





Contract No. 21/WSD/21

Relocation of Diamond Hill Fresh Water and **Salt Water Service Reservoirs to Caverns**

Monthly Environmental and Audit Report July 2023

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Date	12 August 2023	12 August 2023	



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Date

: 12th August 2023

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Attn: Wilson CK Lam

Agreement No. DHSR/IEC/001

Consultancy Service of Independent Environmental Checker (IEC) for Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Caverns under Contract No. 21/WSD/21

Monthly EM&A Report for July 2023

Dear Sir,

Pursuant to Condition 3.4 of Environmental Permit (EP) No. EP-602/2021, please note the Monthly Environmental and Audit Report July 2023, dated 12 August 2023 submitted under the EP, certified by the Environmental Team Leader on 12 August 2023, had been reviewed and is hereby verified.

Should you have any query, please feel free to contact the undersigned at 3756 9590 or ivanting@umwelt.consulting .

Your faithfully,

For and on behalf of:

Umwelt Consulting Limited

Ting Po Chung Ivan

Independent Environmental Checker





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EXECUTIVE SUMMARY

This is the 4th Monthly Environment Monitoring and Audit (EM&A) Report for Relocation of Diamon Hill Fresh Water and Salt Water Service Reservoirs to Caverns (the Project). This report was prepared by Acuity Sustainability Consulting Limited under Contract No. 21/WSD/21 (hereafter called "the Contract"). This report documents the findings of EM&A works during the reporting period from 1 July to 31 July 2023.

Key Construction Works in the Reporting Period

A summary of construction activities undertaken during the reporting period is presented below:

- Site formation;
- Pipe piling;
- Tree transplanting;
- Hoarding erection; and
- Temporary traffic Arrangement (TTA) site setup works.

Environmental Monitoring and Audit Programme

The monthly EM&A programme was undertaken by the Environmental Team in accordance with the EM&A Manual. A summary of the monitoring and audit activities during the reporting period is presented below:

Table I Summary of EM&A Activities in the Reporting Period

EM&A Activities	Date
1-hour TSP Monitoring	5, 11, 19, 22 and 28 July 2023
Construction Noise Monitoring	5, 11, 22 and 28 July 2023
Weekly Environmental Site Inspection	7, 14, 21 and 26 July 2023

Breaches of Action and Limit Levels

A summary of the environmental monitoring exceedance of the reporting period is tabulated in **Table II**.





Table II Summary of Exceedance in the Reporting Period

Environmental Monitoring	Parameter	No. of non- project related exceedances AL LL		Total no. of non-project related exceedances	No. of exceedances related to the project AL LL		Total no. of exceedances related to the project
Air Quality	1-hour TSP	0	0	0	0	0	0
Noise	$L_{eq(30 ext{-min})}$	0	0	0	0	0	0

Air Quality

No action or limit levels exceedance was recorded for 1-hour TSP monitoring during the reporting period.

Construction Noise

No action or limit levels exceedance was recorded for construction noise monitoring during the reporting period.

Complaint Log

No environmental complaint was received in the reporting period.

Notification of Summons and Successful Prosecutions

No notification of summons or successful prosecutions was received in the reporting period.

Reporting Change

There was no reporting change in the reporting period.

Future Key Issues

Key issues to be considered in the next two months included:

- Open trench for mainlaying and Mainlaying;
- Jacking pit construction for pipe jacking
- Trial pit excavation;
- Formation of piling platform at +89.0mPD;
- Pipe piling for PAB ELS wall;
- Site compound set up;
- ELS works in Portion 3; and
- Canopy table installation in Portion 3.

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Potential environmental impacts arising from the above construction activities are mainly associated with construction dust, construction noise, water pollution control, waste management and landscape and visual.





1. INTRODUCTION

1.1 Project Background

- 1.1.1 The relocated Diamond Hill Fresh Water and Salt Water Service Reservoirs (DHSRs) will be constructed in a series of caverns linked by access tunnels and adits. The relocated Diamond Hill Fresh Water Service Reservoirs (DHFWSR) and Diamond Hill Salt Water Service Reservoirs (DHSWSR) will be compartmented while the existing Diamond Hill Pumping Station (DHPS) will be split into two (2) pump houses for fresh and salt water supply when relocated.
- 1.1.2 Ancillary facilities to be constructed near the tunnel portal may include transformer room, switch room, emergency generator room, control room, ventilation building, and pumping station control room, which will be constructed in an above-ground building outside the tunnel.
- 1.1.3 The scope of the Project comprises the following:
 - a) Construction of the relocated DHSRs and associated pumping stations and water main laying works;
 - b) Construction of tunnels, adits, ventilation system and caverns for accommodating the relocated DHSRs and the associated facilities;
 - c) Terminating the operation of the existing DHSRs and the associated facilities; and
 - d) All other associated works that are incidental to and necessary for the completion of the Project.
- 1.1.4 The major construction activities of the Project include earthworks, drilling and blasting, construction of concrete structures, handling and transportation of excavated materials, water mains laying, installation of electrical and mechanical (E&M) equipment and material transportation. The operation of the existing DHSRs and the associated facilities will be terminated after the completion of the testing and commissioning of the relocated DHSRs. Under the Project, the existing DHSRs and associated facilities will be retained after termination of the operation. The subsequent demolition works will be carried out by other government departments/ project proponents.
- 1.1.5 The Project construction was commenced on 31 March 2023 and the completion date for the construction works would be on 12 April 2027.
- 1.1.6 The Project is a Designated Project under Item Q.2, Part I of Schedule 2 of the Environmental Impact Assessment Ordinance, "Underground Rock Caverns", which requires an environmental permit from Environmental Protection Department for its construction and operation.
- 1.1.7 Pursuant to the Environmental Impact Assessment Ordinance (EIAO), the Director of Environmental Protection Department (EPD) granted the Environmental Permits (EP-602/2021) to the Water Supplies Department (WSD) for the Project.





- 1.1.8 Acuity Sustainability Consulting Limited (ASCL) is commissioned by Chun Wo Sinohydro Joint Venture to undertake the role of Environmental Team under the Environmental Permit (EP) EP-602/2021, and to carry out the EM&A programme in fulfilment of the EM&A Manual, and other requirements stipulated in the associated EIA Report.
- 1.1.9 This is the 4th Monthly EM&A Report summarizing the key findings of the construction phase EM&A programme from 1 July to 31 July 2023 (the reporting period) and is submitted to fulfil the requirements in Conditions 3.4 of EP-602/2021 and section 13.3 of the EM&A Manual of the Project.

1.2 Construction Works Programme

- 1.2.1 The construction works of the Project was commenced on 31 March 2023. The construction works programme, and the location of construction works of the Project are shown in **Appendix A** and **Figure 1.1**, respectively. A summary of construction activities undertaken during the reporting period is presented below:
 - Site formation;
 - Pipe piling;
 - Tree transplanting;
 - Hoarding erection; and
 - TTA site setup works.

1.3 Project Organization

- 1.3.1 Different parties with different levels of involvement in the Project organization include:
 - Project Proponent: Water Supplies Department (WSD)
 - Supervisor/Engineer's Representative (ER): Binnies Hong Kong Limited
 - Contractor: Chun Wo Sinohydro Joint Venture
 - Environmental Team (ET): Acuity Sustainability Consulting Limited
 - Independent Environmental Checker (IEC): Umwelt Consulting Limited
- 1.3.2 The key personnel contact names and telephone number are presented in **Appendix B**.

1.4 License, Notification and Permits

1.4.1 A summary of the relevant permit, licences, and/ or notifications on environmental protection for this Project are presented in **Table 1.1**.





Table 1.1 Status of Environmental License, Notifications and Permits

Permit / License No.	Valid	Status				
Permit / License No.	From	Expired On	Status			
Environmental Permit						
EP-602/2021	14/12/2021	-	Valid			
Notification Pursuant to Section 3(1) Dust) Regulation	Notification Pursuant to Section 3(1) of the Air Pollution Control (Construction Dust) Regulation					
Ref. No.: 487301	09/12/2022	-	Valid			
Billing Account for Disposal of Construction Waste						
7046085	04/01/2023	-	Valid			
Registration of Chemical Waste Producer						
WPN 5213-282-C4760-0	30/12/2022	-	Valid			
Effluent Discharge License under Water Pollution Control Ordinance						
WT00043965-2023	31/05/2023	31/05/2028	Valid			
Construction Noise Permit						
GW-RE0570-23	01/06/2023	31/08/2023	Valid			

1.4.2 The submission status of the EP and the implementation status of the mitigation measures stated in the EP had been reviewed, all submission were submitted/deposited to the Director of Environmental Protection (DEP) on schedule, no non-compliance of EP conditions was recorded during the reporting period. The summary of submission status under Environmental Permit EP-602/2021 are summarized in **Table 1.2**.

Table 1.2 Summary of Status of Submission under EP-602/2021

Table 1.2 Summary of Status of Submission under E1-002/2021				
EP Condition	Title of Submission	Submission Status		
1.11	Commencement Date of Construction	Notified the DEP on 22 Feb 2023		
2.9	Management Organization(s)	Informed the DEP on 20 Feb 2023		
2.10	Environmental Permit (EP) Submission Schedule	22 Feb 2022 (1st Submission)		
2.11	Construction Works Schedule and Location Plan	28 Feb 2023 (Deposited)		
2.12	Construction Noise Management Plan (CNMP)	 28 Feb 2023 (1st submission) EPD's comments were issued on 8 Mar 2023 The revised CNMP was submitted to the EPD for comment on 31 July 2023. 		





EP Condition	Title of Submission	Submission Status
2.13	Waste Management Plan (WMP)	 28 Feb 2023 (1st submission) EPD's comments were issued on 3 Apr 2023. The revised WMP was submitted to the EPD for comment on 26 July 2023.
2.14	Landscape and Visual Mitigation Plan (LVMP)	 28 Feb 2022 (1st Submission) EPD's comments were issued on 29 Mar 2023 and the LVMP is being revised.
3.3	Baseline Monitoring Report	 17 Mar 2023 (1st Submission) 27 Apr 2023 (2nd Submission) 1 June 2023 (3rd Submission) 13 July 2023 (Formal submission)
3.4	Monthly EM&A Report (Apr 2023)	15 May 2023
3.4	Monthly EM&A Report (May 2023)	12 June 2023
3.4	Monthly EM&A Report (June 2023)	13 July 2023
4.2	Dedicated Internet Website	2 May 2023

- 1.4.3 Following the EPD's comments on the Baseline Monitoring Report (Ref. No. BMR-3.1, dated 17 March 2023), updating of air quality and noise monitoring locations were proposed, including cancellation of noise monitoring station at Tower 1, Meridian Hill (NM-1), resumption of air quality and noise monitoring stations at Block 6, Tsui Chuk Garden (i.e. DM-4 and NM-4) and proposal of new noise monitoring locations at Wo Tin House, Shatin Pass Estate (NM-5) and Sheung Fung Street Customs Staff Quarter (NM-6).
- 1.4.4 Additional baseline monitoring for air quality monitoring station DM-4, and noise monitoring stations NM-4, NM-5 and NM-6 was carried out between 2 May and 16 May 2023. The Baseline Monitoring Report was updated with all baseline monitoring results included, certified by the ET Leader, and verified by the IEC on 30 May 2023. The updated Baseline Monitoring Report was submitted to the EPD on 1 June 2023. A minor comment was received from the EPD on 26 June 2023. Following the advice from the EPD, the Report was formally submitted to the EPD on 13 July 2023 after amendment.





1.5 Brief Summary of EM&A Requirements

Air Quality

- 1.5.1 In accordance with the EM&A Manual, the ET shall carry out impact monitoring during construction phase of the project. For 1-hour Total Suspended Particulates (TSP) monitoring, the sampling frequency of at least three times every six days should be undertaken when the highest dust impact occurs.
- 1.5.2 Action and Limit Levels for the 1-hour TSP monitoring works are discussed in **Section 2.4**. Should non-compliance of the criteria occur, action in accordance with the Event and Action Plan presented in **Appendix** C shall be carried out.
- 1.5.3 The air quality mitigation measures detailed in the EM&A Manual were recommended to be implemented during the construction phase. The implementation statuses of these measures are presented in **Appendix D**.

Noise Monitoring

- 1.5.4 Construction noise monitoring should be carried out at the designated monitoring stations directly affected by the construction works once every week after the commencement of construction. During construction works, one set of $L_{eq(30-\text{min})}$ measurement at each station between 0700 and 1900 hours on normal weekdays shall be taken. If construction works are extended to include works during the period between 1900 and 0700 hours, additional weekly impact monitoring shall be carried out during evening and night-time works.
- 1.5.5 Action and Limit Levels for the noise monitoring are discussed in **Section 3.5**. Should non-compliance of the criteria occur, action in accordance with the Event and Action Plan presented in **Appendix C** shall be carried out.
- 1.5.6 The noise mitigation measures detailed in the EM&A Manual are recommended to be implemented during the construction phase. The implementation statuses of these measures are presented in **Appendix D**.

Environmental Requirements in Contract Documents

1.5.7 According to *Particular Specification (PS)*, the Contractor shall undertake environmental protection measures to reduce the environmental impacts arising from the execution of the works. The Contractor shall also observe and comply with relevant environmental protection and pollution control ordinances. The Contractor shall design, construct, operate and maintain pollution control measures to ensure compliance with the contract provisions as well as the environmental ordinances and their regulations.

1.5.8 The Contractor shall also:

- Implement air pollution and noise abatement practices as specified in *PS*;
- Minimise generation of wastewater from the Site;





- On-site sorting of Construction and Demolition (C&D) Materials;
- Establish a mechanism to record the quantities of C&D materials generated each month, using the monthly summary "Waste Flow Table";
- Control the use of timbers;
- Implement a trip ticket system (TTS) for tracking the removal of C&D materials from the Site to the disposal grounds;
- Prepare an Environmental Management Plan (EMP) in accordance with GS Section 25 and PS for implementation on the Site to reduce environmental nuisance and C&D materials arising from Works, throughout the construction period;
- Arrange weekly environmental walk to inspect the Site, checking that the environmental performance of the Site is satisfactory and in compliance with the requirements under the contract and EMP; and
- Carry out site specific induction training about environmental management as well as safety for all staffs and workers, and provide toolbox talks for workers on environmental nuisance abatement and waste management.





2. AIR QUALITY MONITORING

2.1 Monitoring Locations

2.1.1 The air quality monitoring locations for impact monitoring during the reporting period are listed in **Table 2.1** and presented in **Figure 2.1**.

Table 2.1 Air Quality Monitoring Stations for Construction Phase

ID	Description =	Coord	inates
ID	Description	Northing	Easting
DM-1	Tennis Court near Tin Ma Court	822705	837047
DM-2	Chun Sing House, Tin Ma Court	822673	837143
DM-3	Grace Methodist Church Kindergarten	822782	837227
DM-4 (1)	Block 6, Tsui Chuk Garden	822926	837246
DM-4a (2)	Road pavement near Wang King House, Tin Wang Court	822854	837340

Notes:

2.2 Air Quality Monitoring Parameter, Frequency and Duration

2.2.1 **Table 2.2** summarized the monitoring parameter, duration, and frequency of impact air quality monitoring.

Table 2.2 Impact Air Quality Monitoring Parameter, Duration and Frequency

Parameter	Frequency	Duration
1-hour TSP	3 times every 6 days	Throughout the construction phase

2.3 Monitoring Equipment and Methodology and QA/QC Procedure

Proposal of Using Portable Direct Reading Dust Meter

2.3.1 Direct reading dust meters were used for measuring 1-hour TSP levels during the impact air quality monitoring. According to Section 4.4.1 of the EM&A Manual, the proposed use of direct reading dust meters was submitted to and agreed by the IEC.

^{1.} Following the EPD's comment on the Baseline Monitoring Report (Ref. No. BRM-3.1, dated 17 March 2023), air quality monitoring at DM-4 was resumed. Baseline monitoring for air quality monitoring station DM-4 was then carried out between 2 May and 16 May 2023. Impact monitoring at DM-4 was commenced on 22 May 2023.

An additional air quality monitoring station DM-4a was proposed by the ET and agreed by the ER, IEC and EPD.





- 2.3.2 Sufficient number of monitoring instruments were prepared by the ET for carrying out the impact monitoring. All equipment and associated instrumentation were clearly labelled.
- 2.3.3 Wind data were collected from the records of Hong Kong Observatory Kai Tak Wind Station (22.30966N, 114.21336E), which is located at the south-eastern side of runway of the former Kai Tak Airport about 4.5 km south-east from the project site.
- 2.3.4 Equipment used in the impact air quality monitoring programme is summarised in **Table 2.3.** Calibration certificates for the impact air quality monitoring equipment are attached in **Appendix E**.

Table 2.3 Impact Air Quality Monitoring Equipment

Equipment	Brand and Model	Serial No.	Calibration Due Date
		0Z4545	29/02/2024
Direct Reading Dust Meter	Sibata LD-5R	882106	29/02/2023
		942532	29/02/2024

Maintenance and Calibration

- 2.3.5 Direct reading dust meters have been calibrated against high volume samplers (HVSs) annually. A 2-day, three 3-hour measurement results per day from direct reading dust meters were taken to compare with the sampling results from the HVSs. The correlation between the direct reading dust meters and the HVSs were then concluded. By accounting for the correlation factor, the direct reading dust meters are considered to achieve comparable results as that of the HVSs.
- 2.3.6 The 1-hour TSP measurement follows the instruction provided in the manufacturer's manual. Before initiating a measurement, zeroing the portable dust meter was carried out to ensure the accuracy of each measurement.

2.4 Action and Limit Levels

2.4.1 The action and limit levels were established in accordance with the EM&A Manual. **Table 2.4** presents the action and limits levels for 1-hour TSP monitoring. Should non-compliance of the criteria occur, action in accordance with the Event and Action Plan presented in **Appendix C** shall be carried out.



Table 2.4 Action and Limit Levels for 1-hour TSP

Monitoring Station Action Level (μg/m		Limit Level (μg/m³)
DM-1	300.1	
DM-2	289.0	
DM-3	289.7	500
DM-4	294.9	
DM-4a	291.6	

2.5 Results and Observation

- 2.5.1 The impact air quality monitoring was conducted on 5, 11, 19, 22 and 28 July 2023. The impact air quality monitoring scheduled on 17 July 2023 was cancelled due to adverse weather and was rescheduled on 19 July 2023. The impact air quality monitoring schedule for the reporting period is shown in **Appendix F**.
- 2.5.2 The monitoring results and graphical presentation of impact air quality monitoring are shown in **Appendix G**. No action or limit levels exceedance was recorded in the reporting period.

Table 2.5 Summary of Impact 1-hour TSP Monitoring Results

Monitoring	TSP C	Concentration	n, μg/m³	Action	Limit Laval
Station	Average	Minimum	Maximum	Level	Limit Level
DM-1	58	55	62	300.1	
DM-2	59	52	63	289.0	
DM-3	56	49	59	289.7	500
DM-4 ⁽¹⁾	54	42	63	294.9	
DM-4a	60	56	63	291.6	

Remark: (1) Impact air quality monitoring at DM-4 was commenced on 22 May 2023.

2.5.3 During the impact air quality monitoring, the major dust sources at each monitoring stations were summarized in **Table 2.6**.

Table 2.6 Influencing Factors at / near Air Quality Monitoring Stations

Monitoring Stations	Influencing Factors
DM-1	Not identified
DM-2	Not identified
DM-3	Not identified
DM-4	Not identified
DM-4a	Not identified

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2.5.4 Weather conditions during impact monitoring are presented in **Appendix G** and extracts of wind data recorded at Kai Tak Wind Station available from the Hong Kong Observatory are presented in **Appendix H**.





3. NOISE MONITORING

3.1 Monitoring Locations

3.1.1 The monitoring locations for construction noise monitoring are listed in **Table 3.1** and shown in **Figure 3.1**.

Table 3.1 Noise Monitoring Stations during Construction Phase

ID	Dagovinskian	Maggarana	Coord	linates
ID	Description	Measurement	Northing	Easting
NM-2	Chun Sing House, Tin Ma Court	Façade	822668	837143
NM-3	Grace Methodist Church Kindergarten	Façade	822782	837227
NM-4 ⁽²⁾	Block 6, Tsui Chuk Garden	Façade	822926	837246
NM-4a ⁽¹⁾	Road pavement near Wang King House, Tin Wang Court	Free field	822854	837340
NM-5	Wo Tin House, Shatin Pass Estate	Façade	823360	838143
NM-6	Sheung Fung Street Customs Staff Quarters	Free field	823134	838412

Notes:

The noise monitoring station proposed in the EM&A Manual (NM-1) was not available for baseline and impact monitoring. Therefore, impact monitoring at NM-1 was cancelled and agreed by the ER, IEC and EPD.

- (1) An additional noise monitoring station NM-4a was proposed by the ET and agreed by the ER, IEC and EPD.
- (2) Following the EPD's comment on the Baseline Monitoring Report (Ref. No. BRM-3.1, dated 17 March 2023), noise monitoring station was resumed at NM-4. Baseline monitoring for noise monitoring station NM-4 was then carried out between 2 May and 16 May 2023. Impact monitoring at NM-4 was commenced on 22 May 2023.
- 3.1.2 No construction work was conducted within 300m radius of noise monitoring station NM-5 and NM-6. Thus, no construction noise monitoring was carried out at these two noise monitoring stations in the reporting period.

3.2 Noise Monitoring Parameter, Frequency and Duration

- 3.2.1 Construction noise level was measured by the ET and measured in terms of the A-weighted equivalent continuous sound pressure level (L_{eq}). $L_{eq(30-min)}$ was adopted as the monitoring parameter for the construction noise monitoring.
- 3.2.2 As supplementary information for data auditing, statistical results such as L_{10} and L_{90} were also obtained for reference.
- 3.2.3 **Table 3.2** summarized the monitoring parameters, duration, and frequency of construction noise monitoring.



Table 3.2 Construction Noise Monitoring Parameter, Frequency and Duration

Parameters	Time	Frequency	Duration
$L_{eq(30 ext{-min})}$	0700 and 1900 hours on normal weekdays	once every week	Throughout the construction phase

3.3 Monitoring Equipment, Methodology and QA / QC Procedure

- 3.3.1 As referred to the technical memorandum (TM) issued under the NCO, sound level meters in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications were used for carrying out the construction noise monitoring.
- 3.3.2 Noise measurements were not made in fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s. The wind speed was checked with a portable wind speed meter capable of measuring the wind speed in m/s.
- 3.3.3 Sufficient numbers of noise measuring equipment and associated instrumentation were prepared by the Environmental Team. All the equipment and associated instrumentation were clearly labelled.
- 3.3.4 Wind data were collected from the records of Hong Kong Observatory Kai Tak Wind Station (22.30966N, 114.21336E), which is located at the south-eastern side of runway of the former Kai Tak Airport about 4.5 km south-east from the project site.
- 3.3.5 The monitoring procedures are as follows:
 - For façade measurement, the monitoring station was set at a point 1 m from the exterior of the sensitive receivers building façade and set at a position 1.2 m above the ground. For free-field measurement, the monitoring station was set at a position 1.2 m above the ground.
 - The battery condition was checked to ensure good functioning of the meter.
 - Parameters such as frequency weighting, the time weighting and the interval were set as follows:
 - Frequency weighting: A
 - Time weighting : Fast
 - Interval : 30 minutes $(L_{eq(30\text{-min})})$ would be determined for

daytime noise by calculating the logarithmic

average of six $L_{eq(5-min)}$ data

• Prior to and after each noise measurement, the meter was calibrated using an acoustic calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration





level before and after measurement is more than 1.0 dB, the measurement was considered invalid and repeat of noise measurement will be required after recalibration or repair of the equipment.

- At the end of the monitoring period, the values of L_{eq} , L_{90} and L_{10} were recorded. In addition, noise sources were recorded on a standard record sheet.
- 3.3.6 **Table 3.3** summarized the noise monitoring equipment used during the construction noise monitoring. Calibration certificates for the impact noise monitoring equipment are attached in **Appendix E**.

Table 3.3 Construction Noise Monitoring Equipment

Equipment	Model (Serial Number)	Calibration Due Date
Sound Level Meter	Nti-XL2 (A2A-13548-E0)	05/02/2024
	Nti-XL2 (A2A-13661-E0)	21/08/2023
Sound Calibrator	Rion NC 75 (35124529)	01/11/2023

3.4 Maintenance and Calibration

- 3.4.1 Maintenance and calibration procedures are as follows:
 - The microphone head of the sound level meter and calibrator were regularly cleaned with a soft cloth; and
 - The sound level meter and acoustic calibrator were calibrated annually by a HOKLAS accredited laboratory or the manufacturer.

3.5 Action and Limit Levels

3.5.1 The Action and Limit levels were established in accordance with the EM&A Manual. **Table 3.4** presents the Action and Limit Levels for construction noise. Should non-compliance of the criteria occur, action in accordance with the Event and Action Plan presented in **Appendix C** shall be carried out.

Table 3.4 Action and Limit Levels for Construction Noise Monitoring

Monitoring Stations	Action Level	Limit Level	Time Period
NM-2		75 dB(A)	
NM-3		70/ 65 dB(A) *	
NM-4	When one documented	75 dB(A)	0700 - 1900 hours on
NM-4a	complaint is received	75 dB(A)	normal weekdays
NM-5		75 dB(A)	
NM-6		75 dB(A)	

Notes:





If works are to be carried out during restricted hours, the conditions stipulated in the construction noise permit issued by the Noise Control Authority have to be followed.

* Reduce to 70 dB(A) for schools and 65 dB(A) during school examination periods.

3.6 Results and Observations

- 3.6.1 The construction noise monitoring was conducted on 5, 11, 22 and 28 July 2023. The impact construction noise monitoring scheduled on 17 July 2023 was cancelled due to adverse weather. The monitoring schedule is presented in **Appendix F**.
- 3.6.2 The construction noise monitoring results are summarized in **Table 3.5**. No Action or Limit levels exceedance was recorded in the reporting period. Details of the results and graphical presentation are shown in **Appendix I**.

Table 3.5 Summary of Construction Noise Monitoring Results

3.5	Noi	ise Level, dB	(A)	Limit Loval
Monitoring Station (1)		L_{eq} (30-min)		Limit Level
Station	Mean	Minimum	Maximum	
NM-2	67.4	59.7	70.1	75 dB(A)
NM-3	66.8	63.8	68.8	70/ 65 dB(A) ⁽²⁾
NM-4 ⁽³⁾	66.4	64.7	67.4	75 dB(A)
NM-4a	73.4	71.7	75.0	75 dB(A)

Note:

- (1) Construction noise monitoring at NM-4 and NM-5 will commence when construction works are undertaking near these stations.
- (2) Reduce to 70 dB(A) for schools and 65 dB(A) during school examination periods.
- (3) Impact monitoring at NM-4 was commenced on 22 May 2023.
- 3.6.3 Weather conditions during impact monitoring are presented in **Appendix I** and extracts of wind data recorded at Kai Tak Wind Station available from the Hong Kong Observatory are presented in **Appendix H**.
- 3.6.4 During the construction noise monitoring period, the influencing factors which may affect the results are summarized in **Table 3.6**.

Table 3.6 Influencing Factors at Noise Monitoring Stations

Monitoring Stations	Influencing Factors
NM-2	Road traffic noise, construction noise from 76 Broadcast Drive project
NM-3	Road Traffic Noise
NM-4	Road Traffic Noise
NM-4a	Road Traffic Noise





4. WASTE MANAGEMENT

4.1.1 Waste generated from the Project includes inert construction and demolition (C&D) materials and non-inert C&D wastes in the reporting period. The amount of waste generated by the construction works of the Project during the reporting period is shown in **Table 4.1** and the cumulative waste flow table was presented in **Appendix J**.

Table 4.1 Summary of Waste Generated in the Reporting Period

	Ac	tual Quantaliti	es of Inert C&	D Materials G	enerated Mont	hly	Actua	al Quantities o	f C&D Wastes	Generated M	onthly		Actual Quant	ities of C&D Wa	stes Recycled	ļ
Month	Total Quantity Generated	Broken Concrete (Including rock for recycling into aggregates)	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / Carboard Packing	Plastics	Chemical Waste	Others e.g., general refuse	Metals	Paper/ cardboard packaging	Plastics (bottles/ containers, plastic sheets/foam package material)	Yard Waste	Others
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
Jul 2023	0.06719	0.00000	0.00000	0.00000	0.06719	0.00000	0.00000	0.00000	0.00000	0.00000	0.00618	0.00720	0.00335	0.00980	0.00000	0.00000

- 4.1.2 Construction and demolition (C&D) materials sorting was carried out on site. Sufficient receptacles were provided for general refuse collection and sorting. Excavated inert C&D materials were reused to minimize the disposal of C&D waste to public fill.
- 4.1.3 The Contractor was advised to minimize the amount of waste through recycling or reusing. All applicable mitigation measures stipulated in the EM&A Manual and waste management plans shall be fully implemented.





5. ENVIRONMENTAL SITE INSPECTION AND AUDIT

- 5.1.1 Site inspections were carried out by the ET on a weekly basis to monitor the implementation of proper environmental pollution control mitigation measures for the Project. During the reporting period, site inspections were carried out 7, 14, 21 and 26 July 2023. Joint site inspection with the ER, the Contractor and the IEC was carried out on 14 July 2023.
- 5.1.2 During the site inspections in the reporting period, no non-conformance was identified. Key observations and reminders during the site inspections are described in **Table 5.1.**

Table 5.1 Summary of Site Inspection Observations and Recommendations

Inspection Date	Key Observation / Reminders	Follow-up Action
7 Jul 2023	No major environmental deficiency was observed.	N/A
14 Jul 2023	 Chemical containers found within the Material Storage Area near the site office building should be placed with drip tray(s) underneath. (Lower Portion 3) (Observation) Chemical containers found within the site should be placed with drip tray(s) underneath. (Upper Portion 3) (Observation) 	 Chemical containers were removed on the same day. Chemical containers were removed on the same day.
21 Jul 2023	No major environmental deficiency was observed.	N/A
26 Jul 2023	1. Stockpile of dusty materials shall be covered with tarpaulin to prevent dust emission. (Reminder)	1. Stockpile of dusty materials was covered with tarpaulin.

5.1.3 According to the EIA Report, EP and the EM&A Manual, the mitigation measures detailed in the documents are recommended to be implemented during the construction phase. A summary of the Project Implementation Schedule is provided in **Appendix D**.





6. ENVIRONMENTAL NON-COMPLIANCE

6.1 Summary of Exceedance

- 6.1.1 No Action Level or Limit Level exceedance was recorded for 1-hour TSP monitoring in the reporting period.
- 6.1.2 No Action Level or Limit Level exceedance was recorded for construction noise monitoring in the reporting period.
- 6.1.3 Should the monitoring results of the environmental monitoring parameters at any designated monitoring stations indicate that the Action/ Limit Levels are exceeded, the actions in accordance with the Event and Action Plans in **Appendix C** would be carried out.

6.2 Summary of Environmental Non-Compliance

6.2.1 No environmental non-compliance was recorded in the reporting period.

6.3 Summary of Environmental Complaint

6.3.1 No environmental complaint was received in the reporting period. The Cumulative Complaint Log is presented in **Appendix K**.

6.4 Summary of Environmental Summon and Successful Prosecution

6.4.1 There was no successful environmental prosecution or notification of summons received since the Project commencement. The Cumulative Log for environmental summon and successful prosecution is presented in **Appendix K**.





7. FUTURE KEY ISSUE

7.1 Construction Works and Potential Environmental Issues in the next Reporting Period

- 7.1.1 The construction programme for the Project for the next reporting period is presented in **Appendix A**.
- 7.1.2 Works to be undertaken in the next two months are summarized below:
 - Open trench for mainlaying and Mainlaying;
 - Jacking pit construction for pipe jacking
 - Trial pit excavation;
 - Formation of piling platform at +89.0mPD;
 - Pipe piling for PAB ELS wall;
 - Site compound set up;
 - ELS works in Portion 3; and
 - Canopy table installation in Portion 3.
- 7.1.3 Potential environmental impacts arising from the above construction activities are mainly associated with construction dust impact, noise impact, water quality impact, waste management and landscape and visual.

7.2 Recommendation

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

Dust

- Regular watering to reduce dust emissions from exposed site surface;
- Stockpile of dusty materials shall be covered entirely by impervious sheeting;
- Provide vehicles washing facilities at all site exits to wash away any dusty materials from vehicle body;
- NRMM Labels should be displayed on the applicable equipment on site by the Contractor;
- All vehicle and plant should be cleaned before they leave a construction site.

Noise

- Only well-maintained plant should be operated on-site, and plant should be maintained regularly during the construction programme;
- Quality Powered Mechanical Equipment (QPME) should be adopted as far as possible.





Water Quality

- No effluent discharge would be allowed before the effluent discharge license is acquired.
- Surface run-off from construction sites should be discharged into dedicated discharge point via adequately designed sand/ silt removal facilities;
- Channels/ earth bunds/ sandbags barriers should be provided on site to properly direct stormwater to silt removal facilities;
- Silt removal facilities, channels and manholes should be maintained, and the deposited silt and grit should be removed regularly;
- Open stockpiles of construction materials on sites should be covered with tarpaulin or similar fabric during rainstorms;
- Perimeter channels should be provided on site boundaries where necessary to intercept stormwater run-off from outside the site so that it will not wash across the site.

Waste Management

- Provision of sufficient waste disposal points and regular collection of waste;
- Regular cleaning and maintenance programme for drainage system;
- Chemical containers shall be stored with drip tray underneath;
- Storage, handling, transport, and disposal of chemical waste should be arranged in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes published by EPD, and collected by a licensed chemical waste collector.

Ecology

- Minimize loss of habitats and associated wildlife;
- Using directional lighting to prevent excessive light spill into adjacent natural habitat and disturbance to nocturnal fauna.

Landscape and Visual

 Adequate tree protection measures shall be provided for the trees to be retained on site.





8. CONCLUSION, COMMENTS AND RECOMMENDATION

8.1 Conclusion

- 8.1.1 This is the 4th Monthly EM&A Report presents the EM&A works during the reporting period from 1 July 2023 to 31 July 2023 in accordance with the EM&A Manual.
- 8.1.2 No Action Level or Limit Level exceedance was recorded for 1-hour TSP monitoring in the reporting period.
- 8.1.3 No Action Level or Limit Level exceedance was recorded for construction noise monitoring in the reporting period.
- 8.1.4 Environmental site inspections were conducted on 7, 12, 21 and 26 July 2023 by the ET in the reporting period.
- 8.1.5 No environmental complaint was received in the reporting period.
- 8.1.6 No notification of summons and prosecution was received in the reporting period.
- 8.1.7 The ET will keep track on the construction works to confirm compliance of environmental requirements and the proper implementation of all necessary mitigation measures.
- 8.1.8 No change to the EM&A programme was made in this reporting period.

8.2 Comments and Recommendations

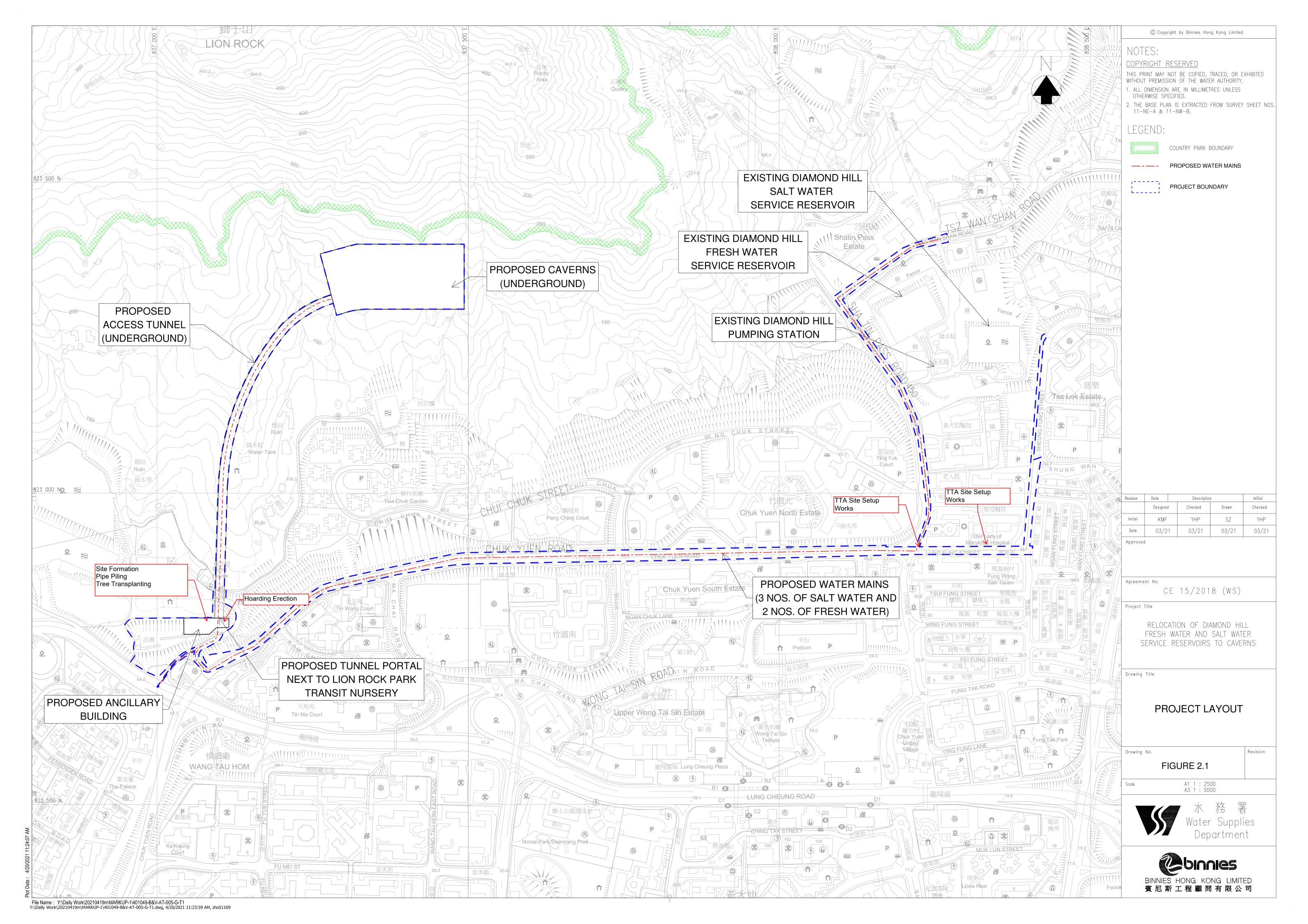
- 8.2.1 The proposed mitigation measures were properly implemented and were considered effective and efficient in pollution control.
- 8.2.2 The ET had no recommendation following the completion of EM&A in the reporting period.

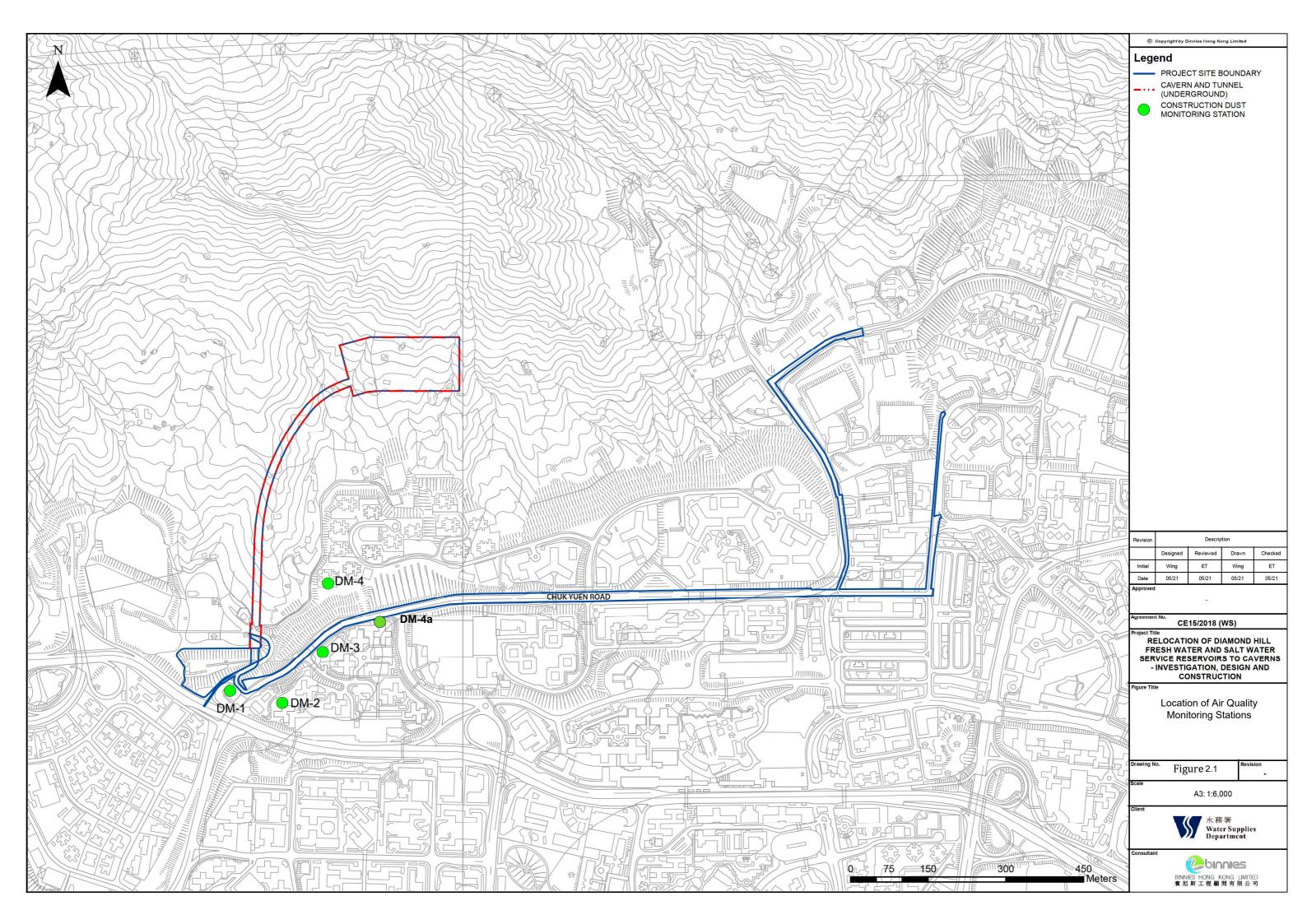
Contract No. 21/WSD/21 Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Caverns Monthly EM&A Report

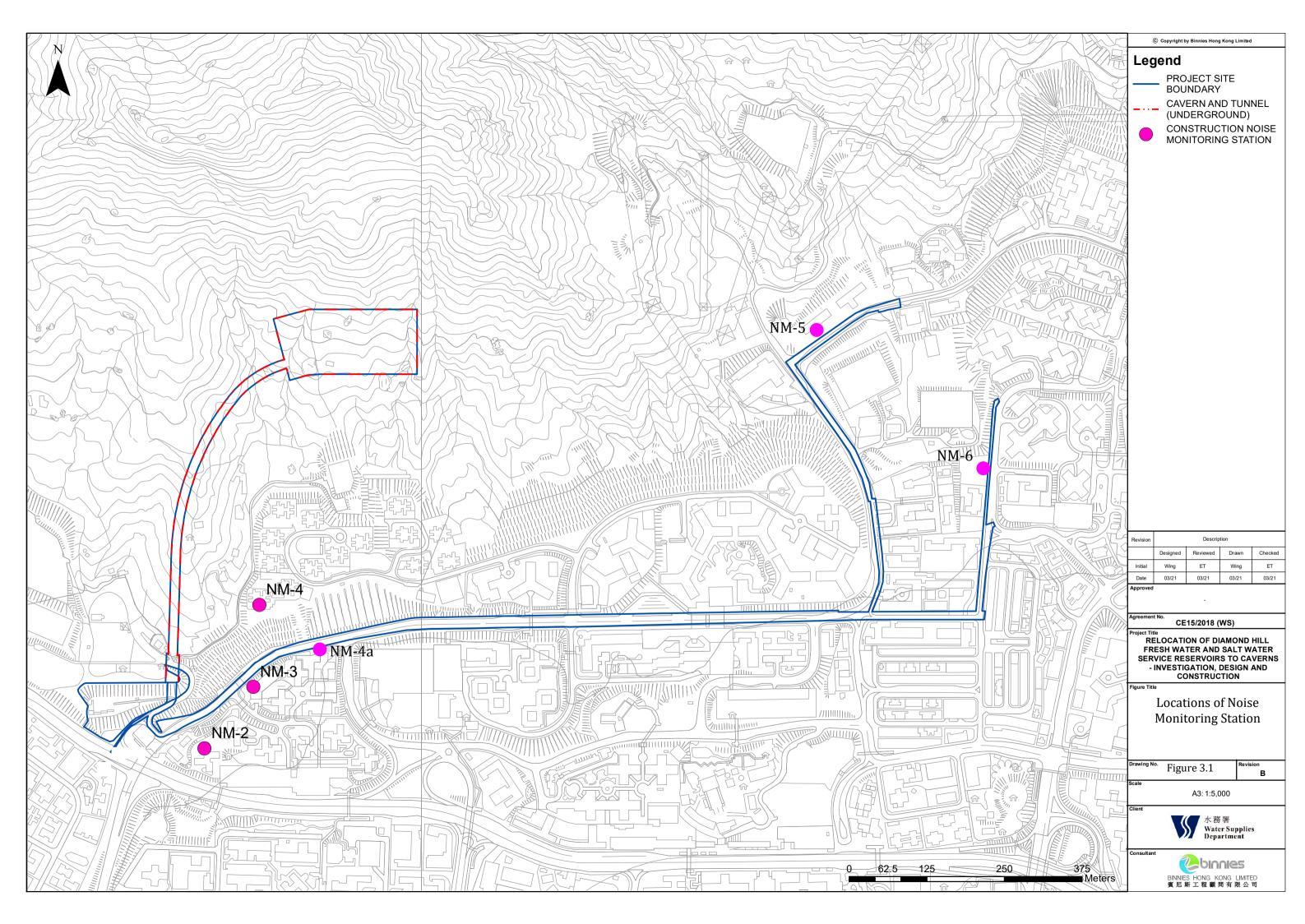




Figures







Contract No. 21/WSD/21 Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Caverns Monthly EM&A Report





Appendix A

Master Construction Pogramme for the Project

21/WSD/21 - Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Cavern

Monthly Programme January 2023

ity ID	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float	2023 2024 2025 2026 ND JFMAMJJASOND JFMAMJJASOND JFMAMJJASOND
elocation of Diamo	ond Hill Fresh Water and Salt Water Service Reservoirs to Caverns - Janu	ary'23 Upd	1293	1293	29-Nov-22	12-Apr-27	29-Nov-22 A	12-Apr-27	0	N D D T M D T M D T
Contract Date			1596	1596	29-Nov-22	12-Apr-27	29-Nov-22 A	12-Apr-27	0	
CD-1000	Contract Date (CD)	100%	0	0	29-Nov-22		29-Nov-22 A			Contract Date:(CD)
GD-1000	Contract Date (CD)	10076	U	U	29-1100-22		29-INOV-22 A			
CD-1010	Starting date (SD, within 2weeks from the CD)	100%	0	0	09-Dec-22		09-Dec-22 A			Starting date (SD, within 2weeks from the CD)
Contract Completion Da	ate		0	0	12-Apr-27	12-Apr-27	12-Apr-27	12-Apr-27	0	
KD-1000	Completion date for the whole of the works (1585d)	0%	0	0		12-Apr-27		12-Apr-27*	0	
Anticipated Completion	Date		0	0	11-Apr-27	11-Apr-27	11-Apr-27	11-Apr-27	1	
KD-2100	Planned Completion date for the whole of the works (1585d)	0%	0	0		11-Apr-27		11-Apr-27	1	
	<u> </u>		00	100	00 Dec 22		00 Dec 22 A		1216	V 09-Mar-23, Access Date
Access Date			90	100	09-Dec-22	09-Mar-23	09-Dec-22 A	09-Mar-23	1316	
AD-1040	Portion 5	100%	0	0	09-Dec-22		09-Dec-22 A			Portion 5
AD-1000	Portion 1 (90d after SD)	0%	0	0	09-Mar-23		09-Mar-23		15	🕏 Portion 1 (90d after SD)
AD-1010	Portion 2 (90d after SD)	0%	0	0	09-Mar-23		09-Mar-23		1316	🕏 Portion 2 (90d after SD)
AD-1020	Portion 3 (90d after SD)	0%	0	0	09-Mar-23		09-Mar-23		1	Portion 3 (90d after SD)
AD-1030	Portion 4 (90d after SD)	0%	0	0	09-Mar-23		09-Mar-23		43	🕏 Portion 4 (90d after SD)
		076	U	U	09-IVIAI-23		09-IVIAI -23		43	
Sub-letting / Procure	ement en		267	267	29-Nov-22	24-Oct-23	29-Nov-22 A	24-Oct-23	1026	V 24-Oct-23, Şub-letting / Procurement
Works Sub-letting			267	267	29-Nov-22	24-Oct-23	29-Nov-22 A	24-Oct-23	1026	▼ 24-Oct-23, Works Sub-letting
21.SUB.G.10000	Subletting for Initial Survey Works (WO001)	100%	0	18			29-Nov-22 A	30-Dec-22 A		Subletting for Initial Survey Works (WO001)
21.SUB.G.10010	Subletting for Temporary Supply of Water (WO002)	100%	0	18			29-Nov-22 A	30-Dec-22 A		Subletting for Temporary Supply of (Water (WO002)
21.SUB.G.10020	Subletting for Temporary Supply of Electricity (WO003)	100%	0	18			29-Nov-22 A	30-Dec-22 A		Subletting for Temporary Supply of Electricity (WO)003)
21.SUB.G.10040	Subletting for Construction of New Shed and Miscellaneous Works (WO005)	70%	0	18			29-Nov-22 A	11-Jan-23	124	Subletting for Construction of New Shed and Miscellaneous Works (WO005)
S-240	Subletting for Condition Survey, CCTV Inspection Survey	41.11%	90	90	29-Nov-22	26-Feb-23	09-Dec-22 A	26-Feb-23	66	Subletting for Condition Survey, CCTV Inspection Survey
S-200A	Subletting for Consultants incl. designer, ICE, Traffic consultant	41.11%	90	90	29-Nov-22	26-Feb-23	09-Dec-22 A	26-Feb-23	0	Subletting for Consultants incl. designer, ICE, Traffic consultant
21.SUB.G.10030	Subletting for Tree Survey Works (WO004)	58.33%	0	36			09-Dec-22 A	21-Jan-23	24	Subjetting for Tree Survey Works (WO004)
21.SUB.G.10050	Subletting for Traffic Consultancy Services Stage 1 (WO006)	58.33%	0	36			09-Dec-22 A	21-Jan-23	385	Subletting for Traffic Consultancy Services Stage 1 (WOQ06)
21.SUB.G.10060	Subletting for Condition Survey & Pre-Construction Condition Survey (WO007)	58.33%	0	36			09-Dec-22 A			Subletting for Condition Survey & Pre-Construction Condition Survey (WQ007)
									201	
21.SUB.G.10070	Subletting for UU Detection Works (WO008)	58.33%	0	36			09-Dec-22 A	21-Jan-23	9	Subletting for UU Detection Works (WO008)
21.SUB.G.10080	Subletting for ICE Consultant - Temp Works for Site Formation for PAB (WO012)	50%	0	42			09-Dec-22 A	01-Feb-23	1242	Subletting for ICE Consultant - Temp Works for Site Formation for PAB (WQ012)
4-4-Di	as Passina A 1st Drawners Passina M2-store	· · · · · · · · · · · · · · · · · · ·	'	,	,	1 -4 07	J			Date Revision Checked Approx
1st Programm Actual Work	ne Baseline ♦ 1st Programme Baseline Milestone ♦ Milestone				1	l of 27			12-De	
Remaining W									12-Ja	n-23 Monthly Programme January 2023

Critical Remaining Work

21/WSD/21 - Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Cavern

Monthly Programme January 2023

rity ID	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float	N D JE	2023 2024 2025 2026 FMAMJJJASONDJFMAMJJJASONDJFMAMJJJASONDJFMAMJJJASOND
21.SUB.G.10090	Subletting for ICE Consultant - Portion 4 (WO013)	50%	0	42			09-Dec-22 A	01-Feb-23	1242	NDJJF	Subletting for ICE Consultant - Portion 4 (WQ013)
21.SUB.G.10100	Subletting for Design Consultant (WO014)	31.82%	0	66			09-Dec-22 A	01-Mar-23	1218		Subletting for Design Consultant (WO014)
	, ,										
21.SUB.G.10110	Subletting for ICE Consultant - Civil & Structure (WO015)	50%	0	42			09-Dec-22 A	01-Feb-23	1101		Subletting for ICE Consultant - Civil & Structure (WQ015)
21.SUB.G.10120	Subletting for Ground Investigation & Montioring Works (WO016)	31.82%	0	66			09-Dec-22 A	01-Mar-23	1218		Subletting for Ground Investigation & Montioring Works (WO016)
21.SUB.G.10130	Subletting for Design Services for Pemanent/CSD (WO018)	43.75%	0	48			09-Dec-22 A	08-Feb-23	1236		Subletting for Design Services for Pemanent/CSD (WO018)
21.SUB.G.10140	Subletting for Demolition Works (WO032)	50%	0	42			09-Dec-22 A	01-Feb-23	1242		Subletting for Demolition Works (WO032)
21.SUB.G.10150	Subletting for Site Clearance (WO035)	29.17%	0	72			09-Dec-22 A	08-Mar-23	35		Subletting for Site Clearance (WO035)
21.SUB.G.10160	Subletting for Environmental Monitoring Works and Appointment of Environmental Team (SC0001)	58.33%	0	36			09-Dec-22 A	21-Jan-23	1248	<u> </u>	Subletting for Environmental Monitoring Works and Appointment of Environmental Team (\$C0001)
21.SUB.G.10170	Subletting for Drainage and Duct for Slope Works (SC0004)	31.82%	0	66			09-Dec-22 A	01-Mar-23	1218		Subletting for Drainage and Duct for Slope Works (\$C0004)
21.SUB.G.10180	Subletting for Landscape Softworks for Slope Works (SC0005)	31.82%	0	66			09-Dec-22 A	01-Mar-23	1218	+	Subletting for Landscape Softworks for Slope Works (SC0005)
21.SUB.G.10190	Subletting for Earthworks and ELS Works for PAB (SC0022)	31.82%	0	66			09-Dec-22 A	01-Mar-23	373		Subletting for Earthworks and ELS Works for PAB (\$C0022)
21.SUB.G.10200	Subletting for RC Works for PAB (SC0022)	29.17%	0	72			09-Dec-22 A	08-Mar-23	110		□ Subletting for RC Works for PAB (SC0022)
S-220	Subletting for Site Investigation Works incl. Borehole, Trial Trench, Manhole Survey	7.78%	90	90	29-Dec-22	28-Mar-23	29-Dec-22 A	28-Mar-23	316		Subletting for Site Investigation Works incl. Borehole, Trial Trench, Manhole Survey
S-110	Pre-bid for Designer for Alternative Design	0%	28	28	29-Nov-22	26-Dec-22	02-Feb-23	01-Mar-23	1353		Pre-bid:for Designer for Alternative Design
S-260	Subletting for Pipe Installation Works by Pipe Jacking	0%	90	90	27-Feb-23	27-May-23	27-Feb-23	27-May-23	143		Subletting for Pipe Installation Works by Pipe Jacking
S-290	Subletting for MIC Fabrication	0%	110	90	29-Nov-22	18-Mar-23	29-Mar-23	26-Jun-23	1386		— Subletting:for MIC Fabrication
S-280	Subletting for Foundation Works	0%	120	120	27-Jun-23	24-Oct-23	27-Jun-23	24-Oct-23	1266		Subletting for Foundation Works
Contractor's Design			497	490	27-Dec-22	29-Aug-24	09-Dec-22 A	29-Aug-24	773		₹ 29-Aµg-24, Contractor's Design
21.DES.PAB.10000	Design submission and Approval for PAB ELS Works	38.89%	0	54			09-Dec-22 A	15-Feb-23	474		l` Design submission and Approval for PAB ELS Works
21.DES.PAB.10010	Design submission and Approval for Hoarding at PAB	55.56%	0	54			09-Dec-22 A	04-Feb-23	53		Design submission and Approval for Hoarding at PAB
D-1100	Design submission and Approval for Cathodic Protection of Watermains	0%	30	30	28-Jan-23	26-Feb-23	28-Jan-23	26-Feb-23	66		Design submission and Approval for Cathodic Protection of Watermains
D-1080	Design submission and Approval for Permanent Sleeve Pipe for Trenchless Works	0%	90	90	27-Feb-23	27-May-23	27-Feb-23	27-May-23	143		Design submission and Approval for Permanent Sleeve Pipe for Trenchless Works
D-1000	Design submission and Approval for Cut and Cover Tunnel (Alternative)	0%	120	120	27-Dec-22	25-Apr-23	02-Mar-23	29-Jun-23	1383	1	Design submission and Approval for Cut and Cover Tunnel (Alternative)
D-1010	Design submission and Approval for Tunnel Alignment and Cavern Layout (Alternative)	0%	60	60	27-Dec-22	24-Feb-23	02-Mar-23	30-Apr-23	1443	+++	Design submission and Approval for Tunnel Alignment and Cavern Layout (Alternative)
D-1020	Design submission and Approval for Lining for Tunnel and Caverns (Alternative)	0%	150	150	27-Dec-22	25-May-23	02-Mar-23	29-Jul-23	1353		Design submission and Approval for Lining for Tunnel and Caverns (Alternative)
D-1030	Design submission and Approval for Lining for Portal Foundation (Alternative)	0%	150	150	27-Dec-22	25-May-23	02-Mar-23	29-Jul-23	1353	-	Design submission and Approval for Lining for Portal Foundation (Alternative)
D-1090	Design submission and Approval for Advance Treatment Works at Ma Chai Hang FWSR	0%	90	90	09-Mar-23	06-Jun-23	09-Mar-23	06-Jun-23	1226		Design submission and Approval for Advance Treatment Works at Ma Chai Hang FWSR
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4-4-0	Deceling A 4st December Deceling 149-st				_				Г)ate	Revision Checked Appro
1st Programm Actual Work	te Baseline ♦ 1st Programme Baseline Milestone ♦ Milestone				2	2 of 27			12-De	Date c-22	Revision Checked Appro

Critical Remaining Work

21/WSD/21 - Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Cavern

Monthly Programme January 2023

ity ID	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float	2023 2024 2025 2026 JFMAMJJASONDJFMAMJJASONDJFMAMJJASONDJ
D-1070	Design submission and Approval for Tunnel Internal Civil Structure	0%	90	90	24-Dec-23	22-Mar-24	24-Dec-23	22-Mar-24	438	Design submission and Approval for Tunnel Internal:Civil Structure
D-1060	Design submission and Approval for Overhead Ventilation Ducts	0%	90	90	23-Jan-24	21-Apr-24	23-Jan-24	21-Apr-24	906	Design submission and Approval for Overhead Ventilation Ducts
D-1050	Design submission and Approval for Architectual Works	0%	90	90	27-Feb-24	26-May-24	27-Feb-24	26-May-24	931	Design submission and Approval for Architectual Works
D-1040	Design submission and Approval for E&M systems incl. ventilation, lighting, electrical, FS for	0%	150	150	02-Apr-24	29-Aug-24	02-Apr-24	29-Aug-24	956	Design submission and Approval for E&M systems incl. ventilation
For Reprovision of Structo	Tunnel		168	168	27-Feb-23	13-Aug-23	27-Feb-23	13-Aug-23	1338	▼ 13-Aug-23; For Reprovision of Structures
D-S1000	Design Works for Reprovision of Structures (AIP)	0%	28	28	27-Feb-23	26-Mar-23	27-Feb-23	26-Mar-23	1338	□ Design Works for Reprovision of Structures (AIP)
D-S1010	ICE Checking - AIP	0%	21	21	27-Mar-23	16-Apr-23	27-Mar-23	16-Apr-23	1338	☐ ICE:Checking -AIP
D-S1020	Submission of Contractor Design (AIP) for PM's review	0%	28	28	17-Apr-23	14-May-23	17-Apr-23	14-May-23	1338	Submission of Contractor Design (AIP) for PM's review
D-S1030	Seeking Approval from PM	0%	7	7	15-May-23	21-May-23	15-May-23	21-May-23	1338	Seeking Approval from PM
			20	20	,		,	,		
D-S1040	Design Works for Reprovision of Structures (DDA)	0%	28	28	22-May-23	18-Jun-23	22-May-23	18-Jun-23	1338	☐ Design Works for Reprovision of Structures (DDA)
D-S1080	Submission and Approval for Foundation Design	0%	21	21	22-May-23	11-Jun-23	22-May-23	11-Jun-23	1401	☐ Submission and Approval for Foundation Design
D-S1050	ICE Checking - DDR	0%	21	21	19-Jun-23	09-Jul-23	19-Jun-23	09-Jul-23	1338	☐ ICE Checking - DDR
D-S1060	Submission of Contractor Design (DDR) for PM's review	0%	28	28	10-Jul-23	06-Aug-23	10-Jul-23	06-Aug-23	1338	Submission of Contractor Design (DDR) for PM's review
D-S1070	Seeking Approval from PM with comment revised	0%	7	7	07-Aug-23	13-Aug-23	07-Aug-23	13-Aug-23	1338	Seeking Approval from PM with comment revised
Contractor's Blasting Asse	essment Report (CBAR)		0	431			09-Mar-23	12-May-24	36	▼ 12-May-24; Contractor's Blasting Assessment Report (CBAR)
Contractor's Blasting Ass	sessment Report (CBAR) - VAT Tunnel (Before MTR Vicinity) Vol.1		0	304			09-Mar-23	06-Jan-24	12	▼ 06-Jan-24, Contractor's Blasting Assessment Report (CBAR) - VAT Tunnel (Before
21.CBA.VAT.10000	Preperation of CBAR - Vol.1	0%	0	150			09-Mar-23	05-Aug-23	1	Preperation of CBAR - Vol.1
21.CBA.VAT.10010	ICE Check on CBAR - Vol.1	0%	0	21			06-Aug-23	26-Aug-23	12	□ ICE Check on CBAR - Vol;1
21.CBA.VAT.10020	PM Comment on CBAR - Vol.1	0%	0	28			27-Aug-23	23-Sep-23	12	PM Comment on CBAR - Vol.1
21.CBA.VAT.10030	Incorporate PM Comment on CBAR - Vol.1	0%	0	14			24-Sep-23	07-Oct-23	12	□ Incorporate PM Comment on CBAR - Vol.1
21.CBA.VAT.10040	Prepare & Submit to CoM, GEO, BD, Police & FSD CBAR - Vol.1	0%	0	14			08-Oct-23	21-Oct-23	12	□ Prepare & Submit to CoM, GEQ, BD, Police & FSD CBAR - Vol.1
21.CBA.VAT.10050	Review & Comments from CoM, GEO, BD, Police & FSD on CBAR - Vol.1	0%	0	28			22-Oct-23	18-Nov-23	12	Review & Comments from CoM, GEO, BD, Police & FSD on GBAR - Vol.1
21.CBA.VAT.10060	Revise & Final Submission to CoM, GEO, BD, Police & FSD CBAR - Vol.1	0%	0	21			19-Nov-23	09-Dec-23	12	□ Revise & Final Submission to CoM; GEO, BD, Police & FSD CBAR - Vol.1
21.CBA.VAT.10070	Review & Approval from CoM, GEO, BD, Police & FSD on CBAR - Vol.1	0%	0	28			10-Dec-23	06-Jan-24	12	Réview & Approval from CoM, GEO, BD, Police & FSD on CBAR - Vol.1
Contractor's Blasting Ass	sessment Report (CBAR) - VAT Tunnel & Caverns (From MTR Vicinity) Vol.2		0	401			08-Apr-23	12-May-24	36	▼ 12-May-24; Contractor's Blasting Assessment Report (CBAR) - VAT Tunn
21.CBA.VAT.10080	Preperation of CBAR - Vol.2	0%	0	240			08-Apr-23	03-Dec-23	2	Preperation of CBAR - Vol.2
21.CBA.VAT.10090	ICE Check on CBAR - Vol.2	0%	0	28			04-Dec-23	31-Dec-23	36	CE Çheck on CBAR - Vol.2
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Critical Remaining Work

Monthly Programme January 2023

ty ID	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start 1st Prog. Finish	Start	Finish	Total Float	2023 2024 2025 2026
21.CBA.VAT.10100	PM Comment on CBAR - Vol.2	0%	0	28		01-Jan-24	28-Jan-24	36	DJFMAMJJASONDJFMAMJJASONDJFMAMJJASONDJ BJPMComment on CBAR - Vol.2
21.CBA.VAT.10110	Incorporate PM Comment on CBAR - Vol.2	0%	0	14		29-Jan-24	11-Feb-24	36	□ Incorporate PM Comment on CBAR - Vol.2
21.CBA.VAT.10120	Prepare & Submit to CoM, GEO, BD, Police & FSD CBAR - Vol.2	0%	0	14		12-Feb-24	25-Feb-24	36	□ Prepare & Submit to CoM, GEO, BD, Police & FSD CBAR - Vol.2
21.CBA.VAT.10130	Review & Comments from CoM, GEO, BD, Police & FSD on CBAR - Vol.2	0%	0	28		26-Feb-24	24-Mar-24	36	□ Review & Comments from CoM, GEO, BD, Police & F\$D on CBAR - Vol.2
21.CBA.VAT.10140	Revise & Final Submission to CoM, GEO, BD, Police & FSD CBAR - Vol.2	0%	0	21		25-Mar-24	14-Apr-24	36	□ Revise & Final Submission to CoM, GEO, BD, Police & FSD CBAR - Vol.2
21.CBA.VAT.10150	Review & Approval from CoM, GEO, BD, Police & FSD on CBAR - Vol.2	0%	0	28		15-Apr-24	12-May-24	36	Review & Approval from CoM; GEO, BD, Police & FSD on CBAR - Vol.2
asting Method Stateme	ent (BMS)		0	371		06-Aug-23	10-Aug-24	2	▼ 10-Aug-24, Blaştirig Method Statement (BMS)
lasting Method Statem	nent (BMS) - VAT Tunnel (Before MTR Vicinity) Vol.1		0	221		06-Aug-23	13-Mar-24	1	▼ 13-Mar-24, Blasting Method Statement (BMS) - VAT Tuhnel (Before MTR Vicini
21.BMS.VAT.10000	Prepare & Submit to PM BMS Vol.1	0%	0	60		06-Aug-23	04-Oct-23	1	Prepare & Şubmit to PM BMS Vol.1
21.BMS.VAT.10010	PM Review & Comment on BMS Vol.1	0%	0	21		05-Oct-23	25-Oct-23	1	■ PM Review & Comment on BMS Vol.1
21.BMS.VAT.10020	Incorporate PM comments & Submit to CoM BMS Vol.1	0%	0	14		26-Oct-23	08-Nov-23	1	■ Incorporate PM comments & Submit to CoM BMS Vol.1
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21.BMS.VAT.10030	Review & Comments from CoM on BMS Vol.1	0%	0	28		09-Nov-23	06-Dec-23	1	Réview & Comments from GoM on BM\$ Vol;1
21.BMS.VAT.10040	Revise & Final Submission to CoM BMS Vol.1	0%	0	14		07-Dec-23	20-Dec-23	1	■ Revise & Final Submissión to CóM BMS Vol.1:
21.BMS.VAT.10050	Review & Acceptance from CoM on BMS Vol.1	0%	0	28		21-Dec-23	17-Jan-24	1	Review & Acceptance from CoM on BMS Vol.1
21.BMS.VAT.10060	Blasting Permit Application - VAT Tunnel (Before MTR Vicinity)	0%	0	14		18-Jan-24	31-Jan-24	1	■ Blasting Permit Application - VAT Tunnel (Before MTR Vicinity)
21.BMS.VAT.10070	Comments from CoM on Blasting Permit Application - VAT Tunnel (Before MTR Vicinity)	0%	0	28		01-Feb-24	28-Feb-24	1	Comments from CoM on Blasting Permit Application - VAT Tunnel (Before MTR
21.BMS.VAT.10080	Site Inspection by CoM - VAT Tunnel (Before MTR Vicinity)	0%	0	7		29-Feb-24	06-Mar-24	1	■ Site Inspection by CoM:- VAT Tunnel (Before MTR Vicinity)
21.BMS.VAT.10090	Issue fof Blasting Permit - VAT Tunnel (Before MTR Vicinity)	0%	0	7		07-Mar-24	13-Mar-24	1	I Issue fof Blasting Permit - VAT Tunnel (Before MTR Vicinity)
lasting Method Statem	nent (BMS) - VAT Tunnel & Caverns (From MTR Vicinity) Vol.2		0	251		04-Dec-23	10-Aug-24	2	▼ 10-Aug-24, Blasting Method Statement (BMS) - VAT Tuhnel & Cave
21.BMS.VAT.10100	Prepare & Submit to PM BMS Vol.2	0%	0	90		04-Dec-23	02-Mar-24	2	Prepare & Submit to PM BMS Vol.2
	·		U						
21.BMS.VAT.10110	PM Review & Comment on BMS Vol.2	0%	0	21		03-Mar-24	23-Mar-24	2	■ PM Review & Comment on BMS Vol.2
21.BMS.VAT.10120	Incorporate PM comments & Submit to CoM BMS Vol.2	0%	0	14		24-Mar-24	06-Apr-24	2	■ Incorporate PM comments & Submit to CoM BMS Vol;2
21.BMS.VAT.10130	Review & Comments from CoM on BMS Vol.2	0%	0	28		07-Apr-24	04-May-24	2	■ Réview & Comments from GoM on BM\$ Vol.2
21.BMS.VAT.10140	Revise & Final Submission to CoM BMS Vol.2	0%	0	14		05-May-24	18-May-24	2	■ Revise & Final Submission to CoM BMS Vol.2
21.BMS.VAT.10150	Review & Acceptance from CoM on BMS Vol.2	0%	0	28		19-May-24	15-Jun-24	2	Review & Acceptance from CoM on BMS Vol.2
21.BMS.VAT.10160	Blasting Permit Application - VAT Tunnel & Caverns (From MTR Vicinity)	0%	0	14		16-Jun-24	29-Jun-24	2	■ Blasting Permit Application - VAT Tuhnel & Caverns (From MTR Vicinity
21.BMS.VAT.10170	Comments from CoM on Blasting Permit Application - VAT Tunnel & Caverns (From MTR Vicinity)	0%	0	28		30-Jun-24	27-Jul-24	2	Comments from CoM on Blasting Permit Application - VAT Tunnel &
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= 1st Programme	e Baseline ♦ ♦ 1st Programme Baseline Milestone				4 of 27			Dat	ate Revision Checked Approv
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Monthly Programme January 2023

12-Jan-23

Remaining Work

Critical Remaining Work

21/WSD/21 - Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Cavern Monthly Programme January 2023

vity ID	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float	2023 2024 2025 2026 20 NDJFMAMJJASONDJFMAMJJASONDJFMAMJJASONDJFMAMJJASONDJF
21.BMS.VAT.10180	Site Inspection by CoM - VAT Tunnel & Caverns (From MTR Vicinity)	0%	0	7			28-Jul-24	03-Aug-24	2	Site Inspection by CoM VAT (unnel & Caverns (From MTR Vicinity)
21.BMS.VAT.10190	Issue fof Blasting Permit - VAT Tunnel & Caverns (From MTR Vicinity)	0%	0	7			04-Aug-24	10-Aug-24	2	I lssue fof Blasting Permit -VAT Tunnel & Caverns (From MTR Vicinity)
C:4 - \\\/ - \\/ -			1000	1000	00 Dec 22	11 Apr 07	00 Dec 22 A	44 Apr 07	1	
Site Works			1283	1262	09-Dec-22	11-Apr-27	09-Dec-22 A	11-Apr-27	1	
Site Wide Pre-Works			0	29			26-Jan-23	28-Feb-23	1191	▼▼ 28-Fęb-23, Site Wide Pre-Works
21.PRW.G.10000	Tree Survey at PAB Area	0%	0	15			26-Jan-23	11-Feb-23	24	□ Tree Survey at PAB Area
21.PRW.G.10010	Topographic Survey at PAB Area	0%	0	12			26-Jan-23	08-Feb-23	298	□ Topographic Survey at PAB Area
21.PRW.G.10020	Pre-Condition Survey Site Wide	0%	0	29			26-Jan-23	28-Feb-23	281	Pre-Çondition Survey Site Wide
21.PRW.G.10030	TTA Implementation for the exposed work of dia. 1400mm pipe at Lion Rock Road	0%	0	9			26-Jan-23	04-Feb-23	385	D TTA Implementation for the exposed work of dia. 1400mm pipe at Lion Rock Road
21.PRW.G.10050	UU Detection at PAB & Portion 5	0%	0	12			26-Jan-23	08-Feb-23	1208	□ UU Detection at PAB & Portion 5
										II Trial pit to exposed work of dia. 1400mm bipe at Lion Rock Road
21.PRW.G.10040	Trial pit to exposed work of dia. 1400mm pipe at Lion Rock Road	0%	0	6			06-Feb-23	11-Feb-23	385	
Relocation of Transit Nurs	sey		202	175	09-Dec-22	28-Jun-23	09-Dec-22 A	28-Jun-23	1384	▼ 28-Jun-23, Relocation of Transit Nursey
SW-RTN-1010	Liase with LCSD for facilities relocation arrangement	45%	60	60	09-Dec-22	06-Feb-23	09-Dec-22 A	06-Feb-23	73	Liase with LCSD for facilities relocation arrangement
SW-RTN-1030	Hoarding erection and Site setup in Portion 4	0%	10	10	09-Mar-23	18-Mar-23	09-Mar-23	18-Mar-23	43	.☐ Hoarding erection and Site setup in Portion 4
SW-RTN-1020	Access to Portion 4	0%	0	0	09-Mar-23		09-Mar-23		43	🕏 'Access to Portion 4
SW-RTN-1040	Civil construction works, e.g. water supply, in Portion 4	0%	45	45	19-Mar-23	02-May-23	19-Mar-23	02-May-23	43	Civil construction works; e.g.; water supply, in Portion 4
SW-RTN-1050	Relocation of Transit Nursery and other LCSD's faciltiles to Portion 4	0%	40	40	11-May-23	19-Jun-23	11-May-23	19-Jun-23	35	Relocation of Transit Nursery and other LCSD's facilities to Portion 4
SW-RTN-1060	Test and Commissioning of water supply and LCSD's facilities	0%	3	3	20-Jun-23	22-Jun-23	20-Jun-23	22-Jun-23	1384	I Test and Commissioning of water supply and LCSD's facilities:
SW-RTN-1070	Handover Portion 4 to LCSD for its management	0%	6	6	23-Jun-23	28-Jun-23	23-Jun-23	28-Jun-23	1384	Handover Portion 4 to LCSD for its management:
Ma Chai Hang Fresh Wa	atter Service Reservoir (MCHFWSR)		360	333	09-Dec-22	03-Dec-23	09-Dec-22 A	03-Dec-23	1226	▼ 03-Dec-23, Ma Chai Hang Fresh Water Service Reservoir (MCHFWSR)
SW-P2-1000	Liase with WSD for works arrangement in MCHFWSR	30%	90	90	09-Dec-22	08-Mar-23	09-Dec-22 A	08-Mar-23	1226	Liase with WSD for works arrangement in MCHFWSR
SW-P2-1010	Access to Portion 2	0%	0	0	09-Mar-23		09-Mar-23		1316	🅏 Access to Portion 2
SW-P2-1020	Ground treatment works in Portion 2	0%	180	180	07-Jun-23	03-Dec-23	07-Jun-23	03-Dec-23	1226	Ground treatment works in Portion 2
Portal Ancillary Building			1245	1245	28-Jan-23	11-Apr-27	28-Jan-23	11-Apr-27	1	
									•	
Preparation Works & Sit	te Clearance		174	174	28-Jan-23	20-Jul-23	28-Jan-23	20-Jul-23	242	▼ 20-Jul-23, Preparation Works & Site:Clearance
SW-PAB1000	XP and TTAApplication	0%	75	75	28-Jan-23	12-Apr-23	28-Jan-23	12-Apr-23	0	XP and TTAApplication
SW-PAB1020	Tree Survey at Portion 3	0%	42	42	09-Mar-23	19-Apr-23	09-Mar-23	19-Apr-23	3	Tree Survey at Portion 3
SW-PAB1010	Access to Portion 3	0%	0	0	09-Mar-23		09-Mar-23		3	🏂 Access to Portion 3
		·		1	1	1	1	J.		Description 1 of 1 of 1 of 1
1st Programme Actual Work	e Baseline ◆ 1st Programme Baseline Milestone ◆ Milestone				:	5 of 27			12-De	Pate Revision Checked Approved c-22 First Programme
Remaining Work									12-Jar	<u> </u>
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Monthly Programme January 2023

/ ID	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float ND JEMAM	2023 2024 2025 		
SW-PAB1030	Hoarding Erection and Site Setup	0%	10	10	13-Apr-23	22-Apr-23	13-Apr-23	22-Apr-23		JJJASON DJFMA MJJASON DJF MAMJJAS 9 r loarding Erection and Site Setup	D OLIMINIO	
SW-PAB1040	Tree Treatment and Site Clearance	0%	49	49	23-Apr-23	10-Jun-23	23-Apr-23	10-Jun-23	0	Tree Treatment and Site Clearance		
3W-I AD 1040	The Treatment and Site Glearance	0 70	43	43	20-Api-20	10-3411-23	25-Api-25	10-3011-23		- The Treather Raily Sie Siealaile		
SW-PAB1050	Survey, Trial pit, UU detection, Condition survey	0%	40	40	11-Jun-23	20-Jul-23	11-Jun-23	20-Jul-23	242	Survey, Trial pit, UU detection, Condition survey		
Foundation, Sub-Strue	cture and Retaining Structure		579	579	07-Jun-23	20-May-25	07-Jun-23	20-May-25	246	▼ 20-May-25,	oundation, Sub-S	Structure and Re
Northern Side of PAB (F	RHS) (Zone 2)		356	356	07-Jun-23	15-Aug-24	07-Jun-23	15-Aug-24	469	▼ 15-Aug-24; Northern Side of PAB	(RH\$) (Zone 2)	
_			000	000	07 0dil 20	10 / lag 24	07 0dil 20	10 / lag 24				
SW-PAB-2110	Implement TTA to shift Lion Rock Road traffic westward to provide sufficent space for pipe pile installation	0%	2	2	07-Jun-23	08-Jun-23	07-Jun-23	08-Jun-23	293	I implement TTA to shift Lion Rock Road traffic westward to provide	sufficent space for	pipe pile installa
SW-PAB-2120	Removal of road pavement and site clearance, surveying, UU detection, diversion (if any)	0%	20	20	09-Jun-23	28-Jun-23	09-Jun-23	28-Jun-23	361	Removal of road pavement and site clearance, surveying, UU de	ection, diversion (i	if any)
SW-PAB-2000	Construction of Concrete Block Wall and Form a Working Platform at +85mPD (7d+3d) (start	0%	10	10	20-Jun-23	03-Jul-23	20-Jun-23	03-Jul-23	28	☐ Construction of Concrete Block Wall and Forma Working Platfon	at +85mPD (7d+	-3d) (start after 8
011-1 AD-2000	after 8no pipe pile by 1rig)	070	10	10	20-0011-20	00-00F20	20-0011-20	00-00F20	20	2 Constitution of Collectic Block was and contract working in each	ac osini b (ra	ou) (start after t
SW-PAB-2010	Soil Excavation for Southern Ramp (Total: 2689m3) (PR=180m3/d)	0%	15	15	20-Jun-23	08-Jul-23	20-Jun-23	08-Jul-23	285	Soil Excavation for Southern Ramp (Total: 2689rn3) (PR=180m3	/d)	
SW-PAB-2150	linstallation of Pipe Plile (273dia) along Lion Rock Road (Total: 53no.) (PR=1d/pile/rig) (2rigs)	0%	33	33	10-Jul-23	16-Aug-23	10-Jul-23	16-Aug-23	285	🖵 : linstallation of Pipe Plile (273dia) along Lion Rock Road (Tota	53no.) (PR=1d/p	ile/rig) (2rigs) plu
SW-PAB-2020	plus 1 wk for grouting Installation of King Post (Total: 3no) (PR=2.5d/pile/rig) (2 rigs)	0%	5	5	24-Jul-23	28-Jul-23	24-Jul-23	28-Jul-23	11	I Installation of King Post (Total: 3no) (PR=2:5d/pile/rig) (2 rigs)		
OVV 1715 2020	installation of target osci (Total: one) (FTC 2.5drphorig) (2 ligs)	070			24 0di 20	20 001 20	24 001 20	20 001 20				
SW-PAB-2030	Installation of Plpe Pile at RHS of Portal (Total: 15no) (PR=2.5d/pile/rig) (2 rigs) + 3d remobilization	0%	22	22	29-Jul-23	23-Aug-23	29-Jul-23	23-Aug-23	11	☐ Installation of Pipe Pile at RHS of Portal (Total: 15no) (PR=2.5	d/pile/rig) (2 rigs) -	+3d remobilizat
SW-PAB-2040	Erection of Steel Platform for Bored Pile Construction	0%	22	22	24-Aug-23	18-Sep-23	24-Aug-23	18-Sep-23	279	Erection of Steel Platform for Bored Pile Construction		
SW-PAB-2050	Plant mobilization and Installation of Bored Pile on Steel Platform (Total: 4no) (PR=22d/pile/riq) (1	0%	88	88	27-Dec-23	15-Apr-24	27-Dec-23	15-Apr-24	199	Plant mobilization and Installation of Bored	Pile on Steel Platfo	orm (Total: 4no)
OW 1715 2000	rigs)	070		00	27 500 20	1074124	27 000 20	1070124				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
SW-PAB-2060	Plant Demobilization and Removal of Steel Platform	0%	7	7	16-Apr-24	23-Apr-24	16-Apr-24	23-Apr-24	473	□ Plant Demobilization and Removal of Stee	Platform	
SW-PAB-2070	Soil Excavation to Formation Level and ELS Installation (Total: 2217m3) (PR=200m3/d) +8d ELS	0%	19	19	24-Apr-24	17-May-24	24-Apr-24	17-May-24	473	Soil Excavation to Formation Level and E	LS Installation (To	otal: 2217m3) (P
SW-PAB-2080	Pile Test @ Grid BB-EE (Total: 4no.)	0%	30	30	18-May-24	16-Jun-24	18-May-24	16-Jun-24	578	□ Pile Test @ Grid BB-EE (Total: 4no.)		
	· · ·	-			,		,					
SW-PAB-2100	Construction of Retainig Wall RW3 and Backfill work	0%	90	90	18-May-24	15-Aug-24	18-May-24	15-Aug-24	578	Construction of Retainig Wall RW	and Backfill work	
SW-PAB-2090	Trim Pile Head, Construction of Pile Cap @ Grid BB-EE, 3m thk	0%	60	60	17-Jun-24	15-Aug-24	17-Jun-24	15-Aug-24	578	Trim Pile Head, Construction of P	e Cap @ Grid BB	EE,3m thk
Northern Side of PAB (L	LHS) (Zone 1)		570	570	17-Jun-23	20-May-25	17-Jun-23	20-May-25	201	▼ 20-May-25.	Northern Side of P	PAB (LH\$) (Zone
_			0.0	010	17 001120	20 May 20	17 0411 20	20 May 20	201			
SW-PAB-3000	Installation of mini-pile for support steel platform (Total: 22no) (PR=1.5d/pile/rig) (1rigs)	0%	33	33	17-Jun-23	27-Jul-23	17-Jun-23	27-Jul-23	376	Installation of mini-pile for support steel platform (Total: 22no) (F	R=1.5d/pile/rig) (1	rigs)
SW-PAB-3010	Construction of RC footing on mini-pile	0%	24	24	14-Jul-23	10-Aug-23	14-Jul-23	10-Aug-23	376	Construction of IRC footing on mini-pile		
SW-PAB-3020	Installation of Sheet Pile (Total: 10m, 240m2) (PR=40m2/d/piler) (1 piler)	0%	6	6	21-Jul-23	27-Jul-23	21-Jul-23	27-Jul-23	199	Installation of Sheet Pile:(Total::10m, 240m2):(PR=40m2/d/piler	(1 pilet)	
	, , , , , , , , , , , , , , , , , , , ,											
SW-PAB-3040	Installation of Sheet Pile (Total: 15m, 360m2) (PR=40m2/d/piler) (1 piler)	0%	9	9	28-Jul-23	07-Aug-23	28-Jul-23	07-Aug-23	199	Installation of Sheet Pile (Total: 15m, 360m2) (PR=40m2/d/pile) (1 piler)	
SW-PAB-3030	Soil Excavation to reach 1:8 fall for King Post Installation	0%	6	6	28-Jul-23	03-Aug-23	28-Jul-23	03-Aug-23	296	Soil Excavation to reach 1:8 fall for King Post Installation		
SW-PAB-3050	Soil Excavation and ELS installation - Stage 1 (Total: 2700m3) (PR=180m3/d) + 8d ELS	0%	23	23	29-Aug-23	23-Sep-23	29-Aug-23	23-Sep-23	338	Soil Excavation and ELS installation - Stage 1: (Total: 2700)	13) (PR=180m3/d);+8d:Fl:S
		0 /0	25		_	·	_					
SW-PAB-3100	Installation of Remaining Sheet Pile (Total: 42m, 930m2) (PR=40m2/d/piler) (1 piler)	0%	24	24	29-Aug-23	25-Sep-23	29-Aug-23	25-Sep-23	555	☐ Installation of Remaining Sheet Pile (Total: 42m, 930m2) (F	R=40m2/d/piler) (1 piler)
									Date	Revision	Checked	Angrove
1st Programr Actual Work	me Baseline ♦ 1st Programme Baseline Milestone ♦ Milestone				(6 of 27			Date 12-Dec-22 Fir	st Programme	Checked	Approve
Remaining W										onthly Programme January 2023		

	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float	2023 2024 2025 2026 2027
SW-PAB-3060	Erection of Steel Platform for Bored Pile Construction	0%	24	24	25-Sep-23	25-Oct-23	25-Sep-23	25-Oct-23	338	VDJFMAMJJASONDJFMAMJJASONDJFMAMJJASONDJFMAMJJASONDJFM
							20 30p 20	20 00.20		
SW-PAB-3070	Installation of Bored Pile on Steel Platform (Total: 7no) (PR=22d/pile/rig) (1 rigs)	0%	154	154	16-Apr-24	19-Oct-24	16-Apr-24	19-Oct-24	199	Installation of Bored Pile bri Steel Platform (Total: 7no) (PR=22d/pile
SW-PAB-3070a	Pile Test @ Grid U-BB (Total: 7no.)	0%	66	66	17-Sep-24	21-Nov-24	17-Sep-24	21-Nov-24	249	Pile Test @ Grid ال -BB (Total: ʔnoː)
SW-PAB-3080	Removal of Steel Platform	0%	12	12	22-Nov-24	05-Dec-24	22-Nov-24	05-Dec-24	199	Removal of Steel Platform
300-FAD-3000	Removal of Steel Flationn	U70	12	12	22-INOV-24	05-Dec-24	22-INOV-24	05-Dec-24	199	■ Renovalorsieerranum
SW-PAB-3110	Soil Excavation to Formation Level and ELS Installation (Total: 5000m3) (PR=300m3/d) + 8d ELS	0%	25	25	06-Dec-24	07-Jan-25	06-Dec-24	07-Jan-25	199	🔲 Soil Excavation to Formation Level and ELS Installation (Total
SW-PAB-3130	Trim Pile Head, Construction of Pile Cap @ Grid U-BB, 3m thk from FL 77.83mPD	0%	90	90	20-Feb-25	20-May-25	20-Feb-25	20-May-25	244	Trim Pile Head, Construction of Pile Cap @ Grid: U-
Southern Side of PAB			499	499	08-Aug-23	10-Apr-25	00 Aug 22	10-Apr-25	242	▼ 10-Apr-25, Southern Side of PAB
oduletti Side ol PAD			499	499	00-Aug-23	10-Αμι-25	08-Aug-23	10-Apt-25	242	
SW-PAB-4000	Installation of Sheet Pile (Total: 60m, 720m2) (PR=40m2/d/piler)	0%	18	18	08-Aug-23	28-Aug-23	08-Aug-23	28-Aug-23	199	Installation of Sheet Pile (Total: 60m, 720m2) (PR=40m2/d/piler)
SW-PAB-4010	Construction of Concrete Block Wall and Forma Working Platform at +84mPD (26d + 6d)	0%	32	32	29-Aug-23	06-Oct-23	29-Aug-23	06-Oct-23	199	Construction of Concrete Block Wall and Form a Working Platform at +84mPD (26d + 6d)
0)A/ DAD 4000		00/			07.0.1.00	00.0	07.0.100	00.0	100	
SW-PAB-4020	Installation of Bored Pile on Workingl Platform (Total: 3no) (PR=22d/pile/rig) (1 rigs)	0%	66	66	07-Oct-23	23-Dec-23	07-Oct-23	23-Dec-23	199	Installation of Bored Pile on Workingl Platform (Total: 3rio) (PR=22d/pile/rig) (1 rigs)
SW-PAB-4030	Pile Test @ Grid U-BB (Total: 3no.)	0%	50	50	11-Dec-23	29-Jan-24	11-Dec-23	29-Jan-24	619	Pile Test @ Grid U-BB (Total: 3no.)
SW-PAB-4040	Removal of Platform and Concrete Block	0%	21	21	30-Jan-24	24-Feb-24	30-Jan-24	24-Feb-24	502	Removal of Platform and Concrete Block
SW-PAB-4050	Construction of Retaining Wall RW1 and RW2 by Open Cut Method	0%	90	90	25-Feb-24	24-May-24	25-Feb-24	24-May-24	619	Construction of Retaining Wall RW1 and RW2 by Open Cut Method
SW-PAB-4060	Installation of Bored Pile on ground at FEL (Total: 3no) (PR=22d/pile/rig) (1 rigs)	0%	66	66	14-Dec-24	07-Mar-25	14-Dec-24	07-Mar-25	199	Installation of Bored Pile on ground at FEL (Total: 3no) (F
SW-PAB-4070	Pile Test @ Grid U-BB (Total: 3no.)	0%	50	50	20-Feb-25	10-Apr-25	20-Feb-25	10-Apr-25	244	Pile Test @ Grid U-BB (Total: \$no.)
						·		·		
tructure Works			986	986	04-Aug-23	26-Nov-26	04-Aug-23	26-Nov-26	1	▼ 26-Nov-
Building Structure - Grid	No. U - BB		727	727	04-Aug-23	13-Jan-26	04-Aug-23	13-Jan-26	260	▼ 13-Jan-26, Building Structure - G
							04.4	09-Aug-23	354	Il Installation of Tower Crane
SW-PAB-S2000	Installation of Tower Crane	0%	5	5	04-Aug-23	09-Aug-23	04-Aug-23	09-Auu-23		
	Installation of Tower Crane	0%	5	5	04-Aug-23	09-Aug-23	04-Aug-23	09-Aug-23		
	Installation of Tower Crane Commencement of Building Structure	0%	0	5	04-Aug-23 21-May-25	09-Aug-23	04-Aug-23 21-May-25	09-Aug-23	244	Commencement of Building Structure
SW-PAB-S3000	Commencement of Building Structure Column, Beam & Floor Slab @ Ground Floor +78mPD (from Pile Cap @ +75mPD) incl. scaffold				J	-	_	24-Jun-25		
SW-PAB-S3000 SW-PAB-S3010	Commencement of Building Structure Column, Beam & Floor Slab @ Ground Floor +78mPD (from Pile Cap @ +75mPD) incl. scaffold erection	0%	35	35	21-May-25 21-May-25	24-Jun-25	21-May-25 21-May-25	24-Jun-25	244	Column, Beam & Floor Slab @ Ground Floor +7.
SW-PAB-S3000 SW-PAB-S3010 SW-PAB-S3020	Commencement of Building Structure Column, Beam & Floor Slab @ Ground Floor +78mPD (from Pile Cap @ +75mPD) incl. scaffold erection RC Column and RC Wall @ above Ground Floor	0%	0	0	21-May-25		21-May-25 21-May-25 25-Jun-25	24-Jun-25 20-Jul-25	244	☐ Column, Beam & Floor Slab @ Ground Floor+7:☐ RC:Column and RC Wall @ above Ground Flo
SW-PAB-S3000 SW-PAB-S3010 SW-PAB-S3020	Commencement of Building Structure Column, Beam & Floor Slab @ Ground Floor +78mPD (from Pile Cap @ +75mPD) incl. scaffold erection	0%	35	35	21-May-25 21-May-25	24-Jun-25	21-May-25 21-May-25	24-Jun-25	244	Column, Beam & Floor \$lab @ Ground Floor +7 □ RC Column and RC Wall @ above Ground Fl
SW-PAB-S3000 SW-PAB-S3010 SW-PAB-S3020 SW-PAB-S3030	Commencement of Building Structure Column, Beam & Floor Slab @ Ground Floor +78mPD (from Pile Cap @ +75mPD) incl. scaffold erection RC Column and RC Wall @ above Ground Floor	0%	35	35	21-May-25 21-May-25 25-Jun-25	24-Jun-25 20-Jul-25	21-May-25 21-May-25 25-Jun-25	24-Jun-25 20-Jul-25	244 244 244	□ Column, Beam & Floor Slab @:Ground Floor:+7 □ RC:Column and RC Wall @ above Ground Floor □ RC Beam &:Floor Slab @ First Floor +84.25
SW-PAB-S3000 SW-PAB-S3010 SW-PAB-S3020 SW-PAB-S3030 SW-PAB-S3040	Commencement of Building Structure Column, Beam & Floor Slab @ Ground Floor +78mPD (from Pile Cap @ +75mPD) incl. scaffold erection RC Column and RC Wall @ above Ground Floor RC Beam & Floor Slab @ First Floor +84.25mPD incl. scaffold erection RC Column and RC Wall @ above First Floor	0% 0% 0% 0%	0 35 26 35 26	0 35 26 35 26	21-May-25 21-May-25 25-Jun-25 21-Jul-25 25-Aug-25	24-Jun-25 20-Jul-25 24-Aug-25 19-Sep-25	21-May-25 21-May-25 25-Jun-25 21-Jul-25 25-Aug-25	24-Jun-25 20-Jul-25 24-Aug-25 19-Sep-25	244 244 244 244 244	Column, Beam & Floor Slab @ Ground Floor:+7 RC Column and RC Wall @ above Ground Floor:+84.29 RC Beam & Floor Slab @ First Floor:+84.29 RC Column and RC Wall @ above First F
SW-PAB-S3000 SW-PAB-S3010 SW-PAB-S3020 SW-PAB-S3030 SW-PAB-S3040 SW-PAB-S3050	Commencement of Building Structure Column, Beam & Floor Slab @ Ground Floor +78mPD (from Pile Cap @ +75mPD) incl. scaffold erection RC Column and RC Wall @ above Ground Floor RC Beam & Floor Slab @ First Floor +84.25mPD incl. scaffold erection RC Column and RC Wall @ above First Floor RC Beam & Floor Slab @ Roof +91.5mPD incl. scaffold erection	0% 0% 0%	0 35 26 35	0 35 26 35	21-May-25 21-May-25 25-Jun-25 21-Jul-25 25-Aug-25 20-Sep-25	24-Jun-25 20-Jul-25 24-Aug-25 19-Sep-25 24-Oct-25	21-May-25 21-May-25 25-Jun-25 21-Jul-25 25-Aug-25 20-Sep-25	24-Jun-25 20-Jul-25 24-Aug-25 19-Sep-25 24-Oct-25	244 244 244 244 244	Column, Beam & Floor Slab @ Ground Floor+7 RC:Column and RC Wall @ above Ground Floor+84.25 RC:Column and RC:Wall @ above First Floor +84.25 RC:Column and RC:Wall @ above First F
SW-PAB-S3000 SW-PAB-S3010 SW-PAB-S3020 SW-PAB-S3030 SW-PAB-S3040 SW-PAB-S3050	Commencement of Building Structure Column, Beam & Floor Slab @ Ground Floor +78mPD (from Pile Cap @ +75mPD) incl. scaffold erection RC Column and RC Wall @ above Ground Floor RC Beam & Floor Slab @ First Floor +84.25mPD incl. scaffold erection RC Column and RC Wall @ above First Floor	0% 0% 0% 0%	0 35 26 35 26	0 35 26 35 26	21-May-25 21-May-25 25-Jun-25 21-Jul-25 25-Aug-25	24-Jun-25 20-Jul-25 24-Aug-25 19-Sep-25	21-May-25 21-May-25 25-Jun-25 21-Jul-25 25-Aug-25	24-Jun-25 20-Jul-25 24-Aug-25 19-Sep-25	244 244 244 244 244	Column, Beam & Floor \$lab @ Ground Floor;+7 RC Column and RC Wall @ above Ground Floor;+7 RC Beam & Floor Slab @ First Floor +84.25 RC Column and RC Wall @ above First Floor +91.5r
SW-PAB-S3000 SW-PAB-S3010 SW-PAB-S3020 SW-PAB-S3030 SW-PAB-S3040 SW-PAB-S3050 SW-PAB-S3060	Commencement of Building Structure Column, Beam & Floor Slab @ Ground Floor +78mPD (from Pile Cap @ +75mPD) incl. scaffold erection RC Column and RC Wall @ above Ground Floor RC Beam & Floor Slab @ First Floor +84.25mPD incl. scaffold erection RC Column and RC Wall @ above First Floor RC Beam & Floor Slab @ Roof +91.5mPD incl. scaffold erection	0% 0% 0% 0% 0%	0 35 26 35 26 35	0 35 26 35 26 35	21-May-25 21-May-25 25-Jun-25 21-Jul-25 25-Aug-25 20-Sep-25	24-Jun-25 20-Jul-25 24-Aug-25 19-Sep-25 24-Oct-25	21-May-25 21-May-25 25-Jun-25 21-Jul-25 25-Aug-25 20-Sep-25	24-Jun-25 20-Jul-25 24-Aug-25 19-Sep-25 24-Oct-25	244 244 244 244 244	Column, Beam & Floor Slab @ Ground Floor +7:
SW-PAB-S3000 SW-PAB-S3010 SW-PAB-S3020 SW-PAB-S3030 SW-PAB-S3040 SW-PAB-S3050 SW-PAB-S3060 SW-PAB-S3080	Column, Beam & Floor Slab @ Ground Floor +78mPD (from Pile Cap @ +75mPD) incl. scaffold erection RC Column and RC Wall @ above Ground Floor RC Beam & Floor Slab @ First Floor +84.25mPD incl. scaffold erection RC Column and RC Wall @ above First Floor RC Beam & Floor Slab @ Roof +91.5mPD incl. scaffold erection RC Column and RC Wall @ above Roof RC Column and RC Wall @ above Roof	0% 0% 0% 0% 0% 0% 0%	0 35 26 35 26 35 14 21	0 35 26 35 26 35 14	21-May-25 21-May-25 25-Jun-25 21-Jul-25 25-Aug-25 20-Sep-25 25-Oct-25	24-Jun-25 20-Jul-25 24-Aug-25 19-Sep-25 24-Oct-25 07-Nov-25	21-May-25 21-May-25 25-Jun-25 21-Jul-25 25-Aug-25 20-Sep-25 25-Oct-25	24-Jun-25 20-Jul-25 24-Aug-25 19-Sep-25 24-Oct-25 07-Nov-25	244 244 244 244 244 318 378	Column, Beam & Floor Slab @ Ground Floor;+7 RC Column and RC Wall @ above Ground Floor;+7 RC Beam & Floor Slab @ First Floor +84.25 RC Column and RC Wall @ above First Floor RC Beam & Floor Slab @ Roof;+91;5n RC Column and RC Wall @ above R
SW-PAB-S3000 SW-PAB-S3010 SW-PAB-S3020 SW-PAB-S3030 SW-PAB-S3040 SW-PAB-S3050 SW-PAB-S3060 SW-PAB-S3080	Commencement of Building Structure Column, Beam & Floor Slab @ Ground Floor +78mPD (from Pile Cap @ +75mPD) incl. scaffold erection RC Column and RC Wall @ above Ground Floor RC Beam & Floor Slab @ First Floor +84.25mPD incl. scaffold erection RC Column and RC Wall @ above First Floor RC Beam & Floor Slab @ Roof +91.5mPD incl. scaffold erection RC Column and RC Wall @ above Roof	0% 0% 0% 0% 0% 0%	0 35 26 35 26 35	0 35 26 35 26 35	21-May-25 21-May-25 25-Jun-25 21-Jul-25 25-Aug-25 20-Sep-25 25-Oct-25	24-Jun-25 20-Jul-25 24-Aug-25 19-Sep-25 24-Oct-25	21-May-25 21-May-25 25-Jun-25 21-Jul-25 25-Aug-25 20-Sep-25 25-Oct-25	24-Jun-25 20-Jul-25 24-Aug-25 19-Sep-25 24-Oct-25 07-Nov-25	244 244 244 244 244 244 318	Column, Beam & Floor Slab @ Ground Floor:+7 RC:Column and RC Wall @ above Ground F RC Beam & Floor Slab @ First Floor +84.2 RC:Column and RC Wall @ above First F RC Beam & Floor Slab @ Roof:+91:5r RC Beam & Floor Slab @ Roof:+91:5r
SW-PAB-S3000 SW-PAB-S3010 SW-PAB-S3020 SW-PAB-S3030 SW-PAB-S3040 SW-PAB-S3050 SW-PAB-S3060 SW-PAB-S3080	Column, Beam & Floor Slab @ Ground Floor +78mPD (from Pile Cap @ +75mPD) incl. scaffold erection RC Column and RC Wall @ above Ground Floor RC Beam & Floor Slab @ First Floor +84.25mPD incl. scaffold erection RC Column and RC Wall @ above First Floor RC Beam & Floor Slab @ Roof +91.5mPD incl. scaffold erection RC Column and RC Wall @ above Roof RC Column and RC Wall @ above Roof	0% 0% 0% 0% 0% 0% 0%	0 35 26 35 26 35 14 21	0 35 26 35 26 35 14	21-May-25 21-May-25 25-Jun-25 21-Jul-25 25-Aug-25 20-Sep-25 25-Oct-25	24-Jun-25 20-Jul-25 24-Aug-25 19-Sep-25 24-Oct-25 07-Nov-25	21-May-25 21-May-25 25-Jun-25 21-Jul-25 25-Aug-25 20-Sep-25 25-Oct-25	24-Jun-25 20-Jul-25 24-Aug-25 19-Sep-25 24-Oct-25 07-Nov-25	244 244 244 244 244 318 378 318	Column, Beam & Floor Slab @ Ground Floor:+; RC:Column and RC:Wall @ above Ground F RC:Beam & Floor Slab @ First Floor +84.2 RC:Column and RC:Wall @ above First f RC:Beam & Floor Slab @ Roof:+91.5i RC:Column and RC:Wall @ above R
SW-PAB-S3000 SW-PAB-S3010 SW-PAB-S3020 SW-PAB-S3030 SW-PAB-S3040 SW-PAB-S3050 SW-PAB-S3060 SW-PAB-S3080 SW-PAB-S3070	Commencement of Building Structure Column, Beam & Floor Slab @ Ground Floor +78mPD (from Pile Cap @ +75mPD) incl. scaffold erection RC Column and RC Wall @ above Ground Floor RC Beam & Floor Slab @ First Floor +84.25mPD incl. scaffold erection RC Column and RC Wall @ above First Floor RC Beam & Floor Slab @ Roof +91.5mPD incl. scaffold erection RC Column and RC Wall @ above Roof RC Stairs Roof Canopy @ +95.8mPD incl. scaffold erection	0% 0% 0% 0% 0% 0% 0%	0 35 26 35 26 35 14 21	0 35 26 35 26 35 14	21-May-25 21-May-25 25-Jun-25 21-Jul-25 25-Aug-25 20-Sep-25 25-Oct-25 25-Oct-25	24-Jun-25 20-Jul-25 24-Aug-25 19-Sep-25 24-Oct-25 07-Nov-25	21-May-25 21-May-25 25-Jun-25 21-Jul-25 25-Aug-25 20-Sep-25 25-Oct-25	24-Jun-25 20-Jul-25 24-Aug-25 19-Sep-25 24-Oct-25 07-Nov-25	244 244 244 244 244 318 378 318	Column, Beam & Floor Slab @ Ground Floor +7 RC:Column and RC Wall @ above Ground Floor +84.2! RC:Column and RC Wall @ above First Floor +84.2! RC:Column and RC Wall @ above First Floor Slab @ Roof +91.5r RC:Column and RC Wall @ above R RC:Column and RC:Wall @ above First Floor +84.2!
SW-PAB-S3010 SW-PAB-S3020 SW-PAB-S3030 SW-PAB-S3040 SW-PAB-S3050 SW-PAB-S3060 SW-PAB-S3080 SW-PAB-S3070	Commencement of Building Structure Column, Beam & Floor Slab @ Ground Floor +78mPD (from Pile Cap @ +75mPD) incl. scaffold erection RC Column and RC Wall @ above Ground Floor RC Beam & Floor Slab @ First Floor +84.25mPD incl. scaffold erection RC Column and RC Wall @ above First Floor RC Beam & Floor Slab @ Roof +91.5mPD incl. scaffold erection RC Column and RC Wall @ above Roof RC Stairs Roof Canopy @ +95.8mPD incl. scaffold erection	0% 0% 0% 0% 0% 0% 0%	0 35 26 35 26 35 14 21	0 35 26 35 26 35 14	21-May-25 21-May-25 25-Jun-25 21-Jul-25 25-Aug-25 20-Sep-25 25-Oct-25 25-Oct-25	24-Jun-25 20-Jul-25 24-Aug-25 19-Sep-25 24-Oct-25 07-Nov-25 14-Nov-25 28-Nov-25	21-May-25 21-May-25 25-Jun-25 21-Jul-25 25-Aug-25 20-Sep-25 25-Oct-25	24-Jun-25 20-Jul-25 24-Aug-25 19-Sep-25 24-Oct-25 07-Nov-25	244 244 244 244 244 318 378 318	Column, Beam & Floor Slab @ Ground Floor+ RC:Column and RC Wall @ above Ground F RC:Column and RC Wall @ above First Floor +84.2 RC:Column and RC:Wall @ above First F RC:Column and RC:Wall @ above First F RC:Column and RC:Wall @ above First F RC:Column and RC:Wall @ above R RC:Column and RC:Wall @ above First F RC:Column and RC:Wall @ above F RC:

Mary	Activity Na	ame	Activity % Complete	1st Prog. Dur	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float	2023	2024 2025	202	
2007-05-05-05-05-05-05-05-05-05-05-05-05-05-	3090 Waterpro	oofing works on roof							13-Jan-26			MAIM JIJIAISIOIN DIJIFIMAIM JIJIA	S 9 N D J F M A M J C	
### PARTICLES Column Revolt From Store of Column Revolt (From Part C														06
Section Sec	cture - Grid No. BB - EE			256	256	16-Mar-26	26-Nov-26	16-Mar-26	26-Nov-26	1			▼	26
Week-Self-20 Inc. Seam an Next Allong of Here From red. Climinary Proc. control evention 9% 30 30 16 Nay 20 16			0%	35	35	16-Mar-26	19-Apr-26	16-Mar-26	19-Apr-26	1			Colui	mn, Beam & Fl
SW PMS-5030 C. Courn and RC Valid grove Fraither Viv. 20 23 23 Jun. 20 15 Jul 20 1	4010 RC Colu	ımn and RC Wall @ above Ground Floor	0%	26	26	20-Apr-26	15-May-26	20-Apr-26	15-May-26	1			■ RC	Column and F
SOVERAL SALVED SC Cleam & Fisc stable Service of Samp Ones, confining excessors OS S S S S Aug 25 15 Aug 26 15 Aug 26 1	4020 RC Bear	m & Floor Slab @ First Floor +84.25mPD incl. scaffold erection	0%	35	35	16-May-26	19-Jun-26	16-May-26	19-Jun-26	1				RC Beam & Flo
No.PRIA-SELTON NO. Coarse and No.Warding account-room 10	4030 RC Colu	ımn and RC Wall @ above First Floor	0%	26	26	20-Jun-26	15-Jul-26	20-Jun-26	15-Jul-26	1			•	RC Column a
## FORD States	4040 RC Bear	m & Floor Slab @ Roof +91.5mPD incl. scaffold erection	0%	35	35	16-Jul-26	19-Aug-26	16-Jul-26	19-Aug-26	1				RC Beam
No. Flack	4050 RC Colu	ımn and RC Wall @ above Roof	0%	14	14	20-Aug-26	02-Sep-26	20-Aug-26	02-Sep-26	1				RC Colu
SW-PRE-S4100 Instablish or of Pulse-value Pariel 01/1 0 10 22 Out 20 08 Nov-20 22 Out 20 08 Nov-20 1	4070 RC Stairs	rs	0%	21	21	20-Aug-26	09-Sep-26	20-Aug-26	09-Sep-26	79				RC Stail
804-964-94000 Widerproofing works crimed 09% 10 0 20-New-20 26-New-20 26-New-20 1 26-New-	4060 Roof Cal	nopy @ +95.8mPD incl. scaffold erection	0%	21	21	03-Sep-26	23-Sep-26	03-Sep-26	23-Sep-26	1				Roof C
## SWF98-A5100 Complete RC Structure 0% 0 0 26 Nov-26 1 26 Nov-26 1 1 1 1 1 1 1 1 1	4080 Installation	on of Photovoltaic Panel	0%	18	18	22-Oct-26	08-Nov-26	22-Oct-26	08-Nov-26	1				■ Inst
### SWFRB-A500 TR &LYSR - Completon and Defect Recilification Wilding	4090 Waterpro	oofing works on roof	0%	18	18	09-Nov-26	26-Nov-26	09-Nov-26	26-Nov-26	1				■ w
## 152 469 469 25-Aug 25 07-Oct-26 25-Aug 25 07-Oct-26 25-Aug 25 07-Oct-26 48 ## 152 507-Oct-26 25-Aug 25 07-Oct-26 25-Aug 25 07-Oct-26 48 ## 152 507-Oct-26 25-Aug 25 07-Oct-26 25-Aug 25 07-Oct-26 48 ## 152 507-Oct-26 25-Aug 25 07-Oct-26 25-Aug 25 07-Oct-26 28-Sep-25 28-Sep-2	4100 Complete	te RC Structure	0%	0	0		26-Nov-26		26-Nov-26	1				\$ ¢
## - Transformer Room & LV Switch Room ## - Transformer Room & Male Preparation for ABWF & MEP Works ## - Transformer Room ## - Transformer Room & Male Preparation for ABWF & MEP Works ## - Transformer Room ## - Trans	FS/ Fitout Works			595	595	25-Aug-25	11-Apr-27	25-Aug-25	11-Apr-27	1		,		
SW-PAB-A5010 TR &LVSR - Falsework Removal/ Preparation for ABWF & MEP Works 0% 35 35 25-Aug-25 28-Sep-25 25-Aug-25 28-Sep-25	J - BB			409	409	25-Aug-25	07-Oct-26	25-Aug-25	07-Oct-26	78		,		07-0
SW-PAB-A5020 TR &LVSR - ABWF Deg1 - Deg3 0% 38 38 28-Sep-25 05-Nov-25 29-Sep-25 05-Nov-25 288 SW-PAB-A5030 TR &LVSR - BS 1st Fix - 3rd Fix 0% 38 38 13-Oct-25 19-Nov-25 13-Oct-25 19-Nov-25 288 SW-PAB-A5040 TR &LVSR - CLP Inspection and Defect Rectification 0% 12 12 20-Nov-25 01-Dec-25 01-Mar-26 02-Dec-25 01-Mar-26 288 SW-PAB-A5050 TR &LVSR - Installation of Transformer and T&C by CLP 0% 90 90 02-Dec-25 01-Mar-26 02-Dec-25 01-Mar-26 288 SW-PAB-A5060 TR &LVSR - Completion of CLP Cable Laying Leading to PAB 0% 30 30 08-Sep-26 07-Oct-26 08-Sep-26 07-Oct-26 48 SW-PAB-A5070 TR &LVSR - Power-on Date 152 152 25-Oct-25 25-Mar-26 244 SW-PAB-A5110 Genset Rm - Falsework Removal Preparation for ABWF & MEP Works 0% 35 35 25-Oct-25 28-Nov-25 25-Oct-25 28-Nov-25 244 SW-PAB-A5120 Genset Rm - Concrete Plinity, Waterproofing & Test SW-PAB-A5130 Floor Screeding, Wall Pistering & Doors & Wall Lining 0% 28 28 11-Dec-25 07-Jan-26 11-Dec-25 07-Jan-26 244 1st Programme Baseline ◆ 1st Programme Baseline Milestone 8 of 27	ormer Room & LV Switch	h Room		409	409	25-Aug-25	07-Oct-26	25-Aug-25	07-Oct-26	48		,		07-00
SW-PAB-A5030 TR &LVSR - BS 1st Fix - 3rd Fix	45010 TR &LVS	SR - Falsework Removal/ Preparation for ABWF & MEP Works	0%	35	35	25-Aug-25	28-Sep-25	25-Aug-25	28-Sep-25	268			TR &LVSR - Falsewo	ork Removal/ I
SW-PAB-A5040 TR &LVSR - CLP Inspection and Defect Rectification 0% 12 12 20-Nov-25 01-Dec-25 20-Nov-25 01-Dec-25 268	45020 TR &LVS	SR - ABWF Deg1 - Deg3	0%	38	38	29-Sep-25	05-Nov-25	29-Sep-25	05-Nov-25	268			TR &LVSR - ABW	/F Deg1 - Deg
SW-PAB-A5050 TR &LVSR - Installation of Transformer and T&C by CLP 0% 90 90 90 02-Dec-25 01-Mar-26 02-Dec-25 01-Mar-26 268 SW-PAB-A5060 TR &LVSR - Completion of CLP Cable Laying Leading to PAB 0% 30 30 08-Sep-26 07-Oct-26 08-Sep-26 07-Oct-26 48 SW-PAB-A5070 TR &LVSR - Power-on Date 0% 0 0 0 07-Oct-26 48 SW-PAB-A5110 Genset Rm - Falsework Removal/ Preparation for ABWF & MEP Works 0% 35 35 25-Oct-25 25-Mar-26 25-Oct-25 28-Nov-25 244 SW-PAB-A5120 Genset Rm - Concrete Plinth, Waterproding & Test 0% 12 12 29-Nov-25 10-Dec-25 29-Nov-25 10-Dec-25 244 SW-PAB-A5130 Floor Screeding, Wall Plastering & Doors & Wall Lining 0% 28 28 11-Dec-25 07-Jan-26 11-Dec-25 07-Jan-26 244 1st Programme Baseline 1st Programme Baseline Milestone 8 of 27 1Date Revision Cher	45030 TR &LVS	SR - BS 1st Fix - 3rd Fix	0%	38	38	13-Oct-25	19-Nov-25	13-Oct-25	19-Nov-25	268			TR &LVSR - B\$	1st Fix - 3rd Fi
SW-PAB-A5060 TR &LVSR - Completion of CLP Cable Laying Leading to PAB 0% 30 30 08-Sep-26 07-Oct-26 08-Sep-26 07-Oct-26 48 SW-PAB-A5070 TR &LVSR - Power-on Date 0% 0 0 07-Oct-26 48 I/F - Genset Room 152 152 25-Oct-25 25-Mar-26 25-Oct-25 25-Mar-26 244 SW-PAB-A5110 Genset Rm - Falsework Removal/ Preparation for ABWF & MEP Works 0% 35 35 25-Oct-25 28-Nov-25 25-Nov-25 244 SW-PAB-A5120 Genset Rm - Concrete Plinth, Waterproofing & Test 0% 12 12 29-Nov-25 10-Dec-25 29-Nov-25 10-Dec-25 244 SW-PAB-A5130 Floor Screeding, Wall Plastering & Doors & Wall Lining 0% 28 28 11-Dec-25 07-Jan-26 11-Dec-25 07-Jan-26 244 Ist Programme Baseline ♦ 1st Programme Baseline Milestone 8 of 27 Date Revision Chec	\5040 TR &LV\$	SR - CLP Inspection and Defect Rectification	0%	12	12	20-Nov-25	01-Dec-25	20-Nov-25	01-Dec-25	268			TR &LVSR - CL	P Inspection a
SW-PAB-A5070 TR &LVSR - Power-on Date 0% 0 0 0 07-Oct-26 48 11/F - Genset Room 152 152 25-Oct-25 25-Mar-26 25-Oct-25 25-Mar-26 244 SW-PAB-A5110 Genset Rm - Falsework Removal/ Preparation for ABWF & MEP Works 0% 35 35 25-Oct-25 28-Nov-25 25-Oct-25 28-Nov-25 244 SW-PAB-A5120 Genset Rm - Concrete Plinth, Waterproofing & Test 0% 12 12 29-Nov-25 10-Dec-25 29-Nov-25 10-Dec-25 244 SW-PAB-A5130 Floor Screeding, Wall Plastering & Doors & Wall Lining 0% 28 28 11-Dec-25 07-Jan-26 11-Dec-25 07-Jan-26 244 1st Programme Baseline ◆ 1st Programme Baseline Milestone 8 of 27	A5050 TR &LVS	SR - Installation of Transformer and T&C by CLP	0%	90	90	02-Dec-25	01-Mar-26	02-Dec-25	01-Mar-26	268			TR &LVS	SR - Installation
1/F - Genset Room 1/52 1/52 25-Oct-25 25-Mar-26 25-Oct-25 25-Mar-26 244 SW-PAB-A5110 Genset Rm - Falsework Removal/ Preparation for ABWF & MEP Works 0% 35 35 25-Oct-25 28-Nov-25 25-Oct-25 28-Nov-25 244 SW-PAB-A5120 Genset Rm - Concrete Plinth, Waterproofing & Test SW-PAB-A5130 Floor Screeding, Wall Plastering & Doors & Wall Lining 0% 28 28 11-Dec-25 07-Jan-26 11-Dec-25 07-Jan-26 244 1st Programme Baseline ♦ 1st Programme Baseline Milestone	45060 TR &LVS	SR - Completion of CLP Cable Laying Leading to PAB	0%	30	30	08-Sep-26	07-Oct-26	08-Sep-26	07-Oct-26	48	1-			□ TR&l
SW-PAB-A5110 Genset Rm - Falsework Removal/ Preparation for ABWF & MEP Works 0% 35 35 25-Oct-25 28-Nov-25 25-Oct-25 28-Nov-25 244 SW-PAB-A5120 Genset Rm - Concrete Plinth, Waterproofing & Test 0% 12 12 29-Nov-25 10-Dec-25 29-Nov-25 10-Dec-25 244 SW-PAB-A5130 Floor Screeding, Wall Plastering & Doors & Wall Lining 0% 28 28 11-Dec-25 07-Jan-26 11-Dec-25 07-Jan-26 244 Ist Programme Baseline ♦ 1st Programme Baseline Milestone 8 of 27 Date Revision Chec	45070 TR &LVS	SR - Power-on Date	0%	0	0		07-Oct-26		07-Oct-26	48				\$ TR &l
SW-PAB-A5120 Genset Rm - Concrete Plinth, Waterproofing & Test 0% 12 12 29-Nov-25 10-Dec-25 29-Nov-25 10-Dec-25 244 SW-PAB-A5130 Floor Screeding, Wall Plastering & Doors & Wall Lining 0% 28 28 11-Dec-25 07-Jan-26 11-Dec-25 07-Jan-26 244 1st Programme Baseline	Room			152	152	25-Oct-25	25-Mar-26	25-Oct-25	25-Mar-26	244			▼ 2 5-Mai	r-26, 1/F - Gen
SW-PAB-A5130 Floor Screeding, Wall Plastering & Doors & Wall Lining 0% 28 28 11-Dec-25 07-Jan-26 11-Dec-25 07-Jan-26 244 1st Programme Baseline	A5110 Genset F	Rm - Falsework Removal/ Preparation for ABWF & MEP Works	0%	35	35	25-Oct-25	28-Nov-25	25-Oct-25	28-Nov-25	244			Genset Rm - Fa	lsework Remo
= 1st Programme Baseline ♦ ♦ 1st Programme Baseline Milestone 8 of 27 Boo 33 First Programme 8	A5120 Genset F	Rm - Concrete Plinth, Waterproofing & Test	0%	12	12	29-Nov-25	10-Dec-25	29-Nov-25	10-Dec-25	244			☐ Geriset Rm - C	oncrete Plinth
12 Dec 22 First Programme	A5130 Floor Sci	reeding, Wall Plastering & Doors & Wall Lining	0%	28	28	11-Dec-25	07-Jan-26	11-Dec-25	07-Jan-26	244			☐ Floor Screed	ling, Wall Plast
12 Dec 22 First Programme					J	l		1						
	rogramme Baseline	e ♦ 1st Programme Baseline Milestone					8 of 27			-		Kevision	Checked	Approv
Actual Work • Milestone 12-Dec-22 Prist Programme 12-Dec-22 Prist Prist Programme 12-Dec-22 Prist Prist Prist Prist Prist Prist Prist Prist Prist Pr	al Work	♦ Milestone												

Monthly Programme January 2023

D	Activity Name	Activity % Complete	1st Prog. Dur.	Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float	N D JIEL	2023 AMJJJAISIOND		024 IJASONE	2025 J F M A M J J A	SONDJFMAMJ	D26 JASONDJ
SW-PAB-A5140	MEP Works	0%	28	28	08-Jan-26	04-Feb-26	08-Jan-26	04-Feb-26	244					1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	MEP Wo	rks
SW-PAB-A5150	Move-In Generator Equipments	0%	7	7	05-Feb-26	11-Feb-26	05-Feb-26	11-Feb-26	244						I Move-In	Generator Equip
SW-PAB-A5160	Final Coat to Wall & Sealer to Floor	0%	14	14	12-Feb-26	25-Feb-26	12-Feb-26	25-Feb-26	244						☐ Final Co	oat to Wall & Sea
SW-PAB-A5170	Install Generator Equipments & Testing	0%	28	28	26-Feb-26	25-Mar-26	26-Feb-26	25-Mar-26	244						□ Instal	l Generator Equi
	insell Contrator Equipments & lessing	070									; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;					-26, Other Roon
Other Rooms			187	187	25-Aug-25	27-Feb-26	25-Aug-25	27-Feb-26	300							
SW-PAB-A5210	G/F - Falsework Removal/ Preparation for ABWF & MEP Works	0%	42	42	25-Aug-25	05-Oct-25	25-Aug-25	05-Oct-25	361						G/F - Falsework R	emoval/Prepara
SW-PAB-A5220	G/F - ABWF Deg1 - Deg3	0%	70	70	06-Oct-25	14-Dec-25	06-Oct-25	14-Dec-25	361						G/F - ABWF [Deg1 - Deg3
SW-PAB-A5230	G/F - BS 1st Fix - 3rd Fix	0%	70	70	20-Oct-25	28-Dec-25	20-Oct-25	28-Dec-25	361						G/F-BS1si	Fix - 3rd Fix
SW-PAB-A5240	1/F - Falsework Removal/ Preparation for ABWF & MEP Works	0%	42	42	25-Oct-25	05-Dec-25	25-Oct-25	05-Dec-25	300						1/F - Falsewor	k Removal/ Pre
SW-PAB-A5250	1/F - ABWF Deg1 - Deg3	0%	70	70	06-Dec-25	13-Feb-26	06-Dec-25	13-Feb-26	300					 	1/F - AB\	WF Deg1 - Deg
SW-PAB-A5260	1/F - BS 1st Fix - 3rd Fix	0%	70	70	20-Dec-25	27-Feb-26	20-Dec-25	27-Feb-26	300						1/F - BS	S 1st Fix - 3rd Fix
For Grid No. BB - EE			187	187	20-Jun-26	23-Dec-26	20-Jun-26	23-Dec-26	1							
																▼ 26-C
G/F - FS Water Tank & F	'S Pump Room		129	129	20-Jun-26	26-Oct-26	20-Jun-26	26-Oct-26	29							
SW-PAB-A6010	FS Water Tank & Pump Rm - Falsework Removal/ Preparation for ABWF & MEP Works	0%	35	35	20-Jun-26	24-Jul-26	20-Jun-26	24-Jul-26	29						[FS Water Ta
SW-PAB-A6020	FS Water Tank & Pump Rm - Waterproofing & Testing	0%	14	14	25-Jul-26	07-Aug-26	25-Jul-26	07-Aug-26	29							FS Water T
SW-PAB-A6030	FS Water Tank & Pump Rm - Plastering Works Inside Tank	0%	14	14	08-Aug-26	21-Aug-26	08-Aug-26	21-Aug-26	29							☐ FS Water
SW-PAB-A6040	FS Water Tank & Pump Rm - Wall and Floor Tiling Works	0%	21	21	22-Aug-26	11-Sep-26	22-Aug-26	11-Sep-26	29							FS Wate
SW-PAB-A6050	FS Water Tank & Pump Rm - Install Equipment	0%	45	45	12-Sep-26	26-Oct-26	12-Sep-26	26-Oct-26	29							FS V
SW-PAB-A6060	FS Water Tank & Pump Rm - Install Cat Ladder & Hatch Cover	0%	10	10	17-Oct-26	26-Oct-26	17-Oct-26	26-Oct-26	29							□ FS:V
Other Rooms			187	187	20-Jun-26	23-Dec-26	20-Jun-26	23-Dec-26	1		 		1	<u> </u>	; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;	<u></u> 2
		201							1							
SW-PAB-A6110	G/F - Falsework Removal/ Preparation for ABWF & MEP Works	0%	42	42	20-Jun-26	31-Jul-26	20-Jun-26	31-Jul-26	62						: : : : : : : : : : : :	G/F - False
SW-PAB-A6120	G/F - ABWF Deg1 - Deg3	0%	70	70	01-Aug-26	09-Oct-26	01-Aug-26	09-Oct-26	62							G/F - A
SW-PAB-A6130	G/F - BS 1st Fix - 3rd Fix	0%	70	70	15-Aug-26	23-Oct-26	15-Aug-26	23-Oct-26	62							G/F -
SW-PAB-A6140	1/F - Falsework Removal/ Preparation for ABWF & MEP Works	0%	42	42	20-Aug-26	30-Sep-26	20-Aug-26	30-Sep-26	1							1/F - Fa
SW-PAB-A6150	1/F - ABWF Deg1 - Deg3	0%	70	70	01-Oct-26	09-Dec-26	01-Oct-26	09-Dec-26	1							1.
SW-PAB-A6160	1/F - BS 1st Fix - 3rd Fix	0%	70	70	15-Oct-26	23-Dec-26	15-Oct-26	23-Dec-26	1							
External Works			197	197	08- <u>Sep-26</u>	23-Mar-27	08-Sep-26	23-Mar-27	20							
1st Programme	e Baseline ♦ ♦ 1st Programme Baseline Milestone				(9 of 27				Date		R	evision		Checked	Approv
Actual Work	♦ Milestone				`	<u>.</u> .			12-De	22	First Programm					T

SW-PAB-E1020 Site preparation and erect extension of Sw-PAB-E1030 Extenal wall plastering/ painting Sw-PAB-E1040 Extenal wall tiles SW-PAB-E1040 Extenal wall tiles SW-PAB-E1050 Install Metal Doors, Roller Shut Sw-PAB-E1060 Install Steel Claddings, Ventilated Sw-PAB-E1070 Construction of vehicular road Sw-PAB-E1080 Install Bi-folding gate, security of Sw-PAB-E1080 Complete External Works Testing and Commissioning SW-PAB-T1000 1A- West Fire Star Testing and Sw-PAB-T2000 1A- West Fire Star Testing and Sw-PAB-T2000 1A- West Fire Star Testing and Architectural Roof A1000 Construction of Gabion Wall A1030 Tree Transplant near Gabion of Landscape Fence A1050 Architectural Roof hardwork A1060 Architectural Roof softwork and Statutory Approval & Inspection WSD Inspection Sw-PAB-8000 Submit WWO 46 Part IV (PD) Sw-PAB-7000 Submit WWO 46 Part IV (FS) and Sw-PAB-7000 Submit WWO 4		Activity % Complete	Dur.	Duration	3	1st Prog. Finish	Start	Finish	Total Float	2023 2024 2025 NDJFMAMJJASONDJFMAMJJJASONDJFMAMJJAS	NDJEMAMJI	ASONDJI
W-PAB-E1020 Site preparation and erect extension with the preparation and erect extension and erect extension with the preparation and erect extension and erect extension with the preparation and the preparation and erect extension and erect extension with the preparation and erect extension are extension and erect extension and erect extension and erect extension are extension and erect extension and erect extension are extension and erect extension are extension and erect extension are extension are extension and erect extension are extension and erect extension are extension and extension are extension are extension are extension a	tilities Works, Drainage Works & Testing	0%	100	100	08-Sep-26	16-Dec-26	08-Sep-26	16-Dec-26	1			Un
Extenal wall plastering/ painting LPAB-E1040 Extenral wall tiles LPAB-E1050 Install Metal Doors, Roller Shut LPAB-E1060 Install Steel Claddings, Ventilat LPAB-E1070 Construction of vehicular road LPAB-E1080 Install Bi-folding gate, security f LPAB-E1080 Complete External Works Ingliand Commissioning LPAB-E1000 1A - West Fire Sta - Testing an LPAB-T2000 1A - West Fire Sta - Testing an Installation of Gabion Wall LPAB-T2000 Construction of Gabion Wall LPAB-T2000 Tree Transplant near Gabion f LPAB-T2000 Installation of Landscape Fence LPAB-T2000 Architectural Roof hardwork LPAB-T2000 Architectural Roof softwork and LPAB-T2000 Submit WWO 46 Part IV (PD) LINSPECTION LPAB-R000 Submit WWO 46 Part IV (FS) a LPAB-R000 Inspection and Re-inspection in	ound Level	0%	30	30	23-Oct-26	21-Nov-26	23-Oct-26	21-Nov-26	20			■ Bacl
W-PAB-E1040 Extenral wall tiles W-PAB-E1050 Install Metal Doors, Roller Shut W-PAB-E1060 Install Steel Claddings, Ventilat W-PAB-E1070 Construction of vehicular road W-PAB-E1080 Install Bi-folding gate, security for the sec	and erect external falsework around building	0%	14	14	22-Nov-26	05-Dec-26	22-Nov-26	05-Dec-26	20			☐ Site
Install Metal Doors, Roller Shut Install Steel Claddings, Ventilat Install Steel Claddings, Ventilat Install Steel Claddings, Ventilat Install Bi-folding gate, security for Complete External Works Ingliand Commissioning Install Bi-folding gate, security for Complete External Works Ingliand Commissioning Install Bi-folding gate, security for Complete External Works Ingliand Commissioning Install Bi-folding gate, security for Install Works Ingliand Commissioning Install Bi-folding gate, security for Install Works Ingliand Complete External Works Ingliand Complete External Works Install Bi-folding gate, security for Install Install Bi-fold	stering/ painting works	0%	24	24	06-Dec-26	29-Dec-26	06-Dec-26	29-Dec-26	80			
M-PAB-E1060 Install Steel Claddings, Ventilat M-PAB-E1070 Construction of vehicular road M-PAB-E1080 Install Bi-folding gate, security f M-PAB-E1100 Complete External Works Install Bi-folding gate, security f M-PAB-E1100 Complete External Works Install Bi-folding gate, security f M-PAB-E1100 Table External Works Install Bi-folding gate, security f M-PAB-E1100 Table External Works Install Fire Sta - Testing and Install Fire Sta	s	0%	24	24	06-Dec-26	29-Dec-26	06-Dec-26	29-Dec-26	20			E
W-PAB-E1070 Construction of vehicular road W-PAB-E1080 Install Bi-folding gate, security f W-PAB-E1100 Complete External Works sting and Commissioning W-PAB-T1000 1A- West Fire Sta - Testing an W-PAB-T2000 1A- West Fire Sta - Testing an Indecaping and Architectural Roof 1000 Construction of Gabion Wall 1030 Tree Transplant near Gabion in 1040 Installation of Landscape Fence 1050 Architectural Roof hardwork 1060 Architectural Roof softwork and 1040 Architectural Roof softwork and 1050 SW-PAB-8000 Submit WWO 46 Part IV (PD) 105W-PAB-7000 Submit WWO 46 Part IV (FS) a 105W-PAB-8010 Inspection and Re-inspection is 105W-PAB-7010 Inspection and Re-inspection is	ors, Roller Shutter, Cat-Ladder and Metal Railings	0%	24	24	30-Dec-26	22-Jan-27	30-Dec-26	22-Jan-27	80			
M-PAB-E1000 Install Bi-folding gate, security for the N-PAB-E1100 Complete External Works Sting and Commissioning M-PAB-T1000 1A - West Fire Sta - Testing and M-PAB-T2000 1A - West Fire Sta - Testing and M-PAB-T2000 1A - West Fire Sta - Testing and M-PAB-T2000 1A - West Fire Sta - Testing and M-PAB-T2000 1A - West Fire Sta - Testing and M-PAB-T2000 1A - West Fire Sta - Testing and M-PAB-T2000 Installation of Gabion Wall 1000 Installation of Landscape Fence 1000 Installation of Landscape Fence 1000 Architectural Roof hardwork 1000 Architectural Roof softwork and 1000 Architectural Roof softwork and 1000 SW-PAB-8000 Submit WWO 46 Part IV (PD) SW-PAB-8000 Submit WWO 46 Part IV (FS) and 1000 Inspection and Re-inspection in 1000 Inspection and Inspection and Inspection in 1000 Inspection Inspec	ddings, Ventilation Louvres, External Ceiling	0%	24	24	30-Dec-26	22-Jan-27	30-Dec-26	22-Jan-27	20			
W-PAB-E1100 Complete External Works Iting and Commissioning W-PAB-T1000 1A - West Fire Sta - Testing and Marchitectural Roof Construction of Gabion Wall Construction of Gabion Wall Tree Transplant near Gabion Wall Installation of Landscape Fence Architectural Roof hardwork Architectural Roof softwork and tutory Approval & Inspection SD Inspection SW-PAB-8000 Submit WWO 46 Part IV (PD) SW-PAB-7000 Inspection and Re-inspection is SW-PAB-8010 Inspection and Re-inspection is SW-PAB-7010	vehicular road	0%	45	45	23-Jan-27	08-Mar-27	23-Jan-27	08-Mar-27	35			
W-PAB-T1000 1A - West Fire Sta - Testing and W-PAB-T2000 1A - West Fire Sta - Testing and M-PAB-T2000 1A - West Fire Sta - Testing and M-PAB-T2000 1A - West Fire Sta - Testing and M-PAB-T2000 1A - West Fire Sta - Testing and M-PAB-T2000 1A - West Fire Sta - Testing and M-PAB-T2000 1A - West Fire Sta - Testing and M-PAB-T2000 1A - West Fire Sta - Testing and M-PAB-T2000 1A - West Fire Sta - Testing and M-PAB-T2000 1A - West Fire Sta - Testing and M-PAB-T2000 Installation of Gabion Wall Installation of Landscape Fence Architectural Roof hardwork Architectural Roof hardwork Architectural Roof softwork and M-PAB-T2000 SW-PAB-T2000 Submit WWO 46 Part IV (PD) SW-PAB-T2000 Inspection and Re-inspection to SW-PAB-T2010 Inspection and Re-inspection to SW-PAB-T2010 Inspection and Re-inspection to SW-PAB-T2010	gate, security fenece, footpath, boundary wall	0%	60	60	23-Jan-27	23-Mar-27	23-Jan-27	23-Mar-27	20			
Architectural Roof softwork and SW-PAB-8000 Submit WWO 46 Part IV (FS) a SW-PAB-8010 Inspection and Re-inspection is SW-PAB-7010 Inspection and Re-inspection in SW-PAB-7010 Inspection and Re-inspection is SW-PAB-7010 Inspection Inspection Inspection Inspection Inspection Inspection	nal Works	0%	0	0		23-Mar-27		23-Mar-27	20			
W-PAB-T2000 1A - West Fire Sta - Testing and Indicaping and Architectural Roof Construction of Gabion Wall Tree Transplant near Gabion Wall Installation of Landscape Fence Architectural Roof hardwork Architectural Roof softwork and Stutory Approval & Inspection SW-PAB-8000 Submit WWO 46 Part IV (PD) SW-PAB-7000 Submit WWO 46 Part IV (FS) a SW-PAB-8010 Inspection and Re-inspection is SW-PAB-7010 Inspection and Re-inspection is SW-PAB-7010			97	97	24-Nov-26	28-Feb-27	24-Nov-26	28-Feb-27	1			
ndscaping and Architectural Roof Construction of Gabion Wall Tree Transplant near Gabion V Installation of Landscape Fence Architectural Roof hardwork Architectural Roof softwork and Architectural Roof softwork and Architectural Roof softwork and SW-PAB-8000 Submit WWO 46 Part IV (PD) SW-PAB-7000 Submit WWO 46 Part IV (FS) a SW-PAB-8010 Inspection and Re-inspection b SW-PAB-7010 Inspection and Re-inspection b	ta - Testing and Commissioning (FS - Related)	0%	18	18	24-Nov-26	11-Dec-26	24-Nov-26	11-Dec-26	1			■ 14
Construction of Gabion Wall Tree Transplant near Gabion V Installation of Landscape Fence Construction of Landscape Fence Installation of Landscape Fence Construction of Gabion Wall Construction of Cabion Value Construction of Landscape Fence Con	ta - Testing and Commissioning (Non FS - Related)	0%	67	67	24-Dec-26	28-Feb-27	24-Dec-26	28-Feb-27	1			
Tree Transplant near Gabion Value of Landscape Fence Installation of Landscape			219	219	20-Aug-26	26-Mar-27	20-Aug-26	26-Mar-27	17			
Installation of Landscape Fence Installation of Landscape Fenc	Gabion Wall	0%	60	60	20-Aug-26	18-Oct-26	20-Aug-26	18-Oct-26	132			Constr
Architectural Roof hardwork Architectural Roof softwork and Architectural Roof hardwork Architectural Roof softwork and Archit	near Gabion Wall	0%	60	60	19-Sep-26	17-Nov-26	19-Sep-26	17-Nov-26	132			Tree
Architectural Roof softwork and tutory Approval & Inspection SD Inspection SW-PAB-8000 Submit WWO 46 Part IV (PD) SW-PAB-7000 Submit WWO 46 Part IV (FS) at Inspection and Re-inspection by	ndscape Fence	0%	14	14	18-Nov-26	01-Dec-26	18-Nov-26	01-Dec-26	132			■ Ins
Authory Approval & Inspection SW-PAB-8000 Submit WWO 46 Part IV (PD) SW-PAB-7000 Submit WWO 46 Part IV (FS) a SW-PAB-8010 Inspection and Re-inspection b SW-PAB-7010 Inspection and Re-inspection b	of hardwork	0%	120	120	27-Nov-26	26-Mar-27	27-Nov-26	26-Mar-27	17			
SW-PAB-8000 Submit WWO 46 Part IV (PD) SW-PAB-7000 Submit WWO 46 Part IV (FS) a SW-PAB-8010 Inspection and Re-inspection to SW-PAB-7010 Inspection and Re-inspection to	of softwork and Tree transplant	0%	60	60	27-Dec-26	24-Feb-27	27-Dec-26	24-Feb-27	47			
SW-PAB-8000 Submit WWO 46 Part IV (PD) SW-PAB-7000 Submit WWO 46 Part IV (FS) a SW-PAB-8010 Inspection and Re-inspection b SW-PAB-7010 Inspection and Re-inspection b			156	156	07-Nov-26	11-Apr-27	07-Nov-26	11-Apr-27	1			
SW-PAB-7000 Submit WWO 46 Part IV (FS) a SW-PAB-8010 Inspection and Re-inspection b SW-PAB-7010 Inspection and Re-inspection b			114	114	07-Nov-26	28-Feb-27	07-Nov-26	28-Feb-27	1			-
SW-PAB-8010 Inspection and Re-inspection Its SW-PAB-7010 Inspection and Re-inspection Its SW-PAB-7010 Inspection Inspection Its SW-PAB-7010 Inspection	6 Part IV (PD) and Wait for Inspection by WSD	0%	35	35	07-Nov-26	11-Dec-26	07-Nov-26	11-Dec-26	10			≡ Su
SW-PAB-7010 Inspection and Re-inspection I	6 Part IV (FS) and Wait for Inspection by WSD	0%	35	35	07-Nov-26	11-Dec-26	07-Nov-26	11-Dec-26	1			■ Su
	Re-inspection by WSD (PD) (including water test)	0%	49	49	12-Dec-26	29-Jan-27	12-Dec-26	29-Jan-27	10			
SW-PAB-8020 Issuance Period of WWO 46 F	Re-inspection by WSD (FS)	0%	58	58	12-Dec-26	07-Feb-27	12-Dec-26	07-Feb-27	1			
	of WWO 46 Part V (PD)	0%	21	21	30-Jan-27	19-Feb-27	30-Jan-27	19-Feb-27	10			
SW-PAB-7020 Issuance Period of WWO 46 F	of WWO 46 Part V (FS)	0%	21	21	08-Feb-27	28-Feb-27	08-Feb-27	28-Feb-27	1			
											<u> </u>	<u>: </u>
1st Programme Baseline ♦ ♦ 1st Programme	♦ 1st Programme Baseline Milestone				1	0 of 27			-	Pate Revision	Checked	Approve
■ Actual Work ◆ Milest	◆ Milestone								12-Dec	<u> </u>		

21/WSD/21 - Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Cavern Monthly Programme January 2023

ID	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Flog. Start	1st Prog. Finish	Start	Finish	Total Float	NID II-	2023 2024 2025 2026	D 115
SW-PAB-8030	Obtain WWO 46 Part V (PD) by WSD	0%	0	0		19-Feb-27		19-Feb-27	10	14 10 11 1	FMAMJJASONDJEMAMJJASONDJEMAMJJASONDJEMAMJJASONI	DIJIF
SW-PAB-7030	Obtain WWO 46 Part V (FS) by WSD	0%	0	0		28-Feb-27		28-Feb-27	1			
	Committee To Fact (10) by 1100	0 /0		J					I			
FSD and OP Inspection			121	121	12-Dec-26	11-Apr-27	12-Dec-26	11-Apr-27	1			
SW-PAB-9000	Submit Form 314 / FSI501 and Wait for Inspection by FSD	0%	21	21	12-Dec-26	01-Jan-27	12-Dec-26	01-Jan-27	59			
SW-PAB-9010	FS Inspection and Re-inspection	0%	28	28	01-Mar-27	28-Mar-27	01-Mar-27	28-Mar-27	1			
SW-PAB-9020	Issue Fire Certificate (FS172)	0%	14	14	29-Mar-27	11-Apr-27	29-Mar-27	11-Apr-27	1			
SW-PAB-9030	Obtain Fire Certificate (FS172) by FSD	0%	0	0		11-Apr-27		11-Apr-27	1			
hicular Access Tunnel			1145	1145	09-Mar-23	15-Jan-27	09-Mar-23	15-Jan-27	67		V	+
unnel Works CH 3 - 40) by Cut and Cover Method		476	476	09-Mar-23	15-Oct-24	09-Mar-23	15-Oct-24	655		▼ 15-Oct-24, Tunnel Works CH 3 - 40 by Cut and Cover Met	tho
Preliminary Works			77	77	09-Mar-23	24-May-23	09-Mar-23	24-May-23	0		▼ 24-May-23, Preliminary Works	
SW-VAT-1000	Access to Portion 1	0%	0	0	09-Mar-23		09-Mar-23		15		🕏 'Access to Portion 1	
SW-VAT-1010	Tree Survey at Portion 1	0%	30	30	09-Mar-23	07-Apr-23	09-Mar-23	07-Apr-23	15		☐ Tree Survey at Portion:1	
SW-VAT-1020	Hoarding Erection and Site Setup	0%	10	10	13-Apr-23	22-Apr-23	13-Apr-23	22-Apr-23	0		■ Hoarding Erection and Site Setup	
SW-VAT-1030	Tree Treatment and Site Clearance	0%	28	28	23-Apr-23	20-May-23	23-Apr-23	20-May-23	0		Tree Treatment and Site Clearance	
SW-VAT-1040	Survey, Trial pit, UU detection, Condition survey	0%	14	14	11-May-23	24-May-23	11-May-23	24-May-23	0		Survey, Trial pit, UU detection, Condition survey	
Stage 1 & 2 - ELS works,	CH3 -27, at Zone0 (up to existing kerb line of Lion Rock Road)		141	141	25-May-23	11-Nov-23	25-May-23	11-Nov-23	49		▼ 11-Nov-23, Stage 1 & 2 - ELS works; CH3 -27, at Zone0 (up to existing kerb line of L	ion
SW-VAT-1100	Installation of Pipe Pile (Total: 34no) (PR=2.5d/pile/rig) (2 rigs)	0%	43	43	25-May-23	17-Jul-23	25-May-23	17-Jul-23	0		Installation of Pipe Pile (Total: 34no) (PR=2.5d/pile/rig) (2 rigs)	
SW-VAT-1110	Installation of King Post (Total: 4no) (PR=2.5d/pile/rig) (2 rigs)	0%	5	5	18-Jul-23	22-Jul-23	18-Jul-23	22-Jul-23	0		II Installation of King Post (Total: 4no) (PR=2.5d/pile/rig) (2 rigs)	
SW-VAT-1130	Soil Excavation for Temporary Steel Platform (Total:878m3) (PR=180m3/d)	0%	5	5	24-Jul-23	28-Jul-23	24-Jul-23	28-Jul-23	0		Soil Excavation for Temporary Steel Platform (Total:\$78m3) (₱R=180m3/d)	
SW-VAT-1140	Erection of Temporary Steel Platform for Traffic Diversion	0%	18	18	29-Jul-23	18-Aug-23	29-Jul-23	18-Aug-23	0		■ Erection of Temporary Steel Platform for Traffic Diversion	
SW-VAT-1150	Erection of Temporary Steel Platform for Bored Pile Construction support with King Post	0%	18	18	19-Aug-23	08-Sep-23	19-Aug-23	08-Sep-23	49		☐ Erection of Temporary Steel Platform for Bored Pile:Construction support with King Post	
SW-VAT-1160	Soil Excavation for C&C Tunnel (Total: 6460m3) (PR=180m3/d)	0%	52	52	09-Sep-23	11-Nov-23	09-Sep-23	11-Nov-23	49		Soil Excavation for C&C Tunnel (Total: 6460m3) (PR≑180m3/d)	
Stage 3 - ELS works, CH	27 -40, at ZoneA		67	67	19-Aug-23	08-Nov-23	19-Aug-23	08-Nov-23	0		▼ 08-Nov-23, Stage 3 - EL\$ works, CH27 -40, at ZoneA	
SW-VAT-1200	Divert the Traffic onto the Temporary Steel Platform to maintain access to Lion Rock Park and DSD - TTA1	0%	3	3	19-Aug-23	22-Aug-23	19-Aug-23	22-Aug-23	0		□ Divert the Traffic onto the Temporary Steel Platform to maintain access to Lion Rock Park a	nd
SW-VAT-1210	Construction of Concrete Block Wall and Form Working Platform at +89mPD (3d+3d)	0%	6	6	23-Aug-23	29-Aug-23	23-Aug-23	29-Aug-23	6		Construction of Concrete Block Wall and Form Working Platform at +89mPD (3d+3d)	
SW-VAT-1220	Trial Trench, UU detection and diversion	0%	12	12	23-Aug-23	05-Sep-23	23-Aug-23	05-Sep-23	0		■ Trial Trench, UU detection and diversion	
SW-VAT-1230	Installation of Pipe Pile (Total: 15no) (PR=2.5d/pile/rig) (1 rigs)	0%	38	38	06-Sep-23	21-Oct-23	06-Sep-23	21-Oct-23	0		Installation of Pipe Pile (Total: 15no) (PR≑2:5d/pile/rig) (1 rigs)	
1st Programme	e Baseline ♦ ♦ 1st Programme Baseline Milestone				1	1 of 27				Date	Revision Checked Appr	ov
Actual Work	♦ Milestone								12-De	c-22	First Programme	

rity ID	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float	2023 2024 2025 2026 20 NDJJFMAMJJASONDJFMAMJJASONDJFMAMJJJASONDJFJ
SW-VAT-1240	Construction of Temporary Steel Platform at Zone A for Traffic Diversion	0%	14	14	24-Oct-23	08-Nov-23	24-Oct-23	08-Nov-23	0	Construction of Temporary Steet Platform at Zone A for Traffic Diversion
Stage 4 & 5 - ELS works	s, CH27 -40, at ZoneB		110	110	09-Nov-23	21-Mar-24	09-Nov-23	21-Mar-24	0	▼ 21-Mar-24, Stage 4 & 5 - EL\$ works, CH27 -40, at ZoneB
SW-VAT-1300	Divert the Traffic onto the Temporary Steel Platform to maintain access to Lion Rock Park and	0%	3	3	09-Nov-23	11-Nov-23	09-Nov-23	11-Nov-23	0	I Divert the Traffic onto the Temporary Steel Platform to maintain a cœss to Lion Rock Park a
	DSD - TTA2									
SW-VAT-1300a	Trial Trench, UU detection and diversion	0%	6	6	13-Nov-23	18-Nov-23	13-Nov-23	18-Nov-23	0	I TrialTrench, UU detection and diversion
SW-VAT-1310	Installation of Pipe Pile (Total: 12no) (PR=2.5d/pile/rig) (1 rigs)	0%	30	30	20-Nov-23	23-Dec-23	20-Nov-23	23-Dec-23	0	Installation of Pipe Pile (Total:12no);(PR≑2:5d/pile/rig) (1 rigs)
SW-VAT-1320	Construction of Temporary Steel Platform at Zone B for Traffic Diversion	0%	10	10	27-Dec-23	08-Jan-24	27-Dec-23	08-Jan-24	0	Construction of Temporary Steel Platform at Zone B for Traffic Diversion
SW-VAT-1330	Divert the Traffic onto the Temporary Steel Platform to maintain access to Lion Rock Park and DSD - TTA3	0%	3	3	09-Jan-24	11-Jan-24	09-Jan-24	11-Jan-24	0	I Divert the Traffic onto the Temporary Steel Platform to maintain a coess to Lion Rock Pa
SW-VAT-1340	Remaining Soil Excavation for C&C Tunnel (Total: 5870m3) (PR=200m3/d) + 28d ELS with 4 strut & tie-back	0%	58	58	12-Jan-24	21-Mar-24	12-Jan-24	21-Mar-24	0	Remaining Soil Excavation for C&C Tunnel (Total: 5870m3) (PR=200m3/d) + 280
Structure Works			167	167	22-Mar-24	15-Oct-24	22-Mar-24	15-Oct-24	655	15-Qd-24; Structure Works
SW-VAT-1500	Construction of blinding, waterproofing layer and base slab (Total: 792m3, 8bays(10x16.5),	0%	24	24	22-Mar-24	23-Apr-24	22-Mar-24	23-Apr-24	639	Construction of blinding, waterproofing layer and base slab (Total: 792m3, 8ba
SW-VAT-1510	PR=12d/bay) Construction of temporary wall, waterproofing layer and wall (Total: 960m3, 8bays (10x10), PR=	0%	48	48	24-Apr-24	21-Jun-24	24-Apr-24	21-Jun-24	639	Construction of temporary wall, waterproofing layer and wall (Total: 960m)
	12d/bay)	-					•			
SW-VAT-1520	Erection of working platform	0%	21	21	22-Jun-24	17-Jul-24	22-Jun-24	17-Jul-24	639	□ Erection of working platform
SW-VAT-1530	Construction of top slab (Total: 792m3, 4bays(10x16.5), PR = 12d/bay, 2workfront)	0%	24	24	18-Jul-24	14-Aug-24	18-Jul-24	14-Aug-24	639	Construction of top slab (Total: 792m3, 4bays(10x16:5), PR = 12d/ba
SW-VAT-1540	Backfilling to existing level	0%	30	30	15-Aug-24	13-Sep-24	15-Aug-24	13-Sep-24	786	□ Backfiling to existing level
SW-VAT-1550	Removal of temporary steel platform (staged TTA)	0%	18	18	14-Sep-24	01-Oct-24	14-Sep-24	01-Oct-24	805	Removal of temporary steel platform (staged TTA)
SW-VAT-1560	Reinstatement of road (staged TTA)	0%	32	32	14-Sep-24	15-Oct-24	14-Sep-24	15-Oct-24	805	Reinstatement of road (staged TTA):
Tunnel Works CH 40 -	775.8 & Caverns (5no.) by Mechanical Break & Drill & Blast Method		745	745	01-Mar-24	15-Mar-26	01-Mar-24	15-Mar-26	1	▼ 15-Mar-26; Tunnel Work
SW-VAT-2000	Opening of Pipe Plle Wall, Portal construction and site setup	0%	50	50	01-Mar-24	19-Apr-24	01-Mar-24	19-Apr-24	0	Opening of Pipe PIle Wall, Portal construction and site setup
SW-VAT-2010	Tunnelling works for vehicular access tunnel, T1-I by mech. break (236m) (7day work)	0%	241	241	15-Mar-24	10-Nov-24	15-Mar-24	10-Nov-24	0	Tunhelling works for vehicular access tunnel, T1+I by mech. bro
SW-VAT-2020	Tunnelling works for vehicular access tunnel, T2-III by Drill & Blast (61.15m) (5Blast/wk)	0%	116	116	13-Aug-24	06-Dec-24	13-Aug-24	06-Dec-24	0	Tunn elling works for vehicular access tunnel, T.2-III by Drill &
							-			
SW-VAT-2030	Tunnelling works for vehicular access tunnel, T1-II by mech. break (78.8m) (7day work)	0%	116	116	03-Sep-24	27-Dec-24	03-Sep-24	27-Dec-24	0	Tuhnielling works for vehicular access tuhniel;T1-II by mech
SW-VAT-2040	Tunnelling works for vehicular access tunnel, T2-III by Drill & Blast (155.45m) (5Blast/wk)	0%	240	240	29-Oct-24	25-Jun-25	29-Oct-24	25-Jun-25	0	Tunnelling works for vehicular access tunnel,
SW-VAT-2050	Tunnelling works for vehicular access tunnel, J1-III by Drill & Blast (204.4m) (5Blast/wk)	0%	304	304	09-Jan-25	08-Nov-25	09-Jan-25	08-Nov-25	0	Tunn elling works for vehicular acce
SW-VAT-2110	Tunnelling works for Caverns 1 by Drill & Blast (93.1m) (5Blast/wk)	0%	172	172	30-Apr-25	18-Oct-25	30-Apr-25	18-Oct-25	0	Turin elling; works for Caverns 1 by D
SW-VAT-2130	Tunnelling works for Caverns 3 by Drill & Blast (87.4m) (5Blast/wk)	0%	150	150	03-Jul-25	29-Nov-25	03-Jul-25	29-Nov-25	1	Tunnelling works for Caverns 3 b
SW-VAT-2150	Tunnelling works for Caverns 5 by Drill & Blast (83.0m) (5Blast/wk)	0%	129	129	06-Sep-25	12-Jan-26	06-Sep-25	12-Jan-26	1	Tunnelling works for Caverns
SW-VAT-2120	Tunnelling works for Caverns 2 by Drill & Blast (80.7m) (5Blast/wk)	0%	118	118	24-Sep-25	19-Jan-26	24-Sep-25	19-Jan-26	2	Tunn elling; works:for Caverns
1st Programm	ne Baseline 💠 💠 1st Programme Baseline Milestone				1	2 of 27				Date Revision Checked Approved
Actual Work	♦ Milestone								12-De	
Remaining Wo	ork Summary								12-Jar	n-23 Monthly Programme January 2023

D	Activity Name	Activity % Complete	1st Prog.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float	2023 2024		2026	
SW-VAT-2140	Tunnelling works for Caverns 4 by Drill & Blast (78.3m) (5Blast/wk) [140]	0%	120	120	16-Nov-25	15-Mar-26	16-Nov-25	15-Mar-26	1	NDJFMAMJJASONDJFMAMJJ	A S O N D J F M A M J J A S		ASONDJ ng works for C
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Remaining Works			868	868	31-Aug-24	15-Jan-27	31-Aug-24	15-Jan-27	87				· · · · · · · · · · · · · · · · · · ·
SW-VAT-3000	Construction of shotcrete (min 10m away from exc. face, SS+12, FF+60) 736m, PR=12m/wk (434d)	0%	495	495	31-Aug-24	07-Jan-26	31-Aug-24	07-Jan-26	65			Construction	of shotcrete (n
SW-VAT-3010a	[CH40-571] Construction of drainage layer, base slab, lower part (200m from exca, SS+176;FF+30) 532m, PR=12m/wk (315d)	0%	361	361	11-Feb-25	06-Feb-26	11-Feb-25	06-Feb-26	65			[CH40+571	Construction
SW-VAT-3020a	[CH40-571] Construction of RC Lining (min 24m from base slab + 2wk erection, SS+30) 532m, PR=12m/9d (405d)	0%	405	405	13-Mar-25	21-Apr-26	13-Mar-25	21-Apr-26	65			[CH40	0-571] Constr
SW-VAT-3030a	[CH40-776] Construction of compartment RHS (min 24m from Lining, SS+18), 736m, PR=12m/9d [558d]	0%	558	558	31-Mar-25	09-Oct-26	31-Mar-25	09-Oct-26	65				[CH40
SW-VAT-3010b	[CH571-776] Construction of drainage layer, base slab, lower part (after all excavation) 204m, PR=12m/wk (119d)	0%	119	119	16-Mar-26	12-Jul-26	16-Mar-26	12-Jul-26	57				[CH571-776]
SW-VAT-3020b	[CH571-776] Construction of RC Lining (min 24m from base slab + 2wk erection, SS+30) 204m, PR=12m/9d (153d)	0%	153	153	15-Apr-26	14-Sep-26	15-Apr-26	14-Sep-26	68				[CH571
SW-VAT-3030b	[CH40-776] Construction of compartment LHS (min 24m from Lining, SS+18), 736m, PR=24m/wk [217d]	0%	217	217	14-May-26	16-Dec-26	14-May-26	16-Dec-26	57				[0
SW-VAT-3040	Installation of pipeworks below proposed road level (Total: 4416m) PR=36m/d incl. 1M for Pressure Test (150d)	0%	229	229	01-Jun-26	15-Jan-27	01-Jun-26	15-Jan-27	57				
SW-VAT-3070	Construction of OHVD, 736m, PR=12d/50m	0%	180	180	01-Jul-26	27-Dec-26	01-Jul-26	27-Dec-26	106				
SW-VAT-3060	Installation of CLP power cable along VAT	0%	60	60	17-Nov-26	15-Jan-27	17-Nov-26	15-Jan-27	57				
averns 1 - Salt Water	r Service Reservoir No.1		478	478	28-Aug-25	11-Apr-27	28-Aug-25	11-Apr-27	1		+		
SW-C1-1010	Caverns 1 - Construction of Shotcrete	0%	67	67	28-Aug-25	17-Nov-25	28-Aug-25	17-Nov-25	0		-	Caverns 1 - Cons	struction of Sh
SW-C1-1000	Caverns 1 - Completion of Tunnel Works	0%	0	0		18-Oct-25		18-Oct-25	0			🕏 Caverns 1 - Comple	etion of Tunne
SW-C1-1020	Caverns 1 - Construction of Cavern Lining (Total: 28.5m long, PR=12m/9d + 2wk for erection)	0%	39	39	18-Nov-25	05-Jan-26	18-Nov-25	05-Jan-26	0			Caverns 1 - C	Construction of
W-C1-1030	Caverns 1 - Waterproofing system and protection layer to Wall and Slab	0%	60	60	06-Jan-26	06-Mar-26	06-Jan-26	06-Mar-26	0			Caverns	1 - Waterproo
SW-C1-1040	Caverns 1 - Construction of Slab 1.6m thk for water tank area (Total: 1939m3, 12bays(11x9), PR= 15d/bay, 3workfronts)	0%	60	60	05-Feb-26	22-Apr-26	05-Feb-26	22-Apr-26	0			Cave	erns 1 - Constr
SW-C1-1060	Caverns 1 - Construction of Slab 1.0m thk for pump/plant room area (Total:1200m3, 11bays(12x9), PR=12d/bay, 3 workfront)	0%	48	48	23-Apr-26	20-Jun-26	23-Apr-26	20-Jun-26	0			(Caverns 1 - Co
SW-C1-1050	Caverns 1 - Construction of wall, beam & slab up to 91.35mPD for water tank area	0%	90	90	23-Apr-26	21-Jul-26	23-Apr-26	21-Jul-26	85				Caverns 1 -
SW-C1-1070	Caverns 1 - Construction of soil filling, pipeworks and at-grade slab for pump/ plant room area	0%	55	55	21-Jun-26	14-Aug-26	21-Jun-26	14-Aug-26	1			-	Caverns 1
SW-C1-1080	Caverns 1 - Construction of wall, beam & slab up to cavern soffit for pump/ plant room area	0%	60	60	15-Aug-26	13-Oct-26	15-Aug-26	13-Oct-26	1				Caver
SW-C1-1090	Caverns 1 - Construction of remaining works incl. staircase, partition wall and other civil works for E&M plant	0%	90	90	14-Oct-26	11-Jan-27	14-Oct-26	11-Jan-27	1				
SW-C1-1100	Caverns 1 - BS, E&M works and ABWF	0%	150	150	14-Oct-26	12-Mar-27	14-Oct-26	12-Mar-27	1				
SW-C1-1110	Caverns 1 - Completion of BS and ABWF works for Transformer Room and Switcboard Room	0%	0	0		12-Dec-26		12-Dec-26	1				\$ c
SW-C1-1120	Caverns 1 - CLP installation works in Transformer Room and Switchoard Room	0%	60	60	13-Dec-26	10-Feb-27	13-Dec-26	10-Feb-27	1				
SW-C1-1130	Caverns 1 - Testing and Commissioning	0%	90	90	12-Jan-27	11-Apr-27	12-Jan-27	11-Apr-27	1				
													<u> </u>
1st Programr	me Baseline 💠 💠 1st Programme Baseline Milestone				1	3 of 27			[Date Rev	ision	Checked	Approv
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Actual Work	▼ WIIICSIONC									0-22 I list i logialililo			

'ID	Activity Name	Activity % Complete	Dur.	Original Duration	,	1st Prog. Finish	Start	Finish	Total Float	2023 2024 2025 	2026 DJ.JEMAM.J.J.A	ASIOINID JIE
Caverns 2 - Salt Wate	er Service Reservoir No.2		390	390	12-Dec-25	11-Apr-27	12-Dec-25	11-Apr-27	1			
SW-C2-1010	Caverns 2 - Construction of Shotcrete	0%	54	54	12-Dec-25	20-Feb-26	12-Dec-25	20-Feb-26	2		Caverns 2 -	Construction of
SW-C2-1000	Caverns 2 - Completion of Tunnel Works	0%	0	0		19-Jan-26		19-Jan-26	2		Caverns 2 - Co	ompletion of T
SW-C2-1020	Caverns 2 - Construction of Cavern Lining (Total: 33.2m long, PR=12m/9d + 2wk for erection)	0%	39	39	20-Feb-26	09-Apr-26	20-Feb-26	09-Apr-26	2		Caverns	2 - Construct
SW-C2-1030	Caverns 2 - Waterproofing system and protection layer to Wall and Slab	0%	60	60	10-Apr-26	08-Jun-26	10-Apr-26	08-Jun-26	2		Ca'	verns 2 + Wate
SW-C2-1040	Caverns 2 - Construction of Slab 1.6m thk for water tank area (Total: 1880m3, 15bays (11x7),	0%	60	60	11-May-26	22-Jul-26	11-May-26	22-Jul-26	1			Caverns 2 - C
SW-C2-1060	PR= 15d/bay, 3workfronts) Caverns 2 - Construction of Slab 1.0m thk for pump/plant room area (Total:597m3,	0%	36	36	23-Jul-26	02-Sep-26	23-Jul-26	02-Sep-26	1			Caverns 2
	7bays(11x7.5), PR=12d/bay, 3 workfront)										<u> </u>	
SW-C2-1050	Caverns 2 - Construction of wall, beam & slab up to 91.35mPD for water tank area	0%	90	90	23-Jul-26	20-Oct-26	23-Jul-26	20-Oct-26	17			Caverr
SW-C2-1070	Caverns 2 - Construction of soil filling, pipeworks and at-grade slab for pump/ plant room area	0%	34	34	03-Sep-26	06-Oct-26	03-Sep-26	06-Oct-26	1			Cavern
SW-C2-1080	Caverns 2 - Construction of wall, beam & slab up to cavern soffit for pump/ plant room area	0%	60	60	07-Sep-26	05-Nov-26	07-Sep-26	05-Nov-26	1			Cave
SW-C2-1090	Caverns 2 - Construction of remaining works incl. staircase, partition wall and other civil works for E&M plant	0%	90	90	07-Oct-26	04-Jan-27	07-Oct-26	04-Jan-27	68			
SW-C2-1100	Caverns 2 - BS, E&M works and ABWF	0%	127	127	06-Nov-26	12-Mar-27	06-Nov-26	12-Mar-27	1			
SW-C2-1110	Caverns 2 - Connect power cable from SWSR1 Transformer Room & Switchoard Room to SWSR2	0%	60	60	13-Dec-26	10-Feb-27	13-Dec-26	10-Feb-27	31			
SW-C2-1130	Caverns 2 - Testing and Commissioning	0%	90	90	12-Jan-27	11-Apr-27	12-Jan-27	11-Apr-27	1			
SW-C2-1120	Caverns 2 - Energization of SWSR2	0%	0	0	11-Feb-27		11-Feb-27		31			
Caverns 3 - Salt Wate	er Service Reservoir No.3		434	434	21-Oct-25	10-Apr-27	21-Oct-25	10-Apr-27	1	v-		
SW-C3-1010	Caverns 3 - Construction of Shotcrete	0%	57	57	21-Oct-25	29-Dec-25	21-Oct-25	29-Dec-25	1		Caverns 3 - Cor	nstruction of S
SW-C3-1000	Caverns 3 - Completion of Tunnel Works	0%	0	0		29-Nov-25		29-Nov-25	1		Caverns 3 - Comp	letion of Tun
SW-C3-1020	Caverns 3 - Construction of Cavern Lining (Total: 28.3m long, PR=12m/9d + 2wk for erection)	0%	39	39	30-Dec-25	13-Feb-26	30-Dec-25	13-Feb-26	1		Caverns 3 -	Construction
SW-C3-1030	Caverns 3 - Waterproofing system and protection layer to Wall and Slab	0%	60	60	14-Feb-26	14-Apr-26	14-Feb-26	14-Apr-26	1		Caverns	s 3 - Waterpro
SW-C3-1040	Caverns 3 - Construction of Slab 1.6m thk for water tank area (Total: 1961m3, 12bays (11x9),	0%	60	60	13-Mar-26	27-May-26	13-Mar-26	27-May-26	1		Cav	erns 3 - Cons
SW-C3-1060	PR= 15d/bay, 3workfronts) Caverns 3 - Construction of Slab 1.0m thk for pump/plant room area (Total:597m3, 11bays	0%	48	48	28-May-26	24-Jul-26	28-May-26	24-Jul-26	1			Caverns 3 - C
SW-C3-1050	(11x9), PR=12d/bay, 3 workfront) Caverns 3 - Construction of wall, beam & slab up to 91.35mPD for water tank area	0%	90	90	28-May-26	25-Aug-26	28-May-26	25-Aug-26	50			Caverns 3
SW-C3-1070	Caverns 3 - Construction of soil filling, pipeworks and at-grade slab for pump/ plant room area	0%	50	50	25-Jul-26	12-Sep-26	25-Jul-26	12-Sep-26	2			Caverns
SW-C3-1080	Caverns 3 - Construction of wall, beam & slab up to cavern soffit for pump/ plant room area	0%	60	60	14-Aug-26	12-Oct-26	14-Aug-26	12-Oct-26	2			Caverr
SW-C3-1090	Caverns 3 - Construction of remaining works incl. staircase, partition wall and other civil works for		90	90	13-Oct-26	10-Jan-27	13-Oct-26	10-Jan-27	62			
	E&M plant											
SW-C3-1100	Caverns 3 - BS, E&M works and ABWF	0%	150	150	13-Oct-26	11-Mar-27	13-Oct-26	11-Mar-27	2			
						4 of 27			Тг	Date Revision	Checked	Approve
1st Program	ime Baseline ♦ ♦ 1st Programme Baseline Milestone					4 () //			-	Date Nevision	Onconoa	, ,
1st Program Actual Work						4 01 27			12-De		- Criccitod	

21/WSD/21 - Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Cavern Monthly Programme January 2023

vity ID	Activity Name	Activity % Complete	1st Prog. Dur.	. Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float	2023			2024 			2025 11 11 A1 S1 O1		026 11 11 A1 S1 O1 N1	202
SW-C3-1110	Caverns 3 - Connect power cable from SWSR1 Transformer Room & Switchoard Room to SWSR3	0%	60	60	13-Dec-26	10-Feb-27	13-Dec-26	10-Feb-27	31	NDJFMAMJJA	SONDI	r IVI A IVI	JJASC	ונוטואן	rı" A M	JASS	ND 11-IMAIM	JASON	DIJIFIN
SW-C3-1130	Caverns 3 - Testing and Commissioning	0%	90	90	11-Jan-27	10-Apr-27	11-Jan-27	10-Apr-27	2										
SW-C3-1120	Caverns 3 - Energization of SWSR3	0%	0	0	11-Feb-27		11-Feb-27		31										\$ C
Caverns 4 - Fresh Wa	ater Service Reservoir No.1		349	349	02-Feb-26	10-Apr-27	02-Feb-26	10-Apr-27	1								-		
011 04 1010		00/	50	50	20.5.1.00	11.4	00.51.00	11.1											
SW-C4-1010	Caverns 4 - Construction of Shotcrete	0%	56	56	02-Feb-26	14-Apr-26	02-Feb-26	14-Apr-26	20								Ca	verns 4 - Cor	structio
SW-C4-1000	Caverns 4 - Completion of Tunnel Works	0%	0	0		15-Mar-26		15-Mar-26	1								\$ Cave	rns 4 - Comp	letion o
SW-C4-1020	Caverns 4 - Construction of Cavern Lining (Total: 20.3m long, PR=12m/9d + 2wk for erection)	0%	30	30	30-Mar-26	07-May-26	30-Mar-26	07-May-26	1								= c	avems 4 - C	onstruc
SW-C4-1030	Caverns 4 - Waterproofing system and protection layer to Wall and Slab	0%	50	50	08-May-26	26-Jun-26	08-May-26	26-Jun-26	1									Caverns 4	- Wate
SW-C4-1040	Caverns 4 - Construction of Slab 1.6m thk for water tank area (Total: 2482m3, 15bays (11x9), PR= 15d/bay, 3workfronts)	0%	60	60	28-May-26	07-Aug-26	28-May-26	07-Aug-26	1									Cavern	s 4 - Co
SW-C4-1060	Caverns 4 - Construction of Slab 1.0m thk for pump/plant room area (Total:553m3, 6bays (11x9), PR=12d/bay, 3 workfront)	0%	24	24	08-Aug-26	04-Sep-26	08-Aug-26	04-Sep-26	1									■ Cave	:ms 4 -
SW-C4-1050	Caverns 4 - Construction of wall, beam & slab up to 91.35mPD for water tank area	0%	90	90	08-Aug-26	05-Nov-26	08-Aug-26	05-Nov-26	8									, —— »	Cavern
SW-C4-1070	Caverns 4 - Construction of soil filling, pipeworks and at-grade slab for pump/ plant room area	0%	38	38	05-Sep-26	12-Oct-26	05-Sep-26	12-Oct-26	2									Ca	averns
SW-C4-1080	Caverns 4 - Construction of wall, beam & slab up to cavern soffit for pump/ plant room area	0%	60	60	13-Sep-26	11-Nov-26	13-Sep-26	11-Nov-26	2									+	Caverr
SW-C4-1090	Caverns 4 - Construction of remaining works incl. staircase, partition wall and other civil works for E&M plant	0%	60	60	12-Nov-26	10-Jan-27	12-Nov-26	10-Jan-27	62										= c
SW-C4-1100	Caverns 4 - BS, E&M works and ABWF	0%	120	120	12-Nov-26	11-Mar-27	12-Nov-26	11-Mar-27	2										
SW-C4-1110	Caverns 4 - Connect power cable from SWSR1 Transformer Room & Switchoard Room to SWSR4	0%	60	60	13-Dec-26	10-Feb-27	13-Dec-26	10-Feb-27	31										
SW-C4-1130	Caverns 4 - Testing and Commissioning	0%	90	90	11-Jan-27	10-Apr-27	11-Jan-27	10-Apr-27	2										
SW-C4-1120	Caverns 4 - Energization of SWSR4	0%	0	0	11-Feb-27		11-Feb-27		31								+		\$
Caverns 5 - Fresh Wa	ater Service Reservoir No.2		392	392	10-Dec-25	10-Apr-27	10-Dec-25	10-Apr-27	1										
SW-C5-1010	Caverns 5 - Construction of Shotcrete	0%	52	52	10-Dec-25	11-Feb-26	10-Dec-25	11-Feb-26	3								Cavern	s 5 - Constru	ction of
SW-C5-1000	Caverns 5 - Completion of Tunnel Works	0%	0	0		12-Jan-26		12-Jan-26	3								Caverns 8	5 - Completion	n of Tur
	Caverns 5 - Construction of Cavern Lining (Total: 22.5m long, PR=12m/9d + 2wk for erection)			30	12-Feb-26		12-Feb-26	21-Mar-26	3									erns 5 - Cans	
SW-C5-1020		0%	30								 -								
SW-C5-1030	Caverns 5 - Waterproofing system and protection layer to Wall and Slab	0%	50	50	22-Mar-26	10-May-26	22-Mar-26	10-May-26	4									Caverns 5 + W	aterpro
SW-C5-1040	Caverns 5 - Construction of Slab 1.6m thk for water tank area (Total: 1961m3, 12bays (11x9), PR= 15d/bay, 3workfronts)	0%	60	60	30-Apr-26	13-Jul-26	30-Apr-26	13-Jul-26	2									Caverns	5 - Con
SW-C5-1060	Caverns 5 - Construction of Slab 1.0m thk for pump/plant room area (Total:986m3, 9bays (11x9), PR=12d/bay, 3 workfront)	0%	36	36	14-Jul-26	24-Aug-26	14-Jul-26	24-Aug-26	2									Caver	ns 5 - 0
SW-C5-1050	Caverns 5 - Construction of wall, beam & slab up to 91.35mPD for water tank area	0%	90	90	14-Jul-26	11-Oct-26	14-Jul-26	11-Oct-26	33									C	verns
SW-C5-1070	Caverns 5 - Construction of soil filling, pipeworks and at-grade slab for pump/ plant room area	0%	49	49	25-Aug-26	12-Oct-26	25-Aug-26	12-Oct-26	2									Ca	verns
											11111	1 1 1 1	1111	<u>: : : :</u>	<u> </u>	11111	<u> </u>	<u> </u>	
1st Program	nme Baseline 💠 💠 1st Programme Baseline Milestone				•	15 of 27			l	Date		F	Revision				Checked	Аррі	roved
Actual Work	k ♦ Milestone										gramme Programr	'	000	10					
Remaining \	Work Summary	1							12-Ja	uu_/* \/ ∩nfh \/	Programm	ne Jani	Jarv 202	.5				1	

21/WSD/21 - Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Cavern Monthly Programme January 2023

ID	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float N	2023 2024 2025 D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A	20. S	
SW-C5-1080	Caverns 5 - Construction of wall, beam & slab up to cavern soffit for pump/ plant room area	0%	60	60	13-Sep-26	11-Nov-26	13-Sep-26	11-Nov-26	2			Caverr
W-C5-1090	Caverns 5 - Construction of remaining works incl. staircase, partition wall and other civil works for E&M plant	0%	60	60	12-Nov-26	10-Jan-27	12-Nov-26	10-Jan-27	2			— C
SW-C5-1100	Caverns 5 - BS, E&M works and ABWF	0%	120	120	12-Nov-26	11-Mar-27	12-Nov-26	11-Mar-27	2			
SW-C5-1110	Caverns 5 - Connect power cable from SWSR1 Transformer Room & Switchoard Room to SWSR5	0%	60	60	13-Dec-26	10-Feb-27	13-Dec-26	10-Feb-27	31			
SW-C5-1130	Caverns 5 - Testing and Commissioning	0%	90	90	11-Jan-27	10-Apr-27	11-Jan-27	10-Apr-27	2			-
SW-C5-1120	Caverns 5 - Energization of SWSR4	0%	0	0	11-Feb-27		11-Feb-27		31			\$
Vater Mains Installation W	/orks in Portion 5		1283	1262	09-Dec-22	10-Apr-27	09-Dec-22 A	10-Apr-27	1	Y		
UU Diversion Works			0	28			09-Feb-23	13-Mar-23	1208	▼▼ 13-Mar-23, UU Diversion Works		
21.PRW.PO5.10000	TTA Implementation for UU Diversion Works	0%	0	6			09-Feb-23	15-Feb-23	1208	□ TTA Implementation for ŲU Diversion Works		
21.PRW.PO5.10010	Trench Excavation for UU Diversion Works	0%	0	11			16-Feb-23	28-Feb-23	1208	□ Trện¢h Excavation for UU Diversion Work\$		
21.PRW.PO5.10020	Public Light Cable Diversion	0%	0	5			01-Mar-23	06-Mar-23	1212	Il Public Light Cable Diversion		
21.PRW.PO5.10030	PCCW Cable Diversion	0%	0	9			01-Mar-23	10-Mar-23	1208	II ∀PCCW Cable Diversion		
21.PRW.PO5.10040	Conductivity Test for Cable	0%	0	2			11-Mar-23	13-Mar-23	1208	I Conductivity Test for Cable		
DN600 and DN450 Fresl	h Water Mains & DN450 Salt Water Mains		1280	1259	09-Dec-22	07-Apr-27	09-Dec-22 A	07-Apr-27	4	,		
A1070	XP and TTAApplication	18.62%	145	145	09-Dec-22	02-May-23	09-Dec-22 A	02-May-23	1	XP and TTAApplication		
A1080	Application of CNP to extend working hours for pipe jacking works	19.01%	142	142	09-Dec-22	29-Apr-23	09-Dec-22 A	29-Apr-23	171	Application of CNP to extend working hours for pipe jacking wor	(S	
Pipe Installation by Pipe Ja	acking Method		719	719	30-Aug-23	29-Jan-26	30-Aug-23	29-Jan-26	289		▼ 29-Jan-26	s, Pipe Installation
Water Main Tunnel (Detail	A), CH 0-59 (59m) along Chuk Yuen Road - Section A1		296	296	02-Feb-25	29-Jan-26	02-Feb-25	29-Jan-26	283	·	29-Jan-26	s, Water Main Tui
SW-JPA-1000	TTA implementation, site clearance, road modification and site setup	0%	14	14	02-Feb-25	15-Feb-25	02-Feb-25	15-Feb-25	226	☐ T:TAimpleme	ntation, site clearance, r	oad modification
SW-JPA-1010	SI works for trenchless design	0%	28	28	16-Feb-25	15-Mar-25	16-Feb-25	15-Mar-25	302	🔲 SI works fo	trenchless design	
SW-JPA-1020	UU Detection and UU diversion for construction of jacking pits	0%	30	30	16-Feb-25	17-Mar-25	16-Feb-25	17-Mar-25	226	□ UU Detecti	on and UU diversion fol	construction of ja
SW-JPA-1030	Design Approval for trenchless works	0%	60	60	16-Mar-25	14-May-25	16-Mar-25	14-May-25	302	Design	Approval for trenchles	s works
SW-JPA-1040	Installation of instrumentation and monitoring device and condition survey	0%	14	14	18-Mar-25	31-Mar-25	18-Mar-25	31-Mar-25	346	☐ Installation	of instrumentation and	monitoring device
SW-JPA-1050	Construction of receiving pit	0%	75	75	18-Mar-25	31-May-25	18-Mar-25	31-May-25	285	Cons	truction of receiving pit	
SW-JPA-1060	Construction of launching pit	0%	75	75	18-Mar-25	31-May-25	18-Mar-25	31-May-25	226	Cons	truction of launching pit	
SW-JPA-1070	Advance preparation works at launching pit	0%	14	14	01-Jun-25	14-Jun-25	01-Jun-25	14-Jun-25	226	□ Adv	ance preparation works	at launching pit
SW-JPA-1080	Plant mobilization and set-up at Launching pit	0%	45	45	10-Sep-25	24-Oct-25	10-Sep-25	24-Oct-25	139		Plant mobilization	and set-up at La
1st Programme	Baseline ♦ 1st Programme Baseline Milestone				1	6 of 27			-	ate Revision	Checked	Approve
Actual Work	♦ Milestone								12-Dec-	c-22 First Programme		<u> </u>
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Remaining Work	Summary								12-Jan-	-23 Monthly Programme January 2023		

Monthly Programme January 2023

y ID	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float	2023 2024 2025 2026 2 J F M A M J J A S O N D J A S O N D J A S O
SW-JPA-1090	Excavation (59m) by Pipe Jacking method, PR=1.5m/d	0%	40	40	25-Oct-25	11-Dec-25	25-Oct-25	11-Dec-25	112	Excavation (59m) by Pipe Jack
SW-JPA-1110	Plant demobilization	0%	30	30	12-Dec-25	10-Jan-26	12-Dec-25	10-Jan-26	142	□ Plant demobilization
SW-JPA-1120	Plpe Installation (PR=30m/wk for fitting, 18m/d for pipe)	0%	16	16	12-Jan-26	29-Jan-26	12-Jan-26	29-Jan-26	283	☐ Plpe:Installation (PR=30m/\
Water Main Tunnel (Det	ail A), CH 71-172 (101m) along Chuk Yuen Road - Section A2		316	316	16-Oct-24	07-Nov-25	16-Oct-24	07-Nov-25	351	▼ 07-Nov-25, Water Main Tunnel (I
SW-JPA-2000	TTA implementation, site clearance, road modification and site setup	0%	14	14	16-Oct-24	29-Oct-24	16-Oct-24	29-Oct-24	207	☐ TTA implementation, site clearance, road modification and site
SW-JPA-2010	SI works for trenchless design	0%	28	28	30-Oct-24	26-Nov-24	30-Oct-24	26-Nov-24	283	□ SI works for trenchless design
SW-JPA-2020	UU Detection and UU diversion for construction of jacking pits	0%	30	30	30-Oct-24	28-Nov-24	30-Oct-24	28-Nov-24	207	☐ ŲU Detection and ŲU diversion for construction of jacking pi
SW-JPA-2030	Design Approval for trenchless works	0%	60	60	27-Nov-24	25-Jan-25	27-Nov-24	25-Jan-25	283	Design Approval for trenchless works
SW-JPA-2040	Installation of instrumentation and monitoring device and condition survey	0%	14	14	29-Nov-24	12-Dec-24	29-Nov-24	12-Dec-24	327	☐ Installation of instrumentation and monitoring device and co
SW-JPA-2050	Construction of receiving pit	0%	75	75	29-Nov-24	11-Feb-25	29-Nov-24	11-Feb-25	266	Construction of receiving pit
SW-JPA-2060	Construction of launching pit	0%	75	75	29-Nov-24	11-Feb-25	29-Nov-24	11-Feb-25	207	Construction of launching pit
SW-JPA-2070	Advance preparation works at launching pit	0%	14	14	12-Feb-25	25-Feb-25	12-Feb-25	25-Feb-25	207	☐ Advance preparation works at launching pit
SW-JPA-2080	Plant mobilization and set-up at Launching pit	0%	45	45	07-May-25	20-Jun-25	07-May-25	20-Jun-25	137	Plant mobilization:and set-up:at:Launching p
SW-JPA-2090	Excavation (101m) by Pipe Jacking method, PR=1.5m/d	0%	68	68	21-Jun-25	09-Sep-25	21-Jun-25	09-Sep-25	113	Excavation (101m) by Pipe Jacking m
SW-JPA-2110	Plant demobilization	0%	30	30	10-Sep-25	09-Oct-25	10-Sep-25	09-Oct-25	139	☐ :Plant demobilization
SW-JPA-2120	Plpe Installation (PR=30m/wk for fitting, 18m/d for pipe)	0%	24	24	10-Oct-25	07-Nov-25	10-Oct-25	07-Nov-25	351	☐ Plpe Installation:(PR≑30m/wk for
Water Main Tunnel (Det	ail A), CH 613-889 (276m) along Chuk Yuen Road - Section A3		454	454	30-Aug-23	10-Mar-25	30-Aug-23	10-Mar-25	548	▼ 10-Mar-25; Water Main Tunnel (Detail A), CH 613-8
SW-JPA-3000	TTA implementation, site clearance, road modification and site setup	0%	14	14	30-Aug-23	12-Sep-23	30-Aug-23	12-Sep-23	172	☐ TTA implementation, site clearance, road modification and site setup
			00		J			40.0-4.00	050	St works:for trenchless:design
SW-JPA-3010	SI works for trenchless design	0%	28	28	13-Sep-23	10-Oct-23	13-Sep-23	10-Oct-23	258	
SW-JPA-3020	UU Detection and UU diversion for construction of jacking pits	0%	30	30	13-Sep-23	12-Oct-23	13-Sep-23	12-Oct-23	172	□ UU Detection and UU diversion for construction of jacking pits
SW-JPA-3030	Design Approval for trenchless works	0%	60	60	11-Oct-23	09-Dec-23	11-Oct-23	09-Dec-23	258	Design Approval for trenchless works
SW-JPA-3040	Installation of instrumentation and monitoring device and condition survey	0%	14	14	13-Oct-23	26-Oct-23	13-Oct-23	26-Oct-23	302	☐ Installation of instrumentation and monitoring device and condition survey
SW-JPA-3050	Construction of receiving pit	0%	75	75	13-Oct-23	26-Dec-23	13-Oct-23	26-Dec-23	195	Construction of receiving pit
SW-JPA-3060	Construction of launching pit	0%	75	75	13-Oct-23	26-Dec-23	13-Oct-23	26-Dec-23	172	Construction of launching pit:
SW-JPA-3070	Advance preparation works at launching pit	0%	14	14	06-Jan-24	19-Jan-24	06-Jan-24	19-Jan-24	172	.☐ Advance preparation works at launching pit
SW-JPA-3080	Plant mobilization and set-up at Launching pit	0%	45	45	17-Feb-24	01-Apr-24	17-Feb-24	01-Apr-24	144	Plant mobilization and set⊹up at Launching pit
SW-JPA-3090	Excavation (276m) by Pipe Jacking method, PR=1.5m/d	0%	184	184	02-Apr-24	11-Nov-24	02-Apr-24	11-Nov-24	119	Excavation (276m) by Pipe Jacking method, PR≑1.5m/d
— 4.45	a Danalina A A A A Danamana D. P. Alii I					7			Date	re Revision Checked Approve
_	e Baseline 1st Programme Baseline Milestone				1	7 of 27			12-Dec-22	
Actual Work	♠ Milestone								12 Jon 22	ŭ .

Monthly Programme January 2023

12-Jan-23

Remaining Work

Critical Remaining Work

Monthly Programme January 2023

ID	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float	2023 2024 2025 2026
SW-JPA-3110	Plant demobilization	0%	30	30	12-Nov-24	11-Dec-24	12-Nov-24	11-Dec-24	147	NDJFMAMJJASONDJFMAMJJASONDJFMAMJJASONDJF Plant demobilization
0.7.0.7.0						2002.	.2.1.07.2.			
SW-JPA-3120	Plpe Installation (PR=30m/wk for fitting, 18m/d for pipe)	0%	70	70	12-Dec-24	10-Mar-25	12-Dec-24	10-Mar-25	548	Plpe Installation (PR≑30m/wk;for fitting,18m/d for p
										04 J. DO WALAN T.
Water Main Tunnel (De	etail A), CH 1000-1184 (184m) along Chuk Yuen Road - Section A4		359	359	06-Nov-24	21-Jan-26	06-Nov-24	21-Jan-26	290	21-Jan-26, Water Main Tui
SW-JPA-4000	TTA implementation, site clearance, road modification and site setup	0%	14	14	06-Nov-24	19-Nov-24	06-Nov-24	19-Nov-24	32	□ TTA implementation, site:clearance, road:modification and si
OVV 0171 4000	1 17 Amperior Ration, one deciration, road modification and site setup	070	17	'-	00 1107 24	10 1107 24	00110124	10 1404 24	02	
SW-JPA-4010	SI works for trenchless design	0%	28	28	20-Nov-24	17-Dec-24	20-Nov-24	17-Dec-24	108	□ SI works for trenchless design
SW-JPA-4020	UU Detection and UU diversion for construction of jacking pits	0%	30	30	20-Nov-24	19-Dec-24	20-Nov-24	19-Dec-24	32	UU:Detection and UU:diversion for construction of jacking
SW-JPA-4030	Design Approval for trenchless works	0%	60	60	18-Dec-24	15-Feb-25	18-Dec-24	15-Feb-25	108	Design Approval for trenchless works
3VV-JPA-4030	Design Approvation trend liess works	0 %	00	00	10-Dec-24	15-гер-25	10-Dec-24	15-Feb-25	100	Design Approval for iterioritiess works
SW-JPA-4040	Installation of instrumentation and monitoring device and condition survey	0%	14	14	20-Dec-24	02-Jan-25	20-Dec-24	02-Jan-25	152	☐ Installation of instrumentation and monitoring device and
SW-JPA-4050	Construction of receiving pit	0%	75	75	20-Dec-24	04-Mar-25	20-Dec-24	04-Mar-25	35	Construction of receiving pit
SW-JPA-4060	Construction of launching pit	0%	75	75	20-Dec-24	04-Mar-25	20-Dec-24	04-Mar-25	32	Construction of launching pit
SW-JPA-4070	Advance preparation works at launching pit	0%	14	14	05-Mar-25	18-Mar-25	05-Mar-25	18-Mar-25	32	☐ Advance preparation works at launching pit
317 3171 1070	, availed proparation monte at authorning pix	0,0		''	00 Mai 20	10 Mai 20	00 Mai 20	TO Mai 20		
SW-JPA-4080	Plant mobilization and set-up at Launching pit	0%	45	45	17-Apr-25	31-May-25	17-Apr-25	31-May-25	3	Plant mobilization and set-up at Launching pi
SW-JPA-4090	Excavation (184m) by Pipe Jacking method, PR=1.5m/d	0%	123	123	02-Jun-25	25-Oct-25	02-Jun-25	25-Oct-25	2	Excavation (184m) by Pipe Jackin
SW-JPA-4110	Plant demobilization	0%	30	30	26-Oct-25	24-Nov-25	26-Oct-25	24-Nov-25	3	■ Plantidemobilization
5VV-JPA-4110	Plant demobilization	0%	30	30	20-UCI-25	24-NOV-25	26-00-25	24-NOV-25	3	■ Harit demobilization
SW-JPA-4120	Plpe Installation (PR=30m/wk for fitting, 18m/d for pipe)	0%	47	47	25-Nov-25	21-Jan-26	25-Nov-25	21-Jan-26	290	Plpe Installation (PR=30m/
Water Main Tunnel (De	etail C), CH 1209-1600 (392m) along Sha Tin Pass Road - Section C1		548	548	14-Oct-23	19-Aug-25	14-Oct-23	19-Aug-25	423	▼ 19-Aug-25, Water Main Tuhnel (Detail)
OM IDA 5000		00/	4.4	4.4	44.0.100	07.0.100	11.0.100	07.0.100	07	
SW-JPA-5000	TTA implementation, site clearance, road modification and site setup	0%	14	14	14-Oct-23	27-Oct-23	14-Oct-23	27-Oct-23	27	☐: TTA implementation, site clearance, road modification and site setup:
SW-JPA-5010	SI works for trenchless design	0%	28	28	28-Oct-23	24-Nov-23	28-Oct-23	24-Nov-23	103	☐ SI works for trenchless design
	S .									
SW-JPA-5020	UU Detection and UU diversion for construction of jacking pits	0%	30	30	28-Oct-23	26-Nov-23	28-Oct-23	26-Nov-23	27	☐ UU Detection and UU diversion for construction of jacking pits
SW-JPA-5030	Design Approval for trenchless works	0%	60	60	25-Nov-23	23-Jan-24	25-Nov-23	23-Jan-24	103	Design Approval for trenchless works
SW-JPA-5040	Installation of instrumentation and monitoring device and condition survey	0%	14	14	27-Nov-23	10-Dec-23	27-Nov-23	10-Dec-23	147	☐ Installation of instrumentation and monitoring device and condition survey
3VV-JFA-3040	installation of instrumentation and monitoring device and condition survey	0 70	14	14	21-1100-23	10-060-23	21-1100-23	10-Dec-23	147	= installation of institution and notificially device and condition survey
SW-JPA-5050	Construction of receiving pit	0%	75	75	27-Nov-23	09-Feb-24	27-Nov-23	09-Feb-24	32	Construction of receiving pit
SW-JPA-5060	Construction of launching pit	0%	75	75	27-Nov-23	09-Feb-24	27-Nov-23	09-Feb-24	27	Construction of launching pit
CVA/ IDA FOZO	Advance and the control of the contr	00/	44	44	40 E-1- 04	00 F-1- 04	40 E-b 04	00 5-6 04	07	
SW-JPA-5070	Advance preparation works at launching pit	0%	14	14	10-Feb-24	23-Feb-24	10-Feb-24	23-Feb-24	27	Advance preparation works at launching pit
SW-JPA-5080	Plant mobilization and set-up at Launching pit	0%	45	45	18-Mar-24	01-May-24	18-Mar-24	01-May-24	4	Plant mobilization and set-up at Launching pit
211 217 0000										
SW-JPA-5090	Excavation (392m) by Pipe Jacking method, PR=1.5m/d	0%	262	262	02-May-24	17-Mar-25	02-May-24	17-Mar-25	3	Excavation (392m) by Pipe Jacking method, PR=1
									<u> </u>	
SW-JPA-5110	Plant demobilization	0%	30	30	18-Mar-25	16-Apr-25	18-Mar-25	16-Apr-25	3	■ Plant demobilization
										Design Colonia A
1st Programm	ne Baseline ♦				1	8 of 27				Date Revision Checked Approve
Actual Work	◆ Milestone								12-Dec	c-22 First Programme

Remaining Work

Critical Remaining Work

Summary

Monthly Programme January 2023

12-Jan-23

Pipe Installation by Open Trench Me Combined Trench for FW DN600, D 21.PRW.PO5.10100 Coordin SW-OTA-1000 Sheet p (15m lo Combined Trench for FW DN600, D 21.PRW.PO5.10050 Coordin TTA-A1 SW-OTA-2210 Sheet p long) SW-OTA-2200 Sheet p (21m lo SW-OTA-2190 Sheet p long) 21.PRW.PO5.10060 Coordin TTA-A1 SW-OTA-2180 Sheet p long) SW-OTA-2180 Sheet p long) SW-OTA-2170 Sheet p long) SW-OTA-2160 Sheet p long) SW-OTA-2150 Sheet p long)	DN450 & SW DN450 along Chuk Yuen Road, from A1 to A2 dination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A1)	0%	100 1097 65		17-Apr-25 03-May-23	19-Aug-25 08-Jan-27	17-Apr-25 26-Jan-23	19-Aug-25 08-Jan-27	423	D JFMAMJJASONDJFMAMJJASONDJFMAMJJAS	lpe Installation (PR=30m/wk for fitting;
21.PRW.PO5.10100 Coordin SW-OTA-1000 Sheet p (15m lo Combined Trench for FW DN600, D 21.PRW.PO5.10050 Coordin TTA-A1 SW-OTA-2210 Sheet p long) SW-OTA-2200 Sheet p long) 21.PRW.PO5.10060 Coordin TTA-A1 SW-OTA-2190 Sheet p long) 21.PRW.PO5.10060 Coordin TTA-A1 SW-OTA-2180 Sheet p long) SW-OTA-2160 Sheet p long) SW-OTA-2160 Sheet p long) SW-OTA-2150 Sheet p long)	DN450 & SW DN450 along Chuk Yuen Road, from A1 to A2 dination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A1)	00/			03-May-23	08-Jan-27	26-Jan-23	08- lan-27	1		
21.PRW.PO5.10100 Coordin SW-OTA-1000 Sheet p (15m lo Combined Trench for FW DN600, D 21.PRW.PO5.10050 Coordin TTA-A1 SW-OTA-2210 Sheet p long) SW-OTA-2200 Sheet p long) 21.PRW.PO5.10060 Coordin TTA-A1 SW-OTA-2190 Sheet p long) SW-OTA-2180 Sheet p long) SW-OTA-2180 Sheet p long) SW-OTA-2170 Sheet p long) SW-OTA-2170 Sheet p long) SW-OTA-2160 Sheet p long) SW-OTA-2150 Sheet p long)	dination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A1)	Ω0/-	65	400				00 0an 21	7		
21.PRW.PO5.10100 Coordin SW-OTA-1000 Sheet p (15m lo Combined Trench for FW DN600, D 21.PRW.PO5.10050 Coordin TTA-A1 SW-OTA-2210 Sheet p (ong) SW-OTA-2200 Sheet p (ong) 21.PRW.PO5.10060 Coordin TTA-A1 SW-OTA-2190 Sheet p (ong) SW-OTA-2180 Sheet p (ong) SW-OTA-2170 Sheet p (ong) SW-OTA-2170 Sheet p (ong) SW-OTA-2160 Sheet p (ong) SW-OTA-2150 Sheet p (ong)	dination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A1)	Ω0/-		160	07-Nov-25	24-Jan-26	16-Jul-25	24-Jan-26	4	·	₹ 24-Jan-26, Combined Trer
SW-OTA-1000 Sheet p (15m lo (1		∩0/-			01 1107 20	2.0420				<u> </u>	
(15m lo		U /0	0	72			16-Jul-25	09-Oct-25	20		Coordination with Utility Undertaking
21.PRW.PO5.10050 Coordin TTA-A1 SW-OTA-2210 Sheet p long) SW-OTA-2200 Sheet p (21m lo SW-OTA-2190 Sheet p long) 21.PRW.PO5.10060 Coordin TTA-A1 SW-OTA-2180 Sheet p long) SW-OTA-2170 Sheet p long) SW-OTA-2160 Sheet p long) SW-OTA-2150 Sheet p long)	t piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstatemen, TTA-A1 long)	0%	65	65	07-Nov-25	24-Jan-26	07-Nov-25	24-Jan-26	4		Sheet piling, Excavation, EL
SW-OTA-2210 Sheet p long) SW-OTA-2200 Sheet p (21m lo SW-OTA-2190 Sheet p long) SW-OTA-2190 Coordin TTA-A1 SW-OTA-2180 Sheet p long) SW-OTA-2170 Sheet p long) SW-OTA-2160 Sheet p long) SW-OTA-2150 Sheet p l	DN450 & SW DN450 along Chuk Yuen Road, from A2 to A3		749	827	03-May-23	06-Nov-25	26-Jan-23	06-Nov-25	4	<u> </u>	■▼ 06-Nov-25, Combined Trench for
long) long)	dination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A23 to A19)	0%	0	72			26-Jan-23	24-Apr-23	9	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, U	U Diversion (TTA-A23 to TTA-A19)
(21m local sections) SW-OTA-2190 Sheet plans)	t piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A23 (21m	0%	31	31	03-May-23	08-Jun-23	03-May-23	08-Jun-23	4	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road r	einstatemen, TTA-A23 (21m long)
SW-OTA-2190 Sheet plong) 21.PRW.PO5.10060 Coordin TTA-A1 SW-OTA-2180 Sheet plong) SW-OTA-2170 Sheet plong) SW-OTA-2160 Sheet plong) SW-OTA-2150 Sheet plong)	et piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstatemen, TTA-A22 long)	0%	65	65	09-Jun-23	25-Aug-23	09-Jun-23	25-Aug-23	4	Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Ba	ckfilling & Road reinstatemen, TTA-A2:
TTA-A1 SW-OTA-2180 Sheet plong) SW-OTA-2170 Sheet plong) SW-OTA-2160 Sheet plong) SW-OTA-2150 Sheet plong)	t piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A21 (21m	0%	31	31	26-Aug-23	03-Oct-23	26-Aug-23	03-Oct-23	4	Sheet piling, Excavation, ELS, Pipe:Laying, Backfilling	ß Road reinstatemen, TTA-A21 (21m
SW-OTA-2170 Sheet plong) SW-OTA-2160 Sheet plong) SW-OTA-2150 Sheet plong)	dination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A18 to A14)	0%	0	72			26-Aug-23	21-Nov-23	25	Goordination with Utility Undertaking, TTA, Trial Pit	& Excavation, UU Diversion (TTA-A18
SW-OTA-2160 Sheet plong) SW-OTA-2150 Sheet plong)	t piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A20 (20m	0%	31	31	04-Oct-23	09-Nov-23	04-Oct-23	09-Nov-23	4	Sheet piling, Excavation, ELS, Pipe Laying, Backfilli	ıg & Road reinstatemen, TTA-A20 (20
SW-OTA-2150 Sheet plong)	t piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A19 (20m	0%	31	31	10-Nov-23	15-Dec-23	10-Nov-23	15-Dec-23	4	Sheet piling, Excavation, ELS, Pipe Laying, Back	filling & Road reinstatemen, TTA-A19 (
long)	t piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A18 (20m	0%	31	31	16-Dec-23	24-Jan-24	16-Dec-23	24-Jan-24	4	Sheet piling, Excavation, ELS, Pipe Laying, B	ackfilling & Road reinstatemen, TTA-A
	t piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A17 (20m	0%	31	31	25-Jan-24	02-Mar-24	25-Jan-24	02-Mar-24	4	Sheet piling; Excavation, ELS, Pipe:Laying	, Backfilling & Road reinstatemen, TTA
SW-OTA-2140 Sheet plong)	et piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A16 (20m	0%	31	31	04-Mar-24	12-Apr-24	04-Mar-24	12-Apr-24	4	Sheet piling, Excavation, ELS, Pipe Lay	ng, Backfilling & Road reinstatemen, T
21.PRW.PO5.10070 Coordin TTA-AS	dination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A13 to A9)	0%	0	72			04-Mar-24	01-Jun-24	25	Coordination with Utility Undertaking	g, TTA, Trial Pit & Excavation, UU Dive
SW-OTA-2130 Sheet plong)	t piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A15 (20m	0%	31	31	13-Apr-24	21-May-24	13-Apr-24	21-May-24	4	Sheet piling, Excavation, ELS, Pipe I	aying, Backfilling & Road reinstatemer
SW-OTA-2120 Sheet plong)	t piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A14 (20m	0%	31	31	22-May-24	27-Jun-24	22-May-24	27-Jun-24	4	Sheet pilirig, Excavation, ELS, Pip	e Laying, Backfilling & Road reinstater
SW-OTA-2110 Sheet plong)	t piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A13 (20m	0%	31	31	28-Jun-24	03-Aug-24	28-Jun-24	03-Aug-24	4	Sheet piling; Excavation, ELS,	Pipe Laying, Backfilling & Road reinsta
SW-OTA-2100 Sheet plong)	t piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A12 (20m	0%	31	31	05-Aug-24	09-Sep-24	05-Aug-24	09-Sep-24	4	Sheet piling, Excavation, EL	S, Pipe Laying, Backfilling & Road rein
SW-OTA-2090 Sheet plong)	t piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A11 (20m	0%	31	31	10-Sep-24	18-Oct-24	10-Sep-24	18-Oct-24	4	Sheet piling, Excavation,	ELS, Pipe Laying, Backfilling & Road r
21.PRW.PO5.10080 Coordin TTA-A5	dination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A8 to A5)	0%	0	72			10-Sep-24	05-Dec-24	25	Coordination with Util	ity Undertaking, TTA, Trial Pit & Excava
SW-OTA-2080 Sheet plong)	t piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A10 (20m	0%	31	31	19-Oct-24	23-Nov-24	19-Oct-24	23-Nov-24	4	Sheet piling, Excavatio	on, ELS, Pipe Laying, Backfilling & Roa
SW-OTA-2070 Sheet p	t piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A9 (20m long)	0%	31	31	25-Nov-24	02-Jan-25	25-Nov-24	02-Jan-25	4	Sheet piling; Excav	ation, ELS, Pipe Laying, Backfilling & F
SW-OTA-2060 Sheet p	t piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A8 (20m long)	0%	31	31	03-Jan-25	11-Feb-25	03-Jan-25	11-Feb-25	4	Sheet;piling, Ex	cavation, ELS, Pipe Laying, Backfilling
SW-OTA-2050 Sheet p	et piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A7 (20m long)	0%	31	31	12-Feb-25	19-Mar-25	12-Feb-25	19-Mar-25	4	Sheet piling, l	Excavation, ELS, Pipe Laying, Backfilli
1st Programme Baseline	ino. A 1st Drogramma Decelina Milastana	<u> </u>				10 -107			Dat	ate Revision	Checked Approve
Actual Work	THE V ISL PROGRAMME BASEIINE MIIESTONE	l			1	19 OT 77					The checked is the control of the co
Remaining Work	ine				1	19 of 27			12-Dec-2		Oncored Approve
Critical Remaining Work	-				1	19 01 27				22 First Programme	Oncored A

Monthly Programme January 2023

ID	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float	2023 2024 2025 20 NDJFMAMJJASONDJFMAMJJASONDJFMAMJJASONDJFMAMJ	
21.PRW.PO5.10090	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A4 to TTA-A2)	0%	0	72			12-Feb-25	13-May-25	25	Coordination with Utility Unde	
SW-OTA-2040	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A6 (20m long)	0%	31	31	20-Mar-25	29-Apr-25	20-Mar-25	29-Apr-25	4	\$heet piling, Excavation, EL\$,	Pipe Laying, Bac
SW-OTA-2030	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A5 (20m long)	0%	31	31	30-Apr-25	07-Jun-25	30-Apr-25	07-Jun-25	4	Sheet piling, Excavation, EL	S Pipe I aving B
					·		·				
SW-OTA-2020	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A4 (20m long)	0%	31	31	09-Jun-25	15-Jul-25	09-Jun-25	15-Jul-25	4	Sheet piling, Excavation,	ELS, Pipe Laying
	Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstatemen, TTA-A3 (20m long)	0%	64	64	16-Jul-25	27-Sep-25	16-Jul-25	27-Sep-25	4	Sheet piling, Excav	ation, ELS, Pipe L
SW-OTA-2000	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A2 (20m long)	0%	31	31	29-Sep-25	06-Nov-25	29-Sep-25	06-Nov-25	4	Sheet piling, Exc	cavation, ELS, Pip
Combined Trench for FW D	0N600, DN450 & SW DN450 along Chuk Yuen Road, from A3 to A4		252	340	26-Jan-26	30-Nov-26	10-Oct-25	30-Nov-26	4		30-
21.PRW.PO5.10110	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A29 to	0%	0	72			10-Oct-25	06-Jan-26	20	Cọoịdinạtic	n with Utility Und
	TTA-A24) Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstatemen, TTA-A29	0%	64	64	26-Jan-26	16-Apr-26	26-Jan-26	16-Apr-26	4	She	et piling, Excava
	(18m long)										
	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A28 (20m long)	0%	31	31	17-Apr-26	23-May-26	17-Apr-26	23-May-26	4		Sheet piling, Exca
	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A27 (20m long)	0%	31	31	26-May-26	02-Jul-26	26-May-26	02-Jul-26	4		Sheet piling, E
	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A26 (20m long)	0%	31	31	03-Jul-26	07-Aug-26	03-Jul-26	07-Aug-26	4		Sheet piling
SW-OTA-3010	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A25 (20m long)	0%	31	31	08-Aug-26	12-Sep-26	08-Aug-26	12-Sep-26	4		Sheet pi
SW-OTA-3000	Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstatemen, TTA-A24	0%	64	64	14-Sep-26	30-Nov-26	14-Sep-26	30-Nov-26	4		Sh
	(20m long) Dalong Chuk Yuen Road, from A4 to Connection Point		31	126	01-Dec-26	08-Jan-27	08-Aug-26	08-Jan-27	4		,
24 DDWDO5 10120	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A30)	0%	0	48			08-Aug-26	05-Oct-26	51		Coordi
	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A30 (25m long), to Connection Point	0%	31	31	01-Dec-26	08-Jan-27	01-Dec-26	08-Jan-27	4		_
Combined Trench for DN45	60 & SW DN450 along Sha Tin Pass Road, from A4 to C1		64	142	03-May-23	19-Jul-23	26-Jan-23	19-Jul-23	1	▼ 19-Jul-23, Combined Trench for DN450 & \$W DN450 along \$ha Tin Pass Road	, from A4 to C1
21.PRW.PO5.10130	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A31)	0%	0	48			26-Jan-23	22-Mar-23	23	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A31)	
	Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstatemen, TTA-A31	0%	64	64	03-May-23	19-Jul-23	03-May-23	19-Jul-23	1	Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstate	emen, TTA-A31 (
	(20m long) 60 & SW DN450 along Tsz Wan Shan Road, from C1 to Connection Points		343	437	20-Jul-23	10-Sep-24	23-Mar-23	10-Sep-24	1	▼ 10-Şep-24, Combined Trench for DN450 & SW	DN450 along Ts
21.PRW.PO5.10140	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A32 to	0%	0	72			23-Mar-23	21-Jun-23	23	Çoordination with Utility Undertaking, T.T.A, Trial Pit & Excavation, UU Diversion (T.T.	A-A32 to TTA-A3
	TTA-A35)				00.1.1.22	04.0 / 22					
	Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstatemen, TTA-A32 (20m long)	0%	64	64	20-Jul-23	04-Oct-23	20-Jul-23	04-Oct-23	1	Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road re	instatemen, TTA
	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A33 (20m long)	0%	31	31	05-Oct-23	10-Nov-23	05-Oct-23	10-Nov-23	1	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstater	nen, TTA-A33 (2
	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A36 to TTA-A39)	0%	0	72			05-Oct-23	30-Dec-23	22	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU	Diversion (TTA-
SW-OTA-6020	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A34 (20m long)	0%	31	31	11-Nov-23	16-Dec-23	11-Nov-23	16-Dec-23	1	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinsta	temen, TTA-A34
SW-OTA-6030	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A35 (20m	0%	31	31	18-Dec-23	25-Jan-24	18-Dec-23	25-Jan-24	1	Sheet piling, Excavation, ELS, Pipe Laying, Backfiling & Road rein	statemen, TTA-A
	long)										
1st Programme B	Baseline ♦ ♦ 1st Programme Baseline Milestone				2	0 of 27				Date Revision Checked	Approve
Actual Work	♦ Milestone								12-De	c-22 First Programme	
/ totadi TTOIT									12-Jar	n-23 Monthly Programme January 2023	

	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float N	2023 2024 2025 2026 DJFMAMJJASONDJFMAMJJASONDJFMAMJJJASONDJF
SW-OTA-6040	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A36 (20m long)	0%	31	31	26-Jan-24	04-Mar-24	26-Jan-24	04-Mar-24	1	Sheet piling; Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TT
SW-OTA-6050	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A37 (20m long)	0%	31	31	05-Mar-24	13-Apr-24	05-Mar-24	13-Apr-24	1	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen,
21.PRW.PO5.10160	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A40 to TTA-A41 to Connection)	0%	0	72			05-Mar-24	03-Jun-24	12	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Dive
SW-OTA-6060	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A38 (20m long)	0%	31	31	15-Apr-24	22-May-24	15-Apr-24	22-May-24	1	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstateme
SW-OTA-6070	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A39 (20m long)	0%	31	31	23-May-24	28-Jun-24	23-May-24	28-Jun-24	1	Sheet piling, Excavation, EL\$, Pipe Laying, Backfilling & Road reinstate
SW-OTA-6080	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A40 (20m long)	0%	31	31	29-Jun-24	05-Aug-24	29-Jun-24	05-Aug-24	1	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinst
SW-OTA-6090	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A41 (25m long), to Connection Point	0%	31	31	06-Aug-24	10-Sep-24	06-Aug-24	10-Sep-24	1	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road rei
Test & Commissioning and	d Connection		89	89	09-Jan-27	07-Apr-27	09-Jan-27	07-Apr-27	5	
SW-TC-1000	Cleaning & Pressure Test for DN600 Fresh Water Main	0%	45	45	09-Jan-27	22-Feb-27	09-Jan-27	22-Feb-27	5	
SW-TC-1020	Cleaning & Pressure Test for DN450 Fresh Water Main	0%	45	45	16-Jan-27	01-Mar-27	16-Jan-27	01-Mar-27	5	
SW-TC-1040	Cleaning & Pressure Test for DN450 Salt Water Main	0%	45	45	23-Jan-27	08-Mar-27	23-Jan-27	08-Mar-27	5	
SW-TC-1010	Connection to existing for DN600 Fresh Water Main	0%	30	30	23-Feb-27	24-Mar-27	23-Feb-27	24-Mar-27	19	
SW-TC-1030	Connection to existing for DN450 Fresh Water Main	0%	30	30	02-Mar-27	31-Mar-27	02-Mar-27	31-Mar-27	12	
SW-TC-1050	Connection to existing for DN450 Salt Water Main	0%	30	30	09-Mar-27	07-Apr-27	09-Mar-27	07-Apr-27	5	
N250, DN750 and DN	800 Salt Water Mains		1169	1247	03-May-23	10-Apr-27	26-Jan-23	10-Apr-27	1	
Pipe Installation by Pipe J	Jacking Method		1109	1109	03-May-23	22-Jan-27	03-May-23	22-Jan-27	4	
Water Main Tunnel (Detai	il B), CH 0-63 (63m) along Chuk Yuen Road - Section B1		328	328	09-Aug-25	14-Sep-26	09-Aug-25	14-Sep-26	110	▼ 14-Şep-
SW-JPB-1000	TTA implementation, site clearance, road modification and site setup	0%	14	14	09-Aug-25	22-Aug-25	09-Aug-25	22-Aug-25	261	☐ TTA implementation, site clearance, ro
SW-JPB-1010	SI works for trenchless design	0%	28	28	23-Aug-25	19-Sep-25	23-Aug-25	19-Sep-25	337	☐ SI works for trenchless design
SW-JPB-1020	UU Detection and UU diversion for construction of jacking pits	0%	30	30	23-Aug-25	21-Sep-25	23-Aug-25	21-Sep-25	261	☐ UU Detection and UU diversion for d
SW-JPB-1030	Design Approval for trenchless works	0%	60	60	20-Sep-25	18-Nov-25	20-Sep-25	18-Nov-25	337	Design Approval for trenchless v
SW-JPB-1040	Installation of instrumentation and monitoring device and condition survey	0%	14	14	22-Sep-25	05-Oct-25	22-Sep-25	05-Oct-25	381	📮 Installation of instrumentation and n
SW-JPB-1050	Construction of receiving pit	0%	75	75	22-Sep-25	05-Dec-25	22-Sep-25	05-Dec-25	320	Construction of receiving pit:
SW-JPB-1060	Construction of launching pit	0%	75	75	22-Sep-25	05-Dec-25	22-Sep-25	05-Dec-25	261	Construction of launching pit
SW-JPB-1070	Advance preparation works at launching pit	0%	14	14	06-Dec-25	19-Dec-25	06-Dec-25	19-Dec-25	261	☐ Advance preparation works a
SW-JPB-1080	Plant mobilization and set-up at Launching pit	0%	45	45	22-Apr-26	05-Jun-26	22-Apr-26	05-Jun-26	138	Plant mobilization
SW-JPB-1090	Excavation (63m) by Pipe Jacking method, PR=1.5m/d	0%	42	42	06-Jun-26	27-Jul-26	06-Jun-26	27-Jul-26	113	Excavation (
1et Programmo	Baseline 💠 💠 1st Programme Baseline Milestone				2	1 of 27				ate Revision Checked Approve
ist Flogramme										
Actual Work	◆ Milestone								12-Dec 12-Jan-	- V

Monthly Programme January 2023

/ ID	Activity Name	Activity % Complete	1st Prog. Dur.	Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float	NID JIEL	2023	ISIOINID	I E M	2024 AMJJASOND	2025	SIGNID HEIM	2026 AM II II ALS	SOND IE
SW-JPB-1110	Plant demobilization	0%	30	30	28-Jul-26	26-Aug-26	28-Jul-26	26-Aug-26	135	NDJFN		Jajojnju	JFIWI	A 3 3 A 3 O N D	3 F A M 3 3 A	3 4 10 3 5 10 7		Plant demok
SW-JPB-1120	Plpe Installation (PR=30m/wk for fitting, 18m/d for pipe)	0%	16	16	27-Aug-26	14-Sep-26	27-Aug-26	14-Sep-26	110									Pipe Instal
Water Main Tunnel (Det	tail B), CH 78-180 (102m) along Chuk Yuen Road - Section B2		351	351	12-Apr-25	20-Jun-26	12-Apr-25	20-Jun-26	182								▼ 20-Ju	un-26, Wate
SW-JPB-2000	TTA implementation, site clearance, road modification and site setup	0%	14	14	12-Apr-25	25-Apr-25	12-Apr-25	25-Apr-25	253		 				□ TTAimpl	ementation, site	clearance, ro	oad modifica
SW-JPB-2010	SI works for trenchless design	0%	28	28	26-Apr-25	23-May-25	26-Apr-25	23-May-25	329						□ \$I wor	s for trenchless	design	
SW-JPB-2020	UU Detection and UU diversion for construction of jacking pits	0%	30	30	26-Apr-25	25-May-25	26-Apr-25	25-May-25	253						□ ŲU De	tection and UU o	diversion for	construction
SW-JPB-2030	Design Approval for trenchless works	0%	60	60	24-May-25	22-Jul-25	24-May-25	22-Jul-25	329						D	esign Approval fo	or trenchless	works
SW-JPB-2040	Installation of instrumentation and monitoring device and condition survey	0%	14	14	26-May-25	08-Jun-25	26-May-25	08-Jun-25	373						☐ Instal	ation of instrume	entation and	monitoring c
SW-JPB-2050	Construction of receiving pit	0%	75	75	26-May-25	08-Aug-25	26-May-25	08-Aug-25	312							Construction of re	eceiving pit	
SW-JPB-2060	Construction of launching pit	0%	75	75	26-May-25	08-Aug-25	26-May-25	08-Aug-25	253							Construction of la	unching pit	
SW-JPB-2070	Advance preparation works at launching pit	0%	14	14	09-Aug-25	22-Aug-25	09-Aug-25	22-Aug-25	253						□	Advance prepar	ration works	at launchinç
SW-JPB-2080	Plant mobilization and set-up at Launching pit	0%	45	45	12-Dec-25	25-Jan-26	12-Dec-25	25-Jan-26	142							Plan	nt mobilization	n and set-up
SW-JPB-2090	Excavation (102m) by Pipe Jacking method, PR=1.5m/d	0%	68	68	26-Jan-26	21-Apr-26	26-Jan-26	21-Apr-26	114								Excavatio	on (102m) by
SW-JPB-2110	Plant demobilization	0%	30	30	22-Apr-26	21-May-26	22-Apr-26	21-May-26	138		+						Plant de	emobilization
SW-JPB-2120	Plpe Installation (PR=30m/wk for fitting, 18m/d for pipe)	0%	24	24	22-May-26	20-Jun-26	22-May-26	20-Jun-26	182								Plpe	Installation (
Water Main Tunnel (Det	tail B), CH 263-414 (152m) along Chuk Yuen Road - Section B3		352	352	15-May-24	22-Jul-25	15-May-24	22-Jul-25	453					*	22	-Jul-25, Water N	∕lain Tunnel	(Detail B), C
SW-JPB-3000	TTA implementation, site clearance, road modification and site setup	0%	14	14	15-May-24	28-May-24	15-May-24	28-May-24	195					TTA implement	ation, site clearance	e, road modificati	on and site s	setup
SW-JPB-3010	SI works for trenchless design	0%	28	28	29-May-24	25-Jun-24	29-May-24	25-Jun-24	271					SI warks for t	renchless design			
SW-JPB-3020	UU Detection and UU diversion for construction of jacking pits	0%	30	30	29-May-24	27-Jun-24	29-May-24	27-Jun-24	195		+			UU Detection	and UU diversion	for construction (of jacking pit	is
SW-JPB-3030	Design Approval for trenchless works	0%	60	60	26-Jun-24	24-Aug-24	26-Jun-24	24-Aug-24	271					Design #	pproval for trenchle	ess works		
SW-JPB-3040	Installation of instrumentation and monitoring device and condition survey	0%	14	14	28-Jun-24	11-Jul-24	28-Jun-24	11-Jul-24	315					Installation o	f instrumentation a	nd monitoring de	evice and co	ndition surve
SW-JPB-3050	Construction of receiving pit	0%	75	75	28-Jun-24	10-Sep-24	28-Jun-24	10-Sep-24	207					Constr	uction of receiving p	it		
SW-JPB-3060	Construction of launching pit	0%	75	75	28-Jun-24	10-Sep-24	28-Jun-24	10-Sep-24	195					Constr	uction of launching	pit		
SW-JPB-3070	Advance preparation works at launching pit	0%	14	14	11-Sep-24	24-Sep-24	11-Sep-24	24-Sep-24	195		 - - - - - 			☐ Advar	ce preparation wo	ks at launching	pit	†
SW-JPB-3080	Plant mobilization and set-up at Launching pit	0%	45	45	12-Nov-24	26-Dec-24	12-Nov-24	26-Dec-24	147						Plant mobilization	and set-up at La	unching pit	
SW-JPB-3090	Excavation (152m) by Pipe Jacking method, PR=1.5m/d	0%	102	102	27-Dec-24	06-May-25	27-Dec-24	06-May-25	116						Excavat	ion (152m) by Pi	ipe Jacking r	nethod, PR
SW-JPB-3110	Plant demobilization	0%	30	30	07-May-25	05-Jun-25	07-May-25	05-Jun-25	137						☐ Plant	demobilization		
1st Programm	ne Baseline 💠 💠 1st Programme Baseline Milestone					2 of 27				Date				Revision		Check	red	Approved
Actual Work	♦ Milestone				_				12-De	c-22	First Pro	ogramm	e					
/ totaai vvoiit														January 2023				

Monthly Programme January 2023

D	Activity Name	Activity % Complete	1st Prog. Dur.	Duration	ist Prog. Start	1st Prog. Finish	Start	Finish	Total Float	ND JEL	2023 MAIM.II.II.AISIOINIDI.II.FIMIA	2024 2025 M J J A S O N D J F M A M J J A	202 SIQND JIFIMAM JI	
SW-JPB-3120	Plpe Installation (PR=30m/wk for fitting, 18m/d for pipe)	0%	39	39	06-Jun-25	22-Jul-25	06-Jun-25	22-Jul-25	453		M A A A A A A A A A A A A A A A A A A A		pe Installation (PR=30r	
Water Main Tunnel (De	tail B), CH 608-760 (153m) along Chuk Yuen Road - Section B4		302	302	03-May-23	07-May-24	03-May-23	07-May-24	811			▼ 07-May-24, Water Main Tunnel (De	tail B), CH 608-760 (15	3m) along Chuk`
SW-JPB-4000	TTA implementation, site clearance, road modification and site setup	0%	14	14	03-May-23	16-May-23	03-May-23	16-May-23	4		TTA implementation, site	clearance, road modification and site	setup	
SW-JPB-4010	SI works for trenchless design	0%	28	28	17-May-23	13-Jun-23	17-May-23	13-Jun-23	66		SI works for trenchless	design		
SW-JPB-4020	UU Detection and UU diversion for construction of jacking pits	0%	30	30	17-May-23	15-Jun-23	17-May-23	15-Jun-23	4		UU Detection and UU	diversion for construction of jacking pl	S	
SW-JPB-4030	Design Approval for trenchless works	0%	60	60	14-Jun-23	12-Aug-23	14-Jun-23	12-Aug-23	66		Design Approval f			
SW-JPB-4040	Installation of instrumentation and monitoring device and condition survey	0%	14	14	16-Jun-23	29-Jun-23	16-Jun-23	29-Jun-23	110			entation and monitoring device and co	adition of the first of the fir	
	<u> </u>												IIIIIIII Sul Vey	
SW-JPB-4050	Construction of receiving pit	0%	75	75	16-Jun-23	29-Aug-23	16-Jun-23	29-Aug-23			Construction of r			
SW-JPB-4060	Construction of launching pit	0%	75	75	16-Jun-23	29-Aug-23	16-Jun-23	29-Aug-23	4		Construction of k	aunching pit		
SW-JPB-4070	Plant mobilization and set-up at Launching pit	0%	45	45	30-Aug-23	13-Oct-23	30-Aug-23	13-Oct-23	4		Plant mobiliza	tion and set-up at Lauriching pit		
SW-JPB-4080	Excavation (153m) by Pipe Jacking method, PR=1.5m/d	0%	102	102	14-Oct-23	16-Feb-24	14-Oct-23	16-Feb-24	3		Exc	avation (153m) by Pipe Jacking meth	od, PR=1.5m/d	
SW-JPB-4100	Plant demobilization	0%	30	30	17-Feb-24	17-Mar-24	17-Feb-24	17-Mar-24	4			lant demobilization		
SW-JPB-4110	Plpe Installation (PR=30m/wk for fitting, 18m/d for pipe)	0%	39	39	18-Mar-24	07-May-24	18-Mar-24	07-May-24	811		=	Plpe Installation (PR=30m/wk for fit	ing, 18m/d for pipe)	
Water Main Tunnel (De	tail B), CH 1000-1208 (212m) along Chuk Yuen Road - Section B5		394	394	14-May-25	05-Sep-26	14-May-25	05-Sep-26	117			, 		1 05-Sep-2
SW-JPB-5000	TTA implementation, site clearance, road modification and site setup	0%	14	14	14-May-25	27-May-25	14-May-25	27-May-25	35			□ TTAir	nplementation, site clea	rance, road mod
SW-JPB-5010	SI works for trenchless design	0%	28	28	28-May-25	24-Jun-25	28-May-25	24-Jun-25	111			□ SIv	orks for trenchless des	ign
SW-JPB-5020	UU Detection and UU diversion for construction of jacking pits	0%	30	30	28-May-25	26-Jun-25	28-May-25	26-Jun-25	35			UU 🖃 UU	Detection and UU dive	rsion for construc
SW-JPB-5030	Design Approval for trenchless works	0%	60	60	25-Jun-25	23-Aug-25	25-Jun-25	23-Aug-25	111				Design Approval for tre	enchless works
SW-JPB-5040	Installation of instrumentation and monitoring device and condition survey	0%	14	14	27-Jun-25	10-Jul-25	27-Jun-25	10-Jul-25	155			Q :Ins	stallation of instrumentat	ion and monitorin
SW-JPB-5050	Construction of receiving pit	0%	75	75	27-Jun-25	09-Sep-25	27-Jun-25	09-Sep-25					Construction of receiv	
	<u> </u>							09-Sep-25					Construction of launc	
SW-JPB-5060	Construction of launching pit	0%	75	75	27-Jun-25	09-Sep-25	27-Jun-25	·						
SW-JPB-5070	Advance preparation works at launching pit	0%	14	14	10-Sep-25	23-Sep-25	10-Sep-25	23-Sep-25					Advance preparation	
SW-JPB-5080	Plant mobilization and set-up at Launching pit	0%	45	45	26-Oct-25	09-Dec-25	26-Oct-25	09-Dec-25	3				Plant mobilizat	ion and set-up a
SW-JPB-5090	Excavation (212m) by Pipe Jacking method, PR=1.5m/d	0%	142	142	10-Dec-25	05-Jun-26	10-Dec-25	05-Jun-26	3					Excavation (212r
SW-JPB-5110	Plant demobilization	0%	30	30	06-Jun-26	05-Jul-26	06-Jun-26	05-Jul-26	4					Plant demobiliz
SW-JPB-5120	Plpe Installation (PR=30m/wk for fitting, 18m/d for pipe)	0%	54	54	06-Jul-26	05-Sep-26	06-Jul-26	05-Sep-26	117					Plpe Insta
Water Main Tunnel (De	tail D), CH 1402-1535 (134m) along Sheung Fung Street - Section D1		341	341	29-Nov-25	22-Jan-27	29-Nov-25	22-Jan-27	4					
										<u> </u>	<u> </u>	<u> </u>		<u> </u>
1st Programm	ne Baseline 💠 💠 1st Programme Baseline Milestone					3 of 27			12-De	Date	First Programme	Revision	Checked	Approve
Actual Work	♦ Milestone	ı							11/11/				1	1

Monthly Programme January 2023

D	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float		AMJJASON		2024 M	ISIOINID I	2025 FMAM I I	AISIQNIDI ILE	2026 	ASOND
SW-JPB-6000	TTA implementation, site clearance, road modification and site setup	0%	14	14	29-Nov-25	12-Dec-25	29-Nov-25	12-Dec-25	60	VID 3 FIM	AMJJJASOK		1131317					ition, site clea
OW IDD 0040		00/	00	00	40.0	00.1.00	10.0	00.1.00	400									
SW-JPB-6010	SI works for trenchless design	0%	28	28	13-Dec-25	09-Jan-26	13-Dec-25	09-Jan-26	136							S	I works for tr	enchless des
SW-JPB-6020	UU Detection and UU diversion for construction of jacking pits	0%	30	30	13-Dec-25	11-Jan-26	13-Dec-25	11-Jan-26	60							.	U Detection	and UU dive
SW-JPB-6030	Design Approval for trenchless works	0%	60	60	10-Jan-26	10-Mar-26	10-Jan-26	10-Mar-26	136								Design A	pproval for tre
														1 1 1 1 1 1				
SW-JPB-6040	Installation of instrumentation and monitoring device and condition survey	0%	14	14	12-Jan-26	25-Jan-26	12-Jan-26	25-Jan-26	180								Installation o	f instrumenta
SW-JPB-6050	Construction of receiving pit	0%	75	75	12-Jan-26	27-Mar-26	12-Jan-26	27-Mar-26	119								Constru	ction of recei
SW-JPB-6060	Construction of launching pit	0%	75	75	12-Jan-26	27-Mar-26	12-Jan-26	27-Mar-26	60								Constru	ction of launc
377-31 B-0000	Constitution of launicing pit	0 70	/5	/3	12-3411-20	21-IVIAI-20	12-3411-20	21-IVIAI-20									Consuu	Cuon or launc
SW-JPB-6070	Advance preparation works at launching pit	0%	14	14	28-Mar-26	10-Apr-26	28-Mar-26	10-Apr-26	60								Advan	ce preparatio
SW-JPB-6080	Plant mobilization and set-up at Launching pit	0%	45	45	06-Jun-26	20-Jul-26	06-Jun-26	20-Jul-26	4									Plant mobiliz
OW ID= 222-			25		04 : :	05.11	04 :	05		.				<u> </u>			}	
SW-JPB-6090	Excavation (134m) by Pipe Jacking method, PR=1.5m/d	0%	90	90	21-Jul-26	05-Nov-26	21-Jul-26	05-Nov-26	4									Exc
SW-JPB-6110	Plant demobilization	0%	30	30	06-Nov-26	05-Dec-26	06-Nov-26	05-Dec-26	5									■ P
SW-JPB-6120	Plpe Installation (PR=30m/wk for fitting, 18m/d for pipe)	0%	38	38	07-Dec-26	22-Jan-27	07-Dec-26	22-Jan-27	4									
0.0000000000000000000000000000000000000	, politicalistic (C. C. continuo ilianig) tonta io ppo	0,1							·									
Pipe Installation by Open	Trench Method		1137	1215	03-May-23	27-Feb-27	26-Jan-23	27-Feb-27	1									
Combined Trench for SW	DN800 & DN750 along Chuk Yuen Road, from B1 to B2		50	128	03-May-23	03-Jul-23	26-Jan-23	03-Jul-23	1		03-Jul-23	3, Combined	Trench	or SW DN8	00 & DN750 a	ong Chuk Yuen	Road, from	B1 to B2
21.PRW.PO5.10170	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-B1)	0%	0	48			26-Jan-23	22-Mar-23	9		Coordination with	n Utility Unde	rtaking,	TTA, Trial Pil	& Excavation,	UU Diversion (FTA-B1)	
SW-OTB-1000	Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstatemen, TTA-B1	0%	50	50	03-May-23	03-Jul-23	03-May-23	03-Jul-23	1		Sheet pil	ing, Excavat	ion, ELS,	Pipe Laying	, Chamber, Ba	ckfilling & Road	reinstateme	n, TTA-B1 (1
	(17m long)											02 15	24 Cam	hidali Tuala	h for CM/DNG	00 9 500750 ala	Chulc's	Dood fo
Combined Trench for SW	DN800 & DN750 along Chuk Yuen Road, from B2 to B3		151	231	04-Jul-23	02-Jan-24	23-Mar-23	02-Jan-24	1			V UZ-Jai	-24, COII	ibilied frem	ALION SAN DING	00 & DN750 ald	yng Griuk tu	ieri Road, ilo
21.PRW.PO5.10180	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-B2 to TTA-B5)	0%	0	72			23-Mar-23	21-Jun-23	9	1	Coordinat	ion with Utili	y Undert	aking, TTA,	Trial Pit & Exca	vation, UU Dive	rsion (TTA-E	32 to TTA-B5
SW-OTB-2000	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B2 (20m long)	0%	31	31	04-Jul-23	08-Aug-23	04-Jul-23	08-Aug-23	1		Sheet	piling Exca	vation El	S Pipe I av	ing Backfilling	& Road reinstat	emen TTA-	B2 (20m long
	5.001pm.ig,ca.10.01,, po, g,	Q , 0			0.04.20	007.6.9.20		00 / 1	·						9			
SW-OTB-2010	Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstatemen, TTA-B3 (20m long)	0%	58	58	09-Aug-23	17-Oct-23	09-Aug-23	17-Oct-23	1			Sheet piling,	Excavation	on, ELS, Pip	e Laying, Char	nber, Backfilling	& Road rein	statemen, T1
SW-OTB-2020	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B4 (20m long)	0%	31	31	18-Oct-23	23-Nov-23	18-Oct-23	23-Nov-23	1			Sheet pilir	g, Excav	ation, ELS, I	Pipe Laying, Ba	ckfilling & Road	l reinstateme	en, TTA-B4 (2
OW OTD 2020	Charter For Forester FLO Directories Destricts and Destricts and TTA DE (OAss Inc.)	00/	24	24	04 Nov. 00	00 1 04	04 Nov. 00	00 1 04	4						b bii - 11 - ii - ii	D-14		
SW-OTB-2030	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B5 (24m long)	0%	31	31	24-Nov-23	02-Jan-24	24-Nov-23	02-Jan-24	1			Sneet	olling, Exc	avation, EL	5, Pipe Laying	Backfilling & Ro	pad reinstate	emen, ITA-B:
Combined Trench for SW	DN800 & DN750 along Chuk Yuen Road, from B3 to B4		356	476	03-Jan-24	14-Mar-25	09-Aug-23	14-Mar-25	1		-				14- Mar-2	5 Combined Ti	ench for \$V	V DN800 & D
21.PRW.PO5.10190	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-B6 to	0%	0	72			09-Aug-23	03-Nov-23	49			Coordinatio	n with Ut	ility Undertal	ing, TTA, Trial	Pit & Excavation	ή, ŲŲ Divers	ion (TTA-B6
	TTA-B9)						_											
SW-OTB-3000	Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstatemen, TTA-B6 (20m long)	0%	58	58	03-Jan-24	12-Mar-24	03-Jan-24	12-Mar-24	1			= S	heet pilin	g, Excavatio	n, ELS, Pipe L	aying, Chambei	, Backfilling &	& Road reinst
SW-OTB-3010	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B7 (20m long)	0%	31	31	13-Mar-24	22-Apr-24	13-Mar-24	22-Apr-24	1			<u> </u>	Sheet p	iling, Excava	ition, ELS, Pip	e Laying, Backfi	lling & Road	reinstatemen
21.PRW.PO5.10200	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-B10 to	0%	0	72			13-Mar-24	12-Jun-24	22				Cod	ordination w	th Utility Under	aking, TTA, Tria	al Pit & Exca	vation. UU Di
	TTA-B15)	0,0		12			I VIVIAI-27	12 0011-24										
— 4 - 4 - 5 · · · ·	Deceline A 4st December - Deceline Addition	<u> </u>)4 . C O =			 r)ate			Revis	ion		Ch	ecked	Approv
1st ProgrammeActual Work	Baseline ♦ 1st Programme Baseline Milestone ♦ Milestone				2	24 of 27			12-De		First Program	nme	I VC VIS	IOII		CIII	CONCU	Approv
	▼ ▼ IVIIIGOLUTE	ı																

Monthly Programme January 2023

ID	Activity Name	Activity % Complete	1st Prog. Dur.	. Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Float	NID JEMAM J JASONID JEN		026
SW-OTB-3020	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B8 (20m long)	0%	31	31	23-Apr-24	30-May-24	23-Apr-24	30-May-24			A M J J A S O N D J F M A M J J A S O N D J F M A M S Sheet piling, Excavation, ELS, Pipe Laying, Backfilling &	
SW-OTB-3030	Sheet piling. Excavation. ELS. Pipe Laving. Backfilling & Road reinstatemen. TTA-B9 (20m long)	0%	31	31	31-May-24	08-Jul-24	31-May-24	08-Jul-24	1	-	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling	n:&:Road reinstate
	1 3, , , 1 , 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3				,		,		,			
SW-OTB-3040	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B10 (20m long)	0%	31	31	09-Jul-24	13-Aug-24	09-Jul-24	13-Aug-24	1		Sheet piling, Excavation, ELS, Pipe Laying, Backfi	lling & Road reinst
SW-OTB-3050	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B11 (20m long)	0%	31	31	14-Aug-24	19-Sep-24	14-Aug-24	19-Sep-24	1		Sheet piling, Excavation, ELS, Pipe Laying, Bac	ckfilling & Road rei
SW-OTB-3060	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B12 (20m long)	0%	31	31	20-Sep-24	28-Oct-24	20-Sep-24	28-Oct-24	1		Sheet piling, Excavation, ELS, Pipe Laying, I	Backfilling & Road
SW-OTB-3070	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B13 (20m long)	0%	31	31	29-Oct-24	03-Dec-24	29-Oct-24	03-Dec-24	1		Sheet piling, Excavation, ELS, Pipe Layin	g, Backfilling & Ro
SW-OTB-3080	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B14 (20m long)	0%	31	31	04-Dec-24	11-Jan-25	04-Dec-24	11-Jan-25	1		Sheet piling, Excavation, ELS, Pipe La	ying, Backfilling &
	Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstatemen, TTA-B15 (17m long)	0%	50	50	13-Jan-25	14-Mar-25	13-Jan-25	14-Mar-25	1	+	Sheet piling, Excavation, ELS, Pip	e Laying, Chamb
	DN800 & DN750 along Chuk Yuen Road, from B4 to B5		399	480	15-Mar-25	21-Jul-26	04-Dec-24	21-Jul-26	1		· · · · · · · · · · · · · · · · · · ·	21-Jul-26, Co
21.PRW.PO5.10210	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-B27 to	0%	0	72			04-Dec-24	04-Mar-25	10		Coordination with Utility Undertakir	ng, TTA, Trial Pit 8
	TTA-B24) Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstatemen, TTA-B27	00/	FO	FO	45 Mar OF	20 May 25	45 Mar 25	20 May 25	1			C Direct on the C
	(20m long)	0%	58	58	15-Mar-25	28-May-25	15-Mar-25	28-May-25	1		Sheet piling, Excavation, EL	
SW-OTB-4100	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B26 (20m long)	0%	31	31	29-May-25	05-Jul-25	29-May-25	05-Jul-25	1		Sheet piling, Excavation,	ELS, Pipe Laying
21.PRW.PO5.10220	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-B23 to TTA-B19)	0%	0	72			29-May-25	22-Aug-25	22		Çoprdination with Util	lity Undertaking, 1
SW-OTB-4090	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B25 (20m long)	0%	31	31	07-Jul-25	11-Aug-25	07-Jul-25	11-Aug-25	1	-	Sheet piling, Excavatio	on, ELS, Pipe Lay
SW-OTB-4080	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B24 (20m long)	0%	31	31	12-Aug-25	16-Sep-25	12-Aug-25	16-Sep-25	1		Sheet piling, Excav	ation, ELS, Pipe L
SW-OTB-4070	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B23 (20m long)	0%	31	31	17-Sep-25	24-Oct-25	17-Sep-25	24-Oct-25	1		Sheet piling, Exc	cavation, ELS, Pip
SW-OTB-4060	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B22 (20m long)	0%	31	31	25-Oct-25	01-Dec-25	25-Oct-25	01-Dec-25	1		Sheet piling, l	Excavation, ELS,
SW-OTB-4050	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B21 (20m long)	0%	31	31	02-Dec-25	09-Jan-26	02-Dec-25	09-Jan-26	1		Sheet pilin	g, Excavation, EL
21.PRW.PO5.10230	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-B18 to TTA-B16)	0%	0	72			02-Dec-25	02-Mar-26	22	-	Coord	lination with Utility
SW-OTB-4040	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B20 (20m long)	0%	31	31	10-Jan-26	14-Feb-26	10-Jan-26	14-Feb-26	1		■ Sheetp	oiling, Excavation,
SW-OTB-4030	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B19 (20m long)	0%	31	31	16-Feb-26	26-Mar-26	16-Feb-26	26-Mar-26	1		Sher	et piling, Excavatio
SW-OTB-4020	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B18 (20m long)	0%	31	31	27-Mar-26	06-May-26	27-Mar-26	06-May-26	1	-	■ S	sheet piling, Excav
SW-OTB-4010	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B17 (20m long)	0%	31	31	07-May-26	12-Jun-26	07-May-26	12-Jun-26	1			Sheet piling, Exc
SW-OTB-4000	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B16 (20m long)	0%	31	31	13-Jun-26	21-Jul-26	13-Jun-26	21-Jul-26	1	-		Sheet piling,
Combined Trench for SW I	DN800 & DN250 along Chuk Yuen Road, from B5 to D1		337	420	11-Sep-24	31-Oct-25	04-Jun-24	31-Oct-25	1		▼ 31-Oct-25, Con	nbined Trench for
21.PRW.PO5.10240	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-B28 to	0%	0	72			04-Jun-24	28-Aug-24	12		Coordination with Utility Underlaking, TTA, Trial F	Pit & Excavation, l
SW-OTB-5000	TTA-B32) Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstatemen, TTA-B28	0%	44	44	11-Sep-24	04-Nov-24	11-Sep-24	04-Nov-24	1	-	Sheet piling, Excavation, ELS, Pipe Laying,	Chamber, Backfil
	(7m long)											
1st Programme	Baseline ♦ ♦ 1st Programme Baseline Milestone				2	.5 of 27				Date	Revision Checked	Approve
	♦ Milestone								12-De	ec-22 First Programme		1
Actual Work	▼ Iviliestorie								12-Ja			+

)	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float	2023 IDJJEMAMJJJASION	2024 2025 DJFMAMJJASONDJFMAMJJAS	2020 I QND JIFIMAIMJI.	
SW-OTB-5010	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B29 (7m long)	0%	14	14	05-Nov-24	20-Nov-24	05-Nov-24	20-Nov-24	1		Sheet piling, Excavation		
	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B30 (20m long)	0%	31	31	21-Nov-24	28-Dec-24	21-Nov-24	28-Dec-24	1		Sheet piling, Excav	ation, ELS, Pipe Layin(g, Backfilling & Ro
21.PRW.PO5.10250	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-B33 to TTA-B38)	0%	0	72			21-Nov-24	19-Feb-25	22		Çoprdination w	ith Utility Undertaking,	TTA, Trial Pit & E
SW-OTB-5030	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B31 (20m long)	0%	31	31	30-Dec-24	07-Feb-25	30-Dec-24	07-Feb-25	1		Sheet piling, Exc	avation, ELS, Pipe La	ying, Backfilling 8
	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B32 (20m long)	0%	31	31	08-Feb-25	15-Mar-25	08-Feb-25	15-Mar-25	1		💻 Sheet piling, I	Excavation, ELS, Pipe	Laying, Backfillin
	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B33 (20m long)	0%	31	31	17-Mar-25	25-Apr-25	17-Mar-25	25-Apr-25	1		Sheet pilin	g, Excavation, ELS, Pi	pe Laying, Back
	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B34 (20m long)	0%	31	31	26-Apr-25	04-Jun-25	26-Apr-25	04-Jun-25	1		Sheet r	oiling, Excavation, ELS	, Pipe Laying, Ba
	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B35 (20m long)	0%	31	31	05-Jun-25	11-Jul-25	05-Jun-25	11-Jul-25	1		Shei	et piling, Excavation, E	LS, Pipe Laying,
	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B36 (20m long)	0%	31	31	12-Jul-25	16-Aug-25	12-Jul-25	16-Aug-25	1		■ S	heet piling, Excavation	, ELS, Pipe Layir
	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B37 (20m long)	0%	31	31	18-Aug-25	22-Sep-25	18-Aug-25	22-Sep-25	1			Sheet piling, Excavati	ion, ELS, Pipe La
	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B38 (21m long)	0%	31	31	23-Sep-25	31-Oct-25	23-Sep-25	31-Oct-25	1			Sheet piling, Exca	vation, ELS, Pipe
Open Trench for DN800 al	long Sheung Fung Street, from D1 to Connection Point		21	83	17-Nov-26	10-Dec-26	02-Sep-26	10-Dec-26	1				10
21.PRW.PO5.10280	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-B39)	0%	0	48			02-Sep-26	30-Oct-26	15				Coord
	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B39 (9m long), to Connection Point	0%	21	21	17-Nov-26	10-Dec-26	17-Nov-26	10-Dec-26	1				■ s
Open Trench for DN750 al	ong Chuk Yuen Road, from B5 to Connection Point		181	274	22-Jul-26	27-Feb-27	27-Mar-26	27-Feb-27	1				
	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-B40 to TTA-B42)	0%	0	72			27-Mar-26	25-Jun-26	22				Coordination w
	Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstatemen, TTA-B40 (20m long)	0%	57	57	22-Jul-26	25-Sep-26	22-Jul-26	25-Sep-26	1				Sheet pi
	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B41 (20m long)	0%	31	31	28-Sep-26	04-Nov-26	28-Sep-26	04-Nov-26	1				■ Shee
	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B42 (20m long)	0%	31	31	05-Nov-26	10-Dec-26	05-Nov-26	10-Dec-26	1				■ sh
	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B43 (20m long)	0%	31	31	11-Dec-26	19-Jan-27	11-Dec-26	19-Jan-27	1				
	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B45 (20m long)	0%	31	31	11-Dec-26	19-Jan-27	11-Dec-26	19-Jan-27	1				
	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B44 (20m long)	0%	31	31	20-Jan-27	27-Feb-27	20-Jan-27	27-Feb-27	1				
	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B46 (20m long), to Connection Point	0%	31	31	20-Jan-27	27-Feb-27	20-Jan-27	27-Feb-27	1				
Open Trench for DN250 al	long Sheung Fung Street, from D1 to Connection Point		310	403	01-Nov-25	16-Nov-26	12-Jul-25	16-Nov-26	1		·		▼ 16-N
	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-B56 to TTA-B52)	0%	0	72			12-Jul-25	04-Oct-25	22			I Coordination with ⊍t	tility Undertaking
	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B56 (20m long), to Connection Point	0%	31	31	01-Nov-25	06-Dec-25	01-Nov-25	06-Dec-25	1			Sheet piling, Ex	cavation, ELS,
	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B55 (20m long)	0%	31	31	08-Dec-25	15-Jan-26	08-Dec-25	15-Jan-26	1			Sheet piling,	Excavation, EL
		· · · · · · · · · · · · · · · · · · ·	,	'	'	1		1	1 .		Davidete	Ob 1	
1st Programme	-				2	26 of 27				ate First Program	Revision	Checked	Approve
Actual Work	♦ Milestone												
Actual Work Remaining Work									12-De		me ramme January 2023		_

Monthly Programme January 2023

)	Activity Name	Activity %	1st Prog.	Original	1st Prog. Start	1st Prog. Finish	Start	Finish	Total	2023 2024 2025	2026 2027
		Complete	Dur.	Duration					Float		FMAMJJASONDJF ^N
SW-OTB-8070	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B54 (20m long)	0%	31	31	16-Jan-26	24-Feb-26	16-Jan-26	24-Feb-26	1		Sheet piling, Excavation, EL
21.PRW.PO5.10270	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-B51 to TTA-B47)	0%	0	72			16-Jan-26	16-Apr-26	22		Coordination with Utility
	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B53 (20m long)	0%	31	31	25-Feb-26	01-Apr-26	25-Feb-26	01-Apr-26	1		Sheet piling, Excavation,
SW-OTB-8050	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B52 (20m long)	0%	31	31	02-Apr-26	12-May-26	02-Apr-26	12-May-26	1		Sheet piling, Excavati
SW-OTB-8040	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B51 (20m long)	0%	31	31	13-May-26	18-Jun-26	13-May-26	18-Jun-26	1		Sheet piling, Excav
SW-OTB-8030	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B50 (20m long)	0%	31	31	20-Jun-26	27-Jul-26	20-Jun-26	27-Jul-26	1		Sheet piling, Exc
SW-OTB-8020	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B49 (20m long)	0%	31	31	28-Jul-26	01-Sep-26	28-Jul-26	01-Sep-26	1		Sheet piling, E
SW-OTB-8010	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B48 (20m long)	0%	31	31	02-Sep-26	09-Oct-26	02-Sep-26	09-Oct-26	1		Sheet pilin
SW-OTB-8000	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B47 (20m long)	0%	31	31	10-Oct-26	16-Nov-26	10-Oct-26	16-Nov-26	1		Sheet p
Test & Commissioning and	Connection		78	78	23-Jan-27	10-Apr-27	23-Jan-27	10-Apr-27	2		
SW-TC-2000	Cleaning & Pressure Test for DN800	0%	45	45	23-Jan-27	08-Mar-27	23-Jan-27	08-Mar-27	5		
SW-TC-2040	Cleaning & Pressure Test for DN250	0%	45	45	23-Jan-27	08-Mar-27	23-Jan-27	08-Mar-27	5		
SW-TC-2020	Cleaning & Pressure Test for DN750	0%	28	28	28-Feb-27	27-Mar-27	28-Feb-27	27-Mar-27	2		-
SW-TC-2010	Connection to existing for DN800	0%	30	30	09-Mar-27	07-Apr-27	09-Mar-27	07-Apr-27	5		******* *
SW-TC-2050	Connection to existing for DN250	0%	30	30	09-Mar-27	07-Apr-27	09-Mar-27	07-Apr-27	5		•
SW-TC-2030	Connection to existing for DN750	0%	14	14	28-Mar-27	10-Apr-27	28-Mar-27	10-Apr-27	2		

27 of 27

_	 1st Programme Baseline	\langle	♦ 1st Programme Baseline Milestone
	Actual Work	•	◆ Milestone
	Remaining Work		■ Summary
	Critical Remaining Work		

Date	Revision	Checked	Approved
12-Dec-22	First Programme		
12-Jan-23	Monthly Programme January 2023		

Contract No. 21/WSD/21 Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Caverns Monthly EM&A Report



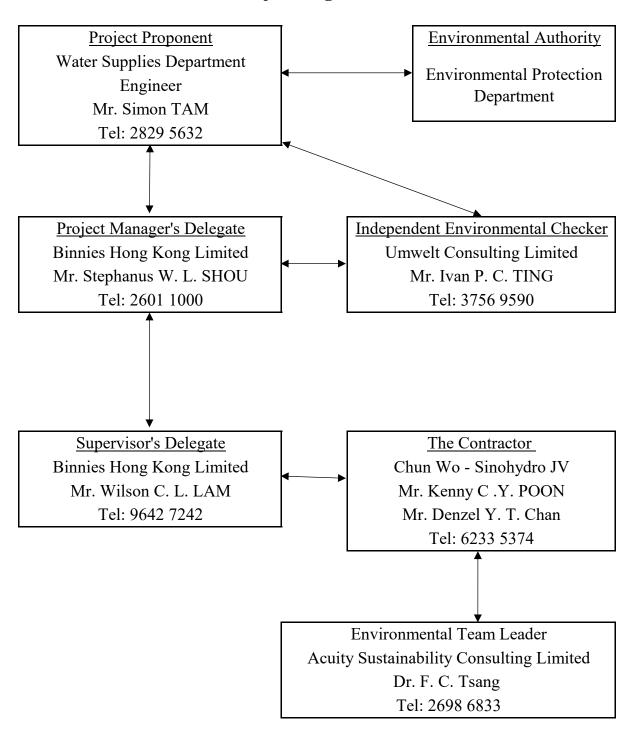


Appendix B

Project Organization Chart and Key Personnel Contact



Project Organization Chart



Contract No. 21/WSD/21 Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Caverns Monthly EM&A Report





Appendix C Event and Action Plans





Table C1 Event and Action Plan for Air Quality (Dust)

Event		Ac	ction		
Event	ET Leader IEC		ER	Contractor	
Action Level exceedance for one sample	 Identify source, investigate the causes of exceedance and propose remedial measures; Inform IEC and ER; Repeat measurement to confirm finding; Increase monitoring frequency to daily. 	 Check monitoring data submitted by ET; Check contractor's working method. 	Notify Contractor.	 Rectify any unacceptable practice; Amend working methods if appropriate. 	
Action level exceedance for two or more consecutive samples	 Identify source; Inform IEC and ER; Advise the ER on the effectiveness of the proposed remedial measures; Repeat measurements to confirm findings; Increase monitoring frequency to daily; Discuss with IEC and Contractor on remedial actions required; If exceedance continues, arrange meeting with IEC and ER; If exceedance stops, cease additional monitoring. 	 Check monitoring data submitted by ET; Check Contractor's working method; Discuss with ET and Contractor on possible remedial measures; Advise the ET on the effectiveness of the proposed remedial measures; Supervise Implementation of remedial measures. 	 Confirm receipt of notification of failure in writing; Notify Contractor; Ensure remedial measures properly implemented. 	 Submit proposals for remedial actions to ER within 3 working days of notification; Implement the agreed proposals; Amend proposal if appropriate. 	
Limit level exceedance for one sample	Identify source, investigate the causes of exceedance and propose remedial measures;	Check monitoring data submitted by ET;	Confirm receipt of notification of failure in writing;	Take immediate action to avoid further exceedance;	



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





 Table C2
 Event/Action Plan for Construction Noise

Table C2	Event/Action Plan for Construction	II INDISC					
Event	Action						
Event	ET	IEC	ER	Contractor			
Action Level Exceedance	 Notify IEC, ER and Contractor; Carry out investigation; Report the results of investigation to the IEC, ER and Contractor; Discuss with the Contractor and formulate remedial measures; Increase monitoring frequency to check mitigation effectiveness. 	 Review the analysed results submitted by the ET; Review the proposed remedial measures by the Contractor and advise the ER accordingly; Supervise the implementation of remedial measures. 	 Confirm receipt of notification of failure in writing; Notify Contractor; Require Contractor to propose remedial measures for the analysed noise problem; Ensure remedial measures are properly implemented. 	 Submit noise mitigation proposals to IEC and ER; Implement noise mitigation proposals. 			
Limit Level Exceedance	 Identify source; Inform IEC, ER, EPD and Contractor; Repeat measurements to confirm findings; Increase monitoring frequency; Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; Inform IEC, ER and EPD the causes and actions taken for the exceedances; Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; If exceedance stops, cease additional monitoring. 	Discuss amongst ER, ET, and Contractor on the potential remedial actions; Review Contractors remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; Supervise the implementation of remedial measures.	 Confirm receipt of notification of failure in writing; Notify Contractor; Require Contractor to propose remedial measures for the analysed noise problem; Ensure remedial measures properly implemented; If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated. 	 Take immediate action to avoid further exceedance; Submit proposals for remedial actions to the IEC within three working days of notification; Implement the agreed proposals; Resubmit proposals if problem still not under control; Stop the relevant portion of works as determined by the ER until the exceedance is abated. 			



Table C3 Event/Action Plan for Landscape and Visual

Table C3 EV	Tent/Action Flan for Landscape a		etion		
Event	ET	IEC	ER	Contractor	
Action Level Exceedance	 Inform the IEC, ER and the Contractor; Discuss remedial actions with IEC, ER and Contractor; and Monitor remedial actions until rectification has been completed. 	 Check inspection report; Check Contractor's working method; Discuss with ET, ER and Contractor on possible remedial measures; Advise ER on effective of proposed remedial measures; and Check implementation of remedial measures. 	 Confirm receipt of notification of nonconformity in writing; Review and agree on the remedial measures proposed by the Contractor; and Ensure remedial measures are properly implemented. 	 Identify source and investigate the non-conformity; Amend working methods agreed with ER as appropriate; and Rectify damage and undertake any necessary replacement. 	
Limit Level Exceedance	 Identify sources; Inform the Contractor, IEC and ER; Discuss inspection frequency; Discuss remedial actions with IEC, ER and Contractor; Monitor remedial actions until rectification has been completed; and If non-conformity stops, cease additional monitoring. 	 Check inspection report; Check Contractor's working method; Discuss with ET, ER and Contractor on possible remedial measures; and Advise ER on effectiveness of proposed remedial measures. 	Notify the Contractor; In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented; and Supervise implementation of remedial measures.	 Identify source and investigate the non-conformity; Implement remedial measures; Amend working methods agreed with ER as appropriate; Rectify damage and undertake any necessary replacement. Stop relevant portion of works as determined by ER until the non-conformity is abated. 	

Notes:

ET – Environmental Team; IEC – Independent Environmental Checker; ER – Engineer's Representative

Contract No. 21/WSD/21 Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Caverns Monthly EM&A Report





Appendix D Project Implementation Schedule





Environmental Mitigation Implementation Schedule (EMIS)

EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
Air Qua	lity						
D1	Dust suppression measures, including watering once per hour, will be incorporated in accordance with the requirements of the Air Pollution Control (Construction Dust) Regulation. Dust filter shall be installed at the ventilation system of the emission source at the tunnel portal chimney. The proposed dust control measures presented in Table 3.11 of the EIA report shall be followed.	Minimize dust impact at the nearby sensitive receivers	Contractor	Tunnel Portal	Construction Phase	Air Pollution Control Ordinance To control the dust impact to meet HKAQO and EIAO- TM criteria	Implemented
D2	 The following dust suppression measures should be incorporated into contract document. The standard dust suppression measures as stipulated in the Air Pollution Control (Construction Dust) Regulation to control the dust nuisance shall be implemented throughout the construction phase: The contractor shall observe and comply with Air Pollution Control (Construction Dust) Regulation and implement all the required mitigation measures. The contractor shall undertake precautions at all times to prevent dust nuisance and smoke as a result of his activities. The contractor shall ensure a highly efficient dust filter (at least 80% efficiency) to be installed at the ventilation exhaust to treat the exhausting air from cavern. The contractor shall frequently clean and water the site to minimize fugitive dust emissions. The contractor shall ensure that there will be adequate water supply/storage for dust suppression. 	Minimize dust impact at the nearby sensitive receivers	Contractor	All Construction sites	Construction Stage	Air Pollution Control Ordinance To control the dust impact to meet HKAQO and EIAO- TM criteria	Implemented after reminder





EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	 The working area of any pavement breaking, excavation or earth moving operation should be sprayed with water immediately before, during and after the operation to avoid dust generation. Any stockpile of dusty material should be properly covered by tarpaulin or other impervious sheeting. Vehicles leaving a site loaded with dusty materials should be covered by tarpaulin or other impervious sheeting. Wheel washing facilities shall be installed and used by all vehicles leaving the site. No earth, mud, debris, dust and the like shall be deposited on public roads. Water in the wheel cleaning facility shall be changed at frequent intervals and sediments shall be removed regularly. The contractor shall submit details of proposals for the wheel cleaning facility. Such wheel washing facilities shall be usable prior to any earthworks excavating activity on the site. The Contractor shall also provide a hard-surfaced road between any washing facility and the public road. Any materials dropped on paved roads shall be cleaned up immediately to prevent dust nuisance. The contractor shall devise, arrange methods of working and carrying out the works in such a manner so as to minimize dust impacts on the surrounding environment, and shall provide experienced personnel with suitable training to ensure that these methods are involved. 						
D3	implemented. The contractor shall also implement specific dust mitigation measures for excavation, drilling and blasting activities during the construction of tunnel portal. These include the use of blast nets / canvas covers and ensure portal door is properly closed.	Minimize dust impact at the nearby sensitive receivers	Contractor	All Construction sites	Construction Stage	Air Pollution Control Ordinance To control the dust impact to meet	To be Implemented





EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
						HKAQO and EIAO- TM criteria	
D4	Before the commencement of any works, the Engineer may require the contractor to submit the methods of working, construction plant or equipment and air pollution control measures to be used on the site to be made available for inspection and approval.	Minimize dust impact at the nearby sensitive receivers	Contractor	All Construction sites	Construction Stage	Air Pollution Control Ordinance To control the dust impact to meet HKAQO and EIAO- TM criteria	Implemented
D5	 The following precautionary measures shall be incorporated into contract document and implemented throughout the construction. The contractor shall ensure the use of electricity power equipment is connected to the main electricity supply for better emission estimation. The contractor shall avoid the use of diesel power machines and generators as far as practicable. The contractor shall avoid the use of non-road mobile machineries which exempt by the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation, and seek the ones with proper label issued by EPD. The contractor shall observe the requirement of DEVB TC(W) No. 13/2020, to apply a temporary electricity and water supply with a target that the necessary cables/water mains laying works could be completed before the commencement of the works contract. 	Avoid burdening the surrounding NO ₂ concentration	Contractor	All Construction sites	Construction Stage	Air Pollution Control Ordinance To control the dust impact to meet HKAQO and EIAO-TM criteria DEVB TC(W) No. 13/2020	Implemented





EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
Construc	tion Noise						
N1	The contractor should limit the pipe section to be constructed by open cut method in a length of no more than 30 m at any one time when works are in close proximity to NSRs. Each work front along the proposed watermain laying should be separated by a clearance distance of at least 60 m.	Control construction noise impacts	Contractor	All construction area for watermain laying works	Construction stage	• EIAO-TM	To be implemented
N2	Use of quiet PME is considered to be a practicable means to mitigate the construction noise impact. Quiet plant is defined as a PME having actual SWL lower than the value specified in the GW-TM.	Control construction noise impacts	Contractor	All construction area for watermain laying works	Construction stage	EIAO-TM A Practical Guile for the Reduction of Noise from construction works	Implemented
N3	The use of noise barrier for certain PME could generally provide a 5 dB(A) reduction for movable PME and 10 dB(A) for stationary PME. The barrier material shall have a superficial surface density of not less than 10 kg/m² and have no opening or gaps. Sound absorbent lining inside the enclosure should be at least 25 mm thick.	Control construction noise impacts	Contractor	All construction area for watermain laying works	Construction stage	• EIAO-TM	Implemented
N4	Provision of movable noise barriers of 3m or above in height and with a short-cantilevered section on the top with skid footing should be used and located within a few metres of stationary plant and mobile plant such that the line of sight to the NSR is blocked by the barriers.	Control construction noise impacts	Contractor	All construction area for watermain laying works	Construction stage	• EIAO-TM	To be implemented
N5	Noise enclosure lined with absorptive materials shall be provided at the tunnel portal to mitigate the noise from tunnel/cavern construction. The enclosure is a gap free enclosure with acoustic doors for vehicular access purpose. The acoustic doors shall remain closed throughout the construction period. The sheet material mass of the noise enclosure should be at least 10 kg/m² and sound-absorbent lining inside the enclosure should be at least 25 mm thick.	Control construction noise impacts	Contractor	Tunnel Portal	Construction stage	EIAO-TM A Practical Guile for the Reduction of Noise from construction works	To be implemented





EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
N6	Noise barrier/enclosure should be inspected and maintained regularly. The contractor should design and provide details of the temporary noise barriers and noise enclosure to the Engineer for approval.	Control construction noise impacts	Contractor	All Construction sites	Construction stage	• EIAO-TM	Implemented
N7	For NSR5, NSR14, NSR19 and NSR 22, the construction works of Fresh Water/Salt Water Mainlaying (Reinstatement Works) shall be arranged and carried out during School Holidays (i.e., the section of the mainlaying alignment is 20m measured from the school site boundary).	Control construction noise impacts	Contractor	All Construction area for watermain laying works	Construction stage	• EIAO-TM	To be Implemented
N8	During examination period, no mainlaying works will be carried out within 30m (for NSR 14, NSR 19 and NSR 22) or 50m (for NSR 5) from the school site boundary.	Control construction noise impacts	Contractor	All Construction area for watermain laying works	Construction stage	• EIAO-TM	To be Implemented
N9	For NSR13, NSR20 and P1, the concrete lorry mixer shall be located 10 m away from the residential site boundary during the construction works of Fresh Water/Salt Water Mainlaying (Reinstatement Works).	Control construction noise impacts	Contractor	All Construction area for watermain laying works	Construction stage	• EIAO-TM	To be Implemented
N10	 Good Site Management Practices Only well-maintained plant should be operated onsite, and plant will be serviced regularly during the construction phase; Silencers or mufflers on construction equipment should be utilized and should be properly maintained during the construction phase; Mobile plant, if any, should be sited away from NSRs; Machines and plant (such as trucks) that may be in intermittent use should be shut down between work periods or will be throttled down to a minimum; Plant known to emit noise strongly in one direction should be orientated so that the noise is directed away from the nearby NSRs; 	Control construction noise impacts	Contractor	All Construction sites	Construction stage	• EIAO-TM	Implemented after reminder





	*						
EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
Operatio	 Material stockpiles and other structures should be effectively utilised in screening noise from on-site construction activities; The contractor should devise, arrange methods of working and carrying out the works in such manner as to minimise noise impacts on the surrounding environment, and should provide experience personnel with suitable training to ensure that all these measures are implemented properly; and; The contractor should minimise construction noise exposure to the school (especially during examination periods) as much as possible. The contractor should liaise with the school and Examination Authority to ascertain the exact dates and times of all examination periods during the course of the contract and to avoid noisy activities during these periods. 						
Орегино				I = 15 1/	1	T	
	 Choose quieter plant; Include noise levels specification when ordering new mechanical equipment such as pumps and ventilation systems; 	Reduce the operation noise	Project Proponent	Tunnel Portal / Ancillary building / SRs in carven	Prior to operation of the Project for planned NSRs	• EIAO-TM	To be implemented
	Locate fixed plant, louvres or openings away from NSRs;						
N11	 Locate fixed plant in walled plant rooms or in specially designed enclosures; 						
	Ensure pump room doors and tunnelportal doors are kept closed;						
	Silencers, acoustic louvres or acoustic doors should be used where necessary; and						
	Develop and implement a regularly scheduled plant maintenance programme so that equipment is properly						





EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	operated and serviced in order to maintain controlled level of noise. The programme should be implemented by properly trained personnel.						
Water Q	uality (Construction Phase)						
W1	General Construction Site Practice The Contractor should observe and comply with the Water Pollution Control Ordinance and its subsidiary regulations and obtain a discharge license under the Ordinance for discharge of effluent from the construction site. The discharge quality must meet the requirements specified in the discharge licence. All the runoff and wastewater generated from the works areas should be treated so that it satisfies all the standards listed in the TM-DSS. The Contractor should carry out the Project works in such a manner as to minimise adverse impacts on the water quality during execution of the works. In particular, the Contractor should arrange the working method to minimise the effects on the water quality within and outside the Project Site and on the transport routes. In addition, the management of construction site drainage from the Project will follow guidelines provided in ProPECC PN 1/94 – "Construction Site Drainage". The mitigation measures described in ETWB TC(W) No. 5/2005 shall also be followed where necessary for construction activities in close vicinity to inland watercourses.	To minimise water quality impact from construction site runoff and general construction activities	Contractor	All construction sites where applicable	Construction stage	• Water Pollution Control Ordinance • ProPECC PN1/94 • ETWB TC(W) No. 5/2005 • EIAO-TM • TM-DSS	Implemented
W2	Construction Site Runoff and General Construction Activities Proper site management measures should be implemented to control site runoff and drainage, and thereby prevent high sediment loadings from reaching	To minimize water quality impact from construction site runoff and general	Contractor	All construction sites where applicable	Construction stage	• Water Pollution Control Ordinance • ProPECC PN1/94 • ETWB TC(W) No. 5/2005 • EIAO-TM	Implemented





EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	downstream sections of the river/stream. The mitigation measures shall include the following practices: • Provision of perimeter channels to intercept stormrunoff from outside the site. These should be constructed in advance of the construction works. • Temporary ditches such as channels, earth bunds or sandbag barriers should be included to facilitate runoff discharge into the stormwater drain, via a sand/silt basin/trap. • Works programme should be designed to minimise works areas at any one time, thus minimizing exposed soil areas and reducing the potential for increased siltation and site runoff. • Sand/silt removal facilities such as sand traps, silt traps and sediment basins should be provided to remove the sand/silt particles from run-off where necessary. These facilities should be properly and regularly cleaned and maintained. These facilities should be carefully planned to ensure that they would be installed at appropriate locations to capture all surface water generated on site. • Careful programming of the works to avoid excavation works during the rainy season (April to September).					• TM-DSS	
	 Temporary access roads (if any) should be protected by crushed gravel and exposed slope surfaces shall be protected (e.g. by tarpaulin) when rainstorms are likely; Open stockpiles of construction materials on-site should be covered with tarpaulin or similar fabric during rainstorms to prevent erosion. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system 						





EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	 Earthwork final surfaces should be well compacted, and the subsequent permanent work or surface protection should be carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms. Appropriate drainage like intercepting channels should be provided where necessary. 						
	 Measures should be taken to minimise the ingress of rainwater into trenches. If excavation of trenches in wet seasons is necessary, they should be dug and backfilled in short sections. Rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities. Manholes should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers. Discharge of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system. 						
	 Water used in ground boring and drilling for site investigation or rock/soil anchoring should as far as practicable be recirculated after sedimentation. When there is a need for final disposal, the wastewater should be discharged into storm drains via silt removal facilities. 						
	• All vehicles and plant should be cleaned before they leave a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. A wheel washing bay should be provided at every site if practicable and wash-water should have sand and silt settled out or removed before discharging into storm drains. The section of construction road between the wheel washing bay and the public road should be						





EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	paved with backfall to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.						
W3	Reuse of treated site runoff shall be considered as far as practicable for onsite activities such as dust suppression, wheel washing and general cleaning, etc.	To minimize water quality impact from construction site runoff and general construction activities	Contractor	All construction sites where applicable	Construction stage	 Water Pollution Control Ordinance ProPECC PN1/94 ETWB TC(W) No. 5/2005 EIAO-TM TM-DSS 	N/A
W4	Sewage Generated by Construction Workforce No discharge of sewage to the storm drains and inland watercourse will be allowed. Domestic sewage /wastewater generated by workforce on-site should be collected in a suitable storage facility such as portable chemical toilets. An adequate number of portable toilets will be provided during the construction phase, with a licensed collector employed to clean the chemical toilets on a regular basis and be responsible for collection and disposal of the sewage. According to the Reference Materials on Construction Site Welfare, Health and Safety Measures that issued by the Construction Industry Council, the number of toilet facilities provided on site shall be at a ratio of not less than one for every 25 workers. These toilets should be maintained in a state that will not deter the workers from using them.	To minimise water quality impact from sewage effluent in construction phase	Contractor	All construction sites where applicable	Construction stage	• Water Pollution Control Ordinance • ProPECC PN1/94 • ETWB TC(W) No. 5/2005 • EIAO-TM • TM-DSS	Implemented
W5	Accidental Spillage of Chemicals The following mitigation measures should be implemented to avoid adverse impacts of chemical spillage:	To prevent water quality impact due to chemical spillage	Contractor	All construction sites where applicable	Construction stage	Water Pollution Control Ordinance Waste Disposal (Chemical Waste) (General) Regulation ProPECC PN1/94	Implemented





EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	 Waste streams classifiable as chemical wastes should be properly stored, collected and treated for compliance with the requirements set out in the Waste Disposal Ordinance and its subsidiary Waste Disposal (Chemical Waste) (General) Regulation. All fuel tanks and chemical storage areas should be provided with locks and be sited on paved areas. The storage areas should be surrounded by bunds with a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled oil, fuel and chemicals from reaching the receiving waters. Waste oil should be collected and stored for recycling or disposal, in accordance with the Waste Disposal Ordinance. Vehicle and plant servicing areas, vehicle wash bays and lubrication bays should, as far as possible, be located within roofed areas. The drainage in these covered areas should be connected to foul sewers via a petrol interceptor. 					• ETWB TC(W) No. 5/2005 • EIAO-TM • TM-DSS	
W6	 Groundwater infiltration and Groundwater Drawdown To minimize the groundwater infiltration, the following groundwater control measures are recommended: The Contractor shall undertake rigorous probing of the ground ahead of excavation works to identify zones of significant water inflow that could occur as a result of discrete, permeable features. In such zones of significant water inflow, the overall inflow would be reduced by means of cut-off grouting executed ahead of the tunnel/cavern advance. Where water inflow quantities are excessive, pregrouting will be required to reduce the water inflow into the tunnel/cavern. 	To minimise water quality impact from groundwater infiltration	Contractor	All construction sites where applicable	Construction stage	 Water Pollution Control Ordinance ProPECC PN1/94 ETWB TC(W) No. 5/2005 EIAO-TM TM-DSS 	To be Implemented





EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	 In case of excessive infiltration being observed as a result of the tunnelling or excavation works even after pre- grouting measures, post-grouting should be applied as far as practicable. Waterproof lining will be installed after the formation of the tunnels and caverns. In the event of seepage of groundwater occurs, groundwater should be pumped out from works areas and discharged to the storm drains via silt removal facilities. The discharges during construction phase shall comply with WPCO requirements 						
W7	Construction Works in Close Proximity of Inland Watercourses The mitigation measures proposed for "General Construction Site Practice" and "Construction Site Runoff and General Construction Activities" in Sections 5.8.2 and 5.8.3 of the EIA report shall be implemented properly to minimize the water quality impacts during to the construction works in close proximity of inland watercourse.	To minimise water quality impact from construction site near watercourses	Contractor	All construction sites where applicable	Construction stage	 Water Pollution Control Ordinance ProPECC PN1/94 ETWB TC(W) No. 5/2005 EIAO-TM TM-DSS 	To be Implemented
W8	 The practices outlined in ETWB TC(W) No. 5/2005 shall also be adopted where applicable to minimise the water quality impacts upon any natural streams or other inland watercourses. Relevant mitigation measures are listed below: The use of less or smaller construction plants may be specified in areas close to the inland watercourses to reduce the disturbance to the surface water. Temporary storage of materials (e.g. equipment, chemicals and fuel) and temporary stockpile of 	To minimise water quality impact from construction site near watercourses	Contractor	The relocated DHSRs	Construction stage	• Water Pollution Control Ordinance • ProPECC PN1/94 • ETWB TC(W) No. 5/2005 • EIAO-TM • TM-DSS	Implemented after reminder





EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	 construction debris and spoil should be located well away from any watercourses. Stockpiling of construction materials and dusty materials should be covered and located away from any watercourses. Construction debris and spoil should be covered up and/or disposed of as soon as possible to avoid being washed into the nearby inland watercourses. Adequate lateral support may need to be erected in order to prevent soil/mud from slipping into the watercourses. Construction works close to the inland watercourses should be carried out in dry season as far as practicable where the flow in the surface channel or stream is low. 						
W9	Cleansing Effluent Generated from Washing of Interior of Structures The cleaning effluent containing SS and residual chlorine should be settled out through the sedimentation tank and dechlorinated by the de-chlorination plant. The discharge quality of the cleansing effluent generated from washing of interior of structures after the construction shall meet the requirements specified in the discharge licence and the cleaning effluent should be treated properly so that it satisfies all the standards listed in the TM-DSS	To minimise water quality impact from construction site effluent	Contractor	The relocated DHSRs	Construction stage	 Water Pollution Control Ordinance ProPECC PN1/94 ETWB TC(W) No. 5/2005 EIAO-TM TM-DSS 	To be Implemented
Water Q	uality (Operation Phase)						
W10	The ProPECC PN 5/93 "Drainage Plans subject to Comments by Environmental Protection Department" provides guidelines and practices for handling, treatment and disposal of various effluent discharges to stormwater drains and foul sewers. The design of site drainage and disposal of various site effluents generated within the	To control operational site effluents	Further Operator	The relocated DHSRs	Operation stage	Water Pollution Control Ordinance ProPECC PN5/93	To be Implemented





EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	development area should follow the relevant guidelines and practices as given in the ProPECC PN 5/93.						
W11	Effluents from Cleaning of Service Reservoir Treatment and disposal of cleansing water during annual cleaning and maintenance of the service reservoirs shall follow the WSD's current normal practice with reference to Sections 23.24 – 23.25 of the General Specification for Civil Engineering Works. Portable water incorporated with a mixture of sterilizing chemicals shall be used for washing water retaining structures. The cleansing effluent shall be settled out through the sedimentation task and dechlorinated by a dechlorination unit before being discharged to drainage system. Agreement of DSD and discharge license from EPD shall be obtained before commencing any of the discharges during operation phase	To control operational site effluents	Further Operator	The relocated DHSRs	Operation stage	Water Pollution Control Ordinance Sections 23.23-23.24 of the General Specification for Civil Engineering Works TM-DSS	To be Implemented
W12	 Non-point Source Surface Runoff Best Management Practices (BMPs) to reduce non-point source surface water pollution are proposed as follows: Exposed surface shall be avoided within access road and portal/ancillary building areas to minimise soil erosion. The access road and the portal/ancillary building areas shall be either hard paved or covered by landscaping area where appropriate. Screening facilities such as standard gully grating and trash grille, with spacing which is capable of screening off large substances such as fallen leaves and rubbish should be provided at the inlet of drainage system. Road gullies with standard design and silt traps should be provided to remove particles present in stormwater runoff, where appropriate. Good management measures such as regular cleaning and sweeping of road surface/ open areas are suggested. The road surface/ open area cleaning 	To minimize water quality impact from non-point source surface run-off	Further Operator	The relocated DHSRs	Design and Operation stages	Water Pollution Control Ordinance ProPECC PN5/93	To be Implemented





EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	 should also be carried out prior to occurrence of rainstorm. Manholes, as well as storm water gullies, ditches provided at the Project site should be regularly inspected and cleaned (e.g. monthly). Additional inspection and cleansing should be carried out before forecast heavy rainfall. 						
Waste M	Ianagement (Construction Phase)						
WM1	The waste management hierarchy shall apply to the construction waste management (i.e. in order of desirability: avoidance, minimization, recycling, treatment and safe disposal of waste).	Minimize waste generation during construction	Contractor	All construction sites	Design and Construction stages	• Waste Disposal Ordinance • EIAO	Implemented
WM2	The contractor should develop and provide toolbox talk for on-site sorting of C&D materials to enhance workers' awareness in handling, sorting, reuse and recycling of C&D materials. Requirements for staff training should be included in the contractor's Environmental Management Plan (EMP). The EMP shall be submitted to the Architect/Engineer for approval before construction works in accordance with ETWB TC(W) No.19/2005.	Minimize waste generation during construction	Contractor	All construction sites	Construction stages	• Waste Disposal Ordinance • EIAO • ETWB TC(W) No. 19/2005 • DEVB TC(W) No. 6/2010	Implemented
WM3	Good planning and site management practice should be employed to eliminate over-ordering or mixing of construction materials to reduce wastage. Proper storage and site practices will minimise the damage or contamination of construction materials.	Ensure proper waste management system throughout the construction	Contractor	All construction sites	Construction stages	 Waste Disposal Ordinance EIAO ETWB TC(W) No. 19/2005 DEVB TC(W) No. 6/2010 	Implemented
WM4	Where waste generation is unavoidable, the potential for recycling or reuse should be rigorously explored. If waste cannot be recycled, disposal routes described in the EMP should be followed. A recording system for the amount of wastes generated, recycled and disposed (including the	Reduce waste generation	Contractor	All Construction sites	Construction stage	• Waste Disposal Ordinance • EIAO • ETWB TC(W) No. 19/2005	Implemented





EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	disposal sites) should be implemented. In order to monitor the disposal of C&D material and solid wastes at public filling facilities and landfills and to control flytipping, a trip-ticket system should be included. One may make reference to DEVB TC(W) No. 6/2010 for details.					• DEVB TC(W) • No. 6/2010	
WM5	Regular cleaning and maintenance of the waste storage area should be provided.	Avoid odour, pest, and litter impacts	Contractor	All construction sites	Construction stage	• DEVB TC(W) No.8/2010 • ETWB TC(W) No. 19/2005	Implemented
WM6	 Best Management Practice An on-site environmental co-ordinator should be identified at the outset of the works. The co-ordinator shall prepare an Environmental Management Plan (EMP) incorporating waste management in accordance with the requirements set out in the ETWB TCW No. 19/2005, Environmental Management on Construction Sites. The EMP shall include monthly and yearly Waste Flow Tables (WFT) that indicate the amounts of waste generated, recycled and disposed of (including final disposal site), and which should be regularly updated. WFT will be provided in the WMP which will form part of the EMP in accordance with ETWB TCW No.19/2005; The reuse/recycling of all materials on site shall be investigated prior to treatment/ disposal off- site; Good site practices shall be adopted from the commencement of works to avoid the generation of waste, reduce cross contamination of waste and to promote waste minimisation; All waste materials shall be sorted onsite into inert and non-inert C&D materials, and where the materials can be recycled or reused, they shall be further segregated. 	Ensure proper waste management system throughout the construction	Contractor	All construction sites	• Construction stage	• EIAO • Waste Disposal Ordinance • ETWB TCW No. 19/2005, Environmental Management on Construction Sites • DEVB TCW No.6/2010 • DEVB TCW No. 8/2010 • WBTC No.12/2000	Implemented after observation





EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	 The contractor shall be responsible for identifying what materials can be recycled/ reused, whether onsite or offsite. In the event of the latter, the contractor shall make arrangements for the collection of the recyclable materials. Any remaining non-inert C&D materials shall be collected and disposed of to the landfills whilst any inert C&D materials shall be reused on site as far as possible. Alternatively, if inert C&D materials cannot be reused on-site, the materials would be delivered to public fill reception facilities for beneficial reuse after obtaining the appropriate licence; With reference to DEVB TCW No.6/2010, Trip-ticket System for Disposal of Construction and Demolition Material, a trip ticket system should be established at the outset of the construction to monitor the disposal of C&D materials and solid wastes from the site to public filling facilities and landfills; Under the Waste Disposal (Chemical Waste) (General) Regulation, the Contractor shall register as a Chemical Waste Producer if chemical wastes such as spent lubricants and paints are generated on site. Only licensed chemical waste collectors shall be employed to collect any chemical waste generated at site. The handling, storage, transportation and disposal of chemical wastes shall be conducted in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes and A Guide to the Chemical Waste Control Scheme both published by EPD; A sufficient number of covered bins shall be provided on site for the containment of general refuse. These bins shall be cleared daily and the collected waste disposed of to the refuse transfer station. Further to the 						





EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	 issue of DEVB TCW No. 8/2010, Enhanced Specification for Site Cleanliness and Tidiness, the contractor is required to maintain a clean and hygienic site throughout the Project works; Tool-box talks should be provided to workers about the concepts of site cleanliness and appropriate waste management procedures, including waste reduction, reuse, and recycling; and The contractor shall comply with all relevant statutory requirements and guidelines and their updated versions that may be issued during the course of Project construction. 						
WM7	On-site Sorting, Reuse and Recycling All waste materials should be segregated into categories covering: Inert C&D materials suitable for reuse on-site; Inert C&D materials suitable for public fill reception facilities; Recyclable C&D materials for recycling; Remaining C&D materials for landfill; Chemical waste; and General refuse for landfill.	Reduce waste generation	Contractor	All construction sites	Construction stage	Waste Disposal Ordinance ETWB TCW No. 19/2005, Environmental Management on Construction Sites	Implemented
WM8	Proper segregation and disposal of construction waste should be implemented. Separate containers should be provided for inert and non-inert materials.	Reduce waste generation	Contractor	All construction sites	Construction stage	Waste Disposal Ordinance ETWB TCW No. 19/2005, Environmental Management on Construction Sites	Implemented





EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
WM9	Specific area should be allocated for on-site sorting of C&D materials and to provide a temporary storage area for those sorted materials. If area is limited, all C&D materials should at least be sorted on-site into inert and non-inert components. Non-inert C&D materials such as bamboo, timber, vegetation, packaging waste and other organic materials should be reused and recycled to local recycler wherever possible and disposed to the designated landfill only as a last resort. Inert C&D materials such as concrete, stone, clay, brick, soil, asphalt and the like should be separated and reused in this or other projects (subject to approval by the relevant parties in accordance with the DEVB TC(W) No. 6/2010) before disposed of at a public filling facility operated by CEDD. Steel and other metals should be recovered from demolition waste stream and recycled	Ensure proper waste management system throughout the construction in order to reduce waste generation	Contractor	All construction sites	Construction stage	• Waste Disposal Ordinance • ETWB TCW No. 19/2005, Environmental Management on Construction Sites • DEVB TCW No.6/2010 • DEVB TCW No.8/2010	Implemented
WM10	The reuse of inert C&D materials such as soil, rock and broken concrete should be maximised. Waste should be separated into fine, soft and hard materials. With the use of a crusher. coarse materials can be crushed to make it suitable for use as fill materials where fill is required in the works. This minimises the use of imported materials and maximises the use of the C&D materials produced. Approval from CEDD and EPD shall be obtained for the use of site crusher in accordance with WBTC No. 11/2002.	Ensure proper waste management system throughout the construction in order to reduce waste generation	Contractor	All construction sites	Construction stage	• Waste Disposal Ordinance • WBTC No. 11/2002	Implemented
WM11	Excavated Materials Excavated materials should be temporarily stored on-site for use as backfill as far as possible. It should be properly covered with tarpaulin or similar impervious sheeting to prevent dust nuisance and site runoff. Surplus excavated materials should be disposed of to public fill reception facilities.	Minimize dust, site runoff and waste impacts from excavated and C&D materials	Contractor	All construction sites	Construction stage	Waste Disposal Ordinance Air Pollution Control Ordinance To control the dust impact to meet HKAQO and EIAO-TM criteria	Implemented





EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
WM12	 Control measures for temporary stockpiles on-site should be taken, which include: Surface of stockpiled soil should be regularly wetted with water especially during dry season; Disturbance of stockpiled soil should be minimized; Stockpiled soil should be properly covered with tarpaulin especially when heavy rainstorms are predicted; Stockpiling areas should be enclosed where space is available; Stockpiling location should be away from the water bodies; and An independent surface water drainage system equipped with silt traps should be installed at the stockpiling area. 	Minimize the noise, generation of dust, pollution of water and visual impact from excavated and C&D materials	Contractor	All construction sites	Construction stage	Waste Disposal Ordinance Air Pollution Control Ordinance To control the dust impact to meet HKAQO and EIAO-TM criteria. ETWB TC(W) No.19/2005	Implemented
WM13	The Public Fill Committee of CEDD should be consulted for disposal of inert C&D materials to public fill reception facilities while EPD should be consulted for disposal of non-inert C&D materials to landfill. Disposal of C&D waste to landfill must not have more than 50% (by weight) inert material. The C&D waste delivered for landfill disposal should contain no free water and the liquid content should not exceed 70% by weight.	Minimise waste impacts from C&D materials	Contractor	All construction sites	Design and Construction stages	• Waste Disposal Ordinance • ETWB TCW No. 19/2005, Environmental Management on Construction Sites • DEVB TCW No.6/2010 • DEVB TCW No.8/2010	Implemented
WM14	In order to avoid dust impacts, any vehicle leaving a works area carrying C&D waste or public fill should have their load covered up before leaving the construction site.	Minimize the dust impact from transferring C&D materials	Contractor	All construction sites	Construction stages	Air Pollution Control Ordinance ETWB TCW No. 19/2005, Environmental Management on Construction Sites	Implemented





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EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
						• DEVB TCW No.6/2010 • DEVB TCW No.8/2010	
WM15	C&D materials should be disposed of at designated public fill reception facilities or landfills. Disposal of these materials for the use at other construction projects is subject to the approval of the Engineer and/or other relevant reception authorities. Furthermore, unauthorised disposal of C&D materials in particular on private agricultural land is prohibited and may be subject to relevant enforcement and regulating actions. The disposal of public fill and C&D materials will be controlled through trip-ticket system in accordance with DEVB TC(W) No. 6/2010.	Minimise waste impacts from C&D materials	Contractor	All construction sites	Construction stages	• Waste Disposal Ordinance • ETWB TCW No. 19/2005, Environmental Management on Construction Sites • DEVB TCW No.6/2010 • DEVB TCW No.8/2010	Implemented
WM16	Chemical Waste Where the construction processes produce chemical waste, the contractor must register with EPD as a chemical waste producer. Wastes classified as chemical wastes are listed in the Waste Disposal (Chemical Waste) (General) Regulation. These wastes are subject to stringent disposal routes. EPD requires information on the particulars of the waste generation processes including the types of waste produced, their location, quantities and generation rates. A nominated contact person must be registered with EPD. An updated list of licensed chemical waste collector can be obtained from EPD.	Proper waste management for chemical waste	Contractor / Relevant Operators	All construction sites	Construction stages	Waste Disposal (Chemical Waste) (General) Regulation Code of Practice on the Packaging Labelling and Storage of Chemical Waste	Implemented
WM17	Storage, handling, transport, and disposal of chemical waste should be arranged in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes published by EPD, and collected by a licensed chemical waste collector.	Proper waste management for chemical waste	Contractor / Relevant Operators	All construction sites	Construction stages	 Waste Disposal (Chemical Waste) (General) Regulation Code of Practice on the Packaging Labelling and 	Implemented after observation





EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
						Storage of Chemical Waste	
WM18	Suitable containers should be used for specific types of chemical wastes. The containers should be properly labelled (in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Regulations), resistance to corrosion, stored safely and closely secured. Stored volume should not be kept more than 450 liters unless the specification has been approved by the EPD. Storage area should be enclosed by three sides by a wall, partition of fence that is at least 2 m height or height of tallest container with adequate ventilation and space.	Proper waste management for chemical waste	Contractor / Relevant Operators	All construction sites	Construction stages	Waste Disposal (Chemical Waste) (General) Regulation Code of Practice on the Packaging Labelling and Storage of Chemical Waste	Implemented
WM19	Hard standing, impermeable surfaces draining via oil interceptors should be provided in works area compounds. Interceptors should be regularly emptied to prevent release of oils and grease into the surface water drainage system after accidental spillages. The interceptor should have a bypass to prevent flushing during periods of heavy rain. Oil and fuel bunkers should be bunded and/or enclosed on three sides to prevent discharge due to accidental spillages or breaches of tanks. Bunding should be of sufficient capacity to accommodate 110% of the volume of the largest container or 20% of the total volume of waste, whichever is largest. Waste collected from any oil interceptors should be collected and disposed of by a licensed collector.	Proper waste management for chemical waste	Contractor / Relevant Operators	All construction sites	Construction stages	Waste Disposal Ordinance ETWB TCW No. 19/2005, Environmental Management on Construction Sites Waste Disposal (Chemical Waste) (General) Regulation EIAO-TM criteria	Implemented
WM20	Lubricants, waste oils and other chemical wastes are likely to be generated during the maintenance of vehicles and mechanical equipment. Used lubricants should be collected and stored in individual containers which are fully labelled in English and Chinese and stored in a	Proper waste management for chemical waste	Contractor / Relevant Operators	All construction sites	Construction stages	 Waste Disposal (Chemical Waste) (General) Regulation Code of Practice on the Packaging 	Implemented





EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	designated secure place. The chemical waste shall be collected by licensed chemical waste collectors.					Labelling and Storage of Chemical Waste	
WM21	The registered chemical waste producer (i.e. the contractor) has to arrange for the chemical waste to be collected by licensed collectors. The licensed collector should regularly take chemical waste to a licensed chemical waste treatment facility (such as the CWTC in Tsing Yi). A trip ticket system operates to control the movement of chemical wastes.	Proper waste management for chemical waste	Contractor / Relevant Operators	All construction sites	Construction stages	• Waste Disposal (Chemical Waste) (General) Regulation	Implemented
WM22	No lubricants, oils, solvents or paint products should be allowed to discharge into water courses, either by direct discharge, or as contaminants carried in surface water runoff from the construction site.	Proper waste management for chemical waste	Contractor / Relevant Operators	All construction sites	Construction stages	• Waste Disposal (Chemical Waste) (General) Regulation	Implemented
WM23	General Refuse General refuse should be disposed of to landfill as designated by EPD only after recyclable materials (e.g. paper, metals, aluminium cans, etc.) have been sorted out.	Minimise production of the general refuse and avoid odour, pest and litter impacts	Contractors	All construction sites	Construction stage	Waste Disposal Ordinance Public Health and Municipal Services Ordinance (Cap.132)	Implemented
WM24	The contractor should nominate approved site personnel to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility of all wastes generated at the site. Training of site personnel about site cleanliness, proper waste management and chemical handling procedures should be provided. Recyclable materials such as papers and aluminium cans should be separated and delivered to the local recyclers. An adequate number of waste containers should be provided to avoid spillage of waste.	Minimise production of the general refuse and avoid odour, pest and litter impacts	Contractors	All construction sites	Construction stage	Waste Disposal Ordinance Public Health and Municipal Services Ordinance (Cap.132)	Implemented
WM25	General refuse generated on-site should be stored in enclosed bins or skips and collected separately from other construction and chemical wastes and disposed of at	Minimise production of the general refuse and	Contractors	All construction sites	Construction stage	• Waste Disposal Ordinance	Implemented





EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	designated landfills by reputable waste collectors. The removal of waste from the site should be arranged on a daily basis or at least on every second day by the contractor to minimise any potential odour impacts, minimise the presence of pests, vermin and other scavengers and prevent unsightly accumulation of waste.	avoid odour, pest and litter impacts				• Public Health and Municipal Services Ordinance (Cap.132)	
Waste M	anagement (Operation Phase)						
WM26	The general refuse and chemical waste generated during the operation phase would follow the same handling procedures and disposal method presented in Sections 6.6.16 to 6.6.25 of the EIA report. It is expected that there would be limited quantities of general refuse and chemical waste to be generated from the operation of the Project and will be properly handled by licensed chemical waste collectors and reputable waste collector. Waste monitoring and audit programme for the operation phase of the Project would not be required.	Minimise production of the general refuse and avoid odour, pest and litter impacts	Relevant Operators	All construction sites	Operation Stage	Waste Disposal Ordinance Waste Disposal (Chemical Waste) (General) Regulation Code of Practice on the Packaging Labelling and Storage of Chemical Waste Public Health and Municipal Services Ordinance (Cap.132)	To be implemented
Ecology							
E1	Direct impact to the recognised site of conservation importance (Lion Rock Country Park)/habitats with high ecological values (e.g. watercourse, woodland, species of conservation interest shall be avoided.	Avoid any direct impacts to these sites of conservation importance /habitats with high ecological value	Detailed Design Consultant	Sites of conservation importance/ habitats with high ecological value	Design Stage	TM-EIAO	To be implemented





EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
E2	To minimise habitat loss to the nearby habitats and associated wildlife, the following mitigation measures should be implemented: • Confining the works within the Project Boundary; • Controlling access of site staff to avoid damage to the vegetation in surrounding areas; and • Placement of equipment or stockpile in the existing disturbed / urbanised area within the Project Boundary of the Project to minimise disturbance to vegetated area.	Minimise habitat loss to the nearby habitats and associated wildlife	Contractor	All construction sites	Construction Stage	TM-EIAO	Implemented
Е3	Reinstatement and enhancement of temporarily affected habitats. Minor ecological impacts may arise from the temporary loss of plantation and developed area during construction phase. In general, replanting would be implemented upon the completion of the construction works to reinstate the temporarily affected areas to condition similar to original status.	Enhance the temporarily affected habitats	Contractor	All construction sites	Construction stage	TM-EIAO	To be implemented
E4	 Minimizing Disturbance from Construction Activities Mitigation measures including, but not limited to, erection of site hoarding, use of Quality Powered Mechanical Equipment (QPME), noise and dust reduction tarpaulin sheeting and good site practices throughout construction phase are shown as followings: Site hoarding would be established around the proposed tunnel portal and E&M building prior to the commencement of construction works to prevent construction activities from encroaching adjacent habitats as well as prevent unnecessary human activities in the surrounding habitats; QPME, noise and dust reduction tarpaulin sheeting could be used during construction phase to reduce noise disturbance and dust emission. Temporary 	To minimise disturbance from construction activities	Contractor	All construction sites	Construction stage	TM-EIAO	Implemented





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EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	 barriers such as movable noise barrier, temporary noise screening structures and site hoardings could further reduce the noise impact; Good site practices such as regular water spraying at dusty operation, provision of waste skips and timely collection of general refuse and construction waste are also recommended. 						
E5	Reduction of lighting can be achieved using directional lighting to prevent excessive light spill into adjacent natural habitat and disturbance to nocturnal fauna.	To minimize disturbance from construction activities	Contractor	All construction sites	Construction stage	TM-EIAO	Implemented
E6	Control of Site Runoff Best management practices should be implemented on site in accordance with the Practice Note for Professional Persons on Construction Site Drainage, Environmental Protection Department, 1994 (ProPECC PN 1/94) as far as practicable to control site runoff and drainage at all work sites during construction phase, so that the treated runoff will be discharged to public drainage system in compliance with the WPCO. Construction effluent, site run-off and sewage should be properly collected and/or treated. Wastewater from a construction site should be managed. Proper locations for discharge outlets of wastewater treatment facilities well away from the natural watercourses should be identified. Effluent monitoring should be incorporated to make sure that the discharged effluent from construction sites meets the effluent discharge guidelines. The practices outlined in ETWB TC (Works) No. 5/2005 "Protection of natural streams/rivers from adverse impacts arising from construction works" should also be adopted where applicable to minimise the water quality impacts upon the channalised/semi-natural	To control site runoff and drainage at all work sites, thus, the aquatic ecosystem is protected.	Contractor	All construction sites	Construction stage	Water Pollution Control Ordinance ProPECC PN. 1/94	Implemented





EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	watercourses, in order to better protect the aquatic ecosystem.						
E7	Control of Groundwater Infiltration In order to minimise groundwater infiltration or avoid potential impacts on watercourses, water table and groundwater drawdown, minimization approach was adopted during design stage and would be adopted during construction and operation phase.	To minimize groundwater infiltration / avoid potential impacts on watercourses	Contractor	Works area at Cavern and tunnel portal	Design stage / Construction stage / Operation Stage	EIAO-TM	To be implemented
E8	The proposed cavern would be constructed under the measured groundwater table. Water inflow would be controlled to an acceptable level by implementing pregrouting and post-grouting measures, thus the impact of the proposed cavern on the groundwater table is considered to be limited.	To minimize groundwater infiltration / avoid potential impacts on watercourses	Contractor	Works area at Cavern and tunnel portal	Design stage / Construction stage / Operation Stage	EIAO-TM	To be implemented
E9	The permanent tunnel structure of the proposed access tunnel would be designed as drained type at the locations with adequate rock cover and designed as undrained type at locations with mix ground conditions. The water inflow would also be controlled to an acceptable level with pregrouting and postgrouting measures.	To minimize groundwater infiltration / avoid potential impacts on watercourses	Contractor	Works area at Cavern and tunnel portal	Design stage / Construction stage / Operation Stage	EIAO-TM	To be implemented
E10	During operation phase, waterproof lining would be installed to prevent water seepage and water droplets (if any) would be discharged into the sewage system	To minimize groundwater infiltration / avoid potential impacts on watercourses	Contractor	Works area at Cavern and tunnel portal	Design stage / Construction stage / Operation Stage	EIAO-TM	To be implemented
E11	All the mitigation measures regarding potential groundwater infiltration concern that has been proposed in Section 5.8.7 shall be followed.	To minimize groundwater infiltration / avoid potential impacts on watercourses	Contractor	Works area at Cavern and tunnel portal	Design stage / Construction stage / Operation Stage	EIAO-TM	To be implemented





EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status			
Landscap	Landscape and Visual (Construction Phase)									
CM1	 Careful Site Planning and Management The site layout and works area including temporary access road(s), stockpiling area(s), temporary construction storage shall be carefully planned to preserve existing landscape resources and trees as far as practicable. Good site practices shall be enforced to eliminate eyesores from unappealing stockpiling/ storage areas and/or construction activities. 	To minimize site clearance, tree removal and disturbance to existing Landscape Resources, and visual obstruction to VSRs	Project Proponent (via Contractor)	All construction areas	Construction stage	N/A	Implemented			
CM2	 Careful Design of Slope Works Slope stabilization methods (i.e., insertion of soil nails and establishment of grillage, etc.) shall be carefully formulated to minimise the loss of tree and landscape cover as far as practicable. 	To minimize tree removal and to create a slope surface better blending with the surrounding environment	Project Proponent (via Contractor)	Works area at Cavern and tunnel portal	Construction stage	N/A	Implemented			
CM3	 Tree Preservation In accordance with DEVB TC (W) No.4/2020 – Tree Preservation or its latest version, existing vegetation shall be retained on site as far as practicable. Adequate tree protection measures shall be provided for the Trees to be retained on site. Relevant guidelines on tree care and protection promulgated by Greening, Landscape and Tree Management Section of Development Bureau shall be observed and followed. 	To minimize tree removal	Project Proponent (via Contractor)	All construction areas	Construction stage	N/A	Implemented			
CM4	 Tree Transplanting/ Compensatory Tree Planting Trees unavoidably affected by the project shall be transplanted as far as practicable in accordance with DEVB TC (W) No.4/2020 – Tree Preservation or its latest version and the latest guidelines promulgated by 	To minimize the loss of trees To compensate for the loss of tree	Project Proponent (via Contractor)	All construction areas	Construction stage	DEVB TC(W) No. 4/2020- Tree Reservation	Implemented			





EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	 Greening, Landscape and Tree Management Section of Development Bureau. Affected trees that are not suitable for transplantation and to be felled shall be compensated in not less than 1:1 in quantity and in accordance with DEVB TC (W) No.4/2020 – Tree Preservation or its latest version. Onsite compensation has been prioritized. However, due to land status issues, area of onsite compensatory planting locations are insufficient to compensate for the loss of trees and near site compensatory locations managed by WSD are adopted, as shown in Figure 9.9, Figure 9.10A, Figure 9.10B and Figure 9.11 of the EIA report. Tree species selected shall be compatible with surrounding existing vegetation. 	To provide quality and sustainable landscape that is compatible with the site context					
CM5	 Inspection of Tree Works Regular site inspection shall be conducted by tree specialist. 	To closely monitor the site activities in order to avoid or minimize any possible adverse impact to the retained trees	Project Proponent (via Contractor)	All construction areas	Construction stage	N/A	Implemented
CM6	Minimization of Light Impact • Lighting at construction sites shall be carefully controlled at night	To avoid disturbance to nearby VSRs	Project Proponent (via Contractor)	All construction areas and temporary works areas	Construction stage	N/A	Implemented
CM7	 Erection of Decorative Site Hoarding Decorative hoarding that is compatible with the surrounding environment shall be erected during construction. 	To enhance the visual amenity of construction hoarding	Project Proponent (via Contractor)	All construction areas and temporary work areas	Construction stage	N/A	To be implemented





EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
CM8	Reinstatement of Temporarily Disturbed Areas Temporarily disturbed landscape areas shall be reinstated.	To reinstate the disturbed landscape	Project Proponent (via Contractor)	All construction areas and temporary work areas	Construction stage	N/A	To be implemented
Landscap	pe and Visual (Operation Phase)						
OM1	 Landscape Planting Landscape planting shall be provided in accordance with DEVB TCW No.3/2012 – Site Coverage of Greenery for Government Building Projects or its latest version. Planting species shall be compatible with the nearby existing vegetation cover as far as practicable. Not less than 12-month establishment after completion shall be provided for the landscape planting. 	To soften the hard edges of the structure and make it more compatible with the surrounding environment	Project Proponent (via Contractor)	Ancillary building	Operation stage	DEVB TCW No.3/2012	To be implemented
OM2	Rooftop Greening Rooftop greening shall be implemented with reference to the references on skyrise greenery provided by the Greening, Landscape & Tree Management Section, Development Bureau.	To make the ancillary facilities more compatible with the surrounding woodland landscape and to mitigate the potential adverse visual impact on adjacent residential VSRs viewing from an elevated vantage point	Project Proponent (via Contractor)	Ancillary building	Operation stage	N/A	To be implemented
OM3	Vertical Greening Vertical greening shall be provided.	To enhance the visual amenity of the ancillary	Project Proponent	Ancillary building	Operation stage	N/A	To be implemented





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		facilities and to blend in with the surrounding landscape	(via Contractor)				
OM4	 Careful Design of Ancillary Facilities The orientation and location of the ancillary facilities shall be carefully designed. Its finish shall be non-reflective and dull in colour. The ancillary facilities are unmanned structures that merely require minimal security services during daytime. There shall be nobody and no lighting illuminating from the buildings at night, except essential street lighting for the portal access road. 	To avoid glare impact to surrounding VSRs	Project Proponent (via Contractor)	Ancillary building	Operation stage	N/A	To be implemented





Appendix E

Air Quality and Noise Monitoring Equipment Calibration Certification





Sibata LD-5R K-Factor Verification Test by Total Suspended Particulates HVS Test Report

Information of Calibrated Equipement

Verification Test Date:	1-Mar-23	to	2-Mar-23	_	Next Verification Test Date:		L-Mar-24
Unit-under-Test- Model No.:		Sibata LD-5R					
Unit-under-Test Serial No.:		0Z4545		_			
Our Report Refrence No.:	R	PT-23-HVS-00	02	_			
Calibration Location:				 Emax			
_						_	

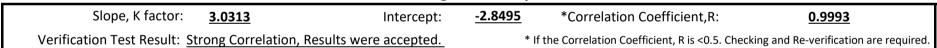
Standard Equipment Information

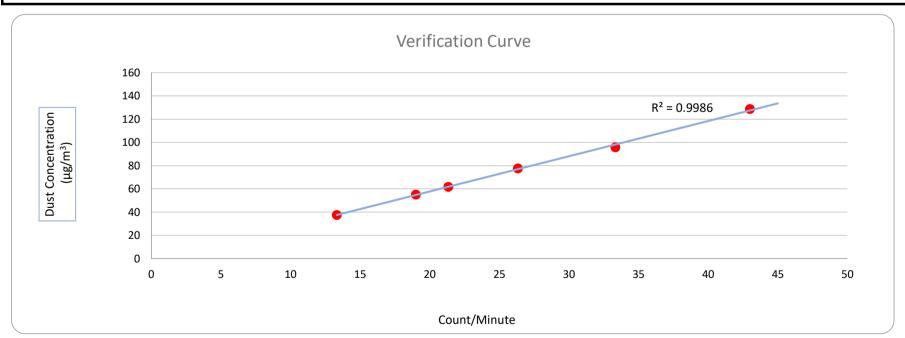
Verification Equipmen	t Type: Tisch TSP HVS	Tisch HVS Calibrator
Standard Equipment Mod	del No.: TE-5170X	TE-5025A
Equipment ser	rial no.: 1086	3465
Last Calibration	n Date: 1-Mar-23	28-Jun-22
Next Calibration	n Date: 30-Apr-23	27-Jun-23

Equipement Vertification Result

Verification		Duration		Results from	Calibrated Equipement	Results from Standard Equipment	
Test No.	Date	Start-time	End-time	Elapsed Time (in min)	Total Counts	Counts/ Minute x-axis	Dust Concentration (μg/m³) y-axis
1	1/3/2023	5013.27	5016.34	184.20	4851	26	78
2	1/3/2023	5016.34	5019.34	180.00	6000	33	96
3	1/3/2023	5019.34	5022.34	180.00	7740	43	129
4	2/3/2023	5022.34	5025.34	180.00	3840	21	62
5	2/3/2023	5025.34	5028.34	180.00	2400	13	38
6	2/3/2023	5028.34	5031.34	180.00	3420	19	55

Linear Regression of y on x





Operated By: Andy Li Date: 01-03-2023
Project Technician, Environmental

Checked By: Tandy Tse Date: 01-03-2023





Sibata LD-5R K-Factor Verification Test by Total Suspended Particulates HVS Test Report

Information of Calibrated Equipement

Verification Test Date:	1-Mar-23	to	2-Mar-23	Next Verification Test Date:	1-Mar-24
Unit-under-Test- Model No.:		Sibata LD-5R		_	
Unit-under-Test Serial No.:		882106		_	
Our Report Refrence No.:	F	PT-23-HVS-000	08	_	
Calibration Location:	E			 Emax	
_					-

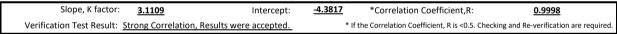
Standard Equipment Information

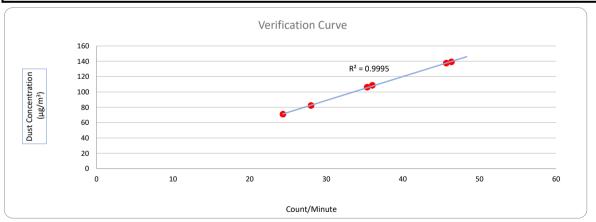
Verification Equipment Type:	Tisch TSP HVS	Tisch HVS Calibrator
Standard Equipment Model No.:	TE-5170X	TE-5025A
Equipment Serial no.:	1087	3465
Last Calibration Date:	1-Mar-23	28-Jun-22
Next Calibration Date:	30-Apr-23	27-Jun-23

Equipement Vertification Result

Verification		Duration		Results from	Calibrated Equipement	Results from Standard Equipment	
Test No.	Date	Start-time	End-time	Elapsed Time (in min)	Total Counts	Counts/ Minute x-axis	Dust Concentration (µg/m³) y-axis
1	1/3/2023	5013.27	5016.34	184.20	8535	46	139
2	1/3/2023	5016.34	5019.34	180.00	6480	36	109
3	1/3/2023	5019.34	5022.34	180.00	8220	46	137
4	2/3/2023	5022.34	5025.34	180.00	5040	28	82
5	2/3/2023	5025.34	5028.34	180.00	4380	24	71
6	2/3/2023	5028.34	5031.34	180.00	6360	35	106

Linear Regression of y on x





05-03-2023 Operated By: Project Technician, Environmental

05-03-2023 Checked By: Date: Tandy Tse Senior Consultant, Environmental





Sibata LD-5R K-Factor Verification Test by Total Suspended Particulates HVS Test Report

Information of Calibrated Equipement

Verification Test Date:	1-Mar-23	to	2-Mar-23	_	Next Verification Test Date:	_	1-Mar-24
Unit-under-Test- Model No.:		Sibata LD-5R		_			
Unit-under-Test Serial No.:		942532		_			
Our Report Refrence No.:	R	PT-23-HVS-000	05	_			
Calibration Location:	E		Emax				
· -							

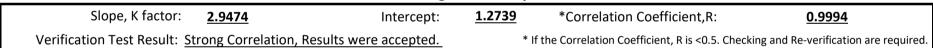
Standard Equipment Information

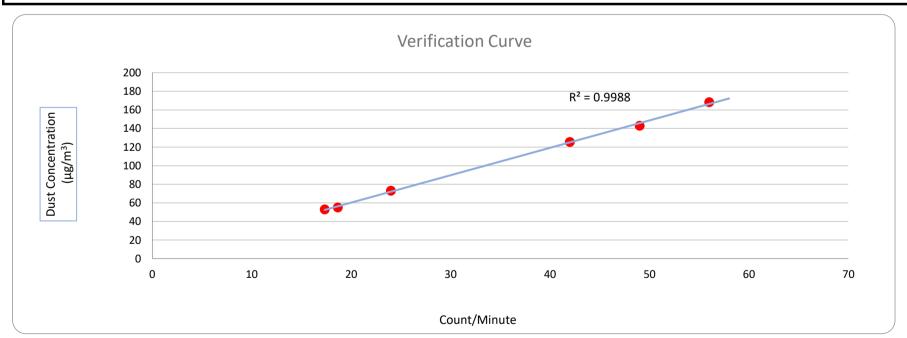
Verification Equipment Type:	Tisch TSP HVS	Tisch HVS Calibrator
Standard Equipment Model No.:	TE-5170X	TE-5025A
Equipment Serial no.:	1855	3465
Last Calibration Date:	1-Mar-23	28-Jun-22
Next Calibration Date:	30-Apr-23	27-Jun-23

Equipement Vertification Result

Verification		Duration		Results from	Calibrated Equipement	Results from Standard Equipment	
Test No.	Date	Start-time	End-time	Elapsed Time (in min)	Total Counts	Counts/ Minute x-axis	Dust Concentration (μg/m³) y-axis
1	1/3/2023	5013.27	5016.34	184.20	7736	42	125
2	1/3/2023	5016.34	5019.34	180.00	8820	49	143
3	1/3/2023	5019.34	5022.34	180.00	10080	56	168
4	2/3/2023	5022.34	5025.34	180.00	3120	17	53
5	2/3/2023	5025.34	5028.34	180.00	3360	19	55
6	2/3/2023	5028.34	5031.34	180.00	4320	24	73

Linear Regression of y on x





Operated By: Andy Li
Project Technician, Environmental

Date: 01-03-2023

Checked By: Tandy Tse Date: 01-03-2023

Certificate of Calibration

for

Description:

Sound Level Meter

Manufacturer:

NTi Audio

Type No.:

XL2 (Serial No.: A2A-13548-E0)

Microphone:

ACO 7052 (Serial No.:73912)

Preamplifier:

NTi Audio M2211 MA220 (Serial No.:5735)

Submitted by:

Customer:

Acuity Sustainability Consulting Limited

Address:

Unit E, 12/F, Ford Glory Plaza,

Nos. 37-39 Wing Hong Street,

Cheung Sha Wan, Kowloon, Hong Kong

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

Within (31.5Hz – 8kHz)

☐ Outside

the allowable tolerance.

The test equipment used for calibration are traceable to National Standards via:

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

Date of receipt: 2 February 2023

Date of calibration: 6 February 2023

Date of NEXT calibration: 5 February 2024

Calibrated by:

Calibration Technician

Certified by:

Mr. Ng Yan Wa Laboratory Manager

Date of issue: 6 February 2023

Certificate No.: APJ22-124-CC001

Page 1 of 4



1. Calibration Precaution:

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.

2. Calibration Conditions:

Air Temperature:

23.9 °**C**

Air Pressure:

1006 hPa

Relative Humidity:

47.9 %

3. Calibration Equipment:

Type

Serial No.

Calibration Report Number

Traceable to

Multifunction Calibrator

B&K 4226

2288467

AV220061

HOKLAS

4. Calibration Results

Sound Pressure Level

Reference Sound Pressure Level

Sett	ing of Uni	t-under-t	est (UUT)	Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
30-130	dBA	SPL	Fast	94	1000	94.1	±0.4

Linearity

Setti	ing of Uni	t-under-t	est (UUT)	Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
				94		94.1	Ref
30-130	dBA	SPL	Fast	104	1000	104.1	±0.3
			114		114.1	±0.3	

Time Weighting

Setting of Unit-under-test (UUT)				Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
30-130	dBA	A SPL	Fast	94	1000	94.1	Ref
30-130	uba Si	51 L	Slow			94.1	±0.3

Certificate No.: APJ22-124-CC001

(A+A) *L) Page 2 of 4



Frequency Response

Linear Response

Sett	ing of Unit	t-under-t	est (UUT)	Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Wo	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
					31.5	94.1	±2.0
					63	94.2	±1.5
					125	94.1	±1.5
					250	94.1	±1.4
30-130	dB	SPL	Fast	94	500	94.2	±1.4
					1000	94.1	Ref
					2000	94.5	±1.6
					4000	95.2	±1.6
					8000	94.9	+2.1; -3.1

A-weighting

Sett	ing of Uni	it-under-t	est (UUT)	Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
					31.5	54.8	-39.4 ±2.0
					63	68.0	-26.2 ±1.5
					125	78.0	-16.1 ±1.5
					250	85.5	-8.6±1.4
30-130	dBA	SPL	Fast	94	500	91.0	-3.2 ±1.4
					1000	94.1	Ref
					2000	95.7	+1.2 ±1.6
					4000	96.2	+1.0±1.6
					8000	93.9	-1.1+2.1; -3.1

C-weighting

Sett	ing of Uni	t-under-t	est (UUT)	Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
					31.5	91.2	-3.0 ±2.0
					63	93.4	-0.8 ±1.5
					125	94.0	-0.2 ±1.5
		SPL	Fast	94	250	94.1	-0.0 ± 1.4
30-130	dBC				500	94.2	-0.0 ± 1.4
					1000	94.1	Ref
					2000	94.3	-0.2 ±1.6
					4000	94.4	-0.8 ±1.6
					8000	92.0	-3.0 +2.1: -3.1

Certificate No.: APJ22-124-CC001



Page 3 of 4

5. Calibration Results Applied

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

Uncertainties of Applied Value:

94 dB	31.5 Hz	± 0.10
	63 Hz	± 0.10
	125 Hz	± 0.10
	250 Hz	± 0.05
	500 Hz	± 0.10
	1000 Hz	± 0.05
	2000 Hz	± 0.05
	4000 Hz	± 0.05
	8000 Hz	± 0.10
104 dB	1000 Hz	± 0.05
114 dB	1000 Hz	± 0.05

The uncertainties are evaluated for a 95% confidence level.

Note:

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

Certificate No.: APJ22-124-CC001



Certificate of Calibration

for

Description:

Sound Level Meter

Manufacturer:

NTi Audio

Type No.:

XL2 (Serial No.: A2A-13661-E0)

Microphone:

ACO 7052 (Serial No.:68914)

Preamplifier:

NTi Audio MA220 (M2211) (Serial No.:6282)

Submitted by:

Customer:

Acuity Sustainability Consulting Limited

Address:

Unit E, 12/F., Ford Glory Plaza,

Nos. 37-39 Wing Hong Street,

Cheung Sha Wan, Kowloon, Hong Kong

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

Within (31.5Hz – 8kHz)

☐ Outside

the allowable tolerance.

The test equipment used for calibration are traceable to National Standards via:

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

Date of receipt: 20 August 2022

Date of calibration: 22 August 2022

Date of NEXT calibration: 21 August 2023

Calibrated by:

Calibration Technician

Certified by:

Mr. Ng Yan Wa Laboratory Manager

Date of issue: 22 August 2022

Certificate No.: APJ22-071-CC001

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Page 1 of 4

Acoustics and Air Testing Laboratory Co. Ltd. 聲學及空氣測試實驗室有限公司

1. Calibration Precaution:

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.

2. Calibration Conditions:

Air Temperature:

23.4 °**C**

Air Pressure:

1005 hPa

Relative Humidity:

68.5 %

3. Calibration Equipment:

Type

Serial No.

Calibration Report Number

Traceable to

Multifunction Calibrator

B&K 4226

2288467

AV220061

HOKLAS

4. Calibration Results

Sound Pressure Level

Reference Sound Pressure Level

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1	
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
30-130	dBA	SPL	Fast	94	1000	93.8	±0.4

Linearity

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1	
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
				94		93.8	Ref
30-130	dBA SPL	SPL	Fast	104	1000	103.8	±0.3
				114		114.0	±0.3

Time Weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1	
Range, dB	Freq.	Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
30-130	dBA	SPL	Fast	94	1000	93.8	Ref
30-130	dDA SIL	Slow	94	1000	93.8	±0.3	

Certificate No.: APJ22-071-CC001

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Frequency Response

Linear Response

Setting of Unit-under-test (UUT)				Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. We	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
					31.5	93.9	±2.0
					63	94.0	±1.5
-					125	93.9	±1.5
					250	93.8	±1.4
30-130	dB	SPL	Fast	94	500	93.8	±1.4
					1000	93.8	Ref
					2000	93.4	±1.6
					4000	93.0	±1.6
					8000	92.2	+2.1; -3.1

A-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1	
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
					31.5	54.6	-39.4 ±2.0
					63	67.7	-26.2 ±1.5
					125	77.8	-16.1 ±1.5
					250	85.2	-8.6±1.4
30-130	dBA	SPL	Fast	94	500	90.6	-3.2 ±1.4
					1000	93.8	Ref
					2000	94.6	+1.2 ±1.6
					4000	94.0	$+1.0\pm1.6$
					8000	91.2	-1.1 +2.1; -3.1

C-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1	
Range, dB	Freq. Weighting		Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
					31.5	90.9	-3.0 ±2.0
					63	93.1	-0.8 ± 1.5
					125	93.7	-0.2 ±1.5
					250	93.8	-0.0 ±1.4
30-130	dBC	SPL	Fast	94	500	93.8	-0.0 ±1.4
					1000	93.8	Ref
					2000	93.3	-0.2 ±1.6
					4000	92.2	-0.8 ±1.6
					8000	89.3	-3.0+2.1; -3.1

Certificate No.: APJ22-071-CC001



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5. Calibration Results Applied

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

Uncertainties of Applied Value:

94 dB	31.5 Hz	± 0.10
	63 Hz	± 0.10
	125 Hz	± 0.05
	250 Hz	± 0.05
	500 Hz	± 0.05
	1000 Hz	± 0.05
	2000 Hz	± 0.05
	4000 Hz	± 0.05
	8000 Hz	± 0.10
104 dB	1000 Hz	± 0.05
114 dB	1000 Hz	± 0.05

The uncertainties are evaluated for a 95% confidence level.

Note:

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

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Certificate No. D224646E



CALIBRATION CERTIFICATE

Product

: SOUND CALIBRATOR

Type

: NC-75

Serial number

35124529

Manufacturer

: RION CO., LTD.

Calibration quantities

: Sound pressure level (with reference standard microphone)

Calibration method

: Measured by specified secondary standard microphone

according to JCSS calibration procedure specified by RION.

Ambient conditions

: Temperature 23.9 °C, Relative humidity 49 %,

Static pressure 100.6 kPa

Calibration date

02/11/2022 (DD/MM/YYYY)

Calibration location

3-20-41 Higashimotomachi, Kokubunji, Tokyo 185-8533, Japan

RION CO., LTD. Calibration Room

We hereby certify that the results of this calibration were as follows.

Issue date: 09/11/2022 (DD/MM/YYYY)

Junichi Kawamura

Manager

Quality Assurance Section, Quality Assurance Department, Environmental Instrument Division,

RION CO., LTD.

3-20-41 Higashimotomachi, Kokubunji,

Tokyo 185-8533, Japan

This certificate is based on article 144 of the Measurement Law and indicates the result of calibration in accordance with measurement standards traceable to Primary Measurement Standards (National Standards) which realizes the physical units of measurement according to the International System of Units (SI).

The accreditation symbol is attestation of which the result of calibration is traceable to Primary Measurement Standards (National Standards).

The certificate shall not be reproduced except in full, without the written approval of the issuing laboratory.

The calibration laboratory who issued this calibration certificate conforms to ISO/IEC 17025:2017.

This calibration certificate was issued by the calibration laboratory accredited by IAJapan who is a signatory to the Mutual Recognition Arrangement (MRA) of International Laboratory Accreditation Cooperation (ILAC) and Asia Pacific Accreditation Cooperation (APAC). This (These) calibration result(s) may be accepted internationally through ILAC/APAC MRA.



Certificate No. D224646E

CALIBRATION RESULT

1. Sound pressure level (with reference standard microphone)

Measured	Expanded		
value	uncertainty *1		
93.99 dB	0.09 dB		

Specified secondary standard microphone:

: 4160

Serial number : 2973341

Reference Sound pressure: 2×10⁻⁵ Pa

*1 Defines an interval estimated to have a level of confidence of approximately 95 %.

Coverage factor k=2

Calibration result is the calibration value in ambient conditions during calibration.

BE OUT OF JCSS CALIBRATION

1. Frequency

Measured	Measurement
value	uncertainty (k=2)
1000.0 Hz	$2.7 \times 10^{-4} \mathrm{Hz}$

Working measurement standard universal counter:

Type

: 53132A

Serial number : MY40005574

(JCSS Calibration Certificate No. 2208001889940)

2. Total distortion

Measured
value
0.2 %

Working measurement standard distortion meter:

Type

: VA-2230A

Serial number : 11076061

(A2LA Calibration Certificate No. 1502-03109)

· closing ·







Appendix F Environmental Monitoring Schedule

Contract No. 21/WSD/21

Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Caverns

	Impact Environmental Monitoring Schedule (Version 2.0)								
			July 2023						
Sun	Mon	Tue	Wed	Thur	Fri	Sat 1			
2	3	4	5 Impact Air Quality and Noise Monitoring (DM-1, DM-2, DM-3, DM-4, DM-4a, NM-2, NM-3, NM-4, NM-4a)	6	7 Site inspection	8			
9	10	Impact Air Quality and Noise Monitoring (DM-1, DM-2, DM-3, DM-4, DM-4a, NM-2, NM-3, NM-4, NM-4a)	12	13	Site inspection	15			
16	Impact Air Quality and Noi Monitoring (DM-1, DM-2, DM-3, DM- DM-4a, NM-2, NM-3, NM NM-4a) (Cancelled due to adverse wea	4, -4,	Impact Air Quality Monitoring (DM-1, DM-2, DM-3, DM-4, DM-4a)	20	21 Site inspection	Impact Air Quality and Noise Monitoring (DM-1, DM-2, DM-3, DM-4, DM-4a, NM-2, NM-3, NM-4, NM-4a)			
23	24	25	Site Inspection	27	Impact Air Quality and Noise Monitoring (DM-1, DM-2, DM-3, DM-4, DM-4a, NM-2, NM-3, NM-4, NM-4a)	29			
30	31								

Air Quality Monitoring Stations:

DM-1 - Tennis Court near Tin Ma Court

DM-2 - Chun Sing House, Tin Ma Court

DM-3 - Grace Methodist Church Kindergarten

DM-4 - Block 6, Tsui Chuk Garden

DM-4a - Road pavement near Wang King House, Tin Wang Court

Noise Monitoring Stations:

NM-2 - Chun Sing House, Tin Ma Court

NM-3 - Grace Methodist Church Kindergarten

NM-4 - Block 6, Tsui Chuk Garden

NM-4a - Road pavement near Wang King House, Tin Wang Court

Contract No. 21/WSD/21

Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Caverns

		Tentative Impact Env	ironmental Monitoring	Schedule (Version 2.0)					
	August 2023								
Sun	Mon	Tue	Wed	Thur	Fri	Sat			
		1	2	Impact Air Quality and Noise Monitoring (DM-1, DM-2, DM-3, DM-4, DM-4a, NM-2, NM-3, NM-4, NM-4a)	4 Site Inspection	5			
6	7	8	Impact Air Quality and Noise Monitoring (DM-1, DM-2, DM-3, DM-4, DM-4a, NM-2, NM-3, NM-4, NM-4a)	10	Site inspection	12			
13	14 Site inspecction	Impact Air Quality and Noise Monitoring (DM-1, DM-2, DM-3, DM-4, DM-4a, NM-2, NM-3, NM-4, NM-4a)	16	17	18	19			
20	Impact Air Quality and Noise Monitoring (DM-1, DM-2, DM-3, DM-4, DM-4a, NM-2, NM-3, NM-4, NM-4a)	22	23	24	Site inspection	Impact Air Quality Monitoring (DM-1, DM-2, DM-3, DM-4, DM-4a)			
27	28	29	30	31	Impact Air Quality and Noise Monitoring (DM-1, DM-2, DM-3, DM-4, DM-4a, NM-2, NM-3, NM-4, NM-4a) Site Inspection	2			
The schedule may be changed due to ur Air Quality Monitoring Stations: DM-1 - Tennis Court near Tin Ma DM-2 - Chun Sing House, Tin Ma DM-3 - Grace Methodist Church DM-4 - Block 6, Tsui Chuk Garde DM-4a - Road pavement near Wa	a Court Kindergarten len		NM-3 - Grace Met NM-4 - Block 6, T	House, Tin Ma Court thodist Church Kindergarten	g Court				





Appendix G

Air Quality Monitoring Results and Graphical Presentation





Appendix G - 1-hour TSP Monitoring Results

M-1 - Tennis Court near Tin Ma Court							
Date	Time	Weather	Particulate Concentration (µg/m³)				
	8:13		57				
5 Jul 2023	9:13	Sunny	59				
	10:13		56				
	8:30		60				
11 Jul 2023	9:30	Fine	62				
	10:30		59				
	9:00		58				
19 Jul 2023	10:00	Sunny	60				
	11:00		57				
	8:00		59				
22 Jul 2023	9:00	Sunny	60				
	10:00		55				
	14:06		56				
28 Jul 2023	15:06	Sunny	55				
	16:06		59				
		Minimum	55				
		Maximum	62				
		Average	58				

DM-2 - Chun Sing House, Tin Ma Court								
Date	Time	Weather	Particulate Concentration (μg/m ³)					
	13:40		52					
5 Jul 2023	14:40	Sunny	55					
	15:40		56					
	14:40		55					
11 Jul 2023	15:40	Fine	57					
	16:40		56					
	9:30		59					
19 Jul 2023	10:30	Sunny	63					
	11:30		61					
	8:10		60					
22 Jul 2023	9:10	Sunny	62					
	10:10		60					
	14:00		60					
28 Jul 2023	15:00	Sunny	62					
	16:00		61					
		Minimum	52					
		Maximum	63					
		Average	59					



Appendix G - 1-hour TSP Monitoring Results

DM-3 - Grace Methodist Church Kindergarten							
Date	Time	Weather	Particulate Concentration (µg/m³)				
	9:06		57				
5 Jul 2023	10:06	Sunny	58				
	11:06		55				
	9:30		49				
11 Jul 2023	10:30	Fine	56				
	11:30		57				
	12:40		53				
19 Jul 2023	13:40	Sunny	57				
	14:40		55				
	13:20		58				
22 Jul 2023	14:20	Sunny	59				
	15:20		57				
	8:06		57				
28 Jul 2023	9:06	Sunny	59				
	10:06		58				
		Minimum	49				
		Maximum	59				
		Average	56				

DM-4 - Block 6, Tsui Chuk Garden								
Date	Time	Weather	Particulate Concentration (μg/m³)					
	13:06		42					
5 Jul 2023	14:06	Sunny	45					
	15:06		46					
	15:38		49					
11 Jul 2023	16:38	Fine	50					
	17:38		48					
	10:12		59					
19 Jul 2023	11:12	Sunny	60					
	12:12		57					
	9:10		60					
22 Jul 2023	10:10	Sunny	63					
	11:10		59					
	9:00		59					
28 Jul 2023	10:00	Sunny	60					
	11:00		57					
		Minimum	42					
		Maximum	63					
		Average	54					



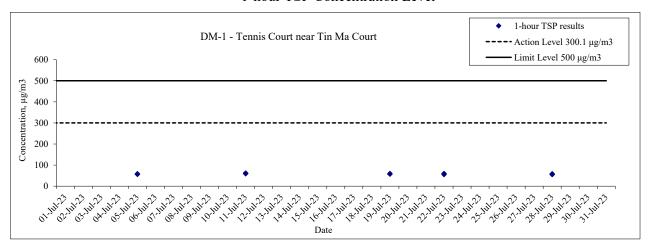
Appendix G - 1-hour TSP Monitoring Results

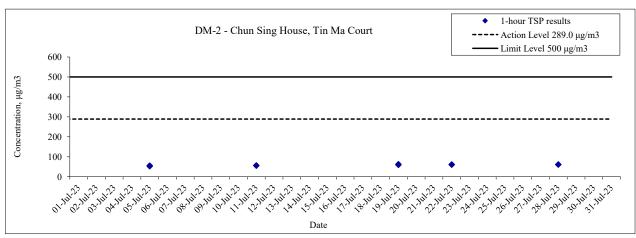
DM-4a - Road pavement near Wang King House, Tin Wang Court							
Date	Time	Weather	Particulate Concentration (μg/m³)				
	10:06		60				
5 Jul 2023	11:06	Sunny	63				
	12:06		62				
	10:30		62				
11 Jul 2023	11:30	Fine	60				
	12:30		63				
	13:10		58				
19 Jul 2023	14:10	Sunny	60				
	15:10		59				
	12:10		57				
22 Jul 2023	13:10	Sunny	59				
	14:10		59				
	13:00		56				
28 Jul 2023	14:00	Sunny	57				
	15:00		58				
		Minimum	56				
		Maximum	63				
		Average	60				

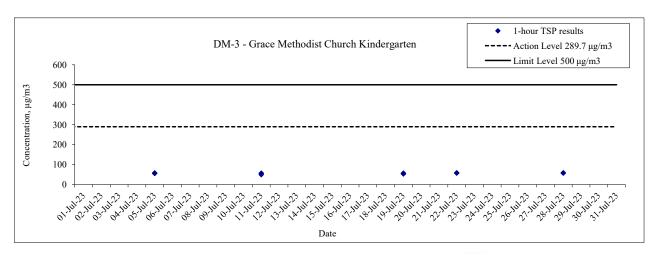




1-hour TSP Concentration Level

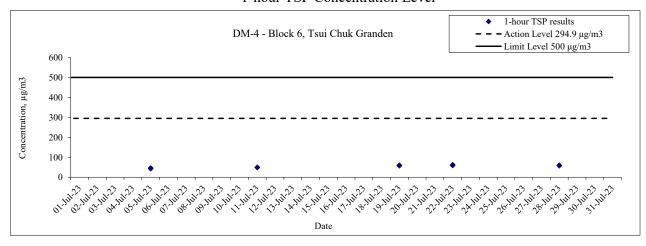


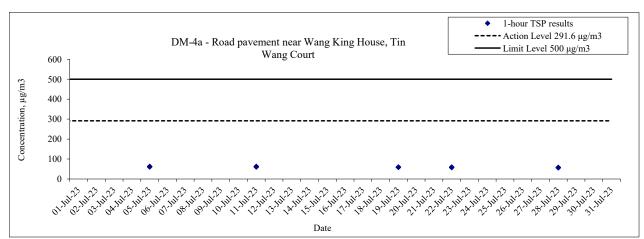






1-hour TSP Concentration Level









Appendix H

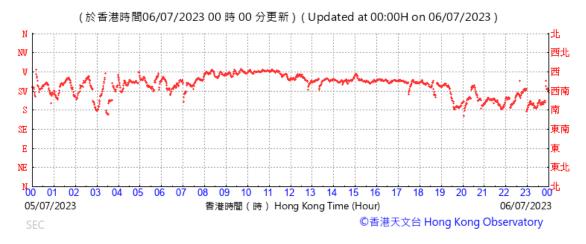
Extract of Meteorological Observations for Hong Kong (Kai Tak)

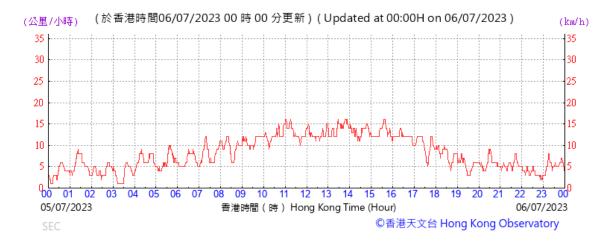




Appendix H - Extract of Meteorological Observations for Hong Kong (Kai Tak Wind Station)

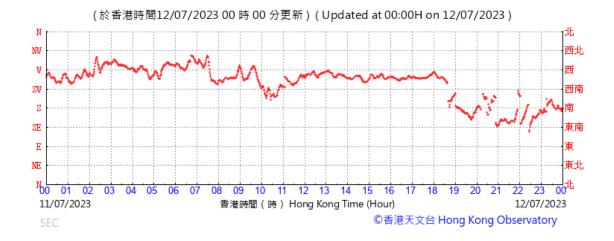
Wind Direction

























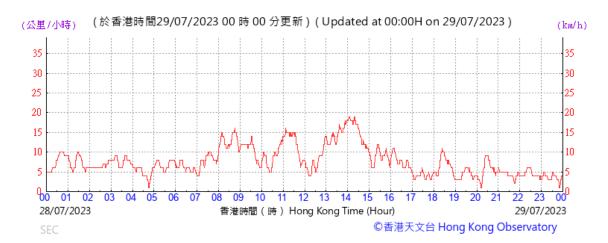
















Appendix I

Noise Monitoring Results and Graphical Presentation



Appendix I - Construction Noise Monitoring Results

Construction Noise Monitoring Stations: Chun Sing House, Tin Ma Court (NM-2)

Date	Weather	Start Time			dB(A)	
Date	weather	Start Time	Leq	L10	L90	Leq(30min)
		13:40	69.7	72.6	67.7	
		13:45	70.1	73.6	68.9	
5 Jul 2023	Sunny	13:50	71.9	74.1	69.3	70.1
3 Jul 2023	Sullily	13:55	69.3	71.4	67.6	70.1
		14:00	68.3	70.3	66.3	
		14:05	70.6	73.6	69.6	
		14:40	68.9	71.4	57.0	
		14:45	69.3	72.6	58.7	
11 Jul 2023	Fine	14:50	70.3	72.3	59.2	69.8
11 Jul 2023	rine	14:55	68.5	71.6	58.2	69.8
		15:00	69.3	73.1	59.2	
		15:05	71.6	74.2	61.9	
		10:30	69.5	71.2	51.7	
		10:35	70.2	72.6	52.9	
22 Jul 2023	Sunny	10:40	70.9	72.1	53.1	69.9
22 Jul 2023	Sullily	10:45	68.5	70.2	50.9	09.9
		10:50	69.1	71.4	52.7	
		10:55	70.9	73.2	53.2	
		14:00	55.1	61.4	51.3	
		14:05	59.2	62.2	52.3	
28 Jul 2023	Sunny	14:10	60.3	63.2	53.2	59.7
28 Jul 2023	Sullily	14:15	61.7	63.3	52.1	39.7
		14:20	60.7	62.7	53.1	
		14:25	58.2	61.2	54.2	
			•		Min:	59.7
					Max:	70.1
					Average:	67.4

Date	Weather	Start Time			dB(A)	
Date	weather	Start Time	Leq	L10	L90	Leq(30min)
		9:00	67.0	69.2	56.6	
		9:05	69.2	71.2	59.2	
5 Jul 2023	Sunny	9:10	67.6	69.9	56.3	68.8
3 Jul 2023	Sullily	9:15	68.6	70.2	56.9	06.6
		9:20	70.2	72.6	56.3	
		9:25	69.6	72.6	59.8	
		9:00	67.3	69.2	58.2	
		9:05	68.3	70.3	59.2	
11 Jul 2023	Fine	9:10	66.2	68.2	57.3	67.7
11 Jul 2023	rine	9:15	68.3	71.2	58.9	07.7
		9:20	67.7	68.3	59.2	
		9:25	67.9	70.2	60.2	
		14:30	65.6	69.1	48.9	
		14:35	66.2	70.1	49.2	66.7
22 Jul 2023	Sunny	14:40	66.9	71.1	59.9	
22 Jul 2023	Sullily	14:45	65.4	70.2	47.2	00.7
		14:50	67.2	73.2	49.9	
		14:55	68.2	74.2	52.1	
		9:30	63.6	67.2	52.8	
		9:35	64.1	66.2	53.1	
28 Jul 2023	Sunny	9:40	63.9	67.2	54.1	63.8
20 Jul 2023	Sumiy	9:45	63.2	66.3	53.1	03.0
		9:50	64.1	65.2	52.8	
		9:55	63.9	66.3	53.2	
					Min:	63.8
					Max:	68.8
					Average:	66.8



Appendix I - Construction Noise Monitoring Results

Construction Noise Monitoring Stations: Block 6, Tsui Chuk Garden (NM-4)

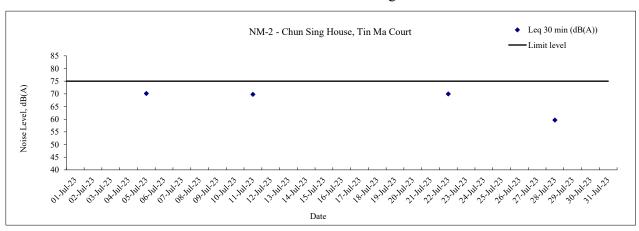
Date	Weather	Start Time			dB(A)	
Date	weather	Start Time	Leq	L10	L90	Leq(30min)
		13:03	62.3	64.6	58.6	
		13:08	63.6	65.5	59.6	
5 Jul 2023	Sunny	13:13	67.1	69.6	62.3	64.7
3 Jul 2023	Sullily	13:18	65.3	68.3	60.9	04.7
		13:23	64.1	67.2	61.2	
		13:28	64.5	69.2	62.9	
		15:38	65.7	66.8	54.3	
		15:43	66.4	67.9	55.8	
11 Jul 2023	Fine	15:48	66.9	68.1	55.6	66.0
11 Jul 2023	rine	15:53	65.6	66.9	55.3	00.0
		15:58	65.1	67.2	55.2	
		16:03	66.3	68.1	54.4	
		9:00	66.2	69.2	50.5	
		9:05	67.2	69.9	51.5	
22 Jul 2023	Sunny	9:10	67.9	70.1	53.2	67.4
22 Jul 2023	Sullily	9:15	68.2	71.6	54.1	07.4
		9:20	66.9	68.2	51.5	
		9:25	67.9	70.1	52.5	
		10:11	66.4	67.4	51.8	
		10:16	67.2	69.6	52.8	
28 Jul 2023	Sunny	10:21	67.4	68.2	54.1	67.3
26 Jul 2023	Sullily	10:26	66.9	69.1	53.1	07.3
		10:31	67.7	68.2	52.9	
		10:36	67.9	69.9	53.2	
					Min:	64.7
					Max:	67.4
					Average:	66.4

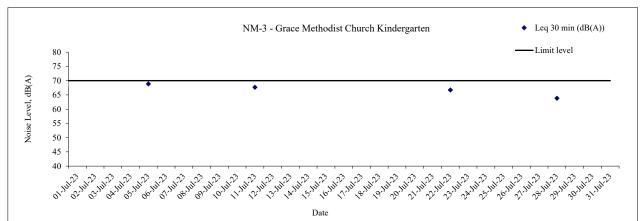
Construction Noise Monitoring Stations: Road pavement near Wang King House, Tin Wang Court (NM-4a)

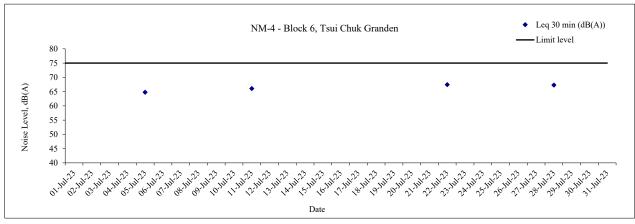
					dB(A)		
Date Weather	Weather	Start Time	Leq	L10	L90	Leq(30min)	With Free-Fiel Correction
	_	10:06	69.8	71.6	58.2		
			10:11	69.9	72.3	59.2	
5 Jul 2023	Sunny	10:16	70.3	72.9	61.2	70.0	73.0
3 Jul 2023	Sullily	10:21	68.7	70.9	59.2	70.0	73.0
		10:26	69.6	72.5	58.9		
		10:31	71.1	73.2	62.1		
		10:00	72.1	74.2	70.2		
		10:05	72.8	75.2	71.2		
11 Jul 2023	Fine	10:10	72.9	75.2	70.9	72.0	75.0
11 Jul 2023		10:15	71.1	73.6	69.3		75.0
		10:20	71.8	72.5	70.3		
		10:25	70.9	72.9	68.2		
		12:00	71.5	74.5	49.0	70.8	73.8
		12:05	70.5	73.5	51.0		
22 Jul 2023	Sunny	12:10	70.9	72.9	52.3		
22 Jul 2023	Sullily	12:15	71.5	75.5	49.2		
		12:20	70.4	72.9	52.1		
		12:25	69.9	72.1	52.1		
		12:57	68.8	71.1	55.7		
		13:02	67.9	69.2	56.7		
28 Jul 2023	Sunny	13:07	69.2	72.2	57.1	68.7	71.7
26 Jul 2023	Sullily	13:12	68.2	69.9	59.3	06.7	/1./
		13:17	69.9	72.2	2.2 58.2		
		13:22	67.9	69.3	59.7		
	•	•			Min:	68.7	71.7
					Max:	72.0	75.0
					Average:	70.4	73.4

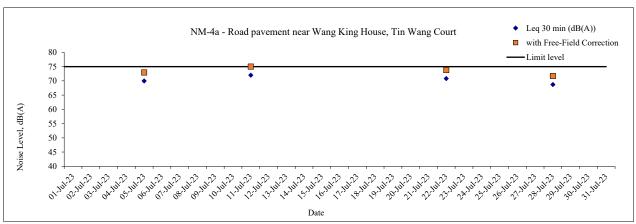


Construction Noise Monitoring Results













Appendix J

Waste Generation in the Reporting Month

Monthly Summary Waste Flow Table for 2023

Contract No.: 21/WSD/21 Contract Title: Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Caverns

	Actual Quantities of Inert C&D Materials Generated / Imported (in '000m3)					Actual Quan	tities of C&D Waste	s Generated		Ac	tual Quanti	ties of C&D V	Vastes Recyc	eled		
Month	Total Quantity Generated	Broken Concrete (including rock for recycling into aggregates)	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported C&D Material	Metals	Paper/ cardboard packaging	Plastics (bottles/ containers,plastic sheets/foam package material)	Chemical Waste	Others, e.g. general refuse	Metals	Paper/ cardboard packaging	Plastics (bottles/ containers, plastic sheets/foam package material)	Yard Waste	Others
	(a+b+c+d)	(a)	(b)	(c)	(d)		(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)	(in '000m ³)
Jan	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.0000	0.00000	0.00000	0.00000	0.00000	0.0000	0.00000	0.00000	0.00000	0.00000
Feb	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.0000	0.00000	0.00000	0.00000	0.00000	0.0000	0.00000	0.00000	0.00000	0.00000
Mar	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.0000	0.00000	0.00000	0.00000	0.00000	0.0000	0.00000	0.00000	0.00000	0.00000
Apr	0.05712	0.00000	0.00000	0.00000	0.05712	0.00000	0.0000	0.00000	0.00000	0.00000	0.20064	0.0000	0.00000	0.00000	0.00686	0.00000
May	0.95983	0.00000	0.00000	0.00000	0.95983	0.00000	0.0000	0.00000	0.00000	0.00000	0.02408	0.0000	0.00000	0.00000	0.00000	0.00000
Jun	0.14853	0.00000	0.00000	0.00000	0.14853	0.00000	0.0000	0.00000	0.00000	0.00000	0.03804	0.0000	0.00000	0.00000	0.00000	0.00000
Sub-total	1.16548	0.00000	0.00000	0.00000	1.16548	0.00000	0.0000	0.00000	0.00000	0.00000	0.26277	0.0000	0.00000	0.00000	0.00686	0.00000
Jul	0.06719	0.00000	0.00000	0.00000	0.06719	0.00000	0.0000	0.00000	0.00000	0.00000	0.00618	0.0072	0.00335	0.00980	0.00000	0.00000
Aug	0.00000															
Sep	0.00000															
Oct	0.00000															
Nov	0.00000															
Dec	0.00000															
Total	1.23267	0.00000	0.00000	0.00000	1.23267	0.00000	0.00000	0.00000	0.00000	0.00000	0.26894	0.00720	0.00335	0.00980	0.00686	0.00000

Note:

- 1. Assume the density of soil fill is 2 ton/m3.
- 2. Assume the density of rock and broken concrete is 2.5 ton/m3.
- 3. Assume the density of non-inert C&D waste is 0.9 ton/m³.





Appendix K

Summary of Complaint, Notification of Summons and Prosecution and Cumulative Complaint Log





Statistical Summary of Environmental Complaints

Daniel Daie 1	En	Environmental Complaint Statistics						
Reporting Period	Frequency	Cumulative	Complaint Nature					
1 July 2023 - 30 July 2023	0	0	N/A					

Statistical Summary of Environmental Summons

Donation David	Er	Environmental Summons Statistics						
Reporting Period	Frequency	Cumulative	Details					
1 July 2023 - 30 July 2023	0	0	N/A					

Statistical Summary of Environmental Prosecution

Reporting Period	Environmental Prosecution Statistics					
	Frequency	Cumulative	Details			
1 July 2023 - 30 July 2023	0	0	N/A			

Statistical Summary of Non-compliance (exceedances) of the Reporting Period

Environmental Monitoring	Parameter	pro rela	f non- ject ated dances LL	Total no. of non-project related exceedances	No. exceed relate the pro	ances ed to	Total no. of exceedances related to the project
Air Quality	1-hour TSP	0	0	0	0	0	0
Noise	$L_{eq(30\text{-min})}$	0	0	0	0	0	0





Cumulative Complaint Log

EPD Complaint Ref No.	Date of Complaint	Complaint Location	Complaint Details	Investigation / Mitigation Action	Status
-	-	-	-	-	-