Tue 07/06/22	Thu 21/07/22	0 days	656	715	
658	658	5.20.7.2	Air Scour Blowers, EQT040	396 days	Fri 02/07/21	Mon 01/08/22	208 days			
659	659	5.20.7.2.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Fri 02/07/21	Sat 26/02/22	111 days	646	660	
660	660	5.20.7.2.2	Shipping and Delivery of Plant to site	45 days	Sat 18/06/22	Mon 01/08/22	0 days	659,727SS-60 eda	716	
661	661	5.20.7.3	Permeate Pump, EQT024	285 days	Fri 02/07/21	Tue 12/04/22	409 days			
662	662	5.20.7.3.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Fri 02/07/21	Sat 26/02/22	0 days	646	663	
663	663	5.20.7.3.2	Shipping and Delivery of Plant to site	45 days	Sun 27/02/22	Tue 12/04/22	201 days	662	717	
664	664	5.20.7.4	Compressed Air System, EQT029	396 days	Fri 02/07/21	Mon 01/08/22	208 days			
665	665	5.20.7.4.1	Manufacturing and Factory Acceptance Test of Plant	210 days	Fri 02/07/21	Thu 27/01/22	141 days	646	666	
666	666	5.20.7.4.2	Shipping and Delivery of Plant to site	45 days	Sat 18/06/22	Mon 01/08/22	0 days	665,727SS-60 eda	716	
667	667	5.20.7.5	Chemical Storage Tanks, EQT025	225 days	Thu 10/06/21	Thu 20/01/22	403 days			
668	668	5.20.7.5.1	Manufacturing and Factory Acceptance Test of Plant	180 days	Thu 10/06/21	Mon 06/12/21	0 days	648	669	
669	669	5.20.7.5.2	Shipping and Delivery of Plant to site	45 days	Tue 07/12/21	Thu 20/01/22	104 days	668	721	
670	670	5.20.7.6	Chemical Dosing Pumps, EQT026	225 days	Thu 10/06/21	Thu 20/01/22	403 days			
671	671	5.20.7.6.1	Manufacturing and Factory Acceptance Test of Plant	180 days	Thu 10/06/21	Mon 06/12/21	0 days	648	672	
672	672	5.20.7.6.2	Shipping and Delivery of Plant to site	45 days	Tue 07/12/21	Thu 20/01/22	104 days	671	722	
673	673	5.20.7.7	Stoplogs and Penstocks, EQT013	396 days	Fri 02/07/21	Mon 01/08/22	208 days			
674	674	5.20.7.7.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Fri 02/07/21	Sat 26/02/22	111 days	646	675	
675	675	5.20.7.7.2	Shipping and Delivery of Plant to site	45 days	Sat 18/06/22	Mon 01/08/22	0 days	674,727SS-60 eda	714	
676	676	5.20.7.8	Valves, EQT036	285 days	Fri 02/07/21	Tue 12/04/22	499 days			
677	677	5.20.7.8.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Fri 02/07/21	Sat 26/02/22	0 days	646	678	
678	678	5.20.7.8.2	Shipping and Delivery of Plant to site	45 days	Sun 27/02/22	Tue 12/04/22	291 days	677	720	
679	679	5.20.7.9	Lifting Appliances	356 days	Sun 14/03/21	Fri 04/03/22	206 days			
680	680	5.20.7.9.1	Manufacturing and Factory Acceptance Test of Plant	210 days	Sun 14/03/21	Sat 09/10/21	101 days	652	681	
681	681	5.20.7.9.2	Shipping and Delivery of Plant to site	45 days	Wed 19/01/22	Fri 04/03/22	16 days	680,704SS-60 eda	707,730	
682	682	5.20.7.10	LV Switchboards	395 days	Sat 03/07/21	Mon 01/08/22	178 days			
683	683	5.20.7.10.1	BR - Manufacturing of Plant	240 days	Sat 03/07/21	Sun 27/02/22	0 days	526	684	
684	684	5.20.7.10.2	BR - Factory Acceptance Test of Plant (to be witnessed by PM)	90 days	Mon 28/02/22	Sat 28/05/22	0 days	683	685	
685	685	5.20.7.10.3	BR - Shipping and Delivery of Plant to site	45 days	Sun 29/05/22	Tue 12/07/22	126 days	684	745	
686	686	5.20.7.10.4	MFS - Manufacturing of Plant	240 days	Sat 03/07/21	Sun 27/02/22	0 days	650	687	
687	687	5.20.7.10.5	MFS - Factory Acceptance Test of Plant (to be witnessed by PM)	90 days	Mon 28/02/22	Sat 28/05/22	20 days	686	688	
688	688	5.20.7.10.6	MFS - Shipping and Delivery of Plant to site	45 days	Sat 18/06/22	Mon 01/08/22	106 days	687,727SS-60 eda	746	
689	689	5.20.7.11	HV Switchboards, EQT031	410 days	Fri 18/06/21	Mon 01/08/22	208 days			
690	690	5.20.7.11.1	MFS - Manufacturing of Plant	180 days	Fri 18/06/21	Tue 14/12/21	0 days	651	691	
691	691	5.20.7.11.2	MFS - Factory Acceptance Test of Plant (to be witnessed by PM)	90 days	Wed 15/12/21	Mon 14/03/22	95 days	690	692	
692	692	5.20.7.11.3	MFS - Shipping and Delivery of Plant to site	45 days	Sat 18/06/22	Mon 01/08/22	106 days	691,727SS-60 eda	749	
693	693	5.20.7.12	11kV/380V Stepdown Power Transformers, EQT032	285 days	Wed 23/06/21	Sun 03/04/22	553 days			
694	694	5.20.7.12.1	MFS - Manufacturing and Factory Acceptance Test of Plant	240 days	Wed 23/06/21	Thu 17/02/22	0 days	647	695	
695	695	5.20.7.12.2	MFS - Shipping and Delivery of Plant to site	45 days	Fri 18/02/22	Sun 03/04/22	226 days	694	750	
696	696	5.20.7.13	PLC System	285 days	Wed 23/06/21	Sun 03/04/22	298 days			



ID	O	WBS	Task Name	Duration	Start	Finish	Float Time	Predecessors	Successors	Resource Names
697	697	5.20.7.13.1	Manufacturing of Plant, PLC for BR2A &B	210 days	Wed 23/06/21	Tue 18/01/22	0 days	524	698	
698	698	5.20.7.13.2	Factory Acceptance Test of Plant, PLC for BR2A &B (To be witnessed by PM)	30 days	Wed 19/01/22	Thu 17/02/22	0 days	697	699	
699	699	5.20.7.13.3	Shipping and Delivery of Plant to site	45 days	Fri 18/02/22	Sun 03/04/22	226 days	698	747	
700	700	5.20.7.13.4	Manufacturing of Plant, PLC for MFB2	210 days	Wed 23/06/21	Tue 18/01/22	0 days	647	701	
701	701	5.20.7.13.5	Factory Acceptance Test of Plant, PLC for MFB2 (To be witnessed by PM)	30 days	Wed 19/01/22	Thu 17/02/22	0 days	700	702	
702	702	5.20.7.13.6	Shipping and Delivery of Plant to site	45 days	Fri 18/02/22	Sun 03/04/22	226 days	701	748	
703	703	5.20.8	Site Installation Work	683 days	Sun 20/03/22	Wed 31/01/24	0 days			
704	704	5.20.8.1	Tentative Civil Handover Date, Portion B-5A, MFB No. 2 below 1st floor level (Rev. 5)	1 day	Sun 20/03/22	Sun 20/03/22	0 days		707,713FS+45 eday	
705	705	5.20.8.2	Commencement of E&M Installation at MFB No. 2 Lower Part	404 days	Mon 21/03/22	Fri 28/04/23	0 days	704		
706	706	5.20.8.2.1	Provision of Temporary Water Supply, Electricity Supply, Lighting, Welfare facilities etc.,	7 days	Mon 21/03/22	Sun 27/03/22	0 days	704		
707	707	5.20.8.2.2	Installation of Lifting Appliances at MFB No. 2	66 days	Mon 21/03/22	Wed 25/05/22	248 days	704,681		
708	708	5.20.8.2.2.1	B2 EOT Crane LA-04-01 SWL 5t	45 days	Mon 21/03/22	Wed 04/05/22	0 days		710,711,712	
709	709	5.20.8.2.2.2	B2 EOT Crane LA-04-02 SWL 5t	30 days	Mon 21/03/22	Tue 19/04/22	15 days		710,711,712	
710	710	5.20.8.2.2.3	B2 MR LA-04-03 SWL 5t	14 days	Thu 05/05/22	Wed 18/05/22	0 days	708,709	712	
711	711	5.20.8.2.2.4	B1 MR LA-04-04 SWL 3t	14 days	Thu 05/05/22	Wed 18/05/22	0 days	708,709	712	
712	712	5.20.8.2.2.5	T&C, Loading Test for Lifting Appliances	7 days	Thu 19/05/22	Wed 25/05/22	57 days	708,709,730,711	715	
713	713	5.20.8.2.3	Mechanical Installations for E&M Equip. at MFB No. 2 Lower Part	359 days	Thu 05/05/22	Fri 28/04/23	0 days	704FS+45 edays	725SS	
714	714	5.20.8.2.3.1	Installation of penstocks and stoplogs (Penstocks 18nos, Stoplogs 11nos), EQT013	90 days	Tue 02/08/22	Sun 30/10/22	0 days	675	724	ME - E x 4~6 men
715	715	5.20.8.2.3.2	Installation of hollow fibre membrane modules (x9), EQT023	90 days	Fri 22/07/22	Wed 19/10/22	191 days	657,712		ME - A x 4~6 men
716	716	5.20.8.2.3.3	Installation of air scour blowers (x3), EQT040	90 days	Tue 02/08/22	Sun 30/10/22	0 days	660,666	720,717,718	ME - B x 4~6 men
717	717	5.20.8.2.3.4	Installation of permeate pumps (x10), EQT024	90 days	Mon 31/10/22	Sat 28/01/23	0 days	716,663	720	ME - A x 4~6 men
718	718	5.20.8.2.3.5	Installation of return activated sludge pumps (x5), EQT010	90 days	Mon 31/10/22	Sat 28/01/23	0 days	716	720	ME - B x 4~6 men
719	719	5.20.8.2.3.6	Installation of membrane tank drain pumps (x2), EQT009	45 days	Thu 05/05/22	Sat 18/06/22	224 days		720	ME - C x 4~6 men
720	720	5.20.8.2.3.7	Installation of pipework and valves, EQT036	90 days	Sun 29/01/23	Fri 28/04/23	0 days	716,717,718,719,6	724FF	ME - C x 4~6 men
721	721	5.20.8.2.3.8	Installation of chemical storage tank, EQT025	60 days	Thu 05/05/22	Sun 03/07/22	299 days	669		ME - D x 2~4 men
722	722	5.20.8.2.3.9	Installation of chemical dosing pumps, EQT026	60 days	Thu 05/05/22	Sun 03/07/22	299 days	672		ME - D x 2~4 men
723	723	5.20.8.2.3.10	Installation of plant service water system	90 days	Thu 05/05/22	Tue 02/08/22	269 days			ME - C x 4~6 men
724	724	5.20.8.2.3.11	Site Acceptance Tests - mechanical aspects including alignment and levels checks, leal	180 days	Mon 31/10/22	Fri 28/04/23	168 days	714,720FF	760	ME - D x 2~4 men
725	725	5.20.8.2.4	Electrical Installations for E&M Equip. at MFB No. 2 Lower Part	150 days	Thu 05/05/22	Sat 01/10/22	237 days	713SS		
726	726	5.20.8.2.4.1	Installation of cable trays and cable containments	150 days	Thu 05/05/22	Sat 01/10/22	45 days		751	
727	727	5.20.8.3	Tentative Civil Handover Date, Portion B-5B, MFB No. 2 remaining portion (Rev. 5)	1 day	Wed 17/08/22	Wed 17/08/22	0 days		730,739FS+45 eday	
728	728	5.20.8.4	Commencement of E&M Installation at MFB No. 2 Upper Part	532 days	Thu 18/08/22	Wed 31/01/24	0 days	727		
729	729	5.20.8.4.1	Provision of Temporary Water Supply, Electricity Supply, Lighting, Welfare facilities etc.,	7 days	Thu 18/08/22	Wed 24/08/22	0 days	727		
730	730	5.20.8.4.2	Installation of Lifting Appliances at MFB No. 2	142 days	Thu 18/08/22	Fri 06/01/23	40 days	727,681		
731	731	5.20.8.4.2.1	GF EOT Crane LA-04-05 SWL 5t	45 days	Thu 18/08/22	Sat 01/10/22	0 days		733,734,738	LA - A x 4~6 men
732	732	5.20.8.4.2.2	GF Gantry Crane LA-04-06 SWL 6t	45 days	Thu 18/08/22	Sat 01/10/22	0 days		733,734,738	LA - B x 4~6 men
733	733	5.20.8.4.2.3	1F EOT Crane LA-04-07 SWL 15t	45 days	Sun 02/10/22	Tue 15/11/22	0 days	731,732	735,736,737,738	LA - A x 4~6 men
734	734	5.20.8.4.2.4	1F EOT Crane LA-04-08 SWL 15t	45 days	Sun 02/10/22	Tue 15/11/22	0 days	731,732	735,736,737,738	LA - B x 4~6 men
735	735	5.20.8.4.2.5	RF EOT Crane LA-04-09 SWL 2t	45 days	Wed 16/11/22	Fri 30/12/22	0 days	733,734	738	LA - A x 4~6 men
736	736	5.20.8.4.2.6	RF Retractable MR LA-04-10 SWL 2t	45 days	Wed 16/11/22	Fri 30/12/22	0 days	733,734	738	LA - B x 4~6 men
737	737	5.20.8.4.2.7	Mobile A-frame LA-04-11 SWL 2t	7 days	Wed 16/11/22	Tue 22/11/22	38 days	733,734	738	LA - C x 4~6 men
738	738	5.20.8.4.2.8	T&C, Loading Test for Lifting Appliances	7 days	Sat 31/12/22	Fri 06/01/23	0 days	731,732,733,734,7	740	LA - A x 4~6 men
739	739	5.20.8.4.3	Mechanical Installations for E&M Equip. at MFB No. 2 Upper Part	377 days	Sun 02/10/22	Fri 13/10/23	0 days	727FS+45 edays	744SS+45 edays,74	
740	740	5.20.8.4.3.1	Installation of air scour blowers (x3)	100 days	Sat 07/01/23	Sun 16/04/23	0 days	738	741,743	ME - A x 4~6 men
741	741	5.20.8.4.3.2	Installation of compressed air system (x1)	60 days	Mon 17/04/23	Thu 15/06/23	160 days	740		ME - B x 4~6 men
742	742	5.20.8.4.3.3	Installation of instrumentations, EQT035-1	60 days	Sun 02/10/22	Wed 30/11/22	357 days	52		ME - D x 2~4 men
743	743	5.20.8.4.3.4	Site Acceptance Tests - mechanical aspects including alignment and levels checks, leal	180 days	Mon 17/04/23	Fri 13/10/23	40 days	740		ME - D x 2~4 men
744	744	5.20.8.4.4	Electrical Installations for E&M Equip. at MFB No. 2 Upper Part	300 days	Wed 16/11/22	Mon 11/09/23	32 days	739SS+45 edays	760	
745	745	5.20.8.4.4.1	Installation of LV Switchboards, BR2	90 days	Wed 16/11/22	Mon 13/02/23	0 days	685	752	LV - B x 4~6 men
746	746	5.20.8.4.4.2	Installation of LV Switchboards, MFB No. 2	90 days	Wed 16/11/22	Mon 13/02/23	0 days	688	752	LV - A x 4~6 men
747	747	5.20.8.4.4.3	Installation of PLC Panels, BR2	90 days	Wed 16/11/22	Mon 13/02/23	0 days	699	752,756	
748	748	5.20.8.4.4.4	Installation of PLC Panels, MFB No. 2	90 days	Wed 16/11/22	Mon 13/02/23	282 days	702		PLC - B x 1 man
749	749	5.20.8.4.4.5	Installation of HV Switchboards, MFB No. 2	60 days	Wed 16/11/22	Sat 14/01/23	30 days	692	752	HV - A x 4~6 men
750	750	5.20.8.4.4.6	Installation of transformer, MFB No. 2, EQT032	45 days	Wed 16/11/22	Fri 30/12/22	327 days	695		
751	751	5.20.8.4.4.7	Installation of cable trays and cable containments	180 days	Wed 16/11/22	Sun 14/05/23	192 days	726		
752	752	5.20.8.4.4.8	Cables laying and terminations	150 days	Tue 14/02/23	Thu 13/07/23	0 days	745,746,747,749	757,754,753	
753	753	5.20.8.4.4.9	Energisation of LV Switchboards, MFB No. 2 (Rev. 8)	1 day	Mon 31/07/23	Mon 31/07/23	114 days	752		LA - A x 4~6 men
754	754	5.20.8.4.4.10	Site Acceptance Tests - Electrical aspects including voltage and current tests, equipme	60 days	Fri 14/07/23	Mon 11/09/23	32 days	752	760	LV - A x 4~6 men

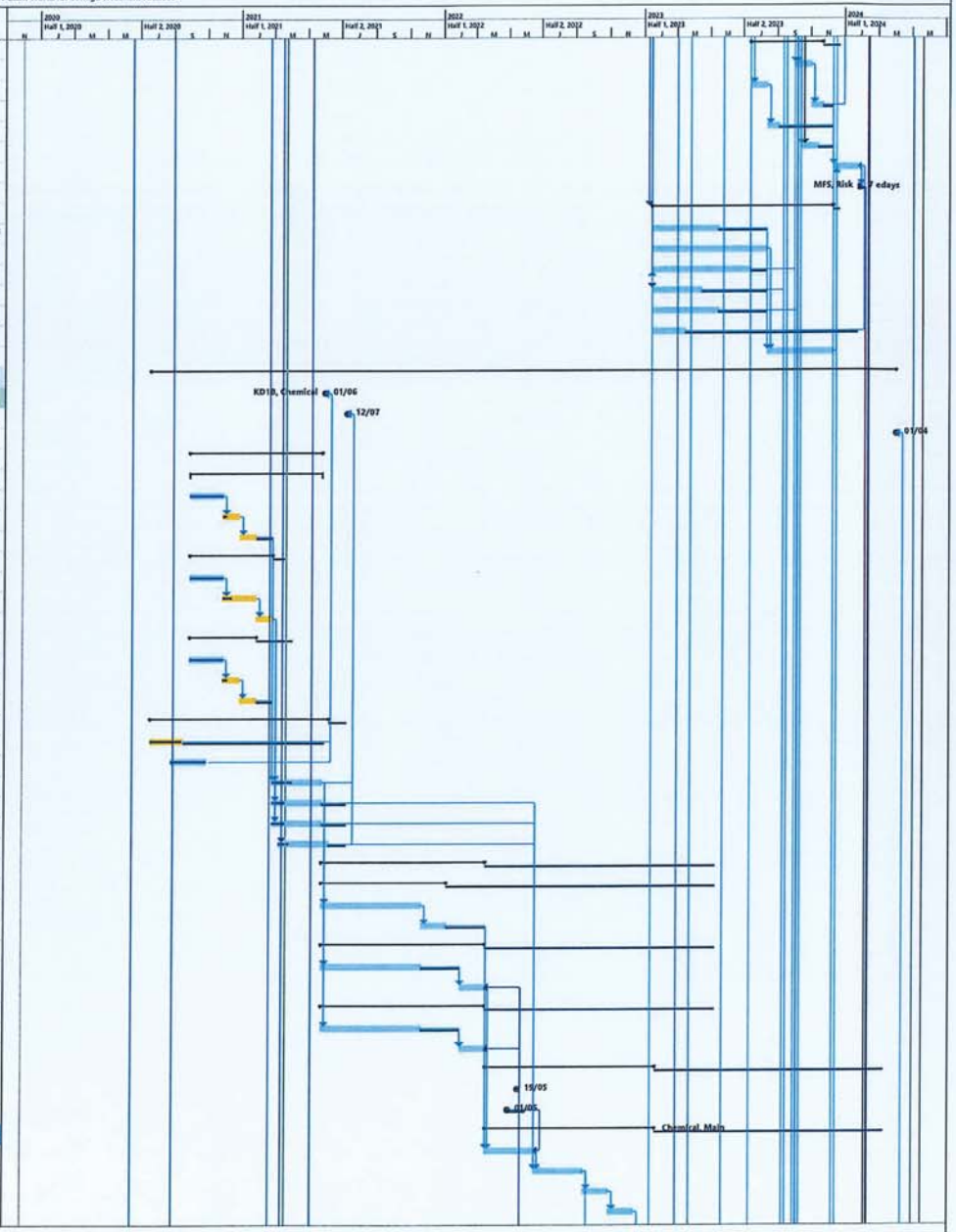


Revision
Project: DE/2018/04
Date: Thu 25/03/21

Task | Milestone | Project Summary | Late | Critical Split | Manual Progress | Milestone (Actual)
Milestone, Tentative | Summary | Manual Summary | Critical | Progress | Slack (Float) | Slack

Status Date Sat 20/03/21

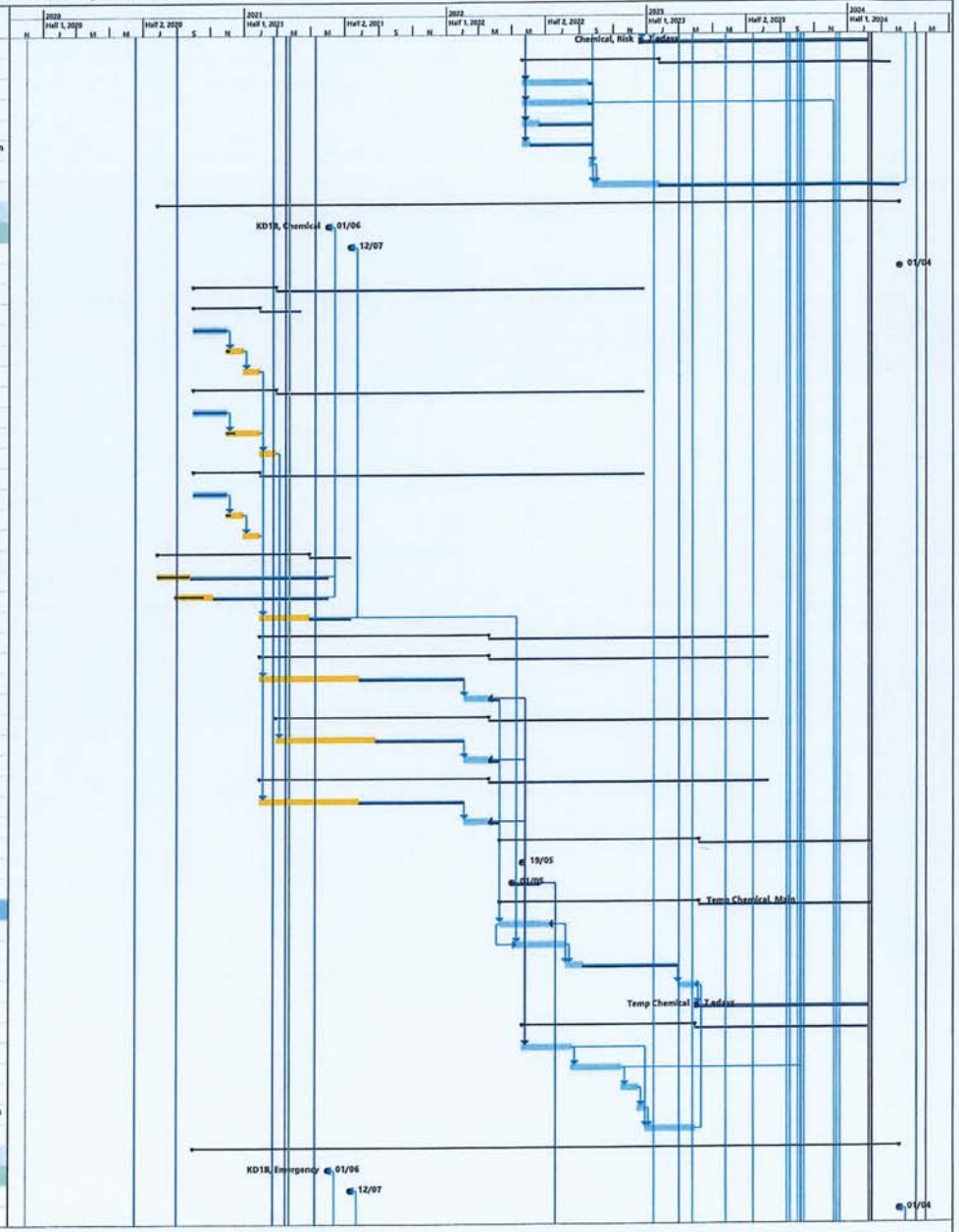
ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Float Time	Predecessors	Successors	Resource Names
755	5.20.8.4.5	SCADA Systems, BR No. 1 & No 2, MFB No. 2	131 days	Fri 14/07/23	Tue 21/11/23	31 days			
756	5.20.8.4.5.1	Configuration of PLC System for BR No. 1 & No. 2	30 days	Mon 02/10/23	Tue 31/10/23	0 days	747,583	758	PLC - A x 1 man
757	5.20.8.4.5.2	Configuration of PLC System for MFB No. 2	30 days	Fri 14/07/23	Sat 12/08/23	0 days	752	759	
758	5.20.8.4.5.3	Site Acceptance Test for PLC System at BR No. 1 and No. 2	21 days	Wed 01/11/23	Tue 21/11/23	19 days	756	761,587,1262	
759	5.20.8.4.5.4	Site Acceptance Test for PLC System at MFB No. 2	21 days	Sun 13/08/23	Sat 02/09/23	99 days	757	761,1262	
760	5.20.8.4.6	Site Acceptance Test for E&M Equip at MFB No. 2	30 edays	Fri 13/10/23	Sun 12/11/23	28.63 edays	739,744,754,724	761	
761	5.20.8.4.7	System Commissioning for E&M Equip at MFB No. 2	45 days	Mon 11/12/23	Wed 24/01/2	0 days	758,760,770,759,7	762	
762	5.20.8.4.8	Risk Allowances for Completion of Processing Plant at MFB No. 2	7 edays	Wed 24/01/24	Wed 31/01/2	7.63 edays	761	1258	
763	5.20.8.4.9	Building Services Installations for MFB No. 2	330 days	Sun 15/01/23	Sun 10/12/23	12 days	727FS+150 edays,(		
764	5.20.8.4.9.1	Mechanical Ventilation and Air Conditioning System, MFB No. 2	120 days	Sun 15/01/23	Sun 14/05/23	90 days		770	MVAC - A x 4^6 men
765	5.20.8.4.9.2	Lighting and Power Distribution System, MFB No. 2	210 days	Sun 15/01/23	Sat 12/08/23	0 days		770	BS - A x 4^6 men
766	5.20.8.4.9.3	Plumbing Installation, MFB No. 2	180 days	Sun 15/01/23	Thu 13/07/23	30 days	1229	1231,770	Pb - B x 4^6 men
767	5.20.8.4.9.4	CCTV Installation (10 indoor + 3 outdoor Cameras), MFB No. 2	90 days	Sun 15/01/23	Fri 14/04/23	120 days	727FS+120 days	770,1261	BS - B x 4^6 men
768	5.20.8.4.9.5	Fire Services Installation, MFB No. 2	120 days	Sun 15/01/23	Sun 14/05/23	90 days		1182,1194,1195,77	FS - B x 4^6 men
769	5.20.8.4.9.6	Earthing and Lightning Protection System, MFB No. 2	60 days	Sun 15/01/23	Wed 15/03/2	315 days		761FF	BS - C x 2^4 men
770	5.20.8.4.9.7	Testing and Commissioning of Building Services Installations, MFB No. 2	120 days	Sun 13/08/23	Sun 10/12/23	0 days	764,765,766,767,7	761	BS - C x 2^4 men
771	5.21	Chemical System No. 1 and No. 2, Portion B-7 & B-7B (PS 68.2.3)	1351 days	Tue 21/07/20	Mon 01/04/2	0 days			
772	5.21.1	Planned Key Date Completion Date - KD1B, Chem Sys No. 1 & 2	0 days	Tue 01/06/21	Tue 01/06/21	0 days	789FF,730FF		
773	5.21.2	Planned Sectional Completion Date - Section 1, Chem Sys No. 1 & 2	0 days	Mon 12/07/21	Mon 12/07/21	0 days	791FF,792FF,793F		
774	5.21.3	Planned Sectional Completion Date - Section 2, Chem Sys No. 1 & 2	0 days	Mon 01/04/24	Mon 01/04/24	0 days	820FF		
775	5.21.4	Selection of Suppliers for major plant and materials for Chemical Systems	240 days	Thu 01/10/20	Fri 28/05/21	0 days			
776	5.21.4.1	Chemical Storage and Dosing - chemical storage tanks, C11, ref. EQT025	240 days	Thu 01/10/20	Fri 28/05/21	0 days			
777	5.21.4.1.1	Submission for acceptance of purchasing package	60 days	Thu 01/10/20	Sun 29/11/20	0 days		778	
778	5.21.4.1.2	Invitation of quotations for purchasing package	30 days	Mon 30/11/20	Tue 29/12/20	0 days	777	779	
779	5.21.4.1.3	Acceptance of conforming quotation	30 days	Wed 30/12/20	Thu 28/01/21	30 days	778	791	
780	5.21.4.2	Chemical Storage and Dosing - chemical dosing pumps, C11, ref. EQT027	150 days	Thu 01/10/20	Sat 27/02/21	22 days			
781	5.21.4.2.1	Submission for acceptance of purchasing package	60 days	Thu 01/10/20	Sun 29/11/20	0 days		782	
782	5.21.4.2.2	Invitation of quotations for purchasing package	60 days	Mon 30/11/20	Thu 28/01/21	0 days	781	783	
783	5.21.4.2.3	Acceptance of conforming quotation	30 days	Fri 29/01/21	Sat 27/02/21	0 days	782	791,792,793	
784	5.21.4.3	Chemical Storage and Dosing - transfer pumps, C11, ref. EQT026	120 days	Thu 01/10/20	Thu 28/01/21	66 days			
785	5.21.4.3.1	Submission for acceptance of purchasing package	60 days	Thu 01/10/20	Sun 29/11/20	0 days		786	
786	5.21.4.3.2	Invitation of quotations for purchasing package	30 days	Mon 30/11/20	Tue 29/12/20	0 days	785	787	
787	5.21.4.3.3	Acceptance of conforming quotation	30 days	Wed 30/12/20	Thu 28/01/21	30 days	786	791	
788	5.21.5	Design Submissions for Chemical System No. 1 and No. 2	324 days	Tue 21/07/20	Thu 10/06/21	33 days			
789	5.21.5.1	Electrical schematic drawings for Chemical Systems No. 1 and No. 2	60 days	Tue 21/07/20	Fri 18/09/20	256 days		772FF	
790	5.21.5.2	CDS081-5 - Civil and dimensional requirements drawings for Chemical Systems	70 days	Fri 28/08/20	Thu 05/11/20	0 days		772FF	
791	5.21.5.3	CDS006 - Detailed Design for Chemical Dosing System	90 edays	Sat 27/02/21	Fri 28/05/21	0.63 edays	779,783,787	797,800,803,773FF	
792	5.21.5.4	CDS027 - Detailed Design for Electrical Installations for Chemical System No. 1	90 edays	Sat 27/02/21	Fri 28/05/21	45 edays	783	810,773FF	
793	5.21.5.5	CDS028 - Detailed Design for Electrical Installations for Chemical System No. 2	90 edays	Sat 27/02/21	Fri 28/05/21	45 edays	783	810,773FF	
794	5.21.5.6	CDS034-5 - Detailed Design for Electrical Installations BS at Chemical Systems	90 edays	Fri 12/03/21	Thu 10/06/21	32.38 edays	133	810,773FF	
795	5.21.6	Manufacturing and Delivery of Plant & Materials	296 days	Sat 29/05/21	Sun 20/03/22	417 days			
796	5.21.6.1	Chemical Storage Tanks, EQT025	225 days	Sat 29/05/21	Sat 08/01/22	488 days			
797	5.21.6.1.1	Manufacturing and Factory Acceptance Test of Plant	180 days	Sat 29/05/21	Wed 24/11/21	0 days	791	798	
798	5.21.6.1.2	Shipping and Delivery of Plant to site	45 days	Thu 25/11/21	Sat 08/01/22	73 days	797	809	
799	5.21.6.2	Chemical Dosing Pumps, EQT027	296 days	Sat 29/05/21	Sun 20/03/22	417 days			
800	5.21.6.2.1	Manufacturing and Factory Acceptance Test of Plant	180 days	Sat 29/05/21	Wed 24/11/21	71 days	791	801	
801	5.21.6.2.2	Shipping and Delivery of Plant to site	45 days	Fri 04/02/22	Sun 20/03/22	2 days	800,806FF-60 eda	809	
802	5.21.6.3	Chemical Transfer Pumps, EQT026	296 days	Sat 29/05/21	Sun 20/03/22	417 days			
803	5.21.6.3.1	Manufacturing and Factory Acceptance Test of Plant	180 days	Sat 29/05/21	Wed 24/11/21	71 days	791	804	
804	5.21.6.3.2	Shipping and Delivery of Plant to site	45 days	Fri 04/02/22	Sun 20/03/22	2 days	803,806FF-60 eda	809	
805	5.21.7	Site Installation Work	307 days	Tue 22/03/22	Mon 23/01/23	415 days			
806	5.21.7.1	Tentative Civil Handover Date, Portion B-7 & B-7B (Rev. 5)	1 day	Thu 19/05/22	Thu 19/05/22	0 days		804FF-60 edays,801	
807	5.21.7.2	Tentative Civil Handover Date, Chemical Pipe Trench (by others)	1 day	Sun 01/05/22	Sun 01/05/22	33 days		809FF+50 days	
808	5.21.7.3	Commencement of E&M Installation at Chemical Dosing System 1 and System 2	307 days	Tue 22/03/22	Mon 23/01/23	415 days			
809	5.21.7.3.1	Mechanical Installations for E&M Equip. for Chemical Dosing System	90 edays	Tue 22/03/22	Mon 20/06/22	0 edays	807FF+50 days,80	810	ME - D x 2^4 men
810	5.21.7.3.2	Electrical Installations for E&M Equip. for Chemical Dosing System	90 edays	Mon 20/06/22	Sun 18/09/22	0.63 edays	809,792,793,794	811,819	
811	5.21.7.3.3	Site Acceptance Test for E&M Equip for Chemical Dosing System	45 days	Mon 19/09/22	Wed 02/11/22	0 days	810	812	
812	5.21.7.3.4	System Commissioning for E&M Equip for Chemical Dosing System	45 days	Thu 03/11/22	Sat 17/12/22	0 days	811	813	



Baseline
Project: DE/2018/04
Date: Thu 25/03/21

Task | Milestone | Project Summary | Late | Critical Split | Manual Progress | Milestone (Actual)
Milestone, Tentative | Summary | Manual Summary | Critical | Progress | Slack (Float) | Slack

ID	IO	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Float Time	Predecessors	Successors	Resource Names
813	813	5.21.7.3.5	Risk Allowances for Completion of Processing Plant at Chemical Dosing System	7 edays	Sat 17/12/22	Sat 24/12/22	410.63 edays	812	1258	
814	814	5.21.7.3.6	Building Services Installations at Chemical Dosing System areas	249 days	Fri 20/05/22	Mon 23/01/23	419 days			
815	815	5.21.7.3.6.1	Lighting and Power Distribution System, Chem 1&2	120 days	Fri 20/05/22	Fri 16/09/22	9 days	806	820	BS - B x 4^6 men
816	816	5.21.7.3.6.2	Fire Services Installation, DG Stores	120 days	Fri 20/05/22	Fri 16/09/22	9 days	806	1194,1195,1185,82	FS - A x 4^6 men
817	817	5.21.7.3.6.3	Lightning Protection System, Chem 1&2	30 days	Fri 20/05/22	Sat 18/06/22	99 days	806	820	
818	818	5.21.7.3.6.4	Mechanical Ventilation System, Chem 2	14 days	Fri 20/05/22	Thu 02/06/22	115 days	806	820	MVAC - A x 4^6 men
819	819	5.21.7.3.6.5	Plumbing Installation, Chem 1	7 days	Mon 19/09/22	Sun 25/09/22	0 days	810	820	Pb - A x 4^6 men
820	820	5.21.7.3.6.6	Testing and Commissioning of Building Services Installations, Chem 1&2	120 days	Mon 26/09/22	Mon 23/01/23	434 days	815,816,819,818,8	774FF	BS - C x 2^4 men
821	821	5.22	Temporary Chemical Dosing System, Portion B7 & B-7B (PS 68.2.3)	1344 days	Tue 28/07/20	Mon 01/04/24	0 days			
822	822	5.22.1	Planned Key Date Completion Date - KD1B, Temp. Chem Dosing Sys	0 days	Tue 01/06/21	Tue 01/06/21	0 days	839FF,840FF		
823	823	5.22.2	Planned Sectional Completion Date - Section 1, Temp. Chem Dosing Sys	0 days	Mon 12/07/21	Mon 12/07/21	0 days	841FF		
824	824	5.22.3	Planned Sectional Completion Date - Section 2, Temp. Chem Dosing Sys	0 days	Mon 01/04/24	Mon 01/04/24	0 days			
825	825	5.22.4	Selection of Suppliers for major plant and materials for Temp. Chemical Dosing System	150 days	Thu 01/10/20	Sat 27/02/21	668 days			
826	826	5.22.4.1	Chemical Storage and Dosing - chemical storage tanks, C11, ref. EQT025	120 days	Thu 01/10/20	Thu 28/01/21	75 days			
827	827	5.22.4.1.1	Submission for acceptance of purchasing package	60 days	Thu 01/10/20	Sun 29/11/20	0 days		828	
828	828	5.22.4.1.2	Invitation of quotations for purchasing package	30 days	Mon 30/11/20	Tue 29/12/20	0 days	827	829	
829	829	5.22.4.1.3	Acceptance of conforming quotation	30 days	Wed 30/12/20	Thu 28/01/21	0 days	828	841,844	
830	830	5.22.4.2	Chemical Storage and Dosing - chemical dosing pumps, C11, ref. EQT027	150 days	Thu 01/10/20	Sat 27/02/21	668 days			
831	831	5.22.4.2.1	Submission for acceptance of purchasing package	60 days	Thu 01/10/20	Sun 29/11/20	0 days		832	
832	832	5.22.4.2.2	Invitation of quotations for purchasing package	60 days	Mon 30/11/20	Thu 28/01/21	0 days	831	833	
833	833	5.22.4.2.3	Acceptance of conforming quotation	30 days	Fri 29/01/21	Sat 27/02/21	0 days	832	847	
834	834	5.22.4.3	Chemical Storage and Dosing - transfer pumps, C11, ref. EQT026	120 days	Thu 01/10/20	Thu 28/01/21	698 days			
835	835	5.22.4.3.1	Submission for acceptance of purchasing package	60 days	Thu 01/10/20	Sun 29/11/20	0 days		836	
836	836	5.22.4.3.2	Invitation of quotations for purchasing package	30 days	Mon 30/11/20	Tue 29/12/20	0 days	835	837	
837	837	5.22.4.3.3	Acceptance of conforming quotation	30 days	Wed 30/12/20	Thu 28/01/21	0 days	836	850	
838	838	5.22.5	Design Submissions for Temporary Chemical Dosing System	275 days	Tue 28/07/20	Wed 28/04/21	75 days			
839	839	5.22.5.1	Electrical schematic drawings for Temporary Chemical Dosing System	60 days	Tue 28/07/20	Fri 25/09/20	249 days		822FF	
840	840	5.22.5.2	CDS081-6 - Civil and dimensional requirements drawings for Temporary Chemical Dosing S	70 days	Fri 28/08/20	Thu 05/11/20	208 days		822FF	
841	841	5.22.5.3	CDS029 - Detailed Design for Electrical Installations for Temporary Chemical System	90 edays	Thu 28/01/21	Wed 28/04/21	75 edays	829	857,823FF	
842	842	5.22.6	Manufacturing and Delivery of Plant & Materials	416 days	Fri 29/01/21	Sun 20/03/22	507 days			
843	843	5.22.6.1	Chemical Storage Tanks, EQT025	416 days	Fri 29/01/21	Sun 20/03/22	507 days			
844	844	5.22.6.1.1	Manufacturing and Factory Acceptance Test of Plant	180 days	Fri 29/01/21	Tue 27/07/21	191 days	829	845	
845	845	5.22.6.1.2	Shipping and Delivery of Plant to site	45 days	Fri 04/02/22	Sun 20/03/22	20 days	844,853FF-60 eday	856	
846	846	5.22.6.2	Chemical Dosing Pumps, EQT027	386 days	Sun 28/02/21	Sun 20/03/22	507 days			
847	847	5.22.6.2.1	Manufacturing and Factory Acceptance Test of Plant	180 days	Sun 28/02/21	Thu 26/08/21	161 days	833	848	
848	848	5.22.6.2.2	Shipping and Delivery of Plant to site	45 days	Fri 04/02/22	Sun 20/03/22	20 days	847,853FF-60 eday	856	
849	849	5.22.6.3	Chemical Transfer Pumps, EQT026	416 days	Fri 29/01/21	Sun 20/03/22	507 days			
850	850	5.22.6.3.1	Manufacturing and Factory Acceptance Test of Plant	180 days	Fri 29/01/21	Tue 27/07/21	191 days	837	851	
851	851	5.22.6.3.2	Shipping and Delivery of Plant to site	45 days	Fri 04/02/22	Sun 20/03/22	20 days	850,853FF-60 eday	856	
852	852	5.22.7	Site Installation Work	361 days	Sat 09/04/22	Wed 05/04/23	313 days			
853	853	5.22.7.1	Tentative Civil Handover Date, Temporary Chemical Dosing (Rev. 5)	1 day	Thu 19/05/22	Thu 19/05/22	0 days		845FF-60 edays,84	
854	854	5.22.7.2	Tentative Civil Handover Date, Chemical Pipe Trench (by others)	1 day	Sun 01/05/22	Sun 01/05/22	51 days		856FF+50 days	
855	855	5.22.7.3	Commencement of E&M Installation at Temporary Chemical Dosing System	361 days	Sat 09/04/22	Wed 05/04/23	313 days			
856	856	5.22.7.3.1	Mechanical Installations for E&M Equip. for Chemical Dosing System	90 edays	Sat 09/04/22	Fri 08/07/22	0 edays	854FF+50 days,12	857SS+30 edays,85	ME - D x 2^4 men
857	857	5.22.7.3.2	Electrical Installations for E&M Equip. for Chemical Dosing System	90 edays	Mon 09/05/22	Sun 07/08/22	0 edays	856SS+30 edays,8	858	
858	858	5.22.7.3.3	Site Acceptance Test for E&M Equip for Chemical Dosing System	30 edays	Sun 07/08/22	Tue 06/09/22	174 edays	856,857	859	
859	859	5.22.7.3.4	System Commissioning for E&M Equip for Chemical Dosing System	30 edays	Mon 27/02/23	Wed 29/03/23	0 edays	858,866FF	860	
860	860	5.22.7.3.5	Risk Allowances for Completion of Processing Plant at Chemical Dosing System	7 edays	Wed 29/03/23	Wed 05/04/23	308.63 edays	859	1258	
861	861	5.22.7.3.6	Building Services Installations at Temp. Chemical Dosing System areas	314 days	Fri 20/05/22	Wed 29/03/23	313 days			
862	862	5.22.7.3.6.1	Lighting and Power Distribution System, Temp. Chem	90 days	Fri 20/05/22	Wed 17/08/22	0 days	853	866,863	BS - A x 4^6 men
863	863	5.22.7.3.6.2	Fire Services Installation, DG Stores, Temp. Chem	90 days	Thu 18/08/22	Tue 15/11/22	0 days	862	1194,1195,866,864	FS - A x 4^6 men
864	864	5.22.7.3.6.3	Lightning Protection System, Temp. Chem	30 days	Wed 16/11/22	Thu 15/12/22	0 days	863	865	
865	865	5.22.7.3.6.4	Mechanical Ventilation System, Temp. Chem	14 days	Fri 16/12/22	Thu 29/12/22	0 days	864	866	MVAC - A x 4^6 men
866	866	5.22.7.3.6.5	Testing and Commissioning of Building Services Installations, Temp. Chem	90 days	Fri 30/12/22	Wed 29/03/23	0 days	862,863,865	859FF	BS - C x 2^4 men
867	867	5.23	Emergency Generator House, Portion B7 & B-7B (PS 68.6.6)	1279 days	Thu 01/10/20	Mon 01/04/24	0 days			
868	868	5.23.1	Planned Key Date Completion Date - KD1B, Emergency Generator House	0 days	Tue 01/06/21	Tue 01/06/21	0 days	872FF		
869	869	5.23.2	Planned Sectional Completion Date - Section 1, Emergency Generator House	0 days	Mon 12/07/21	Mon 12/07/21	0 days	873FF,874FF		
870	870	5.23.3	Planned Sectional Completion Date - Section 2, Emergency Generator House	0 days	Mon 01/04/24	Mon 01/04/24	0 days	887FF		



Baseline
Project: DE/2018/04
Date: Thu 25/03/21

Task | Milestone | Project Summary | Late | Critical Split | Manual Progress | Milestone (Actual)
Milestone, Tentative | Summary | Manual Summary | Critical | Progress | Slack (Float) | Slack

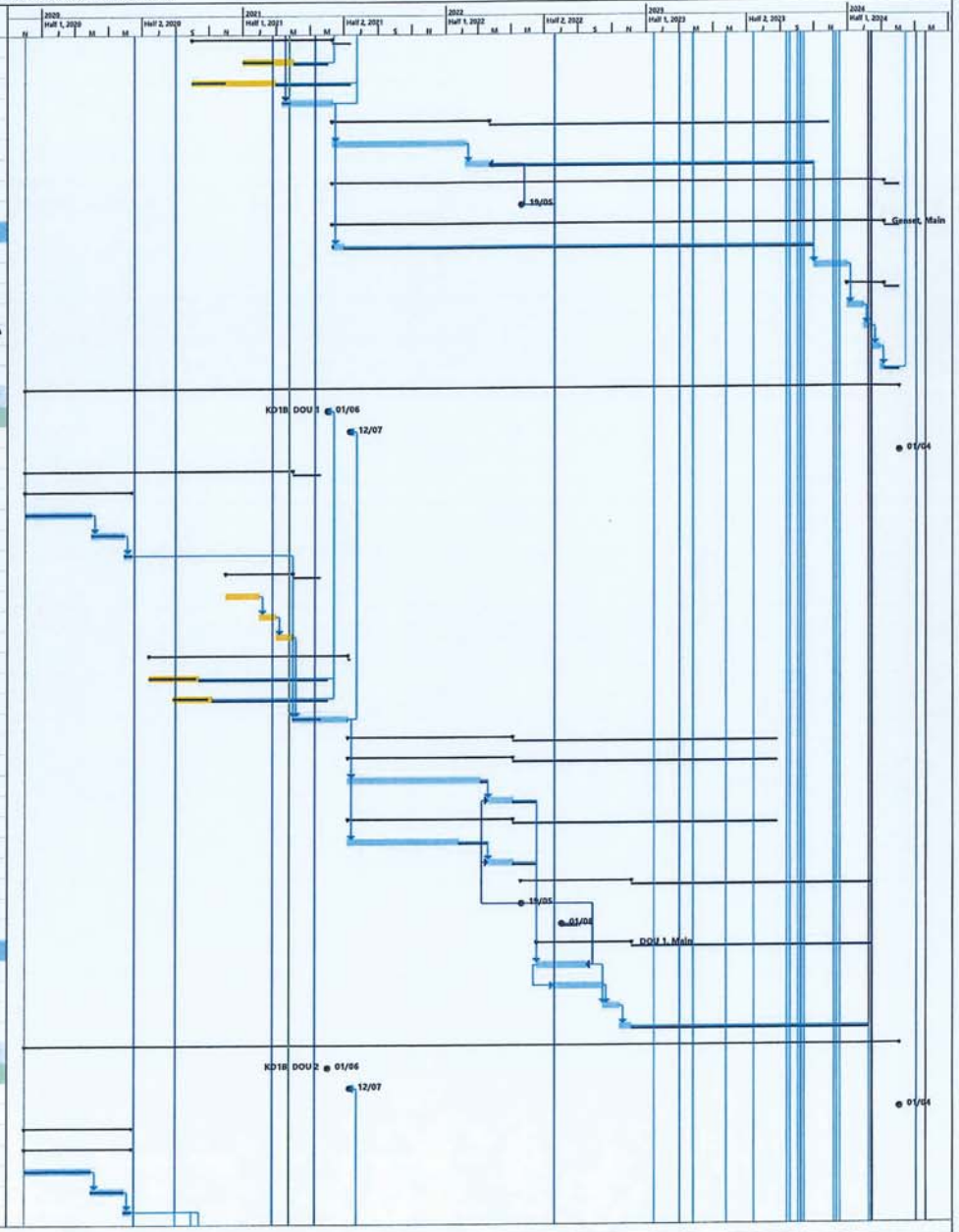
Status Date Sat 20/03/21

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

AECOM

ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Float Time	Predecessors	Successors	Resource Names
871	871	5.23.4	Design Submissions for Emergency Generator Set	252 days	Thu 01/10/20	Thu 10/06/21	33 days			
872	872	5.23.4.1	CDS081-10 - Civil and dimensional requirements drawings for Emergency Generator House	90 days	Fri 01/01/21	Wed 31/03/21	62 days		868FF	
873	873	5.23.4.2	CDS061 - Detailed Design for Emergency Generator Set	150 edays	Thu 01/10/20	Sun 28/02/21	134.38 edays		869FF	
874	874	5.23.4.3	CDS034-6 - Detailed Design for Electrical Installations BS at Emergency Generator House, F	90 edays	Fri 12/03/21	Thu 10/06/21	0 edays	133	876,881,869FF	
875	875	5.23.5	Manufacturing and Delivery of Plant & Materials	285 days	Thu 10/06/21	Mon 21/03/22	616 days			
876	876	5.23.5.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Thu 10/06/21	Fri 04/02/22	0 days	874	877	
877	877	5.23.5.2	Shipping and Delivery of Plant to Site	45 days	Sat 05/02/22	Mon 21/03/22	589 days	876,879FF-60 edays	882	
878	878	5.23.6	Site Installation Work	1000 days	Thu 10/06/21	Tue 05/03/24	27 days			
879	879	5.23.6.1	Tentative Civil Handover Date, Emergency Generator House (Rev. 5)	1 day	Thu 19/05/22	Thu 19/05/22	1 day		856FF+50 days,877I	
880	880	5.23.6.2	Commencement of E&M Installation at Emergency Generator House	1000 days	Thu 10/06/21	Tue 05/03/24	27 days			
881	881	5.23.6.2.1	Application for EPD's Approval for Installation of Diesel Engine Generator	21 days	Thu 10/06/21	Wed 30/06/21	853 days	874	882	
882	882	5.23.6.2.2	Installation and SAT of Emergency Power Generator and associated work, GH	60 days	Wed 01/11/23	Sat 30/12/23	0 days	881,877	884	GS - A x 4 men
883	883	5.23.6.2.3	Building Services Installation at Emergency Generator House	66 days	Sun 31/12/23	Tue 05/03/24	27 days			
884	884	5.23.6.2.3.1	Fire Services Installation, GH	30 days	Sun 31/12/23	Mon 29/01/24	0 days	882	885	FS - A x 4~6 men
885	885	5.23.6.2.3.2	Mechanical Ventilation System, GH	14 days	Tue 30/01/24	Mon 12/02/24	0 days	884	886	MVAC - A x 4~6 men
886	886	5.23.6.2.3.3	Lightning Protection System, GH	15 days	Tue 13/02/24	Tue 27/02/24	0 days	885	887	
887	887	5.23.6.2.3.4	Testing and Commissioning of Building Services Installation, GH	7 days	Wed 28/02/24	Tue 05/03/24	27 days	886	870FF	BS - A x 4~6 men
888	888	5.24	Deodorization System, DOU 1, Portion B7 & B-7B (PS 6B.2.6)	1583 days	Mon 02/12/19	Mon 01/04/24	0 days			
889	889	5.24.1	Planned Key Date Completion Date - KD1B, DOU 1	0 days	Tue 01/06/21	Tue 01/06/21	0 days	902FF,903FF		
890	890	5.24.2	Planned Sectional Completion Date - Section 1, DOU 1	0 days	Mon 12/07/21	Mon 12/07/21	0 days	904FF		
891	891	5.24.3	Planned Sectional Completion Date - Section 2, DOU 1	0 days	Mon 01/04/24	Mon 01/04/24	0 days			
892	892	5.24.4	Selection of Plant and Materials	485 days	Mon 02/12/19	Tue 30/03/21	50 days			
893	893	5.24.4.1	DOU - biotrickling filter (DOU No. 1), C11, ref. EQT001	194 days	Mon 02/12/19	Fri 12/06/20	0 days			
894	894	5.24.4.1.1	Submission for acceptance of purchasing package	120 days	Mon 02/12/19	Mon 30/03/20	0 days		895	
895	895	5.24.4.1.2	Invitation of quotations for purchasing package	60 days	Tue 31/03/20	Fri 29/05/20	0 days	894	896	
896	896	5.24.4.1.3	Acceptance of conforming quotation (Completed)	14 days	Sat 30/05/20	Fri 12/06/20	0 days	895	904	
897	897	5.24.4.2	DOU - FRP air ductwork, C11, EQT047	120 days	Tue 01/12/20	Tue 30/03/21	50 days			
898	898	5.24.4.2.1	Submission for acceptance of purchasing package	60 days	Tue 01/12/20	Fri 29/01/21	0 days		899	
899	899	5.24.4.2.2	Invitation of quotations for purchasing package	30 days	Sat 30/01/21	Sun 28/02/21	0 days	898	900	
900	900	5.24.4.2.3	Acceptance of conforming quotation	30 days	Mon 01/03/21	Tue 30/03/21	0 days	899	904	
901	901	5.24.5	Design Submissions for DOU No. 1	359 days	Wed 15/07/20	Thu 08/07/21	4 days			
902	902	5.24.5.1	Electrical schematic drawings for Deodorisation Systems	90 days	Wed 15/07/20	Mon 12/10/20	232 days		889FF	
903	903	5.24.5.2	CDS081-7 - Civil and dimensional requirements drawings for DOU No. 1	70 days	Fri 28/08/20	Thu 05/11/20	208 days		889FF	
904	904	5.24.5.3	CDS007-1 - Detailed Design for Deodorisation System, DOU No. 1	100 edays	Tue 30/03/21	Thu 08/07/21	0.63 edays	896,900	907,910,890FF	
905	905	5.24.6	Manufacturing and Delivery of Plant & Materials	299 days	Fri 09/07/21	Tue 03/05/22	479 days			
906	906	5.24.6.1	DOU 1	299 days	Fri 09/07/21	Tue 03/05/22	479 days			
907	907	5.24.6.1.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Fri 09/07/21	Sat 05/03/22	14 days	904	908	
908	908	5.24.6.1.2	Shipping and Delivery of Plant to site	45 days	Sun 20/03/22	Tue 03/05/22	45 days	907,913SS-60 edays	916	
909	909	5.24.6.2	FRP Air Ductwork	299 days	Fri 09/07/21	Tue 03/05/22	479 days			
910	910	5.24.6.2.1	Manufacturing and Factory Acceptance Test of Plant	200 days	Fri 09/07/21	Mon 24/01/22	54 days	904	911	
911	911	5.24.6.2.2	Shipping and Delivery of Plant to Site	45 days	Sun 20/03/22	Tue 03/05/22	45 days	910,913SS-60 edays	916	
912	912	5.24.7	Site Installation Work	201 days	Thu 19/05/22	Mon 05/12/22	434 days			
913	913	5.24.7.1	Tentative Civil Handover, DOU 1 (Rev. 5)	1 day	Thu 19/05/22	Thu 19/05/22	0 days		916FF+45 days,908I	
914	914	5.24.7.2	Tentative Civil Handover Date, underground air pipework for DOU 1 (by others)	1 day	Mon 01/08/22	Mon 01/08/22	30 days		916FF+45 days	
915	915	5.24.7.3	Commencement of E&M Installation at DOU 1	171 days	Fri 17/06/22	Mon 05/12/22	434 days			
916	916	5.24.7.3.1	Mechanical Installations for DOU 1	90 edays	Fri 17/06/22	Thu 15/09/22	0 edays	914FF+45 days,913	917SS+30 edays,911ME - F x 4~6 men	
917	917	5.24.7.3.2	Electrical Installations for DOU 1	90 edays	Sun 17/07/22	Sat 15/10/22	0 edays	916SS+30 edays	918	
918	918	5.24.7.3.3	Site Acceptance Test for DOU1	30 edays	Sat 15/10/22	Mon 14/11/22	0 edays	916,917	919	
919	919	5.24.7.3.4	System Commissioning for DOU 1	21 edays	Mon 14/11/22	Mon 05/12/22	429.63 edays	918	1258	
920	920	5.25	Deodorization System, DOU 2A, Portion B-4 (PS 6B.2.6)	1583 days	Mon 02/12/19	Mon 01/04/24	0 days			
921	921	5.25.1	Planned Key Date Completion Date - KD1B, DOU 2A	0 days	Tue 01/06/21	Tue 01/06/21	0 days			
922	922	5.25.2	Planned Sectional Completion Date - Section 1, DOU 2A	0 days	Mon 12/07/21	Mon 12/07/21	0 days	930FF		
923	923	5.25.3	Planned Sectional Completion Date - Section 2, DOU 2A	0 days	Mon 01/04/24	Mon 01/04/24	0 days			
924	924	5.25.4	Selection of Plant and Materials	194 days	Mon 02/12/19	Fri 12/06/20	0 days			
925	925	5.25.4.1	DOU - activated carbon filter (DOU No. 2A, No. 3A, No. 3B), C11, ref. EQT028	194 days	Mon 02/12/19	Fri 12/06/20	0 days			
926	926	5.25.4.1.1	Submission for acceptance of purchasing package	120 days	Mon 02/12/19	Mon 30/03/20	0 days		927	
927	927	5.25.4.1.2	Invitation of quotations for purchasing package	60 days	Tue 31/03/20	Fri 29/05/20	0 days	926	928	
928	928	5.25.4.1.3	Acceptance of conforming quotation (Completed)	14 days	Sat 30/05/20	Fri 12/06/20	0 days	927	930,951,972	



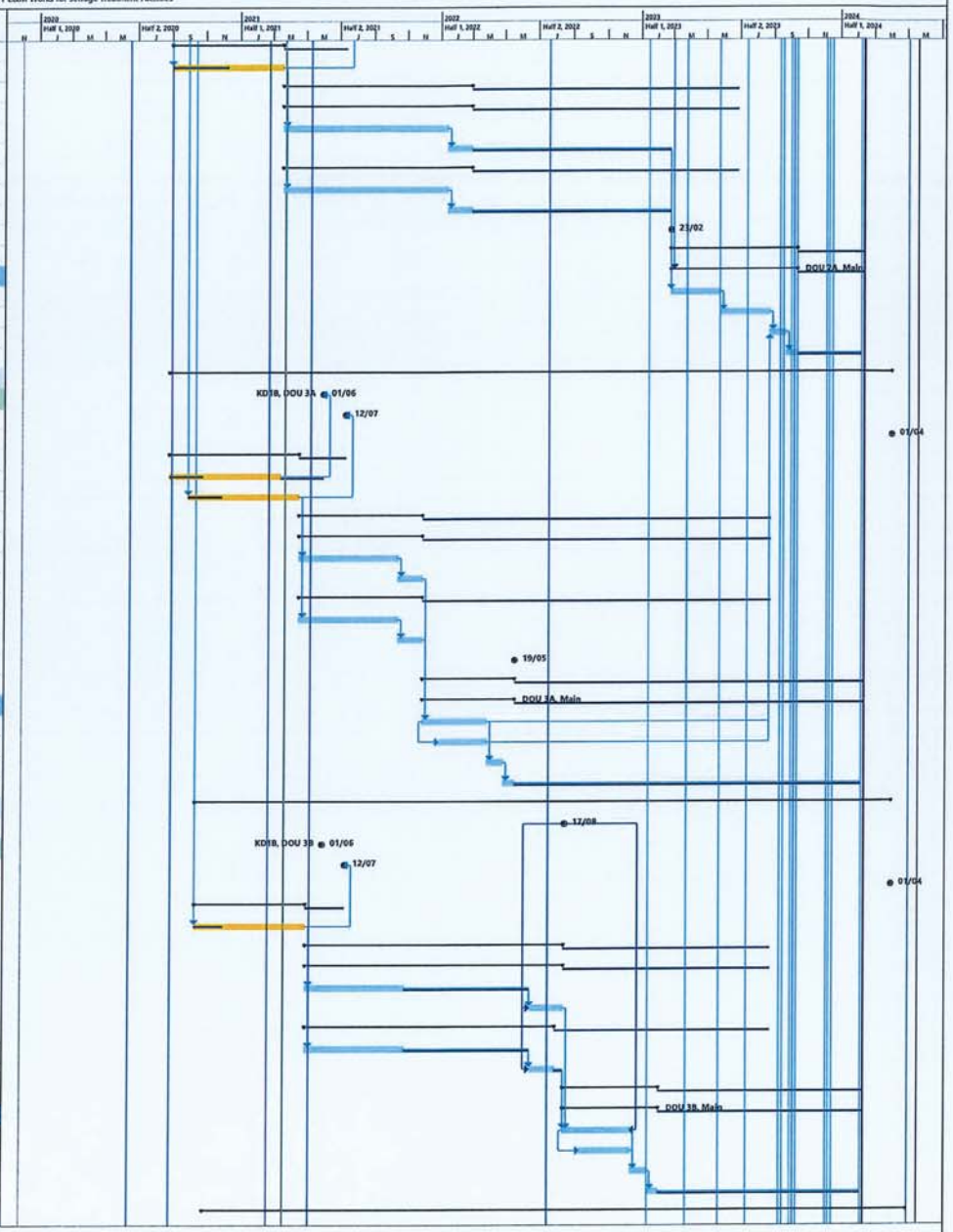
Baseline
Project: DE/2018/04
Date: Thu 25/03/21

Task | Milestone | Project Summary | Late | Critical Split | Manual Progress | Milestone (Actual)
Milestone, Tentative | Summary | Manual Summary | Critical | Progress | Slack (Float) | Slack

Status Date Sat 20/03/21

DE_2018_04 Revised PG- (Rev 8, 2021-03)

ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Float Time	Predecessors	Successors	Resource Names
929	929	5.25.5	Design Submissions for DOU No. 2A	200 days	Tue 01/09/20	Sat 20/03/21	115 days			
930	930	5.25.5.1	CDS007-2 - Detailed Design for Deodorisation System, DOU No. 2A	200 edays	Tue 01/09/20	Sat 20/03/21	0 edays	928	933,936,922FF	
931	931	5.25.6	Manufacturing and Delivery of Plant & Materials	345 days	Sat 20/03/21	Sun 27/02/22	484 days			
932	932	5.25.6.1	DOU 2A	345 days	Sat 20/03/21	Sun 27/02/22	484 days			
933	933	5.25.6.1.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Sat 20/03/21	Thu 13/01/22	0 days	930	934	
934	934	5.25.6.1.2	Shipping and Delivery of Plant to site	45 days	Fri 14/01/22	Sun 27/02/22	361 days	933	941	
935	935	5.25.6.2	FRP Air Ductwork	345 days	Sat 20/03/21	Sun 27/02/22	484 days			
936	936	5.25.6.2.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Sat 20/03/21	Thu 13/01/22	0 days	930	937	
937	937	5.25.6.2.2	Shipping and Delivery of Plant to site	45 days	Fri 14/01/22	Sun 27/02/22	361 days	936	941	
938	938	5.25.7	Tentative Civil Handover, DOU 2A (Rev. 5)	1 day	Thu 23/02/23	Thu 23/02/23	0 days			
939	939	5.25.8	Site Installation Work	231 days	Thu 23/02/23	Thu 12/10/23	123 days			
940	940	5.25.8.1	Commencement of E&M Installation at DOU 2A	231 days	Thu 23/02/23	Thu 12/10/23	123 days	560		
941	941	5.25.8.1.1	Mechanical Installations for DOU 2A	90 edays	Thu 23/02/23	Wed 24/05/23	0 edays	934,937	942	ME - F x 4~6 men
942	942	5.25.8.1.2	Electrical Installations for DOU 2A	90 edays	Wed 24/05/23	Tue 22/08/23	0 edays	941	943	
943	943	5.25.8.1.3	Site Acceptance Test for E&M Equip for DOU 2A	30 edays	Tue 22/08/23	Thu 21/09/23	0 edays	962,963,942	944	
944	944	5.25.8.1.4	System Commissioning Test for DOU 2A	21 edays	Thu 21/09/23	Thu 12/10/23	118.63 edays	943	1258	
945	945	5.26	Deodorisation System, DOU 3A, Portion B7 & B-7B (PS 6B.2.6)	1313 days	Fri 28/08/20	Mon 01/04/24	0 days			
946	946	5.26.1	Planned Key Date Completion Date - KD1B, DOU 3A	0 days	Tue 01/06/21	Tue 01/06/21	0 days	950FF		
947	947	5.26.2	Planned Sectional Completion Date - Section 1, DOU 3A	0 days	Mon 12/07/21	Mon 12/07/21	0 days	951FF		
948	948	5.26.3	Planned Sectional Completion Date - Section 2, DOU 3A	0 days	Mon 01/04/24	Mon 01/04/24	0 days			
949	949	5.26.4	Design Submissions for DOU No. 3A	234 days	Fri 28/08/20	Mon 19/04/21	85 days			
950	950	5.26.4.1	CDS081-8 - Civil and dimensional requirements drawings for DOU No. 3A	200 days	Fri 28/08/20	Mon 15/03/21	78 days		946FF	
951	951	5.26.4.2	CDS007-3 - Detailed Design for Deodorisation System, DOU No. 3A	200 edays	Thu 01/10/20	Mon 19/04/21	0 edays	928	954,957,947FF	
952	952	5.26.5	Manufacturing and Delivery of Plant & Materials	225 days	Mon 19/04/21	Tue 30/11/21	634 days			
953	953	5.26.5.1	DOU 3A	225 days	Mon 19/04/21	Tue 30/11/21	634 days			
954	954	5.26.5.1.1	Manufacturing and Factory Acceptance Test of Plant	180 edays	Mon 19/04/21	Sat 16/10/21	0 edays	951	955	
955	955	5.26.5.1.2	Shipping and Delivery of Plant to Site	45 edays	Sat 16/10/21	Tue 30/11/21	0 edays	954	962	
956	956	5.26.5.2	FRP Air Ductwork	225 days	Mon 19/04/21	Tue 30/11/21	634 days			
957	957	5.26.5.2.1	Manufacturing and Factory Acceptance Test of Plant	180 edays	Mon 19/04/21	Sat 16/10/21	0 edays	951	958	
958	958	5.26.5.2.2	Shipping and Delivery of Plant to Site	45 edays	Sat 16/10/21	Tue 30/11/21	0 edays	957	962	
959	959	5.26.6	Tentative Civil Handover, DOU 3A (Rev. 5)	1 day	Thu 19/05/22	Thu 19/05/22	0 days			
960	960	5.26.7	Site Installation Work	171 days	Tue 30/11/21	Fri 20/05/22	634 days			
961	961	5.26.7.1	Commencement of E&M Installation at DOU 3A	171 days	Tue 30/11/21	Fri 20/05/22	634 days			
962	962	5.26.7.1.1	Mechanical Installations for DOU 3A	120 edays	Tue 30/11/21	Wed 30/03/22	0 edays	958,955	963SS+30 edays,96	ME - F x 4~6 men
963	963	5.26.7.1.2	Electrical Installations for DOU 3A	90 edays	Thu 30/12/21	Wed 30/03/22	0 edays	962SS+30 edays	964,943	
964	964	5.26.7.1.3	Site Acceptance Test for E&M Equip for DOU 3A	30 edays	Wed 30/03/22	Fri 29/04/22	0 edays	962,963	965	
965	965	5.26.7.1.4	System Commissioning Test for DOU 3A	21 edays	Fri 29/04/22	Fri 20/05/22	629 edays	964	1258	
966	966	5.27	Deodorization System, DOU 3B, Portion B-5B (PS 6B.2.6)	1265 days	Thu 15/10/20	Mon 01/04/24	0 days			
967	967	5.27.1	Tentative Civil Handover Date, underground air pipework for DOU 3B (by others) (Rev. 5)	1 day	Wed 17/08/22	Wed 17/08/22	0 days		982FF+30 days,976	
968	968	5.27.2	Planned Key Date Completion Date - KD1B, DOU 3B	0 days	Tue 01/06/21	Tue 01/06/21	0 days			
969	969	5.27.3	Planned Sectional Completion Date - Section 1, DOU 3B	0 days	Mon 12/07/21	Mon 12/07/21	0 days	972FF		
970	970	5.27.4	Planned Sectional Completion Date - Section 2, DOU 3B	0 days	Mon 01/04/24	Mon 01/04/24	0 days			
971	971	5.27.5	Design Submissions for DOU No. 3B	200 days	Thu 15/10/20	Mon 03/05/21	71 days			
972	972	5.27.5.1	CDS007-4 - Detailed Design for Deodorisation System, DOU No. 3B	200 edays	Thu 15/10/20	Mon 03/05/21	0 edays	928	975,978,969FF	
973	973	5.27.6	Manufacturing and Delivery of Plant & Materials	471 days	Mon 03/05/21	Wed 17/08/22	374 days			
974	974	5.27.6.1	DOU 3B	471 days	Mon 03/05/21	Wed 17/08/22	374 days			
975	975	5.27.6.1.1	Manufacturing and Factory Acceptance Test of Plant	180 edays	Mon 03/05/21	Sat 30/10/21	231 edays	972	976	
976	976	5.27.6.1.2	Shipping and Delivery of Plant to Site	60 edays	Sat 18/06/22	Wed 17/08/22	0 edays	975,967SS-60 eda	982	
977	977	5.27.6.2	FRP Air Ductwork	456 days	Mon 03/05/21	Tue 02/08/22	389 days			
978	978	5.27.6.2.1	Manufacturing and Factory Acceptance Test of Plant	180 edays	Mon 03/05/21	Sat 30/10/21	231 edays	972	979	
979	979	5.27.6.2.2	Shipping and Delivery of Plant to Site	45 edays	Sat 18/06/22	Tue 02/08/22	15 edays	978,967SS-60 eda	982	
980	980	5.27.7	Site Installation Work	171 days	Wed 17/08/22	Sat 04/02/23	374 days			
981	981	5.27.7.1	Commencement of E&M Installation at DOU 3B	171 days	Wed 17/08/22	Sat 04/02/23	374 days			
982	982	5.27.7.1.1	Mechanical Installations for DOU 3B	120 edays	Wed 17/08/22	Thu 15/12/22	0 edays	967FF+30 days,97	983SS+30 edays,98	ME - F x 4~6 men
983	983	5.27.7.1.2	Electrical Installations for DOU 3B	90 edays	Fri 16/09/22	Thu 15/12/22	0 edays	982SS+30 edays	984	
984	984	5.27.7.1.3	Site Acceptance Test for E&M Equip for DOU 3B	30 edays	Thu 15/12/22	Sat 14/01/23	0 edays	982,983	985	
985	985	5.27.7.1.4	System Commissioning Test for DOU 3B	21 edays	Sat 14/01/23	Sat 04/02/23	369 edays	984	1258	
986	986	5.28	Flowmeter and Valve Chambers, Portion B7 & B-7B (PS 6B.2.13)	1278 days	Sun 01/11/20	Wed 01/05/24	0 days			



Baseline
Project: DE/2018/04
Date: Thu 25/03/21

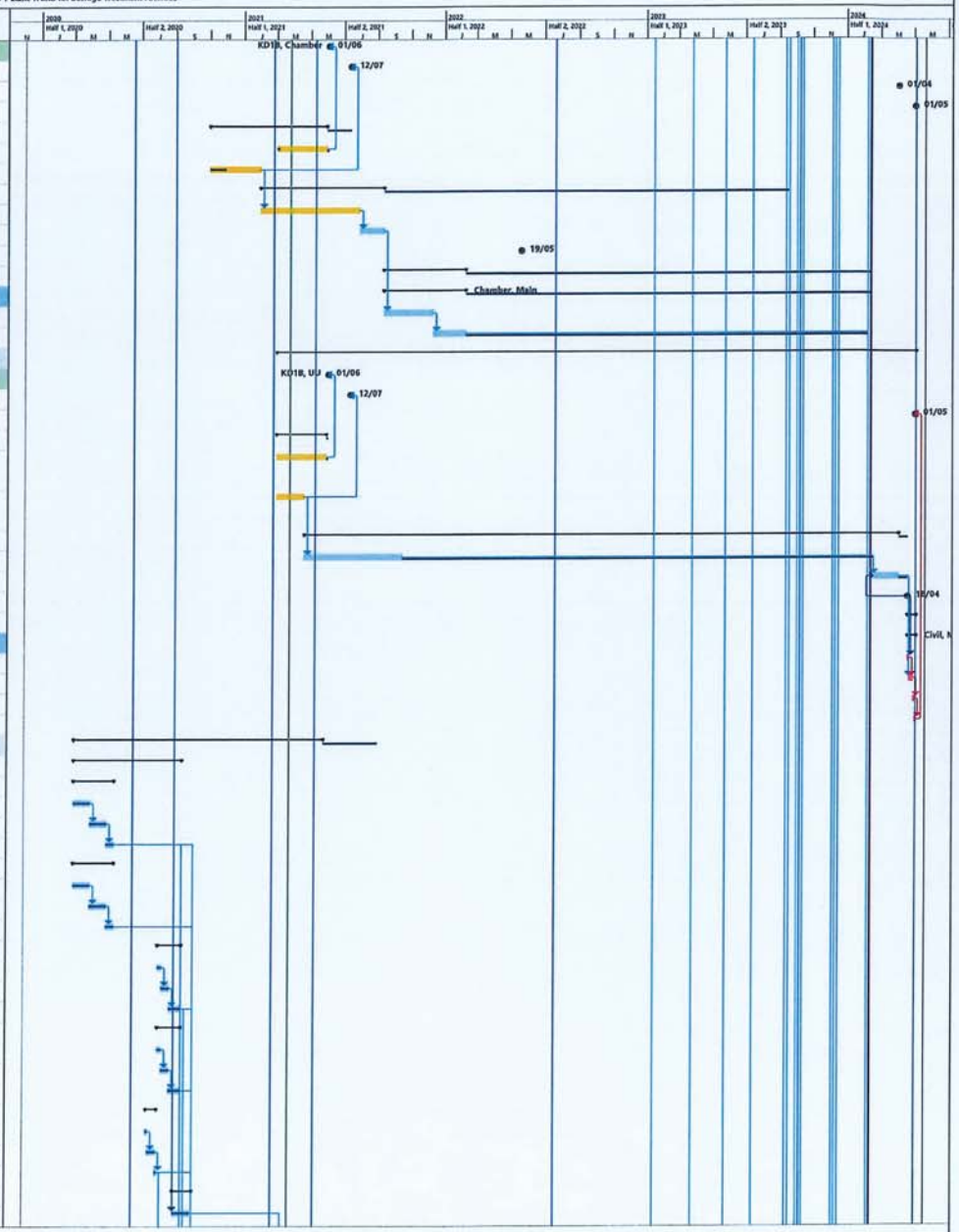
Task | Milestone | Project Summary | Late | Critical Split | Manual Progress | Milestone (Actual)
Milestone, Tentative | Summary | Manual Summary | Critical | Progress | Slack (float) | Slack

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

AECOM

ID		WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Float Time	Predecessors	Successors	Resource Names
987	987	5.28.1	Planned Key Date Completion Date - KD1B, Chambers	0 days	Tue 01/06/21	Tue 01/06/21	0 days	992FF		
988	988	5.28.2	Planned Sectional Completion Date - Section 1, Chambers	0 days	Mon 12/07/21	Mon 12/07/21	0 days	993FF		
989	989	5.28.3	Planned Sectional Completion Date - Section 2, Chambers	0 days	Mon 01/04/24	Mon 01/04/24	0 days			
990	990	5.28.4	Planned Sectional Completion Date - Section 4, Chambers	0 days	Wed 01/05/24	Wed 01/05/24	0 days			
991	991	5.28.5	Design Submissions for Valve and Flowmeter Chambers	210 days	Sun 01/11/20	Sat 29/05/21	44 days			
992	992	5.28.5.1	CDS081-9 - Civil and dimensional requirements drawings for Valve and Flowmeter Chambe	90 days	Mon 01/03/21	Sat 29/05/21	3 days		987FF	
993	993	5.28.5.2	CDS018 - Detailed Design for Flowmeter and Valve Chambers	90 edays	Sun 01/11/20	Sat 30/01/21	0 edays		995,988FF	
994	994	5.28.6	Manufacturing and Delivery of Plant & Materials	225 days	Sat 30/01/21	Sat 11/09/21	734 days			
995	995	5.28.6.1	Manufacturing and Factory Acceptance Test of Plant	180 days	Sat 30/01/21	Wed 28/07/21	0 days	993	996	
996	996	5.28.6.2	Shipping and Delivery of Plant to Site	45 days	Thu 29/07/21	Sat 11/09/21	0 days	995	1000	
997	997	5.28.7	Tentative Civil Handover, Chambers (Rev. 5)	1 day	Thu 19/05/22	Thu 19/05/22	0 days			
998	998	5.28.8	Site Installation Work	150 days	Sun 12/09/21	Tue 08/02/22	734 days			
999	999	5.28.8.1	Commencement of Valves and Flowmeters Installation at Chambers	150 days	Sun 12/09/21	Tue 08/02/22	734 days			
1000	1000	5.28.8.1.1	Installation of valves and flowmeters	90 days	Sun 12/09/21	Fri 10/12/21	0 days	996	1001	ME - C x 4~6 men
1001	1001	5.28.8.1.2	cables laying and terminations	60 days	Sat 11/12/21	Tue 08/02/22	729 days	1000	1258	EE - A x 4~6 men
1002	1002	5.29	Underground Pipework, Modification and Connection Works, Portion B-9B (PS 6B.2.22)	1161 days	Mon 01/03/21	Sat 04/05/24	0 days			
1003	1003	5.29.1	Planned Key Date Completion Date - KD1B, UU	0 days	Tue 01/06/21	Tue 01/06/21	0 days	1007FF		
1004	1004	5.29.2	Planned Sectional Completion Date - Section 1, Underground Pipework	0 days	Mon 12/07/21	Mon 12/07/21	0 days	1008FF		
1005	1005	5.29.3	Planned Sectional Completion Date - Section 4, Underground Pipework	0 days	Wed 01/05/24	Wed 01/05/24	0 days	1018FF		
1006	1006	5.29.4	Design Submissions	90 days	Mon 01/03/21	Sun 30/05/21	3 days			
1007	1007	5.29.4.1	CDS015 - Detailed Design for Underground Pipework Modification and Connection with the existing Bioreactor 1, 3 & 4 (Rev. 8)	90 edays	Mon 01/03/21	Sun 30/05/21	2.38 edays		1003FF	
1008	1008	5.29.4.2	CDS016 - Detailed Design for Temporary Pumping System for maintaining the existing bioreactors 1, 3 and 4 operation (Rev. 8)	50 edays	Mon 01/03/21	Tue 20/04/21	0 edays		1010,1004FF	
1009	1009	5.29.5	Manufacturing and Delivery of Plant & Materials	1079 days	Tue 20/04/21	Tue 02/04/24	16 days			
1010	1010	5.29.5.1	Manufacturing and Factory Acceptance Test of Plant	180 days	Tue 20/04/21	Sat 16/10/21	854 days	1008	1011	
1011	1011	5.29.5.2	Shipping and Delivery of Plant to Site	45 days	Sun 18/02/24	Tue 02/04/24	16 days	1010,1012SS-60 e	1016	
1012	1012	5.29.6	Tentative Civil Handover, Road (Rev. 5)	1 day	Thu 18/04/24	Thu 18/04/24	0 days		1011SS-60 edays,1C	
1013	1013	5.29.7	Site Installation	16 days	Fri 19/04/24	Sat 04/05/24	0 days			
1014	1014	5.29.7.1	Commencement of underground pipework modification and connection works	16 days	Fri 19/04/24	Sat 04/05/24	0 days			
1015	1015	5.29.7.1.1	Temporary Flow Diversion and Road Excavation Work	3 days	Fri 19/04/24	Sun 21/04/24	0 days	1012	1016	
1016	1016	5.29.7.1.2	Pipe Laying and connection works	7 days	Mon 22/04/24	Sun 28/04/24	0 days	1015,1011	1017	
1017	1017	5.29.7.1.3	Pressure Tests	3 days	Mon 29/04/24	Wed 01/05/24	0 days	1016	1018	
1018	1018	5.29.7.1.4	Make Good	3 days	Thu 02/05/24	Sat 04/05/24	0 days	1017	1005FF	
1019	1019	5.30	Temporary Filtrate Lifting Well and Eq. Tank, Portion B-3B (PS 6B.2.16)	450 days	Mon 02/03/20	Tue 25/05/21	99 days			
1020	1020	5.30.1	Selection of Suppliers for major plant and materials and Civil Subcontractor for Temporary	196 days	Mon 02/03/20	Sun 13/09/20	0 days			
1021	1021	5.30.1.1	Mis - filtrate lift pumps and filtrate transfer pumps, C11, ref. EQT011	73 days	Mon 02/03/20	Wed 13/05/20	0 days			
1022	1022	5.30.1.1.1	Submission for acceptance of purchasing package	29 days	Mon 02/03/20	Mon 30/03/20	0 days		1023	
1023	1023	5.30.1.1.2	Invitation of quotations for purchasing package	30 days	Tue 31/03/20	Wed 29/04/20	0 days	1022	1024	
1024	1024	5.30.1.1.3	Acceptance of conforming quotation and acceptance for Manufacture (Completed)	14 days	Thu 30/04/20	Wed 13/05/20	0 days	1023	1043,1046	
1025	1025	5.30.1.2	Mis - Instrumentations	73 days	Mon 02/03/20	Wed 13/05/20	0 days			
1026	1026	5.30.1.2.1	Submission for acceptance of purchasing package	29 days	Mon 02/03/20	Mon 30/03/20	0 days		1027	
1027	1027	5.30.1.2.2	Invitation of quotations for purchasing package	30 days	Tue 31/03/20	Wed 29/04/20	0 days	1026	1028	
1028	1028	5.30.1.2.3	Acceptance of conforming quotation and acceptance for Manufacture (Completed)	14 days	Thu 30/04/20	Wed 13/05/20	0 days	1027	1043,1049	
1029	1029	5.30.1.3	Mis - Pipework (To be provided by Mechanical Sub-Contactor)	42 days	Mon 03/08/20	Sun 13/09/20	0 days			
1030	1030	5.30.1.3.1	Submission for acceptance of purchasing package	7 days	Mon 03/08/20	Sun 09/08/20	0 days		1031	
1031	1031	5.30.1.3.2	Invitation of quotations for purchasing package	14 days	Mon 10/08/20	Sun 23/08/20	0 days	1030	1032	
1032	1032	5.30.1.3.3	Acceptance of conforming quotation and acceptance for Manufacture (Completed)	21 days	Mon 24/08/20	Sun 13/09/20	0 days	1031	1043,1052	
1033	1033	5.30.1.4	Mis - Valve (To be provided by Mechanical Sub-Contractor)	42 days	Mon 03/08/20	Sun 13/09/20	0 days			
1034	1034	5.30.1.4.1	Submission for acceptance of purchasing package	7 days	Mon 03/08/20	Sun 09/08/20	0 days		1035	
1035	1035	5.30.1.4.2	Invitation of quotations for purchasing package	14 days	Mon 10/08/20	Sun 23/08/20	0 days	1034	1036	
1036	1036	5.30.1.4.3	Acceptance of conforming quotation and acceptance for Manufacture (Completed)	21 days	Mon 24/08/20	Sun 13/09/20	0 days	1035	1043,1055	
1037	1037	5.30.1.5	Civil Work Subletting Package (Repeated WBS 5.13.17)	19 days	Tue 14/07/20	Sat 01/08/20	0 days			
1038	1038	5.30.1.5.1	Submission for acceptance of subletting package	3 days	Tue 14/07/20	Thu 16/07/20	0 days		1039	
1039	1039	5.30.1.5.2	Invitation of tender for subletting package	14 days	Fri 17/07/20	Thu 30/07/20	0 days	1038	1040	
1040	1040	5.30.1.5.3	Acceptance of conforming quotation and acceptance for Manufacture	2 days	Fri 31/07/20	Sat 01/08/20	0 days	1039	1046,1049,1052,10	
1041	1041	5.30.2	Design Submissions for Temporary Filtrate Lifting Well and Eq. Tank	34 days	Tue 01/09/20	Sun 04/10/20	0 days			
1042	1042	5.30.2.1	CDS050-5 - Detailed Design for Lifting Appliances - Temp. Filtrate Eq. System, Existing Slud	30 edays	Tue 01/09/20	Thu 01/10/20	0 edays	113	1071	

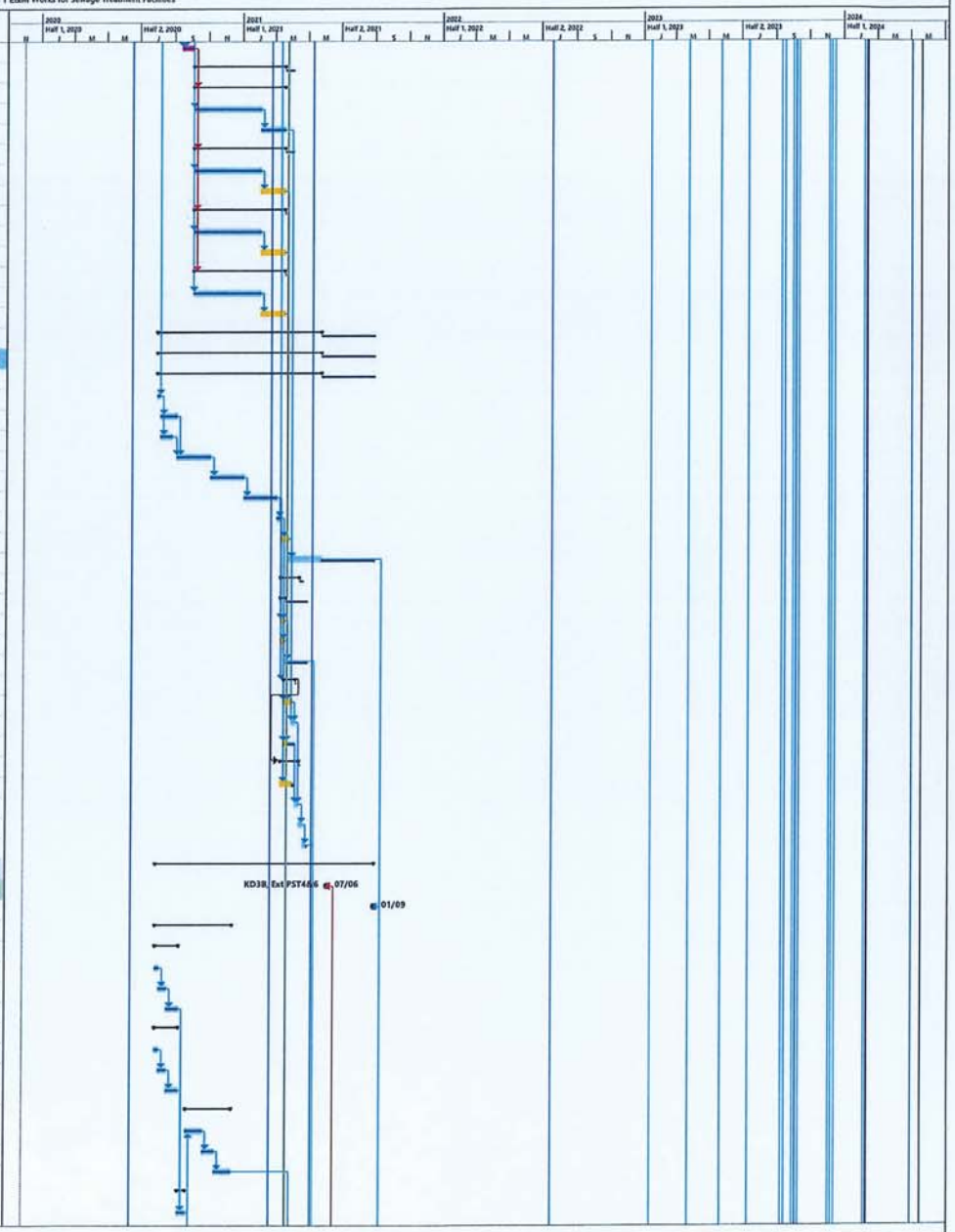


Task | Milestone | Project Summary | Late | Critical Split | Manual Progress | Milestone (Actual)
Milestone, Tentative | Summary | Manual Summary | Critical | Progress | Slack (Float) | Slack

Project: DE/2018/04
Date: Thu 25/03/21

Status Date Sat 20/03/21

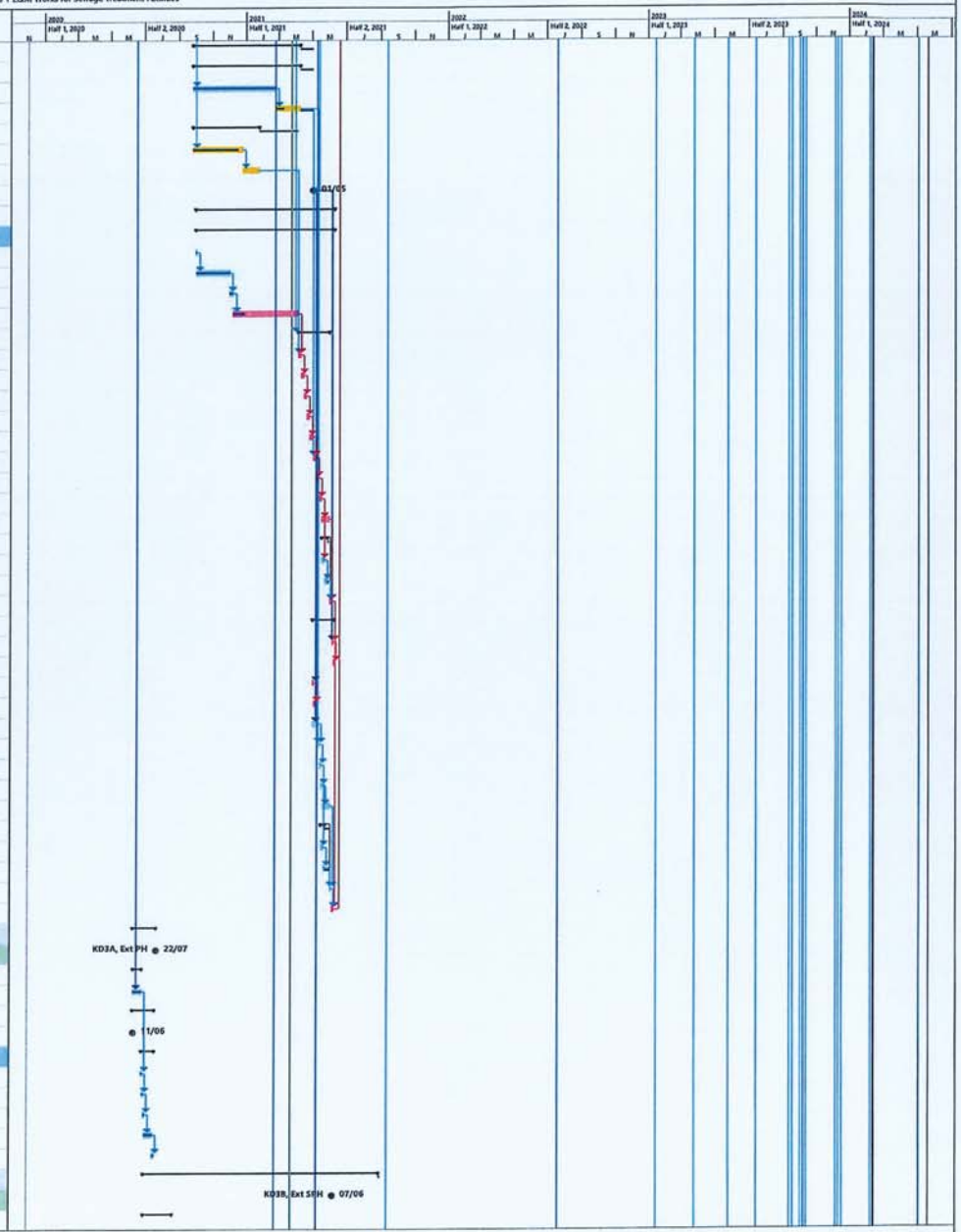
ID	WBS	Task Name	Duration	Start	Finish	Float Time	Predecessors	Successors	Resource Names
1043	5.30.2.2	Design submission for E&M installation works for temp. filtrate eq. system	21 days	Mon 14/09/20	Sun 04/10/20	0 days	1024,1028,1032,1	1045,1051,1048,10	
1044	5.30.3	Manufacturing and Delivery of Plant & Materials	165 days	Mon 05/10/20	Thu 18/03/21	16 days			
1045	5.30.3.1	Filtrate Lift Pumps and Filtrate Transfer Pump, EQT011	165 days	Mon 05/10/20	Thu 18/03/21	0 days	1043		
1046	5.30.3.1.1	Manufacturing and Factory Acceptance Test of Plant	120 days	Mon 05/10/20	Mon 01/02/21	0 days	1040,1024	1047	
1047	5.30.3.1.2	Shipping and Delivery of Plant to site (Delivered)	45 days	Tue 02/02/21	Thu 18/03/21	0 days	1046	1076	
1048	5.30.3.2	Instrumentations	165 days	Mon 05/10/20	Thu 18/03/21	16 days	1043		
1049	5.30.3.2.1	Manufacturing and Factory Acceptance Test of Plant	120 days	Mon 05/10/20	Mon 01/02/21	0 days	1040,1028	1050	
1050	5.30.3.2.2	Shipping and Delivery of Plant to site	45 days	Tue 02/02/21	Thu 18/03/21	0 days	1049	1077	
1051	5.30.3.3	Pipework	165 days	Mon 05/10/20	Thu 18/03/21	2 days	1043		
1052	5.30.3.3.1	Manufacturing and Factory Acceptance Test of Plant	120 days	Mon 05/10/20	Mon 01/02/21	0 days	1040,1032	1053	
1053	5.30.3.3.2	Shipping and Delivery of Plant to site	45 days	Tue 02/02/21	Thu 18/03/21	0 days	1052	1075	
1054	5.30.3.4	Valve	165 days	Mon 05/10/20	Thu 18/03/21	2 days	1043		
1055	5.30.3.4.1	Manufacturing and Factory Acceptance Test of Plant	120 days	Mon 05/10/20	Mon 01/02/21	0 days	1040,1036	1056	
1056	5.30.3.4.2	Shipping and Delivery of Plant to site	45 days	Tue 02/02/21	Thu 18/03/21	0 days	1055	1075	
1057	5.30.4	Site Installation Work	297 days	Sat 01/08/20	Tue 25/05/21	99 days			
1058	5.30.4.1	Commencement of Civil Construction and E&M Installation at Temp. Filtrate Lifting Well	297 days	Sat 01/08/20	Tue 25/05/21	99 days			
1059	5.30.4.1.1	Civil Construction Work	297 days	Sat 01/08/20	Tue 25/05/21	99 days			
1060	5.30.4.1.1.1	Civil on-site survey and report submission for acceptance	5 edays	Sat 01/08/20	Thu 06/08/20	0 edays	1040	1061,1062	
1061	5.30.4.1.1.2	Civil structural design and drawing submission for acceptance	30 days	Fri 07/08/20	Sat 05/09/20	0 days	1060	1063	
1062	5.30.4.1.1.3	Site Clearance, UU diversion and construction of U-channel	21 days	Fri 07/08/20	Thu 27/08/20	0 days	1060	1063	
1063	5.30.4.1.1.4	ELS (Sheeting and Excavation)	60 days	Sun 06/09/20	Wed 04/11/20	0 days	1062,1061	1064	
1064	5.30.4.1.1.5	Grouting Works	60 days	Thu 05/11/20	Sun 03/01/21	0 days	1063	1065	
1065	5.30.4.1.1.6	RC structure works including cast-in items	60 days	Mon 04/01/21	Thu 04/03/21	0 days	1064	1074,1071,1066	
1066	5.30.4.1.1.7	Removal Formwork and Flasework	8 days	Fri 05/03/21	Fri 12/03/21	0 days	1065	1071,1072,1075,10	
1067	5.30.4.1.1.8	Waterproofing	14 days	Sat 13/03/21	Fri 26/03/21	0 days	1066	1068	
1068	5.30.4.1.1.9	Other architectual works and finishing works	60 days	Sat 27/03/21	Tue 25/05/21	99 days	1067	1085FF	
1069	5.30.4.1.2	E&M Installation Work	34 days	Sat 13/03/21	Thu 15/04/21	8 days			
1070	5.30.4.1.2.1	Installation of Lifting Appliances at Temporary Filtrate Lifting Well and Eq. Tank	10 days	Sat 13/03/21	Mon 22/03/2	40 days			
1071	5.30.4.1.2.1.1	GF MR LA-09-01 SWL 1t	7 days	Sat 13/03/21	Fri 19/03/21	0 days	1065,1042,1066	1073	LA - A x 4~6 men
1072	5.30.4.1.2.1.2	GF MR LA-09-02 SWL 1t	7 days	Sat 13/03/21	Fri 19/03/21	0 days	1066	1073	LA - A x 4~6 men
1073	5.30.4.1.2.1.3	Site Acceptance test and loading test of LA	3 days	Sat 20/03/21	Mon 22/03/21	40 days	1071,1072	1108FF	LA - A x 4~6 men
1074	5.30.4.1.2.2	Mechanical Installations for Temp. Filtrate Lifting Well and Eq. Tank	21 days	Fri 19/03/21	Thu 08/04/21	2 days	1065	1078FS-30 days	
1075	5.30.4.1.2.2.1	Installation of pipework, chemical pipework and valves, EQT036	14 days	Fri 19/03/21	Thu 01/04/21	0 days	1066,1053,1056	1076	ME - A x 4~6 men
1076	5.30.4.1.2.2.2	Installation of pumps	7 days	Fri 02/04/21	Thu 08/04/21	0 days	1075,1047	1080	ME - A x 4~6 men
1077	5.30.4.1.2.2.3	Installation of Instrumentations, EQT035-3	7 days	Fri 19/03/21	Thu 25/03/21	14 days	1066,1050	1080	ME - A x 4~6 men
1078	5.30.4.1.2.3	Electrical Installations for Temp. Filtrate Lifting Well and Eq. Tank	34 days	Sat 13/03/21	Thu 15/04/21	2 days	1074FS-30 days		
1079	5.30.4.1.2.3.1	Installation of cable trays and cable containments	21 days	Sat 13/03/21	Fri 02/04/21	6 days	1066	1080	
1080	5.30.4.1.2.3.2	Cables laying and terminations	7 days	Fri 09/04/21	Thu 15/04/21	0 days	1079,1076,1077	1081	
1081	5.30.4.1.3	Site Acceptance Test for E&M Equip at Filtrate Lifting Well and Eq. Tank	7 days	Fri 16/04/21	Thu 22/04/21	0 days	1080	1082	
1082	5.30.4.1.4	System Commissioning for E&M Equip at Temp. Filtrate Lifting Well and Eq. Tank	7 days	Fri 23/04/21	Thu 29/04/21	2 days	1081	1108FF	
1083	5.31	Existing PST No. 4 and No. 6, Portion B-3A (PS 68.2.15)	397 days	Sat 01/08/20	Wed 01/09/2	0 days			
1084	5.31.1	Planned Key Date Completion Date - KD38	0 days	Mon 07/06/21	Mon 07/06/21	0 days	1143FF		
1085	5.31.2	Planned Sectional Completion Date - Section 3, PST No. 4 and No. 6	0 days	Wed 01/09/21	Wed 01/09/21	0 days	1068FF,1169FF		
1086	5.31.3	Selection of Suppliers for major plant and materials and Subcontractor for PST No. 4 and N	137 days	Sat 01/08/20	Tue 15/12/20	0 days			
1087	5.31.3.1	Mis - Rotating Bridge Scrapers and associated materials, C11, ref. EQT037-1	42 days	Sat 01/08/20	Fri 11/09/20	0 days			
1088	5.31.3.1.1	Submission for acceptance of purchasing package	7 days	Sat 01/08/20	Fri 07/08/20	0 days		1089	
1089	5.31.3.1.2	Invitation of quotations for purchasing package	14 days	Sat 08/08/20	Fri 21/08/20	0 days	1088	1090	
1090	5.31.3.1.3	Acceptance of conforming quotation (Completed)	21 days	Sat 22/08/20	Fri 11/09/20	0 days	1089	1100	
1091	5.31.3.2	Mis - Pipework, C11, ref. EQT037-2	42 days	Sat 01/08/20	Fri 11/09/20	0 days			
1092	5.31.3.2.1	Submission for acceptance of purchasing package	7 days	Sat 01/08/20	Fri 07/08/20	0 days		1093	
1093	5.31.3.2.2	Invitation of quotations for purchasing package	14 days	Sat 08/08/20	Fri 21/08/20	0 days	1092	1094	
1094	5.31.3.2.3	Acceptance of conforming quotation (Completed)	21 days	Sat 22/08/20	Fri 11/09/20	0 days	1093	1100	
1095	5.31.3.3	Subletting of Electrical and Mechanical Installation Work w/ supply of LCP	81 days	Sat 26/09/20	Tue 15/12/20	0 days			
1096	5.31.3.3.1	Submission for Subletting Package	30 days	Sat 26/09/20	Sun 25/10/20	0 days	1100	1097	
1097	5.31.3.3.2	Invitation to tender	21 days	Mon 26/10/20	Sun 15/11/20	0 days	1096	1098	
1098	5.31.3.3.3	Acceptance of conforming tender (Completed)	30 days	Mon 16/11/20	Tue 15/12/20	0 days	1097	1115	
1099	5.31.4	Design Submissions	14 days	Sat 12/09/20	Fri 25/09/20	0 days			
1100	5.31.4.1	Design submissions for retrofitting the existing PST No. 4 and No. 6	14 days	Sat 12/09/20	Fri 25/09/20	0 days	1090,1094	1103,1106,1096	



Task | Milestone | Project Summary | Late | Critical Split | Manual Progress | Milestone (Actual)
Milestone, Tentative | Summary | Manual Summary | Critical | Progress | Slack (Float) | Slack

Project: DE/2018/04
Date: Thu 25/03/21

ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Float Time	Predecessors	Successors	Resource Names
1101	5.31.5	Manufacturing and Delivery of Plant & Materials	195 days	Sat 26/09/20	Thu 08/04/21	23 days			
1102	5.31.5.1	Rotating Bridge Scrapers and associated materials	195 days	Sat 26/09/20	Thu 08/04/21	23 days			
1103	5.31.5.1.1	Manufacturing and Factory Acceptance Test of Plant	150 days	Sat 26/09/20	Mon 22/02/21	0 days	1100	1104	
1104	5.31.5.1.2	Shipping and Delivery of Plant to site (Rev. 8)	45 days	Tue 23/02/21	Thu 08/04/21	23 days	1103	1121,1135	
1105	5.31.5.2	Pipework	120 days	Sat 26/09/20	Sat 23/01/21	71 days			
1106	5.31.5.2.1	Manufacturing and Factory Acceptance Test of Plant	90 days	Sat 26/09/20	Thu 24/12/20	0 days	1100	1107	
1107	5.31.5.2.2	Shipping and Delivery of Plant to site	30 days	Fri 25/12/20	Sat 23/01/21	0 days	1106	1116	
1108	5.31.6	Tentative Civil Handover, Filtrate Lifting Well and Eq. Tank (Completion of work)	1 day	Sat 01/05/21	Sat 01/05/21	0 days	1083FF,1073FF	1130,1132,1134	
1109	5.31.7	Site Installation Work	252 days	Thu 01/10/20	Wed 09/06/21	0 days			
1110	5.31.7.1	Commencement of retrofitting the existing PST No. 4 and No. 6	252 days	Thu 01/10/20	Wed 09/06/21	0 days			
1111	5.31.7.1.1	Temporary flow diversion of Filtrate from PST No. 4,	1 day	Thu 01/10/20	Thu 01/10/20	0 days		1112	
1112	5.31.7.1.2	Dismantle and Removal of E&M Equipment at PST No. 6 (Completed)	60 days	Fri 02/10/20	Mon 30/11/20	0 days	1111	1113	
1113	5.31.7.1.3	Temporary flow diversion of Filtrate from PST No. 6 (Completed)	7 days	Tue 01/12/20	Mon 07/12/20	0 days	1112	1114	
1114	5.31.7.1.4	Dismantle and Removal of E&M Equipment at PST No. 4 (Rev. 8)	119 days	Tue 08/12/20	Mon 05/04/21	0 days	1113	1116	
1115	5.31.7.1.5	Mechanical Installations of existing PSTs No. 4	56 days	Tue 06/04/21	Mon 31/05/21	0 days	1098		
1116	5.31.7.1.5.1	Installation of PST influent feed pipe	5 days	Tue 06/04/21	Sat 10/04/21	0 days	1114,1107	1117	ME - A x 4~6 men
1117	5.31.7.1.5.2	Installation of circular baffle diffuser box	5 days	Sun 11/04/21	Thu 15/04/21	0 days	1116	1118	ME - A x 4~6 men
1118	5.31.7.1.5.3	Installation of scum baffle plates	5 days	Fri 16/04/21	Tue 20/04/21	0 days	1117	1119	ME - A x 4~6 men
1119	5.31.7.1.5.4	Installation of scum box with collection valve and pipework	5 days	Wed 21/04/21	Sun 25/04/21	0 days	1118	1120	ME - A x 4~6 men
1120	5.31.7.1.5.5	Installation of v-notched weir plate	7 days	Mon 26/04/21	Sun 02/05/21	0 days	1119	1121	ME - A x 4~6 men
1121	5.31.7.1.5.6	Installation of center bearing and slip ring assembly for rotating bridge	5 days	Mon 03/05/21	Fri 07/05/21	0 days	1120,1104	1122	ME - A x 4~6 men
1122	5.31.7.1.5.7	Installation of motor and gearbox assembly for rotating bridge	5 days	Sat 08/05/21	Wed 12/05/21	0 days	1121	1123	ME - A x 4~6 men
1123	5.31.7.1.5.8	Installation of rotating bridge sludge and scum scraper assembly	5 days	Thu 13/05/21	Mon 17/05/21	0 days	1122	1124,1126	ME - A x 4~6 men
1124	5.31.7.1.5.9	Installation of removable FRP covers for effluent channel	14 days	Tue 18/05/21	Mon 31/05/21	0 days	1123	1128	ME - A x 4~6 men
1125	5.31.7.1.6	Electrical Installations of existing PSTs No. 4	10 days	Tue 18/05/21	Thu 27/05/21	3 days		1128	
1126	5.31.7.1.6.1	Installation of local control panels	5 days	Tue 18/05/21	Sat 22/05/21	0 days	1123	1127	
1127	5.31.7.1.6.2	cable laying and terminations	5 days	Sun 23/05/21	Thu 27/05/21	3 days	1126	1128	
1128	5.31.7.1.7	Site Acceptance Test for E&M Equip at existing PST No. 4	5 days	Tue 01/06/21	Sat 05/06/21	0 days	1125,1124,1127	1143,1130	
1129	5.31.7.1.8	Mechanical Installations of existing PSTs No. 6	39 days	Sun 02/05/21	Wed 09/06/21	0 days			
1130	5.31.7.1.8.1	Installation of PST influent feed pipe	2 days	Sun 06/06/21	Mon 07/06/21	0 days	1128,1108	1131	ME - A x 4~6 men
1131	5.31.7.1.8.2	Installation of circular baffle diffuser box	2 days	Tue 08/06/21	Wed 09/06/21	0 days	1130		ME - A x 4~6 men
1132	5.31.7.1.8.3	Installation of scum baffle plates	2 days	Sun 02/05/21	Mon 03/05/21	0 days	1108	1133	ME - A x 4~6 men
1133	5.31.7.1.8.4	Installation of scum box with collection valve and pipework	2 days	Tue 04/05/21	Wed 05/05/21	0 days	1132		ME - A x 4~6 men
1134	5.31.7.1.8.5	Installation of v-notched weir plate	10 days	Sun 02/05/21	Tue 11/05/21	0 days	1108	1135	ME - A x 4~6 men
1135	5.31.7.1.8.6	Installation of center bearing and slip ring assembly for rotating bridge	3 days	Wed 12/05/21	Fri 14/05/21	0 days	1134,1104	1136	ME - A x 4~6 men
1136	5.31.7.1.8.7	Installation of motor and gearbox assembly for rotating bridge	2 days	Sat 15/05/21	Sun 16/05/21	0 days	1135	1137,1140	ME - A x 4~6 men
1137	5.31.7.1.8.8	Installation of rotating bridge sludge and scum scraper assembly	3 days	Mon 17/05/21	Wed 19/05/21	0 days	1136	1138	ME - A x 4~6 men
1138	5.31.7.1.8.9	Installation of removable FRP covers for effluent channel	14 days	Thu 20/05/21	Wed 02/06/21	0 days	1137	1142	ME - A x 4~6 men
1139	5.31.7.1.9	Electrical Installations of existing PSTs No. 6	7 days	Mon 17/05/21	Sun 23/05/21	10 days		1142	
1140	5.31.7.1.9.1	Installation of local control panels	5 days	Mon 17/05/21	Fri 21/05/21	0 days	1136	1141	
1141	5.31.7.1.9.2	cable laying and terminations	2 days	Sat 22/05/21	Sun 23/05/21	10 days	1140	1142	
1142	5.31.7.1.10	Site Acceptance Test for E&M Equip at existing PST No. 6	1 day	Thu 03/06/21	Thu 03/06/21	0 days	1138,1139,1141	1143	
1143	5.31.7.1.11	System Commissioning for E&M Equip at existing PST No. 4 and No. 6	3 days	Sun 06/06/21	Tue 08/06/21	0 days	1128,1142	1084FF	
1144	5.32	Existing Main Power House Electrical, Portion B-7A and B-7B (PS 68.3.17)	42 days	Thu 11/06/20	Wed 22/07/20	0 days			
1145	5.32.1	Planned Key Date Completion Date - KD3A	0 days	Wed 22/07/20	Wed 22/07/20	0 days			
1146	5.32.2	Design Submissions for Existing Emergency Generator House	15 days	Fri 12/06/20	Fri 26/06/20	0 days			
1147	5.32.2.1	Design submissions for E&M installation works of existing power house	15 days	Fri 12/06/20	Fri 26/06/20	0 days	179	1151	
1148	5.32.3	Site Installation Work	39 days	Thu 11/06/20	Sun 19/07/20	0 days			
1149	5.32.3.1	Tentative Civil Handover Date, Portion B-7A & 7B area for modification of existing emerge	1 day	Thu 11/06/20	Thu 11/06/20	0 days			
1150	5.32.3.2	Commencement of Modification of existing emergency generator Electrical Works	23 days	Sat 27/06/20	Sun 19/07/20	0 days			
1151	5.32.3.2.1	Site survey and preparation work	1 day	Sat 27/06/20	Sat 27/06/20	0 days	1147	1152	
1152	5.32.3.2.2	Modification of existing emergency generator electrical works	3 days	Sun 28/06/20	Tue 30/06/20	0 days	1151	1153	
1153	5.32.3.2.3	Test the new switchboard for on-site mobile generator	2 days	Wed 01/07/20	Thu 02/07/20	0 days	1152	1154	
1154	5.32.3.2.4	Dismantling and removal the existing power & control cables	14 days	Fri 03/07/20	Thu 16/07/20	0 days	1153	1155	
1155	5.32.3.2.5	Take down existing generator to DSD (Completed)	3 days	Fri 17/07/20	Sun 19/07/20	0 days	1154		
1156	5.33	Existing Sludge Press House, Portion B-10 (PS 68.2.11)	425 days	Wed 01/07/20	Sun 29/08/21	3 days			
1157	5.33.1	Planned Key Date Completion Date - KD3B	0 days	Mon 07/06/21	Mon 07/06/21	0 days			
1158	5.33.2	Selection of Suppliers for major plant and materials for Filter Presses	52 days	Wed 01/07/20	Fri 21/08/20	0 days			



Baseline
Project: DE/2018/04
Date: Thu 25/03/21

Task | Milestone | Project Summary | Late | Critical Split | Manual Progress | Milestone (Actual)
Milestone, Tentative | Summary | Manual Summary | Critical | Progress | Slack (Float) | Slack

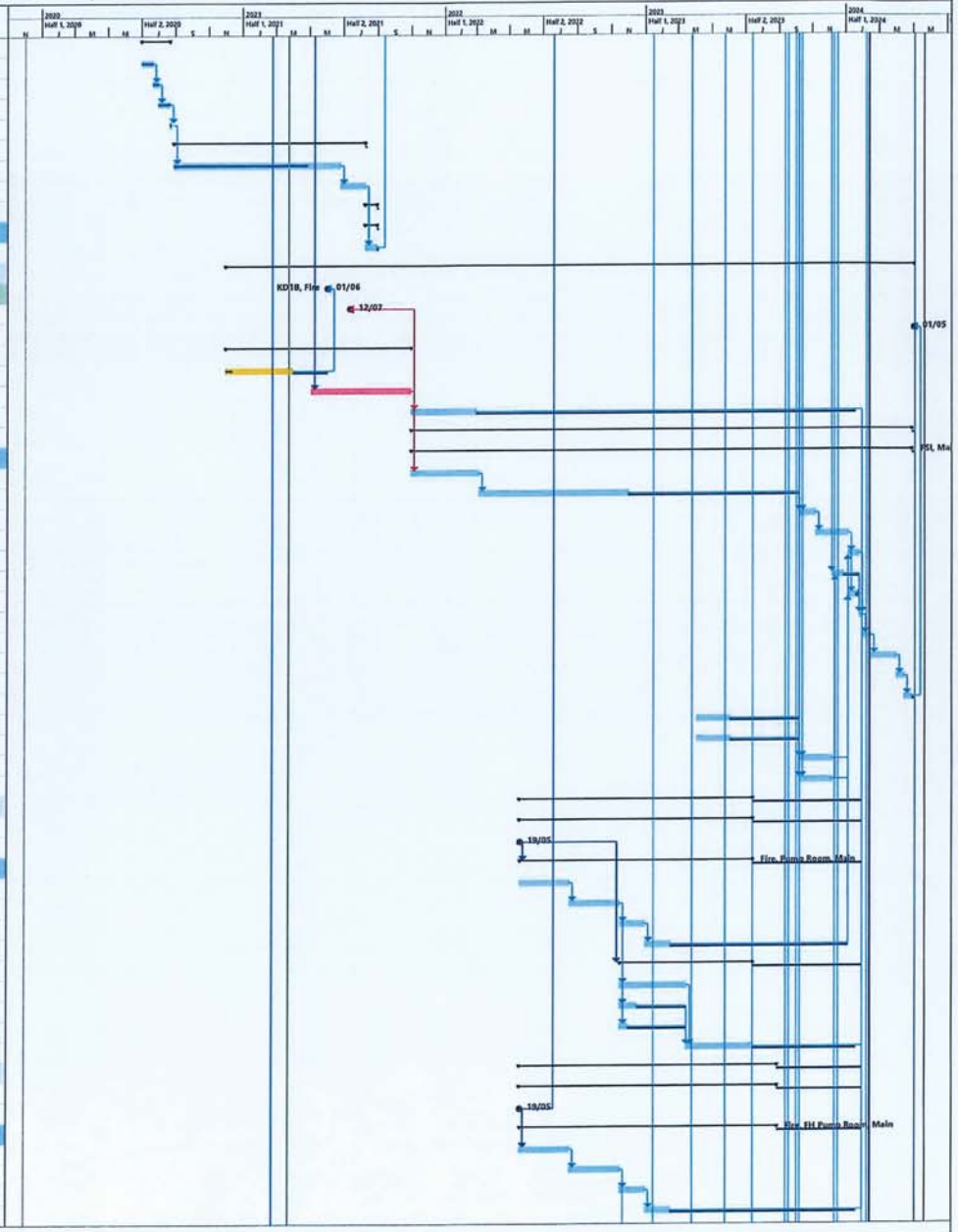
Status Date Sat 20/03/21

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

AECOM

ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Float Time	Predecessors	Successors	Resource Names
1159	5.33.2.1	Mis - new replacement filter plates and provision of filter cloths, C11, ref. EQT038	52 days	Wed 01/07/20	Fri 21/08/20	0 days			
1160	5.33.2.1.1	Submission for acceptance of purchasing package	21 days	Wed 01/07/20	Tue 21/07/20	0 days		1161	
1161	5.33.2.1.2	Invitation of quotations for purchasing package	10 days	Wed 22/07/20	Fri 31/07/20	0 days	1160	1162	
1162	5.33.2.1.3	Acceptance of conforming quotation (Completed)	21 days	Sat 01/08/20	Fri 21/08/20	0 days	1161	1163	
1163	5.33.3	Design submission for replacement of filter plates	7 edays	Fri 21/08/20	Fri 28/08/20	0 edays	1162	1165	
1164	5.33.4	Manufacturing and Delivery of Plant & Materials	345 days	Sat 29/08/20	Sun 08/08/21	3 days			
1165	5.33.4.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Sat 29/08/20	Thu 24/06/21	0 days	1163	1166	
1166	5.33.4.2	Shipping and Delivery of Plant to site	45 days	Fri 25/06/21	Sun 08/08/21	0 days	1165	1169	
1167	5.33.5	Site Installation Work	21 days	Mon 09/08/21	Sun 29/08/21	3 days			
1168	5.33.5.1	Commencement of replacement of filter plates	21 days	Mon 09/08/21	Sun 29/08/21	3 days			
1169	5.33.5.1.1	Replacement of filter plates	21 days	Mon 09/08/21	Sun 29/08/21	3 days	1166	1085FF	
1170	5.34	Fire Services Installation (PS 6B.6.9)	1248 days	Tue 01/12/20	Wed 01/05/24	0 days			
1171	5.34.1	Planned Key Date Completion Date - KD1B, Fire	0 days	Tue 01/06/21	Tue 01/06/21	0 days	1175FF		
1172	5.34.2	Planned Sectional Completion Date - Section 1, FSI	0 days	Mon 12/07/21	Mon 12/07/21	0 days	1176FF		
1173	5.34.3	Planned Sectional Completion Date - Section 4, FSI	0 days	Wed 01/05/24	Wed 01/05/24	0 days	1193FF		
1174	5.34.4	Design Submissions for FSI	334 days	Tue 01/12/20	Sat 30/10/21	0 days			
1175	5.34.4.1	CDS0B1-11 - Civil and dimensional requirements drawings for Fire Services Sprinkler Pump	120 days	Tue 01/12/20	Tue 30/03/21	63 days		1171FF	
1176	5.34.4.2	CDS049 - Detailed Design for Fire Services include AFA, FS, FH, Sprinkler etc.	180 edays	Mon 03/05/21	Sat 30/10/21	0 edays	154	1180,1177,1172FF	
1177	5.34.5	DG Stores Submissions to FSD for approval	120 days	Sun 31/10/21	Sun 27/02/22	690 days	1176	1186FF	
1178	5.34.6	Site Installation Work	910 days	Sun 31/10/21	Sat 27/04/24	4 days			
1179	5.34.6.1	Commencement of Fire Services Installation	910 days	Sun 31/10/21	Sat 27/04/24	4 days			
1180	5.34.6.1.1	Design Review of Approved General Building Plan	126 days	Sun 31/10/21	Sat 05/03/22	0 days	1176	1181	
1181	5.34.6.1.2	Submission of WWO542 for WSD's approval	270 days	Sun 06/03/22	Wed 30/11/22	310 days	1180	1182	
1182	5.34.6.1.3	Submission of WWO46 for WSD's Inspection	30 days	Sat 07/10/23	Sun 05/11/23	0 days	1181,353,482,593,	1183	
1183	5.34.6.1.4	Obtain WWO46 Part V	60 days	Mon 06/11/23	Thu 04/01/24	0 days	1182	1186,1184	
1184	5.34.6.1.5	FSD Inspection and Approval for MVAC	21 days	Fri 05/01/24	Thu 25/01/24	0 days	1194,1195,1183	1187	
1185	5.34.6.1.6	FSD Inspection and Approval for DG Stores	21 days	Wed 06/12/23	Tue 26/12/23	30 days	1194,1195,816	1187	
1186	5.34.6.1.7	Submission of (FSI/314 & FSI/501) to FSD	14 days	Fri 05/01/24	Thu 18/01/24	7 days	1194,1195,1183,1	1187	
1187	5.34.6.1.8	Pre-inspection meeting with FSD	5 days	Fri 26/01/24	Tue 30/01/24	0 days	1186,1184,1185	1188	
1188	5.34.6.1.9	Initial Inspection with FSD	15 days	Wed 31/01/24	Wed 14/02/24	0 days	1187	1189	
1189	5.34.6.1.10	Document Checking	45 days	Thu 15/02/24	Sat 30/03/24	0 days	1188	1190	
1190	5.34.6.1.11	Re-inspections with FSD	14 days	Sun 31/03/24	Sat 13/04/24	0 days	1189	1191	
1191	5.34.6.1.12	Issue of acceptance memo by FSD	14 days	Sun 14/04/24	Sat 27/04/24	4 days	1190	1173FF	
1192	5.34.6.1.13	Installation of FS Pumps and Sprinkler Pumps	60 days	Mon 03/04/23	Thu 01/06/23	127 days		1195	FS - A x 4^6 men
1193	5.34.6.1.14	Installation of Fire Hydrant and Booster Pumps	60 days	Mon 03/04/23	Thu 01/06/23	127 days		1195	FS - A x 4^6 men
1194	5.34.6.1.15	SAT for Manual and automatic fire detection and alarm system	60 days	Sat 07/10/23	Tue 05/12/23	0 days	353,482,593,768,8	1186,1184,1185	
1195	5.34.6.1.16	SAT for Fire hydrants, hose reels and street fire hydrant system	60 days	Sat 07/10/23	Tue 05/12/23	0 days	1192,1193,353,48	1186,1184,1185	
1196	5.35	Fire Services Sprinkler Pumping Room, Portion B-7 & B-7B (PS 6B.6.9)	421 days	Thu 19/05/22	Thu 13/07/23	200 days			
1197	5.35.1	Site Installation Work	421 days	Thu 19/05/22	Thu 13/07/23	200 days			
1198	5.35.1.1	Tentative Civil Handover Date, FS Sprinkler Pump Room (Rev. 5)	1 day	Thu 19/05/22	Thu 19/05/22	0 days		1199,1204	
1199	5.35.1.2	Commencement of E&M Installation at FS & Sprinkler Pump Room	420 days	Thu 19/05/22	Thu 13/07/23	200 days	1198		
1200	5.35.1.2.1	Mechanical Installations for FS & Sprinkler Pumps	90 edays	Thu 19/05/22	Wed 17/08/22	0 edays		1201	
1201	5.35.1.2.2	Electrical Installations for FS & Sprinkler Pumps	90 edays	Wed 17/08/22	Tue 15/11/22	0.63 edays	1200	1202,1205,1206,12	
1202	5.35.1.2.3	Site Acceptance Test for FS & Sprinkler Pumps	45 days	Wed 16/11/22	Fri 30/12/22	0 days	1201	1203	
1203	5.35.1.2.4	System Commissioning for FS & Sprinkler Pumps	45 days	Sat 31/12/22	Mon 13/02/23	325 days	1202	1186	
1204	5.35.1.2.5	Building Services Installations at FS & Sprinkler Pump Room	240 days	Wed 16/11/22	Thu 13/07/23	200 days	1198		
1205	5.35.1.2.5.1	Lighting and Power Distribution System, Chem 1&2	120 days	Wed 16/11/22	Wed 15/03/23	0 days	1201	1208	
1206	5.35.1.2.5.2	Lightning Protection System, FS & Sprinkler Pump Room	30 days	Wed 16/11/22	Thu 15/12/22	90 days	1201	1208	
1207	5.35.1.2.5.3	Mechanical Ventilation System, FS & Sprinkler PR	14 days	Wed 16/11/22	Tue 29/11/22	106 days	1201	1208	
1208	5.35.1.2.5.4	Testing and Commissioning of Building Services Installations, FS & Sprinkler PR	120 days	Thu 16/03/23	Thu 13/07/23	189 days	1205,1206,1207	1186FF	
1209	5.36	Fire Hydrant and Booster Pumping Room, Portion B7 & B-7B (PS 6B.6.9)	465 days	Thu 19/05/22	Sat 26/08/23	156 days			
1210	5.36.1	Site Installation Work	465 days	Thu 19/05/22	Sat 26/08/23	156 days			
1211	5.36.1.1	Tentative Civil Handover Date, Fire Hydrant and Booster Pumping Room (Rev. 5)	1 day	Thu 19/05/22	Thu 19/05/22	0 days		856FF+50 days,121	
1212	5.36.1.2	Commencement of E&M Installation at Street FH Pump Room	464 days	Thu 19/05/22	Sat 26/08/23	156 days			
1213	5.36.1.2.1	Mechanical Installations for Street FH Pumps	90 edays	Thu 19/05/22	Wed 17/08/22	0 edays	1211	1214	
1214	5.36.1.2.2	Electrical Installations for Street FH Pump	90 edays	Wed 17/08/22	Tue 15/11/22	0.63 edays	1213	1215,1218	
1215	5.36.1.2.3	Site Acceptance Test for Street FH Pump	45 days	Wed 16/11/22	Fri 30/12/22	0 days	1214	1216	
1216	5.36.1.2.4	System Commissioning for Street FH Pumps	45 days	Sat 31/12/22	Mon 13/02/23	339 days	1215	1186FF	



Task | Milestone | Project Summary | Late | Critical Split | Manual Progress | Milestone (Actual)
Milestone, Tentative | Summary | Manual Summary | Critical | Progress | Slack (Float) | Slack

Project: DE/2018/04
Date: Thu 25/03/21

Status Date Sat 20/03/21

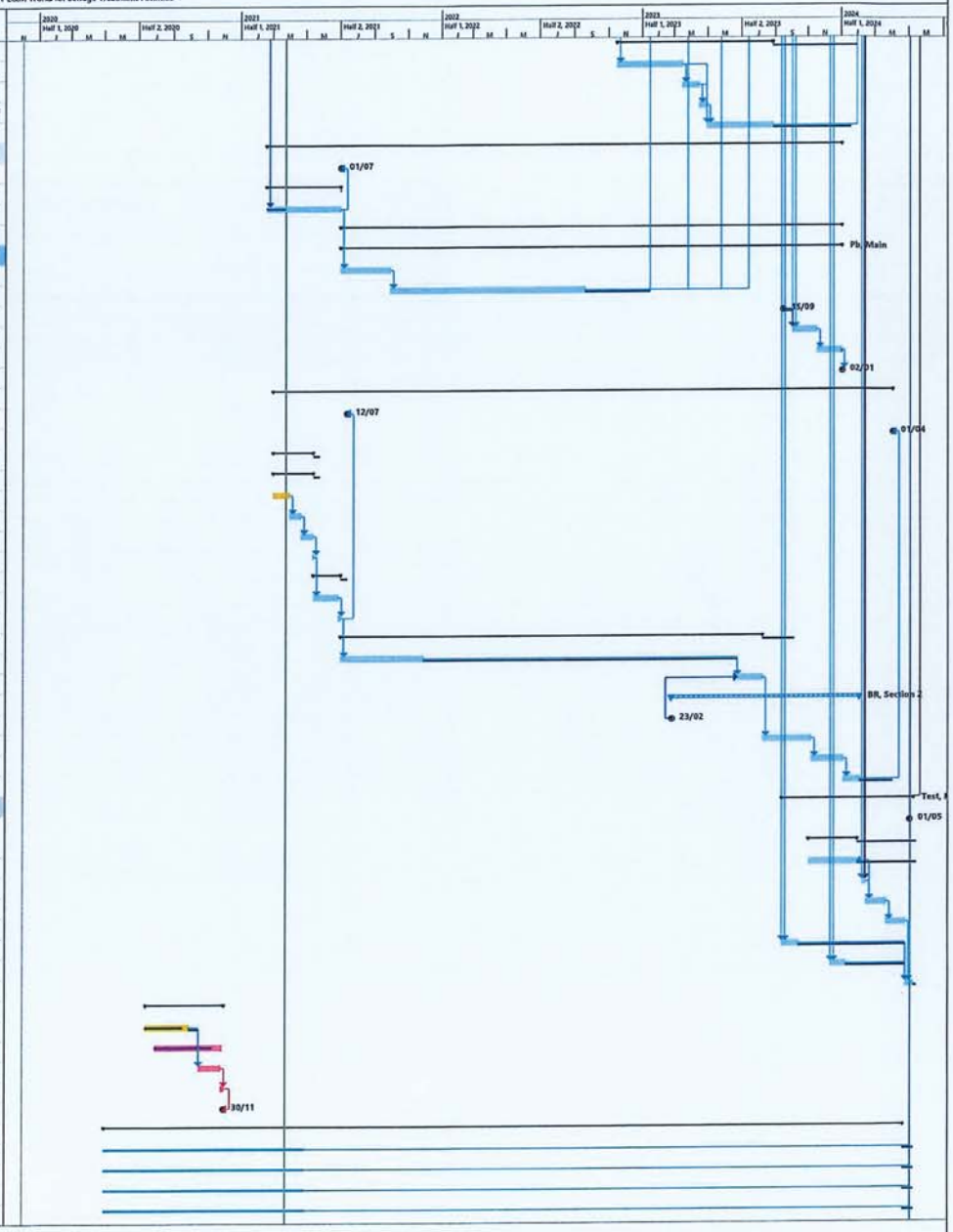
DE_2018_04 Revised PG- (Rev 8, 2021-03)

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

AECOM

ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Float Time	Predecessors	Successors	Resource Names
1217	5.36.1.2.5	Building Services Installations at Street FH Pump Room	284 days	Wed 16/11/22	Sat 26/08/23	156 days			
1218	5.36.1.2.5.1	Lighting and Power Distribution System, Street FH PR	120 days	Wed 16/11/22	Wed 15/03/23	0 days	1214	1221,1219	
1219	5.36.1.2.5.2	Lightning Protection System, Street FH PR	30 days	Thu 16/03/23	Fri 14/04/23	0 days	1218	1220,1221	
1220	5.36.1.2.5.3	Mechanical Ventilation System, Street FH PR	14 days	Sat 15/04/23	Fri 28/04/23	0 days	1219	1221	MVAC - A x 4~6 men
1221	5.36.1.2.5.4	Testing and Commissioning of Building Services Installations, FH PR	120 days	Sat 29/04/23	Sat 26/08/23	145 days	1218,1219,1220	1186FF	
1222	5.37	Plumbing Installation (PS 6B.6.8)	1049 days	Tue 16/02/21	Tue 02/01/24	0 days			
1223	5.37.1	Planned Sectional Completion Date - Section 1, Plumbing	0 days	Thu 01/07/21	Thu 01/07/21	0 days	1225FF		
1224	5.37.2	Design Submissions for Plumbing	134 days	Tue 16/02/21	Wed 30/06/21	1 day			
1225	5.37.2.1	CDS033 - Detailed Design for Plumbing System	134 edays	Tue 16/02/21	Wed 30/06/21	0.63 edays	149	1228,1223FF	
1226	5.37.3	Site Installation Work	915 days	Thu 01/07/21	Tue 02/01/24	0 days			
1227	5.37.3.1	Commencement of Plumbing Installation	915 days	Thu 01/07/21	Tue 02/01/24	0 days			
1228	5.37.3.1.1	Submission of detail design for acceptance	90 days	Thu 01/07/21	Tue 28/09/21	0 days	1225	1229	Pb - A x 4~6 men
1229	5.37.3.1.2	Submission of WWO542 for WSD's approval	355 days	Wed 29/09/21	Sun 18/09/22	118 days	1228	351,480,591,766	Pb - B x 4~6 men
1230	5.37.3.1.3	Connection of External Pumping System (By others)	0 days	Fri 15/09/23	Fri 15/09/23	17 days		1231	
1231	5.37.3.1.4	Submission of WWO46 for WSD's Inspection	45 days	Mon 02/10/23	Wed 15/11/23	0 days	1230,351,480,591,	1232	
1232	5.37.3.1.5	Obtain WWO46 Part V	45 days	Thu 16/11/23	Sat 30/12/23	2 days	1231	1233	
1233	5.37.3.1.6	Tentative Date for connection of external water pipework (by others)	0 days	Tue 02/01/24	Tue 02/01/24	0 days	1232		
1234	5.38	Photovoltaic Power System (PS 6B.6.11)	1128 days	Mon 01/03/21	Mon 01/04/24	0 days			
1235	5.38.1	Planned Sectional Completion Date - Section 1, BR 2A & 2B	0 days	Mon 12/07/21	Mon 12/07/21	0 days	1245FF		
1236	5.38.2	Planned Sectional Completion Date - Section 2, BR 2A & 2B	0 days	Mon 01/04/24	Mon 01/04/24	0 days	1253FF		
1237	5.38.3	Selection of Suppliers for major plant and materials for BR 2A & 2B	73 days	Mon 01/03/21	Wed 12/05/21	12 days			
1238	5.38.3.1	PV System (EQT041)	73 days	Mon 01/03/21	Wed 12/05/21	12 days			
1239	5.38.3.1.1	Submission for acceptance of purchasing package	30 days	Mon 01/03/21	Tue 30/03/21	0 days		1240	
1240	5.38.3.1.2	Invitation of quotations for purchasing package	21 days	Wed 31/03/21	Tue 20/04/21	0 days	1239	1241	
1241	5.38.3.1.3	Acceptance of conforming quotation	21 days	Wed 21/04/21	Tue 11/05/21	0 days	1240	1242	
1242	5.38.3.1.4	Commencement of Design Work	1 day	Wed 12/05/21	Wed 12/05/21	0 days	1241	1244	
1243	5.38.4	Design Submissions	49 days	Wed 12/05/21	Wed 30/06/21	12 days			
1244	5.38.4.1	CDS060 - Detailed Design for PV System	45 edays	Wed 12/05/21	Sat 26/06/21	0.63 edays	1242	1245	
1245	5.38.4.2	Complete the CLP's Electronic Application Form and Upload Required Documents	4 days	Sun 27/06/21	Wed 30/06/21	0 days	1244	1235FF,1247	
1246	5.38.5	Material ordering and delivery to site	767 days	Thu 01/07/21	Sun 06/08/23	59 days			
1247	5.38.5.1	Manufacturing and Factory Acceptance Test of Plant	150 days	Thu 01/07/21	Sat 27/11/21	572 days	1245	1248	
1248	5.38.5.2	Shipping and Delivery of Plant to site	45 days	Fri 23/06/23	Sun 06/08/23	0 days	1247,1250SS+120	1251	
1249	5.38.6	Site Installation Work	345 days	Thu 23/02/23	Fri 02/02/24	0 days			
1250	5.38.6.1	Tentative Civil Handover Date, Portion B-4, BR2A & 2B (Rev. 5)	1 day	Thu 23/02/23	Thu 23/02/23	0 days		1248SS+120 edays	
1251	5.38.6.2	Commencement of Site Installation Work	90 days	Mon 07/08/23	Sat 04/11/23	0 days	1248	1252	PV - A x 4~6 men
1252	5.38.6.3	Technical Assessment, System Test and Installation	60 days	Sun 05/11/23	Wed 03/01/24	0 days	1251	1253	PV - A x 4~6 men
1253	5.38.6.4	CLP's smart meter installation and Final on-grid test with CLP	30 days	Thu 04/01/24	Fri 02/02/24	59 days	1252	1236FF	
1254	5.39	Plant Commissioning	240 days	Tue 12/09/23	Wed 08/05/24	0 days		1FF	
1255	5.39.1	Planned Sectional Completion Date - Section 4, Plant Commissioning	0 days	Wed 01/05/24	Wed 01/05/24	0 days			
1256	5.39.2	Design Submission for Treatment Process Plant Testing & Commissioning	90 days	Wed 01/11/23	Mon 29/01/24	105 days			
1257	5.39.2.1	Document Submission and Resubmission for T&C procedures	90 days	Wed 01/11/23	Mon 29/01/24	105 days	1258FF-120 days		
1258	5.39.3	System Commissioning Tests of the E&M systems at IW, PST, BR 2A&2B, MFB No. 2, Chemica	7 days	Thu 08/02/24	Wed 14/02/24	0 days	919,965,985,347,4	1259,1257FF-120 d	
1259	5.39.4	MBR System Process Startup	35 days	Thu 15/02/24	Wed 20/03/24	0 days	1258	1260	
1260	5.39.5	Plant Commissioning	35 days	Thu 21/03/24	Wed 24/04/24	0 days	1259	1263	
1261	5.39.6	Overall commissioning of CCTV system	30 days	Tue 12/09/23	Wed 11/10/23	196 days	352,481,592,767	1263	
1262	5.39.7	Overall commissioning of Facility Computerized Systems (SCADA, CMMS, PMS, IDMS)	28 days	Mon 11/12/23	Sun 07/01/24	108 days	344,473,758,759	1263	
1263	5.39.8	Overall Plant Commissioning and DSD pre-handover inspections	14 days	Thu 25/04/24	Wed 08/05/24	5 days	1260,1261,1262		
1264	5.40	CE No. 009 - Provision of an Additional Primary Sludge Thickening System	140 days	Tue 14/07/20	Mon 30/11/20	0 days			
1265	5.40.1	Detail Design Submission and Approval	77 days	Tue 14/07/20	Mon 28/09/20	18 days		1267	
1266	5.40.2	Subletting, Procurement, Manufacturing and Delivery	120 days	Fri 31/07/20	Fri 27/11/20	0 days			
1267	5.40.3	Site Installation	40 days	Sat 17/10/20	Wed 25/11/20	0 days	1265	1268	
1268	5.40.4	Testing and Commissioning	5 days	Thu 26/11/20	Mon 30/11/20	0 days	1267	1269FF	
1269	5.40.5	Planned Completion Date	1 day	Mon 30/11/20	Mon 30/11/20	0 days	1268FF		
1270	6	Beam Plus Submissions	1450 days	Fri 01/05/20	Fri 19/04/24	0 days			
1271	6.1	SA10 - Environmental Management Plan	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1272	6.2	SA11 - Air Pollution During Construction	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1273	6.3	SA12 - Noise During Construction	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1274	6.4	SA14 - Noise from Building Equipment	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	



Baseline
Project: DE/2018/04
Date: Thu 25/03/21

Task | Milestone | Project Summary | Late | Critical Split | Manual Progress | Milestone (Actual)
Milestone, Tentative | Summary | Manual Summary | Critical | Progress | Slack (Float) | Slack

Status Date Sat 20/03/21

DE_2018_04 Revised PG- (Rev 8, 2021-03)

ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Float Time	Predecessors	Successors	Resource Names
1275	1275	6.5	SA15 - Light Pollution	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1276	1276	6.6	MAP1 - Timber used for Temporary Works	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1277	1277	6.7	MAP2 - Use of Non-CFC Based Refrigerants	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1278	1278	6.8	MAP3 - Waste Management Plan	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1279	1279	6.9	MA2 - Modular and Standardized Design	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1280	1280	6.10	MA8 - Ozone Depleting Substances	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1281	1281	6.11	MA11 - Construction Waste Reduction	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1282	1282	6.12	EUP1 - Minimum Energy Performance	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1283	1283	6.13	EU1 - Reduction of CO2 Emissions	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1284	1284	6.14	EU2 - Peak Electricity Demand Reduction	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1285	1285	6.15	EU6 - Renewable Energy Systems	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1286	1286	6.16	EU9 - Energy Efficient Appliances	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1287	1287	6.17	EU10 - Testing and Commissioning	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1288	1288	6.18	EU11 - Operation and Maintenance	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1289	1289	6.19	EU12 - Meter and Monitoring	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1290	1290	6.20	WUP1 - Water Quality Survey	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1291	1291	6.21	WUP2 - Minimum Water Saving Performance	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1292	1292	6.22	WU1 / WU6 - Annual Water Use / Effluent Discharge to Foul Sewers	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1293	1293	6.23	IEQP1 - Minimum Ventilation Performance	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1294	1294	6.24	IEQ1 - Security	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1295	1295	6.25	IEQ2 - Plumbing and Drainage	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1296	1296	6.26	IEQ3 - Biological Contamination	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1297	1297	6.27	IEQ5 - Construction IAQ Management	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1298	1298	6.28	IEQ6 / IEQ7 - IAQ	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1299	1299	6.29	IEQ9 - Increased Ventilation	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1300	1300	6.30	IEQ11 - Localised Ventilation	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1301	1301	6.31	IEQ12 - Ventilation in Common Areas	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1302	1302	6.32	IEQ13 - Thermal Comfort in Air - Conditioned Premises	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1303	1303	6.33	IEQ16 / IEQ17 - Interior Lighting in Normally Occupied Area / Interior Lighting in Areas not Nor	1450 days	Fri 01/05/20	Fri 19/04/24	19 days		39	
1304	1304	7	Summary of compensation events notified	126 days?	Wed 22/04/20	Tue 25/08/20	0 days?			
1305	1305	7.1	Compensation Event (CE) No. 001, Special Arrangement in Reducing the Risk of the Spread of Novel Cor	1 day	Tue 25/08/20	Tue 25/08/20	0 days			
1306	1306	7.2	Compensation Event (CE) No. 002, the Contractor's Site Accommodation by Modular Integrated Constr	1 day	Mon 08/06/20	Mon 08/06/20	0 days			
1307	1307	7.3	Compensation Event (CE) No. 003, Designated Area for the Contractor's Site Accommodation in Works	1 day	Wed 22/04/20	Wed 22/04/20	0 days			
1308	1308	7.4	Compensation Event (CE) No. 005, Designated Area for the Contractor's Storage Area in Works Area W	1 day	Wed 22/04/20	Wed 22/04/20	0 days			
1309	1309	7.5	Compensation Event (CE) No. 007, Employment of Temporary Staff under Anti-Epidemic Fund	1 day	Fri 10/07/20	Fri 10/07/20	0 days			
1310	1310	7.6	Compensation Event (CE) No. 009, Provision of an Additional Primary Sludge Thickening System and Del	1 day	Tue 14/07/20	Tue 14/07/20	0 days			
1311	1311	7.7	Compensation Event (CE) No. 011, Dismantling, relocating, disconnecting and re-installing of the existin	1 day?	Fri 17/07/20	Fri 17/07/20	0 days?