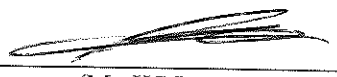
Civil Engineering and Development Department

Trunk Road T2
(under EP-458/2013/C)

Monthly Environmental Monitoring and Audit Report for October 2021

(version 1.0)

Approved By



(Mr. KS Lee,
Environmental Team Leader)

REMARKS:

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

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

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RAMBOLL

Ref.: CEDKTDT2EM00_0_0282L.21

12 November 2021

By Post and Email

Hyder-Meinhardt Joint Venture
17/F, Two Harbour Square
180 Wai Yip Street, Kwun Tong
Kowloon, Hong Kong

Attention: Mr. Edwin Ching

Dear Mr. Ching,

Re: Agreement No. EDO 01/2019
Independent Environmental Checker for
Contract No. ED/2018/04 – Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron

Monthly EM&A Report (October 2021) for EP-458/2013/C

Reference is made to the Environmental Team's submission of the Monthly EM&A Report for October 2021 (Version 1.0) certified by the ET Leader and provided to us via email on 12 November 2021. We are pleased to inform you that we have no adverse comments on the captioned submission. We write to verify the captioned submission in accordance with Condition 4.4 of EP-458/2013/C.

The ET Leader is reminded that it is the ET's responsibility to ensure the report be timely submitted to the Director of Environmental Protection as per Condition 4.4 of EP-458/2013/C.

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

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

Y H Hui
Independent Environmental Checker

c.c.	CEDD	Attn.: Mr. Tommy Wong	By Fax: 2739 0076
	BTP	Attn.: Mr. Ivan Chau	By Email
	Cinotech	Attn.: Mr. K. S. Lee	By Fax: 3107 1388

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EXECUTIVE SUMMARY

Introduction

1. This is the 18th Environmental Monitoring and Audit (EM&A) Report prepared by the Environmental Team (ET), Cinotech Consultants Ltd., for Contract No. ED/2018/04 "Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron". This report summarized the monitoring results and audits findings of the EM&A programme under the issued Environmental Permit (EP) No. EP-458/2013/C and in accordance with the EM&A Manual (AEIAR-173/2013) during the reporting month of October 2021.

Summary of Main Works Undertaken and Key Measures Implemented

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

- West bound – Drill & Blast Tunnel, Service Gallery Drill & Blast, Service Gallery A Installation
- West bound – RC Structure Construction , Blast Door installation
- East bound – type C Bench Drill & Blast, Drill & Break Tunnel, Service Gallery Drill & Blast
- East bound Enlargement Drill & Blast
- CKL Junction Reinstatement works
- Branch Tunnel – Drill & Blast
- East Ventilation Building excavation

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

Construction Noise

- Construction activities were scheduled to minimize noise nuisance to the nearby sensitive receiver.
- Use of Quality Powered Mechanical Equipment (QPME) on site.
- Erected the noise barrier on site.

Air Quality

- Regularly watering on site to avoid dust generation.

Landscape and Visual

- Tree protection zones were fenced off to protect the existing trees on site.

Environmental Monitoring Works

4. Environmental monitoring for the Project was performed in accordance with the EM&A Manual and the monitoring results were checked and reviewed. Site Inspections/Audits were conducted once per week. The implementation of the environmental mitigation measures, Event Action Plans and environmental complaint handling procedures were also checked.

5. Summary of the non-compliance (exceedance) in the reporting month for the Project is tabulated in **Table I**.

Table I Non-compliance (exceedance) Record for the Project in the Reporting Month

Environmental Monitoring	No. of Non-compliance (Exceedance)		No. of Non-compliance (Exceedance) due to Construction Activities of this Project		Action Taken
	Action Level	Limit Level	Action Level	Limit Level	
Air Quality	0	0	0	0	N/A
Noise	0	0	0	0	N/A
Marine Water Quality	N/A	N/A	N/A	N/A	N/A
Groundwater Level Monitoring (Piezometer Monitoring)	N/A	N/A	N/A	N/A	N/A
Ecological	N/A	N/A	N/A	N/A	N/A
Cultural Heritage	N/A	N/A	N/A	N/A	N/A
Landfill Gas	N/A(1)	N/A	N/A(1)	N/A	N/A

Note: (1): No Action Level for Landfill Gas Monitoring.

Air Quality Monitoring

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

7. No Limit Level exceedance for 24-hour TSP monitoring was recorded.

8. No Action Level exceedance for 24-hour TSP monitoring was recorded.

Construction Noise Monitoring

9. No Action Level exceedance was recorded in this reporting month.

10. No Limit Level exceedance for day time construction noise monitoring were recorded in the reporting month.

Water Quality Monitoring

11. Groundwater quality monitoring had been suspended since October 2019 upon the agreement by EPD. Further details should be founded at **Section 4.1**.

12. No marine water quality monitoring is required as no marine works will be conducted at the Cha Kwo Ling and Lam Tin areas for this project.

13. As the construction activity is approximately 120m away from the piezometer gate, no piezometer monitoring is required.

Waste Management

14. Wastes generated from this Project include inert construction and demolition (C&D) materials, and non-inert C&D materials. Details of waste management data is presented in **Appendix H**.

Ecological Monitoring

15. No coral monitoring is required as no marine works will be conducted at the Cha Kwo Ling and Lam Tin areas for this project.

Fisheries Impact Monitoring

16. No specific fisheries monitoring programme is required during the construction phase.

Monitoring on Cultural Heritage

17. As the construction works of Cha Kwo Ling Tunnel from the end of Trunk Road T2 to the TKOLTT at the Eastern Ventilation Building are located more than 100m away from the Cha Kwo Ling Tin Hau temple, no monitoring on cultural heritage is required.

Landscape and Visual Monitoring and Audit

18. The implementation of landscape and visual mitigation measures was checked by a registered landscape architect. Recommended follow-up actions have been discharged by the Contractor. Details of the audit findings and implementation status are presented in **Section 12**.

Landfill Gas Monitoring

19. Monitoring of landfill gases was commenced in December 2016. Since no excavation activity for this Project was carried out within the Sai Tso Wan Landfill Consultation Zone in the reporting month, no landfill gas monitoring is required

Hazard to Life Monitoring

19. No environmental monitoring and audit is required as no hazard assessment was conducted.

Environmental Site Inspection

20. Joint weekly site inspections were conducted by representatives of the Contractor, Engineer and Environmental Team. Details of the audit findings and implementation status are presented in **Section 12**.

Key Information in the Reporting Month

21. Summary of key information in the reporting month is tabulated in **Table II**

Table II Summary of Complaints, Notifications of Summons and Successful Prosecutions in the Reporting Month

Event	Event Details		Action Taken	Status
	Number	Nature		
Complaints Received	0	--	N/A	N/A
Notifications of any summons & prosecutions received	0	--	N/A	N/A

22. Summary of complaints received in the reporting month is tabulated in **Table III.**

Table III Summary of Complaints Details in Reporting Month

Complaint Type	Investigation Findings	Follow-up Action / Mitigation Measure
--	--	--

Reporting Changes

23. No reporting change in the reporting month.

Future Key Issues

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

Table IV Summary Table for Site Activities in the next Reporting Period

Site Activities (November 2021)	Key Environmental Issues
1. West bound - RC Structure Construction, Service Gallery A Installation, Blast Door Installation 2. East bound – Service Gallery Drill & Blast 3. Branch Tunnel Drill & Blast	(A) / (B) / (C) / (D)

Note:
(A) Dust generation from haul road, stockpile of dusty materials, exposed site area, excavation works and rock breaking activities;
(B) Noisy construction activity such as rock-breaking activities and piling works;
(C) Runoff from exposed slope or site area; and
(D) Wastewater and runoff discharge from site.

1 INTRODUCTION

Background

1.1 In 2009, Civil Engineering and Development Department (CEDD) commissioned a Kai Tak Development (KTD) – Trunk Road T2 and Infrastructure at South Apron Investigation. The assignment covers the provision of the Trunk Road T2 and its connections with the Central Kowloon Route (CKR) at the north apron area and the Tseung Kwan O – Lam Tin Tunnel (TKOLTT) to the south in the Cha Kwo Ling area.

1.2 The Trunk Road T2 Project is one of the designated Projects under Schedule 2 of the EIAO proposed in the KTD. CEDD submitted the Project Profile (No. PP-379/2009) on 24 March 2009 for application for an EIA study brief for the Trunk Road T2 Project under the EIAO. Accordingly, an EIA Study Brief (ESB-203/2009) for the Trunk Road T2 Project was issued on 30 April 2009. The Environmental Impact Assessment (EIA) Report for the Trunk Road T2 Project was approved under the Environmental Impact Assessment Ordinance (EIAO) on 19 September 2013. The corresponding Environmental Permit (EP) was issued on 19 September 2013 (EP no.: EP-451/2013).

1.3 The Contract No. ED/2018/04 is the main contract of Trunk Road T2 ("T2 Main Works") which comprises mainly the design and construction of a dual two-lane trunk road of approximately 3.0km long with about 2.7km of the trunk road in form of tunnel; ventilation and administration buildings, environmental protection and mitigation works and etc. The EM&A programme under this Contract is governed by the two EPs (EP-451/2013 and EP-458/2013/C) and two EM&A Manuals (AEIAR-174/2013 and AEIAR-173/2013). The work areas of the T2 Main Works are shown in **Figure 1** and the works to be executed under this Contract and corresponding EPs are summarized as follows:

Environmental Permit	**Works Description**
EP-451/2013 – Trunk Road T2	*Trunk Road T2* • Construction of highway and sub-sea tunnel connecting between Central Kowloon Route and Cha Kwo Ling Tunnel • Western & Eastern Ventilation Buildings
EP-458/2013/C – Tseung Kwan O – Lam Tin Tunnel (TKOLTT) and Associated Works	*Cha Kwo Ling Tunnel* Construction of Cha Kwo Ling Tunnel from the end of Trunk Road T2 to the TKOLTT at the Eastern Ventilation Building

Monitoring Works in Lam Tin under EP-458/2013/C

1.4 Under Agreement No. CE 59/2015 (EP) – Tseung Kwan O – Lam Tin Tunnel (TKOLLT) and Associated Works, the baseline monitoring works in Lam Tin under the EM&A Manual (AEIAR-173/2013) were conducted by the Environmental Team (ET) for the Agreement No. CE 59/2015 (EP) at the approved monitoring locations, namely AM1, AM2, AM3, AM4, AM4 (A) CM1, CM2, CM3, CM4 and CM5. Impact monitoring within the Lam Tin area shall be conducted by the ET of Contract No. ED/2018/04 upon cessation of Agreement No. CE 59/2015 (EP). The data obtained from the impact monitoring works completed by the ET of Agreement No. CE 59/2015 (EP) will be adopted in this report.

1.5 Cinotech Consultants Ltd. was designated as the Environmental Team (ET) to undertake the EM&A works for "Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron" (hereinafter called the "Project").

Purpose of the Report

1.6 This is the 18th Monthly EM&A Report which summarises the impact monitoring results and audit findings for the EM&A programme during the reporting period in October 2021.

Project Organizations

1.7 Different Parties with different levels of involvement in the Project organization include:

- Permit Holder – Civil Engineering and Development Department (CEDD)
- Supervisor Representative – Hyder-Meinhardt Joint Venture (HMJV)
- Environmental Team (ET) – Cinotech Consultants Limited (Cinotech)
- Independent Environmental Checker (IEC) – Ramboll Hong Kong Limited (Ramboll)
- Contractor – Bouygues Travaux Publics (BTP)

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

Table 1.1 Key Project Contacts

Party	Role	Contact Person	Phone No.
CEDD	Permit Holder	Mr. Wong Chi Wai, Tommy	3842 7111
HMJV	Supervisor Representative	Mr. Joe Nam	5183 0830
Cinotech	Environmental Team	Mr. KS Lee (ETL)	2151 2091
		Ms. Karina Chan	2157 3880
Ramboll	Independent Environmental Checker	Mr. YH Hui	3465 2850
BTP	Contractor	Ms. Ality Chan	5185 4462

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

Construction Activities undertaken during the Reporting Month

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

- West bound – Drill & Blast Tunnel, Service Gallery Drill & Blast, Service Gallery A Installation
- West bound – RC Structure Construction , Blast Door installation
- East bound – type C Bench Drill & Blast, Drill & Break Tunnel, Service Gallery Drill & Blast
- East bound Enlargement Drill & Blast
- CKL Junction Reinstatement works
- Branch Tunnel – Drill & Blast
- East Ventilation Building excavation

Summary of EM&A Requirements

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

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

1.12 The advice on the implementation status of environmental protection and pollution control/mitigation measures is summarized in **Section 12** of this report.

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

Status of Environmental Licensing and Permitting

1.14 All permits/licenses obtained for the Project are summarized in **Table 1.2**.

Table 1.2 Summary of Environmental License and Permit

Permit / License No.	Valid Period		Status
	From	To	
Environmental Permit (EP)			
EP-451/2013	19 Sep 2013	N/A	Valid
EP-458/2013/C	20 Jan 2017	N/A	Valid
Notification pursuant to Air Pollution (Construction Dust) Regulation			
Ref. No.: 451120	20 Nov 2019	N/A	Valid
Billing Account for Construction Waste Disposal			
A/C No.: 7036016	09 Dec 2019	N/A	Valid
Construction Noise Permit			
CNP No. (For Portion Q): GW-RE0900-21	23 Sep 2021	22 Mar 2022	Valid
CNP No. (For Portion T1): GW-RE0913-21	01 Oct 2021	30 Nov 2021	Valid
Wastewater Discharge License			
WT00036699-2020	14 Jan 2021	31 Jan 2026	Valid
Chemical Waste Producer License			
WPN: 5213-286-B2557-03	09 Mar 2020	N/A	Valid

2 AIR QUALITY

Monitoring Requirement

2.1 According to Section 2.2.4 of the EM&A Manual (AEIAR-173/2013), 1-hour and 24-hour Total Suspended Particulates (TSP) monitoring was conducted to monitor the air quality for this Project. For regular impact monitoring, a sampling frequency of at least once in every six days at all of the monitoring stations for 1-hour and 24-hour TSP monitoring. **Appendix A** shows the established Action/Limit Levels for the environmental monitoring works.

Monitoring Locations

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

Table 2.1 Air Quality Monitoring Locations

Monitoring Stations	Location	Location of Measurement
AM1	Tin Hau Temple	Ground Level
AM2	Sai Tso Wan Recreation Ground	Ground Level
AM3	Yau Lai Estate Bik Lai House	Rooftop (41/F)
AM4(1)	Sitting-out Area at Cha Kwo Ling Village	Ground Level
AM4(A)(2) (*)	Cha Kwo Ling Public Cargo Working Area Administrative Office	Rooftop (3/F)

Remarks:
(1) For 1-hour TSP monitoring;
(2) For 24-hour TSP monitoring
(*) Air quality monitoring at designated station AM4 (24-hr TSP) was rejected by the premise owners. Therefore, baseline and impact air quality monitoring works were carried out at alternative air quality monitoring stations AM4 (A) (24-hr TSP only)

Monitoring Parameters and Frequency

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

Table 2.2 Frequency and Parameters of Air Quality Monitoring

Monitoring Stations	Parameter	Period	Frequency
AM1, AM2, AM3, AM4	1-hour TSP	0700 – 1900	3 times per 6 days
AM1, AM2, AM3, AM4(A)	24-hour TSP	24 hours	Once every 6 days

Monitoring Equipment

2.4 High Volume Samplers (HVS) in compliance with the specification stipulated in the EM&A Manual (AEIAR-173/2013), Section 2.3.1, were used to carry out 24-hour TSP monitoring. Direct reading dust meter were also used to measure 1-hour average TSP levels. The 1-hour sampling was determined by HVS to check the validity and accuracy of the results measured

by direct reading method.

2.5 Wind data monitoring equipment was set at rooftop (about 41/F) of Yau Lai Estate Bik Lai House for logging wind speed and wind direction such that the wind sensors are clear of obstructions or turbulence caused by building. The wind data monitoring equipment is re-calibrated at least once every six months and the wind directions are divided into 16 sectors of 22.5 degrees each. The location is shown in **Figure 2**. This weather information for the reporting month is summarized in **Appendix C**.

2.6 **Table 2.3** summarizes the equipment used for air quality monitoring by the ET for Contract No. CE 59/2015 (EP). Copies of calibration certificates are attached in **Appendix B**.

Table 2.3 Air Quality Monitoring Equipment

Equipment	Model	Quantity
1-hour TSP Dust Meter	Sibata Model No. LD-5R (Serial No.: 972781, 972778)	2
HVS Sampler	TISCH Model: TE-5170 (Serial No.: 1536)	1
	GMW model: GS2310 (Serial No.: 1287, 10379, 10599)	3
Calibrator	TISCH Model: TE-5025A (Serial No.: 3864)	1
Wind Anemometer	Davis Weather Monitor II, Model no. 7440 (Serial No.: MC01010A44)	1

Monitoring Methodology

1-hour TSP Monitoring

Measuring Procedures

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

(Sibata Model No.: LD-5R)

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

Maintenance/Calibration

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

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

24-hour TSP Monitoring

Instrumentation

2.9 High volume samplers (HVS) (TISCH Model: TE-5170 and GMW Model: GS2310) completed with appropriate sampling inlets were employed for 24-hour TSP monitoring. The sampler was composed of a motor, a filter holder, a flow controller and a sampling inlet and its performance specification complied with that required by USEPA Standard Title 40, Code of Federation Regulations Chapter 1 (Part 50).

2.10 The positioning of the HVS samplers are as follows:

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

Operating/analytical procedures for the operation of HVS

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

- Prior to the commencement of the dust sampling, the flow rate of the high volume sampler was properly set (between 0.6 m^3/min. and 1.7 m^3/min.) in accordance with the EM&A manual (AEIAR-173/2013). The flow rate shall be indicated on the flow rate chart.
- For TSP sampling, fiberglass filters with a collection efficiency of > 99% for particles of 0.3μm diameter were used.
- The power supply was checked to ensure the sampler worked properly. On sampling, the sampler was operated for 5 minutes to establish thermal equilibrium before placing any filter media at the designated air monitoring station.
- The filter holding frame was then removed by loosening the four nuts and a weighted and conditioned filter was carefully centered with the stamped number upwards, on a supporting screen.

- The filter was aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter. Then the filter holding frame was tightened to the filter holder with swing bolts. The applied pressure should be sufficient to avoid air leakage at the edges.
- The shelter lid was closed and secured with the aluminum strip.
- The timer was then programmed. Information was recorded on the record sheet, which included the starting time, the weather condition and the filter number (the initial weight of the filter paper can be found out by using the filter number).
- After sampling, the filter was removed and sent to the HOKLAS laboratory (ALS Technichem (HK) Pty Ltd.) for weighing. The elapsed time was also recorded.
- Before weighing, all filters were equilibrated in a conditioning environment for 24 hours. The conditioning environment temperature should be between 25°C and 30°C and not vary by more than ±3°C; the relative humidity (RH) should be < 50% and not vary by more than ±5%. A convenient working RH is 40%.

Maintenance/Calibration

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

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

Results and Observations

2.13 The impact monitoring works for air quality monitoring locations AM1, AM2, AM3, AM4 and AM4 (A) are completed by the ET of Agreement No. CE 59/2015 (EP), and the data will be adopted in this report.

2.14 The impact air quality monitoring was conducted at all five monitoring stations as scheduled. The monitoring schedule is shown in **Appendix D**.

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

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

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

2.18 According to field observations by ET for Agreement No. CE 59/2015 (EP) in the reporting period, the major dust source identified at the designated air quality monitoring stations are as follows:

Table 2.4 Major Dust Source during Air Quality Monitoring

Monitoring Stations	Major Dust Source
AM1 – Tin Hau Temple	Road Traffic at Cha Kwo Ling Road, non-project related influence and the construction activity from other construction site
AM2 – Sai Tso Wan Recreation Ground	Road Traffic along Sin Fat Road
AM3 – Yau Lai Estate Bik Lai House	Road Traffic near Eastern Cross Harbour Tunnel Toll Plaza
AM4 - Sitting-out Area at Cha Kwo Ling Village	Road Traffic at Cha Kwo Ling Road
AM4(A) - Cha Kwo Ling Public Cargo Working Area Administrative Office	Road Traffic at Cha Kwo Ling Road

Comparison of EM&A Result with EIA Prediction

2.19 The air monitoring data was compared with the predictions (with the assessment height of 1.5 mAG) in Table 3.17 of EIA Report, AEIAR-173/2013 (as approved in 2013) as summarised in **Table 2.5** and **Table 2.6**.

Table 2.5 Comparison of 1-hr TSP Monitoring Data with Predictions in EIA Report

Monitoring Stations	ASR ID	Predicted Maximum 1-hr TSP Concentration in EIA Report (AEIAR-173/2013), µg/m^3	Maximum 1-hr TSP Concentration in the Reporting Month (October 2021), µg/m^3
AM1 – Tin Hau Temple	CL1	707	85.8
AM2 – Sai Tso Wan Recreation Ground	CL6	266	71.4
AM3 – Yau Lai Estate Bik Lai House	CL9	507	99.0
AM4 - Sitting-out Area at Cha Kwo Ling Village	CL16	430	70.4

Table 2.6 Comparison of 24-hr TSP Monitoring Data with Predictions in EIA Report

Monitoring Stations	ASR ID	Predicted Maximum 24-hr TSP Concentration in EIA Report (AEIAR-173/2013), µg/m^3	Maximum 24-hr TSP Concentration in the Reporting Month (October 2021), µg/m^3
AM1 – Tin Hau Temple	CL1	199	148.6
AM2 – Sai Tso Wan Recreation Ground	CL6	109	49.9
AM3 – Yau Lai Estate Bik Lai House	CL9	123	96.0
AM4(A) - Cha Kwo Ling Public Cargo Working Area Administrative Office (*)	N/A(1)	N/A(1)	104.1

Remarks:
(1) No 24-hr TSP concentration was predicted in EIA Report (AEIAR-173/2013)
(*) Air quality monitoring at designated station AM4 (24-hr TSP) was rejected by the premise owners. Therefore, baseline and impact air quality monitoring works were carried out at alternative air quality monitoring stations AM4 (A) (24-hr TSP only)

2.20 In the reporting month, the 1-hour TSP concentrations at AM1, AM2, AM3 and AM4 were lower than the prediction in the EIA Report, AEIAR-173/2013 (as approved in 2013). No Action/Limit level exceedance was recorded in the reporting period.

2.21 In the reporting month, the 24-hour TSP concentrations at AM1, AM2 and AM3 were lower than the prediction in the EIA Report, AEIAR-173/2013 (as approved in 2013). No Action/ Limit level exceedance were recorded in the reporting period.

3 NOISE

Monitoring Requirements

3.1 According to Section 3.2.1 of the EM&A Manual (AEIAR-173/2013), construction noise monitoring was conducted to monitor the construction noise arising from the construction activities. The regular monitoring frequency for each monitoring station shall be on a weekly basis and conduct one set of measurements between 0700 and 1900 hours on normal weekdays. **Appendix A** shows the established Action and Limit Levels for the environmental monitoring works.

Monitoring Locations

3.2 Noise monitoring was conducted at five designated monitoring stations, namely CM1, CM2, CM3, CM4 and CM5 in the reporting period. **Table 3.1** and **Figure 2** show the locations of these stations.

Table 3.1 Noise Monitoring Stations

Monitoring Stations	Location	Location of Measurement
CM1	Nga Lai House, Yau Lai Estate Phase 1, Yau Tong	Rooftop (41/F)
CM2	Bik Lai House, Yau Lai Estate Phase 1, Yau Tong	Rooftop (41/F)
CM3	Block S, Yau Lai Estate Phase 5, Yau Tong	Rooftop (40/F)
CM4	Tin Hau Temple, Cha Kwo Ling	Ground Level
CM5	CCC Kei Faat Primary School, Yau Tong	Rooftop (6/F)

Monitoring Parameters, Frequency and Duration

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

Table 3.2 Frequency and Parameters of Noise Monitoring

Monitoring Stations	Time Period	Duration	Frequency	Parameter	Measurement
CM1	0700-1900 hrs on normal weekdays	30 minutes	Once per week	L_{10}(30 min.) dB(A) L_{90}(30 min.) dB(A) L_{eq}(30 min.) dB(A)	Façade Measurement
CM2					Façade Measurement
CM3					Façade Measurement
CM4					Façade Measurement
CM5					Façade Measurement

Monitoring Equipment

3.4 Integrating Sound Level Meter was used for impact noise monitoring. The meters were Type 1 sound level meter capable of giving a continuous readout of the noise level readings including equivalent continuous sound pressure level (L_{eq}) and percentile sound pressure level (L_x) that also complied with International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1) specifications. **Table 3.3** summarizes the noise monitoring equipment being used by the ET for Agreement No. CE 59/2015 (EP) within the reporting period. Copies of calibration certificates are attached in **Appendix B**.

Table 3.3 Noise Monitoring Equipment

Equipment	Model	Quantity
Integrating Sound Level Meter	BSWA 308 (Serial No.: 580156)	1
	SVAN 957 (Serial No.: 23851)	1
Calibrator	ST-120 (Serial No.: 181001608)	1

Monitoring Methodology and QA/QC Procedure

3.5 The monitoring procedures are as follows:

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

Maintenance and Calibration

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

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

3.8 Immediately prior to and following each noise measurement the accuracy of the sound level

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

Results and Observations

3.9 The data obtained from the impact monitoring works completed by the ET of Agreement No. CE 59/2015 (EP) will be adopted in this report.

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

3.11 Noise monitoring results and graphical presentations are shown in **Appendix G**.

3.12 According to field observations by ET for Agreement No. CE 59/2015 (EP) in the reporting period, the major noise sources identified at the noise monitoring stations are shown in **Table 3.4**.

Table 3.4 Other Noise Source Identified during Noise Monitoring

Monitoring Stations	Major Noise Source
CM1	Road Traffic near Eastern Cross Harbour Tunnel Toll Plaza
CM2	Road Traffic near Eastern Cross Harbour Tunnel Toll Plaza
CM3	Road Traffic near Eastern Cross Harbour Tunnel Toll Plaza
CM4	Road Traffic at Cha Kwo Ling Road, non-project related construction activities
CM5	Road Traffic near Eastern Cross Harbour Tunnel Toll Plaza, Construction activity from other construction site, Road Traffic at Yau Tong Road

.

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

Monitoring Stations	Baseline Noise Level, dB (A) (at 0700 – 1900 hrs on normal weekdays)	Noise Limit Level, dB (A) (at 0700 – 1900 hrs on normal weekdays)
CM1	65.5	75
CM2	63.6	
CM3	65.6	
CM4	62.0	
CM5	68.2	70*

(*) Noise Limit Level is 65 dB(A) during school examination periods.

Comparison of EM&A Result with EIA Prediction

3.13 The noise monitoring data was compared with the predictions in Table 4.15 of EIA Report (AEIAR-173/2013) as summarised in **Table 3.6**.

Table 3.6 Maximum Predicted Mitigated Construction Noise Levels in EIA Report

Monitoring Stations	NSR ID	Maximum Predicted Mitigated Construction Noise Levels in EIA Report (AEIAR-173/2013), dB(A)	Maximum Construction Noise Levels in the Reporting Month (October 2021), Leq (30min) dB(A)
CM1 – Nga Lai House, Yau Lai Estate Phase 1, Yau Tong	N1102	73	74.8
CM2 – Bik Lai House, Yau Lai Estate Phase 1, Yau Tong	N1204	75	74.0
CM3 – Block S, Yau Lai Estate Phase 5, Yau Tong	N2105	75	73.0
CM4 – Tin Hau Temple, Cha Kwo Ling	N3101a	73	68.5
CM5 – CCC Kei Faat Primary School, Yau Tong	N4101	71	69.5

3.14 The results at CM2, CM3, CM4 and CM5 were lower than the maximum predicted mitigated construction noise level in the EIA Report, AEIAR-173/2013 (as approved in 2013). The results at CM1 was higher than the maximum predicted mitigated construction noise level in the EIA Report, AEIAR-173/2013 (as approved in 2013), this may due to the fluctuation of road traffic near Eastern Cross Harbour Tunnel Toll Plaza. No Limit level exceedance was recorded in the reporting period.

4 WATER QUALITY

Monitoring Requirement

Groundwater Quality

4.1 The existing groundwater quality monitoring programme has been suspended as the monitoring results had been deemed non-representative of the impact from the project justified by two major factors: (1) influence on the monitoring results from non-project related factors, such as anthropogenic activities and natural phenomenon; and (2) large separation between the monitoring stations and works area. In addition, as no alternative locations for the groundwater quality monitoring were available, the groundwater quality monitoring has been suspended since October 2019 upon the agreement by EPD.

Marine Water Quality

4.2 According to Section 4.4.3 of EM&A Manual (AEIAR-173/2013), marine water quality impact monitoring stations is carried out during marine construction for TKOLTT reclamation. Since the construction of Cha Kwo Ling Tunnel from the end of Trunk Road T2 to the TKOLTT at the Eastern Ventilation Building does not involve reclamation, the marine water quality monitoring programme stated in Section 4.4 of the EM&A Manual (AEIAR-173/2013) is therefore not applicable to Contract No. ED/2018/04.

Groundwater Level Monitoring (Piezometer Monitoring)

4.3 According to Section 4.1.2 of EM&A Manual (AEIAR-173/2013), daily piezometer monitoring will be carried out on a daily basis when any tunnel construction activities are carried out within +/- 50m of the piezometer gate in plan. As the construction works of Cha Kwo Ling Tunnel from the end of Trunk Road T2 to the TKOLTT at the Eastern Ventilation Building is approximately 120m away from the piezometer gate in plan, the piezometer monitoring programme stated in Section 4.2 of the EM&A Manual (AEIAR-173/2013) is therefore not applicable to Contract No. ED/2018/04.

5 WASTE MANAGEMENT

5.1 According to Section 5.1.2 of the EM&A Manual (AEIAR-173/2013), Waste materials generated during construction activities, such as construction and demolition (C&D) materials and general refuse, are recommended to be audited at regular intervals (at least quarterly) to ensure that proper storage, transportation and disposal practices are being implemented by the Contractor. To fulfil this requirement, site audits are carried out on a weekly basis. The summaries of site audits are attached in **Appendix I**.

5.2 With reference to relevant handling records of this Project, the quantities of different types of waste generated in the reporting month are summarised and presented in **Appendix H**.

6 ECOLOGY

Post-Translocation Coral Monitoring

6.1 Post-translocation monitoring survey is recommended in Section 6.2.5 of the EM&A Manual (AEIAR-173/2013), to audit the success of coral translocation. Since the construction of Cha Kwo Ling Tunnel from the end of Trunk Road T2 to the TKOLTT at the Eastern Ventilation Building does not involve any marine works in the concerned area mentioned in Section 6.1.2 of the EM&A Manual (AEIAR-173/2013), the post-translocation monitoring survey stated in Section 6.2.5 of the EM&A Manual (AEIAR-173/2013) is therefore not applicable to Contract No. ED/2018/04.

7 FISHERIES

7.1 According to Section 7.1.3 of EM&A Manual (AEIAR-173/2013), no specific fisheries monitoring programme is required during the construction phase.

7.2 The implementation of the mitigation measures stated in the Water Quality Impact Assessment (Refer to Section 5 of EIA Report (AEIAR-173/2013)) will be audited as part of the EM&A procedures during the construction period. The summaries of site audits are attached in **Appendix I**.

8 CULTURAL HERITAGE

8.1 According to Condition 3.7 of EP-458/2013/C and Section 8.2.1 of the EM&A Manual (AEIAR-173/2013), monitoring of vibration impacts was conducted when the construction works are less than 100m from the Built Heritage in close proximity of the worksite, namely the Cha Kwo Ling Tin Hau temple. Tilting and settlement monitoring should be applied on the Cha Kwo Ling Tin Hau Temple.

8.2 As the construction works of Cha Kwo Ling Tunnel from the end of Trunk Road T2 to the TKOLTT at the Eastern Ventilation Building are located more than 100m away from the Cha Kwo Ling Tin Hau temple, the vibration impact monitoring stated in Section 8.3.1 of the EM&A Manual (AEIAR-173/2013) is not applicable to Contract No. ED/2018/04.

Mitigation Measures for Cultural Heritage

8.3 According to Condition 3.6 of EP-458/2013/C, to prevent damage to Cha Kwo Ling Tin Hau Temple and its Fung Shui rocks (Child-given rocks) during the construction phase, a temporarily fenced-off buffer zone (Rocks buffer zone is 5 m from the edge of Rocks and 15m from the edge of Rocks alter) with allowance for public access (minimum 1 m) around the temple and the Fung Shui rocks shall be provided. The open yard in front of the temple should be kept as usual for annual Tin Hau festival.

8.4 As there is a large buffer distance from the current works to Cha Kwo Ling Tin Hau Temple and the Fung Shui rocks (Child-given rocks), the temporarily fenced-off rocks buffer zone and from the edge of Rocks alter is not required. The fenced-off rocks buffer zone would be implemented when there is construction activities in vicinity of the cultural heritage.

9 LANDSCAPE AND VISUAL IMPACT

9.1 According to Section 9.3 of the EM&A Manual (AEIAR-173/2013), landscape and visual mitigation measures during the construction phase shall be checked to ensure that they are fully realized and implemented on site.

9.2 Site audits were carried out on a weekly basis to monitor and audit the timely implementation of landscape and visual mitigation measures listed in "Environmental Mitigation Implementation Schedule (EMIS)" (shown in **Appendix J)**.

9.3 The implementation of landscape and visual mitigation measures was checked by a registered landscape architect. No non-compliance of the landscape and visual impact was recorded in the reporting month. Details of the audit findings and implementation status are presented in **Appendix I**.

10 LANDFILL GAS MONITORING

Monitoring Requirement

10.1 In accordance with Section 10.1.1 of the EM&A Manual (AEIAR-173/2013), monitoring of landfill gas is required for construction works within the Sai Tso Wan Landfill Consultation Zone during the construction phase. Since no excavation activity for this Project was carried out within the Sai Tso Wan Landfill Consultation Zone in the reporting month, no landfill gas monitoring is required.

11 HAZARD TO LIFE

11.1 According to Section 11.1.1 of EM&A Manual (AEIAR-173/2013), as no overnight storage of explosive on site is required for the construction of the Project, the hazard assessment is deemed not necessary. Thus, environmental monitoring and audit is not required.

12 ENVIRONMENTAL AUDIT

Site Audits

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

12.2 Site audits were conducted on 07, 15, 22 and 26 October 2021 in the reporting month. Site inspection of the IEC was conducted on 07 October 2021. No non-compliance was observed during the site audit.

Implementation Status of Environmental Mitigation Measures

12.3 According to Environmental Permits, the approved EIA Reports (Register No.: AEIAR-174/2013 and AEIAR-173/2013), and the EM&A Manuals of the Project (AEIAR-174/2013 and AEIAR-173/2013), the mitigation measures detailed in the documents are recommended to be implemented during the construction phase. An Environmental Mitigation Implementation Schedule (EMIS) is provided in **Appendix J**.

12.4 The ET weekly site inspections were carried out during the reporting month and the observations and recommendations are summarized in **Table 12.1**. Refer to **Appendix I** for the site inspection summary reports in the reporting month.

Table 12.1 Observations and Recommendations of Site Audit

Parameters	Date	Observations and Recommendations	Follow-up
Air Quality	07 Oct 2021	NRMM labels of PME are missing	NRMM are displayed.
Noise	30 Sep 2021	Contractor was reminded to check on the effectiveness of the implemented noise mitigation measure regularly. Noise barriers should be erected to block the direct view of noise source from NSR	Noise barrier was erected to block the direct view of noise source from NSR.
Water Quality	N/A	There was no observation in the reporting period.	N/A
Ecology	N/A	There was no observation in the reporting period.	N/A
Landscape and Visual	N/A	There was no observation in the reporting period.	N/A
Waste / Chemical Management	N/A	There was no observation in the reporting period.	N/A
Permits /Licences	N/A	There was no observation in the reporting period.	N/A

Implementation Status of Event and Action Plans

12.5 The Event and Action Plans for air quality and construction noise monitoring, and the Limit Levels and Action Plan for landfill gas monitoring are presented in **Appendix L**.

Air Quality Monitoring

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

Construction Noise Monitoring

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

13 ENVIRONMENTAL NON-CONFORMANCE

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

13.1 The summaries of environmental complaint, warning, summon and notification of successful prosecution for the Project is presented in **Appendix M**.

Summary of Exceedance

13.2 The summary of exceedance record in the reporting month is shown in **Appendix N**.

14 FUTURE KEY ISSUES

14.1 Tentative construction programmes for the next three months are provided in **Appendix O**.

14.2 Major site activities undertaken for the coming months are summarized as follows:

- West bound - RC Structure Construction, Service Gallery A Installation, Blast Door Installation
- East bound – Service Gallery Drill & Blast
- Branch Tunnel Drill & Blast

14.3 Key environmental issues in the coming months include:

- Make sure noise mitigation measures are implemented accordingly;
- Make sure drainage system is adequately designed to prevent flooding during periods of heavy rain; and,
- Make sure mitigation measure for dust suppression are implemented on site.

Monitoring Schedule

14.4 The tentative environmental monitoring schedule for the next month is shown in **Appendix D**.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

14.5 This is the 18th Monthly EM&A Report which presents the EM&A works undertaken during the reporting month in accordance with the EM&A Manual (AEIAR-173/2013) and the requirement under EP.

Air Quality Monitoring

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

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

Construction Noise Monitoring

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

Site Audit

14.9 4 ET joint weekly environmental site inspections were conducted in the reporting month.

Complaint, Notification of Summons and Successful Prosecution

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

Recommendations

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

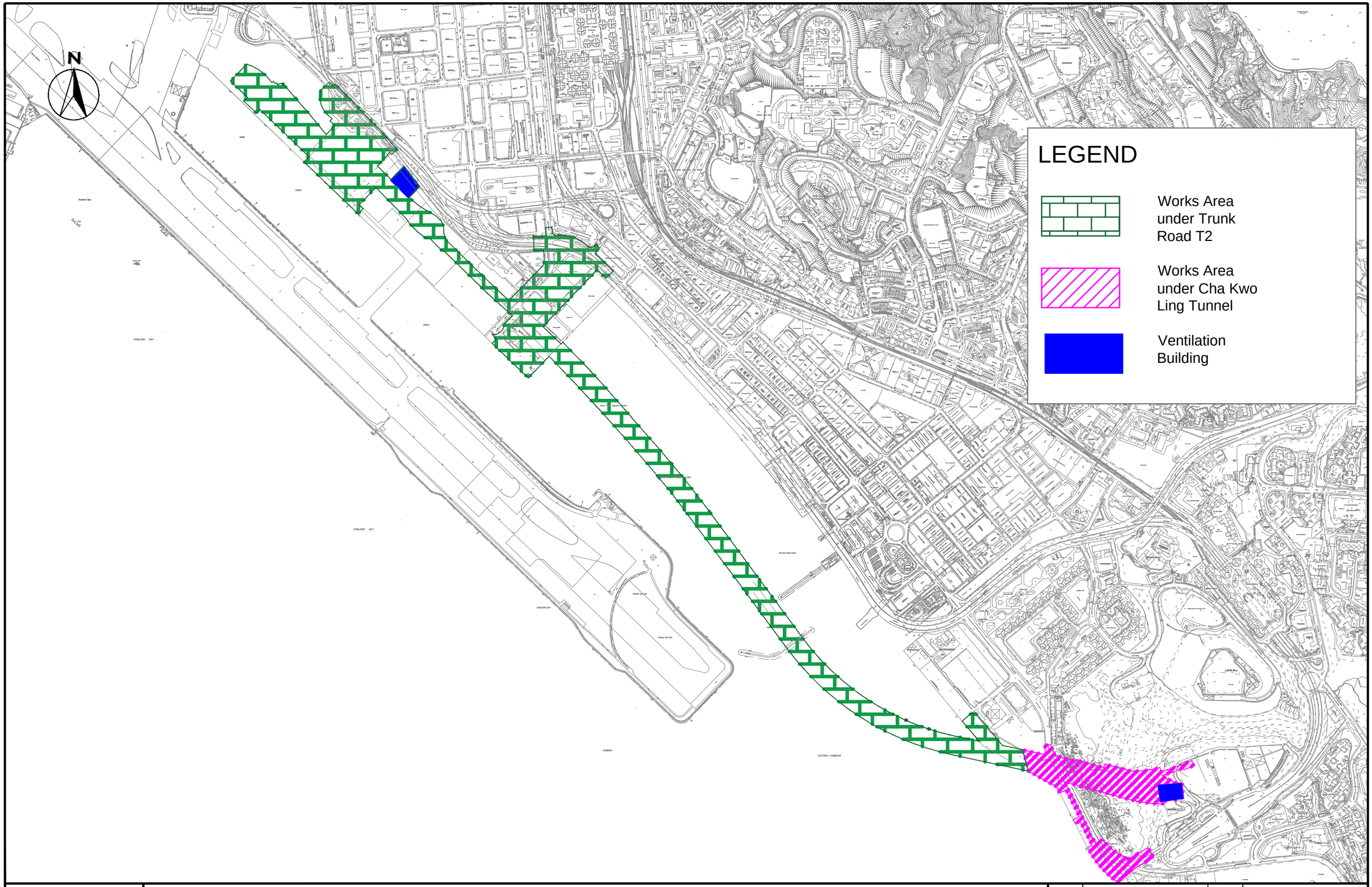
.*Construction Noise Impact*

- Noise mitigation measure shall always implemented on site to minimize noise nuisance generated from construction activities.

Air Quality

- NRMM labels shall be displayed at the conspicuous position of regulated machines.

FIGURES



CINOTECH
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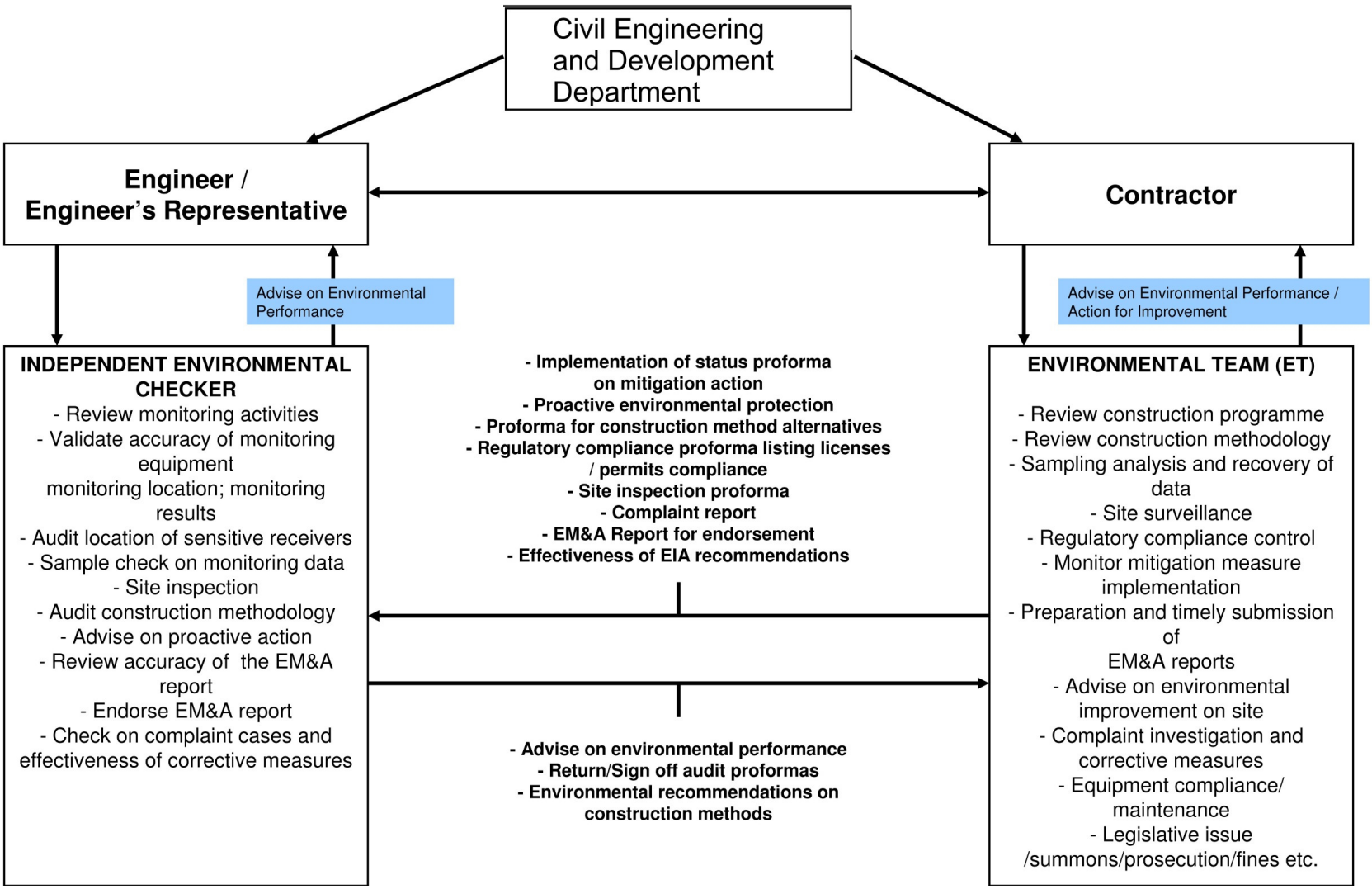
Contract No. ED/2018/04 - Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron

Site Layout Plan

SCALE	1:10000@A3	DATE	March 20
CHECK	KC	DRAWN	TL
JOB No.	MA20003	FIGURE No. Fig 1	REV -



Rev.	Description	Date

Drawing title

PROJECT ORGANISATION AND LINES OF COMMUNICATION

Original Size A3

Scale N.T.S

Date 18/JAN/2013

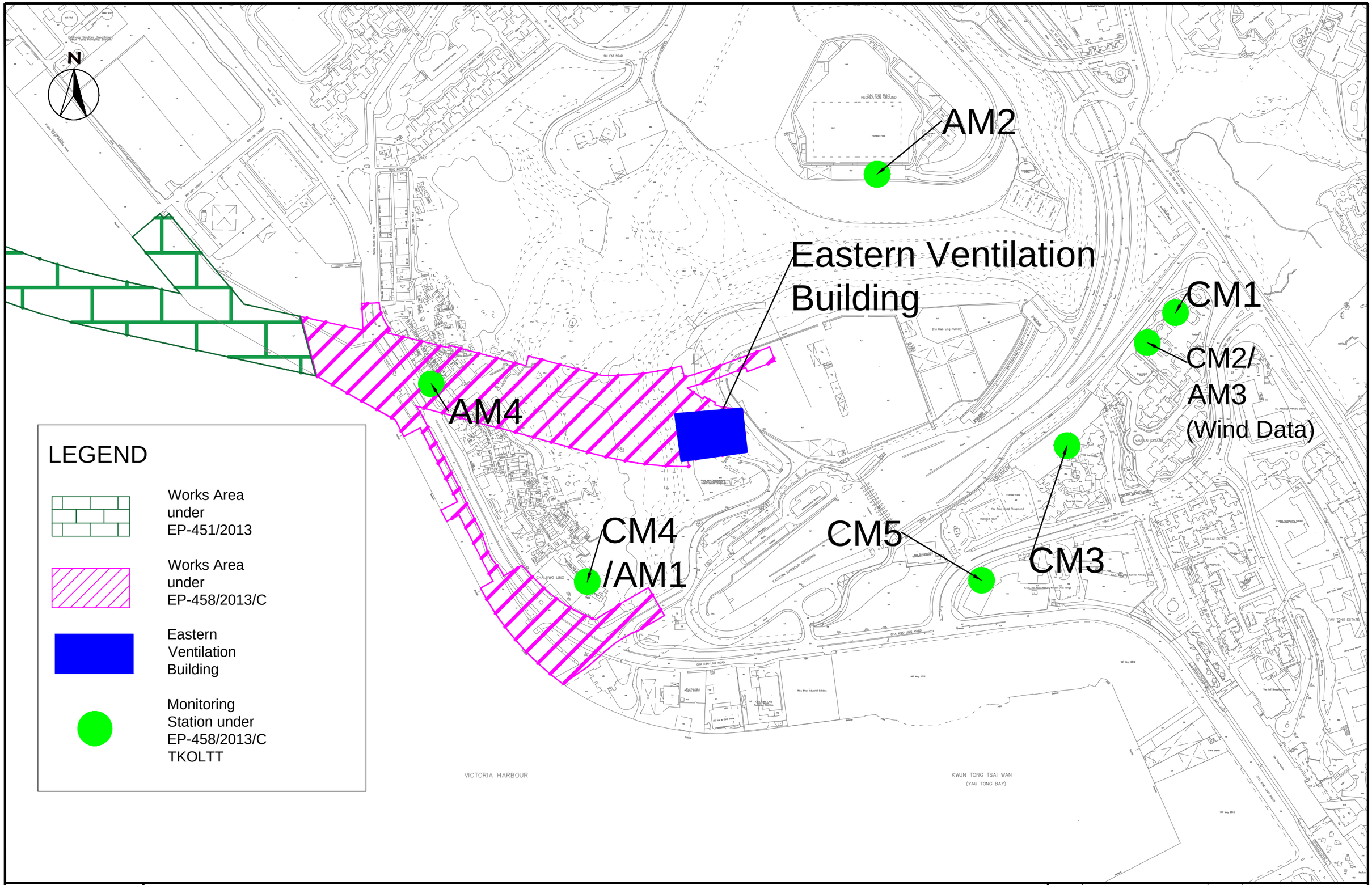
File name

Drawing No. FIGURE 1.2

Rev. –

PLOT DRV: K:\91164 Trunk Road T2\Cad Admin\A3_colour.plt
PRINTED BY: kitchan 1/17/2013 11:33:36 AM

CAD FILE : K:\91164 Trunk Road T2\Report\Draft EIA Report\Figure 6.1.dgn



CINOTECH
Cinotech Consultants Limited

Contract No. ED/2018/04 - Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron

Monitoring Station at Lam Tin

SCALE	1:4000@A3	DATE	Aug 21
CHECK	KC	DRAWN	TL
JOB No.	MA20003	FIGURE No. Fig 2b	REV -

APPENDIX A
ACTION AND LIMIT LEVELS

APPENDIX A – Action and Limit Levels

Air Quality

1-hr TSP

Monitoring Stations	Location	Action Level, µg/m³	Limit Level, µg/m³
AM1	Tin Hau Temple	275	500
AM2	Sai Tso Wan Recreation Ground	273	
AM3	Yau Lai Estate Bik Lai House	271	
AM4	Sitting-out Area at Cha Kwo Ling Village	278	

24-hr TSP

Monitoring Stations	Location	Action Level, µg/m³	Limit Level, µg/m³
AM1	Tin Hau Temple	173	260
AM2	Sai Tso Wan Recreation Ground	192	
AM3	Yau Lai Estate Bik Lai House	167	
AM4(A)	Cha Kwo Ling Public Cargo Working Area Administrative Office	210	

Noise

Time Period	Action Level	Limit Level
0700-1900 hrs on normal weekdays	When one documented complaint is received	75 dB(A) (1)

[1] 70 dB(A) for schools and 65 dB(A) for schools during examination period.
[2] Acceptable Noise Levels for Area Sensitivity Rating of A/B/C
3 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.

Landfill Gas Monitoring

Parameter	Limit Level
Oxygen	<19%
	<18%
Methane	>10% LEL (i.e. > 0.5% by volume)
	>20% LEL (i.e. > 1% by volume)
Carbon Dioxide	>0.5%
	>1.5%

APPENDIX B
COPIES OF CALIBRATION CERTIFICATES

CINOTECH CONSULTANTS LIMITED

Certificate of Calibration

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

Description: Digital Dust Indicator
Date of Calibration 2-Oct-21
Manufacturer: Sibata Scientific Technology LTD.
Validity of Calibration Record 2-Dec-21
Model No.: LD-5R
Serial No.: 972778
Equipment No.: SA-01-07
Sensitivity 0.001 mg/m3
High Volume Sampler No.: A-01-03
Before Sensitivity Adjustment 735 CPM
Tisch Calibration Orifice No.: 3864
After Sensitivity Adjustment 735 CPM

Calibration of 1 hr TSP		
Calibration Point	**Laser Dust Monitor**	**HVS**
	Mass Concentration (µg/m3) **X-axis**	Mass concentration (µg/m^3) **Y-axis**
1	65.0	127.0
2	58.0	121.0
3	49.0	112.0
Average	**57.3**	**120.0**

By Linear Regression of Y on X

Slope , mw = **0.9404** **Intercept, bw =** **66.0829**

Correlation coefficient* = **0.9991**

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (µg/m^3)	120.0
Particaulate Concentration by Dust Meter (µg/m^3)	57.3
Measureing time, (min)	60.0

Set Correlation Factor , SCF

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

In-house method in according to the instruction manual:

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

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

Calibrated by: _____
Technical Officer (Wong Shing Kwai)

Approved by: _____
Project Manager (Henry Leung)

CINOTECH CONSULTANTS LIMITED

Certificate of Calibration

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

Description: Digital Dust Indicator
Date of Calibration 2-Aug-21
Manufacturer: Sibata Scientific Technology LTD.
Validity of Calibration Record 2-Oct-21
Model No.: LD-5R
Serial No.: 972781
Equipment No.: SA-01-10
Sensitivity 0.001 mg/m3
High Volume Sampler No.: A-01-03
Before Sensitivity Adjustment 734 CPM
Tisch Calibration Orifice No.: 3864
After Sensitivity Adjustment 734 CPM

Calibration of 1 hr TSP		
Calibration Point	**Laser Dust Monitor**	**HVS**
	Mass Concentration (µg/m3) **X-axis**	Mass concentration (µg/m^3) **Y-axis**
1	66.0	131.0
2	57.0	125.0
3	46.0	116.0
Average	**56.3**	**124.0**

By Linear Regression of Y on X

Slope , mw = **0.7525** **Intercept, bw =** **81.6096**

Correlation coefficient* = **0.9984**

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (µg/m^3)	124.0
Particaulate Concentration by Dust Meter (µg/m^3)	56.3
Measureing time, (min)	60.0

Set Correlation Factor , SCF

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

In-house method in according to the instruction manual:

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

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

Calibrated by: _____
Technical Officer (Wong Shing Kwai)

Approved by: _____
Project Manager (Henry Leung)

CINOTECH CONSULTANTS LIMITED

Certificate of Calibration

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Description: Digital Dust Indicator
Date of Calibration 2-Oct-21
Manufacturer: Sibata Scientific Technology LTD.
Validity of Calibration Record 2-Dec-21
Model No.: LD-5R
Serial No.: 972781
Equipment No.: SA-01-10
Sensitivity 0.001 mg/m3
High Volume Sampler No.: A-01-03
Before Sensitivity Adjustment 734 CPM
Tisch Calibration Orifice No.: 3864
After Sensitivity Adjustment 734 CPM

Calibration of 1 hr TSP		
Calibration Point	**Laser Dust Monitor**	**HVS**
	Mass Concentration (µg/m3) **X-axis**	Mass concentration (µg/m^3) **Y-axis**
1	64.0	127.0
2	56.0	121.0
3	45.0	112.0
Average	**55.0**	**120.0**

By Linear Regression of Y on X

Slope , mw = **0.7912** **Intercept, bw =** **76.4835**

Correlation coefficient* = **0.9997**

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (µg/m^3)	120.0
Particaulate Concentration by Dust Meter (µg/m^3)	55.0
Measureing time, (min)	60.0

Set Correlation Factor , SCF

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

In-house method in according to the instruction manual:

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

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

Calibrated by: _____
Technical Officer (Wong Shing Kwai)

Approved by: _____
Project Manager (Henry Leung)

TISCH Environmental

RECALIBRATION DUE DATE:
January 11, 2022

Certificate of Calibration

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

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

Data Tabulation

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

Calculations

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

For subsequent flow rate calculations:

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

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

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

RECALIBRATION

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

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

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

Certificate of Calibration - Wind Monitoring Station

Description:	Yau Lai Estate, Bik Lai House
Manufacturer:	Davis Instruments
Model No.:	Davis7440
Serial No.:	MC01010A44
Equipment No.:	SA-03-04
Date of Calibration	20-Aug-2021
Next Due Date	20-Feb-2022

1. Performance check of Wind Speed

Wind Speed, m/s		Difference D (m/s)
Wind Speed Reading (V1)	Anemometer Value (V2)	D = V1 – V2
0.0	0.0	0.0
1.5	1.5	0.0
2.8	2.7	0.1
4.0	4.1	-0.1

2. Performance check of Wind Direction

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

Test Specification:

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

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

Calibrated by: _____ Wong Shing Kwai

Approved by: _____ Henry Leung

High Precision Chemical Testing Limited
Rm 1904, Technology Park,
18 On Lai Street, Shatin,
New Territories, Hong Kong
Tel: (852) 3841 4388
Email: info@hpct.com.hk

APPLICANT: **Cinotech Consultants Limited**
RM 1710, Technology Park,
18 On Lai Street,

Test Report No.:	00122
Date of Issue:	2021-05-12
Date Received:	2021-05-07
Test Period	2021-05-10 to 2021-05-10
Next Due Date:	2022-05-10

ATTN: **Mr. Henry Leung**

Certificate of Calibration

Item for calibration

Description	Integrating Sound Level Meter
Manufacturer	BSWA Technology
Model No.	BSWA 308
Serial No.	580156
Microphone No.	580804
Equipment No.	N-12-06

Test conditions:

Room Temperature : 22-25 degree Celsius
Relative Humidity : 35-70%

Method reference:

The Sound Level Calibrator has been calibrated in accordance with the documented procedures and using standard and instrument which are recommended by the manufacturer, or equivalent.

Measuring equipment：

Description	Sound Calibrator
Manufacturer	Brüel & Kjær
Model No.	TYPE 4231
Serial No.	2326353
Equipment No.	N-02-01

****

High Precision Chemical Testing Limited
Rm 1904, Technology Park,
18 On Lai Street, Shatin,
New Territories, Hong Kong
Tel: (852) 3841 4388
Email: info@hpct.com.hk

Test Report

Results:

Reference value, dB	Indication value, dB	Deviation, dB	Allowed deviation, dB
94.0	94.0	0.0	± 1.5
114.0	114.0	+0.1	± 1.5

REMARK:

1. The indication value was obtained from the average of ten replicated measurement.
2. The equipment being used in this calibration are regularly calibrated by laboratory according to ISO/IEC 17025.

----------**End of Report**----------

PREPARED AND CHECKED BY:
For and On Behalf of **High Precision Chemical Testing Limited**

Laboratory Director (CHAN Hon-Fai)

High-Volume TSP Sampler

5-POINT CALIBRATION DATA SHEET

File No. MA16034/05/0031

Project No. AM1 - Tin Hau Temple

Date: 10-Aug-21 Next Due Date: 10-Oct-21 Operator: SK

Equipment No.: A-01-05 Model No.: GS2310 Serial No. 10599

Ambient Condition			
Temperature, Ta (K)	302	Pressure, Pa (mmHg)	754.3

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

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	[ΔH x (Pa/760) x (298/Ta)]$^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of water	[ΔW x (Pa/760) x (298/Ta)]$^{1/2}$ **Y-axis**
1	13.2	3.60	61.56	9.6	3.07
2	9.6	3.07	52.50	7.4	2.69
3	7.4	2.69	46.10	5.4	2.30
4	5.2	2.26	38.66	3.4	1.82
5	3.0	1.71	29.37	2.0	1.40

By Linear Regression of Y on X

Slope , mw = **0.0535** **Intercept, bw =** **-0.1854**

Correlation coefficient* = **0.9971**

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

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

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

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

Therefore, Set Point; W = (mw x Qstd + bw)^2 x (760 / Pa) x (Ta / 298) = **4.57**

Remarks:

Conducted by: Wong Shing Kwai Signature: Date: 10-Aug-21

Checked by: Henry Leung Signature: Date: 10-Aug-21

High-Volume TSP Sampler

5-POINT CALIBRATION DATA SHEET

File No. MA16034/08/0031

Project No. AM2 - Sai Tso Wan Recreation Ground

Date: 10-Aug-21 Next Due Date: 10-Oct-21 Operator: SK

Equipment No.: A-01-08 Model No.: GS2310 Serial No. 1287

Ambient Condition			
Temperature, Ta (K)	302	Pressure, Pa (mmHg)	754.3

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

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Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	[ΔH x (Pa/760) x (298/Ta)]$^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of water	[ΔW x (Pa/760) x (298/Ta)]$^{1/2}$ **Y-axis**
1	13.4	3.62	62.02	9.0	2.97
2	10.2	3.16	54.12	6.4	2.50
3	7.9	2.78	47.63	4.9	2.19
4	5.1	2.23	38.28	3.3	1.80
5	3.0	1.71	29.37	2.0	1.40

By Linear Regression of Y on X

Slope , mw = **0.0472** **Intercept, bw =** **-0.0147**

Correlation coefficient* = **0.9976**

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

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

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

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

Therefore, Set Point; W = (mw x Qstd + bw)^2 x (760 / Pa) x (Ta / 298) = **4.15**

Remarks:

Conducted by: Wong Shing Kwai Signature: Date: 10-Aug-21

Checked by: Henry Leung Signature: Date: 10-Aug-21

High-Volume TSP Sampler

5-POINT CALIBRATION DATA SHEET

File No. MA16034/03/0031

Project No. AM3 - Yau Lai Estate, Bik Lai House

Date: 10-Aug-21 Next Due Date: 10-Oct-21 Operator: SK

Equipment No.: A-01-03 Model No.: GS2310 Serial No. 10379

Ambient Condition			
Temperature, Ta (K)	302	Pressure, Pa (mmHg)	754.3

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

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Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	[ΔH x (Pa/760) x (298/Ta)]$^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of water	[ΔW x (Pa/760) x (298/Ta)]$^{1/2}$ **Y-axis**
1	13.2	3.60	61.56	9.0	2.97
2	10.2	3.16	54.12	6.8	2.58
3	8.0	2.80	47.93	5.4	2.30
4	5.4	2.30	39.39	3.5	1.85
5	2.9	1.69	28.88	2.0	1.39

By Linear Regression of Y on X

Slope , mw = **0.0484** **Intercept, bw =** **-0.0251**

Correlation coefficient* = **0.9994**

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

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

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

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

Therefore, Set Point; W = (mw x Qstd + bw)^2 x (760 / Pa) x (Ta / 298) = **4.31**

Remarks:

Conducted by: Wong Shing Kwai Signature: Date: 10-Aug-21

Checked by: Henry Leung Signature: Date: 10-Aug-21

High-Volume TSP Sampler

5-POINT CALIBRATION DATA SHEET

File No. MA16034/54/0031

Project No. AM4(A) - Cha Kwo Ling Public Cargo Working Area Administrative Office

Date: 10-Aug-21 Next Due Date: 10-Oct-21 Operator: SK

Equipment No.: A-01-54 Model No.: TE-5170 Serial No. 1536

Ambient Condition			
Temperature, Ta (K)	302	Pressure, Pa (mmHg)	754.3

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

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Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	[ΔH x (Pa/760) x (298/Ta)]$^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of water	[ΔW x (Pa/760) x (298/Ta)]$^{1/2}$ **Y-axis**
1	13.4	3.62	62.02	9.4	3.03
2	10.8	3.25	55.69	7.2	2.66
3	7.6	2.73	46.72	5.1	2.23
4	5.6	2.34	40.11	3.6	1.88
5	3.0	1.71	29.37	1.9	1.36

By Linear Regression of Y on X

Slope , mw = **0.0508** **Intercept, bw =** **-0.1424**

Correlation coefficient* = **0.9994**

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

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

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

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

Therefore, Set Point; W = (mw x Qstd + bw)^2 x (760 / Pa) x (Ta / 298) = **4.25**

Remarks:

Conducted by: Wong Shing Kwai Signature: Date: 10-Aug-21

Checked by: Henry Leung Signature: Date: 10-Aug-21

High-Volume TSP Sampler

5-POINT CALIBRATION DATA SHEET

File No. MA16034/05/0032

Project No. AM1 - Tin Hau Temple

Date: 9-Oct-21 Next Due Date: 9-Dec-21 Operator: SK

Equipment No.: A-01-05 Model No.: GS2310 Serial No. 10599

Ambient Condition			
Temperature, Ta (K)	299.5	Pressure, Pa (mmHg)	753.6

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

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	[ΔH x (Pa/760) x (298/Ta)]$^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of water	[ΔW x (Pa/760) x (298/Ta)]$^{1/2}$ **Y-axis**
1	13.3	3.62	62.02	9.1	3.00
2	9.8	3.11	53.24	7.0	2.63
3	7.4	2.70	46.27	5.2	2.27
4	5.2	2.27	38.80	3.2	1.78
5	3.0	1.72	29.48	2.0	1.40

By Linear Regression of Y on X

Slope , mw = **0.0506** **Intercept, bw =** **-0.1108**

Correlation coefficient* = **0.9968**

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

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

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

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

Therefore, Set Point; W = (mw x Qstd + bw)^2 x (760 / Pa) x (Ta / 298) = **4.32**

Remarks:

Conducted by: Wong Shing Kwai Signature: Date: 9-Oct-21

Checked by: Henry Leung Signature: Date: 9-Oct-21

High-Volume TSP Sampler

5-POINT CALIBRATION DATA SHEET

File No. MA16034/08/0032

Project No. AM2 - Sai Tso Wan Recreation Ground

Date: 9-Oct-21 Next Due Date: 9-Dec-21 Operator: SK

Equipment No.: A-01-08 Model No.: GS2310 Serial No. 1287

Ambient Condition			
Temperature, Ta (K)	299.5	Pressure, Pa (mmHg)	753.6

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

.

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	[ΔH x (Pa/760) x (298/Ta)]$^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of water	[ΔW x (Pa/760) x (298/Ta)]$^{1/2}$ **Y-axis**
1	13.2	3.61	61.78	9.0	2.98
2	10.2	3.17	54.32	6.6	2.55
3	7.9	2.79	47.81	4.9	2.20
4	5.2	2.27	38.80	3.3	1.80
5	3.0	1.72	29.48	2.0	1.40

By Linear Regression of Y on X

Slope , mw = **0.0484** **Intercept, bw =** **-0.0605**

Correlation coefficient* = **0.9976**

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

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

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

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

Therefore, Set Point; W = (mw x Qstd + bw)^2 x (760 / Pa) x (Ta / 298) = **4.14**

Remarks:

Conducted by: Wong Shing Kwai Signature: Date: 9-Oct-21

Checked by: Henry Leung Signature: Date: 9-Oct-21

High-Volume TSP Sampler

5-POINT CALIBRATION DATA SHEET

File No. MA16034/03/0032

Project No. AM3 - Yau Lai Estate, Bik Lai House

Date: 9-Oct-21 Next Due Date: 9-Dec-21 Operator: SK

Equipment No.: A-01-03 Model No.: GS2310 Serial No. 10379

Ambient Condition			
Temperature, Ta (K)	299.5	Pressure, Pa (mmHg)	753.6

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

.

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	[ΔH x (Pa/760) x (298/Ta)]$^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of water	[ΔW x (Pa/760) x (298/Ta)]$^{1/2}$ **Y-axis**
1	13.3	3.62	62.02	9.1	3.00
2	10.3	3.19	54.58	6.8	2.59
3	8.2	2.84	48.71	5.4	2.31
4	5.6	2.35	40.26	3.5	1.86
5	2.9	1.69	28.99	2.0	1.40

By Linear Regression of Y on X

Slope , mw = **0.0486** **Intercept, bw =** **-0.0498**

Correlation coefficient* = **0.9983**

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

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

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

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

Therefore, Set Point; W = (mw x Qstd + bw)^2 x (760 / Pa) x (Ta / 298) = **4.22**

Remarks:

Conducted by: Wong Shing Kwai Signature: Date: 9-Oct-21

Checked by: Henry Leung Signature: Date: 9-Oct-21

High-Volume TSP Sampler

5-POINT CALIBRATION DATA SHEET

File No. MA16034/54/0032

Project No. AM4(A) - Cha Kwo Ling Public Cargo Working Area Administrative Office

Date: 9-Oct-21 Next Due Date: 9-Dec-21 Operator: SK

Equipment No.: A-01-54 Model No.: TE-5170 Serial No. 1536

Ambient Condition			
Temperature, Ta (K)	299.5	Pressure, Pa (mmHg)	753.6

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

.

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	[ΔH x (Pa/760) x (298/Ta)]$^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of water	[ΔW x (Pa/760) x (298/Ta)]$^{1/2}$ **Y-axis**
1	13.2	3.61	61.78	9.4	3.05
2	10.6	3.23	55.37	7.4	2.70
3	7.6	2.74	46.89	5.1	2.24
4	5.6	2.35	40.26	3.6	1.88
5	3.0	1.72	29.48	1.9	1.37

By Linear Regression of Y on X

Slope , mw = 0.0522 **Intercept, bw =** -0.1914

Correlation coefficient* = 0.9996

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

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

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

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

Therefore, Set Point; W = (mw x Qstd + bw)^2 x (760 / Pa) x (Ta / 298) = **4.27**

Remarks:

Conducted by: Wong Shing Kwai Signature: Date: 9-Oct-21

Checked by: Henry Leung Signature: Date: 9-Oct-21

Calibration Certificate

0025914

Customer : Cinotech Consultants Limited RM 1710, Technology Park, 18 On Lai Street, Shatin, N.T. Hong Kong Customer Code : SVEC09005	Object 1 : SVAN957 SLM Serial No. /Ref. No. : 23851 / N-08-12 Object 2 : Microphone Serial No. /Ref. No. : 43676 Manufacturer : Svantek
Date of calibration: 22/01/2021 Date of the recommended re-calibration: 22/01/2022	Certificate No.: 0025914 Handle by: E0002

Measuring results

Reference value	Indication value	Deviation	Allowed deviation	Object
94.0dB	93.6dB	-0.4dB	+/- 1.5dB	1
114.0dB	113.5dB	-0.5dB	+/- 1.5dB	1

Measuring equipment

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

Ambient conditions

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

Measuring procedure

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

Uncertainty

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

Conformity

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

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

Performed by

Calibration Technician

Approved by

Quality Manager

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

Equipment no.:N-13-01

Calibration Certificate

0025247

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

Measuring results

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

Measuring equipment

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

Ambient conditions

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

Measuring procedure

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

Uncertainty

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

Conformity

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

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

Performed by

Calibration Technician Mr. K.L. Ng

Approved by

Quality Manager

CINOTECH CONSULTANTS LIMITED

Certificate of Calibration

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

Description: Digital Dust Indicator
Date of Calibration 2-Aug-21
Manufacturer: Sibata Scientific Technology LTD.
Validity of Calibration Record 2-Oct-21
Model No.: LD-5R
Serial No.: 972778
Equipment No.: SA-01-07
Sensitivity 0.001 mg/m3
High Volume Sampler No.: A-01-03
Before Sensitivity Adjustment 735 CPM
Tisch Calibration Orifice No.: 3864
After Sensitivity Adjustment 735 CPM

Calibration of 1 hr TSP		
Calibration Point	**Laser Dust Monitor**	**HVS**
	Mass Concentration (µg/m3) **X-axis**	Mass concentration (µg/m^3) **Y-axis**
1	61.0	131.0
2	56.0	125.0
3	48.0	116.0
Average	**55.0**	**124.0**

By Linear Regression of Y on X

Slope , mw = **1.1512** **Intercept, bw =** **60.6860**

Correlation coefficient* = **0.9998**

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (µg/m^3)	124.0
Particaulate Concentration by Dust Meter (µg/m^3)	55.0
Measureing time, (min)	60.0

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, (µg/m3)] **2.3**

In-house method in according to the instruction manual:

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

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

Calibrated by: _____
Technical Officer (Wong Shing Kwai)

Approved by: _____
Project Manager (Henry Leung)

APPENDIX C
WEATHER INFORMATION

Appendix C - Weather Conditions During Impact Monitoring Period

Date	Mean Air Temperature (°C)[1]	Mean Relative Humidity (%)[2]	Precipitation (mm)[3]
1-Oct-21	30.3	79	Trace
2-Oct-21	30.0	74	0.0
3-Oct-21	28.8	79	1.9
4-Oct-21	29.8	71	0.0
5-Oct-21	30.1	69	Trace
6-Oct-21	29.5	69	Trace
7-Oct-21	28.8	75	43.9
8-Oct-21	25.5	94	329.7
9-Oct-21	26.5	91	130.3
10-Oct-21	26.8	86	45.1
11-Oct-21	28.5	68	0.0
12-Oct-21	25.1	65	0.2
13-Oct-21	25.8	89	57.7
14-Oct-21	27.8	86	13.3
15-Oct-21	26.2	85	4.6
16-Oct-21	26.8	73	Trace
17-Oct-21	24.2	68	0.0
18-Oct-21	23.9	70	0.0
19-Oct-21	25.7	75	0.0
20-Oct-21	26.8	78	0.1
21-Oct-21	24.2	80	0.7
22-Oct-21	19.3	77	Trace
23-Oct-21	20.5	75	0.0
24-Oct-21	22.1	69	0.0
25-Oct-21	23.1	66	0.0
26-Oct-21	25.1	69	0.0
27-Oct-21	25.6	76	Trace
28-Oct-21	25.7	77	0.1
29-Oct-21	25.5	76	1.1
30-Oct-21	24.4	81	2.4
31-Oct-21	24.3	75	0.0

(Reporting Month: October 2021)

Remarks:

Source - Hong Kong Observatory

[1-3]Retrieved from Manned Weather Station (Hong Kong Observatory) (22°18'07" N, 114°10'27" E)

October 2021			
Wind Speed and Directions			
Date	**Time**	**Wind Speed m-s**	**Direction**
1 Oct 2021	12:00 AM	ENE	0.5
1 Oct 2021	1:00 AM	NE	0.3
1 Oct 2021	2:00 AM	NNE	0.2
1 Oct 2021	3:00 AM	ENE	0.2
1 Oct 2021	4:00 AM	ENE	0.3
1 Oct 2021	5:00 AM	ENE	0.2
1 Oct 2021	6:00 AM	ENE	0.2
1 Oct 2021	7:00 AM	ENE	0.3
1 Oct 2021	8:00 AM	E	1.8
1 Oct 2021	9:00 AM	E	0.4
1 Oct 2021	10:00 AM	ENE	0.5
1 Oct 2021	11:00 AM	E	0.4
1 Oct 2021	12:00 PM	ENE	0.3
1 Oct 2021	1:00 PM	E	0.4
1 Oct 2021	2:00 PM	ENE	0.4
1 Oct 2021	3:00 PM	E	0.2
1 Oct 2021	4:00 PM	ENE	0.2
1 Oct 2021	5:00 PM	NE	0.2
1 Oct 2021	6:00 PM	SSE	0.2
1 Oct 2021	7:00 PM	ENE	0.3
1 Oct 2021	8:00 PM	ENE	0.3
1 Oct 2021	9:00 PM	ENE	0.3
1 Oct 2021	10:00 PM	ENE	0.3
1 Oct 2021	11:00 PM	ENE	0.3
2 Oct 2021	12:00 AM	E	0.4
2 Oct 2021	1:00 AM	E	0.2
2 Oct 2021	2:00 AM	ENE	0.2
2 Oct 2021	3:00 AM	ENE	0.2
2 Oct 2021	4:00 AM	ENE	0.2
2 Oct 2021	5:00 AM	ENE	0.2
2 Oct 2021	6:00 AM	ENE	0.2
2 Oct 2021	7:00 AM	ENE	0.2
2 Oct 2021	8:00 AM	ENE	0.2
2 Oct 2021	9:00 AM	ENE	0.2
2 Oct 2021	10:00 AM	NE	0.2
2 Oct 2021	11:00 AM	NNW	0.2
2 Oct 2021	12:00 PM	ENE	0.3
2 Oct 2021	1:00 PM	ESE	0.3
2 Oct 2021	2:00 PM	ENE	0.2
2 Oct 2021	3:00 PM	ESE	0.2
2 Oct 2021	4:00 PM	SE	0.1
2 Oct 2021	5:00 PM	S	0.3
2 Oct 2021	6:00 PM	SE	0.2
2 Oct 2021	7:00 PM	ENE	0.3
2 Oct 2021	8:00 PM	E	0.6
2 Oct 2021	9:00 PM	ENE	0.2
2 Oct 2021	10:00 PM	ENE	0.1
2 Oct 2021	11:00 PM	E	0.1
3 Oct 2021	12:00 AM	E	0.1
3 Oct 2021	1:00 AM	NE	0.1
3 Oct 2021	2:00 AM	NE	0.1
3 Oct 2021	3:00 AM	NE	0.1
3 Oct 2021	4:00 AM	NNE	0.1
3 Oct 2021	5:00 AM	ENE	0.1
3 Oct 2021	6:00 AM	NE	0.1
3 Oct 2021	7:00 AM	ENE	0.1
3 Oct 2021	8:00 AM	NNE	0.1

October 2021			
Wind Speed and Directions			
Date	**Time**	**Wind Speed m-s**	**Direction**
3 Oct 2021	9:00 AM	NE	0.1
3 Oct 2021	10:00 AM	E	0.1
3 Oct 2021	11:00 AM	ENE	0.2
3 Oct 2021	12:00 PM	NE	0.2
3 Oct 2021	1:00 PM	ENE	0.2
3 Oct 2021	2:00 PM	SW	0.3
3 Oct 2021	3:00 PM	S	0.3
3 Oct 2021	4:00 PM	SE	0.1
3 Oct 2021	5:00 PM	ESE	0.1
3 Oct 2021	6:00 PM	ESE	0.1
3 Oct 2021	7:00 PM	NE	0.1
3 Oct 2021	8:00 PM	NE	0.1
3 Oct 2021	9:00 PM	NE	0.1
3 Oct 2021	10:00 PM	ENE	0.1
3 Oct 2021	11:00 PM	ENE	0.1
4 Oct 2021	12:00 AM	ENE	0.1
4 Oct 2021	1:00 AM	ENE	0.1
4 Oct 2021	2:00 AM	ENE	0.1
4 Oct 2021	3:00 AM	ENE	0.1
4 Oct 2021	4:00 AM	NE	0.1
4 Oct 2021	5:00 AM	ENE	0.1
4 Oct 2021	6:00 AM	ENE	0.1
4 Oct 2021	7:00 AM	ENE	0.1
4 Oct 2021	8:00 AM	NE	0.1
4 Oct 2021	9:00 AM	ENE	0.1
4 Oct 2021	10:00 AM	WNW	0.1
4 Oct 2021	11:00 AM	W	0.1
4 Oct 2021	12:00 PM	SE	0.1
4 Oct 2021	1:00 PM	WSW	0.7
4 Oct 2021	2:00 PM	SW	0.3
4 Oct 2021	3:00 PM	SW	0.5
4 Oct 2021	4:00 PM	W	0.1
4 Oct 2021	5:00 PM	W	0.1
4 Oct 2021	6:00 PM	SW	0.1
4 Oct 2021	7:00 PM	SSW	0.1
4 Oct 2021	8:00 PM	E	0.1
4 Oct 2021	9:00 PM	NE	0.1
4 Oct 2021	10:00 PM	NNE	0.1
4 Oct 2021	11:00 PM	ENE	0.1
5 Oct 2021	12:00 AM	NE	0.1
5 Oct 2021	1:00 AM	ENE	0.1
5 Oct 2021	2:00 AM	NNE	0.1
5 Oct 2021	3:00 AM	NE	0.1
5 Oct 2021	4:00 AM	E	0.1
5 Oct 2021	5:00 AM	ENE	0.1
5 Oct 2021	6:00 AM	NE	0.1
5 Oct 2021	7:00 AM	ENE	0.1
5 Oct 2021	8:00 AM	SW	0.1
5 Oct 2021	9:00 AM	S	0.1
5 Oct 2021	10:00 AM	SE	0.1
5 Oct 2021	11:00 AM	ESE	0.2
5 Oct 2021	12:00 PM	NE	0.3
5 Oct 2021	1:00 PM	ENE	0.2
5 Oct 2021	2:00 PM	ENE	0.3
5 Oct 2021	3:00 PM	ENE	0.2
5 Oct 2021	4:00 PM	E	0.1
5 Oct 2021	5:00 PM	ENE	0.1

October 2021			
Wind Speed and Directions			
Date	**Time**	**Wind Speed m-s**	**Direction**
5 Oct 2021	6:00 PM	E	0.2
5 Oct 2021	7:00 PM	ENE	0.1
5 Oct 2021	8:00 PM	ESE	0.1
5 Oct 2021	9:00 PM	NE	0.1
5 Oct 2021	10:00 PM	ENE	0.1
5 Oct 2021	11:00 PM	ENE	0.1
6 Oct 2021	12:00 AM	E	0.1
6 Oct 2021	1:00 AM	NE	0.1
6 Oct 2021	2:00 AM	NNE	0.1
6 Oct 2021	3:00 AM	NNE	0.1
6 Oct 2021	4:00 AM	NNE	0.4
6 Oct 2021	5:00 AM	NE	0.1
6 Oct 2021	6:00 AM	NNE	0.2
6 Oct 2021	7:00 AM	NE	0.9
6 Oct 2021	8:00 AM	E	0.1
6 Oct 2021	9:00 AM	ESE	0.2
6 Oct 2021	10:00 AM	NW	0.3
6 Oct 2021	11:00 AM	NE	0.3
6 Oct 2021	12:00 PM	NE	0.1
6 Oct 2021	1:00 PM	ENE	0.1
6 Oct 2021	2:00 PM	NNE	0.1
6 Oct 2021	3:00 PM	NNE	0.1
6 Oct 2021	4:00 PM	NNE	0.2
6 Oct 2021	5:00 PM	ENE	0.1
6 Oct 2021	6:00 PM	E	0.4
6 Oct 2021	7:00 PM	NE	0.2
6 Oct 2021	8:00 PM	NE	0.2
6 Oct 2021	9:00 PM	N	0.2
6 Oct 2021	10:00 PM	E	0.8
6 Oct 2021	11:00 PM	NE	0.2
7 Oct 2021	12:00 AM	N	0.5
7 Oct 2021	1:00 AM	ENE	0.9
7 Oct 2021	2:00 AM	NE	0.4
7 Oct 2021	3:00 AM	NNE	0.2
7 Oct 2021	4:00 AM	ENE	0.3
7 Oct 2021	5:00 AM	N	0.2
7 Oct 2021	6:00 AM	NE	0.4
7 Oct 2021	7:00 AM	N	0.1
7 Oct 2021	8:00 AM	NNE	0.4
7 Oct 2021	9:00 AM	NE	0.2
7 Oct 2021	10:00 AM	N	0.6
7 Oct 2021	11:00 AM	ENE	0.5
7 Oct 2021	12:00 PM	ENE	0.2
7 Oct 2021	1:00 PM	N	0.3
7 Oct 2021	2:00 PM	NW	0.7
7 Oct 2021	3:00 PM	NE	1.0
7 Oct 2021	4:00 PM	NNE	0.1
7 Oct 2021	5:00 PM	ENE	0.3
7 Oct 2021	6:00 PM	NE	0.1
7 Oct 2021	7:00 PM	ENE	0.4
7 Oct 2021	8:00 PM	NNE	0.7
7 Oct 2021	9:00 PM	NE	0.2
7 Oct 2021	10:00 PM	E	0.1
7 Oct 2021	11:00 PM	ENE	0.1
8 Oct 2021	12:00 AM	NE	0.1
8 Oct 2021	1:00 AM	ENE	0.2
8 Oct 2021	2:00 AM	SW	1.5

October 2021			
Wind Speed and Directions			
Date	**Time**	**Wind Speed m-s**	**Direction**
8 Oct 2021	3:00 AM	S	0.1
8 Oct 2021	4:00 AM	SE	1.5
8 Oct 2021	5:00 AM	N	0.9
8 Oct 2021	6:00 AM	NE	0.1
8 Oct 2021	7:00 AM	NE	0.2
8 Oct 2021	8:00 AM	SE	0.2
8 Oct 2021	9:00 AM	E	0.2
8 Oct 2021	10:00 AM	ENE	0.3
8 Oct 2021	11:00 AM	ENE	0.7
8 Oct 2021	12:00 PM	NNW	2.5
8 Oct 2021	1:00 PM	NNE	0.8
8 Oct 2021	2:00 PM	ENE	0.2
8 Oct 2021	3:00 PM	NNE	0.1
8 Oct 2021	4:00 PM	NE	0.3
8 Oct 2021	5:00 PM	NE	0.7
8 Oct 2021	6:00 PM	ENE	0.5
8 Oct 2021	7:00 PM	ENE	0.1
8 Oct 2021	8:00 PM	NNE	0.4
8 Oct 2021	9:00 PM	ENE	0.1
8 Oct 2021	10:00 PM	N	0.1
8 Oct 2021	11:00 PM	NNE	0.6
9 Oct 2021	12:00 AM	E	0.1
9 Oct 2021	1:00 AM	N	0.6
9 Oct 2021	2:00 AM	ESE	0.1
9 Oct 2021	3:00 AM	NE	0.1
9 Oct 2021	4:00 AM	ENE	0.2
9 Oct 2021	5:00 AM	ENE	2.1
9 Oct 2021	6:00 AM	E	0.1
9 Oct 2021	7:00 AM	ENE	1.0
9 Oct 2021	8:00 AM	NNE	0.1
9 Oct 2021	9:00 AM	N	1.4
9 Oct 2021	10:00 AM	NE	0.1
9 Oct 2021	11:00 AM	NNE	0.3
9 Oct 2021	12:00 PM	N	0.3
9 Oct 2021	1:00 PM	N	0.4
9 Oct 2021	2:00 PM	N	0.1
9 Oct 2021	3:00 PM	ENE	0.2
9 Oct 2021	4:00 PM	NE	0.1
9 Oct 2021	5:00 PM	NNE	0.1
9 Oct 2021	6:00 PM	ENE	0.1
9 Oct 2021	7:00 PM	NE	0.1
9 Oct 2021	8:00 PM	ENE	0.3
9 Oct 2021	9:00 PM	NNE	0.2
9 Oct 2021	10:00 PM	NE	0.1
9 Oct 2021	11:00 PM	E	0.2
10 Oct 2021	12:00 AM	ENE	0.1
10 Oct 2021	1:00 AM	NE	0.1
10 Oct 2021	2:00 AM	ENE	0.1
10 Oct 2021	3:00 AM	SW	0.1
10 Oct 2021	4:00 AM	S	0.1
10 Oct 2021	5:00 AM	SE	0.2
10 Oct 2021	6:00 AM	NNE	0.1
10 Oct 2021	7:00 AM	NE	0.1
10 Oct 2021	8:00 AM	NE	0.1
10 Oct 2021	9:00 AM	N	0.4
10 Oct 2021	10:00 AM	ENE	0.1
10 Oct 2021	11:00 AM	NE	0.1

October 2021			
Wind Speed and Directions			
Date	**Time**	**Wind Speed m-s**	**Direction**
10 Oct 2021	12:00 PM	NNE	0.1
10 Oct 2021	1:00 PM	WNW	0.3
10 Oct 2021	2:00 PM	NE	0.1
10 Oct 2021	3:00 PM	NE	0.1
10 Oct 2021	4:00 PM	ENE	0.1
10 Oct 2021	5:00 PM	ENE	0.1
10 Oct 2021	6:00 PM	ENE	0.1
10 Oct 2021	7:00 PM	ENE	0.1
10 Oct 2021	8:00 PM	NE	0.1
10 Oct 2021	9:00 PM	E	0.1
10 Oct 2021	10:00 PM	ENE	0.1
10 Oct 2021	11:00 PM	ENE	0.1
11 Oct 2021	12:00 AM	ENE	0.1
11 Oct 2021	1:00 AM	NE	0.1
11 Oct 2021	2:00 AM	SSW	0.1
11 Oct 2021	3:00 AM	NE	0.1
11 Oct 2021	4:00 AM	NE	0.1
11 Oct 2021	5:00 AM	NE	0.1
11 Oct 2021	6:00 AM	ENE	0.1
11 Oct 2021	7:00 AM	ENE	0.1
11 Oct 2021	8:00 AM	E	0.2
11 Oct 2021	9:00 AM	N	0.5
11 Oct 2021	10:00 AM	ESE	0.1
11 Oct 2021	11:00 AM	ENE	0.2
11 Oct 2021	12:00 PM	N	0.3
11 Oct 2021	1:00 PM	NE	0.1
11 Oct 2021	2:00 PM	ENE	0.1
11 Oct 2021	3:00 PM	SSE	0.1
11 Oct 2021	4:00 PM	E	0.1
11 Oct 2021	5:00 PM	ENE	0.3
11 Oct 2021	6:00 PM	ENE	0.1
11 Oct 2021	7:00 PM	NE	0.1
11 Oct 2021	8:00 PM	ENE	0.1
11 Oct 2021	9:00 PM	NE	0.1
11 Oct 2021	10:00 PM	ENE	0.1
11 Oct 2021	11:00 PM	ENE	0.1
12 Oct 2021	12:00 AM	ENE	0.1
12 Oct 2021	1:00 AM	ENE	0.1
12 Oct 2021	2:00 AM	NE	0.1
12 Oct 2021	3:00 AM	E	0.1
12 Oct 2021	4:00 AM	E	0.1
12 Oct 2021	5:00 AM	NNE	0.1
12 Oct 2021	6:00 AM	ENE	0.1
12 Oct 2021	7:00 AM	NE	0.1
12 Oct 2021	8:00 AM	NE	0.1
12 Oct 2021	9:00 AM	NNE	0.3
12 Oct 2021	10:00 AM	ENE	0.2
12 Oct 2021	11:00 AM	NE	0.1
12 Oct 2021	12:00 PM	ENE	0.1
12 Oct 2021	1:00 PM	ENE	0.2
12 Oct 2021	2:00 PM	ENE	0.1
12 Oct 2021	3:00 PM	E	0.1
12 Oct 2021	4:00 PM	E	0.3
12 Oct 2021	5:00 PM	ENE	0.5
12 Oct 2021	6:00 PM	ENE	0.1
12 Oct 2021	7:00 PM	NE	0.1
12 Oct 2021	8:00 PM	NE	0.1

October 2021			
Wind Speed and Directions			
Date	**Time**	**Wind Speed m-s**	**Direction**
12 Oct 2021	9:00 PM	ENE	0.1
12 Oct 2021	10:00 PM	E	0.1
12 Oct 2021	11:00 PM	ESE	0.1
13 Oct 2021	12:00 AM	NE	0.1
13 Oct 2021	1:00 AM	ENE	0.4
13 Oct 2021	2:00 AM	ENE	0.6
13 Oct 2021	3:00 AM	NE	0.6
13 Oct 2021	4:00 AM	NE	0.4
13 Oct 2021	5:00 AM	NNE	0.5
13 Oct 2021	6:00 AM	ENE	0.7
13 Oct 2021	7:00 AM	E	0.8
13 Oct 2021	8:00 AM	NE	0.9
13 Oct 2021	9:00 AM	NNE	0.8
13 Oct 2021	10:00 AM	ENE	1.2
13 Oct 2021	11:00 AM	NE	1.1
13 Oct 2021	12:00 PM	ENE	1.2
13 Oct 2021	1:00 PM	NNE	1.3
13 Oct 2021	2:00 PM	NE	1.1
13 Oct 2021	3:00 PM	E	0.9
13 Oct 2021	4:00 PM	ENE	1.1
13 Oct 2021	5:00 PM	NE	0.8
13 Oct 2021	6:00 PM	ENE	1.7
13 Oct 2021	7:00 PM	SW	1.9
13 Oct 2021	8:00 PM	S	1.2
13 Oct 2021	9:00 PM	SE	1.6
13 Oct 2021	10:00 PM	S	1.5
13 Oct 2021	11:00 PM	SE	0.3
14 Oct 2021	12:00 AM	ESE	0.5
14 Oct 2021	1:00 AM	SSE	0.8
14 Oct 2021	2:00 AM	ENE	0.3
14 Oct 2021	3:00 AM	ESE	0.3
14 Oct 2021	4:00 AM	ENE	0.3
14 Oct 2021	5:00 AM	E	0.4
14 Oct 2021	6:00 AM	NE	1.5
14 Oct 2021	7:00 AM	E	0.6
14 Oct 2021	8:00 AM	ESE	0.8
14 Oct 2021	9:00 AM	ENE	0.9
14 Oct 2021	10:00 AM	ESE	0.4
14 Oct 2021	11:00 AM	ENE	1.2
14 Oct 2021	12:00 PM	ENE	1.3
14 Oct 2021	1:00 PM	SE	1.5
14 Oct 2021	2:00 PM	E	0.5
14 Oct 2021	3:00 PM	ESE	1.3
14 Oct 2021	4:00 PM	NE	0.2
14 Oct 2021	5:00 PM	ENE	1.1
14 Oct 2021	6:00 PM	E	0.5
14 Oct 2021	7:00 PM	NNW	0.9
14 Oct 2021	8:00 PM	ENE	0.5
14 Oct 2021	9:00 PM	N	0.4
14 Oct 2021	10:00 PM	ENE	0.3
14 Oct 2021	11:00 PM	E	0.2
15 Oct 2021	12:00 AM	E	0.1
15 Oct 2021	1:00 AM	E	0.1
15 Oct 2021	2:00 AM	ENE	0.8
15 Oct 2021	3:00 AM	ENE	0.1
15 Oct 2021	4:00 AM	E	0.1
15 Oct 2021	5:00 AM	NNE	0.2

October 2021			
Wind Speed and Directions			
Date	**Time**	**Wind Speed m-s**	**Direction**
15 Oct 2021	6:00 AM	ENE	0.2
15 Oct 2021	7:00 AM	ENE	0.2
15 Oct 2021	8:00 AM	ENE	0.1
15 Oct 2021	9:00 AM	ESE	0.1
15 Oct 2021	10:00 AM	NE	0.4
15 Oct 2021	11:00 AM	ENE	1.5
15 Oct 2021	12:00 PM	ENE	0.2
15 Oct 2021	1:00 PM	E	1.2
15 Oct 2021	2:00 PM	WSW	0.2
15 Oct 2021	3:00 PM	N	0.2
15 Oct 2021	4:00 PM	SW	0.1
15 Oct 2021	5:00 PM	NE	0.6
15 Oct 2021	6:00 PM	NE	0.2
15 Oct 2021	7:00 PM	SE	0.2
15 Oct 2021	8:00 PM	NE	0.1
15 Oct 2021	9:00 PM	NE	0.1
15 Oct 2021	10:00 PM	NE	0.1
15 Oct 2021	11:00 PM	ENE	0.1
16 Oct 2021	12:00 AM	NE	0.2
16 Oct 2021	1:00 AM	ENE	0.1
16 Oct 2021	2:00 AM	E	0.1
16 Oct 2021	3:00 AM	E	0.2
16 Oct 2021	4:00 AM	NE	0.1
16 Oct 2021	5:00 AM	E	0.1
16 Oct 2021	6:00 AM	NNE	0.1
16 Oct 2021	7:00 AM	ENE	0.2
16 Oct 2021	8:00 AM	NE	0.2
16 Oct 2021	9:00 AM	ESE	0.5
16 Oct 2021	10:00 AM	NNE	0.2
16 Oct 2021	11:00 AM	SSE	0.1
16 Oct 2021	12:00 PM	ENE	0.1
16 Oct 2021	1:00 PM	ENE	0.2
16 Oct 2021	2:00 PM	E	0.1
16 Oct 2021	3:00 PM	ENE	0.1
16 Oct 2021	4:00 PM	ENE	0.1
16 Oct 2021	5:00 PM	ENE	0.1
16 Oct 2021	6:00 PM	ESE	0.1
16 Oct 2021	7:00 PM	SE	0.1
16 Oct 2021	8:00 PM	E	0.1
16 Oct 2021	9:00 PM	ESE	0.1
16 Oct 2021	10:00 PM	ENE	0.1
16 Oct 2021	11:00 PM	NE	0.1
17 Oct 2021	12:00 AM	ENE	0.2
17 Oct 2021	1:00 AM	NE	0.4
17 Oct 2021	2:00 AM	NE	2.8
17 Oct 2021	3:00 AM	NE	0.5
17 Oct 2021	4:00 AM	NNE	0.1
17 Oct 2021	5:00 AM	NNE	0.1
17 Oct 2021	6:00 AM	NNE	0.1
17 Oct 2021	7:00 AM	E	0.4
17 Oct 2021	8:00 AM	NNE	0.2
17 Oct 2021	9:00 AM	NNE	0.6
17 Oct 2021	10:00 AM	E	0.1
17 Oct 2021	11:00 AM	NNE	0.2
17 Oct 2021	12:00 PM	NNW	0.2
17 Oct 2021	1:00 PM	NE	0.1
17 Oct 2021	2:00 PM	NE	0.1

October 2021			
Wind Speed and Directions			
Date	**Time**	**Wind Speed m-s**	**Direction**
17 Oct 2021	3:00 PM	WNW	0.1
17 Oct 2021	4:00 PM	NE	0.1
17 Oct 2021	5:00 PM	ENE	0.1
17 Oct 2021	6:00 PM	ENE	0.1
17 Oct 2021	7:00 PM	E	0.1
17 Oct 2021	8:00 PM	NE	0.1
17 Oct 2021	9:00 PM	NNE	0.6
17 Oct 2021	10:00 PM	N	0.2
17 Oct 2021	11:00 PM	ENE	0.2
18 Oct 2021	12:00 AM	NE	0.2
18 Oct 2021	1:00 AM	N	1.6
18 Oct 2021	2:00 AM	E	0.4
18 Oct 2021	3:00 AM	ENE	0.3
18 Oct 2021	4:00 AM	NE	0.4
18 Oct 2021	5:00 AM	E	0.3
18 Oct 2021	6:00 AM	NE	0.3
18 Oct 2021	7:00 AM	NE	0.2
18 Oct 2021	8:00 AM	ENE	0.1
18 Oct 2021	9:00 AM	NE	0.2
18 Oct 2021	10:00 AM	E	0.2
18 Oct 2021	11:00 AM	ENE	0.7
18 Oct 2021	12:00 PM	NNW	0.1
18 Oct 2021	1:00 PM	NE	0.2
18 Oct 2021	2:00 PM	NE	0.2
18 Oct 2021	3:00 PM	NNE	0.4
18 Oct 2021	4:00 PM	ENE	0.2
18 Oct 2021	5:00 PM	ENE	0.2
18 Oct 2021	6:00 PM	ESE	0.2
18 Oct 2021	7:00 PM	ENE	0.1
18 Oct 2021	8:00 PM	ESE	0.2
18 Oct 2021	9:00 PM	NNE	1.8
18 Oct 2021	10:00 PM	NE	0.8
18 Oct 2021	11:00 PM	NNE	0.7
19 Oct 2021	12:00 AM	NE	0.1
19 Oct 2021	1:00 AM	NE	0.1
19 Oct 2021	2:00 AM	NE	0.3
19 Oct 2021	3:00 AM	ENE	0.2
19 Oct 2021	4:00 AM	ESE	0.2
19 Oct 2021	5:00 AM	SSE	0.1
19 Oct 2021	6:00 AM	NE	0.6
19 Oct 2021	7:00 AM	NE	0.2
19 Oct 2021	8:00 AM	ENE	0.7
19 Oct 2021	9:00 AM	ENE	0.4
19 Oct 2021	10:00 AM	ESE	1.5
19 Oct 2021	11:00 AM	NE	0.1
19 Oct 2021	12:00 PM	N	0.4
19 Oct 2021	1:00 PM	NE	0.1
19 Oct 2021	2:00 PM	NW	0.1
19 Oct 2021	3:00 PM	NE	0.1
19 Oct 2021	4:00 PM	ENE	0.6
19 Oct 2021	5:00 PM	NE	0.2
19 Oct 2021	6:00 PM	NNE	0.4
19 Oct 2021	7:00 PM	ENE	0.1
19 Oct 2021	8:00 PM	NE	0.1
19 Oct 2021	9:00 PM	ENE	0.3
19 Oct 2021	10:00 PM	NNE	0.6
19 Oct 2021	11:00 PM	NE	0.2

October 2021			
Wind Speed and Directions			
Date	**Time**	**Wind Speed m-s**	**Direction**
20 Oct 2021	12:00 AM	E	0.1
20 Oct 2021	1:00 AM	ENE	1.0
20 Oct 2021	2:00 AM	NE	0.7
20 Oct 2021	3:00 AM	ENE	0.1
20 Oct 2021	4:00 AM	SW	1.4
20 Oct 2021	5:00 AM	S	0.1
20 Oct 2021	6:00 AM	SE	0.3
20 Oct 2021	7:00 AM	NNW	0.9
20 Oct 2021	8:00 AM	ENE	0.2
20 Oct 2021	9:00 AM	NNE	0.2
20 Oct 2021	10:00 AM	NW	0.3
20 Oct 2021	11:00 AM	NNE	0.1
20 Oct 2021	12:00 PM	NE	0.1
20 Oct 2021	1:00 PM	E	0.1
20 Oct 2021	2:00 PM	NNW	1.0
20 Oct 2021	3:00 PM	N	0.1
20 Oct 2021	4:00 PM	NNE	0.3
20 Oct 2021	5:00 PM	N	0.1
20 Oct 2021	6:00 PM	N	0.5
20 Oct 2021	7:00 PM	W	0.6
20 Oct 2021	8:00 PM	NE	0.3
20 Oct 2021	9:00 PM	ENE	1.7
20 Oct 2021	10:00 PM	NE	0.1
20 Oct 2021	11:00 PM	NE	0.2
21 Oct 2021	12:00 AM	ENE	0.1
21 Oct 2021	1:00 AM	NE	0.2
21 Oct 2021	2:00 AM	NE	0.3
21 Oct 2021	3:00 AM	N	0.4
21 Oct 2021	4:00 AM	NE	0.3
21 Oct 2021	5:00 AM	NNE	0.1
21 Oct 2021	6:00 AM	ESE	0.2
21 Oct 2021	7:00 AM	ENE	0.2
21 Oct 2021	8:00 AM	NNE	0.1
21 Oct 2021	9:00 AM	E	1.4
21 Oct 2021	10:00 AM	N	0.4
21 Oct 2021	11:00 AM	ENE	1.0
21 Oct 2021	12:00 PM	ENE	0.1
21 Oct 2021	1:00 PM	NNE	0.2
21 Oct 2021	2:00 PM	NE	1.6
21 Oct 2021	3:00 PM	N	0.5
21 Oct 2021	4:00 PM	NE	0.2
21 Oct 2021	5:00 PM	NNE	0.2
21 Oct 2021	6:00 PM	ENE	0.1
21 Oct 2021	7:00 PM	N	0.1
21 Oct 2021	8:00 PM	NW	0.1
21 Oct 2021	9:00 PM	N	0.1
21 Oct 2021	10:00 PM	NNE	0.2
21 Oct 2021	11:00 PM	NE	0.2
22 Oct 2021	12:00 AM	ENE	0.3
22 Oct 2021	1:00 AM	NE	0.1
22 Oct 2021	2:00 AM	NNE	1.2
22 Oct 2021	3:00 AM	NNE	0.1
22 Oct 2021	4:00 AM	NNE	0.1
22 Oct 2021	5:00 AM	NE	1.2
22 Oct 2021	6:00 AM	SE	0.1
22 Oct 2021	7:00 AM	NE	0.1
22 Oct 2021	8:00 AM	S	0.3

October 2021			
Wind Speed and Directions			
Date	**Time**	**Wind Speed m-s**	**Direction**
22 Oct 2021	9:00 AM	ENE	0.2
22 Oct 2021	10:00 AM	NE	1.0
22 Oct 2021	11:00 AM	E	1.4
22 Oct 2021	12:00 PM	NNE	0.9
22 Oct 2021	1:00 PM	NNW	4.2
22 Oct 2021	2:00 PM	NE	0.9
22 Oct 2021	3:00 PM	ENE	0.9
22 Oct 2021	4:00 PM	NNE	1.4
22 Oct 2021	5:00 PM	N	0.7
22 Oct 2021	6:00 PM	ENE	0.7
22 Oct 2021	7:00 PM	N	0.1
22 Oct 2021	8:00 PM	ENE	0.1
22 Oct 2021	9:00 PM	E	0.1
22 Oct 2021	10:00 PM	NNE	0.4
22 Oct 2021	11:00 PM	N	0.4
23 Oct 2021	12:00 AM	NNE	0.3
23 Oct 2021	1:00 AM	ENE	0.1
23 Oct 2021	2:00 AM	E	2.3
23 Oct 2021	3:00 AM	NE	0.3
23 Oct 2021	4:00 AM	ENE	0.1
23 Oct 2021	5:00 AM	E	1.2
23 Oct 2021	6:00 AM	NE	0.1
23 Oct 2021	7:00 AM	ENE	0.3
23 Oct 2021	8:00 AM	NE	1.6
23 Oct 2021	9:00 AM	E	0.4
23 Oct 2021	10:00 AM	NE	0.5
23 Oct 2021	11:00 AM	NE	1.1
23 Oct 2021	12:00 PM	ENE	1.7
23 Oct 2021	1:00 PM	NE	0.7
23 Oct 2021	2:00 PM	E	0.1
23 Oct 2021	3:00 PM	NE	0.5
23 Oct 2021	4:00 PM	E	0.8
23 Oct 2021	5:00 PM	E	0.4
23 Oct 2021	6:00 PM	NNE	0.2
23 Oct 2021	7:00 PM	NNE	1.3
23 Oct 2021	8:00 PM	ESE	0.2
23 Oct 2021	9:00 PM	ENE	0.1
23 Oct 2021	10:00 PM	NNE	0.1
23 Oct 2021	11:00 PM	NE	0.1
24 Oct 2021	12:00 AM	ENE	0.1
24 Oct 2021	1:00 AM	NE	0.1
24 Oct 2021	2:00 AM	NW	0.1
24 Oct 2021	3:00 AM	NE	0.2
24 Oct 2021	4:00 AM	NE	0.1
24 Oct 2021	5:00 AM	ENE	0.3
24 Oct 2021	6:00 AM	ENE	0.3
24 Oct 2021	7:00 AM	NE	0.1
24 Oct 2021	8:00 AM	ENE	0.6
24 Oct 2021	9:00 AM	ESE	0.2
24 Oct 2021	10:00 AM	NE	0.4
24 Oct 2021	11:00 AM	ENE	0.5
24 Oct 2021	12:00 PM	ENE	0.2
24 Oct 2021	1:00 PM	NNE	0.2
24 Oct 2021	2:00 PM	ENE	0.5
24 Oct 2021	3:00 PM	ENE	0.1
24 Oct 2021	4:00 PM	ENE	0.1
24 Oct 2021	5:00 PM	NE	0.1

October 2021			
Wind Speed and Directions			
Date	**Time**	**Wind Speed m-s**	**Direction**
24 Oct 2021	6:00 PM	ENE	0.1
24 Oct 2021	7:00 PM	ENE	0.1
24 Oct 2021	8:00 PM	N	0.1
24 Oct 2021	9:00 PM	NE	0.1
24 Oct 2021	10:00 PM	NNE	0.1
24 Oct 2021	11:00 PM	E	0.1
25 Oct 2021	12:00 AM	ENE	0.1
25 Oct 2021	1:00 AM	ENE	0.1
25 Oct 2021	2:00 AM	E	0.1
25 Oct 2021	3:00 AM	E	0.1
25 Oct 2021	4:00 AM	ENE	0.1
25 Oct 2021	5:00 AM	ENE	0.1
25 Oct 2021	6:00 AM	NE	0.1
25 Oct 2021	7:00 AM	NE	0.1
25 Oct 2021	8:00 AM	E	0.1
25 Oct 2021	9:00 AM	E	0.1
25 Oct 2021	10:00 AM	NE	0.4
25 Oct 2021	11:00 AM	NNE	0.3
25 Oct 2021	12:00 PM	ENE	0.6
25 Oct 2021	1:00 PM	NE	0.1
25 Oct 2021	2:00 PM	ENE	0.1
25 Oct 2021	3:00 PM	NNE	0.4
25 Oct 2021	4:00 PM	NE	0.4
25 Oct 2021	5:00 PM	E	0.1
25 Oct 2021	6:00 PM	ENE	0.1
25 Oct 2021	7:00 PM	NE	0.1
25 Oct 2021	8:00 PM	ENE	0.1
25 Oct 2021	9:00 PM	SW	0.1
25 Oct 2021	10:00 PM	S	0.1
25 Oct 2021	11:00 PM	SE	0.1
26 Oct 2021	12:00 AM	E	0.1
26 Oct 2021	1:00 AM	ENE	0.1
26 Oct 2021	2:00 AM	ENE	0.1
26 Oct 2021	3:00 AM	ENE	0.1
26 Oct 2021	4:00 AM	ENE	0.1
26 Oct 2021	5:00 AM	NE	0.1
26 Oct 2021	6:00 AM	E	0.1
26 Oct 2021	7:00 AM	NE	0.1
26 Oct 2021	8:00 AM	ENE	0.1
26 Oct 2021	9:00 AM	ENE	0.2
26 Oct 2021	10:00 AM	W	0.1
26 Oct 2021	11:00 AM	ENE	0.9
26 Oct 2021	12:00 PM	NNE	0.1
26 Oct 2021	1:00 PM	SE	0.1
26 Oct 2021	2:00 PM	SSE	0.1
26 Oct 2021	3:00 PM	E	0.1
26 Oct 2021	4:00 PM	ENE	0.1
26 Oct 2021	5:00 PM	ENE	0.1
26 Oct 2021	6:00 PM	ENE	0.1
26 Oct 2021	7:00 PM	ESE	0.1
26 Oct 2021	8:00 PM	ESE	0.1
26 Oct 2021	9:00 PM	ENE	0.1
26 Oct 2021	10:00 PM	ENE	0.1
26 Oct 2021	11:00 PM	E	0.1
27 Oct 2021	12:00 AM	ENE	0.1
27 Oct 2021	1:00 AM	E	0.1
27 Oct 2021	2:00 AM	ENE	0.1

October 2021			
Wind Speed and Directions			
Date	**Time**	**Wind Speed m-s**	**Direction**
27 Oct 2021	3:00 AM	NE	0.2
27 Oct 2021	4:00 AM	E	0.1
27 Oct 2021	5:00 AM	NNE	0.1
27 Oct 2021	6:00 AM	NNE	0.1
27 Oct 2021	7:00 AM	E	0.2
27 Oct 2021	8:00 AM	ESE	0.1
27 Oct 2021	9:00 AM	ENE	0.1
27 Oct 2021	10:00 AM	ENE	0.1
27 Oct 2021	11:00 AM	NE	0.1
27 Oct 2021	12:00 PM	WSW	0.1
27 Oct 2021	1:00 PM	SE	0.1
27 Oct 2021	2:00 PM	ENE	0.1
27 Oct 2021	3:00 PM	ENE	0.2
27 Oct 2021	4:00 PM	ENE	0.1
27 Oct 2021	5:00 PM	E	0.1
27 Oct 2021	6:00 PM	E	0.2
27 Oct 2021	7:00 PM	ENE	0.1
27 Oct 2021	8:00 PM	SSE	0.1
27 Oct 2021	9:00 PM	ENE	0.1
27 Oct 2021	10:00 PM	ENE	0.1
27 Oct 2021	11:00 PM	SSE	0.1
28 Oct 2021	12:00 AM	ENE	0.2
28 Oct 2021	1:00 AM	E	0.1
28 Oct 2021	2:00 AM	NE	0.1
28 Oct 2021	3:00 AM	ENE	0.1
28 Oct 2021	4:00 AM	NE	0.1
28 Oct 2021	5:00 AM	ENE	0.1
28 Oct 2021	6:00 AM	NNE	0.1
28 Oct 2021	7:00 AM	ENE	0.1
28 Oct 2021	8:00 AM	NE	0.1
28 Oct 2021	9:00 AM	NE	0.1
28 Oct 2021	10:00 AM	NE	0.1
28 Oct 2021	11:00 AM	NNE	0.1
28 Oct 2021	12:00 PM	ENE	0.1
28 Oct 2021	1:00 PM	NE	0.1
28 Oct 2021	2:00 PM	ENE	0.3

October 2021			
Wind Speed and Directions			
Date	**Time**	**Wind Speed m-s**	**Direction**
28 Oct 2021	3:00 PM	NNE	0.1
28 Oct 2021	4:00 PM	NE	0.1
28 Oct 2021	5:00 PM	E	0.1
28 Oct 2021	6:00 PM	ENE	0.1
28 Oct 2021	7:00 PM	NE	0.1
28 Oct 2021	8:00 PM	ENE	0.1
28 Oct 2021	9:00 PM	SW	0.2
28 Oct 2021	10:00 PM	S	0.1
28 Oct 2021	11:00 PM	SE	0.2
29 Oct 2021	12:00 AM	ENE	0.2
29 Oct 2021	1:00 AM	ENE	0.2
29 Oct 2021	2:00 AM	ENE	0.2
29 Oct 2021	3:00 AM	NE	0.2
29 Oct 2021	4:00 AM	NE	0.2
29 Oct 2021	5:00 AM	ENE	0.2
29 Oct 2021	6:00 AM	NE	0.2
29 Oct 2021	7:00 AM	E	0.3
29 Oct 2021	8:00 AM	ENE	0.2
29 Oct 2021	9:00 AM	E	0.2
29 Oct 2021	10:00 AM	NNE	0.2
29 Oct 2021	11:00 AM	E	0.2
29 Oct 2021	12:00 PM	WSW	0.3
29 Oct 2021	1:00 PM	NNE	0.6
29 Oct 2021	2:00 PM	NNE	0.2
29 Oct 2021	3:00 PM	ENE	0.3
29 Oct 2021	4:00 PM	N	0.2
29 Oct 2021	5:00 PM	NE	0.4
29 Oct 2021	6:00 PM	ENE	0.2
29 Oct 2021	7:00 PM	N	0.4
29 Oct 2021	8:00 PM	NE	0.1
29 Oct 2021	9:00 PM	NE	0.1
29 Oct 2021	10:00 PM	N	0.1
29 Oct 2021	11:00 PM	NNW	0.1
30 Oct 2021	12:00 AM	NNE	0.1
30 Oct 2021	1:00 AM	NE	0.1
30 Oct 2021	2:00 AM	NNE	0.1
30 Oct 2021	3:00 AM	ENE	0.1
30 Oct 2021	4:00 AM	NE	0.1
30 Oct 2021	5:00 AM	ENE	0.1
30 Oct 2021	6:00 AM	NE	0.1
30 Oct 2021	7:00 AM	NNE	0.1
30 Oct 2021	8:00 AM	NE	0.1
30 Oct 2021	9:00 AM	NNE	0.1
30 Oct 2021	10:00 AM	E	0.2
30 Oct 2021	11:00 AM	NE	0.2
30 Oct 2021	12:00 PM	ENE	0.2
30 Oct 2021	1:00 PM	E	0.1
30 Oct 2021	2:00 PM	E	0.1
30 Oct 2021	3:00 PM	NNE	0.1
30 Oct 2021	4:00 PM	E	0.2
30 Oct 2021	5:00 PM	ENE	0.1
30 Oct 2021	6:00 PM	ENE	0.1
30 Oct 2021	7:00 PM	ENE	0.1
30 Oct 2021	8:00 PM	ENE	0.1
30 Oct 2021	9:00 PM	E	0.1
30 Oct 2021	10:00 PM	ENE	0.1
30 Oct 2021	11:00 PM	E	0.1

October 2021			
Wind Speed and Directions			
Date	**Time**	**Wind Speed m-s**	**Direction**
31 Oct 2021	12:00 AM	ESE	0.1
31 Oct 2021	1:00 AM	NNE	0.1
31 Oct 2021	2:00 AM	NE	0.1
31 Oct 2021	3:00 AM	ENE	0.1
31 Oct 2021	4:00 AM	ENE	0.1
31 Oct 2021	5:00 AM	E	0.1
31 Oct 2021	6:00 AM	ESE	0.1
31 Oct 2021	7:00 AM	NE	0.1
31 Oct 2021	8:00 AM	SE	0.1
31 Oct 2021	9:00 AM	NE	0.2
31 Oct 2021	10:00 AM	NNE	0.1
31 Oct 2021	11:00 AM	E	0.1
31 Oct 2021	12:00 PM	E	0.3
31 Oct 2021	1:00 PM	SE	0.1
31 Oct 2021	2:00 PM	S	0.1
31 Oct 2021	3:00 PM	SE	0.5
31 Oct 2021	4:00 PM	ENE	0.1
31 Oct 2021	5:00 PM	E	0.1
31 Oct 2021	6:00 PM	ESE	0.1
31 Oct 2021	7:00 PM	ENE	0.1
31 Oct 2021	8:00 PM	SSE	0.1
31 Oct 2021	9:00 PM	ESE	0.1
31 Oct 2021	10:00 PM	E	0.1
31 Oct 2021	11:00 PM	NNE	0.1

APPENDIX D
ENVIRONMENTAL MONITORING SCHEDULES

Contract No. ED/2018/04
Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron
Impact Air and Noise Monitoring Schedule (October 2021)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1-Oct	2-Oct
3-Oct	4-Oct	5-Oct	6-Oct	7-Oct	8-Oct	9-Oct
	24-hrs TSP	1-hr TSP X3 Noise				24-hrs TSP
10-Oct	11-Oct	12-Oct	13-Oct	**14-Oct**	15-Oct	16-Oct
	1-hr TSP X3 Noise		24-hrs TSP		1-hr TSP X3	
17-Oct	18-Oct	19-Oct	20-Oct	21-Oct	22-Oct	23-Oct
		24-hrs TSP	1-hr TSP X3 Noise			
24-Oct	25-Oct	26-Oct	27-Oct	28-Oct	29-Oct	30-Oct
	24-hrs TSP	1-hr TSP X3 Noise				24-hrs TSP
31-Oct						

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

Air Quality Monitoring Station

1-hr TSP / 24-hrs TSP

AM1 - Tin Hau Temple
AM2 - Sai Tso Wan Recreation Ground
AM3 - Yau Lai Estate Bik Lai House
AM4[(1)] - Sitting-out Area at Cha Kwo Ling Village
AM4(A)[(2)] - Cha Kwo Ling Public Cargo Working Area Administrative Office

Noise Monitoring Station

CM1 - Nga Lai House, Yau Lai Estate Phase 1, Yau Tong
CM2 - Bik Lai House, Yau Lai Estate Phase 1, Yau Tong
CM3 - Block S, Yau Lai Estate Phase 5, Yau Tong
CM4 - Tin Hau Temple, Cha Kwo Ling
CM5 - CCC Kei Faat Primary School, Yau Tong

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

Contract No. ED/2018/04
Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron
Tentative Impact Air and Noise Monitoring Schedule (November 2021)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1-Nov	2-Nov	3-Nov	4-Nov	5-Nov	6-Nov
	1-hr TSP X3 Noise			24-hrs TSP	1-hr TSP X3	
7-Nov	8-Nov	9-Nov	10-Nov	11-Nov	12-Nov	13-Nov
			24-hrs TSP	1-hr TSP X3 Noise		
14-Nov	15-Nov	16-Nov	17-Nov	18-Nov	19-Nov	20-Nov
		24-hrs TSP	1-hr TSP X3 Noise			
21-Nov	22-Nov	23-Nov	24-Nov	25-Nov	26-Nov	27-Nov
	24-hrs TSP	1-hr TSP X3 Noise				24-hrs TSP
28-Nov	29-Nov	` 30-Nov				
	1-hr TSP X3 Noise					

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

Air Quality Monitoring Station

1-hr TSP / 24-hrs TSP

AM1 - Tin Hau Temple
AM2 - Sai Tso Wan Recreation Ground
AM3 - Yau Lai Estate Bik Lai House
AM4[(1)] - Sitting-out Area at Cha Kwo Ling Village
AM4(A)[(2)] - Cha Kwo Ling Public Cargo Working Area Administrative Office

Noise Monitoring Station

CM1 - Nga Lai House, Yau Lai Estate Phase 1, Yau Tong
CM2 - Bik Lai House, Yau Lai Estate Phase 1, Yau Tong
CM3 - Block S, Yau Lai Estate Phase 5, Yau Tong
CM4 - Tin Hau Temple, Cha Kwo Ling
CM5 - CCC Kei Faat Primary School, Yau Tong

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

Contract No. ED/2018/04
Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron
Tentative Impact Air and Noise Monitoring Schedule (December 2021)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1-Dec	2-Dec	3-Dec	4-Dec
				24-hrs TSP	1-hr TSP X3	
5-Dec	6-Dec	7-Dec	8-Dec	9-Dec	10-Dec	11-Dec
			24-hrs TSP	1-hr TSP X3 Noise		
12-Dec	13-Dec	14-Dec	15-Dec	16-Dec	17-Dec	18-Dec
		24-hrs TSP	1-hr TSP X3 Noise			
19-Dec	20-Dec	21-Dec	22-Dec	23-Dec	24-Dec	**25-Dec**
	24-hrs TSP	1-hr TSP X3 Noise		24-hrs TSP	1-hr TSP X3	
26-Dec	**27-Dec**	28-Dec	29-Dec	30-Dec	31-Dec	
			24-hrs TSP	1-hr TSP X3 Noise		

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

Air Quality Monitoring Station

1-hr TSP / 24-hrs TSP

AM1 - Tin Hau Temple
AM2 - Sai Tso Wan Recreation Ground
AM3 - Yau Lai Estate Bik Lai House
AM4[(1)] - Sitting-out Area at Cha Kwo Ling Village
AM4(A)[(2)] - Cha Kwo Ling Public Cargo Working Area Administrative Office

Noise Monitoring Station

CM1 - Nga Lai House, Yau Lai Estate Phase 1, Yau Tong
CM2 - Bik Lai House, Yau Lai Estate Phase 1, Yau Tong
CM3 - Block S, Yau Lai Estate Phase 5, Yau Tong
CM4 - Tin Hau Temple, Cha Kwo Ling
CM5 - CCC Kei Faat Primary School, Yau Tong

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

Contract No. ED/2018/04
Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron
Tentative Impact Air and Noise Monitoring Schedule (January 2022)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1-Jan
2-Jan	3-Jan	4-Jan	5-Jan	6-Jan	7-Jan	8-Jan
		24-hrs TSP	1-hr TSP X3 Noise			
9-Jan	10-Jan	11-Jan	12-Jan	13-Jan	14-Jan	15-Jan
	24-hrs TSP	1-hr TSP X3 Noise				24-hrs TSP
16-Jan	17-Jan	18-Jan	19-Jan	20-Jan	21-Jan	22-Jan
	1-hr TSP X3 Noise			24-hrs TSP	1-hr TSP X3	
23-Jan	24-Jan	25-Jan	26-Jan	27-Jan	28-Jan	29-Jan
			24-hrs TSP	1-hr TSP X3 Noise		
30-Jan	31-Jan					

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

Air Quality Monitoring Station

1-hr TSP / 24-hrs TSP

AM1 - Tin Hau Temple
AM2 - Sai Tso Wan Recreation Ground
AM3 - Yau Lai Estate Bik Lai House
AM4[(1)] - Sitting-out Area at Cha Kwo Ling Village
AM4(A)[(2)] - Cha Kwo Ling Public Cargo Working Area Administrative Office

Noise Monitoring Station

CM1 - Nga Lai House, Yau Lai Estate Phase 1, Yau Tong
CM2 - Bik Lai House, Yau Lai Estate Phase 1, Yau Tong
CM3 - Block S, Yau Lai Estate Phase 5, Yau Tong
CM4 - Tin Hau Temple, Cha Kwo Ling
CM5 - CCC Kei Faat Primary School, Yau Tong

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

APPENDIX E
1-HOUR TSP MONITORING RESULTS AND GRAPHICAL PRESENTATIONS

APPENDIX E - 1-HOUR TSP MONITORING RESULTS

Location AM1 - Tin Hau Temple			
Date	Time	Weather	Particulate Concentration ($\mu g/m^3$)
5-Oct-21	10:00	Sunny	57.2
5-Oct-21	11:00	Sunny	52.8
5-Oct-21	12:00	Sunny	66.0
11-Oct-21	13:10	Sunny	59.4
11-Oct-21	14:10	Sunny	55.0
11-Oct-21	15:10	Sunny	48.4
15-Oct-21	12:30	Rainy	85.8
15-Oct-21	13:30	Rainy	70.4
15-Oct-21	14:30	Rainy	79.2
20-Oct-21	12:15	Sunny	35.2
20-Oct-21	13:15	Sunny	39.6
20-Oct-21	14:15	Sunny	44.0
26-Oct-21	10:00	Sunny	39.9
26-Oct-21	11:00	Sunny	45.6
26-Oct-21	12:00	Sunny	36.1
		Average	54.3
		Maximum	85.8
		Minimum	35.2

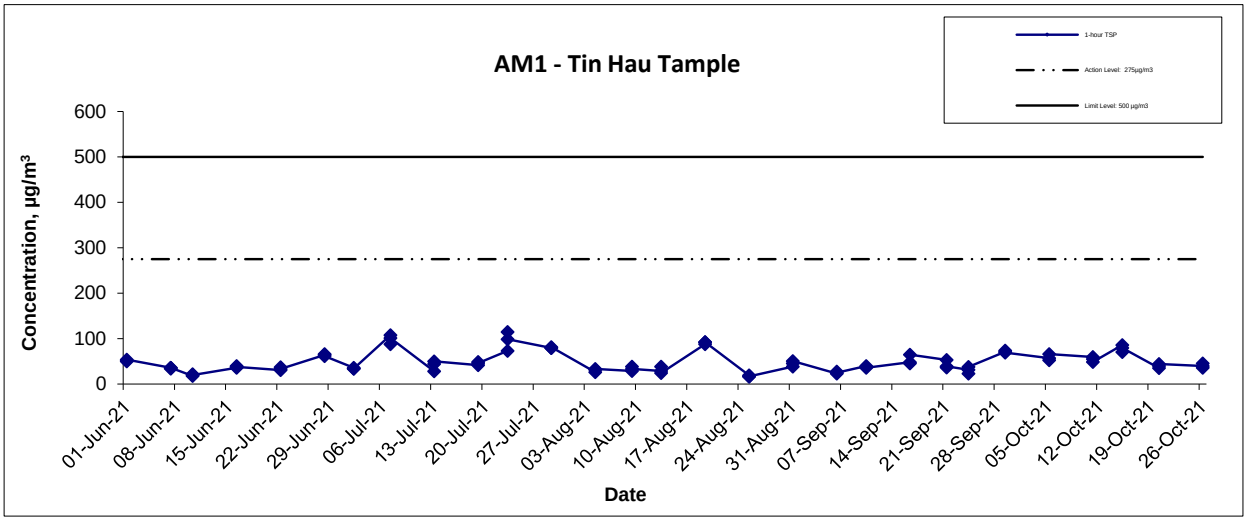
Location AM2 - Sai Tso Wan Recreation Ground			
Date	Time	Weather	***Particulate Concentration ($\mu g/m^3$)***
5-Oct-21	9:00	Sunny	24.2
5-Oct-21	10:00	Sunny	28.6
5-Oct-21	11:00	Sunny	33.0
11-Oct-21	9:00	Cloudy	14.7
11-Oct-21	10:00	Cloudy	18.9
11-Oct-21	11:00	Cloudy	14.7
15-Oct-21	9:00	Cloudy	69.3
15-Oct-21	10:00	Cloudy	65.1
15-Oct-21	11:00	Cloudy	71.4
20-Oct-21	9:00	Sunny	27.3
20-Oct-21	10:00	Sunny	33.6
20-Oct-21	11:00	Sunny	29.4
26-Oct-21	9:00	Sunny	28.6
26-Oct-21	10:00	Sunny	33.0
26-Oct-21	11:00	Sunny	35.2
		Average	35.1
		Maximum	71.4
		Minimum	14.7

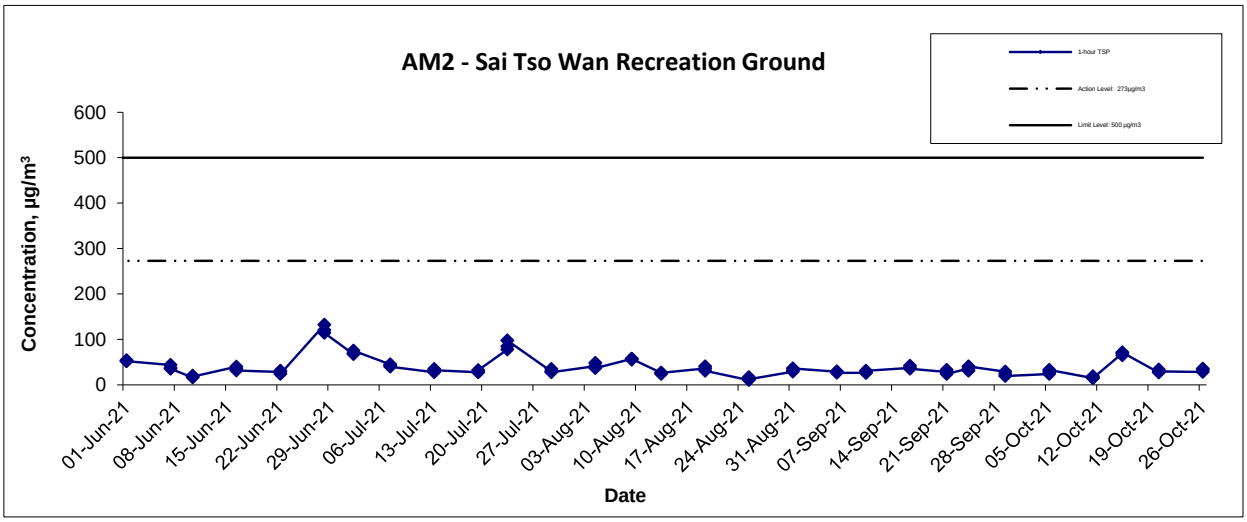
Location AM3 - Yau Lai Estate Bik Lai House			
Date	Time	Weather	***Particulate Concentration ($\mu g/m^3$)***
5-Oct-21	14:00	Sunny	44.0
5-Oct-21	15:00	Sunny	39.6
5-Oct-21	16:00	Sunny	41.8
11-Oct-21	15:15	Sunny	50.6
11-Oct-21	16:15	Sunny	48.4
11-Oct-21	17:15	Sunny	46.2
15-Oct-21	9:15	Rainy	99.0
15-Oct-21	10:15	Rainy	96.8
15-Oct-21	11:15	Rainy	88.0
20-Oct-21	15:30	Sunny	79.2
20-Oct-21	16:30	Sunny	79.2
20-Oct-21	17:30	Sunny	77.0
26-Oct-21	13:30	Sunny	26.6
26-Oct-21	14:30	Sunny	34.2
26-Oct-21	15:30	Sunny	30.4
		Average	58.7
		Maximum	99.0
		Minimum	26.6

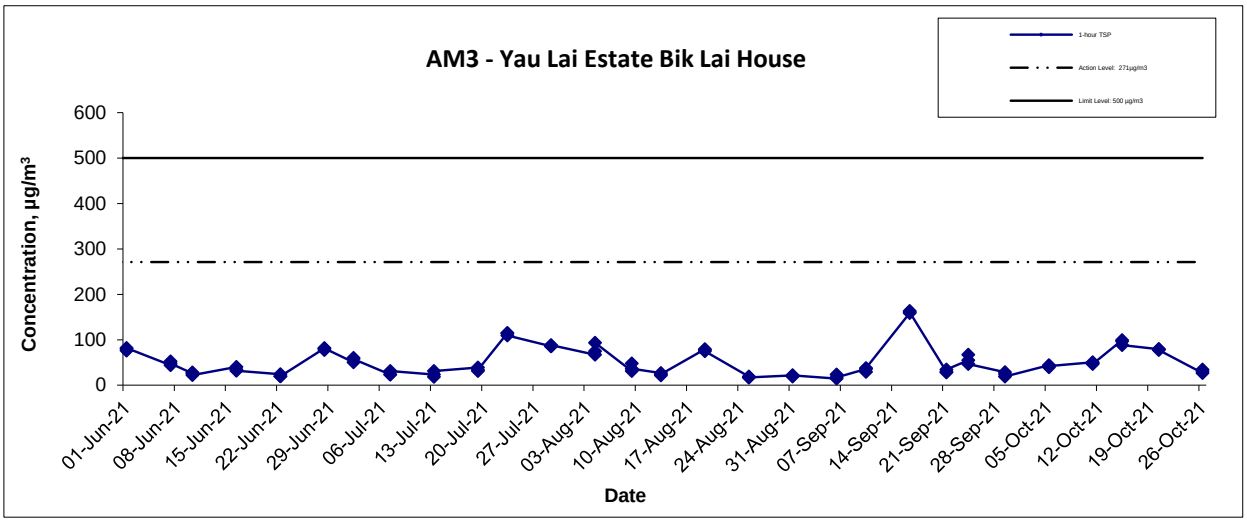
Location AM4 - Sitting-out Area at Cha Kwo Ling Village			
Date	Time	Weather	***Particulate Concentration ($\mu g/m^3$)***
5-Oct-21	13:00	Sunny	48.3
5-Oct-21	14:00	Sunny	50.4
5-Oct-21	15:00	Sunny	46.2
11-Oct-21	10:05	Sunny	59.4
11-Oct-21	11:05	Sunny	59.4
11-Oct-21	12:05	Sunny	70.4
15-Oct-21	16:00	Rainy	30.8
15-Oct-21	17:00	Rainy	35.2
15-Oct-21	18:00	Rainy	39.6
20-Oct-21	9:00	Sunny	55.0
20-Oct-21	10:00	Sunny	52.8
20-Oct-21	11:00	Sunny	52.8
26-Oct-21	10:00	Sunny	39.6
26-Oct-21	11:00	Sunny	33.0
26-Oct-21	12:00	Sunny	46.2
		Average	47.9
		Maximum	70.4
		Minimum	30.8

APPENDIX E - 1-HOUR TSP MONITORING RESULTS

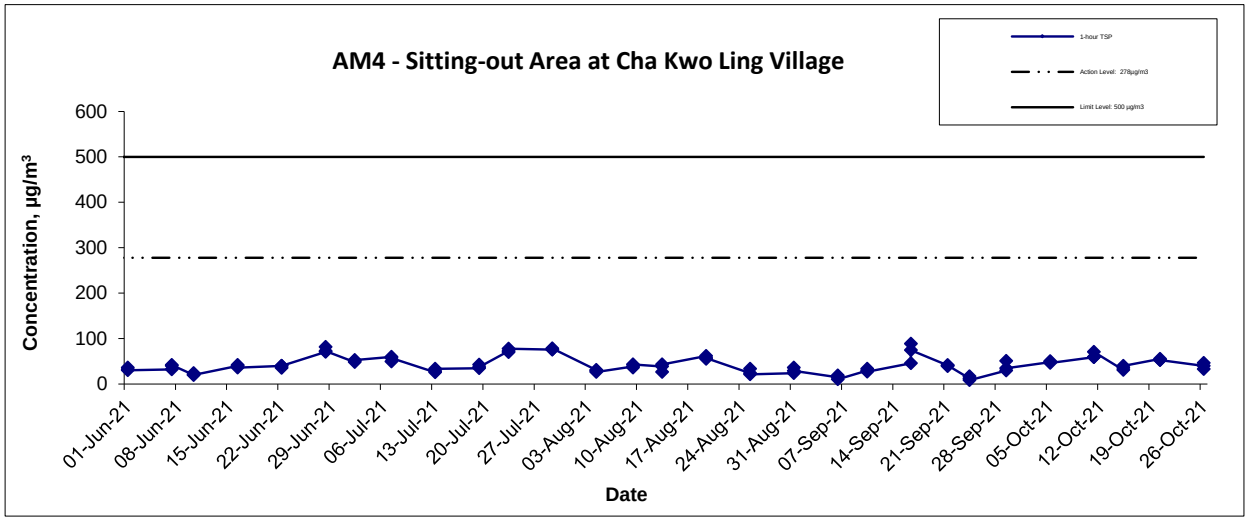
1-hr TSP Concentration Levels







Contract No. ED/2018/04 Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron Graphical Presentation of 1-hour TSP Monitoring Results	Scale N.T.S	Project No. MA20003	CINOTECH
	Date Oct-21	Appendix E	



Notes:
1. The major activitie(s) being carried out on site during the reporting period is/are presented in Section 1.10
2. The weather conditions during the reporting month are presented in Appendix C.
3. Other factors which might affect the monitoring results are presented in Section 2.17.

Contract No. ED/2018/04 Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron Graphical Presentation of 1-hour TSP Monitoring Results	Scale N.T.S Date Oct-21	Project No. MA20003 Appendix E	CINOTECH

APPENDIX F
24-HOUR TSP MONITORING RESULTS AND GRAPHICAL PRESENTATIONS

Appendix F - 24-hour TSP Monitoring Results

Location AM1 - Tin Hau Temple

Start Date	Weather	Air	Atmospheric	Filter Weight (g)		Particulate	Elapse Time		Sampling	Flow Rate (m^3/min.)		Av. flow	Total vol.	Conc.
	Condition	Temp. (K)	Pressure, Pa (mmHg)	Initial	Final	Weight (g)	Initial	Final	Time(hrs.)	Initial	Final	(m^3/min)	(m^3)	($\mu g/m^3$)
4-Oct-21	calm	303.0	760.0	2.7476	2.9112	0.1636	9009.4	9033.4	24.0	1.22	1.22	1.22	1756.2	93.2
9-Oct-21	Cloudy	299.7	755.8	3.7350	3.8181	0.0831	9033.4	9057.4	24.0	1.22	1.22	1.22	1760.6	47.2
13-Oct-21	Rainy	299.8	755.4	3.7140	3.7788	0.0648	9057.4	9081.4	24.0	1.22	1.22	1.22	1753.1	37.0
19-Oct-21	Sunny	299.3	763.6	3.7017	3.9180	0.2163	9081.4	9105.4	24.0	1.23	1.22	1.22	1763.7	122.6
25-Oct-21	Sunny	300.9	763.2	3.6956	3.9569	0.2613	9105.4	9129.4	24.0	1.22	1.22	1.22	1758.5	148.6
30-Oct-21	Sunny	297.4	765.1	3.6780	3.8890	0.2110	9128.6	9152.6	24.0	1.23	1.23	1.23	1770.6	119.2
													Min	37.0
													Max	148.6
													Average	94.6

Location AM2 - Sai Tso Wan Recreation Ground

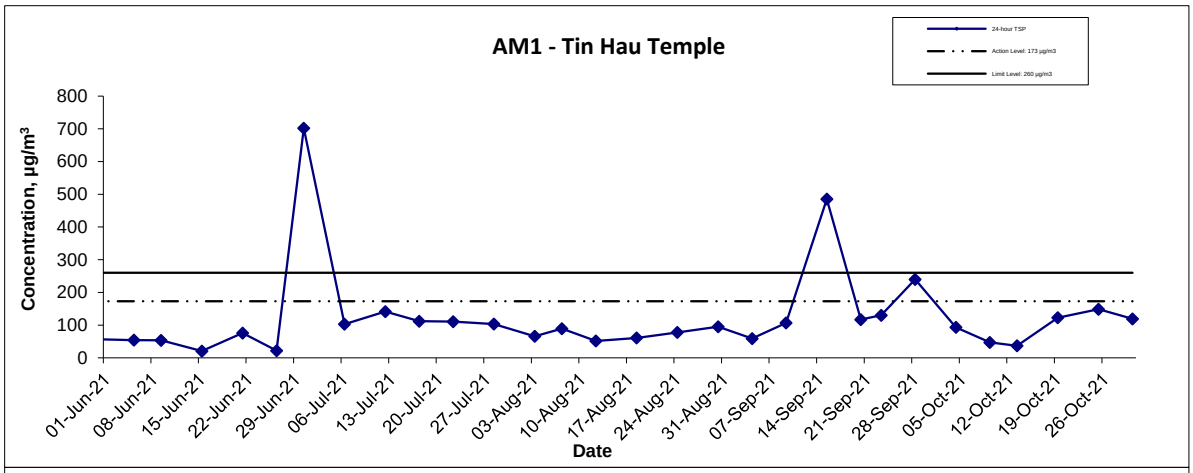
Start Date	Weather	Air	Atmospheric	Filter Weight (g)		Particulate	Elapse Time		Sampling	Flow Rate (m^3/min.)		Av. flow	Total vol.	Conc.
	Condition	Temp. (K)	Pressure, Pa (mmHg)	Initial	Final	Weight (g)	Initial	Final	Time(hrs.)	Initial	Final	(m^3/min)	(m^3)	($\mu g/m^3$)
4-Oct-21	calm	303.0	760.0	3.6821	3.7697	0.0876	30043.0	30067.0	24.0	1.22	1.22	1.22	1757.1	49.9
9-Oct-21	Cloudy	299.7	755.8	3.713	3.7500	0.0370	30067.0	30091.0	24.0	1.22	1.22	1.22	1761.9	21.0
13-Oct-21	Rainy	299.8	755.4	3.6616	3.6938	0.0322	30091.1	30115.1	24.0	1.22	1.22	1.22	1753.8	18.4
19-Oct-21	Sunny	299.3	763.6	3.708	3.7672	0.0592	30115.1	30139.1	24.0	1.23	1.22	1.23	1764.6	33.5
25-Oct-21	Sunny	300.9	763.2	3.6857	3.7350	0.0493	30139.1	30163.1	24.0	1.22	1.22	1.22	1759.4	28.0
30-Oct-21	Sunny	297.4	765.1	3.7297	3.8181	0.0884	30163.1	30187.1	24.0	1.23	1.23	1.23	1771.7	49.9
													Min	18.4
													Max	49.9
													Average	33.4

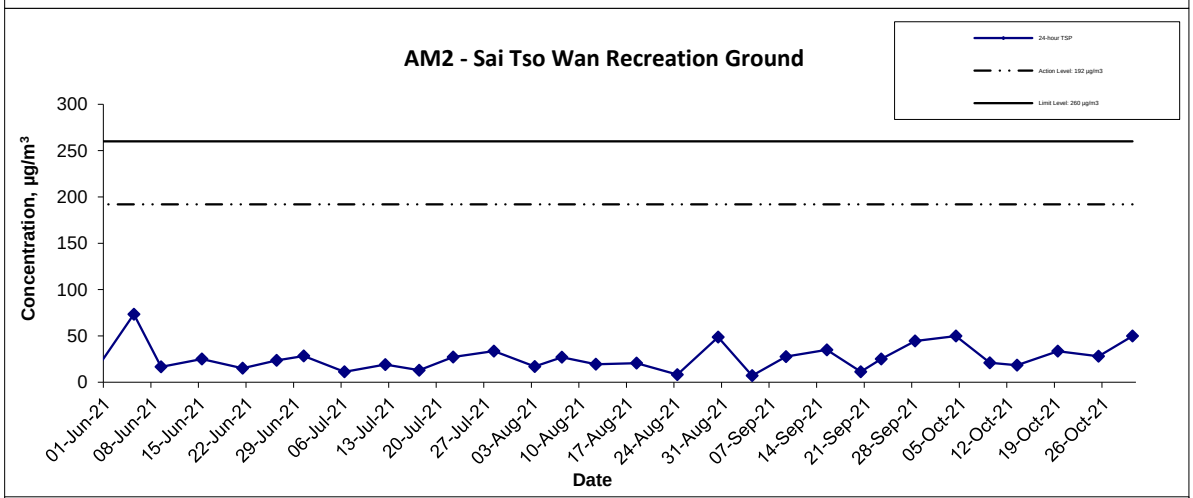
Location AM3 - Yau Lai Estate, Bik Lai House

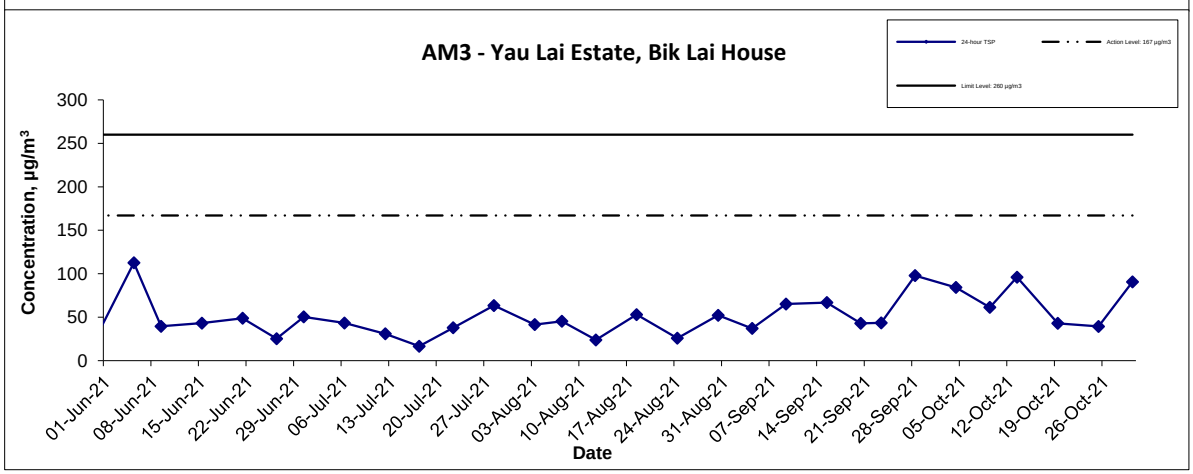
Start Date	Weather	Air	Atmospheric	Filter Weight (g)		Particulate	Elapse Time		Sampling	Flow Rate (m^3/min.)		Av. flow	Total vol.	Conc.
	Condition	Temp. (K)	Pressure, Pa (mmHg)	Initial	Final	Weight (g)	Initial	Final	Time(hrs.)	Initial	Final	(m^3/min)	(m^3)	($\mu g/m^3$)
4-Oct-21	calm	303.0	760.0	3.6919	3.8397	0.1478	4521.7	4545.7	24.0	1.22	1.22	1.22	1754.8	84.2
9-Oct-21	Cloudy	299.7	755.8	3.6999	3.8077	0.1078	4545.7	4569.7	24.0	1.22	1.22	1.22	1759.5	61.3
13-Oct-21	Rainy	299.8	755.4	3.7023	3.8707	0.1684	4569.7	4593.7	24.0	1.22	1.22	1.22	1753.9	96.0
19-Oct-21	Sunny	299.3	763.6	3.667	3.7427	0.0757	4601.4	4625.4	24.0	1.23	1.22	1.23	1764.8	42.9
25-Oct-21	Sunny	300.9	763.2	3.683	3.7523	0.0693	4625.4	4649.4	24.0	1.22	1.22	1.22	1759.5	39.4
30-Oct-21	Sunny	297.4	765.1	3.6744	3.8350	0.1606	4649.4	4673.4	24.0	1.23	1.23	1.23	1771.9	90.6
													Min	39.4
													Max	96.0
													Average	69.1

Location AM4(A) - Cha Kwo Ling Public Cargo Working Area Administrative Office

Start Date	Weather	Air	Atmospheric	Filter Weight (g)		Particulate	Elapse Time		Sampling	Flow Rate (m^3/min.)		Av. flow	Total vol.	Conc.
	Condition	Temp. (K)	Pressure, Pa (mmHg)	Initial	Final	Weight (g)	Initial	Final	Time(hrs.)	Initial	Final	(m^3/min)	(m^3)	($\mu g/m^3$)
4-Oct-21	calm	303.0	760.0	3.6743	3.8151	0.1408	14521.8	14545.8	24.0	1.22	1.22	1.22	1754.4	80.3
9-Oct-21	Cloudy	299.7	755.8	3.699	3.7807	0.0817	14545.8	14569.8	24.0	1.22	1.22	1.22	1758.9	46.4
13-Oct-21	Rainy	299.8	755.4	3.6718	3.7237	0.0519	14569.8	14593.8	24.0	1.22	1.22	1.22	1752.9	29.6
19-Oct-21	Sunny	299.3	763.6	3.6614	3.7980	0.1366	14593.8	14617.8	24.0	1.23	1.22	1.22	1763.1	77.5
25-Oct-21	Sunny	300.9	763.2	3.7343	3.8320	0.0977	14617.8	14641.8	24.0	1.22	1.22	1.22	1758.2	55.6
30-Oct-21	Sunny	297.4	765.1	3.6903	3.8745	0.1842	14641.8	14665.8	24.0	1.23	1.23	1.23	1769.8	104.1
													Min	29.6
													Max	104.1
													Average	65.6

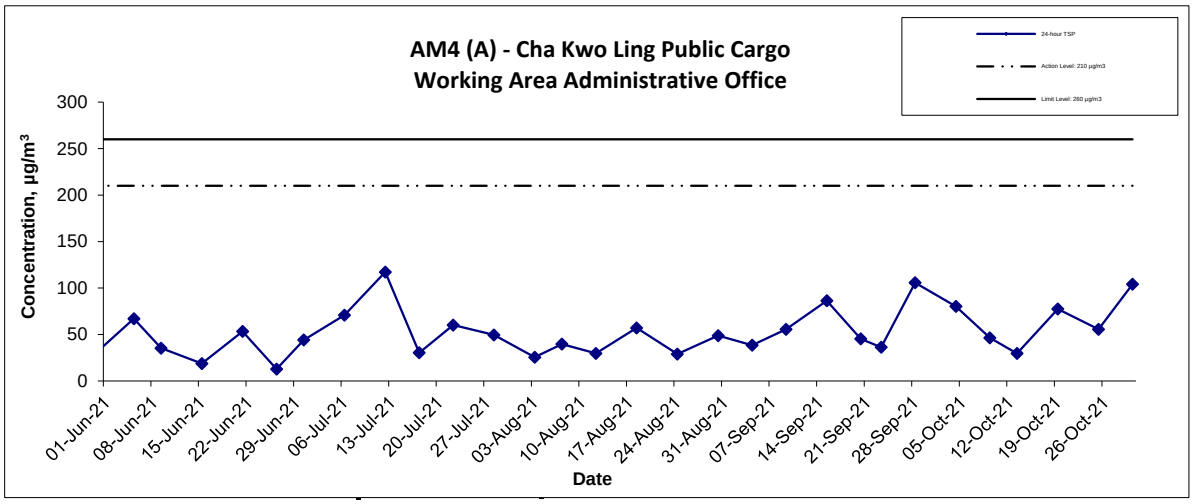






Contract No. ED/2018/04 Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron Graphical Presentation of 24-hour TSP Monitoring Results	Scale N.T.S Date Oct-21	Project No. MA20003 Appendix F	CINOTECH

24-hr TSP Concentration Levels



Notes:

1) The major activitie(s) being carried out on site during the reporting period is/are presented in Section 1.10
2) The weather conditions during the reporting month are presented in Appendix C.
3) Other factors which might affect the monitoring results are presented in Section 2.17.

Contract No. ED/2018/04 Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron Graphical Presentation of 24-hour TSP Monitoring Results	Scale N.T.S Date Oct-21	Project No. MA20003 Appendix F	CINOTECH

APPENDIX G
NOISE MONITORING RESULTS AND GRAPHICAL PRESENTATIONS

Appendix G - Noise Monitoring Results

(0700-1900 hrs on Normal Weekdays)

Location CM1 - Nga Lai House, Yau Lai Estate Phase 1, Yau Tong							
Date	Time	Weather	Unit: dB (A) (30-min)				
			Measured Noise Level			Baseline Level	Construction Noise Level
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
5 Oct 2021	14:30	Sunny	73.0	74.2	71.3	65.5	72
11 Oct 2021	14:45	Sunny	68.1	69.8	66.3	65.5	65
20 Oct 2021	16:05	Sunny	67.7	69.1	66.2	65.5	64
26 Oct 2021	11:15	Sunny	74.8	76.6	73.0	65.5	74

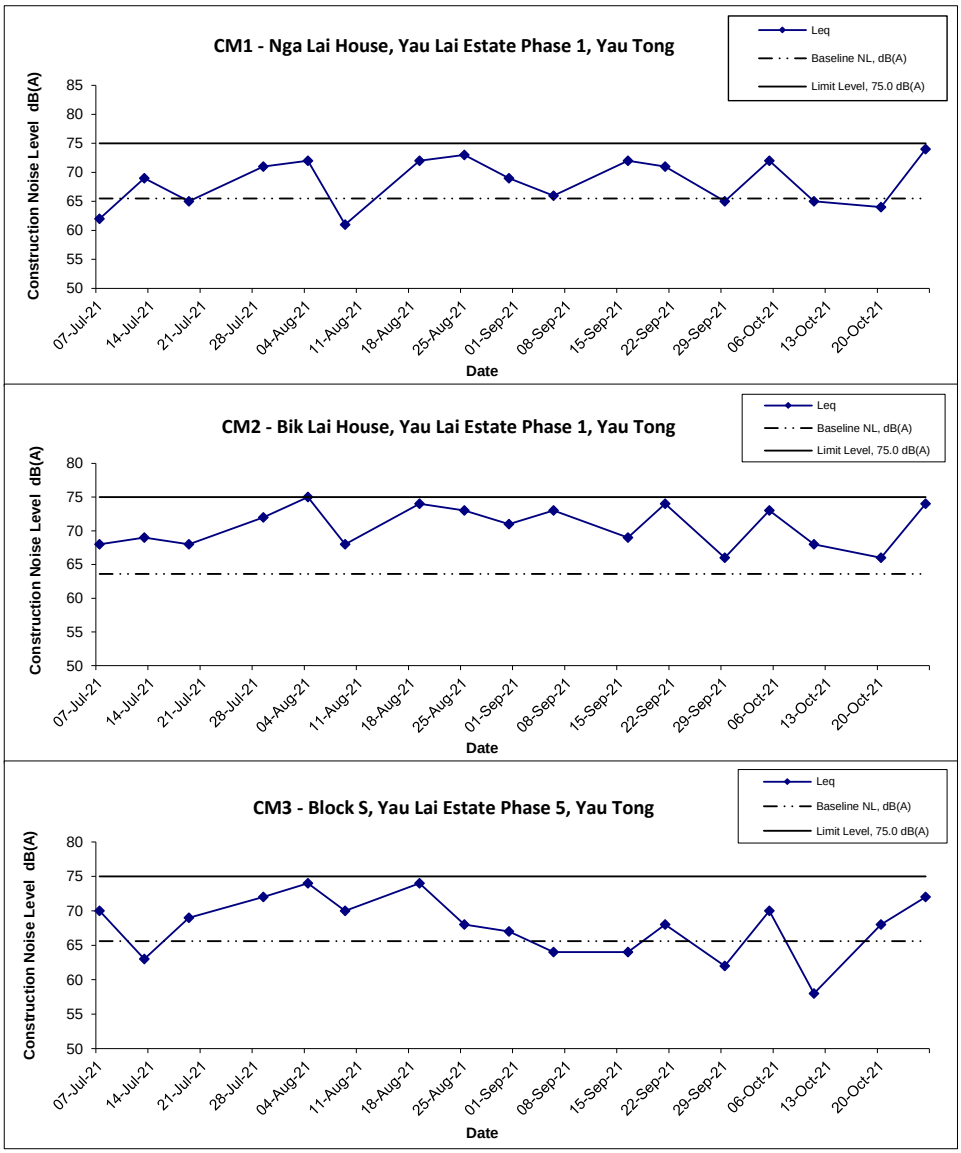
Location CM2 - Bik Lai House, Yau Lai Estate Phase 1, Yau Tong							
Date	Time	Weather	Unit: dB (A) (30-min)				
			Measured Noise Level			Baseline Level	Construction Noise Level
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
5 Oct 2021	14:00	Sunny	73.2	74.8	71.2	63.6	73
11 Oct 2021	15:15	Sunny	69.2	70.6	67.6	63.6	68
20 Oct 2021	15:30	Sunny	67.7	68.7	66.5	63.6	66
26 Oct 2021	13:00	Sunny	74.0	76.4	70.1	63.6	74

Location CM3 - Block S, Yau Lai Estate Phase 5, Yau Tong							
Date	Time	Weather	Unit: dB (A) (30-min)				
			Measured Noise Level			Baseline Level	Construction Noise Level
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
5 Oct 2021	15:00	Sunny	71.2	73.5	70.9	65.6	70
11 Oct 2021	16:00	Sunny	66.3	67.6	65.0	65.6	58
20 Oct 2021	16:45	Sunny	69.8	72.3	60.9	65.6	68
26 Oct 2021	13:30	Sunny	73.0	74.8	70.7	65.6	72

Location CM4 - Tin Hau Temple, Cha Kwo Ling							
Date	Time	Weather	Unit: dB (A) (30-min)				
			Measured Noise Level			Baseline Level	Construction Noise Level
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
5 Oct 2021	13:00	Sunny	68.5	70.9	60.1	62.0	67
11 Oct 2021	13:00	Sunny	62.0	64.0	59.3	62.0	62 Measured ≦ Baseline
20 Oct 2021	12:15	Sunny	66.0	68.0	63.2	62.0	64
26 Oct 2021	14:00	Sunny	67.1	69.4	60.0	62.0	65

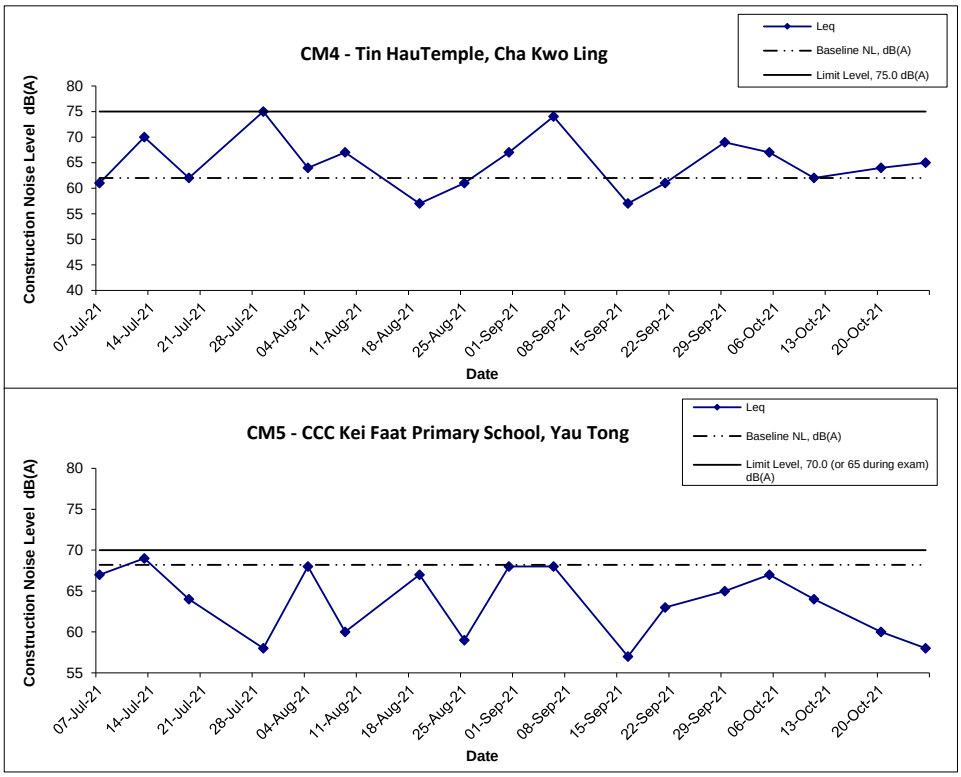
Location CM5 - CCC Kei Faat Primary School, Yau Tong							
Date	Time	Weather	Unit: dB (A) (30-min)				
			Measured Noise Level			Baseline Level	Construction Noise Level
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
5 Oct 2021	13:45	Sunny	67.4	70.1	63.2	68.2	67 Measured ≦ Baseline
11 Oct 2021	14:10	Sunny	69.5	71.5	66.4	68.2	64
20 Oct 2021	13:00	Sunny	68.8	70.9	64.8	68.2	60
26 Oct 2021	14:30	Sunny	68.6	71.2	65.4	68.2	58

Noise Levels



Title		Scale	Project	
Contract No. ED/2018/04 Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron		N.T.S	No. MA20003	CINOTECH
Graphical Presentation of Construction Noise Monitoring Results		Date Oct 21	Appendix G	

Noise Levels



Notes:
1. The major activitie(s) being carried out on site during the reporting period is/are presented in Section 1.10
2. The weather conditions during the reporting month are presented in Appendix C.
3. Other factors which might affect the monitoring results are presented in Section 3.13.

Title	Scale	Project	
Contract No. ED/2018/04 Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron Graphical Presentation of Construction Noise Monitoring Results	N.T.S	No. MA20003	CINOTECH
	Date Oct 21	Appendix G	

APPENDIX H
WASTE GENERATION IN THE REPORTING MONTH

Trunk Road T2 and Infrastructure Works
for Developments at the Former South Apron
Contract No. ED/2018/04

Name of Department: CEDD

Monthly Summary Waste Flow Table for 2021 (CKL)

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	a.Total Quantity Generated (a=c+d+e)	b. Hard Rock and Large Broken Concrete	c. Reused in the Contract	d. Reused in Other Projects	e. Disposed as Public Fill	f. Imported Fill	g. Metals	h. Paper / Cardboard Packaging	i. Plastics	j. Chemical Waste	k. Others, e.g. general refuse
	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m^3)
January	4.858	4.842	0.000	4.842	0.016	0.000	0.000	0.000	0.000	0.400	0.005
February	5.450	5.428	0.000	5.428	0.022	0.000	0.000	0.000	0.000	0.000	0.008
March	5.710	5.679	0.000	5.679	0.031	0.000	0.000	0.000	0.000	2.400	0.007
April	7.352	7.339	0.000	7.339	0.013	0.000	0.000	0.000	0.000	3.000	0.006
May	8.713	8.669	0.000	8.669	0.044	0.000	0.000	0.000	0.000	0.000	0.008
June	5.834	5.817	0.000	5.817	0.017	0.000	0.000	0.000	0.000	0.000	0.014
Sub-total	37.918	37.775	0.000	37.774	0.144	0.000	0.000	0.000	0.000	5.800	0.049
July	4.812	4.624	0.000	4.624	0.188	0.000	0.000	0.000	0.000	0.000	0.013
August	3.784	3.784	0.000	3.784	0.000	0.000	0.000	0.000	0.000	0.000	0.007
September	0.400	0.400	0.000	0.400	0.000	0.000	0.000	0.000	0.000	0.000	0.011
October	0.026	0.000	0.000	0.000	0.026	0.000	0.000	0.000	0.000	0.000	0.016
November											
December											
Total	46.940	46.583	0.000	46.582	0.358	0.000	0.000	0.000	0.000	5.800	0.096

Monthly Summary Waste Flow Table

Notes:

(1)The performance targets are given in ER Appendix 8I Clause 14 and the EM&A Manual(s).

(2)The waste flow table shall also include C&D materials to be imported for use at the Site.

(3)Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.

(4)The Contractor shall also submit the latest forecast of the total amount of C&D materials expected to be generated from the Works, together with a breakdown of the nature where the total amount of C&D materials expected to be generated from the Works is equal to or exceeding 50,000 m3. (ER Part 8 Clause 8.8.5 (d) (ii) refers).

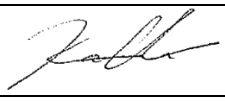
APPENDIX I
SITE AUDIT SUMMARY

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	211007
Date	07 October 2021 (Thursday)
Time	09:30 – 12:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-

Ref. No.	Remarks/Observations	Related Item No.
211007-R1	***B. Water Quality*** • No environmental deficiency was identified during site inspection ***C. Air Quality*** • NRMM labels of PME are missing. ***D. Construction Noise Impact*** • No environmental deficiency was identified during site inspection. ***E. Waste/Chemical Management*** • No environmental deficiency was identified during site inspection. ***F. Visual and Landscape*** • No environmental deficiency was identified during site inspection. ***G. Permits/Licences*** • No environmental deficiency was identified during site inspection. ***H. Marine Ecology*** • No environmental deficiency was identified during site inspection. ***I. Others*** • Follow up on the previous session (Ref No.:210930). The follow-up action of item 210930-R1 needed to be reviewed on next audit session.	*C21*

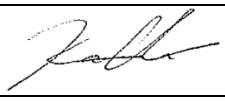
	Name	Signature	Date
Recorded by	Tim Lui		07 October 2021
Checked by	Karina Chan		07 October 2021

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	211015
Date	15 October 2021 (Friday)
Time	09:30 – 12:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-

Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality • No environmental deficiency was identified during site inspection ***C. Air Quality*** • No environmental deficiency was identified during site inspection. ***D. Construction Noise Impact*** • No environmental deficiency was identified during site inspection. ***E. Waste/Chemical Management*** • No environmental deficiency was identified during site inspection. ***F. Visual and Landscape*** • No environmental deficiency was identified during site inspection. ***G. Permits/Licences*** • No environmental deficiency was identified during site inspection. ***H. Marine Ecology*** • No environmental deficiency was identified during site inspection. ***I. Others*** • Follow up on the previous session (Ref No.:211007), all items has been rectified.	

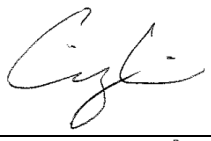
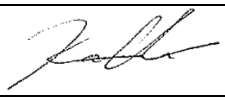
	Name	Signature	Date
Recorded by	Tim Lui		15 October 2021
Checked by	Karina Chan		15 October 2021

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	211022
Date	22 October 2021 (Friday)
Time	09:30 – 12:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-

Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality • No environmental deficiency was identified during site inspection ***C. Air Quality*** • No environmental deficiency was identified during site inspection. ***D. Construction Noise Impact*** • No environmental deficiency was identified during site inspection. ***E. Waste/Chemical Management*** • No environmental deficiency was identified during site inspection. ***F. Visual and Landscape*** • No environmental deficiency was identified during site inspection. ***G. Permits/Licences*** • No environmental deficiency was identified during site inspection. ***H. Marine Ecology*** • No environmental deficiency was identified during site inspection. ***I. Others*** • Follow up on the previous session (Ref No.:211015), no major environmental deficiency was identified.	

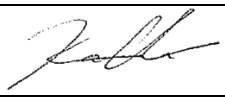
	Name	Signature	Date
Recorded by	Tim Lui		22 October 2021
Checked by	Karina Chan		22 October 2021

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	211026
Date	26 October 2021 (Tuesday)
Time	09:30 – 12:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-

Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality • No environmental deficiency was identified during site inspection ***C. Air Quality*** • No environmental deficiency was identified during site inspection. ***D. Construction Noise Impact*** • No environmental deficiency was identified during site inspection. ***E. Waste/Chemical Management*** • No environmental deficiency was identified during site inspection. ***F. Visual and Landscape*** • No environmental deficiency was identified during site inspection. ***G. Permits/Licences*** • No environmental deficiency was identified during site inspection. ***H. Marine Ecology*** • No environmental deficiency was identified during site inspection. ***I. Others*** • Follow up on the previous session (Ref No.:211022), no major environmental deficiency was identified.	

	Name	Signature	Date
Recorded by	Tim Lui		26 October 2021
Checked by	Karina Chan		26 October 2021

APPENDIX J
ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

App J - ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

Table I - Recommended Mitigation Measures stipulated in EM&A Manual for the Project

EIA Ref. / EP Submission	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	What requirements or standards for the measures to achieve?
Air Quality						
S3.8.1	Watering eight times a day on active works areas, exposed areas and paved haul roads	To minimize the dust impact	Contractor	All Active Work Sites	Construction phase	APCO
S3.8.1	Enclosing the unloading process at barging point by a 3-sided screen with top tipping hall / mixing area in Work Area A, provision of water spraying and flexible dust curtains	To minimize the dust impact	Contractor	Barging Points	Construction phase	APCO
S3.8.7	Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides. • Use of frequent watering for particularly dusty construction areas and areas close to ASRs.. • Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions. Where this is not practicable owing to frequent usage, watering shall be applied to aggregate fines. • Open stockpiles shall be avoided or covered. Where possible, prevent placing dusty material storage piles near ASRs. • Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations. • Establishment and use of vehicle wheel and body washing facilities at the exit points of the site. • Provision of wind shield and dust extraction units or similar dust mitigation measures at the loading area of barging point, and use of water sprinklers at the loading area where dust generation is likely during the loading process of loose material, particularly in dry seasons/ periods. • Provision of not less than 2.4m high hoarding from ground level along site boundary where adjoins a road, streets or other accessible to the public except for a site entrance or exit. • Imposition of speed controls for vehicles on site haul roads. • Where possible, routing of vehicles and positioning of construction plant should be at the maximum possible distance from ASRs • Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides. • Instigation of an environmental monitoring and auditing program to monitor the construction process in order to enforce controls and modify method of work if dusty conditions arise.	To minimize the dust impact	Contractor	All Construction Work Sites	Construction phase	APCO and Air Pollution Control (Construction Dust) Regulation
/	Emission from Vehicles and Plants • All vehicles shall be shut down in intermittent use. • Only well-maintained plant should be operated on-site and plant should be serviced regularly to avoid emission of black smoke. • All diesel fuelled construction plant within the works areas shall be powered by ultra low sulphur diesel fuel (ULSD)	Reduce air pollution emission from construction vehicles and plants	Contractor	All construction sites	Construction stage	APCO
/	Valid No-road Mobile Machinery (NRMM) labels should be provided to regulated machines	Reduce air pollution emission from construction vehicles and plants	Contractor	All construction sites	Construction stage	APCO

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Noise Impact (Construction Phase)						
S4.8	• Use of quiet PME. Use of movable noise barriers for Excavator, Lorry, Dump Truck, Mobile Crane, Compactor, Concrete Mixer Truck, Concrete Lorry Mixer, Breaker, Mobile Crusher, Backhoe, Vibratory Poker, Saw, Asphalt Paver, Vibratory Roller, Vibrolance, Hydraulic Vibratory Lance and Piling (Vibration Hammer). Use of full enclosure for Air Compressor, Compressor, Bar Bender, Generator, Drilling Rig, Chisel, Large Diameter Bore Piling, Grout Mixer & Pump and Concrete Pump.	To minimize construction noise impact arising from the Project at the affected NSRs	Contractor	Work Sites	Construction phase	EIAO-TM, NCO
Noise Mitigation Plan	Use of Temporary Noise Barriers (i.e Acoustic box, SilentUp and etc.) or Full Enclosure for PME according to the approved Noise Mitigation Plan	To minimize construction noise impact arising from the Project at the affected NSRs	Contractor	Work Sites	Construction phase	EIAO-TM, NCO
S4.9	**Good Site Practice** • Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction program • Silencers or mufflers on construction equipment should be utilized and should be properly maintained during the construction program. • Mobile plant, if any, should be sited as far away from NSRs as possible. • Machines and plant (such as trucks) that may be in intermittent use should be shut down between works periods or should be throttled down to a minimum. • Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs. • Material stockpiles and other structures should be effectively utilized, wherever practicable, in screening noise from on-site construction activities.	To minimize construction noise impact arising from the Project at the affected NSRs	Project Proponent	Work sites	Construction Period	EIAO-TM, NCO
S4.9	Scheduling of Construction Works during School Examination Period	To minimize construction noise impact arising from the Project at the affected NSRs	Contractor	Work site near school	Construction phase	EIAO-TM, NCO
Water Quality Impact (Construction Phase)						
S5.6.24	The dry density of filling material for the TKO-LT Tunnel reclamation should be 1,900kg/m^3, with fine content of 25% or less	Control potential impacts from filling activities	CEDD's Contractors	Work site	Construction Phase	EIAO-TM, WPCO
S5.8.1	Non-dredged method by constructing steel cellular caisson structure with stone column shall be adopted for construction of seawall foundation. During the stone column installation (also including the installation of steel cellular caisson), silt curtain shall be employed around the active stone column installation points.	Control potential impacts from filling activities	CEDD's Contractors	Work site	Construction Phase	EIAO-TM, WPCO
S5.8.2	Formation of seawall enclosing the reclamation for Road P2 (notwithstanding an opening of about 50m for marine access) shall be completed prior to the filling activities. The seawall opening of about 50m wide for marine access shall be selected at a location as indicatively shown in Appendix 5.10. No more than 3 filling barge trips per day shall be made with a maximum daily rate of 3,000m^3 (i.e. 1,000 m^3 per trip) for the filling operation at the reclamation area for Road P2. All filling works shall be carried out behind the seawall with the use of single silt curtain at the marine access.	Control potential impacts from filling activities	CEDD's Contractors	Work site	Construction Phase	EIAO-TM, WPCO
Silt Curtain Deployment Plan	• Silt curtains should be deployed properly to surround the works area. • Maintenance of silt curtain should be provided. • Sufficient stock of silt curtain should be provided on site.	Control potential impacts from marine woroks	Contractor	NE/2015/01	Construction stage	EIAO

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S5.8.3	Other good site practices should be undertaken during filling operations include: • all marine works should adopt the environmental friendly construction methods as far as practically possible including the use of cofferdams to cover the construction area to separate the construction works from the sea; • floating single silt curtain shall be employed for all marine works; • all vessels should be sized so that adequate clearance is maintained between vessels and the seabed in all tide conditions, to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash; • all hopper barges should be fitted with tight fitting seals to their bottom openings to prevent leakage of material; • excess material shall be cleaned from the decks and exposed fittings of barges before the vessel is moved; • adequate freeboard shall be maintained on barges to reduce the likelihood of decks being washed by wave action; • loading of barges and hoppers should be controlled to prevent splashing of filling material into the surrounding water. Barges or hoppers should not be filled to a level that will cause the overflow of materials or polluted water during loading or transportation; • any pipe leakages shall be repaired quickly. Plant should not be operated with leaking pipes; • construction activities should not cause foam, oil, grease, scum, litter or other objectionable matter to be present on the water within the site or dumping grounds; and • before commencement of the reclamation works, the holder of Environmental Permit has to submit plans showing the phased construction of the reclamation, design and operation of the silt curtain.	Control potential impacts from filling activities and marine-based construction	CEDD's Contractors	Work site	Construction Phase	EIAO-TM, WPCO, Waste Disposal Ordinance (WDO)
S5.8.4	Site specific mitigation plan for reclamation areas using public fill materials should be submitted for EPD agreement before commencement of construction phase with due consideration of good site practices.	Control potential impacts from filling activities and marine based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
ERR S5.6.1	To minimize water quality impact arising from the dredging and filling works for Reclamation for Road P2, the following mitigation measures shall be implemented: - Before carrying out any dredging and underwater filling works, a temporary barrier shall first be constructed to a height above the high water mark to completely enclose the works site (without any opening at the barrier wall) - The temporary barrier fully enclosing the dredging and underwater filling works site shall not be removed before completion of all dredging and underwater filling works. - Water quality sampling and testing shall be carried out to demonstrate that the water quality inside the enclosed barrier is comparable to the ambient or baseline levels prior to the removal of the fully enclosed barrier. - Silt curtains shall be deployed for the installation and removal of the temporary barrier and at the double water gates marine access opening during its operation.	Control potential impacts from dredging and filling works for Reclamation for Road P2	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.5	It is important that appropriate measures are implemented to control runoff and drainage and prevent high loading of SS from entering the marine environment. Proper site management is essential to minimise surface water runoff, soil erosion and sewage effluents.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.6	Any practical options for the diversion and realignment of drainage should comply with both engineering and environmental requirements in order to ensure adequate hydraulic capacity of all drains.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Design Stage and Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO, TM-DSS

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S5.8.7	Construction site runoff and drainage should be prevented or minimised in accordance with the guidelines stipulated in the EPD's Practice Note for Professional Persons, Construction Site Drainage (ProPECC PN 1/94). Good housekeeping and stormwater best management practices, as detailed in below, should be implemented to ensure that all construction runoff complies with WPCO standards and no unacceptable impact on the WSRs arises due to construction of the TKO-LT Tunnel. All discharges from the construction site should be controlled to comply with the standards for effluents discharged into the corresponding WCZ under the TM-DSS.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO, TM-DSS
S5.8.8 S5.8.8 S5.8.8	Exposed soil areas should be minimised to reduce the potential for increased siltation, contamination of runoff, and erosion. Construction runoff related impacts associated with the above ground construction activities can be readily controlled through the use of appropriate mitigation measures which include: • use of sediment traps; and • adequate maintenance of drainage systems to prevent flooding and overflow.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.9	Construction site should be provided with adequately designed perimeter channel and pretreatment facilities and proper maintenance. The boundaries of critical areas of earthworks should be marked and surrounded by dykes or embankments for flood protection. Temporary ditches should be provided to facilitate runoff discharge into the appropriate watercourses, via a silt retention pond. Permanent drainage channels should incorporate sediment basins or traps and baffles to enhance deposition rates. The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.10	Ideally, construction works should be programmed to minimise surface excavation works during the rainy season (April to September). All exposed earth areas should be completed as soon as possible after earthworks have been completed, or alternatively, within 14 days of the cessation of earthworks where practicable. If excavation of soil cannot be avoided during the rainy season, or at any time of year when rainstorms are likely, exposed slope surfaces should be covered by tarpaulin or other means.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.11	Sedimentation tanks of sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8m^3 capacity, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal. The system capacity is flexible and able to handle multiple inputs from a variety of sources and particularly suited to applications where the influent is pumped.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.12	Earthworks 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.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.13	Measures should be taken to minimize 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.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.14	Open stockpiles of construction materials (for examples, aggregates, sand and fill material) of more than 50m^3 should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.15	Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and storm runoff being directed 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.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.16	Precautions to be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent or forecast, and actions to be taken during or after rainstorms are summarised in Appendix A2 of ProPECC PN 1/94. Particular attention should be paid to the control of silty surface runoff during storm events, especially for areas located near steep slopes.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO

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S5.8.17	Oil interceptors should be provided in the drainage system and regularly cleaned to prevent the release of oils and grease into the storm water drainage system after accidental spillages. The interceptor should have a bypass to prevent flushing during periods of heavy rain.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.18	All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and located wheel washing bay should be provided at every site exit, and washwater should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheelwash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.19	Silt removal facilities, channels and manholes should be maintained and the deposited silt and grit should be removed regularly, at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.20	It is recommended that on-site drainage system should be installed prior to the commencement of other construction activities. Sediment traps should be installed in order to minimise the sediment loading of the effluent prior to discharge into foul sewers. There shall be no direct discharge of effluent from the site into the sea.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.21	All temporary and permanent drainage pipes and culverts provided to facilitate runoff discharge should be adequately designed for the controlled release of storm flows. All sediment control measures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rain storms. The temporarily diverted drainage should be reinstated to its original condition when the construction work has finished or the temporary diversion is no longer required.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.22	All fuel tanks and storage areas should be provided with locks and be located on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank, to prevent spilled fuel oils from reaching the coastal waters.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.23	Minimum distances of 100m shall be maintained between the existing or planned stormwater discharges and the existing or planned seawater intakes during construction and operational phases	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	EIAO-TM, WPCO, TMDSS
S5.8.24	Under normal circumstances, groundwater pumped out of wells, etc. for the lowering of ground water level in basement or foundation construction, and groundwater seepage pumped out of tunnels or caverns under construction should be discharged into storm drains after the removal of silt in silt removal facilities.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.25 - S5.8.27 & Table 5.18	Grouting would be adopted as measure to reduce the groundwater inflow into the tunnel. During the tunnel excavation, the inflow rate of groundwater into the tunnel will be measured during the excavation. The groundwater levels above the tunnel will also be monitored by piezometers. If the inflow rate exceeds the pre-determined groundwater control criteria or the groundwater drawdown exceeds the required limit, pre-excavation grouting will be required to reduce the groundwater inflow. No significant change of groundwater levels would therefore be expected. Any chemicals/ foaming agents which would be entrained to the groundwater should be biodegradable and non-toxic throughout the tunnel construction. Potential groundwater quality impact would be minimal as the used material is non-toxic and biodegradable. No adverse groundwater quality would therefore be expected. Prescriptive measures in the form of an Action Plan with pre-emptive and re-active to preserve the groundwater levels at all times during the tunnel construction are set out in Table 5.18.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO, Buildings Ordinance
S5.8.28	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.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Design Stage and Construction Phas	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.29 - S5.8.31	Wastewater generated from the washing down of mixing trucks and drum mixers and similar equipment should whenever practicable be recycled. The discharge of wastewater should be kept to a minimum. To prevent pollution from wastewater overflow, the pump sump of any water recycling system should be provided with an online standby pump of adequate capacity and with automatic alternating devices. Under normal circumstances, surplus wastewater may be discharged into foul sewers after treatment in silt removal and pH adjustment facilities (to within the pH range of 6 to 10). Disposal of wastewater into storm drains will require more elaborate treatment.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO

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S5.8.32	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 exit 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 paved with backfall to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.33	Bentonite slurries used in diaphragm wall and borepile construction should be reconditioned and reused wherever practicable. If the disposal of a certain residual quantity cannot be avoided, the used slurry may be disposed of at the marine spoil grounds subject to obtaining a marine dumping licence from EPD on a case-by-case basis.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.34	If the used bentonite slurry is intended to be disposed of through the public drainage system, it should be treated to the respective effluent standards applicable to foul sewer, storm drains or the receiving waters as set out in the WPCO Technical Memorandum on Effluent Standards.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.35	Water used in water testing to check leakage of structures and pipes should be reused for other purposes as far as practicable. Surplus unpolluted water could be discharged into storm drains.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.36	Sterilization is commonly accomplished by chlorination. Specific advice from EPD should be sought during the design stage of the works with regard to the disposal of the sterilizing water. The sterilizing water should be reused wherever practicable.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Design Stage and Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.37	Before commencing any demolition works, all sewer and drainage connections should be sealed to prevent building debris, soil, sand etc. from entering public sewers/drains.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.38	Wastewater generated from building construction activities including concreting, plastering, internal decoration, cleaning of works and similar activities should not be discharged into the stormwater drainage system. If the wastewater is to be discharged into foul sewers, it should undergo the removal of settleable solids in a silt removal facility, and pH adjustment as necessary	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.39	Acidic wastewater generated from acid cleaning, etching, pickling and similar activities should be neutralized to within the pH range of 6 to 10 before discharging into foul sewers. If there is no public foul sewer in the vicinity, the neutralized wastewater should be tinkered off site for disposal into foul sewers or treated to a standard acceptable to storm drains and the receiving waters	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO

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S5.8.40	Wastewater collected from canteen kitchens, including that from basins, sinks and floor drains, should be discharged into foul sewer via grease traps capable of providing at least 20 minutes retention during peak flow.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.41	Drainage serving an open oil filling point should be connected to storm drains via a petrol interceptor with peak storm bypass.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.42	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. Oil leakage or spillage should be contained and cleaned up immediately. Waste oil should be collected and stored for recycling or disposal in accordance with the Waste Disposal Ordinance.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.43	Construction work force sewage discharges on site are expected to be connected to the existing trunk sewer or sewage treatment facilities. The construction sewage may need to be handled by portable chemical toilets prior to the commission of the on-site sewer system. Appropriate numbers of portable toilets shall be provided by a licensed contractor to serve the large number of construction workers over the construction site. The Contractor shall also be responsible for waste disposal and maintenance practices.	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
S5.8.44	Contractor must register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation should be observed and complied with for control of chemical wastes.	Control potential impacts from accidental spillage of chemicals	CEDD's Contractors	Work site	Construction Phase	EIAO-TM, WPCO, WDO
S5.8.45	Any service shop and maintenance facilities should be located on hard standings within a bunded area, and sumps and oil interceptors should be provided. Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should only be undertaken within the areas appropriately equipped to control these discharges.	Control potential impacts from accidental spillage of chemicals	CEDD's Contractors	Work site	Construction Phase	EIAO-TM, WPCO
S5.8.46	Disposal of chemical wastes should be carried out in compliance with the Waste Disposal Ordinance. The "Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes" published under the Waste Disposal Ordinance details the requirements to deal with chemical wastes. General requirements are given as follows: • suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport; • chemical waste containers should be suitably labelled, to notify and warn the personnel who are handling the wastes, to avoid accidents; and • storage area should be selected at a safe location on site and adequate space should be allocated to the storage area.	Control potential impacts from accidental spillage of chemicals	CEDD's Contractors	Work site	Construction Phase	EIAO-TM, WPCO, WDO
S5.8.47	Collection and removal of floating refuse should be performed at regular intervals on a daily basis. The contractor should be responsible for keeping the water within the site boundary and the neighbouring water free from rubbish.	Control potential impacts from floating refuse and debris	CEDD's Contractors	Work site	Construction Phase	EIAO-TM, WPCO,
Ecological Impact						
S6.8.4	**Measures to Minimize Disturbance** • Use of Quiet Mechanical Plant during the construction phase should be adopted wherever possible. • Hoarding or fencing should be erected around the works area boundaries during the construction phase. The hoarding would screen adjacent habitats from construction phase activities, reduce noise disturbance to these habitats and also to restrict access to habitats adjacent to works areas by site workers; • Regular spraying of haul roads to minimize impacts of dust deposition on adjacent vegetation and habitats during the construction activities	Minimize noise, human and traffic disturbance to terrestrial habitat and wildlife; and reduce dust generation	Design Team / Contractor	Land-based works are	Construction Phase	N/A

EIA Ref. / EP Submission	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	What requirements or standards for the measures to achieve?
S6.8.5	**Standard Good Site Practice** • Placement of equipment or stockpile in designated works areas and access routes selected on existing disturbed land to minimise disturbance to natural habitats. • Construction activities should be restricted to works areas that should be clearly demarcated. The works areas should be reinstated after completion of the works. • Waste skips should be provided to collect general refuse and construction wastes. The wastes should be properly disposed off-site in a timely manner. • General drainage arrangements should include sediment and oil traps to collect and control construction site run-off. • Open burning on works sites is illegal, and should be strictly prohibited. • Measures should also be put into place so that litter, fuel and solvents do not enter the nearby watercourses.	Reduce disturbance to surrounding habitats	Contractor	Land-based works are	Construction Phase	N/A
S6.8.6	**Measure to Minimize Groundwater Inflow** • The drained tunnel construction method with groundwater inflow control measures would generally be adopted. • During the tunnel excavation, pre-excavation grouting could be adopted to reduce the groundwater inflow and ensure that the tunnel would meet the long term water tightness requirements.	Minimize groundwater inflow	Contractor	Tunnel	Construction Phase	N/A
S6.8.8	**Measure to Minimize Impact on Corals** <u>Coral translocation</u> • It is recommended to translocate the affected coral colonies, except the locally common *Oulastrea crispata* , within the reclamation area and bridge footprint to the other suitable locations as far as practicable. • The coral translocation should be conducted during the winter months (November-March) in order to avoid disturbance during their spawning period (i.e. July to October). • A detailed coral translocation plan with a description on the methodology for pretranslocation coral survey, translocation methodology, identification/proposal of coral recipient site, monitoring methodology for posttranslocation should be prepared during the detailed design stage. • The coral translocation plan should be subject to approval by relevant authorities (e.g. EPD and AFCD) before commencement of the coral translocation. All the translocation exercises should be conducted by experienced marine ecologist(s) who is/are approved by AFCD prior to commencement of coral translocation. <u>Post translocation Monitoring</u> • A coral monitoring programme is recommended to assess any adverse and unacceptable impacts to the translocated coral communities • Information gathered during each posttranslocation monitoring survey should include observations on the presence, survival, health condition and growth of the translocated coral colonies. These parameters should then be compared with the baseline results collected from the pre-translocation survey.	Minimize loss of coral	Design team, contractor, project operator	Within reclamation areas and pier footprint	Prior construction	N/A

EIA Ref. / EP Submission	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	What requirements or standards for the measures to achieve?
S6.8.9 S6.8.10	**Measure to Control Water Quality Impact** • Deployment of silt curtains around the active stone column installation points, opening of newly installed seawall and marine works area. • Diverting of the site runoff to silt trap facilities before discharging into storm drain; • Proper waste and dumping management; and • Standard good-site practice for land-based construction.	Control water quality impact, especially on suspended solid level; minimize the contamination of wastewater discharge, accidental chemical spillage and construction site runoff to the receiving water bodies	Design Team, contractor	Marine and landbased works area	Construction phase	WQO
S6.8.11	**Compensation for Vegetation Loss** • Felling of mature trees should be compensated by planting of standard or heavy standard trees within or in vicinity of the affected area as far as practicable. Such compensatory planting for trees should be provided with at least a 1:1 ratio. In addition, vegetation at the temporarily affected area should be reinstated with species similar to the existing condition.	Compensate for the vegetation loss	Design Team, contractor	Land-based works area	Construction phase	N/A
Fisheries Impact						
S7.7.3	**Measure to Control Water Quality Impact** • Deployment of silt curtains around the active stone column installation points, opening of newly installed seawall and marine works area.	Control water quality impact, especially on suspended solid level	Design Team / Contractor	Marine work area	Construction phase	WQO
Waste Management (Construction Phase)						
S8.6.3	**Good Site Practices and Waste Reduction Measures** • Nomination of an approved person, such as a site manager, 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 in site cleanliness, proper waste management and chemical handling procedures; • Provision of sufficient waste disposal points and regular collection of waste; • Appropriate measures to minimize windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; and • Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors.	To reduce waste management impacts	Contractor	All work sites	Construction Phase	Waste Disposal Ordinance (Cap. 354) Land (Miscellaneous Provisions) Ordinance (Cap. 28)
S8.6.4	***Good Site Practices and Waste Reduction Measures (con't)*** • Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal; • Encourage collection of aluminium cans by providing separate labelled bins to enable this waste to be segregated from other general refuse generated by the workforce; • Proper storage and site practices to minimize the potential for damage or contamination of construction materials; and • Plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste.	To achieve waste reduction	Contractor	All work sites	Construction Phase	Waste Disposal Ordinance (Cap. 354) Land (Miscellaneous Provisions) Ordinance (Cap. 28)
S8.6.5	**Good Site Practices and Waste Reduction Measures (con't)** The Contractor shall prepare and implement a WMP as part of the EMP in accordance with ETWB TCW No. 19/2005 which describes the arrangements for avoidance, reuse, recovery, recycling, storage, collection, treatment and disposal of different categories of waste to be generated from the construction activities. Such a management plan should incorporate site specific factors, such as the designation of areas for segregation and temporary storage of reusable and recyclable materials. The EMP should be submitted to the Engineer for approval. The Contractor should implement the waste management practices in the EMP throughout the construction stage of the Project. The EMP should be reviewed regularly and updated by the Contractor.	To achieve waste reduction	Contractor	All work sites	Construction Phase	ETWB TCW No. 19/2005

EIA Ref. / EP Submission	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	What requirements or standards for the measures to achieve?
S8.6.6	**Good Site Practices and Waste Reduction Measures (con't)** • C&D materials would be reused in the project and other local concurrent projects as far as possible.	To achieve waste reduction	Contractor	All work sites	Construction Phase	ETWB TCW No. 19/2005
S8.6.7	**Storage, Collection and Transportation of Waste** Should any temporary storage or stockpiling of waste is required, recommendations to minimize the impacts include: • Waste, such as soil, should be handled and stored well to ensure secure containment, thus minimizing the potential of pollution; • Maintain and clean storage areas routinely; • Stockpiling area should be provided with covers and water spraying system to prevent materials from wind-blown or being washed away; and • Different locations should be designated to stockpile each material to enhance reuse.	To minimize potential adverse environmental impacts arising from waste storage	Contractor	All work sites	Construction Phase	ETWB TCW No. 19/2005
S8.6.8/ Waste Management Plan	**Storage, Collection and Transportation of Waste (con't)** • Remove waste in timely manner; • Waste collectors should only collect wastes prescribed by their permits; • Impacts during transportation, such as dust and odour, should be mitigated by the use of covered trucks or in enclosed containers; • Obtain relevant waste disposal permits from the appropriate authorities, in accordance with the Waste Disposal Ordinance (Cap. 354), Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 345) and the Land (Miscellaneous Provisions) Ordinance (Cap. 28); • Waste should be disposed of at licensed waste disposal facilities/ alternative disposal ground approved by RE and DEP; and • Maintain records of quantities of waste generated, recycled and disposed.	To minimize potential adverse environmental impacts arising from waste collection and disposal	Contractor	All work sites	Construction Phase	ETWB TCW No. 19/2005
S8.6.9/ Waste Management Plan	**Storage, Collection and Transportation of Waste (con't)** • Implementation of trip ticket system with reference to DEVB TC(W) No. 6/2010, Trip Ticket System for Disposal of Construction & Demolition Materials, to monitor disposal of waste and to control fly-tipping at PFRFs or landfills. A recording system for the amount of waste generated, recycled and disposed (including disposal sites) should be proposed.	To minimize potential adverse environmental impacts arising from waste collection and disposal	Contractor	All work sites	Construction Phase	DEVB TCW No. 6/2010
S8.6.11 - S8.6.13/ Waste Management Plan	**Sorting of C&D Materials** • Sorting to be performed to recover the inert materials, reusable and recyclable materials before disposal off-site. • Specific areas shall be provided by the Contractors for sorting and to provide temporary storage areas for the sorted materials. • The C&D materials should at least be segregated into inert and non-inert materials, in which the inert portion could be reused and recycled in the reclamation as far as practicable before delivery to PFRFs. While opportunities for reusing the non-inert portion should be investigated before disposal of at designated landfills	To minimize potential adverse environmental	Contractor	All work sites	Construction Phase	DEVB TCW No. 6/2010 ETWB TCW No. 33/2002 ETWB TCW No. 19/2005
S8.6.17 – S8.6.20	**Sediments (con't)** • Requirements of the Air Pollution Control (Construction Dust) Regulation, where relevant, shall be adhered to during boring, excavation, transportation and disposal of sediments or cement stabilization of sediment. • A treatment area should be confined for carrying out the cement stabilization mixing and temporary stockpile. The area should be designed to prevent leachate from entering the ground. Leachate, if any, should be collected and discharged according to the Water Pollution Control Ordinance (WPCO). • In order to minimise the potential odour / dust emissions during boring, excavation and transportation of the sediment, the excavated sediments should be kept wet during excavation/boring and should be properly covered when placed on barges/trucks. Loading of the excavated sediment to the barge should be controlled to avoid splashing and overflowing of the sediment slurry to the surrounding water. • In order to minimise the exposure to contaminated materials, workers should, when necessary, wear appropriate personal protective equipments (PPE) when handling contaminated sediments. Adequate washing and cleaning facilities should also be provided on site.	To determine the best handling and treatment of sediment	Contractor	All works areas with sediments concern	Construction Phase	ETWB TCW No. 19/2005

EIA Ref. / EP Submission	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	What requirements or standards for the measures to achieve?
S8.6.24 - S8.6.28/ Waste Management Plan	**Sediments (con't)** • The excavated sediments is expected to be loaded onto the barge and transported to the designated disposal sites allocated by the MFC. The excaveted sediment would be disposed of according to its determined disposal options and ETWB TC(W) No. 34/2002. • Stockpiling of contaminated sediments should be avoided as far as possible. If temporary stockpiling of contaminated sediments is necessary, the excavated sediment should be covered by tarpaulin and the area should be placed within earth bunds or sand bags to prevent leachate from entering the ground, nearby drains and surrounding water bodies. The stockpiling areas should be completely paved or covered by linings in order to avoid contamination to underlying soil or groundwater. Separate and clearly defined areas should be provided for stockpiling of contaminated and uncontaminated materials. Leachate, if any, should be collected and discharged according to the Water Pollution Control Ordinance (WPCO). • In order to minimise the potential odour / dust emissions during boring and transportation of the sediment, the excavated sediments should be kept wet during excavation/boring and should be properly covered when placed on barges. Loading of the excavated sediment to the barge should be controlled to avoid splashing and overflowing of the sediment slurry to the surrounding water. • The barge transporting the sediments to the designated disposal sites should be equipped with tight fitting seals to prevent leakage and should not be filled to a level that would cause overflow of materials or laden water during loading or transportation. In addition, monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by the DEP. • In order to minimise the exposure to contaminated materials, workers should, when necessary, wear appropriate personal protective equipments (PPE) when handling contaminated sediments. Adequate washing and cleaning facilities should also be provided on site. • Another possible arrangement for Type 3 disposal is by geosynthetic containment. A geosynthetic containment method is a method whereby the sediments are sealed in geosynthetic containers and, at the disposal site, the containers would be dropped into the designated contaminated mud pit where they would be covered by further mud disposal and later by the mud pit capping, thereby meeting the requirements for fully confined mud disposal.	To ensure handling of sediments are in accordance to statutory requirements	Contractor	All works areas with sediments concern	Construction Phase	ETWB TC(W) No. 34/2002 & Dumping at Sea Ordinance
S8.6.26/ Waste Management Plan	**Chemical Wastes.** • If chemical wastes are produced at the construction site, the Contractor would be required to register with the EPD as a Chemical Waste Producer and to follow the guidelines stated in the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc. The Contractor shall use a licensed collector to transport and dispose of the chemical wastes, to either the Chemical Waste Treatment Centre at Tsing Yi, or other licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	To ensure proper management of chemical waste	Contractor	All works sites	Construction Phase	Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes Waste Disposal (Chemical Waste) (General) Regulation

EIA Ref. / EP Submission	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	What requirements or standards for the measures to achieve?
S8.6.27/ Waste Management Plan	**General Refuse** • General refuse should be stored in enclosed bins or compaction units separate from C&D material. A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material. Preferably an enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material.	To ensure proper management of general refuse	Contractor	All works sites	Construction Phase	Public Health and Municipal Services Ordinance (Cap. 132)
Impact on Cultural Heritage (Construction Phase)						
S9.6.4	**Dust and visual impacts** • Temporarily fenced off buffer zone with allowance for public access (minimum 1 m) should be provided; • The open yard in front of the temple should be kept as usual for annual Tin Hau festival; • Monitoring of vibration impacts should be conducted when the construction works are less than 100m from the temple.	To prevent dust and visual impacts	Contractors	Work areas	Construction Phase	EIAO; GCHIA; AMO
S9.6.4	**Indirect vibration impact** • Vibration level is suggest to be controlled within a peak particle velocity (ppv) limit of 5mm/s measured inside the historical buildings; • Monitoring of vibration should be carried out during construction phase. • Tilting and settlement monitoring should will be applied on the Cha Kwo Ling Tin Hau Temple as well. • A proposal with details for the mitigation measures and monitoring of impacts on built heritage shall be submitted to AMO for comments before commencement of work.	To prevent indirect vibration impact	Contractors	Work areas	Construction Phase	Vibration Limits on Heritage Buildings by CEDD; GCHIA; AMO.
Built Heritage Mitigation Plan	• Established Alert, Alarm and Action Level for the monitoring parameters. • To increase the instrumentation monitoring and reporting frequency. • To propose detailed action plan or contingency plan for the Engineer's approval when AAA Level is reached or exceeded.	To prevent vibration impacts	NE/2015/01	Tin Hau Temple	Construction Phase	Vibration Limits on Heritage Buildings by CEDD; GCHIA; AMO.
Landscape and Visual Impact (Construction Phase)						
Table 10.8.1/ Landscape Mitigation Plan	CM1 - Construction area and contractor's temporary works areas to be minimised to avoid impacts on adjacent landscape.	Avoid impact on adjacent landscape areas	CEDD (via Contractor)	General	Construction planning and during construction period	N/A
Table 10.8.1/ Landscape Mitigation Plan	CM2 - Reduction of construction period to practical minimum.	Minimise duration of impact	CEDD (via Contractor)	N/A	Construction planning	N/A
Table 10.8.1/ Landscape Mitigation Plan	CM3 - Topsoil, where the soil material meets acceptable criteria and where practical, to be stripped and stored for re-use in the construction of the soft landscape works. The Contract Specification shall include storage and reuse of topsoil as appropriate.	To allow re-use of topsoil	CEDD (via Contractor)	General	Site clearance	As per the Particular Specification
Table 10.8.1/ Landscape Mitigation Plan	CM4 - Existing trees at boundary of site and retained trees within site boundary to be carefully protected during construction. Detailed Tree Protection Specification shall be provided in the Contract Specification, under which the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in contractor's works areas. (Tree protection measures will be detailed at Tree Removal Application stage).	To minimize tree loss	CEDD (via Contractor)	As per approved Tree Removal Application(s)	Site clearance and throughout construction period	ETWB TC 3/2006 and as per tree protection measures in Particular Specification

EIA Ref. / EP Submission	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	What requirements or standards for the measures to achieve?
Table 10.8.1/ Landscape Mitigation Plan	CM5 - Trees unavoidably affected by the works shall be transplanted where practicable. Where possible, trees should be transplanted direct to permanent locations rather than temporary holding nurseries. A detailed tree transplanting specification shall be provided in the Contract Specification and sufficient time for preparation shall be allowed in the construction programme.	To maximize preservation of existing trees	CEDD (via Contractor)	As per approved Tree Removal Application(s)	Site clearance	ETWB TC 3/2006 and as per tree protection measures in Particular Specification
Table 10.8.1/ Landscape Mitigation Plan	CM6 - Advance screen planting of fast growing tree and shrub species to noise barriers and hoardings. Trees shall be capable of reaching a height >10m within 10 years.	To maximize screening of the works	CEDD (via Contractor)	At Lam Tin Interchange and edge of Road P2 landscape deck, TKO	Beginning of construction period	N/A
Table 10.8.1/ Landscape Mitigation Plan	CM7 - Hydroseeding or sheeting of soil stockpiles with visually unobtrusive material	To reduce visual intrusion	CEDD (via Contractor)	General	Throughout construction period	As per Particular Specification
Table 10.8.1/ Landscape Mitigation Plan	CM8 - Control of night-time lighting by hooding all lights and through minimisation of night working periods.	To reduce visual intrusion	CEDD (via Contractor)	General	Throughout construction period	N/A
Table 10.8.1/ Landscape Mitigation Plan	CM9 - Screening of works areas with hoardings with appropriate colours compatible with the surrounding area	Reduction of visual intrusion	CEDD (via Contractor)	Project site Boundary	Excretion of site hoarding	N/A
Table 10.8.1/ Landscape Mitigation Plan	CM10 - Avoidance of excessive height and bulk of site buildings and structure	Reduction of visual intrusion and integration with environment	CEDD (via Contractor)	Built structures	Design and construction stage	N/A
Table 10.8.1/ Landscape Mitigation Plan	CM11 - Limitation of run-off into freshwater streams, ponds and sea areas	Avoidance of contamination of water courses and water bodie	CEDD (via Contractor)	TKO reclamation, TKO tunnel portal, Cha Kwo Ling roadworks	Throughout construction period	N/A
Table 10.8.1	CM12 - Minimise area of reclamation and design the edges sensitively to tie in with adjacent coastline characte	Minimise loss of Junk Bay and integration with existing coastlin	CEDD (via Contractor)	Temporary reclamation for barging points at TKO and Lam Tin and permanent reclamation for TKO Interchange slip roads and Road P2	Construction planning and reclamation stages	N/A
Landfill Gas Hazard (Design and Construction Phase)						
S11.5.9	A Safety Officer, trained in the use of gas detection equipment and landfill gas-related hazards, should be present on site throughout the groundworks phase. The Safety Officer should be provided with an intrinsically safe portable instrument, which is appropriately calibrated and able to measure the following gases in the ranges indicated below: Methane 0-100% LEL and 0100% v/v Carbon dioxide 0-100% Oxygen 0-21%	Protect the workers from landfill gas hazards	Contractor	Project sites within the Sai Tso Wan Landfill Consultation Zone	Construction phase	EPD's Landfill Gas Hazard Assessment Guidance Note

EIA Ref. / EP Submission	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	What requirements or standards for the measures to achieve?
S11.5.10 S11.5.25	**Safety Measures** • For staff who work in, or have responsibility for "at risk" area, such as all excavation workers, supervisors and engineers working within the Consultation Zone, should receive appropriate training on working in areas susceptible to landfill gas, fire and explosion hazards. • An excavation procedure or code of practice to minimize landfill gas related risk should be devised and carried out. • No worker should be allowed to work alone at any time in or near to any excavation. At least one other worker should be available to assist with a rescue if needed. • Smoking, naked flames and all other sources of ignition should be prohibited within 15m of any excavation or ground-level confined space. "No smoking" and "No naked flame" notices should be posted prominently on the construction site and, if necessary, special areas should be designed for smoking. • Welding, flame-cutting or other hot works should be confined to open areas at least 15m from any trench or excavation. • Welding, flame-cutting or other hot works may only be carried out in trenches or confined spaces when controlled by a "permit to work" procedure, properly authorized by the Safety Officer (or, in the case of small developments, other appropriately qualified person). • The permit to work procedure should set down clearly the requirements for continuous monitoring for methane, carbon dioxide and oxygen throughout the period during which the hot works are in progress. The procedure should also require the presence of an appropriately qualified person, in attendance outside the 'confined area', who should be responsible for reviewing the gas measurements as they are made, and who should have executive responsibility for suspending the work in the event of unacceptable or hazardous conditions. Only those workers who are appropriately trained and fully aware of the potentially hazardous conditions which may arise should be permitted to carry out hot works in confined areas. • Where there are any temporary site offices, or any other buildings located within the Sai Tso Wan Landfill Consultation Zone which have enclosed spaces with the capacity to accumulate landfill gas, then they should either be located in an area which has been proven to be free of landfill gas (by survey using portable gas detectors); or be raised clear of the ground by a minimum of 500mm. This aims to create a clear void under the structure which is ventilated by natural air movement such that emission of gas from the ground are mixed and diluted by air. • Any electrical equipment, such as motors and extension cords, should be intrinsically safe. During piping assembly or conduiting construction, all valves/seals should be closed immediately after installation. As construction progresses, all valves/seals should be closed to prevent the migration of gases through the pipeline/conduit. All piping /conduiting should be capped at the end of each working day. • During construction, adequate fire extinguishing equipment, fire-resistant clothing and breathing apparatus (BA) sets should be made available on site. • Fire drills should be organized at not less than six monthly intervals.	Protect the workers from landfill gas hazards	Contractor	Project sites within the Sai Tso Wan Landfill Consultation Zone	Construction phase	EPD's Landfill Gas Hazard Assessment Guidance Note Labour Department's Code of Practice for Safety and Health at Work in Confined Space

EIA Ref. / EP Submission	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	What requirements or standards for the measures to achieve?
S11.5.10 S11.5.25	• The contractor should formulate a health and safety policy, standards and instructions for site personnel to follow. • All personnel who work on the site and all visitors to the site should be made aware of the possibility of ignition of gas in the vicinity of excavations. Safety notices (in Chinese and English) should be posted at prominent position around the site warning danger of the potential hazards. • Service runs within the Consultation Zone should be designated as "special routes"; utilities companies should be informed of this and precautionary measures should be implemented. Precautionary measures should include ensuring that staff members are aware of the potential hazards of working in confined spaces such as manholes and service chambers, and that appropriate monitoring procedures are in place to prevent hazards due to asphyxiating atmospheres in confined spaces. Detailed guidance on entry into confined spaces is given in Code of Practice on Safety and Health at Work in Confined Spaces (Labour Department, Hong Kong). • Periodically during ground-works construction within the 250m Consultation Zone, the works area should be monitored for methane, carbon dioxide and oxygen using appropriately calibrated portable gas detection equipment. The monitoring frequency and areas to be monitored should be set down prior to commencement of ground-works either by the Safety Officer or an approved and appropriately qualified person.					
S11.5.26 - S11.5.31	**Monitoring** ● Routine monitoring should be carried out in all excavations, manholes, chambers, relocation of monitoring wells and any other confined spaces that may have been created. All measurements in excavations should be made with the extended monitoring tube located not more than 10 mm from the exposed ground surface. Monitoring should be performed properly to make sure that the area is free of landfill gas before any man enters into the area. ● For excavations **deeper than 1m**, measurements should be carried out: • at the ground surface before excavation commences;- • immediately before any worker enters the excavation; • at the beginning of each working day for the entire period the excavation remains open; and • periodically throughout the working day whilst workers are in the excavation. ● For excavations **between 300mm and 1m deep**, measurements should be carried out: • directly after the excavation has been completed; and • periodically whilst the excavation remains open. ● For excavations less than 300mm deep, monitoring may be omitted, at the discretion of the Safety Officer or other appropriately qualified person. ● Depending on the results of the measurements, actions required will vary and should be set down by the Safety Officer or other appropriately qualified person. ● The exact frequency of monitoring should be determined prior to the commencement of works, but should be at least once per day, and be carried out by a suitably qualified or qualified person before starting the work of the day. Measurements shall be recorded and kept as a record of safe working conditions with copies of the site diary and submitted to the Engineer for approval. The Contractor may elect to carry out monitoring via an automated monitoring system.	Protect the workers from landfill gas hazards	Contractor	Project sites within the Sai Tso Wan Landfill Consultation Zone	Construction phase	EPD's Landfill Gas Hazard Assessment Guidance Note
S11.5.32	The hazards from landfill gas during the construction stage within the Sai Tso Wan Landfill Consultation Zone should be minimized by suitable precautionary measures recommended in Chapter 8 of the Landfill Gas Hazard Assessment Guidance Note.	construction stage within the Sai Tso Wan Protect the workers from landfill gas hazards	Contractor	Project sites within the Sai Tso Wan Landfill Consultation Zone	Construction phase	EPD's Landfill Gas Hazard Assessment Guidance Note

Table II - Observation / Reminder / Non-compliance made during Site Audit

Key:
- ✓ Observation/reminder was made during site audit but improved/rectified by the contractor in the next site audit
- ✕ Observation/reminder was made during site audit but not yet improved/rectified by the contractor in the next site audit
- # Follow up action will be reported in next reporting month
- ✻ Non-compliance of mitigation measure
- · Non-compliance but improved by the contractor

EIA Ref	Recommended Mitigation Measures	Details of Reminder/Observation	Recorded Date	Status
Air Quality				
S3.8.1	Valid No-road Mobile Machinery (NRMM) labels should be provided to regulated machines	NRMM labels of PME are missing.	7 Oct 2021	✓
Construction Noise Impact				
S4.8	Use of movable noise barriers for Excavator, Lorry, Dump Truck, Mobile Crane, Compactor, Concrete Mixer Truck, Concrete Lorry Mixer, Breaker, Mobile Crusher, Backhoe, Vibratory Poker, Saw, Asphalt Paver, Vibratory Roller, Vibrolance, Hydraulic Vibratory Lance and Piling (Vibration Hammer).	Contractor was reminded to check on the effectiveness of the implemented noise mitigation measure regularly. Noise barriers should be erected to block the direct view of noise source from NSR	30 Sep 2021	✓
Water Quality Impact				
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Ecological Impact				
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Fisheries Impact				
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Waste Management				
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Landscape and Visual Impact				
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Landfill Gas Hazards				
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APPENDIX L
EVENT AND ACTION PLANS

Event and Action Plan for Air Quality (Dust)

EVENT	ACTION			
	ET	**IEC**	**ER**	**CONTRACTOR**
Action level being exceeded by one sampling	1. Identify source, investigate the causes of complaint and propose remedial measures; 2. Inform IEC and ER; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method.	1. Notify Contractor.	1. Rectify any unacceptable practice; 2. Amend working methods if appropriate.
Action level being exceeded by two or more consecutive sampling	1. Identify source; 2. Inform IEC and ER; 3. Advise the ER on the effectiveness of the proposed remedial measures; 4. Repeat measurements to confirm findings; 5. Increase monitoring frequency to daily; 6. Discuss with IEC and Contractor on remedial actions required;	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ET on the effectiveness of the proposed remedial measures; 5. Supervise Implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Submit proposals for remedial actions to IEC within three working days of notification; 2. Implement the agreed proposals; 3. Amend proposal if appropriate.

	7. If exceedance continues, arrange meeting with IEC and ER; 8. If exceedance stops, cease additional monitoring.			
Limit level being exceeded by one sampling	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform Contractor ,IEC, ER, and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ER on the effectiveness of the proposed remedial measures; 5. Supervise implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within three working days of notification; 3. Implement the agreed proposals; 4. Amend proposal if appropriate.
Limit level being exceeded by two or more consecutive sampling	1. Notify IEC, ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily;	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly;	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented;	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within three working days of notification; 3. Implement the agreed proposals;

	5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Arrange meeting with IEC and ER to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring.	3. Supervise the implementation of remedial measures.	4. Ensure remedial measures properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	4. Resubmit proposals if problem still not under control; 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Event and Action Plan for Construction Noise

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

Limit Levels and Action Plan for Landfill Gas

Parameter	Limit Level	Action
Oxygen	<19%	• Ventilate to restore oxygen to >19%
	<18%	• Stop works • Evacuate personnel/prohibit entry • Increase ventilation to restore oxygen to >19%
Methane	>10% LEL (i.e. > 0.5% by volume)	• Prohibit hot works • Ventilate to restore methane to <10% LEL
	>20% LEL (i.e. > 1% by volume)	• Stop works • Evacuate personnel / prohibit entry • Increase ventilation to restore methane to <10% LEL
Carbon Dioxide	>0.5%	• Ventilate to restore carbon dioxide to < 0.5%
	>1.5%	• Stop works • Evacuate personnel / prohibit entry • Increase ventilation to restore carbon dioxide to <0.5%

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

Contract No. ED/2018/04
Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron

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

Reporting Month: October 2021

Table M1 Summary of Environmental Complaint, Warning, Summon and Notification of Successful Prosecution Received in the Reporting Period

Log Ref.	Location	Received Date	Details of Complaint/warning/ summon and prosecution	Nature	Investigation/Mitigation Action	Status
-	-	-	-	-	-	-

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

Contract No. ED/2018/04
Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron

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

Reporting Month: October 2021

Table M2 Cumulative Log for Environmental Complaint, Warning, Summon and Notification of Successful Prosecution

Log Ref.	Location	Received Date	Details of Complaint/warning/summon and prosecution	Nature	Investigation/Mitigation Action	Status
Complaint #N02	Portion T1	10-Oct-2020	Resident of Yau Lai Estate complained that i) an excavator operated before 7 am on 9 and 10 October 2020; and, ii) the height of noise barriers are not sufficient for noise reduction.	Noise	• Contractor was recommended to scheduled noisy works to less sensitive hours (e.g. normal weekdays between 08:00-19:00) to minimize noise nuisance. • Since the complaint location stated in part II is situated out of the project boundary and within the other construction site, no investigation shall be conducted for non-project related complaint.	Closed
Complaint #N04	Portion T1	9-Feb-2021	Resident of Cha Kwo Ling village revealed that some breaking noise was heard at his/her residence (near Cha kwo Ling Main Street) from the ground at about 20:00 on 08 Feb, 2021	Noise	• The construction activities of Trunk Road T2 conducted inside the tunnel area and the construction activities of TKO-LT Tunnel conducted inside the tunnel section at Kwun Tong Side on the evening time and night-time of the date of complaint are considered as one of the potential noise source of the ground borne noise nuisance. • A valid CNP was hold and the construction activities being taken were complied with the relevant CNP. • Blast door was fully enclosed when	Closed
		6 March 2021	The complainant informed that they continues to hear breaking noise during 3-4 a.m. and caused serious noise nuisance to the residents.			

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

Reporting Month: October 2021

Log Ref.	Location	Received Date	Details of Complaint/warning/summon and prosecution	Nature	Investigation/Mitigation Action	Status
					construction activities were carried out within tunnel area to prevent, reduce or minimize the emission of airborne noise • In addition, the Contractor should still maintain good site practices, such as schedule noisy work to the less sensitive hours and provide regularly maintenance for PMEs. • Contractor is recommended to continue to strictly follow the requirements in the relevant CNP. • According to the condition 3.d point 5 of the CNP (GW-RE0071-21), the immediate remedial action shall be implemented in case adverse ground-borne noise impact on any noise sensitive receiver is received.	
Complaint #N05	Portion T1	18 July 2021	Complainant informed that breaking noise was heard at his/her residence (near Cha Kwo Ling Main Road) from the ground during 3-4 a.m. on 17 Jul and 18 Jul 2021.	Noise	• The construction activities of Trunk Road T2 conducted inside the tunnel area and the construction activities of TKO-LT Tunnel conducted inside the tunnel section at Kwun Tong Side on the evening time and night-time of the date of complaint are considered as one of the potential noise source of the ground borne noise nuisance.	Closed

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

Reporting Month: October 2021

Log Ref.	Location	Received Date	Details of Complaint/warning/summon and prosecution	Nature	Investigation/Mitigation Action	Status
		27 July 2021	Complainant further informed that they continued to hear underground breaking noise during 3-5 a.m. on 27 July 2021.		• A valid CNP was hold and the construction activities being taken were complied with the relevant CNP. • Blast door was fully enclosed when construction activities were carried out within tunnel area to prevent, reduce or minimize the emission of airborne noise • In addition, the Contractor should still maintain good site practices, such as schedule noisy work to the less sensitive hours and provide regularly maintenance for PMEs. • Contractor is recommended to continue to strictly follow the requirements in the relevant CNP. • According to the condition 3.d point 5 of the CNP (GW-RE0399-21), the immediate remedial action shall be implemented in case adverse ground-borne noise impact on any noise sensitive receiver is received.	

APPENDIX N
SUMMARY OF EXCEEDANCE

Appendix N – Summary of Exceedance

Reporting Period: October 2021

(A) Exceedance Report for Air Quality

No Action/ Limit Level exceedance of 24hr TSP monitoring was recorded in this reporting month.

No Action/ Limit Level exceedance of 1hr TSP monitoring was recorded in this reporting month.

(B) Exceedance Report for Construction Noise

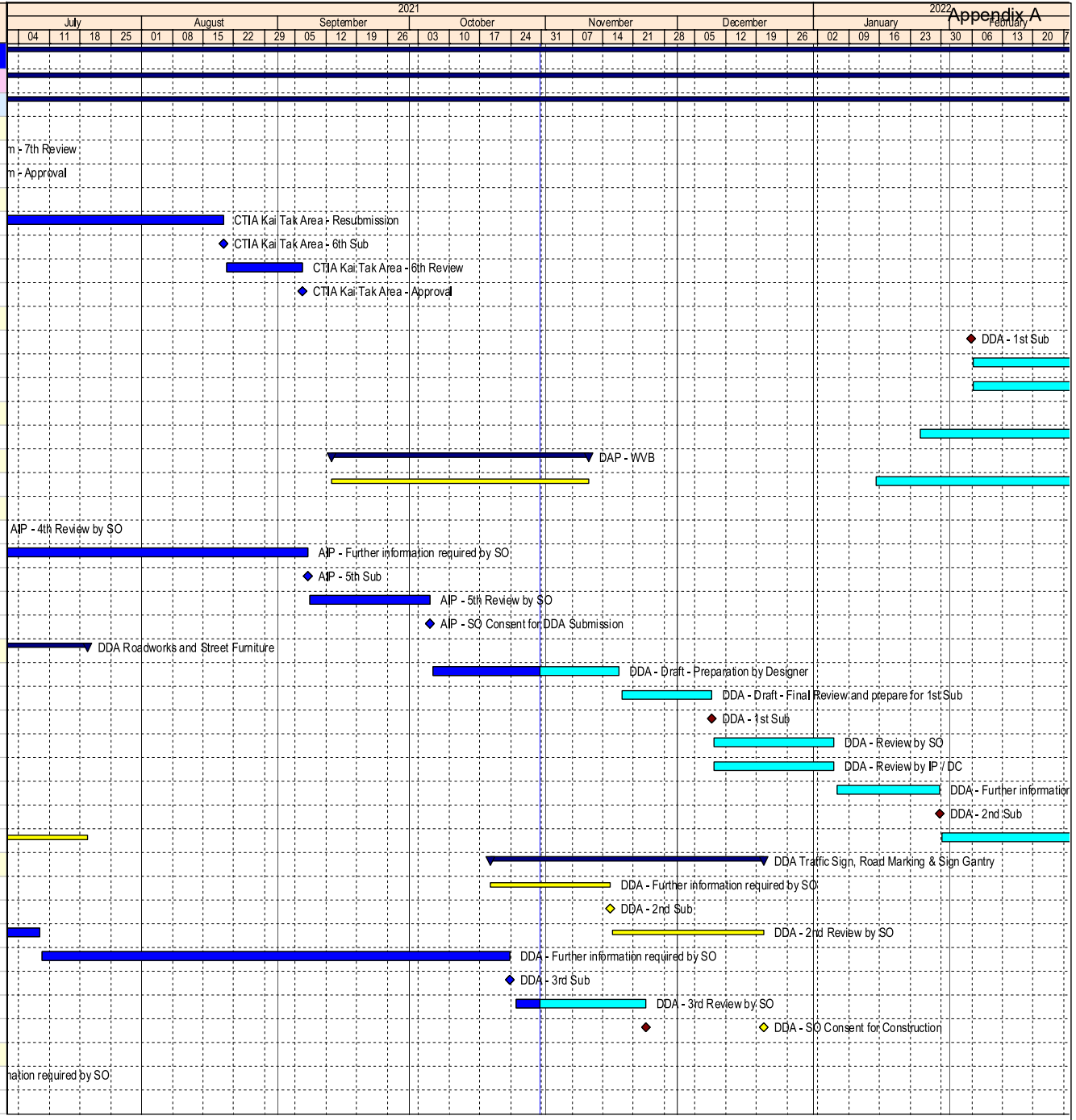
No Action/ Limit Level exceedance for construction noise monitoring was recorded in the reporting month.

(C) Exceedance Report for Landfill Gas

(NIL in the reporting month).

APPENDIX O
TENTATIVE CONSTRUCTION PROGRAMME

Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish
ED/2018/04 - Trunk Road T2	603	03-Oct-20	17-Oct-22	27-Oct-20 A	13-Nov-22
DESIGN SUBMISSION & APPROVAL	540	03-Oct-20	01-Aug-22	28-Oct-20 A	02-Apr-22
GENERAL	521	06-Oct-20	13-Jul-22	16-Apr-21 A	24-Mar-22
Design Memorandum	0	06-Oct-20	06-Oct-20	17-May-21 A	07-Jun-21 A
Design Memorandum - 7th Review	0			17-May-21 A	07-Jun-21 A
Design Memorandum - Approval	0		06-Oct-20		07-Jun-21 A
Construction Traffic Impact Assessment - Kai Tak Area	0	06-Oct-20	06-Oct-20	03-May-21 A	06-Sep-21 A
CTIA Kai Tak Area - Resubmission	0			03-May-21 A	19-Aug-21 A
CTIA Kai Tak Area - 6th Sub	0				19-Aug-21 A
CTIA Kai Tak Area - 6th Review	0			20-Aug-21 A	06-Sep-21 A
CTIA Kai Tak Area - Approval	0		06-Oct-20		06-Sep-21 A
ACABAS- Footbridge FB-02	20	01-Apr-21	29-Apr-21	05-Feb-22	05-Mar-22
DDA - 1st Sub	0		01-Apr-21		05-Feb-22
DDA - Review by SO	28	02-Apr-21	29-Apr-21	06-Feb-22	05-Mar-22
DDA - Review by IP / DC	28	02-Apr-21	29-Apr-21	06-Feb-22	05-Mar-22
ACABAS- Footbridge FB-03	48	17-May-22	13-Jul-22	25-Jan-22	24-Mar-22
DDA - Draft - Preparation by Designer	48	17-May-22	13-Jul-22	25-Jan-22	24-Mar-22
DAP - WVB	48	13-Sep-21	10-Nov-21	15-Jan-22	15-Mar-22
DDA - Draft - Preparation by Designer	48	13-Sep-21	10-Nov-21	15-Jan-22	15-Mar-22
AIP Roadworks and Street Furniture	0	16-Feb-21	16-Feb-21	29-May-21 A	05-Oct-21 A
AIP - 4th Review by SO	0			29-May-21 A	29-Jun-21 A
AIP - Further information required by SO	0			30-Jun-21 A	07-Sep-21 A
AIP - 5th Sub	0				07-Sep-21 A
AIP - 5th Review by SO	0			08-Sep-21 A	05-Oct-21 A
AIP - SO Consent for DDA Submission	0		16-Feb-21		05-Oct-21 A
DDA Roadworks and Street Furniture	124	16-Feb-21	19-Jul-21	06-Oct-21 A	05-Mar-22
DDA - Draft - Preparation by Designer	36	16-Feb-21	29-Mar-21	06-Oct-21 A	17-Nov-21
DDA - Draft - Final Review and prepare for 1st Sub	18	30-Mar-21	23-Apr-21	18-Nov-21	08-Dec-21
DDA - 1st Sub	0		23-Apr-21		08-Dec-21
DDA - Review by SO	28	24-Apr-21	21-May-21	09-Dec-21	05-Jan-22
DDA - Review by IP / DC	28	24-Apr-21	21-May-21	09-Dec-21	05-Jan-22
DDA - Further information required by SO	24	22-May-21	14-Jun-21	06-Jan-22	29-Jan-22
DDA - 2nd Sub	0		15-Jun-21		29-Jan-22
DDA - 2nd Review by SO	35	15-Jun-21	19-Jul-21	30-Jan-22	05-Mar-22
DDA Traffic Sign, Road Marking & Sign Gantry	54	19-Oct-21	20-Dec-21	15-May-21 A	23-Nov-21
DDA - Further information required by SO	24	19-Oct-21	15-Nov-21	15-May-21 A	22-Jun-21 A
DDA - 2nd Sub	0		15-Nov-21		22-Jun-21 A
DDA - 2nd Review by SO	35	16-Nov-21	20-Dec-21	23-Jun-21 A	08-Jul-21 A
DDA - Further information required by SO	0			09-Jul-21 A	23-Oct-21 A
DDA - 3rd Sub	0				23-Oct-21 A
DDA - 3rd Review by SO	0			25-Oct-21 A	23-Nov-21
DDA - SO Consent for Construction	0		20-Dec-21		23-Nov-21
DDA Street Lighting (AGR/ DPR/ S20/ L10/ L18)	0	22-Jan-21	22-Jan-21	16-Apr-21 A	13-Dec-21
DDA - Further information required by SO	0			16-Apr-21 A	07-Jun-21 A
DDA - 4th Sub	0				07-Jun-21 A



Milestone · Summary · Planned Bar · Critical Activity · Actual Milestone · Actual Work · Baseline Milestone · Baseline Bar

ED/2018/04 Trunk Road T2 and Infrastructure Works for Developments at South Apron

Three Months Rolling Programme (Oct-21)

BOUYGUES TRAVAUX PUBLICS

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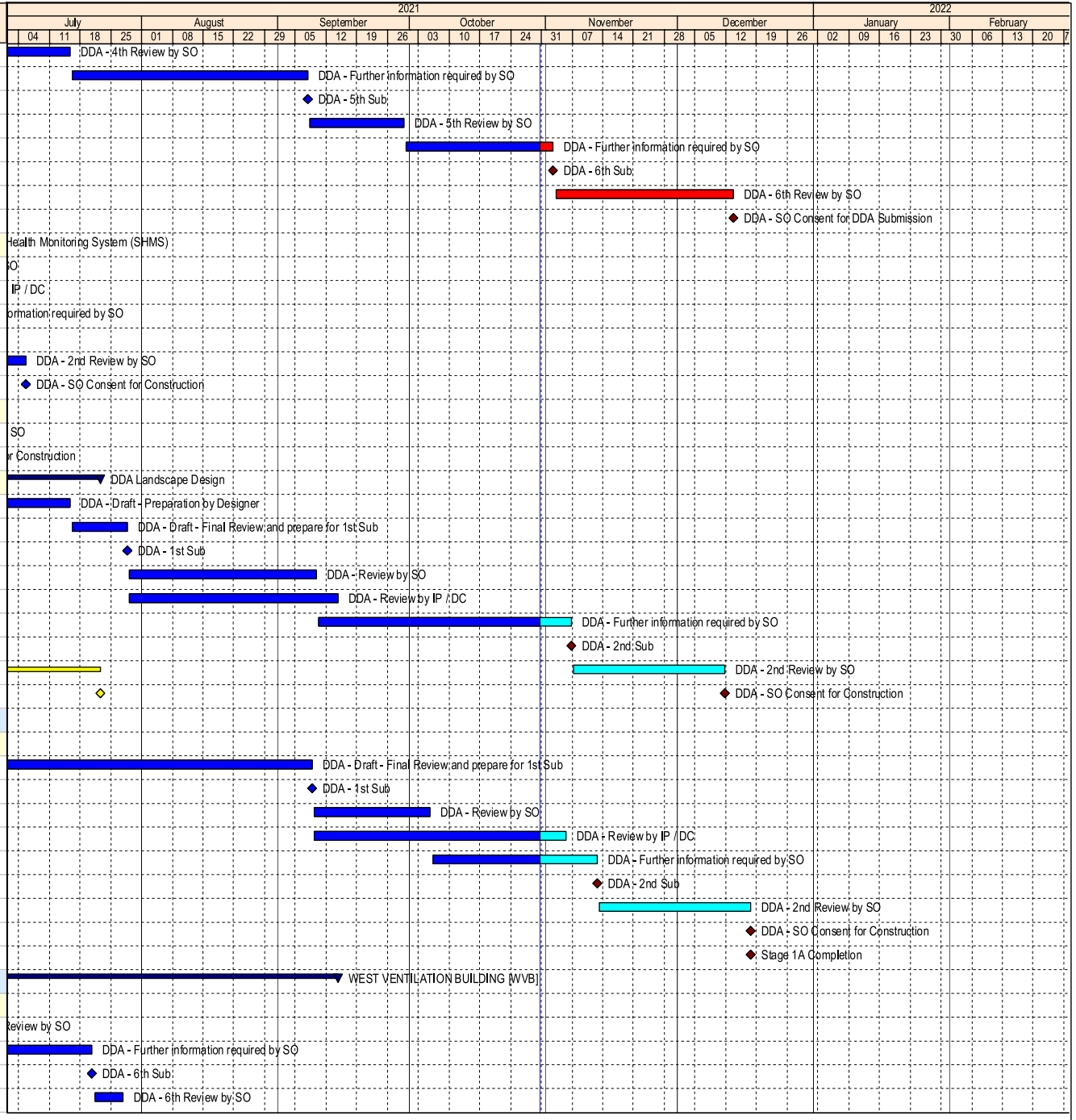
18-Dec-19	00V1	WYu	
22-Feb-20	01V0	SPa/LLo	WYu
09-Apr-20	01V1	SPa/LLo	WYu
17-Jul-20	01V2	SPa/LLo	WYu
09-Oct-20	01V3	SPa/LLo	WYu
02-Jul-21	02V0	SPa/LLo	WYu

Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish
DDA - 4th Review by SO	0			08-Jun-21 A	15-Jul-21 A
DDA - Further information required by SO	0			16-Jul-21 A	07-Sep-21 A
DDA - 5th Sub	0				07-Sep-21 A
DDA - 5th Review by SO	0			08-Sep-21 A	29-Sep-21 A
DDA - Further information required by SO	0			30-Sep-21 A	02-Nov-21
DDA - 6th Sub	0				02-Nov-21
DDA - 6th Review by SO	0			03-Nov-21	13-Dec-21
DDA - SO Consent for DDA Submission	0		22-Jan-21		13-Dec-21
DDA Structural Health Monitoring System (SHMS)	73	12-Mar-21	11-Jun-21	14-May-21 A	05-Jul-21 A
DDA - Review by SO	28	12-Mar-21	08-Apr-21	14-May-21 A	08-Jun-21 A
DDA - Review by IP / DC	28	12-Mar-21	08-Apr-21	14-May-21 A	10-Jun-21 A
DDA - Further information required by SO	24	09-Apr-21	07-May-21	09-Jun-21 A	10-Jun-21 A
DDA - 2nd Sub	0		07-May-21		10-Jun-21 A
DDA - 2nd Review by SO	35	08-May-21	11-Jun-21	11-Jun-21 A	05-Jul-21 A
DDA - SO Consent for Construction	0		11-Jun-21		05-Jul-21 A
AIP Landscape Design	0	26-Jan-21	26-Jan-21	12-May-21 A	07-Jun-21 A
AIP - 3rd Review by SO	0			12-May-21 A	07-Jun-21 A
AIP - SO Consent for Construction	0		26-Jan-21		07-Jun-21 A
DDA Landscape Design	141	27-Jan-21	22-Jul-21	08-Jun-21 A	11-Dec-21
DDA - Draft - Preparation by Designer	42	27-Jan-21	19-Mar-21	08-Jun-21 A	15-Jul-21 A
DDA - Draft - Final Review and prepare for 1st Sub	24	20-Mar-21	21-Apr-21	16-Jul-21 A	28-Jul-21 A
DDA - 1st Sub	0		21-Apr-21		28-Jul-21 A
DDA - Review by SO	28	22-Apr-21	19-May-21	29-Jul-21 A	09-Sep-21 A
DDA - Review by IP / DC	28	22-Apr-21	19-May-21	29-Jul-21 A	14-Sep-21 A
DDA - Further information required by SO	24	20-May-21	17-Jun-21	10-Sep-21 A	06-Nov-21
DDA - 2nd Sub	0		17-Jun-21		06-Nov-21
DDA - 2nd Review by SO	35	18-Jun-21	22-Jul-21	07-Nov-21	11-Dec-21
DDA - SO Consent for Construction	0		22-Jul-21		11-Dec-21
DEPRESSED ROAD [DPR]	84	07-Nov-20	19-Feb-21	29-May-21 A	17-Dec-21
DDA DPR - Portal Structure	84	07-Nov-20	19-Feb-21	29-May-21 A	17-Dec-21
DDA - Draft - Final Review and prepare for 1st Sub	24	07-Nov-20	04-Dec-20	29-May-21 A	08-Sep-21 A
DDA - 1st Sub	0		04-Dec-20		08-Sep-21 A
DDA - Review by SO	28	05-Dec-20	01-Jan-21	09-Sep-21 A	05-Oct-21 A
DDA - Review by IP / DC	28	05-Dec-20	01-Jan-21	09-Sep-21 A	05-Nov-21
DDA - Further information required by SO	12	02-Jan-21	15-Jan-21	06-Oct-21 A	12-Nov-21
DDA - 2nd Sub	0		15-Jan-21		12-Nov-21
DDA - 2nd Review by SO	35	16-Jan-21	19-Feb-21	13-Nov-21	17-Dec-21
DDA - SO Consent for Construction	0		19-Feb-21		17-Dec-21
Stage 1A Completion	0		19-Feb-21		17-Dec-21
WEST VENTILATION BUILDING [WVB]	210	30-Dec-20	14-Sep-21	28-Oct-20 A	14-Jan-22
DDA WVB - ELS Design (DCRA + Dewatering & Pumping T	0	08-Feb-21	08-Feb-21	12-May-21 A	27-Jul-21 A
DDA - 5th Review by SO	0			12-May-21 A	16-Jun-21 A
DDA - Further information required by SO	0			17-Jun-21 A	20-Jul-21 A
DDA - 6th Sub	0				20-Jul-21 A
DDA - 6th Review by SO	0			21-Jul-21 A	27-Jul-21 A



Milestone
Planned Bar
Critical Activity
Actual Milestone
Actual Work
Baseline Milestone
Baseline Bar
Summary

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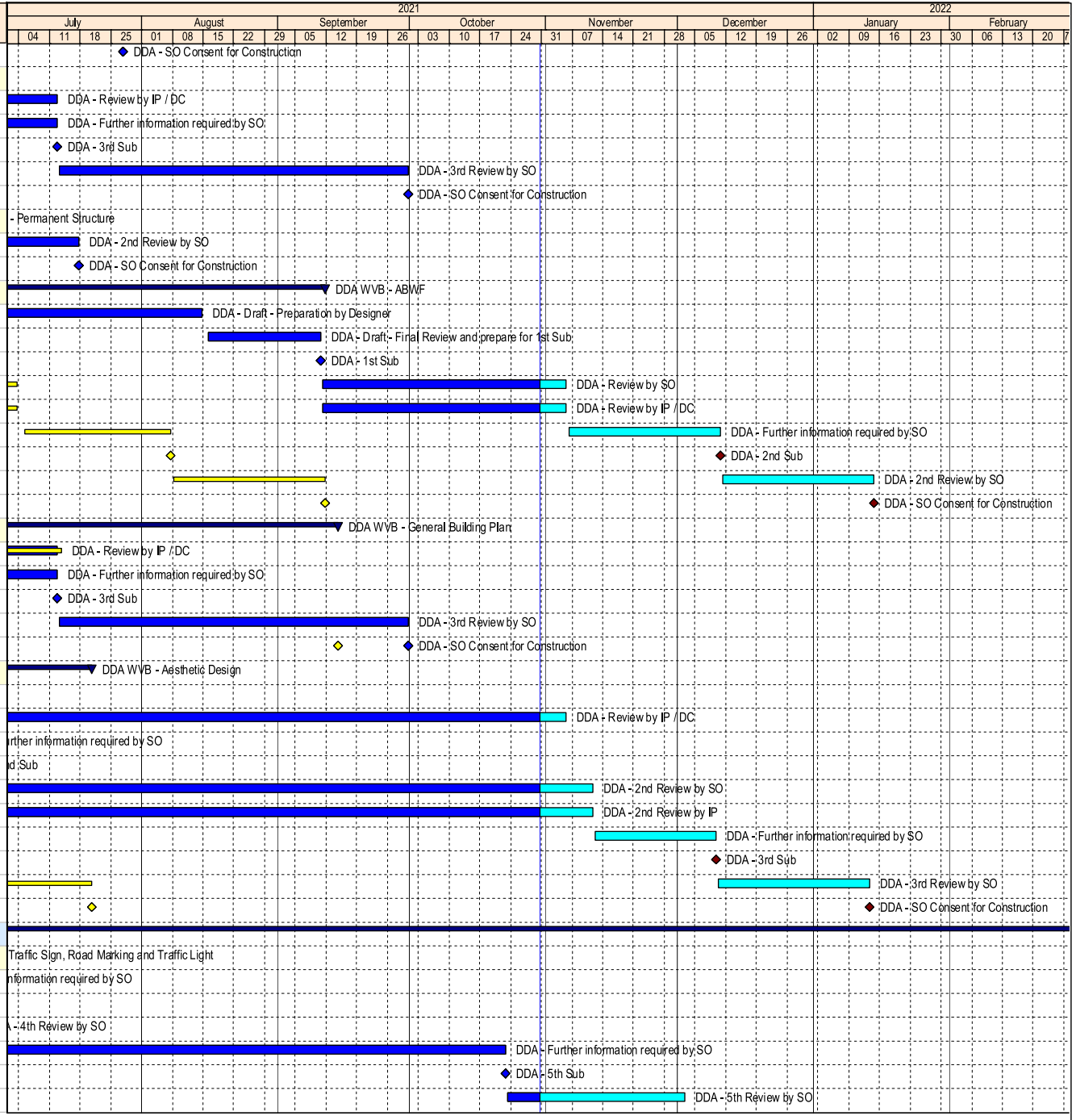
09-Oct-20	01V3	SPa/LLo	WYu
02-Jul-21	02V0	SPa/LLo	WYu

Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish
DDA - SO Consent for Construction	0		08-Feb-21		27-Jul-21 A
DDA WVB - Accommodation (SoA)	79	30-Dec-20	09-Apr-21	29-Oct-20 A	30-Sep-21 A
DDA - Review by IP / DC	28	30-Dec-20	26-Jan-21	29-Oct-20 A	12-Jul-21 A
DDA - Further information required by SO	0			09-Mar-21 A	12-Jul-21 A
DDA - 3rd Sub	0				12-Jul-21 A
DDA - 3rd Review by SO	0			13-Jul-21 A	30-Sep-21 A
DDA - SO Consent for Construction	0		09-Apr-21		30-Sep-21 A
DDA WVB - Permanent Structure	28	14-May-21	17-Jun-21	14-May-21 A	17-Jul-21 A
DDA - 2nd Review by SO	35	14-May-21	17-Jun-21	14-May-21 A	17-Jul-21 A
DDA - SO Consent for Construction	0		17-Jun-21		17-Jul-21 A
DDA WVB - ABWF	151	11-Mar-21	11-Sep-21	14-May-21 A	14-Jan-22
DDA - Draft - Preparation by Designer	45	11-Mar-21	07-May-21	14-May-21 A	14-Aug-21 A
DDA - Draft - Final Review and prepare for 1st Sub	24	08-May-21	05-Jun-21	16-Aug-21 A	10-Sep-21 A
DDA - 1st Sub	0		05-Jun-21		10-Sep-21 A
DDA - Review by SO	28	06-Jun-21	03-Jul-21	11-Sep-21 A	05-Nov-21
DDA - Review by IP / DC	28	06-Jun-21	03-Jul-21	11-Sep-21 A	05-Nov-21
DDA - Further information required by SO	30	05-Jul-21	07-Aug-21	06-Nov-21	10-Dec-21
DDA - 2nd Sub	0		07-Aug-21		10-Dec-21
DDA - 2nd Review by SO	35	08-Aug-21	11-Sep-21	11-Dec-21	14-Jan-22
DDA - SO Consent for Construction	0		11-Sep-21		14-Jan-22
DDA WVB - General Building Plan	77	16-Jun-21	14-Sep-21	28-Oct-20 A	30-Sep-21 A
DDA - Review by IP / DC	28	16-Jun-21	13-Jul-21	28-Oct-20 A	12-Jul-21 A
DDA - Further information required by SO	0			09-Mar-21 A	12-Jul-21 A
DDA - 3rd Sub	0				12-Jul-21 A
DDA - 3rd Review by SO	0			13-Jul-21 A	30-Sep-21 A
DDA - SO Consent for Construction	0		14-Sep-21		30-Sep-21 A
DDA WVB - Aesthetic Design	127	10-Feb-21	20-Jul-21	14-May-21 A	13-Jan-22
DDA - Review by SO	28	10-Feb-21	09-Mar-21	14-May-21 A	03-Jun-21 A
DDA - Review by IP / DC	28	10-Feb-21	09-Mar-21	14-May-21 A	05-Nov-21
DDA - Further information required by SO	24	10-Mar-21	10-Apr-21	04-Jun-21 A	19-Jun-21 A
DDA - 2nd Sub	0		10-Apr-21		19-Jun-21 A
DDA - 2nd Review by SO	35	11-Apr-21	15-May-21	20-Jun-21 A	11-Nov-21
DDA - 2nd Review by IP	35	11-Apr-21	15-May-21	20-Jun-21 A	11-Nov-21
DDA - Further information required by SO	24	17-May-21	15-Jun-21	12-Nov-21	09-Dec-21
DDA - 3rd Sub	0		15-Jun-21		09-Dec-21
DDA - 3rd Review by SO	35	16-Jun-21	20-Jul-21	10-Dec-21	13-Jan-22
DDA - SO Consent for Construction	0		20-Jul-21		13-Jan-22
SOUTH APRON ROAD WORKS	488	03-Dec-20	01-Aug-22	01-Apr-21 A	12-Mar-22
DDA Road L10 (S) - Alignment, Traffic Sign, Road Marking a	0	25-May-21	25-May-21	04-May-21 A	02-Dec-21
DDA - Further information required by SO	0			04-May-21 A	12-Jun-21 A
DDA - 4th Sub	0				12-Jun-21 A
DDA - 4th Review by SO	0			14-Jun-21 A	24-Jun-21 A
DDA - Further information required by SO	0			25-Jun-21 A	22-Oct-21 A
DDA - 5th Sub	0				22-Oct-21 A
DDA - 5th Review by SO	0			23-Oct-21 A	02-Dec-21



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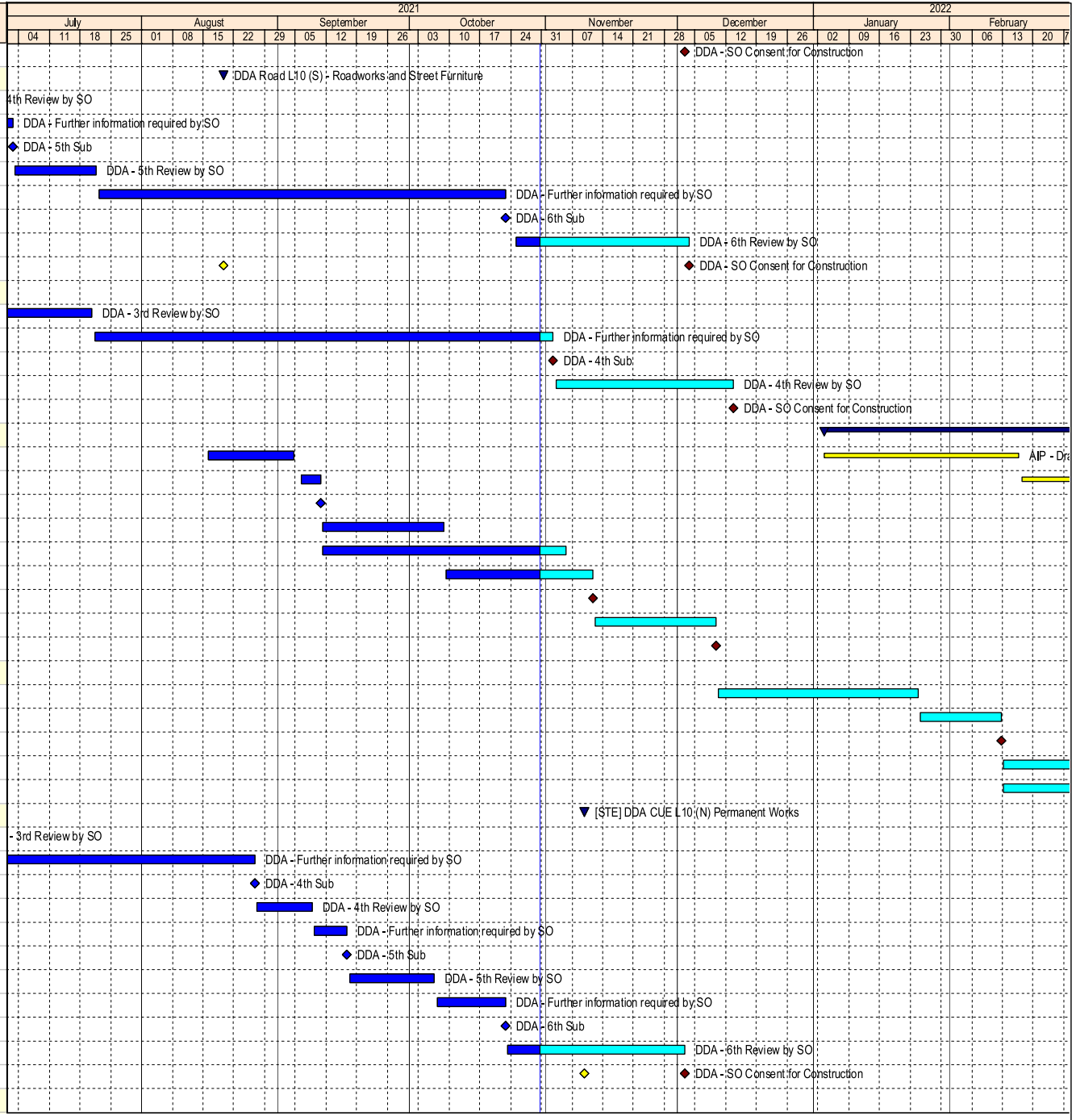
09-Apr-20	01V1	SPa/LLo	WYu
17-Jul-20	01V2	SPa/LLo	WYu
09-Oct-20	01V3	SPa/LLo	WYu
02-Jul-21	02V0	SPa/LLo	WYu

Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish
DDA - SO Consent for Construction	0		25-May-21		02-Dec-21
DDA Road L10 (S) - Roadworks and Street Furniture	0	19-Aug-21	19-Aug-21	01-Jun-21 A	03-Dec-21
DDA - 4th Review by SO	0			01-Jun-21 A	21-Jun-21 A
DDA - Further information required by SO	0			22-Jun-21 A	02-Jul-21 A
DDA - 5th Sub	0				02-Jul-21 A
DDA - 5th Review by SO	0			03-Jul-21 A	21-Jul-21 A
DDA - Further information required by SO	0			22-Jul-21 A	22-Oct-21 A
DDA - 6th Sub	0				22-Oct-21 A
DDA - 6th Review by SO	0			25-Oct-21 A	03-Dec-21
DDA - SO Consent for Construction	0		19-Aug-21		03-Dec-21
DDA Foot Bridge FB-02	0	09-Mar-21	09-Mar-21	12-May-21 A	13-Dec-21
DDA - 3rd Review by SO	0			12-May-21 A	20-Jul-21 A
DDA - Further information required by SO	0			21-Jul-21 A	02-Nov-21
DDA - 4th Sub	0				02-Nov-21
DDA - 4th Review by SO	0			03-Nov-21	13-Dec-21
DDA - SO Consent for Construction	0		09-Mar-21		13-Dec-21
AIP - Kiosk	96	03-Jan-22	03-May-22	16-Aug-21 A	09-Dec-21
AIP - Draft - Preparation by Designer	36	03-Jan-22	16-Feb-22	16-Aug-21 A	04-Sep-21 A
AIP - Draft - Final Review and prepare for 1st Sub	12	17-Feb-22	02-Mar-22	06-Sep-21 A	10-Sep-21 A
AIP - 1st Sub	0		02-Mar-22		10-Sep-21 A
AIP - Review by SO	28	03-Mar-22	30-Mar-22	11-Sep-21 A	08-Oct-21 A
AIP - Review by IP / DC	28	03-Mar-22	30-Mar-22	11-Sep-21 A	05-Nov-21
AIP - Further information required by SO	6	31-Mar-22	05-Apr-22	09-Oct-21 A	11-Nov-21
AIP - 2nd Sub	0		06-Apr-22		11-Nov-21
AIP - 2nd Review by SO	28	06-Apr-22	03-May-22	12-Nov-21	09-Dec-21
AIP - SO Consent for DDA Submission	0		03-May-22		09-Dec-21
DDA - Kiosk	74	04-May-22	01-Aug-22	10-Dec-21	12-Mar-22
DDA - Draft - Preparation by Designer	36	04-May-22	16-Jun-22	10-Dec-21	24-Jan-22
DDA - Draft - Final Review and prepare for 1st Sub	14	17-Jun-22	04-Jul-22	25-Jan-22	12-Feb-22
DDA - 1st Sub	0		04-Jul-22		12-Feb-22
DDA - Review by SO	28	05-Jul-22	01-Aug-22	13-Feb-22	12-Mar-22
DDA - Review by IP / DC	28	05-Jul-22	01-Aug-22	13-Feb-22	12-Mar-22
[STE] DDA CUE L10 (N) Permanent Works	0	09-Nov-21	09-Nov-21	28-May-21 A	02-Dec-21
DDA - 3rd Review by SO	0			28-May-21 A	23-Jun-21 A
DDA - Further information required by SO	0			23-Jun-21 A	26-Aug-21 A
DDA - 4th Sub	0				26-Aug-21 A
DDA - 4th Review by SO	0			27-Aug-21 A	08-Sep-21 A
DDA - Further information required by SO	0			09-Sep-21 A	16-Sep-21 A
DDA - 5th Sub	0				16-Sep-21 A
DDA - 5th Review by SO	0			17-Sep-21 A	06-Oct-21 A
DDA - Further information required by SO	0			07-Oct-21 A	22-Oct-21 A
DDA - 6th Sub	0				22-Oct-21 A
DDA - 6th Review by SO	0			23-Oct-21 A	02-Dec-21
DDA - SO Consent for Construction	0		09-Nov-21		02-Dec-21
[STE] DDA District Cooling System Permanent Works	0	09-Dec-20	09-Dec-20	07-May-21 A	03-Nov-21



Milestone · Summary · Planned Bar · Critical Activity · Actual Milestone · Actual Work · Baseline Milestone · Baseline Bar

ED/2018/04 Trunk Road T2 and Infrastructure Works for Developments at South Apron

Three Months Rolling Programme (Oct-21)

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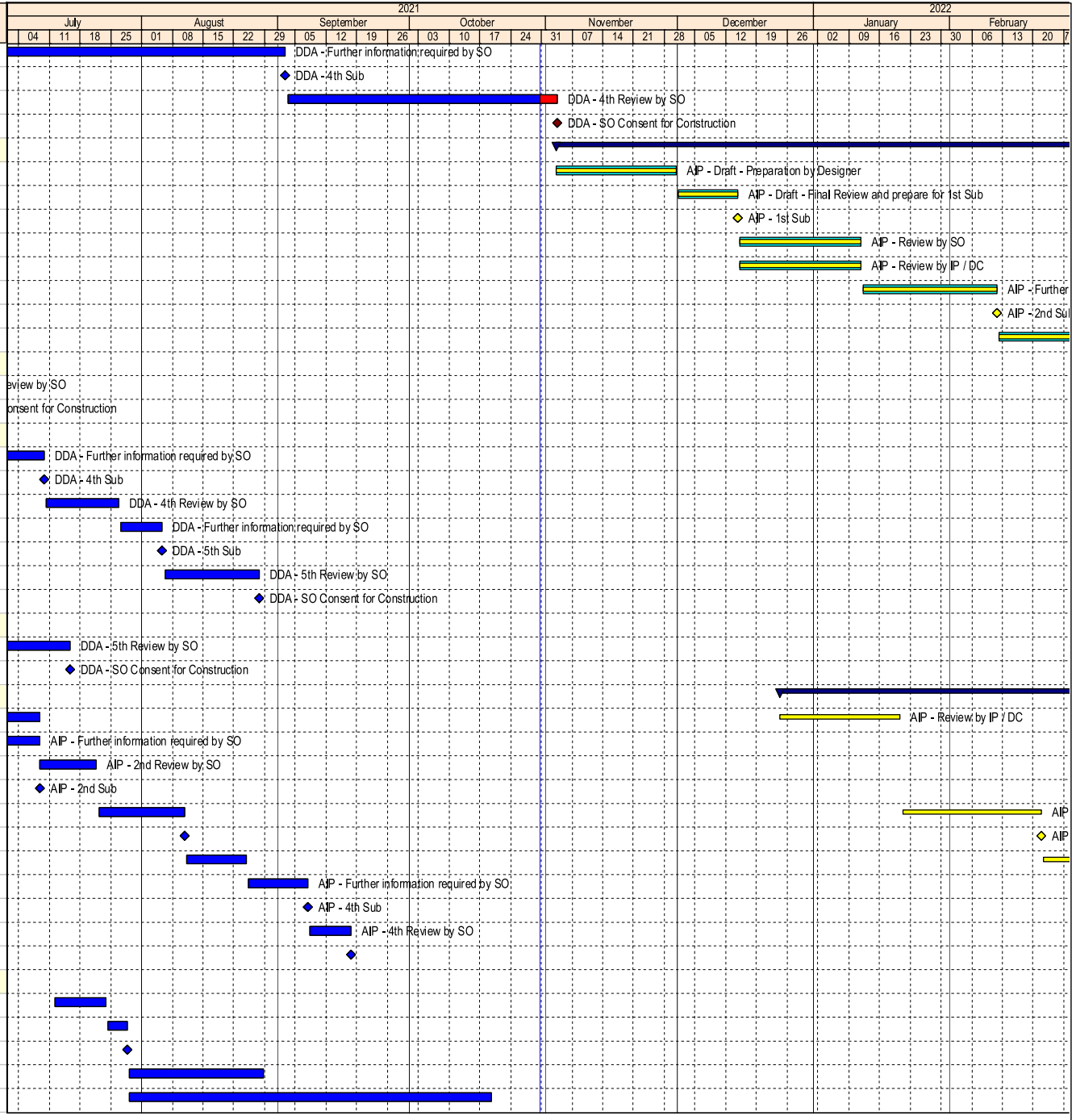
09-Oct-20	01V3	SPa/LLo	WYu
02-Jul-21	02V0	SPa/LLo	WYu

Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish
DDA - Further information required by SO	0			07-May-21 A	02-Sep-21 A
DDA - 4th Sub	0				02-Sep-21 A
DDA - 4th Review by SO	0			03-Sep-21 A	03-Nov-21
DDA - SO Consent for Construction	0		09-Dec-20		03-Nov-21
[STE] AIP Kai Hing Road / Lam Chak Street Modification	105	03-Nov-21	11-Mar-22	03-Nov-21	11-Mar-22
AIP - Draft - Preparation by Designer	24	03-Nov-21	30-Nov-21	03-Nov-21*	30-Nov-21
AIP - Draft - Final Review and prepare for 1st Sub	12	01-Dec-21	14-Dec-21	01-Dec-21	14-Dec-21
AIP - 1st Sub	0		14-Dec-21		14-Dec-21
AIP - Review by SO	28	15-Dec-21	11-Jan-22	15-Dec-21	11-Jan-22
AIP - Review by IP / DC	28	15-Dec-21	11-Jan-22	15-Dec-21	11-Jan-22
AIP - Further information required by SO	24	12-Jan-22	11-Feb-22	12-Jan-22	11-Feb-22
AIP - 2nd Sub	0		11-Feb-22		11-Feb-22
AIP - 2nd Review by SO	28	12-Feb-22	11-Mar-22	12-Feb-22	11-Mar-22
[STE] DDA Hoi Bun Road Junction - Permanent Utility Desi	0	16-Dec-20	16-Dec-20	28-May-21 A	15-Jun-21 A
DDA - 5th Review by SO	0			28-May-21 A	15-Jun-21 A
DDA - SO Consent for Construction	0		16-Dec-20		15-Jun-21 A
[STE] DDA Hoi Bun Road Junction - Alignment, Traffic Sign	0	22-Dec-20	22-Dec-20	03-May-21 A	27-Aug-21 A
DDA - Further information required by SO	0			03-May-21 A	09-Jul-21 A
DDA - 4th Sub	0				09-Jul-21 A
DDA - 4th Review by SO	0			10-Jul-21 A	26-Jul-21 A
DDA - Further information required by SO	0			27-Jul-21 A	05-Aug-21 A
DDA - 5th Sub	0				05-Aug-21 A
DDA - 5th Review by SO	0			06-Aug-21 A	27-Aug-21 A
DDA - SO Consent for Construction	0		22-Dec-20		27-Aug-21 A
[STE] DDA Hoi Bun Road Junction - Street Lighting	0	03-Dec-20	03-Dec-20	21-May-21 A	15-Jul-21 A
DDA - 5th Review by SO	0			21-May-21 A	15-Jul-21 A
DDA - SO Consent for Construction	0		03-Dec-20		15-Jul-21 A
[STE] AIP Road L10 (N)	69	24-Dec-21	21-Mar-22	01-Apr-21 A	17-Sep-21 A
AIP - Review by IP / DC	28	24-Dec-21	20-Jan-22	01-Apr-21 A	08-Jul-21 A
AIP - Further information required by SO	0			20-May-21 A	08-Jul-21 A
AIP - 2nd Review by SO	0			08-Jul-21 A	21-Jul-21 A
AIP - 2nd Sub	0				08-Jul-21 A
AIP - Further information required by SO	24	21-Jan-22	21-Feb-22	22-Jul-21 A	10-Aug-21 A
AIP - 3rd Sub	0		21-Feb-22		10-Aug-21 A
AIP - 3rd Review by SO	28	22-Feb-22	21-Mar-22	11-Aug-21 A	24-Aug-21 A
AIP - Further information required by SO	0			25-Aug-21 A	07-Sep-21 A
AIP - 4th Sub	0				07-Sep-21 A
AIP - 4th Review by SO	0			08-Sep-21 A	17-Sep-21 A
AIP - SO Consent for DDA Submission	0		21-Mar-22		17-Sep-21 A
[STE] DDA Road L10 (N) - Permanent Utility Design	72	22-Mar-22	21-Jun-22	12-Jul-21 A	02-Nov-21
DDA - Draft - Preparation by Designer	6	22-Mar-22	28-Mar-22	12-Jul-21 A	23-Jul-21 A
DDA - Draft - Final Review and prepare for 1st Sub	6	29-Mar-22	04-Apr-22	24-Jul-21 A	28-Jul-21 A
DDA - 1st Sub	0		04-Apr-22		28-Jul-21 A
DDA - Review by SO	28	05-Apr-22	02-May-22	29-Jul-21 A	28-Aug-21 A
DDA - Review by IP / DC	28	05-Apr-22	02-May-22	29-Jul-21 A	19-Oct-21 A



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ED/2018/04 Trunk Road T2 and Infrastructure Works for Developments at South Apron

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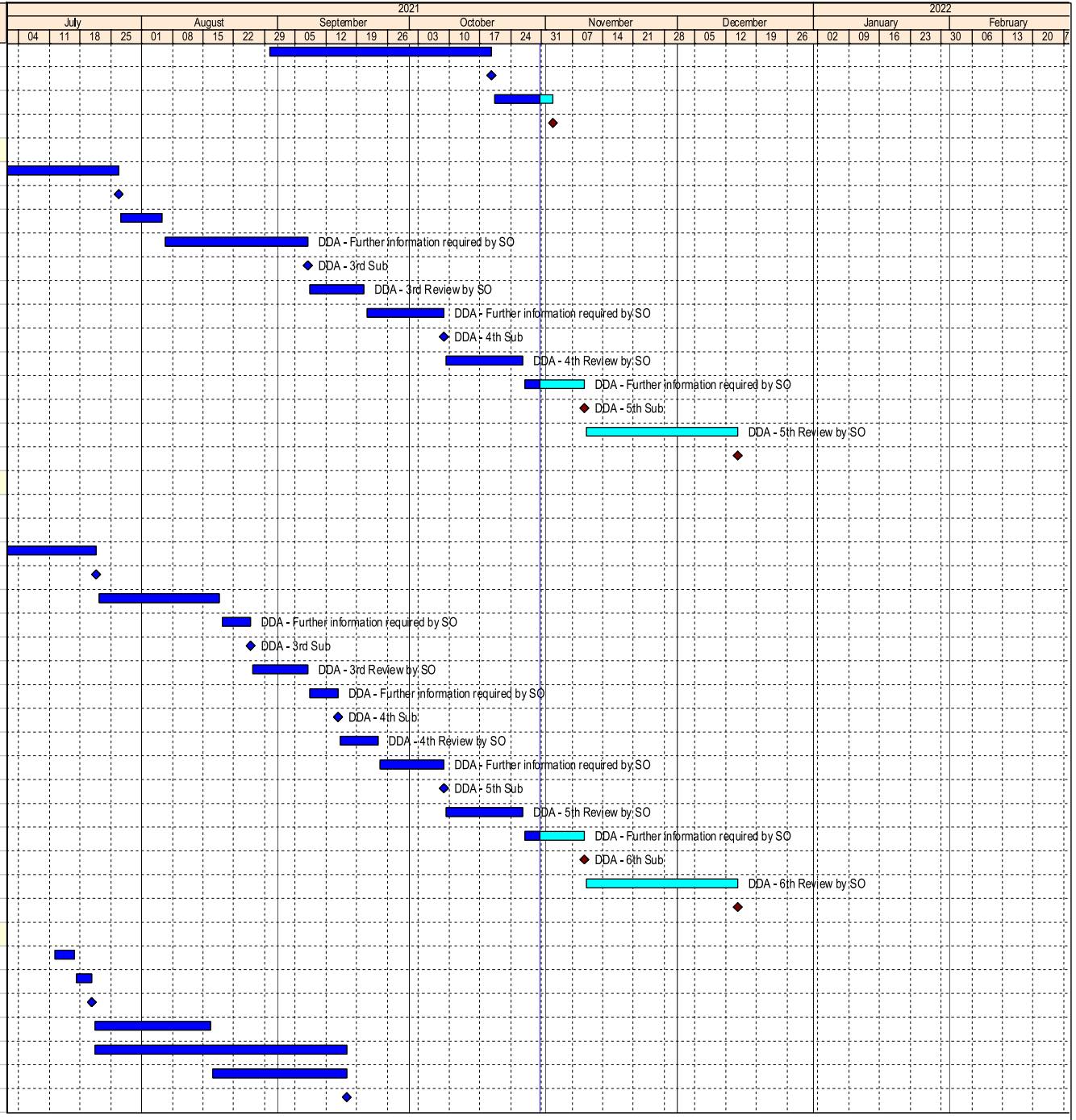
09-Oct-20	01V3	SPa/LLo	WYu
02-Jul-21	02V0	SPa/LLo	WYu

Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish
DDA - Further information required by SO	12	03-May-22	17-May-22	30-Aug-21 A	19-Oct-21 A
DDA - 2nd Sub	0		17-May-22		19-Oct-21 A
DDA - 2nd Review by SO	35	18-May-22	21-Jun-22	20-Oct-21 A	02-Nov-21
DDA - SO Consent for Construction	0		21-Jun-22		02-Nov-21
[STE] DDA Road L10 (N) - Alignment, Traffic Sign, Road Ma	41	03-May-22	21-Jun-22	27-May-21 A	14-Dec-21
DDA - Further information required by SO	12	03-May-22	17-May-22	27-May-21 A	26-Jul-21 A
DDA - 2nd Sub	0		17-May-22		26-Jul-21 A
DDA - 2nd Review by SO	35	18-May-22	21-Jun-22	27-Jul-21 A	05-Aug-21 A
DDA - Further information required by SO	0			06-Aug-21 A	07-Sep-21 A
DDA - 3rd Sub	0				07-Sep-21 A
DDA - 3rd Review by SO	0			08-Sep-21 A	20-Sep-21 A
DDA - Further information required by SO	0			21-Sep-21 A	08-Oct-21 A
DDA - 4th Sub	0				08-Oct-21 A
DDA - 4th Review by SO	0			09-Oct-21 A	26-Oct-21 A
DDA - Further information required by SO	0			27-Oct-21 A	09-Nov-21
DDA - 5th Sub	0				09-Nov-21
DDA - 5th Review by SO	0			10-Nov-21	14-Dec-21
DDA - SO Consent for Construction	0		21-Jun-22		14-Dec-21
[STE] DDA Road L10 (N) - Roadworks and Street Furniture	60	05-Apr-22	21-Jun-22	19-Apr-21 A	14-Dec-21
DDA - Review by SO	28	05-Apr-22	02-May-22	19-Apr-21 A	10-Jun-21 A
DDA - Review by IP / DC	28	05-Apr-22	02-May-22	20-Apr-21 A	11-Jun-21 A
DDA - Further information required by SO	12	03-May-22	17-May-22	10-Jun-21 A	21-Jul-21 A
DDA - 2nd Sub	0		17-May-22		21-Jul-21 A
DDA - 2nd Review by SO	35	18-May-22	21-Jun-22	22-Jul-21 A	18-Aug-21 A
DDA - Further information required by SO	0			19-Aug-21 A	25-Aug-21 A
DDA - 3rd Sub	0				25-Aug-21 A
DDA - 3rd Review by SO	0			26-Aug-21 A	07-Sep-21 A
DDA - Further information required by SO	0			08-Sep-21 A	14-Sep-21 A
DDA - 4th Sub	0				14-Sep-21 A
DDA - 4th Review by SO	0			15-Sep-21 A	23-Sep-21 A
DDA - Further information required by SO	0			24-Sep-21 A	08-Oct-21 A
DDA - 5th Sub	0				08-Oct-21 A
DDA - 5th Review by SO	0			09-Oct-21 A	26-Oct-21 A
DDA - Further information required by SO	0			27-Oct-21 A	09-Nov-21
DDA - 6th Sub	0				09-Nov-21
DDA - 6th Review by SO	0			10-Nov-21	14-Dec-21
DDA - SO Consent for Construction	0		21-Jun-22		14-Dec-21
[STE] DDA Road L10 (N) - Street Lighting	72	22-Mar-22	21-Jun-22	12-Jul-21 A	07-Dec-21
DDA - Draft - Preparation by Designer	6	22-Mar-22	28-Mar-22	12-Jul-21 A	16-Jul-21 A
DDA - Draft - Final Review and prepare for 1st Sub	6	29-Mar-22	04-Apr-22	17-Jul-21 A	20-Jul-21 A
DDA - 1st Sub	0		04-Apr-22		20-Jul-21 A
DDA - Review by SO	28	05-Apr-22	02-May-22	21-Jul-21 A	16-Aug-21 A
DDA - Review by IP / DC	28	05-Apr-22	02-May-22	21-Jul-21 A	16-Sep-21 A
DDA - Further information required by SO	12	03-May-22	17-May-22	17-Aug-21 A	16-Sep-21 A
DDA - 2nd Sub	0		17-May-22		16-Sep-21 A



Milestone
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ED/2018/04 Trunk Road T2 and Infrastructure Works for Developments at South Apron

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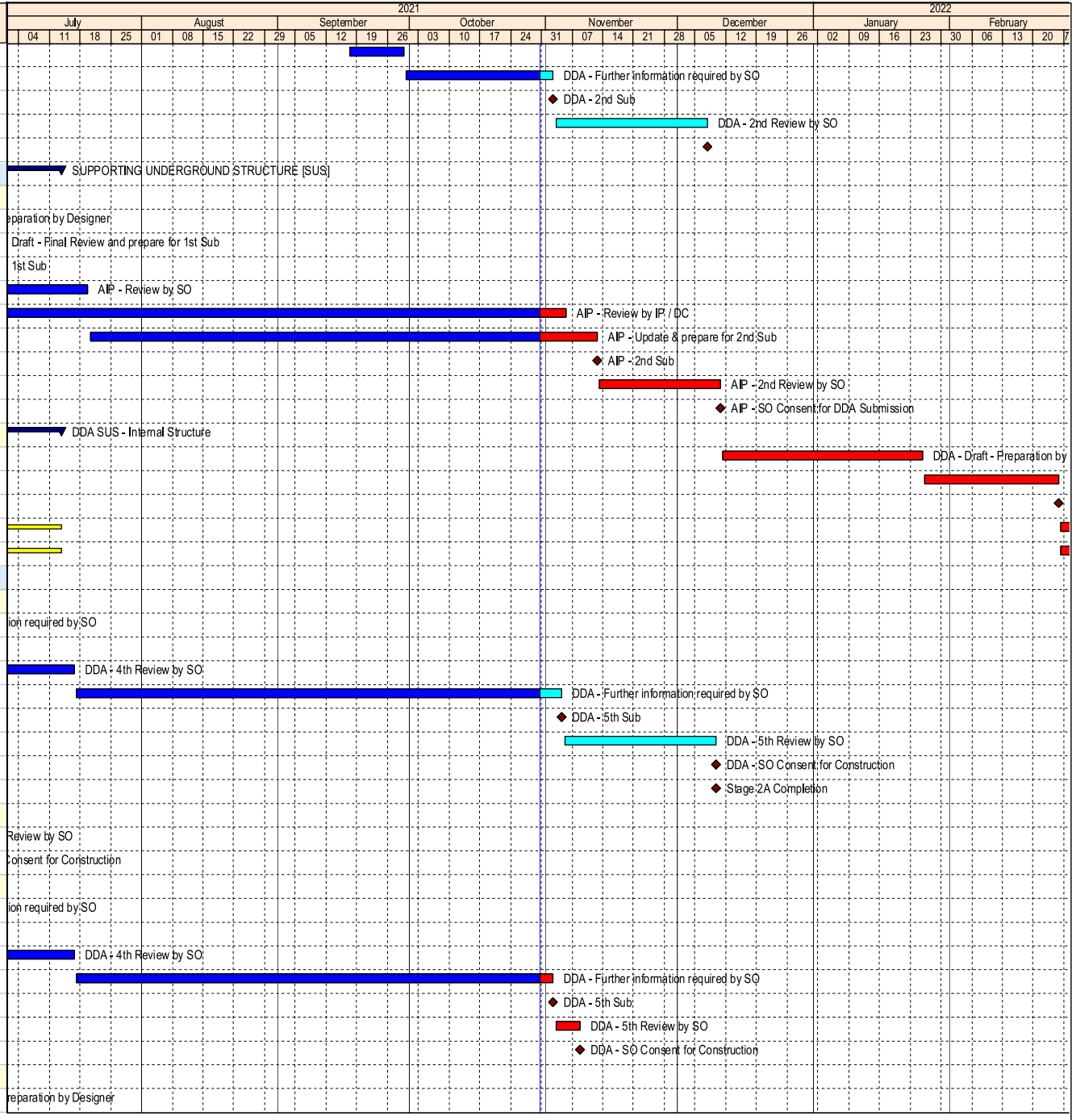
17-Jul-20	01V2	SPa/LLo	WYu
09-Oct-20	01V3	SPa/LLo	WYu
02-Jul-21	02V0	SPa/LLo	WYu

Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish
DDA - 2nd Review by SO	35	18-May-22	21-Jun-22	17-Sep-21 A	29-Sep-21 A
DDA - Further information required by SO	0			30-Sep-21 A	02-Nov-21
DDA - 2nd Sub	0				02-Nov-21
DDA - 2nd Review by SO	0			03-Nov-21	07-Dec-21
DDA - SO Consent for Construction	0		21-Jun-22		07-Dec-21
SUPPORTING UNDERGROUND STRUCTURE [SUS]	228	03-Oct-20	13-Jul-21	03-May-21 A	25-Mar-22
AIP SUS - Internal Structure	145	03-Oct-20	29-Mar-21	03-May-21 A	10-Dec-21
AIP - Draft - Preparation by Designer	72	03-Oct-20	29-Dec-20	03-May-21 A	12-Jun-21 A
AIP - Draft - Final Review and prepare for 1st Sub	14	30-Dec-20	15-Jan-21	14-Jun-21 A	23-Jun-21 A
AIP - 1st Sub	0		15-Jan-21		23-Jun-21 A
AIP - Review by SO	28	16-Jan-21	12-Feb-21	24-Jun-21 A	19-Jul-21 A
AIP - Review by IP / DC	28	16-Jan-21	12-Feb-21	24-Jun-21 A	05-Nov-21
AIP - Update & prepare for 2nd Sub	12	16-Feb-21	01-Mar-21	20-Jul-21 A	12-Nov-21
AIP - 2nd Sub	0		01-Mar-21		12-Nov-21
AIP - 2nd Review by SO	28	02-Mar-21	29-Mar-21	13-Nov-21	10-Dec-21
AIP - SO Consent for DDA Submission	0		29-Mar-21		10-Dec-21
DDA SUS - Internal Structure	83	30-Mar-21	13-Jul-21	11-Dec-21	25-Mar-22
DDA - Draft - Preparation by Designer	36	30-Mar-21	15-May-21	11-Dec-21	25-Jan-22
DDA - Draft - Final Review and prepare for 1st Sub	24	17-May-21	15-Jun-21	26-Jan-22	25-Feb-22
DDA - 1st Sub	0		15-Jun-21		25-Feb-22
DDA - Review by SO	28	16-Jun-21	13-Jul-21	26-Feb-22	25-Mar-22
DDA - Review by IP / DC	28	16-Jun-21	13-Jul-21	26-Feb-22	25-Mar-22
C&C TUNNEL / LAUNCHING SHAFT [C&C / LS]	133	17-Nov-20	03-May-21	30-Nov-20 A	09-Dec-21
DDA - C&C/LS Permanent Structure (C&C) (SG Scheme)	0	22-Dec-20	22-Dec-20	24-Apr-21 A	09-Dec-21
DDA - Further information required by SO	0			24-Apr-21 A	04-Jun-21 A
DDA - 4th Sub	0				04-Jun-21 A
DDA - 4th Review by SO	0			05-Jun-21 A	16-Jul-21 A
DDA - Further information required by SO	0			17-Jul-21 A	04-Nov-21
DDA - 5th Sub	0				04-Nov-21
DDA - 5th Review by SO	0			05-Nov-21	09-Dec-21
DDA - SO Consent for Construction	0		22-Dec-20		09-Dec-21
Stage 2A Completion	0		22-Dec-20		09-Dec-21
DDA - LS Tympanum Structure for TBM Launching	25	30-Mar-21	03-May-21	23-May-21 A	16-Jun-21 A
DDA - 2nd Review by SO	35	30-Mar-21	03-May-21	23-May-21 A	16-Jun-21 A
DDA - SO Consent for Construction	0		03-May-21		16-Jun-21 A
DDA - C&C/LS Permanent Structure (Cell 1 & 2) (SG Scher	0	03-Mar-21	03-Mar-21	24-Apr-21 A	08-Nov-21
DDA - Further information required by SO	0			24-Apr-21 A	04-Jun-21 A
DDA - 4th Sub	0				04-Jun-21 A
DDA - 4th Review by SO	0			05-Jun-21 A	16-Jul-21 A
DDA - Further information required by SO	0			17-Jul-21 A	02-Nov-21
DDA - 5th Sub	0				02-Nov-21
DDA - 5th Review by SO	0			03-Nov-21	08-Nov-21
DDA - SO Consent for Construction	0		03-Mar-21		08-Nov-21
DDA - C&C/LS Temporary Structure (SG Scheme)	111	17-Nov-20	01-Apr-21	30-Nov-20 A	02-Sep-21 A
DDA - Draft - Preparation by Designer	18	17-Nov-20	07-Dec-20	30-Nov-20 A	12-Jun-21 A



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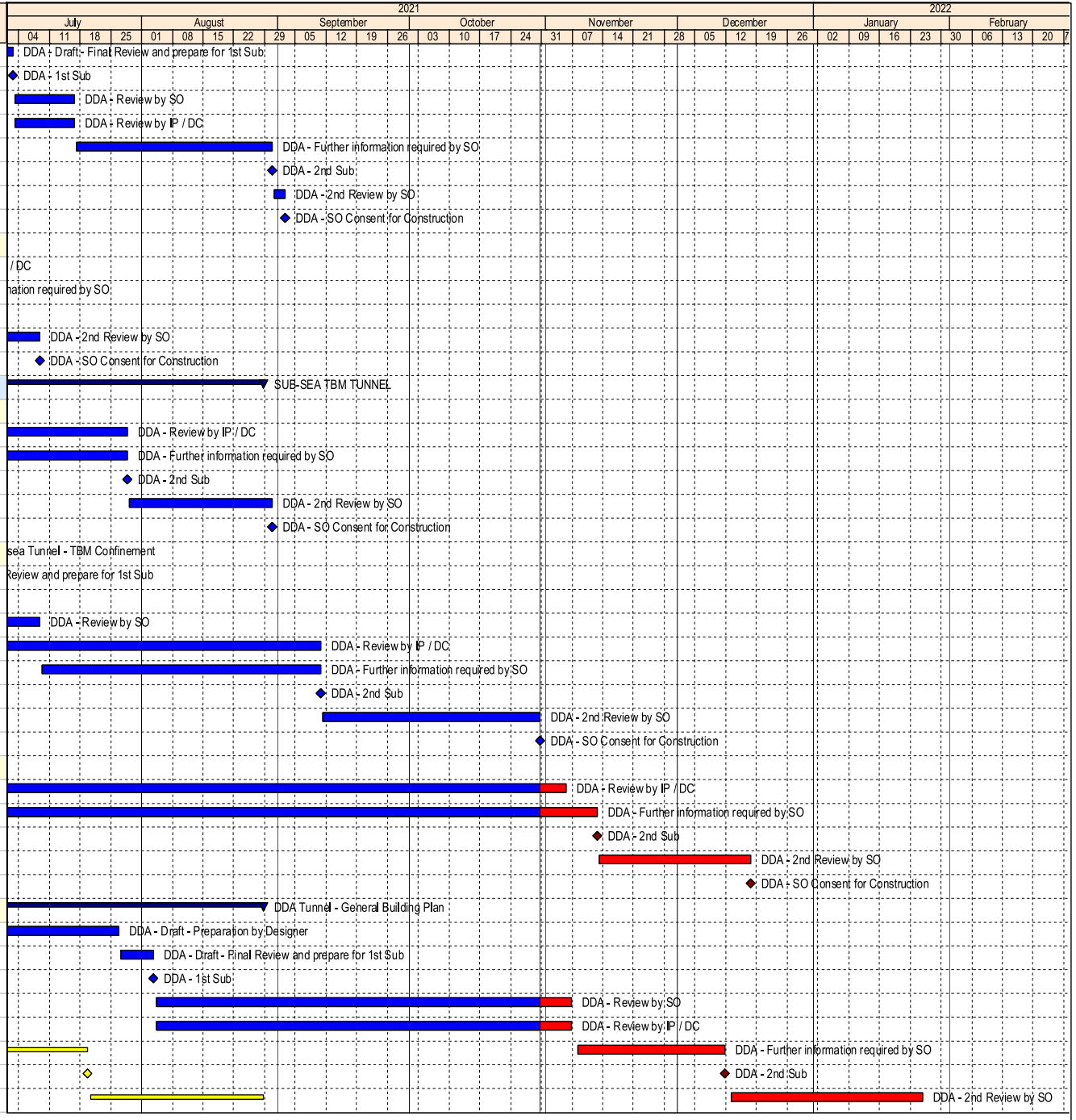
09-Oct-20	01V3	SPa/LLo	WYu
02-Jul-21	02V0	SPa/LLo	WYu

Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish
DDA - Draft - Final Review and prepare for 1st Sub	6	08-Dec-20	14-Dec-20	14-Jun-21 A	02-Jul-21 A
DDA - 1st Sub	0		14-Dec-20		02-Jul-21 A
DDA - Review by SO	28	15-Dec-20	11-Jan-21	03-Jul-21 A	16-Jul-21 A
DDA - Review by IP / DC	28	15-Dec-20	11-Jan-21	03-Jul-21 A	16-Jul-21 A
DDA - Further information required by SO	36	12-Jan-21	25-Feb-21	17-Jul-21 A	30-Aug-21 A
DDA - 2nd Sub	0		25-Feb-21		30-Aug-21 A
DDA - 2nd Review by SO	35	26-Feb-21	01-Apr-21	31-Aug-21 A	02-Sep-21 A
DDA - SO Consent for Construction	0		01-Apr-21		02-Sep-21 A
DDA - LS Thrust Frame / Blocks for TBM Launching	87	22-Nov-20	10-Mar-21	20-Feb-21 A	08-Jul-21 A
DDA - Review by IP / DC	28	22-Nov-20	19-Dec-20	20-Feb-21 A	07-Jun-21 A
DDA - Further information required by SO	36	21-Dec-20	03-Feb-21	17-Mar-21 A	07-Jun-21 A
DDA - 2nd Sub	0		03-Feb-21		07-Jun-21 A
DDA - 2nd Review by SO	35	04-Feb-21	10-Mar-21	08-Jun-21 A	08-Jul-21 A
DDA - SO Consent for Construction	0		10-Mar-21		08-Jul-21 A
SUB-SEA TBM TUNNEL	220	29-Nov-20	28-Aug-21	27-Jan-21 A	25-Jan-22
DDA - Special Segment for CP construction	81	13-Dec-20	24-Mar-21	20-Mar-21 A	30-Aug-21 A
DDA - Review by IP / DC	28	13-Dec-20	09-Jan-21	20-Mar-21 A	28-Jul-21 A
DDA - Further information required by SO	30	11-Jan-21	17-Feb-21	21-Apr-21 A	28-Jul-21 A
DDA - 2nd Sub	0		17-Feb-21		28-Jul-21 A
DDA - 2nd Review by SO	35	18-Feb-21	24-Mar-21	29-Jul-21 A	30-Aug-21 A
DDA - SO Consent for Construction	0		24-Mar-21		30-Aug-21 A
DDA - Sub-sea Tunnel - TBM Confinement	96	17-Feb-21	16-Jun-21	03-May-21 A	30-Oct-21 A
DDA - Draft - Final Review and prepare for 1st Sub	24	17-Feb-21	16-Mar-21	03-May-21 A	07-Jun-21 A
DDA - 1st Sub	0		16-Mar-21		07-Jun-21 A
DDA - Review by SO	28	17-Mar-21	13-Apr-21	08-Jun-21 A	08-Jul-21 A
DDA - Review by IP / DC	28	17-Mar-21	13-Apr-21	08-Jun-21 A	10-Sep-21 A
DDA - Further information required by SO	24	14-Apr-21	12-May-21	09-Jul-21 A	10-Sep-21 A
DDA - 2nd Sub	0		12-May-21		10-Sep-21 A
DDA - 2nd Review by SO	35	13-May-21	16-Jun-21	11-Sep-21 A	30-Oct-21 A
DDA - SO Consent for Construction	0		16-Jun-21		30-Oct-21 A
DDA - Sub-sea Tunnel - Internal Structure (Corbel & OHVD	73	29-Nov-20	01-Mar-21	28-Apr-21 A	17-Dec-21
DDA - Review by IP / DC	28	29-Nov-20	26-Dec-20	28-Apr-21 A	05-Nov-21
DDA - Further information required by SO	24	28-Dec-20	25-Jan-21	29-May-21 A	12-Nov-21
DDA - 2nd Sub	0		25-Jan-21		12-Nov-21
DDA - 2nd Review by SO	35	26-Jan-21	01-Mar-21	13-Nov-21	17-Dec-21
DDA - SO Consent for Construction	0		01-Mar-21		17-Dec-21
DDA Tunnel - General Building Plan	147	02-Mar-21	28-Aug-21	02-Jun-21 A	25-Jan-22
DDA - Draft - Preparation by Designer	30	02-Mar-21	09-Apr-21	02-Jun-21 A	26-Jul-21 A
DDA - Draft - Final Review and prepare for 1st Sub	24	10-Apr-21	08-May-21	27-Jul-21 A	03-Aug-21 A
DDA - 1st Sub	0		08-May-21		03-Aug-21 A
DDA - Review by SO	28	10-May-21	11-Jun-21	04-Aug-21 A	06-Nov-21
DDA - Review by IP / DC	28	10-May-21	11-Jun-21	04-Aug-21 A	06-Nov-21
DDA - Further information required by SO	30	12-Jun-21	19-Jul-21	08-Nov-21	11-Dec-21
DDA - 2nd Sub	0		19-Jul-21		11-Dec-21
DDA - 2nd Review by SO	35	20-Jul-21	28-Aug-21	13-Dec-21	25-Jan-22



Milestone
Planned Bar
Critical Activity
Actual Milestone
Actual Work
Baseline Milestone
Baseline Bar
Summary

ED/2018/04 Trunk Road T2 and Infrastructure Works for Developments at South Apron

Three Months Rolling Programme (Oct-21)

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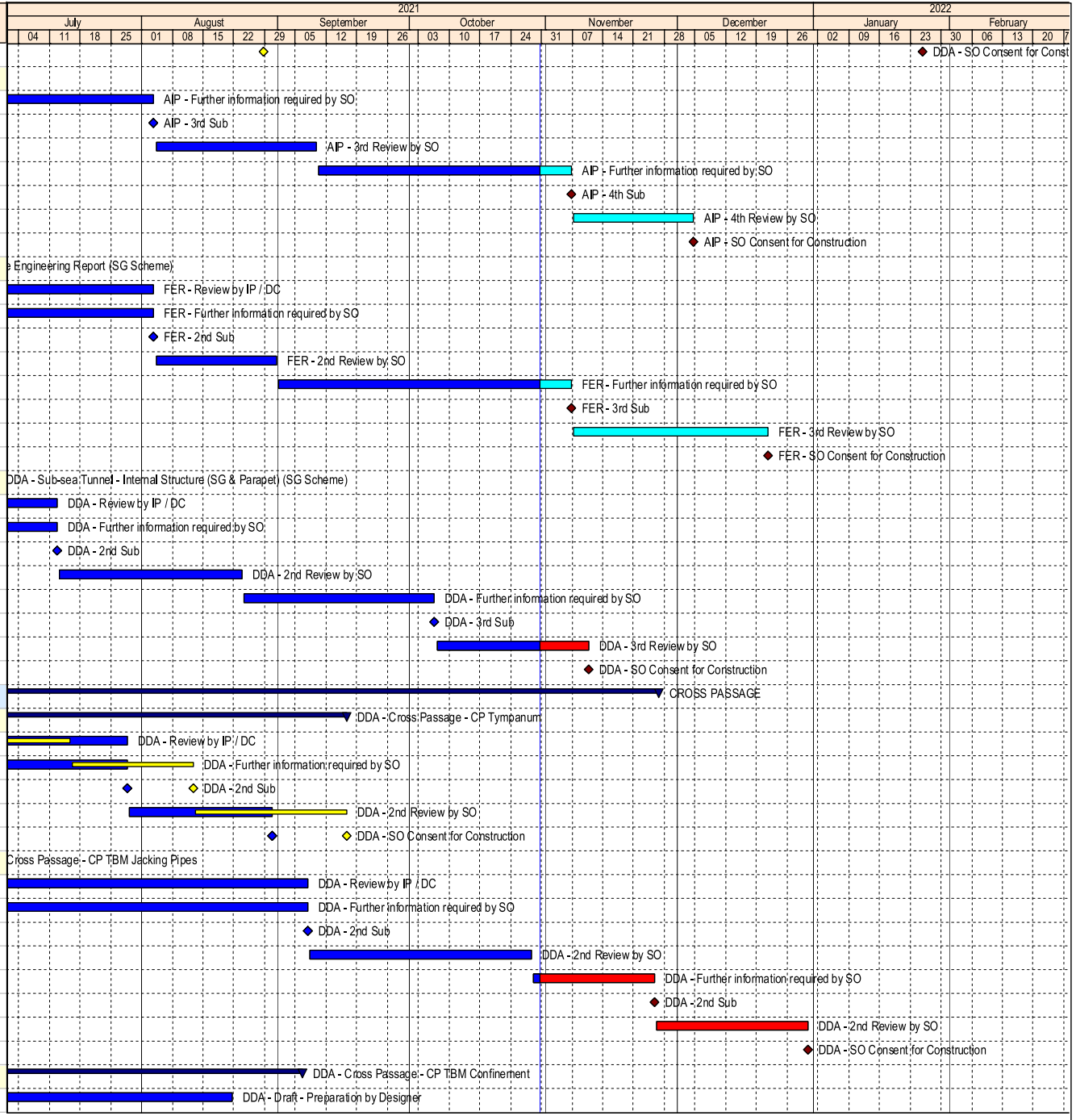
09-Apr-20	01V1	SPa/LLo	WYu
17-Jul-20	01V2	SPa/LLo	WYu
09-Oct-20	01V3	SPa/LLo	WYu
02-Jul-21	02V0	SPa/LLo	WYu

Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish
DDA - SO Consent for Construction	0		28-Aug-21		25-Jan-22
AIP - Tunnel (Sub-sea & CKL Tunnel) - Spaceproofing (SG S	0	27-Jan-21	27-Jan-21	20-Mar-21 A	04-Dec-21
AIP - Further information required by SO	0			20-Mar-21 A	03-Aug-21 A
AIP - 3rd Sub	0				03-Aug-21 A
AIP - 3rd Review by SO	0			04-Aug-21 A	09-Sep-21 A
AIP - Further information required by SO	0			10-Sep-21 A	06-Nov-21
AIP - 4th Sub	0				06-Nov-21
AIP - 4th Review by SO	0			07-Nov-21	04-Dec-21
AIP - SO Consent for Construction	0		27-Jan-21		04-Dec-21
FER - Fire Engineering Report (SG Scheme)	112	28-Jan-21	18-Jun-21	30-Mar-21 A	21-Dec-21
FER - Review by IP / DC	28	28-Jan-21	24-Feb-21	30-Mar-21 A	03-Aug-21 A
FER - Further information required by SO	48	04-Mar-21	04-May-21	30-Apr-21 A	03-Aug-21 A
FER - 2nd Sub	0		04-May-21		03-Aug-21 A
FER - 2nd Review by SO	45	05-May-21	18-Jun-21	04-Aug-21 A	31-Aug-21 A
FER - Further information required by SO	0			01-Sep-21 A	06-Nov-21
FER - 3rd Sub	0				06-Nov-21
FER - 3rd Review by SO	0			07-Nov-21	21-Dec-21
FER - SO Consent for Construction	0		18-Jun-21		21-Dec-21
DDA - Sub-sea Tunnel - Internal Structure (SG & Parapet) (	120	28-Jan-21	28-Jun-21	27-Jan-21 A	10-Nov-21
DDA - Review by IP / DC	28	28-Jan-21	24-Feb-21	27-Jan-21 A	12-Jul-21 A
DDA - Further information required by SO	0			23-Feb-21 A	12-Jul-21 A
DDA - 2nd Sub	0				12-Jul-21 A
DDA - 2nd Review by SO	0			13-Jul-21 A	23-Aug-21 A
DDA - Further information required by SO	36	29-Mar-21	14-May-21	24-Aug-21 A	06-Oct-21 A
DDA - 3rd Sub	0		14-May-21		06-Oct-21 A
DDA - 3rd Review by SO	45	15-May-21	28-Jun-21	07-Oct-21 A	10-Nov-21
DDA - SO Consent for Construction	0		28-Jun-21		10-Nov-21
CROSS PASSAGE	342	03-Oct-20	26-Nov-21	20-Mar-21 A	02-Apr-22
DDA - Cross Passage - CP Tympanum	77	18-Jun-21	16-Sep-21	20-Mar-21 A	30-Aug-21 A
DDA - Review by IP / DC	28	18-Jun-21	15-Jul-21	20-Mar-21 A	28-Jul-21 A
DDA - Further information required by SO	24	16-Jul-21	12-Aug-21	21-Apr-21 A	28-Jul-21 A
DDA - 2nd Sub	0		12-Aug-21		28-Jul-21 A
DDA - 2nd Review by SO	35	13-Aug-21	16-Sep-21	29-Jul-21 A	30-Aug-21 A
DDA - SO Consent for Construction	0		16-Sep-21		30-Aug-21 A
DDA - Cross Passage - CP TBM Jacking Pipes	78	14-Mar-21	21-Jun-21	05-May-21 A	30-Dec-21
DDA - Review by IP / DC	28	14-Mar-21	10-Apr-21	05-May-21 A	07-Sep-21 A
DDA - Further information required by SO	30	12-Apr-21	17-May-21	01-Jun-21 A	07-Sep-21 A
DDA - 2nd Sub	0		17-May-21		07-Sep-21 A
DDA - 2nd Review by SO	35	18-May-21	21-Jun-21	08-Sep-21 A	28-Oct-21 A
DDA - Further information required by SO	0			29-Oct-21 A	25-Nov-21
DDA - 2nd Sub	0				25-Nov-21
DDA - 2nd Review by SO	0			26-Nov-21	30-Dec-21
DDA - SO Consent for Construction	0		21-Jun-21		30-Dec-21
DDA - Cross Passage - CP TBM Confinement	143	15-Mar-21	06-Sep-21	05-May-21 A	17-Dec-21
DDA - Draft - Preparation by Designer	36	15-Mar-21	29-Apr-21	05-May-21 A	21-Aug-21 A



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Milestone
Planned Bar
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ED/2018/04 Trunk Road T2 and Infrastructure Works for Developments at South Apron

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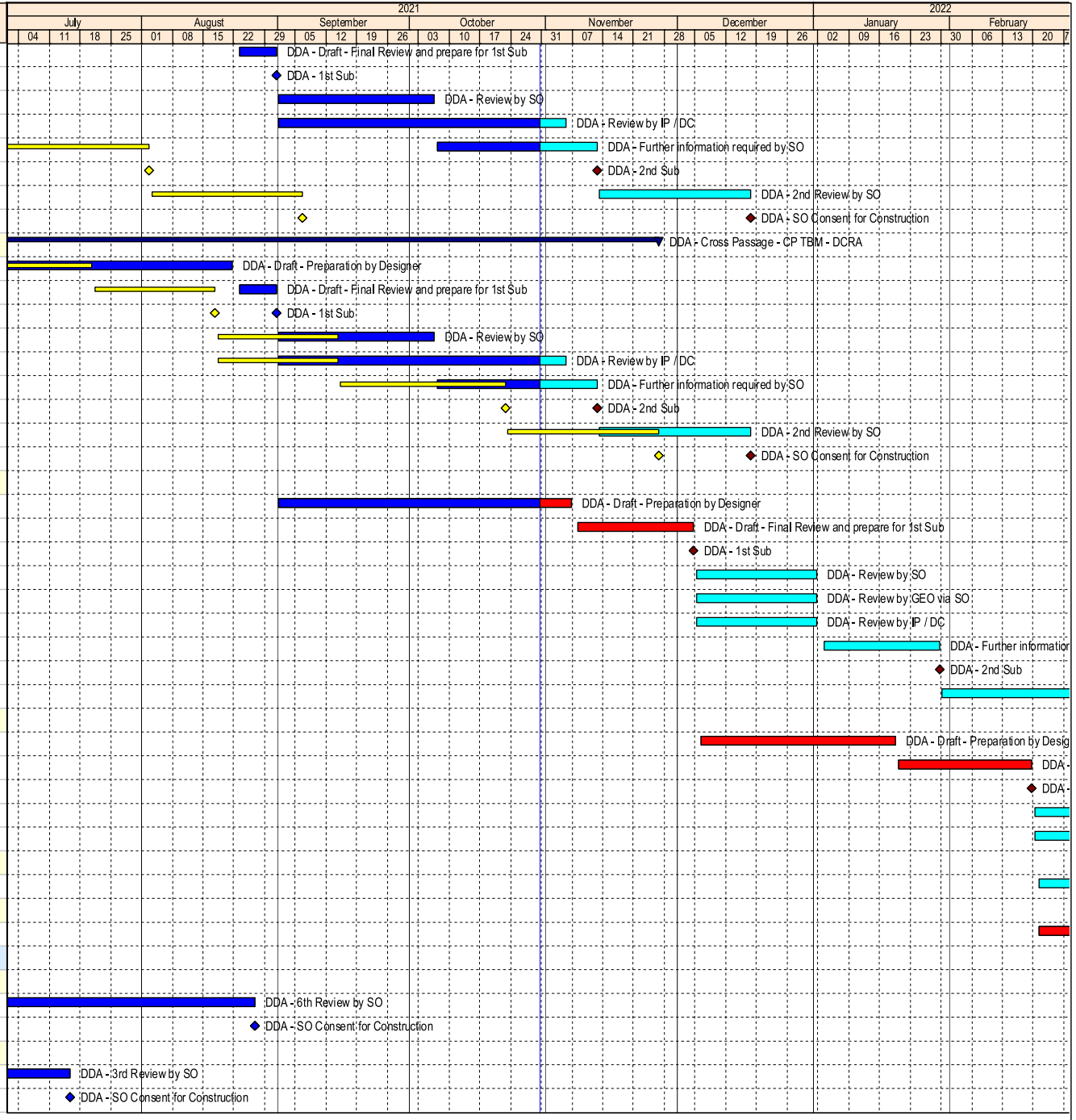
17-Jul-20	01V2	SPa/LLo	WYu
09-Oct-20	01V3	SPa/LLo	WYu
02-Jul-21	02V0	SPa/LLo	WYu

Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish
DDA - Draft - Final Review and prepare for 1st Sub	24	30-Apr-21	29-May-21	23-Aug-21 A	31-Aug-21 A
DDA - 1st Sub	0		29-May-21		31-Aug-21 A
DDA - Review by SO	28	30-May-21	26-Jun-21	01-Sep-21 A	06-Oct-21 A
DDA - Review by IP / DC	28	30-May-21	26-Jun-21	01-Sep-21 A	05-Nov-21
DDA - Further information required by SO	30	28-Jun-21	02-Aug-21	07-Oct-21 A	12-Nov-21
DDA - 2nd Sub	0		02-Aug-21		12-Nov-21
DDA - 2nd Review by SO	35	03-Aug-21	06-Sep-21	13-Nov-21	17-Dec-21
DDA - SO Consent for Construction	0		06-Sep-21		17-Dec-21
DDA - Cross Passage - CP TBM - DCRA	150	31-May-21	26-Nov-21	05-May-21 A	17-Dec-21
DDA - Draft - Preparation by Designer	42	31-May-21	20-Jul-21	05-May-21 A	21-Aug-21 A
DDA - Draft - Final Review and prepare for 1st Sub	24	21-Jul-21	17-Aug-21	23-Aug-21 A	31-Aug-21 A
DDA - 1st Sub	0		17-Aug-21		31-Aug-21 A
DDA - Review by SO	28	18-Aug-21	14-Sep-21	01-Sep-21 A	06-Oct-21 A
DDA - Review by IP / DC	28	18-Aug-21	14-Sep-21	01-Sep-21 A	05-Nov-21
DDA - Further information required by SO	30	15-Sep-21	22-Oct-21	07-Oct-21 A	12-Nov-21
DDA - 2nd Sub	0		22-Oct-21		12-Nov-21
DDA - 2nd Review by SO	35	23-Oct-21	26-Nov-21	13-Nov-21	17-Dec-21
DDA - SO Consent for Construction	0		26-Nov-21		17-Dec-21
DDA - Cross Passage - Traditional (CP28, 29 & 30) - Temp	141	03-Oct-20	24-Mar-21	01-Sep-21 A	05-Mar-22
DDA - Draft - Preparation by Designer	42	03-Oct-20	21-Nov-20	01-Sep-21 A	06-Nov-21
DDA - Draft - Final Review and prepare for 1st Sub	24	23-Nov-20	19-Dec-20	08-Nov-21	04-Dec-21
DDA - 1st Sub	0		19-Dec-20		04-Dec-21
DDA - Review by SO	28	20-Dec-20	16-Jan-21	05-Dec-21	01-Jan-22
DDA - Review by GEO via SO	28	20-Dec-20	16-Jan-21	05-Dec-21	01-Jan-22
DDA - Review by IP / DC	28	20-Dec-20	16-Jan-21	05-Dec-21	01-Jan-22
DDA - Further information required by SO	24	18-Jan-21	17-Feb-21	03-Jan-22	29-Jan-22
DDA - 2nd Sub	0		17-Feb-21		29-Jan-22
DDA - 2nd Review by SO	35	18-Feb-21	24-Mar-21	30-Jan-22	05-Mar-22
DDA - Cross Passage - Traditional - Lining Structure	82	21-Dec-20	03-Apr-21	06-Dec-21	19-Mar-22
DDA - Draft - Preparation by Designer	36	21-Dec-20	03-Feb-21	06-Dec-21	19-Jan-22
DDA - Draft - Final Review and prepare for 1st Sub	24	04-Feb-21	06-Mar-21	20-Jan-22	19-Feb-22
DDA - 1st Sub	0		06-Mar-21		19-Feb-22
DDA - Review by SO	28	07-Mar-21	03-Apr-21	20-Feb-22	19-Mar-22
DDA - Review by IP / DC	28	07-Mar-21	03-Apr-21	20-Feb-22	19-Mar-22
DDA - Cross Passage - Internal Structure	36	08-Mar-21	22-Apr-21	21-Feb-22	02-Apr-22
DDA - Draft - Preparation by Designer	36	08-Mar-21	22-Apr-21	21-Feb-22	02-Apr-22
DDA - Cross Passage - Traditional - DCRA	36	08-Mar-21	22-Apr-21	21-Feb-22	02-Apr-22
DDA - Draft - Preparation by Designer	36	08-Mar-21	22-Apr-21	21-Feb-22	02-Apr-22
DRILL & BREAK [D&BR] / DRILL & BLAST TUNNEL [D&BL]	144	09-Oct-20	08-Apr-21	21-Apr-21 A	26-Aug-21 A
DDA - D&BR / D&BL Tunnel - Lining & Internal Structure	0	09-Oct-20	09-Oct-20	21-Apr-21 A	26-Aug-21 A
DDA - 6th Review by SO	0			21-Apr-21 A	26-Aug-21 A
DDA - SO Consent for Construction	0		09-Oct-20		26-Aug-21 A
DDA - D&BR / D&BL Tunnel - Service Gallery (SG Scheme)	0	08-Apr-21	08-Apr-21	28-May-21 A	15-Jul-21 A
DDA - 3rd Review by SO	0			28-May-21 A	15-Jul-21 A
DDA - SO Consent for Construction	0		08-Apr-21		15-Jul-21 A



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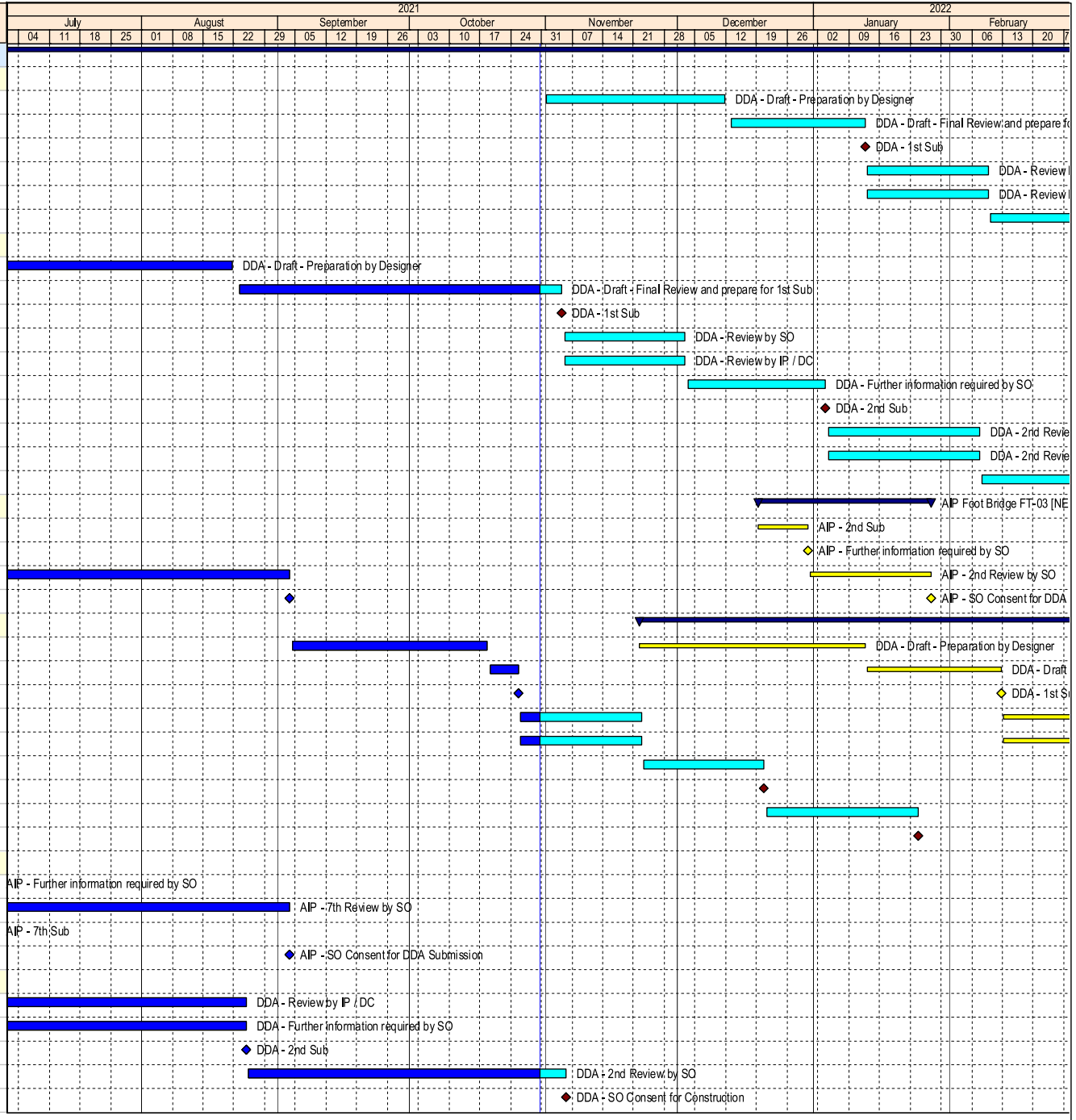
17-Jul-20	01V2	SPa/LLo	WYu
09-Oct-20	01V3	SPa/LLo	WYu
02-Jul-21	02V0	SPa/LLo	WYu

Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish
EAST VENTILATION BUILDING [EVB]	476	03-Oct-20	16-May-22	08-Apr-21 A	16-Mar-22
DDA - EVB - ABWF	111	03-Oct-20	17-Feb-21	01-Nov-21	16-Mar-22
DDA - Draft - Preparation by Designer	36	03-Oct-20	14-Nov-20	01-Nov-21	11-Dec-21
DDA - Draft - Final Review and prepare for 1st Sub	24	16-Nov-20	12-Dec-20	13-Dec-21	12-Jan-22
DDA - 1st Sub	0		12-Dec-20		12-Jan-22
DDA - Review by SO	28	13-Dec-20	09-Jan-21	13-Jan-22	09-Feb-22
DDA - Review by IP / DC	28	13-Dec-20	09-Jan-21	13-Jan-22	09-Feb-22
DDA - Further information required by SO	30	11-Jan-21	17-Feb-21	10-Feb-22	16-Mar-22
DDA - EVB - Aesthetic Design	172	03-Oct-20	05-May-21	28-Jun-21 A	07-Mar-22
DDA - Draft - Preparation by Designer	48	03-Oct-20	28-Nov-20	28-Jun-21 A	21-Aug-21 A
DDA - Draft - Final Review and prepare for 1st Sub	24	30-Nov-20	29-Dec-20	23-Aug-21 A	04-Nov-21
DDA - 1st Sub	0		29-Dec-20		04-Nov-21
DDA - Review by SO	28	30-Dec-20	26-Jan-21	05-Nov-21	02-Dec-21
DDA - Review by IP / DC	28	30-Dec-20	26-Jan-21	05-Nov-21	02-Dec-21
DDA - Further information required by SO	24	27-Jan-21	26-Feb-21	03-Dec-21	03-Jan-22
DDA - 2nd Sub	0		26-Feb-21		03-Jan-22
DDA - 2nd Review by SO	35	27-Feb-21	02-Apr-21	04-Jan-22	07-Feb-22
DDA - 2nd Review by IP	35	27-Feb-21	02-Apr-21	04-Jan-22	07-Feb-22
DDA - Further information required by SO	24	07-Apr-21	05-May-21	08-Feb-22	07-Mar-22
AIP Foot Bridge FT-03 [NEW]	31	19-Dec-21	27-Jan-22	29-May-21 A	03-Sep-21 A
AIP - 2nd Sub	12	19-Dec-21	30-Dec-21	29-May-21 A	28-Jun-21 A
AIP - Further information required by SO	0		30-Dec-21		28-Jun-21 A
AIP - 2nd Review by SO	28	31-Dec-21	27-Jan-22	29-Jun-21 A	03-Sep-21 A
AIP - SO Consent for DDA Submission	0		27-Jan-22		03-Sep-21 A
DDA Foot Bridge FT-03 [NEW]	139	22-Nov-21	16-May-22	04-Sep-21 A	24-Jan-22
DDA - Draft - Preparation by Designer	42	22-Nov-21	12-Jan-22	04-Sep-21 A	18-Oct-21 A
DDA - Draft - Final Review and prepare for 1st Sub	24	13-Jan-22	12-Feb-22	19-Oct-21 A	25-Oct-21 A
DDA - 1st Sub	0		12-Feb-22		25-Oct-21 A
DDA - Review by SO	28	13-Feb-22	12-Mar-22	26-Oct-21 A	22-Nov-21
DDA - Review by IP / DC	28	13-Feb-22	12-Mar-22	26-Oct-21 A	22-Nov-21
DDA - Further information required by SO	24	14-Mar-22	11-Apr-22	23-Nov-21	20-Dec-21
DDA - 2nd Sub	0		11-Apr-22		20-Dec-21
DDA - 2nd Review by SO	35	12-Apr-22	16-May-22	21-Dec-21	24-Jan-22
DDA - SO Consent for Construction	0		16-May-22		24-Jan-22
AIP EVB - Permanent Structure (SG Scheme)	0	31-Mar-21	31-Mar-21	29-May-21 A	03-Sep-21 A
AIP - Further information required by SO	0			29-May-21 A	28-Jun-21 A
AIP - 7th Review by SO	0			28-Jun-21 A	03-Sep-21 A
AIP - 7th Sub	0				28-Jun-21 A
AIP - SO Consent for DDA Submission	0		31-Mar-21		03-Sep-21 A
DDA - EVB - General Building Plan (including SoA) (SG Sch	74	03-Jan-21	07-Apr-21	08-Apr-21 A	05-Nov-21
DDA - Review by IP / DC	28	03-Jan-21	30-Jan-21	08-Apr-21 A	24-Aug-21 A
DDA - Further information required by SO	24	01-Feb-21	03-Mar-21	05-May-21 A	24-Aug-21 A
DDA - 2nd Sub	0		03-Mar-21		24-Aug-21 A
DDA - 2nd Review by SO	35	04-Mar-21	07-Apr-21	25-Aug-21 A	05-Nov-21
DDA - SO Consent for Construction	0		07-Apr-21		05-Nov-21



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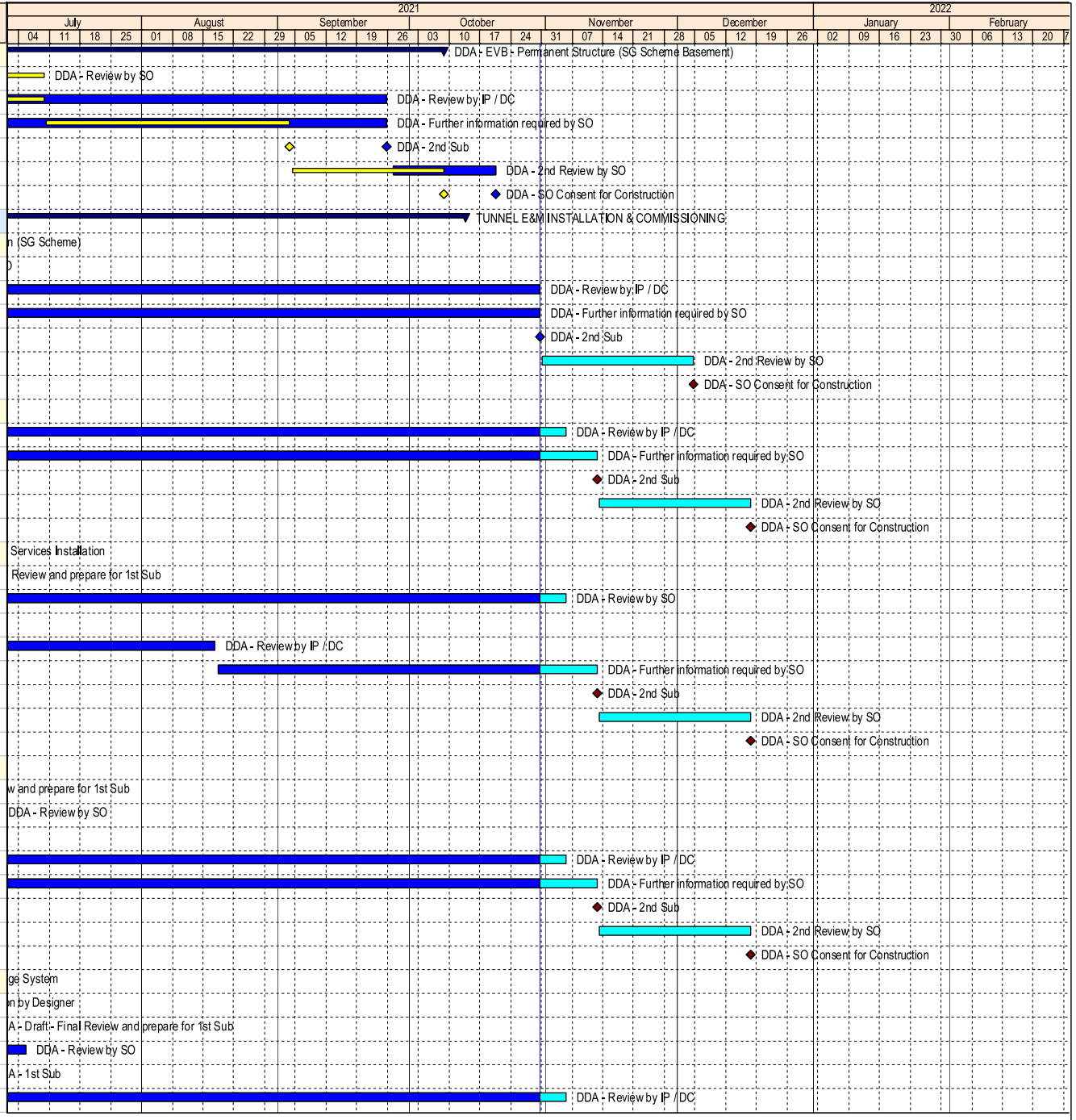
09-Oct-20	01V3	SPa/LLo	WYu
02-Jul-21	02V0	SPa/LLo	WYu

Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish
DDA - EVB - Permanent Structure (SG Scheme Basement)	98	12-Jun-21	08-Oct-21	05-May-21 A	20-Oct-21 A
DDA - Review by SO	28	12-Jun-21	09-Jul-21	05-May-21 A	28-Jun-21 A
DDA - Review by IP / DC	28	12-Jun-21	09-Jul-21	05-May-21 A	25-Sep-21 A
DDA - Further information required by SO	48	10-Jul-21	03-Sep-21	29-Jun-21 A	25-Sep-21 A
DDA - 2nd Sub	0		03-Sep-21		25-Sep-21 A
DDA - 2nd Review by SO	35	04-Sep-21	08-Oct-21	27-Sep-21 A	20-Oct-21 A
DDA - SO Consent for Construction	0		08-Oct-21		20-Oct-21 A
TUNNEL E&M INSTALLATION & COMMISSIONING	252	05-Dec-20	13-Oct-21	19-Feb-21 A	22-Mar-22
DDA - E&M Tunnel Ventilation Design (SG Scheme)	91	24-Jan-21	20-May-21	22-May-21 A	04-Dec-21
DDA - Review by SO	28	24-Jan-21	20-Feb-21	22-May-21 A	07-Jun-21 A
DDA - Review by IP / DC	28	24-Jan-21	20-Feb-21	23-May-21 A	30-Oct-21 A
DDA - Further information required by SO	42	22-Feb-21	15-Apr-21	08-Jun-21 A	30-Oct-21 A
DDA - 2nd Sub	0		15-Apr-21		30-Oct-21 A
DDA - 2nd Review by SO	35	16-Apr-21	20-May-21	31-Oct-21	04-Dec-21
DDA - SO Consent for Construction	0		20-May-21		04-Dec-21
DDA - E&M Air Purification System (WVB)	91	10-Jan-21	05-May-21	15-Mar-21 A	17-Dec-21
DDA - Review by IP / DC	28	10-Jan-21	06-Feb-21	15-Mar-21 A	05-Nov-21
DDA - Further information required by SO	42	08-Feb-21	31-Mar-21	12-May-21 A	12-Nov-21
DDA - 2nd Sub	0		31-Mar-21		12-Nov-21
DDA - 2nd Review by SO	35	01-Apr-21	05-May-21	13-Nov-21	17-Dec-21
DDA - SO Consent for Construction	0		05-May-21		17-Dec-21
DDA - E&M Fire Services Installation	103	02-Feb-21	11-Jun-21	01-Jun-21 A	17-Dec-21
DDA - Draft - Final Review and prepare for 1st Sub	18	02-Feb-21	25-Feb-21	01-Jun-21 A	09-Jun-21 A
DDA - Review by SO	28	26-Feb-21	25-Mar-21	09-Jun-21 A	05-Nov-21
DDA - 1st Sub	0		25-Feb-21		09-Jun-21 A
DDA - Review by IP / DC	28	26-Feb-21	25-Mar-21	09-Jun-21 A	17-Aug-21 A
DDA - Further information required by SO	32	26-Mar-21	07-May-21	18-Aug-21 A	12-Nov-21
DDA - 2nd Sub	0		07-May-21		12-Nov-21
DDA - 2nd Review by SO	35	08-May-21	11-Jun-21	13-Nov-21	17-Dec-21
DDA - SO Consent for Construction	0		11-Jun-21		17-Dec-21
DDA - E&M MVAC	101	27-Jan-21	03-Jun-21	22-May-21 A	17-Dec-21
DDA - Draft - Final Review and prepare for 1st Sub	17	27-Jan-21	18-Feb-21	22-May-21 A	02-Jun-21 A
DDA - Review by SO	28	19-Feb-21	18-Mar-21	02-Jun-21 A	29-Jun-21 A
DDA - 1st Sub	0		18-Feb-21		02-Jun-21 A
DDA - Review by IP / DC	28	19-Feb-21	18-Mar-21	02-Jun-21 A	05-Nov-21
DDA - Further information required by SO	32	19-Mar-21	29-Apr-21	30-Jun-21 A	12-Nov-21
DDA - 2nd Sub	0		29-Apr-21		12-Nov-21
DDA - 2nd Review by SO	35	30-Apr-21	03-Jun-21	13-Nov-21	17-Dec-21
DDA - SO Consent for Construction	0		03-Jun-21		17-Dec-21
DDA - E&M Plumbing & Drainage System	122	22-Dec-20	26-May-21	19-Feb-21 A	15-Dec-21
DDA - Draft - Preparation by Designer	24	22-Dec-20	21-Jan-21	19-Feb-21 A	03-Jun-21 A
DDA - Draft - Final Review and prepare for 1st Sub	17	22-Jan-21	10-Feb-21	03-Jun-21 A	25-Jun-21 A
DDA - Review by SO	28	11-Feb-21	10-Mar-21	25-Jun-21 A	05-Jul-21 A
DDA - 1st Sub	0		10-Feb-21		25-Jun-21 A
DDA - Review by IP / DC	28	11-Feb-21	10-Mar-21	25-Jun-21 A	05-Nov-21



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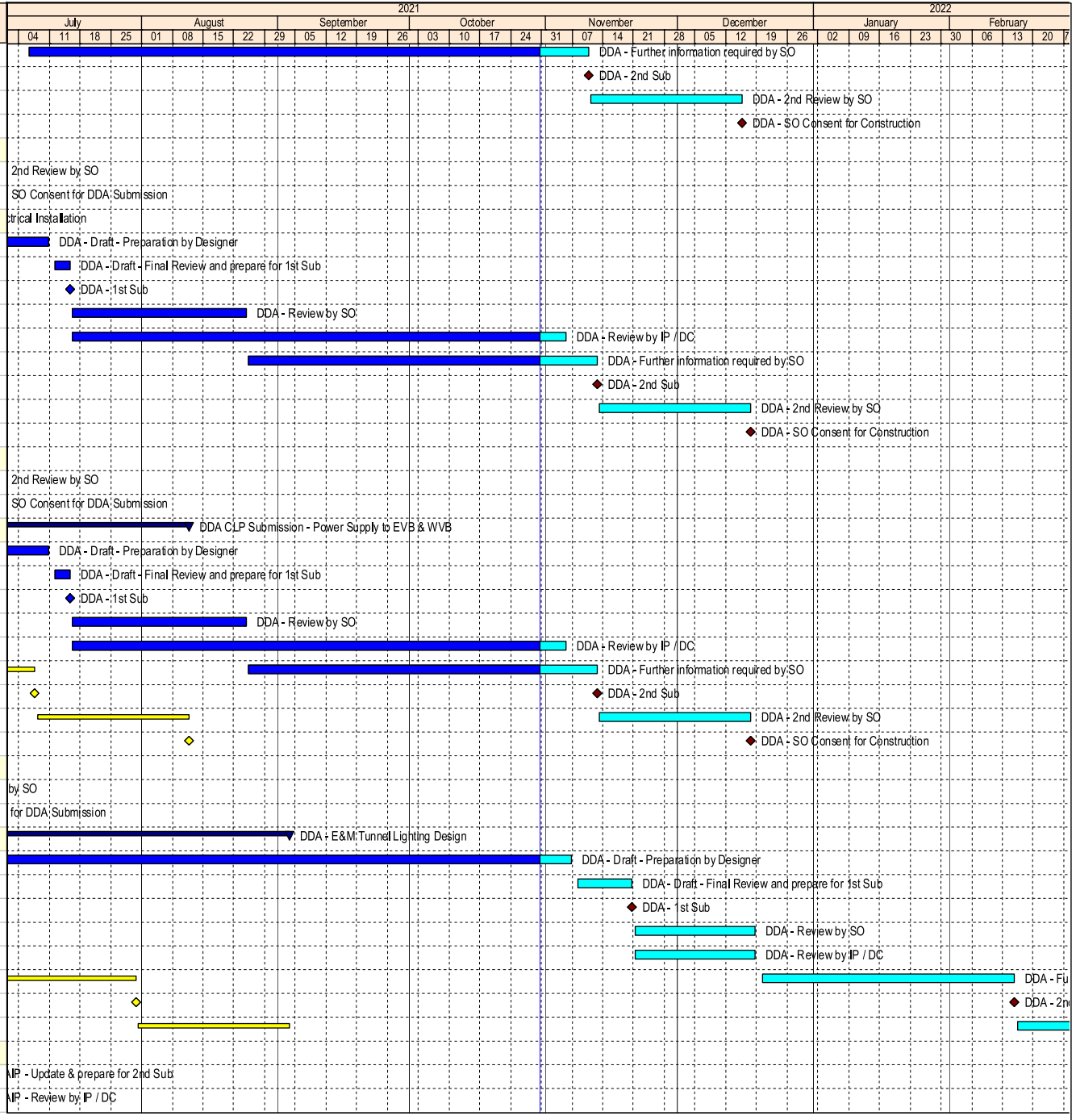
Date	Revision	Checked	Approved
18-Dec-19	00V1	WYu	
22-Feb-20	01V0	SPa/LLo	WYu
09-Apr-20	01V1	SPa/LLo	WYu
17-Jul-20	01V2	SPa/LLo	WYu
09-Oct-20	01V3	SPa/LLo	WYu
02-Jul-21	02V0	SPa/LLo	WYu

Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish
DDA - Further information required by SO	32	11-Mar-21	21-Apr-21	06-Jul-21 A	10-Nov-21
DDA - 2nd Sub	0		21-Apr-21		10-Nov-21
DDA - 2nd Review by SO	35	22-Apr-21	26-May-21	11-Nov-21	15-Dec-21
DDA - SO Consent for Construction	0		26-May-21		15-Dec-21
AIP - E&M Electrical Installation	21	05-Dec-20	02-Jan-21	21-May-21 A	23-Jun-21 A
AIP - 2nd Review by SO	28	05-Dec-20	01-Jan-21	21-May-21 A	23-Jun-21 A
AIP - SO Consent for DDA Submission	0		02-Jan-21		23-Jun-21 A
DDA - E&M Electrical Installation	129	02-Jan-21	11-Jun-21	24-Jun-21 A	17-Dec-21
DDA - Draft - Preparation by Designer	25	02-Jan-21	30-Jan-21	24-Jun-21 A	10-Jul-21 A
DDA - Draft - Final Review and prepare for 1st Sub	18	01-Feb-21	24-Feb-21	12-Jul-21 A	15-Jul-21 A
DDA - 1st Sub	0		24-Feb-21		15-Jul-21 A
DDA - Review by SO	28	25-Feb-21	24-Mar-21	16-Jul-21 A	24-Aug-21 A
DDA - Review by IP / DC	28	25-Feb-21	24-Mar-21	16-Jul-21 A	05-Nov-21
DDA - Further information required by SO	33	25-Mar-21	07-May-21	25-Aug-21 A	12-Nov-21
DDA - 2nd Sub	0		07-May-21		12-Nov-21
DDA - 2nd Review by SO	35	08-May-21	11-Jun-21	13-Nov-21	17-Dec-21
DDA - SO Consent for Construction	0		11-Jun-21		17-Dec-21
AIP CLP Submission - Power Supply to EVB & WVB	23	30-Dec-20	26-Jan-21	22-May-21 A	23-Jun-21 A
AIP - 2nd Review by SO	28	30-Dec-20	26-Jan-21	22-May-21 A	23-Jun-21 A
AIP - SO Consent for DDA Submission	0		26-Jan-21		23-Jun-21 A
DDA CLP Submission - Power Supply to EVB & WVB	158	27-Jan-21	11-Aug-21	24-Jun-21 A	17-Dec-21
DDA - Draft - Preparation by Designer	48	27-Jan-21	26-Mar-21	24-Jun-21 A	10-Jul-21 A
DDA - Draft - Final Review and prepare for 1st Sub	24	27-Mar-21	28-Apr-21	12-Jul-21 A	15-Jul-21 A
DDA - 1st Sub	0		28-Apr-21		15-Jul-21 A
DDA - Review by SO	28	29-Apr-21	26-May-21	16-Jul-21 A	24-Aug-21 A
DDA - Review by IP / DC	28	29-Apr-21	26-May-21	16-Jul-21 A	05-Nov-21
DDA - Further information required by SO	34	27-May-21	07-Jul-21	25-Aug-21 A	12-Nov-21
DDA - 2nd Sub	0		07-Jul-21		12-Nov-21
DDA - 2nd Review by SO	35	08-Jul-21	11-Aug-21	13-Nov-21	17-Dec-21
DDA - SO Consent for Construction	0		11-Aug-21		17-Dec-21
AIP - E&M Tunnel Lighting Design	24	26-Feb-21	25-Mar-21	03-May-21 A	09-Jun-21 A
AIP - 2nd Review by SO	28	26-Feb-21	25-Mar-21	03-May-21 A	09-Jun-21 A
AIP - SO Consent for DDA Submission	0		25-Mar-21		09-Jun-21 A
DDA - E&M Tunnel Lighting Design	131	26-Mar-21	03-Sep-21	10-Jun-21 A	22-Mar-22
DDA - Draft - Preparation by Designer	22	26-Mar-21	24-Apr-21	10-Jun-21 A	06-Nov-21
DDA - Draft - Final Review and prepare for 1st Sub	12	26-Apr-21	10-May-21	08-Nov-21	20-Nov-21
DDA - 1st Sub	0		10-May-21		20-Nov-21
DDA - Review by SO	28	11-May-21	07-Jun-21	21-Nov-21	18-Dec-21
DDA - Review by IP / DC	28	11-May-21	07-Jun-21	21-Nov-21	18-Dec-21
DDA - Further information required by SO	44	08-Jun-21	30-Jul-21	20-Dec-21	15-Feb-22
DDA - 2nd Sub	0		30-Jul-21		15-Feb-22
DDA - 2nd Review by SO	35	31-Jul-21	03-Sep-21	16-Feb-22	22-Mar-22
AIP - E&M CMCS	78	17-Feb-21	25-May-21	26-Apr-21 A	22-Jul-21 A
AIP - Update & prepare for 2nd Sub	32	17-Mar-21	27-Apr-21	26-Apr-21 A	28-Jun-21 A
AIP - Review by IP / DC	28	17-Feb-21	16-Mar-21	26-Apr-21 A	28-Jun-21 A



Milestone
Planned Bar
Critical Activity
Actual Milestone
Actual Work
Baseline Milestone
Baseline Bar
Summary

ED/2018/04 Trunk Road T2 and Infrastructure Works for Developments at South Apron

Three Months Rolling Programme (Oct-21)

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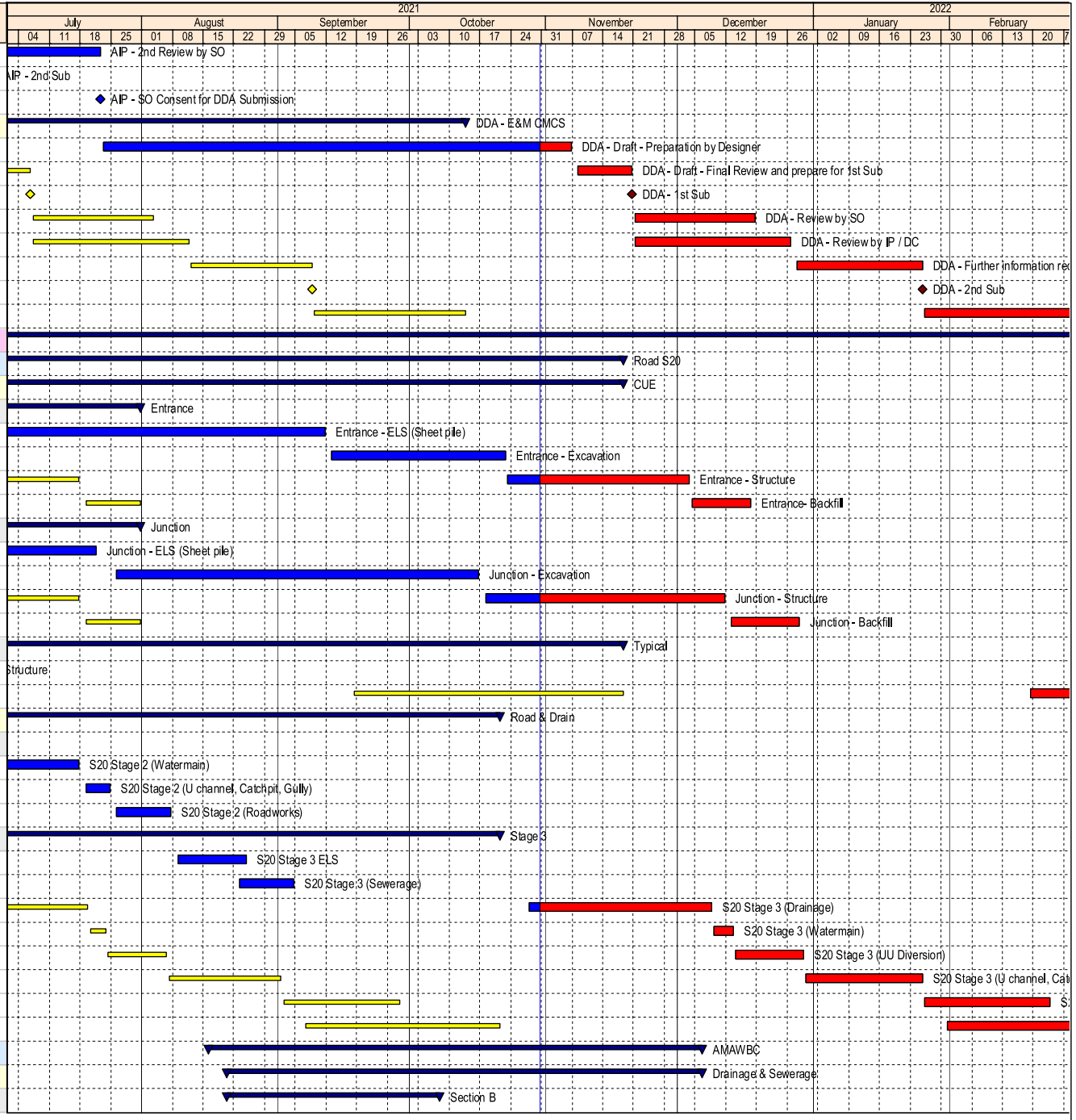
09-Oct-20	01V3	SPa/LLo	WYu
02-Jul-21	02V0	SPa/LLo	WYu

Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish
AIP - 2nd Review by SO	28	28-Apr-21	25-May-21	28-Jun-21 A	22-Jul-21 A
AIP - 2nd Sub	0		27-Apr-21		28-Jun-21 A
AIP - SO Consent for DDA Submission	0		25-May-21		22-Jul-21 A
DDA - E&M CMCS	117	26-May-21	13-Oct-21	23-Jul-21 A	01-Mar-22
DDA - Draft - Preparation by Designer	22	26-May-21	21-Jun-21	23-Jul-21 A	06-Nov-21
DDA - Draft - Final Review and prepare for 1st Sub	12	22-Jun-21	06-Jul-21	08-Nov-21	20-Nov-21
DDA - 1st Sub	0		06-Jul-21		20-Nov-21
DDA - Review by SO	28	07-Jul-21	03-Aug-21	21-Nov-21	18-Dec-21
DDA - Review by IP / DC	36	07-Jul-21	11-Aug-21	21-Nov-21	26-Dec-21
DDA - Further information required by SO	24	12-Aug-21	08-Sep-21	28-Dec-21	25-Jan-22
DDA - 2nd Sub	0		08-Sep-21		25-Jan-22
DDA - 2nd Review by SO	35	09-Sep-21	13-Oct-21	26-Jan-22	01-Mar-22
SOUTH APRON EXTERNAL WORKS	536	22-Dec-20	17-Oct-22	23-Dec-20 A	13-Nov-22
Road S20	259	05-Jan-21	18-Nov-21	27-Jan-21 A	22-Apr-22
CUE	259	05-Jan-21	18-Nov-21	27-Jan-21 A	22-Apr-22
Entrance	84	21-Apr-21	31-Jul-21	24-Jun-21 A	17-Dec-21
Entrance - ELS (Sheet pile)	18	21-Apr-21	12-May-21	24-Jun-21 A	11-Sep-21 A
Entrance - Excavation	18	13-May-21	03-Jun-21	13-Sep-21 A	22-Oct-21 A
Entrance - Structure	36	04-Jun-21	17-Jul-21	23-Oct-21 A	03-Dec-21
Entrance- Backfill	12	19-Jul-21	31-Jul-21	04-Dec-21	17-Dec-21
Junction	108	19-Mar-21	31-Jul-21	27-Feb-21 A	28-Dec-21
Junction - ELS (Sheet pile)	24	19-Mar-21	20-Apr-21	27-Feb-21 A	21-Jul-21 A
Junction - Excavation	24	21-Apr-21	20-May-21	26-Jul-21 A	16-Oct-21 A
Junction - Structure	48	21-May-21	17-Jul-21	18-Oct-21 A	11-Dec-21
Junction - Backfill	12	19-Jul-21	31-Jul-21	13-Dec-21	28-Dec-21
Typical	259	05-Jan-21	18-Nov-21	27-Jan-21 A	22-Apr-22
Typical Section - Structure	75	05-Jan-21	09-Apr-21	27-Jan-21 A	09-Jun-21 A
Typical Section - Utilities & E&M	50	18-Sep-21	18-Nov-21	19-Feb-22	22-Apr-22
Road & Drain	200	18-Feb-21	21-Oct-21	24-May-21 A	16-Mar-22
Stage 2	49	18-Feb-21	20-Apr-21	24-May-21 A	07-Aug-21 A
S20 Stage 2 (Watermain)	5	18-Feb-21	23-Feb-21	24-May-21 A	17-Jul-21 A
S20 Stage 2 (U channel, Catchpit, Gully)	22	24-Feb-21	20-Mar-21	19-Jul-21 A	24-Jul-21 A
S20 Stage 2 (Roadworks)	22	22-Mar-21	20-Apr-21	26-Jul-21 A	07-Aug-21 A
Stage 3	151	21-Apr-21	21-Oct-21	09-Aug-21 A	16-Mar-22
S20 Stage 3 ELS	35	21-Apr-21	02-Jun-21	09-Aug-21 A	24-Aug-21 A
S20 Stage 3 (Sewerage)	32	15-May-21	23-Jun-21	23-Aug-21 A	04-Sep-21 A
S20 Stage 3 (Drainage)	36	05-Jun-21	19-Jul-21	28-Oct-21 A	08-Dec-21
S20 Stage 3 (Watermain)	4	20-Jul-21	23-Jul-21	09-Dec-21	13-Dec-21
S20 Stage 3 (UU Diversion)	12	24-Jul-21	06-Aug-21	14-Dec-21	29-Dec-21
S20 Stage 3 (U channel, Catchpit, Gully)	22	07-Aug-21	01-Sep-21	30-Dec-21	25-Jan-22
S20 Stage 3 (Roadworks)	22	02-Sep-21	28-Sep-21	26-Jan-22	23-Feb-22
Utilities undertaker (by others)	36	07-Sep-21	21-Oct-21	31-Jan-22	16-Mar-22
AMAWBC	94	16-Aug-21	06-Dec-21	04-Nov-21	30-Mar-22
Drainage & Sewerage	90	20-Aug-21	06-Dec-21	09-Dec-21	30-Mar-22
Section B	40	20-Aug-21	07-Oct-21	09-Dec-21	27-Jan-22



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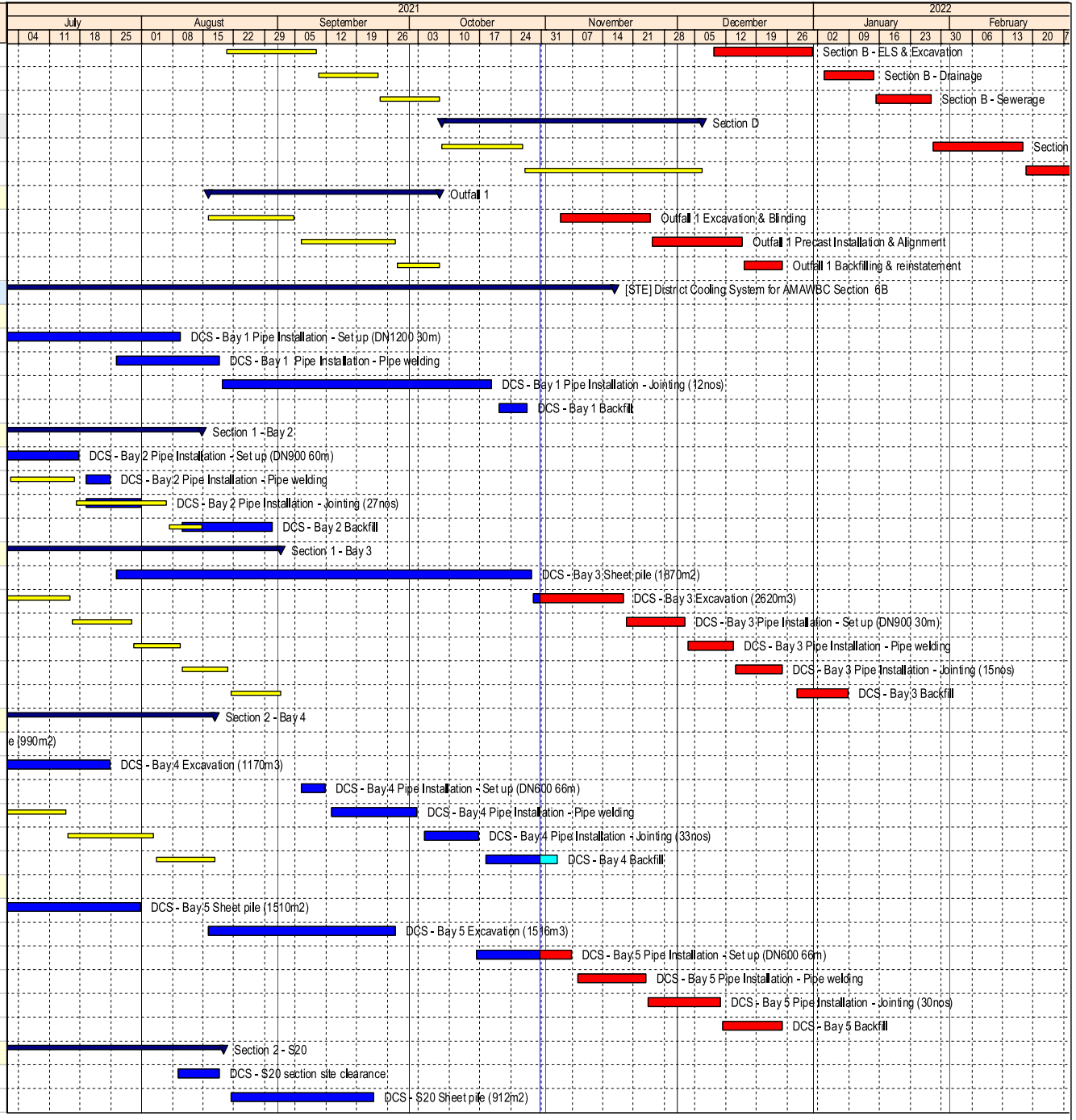
09-Oct-20	01V3	SPa/LLo	WYu
02-Jul-21	02V0	SPa/LLo	WYu

Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish
Section B - ELS & Excavation	18	20-Aug-21	09-Sep-21	09-Dec-21	31-Dec-21
Section B - Drainage	11	10-Sep-21	23-Sep-21	03-Jan-22	14-Jan-22
Section B - Sewerage	11	24-Sep-21	07-Oct-21	15-Jan-22	27-Jan-22
Section D	50	08-Oct-21	06-Dec-21	28-Jan-22	30-Mar-22
Section D - ELS & Excavation	15	08-Oct-21	26-Oct-21	28-Jan-22	17-Feb-22
Section D - Drainage	35	27-Oct-21	06-Dec-21	18-Feb-22	30-Mar-22
Outfall 1	44	16-Aug-21	07-Oct-21	04-Nov-21	24-Dec-21
Outfall 1 Excavation & Blinding	18	16-Aug-21	04-Sep-21	04-Nov-21	24-Nov-21
Outfall 1 Precast Installation & Alignment	18	06-Sep-21	27-Sep-21	25-Nov-21	15-Dec-21
Outfall 1 Backfilling & reinstatement	8	28-Sep-21	07-Oct-21	16-Dec-21	24-Dec-21
[STE] District Cooling System for AMAWBC Section 6B	266	22-Dec-20	16-Nov-21	22-Mar-21 A	20-Apr-22
Section 1 - Bay 1	41	20-Feb-21	13-Apr-21	22-Mar-21 A	27-Oct-21 A
DCS - Bay 1 Pipe Installation - Set up (DN1200 30m)	12	20-Feb-21	05-Mar-21	22-Mar-21 A	09-Aug-21 A
DCS - Bay 1 Pipe Installation - Pipe welding	11	06-Mar-21	18-Mar-21	26-Jul-21 A	18-Aug-21 A
DCS - Bay 1 Pipe Installation - Jointing (12nos)	12	19-Mar-21	01-Apr-21	19-Aug-21 A	19-Oct-21 A
DCS - Bay 1 Backfill	6	07-Apr-21	13-Apr-21	21-Oct-21 A	27-Oct-21 A
Section 1 - Bay 2	52	15-Jun-21	14-Aug-21	19-May-21 A	30-Aug-21 A
DCS - Bay 2 Pipe Installation - Set up (DN900 60m)	14	15-Jun-21	30-Jun-21	19-May-21 A	17-Jul-21 A
DCS - Bay 2 Pipe Installation - Pipe welding	13	02-Jul-21	16-Jul-21	19-Jul-21 A	24-Jul-21 A
DCS - Bay 2 Pipe Installation - Jointing (27nos)	18	17-Jul-21	06-Aug-21	19-Jul-21 A	31-Jul-21 A
DCS - Bay 2 Backfill	7	07-Aug-21	14-Aug-21	10-Aug-21 A	30-Aug-21 A
Section 1 - Bay 3	93	13-May-21	01-Sep-21	26-Jul-21 A	08-Jan-22
DCS - Bay 3 Sheet pile (1870m2)	34	13-May-21	23-Jun-21	26-Jul-21 A	28-Oct-21 A
DCS - Bay 3 Excavation (2620m3)	18	24-Jun-21	15-Jul-21	29-Oct-21 A	18-Nov-21
DCS - Bay 3 Pipe Installation - Set up (DN900 30m)	12	16-Jul-21	29-Jul-21	19-Nov-21	02-Dec-21
DCS - Bay 3 Pipe Installation - Pipe welding	9	30-Jul-21	09-Aug-21	03-Dec-21	13-Dec-21
DCS - Bay 3 Pipe Installation - Jointing (15nos)	10	10-Aug-21	20-Aug-21	14-Dec-21	24-Dec-21
DCS - Bay 3 Backfill	10	21-Aug-21	01-Sep-21	28-Dec-21	08-Jan-22
Section 2 - Bay 4	88	04-May-21	17-Aug-21	20-Apr-21 A	03-Nov-21
DCS - Bay 4 Sheet pile (990m2)	18	04-May-21	25-May-21	20-Apr-21 A	05-Jun-21 A
DCS - Bay 4 Excavation (1170m3)	12	26-May-21	08-Jun-21	05-Jun-21 A	24-Jul-21 A
DCS - Bay 4 Pipe Installation - Set up (DN600 66m)	14	09-Jun-21	25-Jun-21	06-Sep-21 A	11-Sep-21 A
DCS - Bay 4 Pipe Installation - Pipe welding	15	26-Jun-21	14-Jul-21	13-Sep-21 A	02-Oct-21 A
DCS - Bay 4 Pipe Installation - Jointing (33nos)	17	15-Jul-21	03-Aug-21	04-Oct-21 A	16-Oct-21 A
DCS - Bay 4 Backfill	12	04-Aug-21	17-Aug-21	18-Oct-21 A	03-Nov-21
Section 2 - Bay 5	103	22-Dec-20	03-May-21	10-Apr-21 A	24-Dec-21
DCS - Bay 5 Sheet pile (1510m2)	30	22-Dec-20	28-Jan-21	10-Apr-21 A	31-Jul-21 A
DCS - Bay 5 Excavation (1516m3)	18	29-Jan-21	22-Feb-21	16-Aug-21 A	27-Sep-21 A
DCS - Bay 5 Pipe Installation - Set up (DN600 66m)	14	23-Feb-21	10-Mar-21	16-Oct-21 A	06-Nov-21
DCS - Bay 5 Pipe Installation - Pipe welding	14	11-Mar-21	26-Mar-21	08-Nov-21	23-Nov-21
DCS - Bay 5 Pipe Installation - Jointing (30nos)	15	27-Mar-21	17-Apr-21	24-Nov-21	10-Dec-21
DCS - Bay 5 Backfill	12	19-Apr-21	03-May-21	11-Dec-21	24-Dec-21
Section 2 - S20	100	21-Apr-21	19-Aug-21	09-Aug-21 A	08-Dec-21
DCS - S20 section site clearance	28	21-Apr-21	25-May-21	09-Aug-21 A	18-Aug-21 A
DCS - S20 Sheet pile (912m2)	18	26-May-21	16-Jun-21	21-Aug-21 A	22-Sep-21 A



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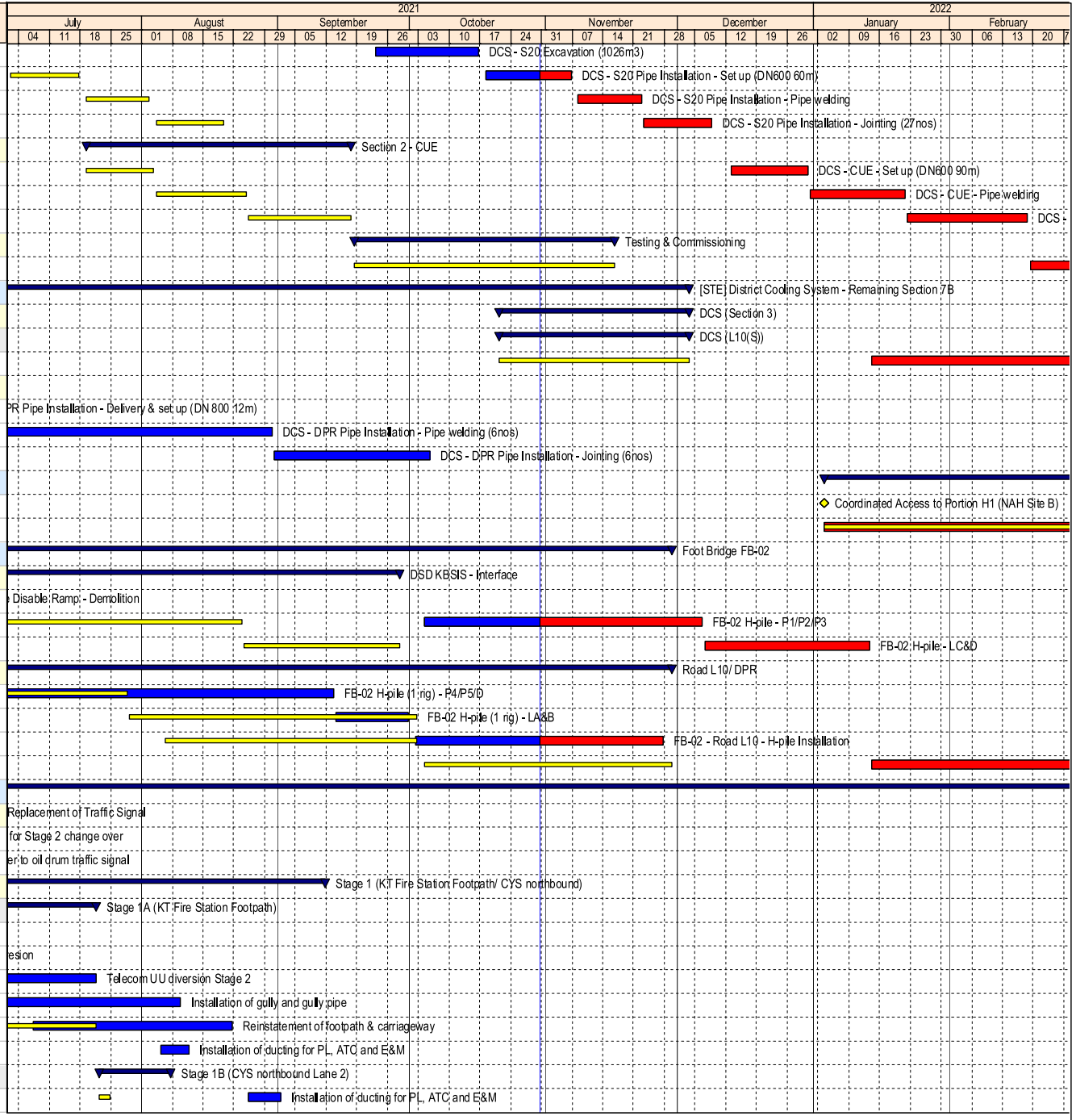
09-Oct-20	01V3	SPa/LLo	WYu
02-Jul-21	02V0	SPa/LLo	WYu

Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish
DCS - S20 Excavation (1026m3)	12	17-Jun-21	30-Jun-21	23-Sep-21 A	16-Oct-21 A
DCS - S20 Pipe Installation - Set up (DN600 60m)	14	02-Jul-21	17-Jul-21	18-Oct-21 A	06-Nov-21
DCS - S20 Pipe Installation - Pipe welding	13	19-Jul-21	02-Aug-21	08-Nov-21	22-Nov-21
DCS - S20 Pipe Installation - Jointing (27nos)	14	04-Aug-21	19-Aug-21	23-Nov-21	08-Dec-21
Section 2 - CUE	53	19-Jul-21	17-Sep-21	13-Dec-21	18-Feb-22
DCS - CUE - Set up (DN600 90m)	14	19-Jul-21	03-Aug-21	13-Dec-21	30-Dec-21
DCS - CUE - Pipe welding	18	04-Aug-21	24-Aug-21	31-Dec-21	21-Jan-22
DCS - CUE - Jointing (42nos)	21	25-Aug-21	17-Sep-21	22-Jan-22	18-Feb-22
Testing & Commissioning	48	18-Sep-21	16-Nov-21	19-Feb-22	20-Apr-22
Overall DCS - Testing & Commissioning	48	18-Sep-21	16-Nov-21	19-Feb-22	20-Apr-22
[STE] District Cooling System - Remaining Section 7B	190	19-Apr-21	03-Dec-21	18-May-21 A	02-Mar-22
DCS (Section 3)	38	21-Oct-21	03-Dec-21	14-Jan-22	02-Mar-22
DCS (L10(S))	38	21-Oct-21	03-Dec-21	14-Jan-22	02-Mar-22
DCS - L10(S) CH327-400 Sheet pile	38	21-Oct-21	03-Dec-21	14-Jan-22	02-Mar-22
DCS Section 4	16	19-Apr-21	07-May-21	18-May-21 A	05-Oct-21 A
DCS - DPR Pipe Installation - Delivery & set up (DN 800 12m)	6	19-Apr-21	24-Apr-21	18-May-21 A	19-Jun-21 A
DCS - DPR Pipe Installation - Pipe welding (6nos)	6	26-Apr-21	03-May-21	21-Jun-21 A	30-Aug-21 A
DCS - DPR Pipe Installation - Jointing (6nos)	4	04-May-21	07-May-21	31-Aug-21 A	05-Oct-21 A
Outfall 2 & Branch Drainage	72	03-Jan-22	30-Mar-22	03-Jan-22	30-Mar-22
Coordinated Access to Portion H1 (NAH Site B)	0	03-Jan-22		03-Jan-22*	
Branch Drainage within Portion H1	72	03-Jan-22	30-Mar-22	03-Jan-22	30-Mar-22
Foot Bridge FB-02	175	03-May-21	29-Nov-21	26-Mar-21 A	14-Mar-22
DSD KBSIS - Interface	117	11-May-21	28-Sep-21	12-May-21 A	13-Jan-22
Existing Footbridge Disable Ramp - Demolition	24	11-May-21	08-Jun-21	12-May-21 A	08-Jun-21 A
FB-02 H-pile - P1/P2/P3	51	24-Jun-21	23-Aug-21	04-Oct-21 A	06-Dec-21
FB-02 H-pile - LC&D	30	24-Aug-21	28-Sep-21	07-Dec-21	13-Jan-22
Road L10/ DPR	175	03-May-21	29-Nov-21	26-Mar-21 A	14-Mar-22
FB-02 H-pile (1 rig) - P4/P5/D	72	03-May-21	28-Jul-21	26-Mar-21 A	13-Sep-21 A
FB-02 H-pile (1 rig) - LA&B	55	29-Jul-21	02-Oct-21	14-Sep-21 A	30-Sep-21 A
FB-02 - Road L10 - H-pile Installation	48	06-Aug-21	02-Oct-21	02-Oct-21 A	27-Nov-21
FB-02 Pile load test No.1 & 2	48	04-Oct-21	29-Nov-21	14-Jan-22	14-Mar-22
[STE] Hoi Bun Road / Cheung Yip Street / Wang Chiu Road J	484	27-Feb-21	17-Oct-22	03-May-21 A	13-Nov-22
EMSD Temporary Replacement of Traffic Signal	18	18-May-21	08-Jun-21	20-May-21 A	08-Jun-21 A
EMSD preparation for Stage 2 change over	18	18-May-21	08-Jun-21	20-May-21 A	08-Jun-21 A
Stage 2 change over to oil drum traffic signal	0		08-Jun-21		08-Jun-21 A
Stage 1 (KT Fire Station Footpath/ CYS northbound)	111	03-May-21	11-Sep-21	03-May-21 A	30-Oct-21 A
Stage 1A (KT Fire Station Footpath)	66	03-May-21	21-Jul-21	03-May-21 A	21-Aug-21 A
Towngas UU diversion	18	03-May-21	24-May-21	03-May-21 A	03-Jun-21 A
WSD diveresion	6	25-May-21	31-May-21	12-Jun-21 A	17-Jun-21 A
Telecom UU diversion Stage 2	12	01-Jun-21	15-Jun-21	19-Jun-21 A	21-Jul-21 A
Installation of gully and gully pipe	12	08-Jun-21	22-Jun-21	24-Jun-21 A	09-Aug-21 A
Reinstatement of footpath & carriageway	24	23-Jun-21	21-Jul-21	07-Jul-21 A	21-Aug-21 A
Installation of ducting for PL, ATC and E&M	6	01-Jun-21	07-Jun-21	05-Aug-21 A	11-Aug-21 A
Stage 1B (CYS northbound Lane 2)	15	22-Jul-21	07-Aug-21	25-Aug-21 A	15-Sep-21 A
Installation of ducting for PL, ATC and E&M	3	22-Jul-21	24-Jul-21	25-Aug-21 A	01-Sep-21 A



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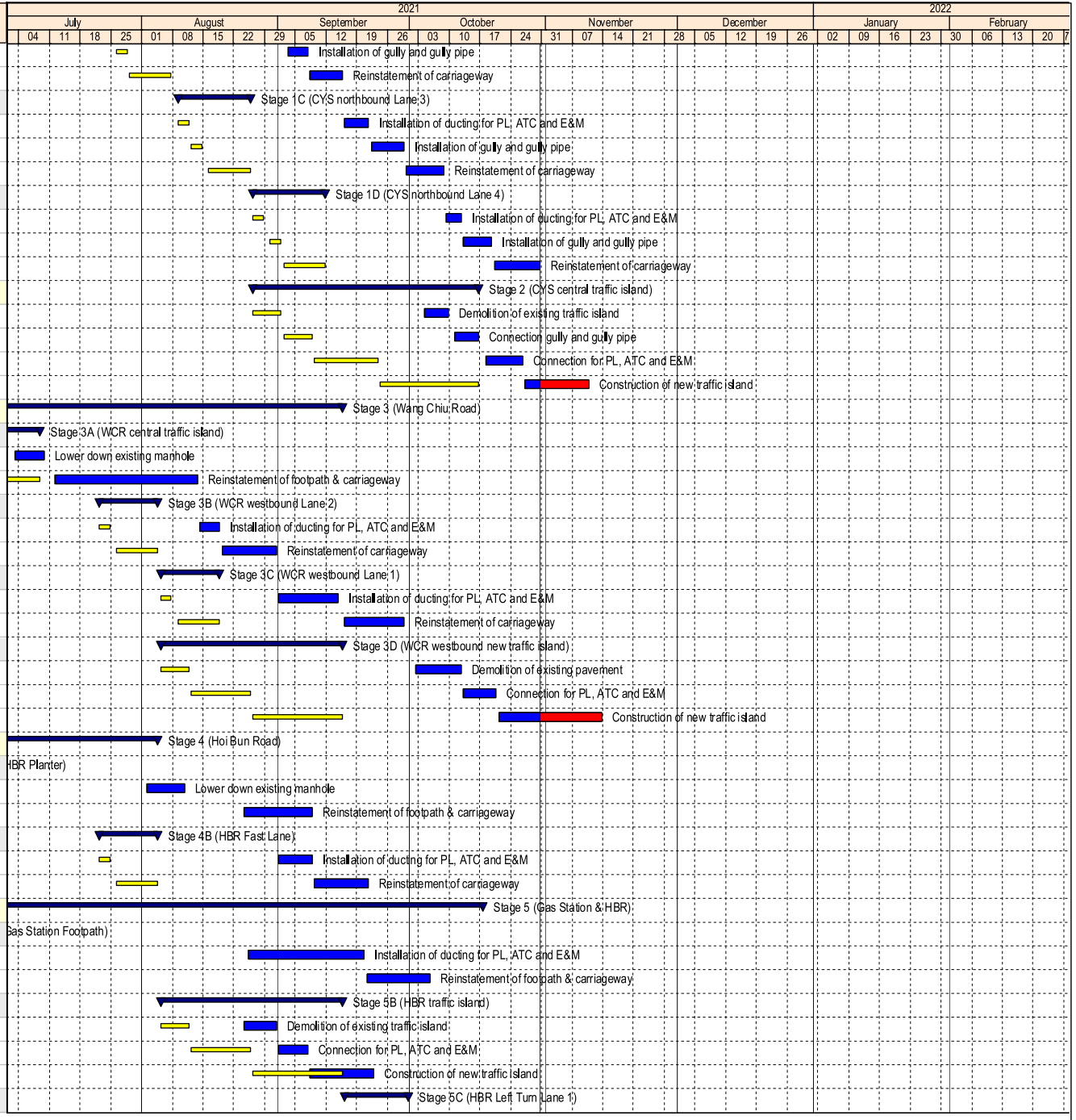
22-Feb-20	01V0	SPa/LLo	WYu
09-Apr-20	01V1	SPa/LLo	WYu
17-Jul-20	01V2	SPa/LLo	WYu
09-Oct-20	01V3	SPa/LLo	WYu
02-Jul-21	02V0	SPa/LLo	WYu

Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish
Installation of gully and gully pipe	3	26-Jul-21	28-Jul-21	03-Sep-21 A	07-Sep-21 A
Reinstatement of carriageway	9	29-Jul-21	07-Aug-21	08-Sep-21 A	15-Sep-21 A
Stage 1C (CYS northbound Lane 3)	15	09-Aug-21	25-Aug-21	16-Sep-21 A	08-Oct-21 A
Installation of ducting for PL, ATC and E&M	3	09-Aug-21	11-Aug-21	16-Sep-21 A	21-Sep-21 A
Installation of gully and gully pipe	3	12-Aug-21	14-Aug-21	22-Sep-21 A	29-Sep-21 A
Reinstatement of carriageway	9	16-Aug-21	25-Aug-21	30-Sep-21 A	08-Oct-21 A
Stage 1D (CYS northbound Lane 4)	15	26-Aug-21	11-Sep-21	09-Oct-21 A	30-Oct-21 A
Installation of ducting for PL, ATC and E&M	3	26-Aug-21	28-Aug-21	09-Oct-21 A	12-Oct-21 A
Installation of gully and gully pipe	3	30-Aug-21	01-Sep-21	13-Oct-21 A	19-Oct-21 A
Reinstatement of carriageway	9	02-Sep-21	11-Sep-21	20-Oct-21 A	30-Oct-21 A
Stage 2 (CYS central traffic island)	42	26-Aug-21	16-Oct-21	04-Oct-21 A	10-Nov-21
Demolition of existing traffic island	6	26-Aug-21	01-Sep-21	04-Oct-21 A	09-Oct-21 A
Connection gully and gully pipe	6	02-Sep-21	08-Sep-21	11-Oct-21 A	16-Oct-21 A
Connection for PL, ATC and E&M	12	09-Sep-21	23-Sep-21	18-Oct-21 A	26-Oct-21 A
Construction of new traffic island	18	24-Sep-21	16-Oct-21	27-Oct-21 A	10-Nov-21
Stage 3 (Wang Chiu Road)	164	27-Feb-21	15-Sep-21	03-Jul-21 A	13-Nov-21
Stage 3A (WCR central traffic island)	105	27-Feb-21	08-Jul-21	03-Jul-21 A	13-Aug-21 A
Lower down existing manhole	6	27-Feb-21	05-Mar-21	03-Jul-21 A	09-Jul-21 A
Reinstatement of footpath & carriageway	24	09-Jun-21	08-Jul-21	12-Jul-21 A	13-Aug-21 A
Stage 3B (WCR westbound Lane 2)	12	22-Jul-21	04-Aug-21	14-Aug-21 A	31-Aug-21 A
Installation of ducting for PL, ATC and E&M	3	22-Jul-21	24-Jul-21	14-Aug-21 A	18-Aug-21 A
Reinstatement of carriageway	9	26-Jul-21	04-Aug-21	19-Aug-21 A	31-Aug-21 A
Stage 3C (WCR westbound Lane 1)	12	05-Aug-21	18-Aug-21	01-Sep-21 A	29-Sep-21 A
Installation of ducting for PL, ATC and E&M	3	05-Aug-21	07-Aug-21	01-Sep-21 A	14-Sep-21 A
Reinstatement of carriageway	9	09-Aug-21	18-Aug-21	16-Sep-21 A	29-Sep-21 A
Stage 3D (WCR westbound new traffic island)	36	05-Aug-21	15-Sep-21	02-Oct-21 A	13-Nov-21
Demolition of existing pavement	6	05-Aug-21	11-Aug-21	02-Oct-21 A	12-Oct-21 A
Connection for PL, ATC and E&M	12	12-Aug-21	25-Aug-21	13-Oct-21 A	20-Oct-21 A
Construction of new traffic island	18	26-Aug-21	15-Sep-21	21-Oct-21 A	13-Nov-21
Stage 4 (Hoi Bun Road)	125	03-Mar-21	04-Aug-21	02-Aug-21 A	21-Sep-21 A
Stage 4A (HBR Planter)	84	03-Mar-21	16-Jun-21	02-Aug-21 A	08-Sep-21 A
Lower down existing manhole	6	03-Mar-21	09-Mar-21	02-Aug-21 A	10-Aug-21 A
Reinstatement of footpath & carriageway	24	18-May-21	16-Jun-21	24-Aug-21 A	08-Sep-21 A
Stage 4B (HBR Fast Lane)	12	22-Jul-21	04-Aug-21	01-Sep-21 A	21-Sep-21 A
Installation of ducting for PL, ATC and E&M	3	22-Jul-21	24-Jul-21	01-Sep-21 A	08-Sep-21 A
Reinstatement of carriageway	9	26-Jul-21	04-Aug-21	09-Sep-21 A	21-Sep-21 A
Stage 5 (Gas Station & HBR)	179	10-Mar-21	17-Oct-21	24-Aug-21 A	13-Nov-21
Stage 5A (Gas Station Footpath)	78	10-Mar-21	16-Jun-21	25-Aug-21 A	05-Oct-21 A
Installation of ducting for PL, ATC and E&M	6	10-Mar-21	16-Mar-21	25-Aug-21 A	20-Sep-21 A
Reinstatement of footpath & carriageway	24	18-May-21	16-Jun-21	21-Sep-21 A	05-Oct-21 A
Stage 5B (HBR traffic island)	36	05-Aug-21	15-Sep-21	24-Aug-21 A	22-Sep-21 A
Demolition of existing traffic island	6	05-Aug-21	11-Aug-21	24-Aug-21 A	31-Aug-21 A
Connection for PL, ATC and E&M	12	12-Aug-21	25-Aug-21	01-Sep-21 A	07-Sep-21 A
Construction of new traffic island	18	26-Aug-21	15-Sep-21	08-Sep-21 A	22-Sep-21 A
Stage 5C (HBR Left Turn Lane 1)	12	16-Sep-21	30-Sep-21	30-Sep-21 A	23-Oct-21 A



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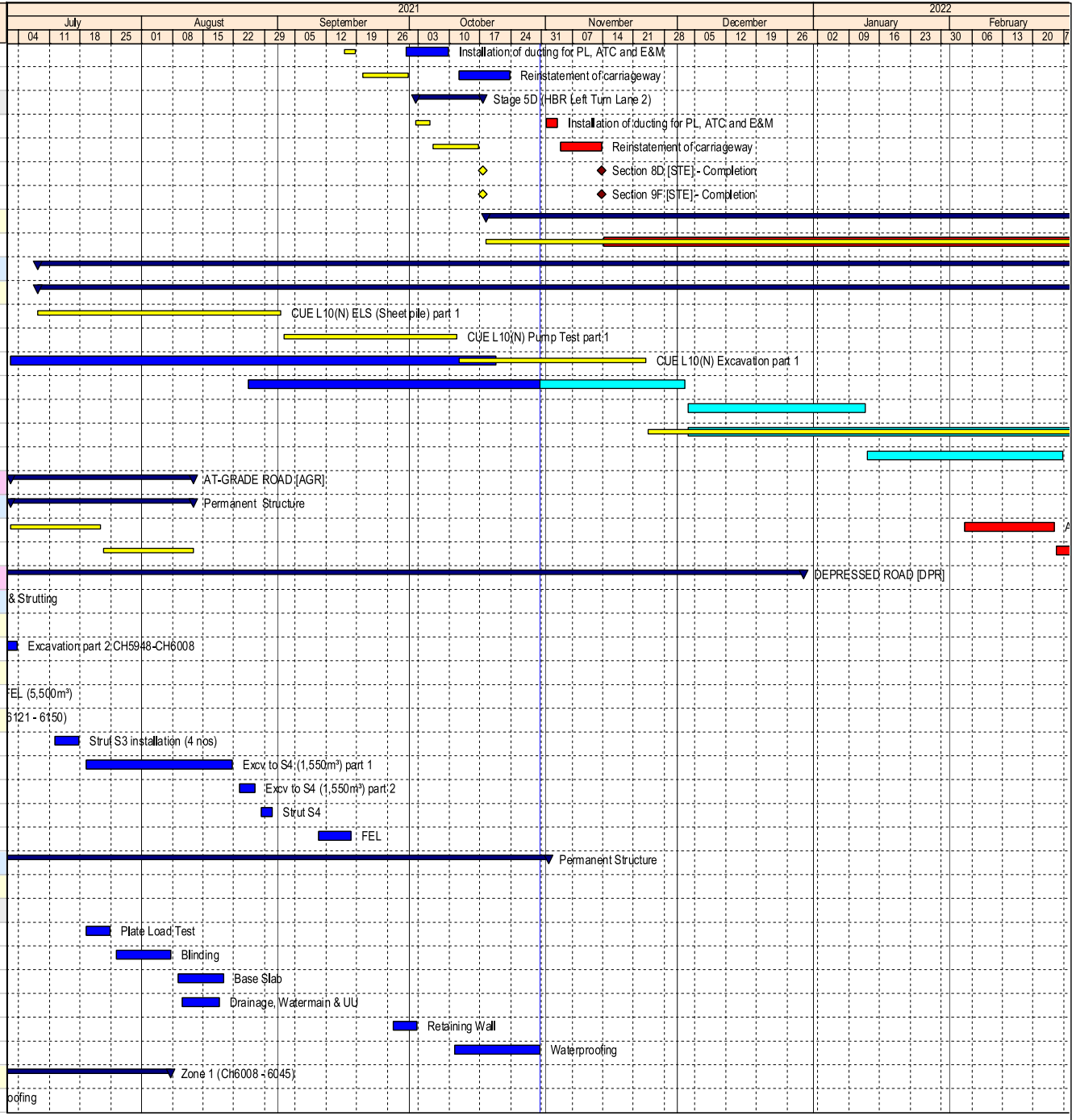
09-Oct-20	01V3	SPa/LLo	WYu
02-Jul-21	02V0	SPa/LLo	WYu

Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish
Installation of ducting for PL, ATC and E&M	3	16-Sep-21	18-Sep-21	30-Sep-21 A	09-Oct-21 A
Reinstatement of carriageway	9	20-Sep-21	30-Sep-21	12-Oct-21 A	23-Oct-21 A
Stage 5D (HBR Left Turn Lane 2)	12	02-Oct-21	17-Oct-21	01-Nov-21	13-Nov-21
Installation of ducting for PL, ATC and E&M	3	02-Oct-21	05-Oct-21	01-Nov-21	03-Nov-21
Reinstatement of carriageway	9	06-Oct-21	16-Oct-21	04-Nov-21	13-Nov-21
Section 8D [STE] - Completion	0		17-Oct-21		13-Nov-21*
Section 9F [STE] - Completion	0		17-Oct-21		13-Nov-21*
Establishment	365	18-Oct-21	17-Oct-22	14-Nov-21	13-Nov-22
HBR / CYS / WCR Junction Modification - Establishment works	365	18-Oct-21	17-Oct-22	14-Nov-21	13-Nov-22
[STE] Road L10 (Northern)	337	08-Jul-21	24-Aug-22	23-Dec-20 A	19-Apr-22
CUE	337	08-Jul-21	24-Aug-22	23-Dec-20 A	19-Apr-22
CUE L10(N) ELS (Sheet pile) part 1	48	08-Jul-21	01-Sep-21	23-Dec-20 A	30-Jun-21 A
CUE L10(N) Pump Test part 1	32	02-Sep-21	11-Oct-21	30-Jun-21 A	30-Jun-21 A
CUE L10(N) Excavation part 1	36	12-Oct-21	23-Nov-21	02-Jul-21 A	20-Oct-21 A
CUE L10(N) ELS (Sheet pile) part 2	45	07-Apr-22	04-Jun-22	25-Aug-21 A	02-Dec-21
CUE L10(N) Pump Test part 2	32	06-Jun-22	13-Jul-22	03-Dec-21	12-Jan-22
CUE L10(N) Structure part 1	108	24-Nov-21	06-Apr-22	03-Dec-21	19-Apr-22
CUE L10(N) Excavation part 2	36	14-Jul-22	24-Aug-22	13-Jan-22	26-Feb-22
AT-GRADE ROAD [AGR]	36	02-Jul-21	12-Aug-21	04-Feb-22	17-Mar-22
Permanent Structure	36	02-Jul-21	12-Aug-21	04-Feb-22	17-Mar-22
AGR - Formation to required level + SRT	18	02-Jul-21	22-Jul-21	04-Feb-22*	24-Feb-22
AGR - Sub-base + SRT	18	23-Jul-21	12-Aug-21	25-Feb-22	17-Mar-22
DEPRESSED ROAD [DPR]	246	03-Mar-21	29-Dec-21	13-May-21 A	25-Mar-22
Excavation & Strutting	77	11-Mar-21	16-Jun-21	17-May-21 A	17-Sep-21 A
Shallow Section (46m)	5	11-Mar-21	16-Mar-21	28-Jun-21 A	03-Jul-21 A
Excavation part 2 CH5948-CH6008	5	11-Mar-21	16-Mar-21	28-Jun-21 A	03-Jul-21 A
Zone 3 (Ch6080 - 6121)	9	16-Apr-21	26-Apr-21	17-May-21 A	19-Jun-21 A
Excv to FEL (5,500m³)	9	16-Apr-21	26-Apr-21	17-May-21 A	19-Jun-21 A
Zone 4 (Ch6121 - 6150)	44	23-Apr-21	16-Jun-21	12-Jul-21 A	17-Sep-21 A
Strut S3 installation (4 nos)	8	23-Apr-21	03-May-21	12-Jul-21 A	17-Jul-21 A
Excv to S4 (1,550m³) part 1	3	04-May-21	06-May-21	19-Jul-21 A	21-Aug-21 A
Excv to S4 (1,550m³) part 2	4	07-May-21	11-May-21	23-Aug-21 A	26-Aug-21 A
Strut S4	4	04-Jun-21	08-Jun-21	28-Aug-21 A	30-Aug-21 A
FEL	6	09-Jun-21	16-Jun-21	10-Sep-21 A	17-Sep-21 A
Permanent Structure	198	03-Mar-21	01-Nov-21	13-May-21 A	25-Jan-22
Shallow Section	53	17-Mar-21	24-May-21	19-Jul-21 A	30-Oct-21 A
Part 2 (Ch5997 - 6008)	53	17-Mar-21	24-May-21	19-Jul-21 A	30-Oct-21 A
Plate Load Test	5	17-Mar-21	22-Mar-21	19-Jul-21 A	24-Jul-21 A
Blinding	9	23-Mar-21	01-Apr-21	26-Jul-21 A	07-Aug-21 A
Base Slab	12	07-Apr-21	20-Apr-21	09-Aug-21 A	19-Aug-21 A
Drainage, Watermain & UU	10	08-Apr-21	19-Apr-21	10-Aug-21 A	18-Aug-21 A
Retaining Wall	18	21-Apr-21	12-May-21	27-Sep-21 A	02-Oct-21 A
Waterproofing	9	13-May-21	24-May-21	11-Oct-21 A	30-Oct-21 A
Zone 1 (Ch6008 - 6045)	108	26-Mar-21	07-Aug-21	13-May-21 A	17-Nov-21
Blinding & Waterproofing	9	26-Mar-21	09-Apr-21	13-May-21 A	08-Jun-21 A



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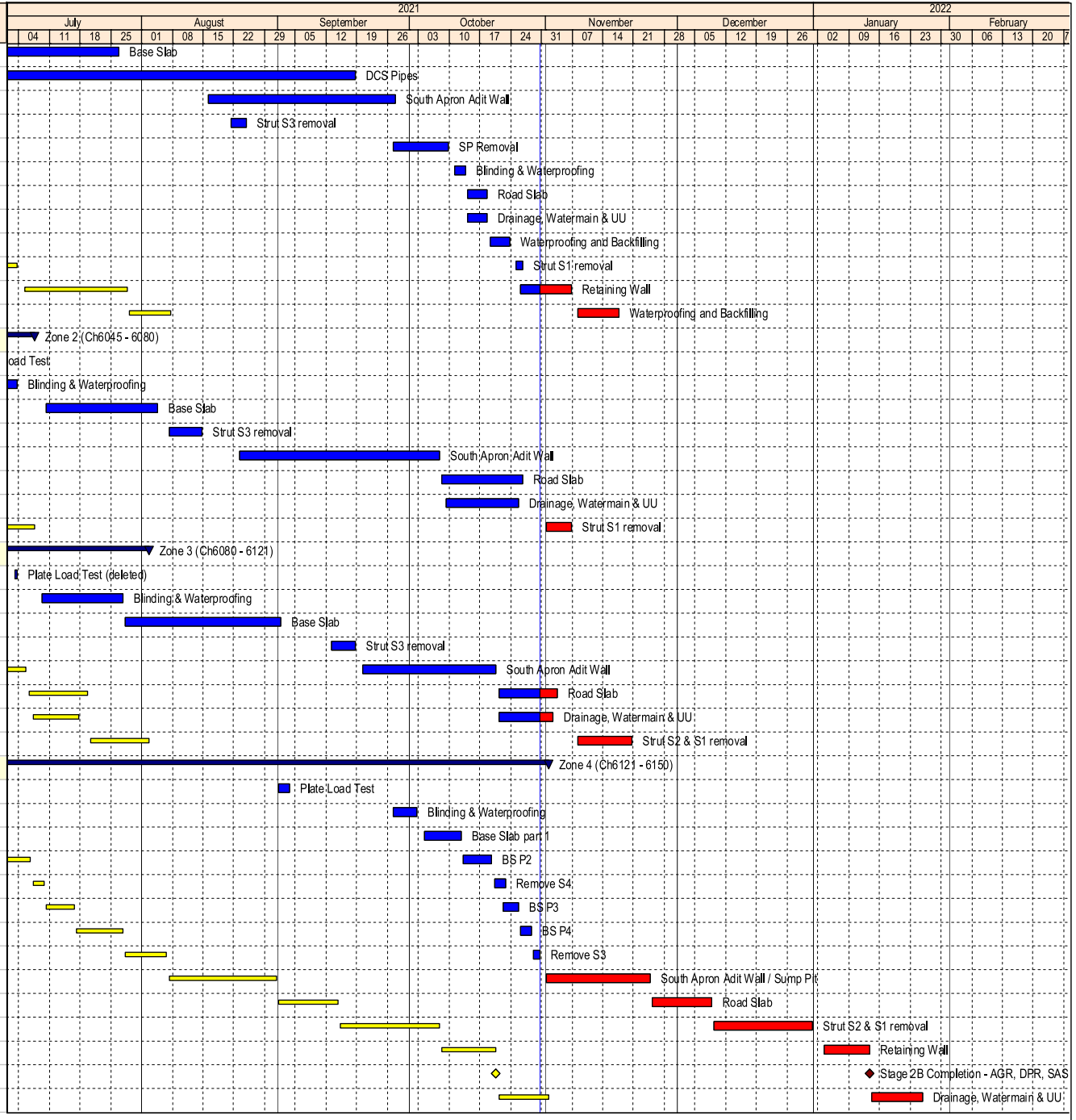
09-Oct-20	01V3	SPa/LLo	WYu
02-Jul-21	02V0	SPa/LLo	WYu

Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish
Base Slab	15	10-Apr-21	27-Apr-21	09-Jun-21 A	26-Jul-21 A
DCS Pipes	18	26-Mar-21	20-Apr-21	21-Jun-21 A	18-Sep-21 A
South Apron Adit Wall	21	06-May-21	31-May-21	16-Aug-21 A	27-Sep-21 A
Strut S3 removal	6	28-Apr-21	05-May-21	21-Aug-21 A	24-Aug-21 A
SP Removal	6	06-May-21	12-May-21	27-Sep-21 A	09-Oct-21 A
Blinding & Waterproofing	6	13-May-21	20-May-21	11-Oct-21 A	13-Oct-21 A
Road Slab	12	01-Jun-21	15-Jun-21	14-Oct-21 A	18-Oct-21 A
Drainage, Watermain & UU	10	02-Jun-21	12-Jun-21	14-Oct-21 A	18-Oct-21 A
Waterproofing and Backfilling	9	16-Jun-21	25-Jun-21	19-Oct-21 A	23-Oct-21 A
Strut S1 removal	6	26-Jun-21	03-Jul-21	25-Oct-21 A	26-Oct-21 A
Retaining Wall	21	05-Jul-21	28-Jul-21	26-Oct-21 A	06-Nov-21
Waterproofing and Backfilling	9	29-Jul-21	07-Aug-21	08-Nov-21	17-Nov-21
Zone 2 (Ch6045 - 6080)	74	08-Apr-21	07-Jul-21	15-Jun-21 A	06-Nov-21
Plate Load Test	5	08-Apr-21	13-Apr-21	15-Jun-21 A	21-Jun-21 A
Blinding & Waterproofing	9	14-Apr-21	23-Apr-21	22-Jun-21 A	03-Jul-21 A
Base Slab	15	24-Apr-21	12-May-21	10-Jul-21 A	04-Aug-21 A
Strut S3 removal	6	13-May-21	20-May-21	07-Aug-21 A	14-Aug-21 A
South Apron Adit Wall	21	21-May-21	15-Jun-21	23-Aug-21 A	07-Oct-21 A
Road Slab	12	16-Jun-21	29-Jun-21	08-Oct-21 A	26-Oct-21 A
Drainage, Watermain & UU	9	17-Jun-21	26-Jun-21	09-Oct-21 A	25-Oct-21 A
Strut S1 removal	6	30-Jun-21	07-Jul-21	01-Nov-21	06-Nov-21
Zone 3 (Ch6080 - 6121)	80	27-Apr-21	02-Aug-21	03-Jul-21 A	20-Nov-21
Plate Load Test (deleted)	5	27-Apr-21	03-May-21	03-Jul-21 A	03-Jul-21 A
Blinding & Waterproofing	9	04-May-21	13-May-21	09-Jul-21 A	27-Jul-21 A
Base Slab	15	14-May-21	01-Jun-21	28-Jul-21 A	01-Sep-21 A
Strut S3 removal	6	02-Jun-21	08-Jun-21	13-Sep-21 A	18-Sep-21 A
South Apron Adit Wall	21	09-Jun-21	05-Jul-21	20-Sep-21 A	20-Oct-21 A
Road Slab	12	06-Jul-21	19-Jul-21	21-Oct-21 A	03-Nov-21
Drainage, Watermain & UU	10	07-Jul-21	17-Jul-21	21-Oct-21 A	02-Nov-21
Strut S2 & S1 removal	12	20-Jul-21	02-Aug-21	08-Nov-21	20-Nov-21
Zone 4 (Ch6121 - 6150)	147	07-May-21	01-Nov-21	01-Sep-21 A	25-Jan-22
Plate Load Test	5	07-May-21	12-May-21	01-Sep-21 A	03-Sep-21 A
Blinding & Waterproofing	6	13-May-21	20-May-21	27-Sep-21 A	02-Oct-21 A
Base Slab part 1	12	21-May-21	03-Jun-21	04-Oct-21 A	12-Oct-21 A
BS P2	9	25-Jun-21	06-Jul-21	13-Oct-21 A	19-Oct-21 A
Remove S4	3	07-Jul-21	09-Jul-21	20-Oct-21 A	22-Oct-21 A
BS P3	6	10-Jul-21	16-Jul-21	22-Oct-21 A	25-Oct-21 A
BS P4	9	17-Jul-21	27-Jul-21	26-Oct-21 A	28-Oct-21 A
Remove S3	9	28-Jul-21	06-Aug-21	29-Oct-21 A	30-Oct-21 A
South Apron Adit Wall / Sump Pit	21	07-Aug-21	31-Aug-21	01-Nov-21	24-Nov-21
Road Slab	12	01-Sep-21	14-Sep-21	25-Nov-21	08-Dec-21
Strut S2 & S1 removal	18	15-Sep-21	07-Oct-21	09-Dec-21	31-Dec-21
Retaining Wall	10	08-Oct-21	20-Oct-21	03-Jan-22	13-Jan-22
Stage 2B Completion - AGR, DPR, SAS, C&C & LS for TBM Access	0		20-Oct-21		13-Jan-22
Drainage, Watermain & UU	10	21-Oct-21	01-Nov-21	14-Jan-22	25-Jan-22



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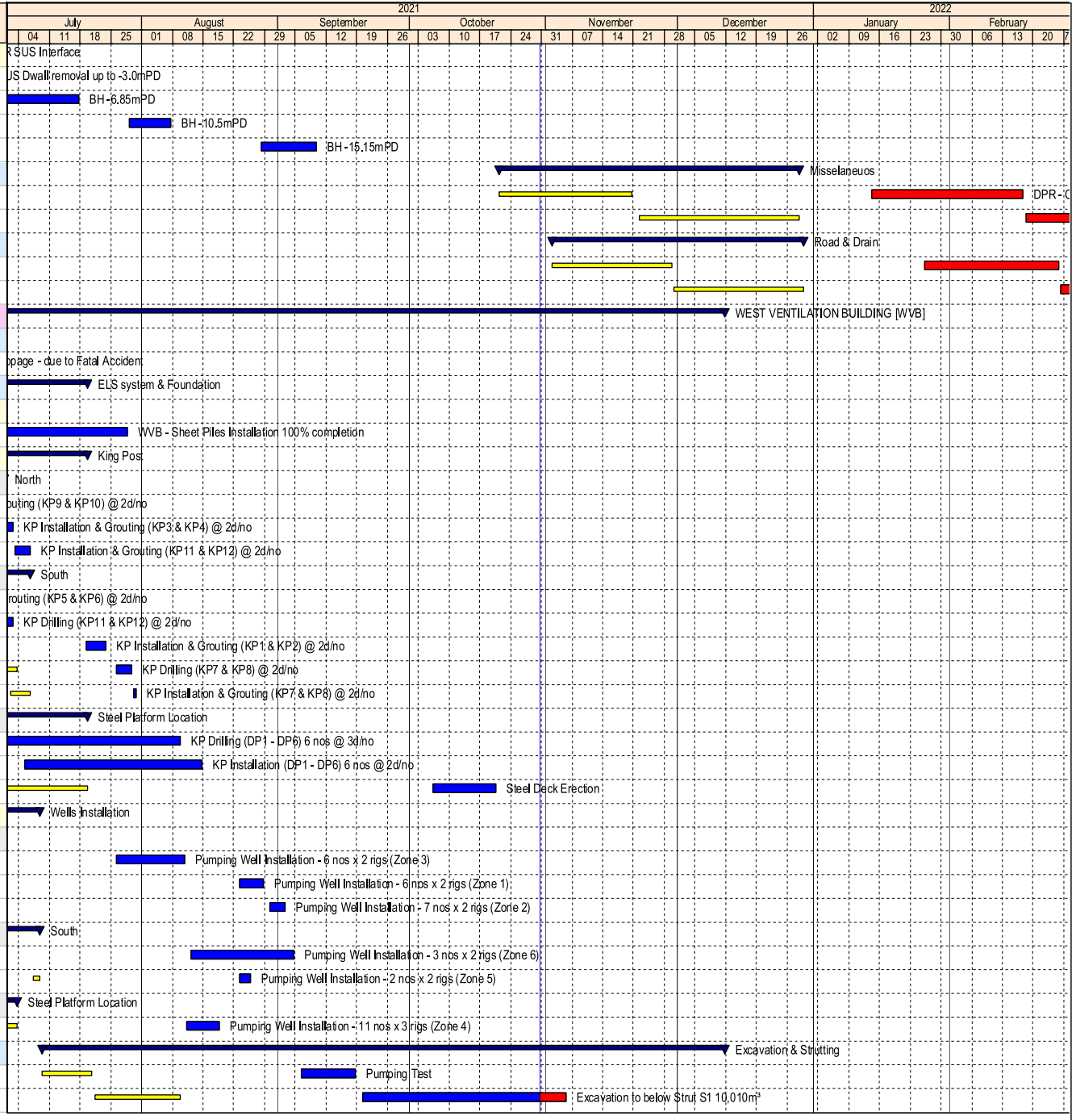
09-Oct-20	01V3	SPa/LLo	WYu
02-Jul-21	02V0	SPa/LLo	WYu

Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish
DPR SUS Interface	91	03-Mar-21	24-Jun-21	21-Jun-21 A	09-Sep-21 A
SUS Dwall removal up to -3.0mPD	9	03-Mar-21	12-Mar-21	21-Jun-21 A	26-Jun-21 A
BH -6.85mPD	6	16-Apr-21	22-Apr-21	29-Jun-21 A	17-Jul-21 A
BH -10.5mPD	6	07-May-21	13-May-21	29-Jul-21 A	07-Aug-21 A
BH -15.15mPD	7	17-Jun-21	24-Jun-21	28-Aug-21 A	09-Sep-21 A
Misselaneuos	57	21-Oct-21	28-Dec-21	14-Jan-22	24-Mar-22
DPR - CH6080-6150 - Sheet Pile cutting	27	21-Oct-21	20-Nov-21	14-Jan-22	17-Feb-22
DPR - CH6080-6150 - Reinstatement Works	30	22-Nov-21	28-Dec-21	18-Feb-22	24-Mar-22
Road & Drain	48	02-Nov-21	29-Dec-21	26-Jan-22	25-Mar-22
DPR - Drainage, Watermains & UU Installation CH5962-6080	24	02-Nov-21	29-Nov-21	26-Jan-22	25-Feb-22
DPR - Drainage, Watermains & UU Installation CH6080-6150	24	30-Nov-21	29-Dec-21	26-Feb-22	25-Mar-22
WEST VENTILATION BUILDING [WVB]	201	14-Apr-21	11-Dec-21	11-Mar-21 A	11-Mar-22
Delay Events	0			21-Apr-21 A	12-Jun-21 A
KP Drilling Stoppage - due to Fatal Accident	0			21-Apr-21 A	12-Jun-21 A
ELS system & Foundation	79	14-Apr-21	19-Jul-21	11-Mar-21 A	20-Oct-21 A
Sheet Pile	48	14-Apr-21	10-Jun-21	11-Mar-21 A	28-Jul-21 A
WVB - Sheet Piles Installation 100% completion	48	14-Apr-21	10-Jun-21	11-Mar-21 A	28-Jul-21 A
King Post	53	15-May-21	19-Jul-21	07-Jun-21 A	20-Oct-21 A
North	38	15-May-21	30-Jun-21	07-Jun-21 A	06-Jul-21 A
KP Installation & Grouting (KP9 & KP10) @ 2d/no	4	31-May-21	03-Jun-21	07-Jun-21 A	07-Jun-21 A
KP Installation & Grouting (KP3 & KP4) @ 2d/no	4	15-May-21	20-May-21	26-Jun-21 A	02-Jul-21 A
KP Installation & Grouting (KP11 & KP12) @ 2d/no	4	26-Jun-21	30-Jun-21	03-Jul-21 A	06-Jul-21 A
South	38	21-May-21	06-Jul-21	08-Jun-21 A	30-Jul-21 A
KP Installation & Grouting (KP5 & KP6) @ 2d/no	4	21-May-21	25-May-21	08-Jun-21 A	08-Jun-21 A
KP Drilling (KP11 & KP12) @ 2d/no	4	24-Jun-21	28-Jun-21	28-Jun-21 A	02-Jul-21 A
KP Installation & Grouting (KP1 & KP2) @ 2d/no	4	26-May-21	29-May-21	19-Jul-21 A	23-Jul-21 A
KP Drilling (KP7 & KP8) @ 2d/no	4	29-Jun-21	03-Jul-21	26-Jul-21 A	29-Jul-21 A
KP Installation & Grouting (KP7 & KP8) @ 2d/no	4	02-Jul-21	06-Jul-21	30-Jul-21 A	30-Jul-21 A
Steel Platform Location	39	02-Jun-21	19-Jul-21	21-Jun-21 A	20-Oct-21 A
KP Drilling (DP1 - DP6) 6 nos @ 3d/no	18	02-Jun-21	23-Jun-21	21-Jun-21 A	09-Aug-21 A
KP Installation (DP1 - DP6) 6 nos @ 2d/no	18	05-Jun-21	26-Jun-21	05-Jul-21 A	14-Aug-21 A
Steel Deck Erection	18	28-Jun-21	19-Jul-21	06-Oct-21 A	20-Oct-21 A
Wells Installation	40	21-May-21	08-Jul-21	26-Jul-21 A	04-Sep-21 A
North	22	21-May-21	16-Jun-21	26-Jul-21 A	02-Sep-21 A
Pumping Well Installation - 6 nos x 2 rigs (Zone 3)	6	21-May-21	27-May-21	26-Jul-21 A	10-Aug-21 A
Pumping Well Installation - 6 nos x 2 rigs (Zone 1)	6	01-Jun-21	07-Jun-21	23-Aug-21 A	28-Aug-21 A
Pumping Well Installation - 7 nos x 2 rigs (Zone 2)	7	08-Jun-21	16-Jun-21	30-Aug-21 A	02-Sep-21 A
South	34	28-May-21	08-Jul-21	12-Aug-21 A	04-Sep-21 A
Pumping Well Installation - 3 nos x 2 rigs (Zone 6)	3	28-May-21	31-May-21	12-Aug-21 A	04-Sep-21 A
Pumping Well Installation - 2 nos x 2 rigs (Zone 5)	2	07-Jul-21	08-Jul-21	23-Aug-21 A	25-Aug-21 A
Steel Platform Location	8	24-Jun-21	03-Jul-21	11-Aug-21 A	18-Aug-21 A
Pumping Well Installation - 11 nos x 3 rigs (Zone 4)	8	24-Jun-21	03-Jul-21	11-Aug-21 A	18-Aug-21 A
Excavation & Strutting	131	09-Jul-21	11-Dec-21	06-Sep-21 A	11-Mar-22
Pumping Test	12	09-Jul-21	20-Jul-21	06-Sep-21 A	18-Sep-21 A
Excavation to below Strut S1 10,010m³	17	21-Jul-21	09-Aug-21	20-Sep-21 A	05-Nov-21



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Baseline Bar
Summary

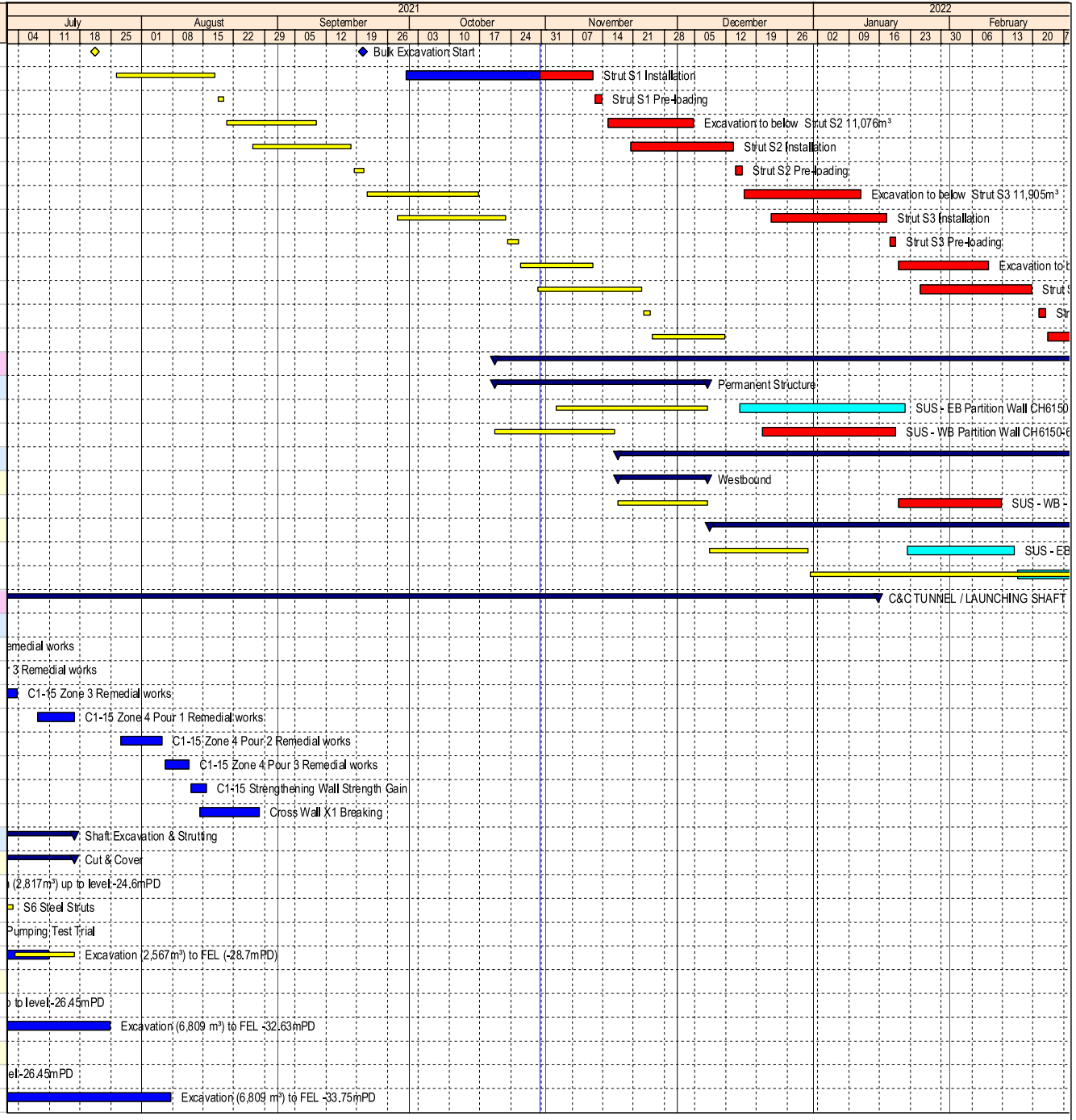
ED/2018/04 Trunk Road T2 and Infrastructure Works for Developments at South Apron

Three Months Rolling Programme (Oct-21)

BOUYGUES TRAVAUX PUBLICS

Date	Revision	Checked	Approved
18-Dec-19	00V1	WYu	
22-Feb-20	01V0	SPa/LLo	WYu
09-Apr-20	01V1	SPa/LLo	WYu
17-Jul-20	01V2	SPa/LLo	WYu
09-Oct-20	01V3	SPa/LLo	WYu
02-Jul-21	02V0	SPa/LLo	WYu

Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish
Bulk Excavation Start	0	21-Jul-21		20-Sep-21 A	
Strut S1 Installation	20	26-Jul-21	17-Aug-21	30-Sep-21 A	11-Nov-21
Strut S1 Pre-loading	2	18-Aug-21	19-Aug-21	12-Nov-21	13-Nov-21
Excavation to below Strut S2 11,076m³	18	20-Aug-21	09-Sep-21	15-Nov-21	04-Dec-21
Strut S2 Installation	20	26-Aug-21	17-Sep-21	20-Nov-21	13-Dec-21
Strut S2 Pre-loading	2	18-Sep-21	20-Sep-21	14-Dec-21	15-Dec-21
Excavation to below Strut S3 11,905m³	20	21-Sep-21	16-Oct-21	16-Dec-21	11-Jan-22
Strut S3 Installation	20	28-Sep-21	22-Oct-21	22-Dec-21	17-Jan-22
Strut S3 Pre-loading	2	23-Oct-21	25-Oct-21	18-Jan-22	19-Jan-22
Excavation to below Strut S4 8,930m³	15	26-Oct-21	11-Nov-21	20-Jan-22	09-Feb-22
Strut S4 Installation	20	30-Oct-21	22-Nov-21	25-Jan-22	19-Feb-22
Strut S4 Pre-loading	2	23-Nov-21	24-Nov-21	21-Feb-22	22-Feb-22
Excavation to FEL 9,230m³	15	25-Nov-21	11-Dec-21	23-Feb-22	11-Mar-22
SUPPORTING UNDERGROUND STRUCTURE [SUS	120	20-Oct-21	15-Mar-22	15-Dec-21	30-Apr-22
Permanent Structure	42	20-Oct-21	07-Dec-21	15-Dec-21	21-Jan-22
SUS - EB Partition Wall CH6150-6260	30	03-Nov-21	07-Dec-21	15-Dec-21*	21-Jan-22
SUS - WB Partition Wall CH6150-6237	24	20-Oct-21	16-Nov-21	20-Dec-21*	19-Jan-22
Tunnel Internal Structure & Finishing	96	17-Nov-21	15-Mar-22	20-Jan-22	30-Apr-22
Westbound	18	17-Nov-21	07-Dec-21	20-Jan-22	12-Feb-22
SUS - WB - ISCG Assembly	18	17-Nov-21	07-Dec-21	20-Jan-22	12-Feb-22
Eastbound	78	08-Dec-21	15-Mar-22	22-Jan-22	30-Apr-22
SUS - EB - ISCG Assembly	18	08-Dec-21	30-Dec-21	22-Jan-22	15-Feb-22
SUS - EB - Corbel Structure	60	31-Dec-21	15-Mar-22	16-Feb-22	30-Apr-22
C&C TUNNEL / LAUNCHING SHAFT [C&C / LS]	211	05-May-21	15-Jan-22	18-May-21 A	11-Mar-22
Delay Events	0			28-May-21 A	27-Aug-21 A
C1-15 Zone 2 Pour 2 Remedial works	0			28-May-21 A	03-Jun-21 A
C1-15 Zone 2 Pour 3 Remedial works	0			04-Jun-21 A	08-Jun-21 A
C1-15 Zone 3 Remedial works	0			27-Jun-21 A	03-Jul-21 A
C1-15 Zone 4 Pour 1 Remedial works	0			08-Jul-21 A	16-Jul-21 A
C1-15 Zone 4 Pour 2 Remedial works	0			27-Jul-21 A	05-Aug-21 A
C1-15 Zone 4 Pour 3 Remedial works	0			06-Aug-21 A	11-Aug-21 A
C1-15 Strengthening Wall Strength Gain	0			12-Aug-21 A	15-Aug-21 A
Cross Wall X1 Breaking	0			14-Aug-21 A	27-Aug-21 A
Shaft Excavation & Strutting	60	05-May-21	16-Jul-21	18-May-21 A	07-Aug-21 A
Cut & Cover	35	04-Jun-21	16-Jul-21	01-Jun-21 A	10-Jul-21 A
Excavation (2,817m³) up to level -24.6mPD	11	04-Jun-21	17-Jun-21	01-Jun-21 A	11-Jun-21 A
S6 Steel Struts	12	18-Jun-21	02-Jul-21	12-Jun-21 A	21-Jun-21 A
Pumping Test Trial	0			22-Jun-21 A	28-Jun-21 A
Excavation (2,567m³) to FEL (-28.7mPD)	12	03-Jul-21	16-Jul-21	29-Jun-21 A	10-Jul-21 A
Cell 2	24	05-May-21	02-Jun-21	18-May-21 A	24-Jul-21 A
Excavation up to level -26.45mPD	12	05-May-21	18-May-21	18-May-21 A	14-Jun-21 A
Excavation (6,809 m³) to FEL -32.63mPD	12	20-May-21	02-Jun-21	15-Jun-21 A	24-Jul-21 A
Cell 1	21	05-May-21	29-May-21	18-May-21 A	07-Aug-21 A
Excavation up to level -26.45mPD	12	05-May-21	18-May-21	18-May-21 A	07-Jun-21 A
Excavation (6,809 m³) to FEL -33.75mPD	9	20-May-21	29-May-21	08-Jun-21 A	07-Aug-21 A



Milestone
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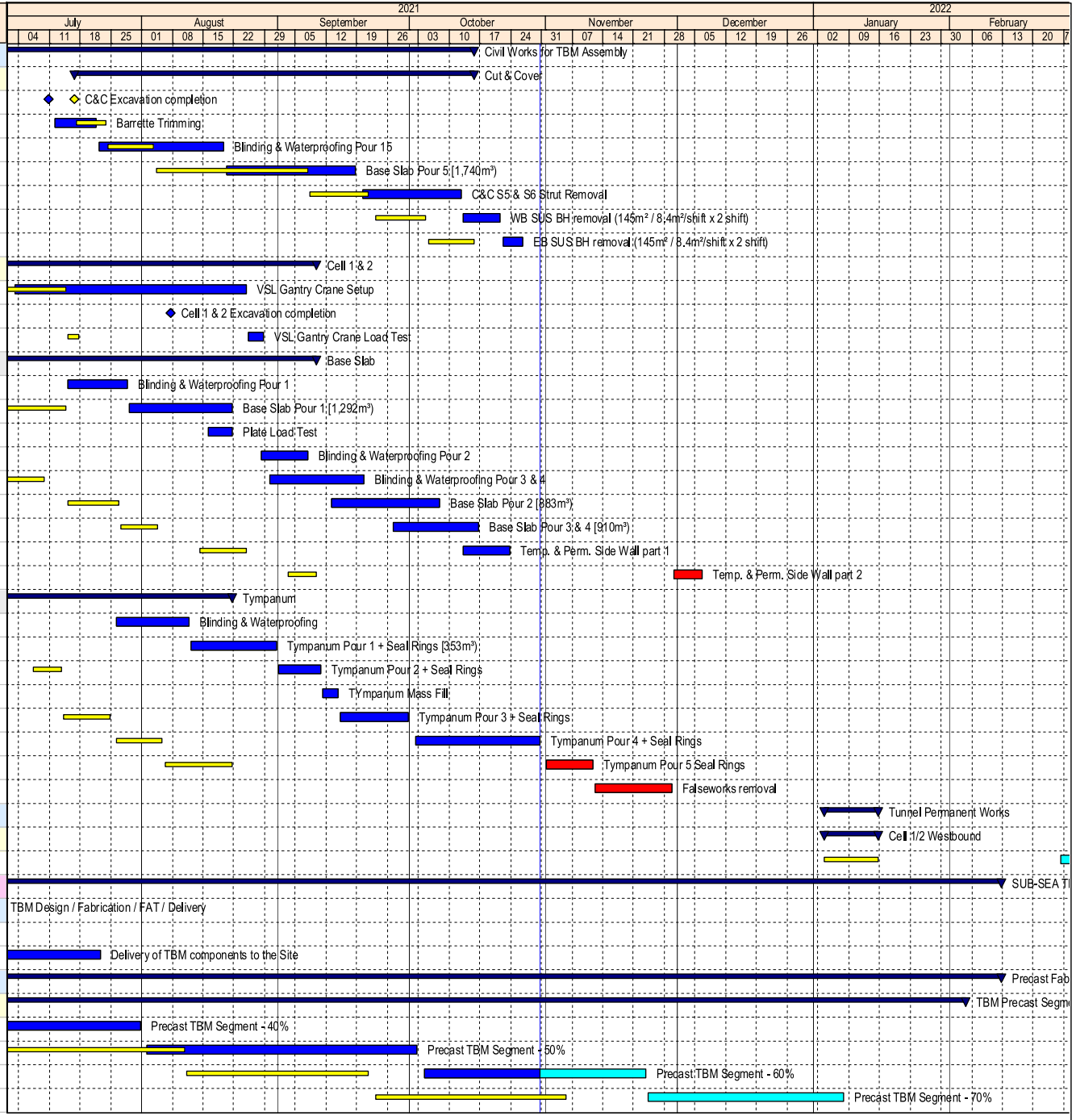
09-Oct-20	01V3	SPa/LLo	WYu
02-Jul-21	02V0	SPa/LLo	WYu

Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish
Civil Works for TBM Assembly	111	02-Jun-21	15-Oct-21	03-Jul-21 A	06-Dec-21
Cut & Cover	75	16-Jul-21	15-Oct-21	10-Jul-21 A	26-Oct-21 A
C&C Excavation completion	0		16-Jul-21		10-Jul-21 A
Barrette Trimming	6	17-Jul-21	23-Jul-21	12-Jul-21 A	21-Jul-21 A
Blinding & Waterproofing Pour 15	9	24-Jul-21	03-Aug-21	22-Jul-21 A	19-Aug-21 A
Base Slab Pour 5 [1,740m³)	30	04-Aug-21	07-Sep-21	20-Aug-21 A	18-Sep-21 A
C&C S5 & S6 Strut Removal	12	08-Sep-21	21-Sep-21	20-Sep-21 A	12-Oct-21 A
WB SUS BH removal (145m² / 8.4m²/shift x 2 shift)	9	23-Sep-21	04-Oct-21	13-Oct-21 A	21-Oct-21 A
EB SUS BH removal (145m² / 8.4m²/shift x 2 shift)	9	05-Oct-21	15-Oct-21	22-Oct-21 A	26-Oct-21 A
Cell 1 & 2	83	02-Jun-21	09-Sep-21	03-Jul-21 A	06-Dec-21
VSL Gantry Crane Setup	12	30-Jun-21	14-Jul-21	03-Jul-21 A	24-Aug-21 A
Cell 1 & 2 Excavation completion	0		02-Jun-21		07-Aug-21 A
VSL Gantry Crane Load Test	3	15-Jul-21	17-Jul-21	25-Aug-21 A	28-Aug-21 A
Base Slab	83	03-Jun-21	09-Sep-21	15-Jul-21 A	06-Dec-21
Blinding & Waterproofing Pour 1	6	10-Jun-21	17-Jun-21	15-Jul-21 A	28-Jul-21 A
Base Slab Pour 1 [1,292m³)	22	18-Jun-21	14-Jul-21	29-Jul-21 A	21-Aug-21 A
Plate Load Test	6	03-Jun-21	09-Jun-21	16-Aug-21 A	21-Aug-21 A
Blinding & Waterproofing Pour 2	9	18-Jun-21	28-Jun-21	28-Aug-21 A	07-Sep-21 A
Blinding & Waterproofing Pour 3 & 4	9	29-Jun-21	09-Jul-21	30-Aug-21 A	20-Sep-21 A
Base Slab Pour 2 [883m³)	10	15-Jul-21	26-Jul-21	13-Sep-21 A	07-Oct-21 A
Base Slab Pour 3 & 4 [910m³)	8	27-Jul-21	04-Aug-21	27-Sep-21 A	16-Oct-21 A
Temp. & Perm. Side Wall part 1	9	14-Aug-21	24-Aug-21	13-Oct-21 A	23-Oct-21 A
Temp. & Perm. Side Wall part 2	6	03-Sep-21	09-Sep-21	30-Nov-21	06-Dec-21
Tympanum	67	03-Jun-21	21-Aug-21	26-Jul-21 A	29-Nov-21
Blinding & Waterproofing	9	03-Jun-21	12-Jun-21	26-Jul-21 A	11-Aug-21 A
Tympanum Pour 1 + Seal Rings [353m³)	12	15-Jun-21	28-Jun-21	12-Aug-21 A	31-Aug-21 A
Tympanum Pour 2 + Seal Rings	6	07-Jul-21	13-Jul-21	01-Sep-21 A	10-Sep-21 A
TYmpanum Mass Fill	0			11-Sep-21 A	14-Sep-21 A
Tympanum Pour 3 + Seal Rings	10	14-Jul-21	24-Jul-21	15-Sep-21 A	30-Sep-21 A
Tympanum Pour 4 + Seal Rings	10	26-Jul-21	05-Aug-21	02-Oct-21 A	30-Oct-21 A
Tympanum Pour 5 Seal Rings	14	06-Aug-21	21-Aug-21	01-Nov-21	11-Nov-21
Falseworks removal	0			12-Nov-21	29-Nov-21
Tunnel Permanent Works	12	03-Jan-22	15-Jan-22	26-Feb-22	11-Mar-22
Cell 1/2 Westbound	12	03-Jan-22	15-Jan-22	26-Feb-22	11-Mar-22
WB Thrust Frame Dismantling	12	03-Jan-22	15-Jan-22	26-Feb-22	11-Mar-22
SUB-SEA TBM TUNNEL - WESTBOUND	380	31-Oct-20	12-Feb-22	27-Oct-20 A	06-Apr-22
TBM Design / Fabrication / FAT / Delivery	72	30-Mar-21	29-Jun-21	15-May-21 A	22-Jul-21 A
FAT	24	30-Mar-21	30-Apr-21	15-May-21 A	09-Jun-21 A
Delivery of TBM components to the Site	48	03-May-21	29-Jun-21	10-Jun-21 A	22-Jul-21 A
Precast Fabrication	223	15-May-21	12-Feb-22	31-May-21 A	06-Apr-22
TBM Precast Segments	216	15-May-21	04-Feb-22	31-May-21 A	06-Apr-22
Precast TBM Segment - 40%	36	15-May-21	28-Jun-21	31-May-21 A	31-Jul-21 A
Precast TBM Segment - 50%	36	29-Jun-21	10-Aug-21	02-Aug-21 A	02-Oct-21 A
Precast TBM Segment - 60%	36	11-Aug-21	21-Sep-21	04-Oct-21 A	23-Nov-21
Precast TBM Segment - 70%	36	23-Sep-21	05-Nov-21	24-Nov-21	07-Jan-22



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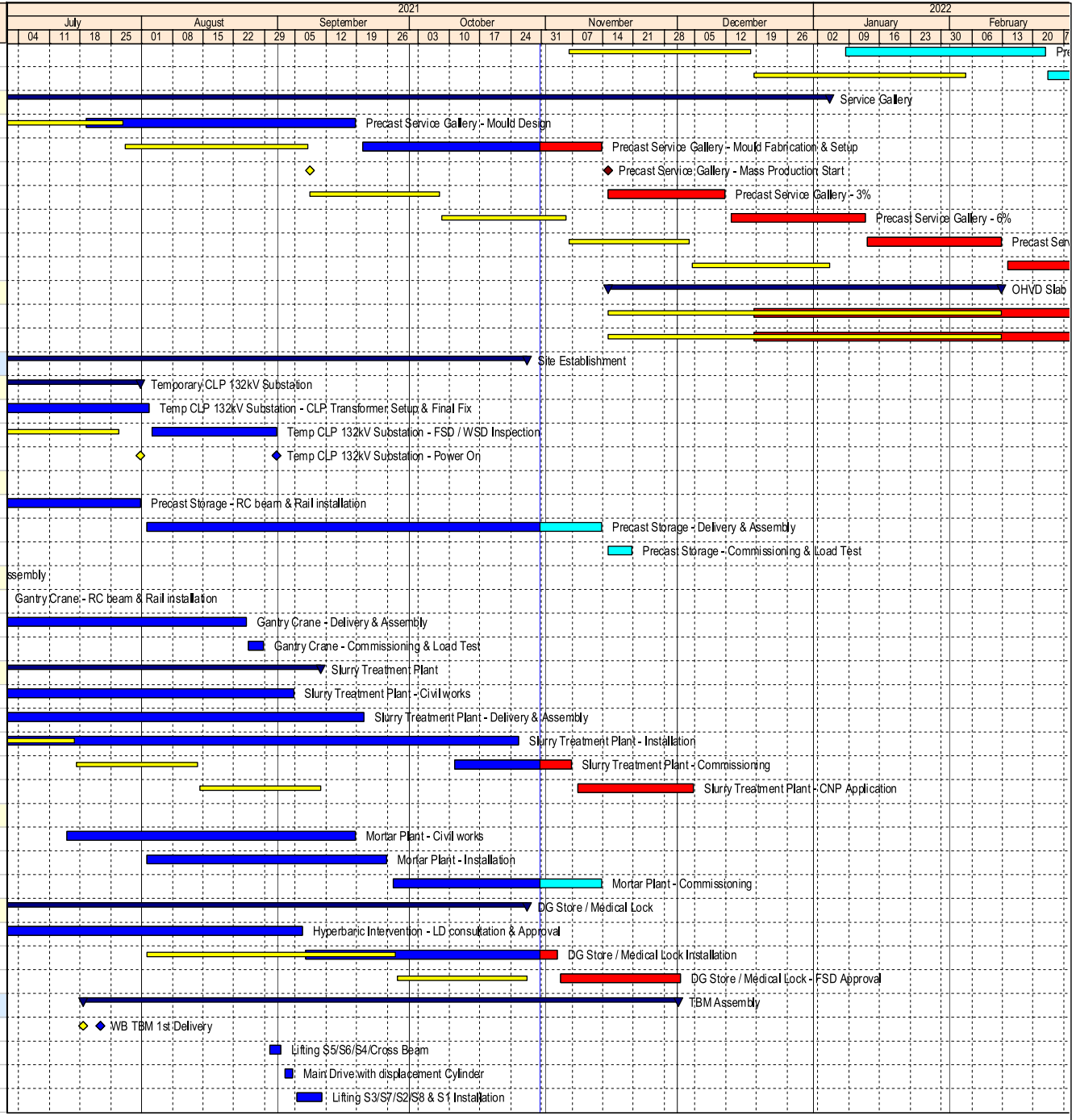
09-Oct-20	01V3	SPa/LLo	WYu
02-Jul-21	02V0	SPa/LLo	WYu

Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish
Precast TBM Segment - 80%	36	06-Nov-21	17-Dec-21	08-Jan-22	22-Feb-22
Precast TBM Segment - 90%	36	18-Dec-21	04-Feb-22	23-Feb-22	06-Apr-22
Service Gallery	156	29-Jun-21	04-Jan-22	19-Jul-21 A	12-Mar-22
Precast Service Gallery - Mould Design	24	29-Jun-21	27-Jul-21	19-Jul-21 A	18-Sep-21 A
Precast Service Gallery - Mould Fabrication & Setup	36	28-Jul-21	07-Sep-21	20-Sep-21 A	13-Nov-21
Precast Service Gallery - Mass Production Start	0	08-Sep-21		15-Nov-21	
Precast Service Gallery - 3%	24	08-Sep-21	07-Oct-21	15-Nov-21	11-Dec-21
Precast Service Gallery - 6%	24	08-Oct-21	05-Nov-21	13-Dec-21	12-Jan-22
Precast Service Gallery - 10%	24	06-Nov-21	03-Dec-21	13-Jan-22	12-Feb-22
Precast Service Gallery - 20%	24	04-Dec-21	04-Jan-22	14-Feb-22	12-Mar-22
OHVD Slab	72	15-Nov-21	12-Feb-22	18-Dec-21	18-Mar-22
Concrete Mix - Plant Trial	72	15-Nov-21	12-Feb-22	18-Dec-21*	18-Mar-22
Precast OHVD Slab - Mould Fabrication & Setup	72	15-Nov-21	12-Feb-22	18-Dec-21*	18-Mar-22
Site Establishment	293	31-Oct-20	27-Oct-21	27-Oct-20 A	04-Dec-21
Temporary CLP 132kV Substation	221	31-Oct-20	31-Jul-21	27-Oct-20 A	31-Aug-21 A
Temp CLP 132kV Substation - CLP Transformer Setup & Final Fix	192	31-Oct-20	26-Jun-21	27-Oct-20 A	02-Aug-21 A
Temp CLP 132kV Substation - FSD / WSD Inspection	24	28-Jun-21	26-Jul-21	03-Aug-21 A	31-Aug-21 A
Temp CLP 132kV Substation - Power On	0		31-Jul-21		31-Aug-21 A
Precast Elements Storage Yard	66	02-Nov-20	20-Jan-21	07-Jun-21 A	20-Nov-21
Precast Storage - RC beam & Rail installation	24	02-Nov-20	28-Nov-20	07-Jun-21 A	31-Jul-21 A
Precast Storage - Delivery & Assembly	36	30-Nov-20	13-Jan-21	02-Aug-21 A	13-Nov-21
Precast Storage - Commissioning & Load Test	6	14-Jan-21	20-Jan-21	15-Nov-21	20-Nov-21
Gantry Crane Setup for TBM Assembly	66	04-Mar-21	26-May-21	21-May-21 A	28-Aug-21 A
Gantry Crane - RC beam & Rail installation	24	04-Mar-21	31-Mar-21	21-May-21 A	30-Jun-21 A
Gantry Crane - Delivery & Assembly	36	01-Apr-21	18-May-21	28-Jun-21 A	24-Aug-21 A
Gantry Crane - Commissioning & Load Test	6	20-May-21	26-May-21	25-Aug-21 A	28-Aug-21 A
Slurry Treatment Plant	156	04-Mar-21	10-Sep-21	18-Feb-21 A	04-Dec-21
Slurry Treatment Plant - Civil works	36	04-Mar-21	19-Apr-21	18-Feb-21 A	04-Sep-21 A
Slurry Treatment Plant - Delivery & Assembly	24	20-Apr-21	18-May-21	31-Mar-21 A	20-Sep-21 A
Slurry Treatment Plant - Installation	48	20-May-21	16-Jul-21	20-May-21 A	25-Oct-21 A
Slurry Treatment Plant - Commissioning	24	17-Jul-21	13-Aug-21	11-Oct-21 A	06-Nov-21
Slurry Treatment Plant - CNP Application	24	14-Aug-21	10-Sep-21	08-Nov-21	04-Dec-21
Mortar Plant	108	18-Jan-21	02-Jun-21	15-Jul-21 A	13-Nov-21
Mortar Plant - Civil works	36	18-Jan-21	04-Mar-21	15-Jul-21 A	18-Sep-21 A
Mortar Plant - Installation	48	04-Mar-21	04-May-21	02-Aug-21 A	25-Sep-21 A
Mortar Plant - Commissioning	24	05-May-21	02-Jun-21	27-Sep-21 A	13-Nov-21
DG Store / Medical Lock	267	01-Dec-20	27-Oct-21	01-Dec-20 A	01-Dec-21
Hyperbaric Intervention - LD consultation & Approval	144	01-Dec-20	31-May-21	01-Dec-20 A	06-Sep-21 A
DG Store / Medical Lock Installation	48	02-Aug-21	27-Sep-21	07-Sep-21 A	03-Nov-21
DG Store / Medical Lock - FSD Approval	24	28-Sep-21	27-Oct-21	04-Nov-21	01-Dec-21
TBM Assembly	113	18-Jul-21	01-Dec-21	22-Jul-21 A	24-Dec-21
WB TBM 1st Delivery	0		18-Jul-21		22-Jul-21 A
Lifting S5/S6/S4/Cross Beam	0			30-Aug-21 A	01-Sep-21 A
Main Drive with displacement Cylinder	0			02-Sep-21 A	04-Sep-21 A
Lifting S3/S7/S2/S8 & S1 Installation	0			05-Sep-21 A	11-Sep-21 A



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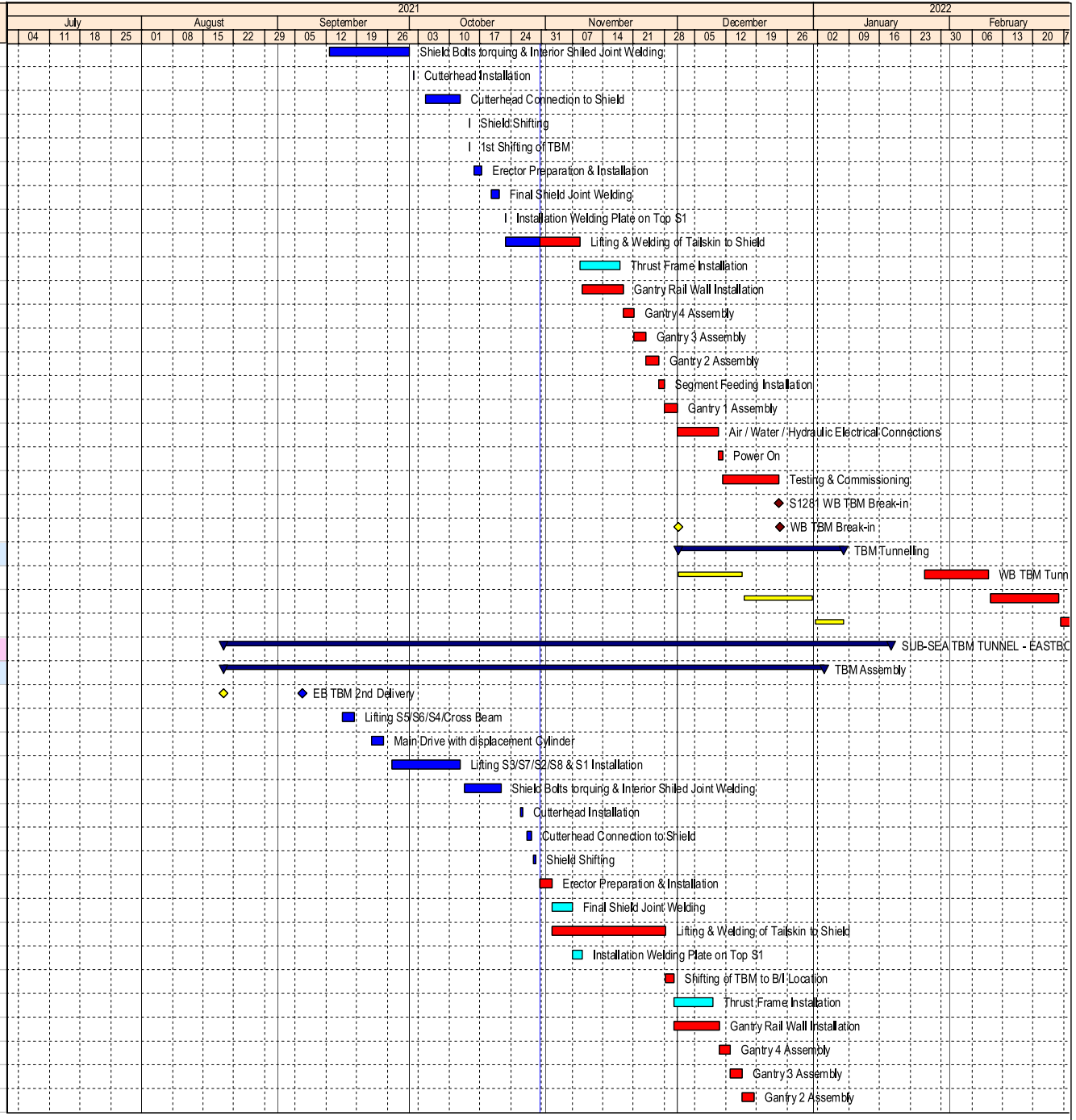
02-Jul-21	02V0	SPa/LLo	WYu

Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish
Shield Bolts torquing & Interior Shiled Joint Welding	0			12-Sep-21 A	01-Oct-21 A
Cutterhead Installation	0			02-Oct-21 A	02-Oct-21 A
Cutterhead Connection to Shield	0			04-Oct-21 A	12-Oct-21 A
Shield Shifting	0			14-Oct-21 A	14-Oct-21 A
1st Shifting of TBM	0			14-Oct-21 A	14-Oct-21 A
Erector Preparation & Installation	0			15-Oct-21 A	17-Oct-21 A
Final Shield Joint Welding	0			19-Oct-21 A	21-Oct-21 A
Installation Welding Plate on Top S1	0			22-Oct-21 A	22-Oct-21 A
Lifting & Welding of Tailskin to Shield	0			22-Oct-21 A	08-Nov-21
Thrust Frame Installation	0			08-Nov-21	17-Nov-21
Gantry Rail Wall Installation	0			09-Nov-21	18-Nov-21
Gantry 4 Assembly	0			18-Nov-21	21-Nov-21
Gantry 3 Assembly	0			21-Nov-21	23-Nov-21
Gantry 2 Assembly	0			23-Nov-21	26-Nov-21
Segment Feeding Installation	0			26-Nov-21	28-Nov-21
Gantry 1 Assembly	0			28-Nov-21	01-Dec-21
Air / Water / Hydraulic Electrical Connections	0			01-Dec-21	10-Dec-21
Power On	0			10-Dec-21	11-Dec-21
Testing & Commissioning	0			11-Dec-21	24-Dec-21
S1281 WB TBM Break-in	0				24-Dec-21
WB TBM Break-in	0	01-Dec-21		24-Dec-21	
TBM Tunnelling	38	01-Dec-21	07-Jan-22	26-Jan-22	04-Mar-22
WB TBM Tunnelling CH6642-6665 B/I Plug 23m	15	01-Dec-21	15-Dec-21	26-Jan-22	09-Feb-22
WB TBM Tunnelling CH6665-6710 ALL/CDG 68m	16	16-Dec-21	31-Dec-21	10-Feb-22	25-Feb-22
WB TBM Tunnelling CH6710-6756 ALL/CDG 114m	7	01-Jan-22	07-Jan-22	26-Feb-22	04-Mar-22
SUB-SEA TBM TUNNEL - EASTBOUND	124	19-Aug-21	18-Jan-22	06-Sep-21 A	13-Mar-22
TBM Assembly	110	19-Aug-21	03-Jan-22	06-Sep-21 A	26-Feb-22
EB TBM 2nd Delivery	0		19-Aug-21		06-Sep-21 A
Lifting S5/S6/S4/Cross Beam	0			15-Sep-21 A	18-Sep-21 A
Main Drive with displacement Cylinder	0			22-Sep-21 A	25-Sep-21 A
Lifting S3/S7/S2/S8 & S1 Installation	0			27-Sep-21 A	12-Oct-21 A
Shield Bolts torquing & Interior Shiled Joint Welding	0			13-Oct-21 A	21-Oct-21 A
Cutterhead Installation	0			26-Oct-21 A	26-Oct-21 A
Cutterhead Connection to Shield	0			27-Oct-21 A	28-Oct-21 A
Shield Shifting	0			29-Oct-21 A	29-Oct-21 A
Erector Preparation & Installation	0			30-Oct-21 A	02-Nov-21
Final Shield Joint Welding	0			02-Nov-21	07-Nov-21
Lifting & Welding of Tailskin to Shield	0			02-Nov-21	28-Nov-21
Installation Welding Plate on Top S1	0			07-Nov-21	09-Nov-21
Shifting of TBM to B/I Location	0			28-Nov-21	30-Nov-21
Thrust Frame Installation	0			30-Nov-21	09-Dec-21
Gantry Rail Wall Installation	0			30-Nov-21	10-Dec-21
Gantry 4 Assembly	0			10-Dec-21	13-Dec-21
Gantry 3 Assembly	0			13-Dec-21	15-Dec-21
Gantry 2 Assembly	0			15-Dec-21	18-Dec-21



Data Date: 30-Oct-21

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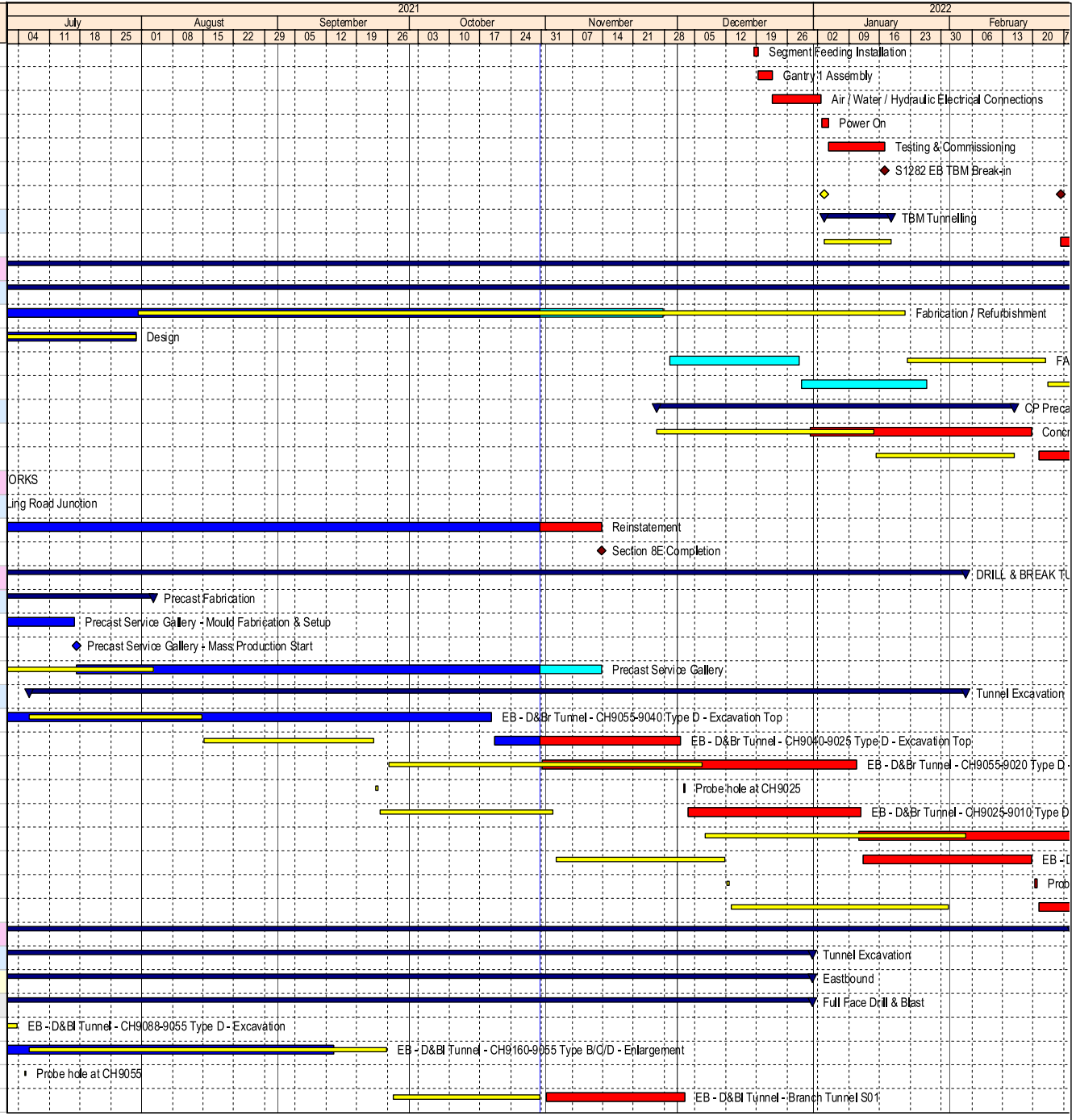
02-Jul-21	02V0	SPa/LLo	WYu

Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish
Segment Feeding Installation	0			18-Dec-21	19-Dec-21
Gantry 1 Assembly	0			19-Dec-21	22-Dec-21
Air / Water / Hydraulic Electrical Connections	0			22-Dec-21	02-Jan-22
Power On	0			03-Jan-22	04-Jan-22
Testing & Commissioning	0			04-Jan-22	17-Jan-22
S1282 EB TBM Break-in	0				17-Jan-22
EB TBM Break-in	0	03-Jan-22		26-Feb-22	
TBM Tunnelling	16	03-Jan-22	18-Jan-22	26-Feb-22	13-Mar-22
EB TBM Tunnelling CH6640-6665 B/I Plug 25m	16	03-Jan-22	18-Jan-22	26-Feb-22	13-Mar-22
SUB-SEA TUNNEL CROSS PASSAGE (CP7-CP27a	264	05-May-21	22-Mar-22	10-May-21 A	19-Mar-22
CP TBM Design / Fabrication / FAT / Delivery	264	05-May-21	22-Mar-22	10-May-21 A	26-Jan-22
Fabrication / Refurbishment	144	31-Jul-21	21-Jan-22	10-May-21 A	27-Nov-21
Design	72	05-May-21	30-Jul-21	01-Jun-21 A	30-Jul-21 A
FAT	24	22-Jan-22	22-Feb-22	29-Nov-21	28-Dec-21
Delivery of TBM components to the Site	24	23-Feb-22	22-Mar-22	29-Dec-21	26-Jan-22
CP Precast Lining Fabrication	64	26-Nov-21	15-Feb-22	31-Dec-21	19-Mar-22
Concrete Mix - Plant Trial	40	26-Nov-21	14-Jan-22	31-Dec-21*	19-Feb-22
CP Precast Lining Segment - Mould Fabrication & Setup	24	15-Jan-22	15-Feb-22	21-Feb-22	19-Mar-22
CHA KWO LING ROAD WORKS	30	24-Apr-21	31-May-21	19-Apr-21 A	13-Nov-21
Wai Yip Street / Cha Kwo Ling Road Junction	30	24-Apr-21	31-May-21	19-Apr-21 A	13-Nov-21
Reinstatement	30	24-Apr-21	31-May-21	19-Apr-21 A	13-Nov-21
Section 8E Completion	0		31-May-21		13-Nov-21
DRILL & BREAK TUNNEL [D&BR]	222	08-May-21	04-Feb-22	06-May-21 A	11-Apr-22
Precast Fabrication	72	08-May-21	03-Aug-21	06-May-21 A	13-Nov-21
Precast Service Gallery - Mould Fabrication & Setup	24	08-May-21	05-Jun-21	06-May-21 A	16-Jul-21 A
Precast Service Gallery - Mass Production Start	0	07-Jun-21		17-Jul-21 A	
Precast Service Gallery	48	07-Jun-21	03-Aug-21	17-Jul-21 A	13-Nov-21
Tunnel Excavation	214	06-Jul-21	04-Feb-22	28-Jun-21 A	11-Apr-22
EB - D&Br Tunnel - CH9055-9040 Type D - Excavation Top	40	06-Jul-21	14-Aug-21	28-Jun-21 A	19-Oct-21 A
EB - D&Br Tunnel - CH9040-9025 Type D - Excavation Top	39	15-Aug-21	22-Sep-21	20-Oct-21 A	01-Dec-21
EB - D&Br Tunnel - CH9055-9020 Type D - Excavation Bench & SG	72	26-Sep-21	06-Dec-21	31-Oct-21	10-Jan-22
Probe hole at CH9025	1	23-Sep-21	23-Sep-21	02-Dec-21	02-Dec-21
EB - D&Br Tunnel - CH9025-9010 Type D - Excavation Top	40	24-Sep-21	02-Nov-21	03-Dec-21	11-Jan-22
EB - D&Br Tunnel - CH9020-8990 Type D - Excavation Bench & SG	60	07-Dec-21	04-Feb-22	11-Jan-22	11-Mar-22
EB - D&Br Tunnel - CH9010-8995 Type D - Excavation Top	39	03-Nov-21	11-Dec-21	12-Jan-22	19-Feb-22
Probe hole at CH8995	1	12-Dec-21	12-Dec-21	20-Feb-22	20-Feb-22
EB - D&Br Tunnel - CH8995-8976 Type D - Excavation Top	50	13-Dec-21	31-Jan-22	21-Feb-22	11-Apr-22
DRILL & BLAST TUNNEL [D&BL]	332	14-Jan-21	28-Feb-22	05-Apr-21 A	01-Apr-22
Tunnel Excavation	286	14-Jan-21	31-Dec-21	05-Apr-21 A	07-Feb-22
Eastbound	176	02-Jun-21	31-Dec-21	13-Apr-21 A	07-Feb-22
Full Face Drill & Blast	176	02-Jun-21	31-Dec-21	13-Apr-21 A	07-Feb-22
EB - D&Bl Tunnel - CH9088-9055 Type D - Excavation	26	02-Jun-21	03-Jul-21	13-Apr-21 A	25-Jun-21 A
EB - D&Bl Tunnel - CH9160-9055 Type B/C/D - Enlargement	70	06-Jul-21	25-Sep-21	18-Jun-21 A	13-Sep-21 A
Probe hole at CH9055	1	05-Jul-21	05-Jul-21	26-Jun-21 A	26-Jun-21 A
EB - D&Bl Tunnel - Branch Tunnel S01	28	27-Sep-21	30-Oct-21	01-Nov-21	02-Dec-21



Milestone
Planned Bar
Critical Activity
Actual Milestone
Actual Work
Baseline Milestone
Baseline Bar
Summary

ED/2018/04 Trunk Road T2 and Infrastructure Works for Developments at South Apron

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18-Dec-19	00V1	WYu	
22-Feb-20	01V0	SPa/LLo	WYu
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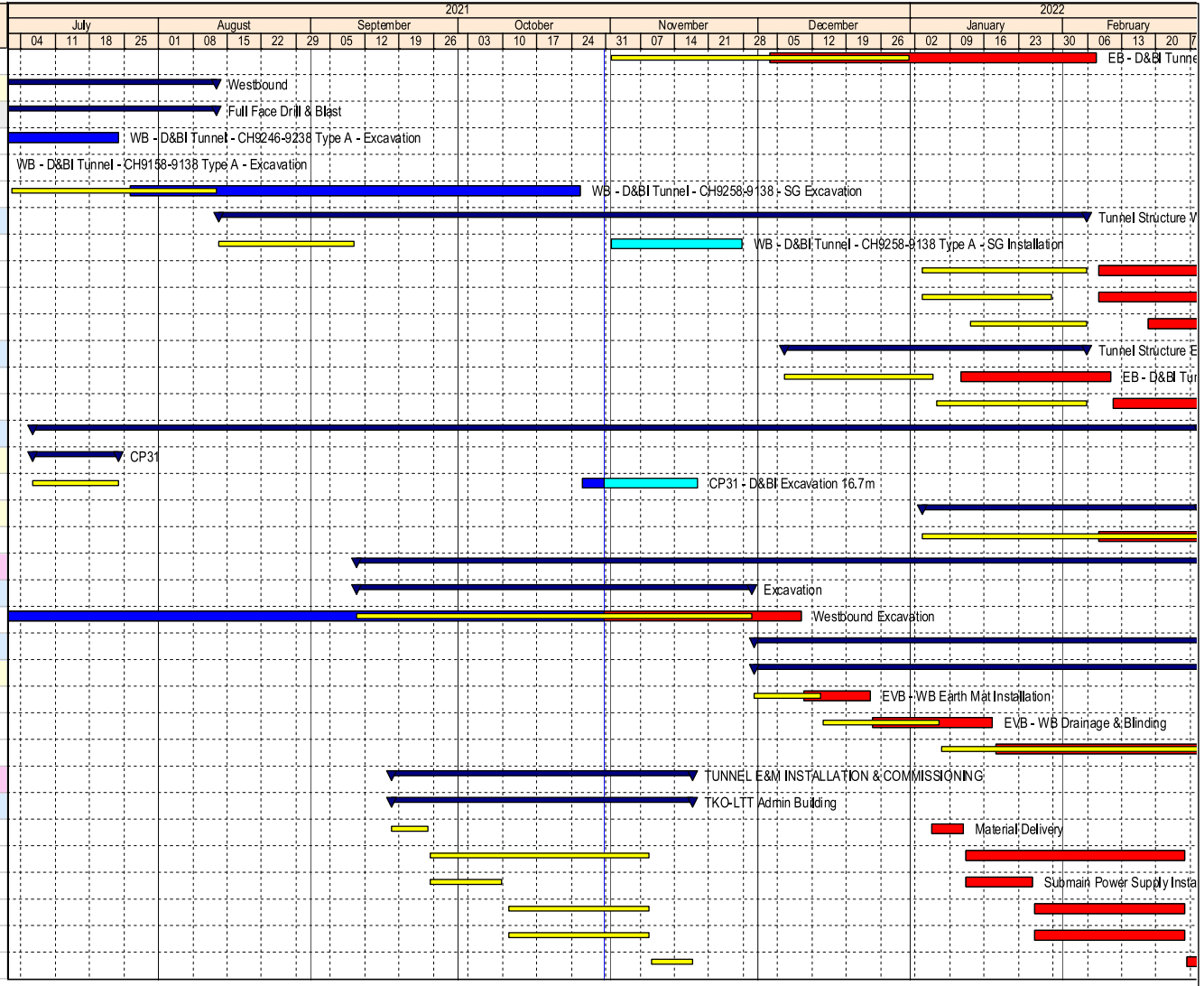
17-Jul-20	01V2	SPa/LLo	WYu
09-Oct-20	01V3	SPa/LLo	WYu
02-Jul-21	02V0	SPa/LLo	WYu

Activity Name	Dur	02V0 Start	02V0 Finish	Start	Finish
EB - D&BI Tunnel - CH9240-9055 - Bench Excavation & SG	51	01-Nov-21	31-Dec-21	03-Dec-21	07-Feb-22
Westbound	170	14-Jan-21	12-Aug-21	05-Apr-21 A	25-Oct-21 A
Full Face Drill & Blast	170	14-Jan-21	12-Aug-21	05-Apr-21 A	25-Oct-21 A
WB - D&BI Tunnel - CH9246-9238 Type A - Excavation	76	14-Jan-21	20-Apr-21	05-Apr-21 A	23-Jul-21 A
WB - D&BI Tunnel - CH9158-9138 Type A - Excavation	26	31-May-21	30-Jun-21	25-May-21 A	26-Jun-21 A
WB - D&BI Tunnel - CH9258-9138 - SG Excavation	36	02-Jul-21	12-Aug-21	26-Jul-21 A	25-Oct-21 A
Tunnel Structure WB Type A	143	13-Aug-21	05-Feb-22	01-Nov-21	10-Mar-22
WB - D&BI Tunnel - CH9258-9138 Type A - SG Installation	24	13-Aug-21	09-Sep-21	01-Nov-21	27-Nov-21
WB - D&BI Tunnel - CH9258-9138 Type A - Base slab / Kicker	27	03-Jan-22	05-Feb-22	08-Feb-22	10-Mar-22
WB - Rebar Gantry Type A Assembly	24	03-Jan-22	29-Jan-22	08-Feb-22	07-Mar-22
WB - W/P Gantry Type A Assembly	18	13-Jan-22	05-Feb-22	18-Feb-22	10-Mar-22
Tunnel Structure EB Type A	48	06-Dec-21	05-Feb-22	11-Jan-22	10-Mar-22
EB - D&BI Tunnel - CH9240-9170 Type A - SG Installation	24	06-Dec-21	05-Jan-22	11-Jan-22	10-Feb-22
EB - D&BI Tunnel - CH9170-9110 Type A - SG Installation	24	06-Jan-22	05-Feb-22	11-Feb-22	10-Mar-22
Cross Passage	195	06-Jul-21	28-Feb-22	26-Oct-21 A	01-Apr-22
CP31	16	06-Jul-21	23-Jul-21	26-Oct-21 A	18-Nov-21
CP31 - D&BI Excavation 16.7m	16	06-Jul-21	23-Jul-21	26-Oct-21 A	18-Nov-21
CP33	46	03-Jan-22	28-Feb-22	08-Feb-22	01-Apr-22
EB - D&BI Tunnel - CP33 48m	46	03-Jan-22	28-Feb-22	08-Feb-22	01-Apr-22
EAST VENTILATION BUILDING [EVB]	156	10-Sep-21	21-Mar-22	13-Mar-21 A	31-Mar-22
Excavation	66	10-Sep-21	29-Nov-21	13-Mar-21 A	09-Dec-21
Westbound Excavation	66	10-Sep-21	29-Nov-21	13-Mar-21 A	09-Dec-21
Foundation / Portal Structure	90	30-Nov-21	21-Mar-22	10-Dec-21	31-Mar-22
Westbound	90	30-Nov-21	21-Mar-22	10-Dec-21	31-Mar-22
EVB - WB Earth Mat Installation	12	30-Nov-21	13-Dec-21	10-Dec-21	23-Dec-21
EVB - WB Drainage & Blinding	18	14-Dec-21	06-Jan-22	24-Dec-21	17-Jan-22
EVB - WB Foundation & SG Level Walls & Slab	60	07-Jan-22	21-Mar-22	18-Jan-22	31-Mar-22
TUNNEL E&M INSTALLATION & COMMISSIONING	50	17-Sep-21	17-Nov-21	05-Jan-22	07-Mar-22
TKO-LTT Admin Building	50	17-Sep-21	17-Nov-21	05-Jan-22	07-Mar-22
Material Delivery	6	17-Sep-21	24-Sep-21	05-Jan-22*	11-Jan-22
Cable Trunking and Tray Installation	36	25-Sep-21	08-Nov-21	12-Jan-22	25-Feb-22
Submain Power Supply Installation	12	25-Sep-21	09-Oct-21	12-Jan-22	25-Jan-22
Conduit Installation	24	11-Oct-21	08-Nov-21	26-Jan-22	25-Feb-22
Cable Pulling	24	11-Oct-21	08-Nov-21	26-Jan-22	25-Feb-22
Final Circuit Installation	8	09-Nov-21	17-Nov-21	26-Feb-22	07-Mar-22



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