



**CONTRACT NO. SPW 12/2021**

**SHEK WU HUI EFFLUENT POLISHING PLANT – MAIN WORK**

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

**QUARTERLY ENVIRONMENTAL MONITORING & AUDIT  
REPORT**

**- OCTOBER TO DECEMBER 2021 -**

**CLIENTS:**

Drainage Services Department

**PREPARED BY:**

**Lam Environmental Services Limited**

19/F Remex Centre,  
42 Wong Chuk Hang Road,  
Hong Kong

Telephone: (852) 2882-3939  
Facsimile: (852) 2882-3331  
E-mail: [info@lamenviro.com](mailto:info@lamenviro.com)  
Website: <http://www.lamenviro.com>

**CERTIFIED BY:**

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Raymond Dai  
Environmental Team Leader

**DATE:**

7 March 2022

**Meinhardt Infrastructure and Environment Limited**

10/F Genesis  
33-35 Wong Chuk Hang Road  
Hong Kong

**Contract No. SPW 12/2021**

**Shek Wu Hui Effluent Polishing Plant – Main Work**

Quarterly Environmental Monitoring & Audit Report

October to December 2021

(March 2022)

Verified by: W. K. Chiu 

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Position: Independent Environmental Checker

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Date: 17 March 2022

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**EXECUTIVE SUMMARY**

- i. This is the 2<sup>nd</sup> Quarterly Environmental Monitoring and Audit (EM&A) Report – **October to December 2021** of Shek Wu Hui Effluent Polishing Plant – Main Work under Further Environmental Permit no. FEP-02/474/2013 (Hereafter as “the Project”). This is the 2<sup>nd</sup> EM&A quarterly report prepared by Environmental Team under Contract No. SPW 12/2021, presenting the environmental monitoring findings and information recorded during the period of **01 October 2021 to 31 December 2021**.

Construction Activities for the Reporting Quarter

- ii. During this reporting period, the principal work activities of individual contracts are summed up in **Table I**.

**Table I Summary table of principal work activities in the reporting period**

Contract No.	Contract Title	Month / Year	Principal work activities
DC/20 18/06	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sludge Treatment Facilities and 132kV Primary Substation	October 2021	<ul style="list-style-type: none"> <li>• RC works</li> <li>• Excavation works</li> <li>• Sewerage and drainage works</li> <li>• Pipe laying</li> <li>• Backfilling</li> <li>• Removal of layer struct and waling</li> </ul>
		November & December 2021	<ul style="list-style-type: none"> <li>• RC works</li> <li>• Excavation works</li> <li>• Sewerage and drainage works</li> <li>• Backfilling</li> <li>• ELS works</li> <li>• ABWF works</li> </ul>
DC/20 18/07	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sewage Treatment Facilities	October 2021	<ul style="list-style-type: none"> <li>• ELS works</li> <li>• R.C. Structure works</li> <li>• Pre-bored H piles</li> <li>• Sheetpile Installation</li> <li>• Demolition works</li> <li>• Excavation</li> <li>• E&amp;M installation and T&amp;C works</li> <li>• ABWF works &amp; BS works</li> </ul>
		November & December 2021	<ul style="list-style-type: none"> <li>• ELS works</li> <li>• R.C. Structure works</li> <li>• Pre-bored H piles</li> <li>• Demolition works</li> <li>• Excavation</li> <li>• E&amp;M installation and T&amp;C works</li> </ul>

DE/20 18/03	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Sidestream Treatment Facilities and E&M Works for Sluge Treatment Facilities	October 2021	<ul style="list-style-type: none"> <li>Excavation of Trial Pit (Sidestream Treatment Facilities)</li> <li>Installation of EOT at UVP</li> <li>Penstock and Stoplog Installation</li> <li>Effluent Pump Installation</li> <li>AFA and MFA System Installation</li> </ul>
		November & December 2021	<ul style="list-style-type: none"> <li>ELS (Sidestream Treatment Facilities)</li> <li>Installation of EOT at UVP</li> <li>AFA and MFA System Installation</li> <li>Penstock and Stoplog Installation</li> <li>Effluent Pump Installation</li> <li>UV System Installation</li> <li>Electrical Installation for UV System No.1 Effluent TPS &amp; Effluent Lift-up PS</li> </ul>
DE/20 18/04	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - E&M Works for Sewage Treatment Facilities	October 2021	<ul style="list-style-type: none"> <li>Testing and Commission of Temporary Filtrate Equalisation Tank.</li> <li>Installation of FRP platform &amp; Testing and Commission of Temporary Primary Sludge Thickener and its accessories.</li> <li>Testing and Commission of Existing Primary Sedimentation Tank No. 4 &amp; 6.</li> <li>Testing and Commission of Existing Emergency Generator Electrical Works.</li> </ul>
		November & December 2021	<ul style="list-style-type: none"> <li>Testing and Commission of Temporary Filtrate Equalisation Tank.</li> <li>Testing and Commission of Temporary Primary Sludge Thickener and its accessories.</li> <li>Testing and Commission of Existing Primary Sedimentation Tank No. 4 &amp; 6.</li> </ul>

iii. Implementation of the key mitigation measures during the reporting quarter

**Table II Summary table of key mitigation measures implemented in the reporting period according to the contract no.**

Contract No. DC/2018/06		
October	Waste Management	Chemical containers were properly stored
November	Air Quality	Water spraying method was adopted to minimize dust generation during drilling works at UV No.1

	Ecology	The erection of 2m solid dull green site barrier fences along the project site boundary next to Ng Tung River under EP condition 2.7 is in progress and will be kept in review.
December	-	-
<b>Contract No. DC/2018/07</b>		
October	Water Quality	Damaged drainage pipe connecting to the treatment tank was fixed.
November	Noise	The breaking tip was wrapped with acoustic canvas
	Water Quality	Sandbags were provided to prevent the site surface runoff from getting into the gullies
December	Air Quality	Water spraying method was adopted for the exposed stockpile.
	Ecology	2m solid dull green site barrier fences were provided at the project site boundary (Area C) next to Shek Sheung River.
<b>Contract No. DE/2018/03</b>		
October	-	-
November	-	-
December	Noise	The breaking tip was wrapped with acoustic canvas.
	Ecology	2m solid dull green site barrier fences were provided at the project site boundary (Sidestream) next to Shek Sheung River.
<b>Contract No. DE/2018/04</b>		
October	-	-
November	-	-
December	-	-

Summary of Exceedances, Investigation and Follow-up

Noise Monitoring

- iv. Noise monitoring were conducted at noise monitoring stations namely, NM – G/F, Wai Loi Tsuen, NM2 – G/F, Fu Tei Au and NM3 – G/F, Man Kok Village on a weekly basis in the reporting period.
- v. No action or limit level exceedance was recorded in this reporting quarter.

Air Quality Monitoring

- vi. 1-hour Total Suspended Particulates (TSP) monitoring was conducted at air quality monitoring stations namely, AM1 – Wai Loi Tsuen, AM2 – Fu Tei Au; 24-hour TSP monitoring was conducted at air quality monitoring stations namely, AM1a – Site boundary of the Shek Wu Hui STW (East) and AM2a – Site Boundary of the Shek Wu Hui STW (North). 24-hour TSP shall be sampled at least once in every 6 days, while sampling for 1-hour TSP shall be at least 3 times in every 6 day in the reporting month.
- vii. [No action or limit level exceedance was recorded in this reporting quarter.](#)

Ecological Monitoring

- viii. Ecological monitoring conducted on a weekly basis at both high and low tides (it is considered high tide when tidal levels are above 1.5m and low tide when tidal level are below 1.5m at Tsim Bei Tsui Station). The magnitude of how much above or below 1.5m was subject to tidal conditions of that week as it varied throughout different times of the year. Nonetheless, the high and low tide relative to that week's tidal condition were taken into consideration.
- ix. [No action or limit level exceedance was recorded in this reporting quarter.](#)

**Table III Summary table of non-compliance (exceedances) in the reporting period**

Parameter	No. of Exceedance		Investigation result
	Action Level	Limit Level	
<b>October 2021</b>			
Air Quality (1-hour TSP)	0	0	-
Air Quality (1-hour TSP)	0	0	-
Noise	0	0	-
Ecology	0	0	-
<b>November 2021</b>			
Air Quality (1-hour TSP)	0	0	-
Air Quality (1-hour TSP)	0	0	-
Noise	0	0	-
Ecology	0	0	-
<b>December 2021</b>			
Air Quality (1-hour TSP)	0	0	-
Air Quality (1-hour TSP)	0	0	-
Noise	0	0	-
Ecology	0	0	-

Complaints, Notifications of Summons and Successful Prosecutions

- x. No environmental complaint, notification of summons and successful prosecution regarding the construction works was recorded in the reporting quarter.

**Table IV Summary table of complaints, summons and successful prosecutions in the reporting period**

Events	Number	Brief description	Follow up and remedial actions	Status and remarks
Complaints	0	-	-	-
Notification of Summons and Successful Prosecution	0	-	-	-

Reporting Changes

- xi. There are no particular reporting changes in this reporting quarter.

Future Key Issues

- xii. In the next reporting period, the principal work activities of individual contracts are anticipated as follows.

**Table V Summary table of anticipated work activities in the next reporting period**

<b>Contract No. DC/2018/06</b>
<ul style="list-style-type: none"> <li>• RC works</li> <li>• Excavation works</li> <li>• Pipe laying</li> <li>• Backfilling</li> <li>• Removal of Layer Struct and Waling</li> </ul>
<b>Contract No. DC/2018/07</b>
<ul style="list-style-type: none"> <li>• ELS works</li> <li>• R.C. Structure works</li> <li>• Pre-bored H piles</li> <li>• Sheetpile Installation</li> <li>• Demolition works</li> <li>• Excavation</li> <li>• E&amp;M installation and T&amp;C works</li> <li>• ABWF works &amp; BS works</li> </ul>





**Contract No. DE/2018/03**

- ELS (Sidestream Treatment Facilities)
- Penstock and Stoplog Installation
- Effluent Pump Installation
- UV System Installation
- Delivery and Installation of Temporary Container LV Switch Room for UV and Effluent Pumping Station
- AFA and MFA System Installation
- Electrical Installation for UV System No.1 Effluent TPS & Effluent Lift-up PS

**Contract No. DE/2018/04**

- Testing and Commission of Temporary Filtrate Equalisation Tank.
- Testing and Commission of Temporary Primary Sludge Thickener and its accessories.

## 1 Introduction

### 1.1 Scope of the Report

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

### 1.2 Structure of the Report

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

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

**Section 3** *Environmental Monitoring and Audit Requirements* – summarizes all monitoring parameters and methodology, no. of exceedances, influencing factors on the monitoring results.

**Section 4** *Compliance Audit* – summarizes the auditing of monitoring results, all exceedances environmental parameters.

**Section 5** *Complaints, Notification of Summons and Prosecution* – summarizes the cumulative statistics on complaints, notification of summons and prosecution.

**Section 6** *Comments, Conclusion and Recommendations* – summarizes monitoring methodology, the effectiveness of EM&A Programme and mitigation measures, and recommendations based on findings during site audits.

## 2 Project Background

### 2.1 Background

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

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

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

### 2.2 Project Organization and Contact Personnel

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

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

**Table 2.1 Contact Details of Key Personnel**

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

**2.3 Principal Work and Activities**

2.3.1. In the reporting month, the principal work activities conducted of individual contracts are as follow. [Appendix 1.1](#) lists the construction programmes of individual activities. The layout plans showing the locations of reported construction activities and key PME used for the works contracts in the reporting quarter are provided in [Appendix 2.1](#)

**Table 2.2 Summary table of principal work activities in the reporting period**

Contract No.	Contract Title	Month / Year	Principal work activities
DC/20 18/06	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sludge Treatment Facilities and 132kV Primary Substation	October 2021	<ul style="list-style-type: none"> <li>• RC works</li> <li>• Excavation works</li> <li>• Sewerage and drainage works</li> <li>• Pipe laying</li> <li>• Backfilling</li> <li>• Removal of layer struct and waling</li> </ul>
		November & December 2021	<ul style="list-style-type: none"> <li>• RC works</li> <li>• Excavation works</li> <li>• Sewerage and drainage works</li> <li>• Backfilling</li> <li>• ELS works</li> <li>• ABWF works</li> </ul>
DC/20 18/07	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sewage Treatment Facilities	October 2021	<ul style="list-style-type: none"> <li>• ELS works</li> <li>• R.C. Structure works</li> <li>• Pre-bored H piles</li> <li>• Sheetpile Installation</li> <li>• Demolition works</li> <li>• Excavation</li> <li>• E&amp;M installation and T&amp;C works</li> <li>• ABWF works &amp; BS works</li> </ul>
		November & December 2021	<ul style="list-style-type: none"> <li>• ELS works</li> <li>• R.C. Structure works</li> <li>• Pre-bored H piles</li> <li>• Demolition works</li> <li>• Excavation</li> <li>• E&amp;M installation and T&amp;C works</li> </ul>
DE/20 18/03	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities	October 2021	<ul style="list-style-type: none"> <li>• Excavation of Trial Pit (Sidestream Treatment Facilities)</li> <li>• Installation of EOT at UVP</li> <li>• Penstock and Stoplog Installation</li> <li>• Effluent Pump Installation</li> <li>• AFA and MFA System Installation</li> </ul>
		November & December 2021	<ul style="list-style-type: none"> <li>• ELS (Sidestream Treatment Facilities)</li> <li>• Installation of EOT at UVP</li> <li>• AFA and MFA System Installation</li> <li>• Penstock and Stoplog Installation</li> <li>• Effluent Pump Installation</li> <li>• UV System Installation</li> <li>• Electrical Installation for UV System No.1 Effluent TPS &amp; Effluent Lift-up PS</li> </ul>



<b>DE/20 18/04</b>	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - E&M Works for Sewage Treatment Facilities	October 2021	<ul style="list-style-type: none"><li>• Testing and Commission of Temporary Filtrate Equalisation Tank.</li><li>• Installation of FRP platform &amp; Testing and Commission of Temporary Primary Sludge Thickener and its accessories.</li><li>• Testing and Commission of Existing Primary Sedimentation Tank No. 4 &amp; 6.</li><li>• Testing and Commission of Existing Emergency Generator Electrical Works.</li></ul>
		November & December 2021	<ul style="list-style-type: none"><li>• Testing and Commission of Temporary Filtrate Equalisation Tank.</li><li>• Testing and Commission of Temporary Primary Sludge Thickener and its accessories.</li><li>• Testing and Commission of Existing Primary Sedimentation Tank No. 4 &amp; 6.</li></ul>

### **3 Environmental Monitoring and Audit Requirements**

- 3.0.1. The environmental monitoring will be implemented based on the division of works areas of each designed projects. Overall layout showing work areas and monitoring stations is shown in [Figure 2.1](#) and [Figure 4.1 – 4.3](#) respectively. [Appendix 3.1](#) gives the details of the environmental monitoring requirements
- 3.0.2. The Action and Limit Levels for construction air quality, noise and ecological monitoring works are shown in [Appendix 3.2](#).
- 3.0.3. Mitigation measures according to the environmental mitigation implementation schedule and the EIA were generally implemented by the Contractor. The environmental mitigation implementation schedule is shown in [Appendix 3.3](#).

#### **3.1 Weather conditions**

- 3.1.1. The weather conditions were generally sunny and cloudy during the monitoring sessions of the reporting quarter. The details of weather conditions for each individual monitoring session were presented in the corresponding Monthly EM&A Reports within the reporting period.

#### **3.2 Noise Monitoring Results**

- 3.2.1. Noise monitoring results measured in this reporting period are reviewed and summarized. Graphical presentation of noise monitoring can be referred in [Appendix 3.4](#).
- 3.2.2. [Noise monitoring scheduled on 8 Oct was cancelled due to adverse weather conditions.](#)
- 3.2.3. [No action or limit level exceedance was recorded in this reporting quarter.](#)

#### **3.3 Air Monitoring Results**

- 3.3.1. Both 1-hour and 24-hour TSP were all conducted as scheduled in the reporting period. Air quality monitoring results measured in this reporting period are reviewed and summarized. Graphical presentation of air quality monitoring can be referred in [Appendix 3.5](#).
- 3.3.2. [No action or limit level exceedance was recorded in this reporting quarter.](#)

### 3.4 Ecology Monitoring Results

- 3.4.1. Ecological monitoring was conducted as scheduled in the reporting period. Details of ecological monitoring results in the reporting period are provided in [Appendix 3.6](#).
- 3.4.2. [Due to the adverse weather conditions, the survey on 8 October 2021 was re-scheduled to 11 October 2021.](#)
- 3.4.3. [No Action Level or Limit Level was triggered in the reporting quarter.](#)

### 3.5 Waste Management

- 3.5.1. The Summary Waste Flow Table is shown in [Appendix 3.7](#). Whenever possible, materials were reused on-site as far as practicable.

### 3.6 Landscape and Visual

- 3.6.1. Site audits were conducted on a bi-weekly basis and the landscape and visual mitigation measures of this project were monitored from time to time. [No non-compliance of the landscape and visual mitigation measures was recorded in the reporting quarter.](#)

### 3.7 Influencing Factors on the Monitoring Results

- 3.7.1. In this reporting quarter, major noise and dust sources were recorded at designated monitoring stations and are shown below.

**Table 3.1 Major noise sources during monitoring sessions in the reporting period**

Monitoring Stations	Major Dust Source
NM1 - Wai Loi Tsuen	<a href="#">Railway Noise and Road Traffic at Sheung Shui Tung Hing Road</a>
NM2 - Fu Tei Au	<a href="#">N/A</a>
NM3 - Man Kok Village	<a href="#">Road traffic at Po Wan Road</a>

**Table 3.2 Major dust sources during monitoring sessions in the reporting period**

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



3.7.2. Major observations were also recorded at designated monitoring locations and are shown below

**Table 3.3 Major observations during ecological monitoring in the reporting period**

Monitoring locations	Observations	
	Project related	Non-project related
T1 (PC1, PC2)	N/A	Human activities: playing with R.C. boat, camping and fishing Construction activities: generator
T2 (PC3, PC4)	Sheet-piling, generator & welding works Scaffolding, sedimentation Tank, Excavation and crane	Human activities: fishing, Construction activities: site cleaning, excavation, sheet-piling, generator & welding works and scaffolding
PC5	Excavation and crane	Site Cleaning
T3 (PC6, PC7)	Sheet-piling	Fishing, excavation, sheet-piling, generator & welding works, scaffolding

#### **4 Compliance Audit**

- 4.0.1. Environmental monitoring works were performed in the reporting period and all monitoring results were checked and reviewed. The summary of exceedance of Action/Limit Level for environmental monitoring is presented in [Appendix 4.1](#).
- 4.0.2. The observations and recommendations made for each contract were shown in [Appendix 4.2](#).

#### **4.1 Noise Monitoring**

- 4.1.1. [No action or limit level exceedance was recorded in this reporting quarter.](#)

#### **4.2 Air Quality Monitoring**

- 4.2.1. [No action or limit level exceedance was recorded in this reporting quarter.](#)

#### **4.3 Ecological Monitoring**

- 4.3.1. [No Action Level or Limit Level was triggered in the reporting quarter.](#)

#### **4.4 Landscape and visual impact**

- 4.4.1. [No non-conformity for landscape and visual impact was recorded in the reporting quarter.](#)

#### **4.5 Review of the Reasons for and the Implications of Non-compliance**

- 4.5.1. [No environmental non-compliance was recorded in the reporting quarter.](#)

#### **4.6 Summary of action taken in the event of and follow-up on non-compliance**

- 4.6.1. [There was no particular action taken since no non-compliance was recorded in the reporting quarter.](#)

**5 Complaints, Notification of Summons and Prosecution**

- 5.0.1 No environmental complaint, notification of summons and successful prosecution regarding construction works was recorded in the reporting quarter.
- 5.0.2 The details environmental complaints, notification of summons and successful prosecution for the Project are summarized by complaint log in [Appendix 5.1](#).
- 5.0.3 Cumulative statistics on complaints and successful prosecutions are summarized in **Table 5.1** and **Table 5.2** respectively.

**Table 5.1 Cumulative Statistics on Complaints**

Reporting Period	No. of Complaints
Commencement works to 30 September 2021	3
October 2021	0
November 2021	0
December 2021	0
<b>Project-to-Date</b>	<b>3</b>

**Table 5.2 Cumulative Statistics on Successful Prosecutions**

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

## **6 Comment, Conclusions and Recommendations**

### **6.1 Review of Monitoring Methodology and the Practicality and Effectiveness of EM&A Programme**

6.1.1. In terms of project construction phase monitoring, with the implementation of mitigation measures as recommended, no project related exceedance was recorded. In general, no adverse construction air and noise impacts were recorded within the project area with the mitigation measures in place. It could be concluded that no adverse environmental impact was caused to the surrounding environment and the sensitive receivers. The overall environmental impact control of the Project is considered to be effective and efficient.

### **6.2 Review on Effectiveness of Mitigation Measures**

6.2.1. The mitigation measures according to the Environmental Mitigation Implementation Schedule (EMIS) and the EIA are considered effective in minimizing environmental impacts as no exceedances related to the Project works was recorded throughout the monitoring period. Hence, the EM&A programme was considered effective and shall be maintained.

6.2.2. The Contractor has implemented the recommended mitigation measures except for those mitigation measures not applicable at this stage. **No site audit non-compliance was recorded during the reporting quarter.**

6.2.3. Environmental monitoring works were carried out in the reporting quarter and all monitoring results were checked and reviewed.

**6.3. Recommendations**

6.3.1. In regards to the results and findings during the weekly environmental inspections in the reporting period, recommendations were made as follow.

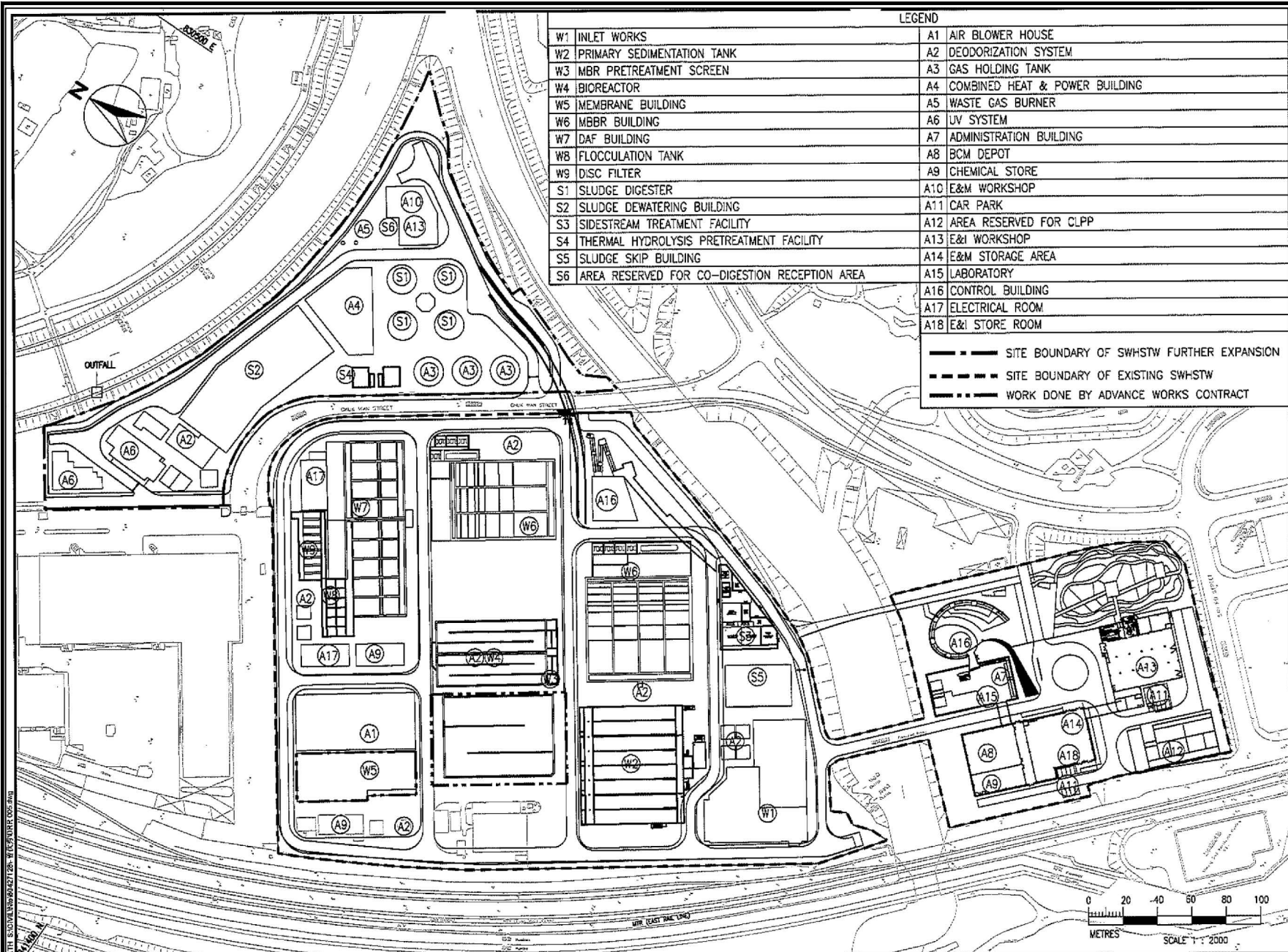
**Table 6.1 Summary table of recommendations in terms of environmental parameters**

Parameters	Recommendations
Air Quality	Dust suppression measures like water spraying or using tarpaulin should be enhanced for exposed stockpiles and other construction activities.
Noise	Acoustic materials or other noise minimization measures should be adopted or implemented when the breaking tip is in use.
Water Quality	Drainage pipes should be maintained properly to prevent leakages
	Sandbags or other prevent measures should be adopted to prevent site surface runoff from entering the public drainage system
Ecology	2m solid dull green barrier fences should be erected and maintained properly around the active works areas
Waste	Chemical containers should be stored properly with drip trays.



## ***Figure 2.1***

# ***Project Layout***



LEGEND			
W1	INLET WORKS	A1	AIR BLOWER HOUSE
W2	PRIMARY SEDIMENTATION TANK	A2	DEODORIZATION SYSTEM
W3	MBR PRETREATMENT SCREEN	A3	GAS HOLDING TANK
W4	BIOREACTOR	A4	COMBINED HEAT & POWER BUILDING
W5	MEMBRANE BUILDING	A5	WASTE GAS BURNER
W6	MBBR BUILDING	A6	UV SYSTEM
W7	DAF BUILDING	A7	ADMINISTRATION BUILDING
W8	FLOCCULATION TANK	A8	BCM DEPOT
W9	DISC FILTER	A9	CHEMICAL STORE
S1	SLUDGE DIGESTER	A10	E&M WORKSHOP
S2	SLUDGE DEWATERING BUILDING	A11	CAR PARK
S3	SIDESTREAM TREATMENT FACILITY	A12	AREA RESERVED FOR CLPP
S4	THERMAL HYDROLYSIS PRETREATMENT FACILITY	A13	E&I WORKSHOP
S5	SLUDGE SKIP BUILDING	A14	E&M STORAGE AREA
S6	AREA RESERVED FOR CO-DIGESTION RECEPTION AREA	A15	LABORATORY
		A16	CONTROL BUILDING
		A17	ELECTRICAL ROOM
		A18	E&I STORE ROOM
		- - - - - SITE BOUNDARY OF SWHSTW FURTHER EXPANSION - - - - - SITE BOUNDARY OF EXISTING SWHSTW - - - - - WORK DONE BY ADVANCE WORKS CONTRACT	

Shek Wu Hui Effluent Polishing Plant  
 General Site Layout of SWHEPP

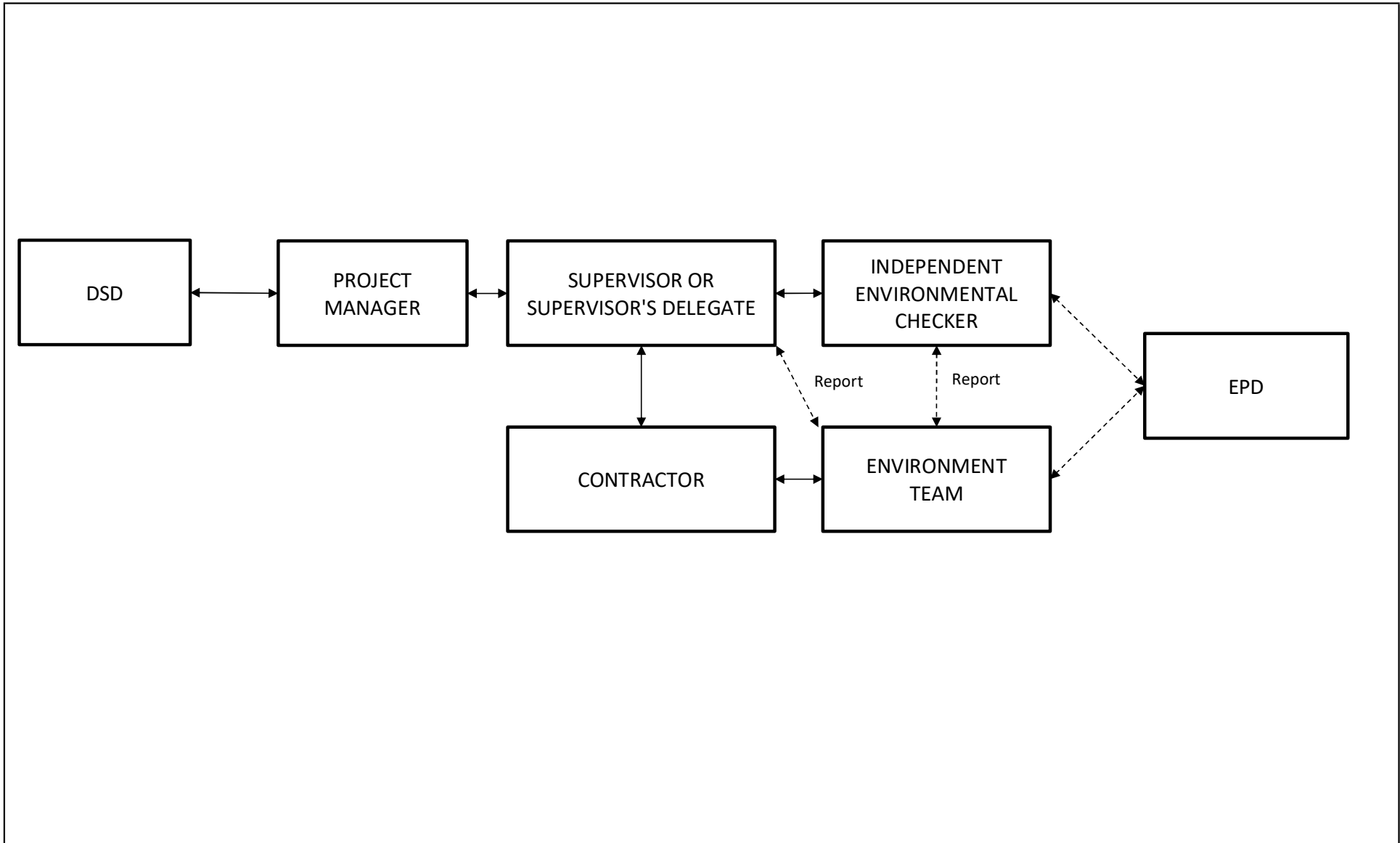
SCALE	As Shown	DATE	SEP 2019
CHECK	JM	DRAWN	SY
JOB No.		FIGURE NO.	2.1
		REV	-



## ***Figure 2.2***

# ***Project Organization Chart***



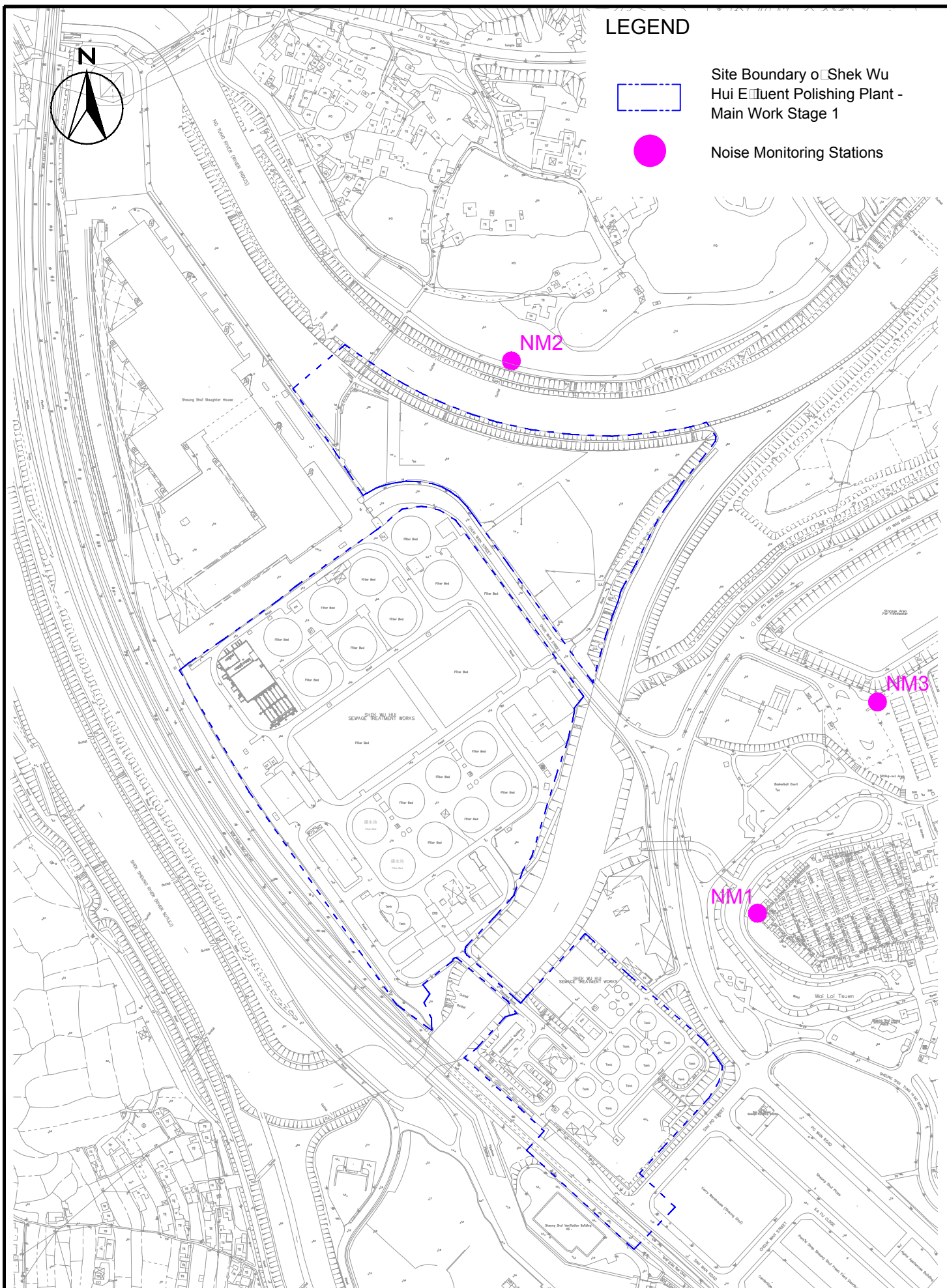


Shek Wu Hui Effluent Polishing Plant - <b>Project Organisation For Environmental Monitoring and Audit</b>	SCALE	N.T.S.	DATE	Sep 2019
	CHECK	JW	DRAWN	SY
	JOB NO.		FIGURE NO.	2.2

## ***Figure 4.1***

# ***Locations of Noise Monitoring Stations***

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**LEGEND**



Site Boundary of Shek Wu Hui Effluent Polishing Plant - Main Work Stage 1



Noise Monitoring Stations

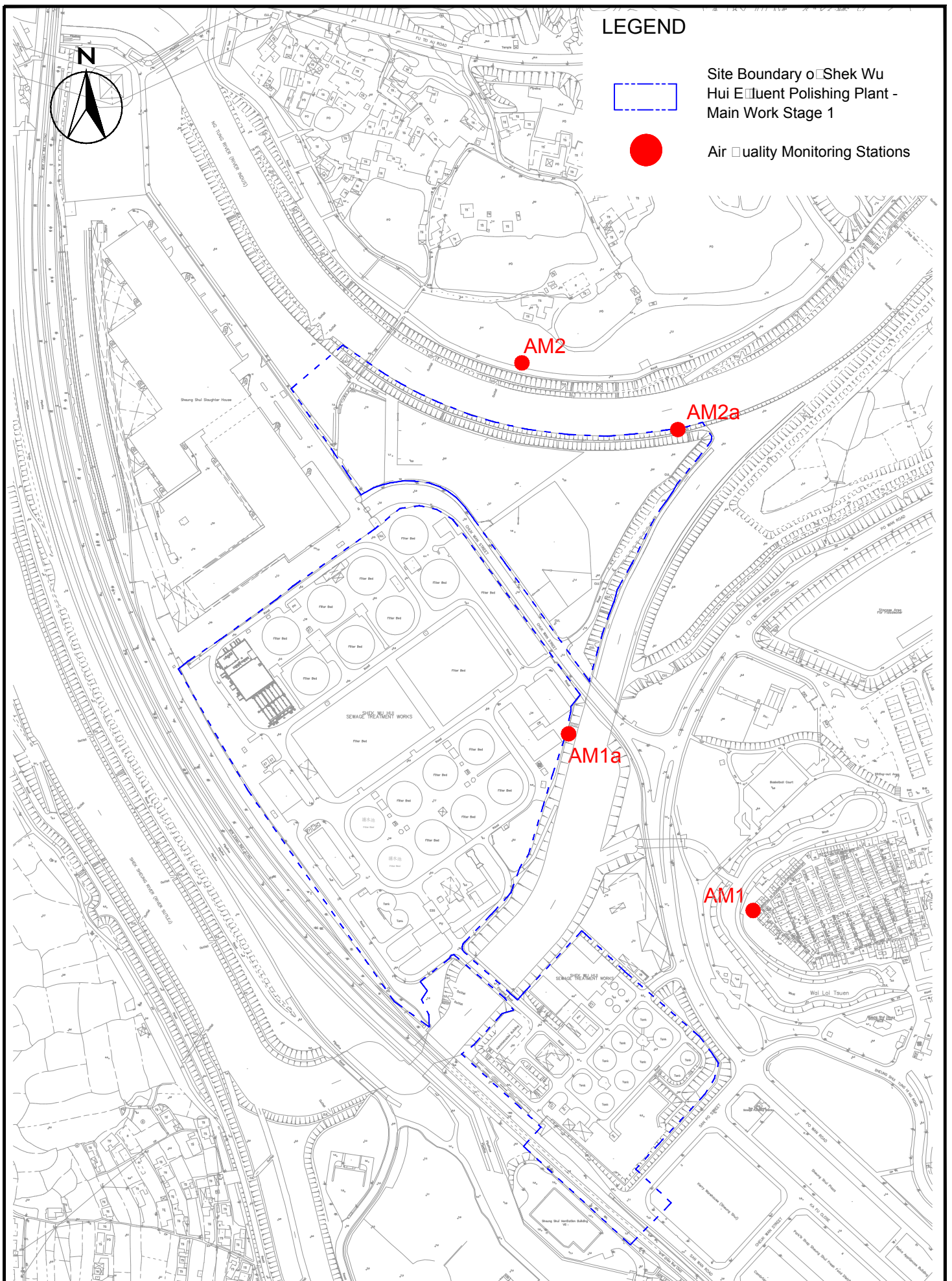
Shek Wu Hui Effluent Polishing Plant  
 Location of Noise Monitoring Stations

SCALE	1:4000 A4	DATE	SEP 2019	
CHECK	JM	DRAWN	SY	
JOB No.	MA19019	FIGURE NO.	4.1	REVISION
				-

## ***Figure 4.2***

# ***Locations of Air Quality Monitoring Stations***

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Shek Wu Hui Effluent Polishing Plant -  
Location of Air Quality Monitoring Stations

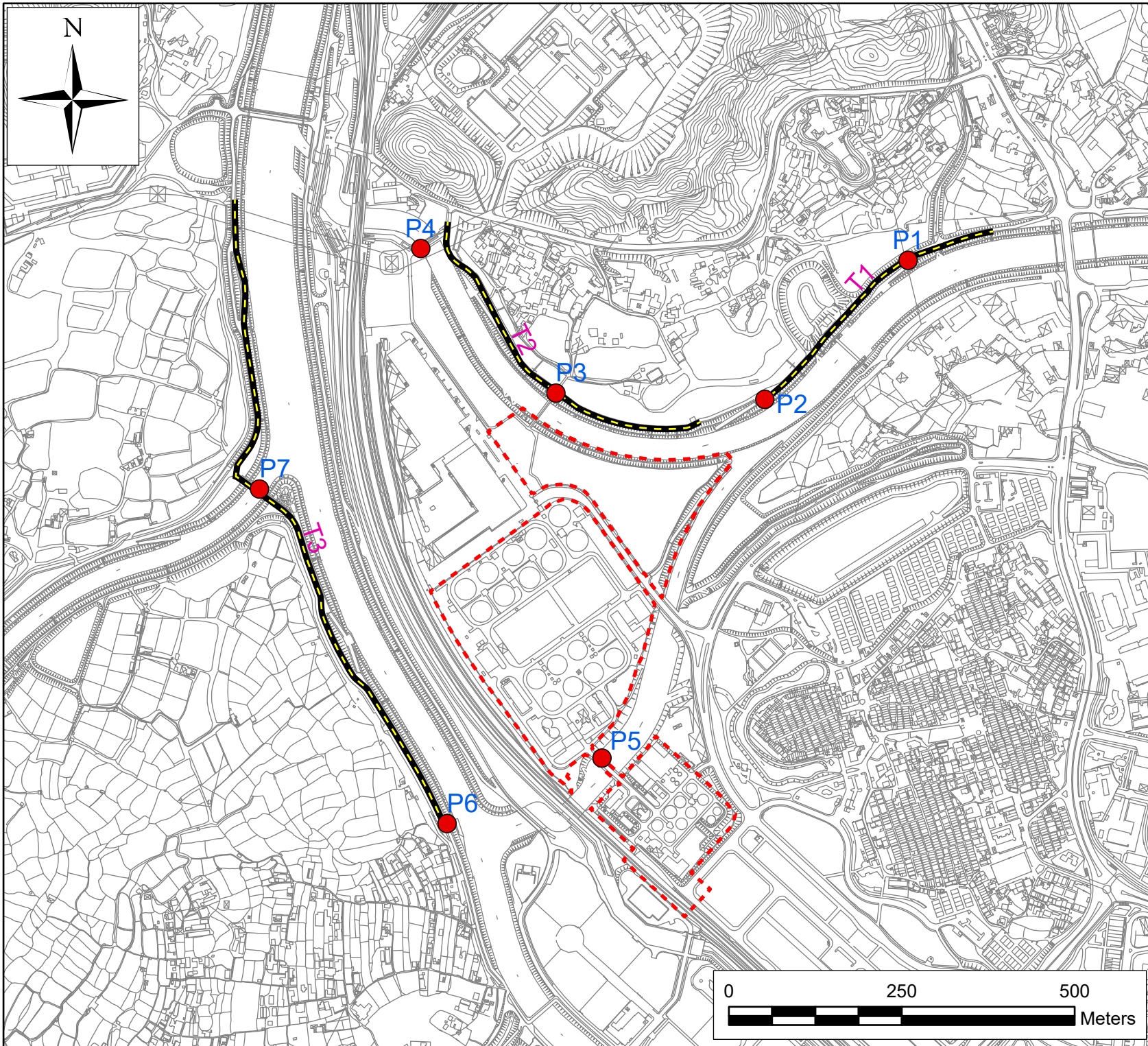
SCALE	1:400 A4	DATE	SEP 2019
CHECK	JM	DRAWN	SY
JOB No.		FIGURE NO.	4.2
		REVISION	-



## ***Figure 4.3***

# ***Locations of Ecological Monitoring Stations***

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- Legend**
- - - Project Site Boundary
  - - - Walk Transects
  - Point Count Locations

**PREPARED BY**  
*Lam Environmental Services Limited*  
 19/F Remex Centre  
 42 Wong Chuk Hang Road,  
 Hong Kong  
 Telephone: (852) 2882-3939  
 Facsimile: (852) 2882-3331  
 E-mail: [info@lamenviro.com](mailto:info@lamenviro.com)  
 Website: <http://www.lamenviro.com>

**CONTRACT NO.**  
**SPW 12/2021**

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

<b>SCALE</b> 1:7500@A4	<b>DATE</b> Sept 2021
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<b>DRAWN BY</b> AL	<b>CHECK BY</b> MC
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<b>FIGURE NO.</b> 4.3	<b>REVISION NO.</b> -
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## ***Appendix 1.1***

# ***Construction Programme of Individual Contracts***

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ID	Activity ID	Key Date	Task Name	Incliment Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete
1	CD-1000		<b>Contract Dates</b>			<b>1585 days</b>	<b>Mon 18/11/19</b>	<b>Thu 27/3/25</b>	<b>1651.5 days</b>	<b>Mon 18/11/19</b>	<b>Fri 13/6/25</b>	<b>Mon 18/11/19</b>	<b>NA</b>			<b>88.5 days</b>		<b>0%</b>
2	CD-1010		Starting Date			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19		8,9,13FS+290 days,14FS+311 days	0 days		100%
3	CAD-1000		<b>Access Dates (cal. day)</b>			<b>310 days</b>	<b>Mon 18/11/19</b>	<b>Wed 23/9/20</b>	<b>289 days</b>	<b>Mon 18/11/19</b>	<b>Wed 2/9/20</b>	<b>Mon 18/11/19</b>	<b>Wed 2/9/20</b>			<b>0 days</b>		<b>100%</b>
4	CAD-1010		Portion B-1 (Access Road AR3)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20		201	0 days		100%
5	CAD-1020		Portion B-1A (Area for the works for Sidestream Treatment Facilities by Others)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20			0 days		100%
6	CAD-1030		Portion B-2 (Inlet Works No.1)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20		295,306	0 days		100%
7	CAD-1040		Portion B-2A (Area for the pipe-jacking works by others)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20			0 days		100%
8	CAD-1050		Portion B-3 (Primary Sedimentation Tanks No. 1-4)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19		335	0 days		100%
9	CAD-1060		Portion B-4 (Bioreactor No. 2A & 2B)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19		353	0 days		100%
10	CAD-1070		Portion B-5 (Membrane Facilities Building No.2)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Tue 17/3/20	Tue 17/3/20	Tue 17/3/20	Tue 17/3/20		402,419,425	0 days		100%
11	CAD-1080		Portion B-6 (SAS Pumping Station)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19		434	0 days		100%
12	CAD-1090		Portion B-7 (Ancillary structures)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19		461	0 days		100%
13	CAD-1100		Portion B-7A (Alternation works for existing Power House)			0 days	Wed 2/9/20	Wed 2/9/20	0 days	Wed 2/9/20	Wed 2/9/20	Wed 2/9/20	Wed 2/9/20		539FS-1 day,29FS+179 days	0 days		100%
14	CAD-1110		Portion B-8 (Alternation for existing Membrane Facilities Building No.1)			0 days	Wed 2/9/20	Wed 2/9/20	0 days	Wed 2/9/20	Wed 2/9/20	Wed 2/9/20	Wed 2/9/20		541FS-1 day	0 days		100%
15	CAD-1020		Portion B-8A (Alternation of air supply main for existing Air Blower House No.2)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19		532	0 days		100%
16	CAD-1130		Portion B-9 (remainder works in Zone B)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19		542,556	0 days		100%
17	CAD-1140		Portion B-9A (Area for the pipe-jacking works by others)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19			0 days		100%
18	CAD-1150		Portion B-9B (Area for underground pipework modification and connection works by others)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19			0 days		100%
19	CAD-1160		Portion B-9C (Area for the works for pipeworks)			0 days	Wed 22/7/20	Wed 22/7/20	0 days	Fri 24/7/20	Fri 24/7/20	Fri 24/7/20	Fri 24/7/20		2F5+151 days	0 days		100%
20	CKD-1000		<b>Key Dates (cal. day)</b>			<b>1440 days</b>	<b>Tue 19/11/19</b>	<b>Sat 28/10/23</b>	<b>1144 days</b>	<b>Fri 27/11/20</b>	<b>Mon 15/1/24</b>	<b>Fri 27/11/20</b>	<b>NA</b>			<b>618 days</b>		<b>99%</b>
21	CKD-1010		KD1A completion of AR3 in Portion B-1 (375 days after starting date)			300 days	Tue 19/11/19	Sun 13/9/20	0 days	Fri 27/11/20	Fri 27/11/20	Fri 27/11/20	Fri 27/11/20		2F5+376 days	0 days		100%
22	CKD-1020		KD1B completion of utilities diversion for commencement of Inlet Works No.1 in Portion B-2 (438.5 days after starting date)			360 days	Tue 19/11/19	Thu 12/11/20	1 day	Sat 30/1/21	Sat 30/1/21	Sat 30/1/21	Sat 30/1/21		2F5+439.5 days	0 days		100%
23	CKD-1030		KD1C completion of civil and structural works of Inlet Works No.1 in Portion B-2 (1068.5 days after starting date)			990 days	Tue 19/11/19	Thu 4/8/22	0 days	Sat 22/10/22	Sat 22/10/22	NA	NA	2F5+1069.5 days	67	1056.5 days		0%
24	CKD-1040		KD1D completion of civil and structural works of Primary Sedimentation Tanks in Portion B-3 (1190days after starting date)			1190 days	Tue 19/11/19	Mon 20/2/23	0 days	Mon 20/2/23	Mon 20/2/23	NA	NA	2F5+1191 days	70	947 days		0%
25	CKD-1050		KD1E completion of civil and structural works of Bioreactor in Portion B-4 (1140days after starting date)			1140 days	Tue 19/11/19	Sun 1/1/23	0 days	Sun 1/1/23	Sun 1/1/23	NA	NA	2F5+1141 days		997 days		0%
26	CKD-1060		KD1F completion of civil and structural works of MFB from B2 floor to 1st floor level in Portion B-5 (855.5 days after starting date)			800 days	Tue 19/11/19	Wed 26/1/22	0 days	Wed 23/3/22	Wed 23/3/22	NA	NA	2F5+856.5 days	74	1273.5 days		0%
27	CKD-1070		KD1G completion of civil and structural works of MFB in Portion B-5 (1002.5 days after starting date)			950 days	Tue 19/11/19	Sat 25/6/22	0 days	Wed 17/8/22	Wed 17/8/22	NA	NA	2F5+1003.5 days	78	1126.5 days		0%
28	CKD-1080		KD1H completion of civil and structural works of SAS Pumping Station in Portion B-6 (703.5 days after starting date)			630 days	Tue 19/11/19	Mon 9/8/21	0 days	Fri 22/10/21	Fri 22/10/21	NA	NA	2F5+704.5 days	82	1425.5 days		0%
29	CKD-1090		KD1I completion alternation works for existing Power House in Portion B-7A (179days after access date of B-7A)			150 days	Fri 4/9/20	Sun 31/1/21	1 day	Mon 1/3/21	Mon 1/3/21	Mon 1/3/21	Mon 1/3/21	13FS+179 days		0 days		100%
30	CKD-1100		KD1J completion of auxiliary facilities in Portion B-7 (811.5 days after starting date)			800 days	Tue 19/11/19	Wed 26/1/22	0 days	Mon 7/2/22	Mon 7/2/22	NA	NA	2F5+812.5 days	86	1317.5 days		0%
31	CKD-1110		KD2A completion of effluent pipes to UV system and connection to its downstream in Portion B-9 (577.5 days after starting date)			495 days	Tue 19/11/19	Sat 27/3/21	0 days	Fri 18/6/21	Fri 18/6/21	Fri 18/6/21	Fri 18/6/21	2F5+578.5 days	93	0 days		100%
32	CKD-1120		KD2B completion of air supply main alternation to existing air blower house No.2 in Portion B-8A (494 days after starting date)			420 days	Tue 19/11/19	Mon 11/1/21	0 days	Fri 26/3/21	Fri 26/3/21	Fri 26/3/21	Fri 26/3/21	2F5+495 days		0 days		100%
33	CKD-1130		KD3A completion of all utilities and road works (1519 days after starting date)			1440 days	Tue 19/11/19	Sat 28/10/23	0 days	Mon 15/1/24	Mon 15/1/24	NA	NA	2F5+1520 days	99	606 days		0%
34	CCD-1000		<b>Completion Date (cal. Day)</b>			<b>1956 days</b>	<b>Tue 19/11/19</b>	<b>Thu 27/3/25</b>	<b>1056 days</b>	<b>Sat 23/7/22</b>	<b>Fri 13/6/25</b>	<b>Sat 23/7/22</b>	<b>NA</b>			<b>50.5 days</b>		<b>0%</b>
35	CCD-1010		Section 1 of the Works (1,543.5 after starting date)			1460 days	Fri 17/11/23	Fri 9/2/24	0 days	Fri 9/2/24	Fri 9/2/24	NA	NA	2F5+1544.5 days	105	0 days		0%
36	CCD-1020		Section 2 of the Works (977.5 after starting date)			900 days	Tue 19/11/19	Fri 6/5/22	0 days	Sat 23/7/22	Sat 23/7/22	NA	NA	2F5+978.5 days	111	0 days		0%
37	CCD-1030		Section 3 of the Works (1,687.5 after starting date)			1590 days	Tue 19/11/19	Wed 12/6/24	0 days	Wed 12/6/24	Wed 12/6/24	Wed 12/6/24	Wed 12/6/24	39FS+1 day,117,38FS+1 day		-77.5 days		99%
38	CCD-1040		Defects Liability Period			365 days	Wed 27/3/24	Thu 27/3/25	365 days	Thu 13/6/24	Fri 13/6/25	NA	NA	37FS+1 day		0 days		0%
39	CCD-1050		Landscape Establishment Works			365 days	Wed 27/3/24	Thu 27/3/25	365 days	Thu 13/6/24	Fri 13/6/25	NA	NA	37FS+1 day		103.5 days		0%
40	PD-1000		<b>Planned Completion</b>			<b>1686 days</b>	<b>Fri 14/8/20</b>	<b>Thu 27/3/25</b>	<b>1820 days</b>	<b>Wed 30/9/20</b>	<b>Wed 24/9/25</b>	<b>Wed 30/9/20</b>	<b>NA</b>			<b>0 days</b>		<b>3%</b>
41	PCD-1000		<b>Planned Completion - Key Dates (cal. day)</b>			<b>1170 days</b>	<b>Fri 14/8/20</b>	<b>Sat 28/10/23</b>	<b>1321 days</b>	<b>Wed 30/9/20</b>	<b>Mon 13/5/24</b>	<b>Wed 30/9/20</b>	<b>NA</b>			<b>-119 days</b>		<b>99%</b>
42	PKD-1010	KD1A	KD1A completion of AR3 in Portion B-1 (300days after starting date)			0 days	Sat 12/9/20	Sat 12/9/20	0 days	Wed 30/9/20	Wed 30/9/20	Wed 30/9/20	Wed 30/9/20	210FF		0 days		100%
43	PCD-1020	KD1B	KD1B completion of utilities diversion for commencement of Inlet Works No.1 in Portion B-2 (360days after starting date)			0 days	Fri 14/8/20	Fri 14/8/20	0 days	Fri 22/1/21	Fri 22/1/21	Fri 22/1/21	Fri 22/1/21	286FF,291FF,273FF		0 days		100%
44	PCD-1030	KD1C	KD1C completion of civil and structural works of Inlet Works No.1 in Portion B-2 (990days after starting date)			0 days	Thu 4/8/22	Thu 4/8/22	0 days	Thu 1/12/22	Thu 1/12/22	NA	NA	330FF,322FF,248FF,294FF,212FF,250FF		-40 days		0%
45	PCD-1040	KD1D	KD1D completion of civil and structural works of Primary Sedimentation Tanks in Portion B-3 (1190days after starting date)			0 days	Mon 20/2/23	Mon 20/2/23	0 days	Mon 20/2/23	Mon 20/2/23	NA	NA	349FF,348FF,351FF,333FF		0 days		0%
46	PCD-1050	KD1E	KD1E completion of civil and structural works of Bioreactor in Portion B-4 (1,140days after starting date)			0 days	Sat 31/12/22	Sat 31/12/22	0 days	Sat 22/4/23	Sat 22/4/23	NA	NA	391FF,397FF,393FF,396FF,392FF		-111 days		0%
47	PCD-1060	KD1F	KD1F completion of civil and structural works of MFB from B2 floor to 1st floor level in Portion B-5 (800days after starting date)			0 days	Tue 25/1/22	Tue 25/1/22	0 days	Thu 4/8/22	Thu 4/8/22	NA	NA	430FF		-135 days		0%
48	PCD-1070	KD1G	KD1G completion of civil and structural works of MFB in Portion B-5 (950days after starting date)			0 days	Sat 25/6/22	Sat 25/6/22	0 days	Wed 28/12/22	Wed 28/12/22	NA	NA	431FF		-133 days		0%
49	PCD-1080	KD1H	KD1H completion of civil and structural works of SAS Pumping Station in Portion B-6 (630days after starting date)			0 days	Mon 9/8/21	Mon 9/8/21	0 days	Sat 19/3/22	Sat 19/3/22	NA	NA	459FF,458FF		-148 days		0%
50	PCD-1090	KD1I	KD1I completion alternation works for existing Power House in Portion B-7A (150days after access date of B-7A)			0 days	Sat 30/1/21	Sat 30/1/21	1 day	Fri 29/1/21	Fri 29/1/21	Fri 29/1/21	Fri 29/1/21	539FF		0 days		100%
51	PCD-1100	KD1J	KD1J completion of auxiliary facilities in Portion B-7 (800days after starting date)			0 days	Wed 26/1/22	Wed 26/1/22	0 days	Mon 13/6/22	Mon 13/6/22	NA	NA	496FF,495FF,521FF,520FF,513FF,512FF		-126 days		0%
52	PCD-1110	KD2A	KD2A completion of effluent pipes to UV system and connection to its downstream in Portion B-9 (495days after starting date)			0 days	Sat 27/3/21	Sat 27/3/21	0 days	Wed 4/8/21	Wed 4/8/21	NA	NA	545FF,543FF		-47 days		0%
53	PCD-1120	KD2B	KD2B completion of air supply main alternation to existing air blower house No.2 in Portion B-8A (420days after starting date)			0 days	Thu 3/9/20	Thu 3/9/20	1 day	Fri 26/3/21	Fri 26/3/21	Fri 26/3/21	Fri 26/3/21	532FF,536FF,537FF,538FF		0 days		100%
54	PCD-1130	KD3A	KD3A completion of all utilities and road works (1440days after starting date)			0 days	Sat 28/10/23	Sat 28/10/23	0 days	Mon 13/5/24	Mon 13/5/24	NA	NA	555FF,557FF		-119 days		0%
55	PCD-1000		<b>Planned Completion Date (cal. Day)</b>			<b>1056 days</b>	<b>Fri 6/5/22</b>	<b>Thu 27/3/25</b>	<b>1054 days</b>	<b>Sat 5/11/22</b>	<b>Wed 24/9/25</b>	<b>NA</b>	<b>NA</b>			<b>-106 days</b>		<b>0%</b>
56	PCD-1010	SW1	Section 1 of the Works (1,460 after starting date)															



ID	Activity ID	Key Date	Task Name	Inclment Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete
85	ET1H-1100		<b>Inclment Weather to KD1J (cal. Day)</b>			0 days	NA	NA	49 days	Mon 7/2/22	Mon 28/3/22	NA	NA			1276.5 days		0%
86	ET1H-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Mon 7/2/22	Wed 2/3/22	NA	NA 30		87	1276.5 days		0%
87	ET1H-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Wed 2/3/22	Mon 28/3/22	NA	NA 86			1276.5 days		0%
88	ET2A-1000		<b>Effects to KD2A</b>			0 days	NA	NA	53 days	Fri 18/6/21	Tue 10/8/21	Fri 18/6/21	NA			1506.5 days		24%
89	ET2A-1100		<b>Inclment Weather to KD2A (cal. Day)</b>			49 days	NA	NA	49 days	Tue 22/6/21	Tue 10/8/21	Tue 22/6/21	NA			1506.5 days		17%
90	ET2A-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Tue 22/6/21	Thu 15/7/21	Tue 22/6/21	NA 93		91	1506.5 days		37%
91	ET2A-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Thu 15/7/21	Tue 10/8/21	NA	NA 90			1506.5 days		0%
92	ET2A-1200		<b>Other Events to KD2A (not all)</b>			0 days	NA	NA	4 days	Fri 18/6/21	Tue 22/6/21	Fri 18/6/21	Tue 22/6/21			0 days		100%
93	ET2A-1210		Special working arrangement due to COVID-19 in January 2020			0 days	NA	NA	4 days	Fri 18/6/21	Tue 22/6/21	Fri 18/6/21	Tue 22/6/21 31		90	0 days		100%
94	ET3A-1000		<b>Effects to KD3A</b>			0 days	NA	NA	53 days	Tue 16/1/24	Fri 8/3/24	NA	NA			565 days		0%
95	ET3A-1100		<b>Inclment Weather to KD3A (cal. Day)</b>			49 days	NA	NA	49 days	Sat 20/1/24	Fri 8/3/24	NA	NA			565 days		0%
96	ET3A-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Sat 20/1/24	Sun 11/2/24	NA	NA 99		97	565 days		0%
97	ET3A-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Mon 12/2/24	Fri 8/3/24	NA	NA 96			565 days		0%
98	ET3A-1200		<b>Other Events to KD3A (not all)</b>			0 days	NA	NA	4 days	Tue 16/1/24	Fri 19/1/24	NA	NA			565 days		0%
99	ET3A-1210		Special working arrangement due to COVID-19 in January 2020			0 days	NA	NA	4 days	Tue 16/1/24	Fri 19/1/24	NA	NA 33		96	565 days		0%
100	ETS1-1000		<b>Effects to Section 1 of the Works</b>			0 days	NA	NA	53 days	Fri 9/2/24	Tue 2/4/24	NA	NA			540.5 days		0%
101	ETS1-1100		<b>Inclment Weather to Section 1 of the Works (cal. Day)</b>			49 days	NA	NA	49 days	Tue 13/2/24	Tue 2/4/24	NA	NA			540.5 days		0%
102	ETS1-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Tue 13/2/24	Thu 7/3/24	NA	NA 105		103	540.5 days		0%
103	ETS1-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Thu 7/3/24	Tue 2/4/24	NA	NA 102			540.5 days		0%
104	ETS1-1200		<b>Other Events to Section 1 of the Works (not all)</b>			0 days	NA	NA	4 days	Fri 9/2/24	Tue 13/2/24	NA	NA			540.5 days		0%
105	ETS1-1210		Special working arrangement due to COVID-19 in January 2020			0 days	NA	NA	4 days	Fri 9/2/24	Tue 13/2/24	NA	NA 35		102	540.5 days		0%
106	ETS2-1000		<b>Effects to Section 2 of the Works</b>			0 days	NA	NA	53 days	Sat 23/7/22	Wed 14/9/22	NA	NA			1106.5 days		0%
107	ETS2-1100		<b>Inclment Weather to Section 2 of the Works (cal. Day)</b>			49 days	NA	NA	49 days	Wed 27/7/22	Wed 14/9/22	NA	NA			1106.5 days		0%
108	ETS2-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Wed 27/7/22	Fri 19/8/22	NA	NA 111		109	1106.5 days		0%
109	ETS2-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Fri 19/8/22	Wed 14/9/22	NA	NA 108			1106.5 days		0%
110	ETS2-1200		<b>Other Events to Section 2 of the Works (not all)</b>			0 days	NA	NA	4 days	Sat 23/7/22	Wed 27/7/22	NA	NA			1106.5 days		0%
111	ETS2-1210		Special working arrangement due to COVID-19 in January 2020			0 days	NA	NA	4 days	Sat 23/7/22	Wed 27/7/22	NA	NA 36		108	1106.5 days		0%
112	ETS3-1000		<b>Effects to Section 3 of the Works</b>			0 days	NA	NA	53 days	Wed 12/6/24	Sun 4/8/24	NA	NA			416.5 days		0%
113	ETS3-1100		<b>Inclment Weather to Section 3 of the Works (cal. Day)</b>			49 days	NA	NA	49 days	Sun 16/6/24	Sun 4/8/24	NA	NA			416.5 days		0%
114	ETS3-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Sun 16/6/24	Tue 9/7/24	NA	NA 117		115	416.5 days		0%
115	ETS3-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Tue 9/7/24	Sun 4/8/24	NA	NA 114			416.5 days		0%
116	ETS3-1200		<b>Other Events to Section 3 of the Works (not all)</b>			0 days	NA	NA	4 days	Wed 12/6/24	Sun 16/6/24	NA	NA			416.5 days		0%
117	ETS3-1210		Special working arrangement due to COVID-19 in January 2020			0 days	NA	NA	4 days	Wed 12/6/24	Sun 16/6/24	NA	NA 37		114	416.5 days		0%
118	SUB-1000		<b>Submissions (cal. day)</b>			1564 days	Mon 18/11/19	Wed 28/2/24	1956 days	Mon 18/11/19	Wed 26/3/25	Mon 18/11/19	NA			182 days		60%
119	SUBS-1000		<b>Subletting Package</b>			96 days	Mon 18/11/19	Fri 21/2/20	562 days	Mon 18/11/19	Tue 1/6/21	Mon 18/11/19	Tue 1/6/21			0 days		100%
120	SUBS-1010		Prepare & submit subletting procedure			12 days	Mon 18/11/19	Fri 29/11/19	12 days	Mon 18/11/19	Mon 18/11/19	Fri 29/11/19	Fri 29/11/19 2		121	0 days		100%
121	SUBS-1020		PM review and accept subletting procedure			15 days	Sat 30/11/19	Wed 11/12/19	12 days	Sat 30/11/19	Wed 11/12/19	Sat 30/11/19	Wed 11/12/19 120		142,122,125,124,123	0 days		100%
122	SUBS-1030		Subletting for demolition works			24 days	Thu 12/12/19	Sat 4/1/20	93 days	Thu 12/12/19	Wed 18/3/20	Tue 17/12/19	Wed 18/3/20 121,154		339,462,295,402,539,359	0 days		100%
123	SUBS-1040		Subletting for UU diversion for Inlet Works No.1			24 days	Thu 12/12/19	Sat 4/1/20	78 days	Thu 12/12/19	Fri 10/1/20	Fri 27/3/20	Fri 10/1/20	Fri 27/3/20 121	212	0 days		100%
124	SUBS-1050		Subletting for inspection pit excavation			0 days	NA	NA	56 days	Thu 19/12/19	Wed 12/2/20	Thu 19/12/19	Wed 12/2/20 121,154		214,126	0 days		100%
125	SUBS-1060		Subletting for Preliminary Works (topographic surveying)			14 days	Thu 12/12/19	Wed 25/12/19	54 days	Fri 20/12/19	Tue 11/2/20	Fri 20/12/19	Tue 11/2/20 121,154		159,198,129,130,131,127	0 days		100%
126	SUBS-1070		Subletting for AR3 access road			24 days	Thu 12/12/19	Sat 4/1/20	0 days	Fri 13/12/19	Fri 13/12/19	Fri 13/12/19	Tue 11/2/20 124		127,210	0 days		100%
127	SUBS-1080		Subletting for pre-drilling works			24 days	Thu 12/12/19	Sat 4/1/20	38 days	Thu 6/2/20	Fri 20/3/20	Thu 6/2/20	Fri 20/3/20 125,126		452,342,414,128	0 days		100%
128	SUBS-1090		Subletting for Contractor designer for temporary works and ICE			24 days	Thu 12/12/19	Sat 4/1/20	71 days	Mon 16/12/19	Mon 24/2/20	Mon 16/12/19	Mon 24/2/20 127		0 days		100%	
129	SUBS-1100		Subletting for independent BIM consultant			24 days	Thu 12/12/19	4/1/20	0 days	Wed 11/12/19	Thu 23/1/20	Wed 11/12/19	Thu 23/1/20 125		193	0 days		100%
130	SUBS-1110		Subletting for independent BIM services			0 days	NA	NA	15 days	Tue 14/1/20	Wed 28/2/20	Tue 14/1/20	Wed 28/2/20 125		193	0 days		100%
131	SUBS-1120		Subletting for Design, Supply & Install of Temporary Activated Carbon Deodorization Units (E&M Works)			0 days	NA	NA	0 days	Fri 13/12/19	Tue 11/2/20	Fri 13/12/19	Tue 11/2/20 125		132,133	0 days		100%
132	SUBS-1130		Subletting for pre-bored H pile works			36 days	Thu 12/12/19	Thu 16/1/20	45 days	Sun 5/7/20	Tue 18/8/20	Sun 5/7/20	Tue 18/8/20 131		343,415,453,309	0 days		100%
133	SUBS-1140		Subletting for Sheelple installation works			0 days	NA	NA	45 days	Tue 1/9/20	Thu 15/10/20	Thu 1/9/20	Thu 15/10/20 131		344,455,134,135	0 days		100%
134	SUBS-1150		Subletting for ELS works for Inlet Works No.1			48 days	Sun 5/1/20	Fri 21/2/20	85 days	Fri 16/10/20	Fri 8/1/21	Fri 16/10/20	Fri 8/1/21 133		0 days		100%	
135	SUBS-1160		Subletting for ELS works for Membrane Facilities Building and other buildings			48 days	Sun 5/1/20	Fri 21/2/20	85 days	Fri 16/10/20	Fri 8/1/21	Fri 16/10/20	Fri 8/1/21 133		346,389,456,136,137,138,139,140	0 days		100%
136	SUBS-1170		Subletting for structural works for Inlet Works Building			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Sat 9/1/21	Thu 25/2/21	Sat 9/1/21	Thu 25/2/21 135		0 days		100%	
137	SUBS-1180		Subletting for structural works for Primary Sedimentation Tanks			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Sat 9/1/21	Thu 25/2/21	Sat 9/1/21	Thu 25/2/21 135		348	0 days		100%
138	SUBS-1190		Subletting for structural works for Bioreactors			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Sat 9/1/21	Thu 25/2/21	Sat 9/1/21	Thu 25/2/21 135		391	0 days		100%
139	SUBS-1200		Subletting for structural works for Membrane Facilities Building			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Sat 9/1/21	Thu 25/2/21	Sat 9/1/21	Thu 25/2/21 135		426	0 days		100%
140	SUBS-1210		Subletting for structural works for SAS pumping house and ancillary structures			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Sat 9/1/21	Thu 25/2/21	Sat 9/1/21	Thu 25/2/21 135		141	0 days		100%
141	SUBS-1220		Subletting for ABWF works			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Fri 26/2/21	Wed 14/4/21	Fri 26/2/21	Wed 14/4/21 140		332,350,398,460,488,504,514,522	0 days		100%
142	SUBS-1230		Subletting for Process Pipeworks, Utilities and Roadworks			48 days	Thu 12/12/19	Tue 28/1/20	150 days	Fri 22/5/20	Sun 18/10/20	Fri 22/5/20	Sun 18/10/20 121		532,549,551,552,553,554,543	0 days		100%
143	SUBS-1240		Subletting for Landscape Hardworks and Softworks			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Thu 15/4/21	Tue 1/6/21	Thu 15/4/21	Tue 1/6/21 141		559,560	0 days		100%
144	SUBS-1250		Subletting for Trial dewatering works and installation of additional stop logs at BR2 connon channel due to malfunctioned of existing penstock at FST no. 5 and 7 (EWN 055)			0 days	NA	NA	15 days	Tue 15/9/20	Tue 29/9/20	Tue 15/9/20	Tue 29/9/20		355	0 days		100%
145	SUBS-1260		Subletting for Diversion of Power supply for existing Slaughter House pump station (CE 034)			0 days	NA	NA	14 days	Mon 21/9/20	Sun 4/10/20	Mon 21/9/20	Sun 4/10/20			0 days		100%
146	SUBS-1270		Subletting for Decommission of existing power and signal systems in leachate Pump station switch room (PMI 039)			0 days	NA	NA	14 days	Mon 21/9/20	Sun 4/10/20	Mon 21/9/20	Sun 4/10/20		439	0 days		100%
147	SUBS-1280		Subletting for Diversion of															

ID	Activity ID	Key Date	Task Name	Incliment Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete
170	SUBA-1130b		Prepare and submit Dewatering proposal for basement construction for Primary Sedimentation tanks No.1-4			0 days	NA	NA	24 days	Fri 1/7/22	Mon 25/7/22	NA	NA	NA346SF		1158 days		0%
171	SUBA-1130c		Prepare and submit Dewatering proposal for basement construction for Bioreactor No. 2A&2B			0 days	NA	NA	24 days	Sun 15/5/22	Wed 8/6/22	NA	NA	NA389SF		1205 days		0%
172	SUBA-1140		Prepare and submit Pre-construction condition survey of existing structures/ services			24 days	Wed 5/2/20	Fri 28/2/20	0 days	Mon 18/11/19	Fri 6/3/20	Mon 18/11/19	Fri 6/3/20	198		0 days		100%
173	SUBA-1150		Prepare and submit Settlement and movement monitoring proposal of existing structures/ services			24 days	Wed 5/2/20	Fri 28/2/20	110 days	Mon 18/11/19	Fri 6/3/20	Mon 18/11/19	Fri 6/3/20	198FS+120 days		0 days		100%
174	SUBA-1160		Prepare and submit design of structure elements of the temporary activated carbon deodorization unit			60 days	Fri 1/7/20	Mon 16/3/20	60 days	Mon 18/11/19	Mon 16/3/20	Mon 18/11/19	Mon 16/3/20	2FS+60 days		0 days		100%
175	SUBA-1170		Prepare of RSE and structural design for alternation and additional (A&A) works at Membrane Facilities Building No.1			180 days	Mon 18/10/21	Fri 15/4/22	180 days	Mon 18/10/21	Fri 15/4/22	NA	NA		541	332 days		0%
176	SUBA-1180		Prepare of RSE and structural design for alternation and additional (A&A) works at Main Power House			44 days	Wed 15/7/20	Thu 3/9/20	60 days	Mon 6/7/20	Thu 3/9/20	Mon 6/7/20	Thu 3/9/20		539	0 days		100%
177	SUBE-1000		<b>Environmental Aspect Submissions</b>			<b>45 days</b>	<b>Mon 18/11/19</b>	<b>Wed 1/1/20</b>	<b>81 days</b>	<b>Mon 18/11/19</b>	<b>Thu 6/2/20</b>	<b>Mon 18/11/19</b>	<b>Thu 6/2/20</b>			<b>0 days</b>		<b>100%</b>
178	SUBE-1010		Prepare, submit & approve Site Management Plan for Trip Tricket System			45 days	Mon 18/11/19	Wed 1/1/20	66 days	Mon 18/11/19	Wed 22/1/20	Mon 18/11/19	Wed 22/1/20			0 days		100%
179	SUBE-1020		Prepare, submit & approve Waste Management Plan			45 days	Mon 18/11/19	Wed 1/1/20	81 days	Mon 18/11/19	Thu 6/2/20	Mon 18/11/19	Thu 6/2/20			0 days		100%
180	SUBE-1030		Prepare, submit & approve Environmental Management Plan			45 days	Mon 18/11/19	Wed 1/1/20	66 days	Mon 18/11/19	Wed 22/1/20	Mon 18/11/19	Wed 22/1/20			0 days		100%
181	SUBP-1000		<b>Procurement</b>			<b>731 days</b>	<b>Mon 18/11/19</b>	<b>Wed 17/11/21</b>	<b>648 days</b>	<b>Mon 18/11/19</b>	<b>Thu 26/8/21</b>	<b>Mon 18/11/19</b>	<b>NA</b>			<b>278 days</b>		<b>94%</b>
182	SUBP-1010		Prepare and submit the Procurement Procedure			12 days	Mon 18/11/19	Fri 29/11/19	2 days	Mon 18/11/19	Tue 19/11/19	Mon 18/11/19	Tue 19/11/19	183		0 days		100%
183	SUBP-1020		PM Review & Accept Procurement Procedure			12 days	Sat 30/11/19	Wed 11/12/19	21 days	Tue 19/11/19	Tue 10/12/19	Tue 19/11/19	Tue 10/12/19	182	184,185,186,187,188,189,190,191	0 days		100%
184	SUBP-1030		Prepare, submit and approve the pipe works material			25 days	Thu 12/12/19	Sun 5/1/20	34 days	Thu 6/2/20	Tue 10/3/20	Thu 6/2/20	Tue 10/3/20	183	212,532,551,552,554,553,549,557,0	0 days		100%
185	SUBP-1040		Prepare, submit and approve the water proofing material			25 days	Thu 12/12/19	Sun 5/1/20	25 days	Thu 26/8/21	NA	NA	183		329,325	278 days		0%
186	SUBP-1050		Prepare, submit and approve the concrete mix material			48 days	Thu 12/12/19	Tue 28/1/20	90 days	Mon 3/2/20	Sat 2/5/20	Mon 3/2/20	Sat 2/5/20	183		391,426	0 days	100%
187	SUBP-1060		Prepare, submit and approve the rebar material			48 days	Thu 12/12/19	Tue 28/1/20	49 days	Thu 10/7/20	Sat 23/5/20	Fri 10/7/20	Sat 23/5/20	183		391,426	0 days	100%
188	SUBP-1070		Prepare, submit and approve the metal works material			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Tue 1/9/20	Sun 18/10/20	Tue 1/9/20	Sun 18/10/20	183		391,426	0 days	100%
189	SUBP-1080		Prepare, submit and approve the ABWF works material			48 days	Sat 12/12/20	Tue 28/1/20	48 days	Mon 1/3/21	Sat 17/4/21	Sat 17/4/21	Sat 17/4/21	183	332,350,398,460,488,504,514,522,0	0 days		100%
190	SUBP-1090		Prepare, submit and approve the protective lining to concrete			0 days	NA	NA	48 days	Tue 1/9/20	Sun 18/10/20	Tue 1/9/20	Sun 18/10/20	183		391,426	0 days	100%
191	SUBP-1100		Prepare, submit and approve the multi-part covers			0 days	NA	NA	21 days	Tue 5/5/20	Mon 25/5/20	Mon 25/5/20	183			0 days		100%
192	SUBB-1000		<b>BIM</b>			<b>1205 days</b>	<b>Thu 6/2/20</b>	<b>Wed 28/2/24</b>	<b>1562 days</b>	<b>Mon 18/11/19</b>	<b>Fri 28/2/25</b>	<b>Mon 18/11/19</b>	<b>NA</b>			<b>178 days</b>		<b>27%</b>
193	SUBB-1010		Prepare, submit and approve the proposal of details of Common data environment (CDE)			48 days	Thu 6/2/20	Wed 1/4/20	37 days	Mon 18/11/19	Wed 1/4/20	Mon 18/11/19	Wed 1/4/20	129,130	194	0 days		100%
194			Prepare and submit BIM submission			1484 days	Thu 6/2/20	Wed 28/2/24	1451 days	Thu 2/4/20	Fri 28/2/25	Thu 2/4/20	NA	193		178 days		25%
195	C-1000		<b>Construction Works (Working day)</b>			<b>1957 days</b>	<b>Mon 18/11/19</b>	<b>Thu 27/3/25</b>	<b>2138 days</b>	<b>Mon 18/11/19</b>	<b>Wed 24/3/25</b>	<b>Mon 18/11/19</b>	<b>NA</b>			<b>0 days</b>		<b>51%</b>
196	CPW-1000		<b>Preliminary Works</b>			<b>109 days</b>	<b>Mon 18/11/19</b>	<b>Thu 5/3/20</b>	<b>121 days</b>	<b>Mon 18/11/19</b>	<b>Tue 17/3/20</b>	<b>Mon 18/11/19</b>	<b>Tue 17/3/20</b>			<b>0 days</b>		<b>100%</b>
197	CPW-1000		Initial Survey			24 days	Mon 18/11/19	Sat 14/12/19	10 days	Mon 18/11/19	Thu 28/11/19	Mon 18/11/19	Thu 28/11/19	198		0 days		100%
198	CPW-2000		Condition Survey			30 days	Fri 27/12/19	Tue 4/2/20	89 days	Mon 18/11/19	Fri 6/3/20	Mon 18/11/19	Fri 6/3/20	125,197	199,172,173FS+120 days,200	0 days		100%
199	CPW-3000		Installation of Monitoring Markers			26 days	Wed 5/2/20	Thu 5/3/20	78 days	Fri 29/11/19	Thu 5/3/20	Fri 29/11/19	Thu 5/3/20	198		0 days		100%
200	CPW-4000		Tree Felling Works		22, 235	0 days	NA	NA	9 days	Sat 7/3/20	Sat 7/3/20	Tue 17/3/20	198		0 days		100%	
201	CAR-0000		<b>Access Road (AR3), B-1</b>			<b>193 days</b>	<b>Mon 20/1/20</b>	<b>Sat 12/9/20</b>	<b>238 days</b>	<b>Thu 12/12/19</b>	<b>Wed 30/9/20</b>	<b>Thu 12/12/19</b>	<b>Wed 30/9/20</b>	<b>156</b>		<b>0 days</b>		<b>100%</b>
202	CAR-1000		Site setup and clearance works		05	28 days	Mon 20/1/20	Mon 24/2/20	38 days	Mon 20/1/20	Fri 6/3/20	Mon 20/1/20	Fri 6/3/20	203		0 days		100%
203	CAR-1001		Awaiting for AECOM instruction for alignment confirmation for road works		055	0 days	NA	NA	5 days	Mon 17/2/20	Thu 12/3/20	Mon 17/2/20	Thu 12/3/20	202		0 days		100%
204	CAR-1002		Additional Works in Access Road AR3 to Settle Left-in Material by Contract DC/2016/07		215-1	0 days	NA	NA	4 days	Thu 21/5/20	Mon 25/5/20	Thu 21/5/20	Mon 25/5/20	203		0 days		100%
205	CAR-2000		Drainage and Utilities Works			76 days	Fri 6/3/20	Tue 9/6/20	75 days	Sat 7/3/20	Tue 9/6/20	Sat 7/3/20	Tue 9/6/20	204		0 days		100%
206	CAR-2000a		Trimming of Existing Sheet Piles in Access Road AR3		215-2	0 days	NA	NA	20 days	Tue 14/7/20	Wed 5/8/20	Tue 14/7/20	Wed 5/8/20	205		0 days		100%
207	CAR-2000b		Installation of Multi-part Cover and Manhole Cover of Chamber RP6 and Associated Concreting Works in Portion B-1		215	0 days	NA	NA	7 days	Fri 28/8/20	Fri 4/9/20	Fri 28/8/20	Fri 4/9/20	206		0 days		100%
208	CAR-2001		Diversion of Existing Underground Cables in Portion B-1A		036	0 days	NA	NA	172 days	Thu 5/3/20	Wed 30/9/20	Thu 5/3/20	Wed 30/9/20	207		0 days		100%
209	CAR-2002		Additional U-channel, beam barrier and footway concrete pavement		055	0 days	NA	NA	60 days	Thu 12/12/19	Wed 26/2/20	Thu 12/12/19	Wed 26/2/20	210		0 days		100%
210	CAR-3000	KD1A	Roadworks			80 days	Wed 10/6/20	Sat 12/9/20	133 days	Fri 24/4/20	Wed 30/9/20	Fri 24/4/20	Wed 30/9/20	126,209,208	42FF	0 days		100%
211	CIW-0000		<b>Inlet Works No.1, B-2</b>			<b>854 days</b>	<b>Mon 6/1/20</b>	<b>Mon 21/11/22</b>	<b>594 days</b>	<b>Tue 26/11/19</b>	<b>Thu 25/11/21</b>	<b>Tue 26/11/19</b>	<b>NA</b>			<b>0 days</b>		<b>88%</b>
212	CIW-1000		<b>Diversion Works (1. Inlet Trunk Sewer, Leachate Rising Mains, Sludge Pipes, Tank Drains and Pipelines near Primary Sludge Thickeners)</b>			<b>180 days</b>	<b>Mon 6/1/20</b>	<b>Fri 14/8/20</b>	<b>459 days</b>	<b>Tue 26/11/19</b>	<b>Wed 16/6/21</b>	<b>Tue 26/11/19</b>	<b>NA</b>	<b>184,123</b>	<b>44FF</b>	<b>111 days</b>		<b>88%</b>
213	CIW-1100		Utilities scanning to identify existing UU arrangement			12 days	Mon 6/1/20	Sat 18/1/20	0 days	Fri 13/12/19	Sat 18/1/20	Fri 13/12/19	Sat 18/1/20	158	214SS,216	0 days		100%
214	CIW-1200		Trial pits to locate the collection points			24 days	Mon 6/1/20	Wed 5/2/20	0 days	Mon 6/1/20	Tue 10/3/20	Mon 6/1/20	Tue 10/3/20	158,213SS,124	232,251	0 days		100%
215	CIW-1300		<b>Installation and Commissioning of Temporary Activated Carbon Deodorization Unit for the Existing Inlet Works</b>			<b>0 days</b>	<b>NA</b>	<b>NA</b>	<b>98 days</b>	<b>Wed 11/3/20</b>	<b>Sat 11/7/20</b>	<b>Wed 11/3/20</b>	<b>Sat 11/7/20</b>			<b>0 days</b>		<b>100%</b>
216	CIW-1310		Construction of concrete plinth			0 days	NA	NA	24 days	Wed 11/3/20	Wed 8/4/20	Wed 11/3/20	Wed 8/4/20	213		0 days		100%
217	CIW-1320		Installation of Deodorizer			0 days	NA	NA	40 days	Thu 9/4/20	Sat 30/5/20	Thu 9/4/20	Sat 30/5/20	216		0 days		100%
218	CIW-1330		Testing & commissioning			0 days	NA	NA	15 days	Mon 1/6/20	Wed 17/6/20	Mon 1/6/20	Wed 17/6/20	217	219FS-1 day	0 days		100%
219	CIW-1340		Demolishment of the existing carbon deodorization unit			0 days	NA	NA	20 days	Wed 17/6/20	Sat 11/7/20	Wed 17/6/20	Sat 11/7/20	218FS-1 day		0 days		100%
220	CIW-1400		<b>Diversion of Inlet Trunk Sewer (approx. 40m 1800mm dia concrete pipe, 4 deep manholes and Inlet Reception Chamber)</b>			<b>146 days</b>	<b>Thu 6/2/20</b>	<b>Mon 3/8/20</b>	<b>451 days</b>	<b>Mon 9/3/20</b>	<b>Mon 13/9/21</b>	<b>Mon 9/3/20</b>	<b>NA</b>			<b>0 days</b>		<b>97%</b>
221	CIW-1405		Joint Initial Survey arrangement with MTRCL			0 days	NA	NA	24 days	Thu 19/11/20	Wed 16/12/20	Thu 19/11/20	Wed 16/12/20	222		0 days		100%
222	CIW-1410		Remedial Works for uncharted sludge Pipe leakage		41	0 days	NA	NA	8 days	Mon 9/3/20	Tue 17/3/20	Mon 9/3/20	Tue 17/3/20	221		0 days		100%
223	CIW-1420		Diversion of uncharted DN250 sludge pipe		41	0 days	NA	NA	27 days	Tue 31/3/20	Thu 7/5/20	Thu 31/3/20	Thu 7/5/20	222	230,224,225	0 days		100%
224	CIW-1421		Diversion of uncharted 2' water pipe		24	0 days	NA	NA	9 days	Wed 15/4/20	Fri 24/4/20	Wed 15/4/20	Fri 24/4/20	223	230	0 days		100%
225	CIW-1422		Additional Underground Utility Scanning for existing sludge pipe		32	0 days	NA	NA	1 day	Sat 18/4/20	Sat 18/4/20	Sat 18/4/20	Sat 18/4/20	223		0 days		100%
226	CIW-1423		HV Cable Diversion for Inlet Works		84	0 days	NA	NA	135 days	Sat 10/10/20	Wed 24/3/21	Sat 10/10/20	Wed 24/3/21			0 days		100%
227	CIW-1423a		Exposing, Removal and Diversion of Existing Cables near Inlet Works No. 1		236	0 days	NA	NA	268 days	Mon 4/5/20	Wed 24/3/21	Mon 4/5/20	Wed 24/3/21			0 days		100%

ID	Activity ID	Key Date	Task Name	Incliment Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete
252	CIW-1500b		Joint Initial Survey arrangement with MTRCL			0 days	NA	NA	158 days	Tue 26/11/19	Wed 10/6/20	Tue 26/11/19	Wed 10/6/20			0 days		100%
253	CIW-1500c		Site Clearance & inspection pit excavation under conforming alignments			0 days	NA	NA	36 days	Fri 12/6/20	Sat 25/7/20	Fri 12/6/20	Sat 25/7/20			0 days		100%
254	CIW-1511		<b>Tank Drain Diversion near MTRCL track</b>			<b>0 days</b>	<b>NA</b>	<b>NA</b>	<b>246 days</b>	<b>Thu 11/6/20</b>	<b>Mon 12/4/21</b>	<b>Thu 11/6/20</b>	<b>Sat 10/4/21</b>			<b>0 days</b>		<b>100%</b>
255	CIW-1511a		Excavation of trial pit near MHD9.5 (TP45 & 47)	040		0 days	NA	NA	12 days	Mon 27/7/20	Sat 8/8/20	Mon 27/7/20	Sat 8/8/20		256,260	0 days		100%
256	CIW-1511b		Uncharted cables found near MTRCL track and identification			0 days	NA	NA	1 day	Thu 18/6/20	Thu 18/6/20	Thu 18/6/20	Thu 18/6/20			0 days		100%
257	CIW-1511c		Excavation of trial pit near MHD9.5			0 days	NA	NA	5 days	Fri 19/6/20	Wed 24/6/20	Fri 19/6/20	Wed 24/6/20		258	0 days		100%
258	CIW-1511d		Lower the ground surface, opening and additional trial pit (TP38)		(046)	0 days	NA	NA	60 days	Thu 11/6/20	Fri 21/8/20	Thu 11/6/20	Fri 21/8/20		259	0 days		100%
259	CIW-1511e		Excavation of Trial Pits near Manhole MHA04 and MH09	040		0 days	NA	NA	60 days	Fri 11/6/20	Fri 21/8/20	Thu 11/6/20	Fri 21/8/20			0 days		100%
260	CIW-1511f		Additional Trial Pit between MHD9.5 and MHA04	040		0 days	NA	NA	25 days	Fri 21/8/20	Fri 18/9/20	Fri 21/8/20	Fri 18/9/20			0 days		100%
261	CIW-1511g		Sheetpile installation for MHD9.5			0 days	NA	NA	38 days	Fri 1/9/20	Fri 16/10/20	Fri 16/10/20	Fri 16/10/20			0 days		100%
262	CIW-1511h		Sheetpile installation between MHD9.5 & MHA04			0 days	NA	NA	25 days	Tue 8/9/20	Thu 8/10/20	Tue 8/9/20	Thu 8/10/20			0 days		100%
263	CIW-1511i		LUU supporting & ELS works& excavatub between MHD9.5 & MHA04			0 days	NA	NA	73 days	Wed 7/10/20	Mon 4/1/21	Wed 7/10/20	Mon 4/1/21			0 days		100%
264	CIW-1511j		Unsuit excavated material from MHD9.5 to MHA04		261	0 days	NA	NA	4 days	Fri 20/11/20	Tue 24/11/20	Fri 20/11/20	Tue 24/11/20			0 days		100%
265	CIW-1511k		Revise design of manhole MHD9.5		(167)	0 days	NA	NA	20 days	Thu 7/1/21	Fri 29/1/21	Thu 7/1/21	Fri 29/1/21			0 days		100%
266	CIW-1511l		Break up opening and plugging existing concrete pipe at MHD9.5			0 days	NA	NA	6 days	Mon 18/1/21	Sat 23/1/21	Mon 18/1/21	Sat 23/1/21			0 days		100%
267	CIW-1511m		Trimming existing concrete pipe at MHD9.5			0 days	NA	NA	13 days	Fri 22/1/21	Fri 5/2/21	Fri 22/1/21	Fri 5/2/21			0 days		100%
268	CIW-1511n		Construction of manhole MHD9.5			0 days	NA	NA	49 days	Sat 6/2/21	Sat 10/4/21	Sat 6/2/21	Sat 10/4/21			0 days		100%
269	CIW-1511o		Additional work to prevent backflow from MH11 to MHD9.5	(176)		0 days	NA	NA	9 days	Mon 18/1/21	Wed 27/1/21	Mon 18/1/21	Wed 27/1/21			0 days		100%
270	CIW-1511p		Sewage overflow incident of MHD11	(180)		0 days	NA	NA	9 days	Sat 13/2/21	Thu 25/2/21	Sat 13/2/21	Thu 25/2/21			0 days		100%
271	CIW-1512		Additional Special manhole for tank drain (NCE)			0 days	NA	NA	35 days	Mon 24/8/20	Mon 5/10/20	Mon 24/8/20	Mon 5/10/20		272,273	0 days		100%
272	CIW-1513		Breaking of concrete surround of cables (0.8mX0.8mX70m) (NCE)			0 days	NA	NA	24 days	Tue 8/9/20	Wed 7/10/20	Tue 8/9/20	Wed 7/10/20			0 days		100%
273	CIW-1514	KD1B	Construction of tank drain along revised alignment w/ concrete surround		051	0 days	NA	NA	10 days	Tue 5/1/21	Fri 15/1/21	Tue 5/1/21	Fri 15/1/21		271	0 days		100%
274	CIW-1516		Backfilling trench between MHD9.5 & MHA04			0 days	NA	NA	20 days	Sat 16/1/21	Mon 8/2/21	Sat 16/1/21	Mon 8/2/21			0 days		100%
275	CIW-1520		<b>Diversion of Sludge Pipes</b>			<b>75 days</b>	<b>Tue 21/4/20</b>	<b>Tue 21/7/20</b>	<b>364 days</b>	<b>Mon 11/5/20</b>	<b>Thu 29/7/21</b>	<b>Mon 11/5/20</b>	<b>NA</b>			<b>0 days</b>		<b>96%</b>
276	CIW-1520a		Excavation of trial pit and identification of connection point		351	0 days	NA	NA	103 days	Mon 11/5/20	Wed 9/9/20	Mon 11/5/20	Wed 9/9/20		277	0 days		100%
277	CIW-1520b		Trench excavation for twin DN250 sludge pipe ,on hold due to encounter of uncharted sludge pipe		351	75 days	Tue 21/4/20	Tue 21/7/20	4 days	Wed 15/7/20	Sat 18/7/20	Wed 15/7/20	Sat 18/7/20		276	0 days		100%
278	CIW-1520c		Additional hole drilling works and identification of connection point			0 days	NA	NA	53 days	Mon 20/7/20	Mon 20/7/20	Mon 20/7/20	Mon 20/7/20		277	0 days		100%
279	CIW-1520d		Temporary diversion of substandard DI 250 Leachate raising main		202	0 days	NA	NA	127 days	Tue 20/10/20	Wed 24/3/21	Tue 20/10/20	Wed 24/3/21		228	0 days		100%
280	CIW-1520e		Protection work for substandard DI 500 tank drain Pipe (near MHD 9.5)		302	0 days	NA	NA	93 days	Wed 18/11/20	Fri 12/3/21	Wed 18/11/20	Fri 12/3/21		228	0 days		100%
281	CIW-1520f		Encounter of uncharted concrete pipe within sheetpile cofferdam at MHA04			0 days	NA	NA	2 days	Tue 10/11/20	Wed 11/11/20	Tue 10/11/20	Wed 11/11/20		282	0 days		100%
282	CIW-1520g		Resumption and construction of sludge pipe construction			0 days	NA	NA	253 days	Sat 19/9/20	Thu 29/7/21	Sat 19/9/20	NA	281	307,44FF	-36 days		91%
283	CIW-1530		Diversion of Leachate Raising Main			60 days	Tue 21/4/20	Fri 3/7/20	60 days	Tue 14/9/21	Thu 25/11/21	NA	NA	241		-135 days		0%
284	CIW-1600		<b>Diversion of pipelines near Primary Sludge Thickeners (approx. 180m long 150mm to 375mm concrete pipes)</b>			<b>156 days</b>	<b>Thu 6/2/20</b>	<b>Fri 14/8/20</b>	<b>570 days</b>	<b>Tue 26/11/19</b>	<b>Thu 28/10/21</b>	<b>Tue 26/11/19</b>	<b>NA</b>			<b>0 days</b>		<b>55%</b>
285	CIW-1610		Trench Excavation from MH MHD1E to MHD6 (approx. 90m long with MHS MHD1A, 1B, 1C, 1D & 1E) - resigned		87	60 days	Thu 6/2/20	Mon 20/4/20	0 days	Tue 26/11/19	Tue 26/11/19	Tue 26/11/19	Tue 26/11/19			0 days		100%
286	CIW-1620		Manholes construction and Pipe laying - omitted		87	60 days	Mon 30/3/20	Sat 13/6/20	0 days	Tue 2/6/20	Tue 2/6/20	Tue 2/6/20	Tue 2/6/20		286	0 days		100%
287	CIW-1621		Temporary Diversion of Existing DN200 Filtrate Raising Main		034	0 days	NA	NA	20 days	Sat 1/8/20	Mon 24/8/20	Sat 1/8/20	Mon 24/8/20		288	0 days		100%
288	CIW-1623		Pipeline Diversion Works near Primary Sludge Thickening Tank		(114)	0 days	NA	NA	30 days	Fri 16/4/21	Sat 22/5/21	Fri 16/4/21	Sat 22/5/21		287	0 days		100%
289	CIW-1625		Uncharted underground utilities near Proposed MHD5B		0260	0 days	NA	NA	26 days	Mon 24/5/21	Wed 23/6/21	Mon 24/5/21	Wed 23/6/21		288,293	0 days		100%
290	CIW-1630		Trench Excavation from MH (approx. 90m long with MHS M1A to M3B)			60 days	Tue 21/4/20	Fri 3/7/20	32 days	Thu 19/3/20	Thu 19/3/20	Thu 19/3/20	Wed 29/4/20		291,292	0 days		100%
291	CIW-1640		Manholes construction (M1A, M1B, M2B, M3B) and Pipe laying			25 days	Mon 15/6/20	Wed 15/7/20	12 days	Mon 4/5/20	Sat 16/5/20	Mon 4/5/20	Sat 16/5/20		286,290	0 days		100%
292	CIW-1650		Trench Excavation from MHD5 to MHD9.5 (approx. 90m long with MHS MHD5A & 5B)		(114)	50 days	Thu 16/7/20	Fri 11/9/20	60 days	Wed 2/9/20	Wed 30/12/20	Wed 2/9/20	Wed 30/12/20		290,296,301,303,305	0 days		100%
293	CIW-1660		Provision of Pumping System from Screen to Flume Channel		87	0 days	NA	NA	287 days	Tue 10/11/20	Thu 28/10/21	Tue 10/11/20	NA	289	294	-111 days		75%
294	CIW-1670		Manholes construction (MHD5A, MHD5B, MHD5C) and Pipe laying			45 days	Sat 23/5/20	Thu 16/7/20	293 days	Thu 3/11/20	Thu 28/10/21	Thu 3/11/20	NA	293	44FF	-111 days		8%
295	CIW-2000		<b>Decommission and Demolition of Existing Facilities and Structures</b>			<b>240 days</b>	<b>Mon 2/3/20</b>	<b>Fri 18/12/20</b>	<b>222 days</b>	<b>Thu 19/3/20</b>	<b>Tue 15/12/20</b>	<b>Thu 19/3/20</b>	<b>Tue 15/12/20</b>		<b>6,122,160</b>	<b>0 days</b>		<b>100%</b>
296	CIW-2100		<b>Primary Sludge Thickening Tank No.1 and No.2</b>			<b>80 days</b>	<b>Mon 2/3/20</b>	<b>Thu 9/6/20</b>	<b>222 days</b>	<b>Thu 19/3/20</b>	<b>Tue 15/12/20</b>	<b>Thu 19/3/20</b>	<b>Tue 15/12/20</b>		<b>292</b>	<b>0 days</b>		<b>100%</b>
297	CIW-2101		Additional Works for Temporary Diversion of Bypass Pipe near Primary Sludge Thickeners			0 days	NA	NA	45 days	Thu 19/3/20	Sun 17/5/20	Thu 19/3/20	Sun 17/5/20			0 days		100%
298	CIW-2110		Removal of E&M equipment of primary sludge thickening tank			0 days	NA	NA	1 day	Thu 4/6/20	Thu 4/6/20	Thu 4/6/20	Thu 4/6/20		299	0 days		100%
299	CIW-2120		Decommission and Demolition the tank			80 days	Mon 2/3/20	Tue 9/6/20	150 days	Thu 18/6/20	Tue 15/12/20	Thu 18/6/20	Tue 15/12/20		298	0 days		100%
300	CIW-2130		Demolition of structure no.2			0 days	NA	NA	24 days	Mon 18/5/20	Mon 22/6/20	Mon 18/5/20	Mon 22/6/20			0 days		100%
301	CIW-2200		Primary Sludge Pump Pit			60 days	Wed 10/6/20	Thu 20/8/20	18 days	Wed 22/7/20	Tue 11/8/20	Wed 22/7/20	Tue 11/8/20		299,300,304	0 days		100%
302	CIW-2300		Septic Tank			50 days	Fri 21/8/20	Tue 20/10/20	18 days	Wed 12/8/20	Tue 1/9/20	Wed 12/8/20	Tue 1/9/20		301	0 days		100%
303	CIW-2400		<b>Diesel Tank</b>			<b>50 days</b>	<b>Wed 21/10/20</b>	<b>Fri 18/12/20</b>	<b>53 days</b>	<b>Thu 2/7/20</b>	<b>Tue 1/9/20</b>	<b>Thu 2/7/20</b>	<b>Tue 1/9/20</b>		<b>292</b>	<b>0 days</b>		<b>100%</b>
304	CIW-2410		Transfers of Remaining Diesel Fuel of Existing Diesel Tank			0 days	NA	NA	15 days	Thu 2/7/20	Thu 2/7/20	Thu 2/7/20	Thu 2/7/20		305	0 days		100%
305	CIW-2420		Demolition of diesel tank			50 days	Wed 21/10/20	Fri 18/12/20	18 days	Wed 12/8/20	Tue 1/9/20	Wed 12/8/20	Tue 1/9/20		304	0 days		100%
306	CIW-3000		<b>Inlet Works No.1 Building (1)</b>			<b>569 days</b>	<b>Sat 19/12/20</b>	<b>Mon 21/11/22</b>	<b>747 days</b>	<b>Wed 15/9/20</b>	<b>Thu 23/3/23</b>	<b>Tue 15/9/20</b>	<b>NA</b>			<b>748 days</b>		<b>18%</b>
307	CIW-3100		Predrilling (10hrs, 1trigs, 2.5days/drillhole/riq) - stage 1			40 days	Mon 4/1/21	Mon 22/2/21	28 days	Tue 15/9/20	Mon 19/10/20	Tue 15/9/20	Mon 19/10/20		248,250,273,228,282	0 days	1	100%
308	CIW-3100a		Predrilling (22hrs, 1trigs, 2.5days/drillhole/riq) - stage 2			0 days	NA	NA	60 days	Tue 8/12/20	Mon 22/2/21	Tue 8/12/20	Mon 22/2/21			0 days		100%
309	CIW-3200		Pre-bored H piles (188nos, 1.8trigs, 2days/riq/pile)			133 days	Tue 23/2/21	Wed 4/8/21	210 days	Fri 19/2/21	Tue 2/11/21	Fri 19/2/21	NA	228,132	310SS+150 days,311	-34 days	5	63%
310	CIW-3400a		Pile Load Test at stage 1			26 days	Thu 5/8/21	Fri 3/9/21	21 days	Sat 21/8/21	Tue 14/9/21	NA	NA	309SS+150 days	312	83 days		0%
311																		

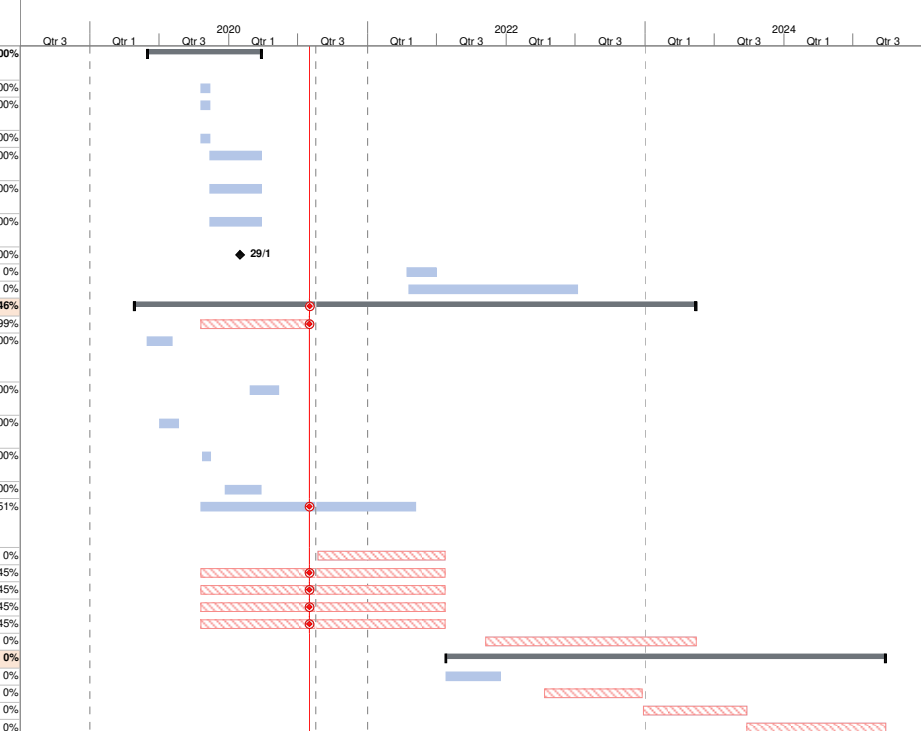


ID	Activity ID	Key Date	Task Name	Incliment Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete	
342	CPS-3000		Predrilling (63mrs, 3rigs, 3days/drillhole/ri)			38 days	Thu 10/2/22	Fri 25/3/22	38 days	Fri 15/10/21	Sat 27/11/21	NA	NA	127,452,339,340	343	-62 days	1	0%	
343	CPS-4000		Pre-bored H piles (205nos, 2.5rigs, 2days/pile/ri)			102 days	Sat 26/3/22	Mon 1/8/22	164 days	Mon 29/11/21	Wed 22/6/22	NA	NA	132,453,341,342	344	-62 days	5	0%	
344	CPS-5000		Sheetpile Installation (FSP-II, 3360sq.m, 3rigs, 50sqm/ri/day)			85 days	Wed 25/5/22	Fri 2/9/22	42 days	Thu 5/5/22	Fri 24/6/22	NA	NA	343,345,346,347	345	-62 days	0	0%	
345	CPS-6000		Pile Load Test			26 days	Tue 2/8/22	Wed 23/8/22	26 days	Thu 23/6/22	Sat 23/7/22	NA	NA	NA	346	0 days	0	0%	
346	CPS-7000		ELS works (20000cu.m soil with 2 layers walling / strutting)			45 days	Sat 3/9/22	Fri 28/10/22	60 days	Mon 25/7/22	Wed 6/10/22	NA	NA	343,135,345,344	347	0 days	3	0%	
347	CPS-7900		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Thu 7/7/22	Thu 7/7/22	NA	NA	NA	348	186 days	0	0%	
348	CPS-8000	KD1D	R.C. Structure works (including ELS demolition works)			92 days	Sat 29/10/22	Mon 20/2/23	112 days	Thu 6/10/22	Mon 20/2/23	NA	NA	137,346,347,348,3 emons	349,350,45FF,351FF	0 days	3	0%	
349	CPS-9000	KD1D	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	Mon 20/2/23	Mon 20/2/23	0 days	Mon 20/2/23	Mon 20/2/23	NA	NA	NA	45FF	0 days	0	0%	
350	CPS-10000	SW1	ABWF works + BS works			150 days	Tue 21/2/23	Wed 23/8/23	150 days	Tue 21/2/23	Wed 23/8/23	NA	NA	NA	56FF	139 days	0	0%	
351	CPS-11000	KD1D	Flowmeter Chamber no.1			60 days	Tue 21/2/23	Sat 6/5/23	60 days	Tue 6/12/22	Mon 20/2/23	NA	NA	NA	45FF,333FF	0 days	0	0%	
352	CPS-12000	SW2	Process Pipe CHQ chainage 0-50, CHH chainage 0-80, CHI chainage 0-95 & CHJ chainage 0-40 and surrounding utilities			0 days	NA	NA	100 days	Wed 8/6/22	Thu 6/10/22	NA	NA	NA	344,345,347 days	57FF,555	-62 days	0	0%
353	<b>CBR-0000</b>		<b>Bioreactors No.2A &amp; 2B, B-4 (3)</b>			<b>1106 days</b>	<b>Mon 18/11/19</b>	<b>Sat 12/8/23</b>	<b>1194 days</b>	<b>Mon 18/11/19</b>	<b>Mon 27/11/23</b>	<b>Mon 18/11/19</b>	<b>NA 9</b>			<b>546 days</b>		<b>38%</b>	
354	CBR-1000		Operation of 2no. Existing 800mm air mains over bioreactor no.2			360 days	Mon 18/11/19	Wed 11/11/20	292 days	Mon 18/11/19	Wed 11/11/20	Mon 18/11/19	Wed 11/11/20	NA	NA	0 days	0	100%	
355	CBR-2000		Construction of Removable Steel Shutter in the Common Channel of BR2 and 3		67	0 days	NA	NA	86 days	Thu 1/10/20	Fri 15/1/21	Thu 1/10/20	Fri 15/1/21	144	365	0 days	0	100%	
356	CBR-4100		Take Down E&M Equipment & cables in Bioreactor BR2 and Return to DSD		95	0 days	NA	NA	90 days	Thu 15/10/20	Mon 1/2/21	Thu 15/10/20	Mon 1/2/21	366	366	0 days	0	100%	
357	CBR-4200		Installation of monitoring points before demolition of BR2		219	0 days	NA	NA	5 days	Wed 27/1/21	Mon 1/2/21	Wed 27/1/21	Mon 1/2/21	363	358	0 days	0	100%	
358	CBR-4300		Condition Survey for BR2			0 days	NA	NA	1 day	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	357	366	0 days	0	100%	
359	<b>CBR-5000</b>		<b>Demolition of existing bioreactor no.2</b>			<b>60 days</b>	<b>Wed 3/2/21</b>	<b>Tue 20/4/21</b>	<b>98 days</b>	<b>Tue 10/11/20</b>	<b>Wed 10/3/21</b>	<b>Tue 10/11/20</b>	<b>Wed 10/3/21</b>	<b>122,162</b>		<b>0 days</b>		<b>100%</b>	
360	CBR-5100		Identification and removal of existing cables on air main pipe bridge		210	0 days	NA	NA	35 days	Tue 10/11/20	Sat 19/12/20	Tue 10/11/20	Sat 19/12/20	361,365	361,365	0 days	0	100%	
361	CBR-5300		Plugging and demolition of existing DN800 air main			0 days	NA	NA	5 days	Mon 28/12/20	Sat 2/1/21	Mon 28/12/20	Sat 2/1/21	360	366	0 days	0	100%	
362	CBR-5200		Division of existing lighting cable and Earthing ducts, stage 1		264	0 days	NA	NA	43 days	Fri 4/12/20	Fri 4/12/20	Tue 26/1/21	Fri 4/12/20	363	366	0 days	0	100%	
363	CBR-5400		Overflow incident from BR1 to BR2 works area no.1 (Dec 2020)		285	0 days	NA	NA	33 days	Fri 18/12/20	Thu 28/1/21	Fri 18/12/20	Thu 28/1/21	364	357,362	0 days	0	100%	
364	CBR-5410		Overflow incident from BR1 to BR2 works area (Feb 2021)		340	0 days	NA	NA	8 days	Tue 16/2/21	Wed 24/2/21	Tue 16/2/21	Wed 24/2/21	365	366,363	0 days	0	100%	
365	CBR-3000		Construction of Isolation Wall & stoplog in common channel of BR2 & BR3		277	0 days	NA	NA	43 days	Sat 16/1/21	Wed 10/3/21	Sat 16/1/21	Wed 10/3/21	355,360	364	0 days	0	100%	
366	CBR-5500		Demolition of existing pipe bridge, partition wall and base slab (Stage 1)			30 days	Wed 3/2/21	Fri 12/3/21	26 days	Tue 2/2/21	Sat 6/3/21	Tue 2/2/21	Sat 6/3/21	362,358,364,356	367,358,368	0 days	0	100%	
367	CBR-5520		Removal of additional concrete infill within the partition walls		(174)	0 days	NA	NA	26 days	Tue 2/2/21	Sat 6/3/21	Tue 2/2/21	Sat 6/3/21	366,358	368	0 days	0	100%	
368	CBR-5900		Construction of precautionary measures (i.e. isolation wall)		322	0 days	NA	NA	2 days	Tue 9/3/21	Wed 10/3/21	Tue 9/3/21	Wed 10/3/21	366,367	369,371	0 days	0	100%	
369	CBR-5905		Construction of precautionary measures (i.e. bund wall)		305	0 days	NA	NA	3 days	Thu 15/4/21	Sat 17/4/21	Thu 15/4/21	Sat 17/4/21	368	368	0 days	0	100%	
370	CBR-5910		Removal of abandoned DN250 air pipe		209	0 days	NA	NA	6 days	Tue 20/4/21	Mon 26/4/21	Tue 20/4/21	Mon 26/4/21	369	370	0 days	0	100%	
371	CBR-6000		Predrilling (33mrs, 3rigs, 2days/drillhole/ri), stage 1			44 days	Wed 21/4/21	Sat 12/6/21	44 days	Mon 1/3/21	Wed 5/5/21	Mon 1/3/21	Wed 5/5/21	368	372	0 days	1	100%	
372	CBR-7000		Pre-bored H piles (113nos, 2rigs, 2days/pile/ri), stage 1			113 days	Thu 15/6/21	Thu 18/11/21	113 days	Thu 6/5/21	Fri 17/9/21	Thu 6/5/21	NA	371	382,355+30 days,377,355+45 days,381	5	41%		
373	CBR-7100		<b>External works between BR2 and MFB2</b>			<b>0 days</b>	<b>NA</b>	<b>NA</b>	<b>217 days</b>	<b>Wed 30/6/21</b>	<b>Mon 21/3/22</b>	<b>Wed 30/6/21</b>	<b>NA</b>			<b>1046 days</b>		<b>9%</b>	
374	CBR-7110		DN700 (CHER)RAS Diversion			0 days	NA	NA	45 days	Wed 30/6/21	Sat 21/8/21	Wed 30/6/21	Sat 21/8/21	375	375	1212 days	2%	0%	
375	CBR-7120		Temporary vehicle diversion for RAS operation			0 days	NA	NA	6 days	Mon 23/8/21	Sat 28/8/21	Mon 23/8/21	Sat 28/8/21	374	374	1212 days	0%	0%	
376	CBR-7130		<b>DN600 Temporary Sewage diversion</b>			<b>0 days</b>	<b>NA</b>	<b>NA</b>	<b>120 days</b>	<b>Wed 30/6/21</b>	<b>Sat 10/11/21</b>	<b>Wed 30/6/21</b>	<b>NA</b>			<b>-45 days</b>		<b>18%</b>	
377	CBR-7131		2nos. Manhole Construction (MHTD1 and MHTD2)		204, 353	0 days	NA	NA	75 days	Wed 30/6/21	Mon 27/9/21	Wed 30/6/21	NA	372,355+45 days	378,375-30 days	-88 days	0	36%	
378	CBR-7132		Existing DN600 tank drain diversion		204, 353	45 days	NA	NA	75 days	Mon 23/8/21	Sat 20/11/21	NA	NA	377,375-30 days	379	-88 days	0	0%	
379	CBR-7140		Demolition of abandoned DN600 pipe and existing surrounded wall & channel of BR2		353, 336	30 days	NA	NA	45 days	Mon 22/11/21	Sat 15/1/22	NA	NA	378	380	-88 days	0	0%	
380	CBR-7150		Pre-drilling(3nr.) & Pre-bored H piles (20mrs, 1rig, 2days/drillhole/ri), stage 2A			26 days	NA	NA	26 days	Mon 17/1/22	Fri 18/2/22	NA	NA	379	381	-88 days	0	0%	
381	CBR-7160		Pile load test			26 days	NA	NA	26 days	Sat 19/2/22	Mon 21/3/22	NA	NA	380,386	389,388	-88 days	0	0%	
382	CBR-7200		<b>External works between BR2 and PST</b>			<b>0 days</b>	<b>NA</b>	<b>NA</b>	<b>141 days</b>	<b>Wed 30/6/21</b>	<b>Wed 15/12/21</b>	<b>Wed 30/6/21</b>	<b>NA</b>	<b>372,355+30 days</b>		<b>-38 days</b>		<b>19%</b>	
383	CBR-7210		Demolition of existing DN1200, DN900 and DN500 pipe (w/ ELS works)		91	0 days	NA	NA	75 days	Wed 30/6/21	Mon 27/9/21	Wed 30/6/21	NA	372,355+45 days	384	-38 days	0	36%	
384	CBR-7220		Division of existing lighting cable and Earthing ducts (w/ ELS)		264	0 days	NA	NA	30 days	Tue 28/9/21	Wed 3/11/21	NA	NA	383	385	-38 days	0	0%	
385	CBR-7230		Demolition of existing side wall		336	0 days	NA	NA	12 days	Thu 4/11/21	Wed 17/11/21	NA	NA	384	386	-38 days	0	0%	
386	CBR-7240		Pre-bored H piles (24mrs, 2rig, 2days/drillhole/ri), stage 2B			24 days	NA	NA	24 days	Thu 18/11/21	Wed 15/12/21	NA	NA	385	381	-38 days	0	0%	
387	CBR-7340		Demolition of existing side wall between BR2 & BR3 and baseslab			0 days	NA	NA	60 days	Sat 18/9/21	Tue 30/11/21	NA	NA	372	388	1 day	0	0%	
388	CBR-8000		Sheetpile Installation (3000sq.m, 1rigs, 50sqm/ri/day)			60 days	Wed 9/9/21	Fri 19/11/21	60 days	Wed 22/3/22	Tue 7/6/22	NA	NA	381,387	389	-88 days	0	0%	
389	CBR-10000		ELS works (18100cu.m soil with 4 layers walling / strutting)			125 days	Mon 20/12/21	Sat 27/5/22	80 days	Wed 8/6/22	Fri 9/9/22	NA	NA	135,381,388	391,390FF,3 emons,399,355+46 days	3	0	0%	
390	CBR-10900		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Sat 11/6/22	Sat 11/6/22	NA	NA	389,393,3 emons	391,355,3 emons	168 days	0	0%	
391	CBR-11000	KD1E	R.C. Structure works (including ELS demolition works)			180 days	Sat 28/5/22	Sat 31/12/22	180 days	Sat 10/9/22	Sat 22/4/23	NA	NA	138,188,187,190,188,389,390,355-3 emons	398,46FF,397,393FF,394,355+25 da	5	0	0%	
392	CBR-11000	KD1E	Process Pipe CHQ chainage 65-140			0 days	NA	NA	60 days	Wed 8/2/23	Sat 22/4/23	NA	NA	391,391FF	46FF	-88 days	0	0%	
393	CBR-11020	KD1E	Additional backfill works after end wall construction at BR2 common channel		277	0 days	NA	NA	30 days	Wed 15/3/23	Sat 22/4/23	NA	NA	391,391FF	46FF	-88 days	0	0%	
394	CBR-13000	KD1E	Flowmeter no. 2,4			180 days	2023/1/3	2023/8/12	60 days	Thu 10/1/22	Wed 21/12/22	NA	NA	391,355+25 days	395,395-13 days	-88 days	0	0%	
395	CBR-14000	KD1E	Gate Valve Chamber no.1-3			180 days	2023/1/3	2023/8/12	60 days	Wed 7/12/22	Tue 21/2/23	NA	NA	394,395-13 days	396,395-12 days	-88 days	0	0%	
396	CBR-15000	KD1E	Plug Valve Chamber no.1-2			180 days	2023/1/3	2023/8/12	60 days	Wed 8/2/23	Sat 22/4/23	NA	NA	395,395-12 days	46FF	-88 days	0	0%	
397	CBR-12000	KD1E	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	Sat 31/12/22	Sat 31/12/22	0 days	Sat 22/4/23	Sat 22/4/23	NA	NA	391	46FF	-88 days	0	0%	
398	CBR-16000	SW1	ABWF works + BS works			180 days	Tue 3/1/23	Sat 12/8/23	180 days	Mon 24/4/23	Mon 27/11/23	NA	NA	391,189,141	56FF	60 days	0	0%	
399	CBR-17000	SW2	Process Pipe CHQ chainage 65-170, CHP chainage 60-130, CHL chainage 0-35 & CHK chainage 0-50 and surrounding utilities			0 days	NA	NA	80 days	Tue 8/8/22	Sat 5/11/22</								

ID	Activity ID	Key Date	Task Name	Inherent Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete
435	CSA-1000		<b>Additional Preliminary Works</b>			<b>0 days</b>	<b>NA</b>	<b>NA</b>	<b>330 days</b>	<b>Tue 9/6/20</b>	<b>Mon 19/7/21</b>	<b>Tue 9/6/20</b>	<b>NA</b>			<b>1247 days</b>		<b>98%</b>
436	CSA-1020		Expose and abandon existing electric cable & trial pits		78	0 days	NA	NA	39 days	Mon 17/8/20	Wed 30/9/20	Mon 17/8/20	Wed 30/9/20			0 days		100%
437	CSA-1030		Installation of standpipes		71	0 days	NA	NA	13 days	Mon 14/9/20	Mon 28/9/20	Mon 14/9/20	Mon 28/9/20			0 days		100%
438	CSA-1100		Diversion of Existing SAS Raising Main near SAS Pumping Station		68, 75, 76	0 days	NA	NA	170 days	Tue 9/6/20	Thu 31/12/20	Tue 9/6/20	Thu 31/12/20			0 days		100%
439	CSA-1200		Decommission of existing power and signal systems in leachate pump station switch room		312, 309, 310	0 days	NA	NA	58 days	Mon 21/9/20	Mon 30/11/20	Mon 21/9/20	Mon 30/11/20	146	453	0 days		100%
440	CSA-1300		Construction of Cable Trough for CLP 11kV Cable Diversion		75, 76, 77, 161	0 days	NA	NA	54 days	Mon 19/10/20	Mon 21/12/20	Mon 19/10/20	Mon 21/12/20		453	0 days		100%
441	CSA-1400		Demolition of Existing Pillar box and its concrete plinth		144, 212, 3/30	0 days	NA	NA	63 days	Wed 12/8/20	Sat 14/11/20	Wed 12/8/20	Sat 14/11/20	149	453	0 days		100%
442	CSA-1500		Excavation to locate existing underground cable near SAS Pump Station		78	0 days	NA	NA	59 days	Wed 17/6/20	Sat 21/11/20	Wed 17/6/20	Sat 21/11/20		453	0 days		100%
443	CSA-1600		Diversion of Existing DN80 Permeate Raising Main near SAS Pumping station		89	0 days	NA	NA	72 days	Tue 6/10/20	Thu 31/12/20	Tue 6/10/20	Thu 31/12/20		453	0 days		100%
444	CSA-1800		Trench Excavation near SAS for CLP diversion of 11kV cable		309, 310	0 days	NA	NA	53 days	Mon 12/10/20	Sat 12/12/20	Mon 12/10/20	Sat 12/12/20		453	0 days		100%
445	CSA-1700		Relocation of Oil Interceptor Near Existing Compressor House		144, 212, 3/70	0 days	NA	NA	50 days	Mon 9/11/20	Fri 8/1/21	Mon 9/11/20	Fri 8/1/21		453	0 days		100%
446	CSA-1900		Diversion of existing system sewerage		212, 309, 3183	0 days	NA	NA	36 days	Wed 13/1/21	Fri 26/2/21	Wed 13/1/21	Fri 26/2/21	151	455,453,447	0 days		100%
447	CSA-1910		Diversion of existing copper pipe near proposed SAS pumping station		309, 310	0 days	NA	NA	61 days	Mon 19/10/20	Thu 31/12/20	Mon 19/10/20	Thu 31/12/20	446	453	0 days		100%
448	CSA-1920		Pipeline of proposed SAS Pumping Station - 13 nos. of puddles		221	0 days	NA	NA	180 days	Mon 7/12/20	Mon 19/7/21	Mon 7/12/20	Mon 19/7/21			1247 days		92%
449	CSA-1930		Additional DN150 Raising main for SAS		220/69	0 days	NA	NA	15 days	Wed 21/2/20	Fri 18/12/20	Wed 21/2/20	Fri 18/12/20			0 days		100%
450	CSA-1940		Additional DN90 PE pipe diversion		89	0 days	NA	NA	7 days	Fri 11/12/20	Fri 18/12/20	Fri 11/12/20	Fri 18/12/20			0 days		100%
451	CSA-1970		Additional diversion of existing sludge rising main and sewerage system		81	0 days	NA	NA	15 days	Thu 21/1/21	Sat 6/2/21	Thu 21/1/21	Sat 6/2/21			0 days		100%
452	CSA-2000		Predrilling (4hrs, 1rig, 4days/drillhole/rig)		68	16 days	Wed 20/5/20	Sat 6/6/20	7 days	Sat 18/4/20	Sat 25/4/20	Sat 18/4/20	Sat 25/4/20	127	342,453	0 days		100%
453	CSA-3000		Pre-bored H piles (12nos, 1rigs, 4days/pile/rig)			60 days	Mon 8/6/20	Tue 18/8/20	19 days	Mon 4/1/21	Mon 25/1/21	Mon 4/1/21	Mon 25/1/21	132,452,148,438,439,441,442,443,445,444,343,454		2	0 days	100%
454	CSA-4000		Pile Load Test			21 days	Wed 19/8/20	Tue 17/9/20	22 days	Fri 19/3/21	Tue 23/2/21	Fri 19/3/21	Tue 23/2/21	453	456,455	0 days		100%
455	CSA-5000		Sheetpile Installation (FSP-II, 690sq.m, 40sqm/day)			28 days	Wed 19/8/20	Sat 19/9/20	28 days	Thu 30/3/21	Wed 5/5/21	Tue 30/3/21	Wed 5/5/21	133,454,446	456	0 days		100%
456	CSA-6000		ELS works (1300cu.m soil with 2 layers walling / strutting)			75 days	Mon 21/9/20	Wed 19/2/20	75 days	Thu 6/5/21	Wed 4/8/21	Thu 6/5/21	Wed 4/8/21	NA,455,135,454	458,457FF-3 emons	-121 days	2	96%
457	CSA-6900		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Thu 6/5/21	Thu 6/5/21	Thu 6/5/21	Thu 6/5/21	456FF-3 emons	458SS-3 emons	0 days		100%
458	CSA-7000	KD1H	R.C. Structure works (including ELS demolition works)			186 days	Mon 21/12/20	Mon 9/8/21	186 days	Thu 5/8/21	Sat 19/3/22	Thu 5/8/21	Sat 19/3/22	NA,456,457SS-3 emons	459,460,49FF	-121 days	5	0%
459	CSA-8000	KD1H	Allow access to Contractor DE/2018/03 for E&M installation and T&C works			0 days	Mon 9/8/21	Mon 9/8/21	0 days	Sat 19/3/22	Sat 19/3/22	NA	NA	458	49FF	-121 days		0%
460	CSA-9000	SW1	ABWF works + BS works			90 days	Tue 10/8/21	Thu 25/11/21	90 days	Thu 14/6/22	Wed 28/9/22	Thu 14/6/22	Wed 28/9/22	NA	458,189,141,522SS	56FF	405 days	0%
461	CAS-0000		<b>Ancillary Structures, B-7</b>			<b>503 days</b>	<b>Mon 7/9/20</b>	<b>Sat 21/5/22</b>	<b>420 days</b>	<b>Mon 3/5/21</b>	<b>Wed 28/9/22</b>	<b>Mon 3/5/21</b>	<b>NA</b>	<b>12</b>		<b>891 days</b>		<b>7%</b>
462	CAS-1000		Demolition of Existing Faciliates and Structures (leachate pump pit & pumping station)			120 days	Mon 7/9/20	Sat 30/1/21	120 days	Mon 3/5/21	Thu 23/9/21	Mon 3/5/21	NA	122,160,162	497	48 days		41%
463	CFS-1000		<b>Fire Services Sprinkler Pumping Room &amp; Emergency Generator House (9)(10)**</b>		<b>301</b>	<b>220 days</b>	<b>Sat 10/4/21</b>	<b>Sun 3/1/21</b>	<b>419 days</b>	<b>Tue 4/5/21</b>	<b>Wed 28/9/22</b>	<b>Tue 4/5/21</b>	<b>NA</b>	<b>NA</b>		<b>405 days</b>		<b>14%</b>
464	CFS-1000		Water Sampling and Testing for existing effluent pump pit		384	0 days	NA	NA	12 days	Tue 4/5/21	Mon 17/5/21	Tue 4/5/21	Mon 17/5/21		465	0 days		100%
465	CFS-1150		Identification, decommission and demolition of the existing kloak		86	0 days	NA	NA	26 days	Tue 18/5/21	Fri 18/6/21	Tue 18/5/21	Fri 18/6/21	464	466,479	0 days		100%
466	CFS-1100		Provision of Flowmeter chamber, gate valve chamber and associated sewerage		85	0 days	NA	NA	90 days	Sat 19/6/21	Tue 5/10/21	Sat 19/6/21	NA	465	467,469FF	-101 days		40%
467	CFS-1200		Decommission and demolition of the existing pump pit and associated sewerage manholes and pipes		86	0 days	NA	NA	40 days	Wed 6/10/21	Mon 22/11/21	NA	NA	466	470	-101 days		0%
468	CFS-1250		Diversion of Leachate Raising Main near SSSH		241	0 days	NA	NA	18 days	Wed 28/7/21	Wed 18/8/21	NA	NA	469SF	480	18 days		0%
469	CFS-1300		E&M provision of flowmeter chamber and associated sewerage for effluent and sewage from SSSH		256	0 days	NA	NA	40 days	Wed 18/8/21	Tue 5/10/21	NA	NA	466FF	470,468SF	-61 days		0%
470	CFS-2000		Excavation for Raft Footing (800cu.m)			65 days	NA	NA	44 days	Tue 23/11/21	Sat 15/1/22	NA	NA	469,467	471	-101 days		0%
471	CFS-2800		Plate load test at bottom level of compacted general fill(2no.)			12 days	NA	NA	7 days	Mon 17/1/22	Mon 24/1/22	NA	NA	470	472	-101 days		0%
472	CFS-2900		Soil Replacement (14 layers SRT)			0 days	NA	NA	42 edays	Mon 24/1/22	Mon 7/3/22	NA	NA	471	473	-124.42 edays		0%
473	CFS-3000		Plate load test at bottom level of base slab (3no.)			28 days	Fri 4/6/21	Mon 21/6/21	7 days	Tue 8/3/22	Tue 15/3/22	NA	NA	472	474FF-3 emons,475	-101 days		0%
474	CFS-3900		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Tue 23/11/21	Tue 23/11/21	NA	NA	473FF-3 emons	475SS-3 emons	59 days		0%
475	CFS-4000	KD1J	R.C. structure works			120 days	NA	NA	70 days	Wed 16/3/22	Mon 13/6/22	NA	NA	473,474SS-3 emons	477,476,51FF,521FF,520FF	-101 days	2	0%
476	CFS-5000	KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	Mon 13/9/21	Mon 13/9/21	0 days	Mon 13/6/22	Mon 13/6/22	NA	NA	475	51FF	-101 days		0%
477	CFS-6000	SW1	ABWF works + BS works			90 days	Tue 14/9/21	Mon 3/1/22	90 days	Tue 14/6/22	Wed 28/9/22	NA	NA	475	56FF	405 days		0%
478	CCS-1000		<b>Chemical System No.1 (8)*</b>			<b>168 days</b>	<b>Mon 1/2/21</b>	<b>Tue 26/8/21</b>	<b>386 days</b>	<b>Sat 12/6/21</b>	<b>Wed 28/9/22</b>	<b>Sat 12/6/21</b>	<b>NA</b>	<b>NA</b>		<b>891 days</b>		<b>4%</b>
479	CCS-1310		Demolition of SSSH Pump Pit and Associated Sewerage System		086	0 days	NA	NA	26 days	Sat 19/6/21	Tue 20/7/21	Sat 19/6/21	NA	465	481	54 days		38%
480	CCS-1110		Removal of existing Leachate Raising Main near SSSH		241	0 days	NA	NA	12 days	Wed 18/8/21	Tue 31/8/21	NA	NA	468	481	18 days		0%
481	CCS-1100		Excavation for Raft Footing (200cu.m)			10 days	Mon 1/2/21	Thu 11/2/21	10 days	Mon 1/9/21	Sat 11/9/21	NA	NA	480,479	485FF-3 emons,486,482	18 days		0%
482	CCS-1080		Plate load test at bottom level of compacted general fill(2no.)			9 days	NA	NA	9 days	Mon 13/9/21	Thu 23/9/21	NA	NA	481	483	18 days		0%
483	CCS-1090		Soil Replacement (10 layers SRT)			0 days	NA	NA	30 edays	Thu 23/9/21	Sat 23/10/21	NA	NA	482	484	23.58 edays		0%
484	CCS-1200		Plate load test at bottom level of base slab (1no.)			5 days	Tue 16/2/21	Wed 3/3/21	5 days	Mon 25/10/21	Fri 29/10/21	NA	NA	483	486,493	19 days		0%
485	CCS-1190		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Sat 12/6/21	Sat 12/6/21	Sat 12/6/21	Sat 12/6/21	481FF-3 emons	486SS-3 emons	0 days		100%
486	CCS-1300	KD1J	R.C. structure works			45 days	Mon 15/3/21	Mon 10/5/21	60 days	Sat 30/10/21	Tue 11/1/22	NA	NA	481,485SS-3 emons,484	51FF,488,487	20 days	2	0%
487	CCS-1400	KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	Mon 10/5/21	Mon 10/5/21	0 days	Tue 11/1/22	Tue 11/1/22	NA	NA	486	51FF	20 days		0%
488	CCS-1500	SW1	ABWF works + BS works			90 days	Tue 11/5/21	Thu 26/8/21	90 days	Tue 14/6/22	Wed 28/9/22	NA	NA	189,141,486,522SS	56FF	405 days		0%
489	CDS-0000		<b>Deodorization System No.3A (7)*</b>			<b>149 days</b>	<b>Tue 16/11/21</b>	<b>Sat 21/5/22</b>	<b>105 days</b>	<b>Thu 5/8/21</b>	<b>Wed 8/12/21</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>90 days</b>		<b>0%</b>
490	CDS-2000		Excavation for Raft Footing (400cu.m)			20 days	Tue 16/11/21	Wed 8/12/21	20 days	Sat 14/8/21	Tue 7/9/21	NA	NA	491SF		1205 days		0%
491	CDS-2008		Plate load test at bottom level of compacted general fill(2no.)			10 days	NA	NA	10 days	Tue 7/9/21	Sat 18/9/21	NA	NA	492SF	490SF	1195 days		0%
492	CDS-2100		Soil Replacement (14 layers SRT)			0 days	NA	NA	42 edays	Sat 18/9/21	Sat 30/10/21	NA	NA	493SF	491SF	1425.42 edays		0%
493	CDS-3000		Plate load test at bottom level of base slab (1no.)			4 days	Thu 9/12/21	Fri 24/12/21	4 days	Sat 30/10/21	Wed 3/11/21	NA	NA	484	494FF-3 emons,495,492SF,500FS	19 days		0%
494	CDS-3900		Receiving of Civil Requirements from PM			0 days												



ID	Activity ID	Key Date	Task Name	Incliment Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete
532	CAA-1000	KD2B	B-8A Alternation works for existing Air Blower House No.2 (Pipeline CHTA, approx. 133m DN800 D.I.)			180 days	Wed 29/1/20	Thu 3/9/20	246 days	Mon 1/6/20	Fri 26/3/21	Mon 1/6/20	Fri 26/3/21	15,142,184	53FF	0 days		100%
533	CAA-1100		Change of pipe bridge design		(057)	0 days	NA	NA	135 days	Mon 1/6/20	Tue 10/11/20	Mon 1/6/20	Tue 10/11/20		536,537,538	0 days		100%
534	CAA-1200		Additional inspection pit to verify the connection point to existing (CE xxx)			0 days	NA	NA	135 days	Mon 1/6/20	Tue 10/11/20	Mon 1/6/20	Tue 10/11/20		536,537,538	0 days		100%
535	CAA-1300		Additional MBV installation (CE xxx)			0 days	NA	NA	135 days	Mon 1/6/20	Tue 10/11/20	Mon 1/6/20	Tue 10/11/20		536,537,538	0 days		100%
536	CAA-1400		Alternation works for existing Air Blower House No.2 (Pipeline CHTA, approx. 133m DN800 D.I.)			180 days	Wed 29/1/20	Thu 3/9/20	111 days	Wed 11/11/20	Fri 26/3/21	Wed 11/11/20	Fri 26/3/21	533,534,535	53FF	0 days		100%
537	CAA-1500	KD2B	Re-alignmnet of DN800 Temporary Air Main (CHTA) and Provision of FRP Staircases		064	0 days	NA	NA	111 days	Wed 11/11/20	Fri 26/3/21	Wed 11/11/20	Fri 26/3/21	533,534,535	53FF	0 days		100%
538	CAA-1600	KD2B	Elevated Section of DN800 Temporary Air Main (CHTA) across existing Bioreactor's Distribution Chamber No. 2		062	0 days	NA	NA	111 days	Wed 11/11/20	Fri 26/3/21	Wed 11/11/20	Fri 26/3/21	533,534,535	53FF,539	0 days		100%
539	CAA-2000	KD11	B7-A Alternation works for existing Power House			122 days	Fri 4/9/20	Sat 30/1/21	0 days	Wed 11/11/20	Fri 29/1/21	Wed 11/11/20	Fri 29/1/21	13FS-1 day,122,160,162,176,538	50FF,540FS+356 days	0 days		100%
540	CAA-2100	SW3	Additional works for Power House		224	0 days	NA	NA	60 days	Thu 14/4/22	Wed 29/6/22	NA	NA	539FS-356 days	58FF	570 days		0%
541	CAA-3000	SW3	Alternation works for existing Membrane Facilities Building No.1			360 days	Mon 1/2/21	Fri 22/4/22	360 days	Tue 19/4/22	Thu 6/7/23	NA	NA	14FS-1 day,175	58FF	269 days		0%
542	CUU-0000	*	External Underground Service, Utilities, Road/Drain			1091 days	Mon 24/2/20	Sat 28/10/23	1192 days	Mon 27/4/20	Mon 13/5/24	Mon 27/4/20	NA	16		-88 days		46%
543	CUU-1000	KD2A	Process Pipes CHR and CHS (approx. 93m twin DN900 D.I.)		33, 222, 255	325 days	Mon 24/2/20	Sat 27/3/21	379 days	Mon 27/4/20	Wed 4/8/21	Mon 27/4/20	NA	184,142	54SS+48 days,552SS+48 days,55	39 days		99%
544	CUU-1000a		Special Treatment for Removing the Existing Abandoned DN1800 By-pass Pipe and the Concrete Mass in Conflict with the Proposed Sheetpile wall for trenching work of Process Pipeline CHR and CHS		33	0 days	NA	NA	54 days	Sat 30/5/20	Mon 3/8/20	Sat 30/5/20	Mon 3/8/20			0 days		100%
545	CUU-1000b		Trenchless work for Process Pipes CHR and CHS (approx. 7m twin DN900 D.I.)		255	0 days	NA	NA	60 days	Thu 25/2/21	Mon 10/5/21	Thu 25/2/21	Mon 10/5/21		52FF	0 days		100%
546	CUU-1001		Removal of Abandoned DN1800 Concrete Pipe and Concrete Mass near Existing UV Disinfection Channel at CHR & CHS Process Pipe Works Area		033	0 days	NA	NA	43 days	Thu 2/7/20	Thu 20/8/20	Thu 2/7/20	Thu 20/8/20			0 days		100%
547	CUU-1002		Grouting for Sheung Shui Slaughter House Boundary Walls along CHR & CHS Pipes Works Area		222	0 days	NA	NA	20 days	Fri 23/10/20	Mon 16/11/20	Fri 23/10/20	Mon 16/11/20			0 days		100%
548	CUU-1004		Delay Delivery of DI pipes due to COVID-19		(076)	0 days	NA	NA	75 days	Tue 22/12/20	Thu 25/3/21	Tue 22/12/20	Thu 25/3/21		549FF	0 days		100%
549	CUU-2000	SW2	Process Pipes, including CHT, CHX, CHY, CHPS1&2, CHS S1&2, CHDO 1&2, CHPSW 1-8, CHTPS, CHPT1&2, CHTFT 1&2, CHTE, CHTD, Foam Collection & Surplus activated sludge rising main pipe			550 days	Mon 29/6/20	Fri 6/5/22	457 days	Mon 19/10/20	Fri 6/5/22	Mon 19/10/20	NA	184,142,548FF,543SS+48 days	57FF,555,550SS+250 days	63 days		51%
550	CUU-2100	SW2	Remaining Process Pipes			0 days	NA	NA	270 days	Mon 23/8/21	Fri 22/7/22	NA	NA	549SS+250 days	57FF	0 days		0%
551	CUU-3000	SW2	Remaining Drainage			550 days	Mon 29/6/20	Fri 6/5/22	520 days	Mon 19/10/20	Fri 22/7/22	Mon 19/10/20	NA	184,142	555,57FF	0 days	5	45%
552	CUU-4000	SW2	Remaining Sewerage			550 days	Mon 29/6/20	Fri 6/5/22	520 days	Mon 19/10/20	Fri 22/7/22	Mon 19/10/20	NA	184,142,543SS+48 days	555,57FF	0 days	5	45%
553	CUU-5000	SW2	Remaining Waterworks			550 days	Mon 29/6/20	Fri 6/5/22	520 days	Mon 19/10/20	Fri 22/7/22	Mon 19/10/20	NA	184,142,543SS+48 days	557FS+2 days,57FF	0 days	5	45%
554	CUU-6000	SW2	Remaining Cable Ducts			550 days	Mon 29/6/20	Fri 6/5/22	520 days	Mon 19/10/20	Fri 22/7/22	Mon 19/10/20	NA	184,142,543SS+48 days	555,57FF	0 days	5	45%
555	CUU-7000	KD3A	Roadworks			540 days	Fri 31/12/21	Sat 28/10/23	440 days	Mon 7/11/22	Mon 13/5/24	NA	NA	554,551,552,549,352,399,334,433	54FF,558SS+123 days	-88 days	5	0%
556	CLW-0000	*	Landscaping Works			854 days	Wed 11/5/22	Thu 27/3/25	946 days	Tue 26/7/22	Wed 24/9/25	NA	NA	16		0 days		0%
557	CLW-1000	KD3A	Irrigation System			120 days	Wed 11/5/22	Fri 30/9/22	120 days	Tue 26/7/22	Thu 15/12/22	NA	NA	553FS+2 days,184	558,54FF	1 day		0%
558	CLW-2000	SW3	Hard Landscaping Works			220 days	Mon 3/10/22	Mon 3/7/23	214 days	Tue 11/4/23	Sat 23/12/23	NA	NA	557,555SS+123 days	559,58FF	-88 days	5	0%
559	CLW-3000	SW3	Soft Landscaping Works			220 days	Tue 26/3/24	Tue 4/7/23	214 days	Wed 27/12/23	Tue 24/9/24	NA	NA	558,143	560,58FF	-88 days	5	0%
560	CLW-4000	DLP	Establishment Works (365 days)			294 days	Wed 27/3/24	Thu 27/3/25	365 days	Wed 25/9/24	Wed 24/9/25	NA	NA	559,143	59FF,60FF	0 days	5	0%



Activity ID	Activity Name	Remaining Duration	BL Start (DE/2018/03 R3)	BL Finish (DE/2018/03 R3)	Start	Finish	Total Float	Activity % Complete	2021				
									2020	Jan 16	Feb 17	Mar 18	Apr 19
<b>SWH - Main Works Stage 1 Sidestream Treatment Facilities &amp; E&amp;M Wo</b>													
<b>Contract Data</b>													
<b>Starting Date &amp; Completion Date</b>													
AS000110	Whole Contract Period (1626 days from starting date)	1170	23-Oct-19	04-Apr-24	23-Oct-19 A	04-Apr-24	0	28.04%					
<b>Access Date</b>													
AS001100	Portion C-1A (within 480 to 550 days from starting date)	94	23-Oct-19	24-Apr-21	23-Oct-19 A	24-Apr-21	0	82.91%					
AS001200	Portion C-2A (within 705 to 795 days from starting date)	339	23-Oct-19	25-Dec-21	23-Oct-19 A	25-Dec-21	0	57.36%					
AS001300	Portion C-2B (within 765 to 855 days from starting date)	399	23-Oct-19	23-Feb-22	23-Oct-19 A	23-Feb-22	0	53.33%					
AS001400	Portion C-2C (within 715 to 805 days from starting date)	349	23-Oct-19	04-Jan-22	23-Oct-19 A	04-Jan-22	0	56.65%					
AS001500	Portion C-2D (within 825 to 945 days from starting date)	489	23-Oct-19	24-May-22	23-Oct-19 A	24-May-22	0	48.25%					
AS001600	Portion C-3 (within 615 to 705 days from starting date)	249	23-Oct-19	26-Sep-21	23-Oct-19 A	26-Sep-21	0	64.68%					
AS001800	Portion B-2 (within 615 to 705 days from starting date) (SS by NCE-NCE-219)	249	23-Oct-19	26-Sep-21	23-Oct-19 A	26-Sep-21	0	64.68%					
<b>Key Dates</b>													
AS002040	KD2B Submission of Remaining Civil Requirement Dwgs, Elec. Schematic Dwgs of SD Bldg, SD & DC, CHP Bldg, etc.	5	23-Oct-19	25-Jan-21	23-Oct-19 A	25-Jan-21*	0	98.92%					
AS002050	KD3A Completion of Phase 1 Commissioning of Sidestream Treatment Facilities (1140d after Portion B-1 Access)	1028	30-Sep-20	14-Nov-23	30-Sep-20 A	14-Nov-23*	0	9.9%					
<b>Completion Date</b>													
<b>Section 2 - Complete All Designs (exclude Sec. 1 &amp; 3)</b>													
AS003200	Contract Duration of Section 2	145	23-Oct-19	14-Jun-21	23-Oct-19 A	14-Jun-21	0	75.87%					
<b>Section 3 - Complete Design, Construction &amp; T&amp;C for Sidestream Facilities</b>													
AS003300	Contract Duration of Section 3	1170	23-Oct-19	04-Apr-24	23-Oct-19 A	04-Apr-24	0	28.04%					
<b>Section 4 - Complete Construction &amp; T&amp;C for UV System No.1 &amp; EP Station No. 1</b>													
AS003400	Contract Duration of Section 4	430	23-Oct-19	26-Mar-22	23-Oct-19 A	26-Mar-22	0	51.47%					
<b>Section 5 - Complete all remaining Works (incl. T&amp;C)</b>													
AS003500	Contract Duration of Section 5	1170	23-Oct-19	04-Apr-24	23-Oct-19 A	04-Apr-24	0	28.04%					
<b>Preliminaries</b>													
<b>Mobilisation</b>													
AS010100	Provision of Equipment / Facilities for the PM's Office	1169	23-Oct-19	03-Apr-24	23-Oct-19 A	03-Apr-24	1	28.06%					
AS010210	Design, Procurement & PO & Construction of Contractor's Storage Area (Works Area WA3)	75	20-Nov-19	05-Apr-21	20-Nov-19 A	05-Apr-21	2	85.09%					
AS010220	Maintain Contractor's Site Office	1112	28-Nov-20	06-Feb-24	28-Nov-20 A	06-Feb-24	2	4.63%					
AS010230a	Maintain Contractor's Storage Area	1037	06-Apr-21	06-Feb-24	06-Apr-21	06-Feb-24	2	0%					
<b>Site Preliminaries</b>													
AS010300	Provision of Insurance, Third Party Insurances & PII	1169	23-Oct-19	03-Apr-24	23-Oct-19 A	03-Apr-24	1	28.06%					
AS010400	Provision of 2 Contract Car for the Use of the PM & Supervisor	1169	23-Oct-19	03-Apr-24	23-Oct-19 A	03-Apr-24	1	28.06%					
AS010420a	Provision of 1 Electric Car for the Use of the PM & Supervisor	1169	22-Jan-20	03-Apr-24	22-Jan-20 A	03-Apr-24	1	23.79%					
AS010600	Provision of Photographs	1168	20-Nov-19	02-Apr-24	20-Nov-19 A	02-Apr-24	2	26.82%					
AS010700	Provision of Environmental Mitigation Measures	1168	20-Nov-19	02-Apr-24	20-Nov-19 A	02-Apr-24	2	26.82%					
AS010800	Provision of Air Pollution Abatement	1168	20-Nov-19	02-Apr-24	20-Nov-19 A	02-Apr-24	2	26.82%					



File Name: DE/2018/03 3M 210120  
Layout: DE1803 (Progress -3M)  
TASK filters: 3 Months Rolling (1803 SWH), CE.

- Remaining Work
- Critical Activity
- ◆ Milestone
- ▬ Actual Progress
- ▬ Project Baseline Bar
- ◆ Baseline Milestone
- ◆ Actual Milestone

**Contract No. DE/2018/03**  
**Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1**  
**Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities**  
**3 Months Rolling Programme (Based on RP Rev.5) as at 20 Jan 2021**

Based on DE/2018/03 R3			
Date	Revision	Checked	Approved
20-Jan-21	Rev.0	LT	KM

Activity ID	Activity Name	Remaining Duration	BL Start (DE/2018/03 R3)	BL Finish (DE/2018/03 R3)	Start	Finish	Total Float	Activity % Complete	2021				
									2020	Jan 16	Feb 17	Mar 18	Apr 19
AS010900	Provision of Noise Pollution Abatment	1168	20-Nov-19	02-Apr-24	20-Nov-19 A	02-Apr-24	2	26.82%					
AS011000	Provision of Wastewater Pollution Abatement	1168	20-Nov-19	02-Apr-24	20-Nov-19 A	02-Apr-24	2	26.82%					
AS011100	Provision of Wastement Management	1168	20-Nov-19	02-Apr-24	20-Nov-19 A	02-Apr-24	2	26.82%					
AS011200	Provision of Monitoring the Use of Ultra Low Sulphur Diesel	1168	20-Nov-19	02-Apr-24	20-Nov-19 A	02-Apr-24	2	26.82%					
AS011300	Provision of Environmental Management	1168	20-Nov-19	02-Apr-24	20-Nov-19 A	02-Apr-24	2	26.82%					
AS011400	Provision of Site Management Plan for Trip Ticket System	1168	20-Nov-19	02-Apr-24	20-Nov-19 A	02-Apr-24	2	26.82%					
AS011600	Provision of Systematic Risk Management	1168	20-Nov-19	02-Apr-24	20-Nov-19 A	02-Apr-24	2	26.82%					
AS011700	Provision of Site Liaison Group & Community Liaison Group	1168	20-Nov-19	02-Apr-24	20-Nov-19 A	02-Apr-24	2	26.82%					
AS011800	Provision of 24-Hour Telephone Line	1168	20-Nov-19	02-Apr-24	20-Nov-19 A	02-Apr-24	2	26.82%					
AS012400	Provision of ICE for Certification of the Design, Cal, Dwgs, Plans and all relevant Doc and Process Commissioning	1168	20-Nov-19	02-Apr-24	20-Nov-19 A	02-Apr-24	2	26.82%					
<b>Site Upkeeping</b>		<b>1142</b>	<b>20-Nov-19</b>	<b>07-Mar-24</b>	<b>20-Nov-19 A</b>	<b>07-Mar-24</b>	<b>2</b>						
AS013100	General Site Upkeeping of the Site	1142	20-Nov-19	07-Mar-24	20-Nov-19 A	07-Mar-24	2	27.26%					
<b>Safety and Environmental Management</b>		<b>1142</b>	<b>10-Nov-19</b>	<b>07-Mar-24</b>	<b>10-Nov-19 A</b>	<b>07-Mar-24</b>	<b>2</b>						
AS013200	Construction Health and Safety Plan	1142	10-Nov-19	07-Mar-24	10-Nov-19 A	07-Mar-24	2	27.72%					
<b>Compliance with BEAM Requirements</b>		<b>1142</b>	<b>10-Nov-19</b>	<b>07-Mar-24</b>	<b>10-Nov-19 A</b>	<b>07-Mar-24</b>	<b>2</b>						
AS013400	BEAM Plus	1142	10-Nov-19	07-Mar-24	10-Nov-19 A	07-Mar-24	2	27.72%					
<b>CHP Building</b>		<b>30</b>	<b>06-Apr-21</b>	<b>06-May-21</b>	<b>26-Mar-21</b>	<b>25-Apr-21</b>	<b>221</b>						
AS013450f	Material Submission & Design Calculation Approved	0		06-Apr-21	26-Mar-21	26-Mar-21	80	0%					
AS013460f	Issued approved submission & Calculation to Cinotech	30	07-Apr-21	06-May-21	27-Mar-21	25-Apr-21	221	0%					
<b>BIM</b>		<b>1112</b>	<b>24-Mar-20</b>	<b>06-Feb-24</b>	<b>24-Mar-20 A</b>	<b>06-Feb-24</b>	<b>2</b>						
AS011920a	Review & Update BIM Execution Plan & BIM Model	1112	24-Mar-20	06-Feb-24	24-Mar-20 A	06-Feb-24	2	21.41%					
<b>Section 2 - Complete All Designs (exclude Sec. 1 &amp; 3)</b>		<b>127</b>	<b>18-May-20</b>	<b>27-May-21</b>	<b>25-Mar-20 A</b>	<b>27-May-21</b>	<b>12</b>						
<b>Major Plant &amp; Materials Procurement</b>		<b>59</b>	<b>18-May-20</b>	<b>20-Mar-21</b>	<b>18-May-20 A</b>	<b>20-Mar-21</b>	<b>80</b>						
AS023200	Procurement & PO for Biogas Booster and Transfer Pumps (S7)	26	17-Jul-20	15-Jan-21	17-Jul-20 A	15-Feb-21	22	85.79%					
AS023210	Procurement & PO for H2S Removal System (S7)	26	17-Jul-20	15-Jan-21	17-Jul-20 A	15-Feb-21	22	85.79%					
AS023240	Procurement & PO for Waste Gas Burning System (S9)	23	17-Jul-20	12-Jan-21	17-Jul-20 A	12-Feb-21	116	84.67%					
AS023340	Procurement & PO for 380V Switchboard (S17)	59	21-Nov-20	20-Mar-21	21-Nov-20 A	20-Mar-21	65	50.83%					
AS023380	Procurement & PO for Control & Monitoring System (S18)	26	17-Jul-20	15-Jan-21	17-Jul-20 A	15-Feb-21	113	85.79%					
AS023400	Procurement & PO for Lifting Appliances (S19)	14	18-May-20	03-Jan-21	18-May-20 A	03-Feb-21	47	93.94%					
AS023520	Procurement & PO for External Sludge Transfer Pump (S21)	10	18-May-20	30-Dec-20	18-May-20 A	30-Jan-21	129	95.59%					
AS023560	Procurement & PO for Ferric Chloride Storage Tank (S21)	24	17-Jul-20	13-Jan-21	17-Jul-20 A	13-Feb-21	115	86.74%					
AS023580	Procurement & PO for Ferric Chloride Dosing Pump (S21)	20	18-May-20	09-Jan-21	18-May-20 A	09-Feb-21	119	91.56%					
AS023600	Procurement & PO for Temporary Primary Sludge Pump (S21)	14	18-May-20	03-Jan-21	18-May-20 A	03-Feb-21	125	93.94%					
AS023620b	Procurement & PO for Genset	28	03-Jun-20	17-Jan-21	22-Jul-20 A	17-Feb-21	111	84.44%					
<b>Design &amp; Submission</b>		<b>127</b>	<b>18-May-20</b>	<b>27-May-21</b>	<b>25-Mar-20 A</b>	<b>27-May-21</b>	<b>12</b>						
<b>General Arrangement Drawings</b>		<b>59</b>	<b>18-May-20</b>	<b>20-Mar-21</b>	<b>26-May-20 A</b>	<b>20-Mar-21</b>	<b>80</b>						



File Name: DE/2018/03 3M 210120  
 Layout: DE1803 (Progress -3M)  
 TASK filters: 3 Months Rolling (1803 SWH), CE.

- Remaining Work
- Critical Activity
- Milestone
- Actual Progress
- Project Baseline Bar
- Baseline Milestone
- Actual Milestone

**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**  
**3 Months Rolling Programme (Based on RP Rev.5) as at 20 Jan 2021**

Based on DE/2018/03 R3			
Date	Revision	Checked	Approved
20-Jan-21	Rev.0	LT	KM

Activity ID	Activity Name	Remaining Duration	BL Start (DE/2018/03 R3)	BL Finish (DE/2018/03 R3)	Start	Finish	Total Float	Activity % Complete	2021				
									2020	Jan 16	Feb 17	Mar 18	Apr 19
AS020120	Revise & Re-submit General Arrangement Drawings (from formation level up to +8mPD)	14	08-Jun-20	03-Jan-21	26-May-20 A	03-Feb-21	104	93.72%					
AS020130	Review & Accept of General Arrangement Drawings by PM (from formation level up to +8mPD)	21	04-Jan-21	24-Jan-21	04-Feb-21	24-Feb-21	104	0%					
AS020140a	Prepare & Submit General Arrangement Drawings (remaining)	0	18-May-20	09-Jan-21	17-Jul-20 A	15-Jan-21 A		100%					
AS020150a	Review & Comment on General Arrangement Drawings by PM (remaining)	10	10-Jan-21	30-Jan-21	05-Sep-20 A	30-Jan-21	10	52.38%					
AS020160a	Revise & Re-submit General Arrangement Drawings (remaining)	28	31-Jan-21	27-Feb-21	31-Jan-21	27-Feb-21	10	0%					
AS020170a	Review & Accept of General Arrangement Drawings by PM (remaining)	21	28-Feb-21	20-Mar-21	28-Feb-21	20-Mar-21	10	0%					
<b>Civil &amp; Dimensional / Tolerance Requirement Drawings</b>		<b>62</b>	<b>23-Jun-20</b>	<b>23-Mar-21</b>	<b>26-May-20 A</b>	<b>23-Mar-21</b>	<b>77</b>						
AS020220	Revise & Re-submit Civil Requirement Drawings (from formation level up to +8mPD)	21	23-Jun-20	10-Jan-21	26-May-20 A	10-Feb-21	97	90.87%					
AS020230	Review & Accept of Civil Requirement Drawings by PM (from formation level up to +8mPD)	21	11-Jan-21	31-Jan-21	11-Feb-21	03-Mar-21	97	0%					
AS020300	Prepare & Submit Civil Requirement Drawings (remaining) -KD2B	0	15-Sep-20	12-Jan-21	15-Sep-20 A	15-Jan-21 A		100%					
AS020310	Review & Comment on Civil Requirement Drawings by PM (remaining)	13	13-Jan-21	02-Feb-21	28-Sep-20 A	02-Feb-21	77	38.1%					
AS020320	Revise & Re-submit Civil Requirement Drawings (remaining)	28	03-Feb-21	02-Mar-21	03-Feb-21	02-Mar-21	77	0%					
AS020330	Review & Accept of Civil Requirement Drawings by PM (remaining)	21	03-Mar-21	23-Mar-21	03-Mar-21	23-Mar-21	77	0%					
<b>Electrical Schematic Drawings</b>		<b>46</b>	<b>24-Jul-20</b>	<b>04-Feb-21</b>	<b>25-Mar-20 A</b>	<b>07-Mar-21</b>	<b>93</b>						
AS021240	Revise & Re-submit Elec. Schematic Drawings (from formation level up to +8mPD)	25	12-Aug-20	14-Jan-21	09-May-20 A	14-Feb-21	93	90.04%					
AS021250	Review & Accept of Elec. Schematic Drawings by PM (from formation level up to +8mPD)	21	15-Jan-21	04-Feb-21	15-Feb-21	07-Mar-21	93	0%					
AS021320	Revise & Re-submit Elec. Schematic Drawings (remaining)	25	24-Jul-20	14-Jan-21	25-Mar-20 A	14-Feb-21	93	91.55%					
AS021330	Review & Accept of Elec. Schematic Drawings by PM (remaining)	21	15-Jan-21	04-Feb-21	15-Feb-21	07-Mar-21	93	0%					
<b>Sludge Screening (SSc)</b>		<b>96</b>	<b>02-Jul-20</b>	<b>26-Apr-21</b>	<b>02-Jul-20 A</b>	<b>26-Apr-21</b>	<b>22</b>						
AS022200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	11	02-Jul-20	31-Dec-20	02-Jul-20 A	31-Jan-21	13	92.67%					
AS022210	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	01-Jan-21	21-Jan-21	01-Feb-21	21-Feb-21	13	0%					
AS022220	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	28	22-Jan-21	18-Feb-21	22-Feb-21	21-Mar-21	13	0%					
AS022230	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	21	19-Feb-21	11-Mar-21	22-Mar-21	11-Apr-21	13	0%					
AS022300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	47	10-Sep-20	08-Mar-21	10-Sep-20 A	08-Mar-21	22	73.89%					
AS022310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	09-Mar-21	29-Mar-21	09-Mar-21	29-Mar-21	22	0%					
AS022320	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	28	30-Mar-21	26-Apr-21	30-Mar-21	26-Apr-21	22	0%					
<b>Sludge Thickening (STh)</b>		<b>96</b>	<b>02-Jul-20</b>	<b>26-Apr-21</b>	<b>02-Jul-20 A</b>	<b>26-Apr-21</b>	<b>22</b>						
AS032200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	11	02-Jul-20	31-Dec-20	02-Jul-20 A	31-Jan-21	13	93.89%					
AS032210	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	01-Jan-21	21-Jan-21	01-Feb-21	21-Feb-21	13	0%					
AS032220	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	28	22-Jan-21	18-Feb-21	22-Feb-21	21-Mar-21	13	0%					
AS032230	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	21	19-Feb-21	11-Mar-21	22-Mar-21	11-Apr-21	13	0%					
AS032300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	47	10-Sep-20	08-Mar-21	10-Sep-20 A	08-Mar-21	22	73.89%					
AS032310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	09-Mar-21	29-Mar-21	09-Mar-21	29-Mar-21	22	0%					
AS032320	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	28	30-Mar-21	26-Apr-21	30-Mar-21	26-Apr-21	22	0%					
<b>Thermal Hydrolysis Process (THP)</b>		<b>65</b>	<b>18-May-20</b>	<b>14-Apr-21</b>	<b>18-May-20 A</b>	<b>26-Mar-21</b>	<b>74</b>						
AS042200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	0	18-May-20	13-Jan-21	18-May-20 A	15-Jan-21 A		100%					
AS042210	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	16	14-Jan-21	03-Feb-21	16-Jan-21 A	05-Feb-21	29	23.81%					
AS042220	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	28	04-Feb-21	03-Mar-21	06-Feb-21	05-Mar-21	29	0%					
AS042230	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	21	04-Mar-21	24-Mar-21	06-Mar-21	26-Mar-21	29	0%					



File Name: DE/2018/03 3M 210120  
 Layout: DE1803 (Progress -3M)  
 TASK filters: 3 Months Rolling (1803 SWH), CE.

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- Critical Activity
- ◆ Milestone
- Actual Progress
- Project Baseline Bar
- ◆ Baseline Milestone
- ◆ Actual Milestone

**Contract No. DE/2018/03**  
**Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1**  
**Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities**  
**3 Months Rolling Programme (Based on RP Rev.5) as at 20 Jan 2021**

Based on DE/2018/03 R3			
Date	Revision	Checked	Approved
20-Jan-21	Rev.0	LT	KM



Activity ID	Activity Name	Remaining Duration	BL Start (DE/2018/03 R3)	BL Finish (DE/2018/03 R3)	Start	Finish	Total Float	Activity % Complete	2021				
									2020	Jan 16	Feb 17	Mar 18	Apr 19
AS042310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	0	13-Jan-21	02-Feb-21	08-Dec-20 A	11-Jan-21 A		100%					
AS042320	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	19	03-Feb-21	02-Mar-21	12-Jan-21 A	08-Feb-21		99	32.14%				
AS042330	Review & Accept of the Schedule, Design Cal. & Fixing Details of Equipment	21	25-Mar-21	14-Apr-21	09-Feb-21	01-Mar-21		99	0%				
<b>Sludge Digestion (SDI)</b>		107	01-Aug-20	07-May-21	01-Aug-20 A	07-May-21	10						
AS052200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	27	01-Aug-20	27-Jan-21	01-Aug-20 A	16-Feb-21		20	85%				
AS052210	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	28-Jan-21	17-Feb-21	17-Feb-21	09-Mar-21		20	0%				
AS052220	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	28	18-Feb-21	17-Mar-21	10-Mar-21	06-Apr-21		20	0%				
AS052230	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	21	18-Mar-21	07-Apr-21	07-Apr-21	27-Apr-21		20	0%				
AS052300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	37	31-Aug-20	26-Feb-21	31-Aug-20 A	26-Feb-21		10	79.44%				
AS052310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	27-Feb-21	19-Mar-21	27-Feb-21	19-Mar-21		10	0%				
AS052320	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	28	20-Mar-21	16-Apr-21	20-Mar-21	16-Apr-21		10	0%				
AS052330	Review & Accept of the Schedule, Design Cal. & Fixing Details of Equipment	21	17-Apr-21	07-May-21	17-Apr-21	07-May-21		10	0%				
<b>Sludge Dewatering (SDe)</b>		89	02-Jul-20	19-Apr-21	02-Jul-20 A	19-Apr-21	29						
AS062200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	11	02-Jul-20	31-Dec-20	02-Jul-20 A	31-Jan-21		13	93.89%				
AS062210	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	01-Jan-21	21-Jan-21	01-Feb-21	21-Feb-21		13	0%				
AS062220	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	28	22-Jan-21	18-Feb-21	22-Feb-21	21-Mar-21		13	0%				
AS062230	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	21	19-Feb-21	11-Mar-21	22-Mar-21	11-Apr-21		13	0%				
AS062300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	40	03-Sep-20	01-Mar-21	31-Aug-20 A	01-Mar-21		29	77.78%				
AS062310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	02-Mar-21	22-Mar-21	02-Mar-21	22-Mar-21		29	0%				
AS062320	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	28	23-Mar-21	19-Apr-21	23-Mar-21	19-Apr-21		29	0%				
<b>Biogas Storage &amp; Pre-Treatment (BSPT)</b>		108	31-Aug-20	08-May-21	31-Aug-20 A	08-May-21	10						
AS072200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	27	31-Aug-20	27-Jan-21	31-Aug-20 A	16-Feb-21		21	82%				
AS072210	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	28-Jan-21	17-Feb-21	17-Feb-21	09-Mar-21		21	0%				
AS072220	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	28	18-Feb-21	17-Mar-21	10-Mar-21	06-Apr-21		21	0%				
AS072230	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	21	18-Mar-21	07-Apr-21	07-Apr-21	27-Apr-21		21	0%				
AS072300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	59	22-Oct-20	20-Mar-21	22-Oct-20 A	20-Mar-21		10	60.67%				
AS072310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	21-Mar-21	10-Apr-21	21-Mar-21	10-Apr-21		10	0%				
AS072320	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	28	11-Apr-21	08-May-21	11-Apr-21	08-May-21		10	0%				
<b>Combined Heat &amp; Power Generation (CHP)</b>		75	18-May-20	06-Apr-21	18-May-20 A	05-Apr-21	60						
AS082200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	5	18-May-20	05-Jan-21	18-May-20 A	25-Jan-21		19	97.85%				
AS082210	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	06-Jan-21	26-Jan-21	26-Jan-21	15-Feb-21		19	0%				
AS082220	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	28	27-Jan-21	23-Feb-21	16-Feb-21	15-Mar-21		19	0%				
AS082230	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	21	24-Feb-21	16-Mar-21	16-Mar-21	05-Apr-21		19	0%				
AS082300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	12	17-Jul-20	12-Jan-21	17-Jul-20 A	01-Feb-21		70	93.33%				
AS082310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	9	13-Jan-21	02-Feb-21	03-Aug-20 A	10-Feb-21		70	57.14%				
AS082320	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	23	03-Feb-21	02-Mar-21	12-Aug-20 A	05-Mar-21		70	17.86%				
AS082330	Review & Accept of the Schedule, Design Cal. & Fixing Details of Equipment	21	17-Mar-21	06-Apr-21	22-Dec-20 A	26-Mar-21		70	0%				
<b>Waste Gas Burning System (WGB)</b>		106	04-Nov-20	06-May-21	15-Oct-20 A	06-May-21	12						
AS092200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	12	04-Nov-20	01-Feb-21	15-Oct-20 A	01-Feb-21		12	86.67%				



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 Layout: DE1803 (Progress -3M)  
 TASK filters: 3 Months Rolling (1803 SWH), CE.

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- Actual Progress
- Project Baseline Bar
- ◆ Baseline Milestone
- ◆ Actual Milestone

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**Sidestream Treatment Facilities and E&M Works for Sluge Treatment Facilitieis**  
**3 Months Rolling Programme (Based on RP Rev.5) as at 20 Jan 2021**

Based on DE/2018/03 R3			
Date	Revision	Checked	Approved
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Activity ID	Activity Name	Remaining Duration	BL Start (DE/2018/03 R3)	BL Finish (DE/2018/03 R3)	Start	Finish	Total Float	Activity % Complete	2021				
									2020	Jan 16	Feb 17	Mar 18	Apr 19
AS092210	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	02-Feb-21	22-Feb-21	02-Feb-21	22-Feb-21	12	0%					
AS092220	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	28	23-Feb-21	22-Mar-21	23-Feb-21	22-Mar-21	12	0%					
AS092230	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	21	23-Mar-21	12-Apr-21	23-Mar-21	12-Apr-21	12	0%					
AS092300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	57	19-Dec-20	18-Mar-21	29-Nov-20 A	18-Mar-21	12	36.67%					
AS092310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	19-Mar-21	08-Apr-21	19-Mar-21	08-Apr-21	12	0%					
AS092320	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	28	09-Apr-21	06-May-21	09-Apr-21	06-May-21	12	0%					
<b>Plant Service Water System (PSW)</b>		101	16-Aug-20	01-May-21	16-Aug-20 A	01-May-21	17						
AS122200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	12	16-Aug-20	12-Jan-21	16-Aug-20 A	01-Feb-21	12	92%					
AS122210	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	13-Jan-21	02-Feb-21	02-Feb-21	22-Feb-21	12	0%					
AS122220	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	28	03-Feb-21	02-Mar-21	23-Feb-21	22-Mar-21	12	0%					
AS122230	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	21	03-Mar-21	23-Mar-21	23-Mar-21	12-Apr-21	12	0%					
AS122300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	52	15-Oct-20	13-Mar-21	15-Oct-20 A	13-Mar-21	17	65.33%					
AS122310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	14-Mar-21	03-Apr-21	14-Mar-21	03-Apr-21	17	0%					
AS122320	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	28	04-Apr-21	01-May-21	04-Apr-21	01-May-21	17	0%					
<b>Surplus Activated Sludge Pumping Station (SAS)</b>		99	01-Aug-20	25-Apr-21	01-Aug-20 A	29-Apr-21	40						
AS142200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	29	01-Aug-20	30-Jan-21	01-Aug-20 A	18-Feb-21	40	85.64%					
AS142210	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	31-Jan-21	20-Feb-21	19-Feb-21	11-Mar-21	40	0%					
AS142220	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	28	21-Feb-21	20-Mar-21	12-Mar-21	08-Apr-21	40	0%					
AS142230	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	21	21-Mar-21	10-Apr-21	09-Apr-21	29-Apr-21	40	0%					
AS142300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	25	16-Aug-20	14-Feb-21	16-Aug-20 A	14-Feb-21	44	86.34%					
AS142310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	15-Feb-21	07-Mar-21	15-Feb-21	07-Mar-21	44	0%					
AS142320	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	28	08-Mar-21	04-Apr-21	08-Mar-21	04-Apr-21	44	0%					
AS142330	Review & Accept of the Schedule, Design Cal. & Fixing Details of Equipment	21	05-Apr-21	25-Apr-21	05-Apr-21	25-Apr-21	44	0%					
<b>Control and Monitoring System</b>		107	30-Oct-20	07-May-21	30-Oct-20 A	07-May-21	32						
AS182200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	27	30-Oct-20	27-Jan-21	30-Oct-20 A	16-Feb-21	42	70%					
AS182210	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	28-Jan-21	17-Feb-21	17-Feb-21	09-Mar-21	42	0%					
AS182220	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	28	18-Feb-21	17-Mar-21	10-Mar-21	06-Apr-21	42	0%					
AS182230	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	21	18-Mar-21	07-Apr-21	07-Apr-21	27-Apr-21	42	0%					
AS182300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	37	14-Dec-20	26-Feb-21	14-Dec-20 A	26-Feb-21	32	50.67%					
AS182310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	27-Feb-21	19-Mar-21	27-Feb-21	19-Mar-21	32	0%					
AS182320	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	28	20-Mar-21	16-Apr-21	20-Mar-21	16-Apr-21	32	0%					
AS182330	Review & Accept of the Schedule, Design Cal. & Fixing Details of Equipment	21	17-Apr-21	07-May-21	17-Apr-21	07-May-21	32	0%					
<b>Lifting Appliances</b>		92	17-Jul-20	24-Apr-21	17-Jul-20 A	22-Apr-21	32						
AS192200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	29	17-Jul-20	30-Jan-21	17-Jul-20 A	18-Feb-21	32	85.35%					
AS192210	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	31-Jan-21	20-Feb-21	19-Feb-21	11-Mar-21	32	0%					
AS192220	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	21	21-Feb-21	13-Mar-21	12-Mar-21	01-Apr-21	32	0%					
AS192230	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	21	14-Mar-21	03-Apr-21	02-Apr-21	22-Apr-21	32	0%					
AS192300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	10	30-Oct-20	30-Jan-21	30-Oct-20 A	30-Jan-21	42	89.25%					
AS192310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	31-Jan-21	20-Feb-21	31-Jan-21	20-Feb-21	42	0%					



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 TASK filters: 3 Months Rolling (1803 SWH), CE.

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**Contract No. DE/2018/03**  
**Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1**  
**Sidestream Treatment Facilities and E&M Works for Sluge Treatment Facilitieis**  
**3 Months Rolling Programme (Based on RP Rev.5) as at 20 Jan 2021**

Based on DE/2018/03 R3			
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Activity ID	Activity Name	Remaining Duration	BL Start (DE/2018/03 R3)	BL Finish (DE/2018/03 R3)	Start	Finish	Total Float	Activity % Complete	2021			
									Jan 16	Feb 17	Mar 18	Apr 19
AS192320	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	21	21-Feb-21	13-Mar-21	21-Feb-21	13-Mar-21	42	0%				
AS192330	Review & Accept of the Schedule, Design Cal. & Fixing Details of Equipment	21	04-Apr-21	24-Apr-21	23-Mar-21	12-Apr-21	42	0%				
<b>Building Services</b>		97	03-Oct-20	27-Apr-21	02-Jul-20 A	27-Apr-21	42					
AS201100	Submit & Accept BS Works Design & Dwgs for Sludge Dewatering Building	89	21-Nov-20	19-Apr-21	21-Nov-20 A	19-Apr-21	50	40.67%				
AS201200	Submit & Accept BS Works Design & Dwgs for CHP Building	82	14-Nov-20	12-Apr-21	14-Nov-20 A	12-Apr-21	57	45.33%				
AS201300	Submit & Accept BS Works Design & Dwgs for Sludge Digester & Distribution Chamber	89	21-Nov-20	19-Apr-21	21-Nov-20 A	19-Apr-21	50	40.67%				
AS201500	Submit & Accept BS Works Design & Dwgs for Workshop No. 2	87	19-Nov-20	17-Apr-21	02-Jul-20 A	17-Apr-21	52	42%				
AS201700	Submit & Accept BS Works Design & Dwgs for Other Facilities	97	29-Nov-20	27-Apr-21	29-Nov-20 A	27-Apr-21	42	35.33%				
AS201800	Submit & Accept BS Works Design & Dwgs for FS Installation	70	03-Oct-20	31-Mar-21	02-Jul-20 A	31-Mar-21	69	61.11%				
AS201900	Submit & Accept BS Works Design & Dwgs for Outdoor Lighting Installation	90	28-Jan-21	27-Apr-21	28-Jan-21	27-Apr-21	42	0%				
<b>Miscellaneous</b>		127	05-Oct-20	27-May-21	05-Oct-20 A	27-May-21	12					
AS211100	Submit & Accept Design & Dwgs for DO System	112	14-Dec-20	12-May-21	14-Dec-20 A	12-May-21	27	25.33%				
AS211200	Submit & Accept Design & Dwgs for Sewage Pumping Station	100	30-Oct-20	30-Apr-21	30-Oct-20 A	30-Apr-21	39	45.36%				
AS211300	Submit & Accept Design & Dwgs for Process Water Pumping System	70	05-Oct-20	31-Mar-21	05-Oct-20 A	31-Mar-21	69	60.67%				
AS211400	Submit & Accept Design & Dwgs for External Sludge Transfer Pumping System	22	14-Nov-20	11-Feb-21	14-Nov-20 A	11-Feb-21	117	75.56%				
AS211500	Submit & Accept Design & Dwgs for THP Cooling Water Pumping Station	22	14-Nov-20	11-Feb-21	14-Nov-20 A	11-Feb-21	117	75.56%				
AS211600	Submit & Accept Design & Dwgs for Ferric Chloride Dosing System	52	14-Nov-20	13-Mar-21	14-Nov-20 A	13-Mar-21	87	56.67%				
AS211700	Submit & Accept Design & Dwgs for Temporary Primary Sludge Pumping Facility	73	04-Jan-21	03-Apr-21	04-Jan-21 A	03-Apr-21	66	18.89%				
AS211800	Submit & Accept Design & Dwgs for Gas Detection System	127	29-Nov-20	27-May-21	29-Nov-20 A	27-May-21	12	29.44%				
AS211900	Submit & Accept Design & Dwgs for CCTV System	127	29-Nov-20	27-May-21	29-Nov-20 A	27-May-21	12	29.44%				
<b>Section 3 - Complete Design, Construction &amp; T&amp;C for Sidestream Fac</b>		1144	06-Jun-20	09-Mar-24	07-Jun-20 A	09-Mar-24	0					
<b>Major Subcontractor / Supplier Procurement</b>		106	26-Oct-20	22-Mar-21	26-Oct-20 A	06-May-21	0					
<b>Civil &amp; Building Contractor</b>		106	26-Oct-20	22-Mar-21	26-Oct-20 A	06-May-21	0					
<b>For Pre-drilling &amp; Post-drilling</b>		53	26-Oct-20	22-Mar-21	26-Oct-20 A	14-Mar-21	39					
AS512430e	Submit Tender proposal of Civil Contractor (Pre-drilling & Post-drilling)	0	26-Oct-20	31-Dec-20	26-Oct-20 A	06-Jan-21 A		100%				
AS512440e	Review & Accept the Tender proposal of Civil Contractor (Pre-drilling & Post-drilling)	7	01-Jan-21	21-Jan-21	07-Jan-21 A	27-Jan-21	39	66.67%				
AS512450e	Tender Invitation of Civil Contractor (Pre-drilling & Post-drilling)	14	22-Jan-21	11-Feb-21	28-Jan-21	10-Feb-21	39	0%				
AS512460e	Submission of Tender Report	4	12-Feb-21	18-Feb-21	11-Feb-21	14-Feb-21	39	0%				
AS512470e	Review & Accept the Tender Report by PM	21	19-Feb-21	11-Mar-21	15-Feb-21	07-Mar-21	39	0%				
AS512480e	Contract Preparation	3	12-Mar-21	14-Mar-21	08-Mar-21	10-Mar-21	39	0%				
AS512490e	Civil Contractor (Pre-drilling & Post-drilling) Award	1	15-Mar-21	15-Mar-21	11-Mar-21	11-Mar-21	39	0%				
AS512500e	Mobilisation	3	16-Mar-21	22-Mar-21	12-Mar-21	14-Mar-21	39	0%				
<b>For Piling</b>		89			04-Jan-21 A	19-Apr-21	0					
AS512510f	Submit Tender proposal of Civil Contractor (Piling)	22			04-Jan-21 A	11-Feb-21	0	43.59%				
AS512520f	Review & Accept the Tender proposal of Civil Contractor (Pre-drilling & Post-drilling)	25			12-Feb-21	08-Mar-21	0	0%				
AS512530f	Tender Invitation of Civil Contractor (Pre-drilling & Post-drilling)	14			09-Mar-21	22-Mar-21	0	0%				
AS512540f	Submission of Tender Report	7			23-Mar-21	29-Mar-21	0	0%				
AS512550f	Review & Accept the Tender Report by PM	21			30-Mar-21	19-Apr-21	0	0%				
<b>For Main Civil Works</b>		51			17-Mar-21	06-May-21	0					



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									2020	Jan 16	Feb 17	Mar 18	Apr 19
AS512590f	Submit Tender proposal of Civil Contractor (Piling)	30			17-Mar-21*	15-Apr-21	0	0%					
AS512600f	Review & Accept the Tender proposal of Civil Contractor (Pre-drilling & Post-drilling)	21			16-Apr-21	06-May-21	0	0%					
<b>Design &amp; Submission</b>		<b>386</b>	<b>06-Jun-20</b>	<b>14-Jan-22</b>	<b>07-Jun-20 A</b>	<b>10-Feb-22</b>	<b>243</b>						
<b>Architectural</b>		<b>386</b>	<b>03-Nov-20</b>	<b>14-Jan-22</b>	<b>03-Nov-20 A</b>	<b>10-Feb-22</b>	<b>243</b>						
AS160120	Revise & Re-submit Building Layout Plan	0	28-Nov-20	25-Dec-20	28-Nov-20 A	24-Dec-20 A		100%					
AS160130	Review & Accept of Building Layout Plan by PM	15	26-Dec-20	15-Jan-21	25-Dec-20 A	04-Feb-21	77	28.57%					
AS160190e	Cooordination Meeting with DSD (Employer) for the Architectural Drawing	0		18-Feb-21		17-Mar-21	243	0%					
AS160220	Revise & Re-submit Architectural Design / Drawings	0	28-Nov-20	25-Dec-20	28-Nov-20 A	24-Dec-20 A		100%					
AS160230	Review & Accept of Architectural Design / Drawings by PM	15	26-Dec-20	15-Jan-21	25-Dec-20 A	04-Feb-21	284	28.57%					
AS160240	Review & Accept of Architectural Design / Drawings by DSD (incl. VCAB) & DAP of ArchSD	330	19-Feb-21	14-Jan-22	18-Mar-21	10-Feb-22	243	0%					
AS160500	Prepare & Submit ABWF Works Drawings	0	03-Nov-20	10-Dec-20	03-Nov-20 A	24-Dec-20 A		100%					
AS160510	Review & Comment on ABWF Works Drawings by PM	7	11-Dec-20	31-Dec-20	25-Dec-20 A	27-Jan-21	243	66.67%					
AS160520	Revise & Re-submit ABWF Works Drawings	28	01-Jan-21	28-Jan-21	28-Jan-21	24-Feb-21	243	0%					
AS160530	Review & Accept of ABWF Works Drawings by PM	21	29-Jan-21	18-Feb-21	25-Feb-21	17-Mar-21	243	0%					
<b>Civil / Structural</b>		<b>112</b>	<b>24-Oct-20</b>	<b>12-Mar-21</b>	<b>24-Oct-20 A</b>	<b>12-May-21</b>	<b>190</b>						
AS160260e	Revise & Re-submit Loading Plan to ICE	7	24-Oct-20	27-Nov-20	24-Oct-20 A	27-Jan-21	11	89.23%					
AS160270e	Review & Accept of Loading Plan by ICE	7	28-Nov-20	04-Dec-20	28-Jan-21	03-Feb-21	11	0%					
AS160280e	Prepare & Submit Loading Plan to PM	7	05-Dec-20	11-Dec-20	04-Feb-21	10-Feb-21	11	0%					
AS160290e	Review & Accept of Loading Plan by PM & DSD (incl. BCM)	60	12-Dec-20	09-Feb-21	11-Feb-21	11-Apr-21	11	0%					
AS160320	Revise & Re-submit Foundation Design / Drawings to ICE & PM	4	28-Nov-20	11-Dec-20	28-Nov-20 A	24-Jan-21	0	71.43%					
AS160330	Review & Accept of Foundation Design / Drawings by ICE & PM	21	12-Dec-20	01-Jan-21	25-Jan-21	14-Feb-21	0	0%					
AS160340e	Prepare & Submit Foundation Design / Drawings to DSD (incl. BCM)	7	02-Jan-21	08-Jan-21	15-Feb-21	21-Feb-21	0	0%					
AS160350e	Review & Accept of Foundation Design / Drawings by DSD (incl. BCM)	60	09-Jan-21	09-Mar-21	22-Feb-21	22-Apr-21	0	0%					
AS160410	Review & Comment on Substructure / Superstructure Design / Drawings by ICE & PM	10	06-Nov-20	30-Nov-20	06-Nov-20 A	30-Jan-21	72	81.82%					
AS160420	Revise & Re-submit Substructure / Superstructure Design / Drawings to ICE & PM	14	01-Dec-20	14-Dec-20	31-Jan-21	13-Feb-21	190	0%					
AS160430	Review & Accept of Substructure / Superstructure Design / Drawings by ICE & PM	21	15-Dec-20	04-Jan-21	14-Feb-21	06-Mar-21	190	0%					
AS160440e	Prepare & Submit Substructure / Superstructure Design / Drawings to DSD (incl. BCM)	7	05-Jan-21	11-Jan-21	07-Mar-21	13-Mar-21	190	0%					
AS160450e	Review & Accept of Substructure / Superstructure Design / Drawings by DSD (incl. BCM)	60	12-Jan-21	12-Mar-21	14-Mar-21	12-May-21	190	0%					
<b>Process Design</b>		<b>35</b>	<b>11-Jan-21</b>	<b>14-Feb-21</b>	<b>09-Dec-20 A</b>	<b>24-Feb-21</b>	<b>413</b>						
AS512240e	Revise & Re-submit E&M Works (Process) Design Drawings	14	11-Jan-21	24-Jan-21	09-Dec-20 A	03-Feb-21	413	0%					
AS512250e	Review & Accept of E&M Works (Process) Design Drawings by PM	21	25-Jan-21	14-Feb-21	04-Feb-21	24-Feb-21	413	0%					
<b>E&amp;M Design</b>		<b>85</b>	<b>06-Jun-20</b>	<b>28-Feb-21</b>	<b>07-Jun-20 A</b>	<b>15-Apr-21</b>	<b>217</b>						
AS151100	Prepare & Submit General Arrangement Drawings	15	06-Jun-20	20-Dec-20	07-Jun-20 A	04-Feb-21	212	93.39%					
AS151110	Review & Comment on General Arrangement Drawings by PM	21	21-Dec-20	10-Jan-21	05-Feb-21	25-Feb-21	217	0%					
AS151120	Revise & Re-submit General Arrangement Drawings	28	11-Jan-21	07-Feb-21	26-Feb-21	25-Mar-21	217	0%					
AS151130	Review & Accept of General Arrangement Drawings by PM	21	08-Feb-21	28-Feb-21	26-Mar-21	15-Apr-21	217	0%					
<b>BS</b>		<b>46</b>	<b>01-Feb-21</b>	<b>18-May-21</b>	<b>11-Dec-20 A</b>	<b>07-Mar-21</b>	<b>467</b>						
AS201405e	Review & Comment on BS Works Design & Dwgs for Sidestream Treatment Facilities by PM	11	24-Mar-21	13-Apr-21	11-Dec-20 A	31-Jan-21	467	47.62%					
AS201410e	Revise & Re-submit BS Works Design & Dwgs for Sidestream Treatment Facilities	14	14-Apr-21	27-Apr-21	01-Feb-21	14-Feb-21	467	0%					



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									2020	Jan 16	Feb 17	Mar 18	Apr 19
AS201415e	Review & Accept of BS Works Design & Dwgs for Sidestream Treatment Facilities by PM	21	28-Apr-21	18-May-21	15-Feb-21	07-Mar-21	467	0%					
AS201430e	Review & Comment on FS Works Design & Dwgs for Sidestream Treatment Facilities by PM	0	01-Feb-21	21-Feb-21	11-Dec-20 A	19-Jan-21 A		100%					
AS201440e	Revise & Re-submit FS Works Design & Dwgs for Sidestream Treatment Facilities	14	22-Feb-21	07-Mar-21	20-Jan-21 A	03-Feb-21	73	0%					
AS201450e	Review & Accept of FS Works Design & Dwgs for Sidestream Treatment Facilities by PM	21	08-Mar-21	28-Mar-21	04-Feb-21	24-Feb-21	73	0%					
<b>Major Plant &amp; Materials Procurement</b>		<b>387</b>	<b>23-Mar-21</b>	<b>13-Apr-22</b>	<b>23-Mar-21</b>	<b>13-Apr-22</b>	<b>0</b>						
<b>Civil &amp; Structure</b>		<b>45</b>	<b>23-Mar-21</b>	<b>06-May-21</b>	<b>23-Mar-21</b>	<b>06-May-21</b>	<b>0</b>						
AS153130e	Procurement, Manufacture & Delivery of Piling	45	23-Mar-21	06-May-21	23-Mar-21	06-May-21	0	0%					
<b>E&amp;M Process</b>		<b>360</b>	<b>19-Apr-21</b>	<b>13-Apr-22</b>	<b>19-Apr-21</b>	<b>13-Apr-22</b>	<b>0</b>						
AS153100	Procurement, Manufacture & Delivery of Deammonification Sidestream Treatment Facilities	360	19-Apr-21	13-Apr-22	19-Apr-21	13-Apr-22	0	0%					
<b>Ground Settlement, Tilting &amp; Utility Monitoring</b>		<b>1144</b>	<b>12-Dec-20</b>	<b>09-Mar-24</b>	<b>12-Dec-20 A</b>	<b>09-Mar-24</b>	<b>0</b>						
AS153200f	Ground Settlement, Tilting & Utility Monitoring	1144	12-Dec-20	09-Mar-24	12-Dec-20 A	09-Mar-24	0	3.38%					
<b>Civil Works Construction</b>		<b>25</b>	<b>12-Dec-20</b>	<b>14-Feb-21</b>	<b>12-Dec-20 A</b>	<b>14-Feb-21</b>	<b>67</b>						
AS161120	Ground Investigation	25	12-Dec-20	14-Feb-21	12-Dec-20 A	14-Feb-21	67	61.54%					
<b>Statutory Submission / Inspection (FSD)</b>		<b>90</b>	<b>12-Jan-21</b>	<b>11-Apr-21</b>	<b>21-Jan-21</b>	<b>20-Apr-21</b>	<b>32</b>						
AS201440	Prepare & Submit GBP for FSD approval	90	12-Jan-21	11-Apr-21	21-Jan-21*	20-Apr-21	32	0%					
<b>Section 4 - Complete Construction &amp; T&amp;C for UV System No.1 &amp; EP S</b>		<b>271</b>	<b>18-Apr-20</b>	<b>07-Nov-21</b>	<b>18-Apr-20 A</b>	<b>18-Oct-21</b>	<b>100</b>						
<b>Major Plant &amp; Materials Fabrication &amp; Delivery</b>		<b>271</b>	<b>18-Apr-20</b>	<b>07-Nov-21</b>	<b>18-Apr-20 A</b>	<b>18-Oct-21</b>	<b>100</b>						
AS103160	Procurement & PO for FRP Cover (S11)	31	18-Apr-20	31-Jan-21	18-Apr-20 A	20-Feb-21	100	89.24%					
AS103320	Procurement & PO for Elec. Materials	31	18-Jul-20	31-Jan-21	18-Jul-20 A	20-Feb-21	168	84.34%					
AS104100	Fabrication of UV Disinfection System (S10)	138	18-Jan-21	16-Jul-21	10-Dec-20 A	07-Jun-21	53	23.33%					
AS104120	Fabrication & Delivery of Lift-up Pumps (S11)	142	11-Jan-21	09-Jul-21	14-Dec-20 A	11-Jun-21	42	21.11%					
AS104140	Fabrication & Delivery of Transfer Pumps (S13)	149	26-Feb-21	24-Aug-21	21-Dec-20 A	18-Jun-21	81	17.22%					
AS104160	Fabrication & Delivery of FRP Cover (S11)	240	01-Feb-21	30-Jul-21	21-Feb-21*	18-Oct-21	100	0%					
AS104180	Fabrication & Delivery of EOT Cranes (2T & 5T) (S19)	120	12-Dec-20	10-May-21	21-Jan-21*	20-May-21	4	0%					
AS104200	Fabrication & Delivery of Stoplogs (S21)	234	11-Feb-21	07-Nov-21	16-Dec-20 A	11-Sep-21	91	13.33%					
AS104220	Fabrication & Delivery of Penstocks (S21)	267	11-Feb-21	07-Nov-21	18-Jan-21 A	14-Oct-21	58	1.11%					
AS104300	Fabrication & Delivery of Pipeworks & Associated Valves	180	11-Jan-21	09-Jul-21	21-Jan-21*	19-Jul-21	4	0%					
AS104400	Fabrication & Delivery of FS System (S20)	180	18-Apr-21	14-Oct-21	18-Apr-21*	14-Oct-21	10	0%					
<b>Section 5 - Complete all remaining Works (incl. T&amp;C)</b>		<b>386</b>	<b>18-Jan-21</b>	<b>19-Mar-22</b>	<b>30-Jan-21</b>	<b>19-Feb-22</b>	<b>704</b>						
<b>Fabrication, FAT &amp; Delivery of Major Plant &amp; Materials</b>		<b>386</b>	<b>18-Jan-21</b>	<b>19-Mar-22</b>	<b>30-Jan-21</b>	<b>19-Feb-22</b>	<b>383</b>						
AS023290	Procurement & PO for Pipeworks & Associated Valves	120	29-Jan-21	28-May-21	30-Jan-21	29-May-21	10	0%					
AS023620	Procurement & PO for Elec. Materials	90	13-Apr-21	11-Jul-21	13-Apr-21	11-Jul-21	12	0%					
AS501880	Fabrication & Delivery of Process Water Pump (S21)	300	01-Apr-21	25-Jan-22	01-Apr-21	25-Jan-22	300	0%					
AS501920	Fabrication & Delivery of THP Cooling Pump (S21)	360	25-Mar-21	19-Mar-22	25-Feb-21	19-Feb-22	383	0%					
AS501990b	Fabrication & Delivery of Genset	360	18-Jan-21	12-Jan-22	18-Feb-21	12-Feb-22	252	0%					
<b>Statutory Submission / Inspection</b>		<b>306</b>	<b>21-Mar-21</b>	<b>31-Jan-22</b>	<b>21-Mar-21</b>	<b>20-Jan-22</b>	<b>734</b>						
<b>EPD Submission / Inspection</b>		<b>300</b>	<b>07-Apr-21</b>	<b>31-Jan-22</b>	<b>27-Mar-21</b>	<b>20-Jan-22</b>	<b>734</b>						
AS509520a	EPD Submission & Approval for Air Pollution Control - CHP, CAPC, Flare	300	07-Apr-21	31-Jan-22	27-Mar-21	20-Jan-22	734	0%					
<b>EMSD Submission / Inspection</b>		<b>180</b>	<b>21-Mar-21</b>	<b>16-Sep-21</b>	<b>21-Mar-21</b>	<b>16-Sep-21</b>	<b>598</b>						
AS509370b	BEE0 Stage one: Submit EE1 & EE-SU to EMSD	60	18-Apr-21	16-Jun-21	18-Apr-21	16-Jun-21	250	0%					
AS509380b	Application & Approval of the Zone Classification of Hazardous Area - including Fire Risk Assessment Report	180	21-Mar-21	16-Sep-21	21-Mar-21	16-Sep-21	598	0%					
AS509400a	Application for Construction Approval of Notifiable Gas Installation (Form 104)	180	21-Mar-21	16-Sep-21	21-Mar-21	16-Sep-21	598	0%					



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- ◆ Baseline Milestone
- ◆ Actual Milestone

**Contract No. DE/2018/03**  
**Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1**  
**Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities**  
**3 Months Rolling Programme (Based on RP Rev.5) as at 20 Jan 2021**

Based on DE/2018/03 R3			
Date	Revision	Checked	Approved
20-Jan-21	Rev.0	LT	KM



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

ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names	Gantt Chart (2020-2024)											
1	1.1	DE/2018/04 - Contract Master Programme	1990 days	Mon 02/12/19	Tue 13/05/25	Mon 02/12/19	Tue 13/05/25	Mon 02/12/19	Tue 13/05/25	0 days				[Gantt Chart: 2020 Half 1, 2020 Half 2, 2021 Half 1, 2021 Half 2, 2022 Half 1, 2022 Half 2, 2023 Half 1, 2023 Half 2, 2024 Half 1]											
2	2.1.1	Starting Date	0 days	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	0 days		355+1625 edays,633,206		[Gantt Chart: 02/12]											
3	3.1.2	Completion Date	0 days	Tue 14/05/24	Tue 14/05/24	Tue 14/05/24	Tue 14/05/24	Tue 14/05/24	Tue 14/05/24	0 days	255+1625 edays			[Gantt Chart: 14/05/24]											
4	4.1.3	Defect Dates with respect to Completion Date	365 days	Tue 14/05/24	Tue 13/05/25	Tue 14/05/24	Tue 13/05/25	Tue 14/05/24	Tue 13/05/25	0 days	3			[Gantt Chart: 14/05/24, 13/05/25]											
5	5.2	Access Dates	1599 days	Mon 02/12/19	Thu 18/04/24	Mon 02/12/19	Thu 18/04/24	Mon 02/12/19	Thu 18/04/24	0 days				[Gantt Chart: 02/12, 18/04/24]											
6	6.2.1	Access Date for Works Area WA1-C	90 days	Mon 02/12/19	Sat 29/02/20	Mon 02/12/19	Sat 29/02/20	Mon 02/12/19	Sat 29/02/20	0 days				[Gantt Chart: 02/12, 29/02/20]											
7	7.2.2	Access Date for Works Area WA2-C	90 days	Mon 02/12/19	Sat 29/02/20	Mon 02/12/19	Sat 29/02/20	Mon 02/12/19	Sat 29/02/20	0 days				[Gantt Chart: 02/12, 29/02/20]											
8	8.2.3	Access Date for Portion B-2, Inlet Works No. 1	150 edays	Tue 28/06/22	Fri 25/11/22	Tue 28/06/22	Fri 25/11/22	Tue 28/06/22	Fri 25/11/22	0 edays				[Gantt Chart: 28/06/22, 25/11/22]											
9	9.2.4	Access Date for Portion B-3, PST No. 1-4	90 edays	Sat 14/01/23	Fri 14/04/23	Sat 14/01/23	Fri 14/04/23	Sat 14/01/23	Fri 14/04/23	0 edays				[Gantt Chart: 14/01/23, 14/04/23]											
10	10.2.5	Access Date for Portion B-3A, Existing PST No. 4 and No. 6	0 days	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	0 days				[Gantt Chart: 02/12]											
11	11.2.6	Access Date for Portion B-3B, Temporary Filtrate Lifting Well and Eq. Tank	0 days	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	0 days				[Gantt Chart: 02/12]											
12	12.2.7	Access Date for Portion B-4, BR 2A & 2B	90 edays	Fri 25/11/22	Thu 23/02/23	Fri 25/11/22	Thu 23/02/23	Fri 25/11/22	Thu 23/02/23	0 edays				[Gantt Chart: 25/11/22, 23/02/23]											
13	13.2.8	Access Date for Portion B-5A, MFB No. 2 below 1st floor level	90 edays	Mon 20/12/21	Sun 20/03/22	Mon 20/12/21	Sun 20/03/22	Mon 20/12/21	Sun 20/03/22	0 edays				[Gantt Chart: 20/12/21, 20/03/22]											
14	14.2.9	Access Date for Portion B-5B, MFB No. 2 remaining portion	90 edays	Thu 19/05/22	Wed 17/08/22	Thu 19/05/22	Wed 17/08/22	Thu 19/05/22	Wed 17/08/22	0 edays				[Gantt Chart: 19/05/22, 17/08/22]											
15	15.2.10	Access Date for Portion B-7 & 7B, Chemical Dosing, Concrete Plinth for DOs,	150 edays	Mon 20/12/21	Thu 19/05/22	Mon 20/12/21	Thu 19/05/22	Mon 20/12/21	Thu 19/05/22	0 edays				[Gantt Chart: 20/12/21, 19/05/22]											
16	16.2.11	Access Date for Portion B-7A & 7B, area for modification of existing emerge	0 edays	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	0 edays				[Gantt Chart: 02/12]											
17	17.2.12	Access Date for Portion B-9B, underground pipework	60 edays	Sun 18/02/24	Thu 18/04/24	Sun 18/02/24	Thu 18/04/24	Sun 18/02/24	Thu 18/04/24	0 edays				[Gantt Chart: 18/02/24, 18/04/24]											
18	18.2.13	Access Date for B-10, existing sludge thickening building	0 edays	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	0 edays				[Gantt Chart: 02/12]											
19	19.3	Key Dates	555 days	Mon 02/12/19	Wed 09/06/21	Mon 02/12/19	Wed 09/06/21	Mon 02/12/19	Wed 09/06/21	0 days				[Gantt Chart: 02/12, 09/06/21]											
20	20.3.1	KD1A - Submission of civil and dimensional requirement drawings, electrical	340 edays	Mon 02/12/19	Fri 06/11/20	Mon 02/12/19	Fri 06/11/20	Mon 02/12/19	Fri 06/11/20	0 edays	31FF			[Gantt Chart: 02/12, 06/11/20]											
21	21.3.2	KD1B - Submission of remaining civil and dimensional requirement drawings	550 edays	Mon 02/12/19	Fri 04/06/21	Mon 02/12/19	Fri 04/06/21	Mon 02/12/19	Fri 04/06/21	0 edays	32FF			[Gantt Chart: 02/12, 04/06/21]											
22	22.3.3	KD3A - Completion of E&M Installation works of existing power house in Poi	240 edays	Mon 02/12/19	Wed 29/07/20	Mon 02/12/19	Wed 29/07/20	Mon 02/12/19	Wed 29/07/20	0 edays	33FF			[Gantt Chart: 02/12, 29/07/20]											
23	23.3.4	KD3B - Completion of all work for reprovision of the existing Primary Sedim	555 edays	Mon 02/12/19	Wed 09/06/21	Mon 02/12/19	Wed 09/06/21	Mon 02/12/19	Wed 09/06/21	0 edays	34FF			[Gantt Chart: 02/12, 09/06/21]											
24	24.4	Sectional Completion Dates	1625 days	Mon 02/12/19	Tue 14/05/24	Mon 02/12/19	Tue 14/05/24	Mon 02/12/19	Tue 14/05/24	0 days				[Gantt Chart: 02/12, 14/05/24]											
25	25.4.1	Section 1 - Completion of the design of E&M Works for all works as defined	600 edays	Mon 02/12/19	Sat 24/07/21	Mon 02/12/19	Sat 24/07/21	Mon 02/12/19	Sat 24/07/21	0 edays	35FF			[Gantt Chart: 02/12, 24/07/21]											
26	26.4.2	Section 2 - Completion of all works for Inlet Works, PST No. 1-4, BR No. 2A &	1600 edays	Mon 02/12/19	Fri 19/04/24	Mon 02/12/19	Fri 19/04/24	Mon 02/12/19	Fri 19/04/24	0 edays	36FF			[Gantt Chart: 02/12, 19/04/24]											
27	27.4.3	Section 3 - Completion of all works for retrofitting of the existing PST...etc (6	660 edays	Mon 02/12/19	Wed 22/09/21	Mon 02/12/19	Wed 22/09/21	Mon 02/12/19	Wed 22/09/21	0 edays	37FF			[Gantt Chart: 02/12, 22/09/21]											
28	28.4.4	Section 4 - Completion of Work for remainder of the works (1625 days after	1625 edays	Mon 02/12/19	Tue 14/05/24	Mon 02/12/19	Tue 14/05/24	Mon 02/12/19	Tue 14/05/24	0 edays	38FF			[Gantt Chart: 02/12, 14/05/24]											
29	29.5	DE/2018/04 - the Contractor's Programme (w/ Defects Date of Planned Completion Date)	1977 days	Mon 02/12/19	Wed 30/04/25	Mon 02/12/19	Wed 30/04/25	Mon 02/12/19	Wed 30/04/25	0 days				[Gantt Chart: 02/12, 30/04/25]											
30	30.5.1	Starting Date	0 days	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	0 days		633,20655+30 edays,425		[Gantt Chart: 02/12]											
31	31.5.2	Planned Key Date Completion Date - KD1A	0 days	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 06/11/20	Fri 06/11/20	7 days	20FF			[Gantt Chart: 30/10/20, 06/11/20]											
32	32.5.3	Planned Key Date Completion Date - KD1B	0 days	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Fri 04/06/21	Fri 04/06/21	3 days	21FF			[Gantt Chart: 01/06/21, 04/06/21]											
33	33.5.4	Planned Key Date Completion Date - KD3A	0 days	Wed 22/07/20	Wed 22/07/20	Wed 22/07/20	Wed 22/07/20	Wed 29/07/20	Wed 29/07/20	7 days	22FF			[Gantt Chart: 22/07/20, 29/07/20]											
34	34.5.5	Planned Key Date Completion Date - KD3B	0 days	Mon 07/06/21	Mon 07/06/21	Mon 07/06/21	Mon 07/06/21	Wed 09/06/21	Wed 09/06/21	2 days	23FF			[Gantt Chart: 07/06/21, 09/06/21]											
35	35.5.6	Planned Sectional Completion Date - Section 1	0 days	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Sat 24/07/21	Sat 24/07/21	11 days	25FF			[Gantt Chart: 12/07/21, 24/07/21]											
36	36.5.7	Planned Sectional Completion Date - Section 2	0 days	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Fri 19/04/24	Fri 19/04/24	18 days	26FF			[Gantt Chart: 01/04/24, 19/04/24]											
37	37.5.8	Planned Sectional Completion Date - Section 3	0 days	Wed 01/09/21	Wed 01/09/21	Wed 01/09/21	Wed 01/09/21	Wed 22/09/21	Wed 22/09/21	21 days	27FF			[Gantt Chart: 01/09/21, 22/09/21]											
38	38.5.9	Planned Sectional Completion Date - Section 4	0 days	Wed 01/05/24	Wed 01/05/24	Wed 01/05/24	Wed 01/05/24	Tue 14/05/24	Tue 14/05/24	13 days	28FF			[Gantt Chart: 01/05/24, 14/05/24]											
39	39.5.10	Planned Completion Date	0 days	Wed 08/05/24	Wed 08/05/24	Wed 08/05/24	Wed 08/05/24	Tue 14/05/24	Tue 14/05/24	5 days	1291,1292,13			[Gantt Chart: 08/05/24, 14/05/24]											
40	40.5.11	Defect Dates with respect to planned completion date	365 days	Wed 01/05/24	Wed 30/04/25	Wed 01/05/24	Wed 30/04/25	Wed 01/05/24	Wed 30/04/25	0 days				[Gantt Chart: 01/05/24, 30/04/25]											
41	41.5.12	Part A: Procurement and Delivery of Major Plant and Materials	758 days	Wed 01/07/20	Thu 28/07/22	Wed 01/07/20	Thu 28/07/22	Wed 01/07/20	Sat 23/09/23	422 days				[Gantt Chart: 01/07/20, 28/07/22, 23/09/23]											
42	42.5.12.1	Planned Completion Date for Procurement of major plant and materials	0 days	Thu 03/06/21	Thu 03/06/21	Thu 03/06/21	Thu 03/06/21	Thu 03/06/21	Thu 03/06/21	0 days	3055+550 d			[Gantt Chart: 03/06/21]											
43	43.5.12.2	General - stoplogs and penstocks, C11, EQT013	120 days	Wed 01/07/20	Wed 28/10/20	Wed 01/07/20	Wed 28/10/20	Wed 01/07/20	Wed 28/10/20	0 days				[Gantt Chart: 01/07/20, 28/10/20]											
44	44.5.12.2.1	Submission for acceptance of purchasing package	60 days	Wed 01/07/20	Sat 29/08/20	Wed 01/07/20	Sat 29/08/20	Wed 01/07/20	Sat 29/08/20	0 days	45			[Gantt Chart: 01/07/20, 29/08/20]											
45	45.5.12.2.2	Invitation of quotations for purchasing package	30 days	Sun 30/08/20	Mon 28/09/20	Sun 30/08/20	Mon 28/09/20	Sun 30/08/20	Mon 28/09/20	0 days	44			[Gantt Chart: 30/08/20, 28/09/20]											
46	46.5.12.2.3	Acceptance of conforming quotation (Completed)	30 days	Tue 29/09/20	Wed 28/10/20	Tue 29/09/20	Wed 28/10/20	Tue 29/09/20	Wed 28/10/20	0 days	45	257		[Gantt Chart: 29/09/20, 28/10/20]											
47	47.5.12.3	General - Instrumentations except use at BR, C11, EQT035-1	401 days	Sat 02/01/21	Sun 06/02/22	Sat 02/01/21	Sun 06/02/22	Sat 02/01/21	Sat 23/09/23	594 days				[Gantt Chart: 02/01/21, 06/02/22, 23/09/23]											
48	48.5.12.3.1	Submission for acceptance of purchasing package	60 days	Sat 02/01/21	Tue 02/03/21	Sat 02/01/21	Tue 02/03/21	Sat 02/01/21	Tue 02/03/21	0 days				[Gantt Chart: 02/01/21, 02/03/21]											
49	49.5.12.3.2	Invitation of quotations for purchasing package (Rev. 10)	30 days	Fri 11/06/21	Sat 10/07/21	Fri 11/06/21	Sat 10/07/21	Fri 11/06/21	Sat 10/07/21	0 days	50			[Gantt Chart: 11/06/21, 10/07/21]											
50	50.5.12.3.3	Acceptance of conforming quotation (Rev. 10)	30 days	Sun 11/07/21	Mon 09/08/21	Sun 11/07/21	Mon 09/08/21	Sun 11/07/21	Sun 26/03/23	0 days	49			[Gantt Chart: 11/07/21, 09/08/21, 26/03/23]											
51	51.5.12.3.4	Manufacturing and Factory Acceptance Test of Plant (Rev. 10)	121 days	Tue 10/08/21	Wed 08/12/21	Tue 10/08/21	Wed 08/12/21	Mon 27/03/23	Tue 25/07/23	0 days	50			[Gantt Chart: 10/08/21, 08/12/21, 27/03/23, 25/07/23]											
52	52.5.12.3.5	Shipping and Delivery of Plant (Rev. 10)	60 days	Thu 09/12/21	Sun 06/02/22	Thu 09/12/21	Sun 06/02/22	Wed 26/07/23	Sat 23/09/23	237 days	51	339,470,752		[Gantt Chart: 09/12/21, 06/02/22, 26/07/23, 23/09/23]											
53	53.5.12.4	General - pipework and valves, C11, ref. EQT036 (Rev. 11)	422 days	Mon 02/11/20	Tue 28/12/21	Mon 02/11/20	Tue 28/12/21	Mon 02/11/20	Sat 30/07/22	214 days				[Gantt Chart: 02/11/20, 28/12/21, 30/07/22]											
54	54.5.12.4.1	Submission for acceptance of purchasing package (Rev. 11)	255 days	Mon 02/11/20	Wed 14/07/21	Mon 02/11/20	Wed 14/07/21	Mon 02/11/20	Sat 17/07/21	0 days	55			[Gantt Chart: 02/11/20, 14/07/21, 17/07/21]											
55	55.5.12.4.2	Invitation of quotations for purchasing package (Rev. 11)	40 days	Fri 01/01/21	Sun 08/08/21	Fri 01/01/21	Sun 08/08/21	Fri 01/01/21	Sun 08/08/21	0 days	54	56		[Gantt Chart: 01/01/21, 08/08/21]											
56	56.5.12.4.3	Acceptance of conforming quotation (Rev. 11)	50 days	Sun 31/01/21	Sun 12/09/21	Sun 31/01/21	Sun 12/09/21	Sun 31/01/21	Sat 30/07/22	0 days	55	283,289,434,563,686		[Gantt Chart: 31/01/21, 12/09/21, 30/07/22]											
57	57.5.12.4.4	Submission for acceptance of purchasing package for remaining pipework and valves																							



ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names	Gantt Chart (2020-2024)																							
58	58.5.12.4.5	Invitation of quotations for purchasing package (Rev. 13)	14 days	Wed 01/12/21	Tue 14/12/21	Wed 01/12/21	Tue 14/12/21	Wed 01/12/21	Tue 14/12/21	0 days	57	59		[Gantt Chart]																							
59	59.5.12.4.6	Acceptance of conforming quotation (Rev. 13)	14 days	Wed 15/12/21	Tue 28/12/21	Wed 15/12/21	Tue 28/12/21	Wed 15/12/21	Tue 28/12/21	0 days	58			[Gantt Chart]																							
60	60.5.12.5	General - Electric actuators for valves, C11, ref. EQT072 (Rev. 11)	74 days	Thu 02/12/21	Sun 13/02/22	Thu 02/12/21	Sun 13/02/22	Thu 02/12/21	Sat 30/07/22	167 days				[Gantt Chart]																							
61	61.5.12.5.1	Submission for acceptance of purchasing package (Rev. 11)	30 days	Thu 02/12/21	Fri 31/12/21	Thu 02/12/21	Fri 31/12/21	Thu 02/12/21	Thu 16/06/22	0 days	62			[Gantt Chart]																							
62	62.5.12.5.2	Invitation of quotations for purchasing package (Rev. 11)	30 days	Sat 01/01/22	Sun 30/01/22	Sat 01/01/22	Sun 30/01/22	Fri 17/06/22	Sat 16/07/22	0 days	61	63		[Gantt Chart]																							
63	63.5.12.5.3	Acceptance of conforming quotation (Rev. 11)	14 days	Mon 31/01/22	Sun 13/02/22	Mon 31/01/22	Sun 13/02/22	Sun 17/07/22	Sat 30/07/22	0 days	62	289,434,563,686		[Gantt Chart]																							
64	64.5.12.6	General - HV Switchboards, C9, ref. 04SC012 (Rev. 14)	105 days	Mon 04/01/21	Sun 18/04/21	Mon 04/01/21	Sun 18/04/21	Mon 04/01/21	Sun 18/04/21	0 days				[Gantt Chart]																							
65	65.5.12.6.1	Submission for acceptance of purchasing package	45 days	Mon 04/01/21	Wed 17/02/21	Mon 04/01/21	Wed 17/02/21	Mon 04/01/21	Wed 17/02/21	0 days	66			[Gantt Chart]																							
66	65.5.12.6.2	Invitation of quotations for purchasing package	30 days	Thu 18/02/21	Fri 19/03/21	Thu 18/02/21	Fri 19/03/21	Thu 18/02/21	Fri 19/03/21	0 days	65	67		[Gantt Chart]																							
67	67.5.12.6.3	Acceptance of conforming quotation (Rev. 11, Completed)	30 days	Sat 20/03/21	Sun 18/04/21	Sat 20/03/21	Sun 18/04/21	Sat 20/03/21	Sun 18/04/21	0 days	66	661,261		[Gantt Chart]																							
68	68.5.12.7	General - LV Switchboards, C9, ref. 04SC013 (Rev. 14)	120 days	Mon 04/01/21	Mon 03/05/21	Mon 04/01/21	Mon 03/05/21	Mon 04/01/21	Mon 03/05/21	0 days				[Gantt Chart]																							
69	69.5.12.7.1	Submission for acceptance of purchasing package	60 days	Mon 04/01/21	Thu 04/03/21	Mon 04/01/21	Thu 04/03/21	Mon 04/01/21	Thu 04/03/21	0 days	70			[Gantt Chart]																							
70	70.5.12.7.2	Invitation of quotations for purchasing package	30 days	Fri 05/03/21	Sat 03/04/21	Fri 05/03/21	Sat 03/04/21	Fri 05/03/21	Sat 03/04/21	0 days	69	71		[Gantt Chart]																							
71	71.5.12.7.3	Acceptance of conforming quotation (Rev. 11, Completed)	30 days	Sun 04/04/21	Mon 03/05/21	Sun 04/04/21	Mon 03/05/21	Sun 04/04/21	Mon 03/05/21	0 days	70	260,536,407,660		[Gantt Chart]																							
72	72.5.12.8	General - VSDs & Passive Type Harmonic Filters, C11, ref. EQT034 (Rev. 1)	574 days	Fri 01/01/21	Thu 28/07/22	Fri 01/01/21	Thu 28/07/22	Fri 01/01/21	Tue 27/12/22	152 days				[Gantt Chart]																							
73	73.5.12.8.1	Submission for acceptance of purchasing package	60 days	Fri 01/01/21	Mon 01/03/21	Fri 01/01/21	Mon 01/03/21	Fri 01/01/21	Mon 01/03/21	0 days	74			[Gantt Chart]																							
74	74.5.12.8.2	Invitation of quotations for purchasing package	30 days	Tue 02/03/21	Wed 31/03/21	Tue 02/03/21	Wed 31/03/21	Tue 02/03/21	Wed 31/03/21	0 days	73	75		[Gantt Chart]																							
75	75.5.12.8.3	Acceptance of conforming quotation (Rev. 11, Completed)	30 days	Thu 01/04/21	Fri 30/04/21	Thu 01/04/21	Fri 30/04/21	Thu 01/04/21	Fri 30/04/21	0 days	74	258,405,534,657		[Gantt Chart]																							
76	76.5.12.8.4	Manufacturing and Factory Acceptance Test of Plant	90 days	Wed 16/03/22	Mon 13/06/22	Wed 16/03/22	Mon 13/06/22	Mon 15/08/22	Sat 12/11/22	0 days	258,405,534,77			[Gantt Chart]																							
77	77.5.12.8.5	Shipping and Delivery of Plant to LVSB Sub-Contractor	45 days	Tue 14/06/22	Thu 28/07/22	Tue 14/06/22	Thu 28/07/22	Sun 13/11/22	Tue 27/12/22	0 days	76	29655-90 edays		[Gantt Chart]																							
78	78.5.12.9	General - 11kV/380V Stepdown Power Transformers, C11, EQT032 (Rev. 1)	110 days	Mon 18/01/21	Fri 07/05/21	Mon 18/01/21	Fri 07/05/21	Mon 18/01/21	Fri 07/05/21	0 days				[Gantt Chart]																							
79	79.5.12.9.1	Submission for acceptance of purchasing package	50 days	Mon 18/01/21	Mon 08/03/21	Mon 18/01/21	Mon 08/03/21	Mon 18/01/21	Mon 08/03/21	0 days	80			[Gantt Chart]																							
80	80.5.12.9.2	Invitation of quotations for purchasing package	30 days	Tue 09/03/21	Wed 07/04/21	Tue 09/03/21	Wed 07/04/21	Tue 09/03/21	Wed 07/04/21	0 days	79	81		[Gantt Chart]																							
81	81.5.12.9.3	Acceptance of conforming quotation (Rev. 11, Completed)	30 days	Thu 08/04/21	Fri 07/05/21	Thu 08/04/21	Fri 07/05/21	Thu 08/04/21	Fri 07/05/21	0 days	80	258,657		[Gantt Chart]																							
82	82.5.12.10	General - UPS, C11, EQT039A (Rev. 14)	90 days	Wed 01/12/21	Mon 28/02/22	Wed 01/12/21	Mon 28/02/22	Wed 01/12/21	Mon 28/02/22	0 days				[Gantt Chart]																							
83	83.5.12.10.1	Submission for acceptance of purchasing package (Rev. 13)	30 days	Wed 01/12/21	Thu 30/12/21	Wed 01/12/21	Thu 30/12/21	Wed 01/12/21	Thu 30/12/21	0 days	84			[Gantt Chart]																							
84	84.5.12.10.2	Invitation of quotations for purchasing package (Rev. 13)	30 days	Fri 31/12/21	Sat 29/01/22	Fri 31/12/21	Sat 29/01/22	Fri 31/12/21	Sat 29/01/22	0 days	83	85		[Gantt Chart]																							
85	85.5.12.10.3	Acceptance of conforming quotation (Rev. 13)	30 days	Sun 30/01/22	Mon 28/02/22	Sun 30/01/22	Mon 28/02/22	Sun 30/01/22	Mon 28/02/22	0 days	84	258,405,534,657		[Gantt Chart]																							
86	86.5.12.11	General - HV Cables, C11, EQT041 (Rev. 13)	65 days	Wed 01/12/21	Thu 03/02/22	Wed 01/12/21	Thu 03/02/22	Wed 01/12/21	Mon 28/02/22	25 days				[Gantt Chart]																							
87	87.5.12.11.1	Submission for acceptance of purchasing package	14 days	Wed 01/12/21	Tue 14/12/21	Wed 01/12/21	Tue 14/12/21	Wed 01/12/21	Tue 14/12/21	0 days	88			[Gantt Chart]																							
88	88.5.12.11.2	Invitation of quotations for purchasing package	21 days	Wed 15/12/21	Tue 04/01/22	Wed 15/12/21	Tue 04/01/22	Sun 09/01/22	Sat 29/01/22	0 days	87	89		[Gantt Chart]																							
89	89.5.12.11.3	Acceptance of conforming quotation	30 days	Wed 05/01/22	Thu 03/02/22	Wed 05/01/22	Thu 03/02/22	Sun 30/01/22	Mon 28/02/22	0 days	88	258,657		[Gantt Chart]																							
90	90.5.12.12	General - LV Cables, C11, EQT042 (Rev. 13)	65 days	Wed 01/12/21	Thu 03/02/22	Wed 01/12/21	Thu 03/02/22	Wed 01/12/21	Mon 28/02/22	25 days				[Gantt Chart]																							
91	91.5.12.12.1	Submission for acceptance of purchasing package	14 days	Wed 01/12/21	Tue 14/12/21	Wed 01/12/21	Tue 14/12/21	Wed 01/12/21	Tue 14/12/21	0 days	92			[Gantt Chart]																							
92	92.5.12.12.2	Invitation of quotations for purchasing package	21 days	Wed 15/12/21	Tue 04/01/22	Wed 15/12/21	Tue 04/01/22	Sun 09/01/22	Sat 29/01/22	0 days	91	93		[Gantt Chart]																							
93	93.5.12.12.3	Acceptance of conforming quotation	30 days	Wed 05/01/22	Thu 03/02/22	Wed 05/01/22	Thu 03/02/22	Sun 30/01/22	Mon 28/02/22	0 days	92	258,405,534,657		[Gantt Chart]																							
94	94.5.12.13	General - Gas Detection System, C11, EQT051 (Rev. 16)	65 days	Wed 01/12/21	Thu 03/02/22	Wed 01/12/21	Thu 03/02/22	Wed 01/12/21	Thu 03/02/22	0 days				[Gantt Chart]																							
95	95.5.12.13.1	Submission for acceptance of purchasing package	14 days	Wed 01/12/21	Tue 14/12/21	Wed 01/12/21	Tue 14/12/21	Wed 01/12/21	Tue 14/12/21	0 days	96			[Gantt Chart]																							
96	96.5.12.13.2	Invitation of quotations for purchasing package	21 days	Wed 15/12/21	Tue 04/01/22	Wed 15/12/21	Tue 04/01/22	Wed 15/12/21	Tue 04/01/22	0 days	95	97		[Gantt Chart]																							
97	97.5.12.13.3	Acceptance of conforming quotation (Completed)	30 days	Wed 05/01/22	Thu 03/02/22	Wed 05/01/22	Thu 03/02/22	Wed 05/01/22	Thu 03/02/22	0 days	96	258,405,534,657		[Gantt Chart]																							
98	98.5.13	Part B: Subletting of major sub-contract works	761 days	Wed 01/01/20	Sun 30/01/22	Wed 01/01/20	Sun 30/01/22	Wed 01/01/20	Sun 30/01/22	0 days	2,30			[Gantt Chart]																							
99	99.5.13.1	Planned Completion Date for major sub-contract works	0 days	Thu 12/08/21	Thu 12/08/21	Thu 12/08/21	Thu 12/08/21	Thu 12/08/21	Thu 12/08/21	0 days	255+620 da			[Gantt Chart]																							
100	100.5.13.2	General - Independent BEAM Plus Consultant (04SC007)	150 days	Wed 01/01/20	Fri 29/05/20	Wed 01/01/20	Fri 29/05/20	Wed 01/01/20	Fri 29/05/20	0 days				[Gantt Chart]																							
101	101.5.13.2.1	Submission for acceptance of proposed Independent BEAM Plus Consu	60 edays	Wed 01/01/20	Sun 01/03/20	Wed 01/01/20	Sun 01/03/20	Wed 01/01/20	Sun 01/03/20	0 edays	102			[Gantt Chart]																							
102	102.5.13.2.2	Acceptance of proposed Independent BEAM Plus Consultant	14 edays	Sun 01/03/20	Sun 15/03/20	Sun 01/03/20	Sun 15/03/20	Sun 01/03/20	Sun 15/03/20	0 edays	101	103		[Gantt Chart]																							
103	103.5.13.2.3	Engagement with an Independent BEAM Plus Consultant	7 days	Sun 15/03/20	Sat 21/03/20	Sun 15/03/20	Sat 21/03/20	Sun 15/03/20	Sat 21/03/20	0 days	102			[Gantt Chart]																							
104	104.5.13.2.4	Actual Date for engagement with an Independent BEAM Plus Consultar	0 days	Fri 29/05/20	Fri 29/05/20	Fri 29/05/20	Fri 29/05/20	Fri 29/05/20	Fri 29/05/20	0 days				[Gantt Chart]																							
105	105.5.13.3	General - Conduction of Pump sump physical model test 04SC015	575 days	Fri 15/05/20	Fri 10/12/21	Fri 15/05/20	Fri 10/12/21	Fri 15/05/20	Fri 10/12/21	0 days				[Gantt Chart]																							
106	106.5.13.3.1	Submission for acceptance of proposed hydraulic laboratory to conduc	7 edays	Fri 15/05/20	Fri 22/05/20	Fri 15/05/20	Fri 22/05/20	Fri 15/05/20	Fri 22/05/20	0 edays	107			[Gantt Chart]																							
107	107.5.13.3.2	Invitation to quotations for provision of service	7 edays	Fri 22/05/20	Fri 29/05/20	Fri 22/05/20	Fri 29/05/20	Fri 22/05/20	Fri 29/05/20	0 edays	106	108		[Gantt Chart]																							
108	108.5.13.3.3	Acceptance of proposed hydraulic laboratory	6 days	Fri 29/05/20	Wed 03/06/20	Fri 29/05/20	Wed 03/06/20	Fri 29/05/20	Wed 03/06/20	0 days	107	109		[Gantt Chart]																							
109	109.5.13.3.4	Commencement of detailed proposal and conduction of test (Rev 13)	480 days	Thu 04/06/20	Sun 26/09/21	Thu 04/06/20	Sun 26/09/21	Thu 04/06/20	Sun 26/09/21	0 days	108	110		[Gantt Chart]																							
110	110.5.13.3.5	Acceptance of hydraulic Report (Rev 16)	75 days	Mon 27/09/21	Fri 10/12/21	Mon 27/09/21	Fri 10/12/21	Mon 27/09/21	Fri 10/12/21	0 days	109			[Gantt Chart]																							
111	111.5.13.4	General - Independent Checking Engineer (04SC004)	127 days	Wed 11/03/20	Wed 15/07/20	Wed 11/03/20	Wed 15/07/20	Wed 11/03/20	Wed 15/07/20	0 days				[Gantt Chart]																							
112	112.5.13.4.1	Submission for acceptance of proposed Independent Checking Engine	90 edays	Wed 11/03/20	Tue 09/06/20	Wed 11/03/20	Tue 09/06/20	Wed 11/03/20	Tue 09/06/20	0 edays	113			[Gantt Chart]																							
113	113.5.13.4.2	Acceptance of proposed Independent Checking Engineer	1 eday	Wed 24/06/20	Thu 25/06/20	Wed 24/06/20	Thu 25/06/20	Wed 24/06/20	Thu 25/06/20	0 edays	112	114		[Gantt Chart]																							
114	114.5.13.4.3	Engagement with an Independent Checking Engineer	21 days	Thu 25/06/20	Wed 15/07/20	Thu 25/06/20	Wed 15/07/20	Thu 25/06/20	Wed 15/07/20	0 days	113	115		[Gantt Chart]																							
115	115.5.13.4.4	Actual Date for engagement with an ICE (Completed)	0 days	Wed 15/07/20	Wed 15/07/20	Wed 15/07/20	Wed 15/07/20	Wed 15/07/20	Wed 15/07/20	0 days	114			[Gantt Chart]																							
116	116.5.13.5	General - Lifting Appliances (04SC008)	81 days	Fri 01/05/20	Tue 21/07/20	Fri 01/05/20	Tue 21/07/20	Fri 01/05/20	Tue 21/07/20	0 days				[Gantt Chart]																							



ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names	Gantt Chart (2020-2024)																												
117	117.5.13.5.1		Submission for acceptance of subcontract works package	30 edays	Fri 01/05/20	Sun 31/05/20	Fri 01/05/20	Sun 31/05/20	Fri 01/05/20	Sun 31/05/20	0 edays	118				[Gantt Chart Data]																											
118	118.5.13.5.2		Invitation of tender for subcontract works	21 edays	Sun 31/05/20	Sun 21/06/20	Sun 31/05/20	Sun 21/06/20	Sun 31/05/20	Sun 21/06/20	0 edays	117	119			[Gantt Chart Data]																											
119	119.5.13.5.3		Acceptance of conforming tender	30 edays	Sun 21/06/20	Tue 21/07/20	Sun 21/06/20	Tue 21/07/20	Sun 21/06/20	Tue 21/07/20	0 edays	118	120			[Gantt Chart Data]																											
120	120.5.13.5.4		Sub-contract work commencement date (Completed)	0 days	Tue 21/07/20	Tue 21/07/20	Tue 21/07/20	Tue 21/07/20	Tue 21/07/20	Tue 21/07/20	0 days	119	262,408,537,662,1054			[Gantt Chart Data]																											
121	121.5.13.6		General - Mechanical Installations	244 days	Tue 01/06/21	Sun 30/01/22	Tue 01/06/21	Sun 30/01/22	Sun 20/06/21	Sun 30/01/22	0 days					[Gantt Chart Data]																											
122	122.5.13.6.1		Submission for acceptance of subcontract works package	120 edays	Tue 01/06/21	Tue 28/09/21	Tue 01/06/21	Tue 28/09/21	Sun 20/06/21	Sun 17/10/21	0 days	123				[Gantt Chart Data]																											
123	123.5.13.6.2		Invitation of tender for subcontract works	75 days	Wed 29/09/21	Sun 12/12/21	Wed 29/09/21	Sun 12/12/21	Mon 18/10/21	Fri 31/12/21	0 days	122	124			[Gantt Chart Data]																											
124	124.5.13.6.3		Acceptance of conforming tender	30 days	Mon 13/12/21	Tue 11/01/22	Mon 13/12/21	Tue 11/01/22	Sat 01/01/22	Sun 30/01/22	19 days	123	125FF			[Gantt Chart Data]																											
125	125.5.13.6.4		Sub-contract work commencement date	1 day	Sun 30/01/22	Sun 30/01/22	Sun 30/01/22	Sun 30/01/22	Sun 30/01/22	Sun 30/01/22	0 days	124FF				[Gantt Chart Data]																											
126	126.5.13.7		General - Electrical Installations	244 days	Tue 01/06/21	Sun 30/01/22	Tue 01/06/21	Sun 30/01/22	Sat 19/06/21	Sun 30/01/22	0 days					[Gantt Chart Data]																											
127	127.5.13.7.1		Submission for acceptance of subcontract works package	120 edays	Tue 01/06/21	Wed 29/09/21	Tue 01/06/21	Wed 29/09/21	Sat 19/06/21	Sun 17/10/21	0 edays	128				[Gantt Chart Data]																											
128	128.5.13.7.2		Invitation of tender for subcontract works	75 edays	Wed 29/09/21	Mon 13/12/21	Wed 29/09/21	Mon 13/12/21	Sun 17/10/21	Fri 31/12/21	0 edays	127	129			[Gantt Chart Data]																											
129	129.5.13.7.3		Acceptance of conforming tender	30 edays	Mon 13/12/21	Wed 12/01/22	Mon 13/12/21	Wed 12/01/22	Fri 31/12/21	Sun 30/01/22	18.38 edays	128	130FF			[Gantt Chart Data]																											
130	130.5.13.7.4		Sub-contract work commencement date	1 day	Sun 30/01/22	Sun 30/01/22	Sun 30/01/22	Sun 30/01/22	Sun 30/01/22	Sun 30/01/22	0 days	129FF				[Gantt Chart Data]																											
131	131.5.13.8		General - Facility Computerized Systems (SCADA, CMMS, PMS, IDMS) (Rev. 13) 045C018	384 days	Tue 01/09/20	Mon 20/09/21	Tue 01/09/20	Mon 20/09/21	Tue 01/09/20	Mon 20/09/21	0 days					[Gantt Chart Data]																											
132	132.5.13.8.1		Submission for acceptance of subcontract works package	60 edays	Tue 01/09/20	Sat 31/10/20	Tue 01/09/20	Sat 31/10/20	Tue 01/09/20	Sat 31/10/20	0 edays	133				[Gantt Chart Data]																											
133	133.5.13.8.2		Invitation of tender for subcontract works	310 edays	Sat 31/10/20	Mon 06/09/21	Sat 31/10/20	Mon 06/09/21	Sat 31/10/20	Mon 06/09/21	0 edays	132	134			[Gantt Chart Data]																											
134	134.5.13.8.3		Acceptance of conforming tender (Completed)	14 edays	Mon 06/09/21	Mon 20/09/21	Mon 06/09/21	Mon 20/09/21	Mon 06/09/21	Mon 20/09/21	0 edays	133	135			[Gantt Chart Data]																											
135	135.5.13.8.4		Sub-contract work commencement date	0 days	Mon 20/09/21	Mon 20/09/21	Mon 20/09/21	Mon 20/09/21	Mon 20/09/21	Mon 20/09/21	0 days	134	194			[Gantt Chart Data]																											
136	136.5.13.9		General - Building Services Installations	130 days	Mon 02/11/20	Fri 12/03/21	Mon 02/11/20	Fri 12/03/21	Mon 02/11/20	Wed 21/04/21	41 days					[Gantt Chart Data]																											
137	137.5.13.9.1		Submission for acceptance of subcontract works package (Rev. 15)	60 edays	Mon 02/11/20	Fri 01/01/21	Mon 02/11/20	Fri 01/01/21	Mon 02/11/20	Sat 20/02/21	0 edays	138				[Gantt Chart Data]																											
138	138.5.13.9.2		Invitation of tender for subcontract works	30 edays	Fri 01/01/21	Sun 31/01/21	Fri 01/01/21	Sun 31/01/21	Sat 20/02/21	Mon 22/03/21	0 edays	137	139			[Gantt Chart Data]																											
139	139.5.13.9.3		Acceptance of conforming tender	30 edays	Sun 31/01/21	Tue 02/03/21	Sun 31/01/21	Tue 02/03/21	Mon 22/03/21	Wed 21/04/21	10 edays	138	140FF			[Gantt Chart Data]																											
140	140.5.13.9.4		Sub-contract work commencement date	0 days	Fri 12/03/21	Fri 12/03/21	Fri 12/03/21	Fri 12/03/21	Wed 21/04/21	Wed 21/04/21	0 days	139FF	259,406,535,659,806,886			[Gantt Chart Data]																											
141	141.5.13.10		General - Mechanical Ventilation and Air Conditioning Installation (Rev. 13) 045C020	413 days	Mon 02/11/20	Sun 19/12/21	Mon 02/11/20	Sun 19/12/21	Mon 02/11/20	Sun 19/12/21	0 days					[Gantt Chart Data]																											
142	142.5.13.10.1		Submission for acceptance of subcontract works package	60 days	Mon 02/11/20	Thu 31/12/20	Mon 02/11/20	Thu 31/12/20	Mon 02/11/20	Thu 31/12/20	0 days	143				[Gantt Chart Data]																											
143	143.5.13.10.2		Invitation of tender for subcontract works	30 edays	Thu 31/12/20	Sat 30/01/21	Thu 31/12/20	Sat 30/01/21	Thu 31/12/20	Sat 30/01/21	0 edays	142				[Gantt Chart Data]																											
144	144.5.13.10.3		Submission for acceptance of revised subcontract works package (Rev. 5)	60 days	Wed 01/09/21	Sat 30/10/21	Wed 01/09/21	Sat 30/10/21	Wed 01/09/21	Sat 30/10/21	0 days					[Gantt Chart Data]																											
145	145.5.13.10.4		Invitation of tender for subcontract works (Rev. 15)	14 days	Mon 15/11/21	Sun 28/11/21	Mon 15/11/21	Sun 28/11/21	Mon 15/11/21	Sun 28/11/21	0 days	146				[Gantt Chart Data]																											
146	146.5.13.10.5		Acceptance of conforming tender (Rev. 13)	21 days	Mon 29/11/21	Sun 19/12/21	Mon 29/11/21	Sun 19/12/21	Mon 29/11/21	Sun 19/12/21	0 days	145	147FF			[Gantt Chart Data]																											
147	147.5.13.10.6		Sub-contract work commencement date	0 days	Sun 19/12/21	Sun 19/12/21	Sun 19/12/21	Sun 19/12/21	Sun 19/12/21	Sun 19/12/21	0 days	146FF				[Gantt Chart Data]																											
148	148.5.13.11		General - Emergency Power Generator Set 045C006	146 days	Wed 01/07/20	Mon 23/11/20	Wed 01/07/20	Mon 23/11/20	Wed 01/07/20	Mon 23/11/20	0 days					[Gantt Chart Data]																											
149	149.5.13.11.1		Submission for acceptance of subcontract works package	60 edays	Wed 01/07/20	Sun 30/08/20	Wed 01/07/20	Sun 30/08/20	Wed 01/07/20	Sun 30/08/20	0 edays	150				[Gantt Chart Data]																											
150	150.5.13.11.2		Invitation of tender for subcontract works	30 edays	Sun 30/08/20	Tue 29/09/20	Sun 30/08/20	Tue 29/09/20	Sun 30/08/20	Tue 29/09/20	0 edays	149	151			[Gantt Chart Data]																											
151	151.5.13.11.3		Acceptance of conforming tender	30 edays	Tue 29/09/20	Thu 29/10/20	Tue 29/09/20	Thu 29/10/20	Tue 29/09/20	Thu 29/10/20	0 edays	150	152FF			[Gantt Chart Data]																											
152	152.5.13.11.4		Sub-contract work commencement date (Completed)	24 days	Sat 31/10/20	Mon 23/11/20	Sat 31/10/20	Mon 23/11/20	Sat 31/10/20	Mon 23/11/20	0 days	151FF				[Gantt Chart Data]																											
153	153.5.13.12		General - Plumbing Installation (Rev. 5) 045C021	231 days	Wed 01/07/20	Tue 16/02/21	Wed 01/07/20	Tue 16/02/21	Wed 01/07/20	Thu 17/06/21	120 days					[Gantt Chart Data]																											
154	154.5.13.12.1		Submission for acceptance of subcontract works package	30 edays	Wed 01/07/20	Fri 31/07/20	Wed 01/07/20	Fri 31/07/20	Wed 01/07/20	Fri 31/07/20	0 edays	155				[Gantt Chart Data]																											
155	155.5.13.12.2		Invitation of tender for subcontract works	75 edays	Fri 31/07/20	Wed 14/10/20	Fri 31/07/20	Wed 14/10/20	Fri 31/07/20	Wed 14/10/20	0 edays	154	156			[Gantt Chart Data]																											
156	156.5.13.12.3		Retender of subcontract works (Rev. 5)	14 days	Mon 04/01/21	Sun 17/01/21	Mon 04/01/21	Sun 17/01/21	Mon 04/01/21	Sun 17/01/21	0 days	155	157			[Gantt Chart Data]																											
157	157.5.13.12.4		Acceptance of conforming tender (Completed)	30 edays	Sun 17/01/21	Tue 16/02/21	Sun 17/01/21	Tue 16/02/21	Sun 17/01/21	Tue 16/02/21	0 edays	156	158FF			[Gantt Chart Data]																											
158	158.5.13.12.5		Sub-contract work commencement date (Extended)	0 days	Tue 16/02/21	Tue 16/02/21	Tue 16/02/21	Tue 16/02/21	Thu 17/06/21	Thu 17/06/21	0 days	157FF	1245			[Gantt Chart Data]																											
159	159.5.13.13		General - Fire Services Installation (Rev. 5) 045C019	120 days	Mon 04/01/21	Mon 03/05/21	Mon 04/01/21	Mon 03/05/21	Mon 04/01/21	Mon 03/10/21	153 days					[Gantt Chart Data]																											
160	160.5.13.13.1		Submission for acceptance of subcontract works package	60 days	Mon 04/01/21	Thu 04/03/21	Mon 04/01/21	Thu 04/03/21	Mon 04/01/21	Thu 04/03/21	0 days	161				[Gantt Chart Data]																											
161	161.5.13.13.2		Invitation of tender for subcontract works	30 days	Fri 05/03/21	Sat 03/04/21	Fri 05/03/21	Sat 03/04/21	Fri 05/03/21	Sat 03/04/21	0 days	160	162			[Gantt Chart Data]																											
162	162.5.13.13.3		Acceptance of conforming tender (Completed)	30 days	Sun 04/04/21	Mon 03/05/21	Sun 04/04/21	Mon 03/05/21	Sun 04/04/21	Mon 03/05/21	0 days	161	163FF			[Gantt Chart Data]																											
163	163.5.13.13.4		Sub-contract work commencement date	0 days	Mon 03/05/21	Mon 03/05/21	Mon 03/05/21	Mon 03/05/21	Sun 03/10/21	Sun 03/10/21	0 days	162FF	1196			[Gantt Chart Data]																											
164	164.5.13.14		General - Lightning Protection System (Rev. 15) 045C017	100 days	Wed 01/09/21	Fri 10/12/21	Wed 01/09/21	Fri 10/12/21	Wed 01/09/21	Fri 10/12/21	0 days					[Gantt Chart Data]																											
165	165.5.13.14.1		Submission for acceptance of subcontract works package (Rev. 13)	40 edays	Wed 01/09/21	Mon 11/10/21	Wed 01/09/21	Mon 11/10/21	Wed 01/09/21	Mon 11/10/21	0 edays	166				[Gantt Chart Data]																											
166	166.5.13.14.2		Invitation of tender for subcontract works (Rev. 15)	30 edays	Mon 11/10/21	Wed 10/11/21	Mon 11/10/21	Wed 10/11/21	Mon 11/10/21	Wed 10/11/21	0 edays	165	167			[Gantt Chart Data]																											
167	167.5.13.14.3		Acceptance of conforming tender (Rev. 15)	30 edays	Wed 10/11/21	Fri 10/12/21	Wed 10/11/21	Fri 10/12/21	Wed 10/11/21	Fri 10/12/21	0 edays	166	168FF			[Gantt Chart Data]																											
168	168.5.13.14.4		Sub-contract work commencement date (Rev. 15)	0 days	Fri 10/12/21	Fri 10/12/21	Fri 10/12/21	Fri 10/12/21	Fri 10/12/21	Fri 10/12/21	0 days	167FF				[Gantt Chart Data]																											
169	169.5.13.15		General - CCTV Installation (Rev. 13) 045C016	121 days	Wed 01/09/21	Fri 31/12/21	Wed 01/09/21	Fri 31/12/21	Wed 01/09/21	Fri 31/12/21	0 days					[Gantt Chart Data]																											
170	170.5.13.15.1		Submission for acceptance of subcontract works package	45 edays	Wed 01/09/21	Sat 16/10/21	Wed 01/09/21	Sat 16/10/21	Wed 01/09/21	Wed 27/10/21	0 edays	171				[Gantt Chart Data]																											
171	171.5.13.15.2		Invitation of tender for subcontract works	35 edays	Sat 16/10/21	Sat 20/11/21	Sat 16/10/21	Sat 20/11/21	Wed 27/10/21	Wed 01/12/21	0 edays	170	172			[Gantt Chart Data]																											
172	172.5.13.15.3		Acceptance of conforming tender	30 edays	Sat 20/11/21	Mon 20/12/21	Sat 20/11/21	Mon 20/12/21	Wed 01/12/21	Fri 31/12/21	11 edays	171	173FF			[Gantt Chart Data]																											
173	173.5.13.15.4		Sub-contract work commencement date	0 days	Fri 31/12/21	Fri 31/12/21	Fri 31/12/21	Fri 31/12/21	Fri 31/12/21	Fri 31/12/21	0 days	172FF				[Gantt Chart Data]																											



ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names	Gantt Chart (2020-2024)																							
174	174.5.13.16	General - Civil Construction Work for underground pipework (04SC005)	40 days	Wed 01/07/20	Mon 10/08/20	Wed 01/07/20	Mon 10/08/20	Wed 01/07/20	Mon 10/08/20	0 days				[Gantt Chart Data]																							
175	175.5.13.16.1	Submission for acceptance of subcontract works package	14 days	Wed 01/07/20	Tue 14/07/20	Wed 01/07/20	Tue 14/07/20	Wed 01/07/20	Tue 14/07/20	0 days	176			[Gantt Chart Data]																							
176	176.5.13.16.2	Invitation of tender for subcontract works	14 days	Wed 15/07/20	Tue 28/07/20	Wed 15/07/20	Tue 28/07/20	Wed 15/07/20	Tue 28/07/20	0 days	175	177		[Gantt Chart Data]																							
177	177.5.13.16.3	Acceptance of conforming tender	7 days	Wed 29/07/20	Tue 04/08/20	Wed 29/07/20	Tue 04/08/20	Wed 29/07/20	Tue 04/08/20	0 days	176	178FF		[Gantt Chart Data]																							
178	178.5.13.16.4	Sub-contract work commencement date (Completed)	0 days	Mon 10/08/20	Mon 10/08/20	Mon 10/08/20	Mon 10/08/20	Mon 10/08/20	Mon 10/08/20	0 days	177FF			[Gantt Chart Data]																							
179	179.5.13.17	General - Civil Construction Work for Temp. Filtrate Eq. System (04SC006)	40 days	Wed 01/07/20	Mon 10/08/20	Wed 01/07/20	Mon 10/08/20	Wed 01/07/20	Mon 10/08/20	0 days				[Gantt Chart Data]																							
180	180.5.13.17.1	Submission for acceptance of subcontract works package	14 days	Wed 01/07/20	Tue 14/07/20	Wed 01/07/20	Tue 14/07/20	Wed 01/07/20	Tue 14/07/20	0 days	181			[Gantt Chart Data]																							
181	181.5.13.17.2	Invitation of tender for subcontract works	14 days	Wed 15/07/20	Tue 28/07/20	Wed 15/07/20	Tue 28/07/20	Wed 15/07/20	Tue 28/07/20	0 days	180	182		[Gantt Chart Data]																							
182	182.5.13.17.3	Acceptance of conforming tender	7 days	Wed 29/07/20	Tue 04/08/20	Wed 29/07/20	Tue 04/08/20	Wed 29/07/20	Tue 04/08/20	0 days	181	183FF		[Gantt Chart Data]																							
183	183.5.13.17.4	Sub-contract work commencement date (Completed)	0 days	Mon 10/08/20	Mon 10/08/20	Mon 10/08/20	Mon 10/08/20	Mon 10/08/20	Mon 10/08/20	0 days	182FF			[Gantt Chart Data]																							
184	184.5.13.18	Mis - Modification of existing power house (04SC010)	109 days	Mon 24/02/20	Fri 12/06/20	Mon 24/02/20	Fri 12/06/20	Mon 24/02/20	Fri 12/06/20	0 days				[Gantt Chart Data]																							
185	185.5.13.18.1	Submission for acceptance of subcontract works package	90 days	Mon 24/02/20	Sat 23/05/20	Mon 24/02/20	Sat 23/05/20	Mon 24/02/20	Sat 23/05/20	0 days	186			[Gantt Chart Data]																							
186	186.5.13.18.2	Invitation of tender for subcontract works	14 days	Sun 24/05/20	Sat 06/06/20	Sun 24/05/20	Sat 06/06/20	Sun 24/05/20	Sat 06/06/20	0 days	185	187		[Gantt Chart Data]																							
187	187.5.13.18.3	Acceptance of conforming tender	1 day	Sun 07/06/20	Sun 07/06/20	Sun 07/06/20	Sun 07/06/20	Sun 07/06/20	Sun 07/06/20	0 days	186	188FF		[Gantt Chart Data]																							
188	188.5.13.18.4	Sub-contract work commencement date (Completed)	0 days	Fri 12/06/20	Fri 12/06/20	Fri 12/06/20	Fri 12/06/20	Fri 12/06/20	Fri 12/06/20	0 days	187FF	1167		[Gantt Chart Data]																							
189	189.5.14	Part C: General Design Submissions	788 days	Mon 02/12/19	Thu 27/01/22	Mon 02/12/19	Thu 27/01/22	Mon 02/12/19	Thu 27/01/22	0 days				[Gantt Chart Data]																							
190	190.5.14.1	Planned Sectional Completion Date - Section 1	0 days	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	0 days	191FF,192FF			[Gantt Chart Data]																							
191	191.5.14.2	CDS001 - General Design Parameters (Rev. 11)	400 edays	Fri 05/06/20	Sat 10/07/21	Fri 05/06/20	Sat 10/07/21	Fri 05/06/20	Sat 10/07/21	0 edays		190FF		[Gantt Chart Data]																							
192	192.5.14.3	CDS020 - Electrical Installation Typical Details	355 edays	Mon 20/07/20	Sat 10/07/21	Mon 20/07/20	Sat 10/07/21	Mon 20/07/20	Sat 10/07/21	0 edays		190FF		[Gantt Chart Data]																							
193	193.5.14.4	CDS009 - Detailed Design for Plant Service Water System	125 edays	Mon 01/03/21	Sun 04/07/21	Mon 01/03/21	Sun 04/07/21	Mon 01/03/21	Sun 04/07/21	0 edays		190FF		[Gantt Chart Data]																							
194	194.5.14.5	CDS012 - Detailed Design for SCADA System	383.4 edays	Sat 09/01/21	Thu 27/01/22	Sat 09/01/21	Thu 27/01/22	Sat 09/01/21	Thu 27/01/22	0 edays	135	190FF,258FF,405FF,534FI		[Gantt Chart Data]																							
195	195.5.14.6	CDS13-1 - Detailed Design for CCTV System	90 edays	Thu 01/04/21	Wed 30/06/21	Thu 01/04/21	Wed 30/06/21	Thu 01/04/21	Mon 12/07/21	12.38 edays		190FF		[Gantt Chart Data]																							
196	196.5.14.7	CDS13-2 - Detailed Design for Gas Detection and Monitoring System	90 edays	Mon 01/03/21	Sun 30/05/21	Mon 01/03/21	Sun 30/05/21	Mon 01/03/21	Mon 12/07/21	43.38 edays		190FF		[Gantt Chart Data]																							
197	197.5.14.8	CDS14-1 - Detailed Design for Power monitoring system (PMS)	90 edays	Mon 01/03/21	Sun 30/05/21	Mon 01/03/21	Sun 30/05/21	Mon 01/03/21	Mon 12/07/21	43.38 edays		190FF		[Gantt Chart Data]																							
198	198.5.14.9	CDS14-2 - Detailed Design for Computerized maintenance and management system	90 edays	Mon 01/03/21	Sun 30/05/21	Mon 01/03/21	Sun 30/05/21	Mon 01/03/21	Mon 12/07/21	43.38 edays		190FF		[Gantt Chart Data]																							
199	199.5.14.10	CDS14-3 - Detailed Design for Information and documents management system	90 edays	Mon 01/03/21	Sun 30/05/21	Mon 01/03/21	Sun 30/05/21	Mon 01/03/21	Mon 12/07/21	43.38 edays		190FF		[Gantt Chart Data]																							
200	200.5.14.11	CDS031 - Detailed Design for MVAC System	90 edays	Mon 01/03/21	Sun 30/05/21	Mon 01/03/21	Sun 30/05/21	Mon 01/03/21	Mon 12/07/21	43.38 edays		190FF		[Gantt Chart Data]																							
201	201.5.14.12	CDS042 - Detailed Design for Lightning Protection System	120 edays	Mon 11/01/21	Tue 11/05/21	Mon 11/01/21	Tue 11/05/21	Mon 11/01/21	Mon 12/07/21	62.38 edays		190FF		[Gantt Chart Data]																							
202	202.5.14.13	Design submissions for E&M Installation works of existing sludge thickener	300 edays	Mon 02/12/19	Sun 27/09/20	Mon 02/12/19	Sun 27/09/20	Mon 02/12/19	Sun 27/09/20	0 edays		190FF		[Gantt Chart Data]																							
203	203.5.14.14	Design Submission for Earthing and Lightning (Rev. 8)	147.38 edays	Mon 04/01/21	Mon 31/05/21	Mon 04/01/21	Mon 31/05/21	Mon 04/01/21	Mon 12/07/21	42 edays		190FF		[Gantt Chart Data]																							
204	204.5.15	Works Area WA1-C	374 days	Wed 01/01/20	Fri 08/01/21	Wed 01/01/20	Fri 08/01/21	Wed 01/01/20	Fri 08/01/21	0 days				[Gantt Chart Data]																							
205	205.5.15.1	Actual Access / Handover Date	1 day	Fri 21/02/20	Fri 21/02/20	Fri 21/02/20	Fri 21/02/20	Fri 21/02/20	Fri 21/02/20	0 days		209		[Gantt Chart Data]																							
206	206.5.15.2	Submission for acceptance of subcontract works package (Site Office) (04)	60 days	Wed 01/01/20	Sat 29/02/20	Wed 01/01/20	Sat 29/02/20	Wed 01/01/20	Sat 29/02/20	0 days	255+30 edays	207		[Gantt Chart Data]																							
207	207.5.15.3	Invitation of quotations for subcontract works (Site Office)	21 days	Sun 01/03/20	Sat 21/03/20	Sun 01/03/20	Sat 21/03/20	Sun 01/03/20	Sat 21/03/20	0 days	206	208		[Gantt Chart Data]																							
208	208.5.15.4	Acceptance of conforming quotation (Site Office)	10 days	Sun 22/03/20	Tue 31/03/20	Sun 22/03/20	Tue 31/03/20	Sun 22/03/20	Tue 31/03/20	0 days	207	209		[Gantt Chart Data]																							
209	209.5.15.5	Design and Fabrication of the Contractor's Site Accommodations	120 days	Wed 01/04/20	Wed 29/07/20	Wed 01/04/20	Wed 29/07/20	Wed 01/04/20	Wed 29/07/20	0 days	205,208	215		[Gantt Chart Data]																							
210	210.5.15.6	Submission for acceptance of subcontract works package (Site Office Four)	20 days	Fri 01/05/20	Wed 20/05/20	Fri 01/05/20	Wed 20/05/20	Fri 01/05/20	Wed 20/05/20	0 days		211		[Gantt Chart Data]																							
211	211.5.15.7	Invitation of quotations for subcontract works (Site Office Foundation)	18 days	Thu 21/05/20	Sun 07/06/20	Thu 21/05/20	Sun 07/06/20	Thu 21/05/20	Sun 07/06/20	0 days	210	212		[Gantt Chart Data]																							
212	212.5.15.8	Acceptance of conforming quotation (Site foundation)	7 days	Mon 08/06/20	Sun 14/06/20	Mon 08/06/20	Sun 14/06/20	Mon 08/06/20	Sun 14/06/20	0 days	211	213		[Gantt Chart Data]																							
213	213.5.15.9	Design and Construction of the Contractor's Site Office foundation	30 days	Mon 15/06/20	Tue 14/07/20	Mon 15/06/20	Tue 14/07/20	Mon 15/06/20	Tue 14/07/20	0 days	212	214		[Gantt Chart Data]																							
214	214.5.15.10	Construction of Contractor's Site Office foundation (Completed)	47 days	Wed 15/07/20	Sun 30/08/20	Wed 15/07/20	Sun 30/08/20	Wed 15/07/20	Sun 30/08/20	0 days	213	215		[Gantt Chart Data]																							
215	215.5.15.11	Site Installation of the Contractor's Site Accommodations (MIC) (Rev. 5)	120 days	Mon 31/08/20	Mon 28/12/20	Mon 31/08/20	Mon 28/12/20	Mon 31/08/20	Mon 28/12/20	0 days	209,214	216		[Gantt Chart Data]																							
216	216.5.15.12	Anticipated date of working at site (Rev. 5) (Completed)	4 days	Tue 05/01/21	Fri 08/01/21	Tue 05/01/21	Fri 08/01/21	Tue 05/01/21	Fri 08/01/21	0 days	215			[Gantt Chart Data]																							
217	217.5.16	Works Area WA2-C	1 day	Fri 21/02/20	Fri 21/02/20	Fri 21/02/20	Fri 21/02/20	Fri 21/02/20	Fri 21/02/20	0 days				[Gantt Chart Data]																							
218	218.5.16.1	Actual Access / Handover Date	1 day	Fri 21/02/20	Fri 21/02/20	Fri 21/02/20	Fri 21/02/20	Fri 21/02/20	Fri 21/02/20	0 days				[Gantt Chart Data]																							
219	219.5.17	Inlet Works No. 1, Portion B-2 (PS 6B.2.1)	1400 days	Mon 01/06/20	Mon 01/04/24	Mon 01/06/20	Mon 01/04/24	Mon 01/06/20	Mon 01/04/24	0 days				[Gantt Chart Data]																							
220	220.5.17.1	Planned Key Date Completion Date - KD1A, IW	0 days	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	0 days	254FF,255FF			[Gantt Chart Data]																							
221	221.5.17.2	Planned Key Date Completion Date - KD1B, IW	0 days	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	0 days	256FF			[Gantt Chart Data]																							
222	222.5.17.3	Planned Sectional Completion Date - Section 1, IW	0 days	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	0 days	257FF,258FF			[Gantt Chart Data]																							
223	223.5.17.4	Planned Sectional Completion Date - Section 2, IW	0 days	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	0 days				[Gantt Chart Data]																							
224	224.5.17.5	Selection of Suppliers for major plant and materials for Inlet Works No.	335 days	Mon 01/06/20	Sat 01/05/21	Mon 01/06/20	Sat 01/05/21	Mon 01/06/20	Sat 01/05/21	0 days				[Gantt Chart Data]																							
225	225.5.17.5.1	Inlet Works - Inlet Pumps (Marking Scheme Approach), C11, ref. EQT006	120 days	Mon 01/06/20	Mon 28/09/20	Mon 01/06/20	Mon 28/09/20	Mon 01/06/20	Mon 28/09/20	0 days				[Gantt Chart Data]																							
226	226.5.17.5.1.1	Submission for acceptance of purchasing package including proposed marking scheme	60 days	Mon 01/06/20	Thu 30/07/20	Mon 01/06/20	Thu 30/07/20	Mon 01/06/20	Thu 30/07/20	0 days		227		[Gantt Chart Data]																							
227	227.5.17.5.1.2	Invitation of quotations for purchasing package	30 days	Fri 31/07/20	Sat 29/08/20	Fri 31/07/20	Sat 29/08/20	Fri 31/07/20	Sat 29/08/20	0 days	226	228		[Gantt Chart Data]																							
228	228.5.17.5.1.3	Acceptance of conforming quotation (Completed)	30 days	Sun 30/08/20	Mon 28/09/20	Sun 30/08/20	Mon 28/09/20	Sun 30/08/20	Mon 28/09/20	0 days	227	257		[Gantt Chart Data]																							
229	229.5.17.5.2	Inlet Works - mechanical raked bar screens, C11, ref. EQT052	58 days	Fri 26/06/20	Sat 22/08/20	Fri 26/06/20	Sat 22/08/20	Fri 26/06/20	Sat 22/08/20	0 days				[Gantt Chart Data]																							
230	230.5.17.5.2.1	Submission for acceptance of purchasing package	14 days	Fri 26/06/20	Thu 09/07/20	Fri 26/06/20	Thu 09/07/20	Fri 26/06/20	Thu 09/07/20	0 days		231		[Gantt Chart Data]																							
231	231.5.17.5.2.2	Invitation of quotations for purchasing package	14 days	Fri 10/07/20	Thu 23/07/20	Fri 10/07/20	Thu 23/07/20	Fri 10/07/20	Thu 23/07/20	0 days	230	232		[Gantt Chart Data]																							

Bestwise Project: DE/2018/04 Date: 30/11/21

Task: [Bar] Milestone: [Diamond] Project Summary: [Arrow] Late: [Line] Critical Split: [Dashed] Manual Progress: [Dotted] Milestone (Actual): [Star]

Milestone, Tentative: [Circle] Summary: [Arrow] Manual Summary: [Arrow] Critical: [Line] Progress: [Dashed] Slack (Float): [Dotted] Slack: [Line]



ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names	2020 Half 1, 2020	2020 Half 2, 2020	2021 Half 1, 2021	2021 Half 2, 2021	2022 Half 1, 2022	2022 Half 2, 2022	2023 Half 1, 2023	2023 Half 2, 2023	2024 Half 1, 2024	
232	232.5.17.5.2.3	Acceptance of conforming quotation (Completed)	30 days	Fri 24/07/20	Sat 22/08/20	Fri 24/07/20	Sat 22/08/20	Fri 24/07/20	Sat 22/08/20	0 days	231	257											
233	233.5.17.5.3	Inlet Works - screening conveyors and Diverters, C11, ref. EQT053	74 days	Wed 01/07/20	Sat 12/09/20	Wed 01/07/20	Sat 12/09/20	Wed 01/07/20	Sat 12/09/20	0 days													
234	234.5.17.5.3.1	Submission for acceptance of purchasing package	30 days	Wed 01/07/20	Thu 30/07/20	Wed 01/07/20	Thu 30/07/20	Wed 01/07/20	Thu 30/07/20	0 days													
235	235.5.17.5.3.2	Invitation of quotations for purchasing package	14 days	Fri 31/07/20	Thu 13/08/20	Fri 31/07/20	Thu 13/08/20	Fri 31/07/20	Thu 13/08/20	0 days													
236	236.5.17.5.3.3	Acceptance of conforming quotation (Completed)	30 days	Fri 14/08/20	Sat 12/09/20	Fri 14/08/20	Sat 12/09/20	Fri 14/08/20	Sat 12/09/20	0 days													
237	237.5.17.5.4	Inlet Works - screening screw type compactors, C11, ref. EQT003	105 days	Wed 01/07/20	Tue 13/10/20	Wed 01/07/20	Tue 13/10/20	Wed 01/07/20	Tue 13/10/20	0 days													
238	238.5.17.5.4.1	Submission for acceptance of purchasing package	45 days	Wed 01/07/20	Fri 14/08/20	Wed 01/07/20	Fri 14/08/20	Wed 01/07/20	Fri 14/08/20	0 days													
239	239.5.17.5.4.2	Invitation of quotations for purchasing package	30 days	Sat 15/08/20	Sun 13/09/20	Sat 15/08/20	Sun 13/09/20	Sat 15/08/20	Sun 13/09/20	0 days													
240	240.5.17.5.4.3	Acceptance of conforming quotation (Completed)	30 days	Mon 14/09/20	Tue 13/10/20	Mon 14/09/20	Tue 13/10/20	Mon 14/09/20	Tue 13/10/20	0 days													
241	241.5.17.5.5	Inlet Works - grit removal system, C11, ref. EQT004	90 days	Wed 01/07/20	Mon 28/09/20	Wed 01/07/20	Mon 28/09/20	Wed 01/07/20	Mon 28/09/20	0 days													
242	242.5.17.5.5.1	Submission for acceptance of purchasing package	30 days	Wed 01/07/20	Thu 30/07/20	Wed 01/07/20	Thu 30/07/20	Wed 01/07/20	Thu 30/07/20	0 days													
243	243.5.17.5.5.2	Invitation of quotations for purchasing package	30 days	Fri 31/07/20	Sat 29/08/20	Fri 31/07/20	Sat 29/08/20	Fri 31/07/20	Sat 29/08/20	0 days													
244	244.5.17.5.5.3	Acceptance of conforming quotation (Completed)	30 days	Sun 30/08/20	Mon 28/09/20	Sun 30/08/20	Mon 28/09/20	Sun 30/08/20	Mon 28/09/20	0 days													
245	245.5.17.5.6	Inlet Works - grit classifiers, C11, ref. EQT005	90 days	Wed 01/07/20	Mon 28/09/20	Wed 01/07/20	Mon 28/09/20	Wed 01/07/20	Mon 28/09/20	0 days													
246	246.5.17.5.6.1	Submission for acceptance of purchasing package	30 days	Wed 01/07/20	Thu 30/07/20	Wed 01/07/20	Thu 30/07/20	Wed 01/07/20	Thu 30/07/20	0 days													
247	247.5.17.5.6.2	Invitation of quotations for purchasing package	30 days	Fri 31/07/20	Sat 29/08/20	Fri 31/07/20	Sat 29/08/20	Fri 31/07/20	Sat 29/08/20	0 days													
248	248.5.17.5.6.3	Acceptance of conforming quotation (Completed)	30 days	Sun 30/08/20	Mon 28/09/20	Sun 30/08/20	Mon 28/09/20	Sun 30/08/20	Mon 28/09/20	0 days													
249	249.5.17.5.7	Inlet Works - Fixed Bar Screen, C11, ref. EQT046 (Rev. 10)	310 days	Fri 26/06/20	Sat 01/05/21	Fri 26/06/20	Sat 01/05/21	Fri 26/06/20	Sat 01/05/21	0 days													
250	250.5.17.5.7.1	Submission for acceptance of purchasing package	14 days	Fri 26/06/20	Thu 09/07/20	Fri 26/06/20	Thu 09/07/20	Fri 26/06/20	Thu 09/07/20	0 days													
251	251.5.17.5.7.2	Invitation of quotations for purchasing package	266 days	Fri 10/07/20	Thu 01/04/21	Fri 10/07/20	Thu 01/04/21	Fri 10/07/20	Thu 01/04/21	0 days													
252	252.5.17.5.7.3	Acceptance of conforming quotation (Rev. 10)	30 days	Fri 02/04/21	Sat 01/05/21	Fri 02/04/21	Sat 01/05/21	Fri 02/04/21	Sat 01/05/21	0 days													
253	253.5.17.6	Design Submissions for IW	479 days	Wed 15/07/20	Sat 06/11/21	Wed 15/07/20	Sat 06/11/21	Wed 15/07/20	Sat 06/11/21	0 days													
254	254.5.17.6.1	Electrical schematic drawings for Inlet Works No. 1	90 days	Wed 15/07/20	Mon 12/10/20	Wed 15/07/20	Mon 12/10/20	Wed 15/07/20	Mon 12/10/20	0 days													
255	255.5.17.6.2	CDS080-1 - Civil and dimensional requirements drawings for Inlet Works No. 1	45 days	Tue 01/09/20	Thu 15/10/20	Tue 01/09/20	Thu 15/10/20	Tue 01/09/20	Thu 15/10/20	0 days													
256	256.5.17.6.3	CDS081-1 - Civil and dimensional requirements drawings for Inlet Works No. 1	210 days	Fri 28/08/20	Thu 25/03/21	Fri 28/08/20	Thu 25/03/21	Fri 28/08/20	Thu 25/03/21	0 days													
257	257.5.17.6.4	CDS002 - Detailed Design for Inlet Works No. 1	144 edays	Mon 01/03/21	Fri 23/07/21	Mon 01/03/21	Fri 23/07/21	Mon 01/03/21	Fri 23/07/21	0 edays	232,236,226,265,287,272,275,278,281												
258	258.5.17.6.5	CDS021 - Detailed Design for Electrical Installations for Inlet Works No. 1	166.63 edays	Sun 23/05/21	Sat 06/11/21	Sun 23/05/21	Sat 06/11/21	Sun 23/05/21	Sat 06/11/21	0 edays	75,81,85,89,76,304,296,307,222FF												
259	259.5.17.6.6	CDS034-1 - Detailed Design for Electrical Installations BS at Inlet Works No. 1	120 edays	Fri 12/03/21	Sat 10/07/21	Fri 12/03/21	Sat 10/07/21	Fri 12/03/21	Sat 10/07/21	0 edays	140	358,222FF											
260	260.5.17.6.7	CDS025-1 - Detailed Design for LV Switchboards for Inlet Works No. 1	60 edays	Mon 03/05/21	Fri 02/07/21	Mon 03/05/21	Fri 02/07/21	Mon 03/05/21	Mon 12/07/21	10 edays	71	296,222FF											
261	261.5.17.6.8	CDS026-1 - Detailed Design for HV Switchboards for Inlet Works No. 1	60 edays	Sun 18/04/21	Thu 17/06/21	Sun 18/04/21	Thu 17/06/21	Sun 18/04/21	Mon 12/07/21	0.63 edays	67	300,222FF											
262	262.5.17.6.9	CDS050-1 - Detailed Design for Lifting Appliances - Inlet Works No. 1	210 edays	Tue 01/09/20	Tue 30/03/21	Tue 01/09/20	Tue 30/03/21	Tue 01/09/20	Tue 30/03/21	0 edays	120	293,222FF											
263	263.5.17.7	Manufacturing and Delivery of Plant & Materials	696 days	Tue 30/03/21	Thu 23/02/23	Tue 30/03/21	Thu 23/02/23	Sun 31/10/21	Sat 16/12/23	215 days													
264	264.5.17.7.1	Inlet Pumps, EQT006	489 days	Sat 24/07/21	Thu 24/11/22	Sat 24/07/21	Thu 24/11/22	Thu 17/11/22	Sat 11/11/23	352 days													
265	265.5.17.7.1.1	Manufacturing of Inlet Pumps, EQT006	240 days	Sat 24/07/21	Sun 20/03/22	Sat 24/07/21	Sun 20/03/22	Thu 17/11/22	Fri 14/07/23	0 days	257	266											
266	266.5.17.7.1.2	Factory Acceptance Test of Plant (to be witnessed by PM)	60 days	Mon 21/03/22	Thu 19/05/22	Mon 21/03/22	Thu 19/05/22	Sat 15/07/23	Tue 12/09/23	129 days	265	267											
267	267.5.17.7.1.3	Shipping and Delivery of Plant to site	60 days	Mon 26/09/22	Thu 24/11/22	Mon 26/09/22	Thu 24/11/22	Wed 13/09/23	Sat 11/11/23	225 days	266,31455-6332												
268	268.5.17.7.2	Mechanical Raked Bar Screen, EQT052	489 days	Sat 24/07/21	Thu 24/11/22	Sat 24/07/21	Thu 24/11/22	Sun 23/10/22	Fri 18/08/23	31 days		328											
269	269.5.17.7.2.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sat 24/07/21	Sun 20/03/22	Sat 24/07/21	Sun 20/03/22	Sun 23/10/22	Mon 19/06/23	189 days	257	270											
270	270.5.17.7.2.2	Shipping and Delivery of Plant to site	60 days	Mon 26/09/22	Thu 24/11/22	Mon 26/09/22	Thu 24/11/22	Tue 20/06/23	Fri 18/08/23	31 days	269,31455-6330,333												
271	271.5.17.7.3	Screening Conveyors and Diverters, EQT053	489 days	Sat 24/07/21	Thu 24/11/22	Sat 24/07/21	Thu 24/11/22	Sat 21/01/23	Thu 16/11/23	357 days													
272	272.5.17.7.3.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sat 24/07/21	Sun 20/03/22	Sat 24/07/21	Sun 20/03/22	Sat 21/01/23	Sun 17/09/23	189 days	257	273											
273	273.5.17.7.3.2	Shipping and Delivery of Plant to site	60 days	Mon 26/09/22	Thu 24/11/22	Mon 26/09/22	Thu 24/11/22	Mon 18/09/23	Thu 16/11/23	143 days	272,31455-6331												
274	274.5.17.7.4	Screening Screw Type Compactors, EQT003	489 days	Sat 24/07/21	Thu 24/11/22	Sat 24/07/21	Thu 24/11/22	Mon 20/02/23	Sat 16/12/23	31 days		328											
275	275.5.17.7.4.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sat 24/07/21	Sun 20/03/22	Sat 24/07/21	Sun 20/03/22	Mon 20/02/23	Tue 17/10/23	189 days	257	276											
276	276.5.17.7.4.2	Shipping and Delivery of Plant to site	60 days	Mon 26/09/22	Thu 24/11/22	Mon 26/09/22	Thu 24/11/22	Wed 18/10/23	Sat 16/12/23	173 days	275,31455-6336												
277	277.5.17.7.5	Grit Removal System, EQT004	489 days	Sat 24/07/21	Thu 24/11/22	Sat 24/07/21	Thu 24/11/22	Mon 06/02/23	Sat 02/12/23	373 days													
278	278.5.17.7.5.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sat 24/07/21	Sun 20/03/22	Sat 24/07/21	Sun 20/03/22	Mon 06/02/23	Tue 03/10/23	189 days	257	279											
279	279.5.17.7.5.2	Shipping and Delivery of Plant to site	60 days	Mon 26/09/22	Thu 24/11/22	Mon 26/09/22	Thu 24/11/22	Wed 04/10/23	Sat 02/12/23	246 days	278,31455-6334												
280	280.5.17.7.6	Grit Classifiers, EQT005	489 days	Sat 24/07/21	Thu 24/11/22	Sat 24/07/21	Thu 24/11/22	Mon 20/02/23	Sat 16/12/23	387 days													
281	281.5.17.7.6.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sat 24/07/21	Sun 20/03/22	Sat 24/07/21	Sun 20/03/22	Mon 20/02/23	Tue 17/10/23	189 days	257	282											
282	282.5.17.7.6.2	Shipping and Delivery of Plant to site	60 days	Mon 26/09/22	Thu 24/11/22	Mon 26/09/22	Thu 24/11/22																



ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names	2020 Half 1, 2020	2020 Half 2, 2020	2021 Half 1, 2021	2021 Half 2, 2021	2022 Half 1, 2022	2022 Half 2, 2022	2023 Half 1, 2023	2023 Half 2, 2023	2024 Half 1, 2024	
291	291.5.17.7.9.2		Shipping and Delivery of Plant to site	60 days	Wed 12/10/22	Sat 10/12/22	Wed 12/10/22	Sat 10/12/22	Tue 11/07/23	Fri 08/09/23	135 days	290,31455-6337												
292	292.5.17.7.10		Lifting Appliances	590 days	Tue 30/03/21	Wed 09/11/22	Tue 30/03/21	Wed 09/11/22	Tue 21/06/22	Sat 01/04/23	143 days													
293	293.5.17.7.10.1		Manufacturing and Factory Acceptance Test of Plant	240 days	Tue 30/03/21	Wed 24/11/21	Tue 30/03/21	Wed 24/11/21	Tue 21/06/22	Wed 15/02/23	305 days	262	294											
294	294.5.17.7.10.2		Shipping and Delivery of Plant to site	45 days	Mon 26/09/22	Wed 09/11/22	Mon 26/09/22	Wed 09/11/22	Thu 16/02/23	Sat 01/04/23	16 days	293,31455-6318												
295	295.5.17.7.11		LV Switchboards	345 days	Wed 16/03/22	Thu 23/02/23	Wed 16/03/22	Thu 23/02/23	Mon 02/05/22	Tue 11/04/23	47 days													
296	296.5.17.7.11.1		IW - Manufacturing of Plant	240 days	Wed 16/03/22	Thu 10/11/22	Wed 16/03/22	Thu 10/11/22	Mon 02/05/22	Tue 27/12/22	0 days	258,260,775297												
297	297.5.17.7.11.2		IW - Factory Acceptance Test of Plant (to be witnessed by PM)	60 days	Fri 11/11/22	Mon 09/01/23	Fri 11/11/22	Mon 09/01/23	Wed 28/12/22	Sat 25/02/23	0 days	296	298											
298	298.5.17.7.11.3		IW - Shipping and Delivery of Plant to site	45 days	Tue 10/01/23	Thu 23/02/23	Tue 10/01/23	Thu 23/02/23	Sun 26/02/23	Tue 11/04/23	0 days	31455-60	ed343											
299	299.5.17.7.12		HV Switchboards, EQT031	510 days	Fri 18/06/21	Wed 09/11/22	Fri 18/06/21	Wed 09/11/22	Sun 31/10/21	Wed 09/11/22	0 days													
300	300.5.17.7.12.1		IW - Manufacturing of Plant	240 days	Fri 18/06/21	Sat 12/02/22	Fri 18/06/21	Sat 12/02/22	Sun 31/10/21	Mon 27/06/22	0 days	261	301											
301	301.5.17.7.12.2		IW - Factory Acceptance Test of Plant (to be witnessed by PM)	90 days	Sun 13/02/22	Fri 13/05/22	Sun 13/02/22	Fri 13/05/22	Tue 28/06/22	Sun 25/09/22	135 days	300	302											
302	302.5.17.7.12.3		IW - Shipping and Delivery of Plant to site	45 days	Mon 26/09/22	Wed 09/11/22	Mon 26/09/22	Wed 09/11/22	Mon 26/09/22	Wed 09/11/22	0 days	301,31455-6												
303	303.5.17.7.13		11kV/380V Stepdown Power Transformers, EQT032	369 days	Sat 06/11/21	Wed 09/11/22	Sat 06/11/21	Wed 09/11/22	Fri 01/07/22	Tue 11/04/23	153 days													
304	304.5.17.7.13.1		IW - Manufacturing and Factory Acceptance Test of Plant	240 days	Sat 06/11/21	Sun 03/07/22	Sat 06/11/21	Sun 03/07/22	Fri 01/07/22	Sat 25/02/23	84 days	258	305											
305	305.5.17.7.13.2		IW - Shipping and Delivery of Plant to site	45 days	Mon 26/09/22	Wed 09/11/22	Mon 26/09/22	Wed 09/11/22	Sun 26/02/23	Tue 11/04/23	60 days	304,31455-6345												
306	306.5.17.7.14		PLC System	420 days	Sat 06/11/21	Fri 30/12/22	Sat 06/11/21	Fri 30/12/22	Thu 03/03/22	Wed 26/04/23	117 days													
307	307.5.17.7.14.1		Manufacturing of Plant, PLC for IW	300 days	Sat 06/11/21	Thu 01/09/22	Sat 06/11/21	Thu 01/09/22	Thu 03/03/22	Tue 27/12/22	0 days	258	308											
308	308.5.17.7.14.2		Factory Acceptance Test of Plant, PLC for IW (To be witnessed by PM)	60 days	Fri 02/09/22	Mon 31/10/22	Fri 02/09/22	Mon 31/10/22	Wed 28/12/22	Sat 25/02/23	0 days	307	309											
309	309.5.17.7.14.3		Shipping and Delivery of Plant to site	60 days	Tue 01/11/22	Fri 30/12/22	Tue 01/11/22	Fri 30/12/22	Sun 26/02/23	Wed 26/04/23	9 days	31455-60	ed346											
310	310.5.17.7.15		Fixed Bar Screen, EQT046	489 days	Sat 24/07/21	Thu 24/11/22	Sat 24/07/21	Thu 24/11/22	Thu 10/11/22	Mon 21/08/23	270 days													
311	311.5.17.7.15.1		IW - Manufacturing and Factory Acceptance Test of Plant	240 days	Sat 24/07/21	Sun 20/03/22	Sat 24/07/21	Sun 20/03/22	Thu 10/11/22	Fri 07/07/23	204 days	257	312											
312	312.5.17.7.15.2		IW - Shipping and Delivery of Plant to site	45 days	Tue 11/10/22	Thu 24/11/22	Tue 11/10/22	Thu 24/11/22	Sat 08/07/23	Mon 21/08/23	143 days	311,31455-4329												
313	313.5.17.8		Site Installation Work	440 days	Fri 25/11/22	Wed 07/02/24	Fri 25/11/22	Wed 07/02/24	Fri 25/11/22	Tue 13/02/24	5 days													
314	314.5.17.8.1		Tentative Civil Handover Date, Portion B-2, Inlet Works No. 1 (Rev. 5)	1 day	Fri 25/11/22	Fri 25/11/22	Fri 25/11/22	Fri 25/11/22	Fri 25/11/22	Fri 25/11/22	0 days	318,316,358F5+120 days,												
315	315.5.17.8.2		Tentative Civil Handover Date, HV cables draw pits from MFB2 to IW	1 day	Tue 14/02/23	Tue 14/02/23	Tue 14/02/23	Tue 14/02/23	Thu 07/12/23	Thu 07/12/23	129 days	350FF+30 days												
316	316.5.17.8.3		Commencement of E&M Installation at Inlet Works No. 1	439 days	Sat 26/11/22	Wed 07/02/24	Sat 26/11/22	Wed 07/02/24	Sat 26/11/22	Tue 13/02/24	5 days	314												
317	317.5.17.8.3.1		Provision of Temporary Water Supply, Electricity Supply, Lighting, W	30 days	Sat 26/11/22	Sun 25/12/22	Sat 26/11/22	Sun 25/12/22	Sat 26/11/22	Sun 25/12/22	0 days	314												
318	318.5.17.8.3.2		Installation of Lifting Appliances at Inlet Works No. 1	142 days	Sat 26/11/22	Sun 16/04/23	Sat 26/11/22	Sun 16/04/23	Sun 02/04/23	Mon 21/08/23	0 days	314,294	327S5+30 days,331,332											
319	319.5.17.8.3.2.1		1/F EOT Crane LA-01-01 SWL St	45 days	Tue 10/01/23	Thu 23/02/23	Tue 10/01/23	Thu 23/02/23	Sat 01/07/23	Mon 14/08/23	45 days	322,323	326	LA - A x 4~6 men										
320	320.5.17.8.3.2.2		1/F EOT Crane LA-01-02 SWL St	45 days	Tue 10/01/23	Thu 23/02/23	Tue 10/01/23	Thu 23/02/23	Sat 01/07/23	Mon 14/08/23	45 days	322,323	326	LA - B x 4~6 men										
321	321.5.17.8.3.2.3		1/F EOT Crane LA-01-03 SWL St	45 days	Tue 10/01/23	Thu 23/02/23	Tue 10/01/23	Thu 23/02/23	Wed 17/05/23	Fri 30/06/23	0 days	322,323	324,326	LA - C x 4~6 men										
322	322.5.17.8.3.2.4		UG EOT Crane LA-01-04 SWL 10t	45 days	Sat 26/11/22	Mon 09/01/23	Sat 26/11/22	Mon 09/01/23	Sun 02/04/23	Tue 16/05/23	0 days	319,320,321,326	326	LA - A x 4~6 men										
323	323.5.17.8.3.2.5		UG EOT Crane LA-01-05 SWL 10t	45 days	Sat 26/11/22	Mon 09/01/23	Sat 26/11/22	Mon 09/01/23	Sun 02/04/23	Tue 16/05/23	0 days	319,320,321,326	326	LA - B x 4~6 men										
324	324.5.17.8.3.2.6		1/F Retractable Crane LA-01-06 SWL 10t	45 days	Fri 24/02/23	Sun 09/04/23	Fri 24/02/23	Sun 09/04/23	Sat 01/07/23	Mon 14/08/23	0 days	321	326	LA - C x 4~6 men										
325	325.5.17.8.3.2.7		Submission of T&C Plan and Procedures of LA for acceptance	14 days	Sat 26/11/22	Fri 09/12/22	Sat 26/11/22	Fri 09/12/22	Tue 01/08/23	Mon 14/08/23	121 days	326												
326	326.5.17.8.3.2.8		T&C, Loading Test for Lifting Appliances	7 days	Mon 10/04/23	Sun 16/04/23	Mon 10/04/23	Sun 16/04/23	Tue 15/08/23	Mon 21/08/23	0 days	319,320,321329												
327	327.5.17.8.3.3		Mechanical Installations for Inlet Works No. 1	250 days	Mon 26/12/22	Fri 01/09/23	Mon 26/12/22	Fri 01/09/23	Fri 12/05/23	Sat 06/01/24	0 days	31855+30 d;34255+14 days,355,347S												
328	328.5.17.8.3.3.1		Installation of penstocks and stoplogs (Penstock 35nos, Stoplogs 3	120 days	Mon 26/12/22	Mon 24/04/23	Mon 26/12/22	Mon 24/04/23	Fri 12/05/23	Fri 08/09/23	0 days	274,268,28E337,338,341												
329	329.5.17.8.3.3.2		Installation of fixed bar screen (x1), EQT046	7 days	Mon 17/04/23	Sun 23/04/23	Mon 17/04/23	Sun 23/04/23	Tue 22/08/23	Mon 28/08/23	0 days	326,312	333	ME - D x 2~4 men										
330	330.5.17.8.3.3.3		Installation of mechanical raked coarse bar screens (x4), EQT052	90 days	Mon 26/12/22	Sat 25/03/23	Mon 26/12/22	Sat 25/03/23	Sat 19/08/23	Thu 16/11/23	22 days	270	331	ME - A x 4~6 men										
331	331.5.17.8.3.3.4		Installation of screening conveyors (x6), EQT053	30 days	Mon 17/04/23	Tue 16/05/23	Mon 17/04/23	Tue 16/05/23	Fri 17/11/23	Sat 16/12/23	0 days	318,330,273336												
332	332.5.17.8.3.3.5		Installation of inlet pumps (x5), EQT006	21 days	Sat 08/07/23	Fri 28/07/23	Sat 08/07/23	Fri 28/07/23	Sun 12/11/23	Sat 02/12/23	0 days	318,33755+334												
333	333.5.17.8.3.3.6		Installation of mechanical raked fine bar screens (x4), EQT052	75 days	Mon 24/04/23	Fri 07/07/23	Mon 24/04/23	Fri 07/07/23	Tue 29/08/23	Sat 11/11/23	0 days	329,270	332	ME - B x 4~6 men										
334	334.5.17.8.3.3.7		Installation of grit removal system (x3), EQT004	14 days	Sat 29/07/23	Fri 11/08/23	Sat 29/07/23	Fri 11/08/23	Sun 03/12/23	Sat 16/12/23	0 days	332,279	335	ME - B x 4~6 men										
335	335.5.17.8.3.3.8		Installation of grit classifiers (x2), EQT005	21 days	Sat 12/08/23	Fri 01/09/23	Sat 12/08/23	Fri 01/09/23	Sun 17/12/23	Sat 06/01/24	127 days	334,282												
336	336.5.17.8.3.3.9		Installation of compactors (x2), EQT003	21 days	Wed 17/05/23	Tue 06/06/23	Wed 17/05/23	Tue 06/06/23	Sun 17/12/23	Sat 06/01/24	214 days	331,276												
337	337.5.17.8.3.3.10		Installation of pipework and valves, EQT036	30 days	Tue 25/04/23	Wed 24/05/23	Tue 25/04/23	Wed 24/05/23	Sat 09/09/23	Sun 08/10/23	0 days	328,285,29133255+14 days,339												
338	338.5.17.8.3.3.11		Pipework pressure tests	30 days	Tue 25/04/23	Wed 24/05/23	Tue 25/04/23	Wed 24/05/23	Sat 09/09/23	Sun 08/10/23	0 days	328	33255+14 days,339					</						



ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names	2020 Half 1, 2020	2020 Half 2, 2020	2021 Half 1, 2021	2021 Half 2, 2021	2022 Half 1, 2022	2022 Half 2, 2022	2023 Half 1, 2023	2023 Half 2, 2023	2024 Half 1, 2024	
350	350.5.17.8.3.4.i	Energisation of LV Switchboards, IW	0 days	Sun 23/07/23	Sun 23/07/23	Sun 23/07/23	Sun 23/07/23	Sun 07/01/24	Sun 07/01/24	162 days	348,315FF+355		LV - A x 4~6 men										
351	351.5.17.8.3.4.i	Site Acceptance Tests - Electrical aspects including voltage and cur	120 days	Mon 24/07/23	Mon 20/11/23	Mon 24/07/23	Mon 20/11/23	Sat 09/09/23	Sat 06/01/24	47 days	348		LV - A x 4~6 men										
352	352.5.17.8.3.5	SCADA Systems, Inlet Works	105 days	Mon 24/07/23	Sun 05/11/23	Mon 24/07/23	Sun 05/11/23	Sun 24/09/23	Sat 06/01/24	62 days													
353	353.5.17.8.3.5..	Configuration of PLC System, IW	45 days	Mon 24/07/23	Wed 06/09/23	Mon 24/07/23	Wed 06/09/23	Sun 24/09/23	Tue 07/11/23	0 days	348	354	PLC - A x 1 man										
354	354.5.17.8.3.5..	Site Acceptance Test for PLC System at Inlet Works No. 1	60 days	Thu 07/09/23	Sun 05/11/23	Thu 07/09/23	Sun 05/11/23	Wed 08/11/23	Sat 06/01/24	35 days	353	355,1282											
355	355.5.17.8.3.6	Site Acceptance Test for E&M Equip & Instrumentations calibration,	15 days	Tue 02/01/24	Tue 16/01/24	Tue 02/01/24	Tue 16/01/24	Sun 07/01/24	Sun 21/01/24	0 days	327,342,353	356											
356	356.5.17.8.3.7	System Commissioning for E&M Equip at Inlet Works No. 1	15 edays	Tue 16/01/24	Wed 31/01/24	Tue 16/01/24	Wed 31/01/24	Mon 22/01/24	Tue 06/02/24	0 edays	355	357											
357	357.5.17.8.3.8	Risk Allowances for completion of Processing Plant at Inlet Works No	7 edays	Wed 31/01/24	Wed 07/02/24	Wed 31/01/24	Wed 07/02/24	Tue 06/02/24	Tue 13/02/24	0.63 edays	356,365	1278											
358	358.5.17.8.3.9	Building Services Installations for Inlet Works No. 1	300 days	Sun 26/03/23	Fri 19/01/24	Sun 26/03/23	Fri 19/01/24	Wed 12/04/23	Mon 05/02/24	17 days	314FS+120												
359	359.5.17.8.3.9..	Mechanical Ventilation and Air Conditioning System, IW	150 days	Sun 26/03/23	Tue 22/08/23	Sun 26/03/23	Tue 22/08/23	Fri 12/05/23	Sun 08/10/23	30 days		365	MVAC - B x 4~6 men										
360	360.5.17.8.3.9..	Lighting and Power Distribution System, IW	180 days	Sun 26/03/23	Thu 21/09/23	Sun 26/03/23	Thu 21/09/23	Wed 12/04/23	Sun 08/10/23	0 days		365	BS - A x 4~6 men										
361	361.5.17.8.3.9..	Plumbing Installation, IW	120 days	Sun 26/03/23	Sun 23/07/23	Sun 26/03/23	Sun 23/07/23	Tue 06/06/23	Tue 03/10/23	60 days	1249	1251,365	Pb - A x 4~6 men										
362	362.5.17.8.3.9..	CCTV Installation (5 indoor +5 outdoor Cameras), IW	90 days	Mon 24/04/23	Sat 22/07/23	Mon 24/04/23	Sat 22/07/23	Tue 11/07/23	Sun 08/10/23	51 days	3145S+150	365,1281	BS - B x 4~6 men										
363	363.5.17.8.3.9..	Fire Services Installation, IW	120 days	Mon 24/04/23	Mon 21/08/23	Mon 24/04/23	Mon 21/08/23	Sun 11/06/23	Sun 08/10/23	31 days	3145S+150	1202,1214,1215,365	FS - A x 4~6 men										
364	364.5.17.8.3.9..	Earthing and Lightning Protection System, IW	60 days	Wed 24/05/23	Sat 22/07/23	Wed 24/05/23	Sat 22/07/23	Thu 10/08/23	Sun 08/10/23	61 days	3145S+180	365	BS - C x 2~4 men										
365	365.5.17.8.3.9..	Testing and Commissioning of Building Services Installations, IW	120 days	Fri 22/09/23	Fri 19/01/24	Fri 22/09/23	Fri 19/01/24	Mon 09/10/23	Mon 05/02/24	12 days	359,360,361,357		BS - C x 2~4 men										
366	366.5.18	Primary Sedimentation Tanks No. 1 ~ 4, Portion B-3 (PS 6B2.2)	1371 days	Wed 01/07/20	Mon 01/04/24	Wed 01/07/20	Mon 01/04/24	Wed 01/07/20	Mon 01/04/24	0 days													
367	367.5.18.1	Planned Key Date Completion Date - KD1A, PST No. 1~4	0 days	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	0 days	403FF,402FI												
368	368.5.18.2	Planned Key Date Completion Date - KD1B, PST No. 1~4	1 day	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	0 days	403FF												
369	369.5.18.3	Planned Sectional Completion Date - Section 1, PST No. 1~4	0 days	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	0 days	406FF,405FI												
370	370.5.18.4	Planned Sectional Completion Date - Section 2, PST No. 1~4	0 days	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	0 days	494FF												
371	371.5.18.5	Selection of Suppliers for major plant and materials for PST No. 1~4	230 days	Wed 01/07/20	Mon 15/02/21	Wed 01/07/20	Mon 15/02/21	Wed 01/07/20	Mon 15/02/21	0 days													
372	372.5.18.5.1	PST - lamella plate settlers, C11, ref. EQT014	90 days	Wed 01/07/20	Mon 28/09/20	Wed 01/07/20	Mon 28/09/20	Wed 01/07/20	Mon 28/09/20	0 days													
373	373.5.18.5.1.1	Submission for acceptance of purchasing package	30 days	Wed 01/07/20	Thu 30/07/20	Wed 01/07/20	Thu 30/07/20	Wed 01/07/20	Thu 30/07/20	0 days		374											
374	374.5.18.5.1.2	Invitation of quotations for purchasing package	30 days	Fri 31/07/20	Sat 29/08/20	Fri 31/07/20	Sat 29/08/20	Fri 31/07/20	Sat 29/08/20	0 days	373	375											
375	375.5.18.5.1.3	Acceptance of conforming quotation (Completed)	30 days	Sun 30/08/20	Mon 28/09/20	Sun 30/08/20	Mon 28/09/20	Sun 30/08/20	Mon 28/09/20	0 days	374	404											
376	376.5.18.5.2	PST - reciprocating type bottom scrapers, C11, ref. EQT014	135 days	Wed 01/07/20	Thu 12/11/20	Wed 01/07/20	Thu 12/11/20	Wed 01/07/20	Thu 12/11/20	0 days													
377	377.5.18.5.2.1	Submission for acceptance of purchasing package	45 days	Wed 01/07/20	Fri 14/08/20	Wed 01/07/20	Fri 14/08/20	Wed 01/07/20	Fri 14/08/20	0 days		378											
378	378.5.18.5.2.2	Invitation of quotations for purchasing package	60 days	Sat 15/08/20	Tue 13/10/20	Sat 15/08/20	Tue 13/10/20	Sat 15/08/20	Tue 13/10/20	0 days	377	379											
379	379.5.18.5.2.3	Acceptance of conforming quotation (Completed)	30 days	Wed 14/10/20	Thu 12/11/20	Wed 14/10/20	Thu 12/11/20	Wed 14/10/20	Thu 12/11/20	0 days	378	404											
380	380.5.18.5.3	PST - surface scum skimmers, C11, ref. EQT015	90 days	Tue 07/07/20	Sun 04/10/20	Tue 07/07/20	Sun 04/10/20	Tue 07/07/20	Sun 04/10/20	0 days													
381	381.5.18.5.3.1	Submission for acceptance of purchasing package	30 days	Tue 07/07/20	Wed 05/08/20	Tue 07/07/20	Wed 05/08/20	Tue 07/07/20	Wed 05/08/20	0 days		382											
382	382.5.18.5.3.2	Invitation of quotations for purchasing package	30 days	Thu 06/08/20	Fri 04/09/20	Thu 06/08/20	Fri 04/09/20	Thu 06/08/20	Fri 04/09/20	0 days	381	383											
383	383.5.18.5.3.3	Acceptance of conforming quotation	30 days	Sat 05/09/20	Sun 04/10/20	Sat 05/09/20	Sun 04/10/20	Sat 05/09/20	Sun 04/10/20	0 days	382	404											
384	384.5.18.5.4	PST - scum collector pipes, C11, ref. EQT015	210 days	Wed 01/07/20	Tue 26/01/21	Wed 01/07/20	Tue 26/01/21	Wed 01/07/20	Tue 26/01/21	0 days													
385	385.5.18.5.4.1	Submission for acceptance of purchasing package	120 days	Wed 01/07/20	Wed 28/10/20	Wed 01/07/20	Wed 28/10/20	Wed 01/07/20	Wed 28/10/20	0 days		386											
386	386.5.18.5.4.2	Invitation of quotations for purchasing package	60 days	Thu 29/10/20	Sun 27/12/20	Thu 29/10/20	Sun 27/12/20	Thu 29/10/20	Sun 27/12/20	0 days	385	387											
387	387.5.18.5.4.3	Acceptance of conforming quotation	30 days	Mon 28/12/20	Tue 26/01/21	Mon 28/12/20	Tue 26/01/21	Mon 28/12/20	Tue 26/01/21	0 days	386	404											
388	388.5.18.5.5	PST - piston type primary sludge pumps, C11, ref. EQT016	210 days	Wed 01/07/20	Tue 26/01/21	Wed 01/07/20	Tue 26/01/21	Wed 01/07/20	Tue 26/01/21	0 days													
389	389.5.18.5.5.1	Submission for acceptance of purchasing package	120 days	Wed 01/07/20	Wed 28/10/20	Wed 01/07/20	Wed 28/10/20	Wed 01/07/20	Wed 28/10/20	0 days		390											
390	390.5.18.5.5.2	Invitation of quotations for purchasing package	60 days	Thu 29/10/20	Sun 27/12/20	Thu 29/10/20	Sun 27/12/20	Thu 29/10/20	Sun 27/12/20	0 days	389	391											
391	391.5.18.5.5.3	Acceptance of conforming quotation (Completed)	30 days	Mon 28/12/20	Tue 26/01/21	Mon 28/12/20	Tue 26/01/21	Mon 28/12/20	Tue 26/01/21	0 days	390	404											
392	392.5.18.5.6	PST - drain pumps, C11, ref. EQT007	210 days	Tue 14/07/20	Mon 08/02/21	Tue 14/07/20	Mon 08/02/21	Tue 14/07/20	Mon 08/02/21	0 days													
393	393.5.18.5.6.1	Submission for acceptance of purchasing package	120 days	Tue 14/07/20	Tue 10/11/20	Tue 14/07/20	Tue 10/11/20	Tue 14/07/20	Tue 10/11/20	0 days		394											
394	394.5.18.5.6.2	Invitation of quotations for purchasing package	60 days	Wed 11/11/20	Sat 09/01/21	Wed 11/11/20	Sat 09/01/21	Wed 11/11/20	Sat 09/01/21	0 days	393	395											
395	395.5.18.5.6.3	Acceptance of conforming quotation (Completed)	30 days	Sun 10/01/21	Mon 08/02/21	Sun 10/01/21	Mon 08/02/21	Sun 10/01/21	Mon 08/02/21	0 days	394	404											
396	396.5.18.5.7	PST - air blowers, C11, ref. EQT018	210 days	Tue 21/07/20	Mon 15/02/21	Tue 21/07/20	Mon 15/02/21	Tue 21/07/20	Mon 15/02/21	0 days													
397	397.5.18.5.7.1	Submission for acceptance of purchasing package	120 days	Tue 21/07/20	Tue 17/11/20	Tue 21/07/20	Tue 17/11/20	Tue 21/07/20	Tue 17/11/20	0 days		398											
398	398.5.18.5.7.2	Invitation of quotations for purchasing package	60 days	Wed 18/11/20	Sat 16/01/21	Wed 18/11/20	Sat 16/01/21	Wed 18/11/20	Sat 16/01/21	0 days	397	399											
399	399.5.18.5.7.3	Acceptance of conforming quotation	30 days	Sun 17/01/21	Mon 15/02/21	Sun 17/01/21	Mon 15/02/21																



ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names	2020	2020	2021	2021	2022	2022	2023	2023	2024
															Half 1, 2020	Half 2, 2020	Half 1, 2021	Half 2, 2021	Half 1, 2022	Half 2, 2022	Half 1, 2023	Half 2, 2023	Half 1, 2024
409	409.5.18.7		Manufacturing and Delivery of Plant & Materials	811 days	Fri 29/01/21	Wed 19/04/23	Fri 29/01/21	Wed 19/04/23	Sun 13/03/22	Thu 07/12/23	232 days												
410	410.5.18.7.1		Lamella Plate Settlers, EQT014	668 days	Mon 31/05/21	Wed 29/03/23	Mon 31/05/21	Wed 29/03/23	Sat 29/10/22	Sun 08/10/23	193 days												
411	411.5.18.7.1.1		Manufacturing and Factory Acceptance Test of Plant	300 days	Mon 31/05/21	Sat 26/03/22	Mon 31/05/21	Sat 26/03/22	Sat 29/10/22	Thu 24/08/23	323 days	404	412										
412	412.5.18.7.1.2		Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	Mon 13/02/23	Wed 29/03/23	Fri 25/08/23	Sun 08/10/23	143 days	411,44955-6463											
413	413.5.18.7.2		Reciprocating Type Bottom Scrappers, EQT014	668 days	Mon 31/05/21	Wed 29/03/23	Mon 31/05/21	Wed 29/03/23	Thu 29/09/22	Fri 08/09/23	163 days												
414	414.5.18.7.2.1		Manufacturing and Factory Acceptance Test of Plant	300 days	Mon 31/05/21	Sat 26/03/22	Mon 31/05/21	Sat 26/03/22	Thu 29/09/22	Tue 25/07/23	323 days	404	415										
415	415.5.18.7.2.2		Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	Mon 13/02/23	Wed 29/03/23	Wed 26/07/23	Fri 08/09/23	16 days	414,44955-6464											
416	416.5.18.7.3		Surface Scum Skimmers, EQT015	668 days	Mon 31/05/21	Wed 29/03/23	Mon 31/05/21	Wed 29/03/23	Wed 28/12/22	Thu 07/12/23	253 days												
417	417.5.18.7.3.1		Manufacturing and Factory Acceptance Test of Plant	300 days	Mon 31/05/21	Sat 26/03/22	Mon 31/05/21	Sat 26/03/22	Wed 28/12/22	Mon 23/10/23	323 days	404	418										
418	418.5.18.7.3.2		Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	Mon 13/02/23	Wed 29/03/23	Tue 24/10/23	Thu 07/12/23	203 days	417,44955-6465											
419	419.5.18.7.4		Surface Scum Collection Pipes, EQT015	668 days	Mon 31/05/21	Wed 29/03/23	Mon 31/05/21	Wed 29/03/23	Wed 28/12/22	Thu 07/12/23	253 days												
420	420.5.18.7.4.1		Manufacturing and Factory Acceptance Test of Plant	300 days	Mon 31/05/21	Sat 26/03/22	Mon 31/05/21	Sat 26/03/22	Wed 28/12/22	Mon 23/10/23	323 days	404	421										
421	421.5.18.7.4.2		Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	Mon 13/02/23	Wed 29/03/23	Tue 24/10/23	Thu 07/12/23	203 days	420,44955-6466											
422	422.5.18.7.5		Piston Type Primary Sludge Pumps, EQT016	668 days	Mon 31/05/21	Wed 29/03/23	Mon 31/05/21	Wed 29/03/23	Tue 30/08/22	Wed 09/08/23	133 days												
423	423.5.18.7.5.1		Manufacturing and Factory Acceptance Test of Plant	300 days	Mon 31/05/21	Sat 26/03/22	Mon 31/05/21	Sat 26/03/22	Tue 30/08/22	Sun 25/06/23	323 days	404	424										
424	424.5.18.7.5.2		Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	Mon 13/02/23	Wed 29/03/23	Mon 26/06/23	Wed 09/08/23	106 days	423,44955-6467											
425	425.5.18.7.6		Drain Pumps, EQT007	668 days	Mon 31/05/21	Wed 29/03/23	Mon 31/05/21	Wed 29/03/23	Thu 29/09/22	Fri 08/09/23	163 days												
426	426.5.18.7.6.1		Manufacturing and Factory Acceptance Test of Plant	300 days	Mon 31/05/21	Sat 26/03/22	Mon 31/05/21	Sat 26/03/22	Thu 29/09/22	Tue 25/07/23	323 days	404	427										
427	427.5.18.7.6.2		Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	Mon 13/02/23	Wed 29/03/23	Wed 26/07/23	Fri 08/09/23	136 days	426,44955-6468											
428	428.5.18.7.7		Air Blower, EQT018	668 days	Mon 31/05/21	Wed 29/03/23	Mon 31/05/21	Wed 29/03/23	Sat 29/10/22	Sun 08/10/23	193 days												
429	429.5.18.7.7.1		Manufacturing and Factory Acceptance Test of Plant	300 days	Mon 31/05/21	Sat 26/03/22	Mon 31/05/21	Sat 26/03/22	Sat 29/10/22	Thu 24/08/23	323 days	404	430										
430	430.5.18.7.7.2		Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	Mon 13/02/23	Wed 29/03/23	Fri 25/08/23	Sun 08/10/23	166 days	429,44955-6469											
431	431.5.18.7.8		Stoplogs and Penstocks, EQT013	668 days	Mon 31/05/21	Wed 29/03/23	Mon 31/05/21	Wed 29/03/23	Sun 31/07/22	Thu 11/05/23	43 days												
432	432.5.18.7.8.1		Manufacturing and Factory Acceptance Test of Plant	240 days	Mon 31/05/21	Tue 25/01/22	Mon 31/05/21	Tue 25/01/22	Sun 31/07/22	Mon 27/03/23	383 days	404	433										
433	433.5.18.7.8.2		Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	Mon 13/02/23	Wed 29/03/23	Tue 28/03/23	Thu 11/05/23	16 days	44955-60 ed461											
434	434.5.18.7.9		Pipework, Valves and Electric Actuators, EQT036, EQT042 (Rev. 11)	409 days	Mon 14/02/22	Wed 29/03/23	Mon 14/02/22	Wed 29/03/23	Sun 31/07/22	Thu 11/05/23	43 days	56,63											
435	435.5.18.7.9.1		Manufacturing and Factory Acceptance Test of Plant	240 days	Mon 14/02/22	Tue 11/10/22	Mon 14/02/22	Tue 11/10/22	Sun 31/07/22	Mon 27/03/23	124 days	404	436										
436	436.5.18.7.9.2		Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	Mon 13/02/23	Wed 29/03/23	Tue 28/03/23	Thu 11/05/23	16 days	435,44955-6462											
437	437.5.18.7.10		Lifting Appliances	790 days	Fri 29/01/21	Wed 29/03/23	Fri 29/01/21	Wed 29/03/23	Thu 22/09/22	Sat 03/06/23	66 days												
438	438.5.18.7.10.1		Manufacturing and Factory Acceptance Test of Plant	210 days	Fri 29/01/21	Thu 26/08/21	Fri 29/01/21	Thu 26/08/21	Thu 22/09/22	Wed 19/04/23	535 days	408	439										
439	439.5.18.7.10.2		Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	Mon 13/02/23	Wed 29/03/23	Thu 20/04/23	Sat 03/06/23	16 days	438,44955-6452											
440	440.5.18.7.11		LV Switchboards	635 days	Sat 03/07/21	Wed 29/03/23	Sat 03/07/21	Wed 29/03/23	Sun 13/03/22	Sun 21/05/23	53 days												
441	441.5.18.7.11.1		PST - Manufacturing of Plant	300 days	Sat 03/07/21	Thu 28/04/22	Sat 03/07/21	Thu 28/04/22	Sun 13/03/22	Fri 06/01/23	0 days	407	442										
442	442.5.18.7.11.2		PST - Factory Acceptance Test of Plant (to be witnessed by PM)	90 days	Fri 29/04/22	Wed 27/07/22	Fri 29/04/22	Wed 27/07/22	Sat 07/01/23	Thu 06/04/23	200 days	441	443										
443	443.5.18.7.11.3		PST - Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	Mon 13/02/23	Wed 29/03/23	Fri 07/04/23	Sun 21/05/23	16 days	442,44955-6474											
444	444.5.18.7.12		PLC System	405 days	Fri 11/03/22	Wed 19/04/23	Fri 11/03/22	Wed 19/04/23	Tue 12/04/22	Sun 21/05/23	32 days												
445	445.5.18.7.12.1		Manufacturing of Plant, PLC for PST	300 days	Fri 11/03/22	Wed 04/01/23	Fri 11/03/22	Wed 04/01/23	Tue 12/04/22	Sun 05/02/23	0 days	405	446										
446	446.5.18.7.12.2		Factory Acceptance Test of Plant, PLC for PST (To be witnessed by PM)	60 days	Thu 05/01/23	Sun 05/03/23	Thu 05/01/23	Sun 05/03/23	Mon 06/02/23	Thu 06/04/23	0 days	445	447										
447	447.5.18.7.12.3		Shipping and Delivery of Plant to site	45 days	Mon 06/03/23	Wed 19/04/23	Mon 06/03/23	Wed 19/04/23	Fri 07/04/23	Sun 21/05/23	0 days	446,44955-6475											
448	448.5.18.8		Site Installation Work	298 days	Fri 14/04/23	Mon 05/02/24	Fri 14/04/23	Mon 05/02/24	Fri 14/04/23	Mon 01/04/24	0 days												
449	449.5.18.8.1		Tentative Civil Handover Date, Portion B-3, PST No. 1~4 (Rev. 5)	1 day	Fri 14/04/23	Fri 14/04/23	Fri 14/04/23	Fri 14/04/23	Fri 14/04/23	Fri 14/04/23	0 days	452,487FS+90 days,450,4											
450	450.5.18.8.2		Commencement of E&M Installation at PST No. 1~4	297 days	Sat 15/04/23	Mon 05/02/24	Sat 15/04/23	Mon 05/02/24	Sat 15/04/23	Mon 01/04/24	0 days	449	403										
451	451.5.18.8.2.1		Provision of Temporary Water Supply, Electricity Supply, Lighting We	30 days	Sat 15/04/23	Sun 14/05/23	Sat 15/04/23	Sun 14/05/23	Sat 15/04/23	Sun 14/05/23	0 days	449											
452	452.5.18.8.2.2		Installation of Lifting Appliances at PST No. 1~4	127 days	Sat 15/04/23	Sat 19/08/23	Sat 15/04/23	Sat 19/08/23	Sun 04/06/23	Sun 08/10/23	50 days	449,439											
453	453.5.18.8.2.2.1		Basement EOT Crane LA-02-01 SWL 10t	30 days	Sat 15/04/23	Sun 14/05/23	Sat 15/04/23	Sun 14/05/23	Sun 04/06/23	Mon 03/07/23	0 days	454,455,459	LA - A x 4~6 men										
454	454.5.18.8.2.2.2		Coping Level EOT Crane LA-02-02 SWL 5t	30 days	Mon 15/05/23	Tue 13/06/23	Mon 15/05/23	Tue 13/06/23	Sat 02/09/23	Sun 01/10/23	60 days	453	459	LA - A x 4~6 men									
455	455.5.18.8.2.2.3		Coping Level EOT Crane LA-02-03 SWL 5t	30 days	Mon 15/05/23	Tue 13/06/23	Mon 15/05/23	Tue 13/06/23	Tue 04/07/23	Wed 02/08/23	0 days	453	456,457,459	LA - B x 4~6 men									
456	456.5.18.8.2.2.4		Coping Level EOT Crane LA-02-04 SWL 5t	30 days	Wed 14/06/23	Thu 13/07/23	Wed 14/06/23	Thu 13/07/23	Sat 02/09/23	Sun 01/10/23	30 days	455	459	LA - A x 4~6 men									
457	457.5.18.8.2.2.5		Coping Level EOT Crane LA-02-05 SWL 5t	30 days	Wed 14/06/23	Thu 13/07/23	Wed 14/06/23	Thu 13/07/23	Thu 03/08/23	Fri 01/09/23	0 days	455	458,459	LA - B									



ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names	2020 Half 1, 2020	Half 2, 2020	2021 Half 1, 2021	Half 2, 2021	2022 Half 1, 2022	Half 2, 2022	2023 Half 1, 2023	Half 2, 2023	2024 Half 1, 2024	
468	468 5.18.8.2.3.1	Installation of drain pumps (x1), EQT007	30 days	Sun 13/08/23	Mon 11/09/23	Sun 13/08/23	Mon 11/09/23	Sat 09/09/23	Sun 08/10/23	0 days	467,427	469	ME - C x 4~6 men										
469	469 5.18.8.2.3.1	Installation of air blowers (x2), EQT018	30 days	Tue 12/09/23	Wed 11/10/23	Tue 12/09/23	Wed 11/10/23	Mon 09/10/23	Tue 07/11/23	0 days	468,430	470	ME - C x 4~6 men										
470	470 5.18.8.2.3.1	Installation of Instrumentations, EQT035-1	60 days	Thu 12/10/23	Sun 10/12/23	Thu 12/10/23	Sun 10/12/23	Wed 08/11/23	Sat 06/01/24	27 days	469,52		ME - C x 4~6 men										
471	471 5.18.8.2.3.1	Installation of Platforms, Covers etc., PST, EQT050	60 days	Thu 21/09/23	Sun 19/11/23	Thu 21/09/23	Sun 19/11/23	Wed 08/11/23	Sat 06/01/24	48 days			ME - F x 4~6 men										
472	472 5.18.8.2.3.1	Site Acceptance Tests - mechanical aspects including alignment an	150 days	Fri 14/07/23	Sun 10/12/23	Fri 14/07/23	Sun 10/12/23	Thu 10/08/23	Sat 06/01/24	27 days	461		ME - D x 2~4 men										
473	473 5.18.8.2.4	Electrical Installations for PST No. 1~4	260 days	Sat 15/04/23	Sat 30/12/23	Sat 15/04/23	Sat 30/12/23	Sat 22/04/23	Sat 06/01/24	0 days	449	484											
474	474 5.18.8.2.4.1	Installation of LV Switchboards, PST	60 days	Sat 15/04/23	Tue 13/06/23	Sat 15/04/23	Tue 13/06/23	Mon 22/05/23	Thu 20/07/23	30 days	443	477	LV - A x 4~6 men										
475	475 5.18.8.2.4.1	Installation of PLC Panel, PST	60 days	Thu 20/04/23	Sun 18/06/23	Thu 20/04/23	Sun 18/06/23	Mon 22/05/23	Thu 20/07/23	25 days	447	477	EE - A x 4~6 men										
476	476 5.18.8.2.4.1	Installation of cable trays and cable containments, PST	90 days	Sat 15/04/23	Thu 13/07/23	Sat 15/04/23	Thu 13/07/23	Sat 22/04/23	Thu 20/07/23	0 days		477	EE - A x 4~6 men										
477	477 5.18.8.2.4.1	Cables laying and terminations, PST	90 days	Fri 14/07/23	Wed 11/10/23	Fri 14/07/23	Wed 11/10/23	Fri 21/07/23	Wed 18/10/23	0 days	474,475,476,479F5-30 days,482,480		EE - B x 4~6 men										
478	478 5.18.8.2.4.1	Tentative Civil Handover Date, LV cables draw pits from IW to PST	1 day	Thu 20/07/23	Thu 20/07/23	Thu 20/07/23	Thu 20/07/23	Thu 07/12/23	Thu 07/12/23	24 days		479FF+30 days											
479	479 5.18.8.2.4.1	Energisation of LV Switchboards, PST	1 day	Tue 12/09/23	Tue 12/09/23	Tue 12/09/23	Tue 12/09/23	Sat 06/01/24	Sat 06/01/24	109 days	477F5-30 da484		LV - A x 4~6 men										
480	480 5.18.8.2.4.1	Site Acceptance Tests - Electrical aspects including voltage and cur	80 days	Thu 12/10/23	Sat 30/12/23	Thu 12/10/23	Sat 30/12/23	Thu 19/10/23	Sat 06/01/24	2 days	477	355	LV - A x 4~6 men										
481	481 5.18.8.2.5	SCADA Systems, PST No. 1~4	60 days	Thu 12/10/23	Sun 10/12/23	Thu 12/10/23	Sun 10/12/23	Fri 08/12/23	Mon 05/02/24	57 days													
482	482 5.18.8.2.5.1	Configuration of PLC System	45 days	Thu 12/10/23	Sat 25/11/23	Thu 12/10/23	Sat 25/11/23	Fri 08/12/23	Sun 21/01/24	0 days	477	483	PLC - B x 1 man										
483	483 5.18.8.2.5.1	Site Acceptance Test for PLC System at PST No. 1~4	15 days	Sun 26/11/23	Sun 10/12/23	Sun 26/11/23	Sun 10/12/23	Mon 22/01/24	Mon 05/02/24	0 days	482	485FF,1282	PLC - A x 1 man										
484	484 5.18.8.2.6	Site Acceptance Test for E&M Equip and Instrumentations calibration	15 edays	Sat 30/12/23	Sun 14/01/24	Sat 30/12/23	Sun 14/01/24	Sun 07/01/24	Mon 22/01/24	0.63 edays	460,473,485												
485	485 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	Mon 15/01/24	Mon 29/01/24	Mon 22/01/24	Mon 05/02/24	0 days	484,483FF	486											
486	486 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	Mon 29/01/24	Mon 05/02/24	Tue 06/02/24	Tue 13/02/24	2.63 edays	485	1278											
487	487 5.18.8.2.9	Building Services Installations for PST No. 1~4	150 days	Fri 14/07/23	Sun 10/12/23	Fri 14/07/23	Sun 10/12/23	Sun 16/07/23	Mon 01/04/24	2 days	449F5+90 di												
488	488 5.18.8.2.9.1	Mechanical Ventilation and Air Conditioning System, PST	90 days	Fri 14/07/23	Wed 11/10/23	Fri 14/07/23	Wed 11/10/23	Sat 04/11/23	Thu 01/02/24	0 days		494	MVAC - B x 4~6 men										
489	489 5.18.8.2.9.1	Lighting and Power Distribution System, PST	90 days	Fri 14/07/23	Wed 11/10/23	Fri 14/07/23	Wed 11/10/23	Sat 04/11/23	Thu 01/02/24	0 days		494	BS - A x 4~6 men										
490	490 5.18.8.2.9.1	Plumbing Installation, PST	80 days	Fri 14/07/23	Sun 01/10/23	Fri 14/07/23	Sun 01/10/23	Sun 16/07/23	Tue 03/10/23	0 days	1249	1251,494	Pb - B x 4~6 men										
491	491 5.18.8.2.9.1	CCTV Installation (9 indoor + 2 outdoor Cameras), PST	60 days	Fri 14/07/23	Mon 11/09/23	Fri 14/07/23	Mon 11/09/23	Mon 04/12/23	Thu 01/02/24	0 days	449F5+60 d:494,1281		BS - B x 4~6 men										
492	492 5.18.8.2.9.1	Fire Services Installation, PST	85 days	Fri 14/07/23	Fri 06/10/23	Fri 14/07/23	Fri 06/10/23	Tue 18/07/23	Tue 10/10/23	0 days		1202,1214,1215,494	FS - A x 4~6 men										
493	493 5.18.8.2.9.1	Earthing and Lightning Protection System, PST	90 days	Fri 14/07/23	Wed 11/10/23	Fri 14/07/23	Wed 11/10/23	Sat 04/11/23	Thu 01/02/24	0 days		494	BS - C x 2~4 men										
494	494 5.18.8.2.9.1	Testing and Commissioning of Building Services Installations, PST	60 days	Thu 12/10/23	Sun 10/12/23	Thu 12/10/23	Sun 10/12/23	Fri 02/02/24	Mon 01/04/24	113 days	488,489,49C370FF		BS - C x 2~4 men										
495	495 5.19	Bioreactors No. 2A & 2B, Portion B-4 (PS 6B2.4)	1326 days	Sat 15/08/20	Mon 01/04/24	Sat 15/08/20	Mon 01/04/24	Sat 15/08/20	Mon 01/04/24	0 days													
496	496 5.19.1	Planned Key Date Completion Date - KD1A, BR 2A & 2B	0 days	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	0 days	530FF,531FF												
497	497 5.19.2	Planned Key Date Completion Date - KD1B, BR 2A & 2B	0 days	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	0 days	532FF												
498	498 5.19.3	Planned Sectional Completion Date - Section 1, BR 2A & 2B	0 days	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	0 days	533FF,534FF												
499	499 5.19.4	Planned Sectional Completion Date - Section 2, BR 2A & 2B	0 days	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	0 days	605FF,604FF												
500	500 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	Tue 01/09/20	Fri 12/03/21	Tue 01/09/20	Tue 22/06/21	102 days													
501	501 5.19.5.1	BR - pre-treatment fine screens (Marking Scheme Approach), EQT019	150 days	Tue 01/09/20	Thu 28/01/21	Tue 01/09/20	Thu 28/01/21	Tue 01/09/20	Thu 28/01/21	0 days													
502	502 5.19.5.1.1	Submission for acceptance of purchasing package	60 days	Tue 01/09/20	Fri 30/10/20	Tue 01/09/20	Fri 30/10/20	Tue 01/09/20	Fri 30/10/20	0 days		503											
503	503 5.19.5.1.2	Invitation of quotations for purchasing package	60 days	Sat 31/10/20	Tue 29/12/20	Sat 31/10/20	Tue 29/12/20	Sat 31/10/20	Tue 29/12/20	0 days	502	504											
504	504 5.19.5.1.3	Acceptance of conforming quotation (Completed)	30 days	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	0 days	503	533											
505	505 5.19.5.2	BR - air diffusion system (Marking Scheme Approach), EQT017	180 days	Tue 01/09/20	Sat 27/02/21	Tue 01/09/20	Sat 27/02/21	Tue 01/09/20	Sat 27/02/21	0 days													
506	506 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	Tue 01/09/20	Sun 29/11/20	Tue 01/09/20	Sun 29/11/20	0 days		507											
507	507 5.19.5.2.2	Invitation of quotations for purchasing package	60 days	Mon 30/11/20	Thu 28/01/21	Mon 30/11/20	Thu 28/01/21	Mon 30/11/20	Thu 28/01/21	0 days	506	508											
508	508 5.19.5.2.3	Acceptance of conforming quotation (Completed)	30 days	Fri 29/01/21	Sat 27/02/21	Fri 29/01/21	Sat 27/02/21	Fri 29/01/21	Sat 27/02/21	0 days	507	533											
509	509 5.19.5.3	BR - submersible mixers, C11, EQT020	150 days	Tue 01/09/20	Thu 28/01/21	Tue 01/09/20	Thu 28/01/21	Tue 01/09/20	Thu 28/01/21	0 days													
510	510 5.19.5.3.1	Submission for acceptance of purchasing package	60 days	Tue 01/09/20	Fri 30/10/20	Tue 01/09/20	Fri 30/10/20	Tue 01/09/20	Fri 30/10/20	0 days		511											
511	511 5.19.5.3.2	Invitation of quotations for purchasing package	60 days	Sat 31/10/20	Tue 29/12/20	Sat 31/10/20	Tue 29/12/20	Sat 31/10/20	Tue 29/12/20	0 days	510	512											
512	512 5.19.5.3.3	Acceptance of conforming quotation (Completed)	30 days	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	0 days	511	533											
513	513 5.19.5.4	BR - mixed liquor return pumps, C11, EQT008	150 days	Mon 14/09/20	Wed 10/02/21	Mon 14/09/20	Wed 10/02/21	Mon 14/09/20	Wed 10/02/21	0 days													
514	514 5.19.5.4.1	Submission for acceptance of purchasing package	60 days	Mon 14/09/20	Thu 12/11/20	Mon 14/09/20	Thu 12/11/20	Mon 14/09/20	Thu 12/11/20	0 days		515											
515	515 5.19.5.4.2	Invitation of quotations for purchasing package	60 days	Fri 13/11/20	Mon 11/01/21	Fri 13/11/20	Mon 11/01/21	Fri 13/11/20	Mon 11/01/21	0 days	514	516											
516	516 5.19.5.4.3	Acceptance of conforming quotation (Completed)	30 days	Tue 12/01/21	Wed 10/02/21	Tue 12/01/21	Wed 10/02/21	Tue 12/01/21	Wed 10/02/21	0 days	515												



ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names	2020 Half 1, 2020	2020 Half 2, 2020	2021 Half 1, 2021	2021 Half 2, 2021	2022 Half 1, 2022	2022 Half 2, 2022	2023 Half 1, 2023	2023 Half 2, 2023	2024 Half 1, 2024	
526	526.5.19.5.7.1	Submission for acceptance of purchasing package	60 days	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Wed 24/03/21	0 days		527											
527	527.5.19.5.7.2	Invitation of quotations for purchasing package	60 days	Mon 30/11/20	Thu 28/01/21	Mon 30/11/20	Thu 28/01/21	Thu 25/03/21	Sun 23/05/21	0 days	526	528											
528	528.5.19.5.7.3	Acceptance of conforming quotation	30 days	Fri 29/01/21	Sat 27/02/21	Fri 29/01/21	Sat 27/02/21	Mon 24/05/21	Tue 22/06/21	13 days	527	533											
529	529.5.19.6	Design Submissions for BR 2A & 2B	578 days	Sat 15/08/20	Tue 15/03/22	Sat 15/08/20	Tue 15/03/22	Sat 15/08/20	Tue 15/03/22	0 days													
530	530.5.19.6.1	Electrical schematic drawings for BR No. 2A & 2B	60 days	Sat 15/08/20	Tue 13/10/20	Sat 15/08/20	Tue 13/10/20	Sat 15/08/20	Tue 13/10/20	0 days		496FF											
531	531.5.19.6.2	CDS080-3 - Civil and dimensional requirements drawings for BR 2A&2B up to +	55 days	Tue 01/09/20	Sun 25/10/20	Tue 01/09/20	Sun 25/10/20	Tue 01/09/20	Sun 25/10/20	0 days		496FF											
532	532.5.19.6.3	CDS081-3 - Civil and dimensional requirements drawings for BR 2A & 2B	281 days	Fri 28/08/20	Fri 04/06/21	Fri 28/08/20	Fri 04/06/21	Fri 28/08/20	Fri 04/06/21	0 days		497FF											
533	533.5.19.6.4	CDS004 - Detailed Design for Bioreactor 2A and 2B	120 edays	Fri 12/03/21	Sat 10/07/21	Fri 12/03/21	Sat 10/07/21	Fri 12/03/21	Mon 12/07/21	0.63 edays	504,508,511,540,543,546,549,552,555												
534	534.5.19.6.5	CDS023 - Detailed Design for Electrical Installations for BR No. 2A & 2B	159.38 edays	Thu 07/10/21	Tue 15/03/22	Thu 07/10/21	Tue 15/03/22	Thu 07/10/21	Tue 15/03/22	0 edays	75,85,93,19-76,498FF,707												
535	535.5.19.6.6	CDS034-3 - Detailed Design for Electrical Installations BS at BR No. 2A & 2B	100 edays	Fri 12/03/21	Sun 20/06/21	Fri 12/03/21	Sun 20/06/21	Fri 12/03/21	Mon 12/07/21	22.38 edays	140	599,498FF,600											
536	536.5.19.6.7	CDS025-3 - Detailed Design for LV Switchboards for BR 2A and 2B	60 edays	Mon 03/05/21	Fri 02/07/21	Mon 03/05/21	Fri 02/07/21	Mon 03/05/21	Mon 12/07/21	0.63 edays	71	693,498FF											
537	537.5.19.6.8	CDS050-3 - Detailed Design for Lifting Appliances - BR 2A & 2B	120 edays	Thu 01/10/20	Fri 29/01/21	Thu 01/10/20	Fri 29/01/21	Thu 01/10/20	Fri 29/01/21	0 edays	120	567,498FF											
538	538.5.19.7	Manufacturing and Delivery of Plant & Materials	740 days	Fri 29/01/21	Tue 07/02/23	Fri 29/01/21	Tue 07/02/23	Wed 01/06/22	Mon 23/10/23	258 days													
539	539.5.19.7.1	Pre-treatment Fine Screens, EQT019	577 days	Sun 11/07/21	Tue 07/02/23	Sun 11/07/21	Tue 07/02/23	Mon 31/10/22	Fri 11/08/23	185 days													
540	540.5.19.7.1.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sun 11/07/21	Mon 07/03/22	Sun 11/07/21	Mon 07/03/22	Mon 31/10/22	Tue 27/06/23	292 days	533	541											
541	541.5.19.7.1.2	Shipping and Delivery of Plant to site	45 days	Sun 25/12/22	Tue 07/02/23	Sun 25/12/22	Tue 07/02/23	Wed 28/06/23	Fri 11/08/23	16 days	540,570SS-6583												
542	542.5.19.7.2	Air Diffusion System, EQT017	577 days	Sun 11/07/21	Tue 07/02/23	Sun 11/07/21	Tue 07/02/23	Fri 14/10/22	Tue 25/07/23	168 days													
543	543.5.19.7.2.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sun 11/07/21	Mon 07/03/22	Sun 11/07/21	Mon 07/03/22	Fri 14/10/22	Sat 10/06/23	292 days	533	544											
544	544.5.19.7.2.2	Shipping and Delivery of Plant to site	45 days	Sun 25/12/22	Tue 07/02/23	Sun 25/12/22	Tue 07/02/23	Sun 11/06/23	Tue 25/07/23	83 days	543,570SS-6584												
545	545.5.19.7.3	Submersible Mixer, EQT020	577 days	Sun 11/07/21	Tue 07/02/23	Sun 11/07/21	Tue 07/02/23	Mon 28/11/22	Fri 08/09/23	213 days													
546	546.5.19.7.3.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sun 11/07/21	Mon 07/03/22	Sun 11/07/21	Mon 07/03/22	Mon 28/11/22	Tue 25/07/23	292 days	533	547											
547	547.5.19.7.3.2	Shipping and Delivery of Plant to site	45 days	Sun 25/12/22	Tue 07/02/23	Sun 25/12/22	Tue 07/02/23	Wed 26/07/23	Fri 08/09/23	44 days	546,570SS-6585												
548	548.5.19.7.4	Mixed Liquor Return Pumps, EQT008	577 days	Sun 11/07/21	Tue 07/02/23	Sun 11/07/21	Tue 07/02/23	Tue 13/12/22	Sat 23/09/23	228 days													
549	549.5.19.7.4.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sun 11/07/21	Mon 07/03/22	Sun 11/07/21	Mon 07/03/22	Tue 13/12/22	Wed 09/08/23	292 days	533	550											
550	550.5.19.7.4.2	Shipping and Delivery of Plant to site	45 days	Sun 25/12/22	Tue 07/02/23	Sun 25/12/22	Tue 07/02/23	Thu 10/08/23	Sat 23/09/23	16 days	549,570SS-6586												
551	551.5.19.7.5	Sum Removal System, EQT021, EQT022	577 days	Sun 11/07/21	Tue 07/02/23	Sun 11/07/21	Tue 07/02/23	Thu 12/01/23	Mon 23/10/23	258 days													
552	552.5.19.7.5.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sun 11/07/21	Mon 07/03/22	Sun 11/07/21	Mon 07/03/22	Thu 12/01/23	Fri 08/09/23	292 days	533	553											
553	553.5.19.7.5.2	Shipping and Delivery of Plant to site	45 days	Sun 25/12/22	Tue 07/02/23	Sun 25/12/22	Tue 07/02/23	Sat 09/09/23	Mon 23/10/23	46 days	552,570SS-6587												
554	554.5.19.7.6	Aeration Blowers, EQT039	577 days	Sun 11/07/21	Tue 07/02/23	Sun 11/07/21	Tue 07/02/23	Thu 12/01/23	Mon 23/10/23	258 days													
555	555.5.19.7.6.1	Manufacturing and Factory Acceptance Test of Plant (to be witness	240 days	Sun 11/07/21	Mon 07/03/22	Sun 11/07/21	Mon 07/03/22	Thu 12/01/23	Fri 08/09/23	292 days	533	556											
556	556.5.19.7.6.2	Shipping and Delivery of Plant to site	45 days	Sun 25/12/22	Tue 07/02/23	Sun 25/12/22	Tue 07/02/23	Sat 09/09/23	Mon 23/10/23	173 days	555,570SS-6588												
557	557.5.19.7.7	Instrumentations, EQT035-2	577 days	Sun 11/07/21	Tue 07/02/23	Sun 11/07/21	Tue 07/02/23	Wed 28/12/22	Sun 08/10/23	243 days													
558	558.5.19.7.7.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sun 11/07/21	Mon 07/03/22	Sun 11/07/21	Mon 07/03/22	Wed 28/12/22	Thu 24/08/23	292 days	533	559											
559	559.5.19.7.7.2	Shipping and Delivery of Plant to site	45 days	Sun 25/12/22	Tue 07/02/23	Sun 25/12/22	Tue 07/02/23	Fri 25/08/23	Sun 08/10/23	166 days	558,570SS-6589												
560	560.5.19.7.8	Stoplogs and Penstocks, EQT013	577 days	Sun 11/07/21	Tue 07/02/23	Sun 11/07/21	Tue 07/02/23	Wed 01/06/22	Sun 12/03/23	33 days													
561	561.5.19.7.8.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sun 11/07/21	Mon 07/03/22	Sun 11/07/21	Mon 07/03/22	Wed 01/06/22	Thu 26/01/23	292 days	533	562											
562	562.5.19.7.8.2	Shipping and Delivery of Plant to site	45 days	Sun 25/12/22	Tue 07/02/23	Sun 25/12/22	Tue 07/02/23	Fri 27/01/23	Sun 12/03/23	16 days	561,570SS-6581												
563	563.5.19.7.9	Pipework, Valves and Electric Actuators, EQT036, EQT042 (Rev. 11)	359 days	Mon 14/02/22	Tue 07/02/23	Mon 14/02/22	Tue 07/02/23	Sun 31/07/22	Thu 11/05/23	93 days	56,63												
564	564.5.19.7.9.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Mon 14/02/22	Tue 11/10/22	Mon 14/02/22	Tue 11/10/22	Sun 31/07/22	Mon 27/03/23	74 days	533	565											
565	565.5.19.7.9.2	Shipping and Delivery of Plant to site	45 days	Sun 25/12/22	Tue 07/02/23	Sun 25/12/22	Tue 07/02/23	Tue 28/03/23	Thu 11/05/23	16 days	564,570SS-6582												
566	566.5.19.7.10	Lifting Appliances	740 days	Fri 29/01/21	Tue 07/02/23	Fri 29/01/21	Tue 07/02/23	Wed 07/09/22	Fri 19/05/23	101 days													
567	567.5.19.7.10.1	Manufacturing and Factory Acceptance Test of Plant	210 days	Fri 29/01/21	Thu 26/08/21	Fri 29/01/21	Thu 26/08/21	Wed 07/09/22	Tue 04/04/23	485 days	537	568											
568	568.5.19.7.10.2	Shipping and Delivery of Plant to site	45 days	Sun 25/12/22	Tue 07/02/23	Sun 25/12/22	Tue 07/02/23	Wed 05/04/23	Fri 19/05/23	16 days	567,570SS-6574												
569	569.5.19.8	Site Installation Work	348 days	Thu 23/02/23	Mon 05/02/24	Thu 23/02/23	Mon 05/02/24	Thu 23/02/23	Mon 01/04/24	0 days													
570	570.5.19.8.1	Tentative Civil Handover Date, Portion B-4, BR2A & 2B (Rev. 5)	1 day	Thu 23/02/23	Thu 23/02/23	Thu 23/02/23	Thu 23/02/23	Thu 23/02/23	Thu 23/02/23	0 days		574,580,591,599FS+90 ec											
571	571.5.19.8.2	Tentative Civil Handover Date, LV cables draw pits from MF82 to BR2	1 day	Thu 01/06/23	Thu 01/06/23	Thu 01/06/23	Thu 01/06/23	Tue 07/11/23	Tue 07/11/23	30 days		594FF+30 days											
572	572.5.19.8.3	Commencement of E&M Installation at Bioreactor No. 2A & 2B	347 days	Fri 24/02/23	Mon 05/02/24	Fri 24/02/23	Mon 05/02/24	Fri 24/02/23	Mon 01/04/24	0 days	570												
573	573.5.19.8.3.1	Provision of Temporary Water Supply, Electricity Supply, Lighting, W	7 days	Fri 24/02/23	Thu 02/03/23	Fri 24/02/23	Thu 02/03/23	Fri 24/02/23	Thu 02/03/23	0 days	570												
574	574.5.19.8.3.2	Installation of Lifting Appliances at BR 2A & 2B	67 days	Fri 24/02/23	Mon 01/05/23	Fri 24/02/23	Mon 01/05/23	Sat 20/05/23	Tue 25/07/23	85 days	570,568												
575	575.5.19.8.3.2.1	Coping Level EOT Crane LA-03-01 SWL 5t	30 days	Fri 24/02/23	Sat 25/03/23	Fri 24/02/23	Sat 25/03/23	Sat 20/05/23	Sun 18/06/23	0 days		577,578,579	LA - A x										



ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names	2020 Half 1, 2020	2020 Half 2, 2020	2021 Half 1, 2021	2021 Half 2, 2021	2022 Half 1, 2022	2022 Half 2, 2022	2023 Half 1, 2023	2023 Half 2, 2023	2024 Half 1, 2024
585	585.5.19.8.3.3.1	Installation of submersible mixers (x16), EQT020	90 days	Fri 24/03/23	Wed 21/06/23	Fri 24/03/23	Wed 21/06/23	Sat 09/09/23	Thu 07/12/23	162 days	583,547	596	ME - B x 4~6 men									
586	585.5.19.8.3.3.1	Installation of mixed liquor return pumps (x6), EQT008	30 days	Fri 24/02/23	Sat 25/03/23	Fri 24/02/23	Sat 25/03/23	Sun 24/09/23	Mon 23/10/23	0 days	550	587	ME - A x 4~6 men									
587	585.5.19.8.3.3.1	Installation of scum removal systems (x2), EQT022	45 days	Sun 26/03/23	Tue 09/05/23	Sun 26/03/23	Tue 09/05/23	Tue 24/10/23	Thu 07/12/23	205 days	586,553	596	ME - B x 4~6 men									
588	585.5.19.8.3.3.1	Installation of aeration blowers (x4), EQT039	45 days	Mon 31/07/23	Wed 13/09/23	Mon 31/07/23	Wed 13/09/23	Tue 24/10/23	Thu 07/12/23	78 days	584,556	596	ME - D x 2~4 men									
589	585.5.19.8.3.3.1	Installation of Instrumentations, EQT035-2	60 days	Mon 24/07/23	Thu 21/09/23	Mon 24/07/23	Thu 21/09/23	Mon 09/10/23	Thu 07/12/23	70 days	582,559	596	ME - D x 2~4 men									
590	590.5.19.8.3.3.1	Site Acceptance Tests - mechanical aspects including alignment an	180 days	Thu 25/05/23	Mon 20/11/23	Thu 25/05/23	Mon 20/11/23	Sun 11/06/23	Thu 07/12/23	10 days	581	596	ME - D x 2~4 men									
591	591.5.19.8.3.4	Electrical Installations for E&M Equip at BR 2A & 2B	280 days	Fri 24/02/23	Thu 30/11/23	Fri 24/02/23	Thu 30/11/23	Mon 27/03/23	Sat 06/01/24	0 days	570	596										
592	592.5.19.8.3.4.1	Installation of cable trays and cable containments	120 days	Fri 24/02/23	Fri 23/06/23	Fri 24/02/23	Fri 23/06/23	Mon 27/03/23	Mon 24/07/23	0 days	570	593	EE - A x 4~6 men									
593	593.5.19.8.3.4.1	Cables laying and terminations	100 days	Sat 24/06/23	Sun 01/10/23	Sat 24/06/23	Sun 01/10/23	Tue 25/07/23	Wed 01/11/23	0 days	592	595,768	EE - C x 4~6 men									
594	594.5.19.8.3.4.1	Energisation of LV Switchboards, BR2	1 day	Mon 31/07/23	Mon 31/07/23	Mon 31/07/23	Mon 31/07/23	Thu 07/12/23	Thu 07/12/23	122 days	571FF+30 d	596	LV - A x 4~6 men									
595	595.5.19.8.3.4.1	Site Acceptance Tests - Electrical aspects including voltage and cur	60 days	Mon 02/10/23	Thu 30/11/23	Mon 02/10/23	Thu 30/11/23	Wed 08/11/23	Sat 06/01/24	32 days	593	355	LV - A x 4~6 men									
596	596.5.19.8.3.5	Site Acceptance Test for E&M Equip at BR 2A & 2B	30 edays	Thu 30/11/23	Sat 30/12/23	Thu 30/11/23	Sat 30/12/23	Fri 08/12/23	Sun 07/01/24	0.63 edays	580,585,587	597										
597	597.5.19.8.3.6	System Commissioning for E&M Equip at BR 2A & 2B	30 days	Sun 31/12/23	Mon 29/01/24	Sun 31/12/23	Mon 29/01/24	Sun 07/01/24	Mon 05/02/24	0 days	596,770	598										
598	598.5.19.8.3.7	Risk Allowances for Completion of Processing Plant at BR 2A & 2B	7 edays	Mon 29/01/24	Mon 05/02/24	Mon 29/01/24	Mon 05/02/24	Tue 06/02/24	Tue 13/02/24	2.63 edays	597	1278										
599	599.5.19.8.3.8	Building Services Installations for BR 2A & 2B	195 days	Thu 25/05/23	Tue 05/12/23	Thu 25/05/23	Tue 05/12/23	Tue 06/06/23	Mon 01/04/24	12 days	570FS+90 et											
600	600.5.19.8.3.8.1	Lighting and Power Distribution System, BR2	150 days	Thu 25/05/23	Sat 21/10/23	Thu 25/05/23	Sat 21/10/23	Wed 20/09/23	Fri 16/02/24	0 days	535	605	BS - A x 4~6 men									
601	601.5.19.8.3.8.1	Plumbing Installation, BR2	120 days	Thu 25/05/23	Thu 21/09/23	Thu 25/05/23	Thu 21/09/23	Tue 06/06/23	Tue 03/10/23	10 days	1249	1251,605	Pb - A x 4~6 men									
602	602.5.19.8.3.8.1	CCTV Installation (7 indoor + 2 outdoor Cameras), BR2	60 days	Sat 24/06/23	Tue 22/08/23	Sat 24/06/23	Tue 22/08/23	Fri 19/12/23	Fri 16/02/24	20 days	570FS+120	605,1281	BS - B x 4~6 men									
603	603.5.19.8.3.8.1	Fire Services Installation, BR2	120 days	Thu 25/05/23	Thu 21/09/23	Thu 25/05/23	Thu 21/09/23	Tue 13/06/23	Tue 10/10/23	15 days		1202,1214,1215,605	FS - B x 4~6 men									
604	604.5.19.8.3.8.1	Lightning Protection System, BR2	60 days	Thu 25/05/23	Sun 23/07/23	Thu 25/05/23	Sun 23/07/23	Fri 02/02/24	Mon 01/04/24	253 days	499FF		BS - C x 2~4 men									
605	605.5.19.8.3.8.1	Testing and Commissioning of Building Services Installations, BR2	45 days	Sun 22/10/23	Tue 05/12/23	Sun 22/10/23	Tue 05/12/23	Sat 17/02/24	Mon 01/04/24	118 days	600,601,607	499FF	BS - C x 2~4 men									
606	606.5.20	Membrane Facilities Building, Portion B-5 (PS 6B.2.4)	1320 days	Fri 21/08/20	Mon 01/04/24	Fri 21/08/20	Mon 01/04/24	Fri 21/08/20	Mon 01/04/24	0 days												
607	607.5.20.1	Planned Key Date Completion Date - KD1A, MFB No. 2	0 days	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	0 days	653FF,654FF											
608	608.5.20.2	Planned Key Date Completion Date - KD1B, MFB No. 2	0 days	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	0 days	655FF											
609	609.5.20.3	Planned Sectional Completion Date - Section 1, MFB No. 2	0 days	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	0 days	656FF,657FF											
610	610.5.20.4	Planned Sectional Completion Date - Section 2, MFB No. 2	0 days	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	0 days												
611	611.5.20.5	Selection of Suppliers for major plant and materials for MFB	224 days	Tue 01/09/20	Mon 12/04/21	Tue 01/09/20	Mon 12/04/21	Tue 01/09/20	Tue 15/06/21	64 days												
612	612.5.20.5.1	MFS - hollow fibre membrane modules (Marking Scheme Approach), ref. EQT023	150 days	Tue 01/09/20	Thu 28/01/21	Tue 01/09/20	Thu 28/01/21	Tue 01/09/20	Thu 28/01/21	0 days												
613	613.5.20.5.1.1	Submission for acceptance of purchasing package including proposed marking scheme	60 days	Tue 01/09/20	Fri 30/10/20	Tue 01/09/20	Fri 30/10/20	Tue 01/09/20	Fri 30/10/20	0 days		614										
614	614.5.20.5.1.2	Invitation of quotations for purchasing package	60 days	Sat 31/10/20	Tue 29/12/20	Sat 31/10/20	Tue 29/12/20	Sat 31/10/20	Tue 29/12/20	0 days	613	615										
615	615.5.20.5.1.3	Acceptance of conforming quotation (Completed)	30 days	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	0 days	614	616										
616	616.5.20.5.2	MFS - air scour blowers, C11, ref. EQT040	150 days	Tue 01/09/20	Thu 28/01/21	Tue 01/09/20	Thu 28/01/21	Tue 01/09/20	Thu 28/01/21	0 days												
617	617.5.20.5.2.1	Submission for acceptance of purchasing package	60 days	Tue 01/09/20	Fri 30/10/20	Tue 01/09/20	Fri 30/10/20	Tue 01/09/20	Fri 30/10/20	0 days		618										
618	618.5.20.5.2.2	Invitation of quotations for purchasing package	60 days	Sat 31/10/20	Tue 29/12/20	Sat 31/10/20	Tue 29/12/20	Sat 31/10/20	Tue 29/12/20	0 days	617	619										
619	619.5.20.5.2.3	Acceptance of conforming quotation (Completed)	30 days	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	0 days	618	618										
620	620.5.20.5.3	MFS - permeate pumps, C11, ref. EQT024	180 days	Tue 01/09/20	Sat 27/02/21	Tue 01/09/20	Sat 27/02/21	Tue 01/09/20	Sat 27/02/21	0 days												
621	621.5.20.5.3.1	Submission for acceptance of purchasing package	90 days	Tue 01/09/20	Sun 29/11/20	Tue 01/09/20	Sun 29/11/20	Tue 01/09/20	Sun 29/11/20	0 days		622										
622	622.5.20.5.3.2	Invitation of quotations for purchasing package	60 days	Mon 30/11/20	Thu 28/01/21	Mon 30/11/20	Thu 28/01/21	Mon 30/11/20	Thu 28/01/21	0 days	621	623										
623	623.5.20.5.3.3	Acceptance of conforming quotation (Completed)	30 days	Fri 29/01/21	Sat 27/02/21	Fri 29/01/21	Sat 27/02/21	Fri 29/01/21	Sat 27/02/21	0 days	622	618										
624	624.5.20.5.4	MFS - compressed air system, C11, ref. EQT029	120 days	Tue 15/09/20	Tue 12/01/21	Tue 15/09/20	Tue 12/01/21	Tue 15/09/20	Tue 12/01/21	0 days												
625	625.5.20.5.4.1	Submission for acceptance of purchasing package	60 days	Tue 15/09/20	Fri 13/11/20	Tue 15/09/20	Fri 13/11/20	Tue 15/09/20	Fri 13/11/20	0 days		626										
626	626.5.20.5.4.2	Invitation of quotations for purchasing package	30 days	Sat 14/11/20	Sun 13/12/20	Sat 14/11/20	Sun 13/12/20	Sat 14/11/20	Sun 13/12/20	0 days	625	627										
627	627.5.20.5.4.3	Acceptance of conforming quotation (Completed)	30 days	Mon 14/12/20	Tue 12/01/21	Mon 14/12/20	Tue 12/01/21	Mon 14/12/20	Tue 12/01/21	0 days	626	618										
628	628.5.20.5.5	MFS - chemical storage tanks, C11, ref. EQT025	120 days	Thu 01/10/20	Thu 28/01/21	Thu 01/10/20	Thu 28/01/21	Thu 01/10/20	Thu 28/01/21	0 days												
629	629.5.20.5.5.1	Submission for acceptance of purchasing package	60 days	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	0 days		630										
630	630.5.20.5.5.2	Invitation of quotations for purchasing package	30 days	Mon 30/11/20	Tue 29/12/20	Mon 30/11/20	Tue 29/12/20	Mon 30/11/20	Tue 29/12/20	0 days	629	631										
631	631.5.20.5.5.3	Acceptance of conforming quotation (Completed)	30 days	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	0 days	630	618										
632	632.5.20.5.6	MFS - chemical dosing pumps, C11, ref. EQT026	120 days	Thu 01/10/20	Thu 28/01/21	Thu 01/10/20	Thu 28/01/21	Thu 01/10/20	Thu 28/01/21	0 days												
633	633.5.20.5.6.1	Submission for acceptance of purchasing package	60 days	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	0 days	2,30	634										
634	634.5.20.5.6.2	Invitation of quotations for purchasing package	30 days	Mon 30/11/20	Tue 29/12/20	Mon 30/11/20	Tue 29/12/20	Mon 30/11/20	Tue 29/12/20	0 days	633	635										



ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names	2020 Half 1, 2020	2020 Half 2, 2020	2021 Half 1, 2021	2021 Half 2, 2021	2022 Half 1, 2022	2022 Half 2, 2022	2023 Half 1, 2023	2023 Half 2, 2023	2024 Half 1, 2024	
642	642.5.20.5.8.2	Invitation of quotations for purchasing package	60 days	Mon 14/12/20	Thu 11/02/21	Mon 14/12/20	Thu 11/02/21	Mon 14/12/20	Thu 11/02/21	0 days	641	643											
643	643.5.20.5.8.3	Acceptance of conforming quotation (Completed)	30 days	Fri 12/02/21	Sat 13/03/21	Fri 12/02/21	Sat 13/03/21	Fri 12/02/21	Sat 13/03/21	0 days	642	656											
644	644.5.20.5.9	Plant Service Water System - booster pumps, C11, ref. EQT030	180 days	Thu 15/10/20	Mon 12/04/21	Thu 15/10/20	Mon 12/04/21	Thu 15/10/20	Mon 12/04/21	0 days													
645	645.5.20.5.9.1	Submission for acceptance of purchasing package	90 days	Thu 15/10/20	Tue 12/01/21	Thu 15/10/20	Tue 12/01/21	Thu 15/10/20	Tue 12/01/21	0 days		646											
646	646.5.20.5.9.2	Invitation of quotations for purchasing package	60 days	Wed 13/01/21	Sat 13/03/21	Wed 13/01/21	Sat 13/03/21	Wed 13/01/21	Sat 13/03/21	0 days	645	647											
647	647.5.20.5.9.3	Acceptance of conforming quotation (Completed)	30 days	Sun 14/03/21	Mon 12/04/21	Sun 14/03/21	Mon 12/04/21	Sun 14/03/21	Mon 12/04/21	0 days	646	656											
648	648.5.20.5.10	Plant Service Water System - hydro-pneumatic pressure tanks, C11, ref. EQT030	120 days	Thu 01/10/20	Thu 28/01/21	Thu 01/10/20	Thu 28/01/21	Thu 01/10/20	Thu 28/01/21	138 days													
649	649.5.20.5.10.1	Submission for acceptance of purchasing package	60 days	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Fri 16/04/21	0 days		650											
650	650.5.20.5.10.2	Invitation of quotations for purchasing package	30 days	Mon 30/11/20	Tue 29/12/20	Mon 30/11/20	Tue 29/12/20	Sat 17/04/21	Sun 16/05/21	0 days	649	651											
651	651.5.20.5.10.3	Acceptance of conforming quotation	30 days	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	Mon 17/05/21	Tue 15/06/21	74 days	650	656											
652	652.5.20.6	Design Submissions for MFB No. 2	572 days	Fri 21/08/20	Tue 15/03/22	Fri 21/08/20	Tue 15/03/22	Fri 21/08/20	Tue 15/03/22	0 days													
653	653.5.20.6.1	Electrical schematic drawings for MFB No. 2	60 days	Fri 21/08/20	Mon 19/10/20	Fri 21/08/20	Mon 19/10/20	Fri 21/08/20	Mon 19/10/20	0 days		607FF											
654	654.5.20.6.2	CDS080-4 - Civil and dimensional requirements drawings for MFB no. 2 up to +	30 days	Tue 01/09/20	Wed 30/09/20	Tue 01/09/20	Wed 30/09/20	Tue 01/09/20	Wed 30/09/20	0 days		607FF											
655	655.5.20.6.3	CDS081-4 - Civil and dimensional requirements drawings for MFB No. 2	210 days	Fri 28/08/20	Thu 25/03/21	Fri 28/08/20	Thu 25/03/21	Fri 28/08/20	Thu 25/03/21	0 days		608FF											
656	656.5.20.6.4	CDS005 - Detailed Design for Membrane Filtration System, Pumps and	80 edays	Mon 12/04/21	Thu 01/07/21	Mon 12/04/21	Thu 01/07/21	Mon 12/04/21	Mon 12/07/21	0.63 edays	615,623,635,665,669,672,675,684,687												
657	657.5.20.6.5	CDS024 - Detailed Design for Electrical Installations for MFB No. 2	159.38 edays	Thu 07/10/21	Tue 15/03/22	Thu 07/10/21	Tue 15/03/22	Thu 07/10/21	Tue 15/03/22	0 edays	75,85,81,89,76,704,710,609FF												
658	658.5.20.6.6	CDS008 - Detailed Design for Membrane Filtration System, Air Blowers,	100 edays	Mon 01/03/21	Wed 09/06/21	Mon 01/03/21	Wed 09/06/21	Mon 01/03/21	Mon 12/07/21	0.63 edays	619,627,631,678,681,609FF												
659	659.5.20.6.7	CDS034-4 - Detailed Design for Electrical Installations BS at MFB No. 2	100 edays	Fri 12/03/21	Sun 20/06/21	Fri 12/03/21	Sun 20/06/21	Fri 12/03/21	Mon 12/07/21	22.38 edays	140	775,609FF											
660	660.5.20.6.8	CDS025-4 - Detailed Design for LV Switchboards for Membrane Filtratic	60 edays	Mon 03/05/21	Fri 02/07/21	Mon 03/05/21	Fri 02/07/21	Mon 03/05/21	Mon 12/07/21	0.63 edays	71	696,609FF											
661	661.5.20.6.9	CDS026-2 - Detailed Design for HV Switchboards for MFB No. 2	60 edays	Sun 18/04/21	Thu 17/06/21	Sun 18/04/21	Thu 17/06/21	Sun 18/04/21	Mon 12/07/21	0.63 edays	67	609FF,700											
662	662.5.20.6.10	CDS050-4 - Detailed Design for Lifting Appliances - MFB No. 2	150 edays	Thu 15/10/20	Sun 14/03/21	Thu 15/10/20	Sun 14/03/21	Thu 15/10/20	Sun 14/03/21	0 edays	120	690,609FF											
663	663.5.20.7	Manufacturing and Delivery of Plant & Materials	652 days	Sun 14/03/21	Sun 25/12/22	Sun 14/03/21	Sun 25/12/22	Fri 02/07/21	Thu 24/08/23	242 days													
664	664.5.20.7.1	Hollow Fibre Membrane Modules, EQT023	385 days	Fri 02/07/21	Thu 21/07/22	Fri 02/07/21	Thu 21/07/22	Fri 02/07/21	Sat 28/01/23	191 days													
665	665.5.20.7.1.1	MFS - Manufacturing of Plant	300 days	Fri 02/07/21	Wed 27/04/22	Fri 02/07/21	Wed 27/04/22	Fri 02/07/21	Fri 04/11/22	0 days	656	666											
666	666.5.20.7.1.2	MFS - Factory Acceptance Test of Plant (to be witnessed by PM)	40 days	Thu 28/04/22	Mon 06/06/22	Thu 28/04/22	Mon 06/06/22	Sat 05/11/22	Wed 14/12/22	0 days	665	667											
667	667.5.20.7.1.3	MFS - Shipping and Delivery of Plant to site	45 days	Tue 07/06/22	Thu 21/07/22	Tue 07/06/22	Thu 21/07/22	Thu 15/12/22	Sat 28/01/23	0 days	666	725											
668	668.5.20.7.2	Air Scour Blowers, EQT040	396 days	Fri 02/07/21	Mon 01/08/22	Fri 02/07/21	Mon 01/08/22	Tue 17/05/22	Sat 25/02/23	208 days													
669	669.5.20.7.2.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Fri 02/07/21	Sat 26/02/22	Fri 02/07/21	Sat 26/02/22	Tue 17/05/22	Wed 11/01/23	111 days	656	670											
670	670.5.20.7.2.2	Shipping and Delivery of Plant to site	45 days	Sat 18/06/22	Mon 01/08/22	Sat 18/06/22	Mon 01/08/22	Thu 12/01/23	Sat 25/02/23	0 days	669,737SS-6726												
671	671.5.20.7.3	Permeate Pump, EQT024	285 days	Fri 02/07/21	Tue 12/04/22	Fri 02/07/21	Tue 12/04/22	Mon 15/08/22	Fri 26/05/23	409 days													
672	672.5.20.7.3.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Fri 02/07/21	Sat 26/02/22	Fri 02/07/21	Sat 26/02/22	Mon 15/08/22	Tue 11/04/23	0 days	656	673											
673	673.5.20.7.3.2	Shipping and Delivery of Plant to site	45 days	Sun 27/02/22	Tue 12/04/22	Sun 27/02/22	Tue 12/04/22	Wed 12/04/23	Fri 26/05/23	201 days	672	727											
674	674.5.20.7.4	Compressed Air System, EQT029	396 days	Fri 02/07/21	Mon 01/08/22	Fri 02/07/21	Mon 01/08/22	Thu 16/06/22	Sat 25/02/23	208 days													
675	675.5.20.7.4.1	Manufacturing and Factory Acceptance Test of Plant	210 days	Fri 02/07/21	Thu 27/01/22	Fri 02/07/21	Thu 27/01/22	Thu 16/06/22	Wed 11/01/23	141 days	656	676											
676	676.5.20.7.4.2	Shipping and Delivery of Plant to site	45 days	Sat 18/06/22	Mon 01/08/22	Sat 18/06/22	Mon 01/08/22	Thu 12/01/23	Sat 25/02/23	0 days	675,737SS-6726												
677	677.5.20.7.5	Chemical Storage Tanks, EQT025	225 days	Thu 10/06/21	Thu 20/01/22	Thu 10/06/21	Thu 20/01/22	Mon 18/07/22	Mon 27/02/23	403 days													
678	678.5.20.7.5.1	Manufacturing and Factory Acceptance Test of Plant	180 days	Thu 10/06/21	Mon 06/12/21	Thu 10/06/21	Mon 06/12/21	Mon 18/07/22	Fri 13/01/23	0 days	658	679											
679	679.5.20.7.5.2	Shipping and Delivery of Plant to site	45 days	Tue 07/12/21	Thu 20/01/22	Tue 07/12/21	Thu 20/01/22	Sat 14/01/23	Mon 27/02/23	104 days	678	731											
680	680.5.20.7.6	Chemical Dosing Pumps, EQT026	225 days	Thu 10/06/21	Thu 20/01/22	Thu 10/06/21	Thu 20/01/22	Mon 18/07/22	Mon 27/02/23	403 days													
681	681.5.20.7.6.1	Manufacturing and Factory Acceptance Test of Plant	180 days	Thu 10/06/21	Mon 06/12/21	Thu 10/06/21	Mon 06/12/21	Mon 18/07/22	Fri 13/01/23	0 days	658	682											
682	682.5.20.7.6.2	Shipping and Delivery of Plant to site	45 days	Tue 07/12/21	Thu 20/01/22	Tue 07/12/21	Thu 20/01/22	Sat 14/01/23	Mon 27/02/23	104 days	681	732											
683	683.5.20.7.7	Stoplogs and Penstocks, EQT013	396 days	Fri 02/07/21	Mon 01/08/22	Fri 02/07/21	Mon 01/08/22	Tue 17/05/22	Sat 25/02/23	208 days													
684	684.5.20.7.7.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Fri 02/07/21	Sat 26/02/22	Fri 02/07/21	Sat 26/02/22	Tue 17/05/22	Wed 11/01/23	111 days	656	685											
685	685.5.20.7.7.2	Shipping and Delivery of Plant to site	45 days	Sat 18/06/22	Mon 01/08/22	Sat 18/06/22	Mon 01/08/22	Thu 12/01/23	Sat 25/02/23	0 days	684,737SS-6724												
686	686.5.20.7.8	Pipework, Valves and Electric Actuators, EQT036 (Rev. 11)	285 days	Mon 14/02/22	Fri 25/11/22	Mon 14/02/22	Fri 25/11/22	Sun 13/11/22	Thu 24/08/23	272 days	56,63												
687	687.5.20.7.8.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Mon 14/02/22	Tue 11/10/22	Mon 14/02/22	Tue 11/10/22	Sun 13/11/22	Mon 10/07/23	0 days	656	688											
688	688.5.20.7.8.2	Shipping and Delivery of Plant to site	45 days	Wed 12/10/22	Fri 25/11/22	Wed 12/10/22	Fri 25/11/22	Tue 11/07/23	Thu 24/08/23	64 days	687	730											
689	689.5.20.7.9	Lifting Appliances	356 days	Sun 14/03/21	Fri 04/03/22	Sun 14/03/21	Fri 04/03/22	Sat 15/01/22	Mon 26/09/22	206 days													
690	690.5.20.7.9.1	Manufacturing and Factory Acceptance Test of Plant	210 days	Sun 14/03/21	Sat 09/10/21	Sun 14/03/21	Sat 09/10/21	Sat 15/01/22	Fri 12/08/22	101 days	662	691											
691	691.5.20.7.9.2	Shipping and Delivery of Plant to site	45 days	Wed 19/01/22	Fri 04/03/22	Wed 19/01/22	Fri 04/03/22	Sat 13/08/22															



ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names	2020 Half 1, 2020	2020 Half 2, 2020	2021 Half 1, 2021	2021 Half 2, 2021	2022 Half 1, 2022	2022 Half 2, 2022	2023 Half 1, 2023	2023 Half 2, 2023	2024 Half 1, 2024	
700	700.5.20.7.11.1	MFS - Manufacturing of Plant	180 days	Fri 18/06/21	Tue 14/12/21	Fri 18/06/21	Tue 14/12/21	Sun 17/04/22	Thu 13/10/22	0 days	661	701											
701	701.5.20.7.11.2	MFS - Factory Acceptance Test of Plant (to be witnessed by PM)	90 days	Wed 15/12/21	Mon 14/03/22	Wed 15/12/21	Mon 14/03/22	Fri 14/10/22	Wed 11/01/23	95 days	700	702											
702	702.5.20.7.11.3	MFS - Shipping and Delivery of Plant to site	45 days	Sat 18/06/22	Mon 01/08/22	Sat 18/06/22	Mon 01/08/22	Thu 12/01/23	Sat 25/02/23	106 days	701,73755-6759												
703	703.5.20.7.12	11kV/380V Stepdown Power Transformers, EQT032	285 days	Wed 16/03/22	Sun 25/12/22	Wed 16/03/22	Sun 25/12/22	Mon 07/11/22	Fri 18/08/23	236 days													
704	704.5.20.7.12.1	MFS - Manufacturing and Factory Acceptance Test of Plant	240 days	Wed 16/03/22	Thu 10/11/22	Wed 16/03/22	Thu 10/11/22	Mon 07/11/22	Tue 04/07/23	0 days	657	705											
705	705.5.20.7.12.2	MFS - Shipping and Delivery of Plant to site	45 days	Fri 11/11/22	Sun 25/12/22	Fri 11/11/22	Sun 25/12/22	Wed 05/07/23	Fri 18/08/23	0 days	704	760											
706	706.5.20.7.13	PLC System	285 days	Wed 16/03/22	Sun 25/12/22	Wed 16/03/22	Sun 25/12/22	Sun 17/04/22	Thu 24/08/23	32 days													
707	707.5.20.7.13.1	Manufacturing of Plant, PLC for BR2A & B	210 days	Wed 16/03/22	Tue 11/10/22	Wed 16/03/22	Tue 11/10/22	Sun 17/04/22	Sat 12/11/22	0 days	534	708											
708	708.5.20.7.13.2	Factory Acceptance Test of Plant, PLC for BR2A & B (To be witnessed)	30 days	Wed 12/10/22	Thu 10/11/22	Wed 12/10/22	Thu 10/11/22	Sun 13/11/22	Mon 12/12/22	0 days	707	709											
709	709.5.20.7.13.3	Shipping and Delivery of Plant to site	45 days	Fri 11/11/22	Sun 25/12/22	Fri 11/11/22	Sun 25/12/22	Tue 13/12/22	Thu 26/01/23	0 days	708	757											
710	710.5.20.7.13.4	Manufacturing of Plant, PLC for MFB2	210 days	Wed 16/03/22	Tue 11/10/22	Wed 16/03/22	Tue 11/10/22	Sun 13/11/22	Sat 10/06/23	0 days	657	711											
711	711.5.20.7.13.5	Factory Acceptance Test of Plant, PLC for MFB2 (To be witnessed by)	30 days	Wed 12/10/22	Thu 10/11/22	Wed 12/10/22	Thu 10/11/22	Sun 11/06/23	Mon 10/07/23	0 days	710	712											
712	712.5.20.7.13.6	Shipping and Delivery of Plant to site	45 days	Fri 11/11/22	Sun 25/12/22	Fri 11/11/22	Sun 25/12/22	Tue 11/07/23	Thu 24/08/23	0 days	711	758											
713	713.5.20.8	Site Installation Work	683 days	Sun 20/03/22	Wed 31/01/24	Sun 20/03/22	Wed 31/01/24	Sun 20/03/22	Tue 13/02/24	0 days													
714	714.5.20.8.1	Tentative Civil Handover Date, Portion B-5A, MFB No. 2 below 1st floor	1 day	Sun 20/03/22	Sun 20/03/22	Sun 20/03/22	Sun 20/03/22	Sun 20/03/22	Sun 20/03/22	0 days	717,723F5+45 edays,716,												
715	715.5.20.8.2	Commencement of E&M Installation at MFB No. 2 Lower Part	404 days	Mon 21/03/22	Fri 28/04/23	Mon 21/03/22	Fri 28/04/23	Mon 21/03/22	Wed 22/11/23	0 days	714												
716	716.5.20.8.2.1	Provision of Temporary Water Supply, Electricity Supply, Lighting, W	7 days	Mon 21/03/22	Sun 27/03/22	Mon 21/03/22	Sun 27/03/22	Mon 21/03/22	Sun 27/03/22	0 days	714												
717	717.5.20.8.2.2	Installation of Lifting Appliances at MFB No. 2	66 days	Mon 21/03/22	Wed 25/05/22	Mon 21/03/22	Wed 25/05/22	Thu 24/11/22	Sat 28/01/23	248 days	714,691												
718	718.5.20.8.2.2.1	B2 EOT Crane LA-04-01 SWL 5t	45 days	Mon 21/03/22	Wed 04/05/22	Mon 21/03/22	Wed 04/05/22	Thu 24/11/22	Sat 07/01/23	0 days	720,721,722												
719	719.5.20.8.2.2.2	B2 EOT Crane LA-04-02 SWL 5t	30 days	Mon 21/03/22	Tue 19/04/22	Mon 21/03/22	Tue 19/04/22	Fri 09/12/22	Sat 07/01/23	15 days	720,721,722												
720	720.5.20.8.2.2.3	B2 MR LA-04-03 SWL 5t	14 days	Thu 05/05/22	Wed 18/05/22	Thu 05/05/22	Wed 18/05/22	Sun 08/01/23	Sat 21/01/23	0 days	718,719	722											
721	721.5.20.8.2.2.4	B1 MR LA-04-04 SWL 3t	14 days	Thu 05/05/22	Wed 18/05/22	Thu 05/05/22	Wed 18/05/22	Sun 08/01/23	Sat 21/01/23	0 days	718,719	722											
722	722.5.20.8.2.2.5	T&C, Loading Test for Lifting Appliances	7 days	Thu 19/05/22	Wed 25/05/22	Thu 19/05/22	Wed 25/05/22	Sun 22/01/23	Sat 28/01/23	57 days	718,719,720,725												
723	723.5.20.8.2.3	Mechanical Installations for E&M Equip. at MFB No. 2 Lower Part	359 days	Thu 05/05/22	Fri 28/04/23	Thu 05/05/22	Fri 28/04/23	Sun 29/01/23	Wed 22/11/23	0 days	714F5+45 et73555												
724	724.5.20.8.2.3.1	Installation of penstocks and stoplogs (Penstocks 18nos, Stoplogs	90 days	Tue 02/08/22	Sun 30/10/22	Tue 02/08/22	Sun 30/10/22	Sun 26/02/23	Fri 26/05/23	0 days	685	734	ME - E x 4~6 men										
725	725.5.20.8.2.3.2	Installation of hollow fibre membrane modules (x9), EQT023	90 days	Fri 22/07/22	Wed 19/10/22	Fri 22/07/22	Wed 19/10/22	Sun 29/01/23	Fri 28/04/23	191 days	667,722												
726	726.5.20.8.2.3.3	Installation of air scour blowers (x3), EQT040	90 days	Tue 02/08/22	Sun 30/10/22	Tue 02/08/22	Sun 30/10/22	Sun 26/02/23	Fri 26/05/23	0 days	670,676	730,727,728	ME - B x 4~6 men										
727	727.5.20.8.2.3.4	Installation of permeate pumps (x10), EQT024	90 days	Mon 31/10/22	Sat 28/01/23	Mon 31/10/22	Sat 28/01/23	Sat 27/05/23	Thu 24/08/23	0 days	726,673	730	ME - A x 4~6 men										
728	728.5.20.8.2.3.5	Installation of return activated sludge pumps (x5), EQT010	90 days	Mon 31/10/22	Sat 28/01/23	Mon 31/10/22	Sat 28/01/23	Sat 27/05/23	Thu 24/08/23	0 days	726	730	ME - B x 4~6 men										
729	729.5.20.8.2.3.6	Installation of membrane tank drain pumps (x2), EQT009	45 days	Thu 05/05/22	Sat 18/06/22	Thu 05/05/22	Sat 18/06/22	Tue 11/07/23	Thu 24/08/23	224 days	730		ME - C x 4~6 men										
730	730.5.20.8.2.3.7	Installation of pipework and valves, EQT036	90 days	Sun 29/01/23	Fri 28/04/23	Sun 29/01/23	Fri 28/04/23	Fri 25/08/23	Wed 22/11/23	0 days	726,727,728,734FF												
731	731.5.20.8.2.3.8	Installation of chemical storage tank, EQT025	60 days	Thu 05/05/22	Sun 03/07/22	Thu 05/05/22	Sun 03/07/22	Tue 28/02/23	Fri 28/04/23	299 days	679		ME - D x 2~4 men										
732	732.5.20.8.2.3.9	Installation of chemical dosing pumps, EQT026	60 days	Thu 05/05/22	Sun 03/07/22	Thu 05/05/22	Sun 03/07/22	Tue 28/02/23	Fri 28/04/23	299 days	682		ME - D x 2~4 men										
733	733.5.20.8.2.3.10	Installation of plant service water system	90 days	Thu 05/05/22	Tue 02/08/22	Thu 05/05/22	Tue 02/08/22	Sun 29/01/23	Fri 28/04/23	269 days			ME - C x 4~6 men										
734	734.5.20.8.2.3.11	Site Acceptance Tests - mechanical aspects including alignment an	180 days	Mon 31/10/22	Fri 28/04/23	Mon 31/10/22	Fri 28/04/23	Sat 27/05/23	Wed 22/11/23	176 days	724,730FF	772	ME - D x 2~4 men										
735	735.5.20.8.2.4	Electrical Installations for E&M Equip. at MFB No. 2 Lower Part	150 days	Thu 05/05/22	Sat 01/10/22	Thu 05/05/22	Sat 01/10/22	Wed 28/12/22	Fri 26/05/23	237 days	72355												
736	736.5.20.8.2.4.1	Installation of cable trays and cable containments	150 days	Thu 05/05/22	Sat 01/10/22	Thu 05/05/22	Sat 01/10/22	Wed 28/12/22	Fri 26/05/23	45 days	761												
737	737.5.20.8.3	Tentative Civil Handover Date, Portion B-5B, MFB No. 2 remaining port	1 day	Wed 17/08/22	Wed 17/08/22	Wed 17/08/22	Wed 17/08/22	Wed 17/08/22	Wed 17/08/22	0 days	740,749F5+45 edays,775I												
738	738.5.20.8.4	Commencement of E&M Installation at MFB No. 2 Upper Part	532 days	Thu 18/08/22	Wed 31/01/24	Thu 18/08/22	Wed 31/01/24	Thu 18/08/22	Tue 13/02/24	0 days	737												
739	739.5.20.8.4.1	Provision of Temporary Water Supply, Electricity Supply, Lighting, W	7 days	Thu 18/08/22	Wed 24/08/22	Thu 18/08/22	Wed 24/08/22	Thu 18/08/22	Wed 24/08/22	0 days	737												
740	740.5.20.8.4.2	Installation of Lifting Appliances at MFB No. 2	142 days	Thu 18/08/22	Fri 06/01/23	Thu 18/08/22	Fri 06/01/23	Tue 27/09/22	Wed 15/02/23	40 days	737,691												
741	741.5.20.8.4.2.1	GF EOT Crane LA-04-05 SWL 5t	45 days	Thu 18/08/22	Sat 01/10/22	Thu 18/08/22	Sat 01/10/22	Tue 27/09/22	Thu 10/11/22	0 days	743,744,748		LA - A x 4~6 men										
742	742.5.20.8.4.2.2	GF Gantry Crane LA-04-06 SWL 6t	45 days	Thu 18/08/22	Sat 01/10/22	Thu 18/08/22	Sat 01/10/22	Tue 27/09/22	Thu 10/11/22	0 days	743,744,748		LA - B x 4~6 men										
743	743.5.20.8.4.2.3	1F EOT Crane LA-04-07 SWL 15t	45 days	Sun 02/10/22	Tue 15/11/22	Sun 02/10/22	Tue 15/11/22	Fri 11/11/22	Sun 25/12/22	0 days	741,742	745,746,747,748	LA - A x 4~6 men										
744	744.5.20.8.4.2.4	1F EOT Crane LA-04-08 SWL 15t	45 days	Sun 02/10/22	Tue 15/11/22	Sun 02/10/22	Tue 15/11/22	Fri 11/11/22	Sun 25/12/22	0 days	741,742	745,746,747,748	LA - B x 4~6 men										
745	745.5.20.8.4.2.5	RF EOT Crane LA-04-09 SWL 2t	45 days	Wed 16/11/22	Fri 30/12/22	Wed 16/11/22	Fri 30/12/22	Mon 26/12/22	Wed 08/02/23	0 days	743,744	748	LA - A x 4~6 men										
746	746.5.20.8.4.2.6	RF Retractable MR LA-04-10 SWL 2t	45 days	Wed 16/11/22	Fri 30/12/22	Wed 16/11/22	Fri 30/12/22	Mon 26/12/22	Wed 08/02/23	0 days	743,744	748	LA - B x 4~6 men										
747	747.5.20.8.4.2.7	Mobile A-frame LA-04-11 SWL 2t	7 days	Wed 16/11/22	Tue 22/11/22	Wed 16/11/22	Tue 22/11/22	Thu 02/02/23	Wed 08/02/23	38 days	743,744	748	LA - C x 4~6 men										



ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names	2020 Half 1, 2020	Half 2, 2020	2021 Half 1, 2021	Half 2, 2021	2022 Half 1, 2022	Half 2, 2022	2023 Half 1, 2023	Half 2, 2023	2024 Half 1, 2024	
759	759.5.20.8.4.4.	Installation of HV Switchboards, MFB No. 2	60 days	Wed 16/11/22	Sat 14/01/23	Wed 16/11/22	Sat 14/01/23	Sun 26/02/23	Wed 26/04/23	0 days	702	762,763FS+30 days	HV - A x 4~6 men										
760	760.5.20.8.4.4.	Installation of transformer, MFB No. 2, EQ1032	45 days	Mon 26/12/22	Wed 08/02/23	Mon 26/12/22	Wed 08/02/23	Sat 19/08/23	Mon 02/10/23	0 days	705	764FS+30 days											
761	761.5.20.8.4.4.	Installation of cable trays and cable containments	180 days	Wed 16/11/22	Sun 14/05/23	Wed 16/11/22	Sun 14/05/23	Sat 27/05/23	Wed 22/11/23	192 days	736												
762	762.5.20.8.4.4.	Cables laying and terminations	150 days	Sun 26/03/23	Tue 22/08/23	Sun 26/03/23	Tue 22/08/23	Thu 27/04/23	Sat 23/09/23	0 days	755,756,757,769,766,765												
763	763.5.20.8.4.4.	Testing of HV Switchboards, MFB No. 2	21 days	Tue 14/02/23	Mon 06/03/23	Tue 14/02/23	Mon 06/03/23	Thu 02/11/23	Wed 22/11/23	261 days	759FS+30 di		HV - A x 4~6 men										
764	764.5.20.8.4.4.	Testing of Transformers, MFB No. 2	21 days	Sat 11/03/23	Fri 31/03/23	Sat 11/03/23	Fri 31/03/23	Thu 02/11/23	Wed 22/11/23	236 days	760FS+30 di		HV - A x 4~6 men										
765	765.5.20.8.4.4.	Energisation of LV Switchboards, MFB No. 2 (Rev. 8)	1 day	Wed 23/08/23	Wed 23/08/23	Wed 23/08/23	Wed 23/08/23	Wed 22/11/23	Wed 22/11/23	91 days	762		LA - A x 4~6 men										
766	766.5.20.8.4.4.	Site Acceptance Tests - Electrical aspects including voltage and cur	60 days	Wed 23/08/23	Sat 21/10/23	Wed 23/08/23	Sat 21/10/23	Sun 24/09/23	Wed 22/11/23	0 days	762	772	LV - A x 4~6 men										
767	767.5.20.8.4.5	SCADA Systems, BR No. 1 & No 2, MFB No. 2	91 days	Wed 23/08/23	Tue 21/11/23	Wed 23/08/23	Tue 21/11/23	Thu 02/11/23	Fri 22/12/23	31 days													
768	768.5.20.8.4.5.	Configuration of PLC System for BR No. 1 & No. 2	30 days	Mon 02/10/23	Tue 31/10/23	Mon 02/10/23	Tue 31/10/23	Thu 02/11/23	Fri 03/12/23	0 days	757,593	770	PLC - A x 1 man										
769	769.5.20.8.4.5.	Configuration of PLC System for MFB No. 2	30 days	Wed 23/08/23	Thu 21/09/23	Wed 23/08/23	Thu 21/09/23	Thu 02/11/23	Fri 03/12/23	0 days	762	771											
770	770.5.20.8.4.5.	Site Acceptance Test for PLC System at BR No. 1 and No. 2	21 days	Wed 01/11/23	Tue 21/11/23	Wed 01/11/23	Tue 21/11/23	Sat 02/12/23	Fri 22/12/23	19 days	768	773,597,1282											
771	771.5.20.8.4.5.	Site Acceptance Test for PLC System at MFB No. 2	21 days	Fri 22/09/23	Thu 12/10/23	Fri 22/09/23	Thu 12/10/23	Sat 02/12/23	Fri 22/12/23	59 days	769	773,1282											
772	772.5.20.8.4.6	Site Acceptance Test for E&M Equip at MFB No. 2	30 edays	Sat 21/10/23	Mon 20/11/23	Sat 21/10/23	Mon 20/11/23	Thu 23/11/23	Sat 23/12/23	20.63 edays	749,754,76E773												
773	773.5.20.8.4.7	System Commissioning for E&M Equip at MFB No. 2	45 days	Mon 11/12/23	Wed 24/01/24	Mon 11/12/23	Wed 24/01/24	Sat 23/12/23	Mon 05/02/24	0 days	770,772,78,774												
774	774.5.20.8.4.8	Risk Allowances for Completion of Processing Plant at MFB No. 2	7 edays	Wed 24/01/24	Wed 31/01/24	Wed 24/01/24	Wed 31/01/24	Tue 06/02/24	Tue 13/02/24	7.63 edays	773	1278											
775	775.5.20.8.4.9	Building Services Installations for MFB No. 2	330 days	Sun 15/01/23	Sun 10/12/23	Sun 15/01/23	Sun 10/12/23	Fri 27/01/23	Mon 05/02/24	12 days	737FS+150 i												
776	776.5.20.8.4.9.	Mechanical Ventilation and Air Conditioning System, MFB No. 2	120 days	Sun 15/01/23	Sun 14/05/23	Sun 15/01/23	Sun 14/05/23	Thu 24/08/23	Thu 24/08/23	90 days		782	MVAC - A x 4~6 men										
777	777.5.20.8.4.9.	Lighting and Power Distribution System, MFB No. 2	210 days	Sun 15/01/23	Sat 12/08/23	Sun 15/01/23	Sat 12/08/23	Fri 27/01/23	Thu 24/08/23	0 days		782	BS - A x 4~6 men										
778	778.5.20.8.4.9.	Plumbing Installation, MFB No. 2	180 days	Sun 15/01/23	Thu 13/07/23	Sun 15/01/23	Thu 13/07/23	Sun 26/02/23	Thu 24/08/23	30 days	1249	1251,782	Pb - B x 4~6 men										
779	779.5.20.8.4.9.	CCTV Installation (10 indoor + 3 outdoor Cameras), MFB No. 2	90 days	Sun 15/01/23	Fri 14/04/23	Sun 15/01/23	Fri 14/04/23	Sat 27/05/23	Thu 24/08/23	120 days	737FS+120	782,1281	BS - B x 4~6 men										
780	780.5.20.8.4.9.	Fire Services Installation, MFB No. 2	120 days	Sun 15/01/23	Sun 14/05/23	Sun 15/01/23	Sun 14/05/23	Thu 27/04/23	Thu 24/08/23	90 days		1202,1214,1215,782	FS - B x 4~6 men										
781	781.5.20.8.4.9.	Earthing and Lightning Protection System, MFB No. 2	60 days	Sun 15/01/23	Wed 15/03/23	Sun 15/01/23	Wed 15/03/23	Fri 08/12/23	Mon 05/02/24	315 days		773FF	BS - C x 2~4 men										
782	782.5.20.8.4.9.	Testing and Commissioning of Building Services Installations, MFB	120 days	Sun 13/08/23	Sun 10/12/23	Sun 13/08/23	Sun 10/12/23	Fri 25/08/23	Fri 22/12/23	0 days	776,777,77E773		BS - C x 2~4 men										
783	783.5.21	Chemical System No. 1 and No. 2, Portion B-7 & B-7B (PS 6B.2.3)	1351 days	Tue 21/07/20	Mon 01/04/24	Tue 21/07/20	Mon 01/04/24	Tue 21/07/20	Mon 01/04/24	0 days													
784	784.5.21.1	Planned Key Date Completion Date - KD1B, Chem Sys No. 1 & 2	0 days	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	0 days	801FF,802FF												
785	785.5.21.2	Planned Sectional Completion Date - Section 1, Chem Sys No. 1 & 2	0 days	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	0 days	803FF,804FF												
786	786.5.21.3	Planned Sectional Completion Date - Section 2, Chem Sys No. 1 & 2	0 days	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	0 days	832FF												
787	787.5.21.4	Selection of Suppliers for major plant and materials for Chemical System	240 days	Thu 01/10/20	Fri 28/05/21	Thu 01/10/20	Fri 28/05/21	Thu 01/10/20	Fri 28/05/21	0 days													
788	788.5.21.4.1	Chemical Storage and Dosing - chemical storage tanks, C11, ref. EQ1025	240 days	Thu 01/10/20	Fri 28/05/21	Thu 01/10/20	Fri 28/05/21	Thu 01/10/20	Fri 28/05/21	0 days													
789	789.5.21.4.1.1	Submission for acceptance of purchasing package	60 days	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	0 days		790											
790	790.5.21.4.1.2	Invitation of quotations for purchasing package	30 days	Mon 30/11/20	Tue 29/12/20	Mon 30/11/20	Tue 29/12/20	Mon 30/11/20	Tue 29/12/20	0 days	789	791											
791	791.5.21.4.1.3	Acceptance of conforming quotation (Completed)	30 days	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	0 days	790	803											
792	792.5.21.4.2	Chemical Storage and Dosing - chemical dosing pumps, C11, ref. EQ1027	150 days	Thu 01/10/20	Sat 27/02/21	Thu 01/10/20	Sat 27/02/21	Thu 01/10/20	Sat 27/02/21	0 days													
793	793.5.21.4.2.1	Submission for acceptance of purchasing package	60 days	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	0 days		794											
794	794.5.21.4.2.2	Invitation of quotations for purchasing package	60 days	Mon 30/11/20	Thu 28/01/21	Mon 30/11/20	Thu 28/01/21	Mon 30/11/20	Thu 28/01/21	0 days	793	795											
795	795.5.21.4.2.3	Acceptance of conforming quotation (Completed)	30 days	Fri 29/01/21	Sat 27/02/21	Fri 29/01/21	Sat 27/02/21	Fri 29/01/21	Sat 27/02/21	0 days	794	803,804,805											
796	796.5.21.4.3	Chemical Storage and Dosing - transfer pumps, C11, ref. EQ1026	120 days	Thu 01/10/20	Thu 28/01/21	Thu 01/10/20	Thu 28/01/21	Thu 01/10/20	Thu 28/01/21	0 days													
797	797.5.21.4.3.1	Submission for acceptance of purchasing package	60 days	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	0 days		798											
798	798.5.21.4.3.2	Invitation of quotations for purchasing package	30 days	Mon 30/11/20	Tue 29/12/20	Mon 30/11/20	Tue 29/12/20	Mon 30/11/20	Tue 29/12/20	0 days	797	799											
799	799.5.21.4.3.3	Acceptance of conforming quotation (Completed)	30 days	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	0 days	798	803											
800	800.5.21.5	Design Submissions for Chemical System No. 1 and No. 2	324 days	Tue 21/07/20	Thu 10/06/21	Tue 21/07/20	Thu 10/06/21	Tue 21/07/20	Mon 12/07/21	33 days													
801	801.5.21.5.1	Electrical schematic drawings for Chemical Systems No. 1 and No. 2	60 days	Tue 21/07/20	Fri 18/09/20	Tue 21/07/20	Fri 18/09/20	Tue 21/07/20	Tue 01/06/21	256 days		784FF											
802	802.5.21.5.2	CDS081-5 - Civil and dimensional requirements drawings for Chemical S	70 days	Fri 28/08/20	Thu 05/11/20	Fri 28/08/20	Thu 05/11/20	Fri 28/08/20	Thu 05/11/20	0 days		784FF											
803	803.5.21.5.3	CDS006 - Detailed Design for Chemical Dosing System	90 edays	Sat 27/02/21	Fri 28/05/21	Sat 27/02/21	Fri 28/05/21	Sat 27/02/21	Mon 12/07/21	0.63 edays	791,795,79E809,812,815,785FF												
804	804.5.21.5.4	CDS027 - Detailed Design for Electrical Installations for Chemical Syste	90 edays	Sat 27/02/21	Fri 28/05/21	Sat 27/02/21	Fri 28/05/21	Sat 27/02/21	Mon 12/07/21	45 edays	795	822,785FF											
805	805.5.21.5.5	CDS028 - Detailed Design for Electrical Installations for Chemical Syste	90 edays	Sat 27/02/21	Fri 28/05/21	Sat 27/02/21	Fri 28/05/21	Sat 27/02/21	Mon 12/07/21	45 edays	795	822,785FF											
806	806.5.21.5.6	CDS034-5 - Detailed Design for Electrical Installations BS at Chemical Sy	90 edays	Fri 12/03/21	Thu 10/06/21	Fri 12/03/21	Thu 10/06/21	Fri 12/03/21	Mon 12/07/21	32.38 edays	140	822,785FF											
807	807.5.21.6	Manufacturing and Delivery of Plant & Materials	296 days	Sat 29/05/21	Sun 20/03/22	Sat 29/05/21</																	



ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names	2020 Half 1, 2020	2020 Half 2, 2020	2021 Half 1, 2021	2021 Half 2, 2021	2022 Half 1, 2022	2022 Half 2, 2022	2023 Half 1, 2023	2023 Half 2, 2023	2024 Half 1, 2024	
818	818.5.21.7.1	Tentative Civil Handover Date, Portion B-7 & B-7B (Rev. 5)	1 day	Thu 19/05/22	Thu 19/05/22	Thu 19/05/22	Thu 19/05/22	Mon 10/07/23	Mon 10/07/23	0 days		816FF-60 edays, 813FF-60											
819	819.5.21.7.2	Tentative Civil Handover Date, Chemical Pipe Trench (by others)	1 day	Sun 01/05/22	Sun 01/05/22	Sun 01/05/22	Sun 01/05/22	Tue 20/06/23	Tue 20/06/23	33 days		821FF+50 days											
820	820.5.21.7.3	Commencement of E&M Installation at Chemical Dosing System 1 and System 2	307 days	Tue 22/03/22	Mon 23/01/23	Tue 22/03/22	Mon 23/01/23	Fri 12/05/23	Mon 01/04/24	415 days													
821	821.5.21.7.3.1	Mechanical Installations for E&M Equip. for Chemical Dosing System	90 edays	Tue 22/03/22	Mon 20/06/22	Tue 22/03/22	Mon 20/06/22	Fri 12/05/23	Thu 10/08/23	0 edays	819FF+50 d; 822		ME - D x 2~4 men										
822	822.5.21.7.3.2	Electrical Installations for E&M Equip. for Chemical Dosing System	90 edays	Mon 20/06/22	Sun 18/09/22	Mon 20/06/22	Sun 18/09/22	Thu 10/08/23	Wed 08/11/23	0.63 edays	821,804,805,823,831		EE - B x 4~6 men										
823	823.5.21.7.3.3	Site Acceptance Test for E&M Equip for Chemical Dosing System	45 days	Mon 19/09/22	Wed 02/11/22	Mon 19/09/22	Wed 02/11/22	Wed 08/11/23	Fri 22/12/23	0 days	822	824	EE - A x 4~6 men										
824	824.5.21.7.3.4	System Commissioning for E&M Equip for Chemical Dosing System	45 days	Thu 03/11/22	Sat 17/12/22	Thu 03/11/22	Sat 17/12/22	Sat 23/12/23	Mon 05/02/24	0 days	823	825											
825	825.5.21.7.3.5	Risk Allowances for Completion of Processing Plant at Chemical Dosi	7 edays	Sat 17/12/22	Sat 24/12/22	Sat 17/12/22	Sat 24/12/22	Tue 06/02/24	Tue 13/02/24	410.63 ed...	824	1278											
826	826.5.21.7.3.6	Building Services Installations at Chemical Dosing System areas	249 days	Fri 20/05/22	Mon 23/01/23	Fri 20/05/22	Mon 23/01/23	Thu 13/07/23	Mon 01/04/24	419 days													
827	827.5.21.7.3.6.1	Lighting and Power Distribution System, Chem 1&2	120 days	Fri 20/05/22	Fri 16/09/22	Fri 20/05/22	Fri 16/09/22	Sun 06/08/23	Sun 03/12/23	9 days	818	832	BS - B x 4~6 men										
828	828.5.21.7.3.6.2	Fire Services Installation, DG Stores	120 days	Fri 20/05/22	Fri 16/09/22	Fri 20/05/22	Fri 16/09/22	Thu 13/07/23	Thu 09/11/23	9 days	818	1214,1215,1205,832	FS - A x 4~6 men										
829	829.5.21.7.3.6.3	Lightning Protection System, Chem 1&2	30 days	Fri 20/05/22	Sat 18/06/22	Fri 20/05/22	Sat 18/06/22	Sat 04/11/23	Sun 03/12/23	99 days	818	832	EE - D x 4~6 men										
830	830.5.21.7.3.6.4	Mechanical Ventilation System, Chem 2	14 days	Fri 20/05/22	Thu 02/06/22	Fri 20/05/22	Thu 02/06/22	Mon 20/11/23	Sun 03/12/23	115 days	818	832	MVAC - A x 4~6 men										
831	831.5.21.7.3.6.5	Plumbing Installation, Chem 1	7 days	Mon 19/09/22	Sun 25/09/22	Mon 19/09/22	Sun 25/09/22	Mon 27/11/23	Sun 03/12/23	0 days	822	832	Pb - A x 4~6 men										
832	832.5.21.7.3.6.6	Testing and Commissioning of Building Services Installations, Chen	120 days	Mon 26/09/22	Mon 23/01/23	Mon 26/09/22	Mon 23/01/23	Mon 04/12/23	Mon 01/04/24	434 days	827,828,831,786FF		BS - C x 2~4 men										
833	833.5.22	Temporary Chemical Dosing System, Portion B7 & B-7B (PS 6B.2.3)	1344 days	Tue 28/07/20	Mon 01/04/24	Tue 28/07/20	Mon 01/04/24	Tue 28/07/20	Mon 01/04/24	0 days													
834	834.5.22.1	Planned Key Date Completion Date - KD1B, Temp. Chem Dosing Sys	0 days	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	0 days	851FF,852FF												
835	835.5.22.2	Planned Sectional Completion Date - Section 1, Temp. Chem Dosing Sys	0 days	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	0 days	853FF												
836	836.5.22.3	Planned Sectional Completion Date - Section 2, Temp. Chem Dosing Sys	0 days	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	0 days													
837	837.5.22.4	Selection of Suppliers for major plant and materials for Temp. Chemical Dosing System	150 days	Thu 01/10/20	Sat 27/02/21	Thu 01/10/20	Sat 27/02/21	Thu 01/10/20	Sat 27/02/21	0 days													
838	838.5.22.4.1	Chemical Storage and Dosing - chemical storage tanks, C11, ref. EQT0	120 days	Thu 01/10/20	Thu 28/01/21	Thu 01/10/20	Thu 28/01/21	Thu 01/10/20	Thu 28/01/21	0 days													
839	839.5.22.4.1.1	Submission for acceptance of purchasing package	60 days	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	0 days		840											
840	840.5.22.4.1.2	Invitation of quotations for purchasing package	30 days	Mon 30/11/20	Tue 29/12/20	Mon 30/11/20	Tue 29/12/20	Mon 30/11/20	Tue 29/12/20	0 days	839	841											
841	841.5.22.4.1.3	Acceptance of conforming quotation (Completed)	30 days	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	0 days	840	853,856											
842	842.5.22.4.2	Chemical Storage and Dosing - chemical dosing pumps, C11, ref. EQT0	150 days	Thu 01/10/20	Sat 27/02/21	Thu 01/10/20	Sat 27/02/21	Thu 01/10/20	Sat 27/02/21	0 days													
843	843.5.22.4.2.1	Submission for acceptance of purchasing package	60 days	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	0 days		844											
844	844.5.22.4.2.2	Invitation of quotations for purchasing package	60 days	Mon 30/11/20	Thu 28/01/21	Mon 30/11/20	Thu 28/01/21	Mon 30/11/20	Thu 28/01/21	0 days	843	845											
845	845.5.22.4.2.3	Acceptance of conforming quotation (Completed)	30 days	Fri 29/01/21	Sat 27/02/21	Fri 29/01/21	Sat 27/02/21	Fri 29/01/21	Sat 27/02/21	0 days	844	859											
846	846.5.22.4.3	Chemical Storage and Dosing - transfer pumps, C11, ref. EQT026	120 days	Thu 01/10/20	Thu 28/01/21	Thu 01/10/20	Thu 28/01/21	Thu 01/10/20	Thu 28/01/21	0 days													
847	847.5.22.4.3.1	Submission for acceptance of purchasing package	60 days	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	0 days		848											
848	848.5.22.4.3.2	Invitation of quotations for purchasing package	30 days	Mon 30/11/20	Tue 29/12/20	Mon 30/11/20	Tue 29/12/20	Mon 30/11/20	Tue 29/12/20	0 days	847	849											
849	849.5.22.4.3.3	Acceptance of conforming quotation (Completed)	30 days	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	0 days	848	862											
850	850.5.22.5	Design Submissions for Temporary Chemical Dosing System	275 days	Tue 28/07/20	Wed 28/04/21	Tue 28/07/20	Wed 28/04/21	Tue 28/07/20	Mon 12/07/21	75 days													
851	851.5.22.5.1	Electrical schematic drawings for Temporary Chemical Dosing System	60 days	Tue 28/07/20	Fri 25/09/20	Tue 28/07/20	Fri 25/09/20	Tue 28/07/20	Fri 25/09/20	0 days		834FF											
852	852.5.22.5.2	CDS081-6 - Civil and dimensional requirements drawings for Tempora	70 days	Thu 28/08/20	Thu 05/11/20	Fri 28/08/20	Thu 05/11/20	Fri 28/08/20	Thu 05/11/20	0 days		834FF											
853	853.5.22.5.3	CDS029 - Detailed Design for Electrical Installations for Temporary Che	90 edays	Thu 28/01/21	Wed 28/04/21	Thu 28/01/21	Wed 28/04/21	Thu 28/01/21	Mon 12/07/21	75 edays	841	869,835FF											
854	854.5.22.6	Manufacturing and Delivery of Plant & Materials	416 days	Fri 29/01/21	Sun 20/03/22	Fri 29/01/21	Sun 20/03/22	Wed 28/12/22	Wed 09/08/23	507 days													
855	855.5.22.6.1	Chemical Storage Tanks, EQT025	416 days	Fri 29/01/21	Sun 20/03/22	Fri 29/01/21	Sun 20/03/22	Wed 28/12/22	Wed 09/08/23	507 days													
856	856.5.22.6.1.1	Manufacturing and Factory Acceptance Test of Plant	180 days	Fri 29/01/21	Tue 27/07/21	Fri 29/01/21	Tue 27/07/21	Wed 28/12/22	Sun 25/06/23	191 days	841	857											
857	857.5.22.6.1.2	Shipping and Delivery of Plant to site	45 days	Fri 04/02/22	Sun 20/03/22	Fri 04/02/22	Sun 20/03/22	Mon 26/06/23	Wed 09/08/23	20 days	856,865FF-6868												
858	858.5.22.6.2	Chemical Dosing Pumps, EQT027	386 days	Sun 28/02/21	Sun 20/03/22	Sun 28/02/21	Sun 20/03/22	Wed 28/12/22	Wed 09/08/23	507 days													
859	859.5.22.6.2.1	Manufacturing and Factory Acceptance Test of Plant	180 days	Sun 28/02/21	Thu 26/08/21	Sun 28/02/21	Thu 26/08/21	Wed 28/12/22	Sun 25/06/23	161 days	845	860											
860	860.5.22.6.2.2	Shipping and Delivery of Plant to site	45 days	Fri 04/02/22	Sun 20/03/22	Fri 04/02/22	Sun 20/03/22	Mon 26/06/23	Wed 09/08/23	20 days	859,865FF-6868												
861	861.5.22.6.3	Chemical Transfer Pumps, EQT026	416 days	Fri 29/01/21	Sun 20/03/22	Fri 29/01/21	Sun 20/03/22	Wed 28/12/22	Wed 09/08/23	507 days													
862	862.5.22.6.3.1	Manufacturing and Factory Acceptance Test of Plant	180 days	Fri 29/01/21	Tue 27/07/21	Fri 29/01/21	Tue 27/07/21	Wed 28/12/22	Sun 25/06/23	191 days	849	863											
863	863.5.22.6.3.2	Shipping and Delivery of Plant to site	45 days	Fri 04/02/22	Sun 20/03/22	Fri 04/02/22	Sun 20/03/22	Mon 26/06/23	Wed 09/08/23	20 days	862,865FF-6868												
864	864.5.22.7	Site Installation Work	361 days	Sat 09/04/22	Wed 05/04/23	Sat 09/04/22	Wed 05/04/23	Tue 28/03/23	Tue 13/02/24	313 days													
865	865.5.22.7.1	Tentative Civil Handover Date, Temporary Chemical Dosing (Rev. 5)	1 day	Thu 19/05/22	Thu 19/05/22	Thu 19/05/22	Thu 19/05/22	Tue 28/03/23	Tue 28/03/23	0 days		857FF-60 edays, 860FF-60											
866	866.5.22.7.2	Tentative Civil Handover Date, Chemical Pipe Trench (by others)	1 day	Sun 01/05/22	Sun 01/05/22	Sun 01/05/22	Sun 01/05/22	Mon 18/09/23	Mon 18/09/23	51 days		868FF+50 days											
867	867.5.22.7.3	Commencement of E&M Installation at Temporary Chemical Dosing System	361 days	Sat 09/																			















ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names	2020	2021	2022	2023	2024				
														Half 1, 2020	Half 2, 2020	Half 1, 2021	Half 2, 2021	Half 1, 2022	Half 2, 2022	Half 1, 2023	Half 2, 2023	Half 1, 2024
1049	1049.5.30.1.5	Civil Work Subletting Package (Repeated WBS 5.13.17)	19 days	Tue 14/07/20	Sat 01/08/20	Tue 14/07/20	Sat 01/08/20	Tue 14/07/20	Sat 01/08/20	0 days												
1050	1050.5.30.1.5.1	Submission for acceptance of subletting package	3 days	Tue 14/07/20	Thu 16/07/20	Tue 14/07/20	Thu 16/07/20	Tue 14/07/20	Thu 16/07/20	0 days		1051										
1051	1051.5.30.1.5.2	Invitation of tender for subletting package	14 days	Fri 17/07/20	Thu 30/07/20	Fri 17/07/20	Thu 30/07/20	Fri 17/07/20	Thu 30/07/20	0 days	1050	1052										
1052	1052.5.30.1.5.3	Acceptance of conforming quotation and acceptance for Manufactu	2 days	Fri 31/07/20	Sat 01/08/20	Fri 31/07/20	Sat 01/08/20	Fri 31/07/20	Sat 01/08/20	0 days	1051	1058,1061,1064,1067,10										
1053	1053.5.30.2	Design Submissions for Temporary Filtrate Lifting Well and Eq. Tank	34 days	Tue 01/09/20	Sun 04/10/20	Tue 01/09/20	Sun 04/10/20	Tue 01/09/20	Sun 04/10/20	0 days												
1054	1054.5.30.2.1	CDS050-5 - Detailed Design for Lifting Appliances - Temp. Filtrate Eq. S	30 edays	Tue 01/09/20	Thu 01/10/20	Tue 01/09/20	Thu 01/10/20	Tue 01/09/20	Thu 01/10/20	0 edays	120	1083										
1055	1055.5.30.2.2	Design submission for E&M Installation works for temp. filtrate eq. syst	21 days	Mon 14/09/20	Sun 04/10/20	Mon 14/09/20	Sun 04/10/20	Mon 14/09/20	Sun 04/10/20	0 days	1036,1040,11057,1063,1060,1066											
1056	1056.5.30.3	Manufacturing and Delivery of Plant & Materials	165 days	Mon 05/10/20	Thu 18/03/21	Mon 05/10/20	Thu 18/03/21	Mon 05/10/20	Thu 18/03/21	0 days												
1057	1057.5.30.3.1	Filtrate Lift Pumps and Filtrate Transfer Pump, EQT011	165 days	Mon 05/10/20	Thu 18/03/21	Mon 05/10/20	Thu 18/03/21	Mon 05/10/20	Thu 18/03/21	0 days												
1058	1058.5.30.3.1.1	Manufacturing and Factory Acceptance Test of Plant	120 days	Mon 05/10/20	Mon 01/02/21	Mon 05/10/20	Mon 01/02/21	Mon 05/10/20	Mon 01/02/21	0 days	1052,1036	1059										
1059	1059.5.30.3.1.2	Shipping and Delivery of Plant to site (Delivered)	45 days	Tue 02/02/21	Thu 18/03/21	Tue 02/02/21	Thu 18/03/21	Tue 02/02/21	Thu 18/03/21	0 days	1058	1088										
1060	1060.5.30.3.2	Instrumentations	165 days	Mon 05/10/20	Thu 18/03/21	Mon 05/10/20	Thu 18/03/21	Mon 05/10/20	Thu 18/03/21	0 days												
1061	1061.5.30.3.2.1	Manufacturing and Factory Acceptance Test of Plant	120 days	Mon 05/10/20	Mon 01/02/21	Mon 05/10/20	Mon 01/02/21	Mon 05/10/20	Mon 01/02/21	0 days	1052,1040	1062										
1062	1062.5.30.3.2.2	Shipping and Delivery of Plant to site	45 days	Tue 02/02/21	Thu 18/03/21	Tue 02/02/21	Thu 18/03/21	Tue 02/02/21	Thu 18/03/21	0 days	1061	1089										
1063	1063.5.30.3.3	Pipework	165 days	Mon 05/10/20	Thu 18/03/21	Mon 05/10/20	Thu 18/03/21	Mon 05/10/20	Thu 18/03/21	0 days												
1064	1064.5.30.3.3.1	Manufacturing and Factory Acceptance Test of Plant	120 days	Mon 05/10/20	Mon 01/02/21	Mon 05/10/20	Mon 01/02/21	Mon 05/10/20	Mon 01/02/21	0 days	1052,1044	1065										
1065	1065.5.30.3.3.2	Shipping and Delivery of Plant to site	45 days	Tue 02/02/21	Thu 18/03/21	Tue 02/02/21	Thu 18/03/21	Tue 02/02/21	Thu 18/03/21	0 days	1064	1087										
1066	1066.5.30.3.4	Valve	165 days	Mon 05/10/20	Thu 18/03/21	Mon 05/10/20	Thu 18/03/21	Mon 05/10/20	Thu 18/03/21	0 days												
1067	1067.5.30.3.4.1	Manufacturing and Factory Acceptance Test of Plant	120 days	Mon 05/10/20	Mon 01/02/21	Mon 05/10/20	Mon 01/02/21	Mon 05/10/20	Mon 01/02/21	0 days	1052,1048	1068										
1068	1068.5.30.3.4.2	Shipping and Delivery of Plant to site	45 days	Tue 02/02/21	Thu 18/03/21	Tue 02/02/21	Thu 18/03/21	Tue 02/02/21	Thu 18/03/21	0 days	1067	1087										
1069	1069.5.30.4	Site Installation Work	297 days	Sat 01/08/20	Tue 25/05/21	Sat 01/08/20	Tue 25/05/21	Sat 01/08/20	Tue 25/05/21	0 days												
1070	1070.5.30.4.1	Commencement of Civil Construction and E&M Installation at Temp. I	297 days	Sat 01/08/20	Tue 25/05/21	Sat 01/08/20	Tue 25/05/21	Sat 01/08/20	Tue 25/05/21	0 days												
1071	1071.5.30.4.1.1	Civil Construction Work	297 days	Sat 01/08/20	Tue 25/05/21	Sat 01/08/20	Tue 25/05/21	Sat 01/08/20	Tue 25/05/21	0 days												
1072	1072.5.30.4.1.1.1	Civil on-site survey and report submission for acceptance	5 edays	Sat 01/08/20	Thu 06/08/20	Sat 01/08/20	Thu 06/08/20	Sat 01/08/20	Thu 06/08/20	0 edays	1052	1073,1074										
1073	1073.5.30.4.1.1.1	Civil structural design and drawing submission for acceptance	30 days	Fri 07/08/20	Sat 05/09/20	Fri 07/08/20	Sat 05/09/20	Fri 07/08/20	Sat 05/09/20	0 days		1075										
1074	1074.5.30.4.1.1.1	Site Clearance, UU diversion and construction of U-channel	21 days	Fri 07/08/20	Thu 27/08/20	Fri 07/08/20	Thu 27/08/20	Fri 07/08/20	Thu 27/08/20	0 days		1075										
1075	1075.5.30.4.1.1.1	ELS (Sheeting and Excavation)	60 days	Sun 06/09/20	Wed 04/11/20	Sun 06/09/20	Wed 04/11/20	Sun 06/09/20	Wed 04/11/20	0 days	1074,1073	1076										
1076	1076.5.30.4.1.1.1	Grouting Works	60 days	Thu 05/11/20	Sun 03/01/21	Thu 05/11/20	Sun 03/01/21	Thu 05/11/20	Sun 03/01/21	0 days	1075	1077										
1077	1077.5.30.4.1.1.1	RC structure works including cast-in items	60 days	Mon 04/01/21	Thu 04/03/21	Mon 04/01/21	Thu 04/03/21	Mon 04/01/21	Thu 04/03/21	0 days	1076	1086,1083,1078										
1078	1078.5.30.4.1.1.1	Removal Formwork and Flasework	8 days	Fri 05/03/21	Fri 12/03/21	Fri 05/03/21	Fri 12/03/21	Fri 05/03/21	Fri 12/03/21	0 days	1077	1083,1084,1087,1089,10										
1079	1079.5.30.4.1.1.1	Waterproofing	14 days	Sat 13/03/21	Fri 26/03/21	Sat 13/03/21	Fri 26/03/21	Sat 13/03/21	Fri 26/03/21	0 days	1078	1080										
1080	1080.5.30.4.1.1.1	Other architectural works and finishing works	60 days	Sat 27/03/21	Tue 25/05/21	Sat 27/03/21	Tue 25/05/21	Sat 27/03/21	Tue 25/05/21	0 days	1079	1097FF										
1081	1081.5.30.4.1.2	E&M Installation Work	34 days	Sat 13/03/21	Thu 15/04/21	Sat 13/03/21	Thu 15/04/21	Sat 13/03/21	Thu 15/04/21	16 days												
1082	1082.5.30.4.1.2	Installation of Lifting Appliances at Temporary Filtrate Lifting Well and Eq. Tank	10 days	Sat 13/03/21	Mon 22/03/21	Sat 13/03/21	Mon 22/03/21	Sat 13/03/21	Mon 22/03/21	40 days												
1083	1083.5.30.4.1.2.1	GF MR LA-09-01 SWL 1t	7 days	Sat 13/03/21	Fri 19/03/21	Sat 13/03/21	Fri 19/03/21	Sat 13/03/21	Wed 28/04/21	0 days	1077,1054,11085		LA - A x 4~6 men									
1084	1084.5.30.4.1.2.2	GF MR LA-09-02 SWL 1t	7 days	Sat 13/03/21	Fri 19/03/21	Sat 13/03/21	Fri 19/03/21	Sat 13/03/21	Wed 28/04/21	0 days	1078	1085		LA - A x 4~6 men								
1085	1085.5.30.4.1.2.3	Site Acceptance test and loading test of LA	3 days	Sat 20/03/21	Mon 22/03/21	Sat 20/03/21	Mon 22/03/21	Thu 29/04/21	Sat 01/05/21	40 days	1083,1084	1120FF		LA - A x 4~6 men								
1086	1086.5.30.4.1.2.4	Mechanical Installations for Temp. Filtrate Lifting Well and Eq. T	21 days	Fri 19/03/21	Thu 08/04/21	Fri 19/03/21	Thu 08/04/21	Fri 19/03/21	Thu 08/04/21	0 days	1077	1090FS-30 days										
1087	1087.5.30.4.1.2.5	Installation of pipework, chemical pipework and valves, EQT03	14 days	Fri 19/03/21	Thu 01/04/21	Fri 19/03/21	Thu 01/04/21	Fri 19/03/21	Thu 01/04/21	0 days	1078,1065,11088		ME - A x 4~6 men									
1088	1088.5.30.4.1.2.6	Installation of pumps	7 days	Fri 02/04/21	Thu 08/04/21	Fri 02/04/21	Thu 08/04/21	Fri 02/04/21	Thu 08/04/21	0 days	1087,1059	1092		ME - A x 4~6 men								
1089	1089.5.30.4.1.2.7	Installation of instrumentations, EQT035-3	7 days	Fri 19/03/21	Thu 25/03/21	Fri 19/03/21	Thu 25/03/21	Fri 19/03/21	Thu 25/03/21	0 days	1078,1062	1092		ME - A x 4~6 men								
1090	1090.5.30.4.1.2.8	Electrical Installations for Temp. Filtrate Lifting Well and Eq. Tanl	34 days	Sat 13/03/21	Thu 15/04/21	Sat 13/03/21	Thu 15/04/21	Sat 13/03/21	Thu 15/04/21	0 days	1086FS-30 d											
1091	1091.5.30.4.1.2.9	Installation of cable trays and cable containments	21 days	Sat 13/03/21	Fri 02/04/21	Sat 13/03/21	Fri 02/04/21	Sat 13/03/21	Fri 02/04/21	0 days	1078	1092		EE - A x 4~6 men								
1092	1092.5.30.4.1.2.10	Cables laying and terminations	7 days	Fri 09/04/21	Thu 15/04/21	Fri 09/04/21	Thu 15/04/21	Fri 09/04/21	Thu 15/04/21	0 days	1091,1088,11093		EE - A x 4~6 men									
1093	1093.5.30.4.1.3	Site Acceptance Test for E&M Equip at Filtrate Lifting Well and Eq. T	7 days	Fri 16/04/21	Thu 22/04/21	Fri 16/04/21	Thu 22/04/21	Fri 16/04/21	Mon 26/04/21	0 days	1092	1094										
1094	1094.5.30.4.1.4	System Commissioning for E&M Equip at Temp. Filtrate Lifting Well ;	7 days	Fri 23/04/21	Thu 29/04/21	Fri 23/04/21	Thu 29/04/21	Fri 23/04/21	Sat 01/05/21	2 days	1093	1120FF										
1095	1095.5.31	Existing PST No. 4 and No. 6, Portion B-3A (PS 6B.2.15)	397 days	Sat 01/08/20	Wed 01/09/21	Sat 01/08/20	Wed 01/09/21	Sat 01/08/20	Wed 01/09/21	0 days												
1096	1096.5.31.1	Planned Key Date Completion Date - KD3B	0 days	Mon 07/06/21	Mon 07/06/21	Mon 07/06/21	Mon 07/06/21	Mon 07/06/21	Mon 07/06/21	0 days	1163FF											
1097	1097.5.31.2	Planned Sectional Completion Date - Section 3, PST No. 4 and No. 6	0 days	Wed 01/09/21	Wed 01/09/21	Wed 01/09/21	Wed 01/09/21	Wed 01/09/21	Wed 01/09/21	0 days	1080FF,118											
1098	1098.5.31.3	Selection of Suppliers for major plant and materials and Subcontractor for PST No. 4 and No. 6	137 days	Sat 01/08/20	Tue 15/12/20	Sat 01/08/20	Tue 15/12/20	Sat 01/08/20	Tue 15/12/20	0 days												
1099	1099.5.31.3.1	Mis - Rotating Bridge Scrapers and associated materials, C11, ref. EQT037-1	42 days	Sat 01/08/20	Fri 11/09/20	Sat 01/08/20	Fri 11/09/20	Sat 01/08/20	Fri 11/09/20	0 days												
1100	1100.5.31.3.1.1	Submission for acceptance of purchasing package	7 days	Sat 01/08/20	Fri 07/08/20	Sat 01/08/20	Fri 07/08/20	Sat 01/08/20	Fri 07/08/20	0 days		1101										
1101	1101.5.31.3.1.2	Invitation of quotations for purchasing package	14 days	Sat 08/08/20	Fri 21/08/20	Sat 08/08/20	Fri 21/08/20	Sat 08/08/20	Fri 21/08/20	0 days	1100	1102										
1102																						

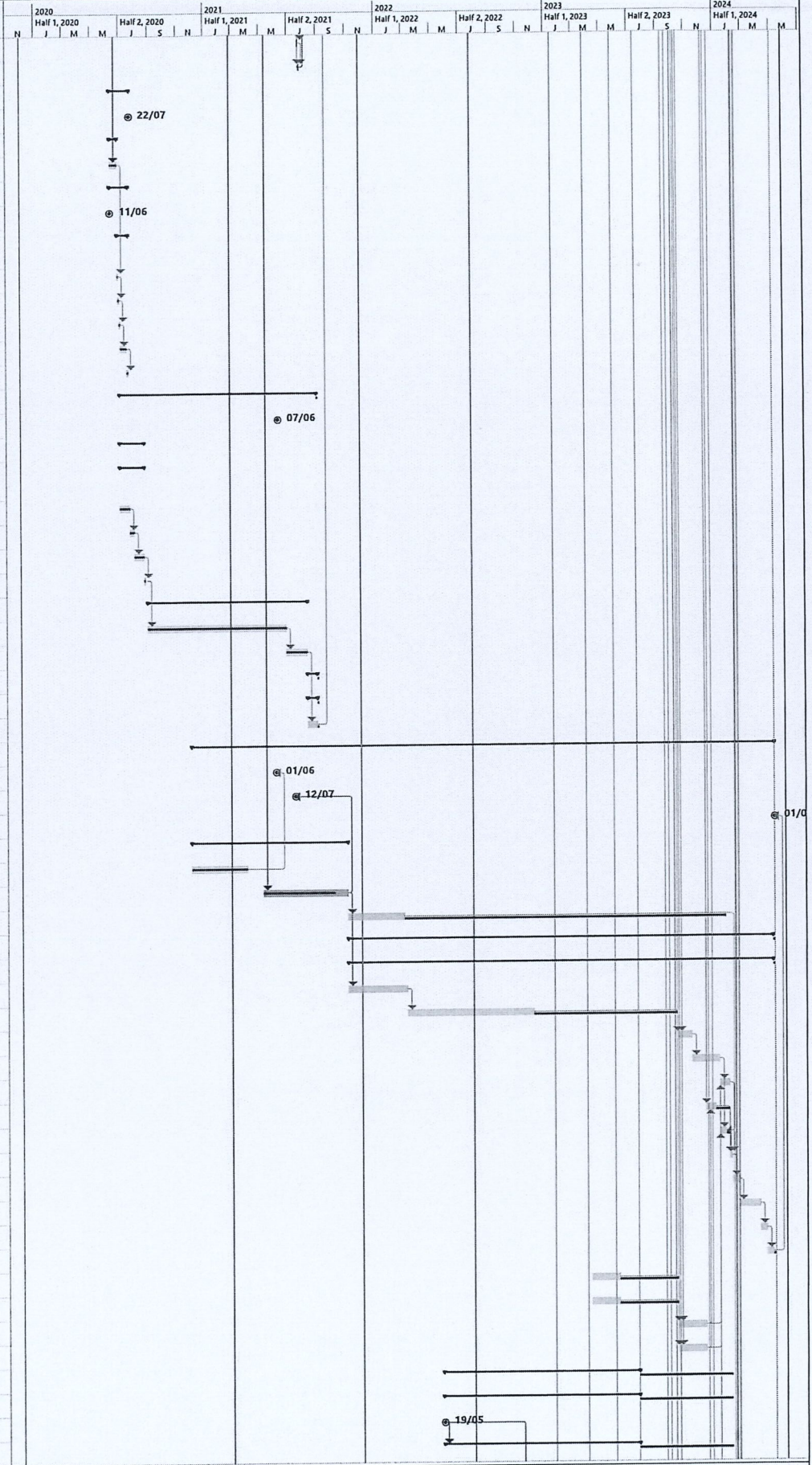


ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names	Gantt Chart (2020-2024)																							
1106	1106.5.31.3.2.3	Acceptance of conforming quotation (Completed)	21 days	Sat 22/08/20	Fri 11/09/20	Sat 22/08/20	Fri 11/09/20	Sat 22/08/20	Fri 11/09/20	0 days	1105	1112		[Gantt Chart]																							
1107	1107.5.31.3.3	Subletting of Electrical and Mechanical Installation Work w/ supply of LCP	81 days	Sat 26/09/20	Tue 15/12/20	Sat 26/09/20	Tue 15/12/20	Sat 26/09/20	Tue 15/12/20	0 days				[Gantt Chart]																							
1108	1108.5.31.3.3.1	Submission for Subletting Package	30 days	Sat 26/09/20	Sun 25/10/20	Sat 26/09/20	Sun 25/10/20	Sat 26/09/20	Sun 25/10/20	0 days	1112	1109		[Gantt Chart]																							
1109	1109.5.31.3.3.2	Invitation to tender	21 days	Mon 26/10/20	Sun 15/11/20	Mon 26/10/20	Sun 15/11/20	Mon 26/10/20	Sun 15/11/20	0 days	1108	1110		[Gantt Chart]																							
1110	1110.5.31.3.3.3	Acceptance of conforming tender (Completed)	30 days	Mon 16/11/20	Tue 15/12/20	Mon 16/11/20	Tue 15/12/20	Mon 16/11/20	Tue 15/12/20	0 days	1109	1127		[Gantt Chart]																							
1111	1111.5.31.4	Design Submissions	14 days	Sat 12/09/20	Fri 25/09/20	Sat 12/09/20	Fri 25/09/20	Sat 12/09/20	Fri 25/09/20	0 days				[Gantt Chart]																							
1112	1112.5.31.4.1	Design submissions for retrofitting the existing PST No. 4 and No. 6	14 days	Sat 12/09/20	Fri 25/09/20	Sat 12/09/20	Fri 25/09/20	Sat 12/09/20	Fri 25/09/20	0 days	1102,1106	1115,1118,1108		[Gantt Chart]																							
1113	1113.5.31.5	Manufacturing and Delivery of Plant & Materials	195 days	Sat 26/09/20	Thu 08/04/21	Sat 26/09/20	Thu 08/04/21	Sat 26/09/20	Thu 08/04/21	0 days				[Gantt Chart]																							
1114	1114.5.31.5.1	Rotating Bridge Scrapers and associated materials	195 days	Sat 26/09/20	Thu 08/04/21	Sat 26/09/20	Thu 08/04/21	Sat 26/09/20	Thu 08/04/21	0 days				[Gantt Chart]																							
1115	1115.5.31.5.1.1	Manufacturing and Factory Acceptance Test of Plant	150 days	Sat 26/09/20	Mon 22/02/21	Sat 26/09/20	Mon 22/02/21	Sat 26/09/20	Mon 22/02/21	0 days	1112	1116		[Gantt Chart]																							
1116	1116.5.31.5.1.2	Shipping and Delivery of Plant to site (Rev. 8)	45 days	Tue 23/02/21	Thu 08/04/21	Tue 23/02/21	Thu 08/04/21	Tue 23/02/21	Thu 08/04/21	0 days	1115	1133		[Gantt Chart]																							
1117	1117.5.31.5.2	Pipework	120 days	Sat 26/09/20	Sat 23/01/21	Sat 26/09/20	Sat 23/01/21	Sat 26/09/20	Sat 23/01/21	0 days				[Gantt Chart]																							
1118	1118.5.31.5.2.1	Manufacturing and Factory Acceptance Test of Plant	90 days	Sat 26/09/20	Thu 24/12/20	Sat 26/09/20	Thu 24/12/20	Sat 26/09/20	Thu 24/12/20	0 days	1112	1119		[Gantt Chart]																							
1119	1119.5.31.5.2.2	Shipping and Delivery of Plant to site	30 days	Fri 25/12/20	Sat 23/01/21	Fri 25/12/20	Sat 23/01/21	Fri 25/12/20	Sat 23/01/21	0 days	1118	1128		[Gantt Chart]																							
1120	1120.5.31.6	Tentative Civil Handover, Filtrate Lifting Well and Eq. Tank (Completion of work)	1 day	Sat 01/05/21	Sat 01/05/21	Sat 01/05/21	Sat 01/05/21	Sat 01/05/21	Sat 01/05/21	0 days	1094FF,108!			[Gantt Chart]																							
1121	1121.5.31.7	Site Installation Work	300 days	Thu 01/10/20	Tue 27/07/21	Thu 01/10/20	Tue 27/07/21	Thu 01/10/20	Tue 27/07/21	0 days				[Gantt Chart]																							
1122	1122.5.31.7.1	Commencement of retrofitting the existing PST No. 4 and No. 6	300 days	Thu 01/10/20	Tue 27/07/21	Thu 01/10/20	Tue 27/07/21	Thu 01/10/20	Tue 27/07/21	0 days				[Gantt Chart]																							
1123	1123.5.31.7.1.1	Temporary flow diversion of Filtrate from PST No. 4,	1 day	Thu 01/10/20	Thu 01/10/20	Thu 01/10/20	Thu 01/10/20	Thu 01/10/20	Thu 01/10/20	0 days		1124		[Gantt Chart]																							
1124	1124.5.31.7.1.2	Dismantle and Removal of E&M Equipment at PST No. 6	60 days	Fri 02/10/20	Mon 30/11/20	Fri 02/10/20	Mon 30/11/20	Fri 02/10/20	Mon 30/11/20	0 days	1123	1125		[Gantt Chart]																							
1125	1125.5.31.7.1.3	Temporary flow diversion of Filtrate from PST No. 6	7 days	Tue 01/12/20	Mon 07/12/20	Tue 01/12/20	Mon 07/12/20	Tue 01/12/20	Mon 07/12/20	0 days	1124	1126		[Gantt Chart]																							
1126	1126.5.31.7.1.4	Dismantle and Removal of E&M Equipment at PST No. 4	119 days	Tue 08/12/20	Mon 05/04/21	Tue 08/12/20	Mon 05/04/21	Tue 08/12/20	Mon 05/04/21	0 days	1125	1128		[Gantt Chart]																							
1127	1127.5.31.7.1.5	Mechanical Installations of existing PSTs No. 4 (Completed)	56 days	Tue 06/04/21	Mon 31/05/21	Tue 06/04/21	Mon 31/05/21	Tue 06/04/21	Mon 31/05/21	2.5 days	1110			[Gantt Chart]																							
1128	1128.5.31.7.1.5.1	Installation of PST Influent feed pipe	5 days	Tue 06/04/21	Sat 10/04/21	Tue 06/04/21	Sat 10/04/21	Tue 06/04/21	Sat 10/04/21	0 days	1126,1119	1129	ME - A x 4~6 men	[Gantt Chart]																							
1129	1129.5.31.7.1.5.2	Installation of circular baffle diffuser box	5 days	Sun 11/04/21	Thu 15/04/21	Sun 11/04/21	Thu 15/04/21	Sun 11/04/21	Thu 15/04/21	0 days	1128	1130	ME - A x 4~6 men	[Gantt Chart]																							
1130	1130.5.31.7.1.5.3	Installation of scum baffle plates	5 days	Fri 16/04/21	Tue 20/04/21	Fri 16/04/21	Tue 20/04/21	Fri 16/04/21	Tue 20/04/21	0 days	1129	1131	ME - A x 4~6 men	[Gantt Chart]																							
1131	1131.5.31.7.1.5.4	Installation of scum box with collection valve and pipework	5 days	Wed 21/04/21	Sun 25/04/21	Wed 21/04/21	Sun 25/04/21	Wed 21/04/21	Sun 25/04/21	0 days	1130	1132	ME - A x 4~6 men	[Gantt Chart]																							
1132	1132.5.31.7.1.5.5	Installation of v-notched weir plate	7 days	Mon 26/04/21	Sun 02/05/21	Mon 26/04/21	Sun 02/05/21	Mon 26/04/21	Sun 02/05/21	0 days	1131	1133	ME - A x 4~6 men	[Gantt Chart]																							
1133	1133.5.31.7.1.5.6	Installation of center bearing and slip ring assembly for rotating bridge	5 days	Mon 03/05/21	Fri 07/05/21	Mon 03/05/21	Fri 07/05/21	Mon 03/05/21	Fri 07/05/21	0 days	1132,1116	1134	ME - A x 4~6 men	[Gantt Chart]																							
1134	1134.5.31.7.1.5.7	Installation of motor and gearbox assembly for rotating bridge	5 days	Sat 08/05/21	Wed 12/05/21	Sat 08/05/21	Wed 12/05/21	Sat 08/05/21	Wed 12/05/21	0 days	1133	1135	ME - A x 4~6 men	[Gantt Chart]																							
1135	1135.5.31.7.1.5.8	Installation of rotating bridge sludge and scum scraper assembly	5 days	Thu 13/05/21	Mon 17/05/21	Thu 13/05/21	Mon 17/05/21	Thu 13/05/21	Mon 17/05/21	0 days	1134	1136,1138	ME - A x 4~6 men	[Gantt Chart]																							
1136	1136.5.31.7.1.5.9	Installation of removable FRP covers for effluent channel	14 days	Tue 18/05/21	Mon 31/05/21	Tue 18/05/21	Mon 31/05/21	Tue 18/05/21	Mon 31/05/21	0 days	1135	1140	ME - A x 4~6 men	[Gantt Chart]																							
1137	1137.5.31.7.1.6	Electrical Installations of existing PST No. 4	10 days	Tue 18/05/21	Thu 27/05/21	Tue 18/05/21	Thu 27/05/21	Tue 18/05/21	Thu 27/05/21	0 days		1140		[Gantt Chart]																							
1138	1138.5.31.7.1.6.1	Installation of local control panels	5 days	Tue 18/05/21	Sat 22/05/21	Tue 18/05/21	Sat 22/05/21	Tue 18/05/21	Sat 22/05/21	0 days	1135	1139	EE - A x 4~6 men	[Gantt Chart]																							
1139	1139.5.31.7.1.6.2	cable laying and terminations	5 days	Sun 23/05/21	Thu 27/05/21	Sun 23/05/21	Thu 27/05/21	Sun 23/05/21	Thu 27/05/21	0 days	1138	1140	EE - A x 4~6 men	[Gantt Chart]																							
1140	1140.5.31.7.1.7	Site Acceptance Test for E&M Equip at existing PST No. 4	5 days	Tue 01/06/21	Sat 05/06/21	Tue 01/06/21	Sat 05/06/21	Tue 01/06/21	Sat 05/06/21	49 days	1137,1136,11163			[Gantt Chart]																							
1141	1141.5.31.7.1.8	CNE-0229 - Removal of accumulated sludge inside PST No. 6	12 days	Wed 19/05/21	Sun 30/05/21	Wed 19/05/21	Sun 30/05/21	Wed 19/05/21	Sun 30/05/21	0 days		1151		[Gantt Chart]																							
1142	1142.5.31.7.1.8.1	Filtrate diversion to Temporary Filtrate Equalisation Tank	2 days	Wed 19/05/21	Thu 20/05/21	Wed 19/05/21	Thu 20/05/21	Wed 19/05/21	Thu 20/05/21	0 days		1143		[Gantt Chart]																							
1143	1143.5.31.7.1.8.2	Removal of floating scum / sludge inside PST No. 6	7 days	Fri 21/05/21	Thu 27/05/21	Fri 21/05/21	Thu 27/05/21	Fri 21/05/21	Thu 27/05/21	0 days	1142,1147	1144,1145		[Gantt Chart]																							
1144	1144.5.31.7.1.8.3	Clearance of blockage of PST No. 6 drain pipe	3 days	Fri 28/05/21	Sun 30/05/21	Fri 28/05/21	Sun 30/05/21	Fri 28/05/21	Sun 30/05/21	0 days		1143		[Gantt Chart]																							
1145	1145.5.31.7.1.8.4	Retrofitting Concrete Structure of PST No. 6	3 days	Fri 28/05/21	Sun 30/05/21	Fri 28/05/21	Sun 30/05/21	Fri 28/05/21	Sun 30/05/21	0 days		1143		[Gantt Chart]																							
1146	1146.5.31.7.1.9	NCE-007 - Additional Contract Requirements for provision ICE's Certificates (RSE) on re-use of existing materials	8 days	Mon 14/06/21	Mon 21/06/21	Mon 14/06/21	Mon 21/06/21	Mon 14/06/21	Mon 21/06/21	0 days				[Gantt Chart]																							
1147	1147.5.31.7.1.9.1	Provision of ICE's Certificate	8 days	Mon 14/06/21	Mon 21/06/21	Mon 14/06/21	Mon 21/06/21	Mon 14/06/21	Mon 21/06/21	0 days		1143,1151		[Gantt Chart]																							
1148	1148.5.31.7.1.10	NCE-008 - Additional Contract Requirements for provision ICE's Certificates on product design of E&M plant and materials.	14 days	Thu 24/06/21	Wed 07/07/21	Thu 24/06/21	Wed 07/07/21	Thu 24/06/21	Wed 07/07/21	0 days				[Gantt Chart]																							
1149	1149.5.31.7.1.10	Provision of ICE's Certificate	14 days	Thu 24/06/21	Wed 07/07/21	Thu 24/06/21	Wed 07/07/21	Thu 24/06/21	Wed 07/07/21	0 days		1151		[Gantt Chart]																							
1150	1150.5.31.7.1.11	Mechanical Installations of existing PST No. 6	48 days	Fri 04/06/21	Wed 21/07/21	Fri 04/06/21	Wed 21/07/21	Fri 04/06/21	Wed 21/07/21	0 days				[Gantt Chart]																							
1151	1151.5.31.7.1.11	Installation of PST influent feed pipe	2 days	Thu 08/07/21	Fri 09/07/21	Thu 08/07/21	Fri 09/07/21	Thu 08/07/21	Fri 09/07/21	0 days	1141,1147,11152		ME - A x 4~6 men	[Gantt Chart]																							
1152	1152.5.31.7.1.11	Installation of center bearing and slip ring assembly for rotating bridge	2 days	Sat 10/07/21	Sun 11/07/21	Sat 10/07/21	Sun 11/07/21	Sat 10/07/21	Sun 11/07/21	0 days	1151	1153,1156	ME - A x 4~6 men	[Gantt Chart]																							
1153	1153.5.31.7.1.11	Installation of motor and gearbox assembly for rotating bridge	5 days	Mon 12/07/21	Fri 16/07/21	Mon 12/07/21	Fri 16/07/21	Mon 12/07/21	Fri 16/07/21	0 days	1152	1160,1154,1155	ME - A x 4~6 men	[Gantt Chart]																							
1154	1154.5.31.7.1.11	Installation of rotating bridge sludge and scum scraper assembly	5 days	Sat 17/07/21	Wed 21/07/21	Sat 17/07/21	Wed 21/07/21	Sat 17/07/21	Wed 21/07/21	0 days	1153		ME - A x 4~6 men	[Gantt Chart]																							
1155	1155.5.31.7.1.11	Installation of circular baffle diffuser box	2 days	Sat 17/07/21	Sun 18/07/21	Sat 17/07/21	Sun 18/07/21	Sat 17/07/21	Sun 18/07/21	0 days	1153		ME - A x 4~6 men	[Gantt Chart]																							
1156	1156.5.31.7.1.11	Installation of v-notched weir plate	2 days	Fri 04/06/21	Sat 05/06/21	Fri 04/06/21	Sat 05/06/21	Fri 04/06/21	Sat 05/06/21	0 days	1152	1157,1158	ME - A x 4~6 men	[Gantt Chart]																							
1157	1157.5.31.7.1.11	Installation of scum baffle plates	2 days	Sun 06/06/21	Mon 07/06/21	Sun 06/06/21	Mon 07/06/21	Sun 06/06/21	Mon 07/06/21	0 days	1156		ME - A x 4~6 men	[Gantt Chart]																							
1158	1158.5.31.7.1.11	Installation of scum collection box	2 days	Sun 06/06/21	Mon 07/06/21	Sun 06/06/21	Mon 07/06/21	Sun 06/06/21	Mon 07/06/21	0 days	1156		ME - A x 4~6 men	[Gantt Chart]																							
1159	1159.5.31.7.1.12	Electrical Installations of existing PSTs No. 6	6 days	Sat 17/07/21	Thu 22/07/21	Sat 17/07/21	Thu 22/07/21	Sat 17/07/21	Thu 22/07/21	0 days		1162		[Gantt Chart]																							
1160	1160.5.31.7.1.12	Installation of local control panels	3 days	Sat 17/07/21	Mon 19/07/21	Sat 17/07/21	Mon 19/07/21	Sat 17/07/21	Mon 19/07/21	0 days	1153	1161		[Gantt Chart]																							
1161	1161.5.31.7.1.12	cable laying and terminations	3 days	Tue 20/07/21	Thu 22/07/21	Tue 20/07/21	Thu 22/07/21	Tue 20/07/21	Thu 22/07/21	0 days	1160	1162		[Gantt Chart]																							

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



ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
1162	1162.5.31.7.1.13		Site Acceptance Test for E&M Equip at existing PST No. 6	2 days	Fri 23/07/21	Sat 24/07/21	Fri 23/07/21	Sat 24/07/21	Sat 24/07/21	Mon 26/07/21	0 days	1159,1161	1163	
1163	1163.5.31.7.1.14		System Commissioning for E&M Equip at existing PST No. 4 and No. 6	3 days	Sun 25/07/21	Tue 27/07/21	Sun 25/07/21	Tue 27/07/21	Sun 25/07/21	Tue 27/07/21	0 days	1140,1162	1096FF	
1164	1164.5.32		Existing Main Power House Electrical, Portion B-7A and B-7B (PS 6B.3.17)	42 days	Thu 11/06/20	Wed 22/07/20	Thu 11/06/20	Wed 22/07/20	Thu 11/06/20	Wed 22/07/20	0 days			
1165	1165.5.32.1		Planned Key Date Completion Date - KD3A	0 days	Wed 22/07/20	Wed 22/07/20	Wed 22/07/20	Wed 22/07/20	Wed 22/07/20	Wed 22/07/20	0 days			
1166	1166.5.32.2		Design Submissions for Existing Emergency Generator House	15 days	Fri 12/06/20	Fri 26/06/20	Fri 12/06/20	Fri 26/06/20	Fri 12/06/20	Fri 26/06/20	0 days			
1167	1167.5.32.2.1		Design submissions for E&M installation works of existing power house	15 days	Fri 12/06/20	Fri 26/06/20	Fri 12/06/20	Fri 26/06/20	Fri 12/06/20	Fri 26/06/20	0 days	188	1171	
1168	1168.5.32.3		Site Installation Work	39 days	Thu 11/06/20	Sun 19/07/20	Thu 11/06/20	Sun 19/07/20	Thu 11/06/20	Sun 19/07/20	0 days			
1169	1169.5.32.3.1		Tentative Civil Handover Date, Portion B-7A & 7B area for modification of exist	1 day	Thu 11/06/20	Thu 11/06/20	Thu 11/06/20	Thu 11/06/20	Thu 11/06/20	Thu 11/06/20	0 days			
1170	1170.5.32.3.2		Commencement of Modification of existing emergency generator Electrical Works	23 days	Sat 27/06/20	Sun 19/07/20	Sat 27/06/20	Sun 19/07/20	Sat 27/06/20	Sun 19/07/20	0 days			
1171	1171.5.32.3.2.1		Site survey and preparation work	1 day	Sat 27/06/20	Sat 27/06/20	Sat 27/06/20	Sat 27/06/20	Sat 27/06/20	Sat 27/06/20	0 days	1167	1172	
1172	1172.5.32.3.2.2		Modification of existing emergency generator electrical works	3 days	Sun 28/06/20	Tue 30/06/20	Sun 28/06/20	Tue 30/06/20	Sun 28/06/20	Tue 30/06/20	0 days	1171	1173	
1173	1173.5.32.3.2.3		Test the new switchboard for on-site mobile generator	2 days	Wed 01/07/20	Thu 02/07/20	Wed 01/07/20	Thu 02/07/20	Wed 01/07/20	Thu 02/07/20	0 days	1172	1174	
1174	1174.5.32.3.2.4		Dismantling and removal the existing power & control cables	14 days	Fri 03/07/20	Thu 16/07/20	Fri 03/07/20	Thu 16/07/20	Fri 03/07/20	Thu 16/07/20	0 days	1173	1175	
1175	1175.5.32.3.2.5		Take down existing generator to DSD (Completed)	3 days	Fri 17/07/20	Sun 19/07/20	Fri 17/07/20	Sun 19/07/20	Fri 17/07/20	Sun 19/07/20	0 days	1174		
1176	1176.5.33		Existing Sludge Press House, Portion B-10 (PS 6B.2.11)	425 days	Wed 01/07/20	Sun 29/08/21	Wed 01/07/20	Sun 29/08/21	Wed 01/07/20	Wed 01/09/21	3 days			
1177	1177.5.33.1		Planned Key Date Completion Date - KD3B	0 days	Mon 07/06/21	Mon 07/06/21	Mon 07/06/21	Mon 07/06/21	Mon 07/06/21	Mon 07/06/21	0 days			
1178	1178.5.33.2		Selection of Suppliers for major plant and materials for Filter Presses	52 days	Wed 01/07/20	Fri 21/08/20	Wed 01/07/20	Fri 21/08/20	Wed 01/07/20	Fri 21/08/20	0 days			
1179	1179.5.33.2.1		Mis - new replacement filter plates and provision of filter cloths, C11, ref. EQT038	52 days	Wed 01/07/20	Fri 21/08/20	Wed 01/07/20	Fri 21/08/20	Wed 01/07/20	Fri 21/08/20	0 days			
1180	1180.5.33.2.1.1		Submission for acceptance of purchasing package	21 days	Wed 01/07/20	Tue 21/07/20	Wed 01/07/20	Tue 21/07/20	Wed 01/07/20	Tue 21/07/20	0 days		1181	
1181	1181.5.33.2.1.2		Invitation of quotations for purchasing package	10 days	Wed 22/07/20	Fri 31/07/20	Wed 22/07/20	Fri 31/07/20	Wed 22/07/20	Fri 31/07/20	0 days	1180	1182	
1182	1182.5.33.2.1.3		Acceptance of conforming quotation (Completed)	21 days	Sat 01/08/20	Fri 21/08/20	Sat 01/08/20	Fri 21/08/20	Sat 01/08/20	Fri 21/08/20	0 days	1181	1183	
1183	1183.5.33.3		Design submission for replacement of filter plates	7 days	Fri 21/08/20	Fri 28/08/20	Fri 21/08/20	Fri 28/08/20	Fri 21/08/20	Fri 28/08/20	0 days	1182	1185	
1184	1184.5.33.4		Manufacturing and Delivery of Plant & Materials	345 days	Sat 29/08/20	Sun 08/08/21	Sat 29/08/20	Sun 08/08/21	Sat 29/08/20	Sun 08/08/21	0 days			
1185	1185.5.33.4.1		Manufacturing and Factory Acceptance Test of Plant	300 days	Sat 29/08/20	Thu 24/06/21	Sat 29/08/20	Thu 24/06/21	Sat 29/08/20	Thu 24/06/21	0 days	1183	1186	
1186	1186.5.33.4.2		Shipping and Delivery of Plant to site	45 days	Fri 25/06/21	Sun 08/08/21	Fri 25/06/21	Sun 08/08/21	Fri 25/06/21	Sun 08/08/21	0 days	1185	1189	
1187	1187.5.33.5		Site Installation Work	21 days	Mon 09/08/21	Sun 29/08/21	Mon 09/08/21	Sun 29/08/21	Thu 12/08/21	Wed 01/09/21	3 days			
1188	1188.5.33.5.1		Commencement of replacement of filter plates	21 days	Mon 09/08/21	Sun 29/08/21	Mon 09/08/21	Sun 29/08/21	Thu 12/08/21	Wed 01/09/21	3 days			
1189	1189.5.33.5.1.1		Replacement of filter plates (On Hold)	21 days	Mon 09/08/21	Sun 29/08/21	Mon 09/08/21	Sun 29/08/21	Thu 12/08/21	Wed 01/09/21	3 days	1186	1097FF	
1190	1190.5.34		Fire Services Installation (PS 6B.6.9)	1248 days	Tue 01/12/20	Wed 01/05/24	Tue 01/12/20	Wed 01/05/24	Tue 01/12/20	Wed 01/05/24	0 days			
1191	1191.5.34.1		Planned Key Date Completion Date - KD18, Fire	0 days	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	0 days	1195FF		
1192	1192.5.34.2		Planned Sectional Completion Date - Section 1, FSI	0 days	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	0 days	1196FF		
1193	1193.5.34.3		Planned Sectional Completion Date - Section 4, FSI	0 days	Wed 01/05/24	Wed 01/05/24	Wed 01/05/24	Wed 01/05/24	Wed 01/05/24	Wed 01/05/24	0 days	1211FF		
1194	1194.5.34.4		Design Submissions for FSI	334 days	Tue 01/12/20	Sat 30/10/21	Tue 01/12/20	Sat 30/10/21	Tue 01/12/20	Sat 30/10/21	0 days			
1195	1195.5.34.4.1		CDS081-11 - Civil and dimensional requirements drawings for Fire Servi	120 days	Tue 01/12/20	Tue 30/03/21	Tue 01/12/20	Tue 30/03/21	Tue 01/12/20	Tue 30/03/21	0 days		1191FF	
1196	1196.5.34.4.2		CDS049 - Detailed Design for Fire Services include AFA, FS, FH, Sprinkler	180 days	Mon 03/05/21	Sat 30/10/21	Mon 03/05/21	Sat 30/10/21	Mon 03/05/21	Sat 30/10/21	0 days	163	1200,1197,1192FF	
1197	1197.5.34.5		DG Stores Submissions to FSD for approval	120 days	Sun 31/10/21	Sun 27/02/22	Sun 31/10/21	Sun 27/02/22	Mon 02/10/23	Mon 29/01/24	690 days	1196	1206FF	
1198	1198.5.34.6		Site Installation Work	910 days	Sun 31/10/21	Sat 27/04/24	Sun 31/10/21	Sat 27/04/24	Sat 10/09/22	Wed 01/05/24	4 days			
1199	1199.5.34.6.1		Commencement of Fire Services Installation	910 days	Sun 31/10/21	Sat 27/04/24	Sun 31/10/21	Sat 27/04/24	Sat 10/09/22	Wed 01/05/24	4 days			
1200	1200.5.34.6.1.1		Design Review of Approved General Building Plan	126 days	Sun 31/10/21	Sat 05/03/22	Sun 31/10/21	Sat 05/03/22	Sat 10/09/22	Fri 13/01/23	0 days	1196	1201	
1201	1201.5.34.6.1.2		Submission of WWO542 for WSD's approval	270 days	Sun 06/03/22	Wed 30/11/22	Sun 06/03/22	Wed 30/11/22	Sat 14/01/23	Tue 10/10/23	310 days	1200	1202	
1202	1202.5.34.6.1.3		Submission of WWO46 for WSD's Inspection	30 days	Sat 07/10/23	Sun 05/11/23	Sat 07/10/23	Sun 05/11/23	Wed 11/10/23	Thu 09/11/23	0 days	1201,363,492,1203		
1203	1203.5.34.6.1.4		Obtain WWO46 Part V	60 days	Mon 06/11/23	Thu 04/01/24	Mon 06/11/23	Thu 04/01/24	Fri 10/11/23	Mon 08/01/24	0 days	1202	1206,1204	
1204	1204.5.34.6.1.5		FSD Inspection and Approval for MVAC	21 days	Fri 05/01/24	Thu 25/01/24	Fri 05/01/24	Thu 25/01/24	Tue 09/01/24	Mon 29/01/24	0 days	1214,1215,121207		
1205	1205.5.34.6.1.6		FSD Inspection and Approval for DG Stores	21 days	Wed 06/12/23	Wed 06/12/23	Wed 06/12/23	Wed 06/12/23	Tue 09/01/24	Mon 29/01/24	30 days	1214,1215,82,1207		
1206	1206.5.34.6.1.7		Submission of (FSI/314 & FSI/501) to FSD	14 days	Fri 05/01/24	Thu 18/01/24	Fri 05/01/24	Thu 18/01/24	Tue 16/01/24	Mon 29/01/24	7 days	1214,1215,121207		
1207	1207.5.34.6.1.8		Pre-Inspection meeting with FSD	5 days	Fri 26/01/24	Tue 30/01/24	Fri 26/01/24	Tue 30/01/24	Tue 30/01/24	Sat 03/02/24	0 days	1206,1204,121208		
1208	1208.5.34.6.1.9		Initial Inspection with FSD	15 days	Wed 31/01/24	Wed 14/02/24	Wed 31/01/24	Wed 14/02/24	Sun 04/02/24	Sun 18/02/24	0 days	1207	1209	
1209	1209.5.34.6.1.10		Document Checking	45 days	Thu 15/02/24	Sat 30/03/24	Thu 15/02/24	Sat 30/03/24	Mon 19/02/24	Wed 03/04/24	0 days	1208	1210	
1210	1210.5.34.6.1.11		Re-Inspections with FSD	14 days	Sun 31/03/24	Sat 13/04/24	Sun 31/03/24	Sat 13/04/24	Thu 04/04/24	Wed 17/04/24	0 days	1209	1211	
1211	1211.5.34.6.1.12		Issue of acceptance memo by FSD	14 days	Mon 14/04/24	Sat 27/04/24	Sun 14/04/24	Sat 27/04/24	Thu 18/04/24	Wed 01/05/24	4 days	1210	1193FF	
1212	1212.5.34.6.1.13		Installation of FS Pumps and Sprinkler Pumps	60 days	Mon 03/04/23	Thu 01/06/23	Mon 03/04/23	Thu 01/06/23	Mon 11/09/23	Thu 09/11/23	127 days		1215	
1213	1213.5.34.6.1.14		Installation of Fire Hydrant and Booster Pumps	60 days	Mon 03/04/23	Thu 01/06/23	Mon 03/04/23	Thu 01/06/23	Mon 11/09/23	Thu 09/11/23	127 days		1215	
1214	1214.5.34.6.1.15		SAT for Manual and automatic fire detection and alarm system	60 days	Sat 07/10/23	Tue 05/12/23	Sat 07/10/23	Tue 05/12/23	Fri 10/11/23	Mon 08/01/24	0 days	363,492,603,1206,1204,1205		
1215	1215.5.34.6.1.16		SAT for Fire hydrants, hose reels and street fire hydrant system	60 days	Sat 07/10/23	Tue 05/12/23	Sat 07/10/23	Tue 05/12/23	Fri 10/11/23	Mon 08/01/24	0 days	1212,1213,361206,1204,1205		
1216	1216.5.35		Fire Services Sprinkler Pumping Room, Portion B-7 & B-7B (PS 6B.6.9)	421 days	Thu 19/05/22	Thu 13/07/23	Thu 19/05/22	Thu 13/07/23	Mon 05/12/22	Mon 29/01/24	200 days			
1217	1217.5.35.1		Site Installation Work	421 days	Thu 19/05/22	Thu 13/07/23	Thu 19/05/22	Thu 13/07/23	Mon 05/12/22	Mon 29/01/24	200 days			
1218	1218.5.35.1.1		Tentative Civil Handover Date, FS Sprinkler Pump Room (Rev. 5)	1 day	Thu 19/05/22	Thu 19/05/22	Thu 19/05/22	Thu 19/05/22	Mon 05/12/22	Mon 05/12/22	0 days		1219,1224	
1219	1219.5.35.1.2		Commencement of E&M Installation at FS & Sprinkler Pump Room	420 days	Thu 19/05/22	Thu 13/07/23	Thu 19/05/22	Thu 13/07/23	Tue 06/12/22	Mon 29/01/24	200 days	1218		



Bestwise Project: DE/2018/04 Date: 30/11/21

Task: Milestone Summary

Project Summary: Manual Summary

Late: Critical

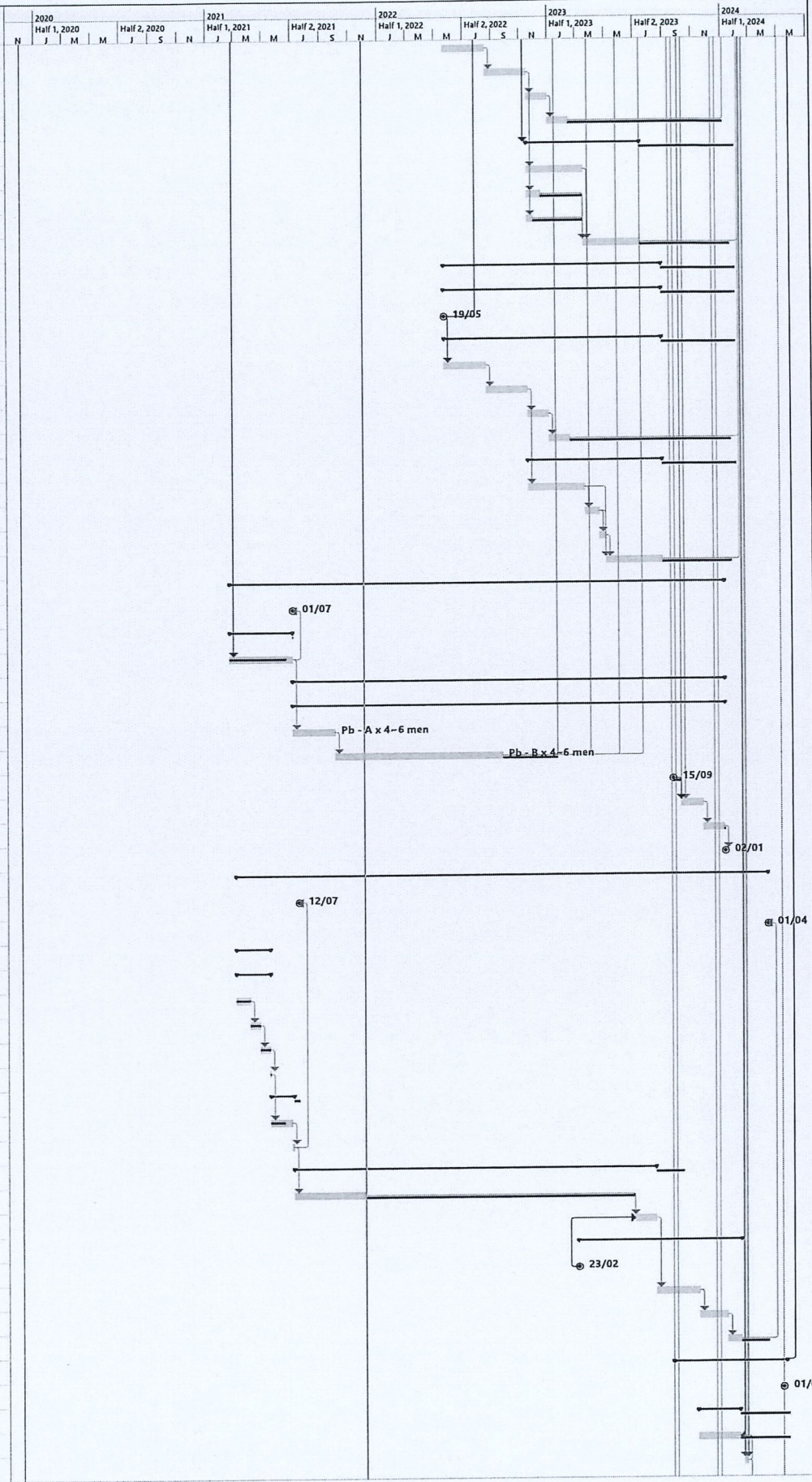
Critical Split: Progress

Manual Progress: Slack (float)

Milestone (Actual): Slack



ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
1220	1220	5.35.1.2.1	Mechanical Installations for FS & Sprinkler Pumps	90 edays	Thu 19/05/22	Wed 17/08/22	Thu 19/05/22	Wed 17/08/22	Tue 06/12/22	Mon 06/03/23	0 edays	1221		FS - A x 4~6 men
1221	1221	5.35.1.2.2	Electrical Installations for FS & Sprinkler Pumps	90 edays	Wed 17/08/22	Tue 15/11/22	Wed 17/08/22	Tue 15/11/22	Mon 06/03/23	Sun 04/06/23	0.63 edays	1220	1222,1225,1226,1227	FS - A x 4~6 men
1222	1222	5.35.1.2.3	Site Acceptance Test for FS & Sprinkler Pumps	45 days	Wed 16/11/22	Fri 30/12/22	Wed 16/11/22	Fri 30/12/22	Wed 18/10/23	Fri 01/12/23	0 days	1221	1223	
1223	1223	5.35.1.2.4	System Commissioning for FS & Sprinkler Pumps	45 days	Sat 31/12/22	Mon 13/02/23	Sat 31/12/22	Mon 13/02/23	Sat 02/12/23	Mon 15/01/24	325 days	1222	1206	
1224	1224	5.35.1.2.5	Building Services Installations at FS & Sprinkler Pump Room	240 days	Wed 16/11/22	Thu 13/07/23	Wed 16/11/22	Thu 13/07/23	Sun 04/06/23	Mon 29/01/24	200 days	1218		
1225	1225	5.35.1.2.5.1	Lighting and Power Distribution System, Chem 1&2	120 days	Wed 16/11/22	Wed 15/03/23	Wed 16/11/22	Wed 15/03/23	Sun 04/06/23	Sun 01/10/23	0 days	1221	1228	BS - A x 4~6 men
1226	1226	5.35.1.2.5.2	Lightning Protection System, FS & Sprinkler Pump Room	30 days	Wed 16/11/22	Thu 15/12/22	Wed 16/11/22	Thu 15/12/22	Sat 02/09/23	Sun 01/10/23	90 days	1221	1228	BS - A x 4~6 men
1227	1227	5.35.1.2.5.3	Mechanical Ventilation System, FS & Sprinkler PR	14 days	Wed 16/11/22	Tue 29/11/22	Wed 16/11/22	Tue 29/11/22	Mon 18/09/23	Sun 01/10/23	106 days	1221	1228	MVAC - A x 4~6 men
1228	1228	5.35.1.2.5.4	Testing and Commissioning of Building Services Installations, FS &	120 days	Thu 16/03/23	Thu 13/07/23	Thu 16/03/23	Thu 13/07/23	Mon 02/10/23	Mon 29/01/24	189 days	1225,1226,1206FF		
1229	1229	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	Thu 19/05/22	Sat 26/08/23	Sat 22/10/22	Mon 29/01/24	156 days			
1230	1230	5.36.1	Site Installation Work	465 days	Thu 19/05/22	Sat 26/08/23	Thu 19/05/22	Sat 26/08/23	Sat 22/10/22	Mon 29/01/24	156 days			
1231	1231	5.36.1.1	Tentative Civil Handover Date, Fire Hydrant and Booster Pumping Roor	1 day	Thu 19/05/22	Thu 19/05/22	Thu 19/05/22	Thu 19/05/22	Sat 22/10/22	Sat 22/10/22	0 days	868FF+50 days,1233		
1232	1232	5.36.1.2	Commencement of E&M Installation at Street FH Pump Room	464 days	Thu 19/05/22	Sat 26/08/23	Thu 19/05/22	Sat 26/08/23	Sun 23/10/22	Mon 29/01/24	156 days			
1233	1233	5.36.1.2.1	Mechanical Installations for Street FH Pumps	90 edays	Thu 19/05/22	Wed 17/08/22	Thu 19/05/22	Wed 17/08/22	Sun 23/10/22	Sat 21/01/23	0 edays	1231	1234	FS - A x 4~6 men
1234	1234	5.36.1.2.2	Electrical Installations for Street FH Pump	90 edays	Wed 17/08/22	Tue 15/11/22	Wed 17/08/22	Tue 15/11/22	Sat 21/01/23	Fri 21/04/23	0.63 edays	1233	1235,1238	FS - A x 4~6 men
1235	1235	5.36.1.2.3	Site Acceptance Test for Street FH Pump	45 days	Wed 16/11/22	Fri 30/12/22	Wed 16/11/22	Fri 30/12/22	Wed 01/11/23	Fri 15/12/23	0 days	1234	1236	
1236	1236	5.36.1.2.4	System Commissioning for Street FH Pumps	45 days	Sat 31/12/22	Mon 13/02/23	Sat 31/12/22	Mon 13/02/23	Sat 16/12/23	Mon 29/01/24	339 days	1235	1206FF	
1237	1237	5.36.1.2.5	Building Services Installations at Street FH Pump Room	284 days	Wed 16/11/22	Sat 26/08/23	Wed 16/11/22	Sat 26/08/23	Fri 21/04/23	Mon 29/01/24	156 days			
1238	1238	5.36.1.2.5.1	Lighting and Power Distribution System, Street FH PR	120 days	Wed 16/11/22	Wed 15/03/23	Wed 16/11/22	Wed 15/03/23	Fri 21/04/23	Fri 18/08/23	0 days	1234	1241,1239	BS - A x 4~6 men
1239	1239	5.36.1.2.5.2	Lightning Protection System, Street FH PR	30 days	Thu 16/03/23	Fri 14/04/23	Thu 16/03/23	Fri 14/04/23	Sat 19/08/23	Sun 17/09/23	0 days	1238	1240,1241	BS - A x 4~6 men
1240	1240	5.36.1.2.5.3	Mechanical Ventilation System, Street FH PR	14 days	Sat 15/04/23	Fri 28/04/23	Sat 15/04/23	Fri 28/04/23	Mon 18/09/23	Sun 01/10/23	0 days	1239	1241	MVAC - A x 4~6 men
1241	1241	5.36.1.2.5.4	Testing and Commissioning of Building Services Installations, FH P	120 days	Sat 29/04/23	Sat 26/08/23	Sat 29/04/23	Sat 26/08/23	Mon 02/10/23	Mon 29/01/24	145 days	1238,1239,1206FF		
1242	1242	5.37	Plumbing Installation (PS 6B.6.8)	1049 days	Tue 16/02/21	Tue 02/01/24	Tue 16/02/21	Tue 02/01/24	Tue 16/02/21	Tue 02/01/24	0 days			
1243	1243	5.37.1	Planned Sectional Completion Date - Section 1, Plumbing	0 days	Thu 01/07/21	Thu 01/07/21	Thu 01/07/21	Thu 01/07/21	Thu 01/07/21	Thu 01/07/21	0 days	1245FF		
1244	1244	5.37.2	Design Submissions for Plumbing	134 days	Tue 16/02/21	Wed 30/06/21	Tue 16/02/21	Wed 30/06/21	Tue 16/02/21	Thu 01/07/21	1 day			
1245	1245	5.37.2.1	CDS033 - Detailed Design for Plumbing System	134 edays	Tue 16/02/21	Wed 30/06/21	Tue 16/02/21	Wed 30/06/21	Tue 16/02/21	Thu 01/07/21	0.63 edays	158	1248,1243FF	
1246	1246	5.37.3	Site Installation Work	915 days	Thu 01/07/21	Tue 02/01/24	Thu 01/07/21	Tue 02/01/24	Wed 08/12/21	Tue 02/01/24	0 days			
1247	1247	5.37.3.1	Commencement of Plumbing Installation	915 days	Thu 01/07/21	Tue 02/01/24	Thu 01/07/21	Tue 02/01/24	Wed 08/12/21	Tue 02/01/24	0 days			
1248	1248	5.37.3.1.1	Submission of detail design for acceptance	90 days	Thu 01/07/21	Tue 28/09/21	Thu 01/07/21	Tue 28/09/21	Wed 08/12/21	Mon 07/03/22	0 days	1245	1249	Pb - A x 4~6 men
1249	1249	5.37.3.1.2	Submission of WWO542 for WSD's approval	355 days	Wed 29/09/21	Sun 18/09/22	Wed 29/09/21	Sun 18/09/22	Tue 08/03/22	Sat 25/02/23	118 days	1248	361,490,601,778	Pb - B x 4~6 men
1250	1250	5.37.3.1.3	Connection of External Pumping System (By others)	0 days	Fri 15/09/23	Fri 15/09/23	Fri 15/09/23	Fri 15/09/23	Wed 04/10/23	Wed 04/10/23	17 days	1251		
1251	1251	5.37.3.1.4	Submission of WWO46 for WSD's Inspection	45 days	Mon 02/10/23	Wed 15/11/23	Mon 02/10/23	Wed 15/11/23	Wed 04/10/23	Fri 17/11/23	0 days	1250,361,49C,1252		
1252	1252	5.37.3.1.5	Obtain WWO46 Part V	45 days	Thu 16/11/23	Sat 30/12/23	Thu 16/11/23	Sat 30/12/23	Sat 18/11/23	Mon 01/01/24	2 days	1251	1253	
1253	1253	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	Tue 02/01/24	Tue 02/01/24	Tue 02/01/24	Tue 02/01/24	0 days	1252		
1254	1254	5.38	Photovoltaic Power System (PS 6B.6.11)	1128 days	Mon 01/03/21	Mon 01/04/24	Mon 01/03/21	Mon 01/04/24	Mon 01/03/21	Mon 01/04/24	0 days			
1255	1255	5.38.1	Planned Sectional Completion Date - Section 1, BR 2A & 2B	0 days	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	0 days	1265FF		
1256	1256	5.38.2	Planned Sectional Completion Date - Section 2, BR 2A & 2B	0 days	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	0 days	1273FF		
1257	1257	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	Mon 01/03/21	Wed 12/05/21	Mon 01/03/21	Wed 12/05/21	0 days			
1258	1258	5.38.3.1	PV System (EQ1041)	73 days	Mon 01/03/21	Wed 12/05/21	Mon 01/03/21	Wed 12/05/21	Mon 01/03/21	Wed 12/05/21	0 days			
1259	1259	5.38.3.1.1	Submission for acceptance of purchasing package	30 days	Mon 01/03/21	Tue 30/03/21	Mon 01/03/21	Tue 30/03/21	Mon 01/03/21	Tue 30/03/21	0 days	1260	1260	
1260	1260	5.38.3.1.2	Invitation of quotations for purchasing package	21 days	Wed 31/03/21	Tue 20/04/21	Wed 31/03/21	Tue 20/04/21	Wed 31/03/21	Tue 20/04/21	0 days	1259	1261	
1261	1261	5.38.3.1.3	Acceptance of conforming quotation	21 days	Wed 21/04/21	Tue 11/05/21	Wed 21/04/21	Tue 11/05/21	Wed 21/04/21	Tue 11/05/21	0 days	1260	1262	
1262	1262	5.38.3.1.4	Commencement of Design Work	1 day	Wed 12/05/21	Wed 12/05/21	Wed 12/05/21	Wed 12/05/21	Wed 12/05/21	Wed 12/05/21	0 days	1261	1264	
1263	1263	5.38.4	Design Submissions	49 days	Wed 12/05/21	Wed 30/06/21	Wed 12/05/21	Wed 30/06/21	Wed 12/05/21	Mon 12/07/21	12 days			
1264	1264	5.38.4.1	CDS060 - Detailed Design for PV System	45 edays	Wed 12/05/21	Sat 26/06/21	Wed 12/05/21	Sat 26/06/21	Wed 12/05/21	Fri 09/07/21	0.63 edays	1262	1265	
1265	1265	5.38.4.2	Complete the CLP's Electronic Application Form and Upload Required C	4 days	Sun 27/06/21	Wed 30/06/21	Sun 27/06/21	Wed 30/06/21	Fri 09/07/21	Mon 12/07/21	0 days	1264	1255FF,1267	
1266	1266	5.38.5	Material ordering and delivery to site	767 days	Thu 01/07/21	Sun 06/08/23	Thu 01/07/21	Sun 06/08/23	Fri 24/03/23	Wed 04/10/23	59 days			
1267	1267	5.38.5.1	Manufacturing and Factory Acceptance Test of Plant	150 days	Thu 01/07/21	Sat 27/11/21	Thu 01/07/21	Sat 27/11/21	Fri 24/03/23	Sun 20/08/23	572 days	1265	1268	
1268	1268	5.38.5.2	Shipping and Delivery of Plant to site	45 days	Fri 23/06/23	Sun 06/08/23	Fri 23/06/23	Sun 06/08/23	Mon 21/08/23	Wed 04/10/23	0 days	1267,1270S,1271		
1269	1269	5.38.6	Site Installation Work	345 days	Thu 23/02/23	Fri 02/02/24	Thu 23/02/23	Fri 02/02/24	Thu 23/02/23	Mon 01/04/24	0 days			
1270	1270	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	Thu 23/02/23	Thu 23/02/23	Thu 23/02/23	Thu 23/02/23	0 days	1268SS+120 edays		
1271	1271	5.38.6.2	Commencement of Site Installation Work	90 days	Mon 07/08/23	Sat 04/11/23	Mon 07/08/23	Sat 04/11/23	Thu 05/10/23	Tue 02/01/24	0 days	1268	1272	PV - A x 4~6 men
1272	1272	5.38.6.3	Technical Assessment, System Test and Installation	60 days	Sun 05/11/23	Wed 03/01/24	Sun 05/11/23	Wed 03/01/24	Wed 03/01/24	Sat 02/03/24	0 days	1271	1273	PV - A x 4~6 men
1273	1273	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	Thu 04/01/24	Fri 02/02/24	Sun 03/03/24	Mon 01/04/24	59 days	1272	1256FF	
1274	1274	5.39	Plant Commissioning	240 days	Tue 12/09/23	Wed 08/05/24	Tue 12/09/23	Wed 08/05/24	Tue 13/02/24	Mon 13/05/24	0 days	39FF		
1275	1275	5.39.1	Planned Sectional Completion Date - Section 4, Plant Commissioning	0 days	Wed 01/05/24	Wed 01/05/24	Wed 01/05/24	Wed 01/05/24	Wed 01/05/24	Wed 01/05/24	0 days			
1276	1276	5.39.2	Design Submission for Treatment Process Plant Testing & Commissionin	90 days	Wed 01/11/23	Mon 29/01/24	Wed 01/11/23	Mon 29/01/24	Wed 14/02/24	Mon 13/05/24	105 days			
1277	1277	5.39.2.1	Document Submission and Resubmission for T&C procedures	90 days	Wed 01/11/23	Mon 29/01/24	Wed 01/11/23	Mon 29/01/24	Wed 14/02/24	Mon 13/05/24	105 days	1278FF-120 d		
1278	1278	5.39.3	System Commissioning Tests of the E&M systems at IW, PST, BR 2A&2B, I	7 days	Thu 08/02/24	Wed 14/02/24	Thu 08/02/24	Wed 14/02/24	Tue 13/02/24	Mon 19/02/24	0 days	931,977,997,1279,1277FF-120 days		

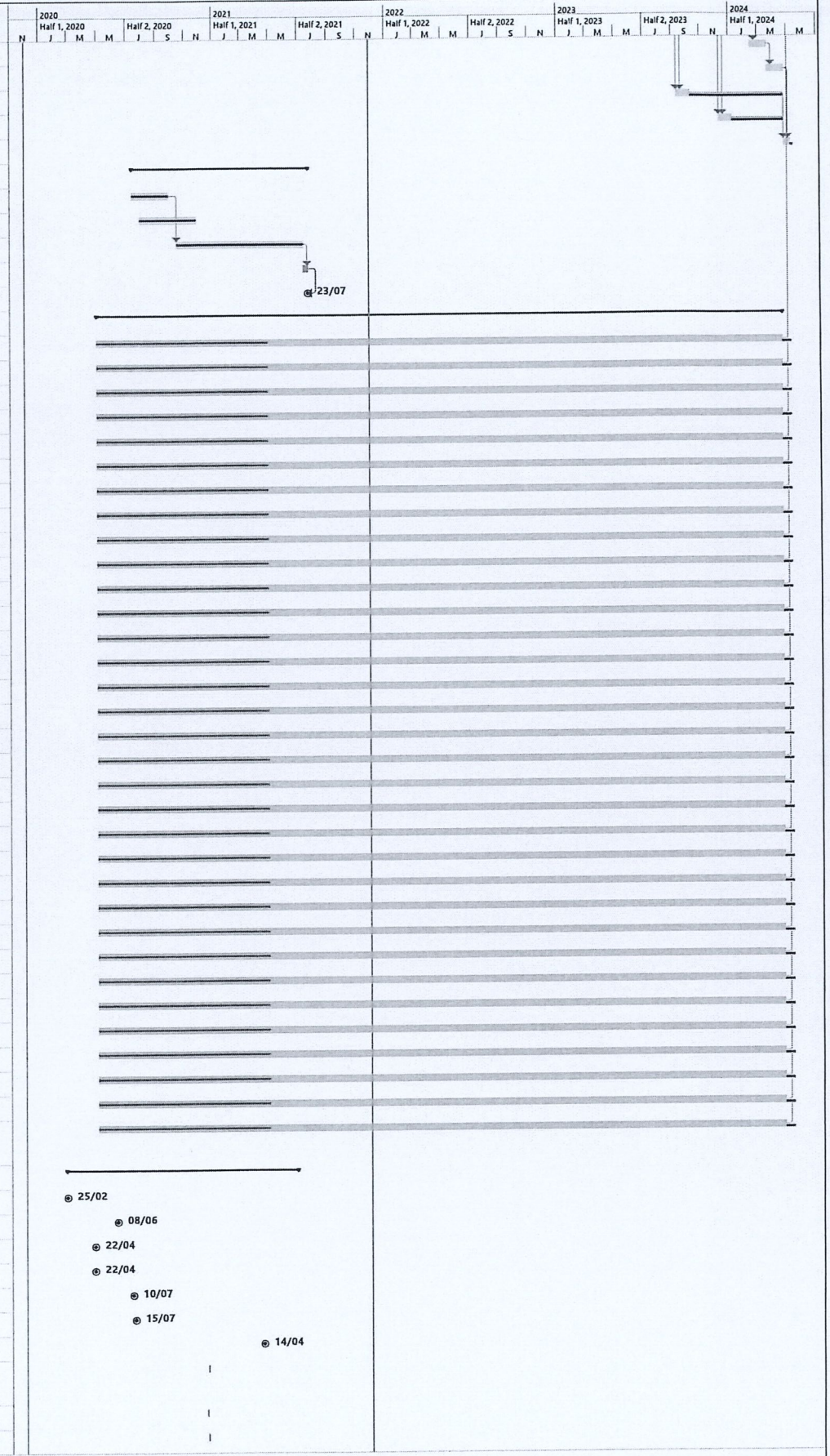


Bestwise  
 Project: DE/2018/04  
 Date: 30/11/21

Task:  Milestone:   
 Milestone, Tentative:



ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
1279	1279.5.39.4	MBR System Process Startup	35 days	Thu 15/02/24	Wed 20/03/24	Thu 15/02/24	Wed 20/03/24	Tue 20/02/24	Mon 25/03/24	0 days	1278	1280	
1280	1280.5.39.5	Plant Commissioning	35 days	Thu 21/03/24	Wed 24/04/24	Thu 21/03/24	Wed 24/04/24	Tue 26/03/24	Mon 29/04/24	0 days	1279	1283	
1281	1281.5.39.6	Overall commissioning of CCTV system	30 days	Tue 12/09/23	Wed 11/10/23	Tue 12/09/23	Wed 11/10/23	Sun 31/03/24	Mon 29/04/24	196 days	362,491,602, 1283		
1282	1282.5.39.7	Overall commissioning of Facility Computerized Systems (SCADA, CMMS, PMS, ID	28 days	Mon 11/12/23	Sun 07/01/24	Mon 11/12/23	Sun 07/01/24	Tue 02/04/24	Mon 29/04/24	108 days	354,483,770, 1283		
1283	1283.5.39.8	Overall Plant Commissioning and DSD pre-handover inspections	14 days	Thu 25/04/24	Wed 08/05/24	Thu 25/04/24	Wed 08/05/24	Tue 30/04/24	Mon 13/05/24	5 days	1280,1281,12		
1284	1284.5.40	CE No. 009 - Provision of an Additional Primary Sludge Thickening System	375 days	Tue 14/07/20	Fri 23/07/21	Tue 14/07/20	Fri 23/07/21	Tue 14/07/20	Fri 23/07/21	0 days			
1285	1285.5.40.1	Detail Design Submission and Approval	77 days	Tue 14/07/20	Mon 28/09/20	Tue 14/07/20	Mon 28/09/20	Tue 14/07/20	Mon 28/09/20	0 days		1287	
1286	1286.5.40.2	Subletting, Procurement, Manufacturing and Delivery	120 days	Fri 31/07/20	Fri 11/11/20	Fri 31/07/20	Fri 11/11/20	Fri 31/07/20	Fri 11/11/20	0 days			
1287	1287.5.40.3	Site Installation	270 days	Sat 17/10/20	Tue 13/07/21	Sat 17/10/20	Tue 13/07/21	Tue 13/07/21	Tue 13/07/21	0 days	1285	1288	
1288	1288.5.40.4	Testing and Commissioning (Rev. 15)	10 days	Wed 14/07/21	Fri 23/07/21	Wed 14/07/21	Fri 23/07/21	Wed 14/07/21	Fri 23/07/21	0 days	1287	1289FF	
1289	1289.5.40.5	Planned Completion Date	1 day	Fri 23/07/21	Fri 23/07/21	Fri 23/07/21	Fri 23/07/21	Fri 23/07/21	Fri 23/07/21	0 days	1288FF		
1290	1290.6	Beam Plus Submissions	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	0 days			
1291	1291.6.1	SA10 - Environmental Management Plan	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1292	1292.6.2	SA11 - Air Pollution During Construction	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1293	1293.6.3	SA12 - Noise During Construction	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1294	1294.6.4	SA14 - Noise from Building Equipment	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1295	1295.6.5	SA15 - Light Pollution	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1296	1296.6.6	MAP1 - Timber used for Temporary Works	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1297	1297.6.7	MAP2 - Use of Non-CFC Based Refrigerants	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1298	1298.6.8	MAP3 - Waste Management Plan	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1299	1299.6.9	MA2 - Modular and Standardized Design	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1300	1300.6.10	MA8 - Ozone Depleting Substances	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1301	1301.6.11	MA11 - Construction Waste Reduction	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1302	1302.6.12	EUP1 - Minimum Energy Performance	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1303	1303.6.13	EU1 - Reduction of CO2 Emissions	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1304	1304.6.14	EU2 - Peak Electricity Demand Reduction	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1305	1305.6.15	EU6 - Renewable Energy Systems	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1306	1306.6.16	EU9 - Energy Efficient Appliances	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1307	1307.6.17	EU10 - Testing and Commissioning	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1308	1308.6.18	EU11 - Operation and Maintenance	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1309	1309.6.19	EU12 - Meter and Monitoring	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1310	1310.6.20	WUP1 - Water Quality Survey	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1311	1311.6.21	WUP2 - Minimum Water Saving Performance	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1312	1312.6.22	WU1 / WU6 - Annual Water Use / Effluent Discharge to Foul Sewers	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1313	1313.6.23	IEQ1 - Minimum Ventilation Performance	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1314	1314.6.24	IEQ1 - Security	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1315	1315.6.25	IEQ2 - Plumbing and Drainage	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1316	1316.6.26	IEQ3 - Biological Contamination	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1317	1317.6.27	IEQ5 - Construction IAQ Management	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1318	1318.6.28	IEQ6 / IEQ7 - IAQ	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1319	1319.6.29	IEQ9 - Increased Ventilation	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1320	1320.6.30	IEQ11 - Localised Ventilation	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1321	1321.6.31	IEQ12 - Ventilation in Common Areas	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1322	1322.6.32	IEQ13 - Thermal Comfort in Air - Conditioned Premises	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1323	1323.6.33	IEQ16 / IEQ17 - Interior Lighting in Normally Occupied Area / Interior Lighting in Areas not Normally Occupied	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1324	1324.7	Summary of compensation events notified	487 days	Tue 25/02/20	Fri 25/06/21	Tue 25/02/20	Fri 25/06/21	Tue 25/02/20	Fri 25/06/21	0 days			
1325	1325.7.1	Compensation Event (CE) No. 001, Special Arrangement in Reducing the Risk	1 day	Tue 25/02/20	Tue 25/02/20	Tue 25/02/20	Tue 25/02/20	Tue 25/02/20	Tue 25/02/20	0 days			
1326	1326.7.2	Compensation Event (CE) No. 002, the Contractor's Site Accommodation by	1 day	Mon 08/06/20	Mon 08/06/20	Mon 08/06/20	Mon 08/06/20	Mon 08/06/20	Mon 08/06/20	0 days			
1327	1327.7.3	Compensation Event (CE) No. 003, Designated Area for the Contractor's Site	1 day	Wed 22/04/20	Wed 22/04/20	Wed 22/04/20	Wed 22/04/20	Wed 22/04/20	Wed 22/04/20	0 days			
1328	1328.7.4	Compensation Event (CE) No. 005, Designated Area for the Contractor's Stor	1 day	Wed 22/04/20	Wed 22/04/20	Wed 22/04/20	Wed 22/04/20	Wed 22/04/20	Wed 22/04/20	0 days			
1329	1329.7.5	Compensation Event (CE) No. 007, Employment of Temporary Staff under Au	1 day	Fri 10/07/20	Fri 10/07/20	Fri 10/07/20	Fri 10/07/20	Fri 10/07/20	Fri 10/07/20	0 days			
1330	1330.7.6	Compensation Event (CE) No. 009, Provision of an Additional Primary Sludge	1 day	Wed 15/07/20	Wed 15/07/20	Wed 15/07/20	Wed 15/07/20	Wed 15/07/20	Wed 15/07/20	0 days			
1331	1331.7.7	Compensation Event (CE) No. 011, Dismantling, relocating, disconnecting an	1 day	Wed 14/04/21	Wed 14/04/21	Wed 14/04/21	Wed 14/04/21	Wed 14/04/21	Wed 14/04/21	0 days			
1332	1332.7.8	NCE-PPMI-0202 (CE) Revised GA for F.S. & Sprinkler Pumping Room and Emergency Generator Room	1 day	Fri 18/12/20	Fri 18/12/20	Fri 18/12/20	Fri 18/12/20	Fri 18/12/20	Fri 18/12/20	0 days			
1333	1333.7.9	NCE-PPMI-0203 (CE) Revised General Arrangement for Temp. Chemical Syst	1 day	Tue 15/12/20	Tue 15/12/20	Tue 15/12/20	Tue 15/12/20	Tue 15/12/20	Tue 15/12/20	0 days			
1334	1334.7.10	NCE-PPMI-0204 (CE) Revised GA Layout Plan for DO Sys. No. 3A	1 day	Fri 18/12/20	Fri 18/12/20	Fri 18/12/20	Fri 18/12/20	Fri 18/12/20	Fri 18/12/20	0 days			



Bestwick Project: DE/2018/04 Date: 30/11/21

Task Milestone Summary Project Summary Late Critical Split Manual Progress Milestone (Actual) Summary

Milestone, Tentative Milestone Summary Manual Summary Critical Progress Slack (Float) Slack







Item	Major Activities & Submission in coming 3 months	Time					% of time elapsed based on "updated date")	Progress (E&M contract)				Action	Remarks / Status
		Contract Planned Commencement Date	Anticipated / Actual Commencement Date	Contract Planned Finish Date	Anticipated / Actual Finish Date	Unit		Total Quantity	Completed Quantity	Actual Progress %			
<b>Drawing Submission for Key Dates</b>													
KD1A: Submission of civil and dimensional requirement drawing, electrical schematic drawings, etc. from formation level up to +8mPD in accordance with the contract requirement of Contract No. DC/2018/07 to carry out civil works construction	KD1A: Submission of Civil Requirement Drawing (Final)	8/28/2020	9/18/2020	11/5/2020	11/5/2020	Task Completed	no.	26	26	100%			
	KD1A: Submission of Electrical Schematic Drawing (Final)	7/15/2020	7/15/2020	11/5/2020	11/5/2020	Task Completed	no.	11	11	100%			
	KD1A: 6 November 2020												
KD1B: Submission of remaining civil and dimensional requirement drawings, electrical schematic drawing, etc. in accordance with the contract requirement of Contract No. DC/2018/07 to carry out civil works construction	KD1B: Submission of Civil Requirement Drawing (First Draft)	9/30/2020	9/28/2020	12/30/2020	3/31/2021	Task Completed	no.	47	47	100%			
	KD1B: Submission of Civil Requirement Drawing (Final)	11/6/2020	11/5/2020	6/4/2021	6/4/2021	Task Completed	no.	47	47	100%		All the CWR Drawings were submitted.	
	KD1B: 4 June 2021												
KD3A: 04SC010 - Dismantle & Removal of Emergency Generators in existing Power House	KD3A: Testing and Commissioning	7/1/2020	7/3/2020	7/29/2020	7/29/2020	Task Completed				100%		First test was conducted on 3 July 2020. Remaining test would be subjected to completion of civil works. KD3A - 29 July 2020. Joint Site Inspection was conducted on 24 July 2020 and Notice of completion of work was submitted on 28 July 2020	
	KD3A: 29 July 2020												
KD3B: 6B.2.15 Operation Restoration of Existing Primary Sedimentation Tank (PST) No. 4 and 6	KD3B: System Commissioning for PST No. 4 & 6	N/A	6/22/2021	N/A	9/3/2021	Task Completed				100%		Wet test (2nd) for PST#6 completed on 3 Sep 2021 and pre-handover inspection arranged on 30 Aug 2021. Defect list (final) received on 17 Sep 2021 and to be rectified by 30 Nov 2021. Training shall be carried out in early December.	
	KD3B: 9 June 2021												
<b>Section 1 of Works (outstanding works list)</b>													
6B.2.12 Provision of New Replacement Filter Plates for Existing Membrane Filter Presses at Existing Sludge Press House	Material Delivery	12/1/2020	12/1/2020	8/8/2021	8/8/2021	Task Completed				-		"Filter Press Plates and Cloths" were handed over to DSD.	
6B.2.16 Temporary Filtrate Equalisation System	Mechanical Installation	3/17/2021	3/30/2021	4/12/2021	5/14/2021	Task Completed				-			
	Electrical Installation	3/13/2021	3/29/2021	4/15/2021	12/10/2021	93%				-		PLC programme for water spray system (stage 1) is on-going, motorized gate valve for stage 2 under PMI is being fabricated and the delivery lead time is by end November. Flow diagram was sent to AECOM for review. Bestwise to check the delivery time for cables.	
	Testing and Commissioning	4/15/2021	4/22/2021	5/1/2021	12/10/2021	93%				-		Auto mode (without water spray system) is adopted, water spray system (stage 2) under PMI shall be commenced after delivery of motorized gate valve (by end November)	
6B.2.1 Inlet Works	Submission of Contractor's Design for Inlet Works No. 1	9/6/2020	11/16/2020	5/14/2021	12/31/2021	91%				-	Bestwise	Finalized design calculations for Inlet Works no.1 shall be submitted by 31 Dec 2021.	
	Submission of P&M Submission	9/6/2020	9/7/2020	5/14/2021	12/31/2021	92%						P&M0003 (rev.3) for coarse screen and fine screen was submitted on 10 Feb 2021. AECOM accepted subject to comments on 16 Feb 2021. P&M submission (rev. 1) for inlet pumps was submitted on 10 Feb 2021. AECOM accepted subject to comments on 1 Apr 2021. P&M (rev.1) for penstock and actuator was submitted on 28 Jan 2021. AECOM commented on 12 Mar 2021. Finalized material submissions for Inlet Works no.1 shall be submitted by 31 Dec 2021.	
	Submission of P&ID Drawing	9/6/2020	9/6/2020	5/14/2021	12/29/2020	Task Completed						PID (rev.B) submitted on 13 Nov 2020. AECOM accepted subject to comments on 29 Dec 2020.	
	Submission of GA Drawing	9/6/2020	1/5/2021	5/14/2021	12/31/2021	89%						E&M GA submission submitted on 6 Feb 2021. AECOM commented on 19 Feb 2021. Bestwise resubmitted DWG-0082 Rev.1 on 9 July 2021. Electrical GA submitted on 7 Apr 2021. AECOM commented on 21 Apr 2021. Bestwise resubmitted DWG-0095 Rev.1 on 3 July 2021 and accepted by AECOM. Finalized drawings for Inlet Works no.1 shall be submitted by 31 Dec 2021.	



	Submission of Electrical Drawing	9/6/2020	1/15/2021	5/14/2021	12/31/2021	89%						Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. Finalized drawings for Inlet Works no.1 shall be submitted by 31 Dec 2021.
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	1/21/2022	76%				-		
6B.2.2 Primary Sedimentation Tank No. 1-4	Submission of Contractor's Design for Primary Sedimentation Tanks No. 1-4	9/6/2020	12/28/2020	5/14/2021	5/31/2022	64%				-	Bestwise	PFD (rev.B) under DWG0004 submitted on 22 June 2021. Finalized design calculations for PST shall be submitted by 31 May 2022.
	Submission of P&M Submission	9/6/2020	11/26/2020	5/14/2021	5/31/2022	66%						Plant and Material (P&M0044) submission (Rev. 0) for primary sludge pump was submitted on 5 Feb 2021. AECOM commented on 1 Apr 2021. Bestwise to resubmit. Finalized material submissions for PST shall be submitted by 31 May 2022.
	Submission of P&ID Drawing	9/6/2020	10/2/2020	5/14/2021	6/24/2021	Task Completed						PID under DWG0037 (rev.1) submitted on 24 June 2021 and is accepted by AECOM.
	Submission of GA Drawing	9/6/2020	2/3/2021	5/14/2021	5/31/2022	61%						Mechanical GA was submitted on 19 Jun 2021. Electrical GA under DWG0103 (rev.1) was submitted on 6 Jul 2021 and is accepted by AECOM. Finalized drawings for PST shall be submitted by 31 May 2022.
	Submission of Electrical Drawing	9/6/2020	1/15/2021	5/14/2021	5/31/2022	62%						Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. Finalized drawings for PST shall be submitted by 31 May 2022.
	Acceptance of submission	5/15/2021	4/2/2021	5/29/2021	6/21/2022	53%				-		
6B.2.3 Chemical Storage and Dosing System	Submission of Contractor's Design for Chemical Dosing System (CDS006)	9/6/2020	1/7/2021	5/14/2021	10/29/2021	Task Completed				-	Bestwise	Design calculation (rev.0) of CHS1 and TCHS submitted on 2 Sep 2020 and 28 Aug 2020, AECOM commented on 24 Sep and 6 Oct 2020, Bestwise submitted CDS0060 on 15 Jul 2021 and CDS0044 on 19 Jul 2021. Finalized design calculation for chemical systems was submitted on 29 Oct 2021.
	Submission of P&M Submission	9/6/2020	9/6/2020	5/14/2021	10/30/2021	Task Completed						Finalized material submissions for chemical system was submitted on 30 Oct 2021.
	Submission of P&ID Drawing	9/6/2020	12/11/2020	5/14/2021	6/29/2021	Task Completed						PID resubmitted under DWG0053 (rev.1) on 28 Jun 2021, DWG0057 (rev.1) on 29 Jun 2021 and DWG0058 (rev.1) on 29 Jun 2021.
	Submission of GA Drawing	9/6/2020	2/8/2021	5/14/2021	11/19/2021	101%						Electrical GA drawings for CS1 under DWG0096 submitted on 10 April 2021. AECOM accepted subject to comments on 17 Apr 2021. Mechanical GA drawings for CS1 submitted on 1 April 2021. AECOM commented on 24 April 2021. Bestwise resubmitted DWG0093 (rev.1) on 30 Jun 2021 and is accepted by AECOM. Mechanical GA for Temp CS submitted on 12 Jun 2021. Finalized drawings for chemical systems shall be submitted by 19 Nov 2021.
	Submission of Electrical Drawing	9/6/2020	1/15/2021	5/14/2021	11/19/2021	101%						Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. Finalized drawings for chemical system shall be submitted by 19 Nov 2021.
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	12/10/2021	92%				-		
6B.2.4 Membrane Bioreactor (MBR) System - Bio Reactor 2A and 2B	Submission of Contractor's Design for Bioreactor 2A and 2B (CDS004)	9/6/2020	1/12/2021	5/14/2021	6/30/2022	59%				-	Bestwise	PFD (rev.1) submitted on 3 Nov 2020. AECOM accepted on 7 Dec 2020 subject to comment. MBR system process and design calculation (rev.2) submitted on 6 Nov 2020. AECOM accepted on 17 Nov 2020 subject to comments. Electrical CDS submitted on 23 Jun 2021. Finalized design calculations shall be submitted by 30 June 2022.
	Submission of P&M Submission	9/6/2020	11/26/2020	5/14/2021	6/30/2022	62%						P&M0053 Mixed Liquor Return (MLR) Pump was resubmitted formally on 17 Jun 2021. Finalized material submission shall be submitted by 30 June 2022.
	Submission of P&ID Drawing	9/6/2020	11/2/2020	5/14/2021	7/2/2021	Task Completed						PID (Rev.1) under DWG0042 resubmitted on 6 July 2021.
	Submission of GA Drawing	9/6/2020	2/17/2021	5/14/2021	6/30/2022	56%						Mechanical GA under DWG0132 submitted on 26 Jun 2021 and is accepted by AECOM. Electrical GA submitted on 23 Jun 2021. Finalized drawing shall be submitted by 30 June 2022.
	Submission of Electrical Drawing	9/6/2020	1/15/2021	5/14/2021	6/30/2022	59%						Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. Finalized drawing shall be submitted by 30 June 2022.
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	7/21/2022	44%				-		
6B.2.4 Membrane Bioreactor (MBR) System - Membrane Filtration System No. 2 (MFB No. 2)	Submission of Contractor's Design for Membrane Filtration System (CDS005)	9/6/2020	1/11/2021	5/14/2021	6/30/2022	59%				-	Bestwise	PFD (rev.1) submitted on 3 Nov 2020. AECOM accepted on 10 Dec 2020 subject to comment. MBR system process and design calculation (rev.2) submitted on 6 Nov 2020. AECOM accepted on 17 Nov 2020 subject to comments. Finalized design calculations shall be submitted by 30 June 2022.



Submission of P&M Submission	9/6/2020	11/19/2020	5/14/2021	6/30/2022	63%						P&M (rev.0) for penstock and actuator was submitted on 20 Nov 2020. AECOM commented on 5 Jan 2021. Bestwise to resubmit P&M0050 (rev. 0) for membrane tank drain pump was submitted on 5 Mar 2021. AECOM commented on 29 Mar 2021. Bestwise resubmitted formally on 19 Jun 2021. P&M0072 (rev. 0) for membrane module was submitted on 20 Apr 2021. AECOM commented on 20 May 2021, Bestwise to re-submit. P&M0069 (rev.0) for permeate pump was submitted on 4 Mar 2021. AECOM commented on 23 Apr 2021. Bestwise resubmitted formally on 19 Jun 2021. P&M0047 (rev. 1) for RAS pump was resubmitted on 17 Apr 2021. AECOM commented on 12 May 2021, Bestwise resubmitted formally on 19 Jun 2021. P&M0073 & 0074 (rev.0) for aeration blower and air scouring blower was submitted to AECOM formally on 19 Jun 2021. Finalized material submission shall be submitted by 30 June 2022.
Submission of P&ID Drawing	9/6/2020	10/30/2020	5/14/2021	7/2/2021	Task Completed						DWG0049 (Rev.1) was resubmitted on 2 Jul 2021.
Submission of GA Drawing	3/31/2021	2/18/2021	5/14/2021	6/30/2022	56%						DWG0121 (rev.1) was resubmitted to AECOM on 17 Jul 2021 Finalized drawings shall be submitted by 30 June 2022.
Submission of Electrical Drawing	4/15/2021	1/15/2021	5/14/2021	6/30/2022	59%						Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. Electrical GA under DWG0079 (rev.1) was resubmitted on 8 Jul 2021. Finalized drawings shall be submitted by 30 June 2022.
Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	7/21/2022	44%					-	
6B.2.6 Deodorisation System (EQT-001 - Deodorization Unit)											
Tender award (C11)	4/25/2020	4/25/2020	5/12/2020	5/12/2020	Task Completed				100%	Bestwise	Bestwise submitted tender report on 13 May 2020. AECOM commented on 23 July 2020, Bestwise to resubmit.
Acceptance of tender award (C11)	5/13/2020	5/13/2020	5/21/2020	5/21/2020	Task Completed				100%		
Submission of Contractor's Design for Deodorisation System , DOU No. 1 (CDS0019 & CDS0045 )	9/6/2020	9/6/2020	5/14/2021	12/31/2021	92%				-		Design Calculation (Rev.0) was submitted on 24 Nov 2020. AECOM commented on 6 Jan 2021, Bestwise to resubmit. Bestwise submitted CDS0045 on 3 June 2021. Finalized design shall be submitted by 31 Dec 2021. (follow Inlet Works)
Submission of P&ID Drawing of DOU No. 1	9/6/2020	8/5/2020	5/14/2021	7/2/2021	Task Completed				-	Bestwise	Bestwise resubmitted rev.3 on 29 Mar 2021. AECOM accepted subject to comments on 13 Apr 2021.
Submission of GA Drawing of DOU No. 1	9/6/2020	9/6/2020	5/14/2021	12/31/2021	92%						GA submitted on 21 Jun 2021 Finalized drawings shall be submitted by 31 Dec 2021. (follow Inlet Works)
Submission of Electrical Drawing of DOU No. 1	3/21/2021	1/30/2021	5/14/2021	12/31/2021	89%						Control wiring diagrams was resubmitted on 1 April 2021. AECOM commented on 23 Apr 2021. Bestwise to resubmit. Finalized drawings shall be submitted by 31 Dec 2021. (follow Inlet Works)
Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	1/21/2022	76%				-		
Submission of Contractor's Design for Deodorisation System , DOU No. 2A (CDS0019 & CDS0048)	9/6/2020	9/6/2020	5/14/2021	6/30/2022	67%				-		Design Calculation (Rev.0) was submitted on 24 Nov 2020. AECOM commented on 6 Jan 2021, Bestwise to resubmit. Bestwise submitted CDS0048 on 17 June 2021. Finalized design shall be submitted by 30 June 2022. (follow BR2A2B)
Submission of P&ID Drawing of DOU No. 2A	9/6/2020	8/5/2020	5/14/2021	7/2/2021	Task Completed				-	Bestwise	Bestwise resubmitted rev.3 on 29 Mar 2021. AECOM accepted subject to comments on 13 Apr 2021.
Submission of GA Drawing of DOU No. 2A	9/6/2020	8/3/2020	5/14/2021	6/30/2022	69%				-	Bestwise	Bestwise submitted (rev.1) on 30 Oct 2020. AECOM commented on 16 Dec 2020. Bestwise to resubmit. Finalized drawing shall be submitted by 30 June 2022. (follow BR2A2B)
Submission of Electrical Drawing of DOU No. 2A	3/21/2021	1/26/2021	5/14/2021	6/30/2022	58%						Bestwise submitted (rev.0) on 26 Jan 2021, AECOM commented on 4 Feb 2021. Bestwise to resubmit. Finalized drawing shall be submitted by 30 June 2022. (follow BR2A2B)
Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	7/21/2022	44%				-		
Submission of Contractor's Design for Deodorisation System , DOU No. 3A (CDS0019)	9/6/2020	9/6/2020	5/14/2021	10/21/2021	Task Completed				-		Design Calculation (Rev.0) was submitted on 24 Nov 2020. AECOM commented on 6 Jan 2021, Bestwise to resubmit. Finalized design was submitted on 21 Oct 2021.
Submission of P&ID Drawing of DOU No. 3A	9/6/2020	8/5/2020	5/14/2021	7/2/2021	Task Completed				-	Bestwise	Bestwise resubmitted rev.3 on 29 Mar 2021. AECOM accepted subject to comments on 13 Apr 2021.
Submission of GA Drawing of DOU No. 3A	9/6/2020	7/8/2020	5/14/2021	11/19/2021	101%				-	Bestwise	Bestwise submitted (rev.1) on 28 Oct 2020. AECOM commented on 16 Dec 2020. Bestwise resubmitted on 24 June 2021. Finalized drawing shall be submitted by 19 Nov 2021.
Submission of Electrical Drawing of DOU No. 3A	3/21/2021	2/26/2021	5/14/2021	11/19/2021	102%						Bestwise submitted on 17 Apr 2021. AECOM commented on 27 Apr 2021. Bestwise to resubmit. GA submitted on 24 Jun 2021 Finalized drawing shall be submitted by 19 Nov 2021.
Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	12/10/2021	92%						
Submission of Contractor's Design for Deodorisation System , DOU No. 3B (CDS0019 & CDS0049)	9/6/2020	9/6/2020	5/14/2021	6/30/2022	67%						Design Calculation (Rev.0) was submitted on 24 Nov 2020. AECOM commented on 6 Jan 2021, Bestwise to resubmit. Bestwise submitted CDS0049 on 18 June 2021. Finalized design shall be submitted by 30 June 2022.
Submission of P&ID Drawing of DOU No. 3B	9/6/2020	8/5/2020	5/14/2021	7/2/2021	Task Completed				-	Bestwise	Bestwise resubmitted rev.3 on 29 Mar 2021. AECOM accepted subject to comments on 13 Apr 2021.



	Submission of GA Drawing of DOU No. 3B	9/6/2020	9/6/2020	5/14/2021	6/30/2022	67%						Bestwise submitted DWG0081 (rev.0) on 5 Feb 2021. AECOM commented on 12 Mar 2021. Bestwise to resubmit. Finalized drawing shall be submitted by 30 June 2022.	
	Submission of Electrical Drawing of DOU No. 3B	3/21/2021	2/22/2021	5/14/2021	6/30/2022	56%						GA submitted on 24 Jun 2021. Finalized drawing shall be submitted by 30 June 2022.	
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	7/21/2022	44%							
04SC008 - Design, Supply and Installation of detailed design for lifting appliances	Acceptance of tender award (C9)	-	-	-	7/6/2020	Task Completed					100%	-	AECOM accepted tender report on 6 July 2020.
	Submission of detailed design for lifting appliances for Inlet Works No. 1 (CDS050-1)	9/6/2020	12/5/2020	9/6/2020	12/31/2021	90%							DWG 0055 (Rev.0) was submitted on 13 Mar 2021. AECOM commented on 20 Apr 2021. Bestwise to resubmit. Bestwise submitted P&M0025 on 15 June 2021. Finalized design shall be submitted by 31 Dec 2021.
	Submission of detailed design for lifting appliances for Primary Sedimentation Tanks (CDS050-2)	9/6/2020	12/5/2020	9/6/2020	5/31/2022	65%							DWG 0054 (Rev.0) was submitted on 18 Jan 2021. AECOM commented on 9 Mar 2021. Bestwise to resubmit. Finalized design shall be submitted by 31 May 2022.
	Submission of detailed design for lifting appliances for BR 2A and 2B (CDS050-3)	9/6/2020	12/5/2020	9/6/2020	5/31/2022	65%							DWG 0065 (Rev.0) was submitted on 18 Jan 2021. AECOM commented on 9 Mar 2021. Bestwise to resubmit. Finalized design shall be submitted by 31 May 2022.
	Submission of detailed design for lifting appliances for MFB (CDS050-4)	9/6/2020	12/5/2020	9/6/2020	5/31/2022	65%							DWG 0066 (Rev.1) was submitted on 1 Mar 2021. AECOM commented on 5 Mar 2021. Bestwise to resubmit. Finalized design shall be submitted by 31 May 2022.
	Submission of detailed design for lifting appliances for Temporary Filtration Tank (CDS050-5)	9/6/2020	12/5/2020	9/6/2020	5/21/2021	Task Completed							DWG 0051 (Rev.2) was resubmitted on 7 May 2021 and acceptance by AECOM subject to condition on 21 May 2021. Bestwise submitted P&M0021 on 21 June 2021.
Building Services System	Submission for MVAC system	N/A	12/10/2020	N/A	6/30/2022	61%							Design calculations and drawings for inlet works was submitted on 16 Dec 2020. AECOM commented on 15 Jan 2021 and 20 Jan 2021. Design calculations and drawings for PST was submitted on 30 Dec 2020. AECOM commented on 22 Jan 2021 and 26 Jan 2021. Design calculations and drawings for MFB2 was submitted on 29 Jan 2021. AECOM commented on 26 Mar 2021. Subletting package resubmitted by 18 Mar 2021. AECOM accepted on 19 Mar 2021. Finalized design shall be submitted by 30 June 2022.
	Submission for Fire Services System	N/A	3/15/2021	N/A	6/30/2022	54%							Subletting Package to be resubmitted by 31 Mar 2021. AECOM accepted on 9 Apr 2021. Drawings: Inlet Works: submitted on 8 June 2021. PST 1-4: submitted on 23 Jun 2021 BR2A & 2B: submitted on 8 Jun 2021 MFB 2: submitted on 8 Jun 2021 Finalized design shall be submitted by 30 June 2022.
	Submission for Plumbing and Drainage System	N/A	3/15/2021	N/A	6/30/2022	54%							Subletting Package resubmitted by 10 Mar 2021. AECOM accepted on 12 Mar 2021. Tender invitation was conducted on 15 Mar 2021 and closed on 26 Mar 2021. Finalized design shall be submitted by 30 June 2022.
	Submission for Electrical Services System	N/A	12/10/2020	N/A	6/30/2022	61%							GA for lighting was submitted on 18 Dec 2020. AECOM commented on 6 Jan 2021. Bestwise to resubmit. GA for small power system was submitted in 8 Feb 2021. AECOM commented on 3 Mar 2021. Bestwise to resubmit. Finalized design shall be submitted by 30 June 2022.
	Submission of ELV system	N/A	1/8/2021	N/A	9/30/2022	51%							GA for CCTV was resubmitted on 16 Mar 2021. AECOM commented on 30 Mar 2021. Bestwise resubmitted on 25 Jun 2021. Finalized design shall be submitted by 30 Sep 2022.
	Submission for PV system	N/A	3/15/2021	N/A	6/30/2022	54%							Tender package was submitted to AECOM. Finalized design shall be submitted by 30 June 2022.
SCADA System & PMS	Submission for SCADA system	N/A	2/11/2021	N/A	8/31/2022	50%							Revised SCADA structure was provided via email on 9 Apr 2021 and tender package is under preparation. Finalized design shall be submitted by 31 Aug 2022.
	Submission for PMS system	N/A	3/8/2021	N/A	8/31/2022	48%							Tender package to be resubmitted on 29 June 2021. Finalized design shall be submitted by 31 Aug 2022.
	Submission for CMMS & IDMS system	N/A	6/1/2021	N/A	8/31/2022	38%							Finalized design shall be submitted by 31 Aug 2022.
<b>Section 2 of Works</b>													
Lightning Protection System for DOU3A (underground)	Submission and Acceptance for Lightning Protection System Design	12/6/2021	12/6/2021	1/31/2022	1/31/2022								
	Material Delivery	12/15/2022	12/15/2022	3/31/2022	3/31/2022								
	Installation Work	1/2/2022	1/2/2022	12/31/2022	12/31/2022								Underground works subject to site coordination
	Testing & Commissioning	1/7/2023	1/7/2023	1/31/2023	1/31/2023								
Lightning Protection System for Inlet Works (underground)	Submission and Acceptance for Lightning Protection System Design	12/20/2021	12/20/2021	1/31/2022	1/31/2022								









## ***Appendix 2.1***

# ***Layout Plans of Construction Activities***

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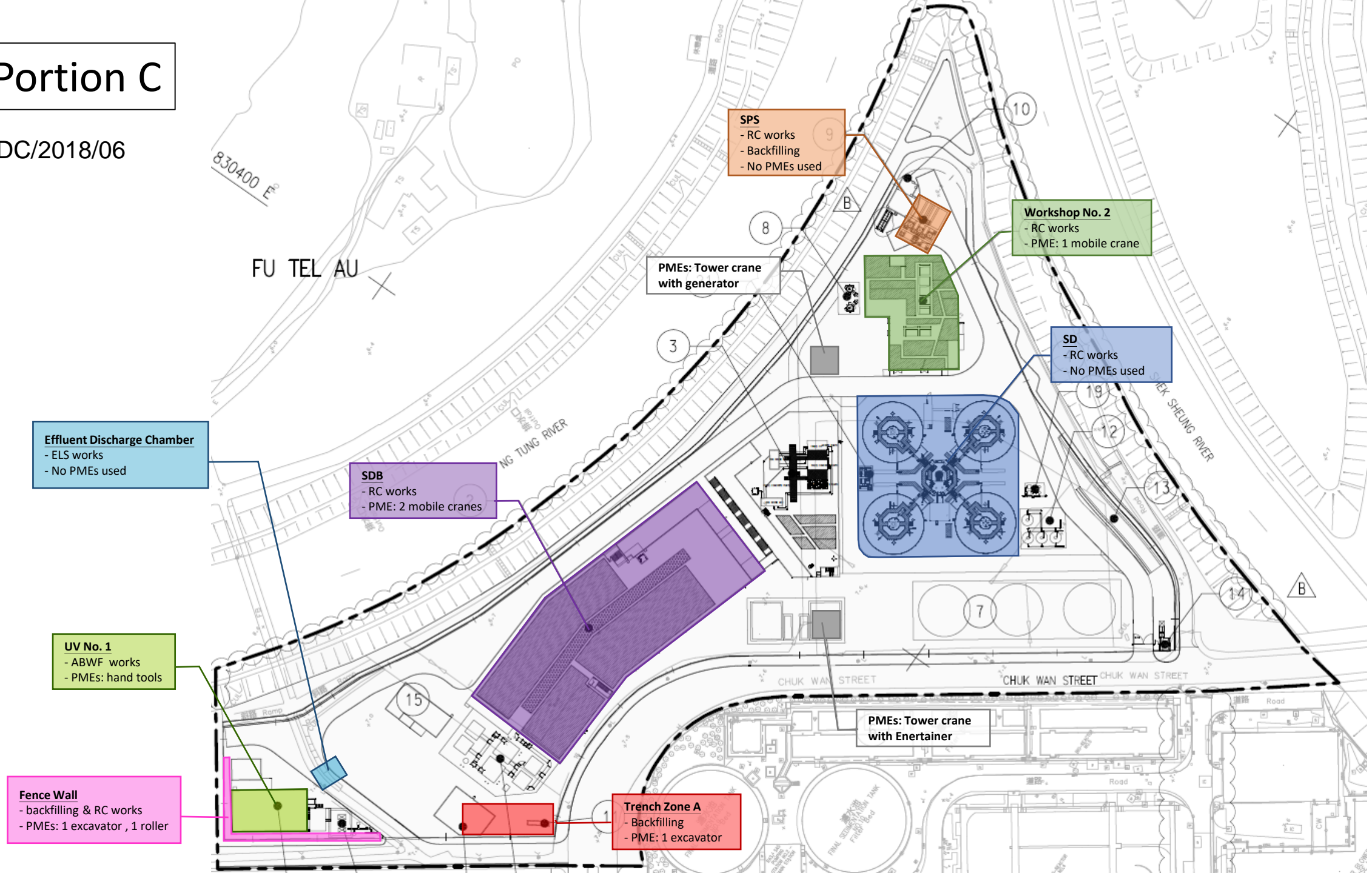


*October 2021*



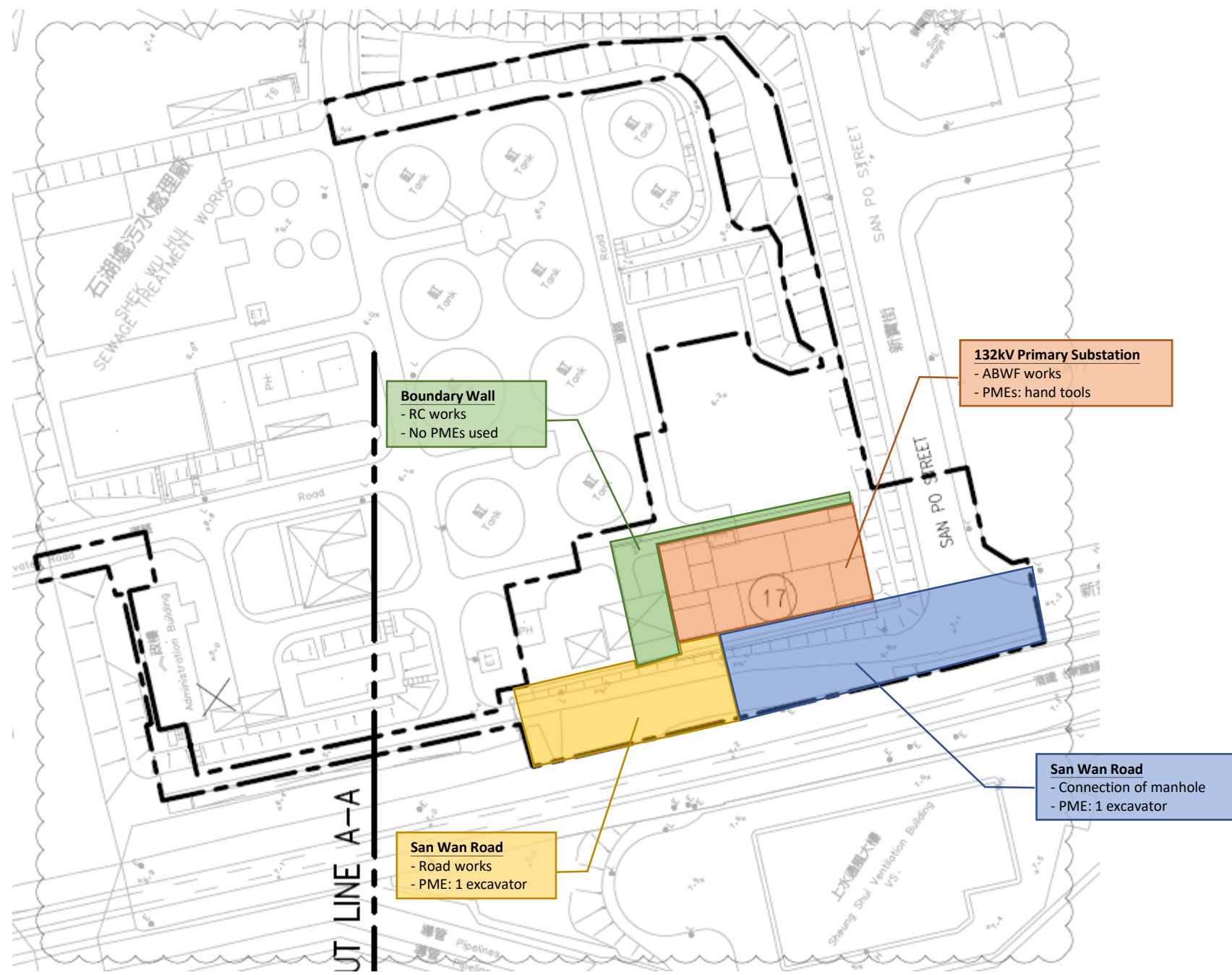
# Portion C

DC/2018/06





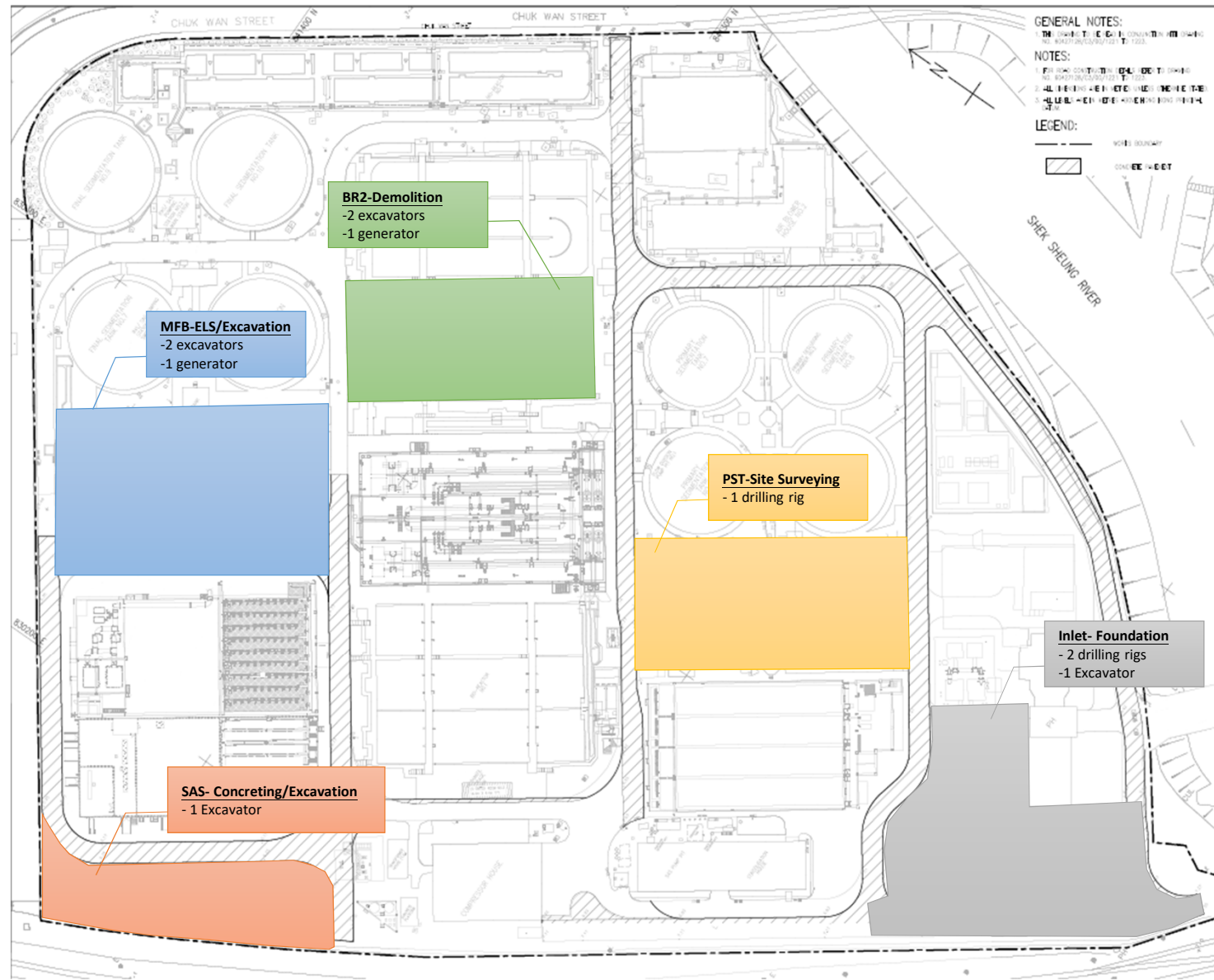
# Portion A





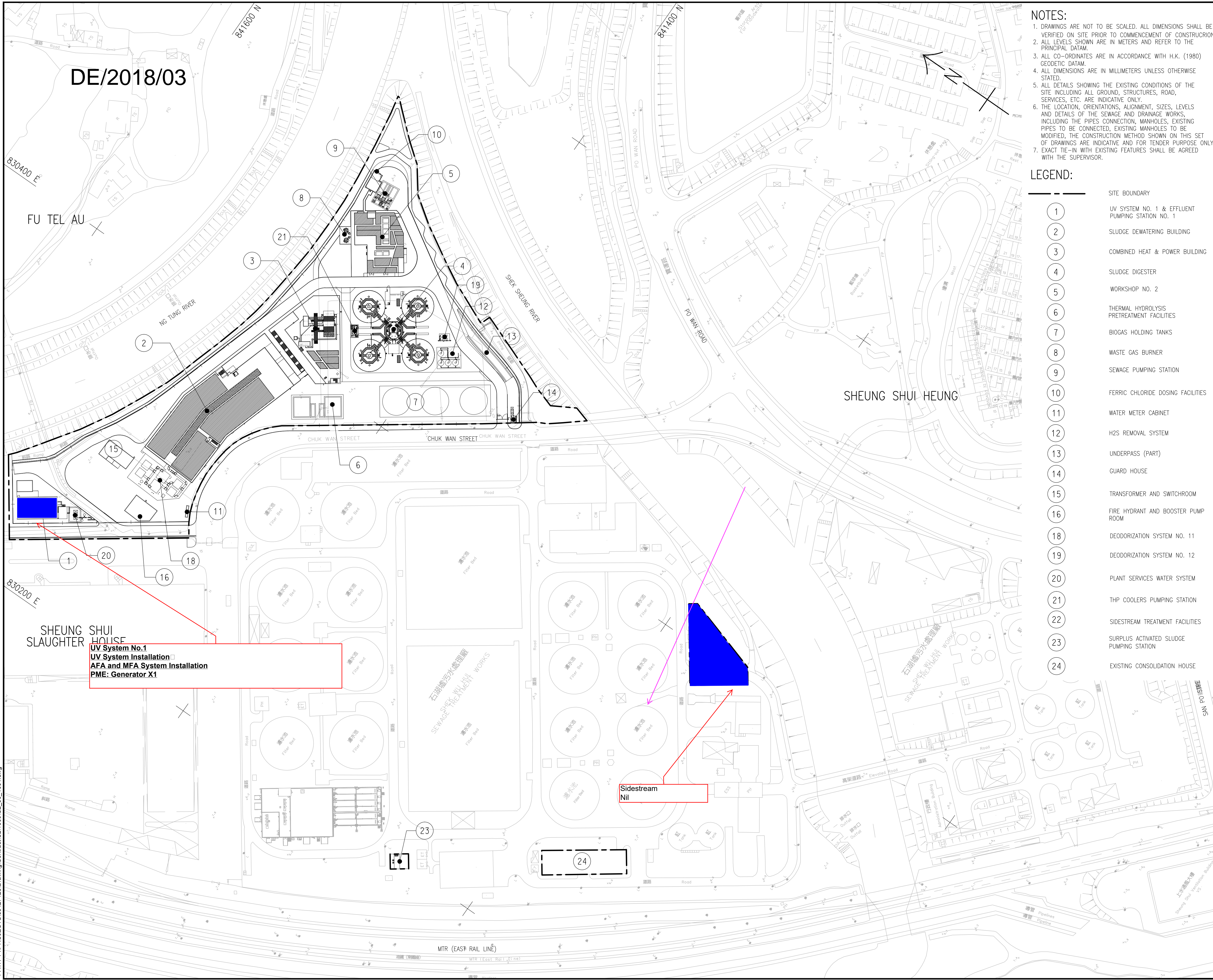
DC/2018/07

Portion B





Plot File by: GuoX 26/03/2019 PATH: P:\PROJECTS\60427128\Drawing\Contract\C21000\C2\_00\_1001.dwg  
 Project Management Initials: Designer: KYTM Checked: TLST Approved: ELIM ISO A1 594mm x 841mm



UV System No.1  
 UV System Installation  
 AFA and MFA System Installation  
 PME: Generator X1

Sidestream  
 Nil

- NOTES:**
1. DRAWINGS ARE NOT TO BE SCALED. ALL DIMENSIONS SHALL BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION.
  2. ALL LEVELS SHOWN ARE IN METERS AND REFER TO THE PRINCIPAL DATUM.
  3. ALL CO-ORDINATES ARE IN ACCORDANCE WITH H.K. (1980) GEODETIC DATUM.
  4. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED.
  5. ALL DETAILS SHOWING THE EXISTING CONDITIONS OF THE SITE INCLUDING ALL GROUND, STRUCTURES, ROAD, SERVICES, ETC. ARE INDICATIVE ONLY.
  6. THE LOCATION, ORIENTATIONS, ALIGNMENT, SIZES, LEVELS AND DETAILS OF THE SEWAGE AND DRAINAGE WORKS, INCLUDING THE PIPES CONNECTION, MANHOLES, EXISTING PIPES TO BE CONNECTED, EXISTING MANHOLES TO BE MODIFIED, THE CONSTRUCTION METHOD SHOWN ON THIS SET OF DRAWINGS ARE INDICATIVE AND FOR TENDER PURPOSE ONLY.
  7. EXACT TIE-IN WITH EXISTING FEATURES SHALL BE AGREED WITH THE SUPERVISOR.

- LEGEND:**
- ① SITE BOUNDARY
  - ② UV SYSTEM NO. 1 & EFFLUENT PUMPING STATION NO. 1
  - ③ SLUDGE DEWATERING BUILDING
  - ④ COMBINED HEAT & POWER BUILDING
  - ⑤ SLUDGE DIGESTER
  - ⑥ WORKSHOP NO. 2
  - ⑦ THERMAL HYDROLYSIS PRETREATMENT FACILITIES
  - ⑧ BIOGAS HOLDING TANKS
  - ⑨ WASTE GAS BURNER
  - ⑩ SEWAGE PUMPING STATION
  - ⑪ FERRIC CHLORIDE DOSING FACILITIES
  - ⑫ WATER METER CABINET
  - ⑬ H2S REMOVAL SYSTEM
  - ⑭ UNDERPASS (PART)
  - ⑮ GUARD HOUSE
  - ⑯ TRANSFORMER AND SWITCHROOM
  - ⑰ FIRE HYDRANT AND BOOSTER PUMP ROOM
  - ⑱ DEODORIZATION SYSTEM NO. 11
  - ⑲ DEODORIZATION SYSTEM NO. 12
  - ⑳ PLANT SERVICES WATER SYSTEM
  - ㉑ THP COOLERS PUMPING STATION
  - ㉒ SIDESTREAM TREATMENT FACILITIES
  - ㉓ SURPLUS ACTIVATED SLUDGE PUMPING STATION
  - ㉔ EXISTING CONSOLIDATION HOUSE



**PROJECT**  
 SHEK WU HUI EFFLUENT POLISHING PLANT

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

**CLIENT**  
 渠務署  
 Drainage Services Department

**CONSULTANT**  
 AECOM Asia Company Ltd.  
 www.aecom.com

**SUB-CONSULTANTS**  
 分判工程師有限公司

**ISSUE/REVISION**

NO.	DATE	DESCRIPTION	CHK.
1	MAR. 19	TENDER DRAWING	TLST

**STATUS**  
 預備

**SCALE**  
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**DIMENSION UNIT**  
 METRES

**KEY PLAN**  
 索引圖

**PROJECT NO.**  
 項目編號  
 60427128

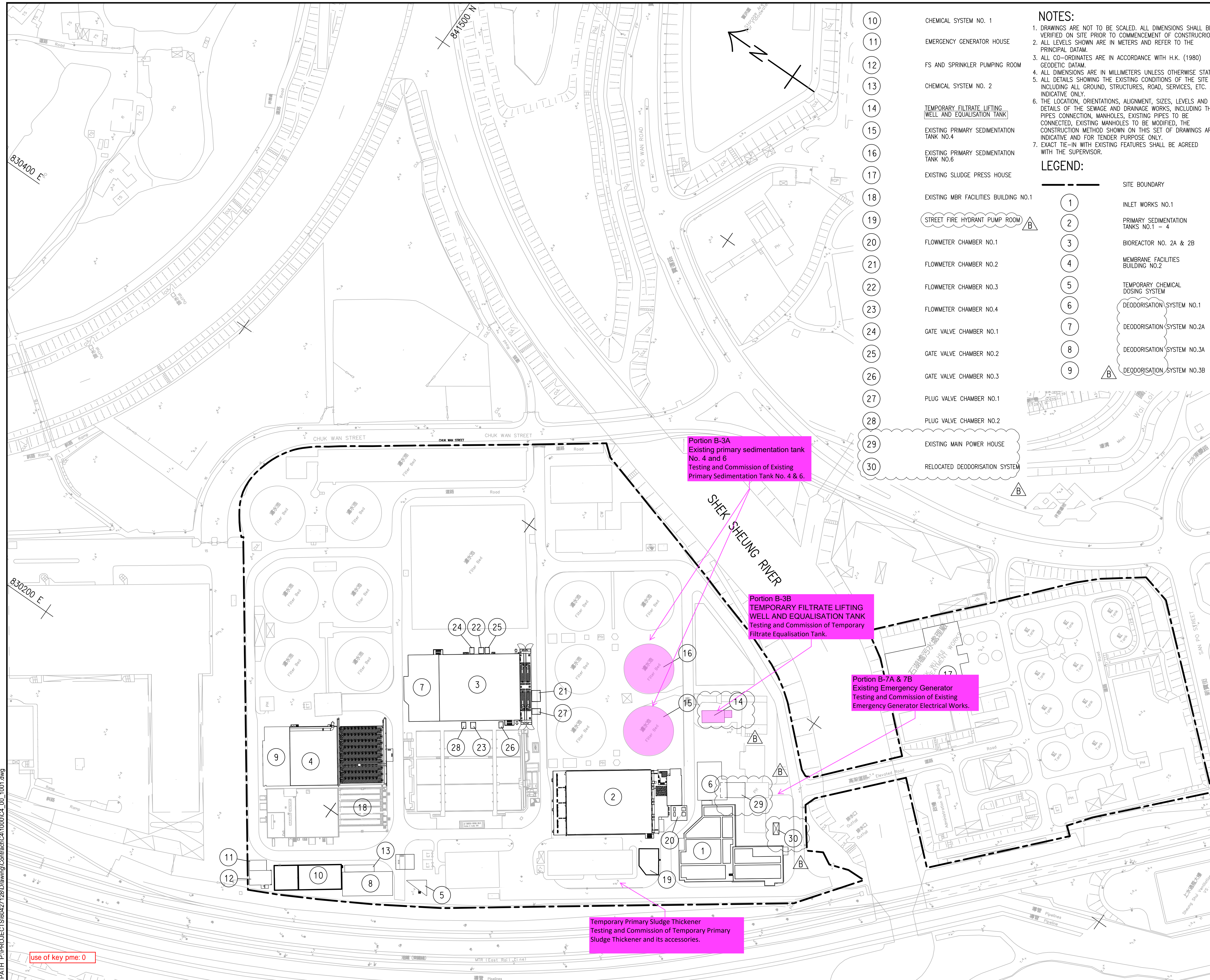
**CONTRACT NO.**  
 合約編號  
 DE/2018/03

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

**SHEET NUMBER**  
 圖紙編號  
 60427128/C2/00/1001

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

**NOTES:**

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3. ALL CO-ORDINATES ARE IN ACCORDANCE WITH H.K. (1980) GEODETIC DATUM.
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7. EXACT TIE-IN WITH EXISTING FEATURES SHALL BE AGREED WITH THE SUPERVISOR.

- LEGEND:**
- 1 SITE BOUNDARY
  - 2 INLET WORKS NO.1
  - 3 PRIMARY SEDIMENTATION TANKS NO.1 - 4
  - 4 BIOREACTOR NO. 2A & 2B
  - 5 MEMBRANE FACILITIES BUILDING NO.2
  - 6 TEMPORARY CHEMICAL DOSING SYSTEM
  - 7 DEODORISATION SYSTEM NO.1
  - 8 DEODORISATION SYSTEM NO.2A
  - 9 DEODORISATION SYSTEM NO.3A
  - 10 DEODORISATION SYSTEM NO.3B



**PROJECT**  
 SHEK WU HUI EFFLUENT POLISHING PLANT

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

**CLIENT**  
 渠務署  
 Drainage Services Department

**CONSULTANT**  
 AECOM Asia Company Ltd.  
 www.aecom.com

**SUB-CONSULTANTS**  
 分判工程師有限公司

**ISSUE/REVISION**

REV	DATE	DESCRIPTION	CHK.
B	AUG. 19	TENDER ADDENDUM NO. 3	TLST
A	JUL. 19	TENDER ADDENDUM NO. 2	TLST
-	APR. 19	TENDER DRAWING	TLST

**STATUS**  
 階段

**SCALE**  
 比例: A1 1 : 1000

**DIMENSION UNIT**  
 尺寸單位: METRES

**KEY PLAN**  
 索引圖

**PROJECT NO.**  
 項目編號: 60427128

**CONTRACT NO.**  
 合約編號: DE/2018/04

**SHEET TITLE**  
 圖紙名稱: GENERAL LAYOUT PLAN

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

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use of key pme: 0

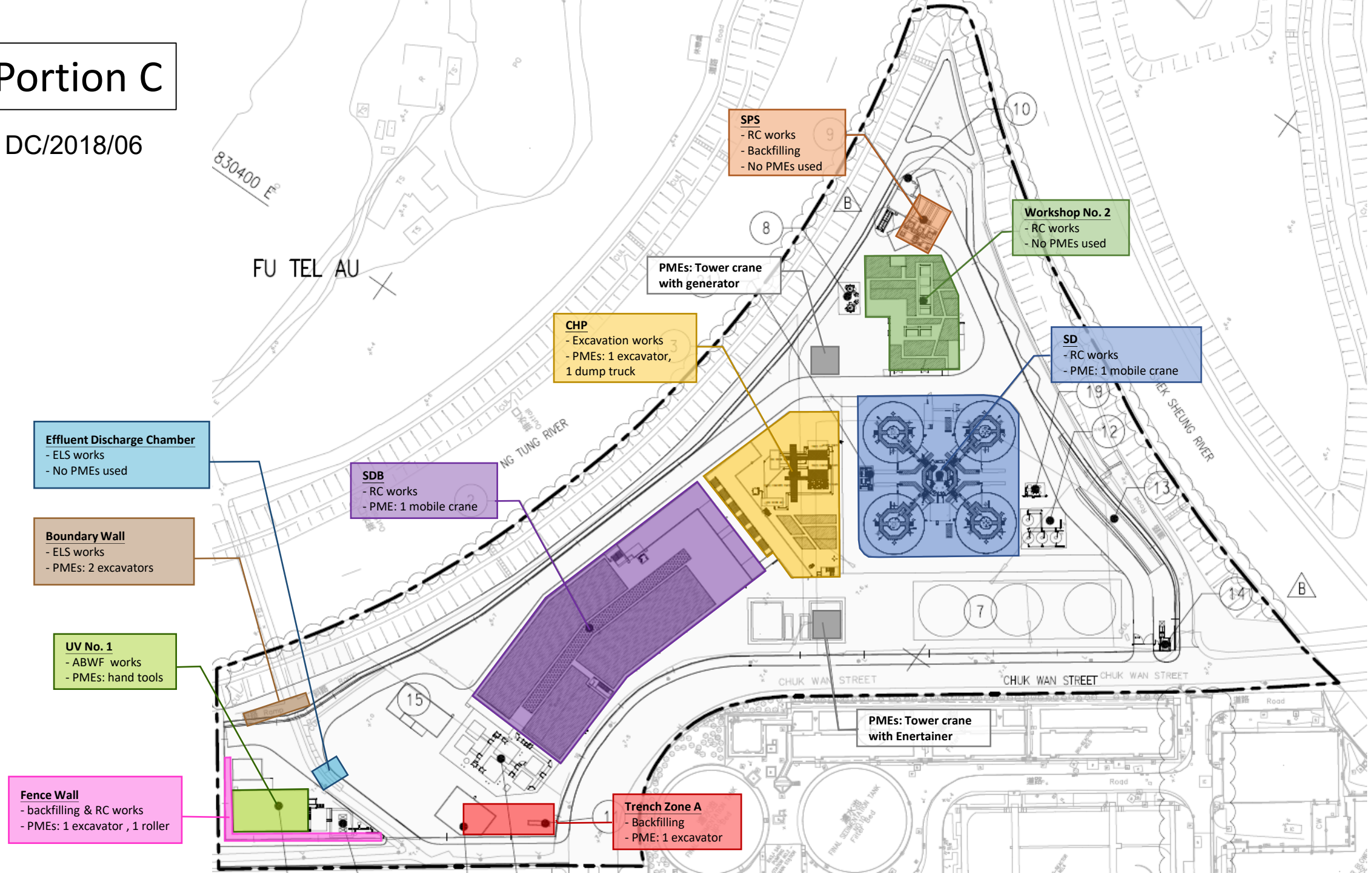


*November 2021*



# Portion C

DC/2018/06



**SPS**  
- RC works  
- Backfilling  
- No PMEs used

**Workshop No. 2**  
- RC works  
- No PMEs used

**PMEs: Tower crane with generator**

**CHP**  
- Excavation works  
- PMEs: 1 excavator, 1 dump truck

**SD**  
- RC works  
- PME: 1 mobile crane

**Effluent Discharge Chamber**  
- ELS works  
- No PMEs used

**SDB**  
- RC works  
- PME: 1 mobile crane

**Boundary Wall**  
- ELS works  
- PMEs: 2 excavators

**UV No. 1**  
- ABWF works  
- PMEs: hand tools

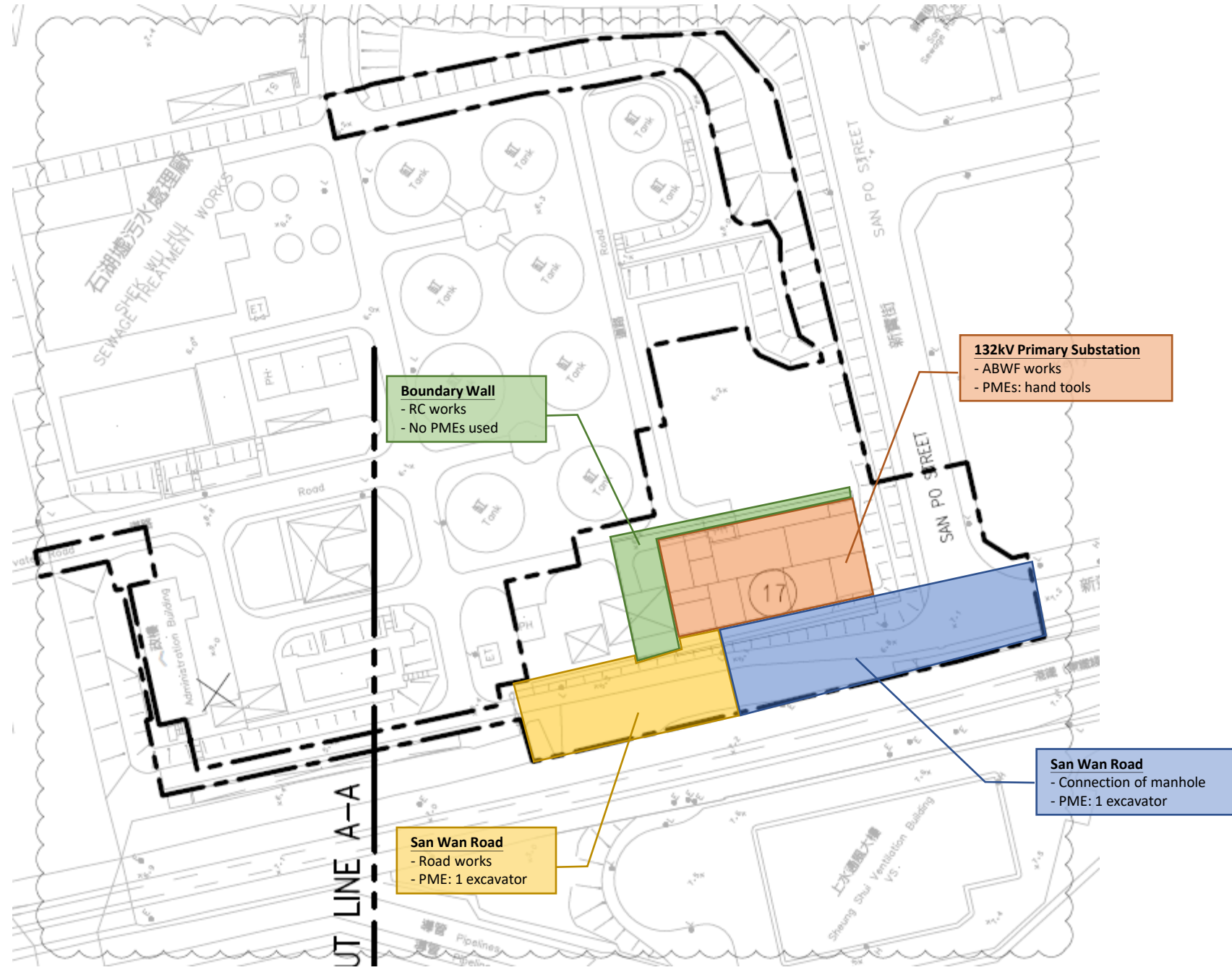
**Fence Wall**  
- backfilling & RC works  
- PMEs: 1 excavator, 1 roller

**PMEs: Tower crane with Enerainer**

**Trench Zone A**  
- Backfilling  
- PME: 1 excavator



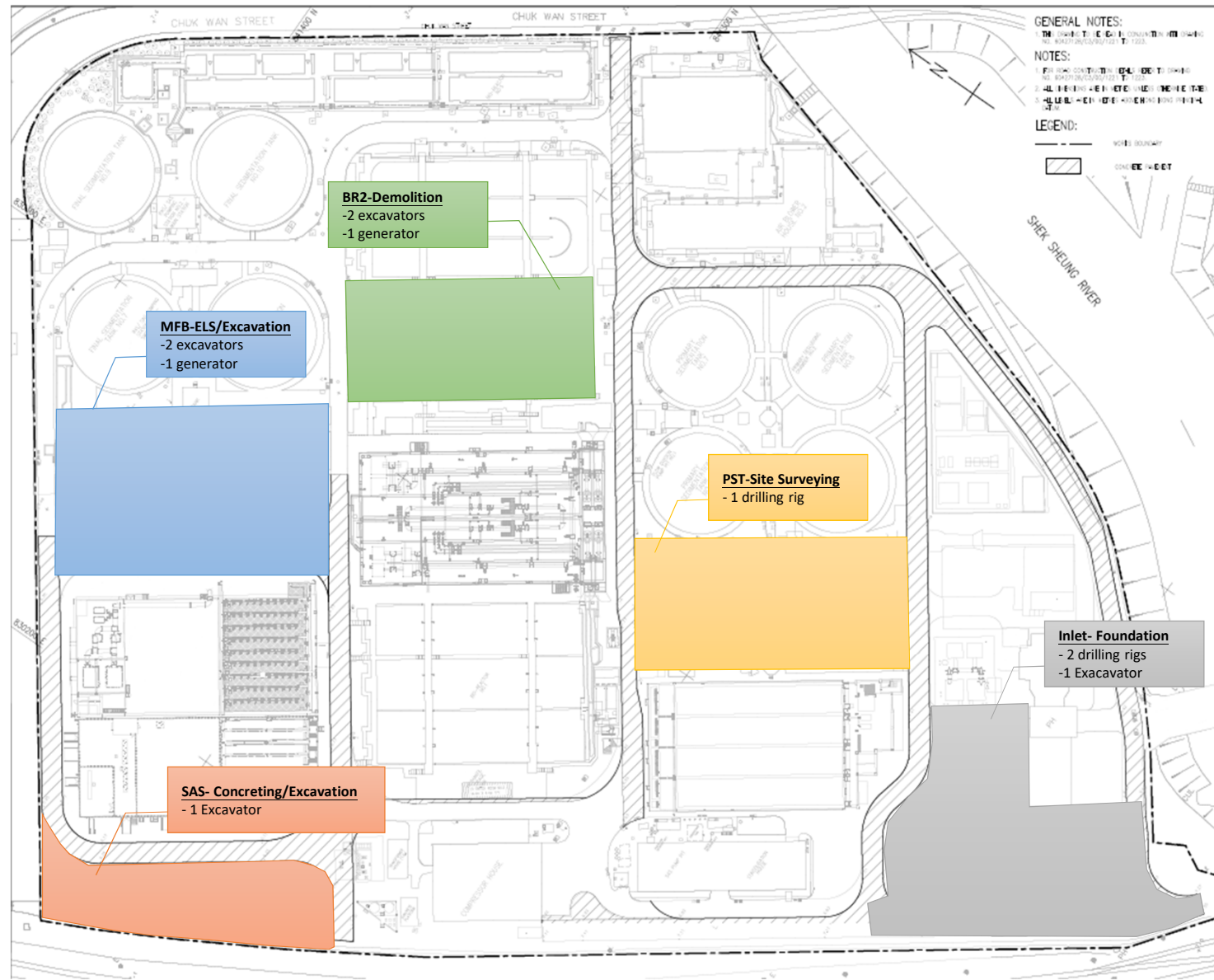
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# Portion B

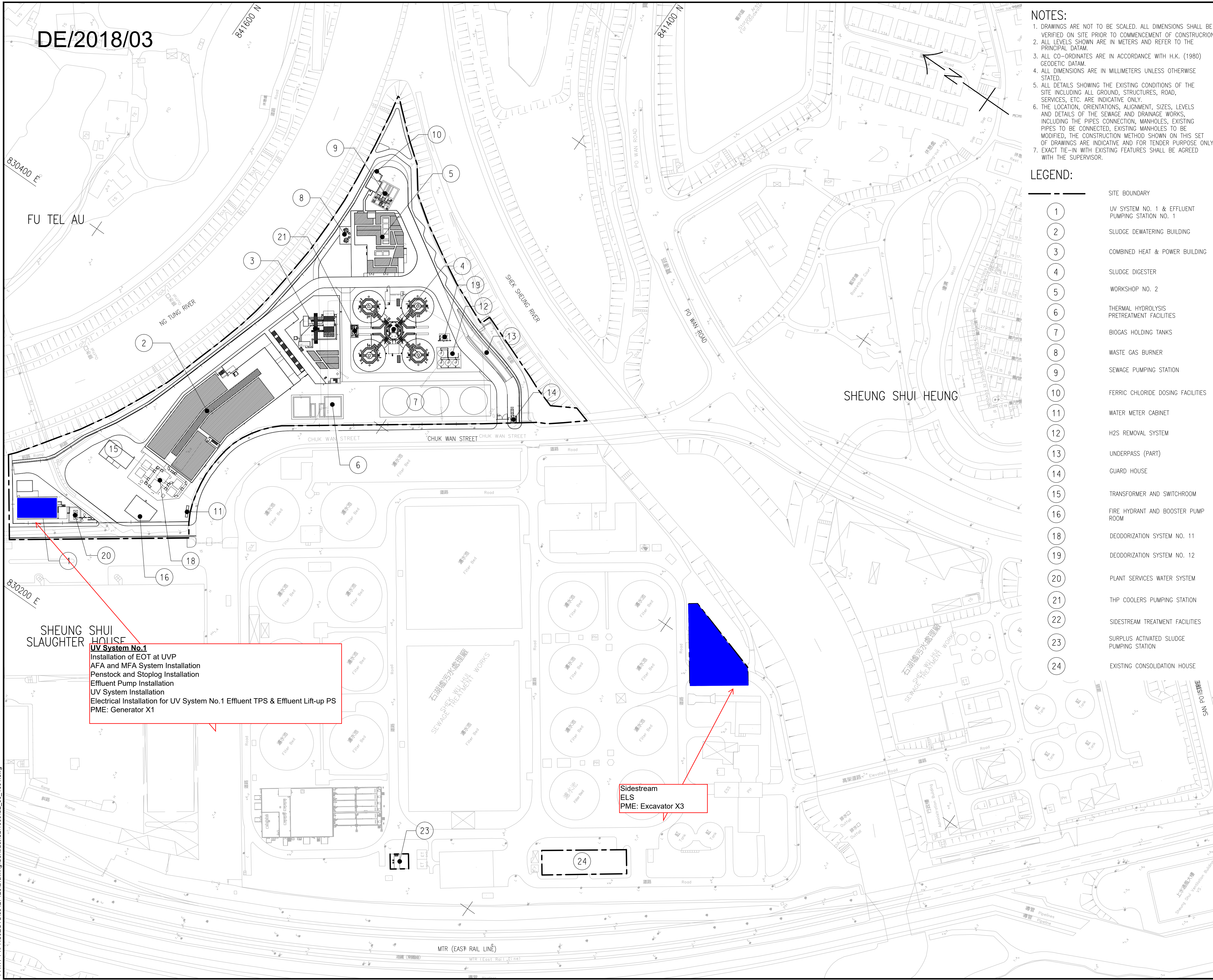
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  - ② UV SYSTEM NO. 1 & EFFLUENT PUMPING STATION NO. 1
  - ③ SLUDGE DEWATERING BUILDING
  - ④ COMBINED HEAT & POWER BUILDING
  - ⑤ SLUDGE DIGESTER
  - ⑥ WORKSHOP NO. 2
  - ⑦ THERMAL HYDROLYSIS PRETREATMENT FACILITIES
  - ⑧ BIOGAS HOLDING TANKS
  - ⑨ WASTE GAS BURNER
  - ⑩ SEWAGE PUMPING STATION
  - ⑪ FERRIC CHLORIDE DOSING FACILITIES
  - ⑫ WATER METER CABINET
  - ⑬ H2S REMOVAL SYSTEM
  - ⑭ UNDERPASS (PART)
  - ⑮ GUARD HOUSE
  - ⑯ TRANSFORMER AND SWITCHROOM
  - ⑰ FIRE HYDRANT AND BOOSTER PUMP ROOM
  - ⑱ DEODORIZATION SYSTEM NO. 11
  - ⑲ DEODORIZATION SYSTEM NO. 12
  - ⑳ PLANT SERVICES WATER SYSTEM
  - ㉑ THP COOLERS PUMPING STATION
  - ㉒ SIDESTREAM TREATMENT FACILITIES
  - ㉓ SURPLUS ACTIVATED SLUDGE PUMPING STATION
  - ㉔ EXISTING CONSOLIDATION HOUSE

**UV System No.1**  
 Installation of EOT at UVP  
 AFA and MFA System Installation  
 Penstock and Stoplog Installation  
 Effluent Pump Installation  
 UV System Installation  
 Electrical Installation for UV System No.1 Effluent TPS & Effluent Lift-up PS  
 PME: Generator X1

**Sidestream ELS**  
 PME: Excavator X3



**PROJECT**  
 SHEK WU HUI EFFLUENT POLISHING PLANT

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

**CLIENT**  
 渠務署  
 Drainage Services Department

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**DIMENSION UNIT**  
 METRES

**KEY PLAN**

**PROJECT NO.**  
 60427128

**CONTRACT NO.**  
 DE/2018/03

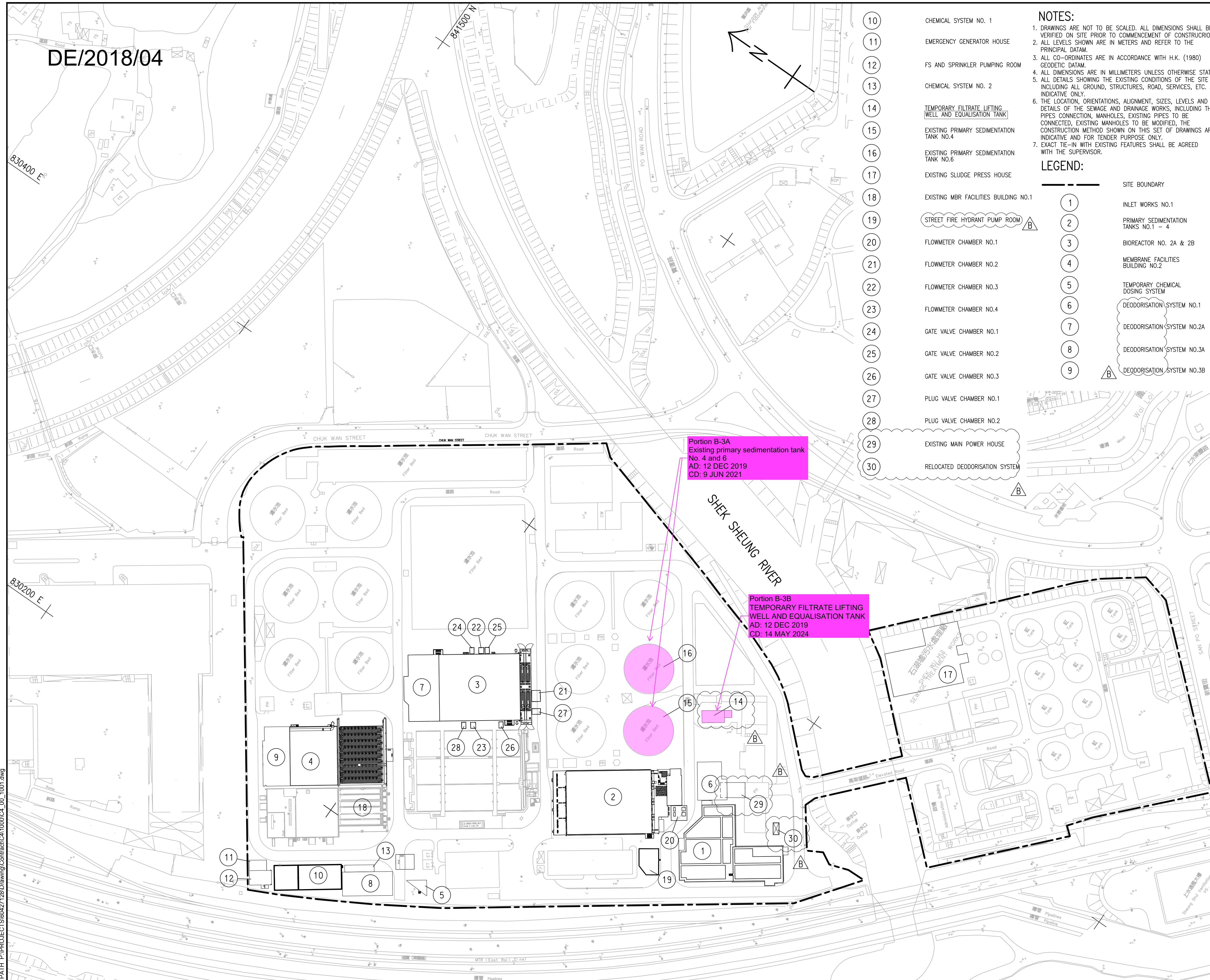
**SHEET TITLE**  
 SHEK WU HUI EFFLUENT POLISHING PLANT GENERAL LAYOUT PLAN

**SHEET NUMBER**  
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Portion B-3A  
 Existing primary sedimentation tank  
 No. 4 and 6  
 AD: 12 DEC 2019  
 CD: 9 JUN 2021

Portion B-3B  
 TEMPORARY FILTRATE LIFTING  
 WELL AND EQUALISATION TANK  
 AD: 12 DEC 2019  
 CD: 14 MAY 2024

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

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**LEGEND:**

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



**PROJECT**  
 SHEK WU HUI EFFLUENT POLISHING PLANT

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

**CLIENT**  
 渠務署  
 Drainage Services Department

**CONSULTANT**  
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-	APR. 19	TENDER DRAWING	TLST

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 比例: A1 1 : 1000

**DIMENSION UNIT**  
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**KEY PLAN**  
 索引圖

**PROJECT NO.**  
 項目編號: 60427128

**CONTRACT NO.**  
 合約編號: DE/2018/04

**SHEET TITLE**  
 圖紙名稱: GENERAL LAYOUT PLAN

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

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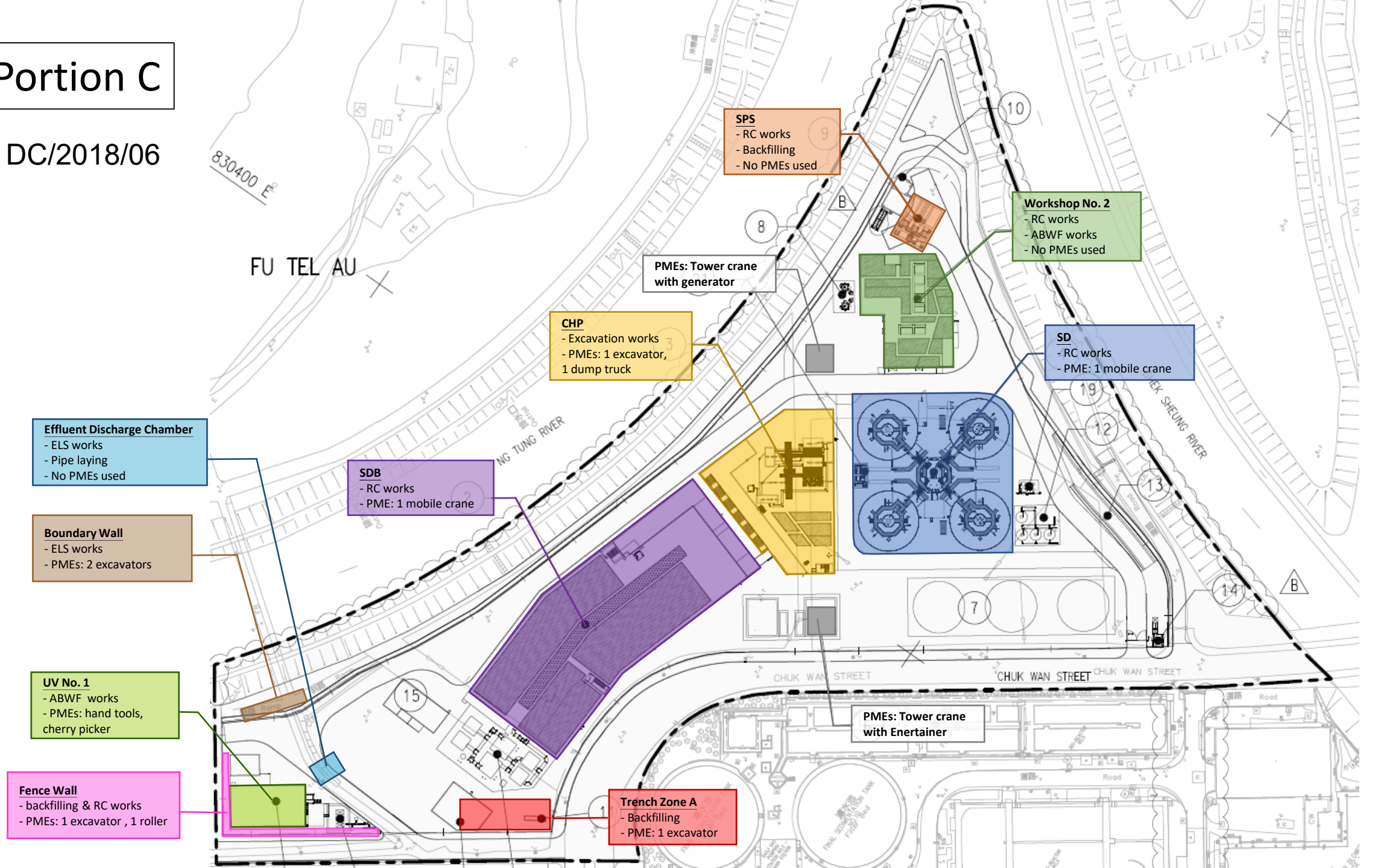


*December 2021*



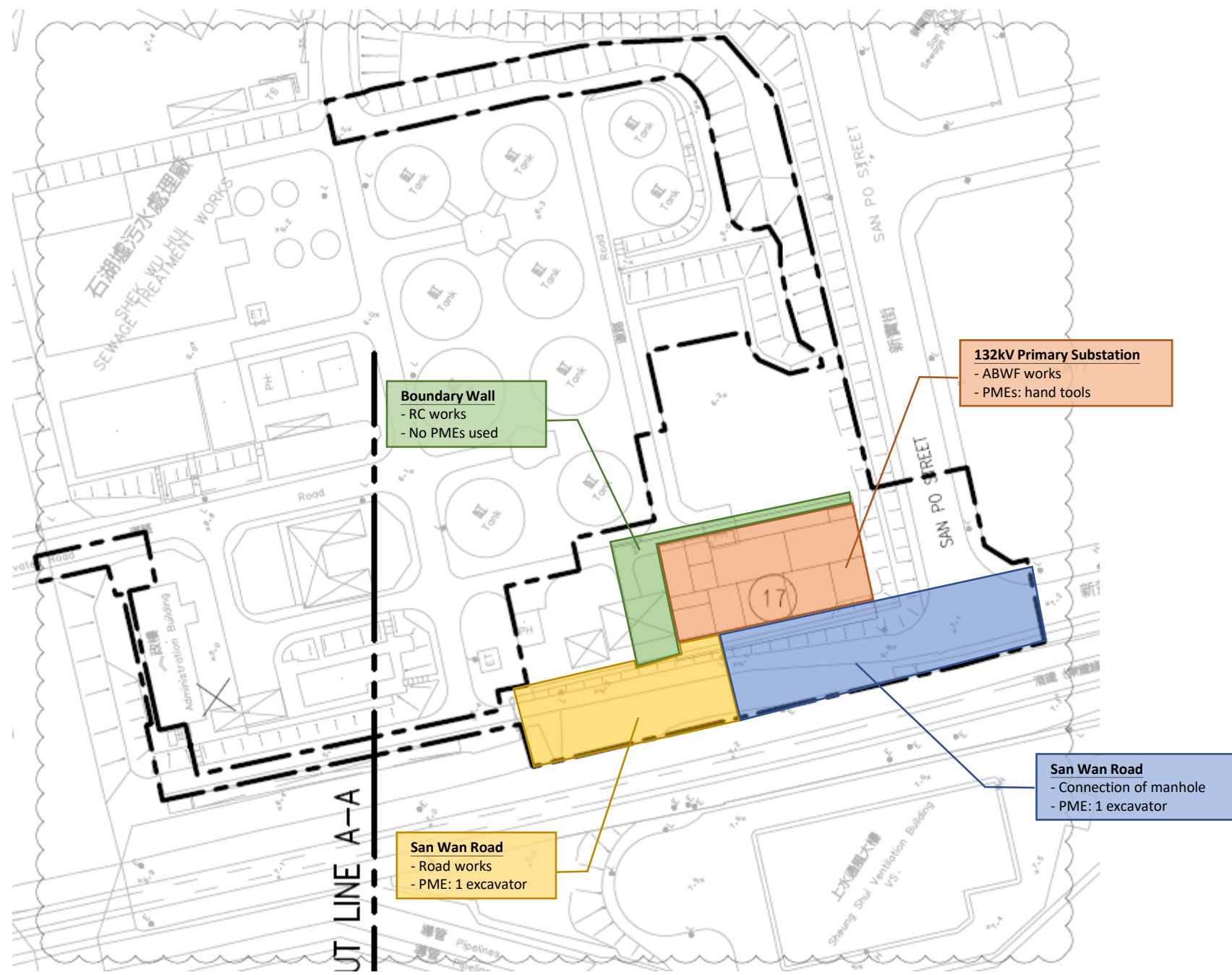
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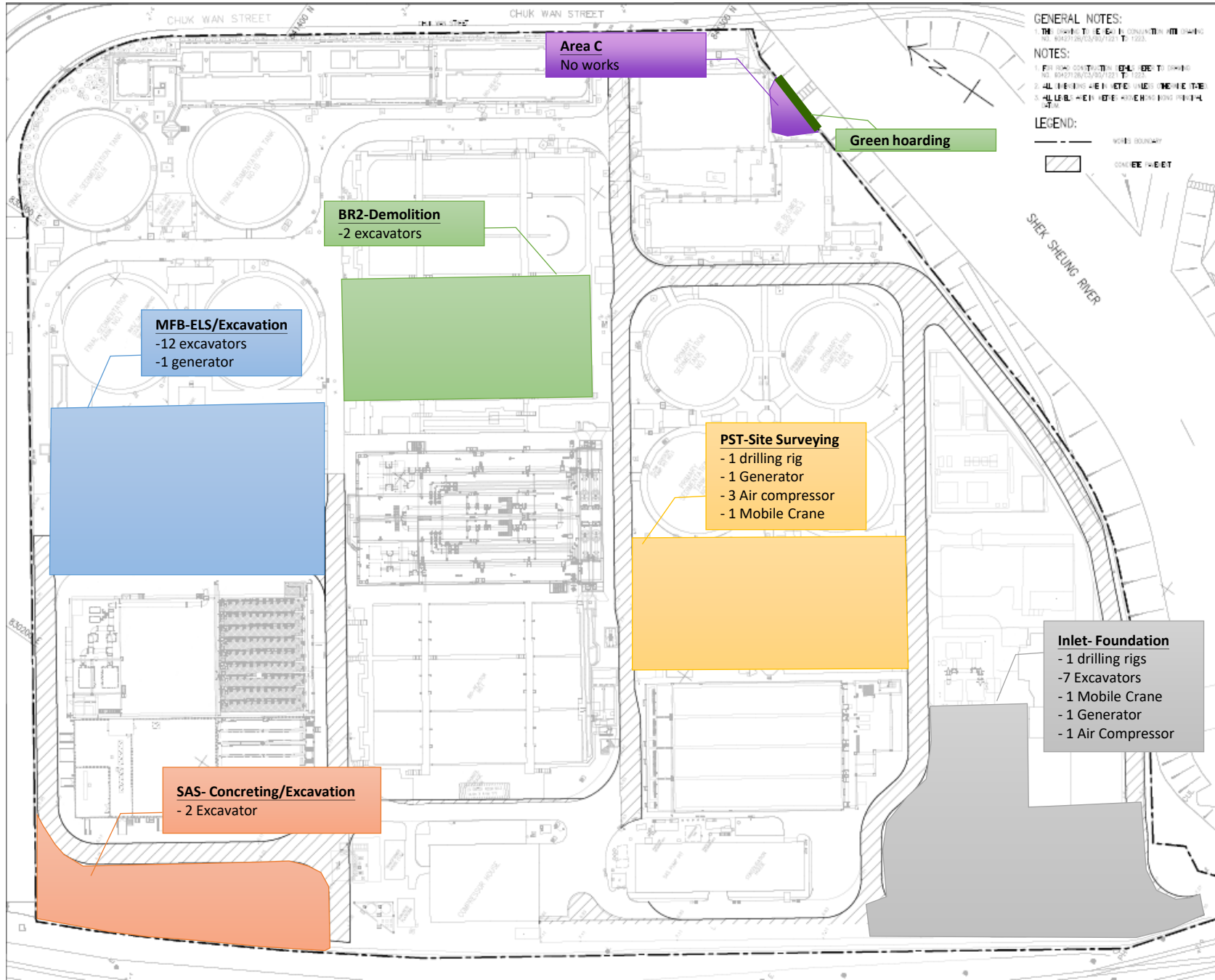
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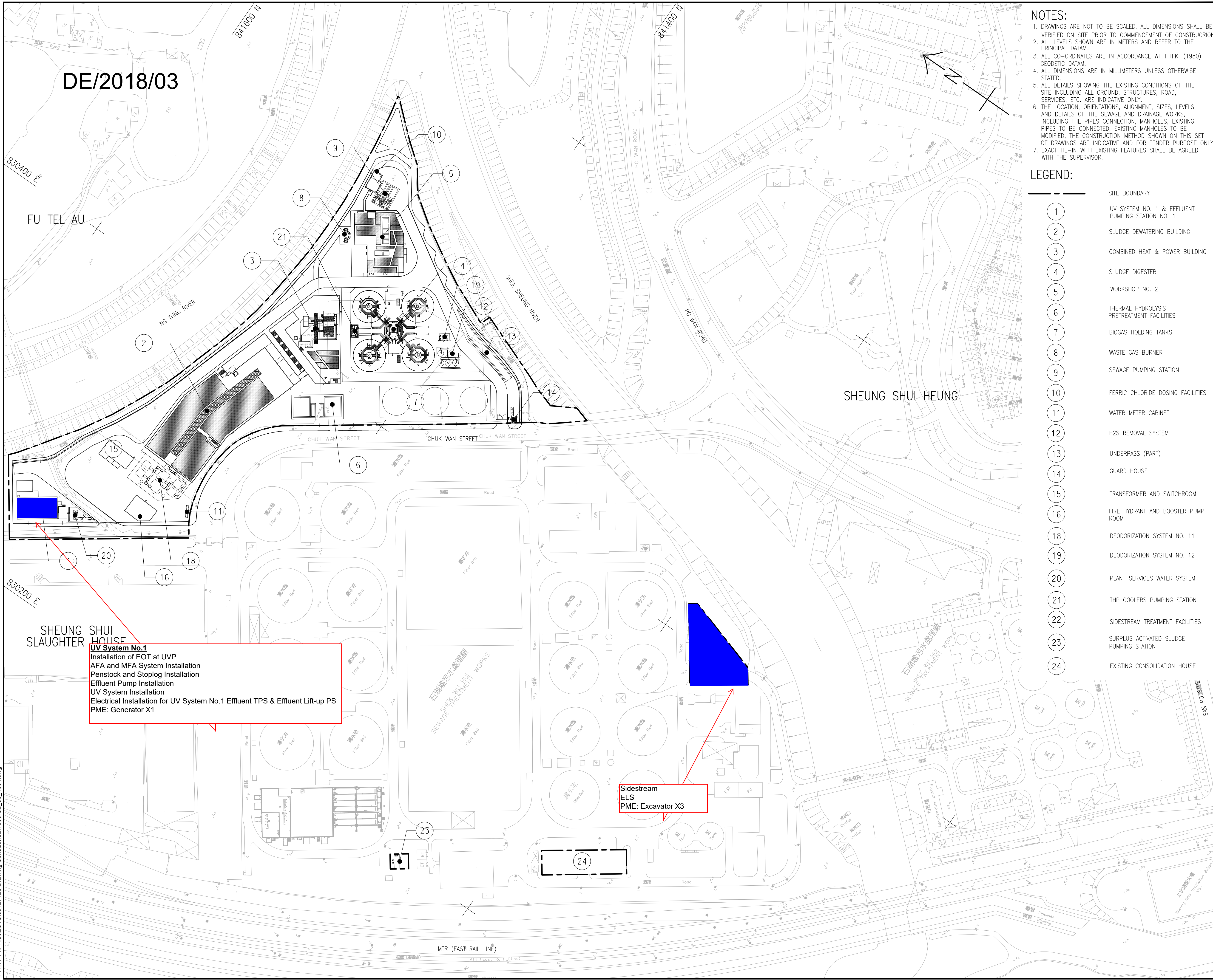
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DC/2018/07





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

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 Installation of EOT at UVP  
 AFA and MFA System Installation  
 Penstock and Stoplog Installation  
 Effluent Pump Installation  
 UV System Installation  
 Electrical Installation for UV System No.1 Effluent TPS & Effluent Lift-up PS  
 PME: Generator X1

**Sidestream ELS**  
 PME: Excavator X3



**PROJECT**  
 SHEK WU HUI EFFLUENT POLISHING PLANT

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

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**DIMENSION UNIT**  
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**KEY PLAN**  
 索引圖

**PROJECT NO.**  
 項目編號  
 60427128

**CONTRACT NO.**  
 合約編號  
 DE/2018/03

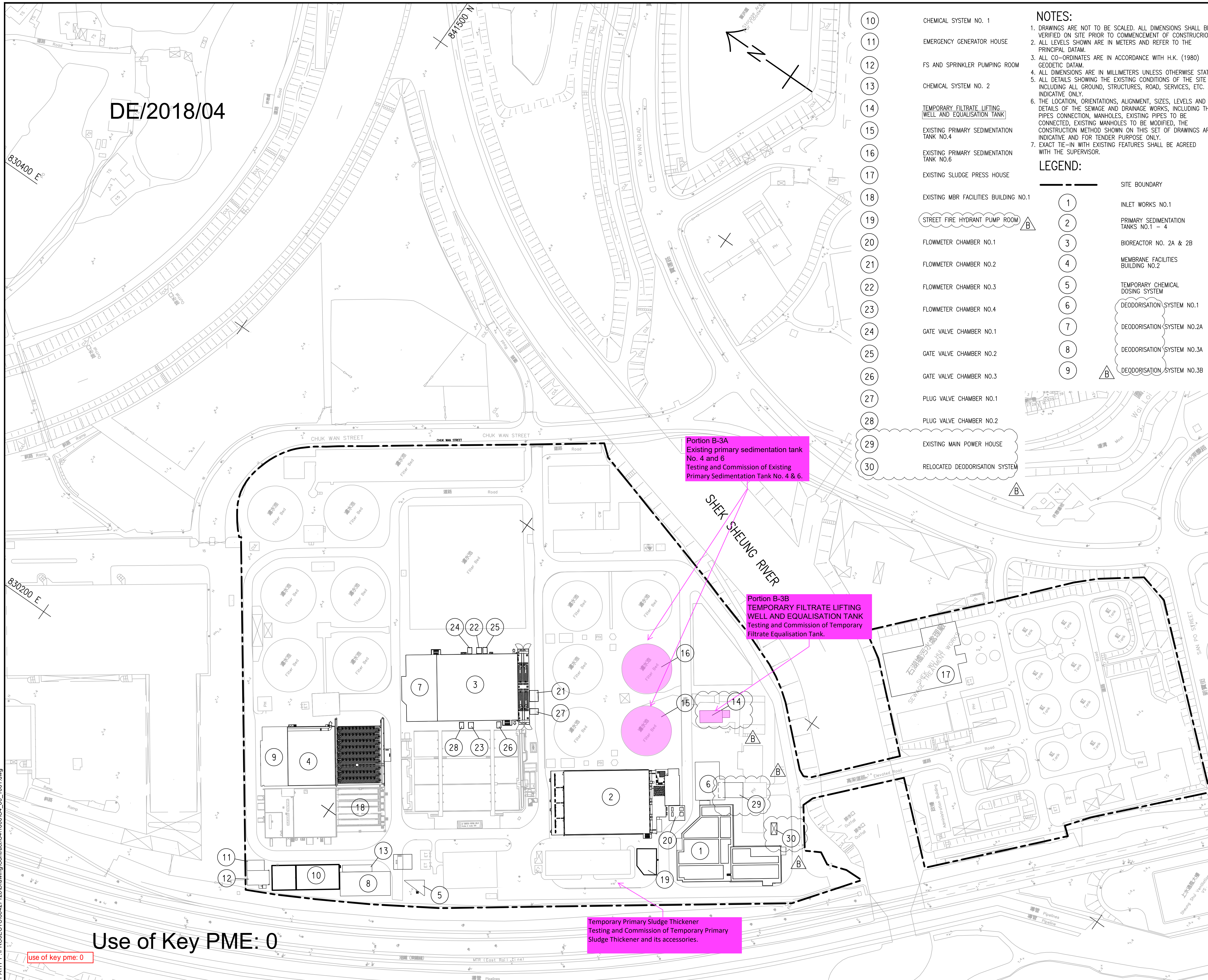
**SHEET TITLE**  
 圖紙名稱  
 SHEK WU HUI EFFLUENT POLISHING PLANT GENERAL LAYOUT PLAN

**SHEET NUMBER**  
 圖紙編號  
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  - 8 DEODORISATION SYSTEM NO. 2A
  - 9 DEODORISATION SYSTEM NO. 3A
  - 10 DEODORISATION SYSTEM NO. 3B

Portion B-3A  
 Existing primary sedimentation tank No. 4 and 6  
 Testing and Commission of Existing Primary Sedimentation Tank No. 4 & 6.

Portion B-3B  
 TEMPORARY FILTRATE LIFTING TANK AND EQUALISATION TANK  
 Testing and Commission of Temporary Filtrate Equalisation Tank.

Temporary Primary Sludge Thickener  
 Testing and Commission of Temporary Primary Sludge Thickener and its accessories.

Use of Key PME: 0

Use of key pme: 0

**AECOM**

**PROJECT**  
 SHEK WU HUI EFFLUENT POLISHING PLANT

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**DIMENSION UNIT**  
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 DE/2018/04

**SHEET TITLE**  
 圖紙名稱  
 GENERAL LAYOUT PLAN

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## ***Appendix 3.1***

# ***Environmental Monitoring Requirements***

---





## Monitoring Requirements

### Air Quality Monitoring

Parameter	Frequency	Location	Measurement Conditions
1-hour TSP	3 times per day, once every 6 days	AM1 – House No.15, Wai Loi Tsuen	Ground level measurement
		AM2 – Fu Tei Au	
24-hour TSP	Once every 6 days	AM1a - Site Boundary of the Shek Wu Hui STW (East)	
		AM2a - Site Boundary of the Shek Wu Hui STW (North)	

### Noise Monitoring

Parameter	Frequency	Location	Measurement Conditions
L <sub>eq</sub> , L <sub>90</sub> & L <sub>10</sub> at 30-minute intervals during (0700 to 1900 on normal weekdays)	Once per week when noise generating activities are underway	NM1 – Wai Loi Tsuen	Ground level and free field measurement
		NM2 – Fu Tei Au	
		NM3 - Man Kok Village	





**Ecological Monitoring**

<b>Methodology</b>	<b>Monitoring Stations</b>	<b>Descriptions</b>	<b>Influenced by Tidal Action</b>
Monitoring surveys were conducted on a weekly basis along the Ng Tung River, Sheung Yue River and Shek Sheung River at both high and low tides. Any sources of actual or potential disturbance to birds due to construction activities are identified.	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





## ***Appendix 3.2***

### ***Action and Limit Level***



## Action and Limit Levels

### Air Quality Monitoring

Monitoring Station	1-hour TSP Level in $\mu\text{g}/\text{m}^3$		24-hour TSP Level in $\mu\text{g}/\text{m}^3$	
	Action Level	Limit Level	Action Level	Limit Level
AM1	320	500	189	260
AM2	322	500	187	260

### Noise Monitoring

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

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

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

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

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

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





## ***Appendix 3.3***

# ***Environmental Mitigation Implementation Schedule***

---



### Appendix 3.1 Environmental Mitigation Implementation Schedule

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
<b>Air Quality Monitoring</b>							
S2.4.1.3	Dust suppression measures stipulated in the Air Pollution Control (Construction Dust) Regulation and good site practices:						
	<ul style="list-style-type: none"> <li>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;</li> </ul>	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)	^
	<ul style="list-style-type: none"> <li>Any dusty material remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads;</li> </ul>						^
	<ul style="list-style-type: none"> <li>A stockpile of dusty material should not be extended beyond the pedestrian barriers, fencing or traffic cones;</li> </ul>						^
	<ul style="list-style-type: none"> <li>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;</li> </ul>						^
	<ul style="list-style-type: none"> <li>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;</li> </ul>						



EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
	<ul style="list-style-type: none"> <li>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.</li> </ul>						^
	<ul style="list-style-type: none"> <li>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;</li> </ul>						^
	<ul style="list-style-type: none"> <li>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;</li> </ul>						^
	<ul style="list-style-type: none"> <li>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;</li> </ul>						^
	<ul style="list-style-type: none"> <li>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;</li> </ul>						^
	<ul style="list-style-type: none"> <li>Any skip hoist for material transport should be totally enclosed by impervious sheeting;</li> </ul>						^
	<ul style="list-style-type: none"> <li>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;</li> </ul>						^
	<ul style="list-style-type: none"> <li>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;</li> </ul>						^



	<ul style="list-style-type: none"> <li>• 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</li> </ul>						^
	<ul style="list-style-type: none"> <li>• 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</li> </ul>						^



EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
<b>Noise Impact</b>							
S3.4.1.1	Use of movable barrier, enclosure, acoustic mat and quiet plant. Use of wooden frames barrier with a small-cantilevered upper portion of superficial density not less than 14kg/m <sup>2</sup> on a skid footing with 25mm thick internal sound absorptive lining.	To minimize construction noise impact arising from the Project at the affected noise sensitive receivers (NSRs)	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM, Noise Control Ordinance (NCO)	^
S3.4.1.2	<p>Good Site Practice:</p> <ul style="list-style-type: none"> <li>Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction program.</li> <li>Silencers or mufflers on construction equipment should be utilized and should be properly maintained during the construction program.</li> <li>Mobile plant, if any, should be sited as far away from NSRs as possible.</li> <li>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.</li> <li>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.</li> <li>Material stockpiles and other structures should be effectively utilized, wherever practicable, in screening noise from on-site construction activities.</li> </ul>	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	^ * ^ ^ ^ ^



EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
<b>Ecological Impact</b>							
S4.2.1.1	Solid dull green noise/visual barriers of at least 2m high shall be erected and maintained between active works area and all areas of ecological importance.	Minimize noise and human disturbances during construction phase.	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM	^
S4.2.1.2	Avoid unnecessary lighting.	Minimize mortality impacts on birds.	Design / Contractor/ Plant Operator	Work Sites	Construction and operation phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM	^
S4.2.1.3	Good construction site practice to minimise dust generation should be followed on all construction sites. Measures to avoid, minimise and mitigate impacts on air quality are detailed in this schedule.	Minimize dust generation from construction sites.	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM	^
S4.2.1.4	The following measures to avoid, minimise and mitigate impact on water quality during construction phase shall be implemented						
	<ul style="list-style-type: none"> <li>Temporary sewerage and drainage to be designed and installed to collect wastewater and prevent it from entering water bodies;</li> </ul>	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	^
	<ul style="list-style-type: none"> <li>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;</li> </ul>						^
	<ul style="list-style-type: none"> <li>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;</li> </ul>						^







EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
	<ul style="list-style-type: none"> <li>• 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;</li> </ul>						^
	<ul style="list-style-type: none"> <li>• Speed control for the trucks carrying contaminated materials should be enforced;</li> </ul>						^
	<ul style="list-style-type: none"> <li>• Vehicle wheel washing facilities at construction sites' exit points should be established and used, where necessary; and</li> </ul>						^
	<ul style="list-style-type: none"> <li>• Other measures as detailed in this schedule.</li> </ul>						^



EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
<b>Water Quality Impact</b>							
S5.2.2.1	<b>Construction Site Runoff</b> 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	<b>Sewage from Workforce</b> <ul style="list-style-type: none"> <li>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;</li> <li>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</li> </ul>	Handling of site sewage	Contractors	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM, WPCO, EIAO	^  ^



EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
<b>Waste Management</b>							
S6.2.2.1	<b>Good Site Practices and Waste Reduction Measures</b> <ul style="list-style-type: none"> <li>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;</li> <li>Training of site personnel in site cleanliness, appropriate waste management procedures and concepts of waste reduction, reuse and recycling;</li> <li>Provision of sufficient waste disposal points and regular collection for disposal;</li> <li>Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers;</li> <li>Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors;</li> <li>An Environmental Management Plan (EMP) should be prepared by the contractor and submitted to the Supervisor for approval.</li> </ul>	Minimize waste generation during construction	Contractors	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Waste Disposal Ordinance (WDO)	*  ^  ^  ^  ^  ^
S6.2.3.1	<b>Waste Reduction Measures</b> <ul style="list-style-type: none"> <li>Segregate and store different types of waste in different containers, skip or stockpiles to enhance reuse or recycling of materials and their proper disposal;</li> <li>Proper storage and site practices to minimize the potential for damage and contamination of construction materials;</li> <li>Plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste;</li> <li>Sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable portions (i.e. soil, broken concrete, metal etc.); and</li> <li>Provide training to workers on the importance of appropriate waste management procedures, including waste reduction, reuse and recycling.</li> </ul>	Reduce waste generation	Contractors	Work Sites	Prior to the commencement of construction of Main Works Stage 1, Stage 2 and Stage 3	WDO	^  ^  ^  ^  ^



EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
S6.2.4.1	Storage, Collection and Transportation of Waste Should any temporary storage or stockpiling of waste is required, recommendations to minimize the impacts include:	Minimize waste impacts arising from waste storage	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	WDO	^
	<ul style="list-style-type: none"> <li>Waste, such as soil, should be handled and stored well to ensure secure containment, thus minimizing the potential of pollution;</li> </ul>						^
	<ul style="list-style-type: none"> <li>Stockpiling area should be provided with covers and water spraying system to prevent materials from windblown or being washed away; and</li> </ul>						^
	<ul style="list-style-type: none"> <li>Different locations should be designated to stockpile each material to enhance reuse.</li> </ul>						^
S6.2.4.2	Storage, Collection and Transportation of Waste (con't)	Minimize waste impacts arising from waste storage	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	WDO	^
	<ul style="list-style-type: none"> <li>Remove waste in timely manner;</li> </ul>						^
	<ul style="list-style-type: none"> <li>Employ the trucks with cover or enclosed containers for waste transportation;</li> </ul>						^
	<ul style="list-style-type: none"> <li>Obtain relevant waste disposal permits from the appropriate authorities; and</li> <li>Disposal of waste should be done at licensed waste disposal facilities</li> </ul>						^
S6.2.5.2	C&D Materials from Site Formation	Minimize waste impacts arising from waste storage	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Land (Miscellaneous Provisions) Ordinance, WDO, ETWB TCW No. 19/2005	^
	<ul style="list-style-type: none"> <li>Maintain temporary stockpiles and reuse excavated fill material for backfilling;</li> </ul>						^
	<ul style="list-style-type: none"> <li>Carry out on-site sorting;</li> </ul>						^
	<ul style="list-style-type: none"> <li>Make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate;</li> </ul>						^
	<ul style="list-style-type: none"> <li>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</li> </ul>						^
<ul style="list-style-type: none"> <li>Implement a trip-ticket system for each works contract to ensure that the disposal of C&amp;D materials are properly documented and verified.</li> </ul>	^						
S6.2.5.3	C&D Material from Buildings Demolition and New Building Construction						



EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
	<ul style="list-style-type: none"> <li>The Contractor should recycle as much as possible of the C&amp;DM on-site. Public fill and C&amp;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.</li> <li>The use of wooden hoardings shall not be allowed. An alternative material, such as metal, aluminium or alloy etc, could be used.</li> <li>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.</li> <li>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&amp;D material arising from demolition works, selective demolition method should be adopted.</li> </ul>	Minimize waste impacts arising from waste storage	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Land (Miscellaneous Provisions) Ordinance, WDO, ETWB TCW No. 19/2005	^
							^
							^
							^
S6.2.5.4	<p>Chemical Waste</p> <ul style="list-style-type: none"> <li>If chemical wastes are produced at the construction site, the Contractors should register with EPD as chemical waste producers.</li> <li>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.</li> </ul>	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	^
							*
S6.2.5.5	General Refuse						



EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
	<ul style="list-style-type: none"> <li>• General refuse should be stored in enclosed bins separately from construction and chemical wastes.</li> <li>• Recycling bins should also be placed to encourage recycling.</li> <li>• 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.</li> <li>• A reputable waste collector should be employed to remove general refuse on a daily basis.</li> </ul>	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	^ ^ ^ ^



EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
<b>Landscape and Visual</b>							
S7.3.1.1	<p>Good Site Practices Measures</p> <ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	Minimize the impact to the landscape and visual	Contractor	Work Sites	Prior to construction and construction phase		N/A
							N/A
S7.3.2.1	<p>MM4 - Tree Protection &amp; Preservation</p> <ul style="list-style-type: none"> <li>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.</li> </ul>	Protect and Preserve Trees	Designer / Contractor	Work Sites	Prior to construction and construction phase	ETWB TCW No. 29/2004 and DEVB TC(W) No.7/2015	^



EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
S7.3.2.1	<p>MM5 - Tree Transplantation</p> <ul style="list-style-type: none"> <li>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.</li> </ul>	Transplant Trees where suitable for transplantation	Designer / Contractor	Work Sites where possible. Otherwise consider offsite locations	Prior to construction, construction phase and operation phase	DEVB TC(W) No. 7/2015 and ETWB TCW No.2/2004 HyD HQ/GN/13 Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit	N/A
S7.3.2.1	<p>MM6 - Slope Landscaping</p> <ul style="list-style-type: none"> <li>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 resources and character. Woodland tree seedlings and/or shrubs should be planted where slope gradient and site conditions allow.</li> <li>In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping</li> </ul>	To avoid substantial slope cutting and fill slopes. To prevent erosion and subsequent loss of landscape resources and character. To ensure manmade slopes are as visually amenable as possible.	Designer / Contractor	Work Sites	Prior to construction, construction phase and operation phase	GEO Publication (1999) - Use of Vegetation as Surface Protection on Slope; GEO Publication No. 1/2011- Technical Guidelines on Landscape Treatment for Slopes	N/A
S7.3.2.1	MM7 - Compensatory Planting						



EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>Compensatory planting for shrubs should be considered in suitable locations. Native species such as <i>Melastoma malabathricum</i>, <i>Diospyros vaccinioides</i>, <i>Gardenia jasminoides</i>, <i>Ixora chinensis</i>, <i>Ligustrum sinense</i>, <i>Litsea rotundifolia</i>, <i>Melastoma dodecandrum</i>, <i>Atalantia buxifolia</i>, <i>Rhodomyrtus tomentosa</i>, <i>Rhaphiolepis indica</i>, and <i>Rhododendron simsii</i> are suggested.</li> </ul>	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
							N/A
							N/A
S7.3.2.1	<b>MM9 - Vertical Greening</b> <ul style="list-style-type: none"> <li>Planting of climbers to grow up vertical surfaces were appropriate.</li> </ul>	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	<b>MM10 - Green Roof</b> <ul style="list-style-type: none"> <li>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.</li> </ul>	Reduce exposure to untreated concrete surfaces and particularly mitigate visual impact to visually sensitive receivers (VSRs) at high levels. Provide greening	Designer / Contractor	On appropriate buildings	Prior to construction, construction phase and operation phase	CIBSE HK Branch, Technical Guidelines for Green Roof Systems in Hong Kong (2011); ArchSD/Urbis Study on Green Roof Application in HK (2007)	N/A



EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
S7.3.2.1	<p>MM11 - Screen Planting</p> <ul style="list-style-type: none"> <li>Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.</li> </ul>	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	<p>MM16 - Screen Hoarding</p> <ul style="list-style-type: none"> <li>Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, non-reflective, recessive colours be used. Any works areas near the ecological sensitive areas should erect 2m high dull green site boundary fence. Details can refer to the ecological impact assessment. [Chapter 13 of the EIA Report of NENT NDAs (Register No. AEIAR-175- 2013)]</li> </ul>	To screen undesirable views of the works site.	Designer	Work Sites	Construction phase		N/A
S7.3.2.1	<p>MM17 - Light Control</p> <ul style="list-style-type: none"> <li>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.</li> </ul>	To minimize glare impact to adjacent VSRs.	Designer / Contractor	Work Sites and/or the Plant	Construction phase and operation phase		N/A

Remarks:

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





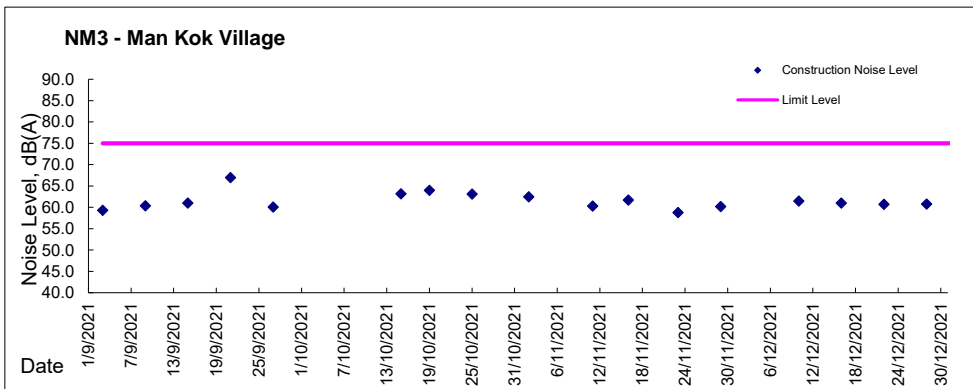
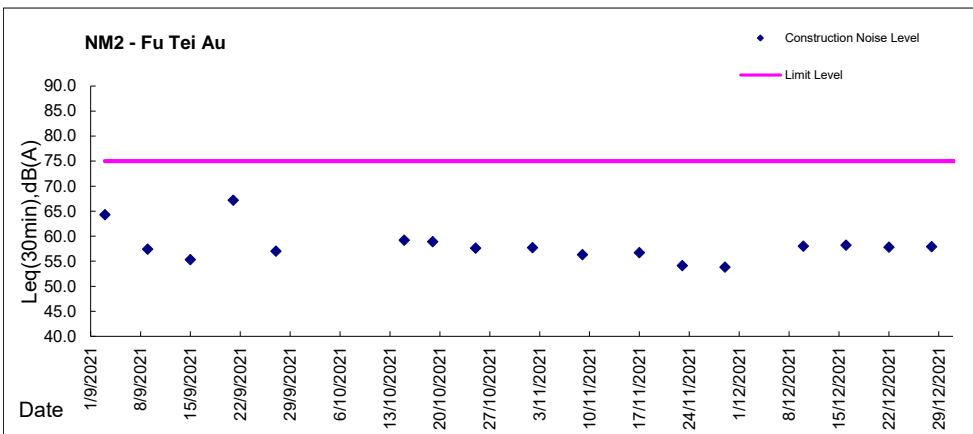
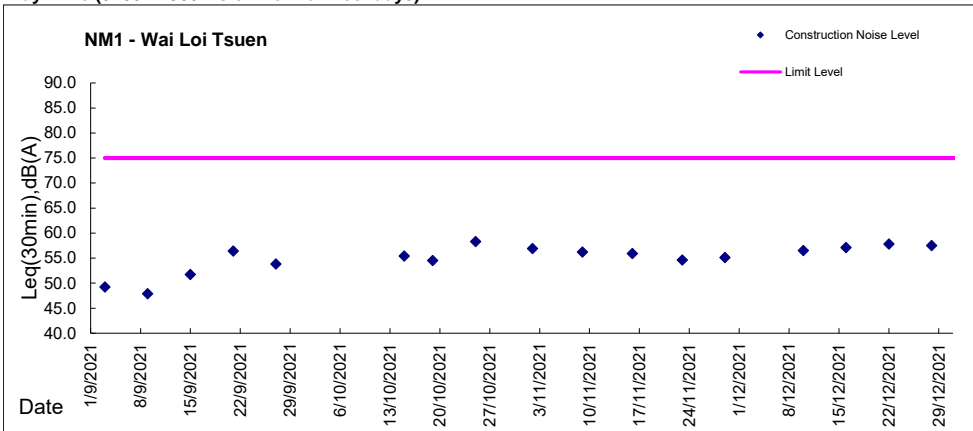
## ***Appendix 3.4***

# ***Noise Monitoring Graphical Presentations***

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**Graphic Presentation of Noise Monitoring Result**  
**Day Time (0700 - 1900hrs on normal weekdays)**



1. The weather conditions were generally sunny and cloudy during monitoring sessions of the reporting period.
2. Major construction activities carried out during the reporting period include RC works, excavation works , pipe laying, backfilling, removal of Layer Struct and Waling, ELS works, sheetpiling, installation of Power cable, installation of guide bar bracket, guide bar and placing the effluent transfer pump, pre-bored H pile, demolition works, excavation, E&M installation and T&C works, ABWF works & BS works, , excavation of Trial Pit, penstock and stoplog installation, AFA and MFA system installation, UV system installation
3. Other factors which might affect the monitoring results include vehicle movement within SWHSTW, construction noise from other construction projects and railway noise and road traffic at Sheung Shui Tung Hing Road





## ***Appendix 3.5***

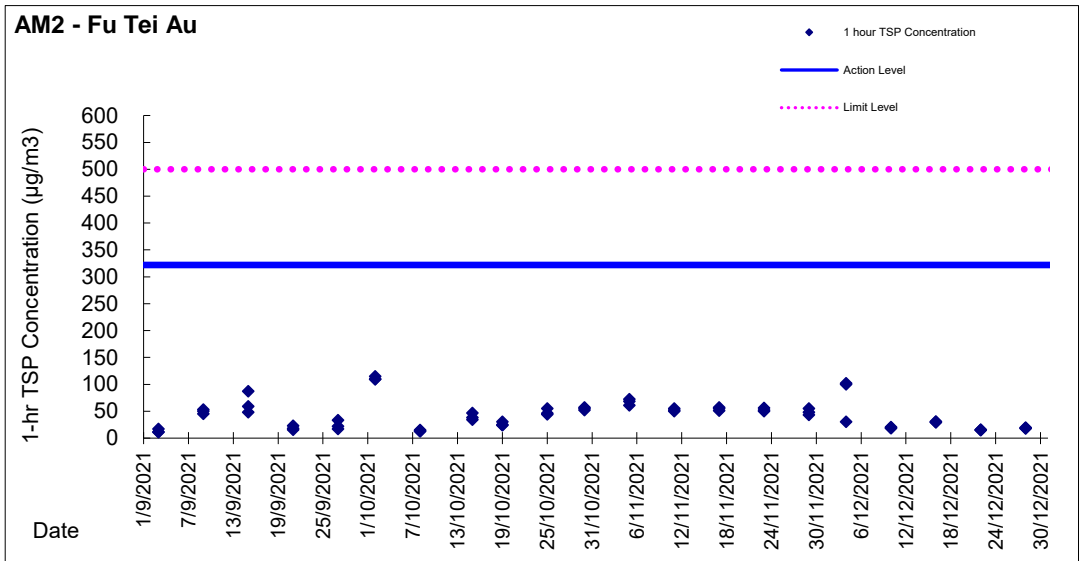
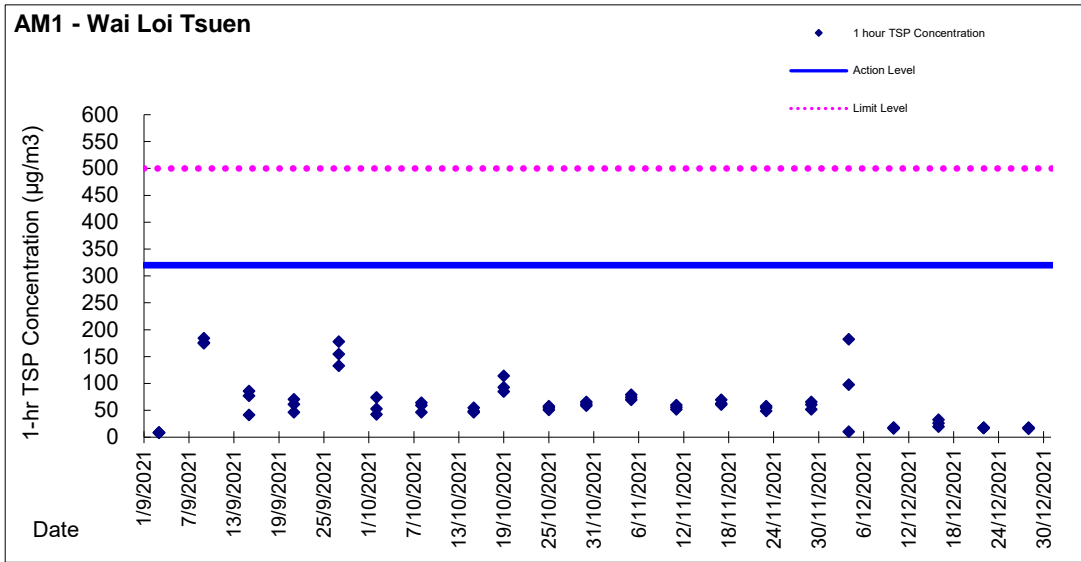
# ***Air Quality Monitoring Graphical Presentations***

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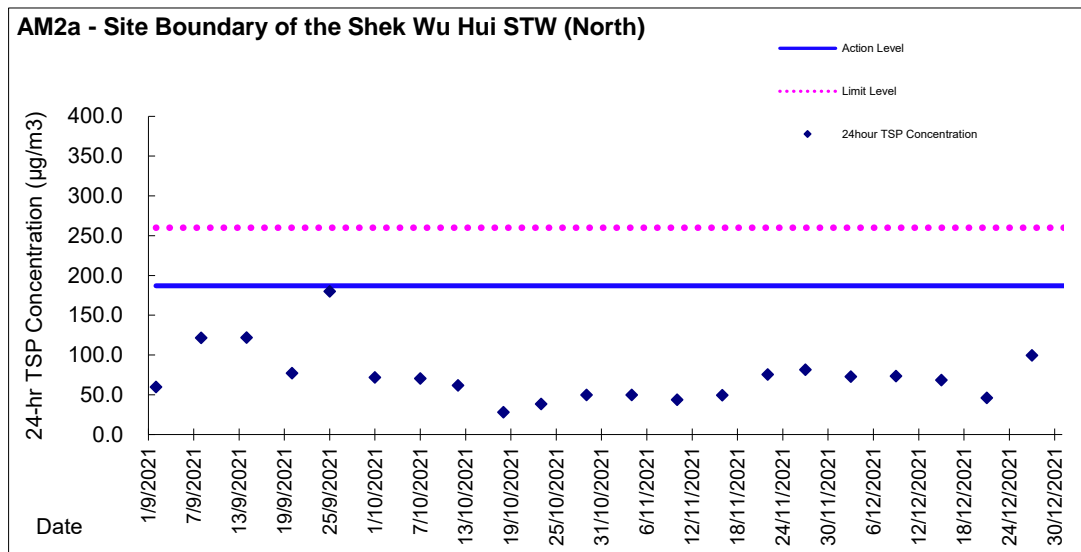
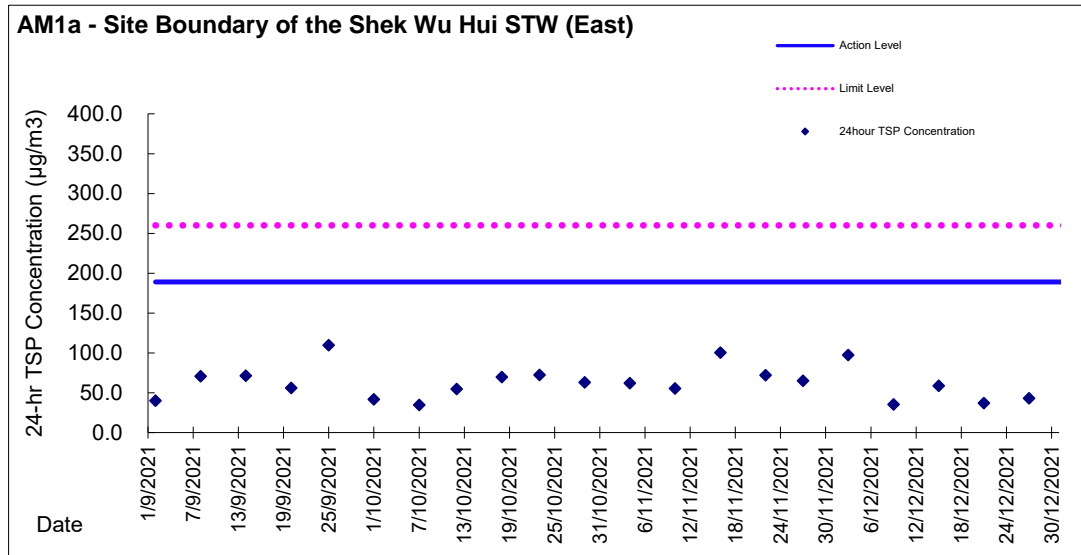




Graphic Presentation of TSP Result





**Graphic Presentation of TSP Result**


1. The weather conditions were generally sunny and cloudy during monitoring sessions of the reporting period.
2. Major construction activities carried out during the reporting period include RC works, excavation works , pipe laying, backfilling, removal of Layer Struct and Waling, ELS works, sheetpiling, installation of Power cable, installation of guide bar bracket, guide bar and placing the effluent transfer pump, pre-bored H pile, demolition works, excavation, E&M installation and T&C works, ABWF works & BS works, , excavation of Trial Pit, penstock and stoplog installation, AFA and MFA system installation, UV system installation
3. Other factors which might affect the monitoring results include vehicle movement within SWHSTW and Road Traffic at Sheung Shui Tung Hing Road





## ***Appendix 3.6***

# ***Details of Ecological Monitoring Results in the Reporting Period***

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**Details of Ecological Monitoring Results in the Reporting Quarter**

Reporting period: October to December 2021

**Summary Result of T-Test Analysis for All Waterbird**

Month	T-values of Data		Confidence Level (Critical Value)	
			95% (-2.132)	99% (-3.747)
October 2021	Abundance	Monthly	✓	✓
		Seasonal	✓	✓
		Overall	✓	✓

Month	T-values of Data		Confidence Level (Critical Value)	
			95% (-2.132)	99% (-3.747)
November 2021	Abundance	Monthly	✓	✓
		Seasonal	✓	✓
		Overall	✓	✓

Month	T-values of Data		Confidence Level (Critical Value)	
			95% (-2.132)	99% (-3.747)
December 2021	Abundance	Monthly	✓	✓
		Seasonal	✓	✓
		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.





Summary of Abundance of Representative Waterbirds in the Reporting Period

Representative Species			Compliance		
Species Name	Common Name	Chinese Name	October 2021	November 2021	December 2021
<i>Egretta garzetta</i>	Little Egret	小白鷺	✓	✓	✓
<i>Ardea cinerea</i>	Grey Heron	蒼鷺	✓	✓	✓
<i>Ardeola bacchus</i>	Chinese Pond Heron	池鷺	✓	✓	✓
<i>Phalacrocorax carbo</i>	Great Cormorant	普通鸕鶿	✓	✓	✓
<i>Ardea alba</i>	Great Egret	大白鷺	✓	✓	✓
<i>Bubulcus coromandus</i>	Eastern Cattle Egret	牛背鷺	✓	✓	✓

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.





## ***Appendix 3.7***

### ***Waste Flow Table***



### 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	0.167	0.000	0.000	0.008	0.000	0.042
May	0.557	0.000	0.218	0.000	0.340	0.190	0.001	0.002	0.008	0.000	0.081
Jun	0.370	0.000	0.023	0.000	0.348	0.119	8.210	0.000	0.000	0.000	0.069
<b>Sub-total</b>	<b>19.519</b>	<b>0.000</b>	<b>0.263</b>	<b>13.317</b>	<b>5.939</b>	<b>1.189</b>	<b>10.331</b>	<b>0.002</b>	<b>0.023</b>	<b>0.000</b>	<b>0.299</b>
Jul	0.592	0.000	0.000	0.000	0.592	0.096	0.000	0.000	0.010	0.000	0.046
Aug	0.567	0.000	0.000	0.000	0.567	0.368	0.002	0.017	0.008	0.000	0.066
Sep	0.184	0.000	0.000	0.000	0.184	0.589	0.000	0.000	0.000	0.000	0.037
Oct	0.230	0.000	0.000	0.000	0.230	0.205	0.001	0.003	0.008	0.000	0.055
Nov	0.685	0.000	0.000	0.000	0.685	0.844	0.000	0.009	0.000	0.000	0.116
Dec	1.612	0.000	0.000	0.000	1.612	0.210	0.000	0.007	0.000	0.000	0.132
<b>Total</b>	<b>23.389</b>	<b>0.000</b>	<b>0.263</b>	<b>13.317</b>	<b>9.809</b>	<b>3.500</b>	<b>10.334</b>	<b>0.038</b>	<b>0.049</b>	<b>0.000</b>	<b>0.751</b>

- Notes:
1. Assume the density of soil fill is 2 ton/m<sup>3</sup>.
  2. Assume the density of rock and broken concrete is 2.5 ton/m<sup>3</sup>.
  3. Assume the density of general refuse is 0.9 ton/m<sup>3</sup>.
  4. Assume density of waste oil is assumed 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.



**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 <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(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	1.368	0.000	0.000	0.149	1.220	0.081	0.00	0.000	0.008	0.000	0.012
Jun	0.670	0.000	0.000	0.074	0.596	0.000	0.00	0.010	0.000	0.000	0.012
<b>Sub-total</b>	<b>5.290</b>	<b>0.000</b>	<b>0.000</b>	<b>0.269</b>	<b>5.021</b>	<b>0.961</b>	<b>60.60</b>	<b>0.010</b>	<b>0.020</b>	<b>0.000</b>	<b>0.062</b>
Jul	2.818	0.000	0.000	0.058	2.760	0.000	0.00	0.000	0.010	0.000	0.011
Aug	5.061	0.000	0.000	0.000	5.061	0.021	27.13	0.013	0.014	0.000	0.010
Sep	4.093	0.000	0.000	0.000	4.093	0.152	38.40	0.000	0.000	0.000	0.009
Oct	1.653	0.000	0.000	0.305	1.349	0.023	0.000	0.006	0.008	0.000	0.014
Nov	4.843	0.000	0.000	1.738	3.105	0.000	1.51	0.002	0.000	0.000	0.006
Dec	3.586	0.000	0.000	0.410	3.175	0.000	0.00	0.006	0.000	0.000	0.014
<b>Total</b>	<b>27.343</b>	<b>0.000</b>	<b>0.000</b>	<b>2.779</b>	<b>24.564</b>	<b>1.158</b>	<b>127.64</b>	<b>0.036</b>	<b>0.052</b>	<b>0.000</b>	<b>0.127</b>

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



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

Name of Department: ArchSD/CEDD/DSD/EMSD/HyD/WSD

Contract No.: DE/2018/03

### Monthly Summary Waste Flow Table for 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 <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m <sup>3</sup> )
Jan	9.53 T	0	0	0	9.53 T	0	0	0	0	0	
Feb	3.47T	0	0	0	3.47 T	0	0	0	0	0	
Mar	14.79T	0	0	0	14.79T	0	0	0	0	0	
Apr	7.21T	0	0	0	7.21T	0	0	0	0	0	
May	11.34T	0	0	0	11.34T	0	0	0	0	0	
June	328.08T	0	0	0	328.08T	0	0	0	0	0	
Sub-total	374.42T	0	0	0	374.42T	0	0	0	0	0	
July	579.34T	0	0	0	579.34T	0	0	0.131	0.007	0	
Aug	64.14T	0	0	0	64.14T	0	0	0.11	0	6.13T	
Sept	39.42T	0	0	0	39.42T	0	0	0	0	0	
Oct	0	0	0	0	0	0	0	0	0	0	
Nov	98.65T	0	0	0	98.65T	0	16.4	0.11	0.005	0	
Dec	93.19T	0	0	0	93.19T	0	0	0	0	6.1T	
Total	1249.16T	0	0	0	1249.16T	0	16.4	0.351	0.012	0	



**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	0	0	0	0	0	0	0	0	0	0	3.25
June	0	0	0	0	0	0	0	0	0	0	2.01
Sub-total	418.12	0	100	0	318.12	0	0	0	0	0	13.26
July	0	0	0	0	0	0	0	0	0	0	4.21
Aug	0	0	0	0	0	0	0	0	0	0	1.09
Sept	4.24	0	0	0	4.24	0	0	0	0	0	0
Oct	0	0	0	0	0	0	0	0	0	0	0
Nov	0	0	0	0	0	0	0	0	0	0	3.06
Dec	0	0	0	0	0	0	0	0	0	0	0
Total	422.36	0	100	0	322.36	0	0	0	0	0	21.62





## ***Appendix 4.1***

# ***Summary of Notification of Exceedance***

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**Summary for Notification of Exceedance**

Reporting period: October to December 2021

**Air Quality**

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

**Construction Noise**

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

**Ecology**

NIL in the reporting period





## ***Appendix 4.2***

### ***Site Audit Summary***

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## Site Audit Summary

Reporting Quarter: October to December 2021

<b>Contract No.: DC/2018/06</b>		
<b>Date</b>	<b>Observations and recommendations</b>	<b>Follow-up and status</b>
<b>October</b>		
4 Oct 2021	No particular findings	-
11 Oct 2021	No particular findings	-
19 Oct 2021	No particular findings	-
26 Oct 2021	Chemical containers should be stored properly	Rectified as observed on 2 Nov 2021
<b>November</b>		
2 Nov 2021	Dust suppression measures should be enhanced at UV No.1	Rectified as observed on 11 Nov 2021
11 Nov 2021	No particular findings	-
16 Nov 2021	No particular findings	-
23 Nov 2021	No particular findings	-
30 Nov 2021	2m solid dull green site barrier fences should be erected along the project site boundary next to Ng Tung River under EP condition 2.7.	Pending
<b>December</b>		
6 Dec 2021	No particular findings	-
15 Dec 2021	No particular findings	-
21 Dec 2021	No particular findings	-
28 Dec 2021	No particular findings	-





<b>Contract No.: DC/2018/07</b>		
Date	Observations and recommendations	Follow-up and status
<b>October</b>		
4 Oct 2021	Damaged drainage pipe connecting to the treatment tank should be fixed	Rectified as observed on 11 Oct 2021
11 Oct 2021	No particular findings	-
19 Oct 2021	Faded colour NRMM label of the generator should be replaced	Rectified as observed on 2 Nov 2021
26 Oct 2021	No particular findings	-
<b>November</b>		
2 Nov 2021	No particular findings	-
11 Nov 2021	Measures should be taken to prevent site surface runoff getting into the gullies	Rectified as observed on 16 Nov 2021
16 Nov 2021	No particular findings	-
23 Nov 2021	The braking tip should be wrapped with acoustic materials	Rectified as observed on the same day
30 Nov 2021	No particular findings	-
<b>December</b>		
6 Dec 2021	No particular findings	-
15 Dec 2021	Proper dust mitigation measures for the uncovered stockpile should be implemented	Rectified as observed on 21 Dec 2021
	2m solid dull green site barrier fences should be provided at the project site boundary (Area C) next to Shek Sheung River	Rectified as observed on 7 Jan 2022
21 Dec 2021	Sandbags should be provided to prevent muddy surface runoff from entering the public drainage system	Rectified as observed on 28 Dec 2021
28 Dec 2021	No particular findings	-





<b>Contract No.: DE/2018/03</b>		
Date	Observations and recommendations	Follow-up and status
<b>October</b>		
4 Oct 2021	No particular findings	-
12 Oct 2021	No particular findings	-
19 Oct 2021	No particular findings	-
26 Oct 2021	No particular findings	-
<b>November</b>		
2 Nov 2021	No particular findings	-
9 Nov 2021	No particular findings	-
16 Nov 2021	No particular findings	-
23 Nov 2021	No particular findings	-
30 Nov 2021	No particular findings	-
<b>December</b>		
7 Dec 2021	No particular findings	-
14 Dec 2021	2m solid dull green site barrier fences should be provided at the project site boundary (Sidestream) next to Shek Sheung River	Rectified as observed on 3 Jan 2022
21 Dec 2021	No particular findings	-
28 Dec 2021	No particular findings	-





<b>Contract No.: DE/2018/04</b>		
Date	Observations and recommendations	Follow-up and status
<b>October</b>		
4 Oct 2021	No particular findings	-
12 Oct 2021	No particular findings	-
19 Oct 2021	No particular findings	-
26 Oct 2021	No particular findings	-
<b>November</b>		
2 Nov 2021	No particular findings	-
9 Nov 2021	No particular findings	-
16 Nov 2021	No particular findings	-
23 Nov 2021	No particular findings	-
30 Nov 2021	No particular findings	-
<b>December</b>		
7 Dec 2021	No particular findings	-
14 Dec 2021	No particular findings	-
21 Dec 2021	No particular findings	-
28 Dec 2021	No particular findings	-





## ***Appendix 5.1***

# ***Summary of Complaints, Notification of Summons and Successful Prosecution***

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**Summary of Environmental Complaints Log**

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
1	18 March 2020	EPD	Expansion Site of SWHSTP (Portion C)	Water contamination	<p>Muddy water was suspected to be discharged from the expansion site of SWHSTP to Shek Sheung River, manholes and foul drains nearby</p> <p>The investigation and mitigation measures included</p> <ul style="list-style-type: none"><li>- Employed suction truck and dump truck to clear the silt and mud at Shek Sheung River</li><li>- Arranged to repair the wastewater treatment system</li><li>- Installed additional sedimentation tanks and wastewater treatment system to increase the on-site treatment capacity</li><li>- Clean the slurry sediment released from the outlet regularly by suction trucks</li><li>- Avoid damage of underground drains and pipes caused by existing construction works</li><li>- Avoid illegal discharge from the Site into foul drains and manholes</li></ul>	Closed
2	19 February 2021	EPD	SWHEPP	Odour nuisance	<p>Significant odour nuisance was suspected to be emitted from the construction activities of SWHEPP</p> <p>The investigation and mitigation measures included</p> <ul style="list-style-type: none"><li>- Ensured only PMEs with valid NRMM label were used on-site</li><li>- Conducted regular visual checking against emission quality of exhaust pipe of equipment by using the Ringlemann Chart</li><li>- Used ULSD for diesel-powered equipment</li><li>- Provided water spraying and water sprinklers system for haul road access and demolition works</li><li>- Used battery powered solution to provide power to the tower crane</li><li>- Provided cover for all rubbish bins on-site</li><li>- Separated general refuse from construction waste</li></ul>	Closed





Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
3	9 August 2021	EPD	SWHEPP	Air Quality	<p>Air nuisance was suspected to be originated from the construction activities of SWHEPP</p> <p>The investigation and mitigation measures included</p> <ul style="list-style-type: none"><li>- Ensured only PMEs with valid NRMM label were used on-site</li><li>- Conducted regular visual checking against emission quality of exhaust pipe of equipment by using the Ringlemann Chart</li><li>- Used ULSD for diesel-powered equipment</li><li>- Used battery powered solution to provide power to the tower crane</li><li>- Carried out plant maintenance in a timely manner</li></ul>	Closed

Remarks:

No environmental complaint received in this reporting period





**Summary of Complaints, Notification of Summons and Successful Prosecution**

Reporting period: October to December 2021

Log No.	Date	Received From and Received By	Location	Outcome	Status
--	-	-	--	-	-

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