Civil Engineering and Development Department

Trunk Road T2 Monthly Environmental Monitoring and Audit Report (under EP-458/2013/C)

August 2022

(Version 1.0)

Approved By	
	(Environmental Team Leader:
	Mr. KS Lee)

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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14 September 2022

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 (August 2022) for EP-458/2013/C

Reference is made to the Environmental Team's submission of the Monthly EM&A Report for August 2022 (Version 1.0) certified by the ET Leader and provided to us via email on 14 September 2022. 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^VHui Independent Environmental Checker

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

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EXECUTIVE SUMMARY

Introduction

1. This is the 28th 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 August 2022.

Summary of Main Works Undertaken and Key Measures Implemented

- 2. The main works undertaken during the reporting period are as follows:
 - East Bound Type A Bench
 - East Ventilation Building Basement Excavation & Base Slab Construction
 - West Bound Drill & Blast Tunnel, Blasting
 - Drill & Blast Tunnel Civil Works, Kicker concreting
 - Service Gallery Installation
- 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**.

Environment al Monitoring	No. of Non-compliance (Exceedance)		No. of Non-compliance (Exceedance) due to Construction Activities of this Project		due to Construction		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		

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

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 Action/Limit Level exceedance for 24-hour TSP monitoring was recorded.

Construction Noise Monitoring

- 8. No Action Level exceedance was recorded due to documented complaint in the reporting month. The Summary of Documented Complaints in the Reporting Month is tabulated in **Table III**.
- 9. No Limit Level exceedance for day time construction noise monitoring were recorded in the reporting month. Detail shall refer to **Appendix N**.

Water Quality Monitoring

- 10. Groundwater quality monitoring had been suspended since October 2019 upon the agreement by EPD. Further details should be founded at **Section 4.1**.
- 11. 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.
- 12. As the construction activity is approximately 120m away from the piezometer gate, no piezometer monitoring is required.

Waste Management

13. 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

14. 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

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

Monitoring on Cultural Heritage

16. 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

17. 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

18. 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	
Event	Number	Nature	ACTION TAKEN	Status	
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 IIIS	Summary of Com	plaints Details in	Reporting Month
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Complaint Type Investigation Findings		Follow-up Action / Mitigation Measure		
-	-	-		

Reporting Changes

23. No reporting change is recorded in the reporting months.

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 (September 2022)	Key Environmental Issues
1.	East Bound – Type A Bench	
2.	East Ventilation Building Basement Excavation &	
	Base Slab Construction	
3.	West Bound – Drill & Blast Tunnel, Blasting	(A) / (B) / (C) / (D)
4.	Drill & Blast Tunnel - Civil Works, Kicker	
	concreting	
5.	Service Gallery Installation	
37.		

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	<u>Trunk Road T2</u>	
	• 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 –	Cha Kwo Ling Tunnel	
Lam Tin Tunnel (TKOLTT) and	Construction of Cha Kwo Ling Tunnel from the end of Trunk Road T2	
Associated Works	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.

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- 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 28th Monthly EM&A Report which summarises the impact monitoring results and audit findings for the EM&A programme during the reporting period in August 2022.

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	IMJVSupervisor RepresentativeMs. Hazel Tang		2149 8524
Cinotech	Environmental Team	Mr. KS Lee (ETL)	2151 2091
Cillotech		Ms. Karina Chan	2157 3880
Ramboll	Independent Environmental Checker	Mr. YH Hui	3465 2850
BTP	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:
 - East Bound Type A Bench
 - East Ventilation Building Basement Excavation & Base Slab Construction
 - West Bound Drill & Blast Tunnel, Blasting
 - Drill & Blast Tunnel Civil Works, Kicker concreting
 - Service Gallery Installation

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 August 2022.

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

Downit / Licongo No	Valid Period		States			
Permit / License No.	From	То	Status			
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 (Const	truction Dust) R	legulation				
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	Construction Noise Permit					
CNP No. (For Portion Q): GW-RE0227-22	24 Mar 2022	23 Sep 2022	Valid			
CNP No. (For Portion T1): GW-RE0622-22	07 Jul 2022	06 Oct 2022	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. Table2.1 describes the air quality monitoring locations, which are also depicted in Figure 2.

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)

Table 2.1 Air Quality Monitoring Locations

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) (**) AM4(A) is not available for conducing monitoring due to the demolition of administrative office. Relocation of monitoring station is under progress and no 24 hr TSP monitoring being conducted prior to the approval of relocation from EPD. Detail refer to S2.13

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

(*): No 24 hr TSP monitoring being conducted prior to the approval of relocation from EPD.

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**.

Equipment	Model	Quantity
	Sibata Model No. LD-5R	
1-hour TSP Dust Meter	(Serial No.: 972781, 972778, 972779,	4
	972780)	
	GMW model: GS2310	3
HVS Sampler	(Serial No.: 1287, 10379, 10599)	5
	TE 5170 (Serial No.: 1956)	1
Calibrator	TISCH Model: TE-5025A	1
Calibrator	(Serial No.: 3864)	1
Wind Anemometer	Davis Weather Monitor II, Model no. 7440	1
	(Serial No.: MC01010A44)	1

Table 2.3Air Quality Monitoring Equipment

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.

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- 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 m³/min. and 1.7 m³/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 $0.3 \mu m$ 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 \pm 3°C; the relative humidity (RH) should be < 50% and not vary by more than \pm 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 and AM4 are completed by the ET of Agreement No. CE 59/2015 (EP), and the data will be adopted in this report. The 24 TSP Monitoring at AM4(A) is suspended and under application for relocation in this reporting month. Once the proposal for relocation is approved, the monitoring at AM4(A) will at conducted at AM4(B). For the time being, as the station CKL2 for the 24 hr TSP monitoring, carried out under EM&A works for Trunk Road T2 Project (EP- 451/2013), is located in close proximity to AM4(A); the results from CKL2 are adopted as reference for the 24 TSP monitoring at AM4(A), which has similar environment when compared with that for CKL2. The location of monitoring station CKL2 is shown in **Figure 2**.
- 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 were 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:

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

Table 2.4 Major Dust Source during Air Quality Monitoring

(*): Field observation observed at CKL2 during monitoring is presented. Detail refer to \$2.13.

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 (August 2022), µg/m ³
AM1 – Tin Hau Temple	CL1	707	60.9
AM2 – Sai Tso Wan Recreation Ground	CL6	266	50.6
AM3 – Yau Lai Estate Bik Lai House	CL9	507	52.5
AM4 - Sitting-out Area at Cha Kwo Ling Village	CL16	430	63.0

 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 (August 2022), µg/m ³
AM1 – Tin Hau Temple	CL1	199	172.0
AM2 – Sai Tso Wan Recreation Ground	CL6	109	54.4
AM3 – Yau Lai Estate Bik Lai House	CL9	123	27.8
AM4(A) - Cha Kwo Ling Public Cargo Working Area Administrative Office ^(*)	N/A ⁽¹⁾	N/A ⁽¹⁾	79.3 (**)

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)

(**): Monitoring results at CKL2 is presented. Detail refer to S2.13

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 was 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.

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)

Table 3.1 Noise Monitoring Stations

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				L (20 · ·)	Façade Measurement
CM2				L ₁₀ (30 min.) dB(A)	Façade Measurement
CM3	0700-1900 hrs on normal weekdays	30 minutes	Once per week	L ₉₀ (30 min.) dB(A)	Façade Measurement
CM4	weekuays	centurys		$L_{eq}(30 \text{ min.})$	Façade Measurement
CM5				dB(A)	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 3.5 Noise Monitoring Equipment			
Equipment	Model	Quantity	
Integrating Sound Level Meter	SVAN 957 (Serial No.: 23852, 21455)	2	
Calibrator	ST-120 (Serial No.: 181001608)	1	

Table 3.3Noise Monitoring Equipment

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}, L₉₀ and L₁₀ 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 Level exceedance was recorded due to the documented complaint in the reporting month.
- 3.11 No Limit Level exceedance was recorded for day-time construction noise monitoring in the reporting month.
- 3.12 Noise monitoring results and graphical presentations are shown in Appendix G.
- 3.13 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.

Monitoring Stations	Major Noise Source		
CM1	Road Traffic near Eastern Cross Harbour Tunnel Toll Plaza, non-project		
	related construction activities		
CM2	Road Traffic near Eastern Cross Harbour Tunnel Toll Plaza, non-project		
CIVIZ	related construction activities		
CM3	Road Traffic near Eastern Cross Harbour Tunnel Toll Plaza non-project		
CMIS	related construction activities		
CN4	Road Traffic at Cha Kwo Ling Road, non-project related construction		
CM4	activities		
	Road Traffic near Eastern Cross Harbour Tunnel Toll Plaza,		
CM5	Construction activity from other construction site,		
	Road Traffic at Yau Tong Road		

 Table 3.4
 Other Noise Source Identified during Noise Monitoring

 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	
CM2	63.6	75
CM3	65.6	15
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

3.14 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 Cons	truction Noise Levels in EIA Report
	maximum i reuteteu mitigateu cons	i ucuon monse nevers in mari 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 (August 2022), Leq (30min) dB(A)
CM1 – Nga Lai House, Yau Lai Estate Phase 1, Yau Tong	N1102	73	74.9
CM2 – Bik Lai House, Yau Lai Estate Phase 1, Yau Tong	N1204	75	74.3
CM3 – Block S, Yau Lai Estate Phase 5, Yau Tong	N2105	75	74.1
CM4 – Tin Hau Temple, Cha Kwo Ling	N3101a	73	68.3
CM5 – CCC Kei Faat Primary School, Yau Tong	N4101	71	71.2

3.15 The result at CM1 and CM5 were higher than the maximum predicted mitigated construction noise level in the EIA Report, AEIAR-173/2013 (as approved in 2013), that may due to the fluctuation of road traffic near Eastern Cross Harbour Tunnel Toll Plaza, Yau Tong Road and the non-project related construction activities. However, the results at CM2, CM3 and CM4 were lower than the maximum predicted mitigated construction noise level in the EIA Report, AEIAR-173/2013 (as approved in 2013). 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 04, 11, 18 and 24 August 2022 in the reporting month. Site inspection of the IEC was conducted on 24 August 2022. 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.

Parameters	Date	Observations and Recommendations	Follow-up
Air Quality	24 August 2022	Damaged NRMM label was observed on the PME	To be reported in the next month
Noise	N/A	There was no observation in the reporting period.	N/A
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

 Table 12.1
 Observations and Recommendations of Site Audit

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 Level exceedance was recorded due to the documented complaint in the reporting month.
- No 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:
 - East Bound Type A Bench
 - East Ventilation Building Basement Excavation
 - West Bound Drill & Blast Tunnel, Blasting
 - Drill & Blast Tunnel Civil Works, Kicker concreting
 - Service Gallery Installation
- 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 28th 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 Level exceedance was recorded due to documented complaint in the reporting month.
- 14.9 No Limit Level exceedance for construction noise monitoring was recorded in the reporting month.

Site Audit

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

Complaint, Notification of Summons and Successful Prosecution

14.11 No environmental complaint was received in the reporting period. No notifications of summons and successful prosecutions were received in the reporting month.

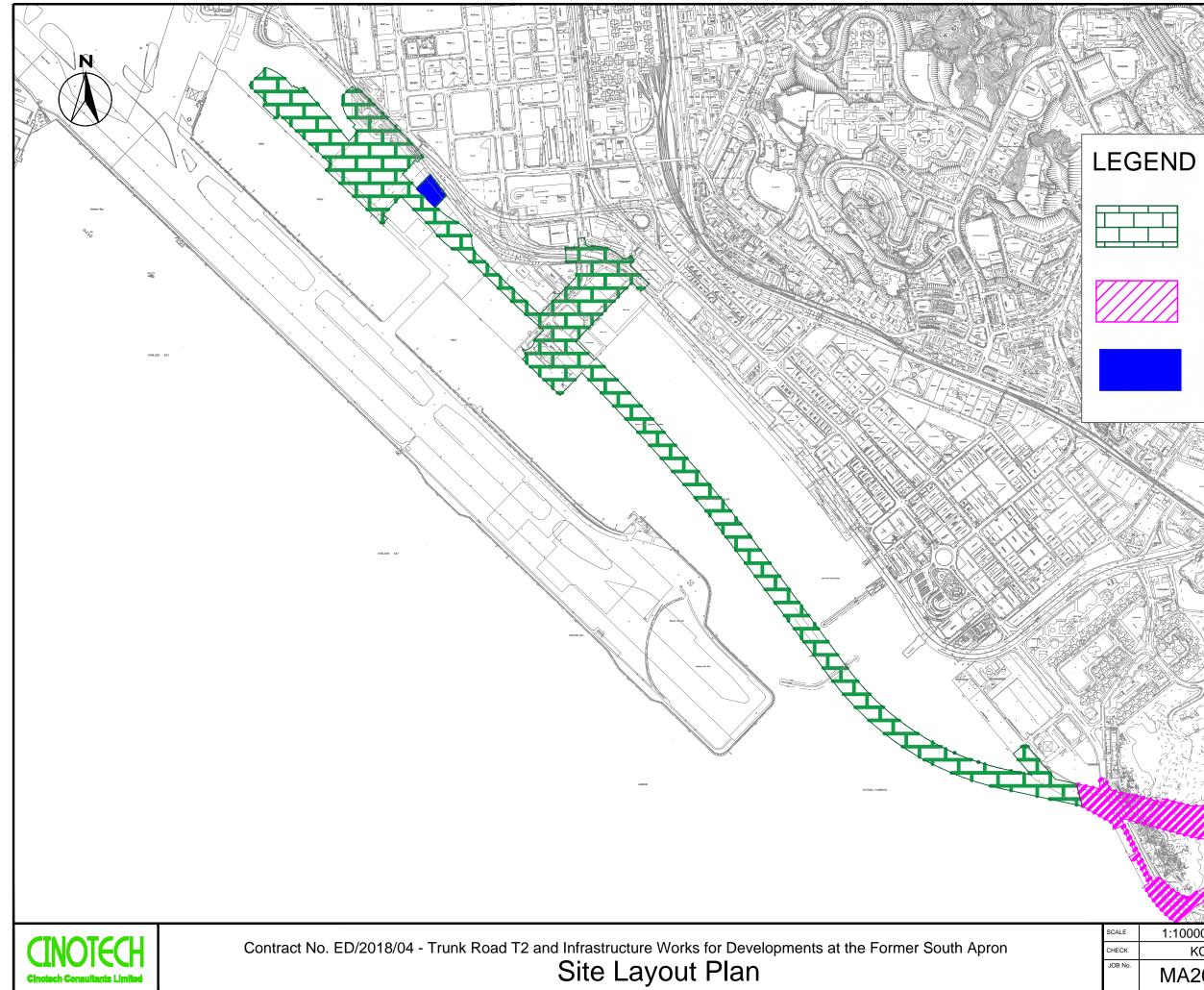
Recommendations

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

Air quality:

• The valid NRMM labels should be displayed at a conspicuous position on PME.

FIGURES



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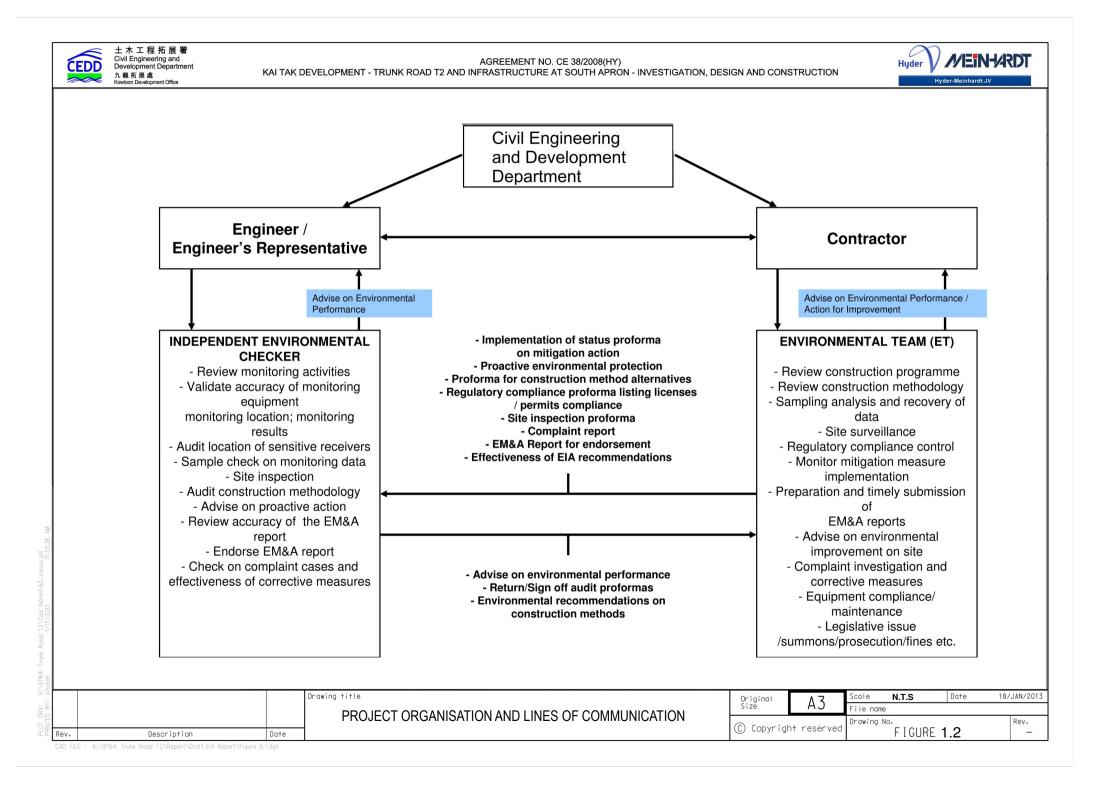
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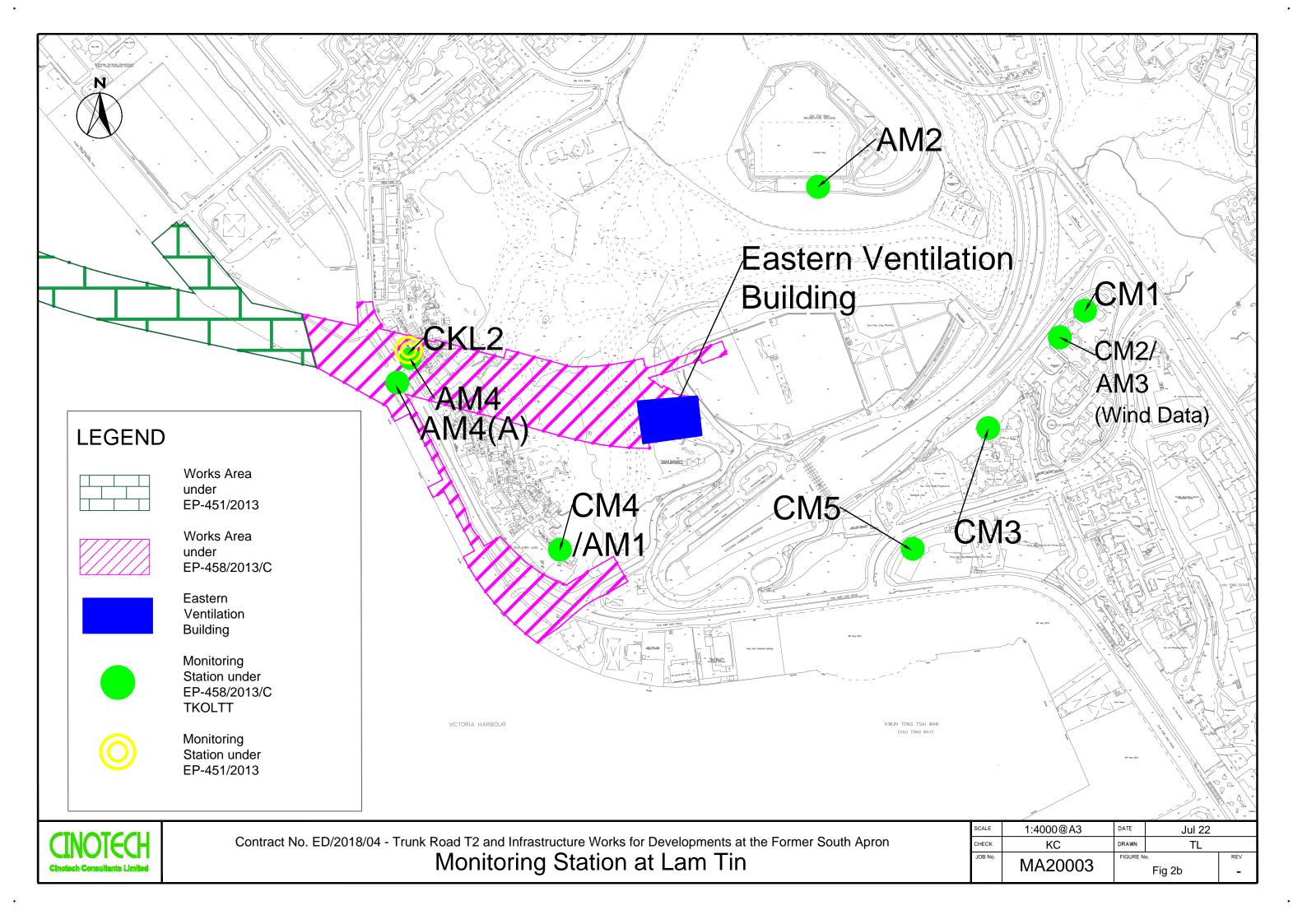
Works Area under Trunk Road T2

Works Area under Cha Kwo Ling Tunnel

Ventilation Building

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APPENDIX A ACTION AND LIMIT LEVELS

APPENDIX A – Action and Limit Levels

Air Quality

1-hr TSP

Monitoring Stations	Location	Action Level, µg/m ³	Limit Level, µg/m ³
AM1	Tin Hau Temple	275	
AM2	Sai Tso Wan Recreation Ground	273	500
AM3	Yau Lai Estate Bik Lai House	271	500
AM4	Sitting-out Area at Cha Kwo Ling Village	278	

24-hr TSP

Monitoring Stations	Location	Action Level, μg/m ³	Limit Level, µg/m ³
AM1	Tin Hau Temple	173	
AM2	Sai Tso Wan Recreation Ground	192	
AM3	Yau Lai Estate Bik Lai House	167	260
AM4(A)	Cha Kwo Ling Public Cargo Working Area Administrative Office	210	

<u>Noise</u>

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

 ¹70 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	>0.5%
Dioxide	>1.5%

APPENDIX B COPIES OF CALIBRATION CERTIFICATES

.



File No. MA16034/05/0036

Project No.	AM1 - Tin Hau	ı Temple				
Date:	9-J	un-22	Next Due Date:	9-Aug-22	Operator:	SK
Equipment No.:	A-	01-05	Model No.:	GS2310	Serial No.	10599
			Ambient Condit	ion		
Temperatu	re, Ta (K)	299.3	Pressure, Pa (mm	Hg)	754	

	Or	ifice Transfer Sta	ndard Informa	ation	
Serial No.	3864	Slope, mc	0.05922	Intercept, bc	-0.02420
Last Calibration Date:	31-Jan-22	1	mc x Qstd + bo	$c = [\Delta H \ x \ (Pa/760) \ x \ (298/Ta)]$] ^{1/2}
Next Calibration Date:	31-Jan-23		$\mathbf{Qstd} = \{ [\Delta \mathbf{H} \mathbf{x}] \}$	$\left(Pa/760\right) x \left(298/Ta\right)]^{1/2} \ \text{-bc} \} / $	mc

		Calibration of	TSP Sampler		
Calibration		Orfice			HVS
Point	ΔH (orifice), in. of water	$[\Delta H x (Pa/760) x (298/Ta)]^{1/2}$	Qstd (CFM) X - axis	ΔW (HVS), in. of water	$[\Delta W \ x \ (Pa/760) \ x \ (298/Ta)]^{1/2}$ Y-axis
1	13.4	3.64	61.84	9.8	3.11
2	10.3	3.19	54.27	7.4	2.70
3	7.9	2.79	47.58	5.6	2.35
4	5.5	2.33	39.77	3.5	1.86
5	3.2	1.78	30.43	2.1	1.44
Slope, mw =	ession of Y on X 0.0540 coefficient* =	0.9988	Intercept, bw :	-0.234	7
			-		
*If Correlation C	Coefficient < 0.990), check and recalibrate.			
		Set Point C	alculation		
From the TSP Fi	eld Calibration Cu	urve, take Qstd = 43 CFM			
		"Y" value according to			
rom the regres	sion Equation, the	¹ Value according to			
		$\mathbf{m}\mathbf{w} \mathbf{x} \mathbf{Q}\mathbf{s}\mathbf{t}\mathbf{d} + \mathbf{b}\mathbf{w} = [\Delta \mathbf{W} \mathbf{x}]$	x (Pa/760) x (29	98/Ta)] ^{1/2}	
Therefore, Se	et Point; W = (mv	$(x + y + y)^{2} x (760 / Pa) x (760 / Pa)$	Ta / 298) =	4.42	
Remarks:					
Conducted by:	Wong Shi	ng Kwai Signature:	K	火.	Date: 9-Jun-22
Checked by:	Henry I	Leung Signature:	- lem	3 7 ^{dro} 7	Date: 9-Jun-22



File No. MA16034/05/0037

Project No.	AM1 - Tin Hau	Temple					
Date:	9-A	ıg-22	Next Due Date:	9-(Oct-22	Operator:	SK
Equipment No.:	A-0	1-05	Model No.:	GS	\$2310	Serial No.	10599
			Ambient C	au 1141 au			
Temperatur	ra Ta (K)	299.7	Ambient C Pressure, Pa			752.8	
Temperatur	ic, 1a (K)	299.1	Tressure, Ta	(IIIIIIIg)		152.6	
		Or	ifice Transfer Star	ndard Informa	ation		
Serial	No.	3864	Slope, mc	0.05922	Intercept		-0.02420
Last Calibra	ation Date:	31-Jan-22			$c = [\Delta H \times (Pa/760)]$		
Next Calibra	ation Date:	31-Jan-23	($Qstd = \{ [\Delta H x] \}$	(Pa/760) x (298/	[a)] ^{1/2} -bc} / mo	
		-	Calibration of 7	FSP Sampler			
Calibration	ΔH (orifice),	Orfice		Qstd (CFM)	ΔW (HVS), in.	HVS	0) x (298/Ta)] ^{1/2}
Point	in. of water	[ΔH x (Pa/76	50) x (298/Ta)] ^{1/2}	X - axis	of water		axis
1	13.2		3.61	61.29	9.7	3	.09
2	10.1		3.15	53.67	7.2	2	.66
3	7.7		2.75	46.91	5.4	2	.31
4	5.3		2.28	38.99	3.3	1	.80
5	3.1		1.75	29.91	2.0	1	.40
By Linear Regr Slope , mw = Correlation C	0.0546 coefficient* =	0	.9986	ntercept, bw	-0.266	5	
From the TSP Fi	eld Calibration (Curve, take Qstd	Set Point Ca = 43 CFM	lculation			
From the Regres							
			$\mathbf{D}\mathbf{std} + \mathbf{bw} = [\Delta \mathbf{W} \mathbf{x}]$	(D- /7(0) (2)	1/2		
		mw x Q	\mathbf{y} sta + dw = [$\Delta \mathbf{w} \mathbf{x}$	$(Pa/760) \ge (25)$	98/1a)]		
Therefore, Se	et Point; W = (n	nw x Qstd + bw)	² x (760 / Pa) x (7	Γa / 298) =	4.40		
Remarks:							
Conducted by:	Wong Sl	ning Kwai	Signature:	K	X.	Date:	9-Aug-22
Checked by:	Henry	Leung	Signature:	-lem	J Xran J	Date:	9-Aug-22



File No. MA16034/08/0036

Project No.	AM2 - Sai Tso	Wan Recreation	n Ground			
Date:	9-J	un-22	Next Due Date:	9-Aug-22	Operator:	SK
Equipment No.:	A-	01-08	Model No.:	GS2310	Serial No.	1287
			Ambient Condit	ion		
Temperatu	ıre, Ta (K)	299.3	Pressure, Pa (mml	Hg)	754	

	Or	ifice Transfer Sta	ndard Informa	ation	
Serial No.	3864	Slope, mc	0.05922	Intercept, bc	-0.02420
Last Calibration Date:	31-Jan-22	1	mc x Qstd + bo	$c = [\Delta H \ x \ (Pa/760) \ x \ (298/Ta)]$] ^{1/2}
Next Calibration Date:	31-Jan-23		$\mathbf{Qstd} = \{ [\Delta \mathbf{H} \mathbf{x}] \}$	$\left({Pa/760} \right) x \left({298/Ta} \right) \right]^{1/2} \mbox{-bc} \} \mbox{/}$	mc

		Calibration of	TSP Sampler		
Calibration		Orfice			HVS
Point	ΔH (orifice), in. of water	$[\Delta H x (Pa/760) x (298/Ta)]^{1/2}$	Qstd (CFM) X - axis	ΔW (HVS), in. of water	$[\Delta W \ x \ (Pa/760) \ x \ (298/Ta)]^{1/2}$ Y-axis
1	13.4	3.64	61.84	9.7	3.10
2	10.6	3.24	55.05	7.0	2.63
3	8.0	2.81	47.88	5.4	2.31
4	5.5	2.33	39.77	3.7	1.91
5	3.2	1.78	30.43	2.2	1.47
Slope , mw = Correlation	coefficient* =	0.9972), check and recalibrate.	Intercept, bw = _	-0.090	3
From the Regres	sion Equation, the	Set Point C urve, take Qstd = 43 CFM "Y" value according to mw x Qstd + bw = [ΔW v x Qstd + bw) ² x (760 / Pa) x (x (Pa/760) x (29		
Remarks:					
·	Wong Shi Henry I		: :lem	N- 7 Xron J	Date: 9-Jun-22 Date: 9-Jun-22



File No. MA16034/08/0037

Project No.	AM2 - Sai Tso	Wan Recreation	Ground				
Date:	9-Au	ıg-22	Next Due Date:	9-0	Dct-22	Operator:	SK
Equipment No.:					52310		
Equipment i to	110	1 00			52310		1207
			Ambient C	ondition			
Temperatur	re, Ta (K)	299.7	Pressure, Pa	(mmHg)		752.8	
			ifice Transfer Star		ation		
Serial		3864	Slope, mc	0.05922	Intercept		-0.02420
Last Calibra		31-Jan-22			$c = [\Delta H \times (Pa/760)]$		
Next Calibra	ation Date:	31-Jan-23		Qstd = $\{ [\Delta H x] \}$	(Pa/760) x (298/7	['a)] ^{*/2} -bc} / n	10
		•					
			Calibration of Z	ISP Sampler			
Calibration	ATT (::		fice			HVS	(000/m)1 ^{1/2}
Point	ΔH (orifice), in. of water	[ΔH x (Pa/76	50) x (298/Ta)] ^{1/2}	Qstd (CFM) X - axis	ΔW (HVS), in. of water		60) x (298/Ta)] ^{1/2} Y-axis
1	13.2		3.61	61.29	9.5		3.06
2	10.4		3.20	54.45	6.8		2.59
3	7.8		2.77	47.21	5.2		2.26
4	5.4		2.31	39.35	3.6		1.88
5	3.1		1.75	29.91	2.1		1.44
Slope , mw = Correlation of *If Correlation C	coefficient* =		.9971	Intercept, bw =	-0.099	8	
			Set Point Ca	alculation			
From the TSP Fi	eld Calibration (Curve, take Qstd					
From the Regress							
0			-				
		mw x ($\mathbf{A} = [\Delta \mathbf{W} \mathbf{x}]$	(Pa/760) x (29	98/Ta)] ⁷²		
Therefore Se	et Point·W – (m	w = x O std + bw	² x (760 / Pa) x (7	Га / 2 98.) —	4.36		
Therefore, Be	(in the second s		x(700714)x(1	u / 290) –			
Remarks:							
Conducted by:	Wong Sh	ning Kwai	Signature:	R	<u>Д</u> .	Date:	9-Aug-22
						_	
Checked by:	Henry	Leung	Signature:	- lem	j Xozij	Date:	9-Aug-22

F:\Cinotech Solutions\Equipment\Calibration Cert\HVS\new\MA16034_20220809_AM2_(A-01-08)



File No. MA16034/03/0036

Project No.	AM3 - Yau La	i Estate, Bik Lai	House			
Date:	9-J	un-22	Next Due Date:	9-Aug-22	Operator:	SK
Equipment No.:	A-	01-03	Model No.:	GS2310	Serial No.	10379
			Ambient Condit	ion		
Temperatu	re, Ta (K)	299.3	Pressure, Pa (mml	Hg)	754	

	Or	ifice Transfer Star	ndard Informa	ation	
Serial No.	3864	Slope, mc	0.05922	Intercept, bc	-0.02420
Last Calibration Date:	31-Jan-22	1	mc x Qstd + bo	$c = [\Delta H \ x \ (Pa/760) \ x \ (298/Ta)]$] ^{1/2}
Next Calibration Date:	31-Jan-23		$\mathbf{Qstd} = \{ [\Delta \mathbf{H} \mathbf{x}] \}$	$\left(\text{Pa/760} \right) x \left(298/\text{Ta} \right) \right]^{1/2} \text{-bc} \} / $	mc

		Calibration of	TSP Sampler		
Calibration		Orfice			HVS
Point	ΔH (orifice), in. of water	$[\Delta H x (Pa/760) x (298/Ta)]^{1/2}$	Qstd (CFM) X - axis	ΔW (HVS), in. of water	$[\Delta W \ x \ (Pa/760) \ x \ (298/Ta)]^{1/2}$ Y-axis
1	12.9	3.57	60.69	9.1	3.00
2	10.1	3.16	53.75	6.8	2.59
3	8.1	2.83	48.17	5.3	2.29
4	5.0	2.22	37.94	3.2	1.78
5	2.8	1.66	28.49	1.8	1.33
By Linear Regr Slope , mw =	ession of Y on X 0.0514		Intercept, bw :	-0.158	0
Correlation	coefficient* =	0.9990	-		
*If Correlation C	Coefficient < 0.990), check and recalibrate.			
		Set Point C	alculation		
From the TSP Fi	eld Calibration Cu	urve, take Qstd = 43 CFM			
From the Regres	sion Equation, the	"Y" value according to			
Therefore, Se	et Point; W = (mw	$\mathbf{mw} \mathbf{x} \mathbf{Qstd} + \mathbf{bw} = [\Delta \mathbf{W} \mathbf{x}]$ v x Qstd + bw) ² x (760 / Pa) x (7			
Remarks:					
Conducted by:	Wong Shi	ng Kwai Signature:	k	<u>у</u>	Date: 9-Jun-22
Checked by:	Henry I	Leung Signature:	-lem	N- 7 ^{Xro} 7	Date: 9-Jun-22



File No. MA16034/03/0037

	AM3 - Tau Lai	Estate, Bik Lai H	louse				
Date:	9-A	ıg-22	Next Due Date:	9-0	Oct-22	Operator:	SK
Equipment No.:	A-0	1-03	Model No.:	GS	52310	Serial No.	10379
	I		Ambient C				
Temperatu	re, Ta (K)	299.7	Pressure, Pa	(mmHg)		752.8	
		Ori	fice Transfer Star	ndard Inform	ation		
Serial	l No.	3864	Slope, mc	0.05922	Intercept	t, bc	-0.02420
Last Calibra	ation Date:	31-Jan-22		nc x Qstd + bo	$z = [\Delta H x (Pa/760)]$) x (298/Ta)] ^{1/2}	
Next Calibra	ation Date:	31-Jan-23		$Qstd = \{ [\Delta H x] \}$	(Pa/760) x (298/1	Γa)] ^{1/2} -bc} / mc	2
		•					
			Calibration of '	FSP Sampler			
Calibration		Or	fice			HVS	
Point	ΔH (orifice), in. of water	[ΔH x (Pa/76	0) x $(298/Ta)$] ^{1/2}	Qstd (CFM) X - axis	ΔW (HVS), in. of water		0) x (298/Ta)] ^{1/2} •axis
1	12.7		3.54	60.13	8.8		94
2	10.0		3.14	53.40	6.7	2	.57
3	7.9		2.79	47.51	5.1	2	.24
4	4.8		2.17	37.12	3.0	1	.72
5	2.6		1.60	27.43	1.7	1	.29
By Linear Regr	ession of Y on X	X		Intorcont hw-	-0.127	13	
Slone mw -	0.0505				-0.127	5	
Slope , mw = Correlation	0.0505 coefficient* =	- 0.		intercept, ow			
Correlation	coefficient* =		9988				
Correlation	coefficient* =	0 . 90, check and rec	9988	- -			
Correlation	coefficient* =		9988	-			
Correlation *If Correlation C	coefficient* = Coefficient < 0.9	90, check and rec	9988 alibrate. Set Point Ca = 43 CFM	-			
Correlation *If Correlation C	coefficient* = Coefficient < 0.9	90, check and rec	9988 alibrate. Set Point Ca = 43 CFM	-			
Correlation *If Correlation C	coefficient* = Coefficient < 0.9	90, check and rec Curve, take Qstd ne "Y" value acco	9988 alibrate. Set Point Ca = 43 CFM ording to	alculation	98/Ta)1 ^{1/2}		
Correlation (*If Correlation C From the TSP Fi From the Regres	coefficient* = Coefficient < 0.9 ield Calibration (ssion Equation, th	90, check and rec Curve, take Qstd ne "Y" value acco mw x Q	9988 Falibrate. Set Point Ca = 43 CFM ording to std + bw = [ΔW x	alculation (Pa/760) x (29	98/Ta)] ^{1/2}		
Correlation (*If Correlation C From the TSP Fi From the Regres	coefficient* = Coefficient < 0.9 ield Calibration (ssion Equation, th	90, check and rec Curve, take Qstd ne "Y" value acco mw x Q	9988 alibrate. Set Point Ca = 43 CFM ording to	alculation (Pa/760) x (29	98/Ta)] ^{1/2} 4.25		
Correlation (*If Correlation C From the TSP Fi From the Regres	coefficient* = Coefficient < 0.9 ield Calibration (ssion Equation, th	90, check and rec Curve, take Qstd ne "Y" value acco mw x Q	9988 Falibrate. Set Point Ca = 43 CFM ording to std + bw = [ΔW x	alculation (Pa/760) x (29			
Correlation (*If Correlation C From the TSP Fi From the Regres	coefficient* = Coefficient < 0.9 ield Calibration (ssion Equation, th	90, check and rec Curve, take Qstd ne "Y" value acco mw x Q	9988 Falibrate. Set Point Ca = 43 CFM ording to std + bw = [ΔW x	alculation (Pa/760) x (29			
Correlation (*If Correlation C From the TSP Fi From the Regres	coefficient* = Coefficient < 0.9 ield Calibration (ssion Equation, th	90, check and rec Curve, take Qstd ne "Y" value acco mw x Q	9988 Falibrate. Set Point Ca = 43 CFM ording to std + bw = [ΔW x	alculation (Pa/760) x (29			
Correlation of *If Correlation C From the TSP Fi From the Regres Therefore, Se	coefficient* = Coefficient < 0.9 ield Calibration (ssion Equation, th	90, check and rec Curve, take Qstd ne "Y" value acco mw x Q	9988 Falibrate. Set Point Ca = 43 CFM ording to std + bw = [ΔW x	alculation (Pa/760) x (29			
Correlation of *If Correlation C From the TSP Fi From the Regres Therefore, Se	coefficient* = Coefficient < 0.9 ield Calibration (ssion Equation, th	90, check and rec Curve, take Qstd ne "Y" value acco mw x Q	9988 Falibrate. Set Point Ca = 43 CFM ording to std + bw = [ΔW x	alculation (Pa/760) x (29			
Correlation of *If Correlation C From the TSP Fi From the Regres Therefore, Se	coefficient* = Coefficient < 0.99 ield Calibration (ssion Equation, the et Point; W = (n	90, check and rec Curve, take Qstd ne "Y" value acco mw x Q	9988 Falibrate. Set Point Ca = 43 CFM ording to std + bw = [ΔW x	alculation (Pa/760) x (29 Γa / 298) =			9-Aug-22
Correlation of *If Correlation C From the TSP Fi From the Regres Therefore, Se Remarks:	coefficient* = Coefficient < 0.99 ield Calibration (ssion Equation, the et Point; W = (n	20, check and rec Curve, take Qstd ne "Y" value acco mw x Q nw x Qstd + bw)	9988 alibrate. = 43 CFM ording to std + bw = [$\Delta W x$	alculation (Pa/760) x (29 Γa / 298) =			9-Aug-22



File No. MA20003/55/0015

Project No.	CKL 2 - Flat 10)3 Cha Kwo Lii	ng Village			
Date:	5-J	ul-22	Next Due Date:	4-Sep-22	Operator:	SK
Equipment No.:	A-(01-55	Model No.:	TE 5170	Serial No.	1956
			Ambient Conditi	on		
Temperatu	ure, Ta (K)	302	Pressure, Pa (mmH	lg)	753.2	
				- 0		

Orifice Transfer Standard Information						
Serial No.	3864	Slope, mc 0.05922 Intercept, bc -0.02420				
Last Calibration Date:	31-Jan-22	mc x Qstd + bc = $[\Delta H x (Pa/760) x (298/Ta)]^{1/2}$				
Next Calibration Date:	31-Jan-23	Qstd = { $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ -bc} / mc				

Calibration of TSP Sampler								
Calibration Orfice					HVS			
Point	ΔH (orifice), in. of water	$[\Delta H x (Pa/760) x (298/Ta)]^{1/2}$	Qstd (CFM) X - axis	ΔW (HVS), in. of water		0) x (298/Ta)] ^{1/2} •axis		
1	12.8	3.54	60.15	9.8	3	.10		
2	10.8	3.25	55.29	7.6	2			
3	8.6	2.90	49.38	5.9	2	40		
4	5.3	2.28	38.85	3.2	1	.77		
5	2.9	1.68	28.85	1.8	1	.33		
By Linear Regression of Y on X Slope , mw =0.0563 Intercept, bw :0.3541 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							
$mw x Qstd + bw = [\Delta W x (Pa/760) x (298/Ta)]^{1/2}$ Therefore, Set Point; W = (mw x Qstd + bw) ² x (760 / Pa) x (Ta / 298) =								
Remarks:								
Conducted by:	Wong Shi	ng Kwai Signature:	k len	火.	Date:	5-Jul-22		
Checked by:	Henry I	Leung Signature:	len	g Xog	Date:	5-Jul-22		

Report No.

Rm 1904, Technology Park 18 On Lai Street, Shatin NT, Hong Kong Tel: +852 3841 4388 Website: https://www.hpct.com.hk

: 00160



Issue Date : 10 Jan 2022

: HP00040 Application No. **Certificate of Calibration** Applicant : Cinotech Consultants Limited RM 1710, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong Sample Description : Submitted equipment stated to be Integrating Sound Level Meter. **Equipment No.:** : N-08-07 Manufacturer: : SVANTEK Other information : Model No. SVAN 957 Serial No. 21455 Microphone No. 22391

Date Received	:	03 Jan 2022
Test Period	:	10 Jan 2022 to 10 Jan 2022
Test Requested	:	Performance checking for Sound Level Meter
Test Method	:	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.
Test conditions	:	Room Temperature: 22-25 degree Celsius Relative Humidity: 35-70%
Test Result	:	Refer to the test result(s) on page 2.

: 1. Information of the sample description provided by the Applicant. Remark

2. The result(s) relate only to the items tested or calibrated.

For and on behalf of HIGH PRECISION CHEMICAL TESTING LIMITED

Lee Wai Kit Laboratory Manager

Rm 1904, Technology Park 18 On Lai Street, Shatin NT, Hong Kong Tel: +852 3841 4388 Website: https://www.hpct.com.hk

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Issue Date : 10 Jan 2022

Report No.:00160Application No.:HP00040

Certificate of Calibration

Measuring

equipment

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

Test Result

Reference value, dB	Indication value, dB	Deviation, dB	Allowed deviation, dB
94.0	93.9	-0.1	± 1.5
114.0	113.8	-0.2	± 1.5

Note : 1. "Instrument Readings" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

2. The indication value was obtained from the average of ten replicated measurement.

- End of report -

Report No.

Rm 1904, Technology Park 18 On Lai Street, Shatin NT, Hong Kong Tel: +852 3841 4388 Website: https://www.hpct.com.hk

: 00168



Issue Date : 25 Jan 2022

: HP00044 Application No. **Certificate of Calibration** Applicant : Cinotech Consultants Limited RM 1710, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong Sample Description : Submitted equipment stated to be Integrating Sound Level Meter. **Equipment No.:** : N-08-11 Manufacturer: : SVANTEK Other information : Model No. SVAN 957 Serial No. 23852 Microphone No. 22454 Data Racaivad 20 Jan 2022

Date Received	:	20 Jan 2022
Test Period	:	21 Jan 2022 to 21 Jan 2022
Test Requested	:	Performance checking for Sound Level Meter
Test Method	:	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.
Test conditions	:	Room Temperature: 22-25 degree Celsius Relative Humidity: 35-70%
Test Result	:	Refer to the test result(s) on page 2.

: 1. Information of the sample description provided by the Applicant. Remark

2. The result(s) relate only to the items tested or calibrated.

For and on behalf of HIGH PRECISION CHEMICAL TESTING LIMITED

Lee Wai Kit Laboratory Manager

Rm 1904, Technology Park 18 On Lai Street, Shatin NT, Hong Kong Tel: +852 3841 4388 Website: https://www.hpct.com.hk

:

:



Issue Date : 25 Jan 2022

Report No.:00168Application No.:HP00044

Certificate of Calibration

Measuring

equipment

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

Test Result

Reference value, dB	Indication value, dB	Deviation, dB	Allowed deviation, dB
94.0	94.1	+0.1	± 1.5
114.0	114.2	+0.2	± 1.5

Note : 1. "Instrument Readings" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

2. The indication value was obtained from the average of ten replicated measurement.

- End of report -

Report No.

Rm 1904, Technology Park 18 On Lai Street, Shatin NT, Hong Kong Tel: +852 3841 4388 Website: https://www.hpct.com.hk

: 00150



Issue Date : 16 Nov 2021

Application No. : HP00032 **Certificate of Calibration** Applicant : Cinotech Consultants Limited RM 1710, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong Sample Description : Submitted equipment stated to be Sound Level Calibrator. Equipment No.: : N-13-01 Manufacturer: : SOUNDTEK Other information : Model No. ST-120 Serial No. 181001608 : 05 Nov 2021 Date Received Test Period : 08 Nov 2021 to 12 Nov 2021 : Performance checking for Sound Level Calibrator **Test Requested** Test Method : The Sound Level Meter and Calibrator has been calibrated in accordance with the documented procedures and using standard and instrument which are recommended by the manufacturer, or equivalent. **Test conditions** : Room Temperature: 22-25 degree Celsius Relative Humidity: 35-70%

Test Result : Refer to the test result(s) on page 2.

Remark : 1. Information of the sample description provided by the Applicant.

2. The result(s) relate only to the items tested or calibrated.

For and on behalf of HIGH PRECISION CHEMICAL TESTING LIMITED

S

Lee Wai Kit Laboratory Manager

Rm 1904, Technology Park 18 On Lai Street, Shatin NT, Hong Kong Tel: +852 3841 4388 Website: https://www.hpct.com.hk

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Issue Date : 16 Nov 2021

Report No.:00150Application No.:HP00032

Certificate of Calibration

Measuring equipment

Sound Calibrator
Brüel & Kjær
TYPE 4231
2326353
N-02-01
Sound Meter
BSWA Technology
BSWA 308
570188
570608
N-12-03

Test Result

Reference value, dB	Indication value, dB	Deviation, dB	Allowed deviation, dB
94.0	94.1	+0.1	± 0.3
114.0	114.0	0.0	± 0.5

- Note : 1. "Instrument Readings" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.
 - 2. The indication value was obtained from the average of ten replicated measurement.

- End of report -



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	Date of Calibration 29-Jul-22		
Manufacturer:	Sibata Scientific Technology LTD.	Validity of Calib	Validity of Calibration Record 28-Se		
Model No.:	LD-5R				
Serial No.:	972778				
Equipment No.:	SA-01-07	Sensitivity 0.001 mg/m3	_		
High Volume Sa	ampler No.: <u>A-01-03</u>	Before Sensitivity Adjustment	735 CPM		
Tisch Calibration	n Orifice No.: <u>3864</u>	After Sensitivity Adjustment	735 CPM		
	Cal	libration of 1 hr TSP			
Calibration	Laser Dust Monitor		HVS		
Point	Mass Concentration (µg/1 X-axis	m3) Ma	Mass concentration (µg/m ³) Y-axis		
1	73.0		155.0		
2	64.0		133.0		
3	51.0		109.0		
Average	62.7		132.3		
By Linear Regr Slope , mw = Correlation co	ression of Y on X 	Intercept, bw =	2.3896		
	Set	t Correlation Factor			
Particaulate Con	centration by High Volume Sampler ($\mu g/m^3$)	132.3		
Particaulate Con	centration by Dust Meter ($\mu g/m^3$)		62.7		
Measureing time	e, (min)		60.0		
Set Correlation I	Factor, SCF				

In-house method in according to the instruction manual:

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

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:

Approved by: , an Project Manager (Henry Leung)

2.1

Technical Officer (Wong Shing Kwai)



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	29-Jul-22
Manufacturer:	Sibata Scientific Technology LTD.	_	Validity of Calibr	ation Record	28-Sep-22
Model No.:	LD-5R				
Serial No.:	972779				
Equipment No.:	SA-01-08	Sensitivity	0.001 mg/m3		
High Volume Sa	mpler No.: <u>A-01-03</u>	Before Sensitiv	ity Adjustment	744 CPM	
Tisch Calibration	n Orifice No.: <u>3864</u>	After Sensitivit	y Adjustment	744 CPM	
	Cal	libration of 1 hr	TSP		
Calibration	Laser Dust Monitor			HVS	
Point	Mass Concentration (µg/n X-axis	m3)	Mas	s concentration (µ Y-axis	ıg/m ³)
1	74.0			157.0	
2	63.0			137.0	
3	51.0			110.0	
Average	62.7			134.0	
By Linear Regr Slope , mw = Correlation co	ession of Y on X 2.0441 pefficient* =0.9999		ept, bw =	5.9043	
	Set	t Correlation Fa	actor		
Particaulate Concentration by High Volume Sampler (µg/m ³)		$(\mu g/m^3)$	134.0		
Particaulate Con	centration by Dust Meter ($\mu g/m^3$)		62.7		
Measureing time, (min)			60.0		

Set Correlation Factor , SCF SCF = [K=High Volume Sampler / Dust Meter, (μg/m3)]

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)

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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	29-Jul-22	
Manufacturer:	Sibata Scientific Technology LTD.	Validity of Calib	ration Record	28-Sep-22	
Model No.:	LD-5R				
Serial No.:	972780				
Equipment No.:	SA-01-09	Sensitivity 0.001 mg/m3	-		
High Volume Sa	ampler No.: <u>A-01-03</u>	Before Sensitivity Adjustment	739 CPM		
Tisch Calibratio	n Orifice No.: <u>3864</u>	After Sensitivity Adjustment	739 CPM		
	Ca	libration of 1 hr TSP			
Calibration	Laser Dust Monitor	•	HVS		
Point	Mass Concentration (µg/ X-axis	m3) Ma	ss concentration (µ Y-axis	g/m ³)	
1	72.0		161.0		
2	64.0		145.0		
3	51.0		115.0		
Average	62.3		140.3		
	ression of Y on X 2.2018	Intercept, bw =	3.0890		
Correlation co	oefficient* =0.9993				
	Se	t Correlation Factor			
Particaulate Con	centration by High Volume Sampler ($(\mu g/m^3)$	140.3		
Particaulate Con	acentration by Dust Meter ($\mu g/m^3$)		62.3		
Measureing time	e, (min)		60.0		
Set Correlation I	Factor, SCF				

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

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:

Approved by: <u>leng X27</u>

2.3

Technical Officer (Wong Shing Kwai)

Project Manager (Henry Leung)



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	29-Jul-22
Manufacturer:	Sibata Scientific Technology LTD.		Validity of Calibr	ation Record	28-Sep-22
Model No.:	LD-5R				
Serial No.:	972781				
Equipment No.:	SA-01-10	Sensitivity	0.001 mg/m3		
High Volume Sa	mpler No.: <u>A-01-03</u>	Before Sensitivi	ity Adjustment	734 CPM	
Tisch Calibration	n Orifice No.: <u>3864</u>	After Sensitivity	y Adjustment	734 CPM	
	Ca	libration of 1 hr	TSP		
Calibration	Laser Dust Monitor	r		HVS	
Point	Mass Concentration (µg/ X-axis	(m3)	Mas	s concentration (µ Y-axis	ug/m ³)
1	76.0		157.0		
2	64.0		134.0		
3	51.0			108.0	
Average	63.7		133.0		
By Linear Regr Slope , mw = Correlation co	ression of Y on X <u>1.9606</u> pefficient* = 0.9999		ept, bw =	8.1780	
	Se	t Correlation Fa	ctor		
Particaulate Con	centration by High Volume Sampler ($(\mu g/m^3)$		133.0	
Particaulate Con	centration by Dust Meter ($\mu g/m^3$)			63.7	
Measureing time	e, (min)			60.0	
Set Correlation I	Factor , SCF				

In-house method in according to the instruction manual:

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

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:

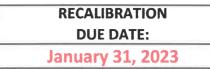
Approved by: _____

Technical Officer (Wong Shing Kwai)

Project Manager (Henry Leung)

2.1





Certificate of Calibration

			Calibration	Certificatio	on Informat	ion		
Cal. Date:	January 31	, 2022	Rootsi	meter S/N:	438320	Ta:	294	°K
Operator:	Jim Tisch					Pa:	752.6	mm Hg
Calibration	Model #:	TE-5025A	Calik	prator S/N:	3864			0
								1
		Vol. Init	Vol. Final	ΔVol.	ΔTime	ΔΡ	ΔΗ	
	Run	(m3)	(m3)	(m3)	(min)	(mm Hg)	(in H2O)	
	1	1	2	1	1.4490	3.2	2.00	
	2	3	4	1	1.0320	6.4	4.00	
	3	5	6	1	0.9160	7.9	5.00	
	5	7	8 10	1	0.8730	8.8	5.50 8.00	
		9				1.2.7	8.00]
	L			Data Tabula	tion			
	Vstd	Qstd	$\sqrt{\Delta H \left(\frac{Pa}{Pstd}\right)}$)(<u>Tstd</u>) Ta)		Qa	$\sqrt{\Delta H (Ta/Pa)}$	
	(m3)	(x-axis)	(y-ax	is)	Va	(x-axis)	(y-axis)	
	0.9995	0.6898	1.416		0.9957	0.6872	0.8839	
	0.9952	0.9643	2.003		0.9915	0.9608	1.2500	
	0.9932	1.0843	2.240		0.9895	1.0802	1.3976	
	0.9920	1.1363	2.349		0.9883	1.1321	1.4658	
	0.9868	1.3649	2.833		0.9831	1.3598	1.7678	
		m=	2.092				1.31048	
	QSTD	b=	-0.024		QA	b=	-0.01514 0.99993	
		L=	0.99993			r=		I
				Calculatio				
)/Pstd)(Tstd/Ta	a)	Va= ΔVol((Pa-ΔP)/Pa)			
	Qstd=	Vstd/∆Time			Qa= Va/ΔTime			
			For subsequ	ent flow ra	te calculatio	ns:		
	Qstd= $1/m \left(\sqrt{\Delta H \left(\frac{Pa}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)} \right)$)-ь)	Qa=	1/m ((√∆H	l(Та/Ра))-b)	
	Standard	Conditions						
Tstd:						RECA	LIBRATION	
Pstd:		mm Hg						on ner 1000
Key ΔH: calibrator manometer reading (in H2O)				US EPA recommends annual recalibration per 199 40 Code of Federal Regulations Part 50 to 51,				
							-	
ΔP: rootsmeter manometer reading (mm Hg) Ta: actual absolute temperature (°K)				Appendix B to Part 50, Reference Method for the Determination of Suspended Particulate Matter i				
		ressure (mm					erided Particulation erided Particulation erided Particulation erided eride	
b: intercept					LTI(e Aunosphe	sie, 3.2.17, page	50
m: slope								

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.:	<u>Davis7440</u>
Serial No.:	<u>MC01010A44</u>
Equipment No.:	<u>SA-03-04</u>
Date of Calibration	<u>19-Feb-2022</u>
Next Due Date	<u>19-Aug-2022</u>

1. Performance check of Wind Speed

Wind Sp	beed, 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
2.5	2.5	0.0
4.2	4.3	-0.1

2. Performance check of Wind Direction

Wind Di	rection (°)	Difference D (°)	
Wind Direction Reading (W1) Marine Compass Value (W2)		$\mathbf{D} = \mathbf{W1} - \mathbf{W2}$	
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

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Certificate of Calibration - Wind Monitoring Station

Description:	Yau Lai Estate, Bik Lai House
Manufacturer:	Davis Instruments
Model No.:	<u>Davis7440</u>
Serial No.:	<u>MC01010A44</u>
Equipment No.:	<u>SA-03-04</u>
Date of Calibration	<u>19-Aug-2022</u>
Next Due Date	<u>19-Feb-2023</u>

1. Performance check of Wind Speed

Wind Sp	beed, 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
2.5	2.6	-0.1
4.0	4.0	0.0

2. Performance check of Wind Direction

Wind Di	rection (°)	Difference D (°)	
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

APPENDIX C WEATHER INFORMATION

Date	Mean Air Temperature (°C) ¹	Mean Relative Humidity	Precipitation (mm) ³
		(%) ²	
1-Aug-22	31.4	69	0.0
2-Aug-22	31.1	70	0.2
3-Aug-22	28.2	82	34.9
4-Aug-22	27.1	86	14.9
5-Aug-22	26.1	94	165.5
6-Aug-22	27.9	89	5.5
7-Aug-22	29.6	82	2.8
8-Aug-22	28.3	87	33.3
9-Aug-22	26.7	88	72.0
10-Aug-22	27.4	90	49.7
11-Aug-22	26.7	90	12.4
12-Aug-22	26.1	93	76.0
13-Aug-22	28.7	81	0.0
14-Aug-22	29.5	78	0.0
15-Aug-22	30.0	78	0.0
16-Aug-22	29.4	82	9.1
17-Aug-22	28.2	86	29.8
18-Aug-22	28.1	87	22.1
19-Aug-22	28.3	85	4.8
20-Aug-22	28.2	83	8.4
21-Aug-22	29.0	84	1.9
22-Aug-22	30.1	77	0.0
23-Aug-22	31.1	77	0.0
24-Aug-22	30.8	73	5.5
25-Aug-22	27.2	85	48.1
26-Aug-22	29.4	80	0.1
27-Aug-22	29.7	78	0.0
28-Aug-22	30.5	80	0.0
29-Aug-22	30.1	78	0.0
30-Aug-22	29.5	80	13.1
31-Aug-22	29.7	80	4.7

Appendix C - Weather Conditions During Impact Monitoring Period

(Reporting Month:August 2022)

Remarks:

Source - Hong Kong Observatory

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

	August Wind Speed an		
Date	Time	Direction	Wind Speed m-s
1 Aug 2022	12:00 AM	W	1.3
1 Aug 2022	1:00 AM	W	1.3
1 Aug 2022 1 Aug 2022	2:00 AM	NW	0.9
-			1.3
1 Aug 2022	3:00 AM	NW	
1 Aug 2022	4:00 AM	NW	0.9
1 Aug 2022	5:00 AM	NW	0.9
1 Aug 2022	6:00 AM	NNW	0.4
1 Aug 2022	7:00 AM	NW	1.3
1 Aug 2022	8:00 AM	NW	0.9
1 Aug 2022	9:00 AM	NW	1.3
1 Aug 2022	10:00 AM	ESE	0.4
1 Aug 2022	11:00 AM	ESE	0.4
1 Aug 2022	12:00 PM	NNW	0.4
1 Aug 2022	1:00 PM	Ν	0.4
1 Aug 2022	2:00 PM	NW	0.4
1 Aug 2022	3:00 PM	NW	1.3
1 Aug 2022	4:00 PM	NW	1.3
1 Aug 2022	5:00 PM	ESE	1.8
1 Aug 2022	6:00 PM	NNW	1.3
1 Aug 2022	7:00 PM	NW	1.3
1 Aug 2022	8:00 PM	WNW	3.1
1 Aug 2022	9:00 PM	NW	2.2
1 Aug 2022	10:00 PM	ESE	1.8
1 Aug 2022	11:00 PM	ESE	2.2
2 Aug 2022	12:00 AM	NNW	2.2
2 Aug 2022	1:00 AM	N	0.9
2 Aug 2022	2:00 AM	NW	1.8
2 Aug 2022	3:00 AM	NW	1.8
2 Aug 2022 2 Aug 2022	4:00 AM	NW	1.3
2 Aug 2022 2 Aug 2022	5:00 AM	ESE	1.3
2 Aug 2022 2 Aug 2022	6:00 AM	NNW	1.3
2 Aug 2022 2 Aug 2022			1.5
v	7:00 AM	NW	
2 Aug 2022	8:00 AM	WNW	0.4
2 Aug 2022	9:00 AM	NW	0.9
2 Aug 2022	10:00 AM	W	0.9
2 Aug 2022	11:00 AM	WNW	0.9
2 Aug 2022	12:00 PM	WNW	1.3
2 Aug 2022	1:00 PM	W	1.3
2 Aug 2022	2:00 PM	NW	1.3
2 Aug 2022	3:00 PM	WNW	1.3
2 Aug 2022	4:00 PM	WNW	1.8
2 Aug 2022	5:00 PM	WNW	1.3
2 Aug 2022	6:00 PM	W	1.8
2 Aug 2022	7:00 PM	WNW	1.3
2 Aug 2022	8:00 PM	WNW	0.9
2 Aug 2022	9:00 PM	WNW	1.3
2 Aug 2022	10:00 PM	W	1.8
2 Aug 2022	11:00 PM	WNW	1.8
3 Aug 2022	12:00 AM	WNW	1.3
3 Aug 2022	1:00 AM	W	0.9
3 Aug 2022	2:00 AM	WNW	0.9
3 Aug 2022	3:00 AM	W	0.9
3 Aug 2022	4:00 AM	W	0.9
3 Aug 2022 3 Aug 2022	5:00 AM	W	0.9
3 Aug 2022 3 Aug 2022	6:00 AM	NW	0.4
3 Aug 2022 3 Aug 2022	7:00 AM	NW	0.9
			1 119

August 2022				
Wind Speed and Directions				
Date	Time	Direction	Wind Speed m-s	
3 Aug 2022	9:00 AM	NW	0.9	
3 Aug 2022	10:00 AM	W	0.9	
3 Aug 2022	11:00 AM	W	0.4	
3 Aug 2022	12:00 PM	W	0.9	
3 Aug 2022	1:00 PM	ENE	0.0	
3 Aug 2022	2:00 PM	ENE	0.4	
3 Aug 2022 3 Aug 2022	3:00 PM 4:00 PM	NW W	0.9	
3 Aug 2022	4.00 PM 5:00 PM	W	0.9	
3 Aug 2022 3 Aug 2022	6:00 PM	W	1.3	
3 Aug 2022 3 Aug 2022	7:00 PM	WNW	1.3	
3 Aug 2022 3 Aug 2022	8:00 PM	WNW	0.9	
3 Aug 2022 3 Aug 2022	9:00 PM	WINW	1.3	
3 Aug 2022 3 Aug 2022	9.00 PM 10:00 PM	WNW	1.3	
3 Aug 2022 3 Aug 2022	11:00 PM	W	0.9	
4 Aug 2022	12:00 AM	W	0.9	
4 Aug 2022 4 Aug 2022	12:00 AM 1:00 AM	W	0.9	
4 Aug 2022 4 Aug 2022	2:00 AM	WNW	0.9	
4 Aug 2022 4 Aug 2022	3:00 AM	W	0.9	
4 Aug 2022 4 Aug 2022	4:00 AM	SE	0.9	
4 Aug 2022 4 Aug 2022	4.00 AM 5:00 AM	W	0.4	
4 Aug 2022 4 Aug 2022	6:00 AM	ESE	0.4	
4 Aug 2022 4 Aug 2022	7:00 AM	ESE	0.9	
4 Aug 2022 4 Aug 2022	8:00 AM	W	0.4	
		W		
4 Aug 2022	9:00 AM	E W	0.4	
4 Aug 2022 4 Aug 2022	10:00 AM 11:00 AM	WNW	0.9	
4 Aug 2022 4 Aug 2022	12:00 PM		1.3	
4 Aug 2022 4 Aug 2022	12:00 PM 1:00 PM	NW W	0.9	
4 Aug 2022 4 Aug 2022	2:00 PM	W	1.3	
•		W		
4 Aug 2022 4 Aug 2022	3:00 PM 4:00 PM	NW	1.3	
4 Aug 2022 4 Aug 2022	5:00 PM	NNW	0.9	
4 Aug 2022 4 Aug 2022	6:00 PM	NW	1.3	
	7:00 PM	NW	0.9	
4 Aug 2022 4 Aug 2022	8:00 PM	NW	0.9	
4 Aug 2022 4 Aug 2022				
ě	9:00 PM	NW NW	0.4	
4 Aug 2022	10:00 PM			
4 Aug 2022	11:00 PM 12:00 AM	NW NW	0.9	
5 Aug 2022 5 Aug 2022	12:00 AM 1:00 AM	WNW	0.4	
5 Aug 2022 5 Aug 2022	2:00 AM	NNW	0.4	
5 Aug 2022 5 Aug 2022	2:00 AM 3:00 AM	E	0.4	
5 Aug 2022 5 Aug 2022	4:00 AM	E E	0.4	
5 Aug 2022 5 Aug 2022	4:00 AM 5:00 AM	ENE	0.4	
5 Aug 2022 5 Aug 2022	6:00 AM	ENE	0.4	
5 Aug 2022	7:00 AM	ENE	0.4	
5 Aug 2022	8:00 AM	WNW	0.4	
5 Aug 2022 5 Aug 2022	9:00 AM	WNW	0.4	
5 Aug 2022 5 Aug 2022	9:00 AM 10:00 AM	NW	0.9	
5 Aug 2022 5 Aug 2022		E NW	0.9	
-	11:00 AM 12:00 PM	W E	1.3	
5 Aug 2022				
5 Aug 2022	1:00 PM	W	1.3	
5 Aug 2022	2:00 PM	NW	1.8	
5 Aug 2022	3:00 PM	NW	2.7	
5 Aug 2022	4:00 PM	NW	3.6	
5 Aug 2022	5:00 PM	NW	4.5	

August 2022 Wind Speed and Directions			
Date	Wind Speed a Time	nd Directions Direction	Wind Speed m-s
	6:00 PM	NW	3.1
5 Aug 2022	7:00 PM	NW	1.8
5 Aug 2022 5 Aug 2022	7:00 PM 8:00 PM	NW	0.9
		W	
5 Aug 2022	9:00 PM		0.4
5 Aug 2022	10:00 PM	NW	0.9
5 Aug 2022	11:00 PM	NW	1.8
6 Aug 2022	12:00 AM	NW	1.8
6 Aug 2022	1:00 AM	NW	1.3
6 Aug 2022	2:00 AM	NW	0.4
6 Aug 2022	3:00 AM	W	0.4
6 Aug 2022	4:00 AM	ESE	0.4
6 Aug 2022	5:00 AM	ESE	0.4
6 Aug 2022	6:00 AM	NE	0.9
6 Aug 2022	7:00 AM	NNW	0.9
6 Aug 2022	8:00 AM	NNW	1.3
6 Aug 2022	9:00 AM	WNW	0.9
6 Aug 2022	10:00 AM	ESE	0.9
6 Aug 2022	11:00 AM	SE	0.9
6 Aug 2022	12:00 PM	ESE	0.9
6 Aug 2022	1:00 PM	ESE	1.3
6 Aug 2022	2:00 PM	Е	1.8
6 Aug 2022	3:00 PM	NW	1.3
6 Aug 2022	4:00 PM	NW	2.2
6 Aug 2022	5:00 PM	NW	4.5
6 Aug 2022	6:00 PM	NW	1.3
6 Aug 2022	7:00 PM	WNW	0.9
6 Aug 2022	8:00 PM	W	0.4
6 Aug 2022	9:00 PM	NW	1.3
6 Aug 2022	10:00 PM	NW	0.9
6 Aug 2022	11:00 PM	NW	0.9
7 Aug 2022	12:00 AM	W	0.9
ě			
7 Aug 2022	1:00 AM	NE	0.9
7 Aug 2022	2:00 AM	NNW	1.3
7 Aug 2022	3:00 AM	NE	0.4
7 Aug 2022	4:00 AM	ENE	0.4
7 Aug 2022	5:00 AM	E	0.4
7 Aug 2022	6:00 AM	E	0.9
7 Aug 2022	7:00 AM	W	0.9
7 Aug 2022	8:00 AM	WNW	0.9
7 Aug 2022	9:00 AM	NW	1.3
7 Aug 2022	10:00 AM	WNW	1.8
7 Aug 2022	11:00 AM	WNW	1.3
7 Aug 2022	12:00 PM	WNW	1.3
7 Aug 2022	1:00 PM	W	1.3
7 Aug 2022	2:00 PM	NW	2.2
7 Aug 2022	3:00 PM	NW	4.5
7 Aug 2022	4:00 PM	NW	4.9
7 Aug 2022	5:00 PM	NW	4.5
7 Aug 2022	6:00 PM	NW	4.9
7 Aug 2022	7:00 PM	NW	3.6
7 Aug 2022	8:00 PM	NW	2.7
7 Aug 2022	9:00 PM	NW	2.7
7 Aug 2022 7 Aug 2022	10:00 PM	NW	1.8
7 Aug 2022 7 Aug 2022	10:00 PM 11:00 PM	NW	1.8
8 Aug 2022	12:00 AM	NW	1.5
ě	12:00 AM 1:00 AM		0.9
8 Aug 2022		NW	
8 Aug 2022	2:00 AM	SE	0.4

August 2022				
Wind Speed and Directions Date Time Direction Wind Speed m-s				
Date	3:00 AM	ESE	Wind Speed m-s	
8 Aug 2022 8 Aug 2022	4:00 AM	SE	1.9	
8 Aug 2022 8 Aug 2022	4:00 AM 5:00 AM	ESE	1.9	
8 Aug 2022 8 Aug 2022	6:00 AM	ESE	1.9	
8 Aug 2022 8 Aug 2022	7:00 AM	ESE	0.4	
8 Aug 2022 8 Aug 2022	8:00 AM	SE	0.4	
8 Aug 2022 8 Aug 2022	9:00 AM	SE	0.9	
8 Aug 2022	10:00 AM	ESE	1.8	
8 Aug 2022	11:00 AM	SE	0.9	
8 Aug 2022	12:00 PM	SE	1.3	
8 Aug 2022	1:00 PM	SE	1.8	
8 Aug 2022	2:00 PM	SE	1.3	
8 Aug 2022	3:00 PM	SE	0.9	
8 Aug 2022	4:00 PM	NW	2.2	
8 Aug 2022	5:00 PM	NW	1.3	
8 Aug 2022	6:00 PM	SE	0.9	
8 Aug 2022	7:00 PM	SE	2.2	
8 Aug 2022	8:00 PM	ESE	2.2	
8 Aug 2022	9:00 PM	SE	2.2	
8 Aug 2022	10:00 PM	ESE	1.8	
8 Aug 2022	11:00 PM	ESE	1.8	
9 Aug 2022	12:00 AM	SE	0.9	
9 Aug 2022	1:00 AM	SE	0.9	
9 Aug 2022	2:00 AM	SE	0.9	
9 Aug 2022	3:00 AM	ESE	2.7	
9 Aug 2022	4:00 AM	SE	3.1	
9 Aug 2022	5:00 AM	ESE	3.1	
9 Aug 2022	6:00 AM	NW	2.7	
9 Aug 2022	7:00 AM	ESE	3.1	
9 Aug 2022	8:00 AM	SE	3.1	
9 Aug 2022	9:00 AM	ESE	2.7	
9 Aug 2022	10:00 AM	NNW	2.2	
9 Aug 2022	11:00 AM	ESE	1.3	
9 Aug 2022	12:00 PM	NNE	1.3	
9 Aug 2022	1:00 PM	SE	1.3	
9 Aug 2022	2:00 PM	NE	1.3	
9 Aug 2022	3:00 PM	NNE	1.3	
9 Aug 2022	4:00 PM	SE	1.3	
9 Aug 2022	5:00 PM	SE	2.7	
9 Aug 2022	6:00 PM	SE	3.1	
9 Aug 2022	7:00 PM	SE	3.1	
9 Aug 2022	8:00 PM	SE	2.7	
9 Aug 2022	9:00 PM	SE	2.2	
9 Aug 2022	10:00 PM	SE	2.7	
9 Aug 2022	11:00 PM	SE	1.8	
10 Aug 2022	12:00 AM	SE	0.9	
10 Aug 2022	1:00 AM	SE	0.9	
10 Aug 2022	2:00 AM	NW	1.8	
10 Aug 2022	3:00 AM	NNW	1.3	
10 Aug 2022	4:00 AM	SE	2.2	
10 Aug 2022	5:00 AM	ESE	2.7	
10 Aug 2022	6:00 AM	SE	2.2	
10 Aug 2022	7:00 AM	SE	0.9	
10 Aug 2022	8:00 AM	NNE	0.9	
10 Aug 2022	9:00 AM	NNE	0.9	
10 Aug 2022	10:00 AM	Ν	0.9	
10 Aug 2022	11:00 AM	SE	1.8	

August 2022				
Wind Speed and Directions				
Date	Time	Direction	Wind Speed m-s	
10 Aug 2022	12:00 PM	SE	1.3	
10 Aug 2022	1:00 PM	SE	2.2	
10 Aug 2022	2:00 PM	NNE	1.3	
10 Aug 2022	3:00 PM	SE	1.3	
10 Aug 2022	4:00 PM	ESE	1.3	
10 Aug 2022	5:00 PM	NNE	1.3	
10 Aug 2022	6:00 PM	NW	1.3	
10 Aug 2022	7:00 PM	Ν	1.3	
10 Aug 2022	8:00 PM	NW	1.3	
10 Aug 2022	9:00 PM	NNE	1.3	
10 Aug 2022	10:00 PM	NNW	1.3	
10 Aug 2022	11:00 PM	NNW	0.9	
11 Aug 2022	12:00 AM	Ν	1.3	
11 Aug 2022	1:00 AM	Ν	0.9	
11 Aug 2022	2:00 AM	Ν	1.3	
11 Aug 2022	3:00 AM	NNE	1.8	
11 Aug 2022	4:00 AM	NW	1.8	
11 Aug 2022	5:00 AM	NNW	1.8	
11 Aug 2022	6:00 AM	NNE	1.8	
11 Aug 2022	7:00 AM	NNW	1.3	
11 Aug 2022	8:00 AM	ESE	0.9	
11 Aug 2022	9:00 AM	SE	0.9	
11 Aug 2022	10:00 AM	ESE	0.9	
11 Aug 2022	10:00 AM 11:00 AM	NNE	1.3	
		N		
11 Aug 2022	12:00 PM		1.3	
11 Aug 2022	1:00 PM	<u>SE</u>	1.3	
11 Aug 2022	2:00 PM	N	1.3	
11 Aug 2022	3:00 PM	SE	1.3	
11 Aug 2022	4:00 PM	NNW	1.3	
11 Aug 2022	5:00 PM	ESE	1.3	
11 Aug 2022	6:00 PM	SE	1.3	
11 Aug 2022	7:00 PM	ESE	0.9	
11 Aug 2022	8:00 PM	SE	0.9	
11 Aug 2022	9:00 PM	ESE	1.3	
11 Aug 2022	10:00 PM	NNW	1.3	
11 Aug 2022	11:00 PM	NNW	0.9	
12 Aug 2022	12:00 AM	NNW	0.9	
12 Aug 2022	1:00 AM	Ν	0.9	
12 Aug 2022	2:00 AM	NNW	0.9	
12 Aug 2022	3:00 AM	SE	0.9	
12 Aug 2022	4:00 AM	Ν	0.9	
12 Aug 2022	5:00 AM	Ν	0.9	
12 Aug 2022	6:00 AM	NE	0.9	
12 Aug 2022	7:00 AM	NNE	0.9	
12 Aug 2022	8:00 AM	N	0.9	
12 Aug 2022	9:00 AM	SE	0.9	
12 Aug 2022	10:00 AM	SE	1.3	
12 Aug 2022	11:00 AM	SE	2.2	
12 Aug 2022	12:00 PM	SE	2.2	
12 Aug 2022 12 Aug 2022	12.00 PM 1:00 PM	SE	3.1	
12 Aug 2022 12 Aug 2022	2:00 PM	SE	3.1	
-				
12 Aug 2022	3:00 PM	SE	3.1	
12 Aug 2022	4:00 PM	SE	2.7	
12 Aug 2022	5:00 PM	E	1.3	
12 Aug 2022	6:00 PM	SE	1.3	
12 Aug 2022	7:00 PM	SE	0.9	
12 Aug 2022	8:00 PM	SE	1.3	

August 2022				
Wind Speed and Directions				
Date	Time	Direction	Wind Speed m-s	
12 Aug 2022	9:00 PM	ESE	0.9	
12 Aug 2022	10:00 PM	ESE	0.9	
12 Aug 2022	11:00 PM	N	0.9	
13 Aug 2022	12:00 AM	N	1.3	
13 Aug 2022	1:00 AM	NNW	1.3	
13 Aug 2022	2:00 AM	N	0.9	
13 Aug 2022	3:00 AM	N	0.9	
13 Aug 2022	4:00 AM	NW	0.9	
13 Aug 2022	5:00 AM	NNW	0.9	
13 Aug 2022	6:00 AM	SE	0.4	
13 Aug 2022	7:00 AM	SE	0.4	
13 Aug 2022	8:00 AM	SE	1.3	
13 Aug 2022	9:00 AM	SE	1.3	
13 Aug 2022	10:00 AM	SE	1.8	
13 Aug 2022	11:00 AM	ESE	1.8	
13 Aug 2022	12:00 PM	NNE	1.3	
13 Aug 2022	1:00 PM	SE	2.2	
13 Aug 2022	2:00 PM	SE	1.3	
13 Aug 2022	3:00 PM	NNE	1.3	
13 Aug 2022	4:00 PM	ESE	1.3	
13 Aug 2022	5:00 PM	ESE	1.3	
13 Aug 2022	6:00 PM	NW	1.3	
13 Aug 2022	7:00 PM	NNW	1.3	
13 Aug 2022	8:00 PM	Ν	1.3	
13 Aug 2022	9:00 PM	NNE	0.9	
13 Aug 2022	10:00 PM	NW	1.3	
13 Aug 2022	11:00 PM	SE	0.9	
14 Aug 2022	12:00 AM	NNW	1.3	
14 Aug 2022	1:00 AM	Ν	0.9	
14 Aug 2022	2:00 AM	NNE	0.9	
14 Aug 2022	3:00 AM	SE	0.9	
14 Aug 2022	4:00 AM	Ν	0.4	
14 Aug 2022	5:00 AM	NW	1.8	
14 Aug 2022	6:00 AM	W	0.0	
14 Aug 2022	7:00 AM	W	0.0	
14 Aug 2022	8:00 AM	SE	0.4	
14 Aug 2022	9:00 AM	SE	0.9	
14 Aug 2022	10:00 AM	SE	0.9	
14 Aug 2022	11:00 AM	SE	1.3	
14 Aug 2022	12:00 PM	SE	1.3	
14 Aug 2022	1:00 PM	SE	1.8	
14 Aug 2022	2:00 PM	SE	1.8	
14 Aug 2022	3:00 PM	SE	2.2	
14 Aug 2022	4:00 PM	SE	1.8	
14 Aug 2022	5:00 PM	ESE	1.3	
14 Aug 2022	6:00 PM	SE	1.3	
14 Aug 2022	7:00 PM	ESE	0.9	
14 Aug 2022	8:00 PM	SE	0.9	
14 Aug 2022	9:00 PM	NW	0.9	
14 Aug 2022	10:00 PM	N	0.9	
14 Aug 2022	11:00 PM	SE	0.9	
15 Aug 2022	12:00 AM	N	1.3	
15 Aug 2022	12.00 AM 1:00 AM	NNE	0.9	
15 Aug 2022 15 Aug 2022	2:00 AM	ESE	0.9	
15 Aug 2022 15 Aug 2022	3:00 AM	N ESE	0.9	
15 Aug 2022 15 Aug 2022	4:00 AM	N N	0.9	
-				
15 Aug 2022	5:00 AM	NW	0.9	

August 2022				
Wind Speed and Directions				
Date	Time	Direction	Wind Speed m-s	
15 Aug 2022	6:00 AM	NW	0.4	
15 Aug 2022	7:00 AM	NW	0.4	
15 Aug 2022	8:00 AM	ESE	0.9	
15 Aug 2022	9:00 AM	<u>SE</u>	1.8	
15 Aug 2022	10:00 AM 11:00 AM	SE		
15 Aug 2022		SE	1.8	
15 Aug 2022 15 Aug 2022	12:00 PM 1:00 PM	SE SE	2.2	
15 Aug 2022 15 Aug 2022	2:00 PM	SE	1.8	
15 Aug 2022 15 Aug 2022	2:00 PM 3:00 PM	NNE	1.3	
15 Aug 2022 15 Aug 2022	4:00 PM	N N	1.5	
15 Aug 2022 15 Aug 2022	4.00 PM 5:00 PM	N	1.8	
15 Aug 2022 15 Aug 2022	6:00 PM	E N	1.8	
15 Aug 2022 15 Aug 2022	6:00 PM 7:00 PM	ESE	1.3	
-	8:00 PM	SE	1.3	
15 Aug 2022	+ +	SE SE	1.3	
15 Aug 2022	9:00 PM	ESE	1.3	
15 Aug 2022 15 Aug 2022	10:00 PM	<u>ESE</u> SE	0.4	
Ū.	11:00 PM	~_		
16 Aug 2022	12:00 AM	N	0.9	
16 Aug 2022	1:00 AM	SE	1.3	
16 Aug 2022	2:00 AM	SE	0.9	
16 Aug 2022	3:00 AM	SE	0.9	
16 Aug 2022	4:00 AM	SE	1.3	
16 Aug 2022	5:00 AM	SE	1.3	
16 Aug 2022	6:00 AM	SE	0.9	
16 Aug 2022	7:00 AM	ESE	0.4	
16 Aug 2022	8:00 AM	SE	1.3	
16 Aug 2022	9:00 AM	N	1.3	
16 Aug 2022	10:00 AM	SE	1.3	
16 Aug 2022	11:00 AM	N	1.3	
16 Aug 2022	12:00 PM	SE	1.3	
16 Aug 2022	1:00 PM	SE	0.9	
16 Aug 2022	2:00 PM	SE	0.9	
16 Aug 2022	3:00 PM	NW	1.3	
16 Aug 2022	4:00 PM	NNE	0.9	
16 Aug 2022	5:00 PM	SE	0.9	
16 Aug 2022	6:00 PM	ESE	0.4	
16 Aug 2022	7:00 PM	NNE	0.9	
16 Aug 2022	8:00 PM	N	0.9	
16 Aug 2022	9:00 PM	NNW	0.9	
16 Aug 2022	10:00 PM	NW	1.3	
16 Aug 2022	11:00 PM	NW	0.4	
17 Aug 2022	12:00 AM	NW	0.4	
17 Aug 2022	1:00 AM	NW	0.0	
17 Aug 2022	2:00 AM	NNW	0.0	
17 Aug 2022	3:00 AM	NW	0.4	
17 Aug 2022	4:00 AM	NW	0.9	
17 Aug 2022	5:00 AM	NW	0.9	
17 Aug 2022	6:00 AM	ESE	0.4	
17 Aug 2022	7:00 AM	ESE	0.9	
17 Aug 2022	8:00 AM	NNW	0.9	
17 Aug 2022	9:00 AM	N	1.3	
17 Aug 2022	10:00 AM	NW	0.9	
17 Aug 2022	11:00 AM	NW	1.8	
17 Aug 2022	12:00 PM	NW	0.4	
17 Aug 2022	1:00 PM	ESE	0.4	
17 Aug 2022	2:00 PM	NNW	0.4	

August 2022			
	Wind Speed a		
Date	Time	Direction	Wind Speed m-s
17 Aug 2022	3:00 PM	NW	1.8
17 Aug 2022	4:00 PM	WNW	1.8
17 Aug 2022	5:00 PM	NW	0.9
17 Aug 2022	6:00 PM	SE	0.9
17 Aug 2022	7:00 PM	NW	0.9
17 Aug 2022	8:00 PM	NW	0.9
17 Aug 2022 17 Aug 2022	9:00 PM 10:00 PM	NNW NW	1.3
17 Aug 2022 17 Aug 2022	10:00 PM 11:00 PM	SE	1.3
17 Aug 2022 18 Aug 2022	12:00 AM	SE	1.3
18 Aug 2022	12.00 AM 1:00 AM	NW	0.9
18 Aug 2022 18 Aug 2022	2:00 AM	NW	0.9
18 Aug 2022 18 Aug 2022	3:00 AM	NW	0.4
18 Aug 2022	4:00 AM	NW	0.9
18 Aug 2022	5:00 AM	NNW	0.9
18 Aug 2022	6:00 AM	NW	0.9
18 Aug 2022	7:00 AM	NW	1.3
18 Aug 2022	8:00 AM	NW	1.3
18 Aug 2022	9:00 AM	ESE	0.9
18 Aug 2022 18 Aug 2022	10:00 AM	ESE	1.8
18 Aug 2022 18 Aug 2022	10:00 AM 11:00 AM	NNW	1.8
	12:00 PM	N	1.3
18 Aug 2022		NW NW	1.3
18 Aug 2022	1:00 PM 2:00 PM		
18 Aug 2022	2:00 PM	NW	1.3
18 Aug 2022	3:00 PM	NW	1.8
18 Aug 2022	4:00 PM	ESE	1.3
18 Aug 2022	5:00 PM	NNW	
18 Aug 2022	6:00 PM	NW	0.0
18 Aug 2022	7:00 PM	WNW	0.4
18 Aug 2022	8:00 PM	NW	0.9
18 Aug 2022	9:00 PM	SE SE	0.9
18 Aug 2022	10:00 PM 11:00 PM	SE	
18 Aug 2022			0.9
19 Aug 2022	12:00 AM	SE	0.4
19 Aug 2022	1:00 AM	SE	0.0
19 Aug 2022	2:00 AM	SE	0.0
19 Aug 2022	3:00 AM	NW	0.0
19 Aug 2022	4:00 AM	NW NW	0.4
19 Aug 2022	5:00 AM		0.0
19 Aug 2022	6:00 AM	NW	0.4
19 Aug 2022 19 Aug 2022	7:00 AM	NNW	0.0
	8:00 AM	NW	0.4
19 Aug 2022	9:00 AM	NW	0.9
19 Aug 2022	10:00 AM	NW	0.9
19 Aug 2022	11:00 AM	ESE	1.3
19 Aug 2022	12:00 PM	ESE	1.3
19 Aug 2022	1:00 PM 2:00 PM	NNW	2.2
19 Aug 2022	2:00 PM	N	1.8
19 Aug 2022	3:00 PM	NW	2.7
19 Aug 2022	4:00 PM	NW	2.2
19 Aug 2022	5:00 PM	NW	2.7
19 Aug 2022	6:00 PM	ESE	3.1
19 Aug 2022	7:00 PM	NNW	1.8
19 Aug 2022	8:00 PM	NW	1.3
19 Aug 2022	9:00 PM	WNW	0.4
19 Aug 2022	10:00 PM	NW	1.3
19 Aug 2022	11:00 PM	NW	0.9

	August 2022 Wind Speed and Directions			
Date Time Direction Wind Speed m-s				
20 Aug 2022	12:00 AM	NW	0.9	
20 Aug 2022	1:00 AM	NW	0.4	
20 Aug 2022 20 Aug 2022	2:00 AM	NW	0.9	
20 Aug 2022	3:00 AM	NE	0.4	
20 Aug 2022	4:00 AM	N N	0.4	
20 Aug 2022	5:00 AM	N	0.4	
20 Aug 2022	6:00 AM	N	0.0	
20 Aug 2022	7:00 AM	NW	0.4	
20 Aug 2022	8:00 AM	NNW	0.9	
20 Aug 2022	9:00 AM	WNW	1.3	
20 Aug 2022	10:00 AM	W	0.9	
20 Aug 2022	11:00 AM	WNW	0.9	
20 Aug 2022	12:00 PM	WNW	1.3	
20 Aug 2022	1:00 PM	NW	0.9	
20 Aug 2022	2:00 PM	NW	1.8	
20 Aug 2022	3:00 PM	NW	1.3	
20 Aug 2022	4:00 PM	NW	1.8	
20 Aug 2022	5:00 PM	NNW	1.3	
20 Aug 2022	6:00 PM	NW	1.3	
20 Aug 2022	7:00 PM	NW	0.9	
20 Aug 2022	8:00 PM	NW	0.9	
20 Aug 2022	9:00 PM	ESE	0.4	
20 Aug 2022	10:00 PM	ESE	1.3	
20 Aug 2022	11:00 PM	NNW	0.9	
21 Aug 2022	12:00 AM	N	1.3	
21 Aug 2022	1:00 AM	NW	0.9	
21 Aug 2022	2:00 AM	NW	0.4	
21 Aug 2022	3:00 AM	NW	0.4	
21 Aug 2022	4:00 AM	ESE	2.2	
21 Aug 2022	5:00 AM	NNW	1.3	
21 Aug 2022	6:00 AM	NW	0.4	
21 Aug 2022	7:00 AM	WNW	0.9	
21 Aug 2022	8:00 AM	NW	0.4	
21 Aug 2022	9:00 AM	WNW	0.4	
21 Aug 2022	10:00 AM	W	0.9	
21 Aug 2022	11:00 AM	W	0.9	
21 Aug 2022	12:00 PM	NNW	1.3	
21 Aug 2022	1:00 PM	W	1.3	
21 Aug 2022	2:00 PM	W	0.9	
21 Aug 2022 21 Aug 2022	3:00 PM	NW	4.0	
21 Aug 2022	4:00 PM	NW	5.4	
21 Aug 2022	5:00 PM	NW	4.9	
21 Aug 2022	6:00 PM	NW	5.4	
21 Aug 2022	7:00 PM	NNW	2.7	
21 Aug 2022	8:00 PM	WNW	0.9	
21 Aug 2022	9:00 PM	NW	1.8	
21 Aug 2022	10:00 PM	NW	1.8	
21 Aug 2022	11:00 PM	NW	1.8	
22 Aug 2022	12:00 AM	NW	1.3	
22 Aug 2022	1:00 AM	NW	0.9	
22 Aug 2022	2:00 AM	NW	1.3	
22 Aug 2022	3:00 AM	NNW	0.4	
22 Aug 2022 22 Aug 2022	4:00 AM	WNW	0.4	
22 Aug 2022 22 Aug 2022	5:00 AM	NW	0.9	
22 Aug 2022 22 Aug 2022	6:00 AM	NW	0.4	
22 Aug 2022 22 Aug 2022	7:00 AM	NW	0.0	
22 Aug 2022 22 Aug 2022	8:00 AM	NW	1.3	

August 2022			
D (Wind Speed an		XXIII I G
Date	Time	Direction	Wind Speed m-s
22 Aug 2022	9:00 AM	NW	1.3
22 Aug 2022	10:00 AM	W	0.9
22 Aug 2022	11:00 AM	NW	1.8
22 Aug 2022 22 Aug 2022	12:00 PM 1:00 PM	NW NW	3.1
22 Aug 2022 22 Aug 2022	2:00 PM	NW	3.1
22 Aug 2022 22 Aug 2022	3:00 PM	NW	2.7
22 Aug 2022 22 Aug 2022	4:00 PM	NW	3.1
22 Aug 2022 22 Aug 2022	5:00 PM	NW	2.7
22 Aug 2022 22 Aug 2022	6:00 PM	NW	3.1
22 Aug 2022 22 Aug 2022	7:00 PM	NNW	3.1
22 Aug 2022	8:00 PM	NW	2.7
22 Aug 2022	9:00 PM	NW	1.3
22 Aug 2022 22 Aug 2022	10:00 PM	NW	0.4
22 Aug 2022 22 Aug 2022	11:00 PM	ESE	0.9
23 Aug 2022	12:00 AM	ESE	0.4
23 Aug 2022 23 Aug 2022	1:00 AM	NNW	0.9
23 Aug 2022 23 Aug 2022	2:00 AM	N	0.9
23 Aug 2022 23 Aug 2022	3:00 AM	NW	1.3
23 Aug 2022 23 Aug 2022	4:00 AM	NW	1.3
	5:00 AM	NW	0.4
23 Aug 2022		ESE	0.4
23 Aug 2022	6:00 AM		
23 Aug 2022	7:00 AM	NNW	0.9
23 Aug 2022	8:00 AM	NW	
23 Aug 2022	9:00 AM	WNW	0.4
23 Aug 2022	10:00 AM	NW	0.9
23 Aug 2022	11:00 AM	E	1.3
23 Aug 2022	12:00 PM	ESE	0.9
23 Aug 2022	1:00 PM	SE	1.3
23 Aug 2022	2:00 PM	NW	2.2
23 Aug 2022	3:00 PM	NW	2.7
23 Aug 2022	4:00 PM	NW	3.1
23 Aug 2022	5:00 PM	NW	4.0
23 Aug 2022	6:00 PM	NW	2.7
23 Aug 2022	7:00 PM	NNW	1.8
23 Aug 2022	8:00 PM	NW	0.9
23 Aug 2022	9:00 PM	NW	2.2
23 Aug 2022	10:00 PM	NW	2.7
23 Aug 2022	11:00 PM		3.1
24 Aug 2022	12:00 AM	NW	4.0
24 Aug 2022	1:00 AM	ESE	2.7
24 Aug 2022	2:00 AM	SE	1.8
24 Aug 2022	3:00 AM	SE	4.0
24 Aug 2022	4:00 AM	SE	2.7
24 Aug 2022	5:00 AM	SE	1.8
24 Aug 2022	6:00 AM	SE	0.9
24 Aug 2022	7:00 AM	SE	2.2
24 Aug 2022	8:00 AM	SE	2.7
24 Aug 2022	9:00 AM	E	3.1
24 Aug 2022	10:00 AM	SE	1.8
24 Aug 2022	11:00 AM	SE	0.9
24 Aug 2022	12:00 PM	SE	1.8
24 Aug 2022	1:00 PM	SE	2.2
24 Aug 2022	2:00 PM	SE	1.3
24 Aug 2022	3:00 PM	SE	1.3
24 Aug 2022	4:00 PM	SE	1.8
24 Aug 2022	5:00 PM	SE	1.3

August 2022 Wind Speed and Directions					
Date	*				
-	6:00 PM	SE	Wind Speed m-s		
24 Aug 2022 24 Aug 2022	7:00 PM	SE	1.3		
24 Aug 2022 24 Aug 2022	8:00 PM	SE	1.8		
24 Aug 2022 24 Aug 2022	9:00 PM	ESE	2.2		
24 Aug 2022 24 Aug 2022	10:00 PM	ESE	1.8		
24 Aug 2022 24 Aug 2022	10:00 PM	SE	2.7		
24 Aug 2022 25 Aug 2022	12:00 AM	E	2.7		
25 Aug 2022	12:00 AM 1:00 AM	N N	2.7		
25 Aug 2022	2:00 AM	ESE	1.8		
25 Aug 2022	3:00 AM	SSE	1.8		
25 Aug 2022	4:00 AM	SSE	2.2		
25 Aug 2022	5:00 AM	SE	1.8		
25 Aug 2022	6:00 AM	SE	2.2		
25 Aug 2022	7:00 AM	SE	2.2		
25 Aug 2022	8:00 AM	ESE	2.7		
25 Aug 2022	9:00 AM	SE	2.7		
25 Aug 2022	10:00 AM	SE	2.7		
25 Aug 2022	11:00 AM	SE	1.8		
25 Aug 2022	12:00 PM	SE	1.8		
25 Aug 2022 25 Aug 2022	1:00 PM	SE	2.2		
25 Aug 2022 25 Aug 2022	2:00 PM	SE	1.8		
25 Aug 2022 25 Aug 2022	3:00 PM	SE	2.2		
25 Aug 2022 25 Aug 2022	4:00 PM	SE	2.2		
	5:00 PM	SE	0.4		
25 Aug 2022	1				
25 Aug 2022	6:00 PM	SSE SE	0.4		
25 Aug 2022 25 Aug 2022	7:00 PM 8:00 PM	SE WNW	0.4		
-	9:00 PM	SE	1.8		
25 Aug 2022		SE SE			
25 Aug 2022 25 Aug 2022	10:00 PM 11:00 PM	ESE	0.9		
-		SE	0.9		
26 Aug 2022	12:00 AM	SE	0.4		
26 Aug 2022	1:00 AM	SSE			
26 Aug 2022	2:00 AM		0.0		
26 Aug 2022	3:00 AM	NNW	0.0		
26 Aug 2022	4:00 AM	NNW	0.4		
26 Aug 2022	5:00 AM	NNW	1.8		
26 Aug 2022	6:00 AM	NNW	0.9		
26 Aug 2022	7:00 AM	NNW	1.8		
26 Aug 2022	8:00 AM	NNW	0.9		
26 Aug 2022	9:00 AM	NNW	0.9		
26 Aug 2022	10:00 AM	ESE	0.9		
26 Aug 2022	11:00 AM	W	0.9		
26 Aug 2022	12:00 PM	SE	0.9		
26 Aug 2022	1:00 PM	NW	0.4		
26 Aug 2022	2:00 PM	SSE	0.4		
26 Aug 2022	3:00 PM	SE	0.4		
26 Aug 2022	4:00 PM	NNW	0.4		
26 Aug 2022	5:00 PM	NNW	0.4		
26 Aug 2022	6:00 PM	NNW	0.4		
26 Aug 2022	7:00 PM	NW	0.4		
26 Aug 2022	8:00 PM	NW	0.4		
26 Aug 2022	9:00 PM	NW	0.4		
26 Aug 2022	10:00 PM	NW	0.0		
26 Aug 2022	11:00 PM		0.0		
27 Aug 2022	12:00 AM		0.0		
27 Aug 2022	1:00 AM		0.0		
27 Aug 2022	2:00 AM	E	0.4		

August 2022				
	Wind Speed and Directions			
Date	Time	Direction	Wind Speed m-s	
27 Aug 2022	3:00 AM	ESE	0.9	
27 Aug 2022	4:00 AM	ESE	0.4	
27 Aug 2022	5:00 AM	ESE	0.9	
27 Aug 2022	6:00 AM	Е	0.9	
27 Aug 2022	7:00 AM	Е	1.8	
27 Aug 2022	8:00 AM	ESE	1.8	
27 Aug 2022	9:00 AM	ESE	1.3	
27 Aug 2022	10:00 AM	Е	0.9	
27 Aug 2022	11:00 AM	ESE	0.9	
27 Aug 2022	12:00 PM	NNW	1.8	
27 Aug 2022	1:00 PM	NNW	3.1	
27 Aug 2022	2:00 PM	NNW	1.3	
27 Aug 2022	3:00 PM	NNW	1.8	
27 Aug 2022	4:00 PM	NNW	1.3	
27 Aug 2022	5:00 PM	WNW	1.3	
27 Aug 2022	6:00 PM	WNW	2.2	
27 Aug 2022	7:00 PM	W	0.9	
27 Aug 2022	8:00 PM	WNW	2.7	
27 Aug 2022	9:00 PM	WNW	2.2	
27 Aug 2022	10:00 PM	WNW	2.7	
27 Aug 2022	11:00 PM	W	2.7	
28 Aug 2022	12:00 AM	WNW	2.7	
28 Aug 2022	1:00 AM	W	2.7	
28 Aug 2022	2:00 AM	WNW	1.8	
28 Aug 2022	3:00 AM	WNW	1.8	
28 Aug 2022	4:00 AM	WNW	2.2	
28 Aug 2022	5:00 AM	WNW	1.8	
28 Aug 2022	6:00 AM	WNW	2.2	
28 Aug 2022	7:00 AM	WNW	2.2	
28 Aug 2022	8:00 AM	WNW	2.2	
28 Aug 2022	9:00 AM	WNW	1.8	
28 Aug 2022	10:00 AM	WNW	1.8	
28 Aug 2022	11:00 AM	NNW	1.8	
28 Aug 2022	12:00 PM	WNW	0.9	
28 Aug 2022	1:00 PM	WNW	1.3	
28 Aug 2022	2:00 PM	WNW	0.9	

	August 2022 Wind Speed and Directions			
Date Time Direction Wind Speed m-s				
28 Aug 2022	3:00 PM	W	0.9	
28 Aug 2022 28 Aug 2022	4:00 PM	WNW	0.9	
28 Aug 2022 28 Aug 2022	5:00 PM	W	0.9	
28 Aug 2022 28 Aug 2022	6:00 PM	WNW	0.9	
28 Aug 2022 28 Aug 2022	7:00 PM	NW	1.8	
28 Aug 2022 28 Aug 2022	8:00 PM	NW	1.3	
28 Aug 2022 28 Aug 2022	9:00 PM	W	0.4	
28 Aug 2022 28 Aug 2022	10:00 PM	NW	0.4	
28 Aug 2022	11:00 PM	WNW	0.4	
28 Aug 2022 29 Aug 2022	12:00 AM	NW	0.4	
29 Aug 2022 29 Aug 2022	1:00 AM	NW	0.4	
29 Aug 2022 29 Aug 2022	2:00 AM	WNW	0.4	
29 Aug 2022 29 Aug 2022	3:00 AM		1.8	
29 Aug 2022 29 Aug 2022	4:00 AM	NNW NNW	0.9	
U U		NW	0.9	
29 Aug 2022	5:00 AM			
29 Aug 2022	6:00 AM	NW SE	1.8	
29 Aug 2022	7:00 AM			
29 Aug 2022	8:00 AM	SE	0.4	
29 Aug 2022	9:00 AM	NW	0.9	
29 Aug 2022	10:00 AM	NW	0.9	
29 Aug 2022	11:00 AM	NW	1.8	
29 Aug 2022	12:00 PM	NW	2.2	
29 Aug 2022	1:00 PM	NW	2.2	
29 Aug 2022	2:00 PM	NNW	2.7	
29 Aug 2022	3:00 PM	NW	1.3	
29 Aug 2022	4:00 PM	NNW	2.2	
29 Aug 2022	5:00 PM	NNW	1.3	
29 Aug 2022	6:00 PM	NW	0.9	
29 Aug 2022	7:00 PM	W	0.4	
29 Aug 2022	8:00 PM	NNW	0.9	
29 Aug 2022	9:00 PM	NW	0.4	
29 Aug 2022	10:00 PM	W	0.9	
29 Aug 2022	11:00 PM	NNW	2.2	
30 Aug 2022	12:00 AM	NW	1.3	
30 Aug 2022	1:00 AM	SE	0.4	
30 Aug 2022	2:00 AM	ENE	0.4	
30 Aug 2022	3:00 AM	NE	0.4	
30 Aug 2022	4:00 AM	Е	0.4	
30 Aug 2022	5:00 AM	NNW	1.3	
30 Aug 2022	6:00 AM	NNW	0.9	
30 Aug 2022	7:00 AM	NNW	1.3	
30 Aug 2022	8:00 AM	W	1.3	
30 Aug 2022	9:00 AM	W	0.9	
30 Aug 2022	10:00 AM	WNW	0.9	
30 Aug 2022	11:00 AM	WNW	1.8	
30 Aug 2022	12:00 PM	NW	1.3	
30 Aug 2022	1:00 PM	NW	0.9	
30 Aug 2022	2:00 PM	WNW	1.3	
30 Aug 2022	3:00 PM	WNW	1.3	
30 Aug 2022	4:00 PM	WNW	1.3	
30 Aug 2022	5:00 PM	W	1.8	
30 Aug 2022	6:00 PM	WNW	1.3	
30 Aug 2022	7:00 PM	WNW	1.3	
30 Aug 2022	8:00 PM	W	1.3	
30 Aug 2022	9:00 PM	W	1.3	
30 Aug 2022	10:00 PM	WNW	1.3	
30 Aug 2022	11:00 PM	W	0.9	

August 2022			
Wind Speed and Directions			
Date	Time	Direction	Wind Speed m-s
31 Aug 2022	12:00 AM	ESE	0.9
31 Aug 2022	1:00 AM	ESE	0.9
31 Aug 2022	2:00 AM	W	1.3
31 Aug 2022	3:00 AM	Е	1.3
31 Aug 2022	4:00 AM	ESE	0.9
31 Aug 2022	5:00 AM	ESE	1.3
31 Aug 2022	6:00 AM	Е	1.3
31 Aug 2022	7:00 AM	Е	1.3
31 Aug 2022	8:00 AM	Е	1.3
31 Aug 2022	9:00 AM	Е	1.8
31 Aug 2022	10:00 AM	W	2.7
31 Aug 2022	11:00 AM	WNW	2.7
31 Aug 2022	12:00 PM	WNW	2.7
31 Aug 2022	1:00 PM	W	2.7
31 Aug 2022	2:00 PM	W	2.2
31 Aug 2022	3:00 PM	W	2.2
31 Aug 2022	4:00 PM	WNW	2.7
31 Aug 2022	5:00 PM	W	2.2
31 Aug 2022	6:00 PM	WNW	2.7
31 Aug 2022	7:00 PM	W	2.2
31 Aug 2022	8:00 PM	SW	0.4
31 Aug 2022	9:00 PM	SSW	0.4
31 Aug 2022	10:00 PM	SSW	0.4
31 Aug 2022	11:00 PM	SW	0.9

APPENDIX D ENVIRONMENTAL MONITORING SCHEDULES

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 (August 2022)

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

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 (September 2022)

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

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⁾⁽³⁾ - 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

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 (October 2022)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					•	1-Oct
2.0.4	2.0.4	10-4	5.0.4	(0)	7.0.4	8.0.4
2-Oct	3-Oct	4-Oct	5-Oct	6-Oct	7-Oct	8-Oct
	1-hr TSP X3				1-hr TSP X3	
	Noise					
				24-hrs TSP		
9-Oct	10-Oct	11-Oct	12-Oct	13-Oct	14-Oct	15-Oct
				1-hr TSP X3 Noise		
			24-hrs TSP	Noise		
16-Oct	17-Oct	18-Oct	19-Oct	20-Oct	21-Oct	22-Oct
			1-hr TSP X3			
			Noise			
		24-hrs TSP				
23-Oct	24-Oct	` 25-Oct	26-Oct	27-Oct	28-Oct	29-Oct
		1-hr TSP X3				
	24-hrs TSP	Noise				24-hrs TSP
	21110101					21110101
30-Oct	31-Oct	`				
	1-hr TSP X3					
	Noise					
	anged due to unforeseen o					

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⁾⁽³⁾ - 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

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 2022)

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

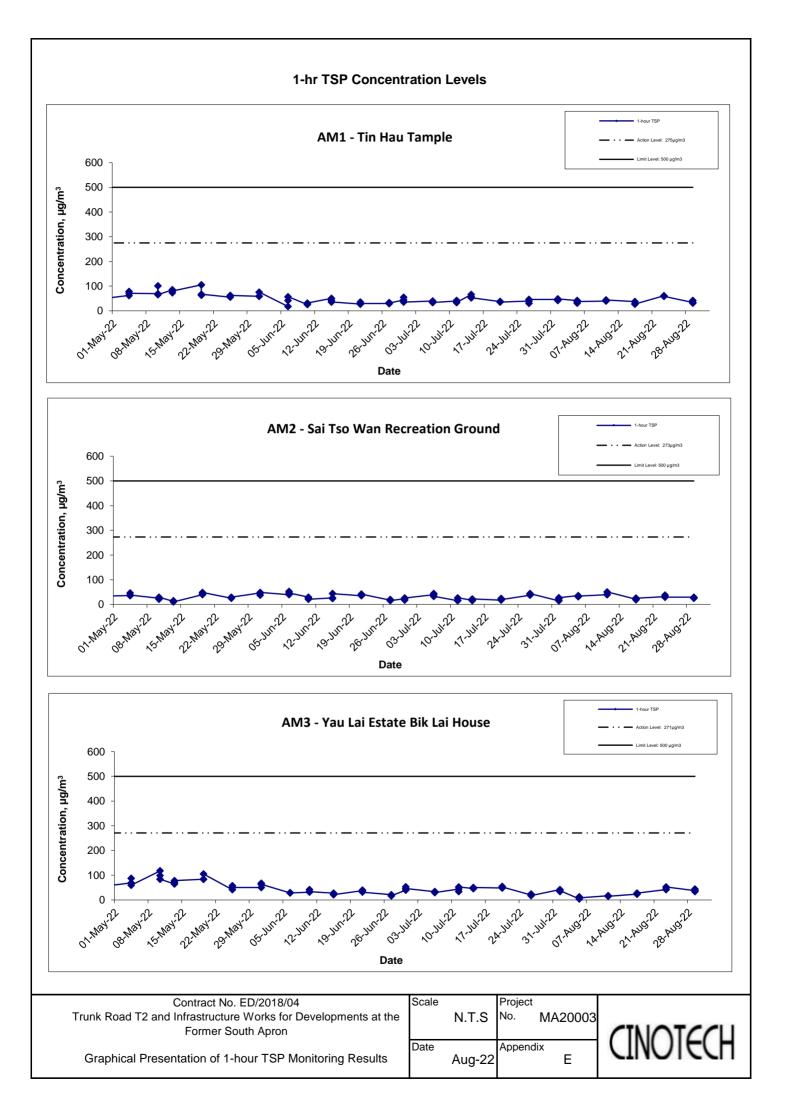
APPENDIX E 1-HOUR TSP MONITORING RESULTS AND GRAPHICAL PRESENTATIONS

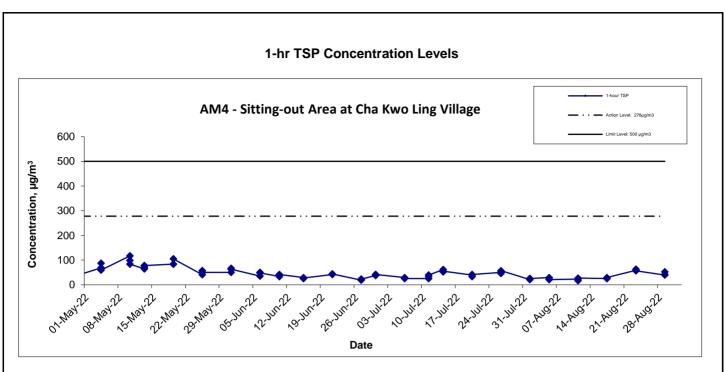
Location AM1 -	Tin Hau Tem	ple	
Date	Time	Weather	Particulate Concentration (µg/m ³)
1-Aug-22	13:00	Sunny	46.2
1-Aug-22	14:00	Sunny	42.0
1-Aug-22	15:00	Sunny	48.3
5-Aug-22	15:00	Rainy	42.0
5-Aug-22	16:00	Rainy	31.5
5-Aug-22	17:00	Rainy	37.8
11-Aug-22	12:50	Rainy	39.9
11-Aug-22	13:50	Rainy	42.0
11-Aug-22	14:50	Rainy	44.1
17-Aug-22	9:00	Cloudy	37.8
17-Aug-22	10:00	Cloudy	29.4
17-Aug-22	11:00	Cloudy	27.3
23-Aug-22	13:00	Sunny	60.9
23-Aug-22	14:00	Sunny	58.8
23-Aug-22	15:00	Sunny	58.8
29-Aug-22	9:45	Fine	33.6
29-Aug-22	10:45	Fine	42.0
29-Aug-22	11:45	Fine	31.5
		Average	41.9
		Maximum	60.9
		Minimum	27.3

Location AM2 -	Sai Tso Wan	Recreation Grou	nd
Date	Time	Weather	Particulate Concentration (µg/m ³)
1-Aug-22	14:00	Sunny	14.7
1-Aug-22	15:00	Sunny	23.1
1-Aug-22	16:00	Sunny	27.3
5-Aug-22	17:00	Rainy	35.7
5-Aug-22	18:00	Rainy	31.5
5-Aug-22	19:00	Rainy	33.6
11-Aug-22	9:10	Rainy	39.6
11-Aug-22	10:10	Rainy	39.6
11-Aug-22	11:10	Rainy	50.6
17-Aug-22	13:00	Cloudy	21.0
17-Aug-22	14:00	Cloudy	18.9
17-Aug-22	15:00	Cloudy	25.2
23-Aug-22	14:00	Sunny	31.5
23-Aug-22	15:00	Sunny	37.8
23-Aug-22	16:00	Sunny	29.4
29-Aug-22	10:00	Fine	29.4
29-Aug-22	11:00	Fine	25.2
29-Aug-22	12:00	Fine	25.2
		Average	30.0
		Maximum	50.6
		Minimum	14.7

Location AM3 -	Yau Lai Esta	te Bik Lai House	
Date	Time	Weather	Particulate Concentration (µg/m ³)
1-Aug-22	9:00	Sunny	42.0
1-Aug-22	10:00	Sunny	33.6
1-Aug-22	11:00	Sunny	37.8
5-Aug-22	13:00	Rainy	4.2
5-Aug-22	14:00	Rainy	12.6
5-Aug-22	15:00	Rainy	8.4
11-Aug-22	9:30	Rainy	16.8
11-Aug-22	10:30	Rainy	16.8
11-Aug-22	11:30	Rainy	14.7
17-Aug-22	9:00	Cloudy	23.1
17-Aug-22	10:00	Cloudy	25.2
17-Aug-22	11:00	Cloudy	27.3
23-Aug-22	9:00	Sunny	42.0
23-Aug-22	10:00	Sunny	44.1
23-Aug-22	11:00	Sunny	52.5
29-Aug-22	14:00	Sunny	37.8
29-Aug-22	15:00	Sunny	33.6
29-Aug-22	16:00	Sunny	44.1
		Average	28.7
		Maximum	52.5
		Minimum	4.2

Location AM4 -	Sitting-out A	rea at Cha Kwo L	ing Village
Date	Time	Weather	Particulate Concentration (µg/m ³)
1-Aug-22	16:00	Sunny	21.0
1-Aug-22	17:00	Sunny	25.2
1-Aug-22	18:00	Sunny	25.2
5-Aug-22	17:00	Rainy	29.4
5-Aug-22	18:00	Rainy	23.1
5-Aug-22	19:00	Rainy	21.0
11-Aug-22	15:30	Rainy	23.1
11-Aug-22	16:30	Rainy	16.8
11-Aug-22	17:30	Rainy	27.3
17-Aug-22	13:00	Cloudy	25.2
17-Aug-22	14:00	Cloudy	25.2
17-Aug-22	15:00	Cloudy	29.4
23-Aug-22	16:00	Sunny	58.8
23-Aug-22	17:00	Sunny	63.0
23-Aug-22	18:00	Sunny	56.7
29-Aug-22	11:30	Fine	39.9
29-Aug-22	12:30	Fine	42.0
29-Aug-22	13:30	Fine	52.5
		Average	33.6
		Maximum	63.0
		Minimum	16.8





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	Scale		Project No. MA20003	CINOTCOL
Graphical Presentation of 1-hour TSP Monitoring Results	Date	Aug-22	Appendix E	

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	Filter Weight (g)		Particulate	Particulate Elapse Time			Flow Rat	e (m³/min.)	Av. flow	Total vol	Conc.
Start Date	Condition	Initial	Final	Weight (g)	Initial	Final	Time(hrs.)	Initial	Final	(m ³ /min)	(m ³)	(µg/m ³)
4-Aug-22	Cloudy	3.3035	3.4216	0.1181	10386.7	10410.7	24.0	1.22	1.22	1.22	1754.8	67.3
10-Aug-22	Sunny	3.3210	3.4843	0.1633	10410.7	10434.7	24.0	1.22	1.22	1.22	1754.5	93.1
16-Aug-22	Sunny	3.3067	3.4633	0.1566	10434.7	10458.7	24.0	1.21	1.22	1.22	1749.8	89.5
22-Aug-22	Sunny	3.3431	3.6433	0.3002	10458.7	10482.7	24.0	1.21	1.21	1.21	1745.4	172.0
27-Aug-22	Fine	3.3320	3.5740	0.2420	10506.5	10530.5	24.0	1.22	1.21	1.21	1748.8	138.4
											Min	67.3
											Max	172.0
											Average	112.0

Location AM2 - Sai Tso Wan Recreation Ground

Start Date	Weather	Filter Weight (g)		Particulate Elapse Time		Sampling	Sampling Flow Rate (m ³ /min.)			Av. flow Total vol.	Conc.	
otart Bate	Condition	Initial	Final	Weight (g)	Initial	Final	Time(hrs.)	Initial	Final	(m ³ /min)	(m ³)	$(\mu g/m^3)$
4-Aug-22	Rainy	3.3577	3.4115	0.0538	31507.1	31531.1	24.0	1.22	1.22	1.22	1754.9	30.7
10-Aug-22	Rainy	3.2973	3.3537	0.0564	31531.1	31555.1	24.0	1.22	1.22	1.22	1754.7	32.1
16-Aug-22	Cloudy	3.3270	3.3775	0.0505	31555.1	31579.1	24.0	1.21	1.22	1.22	1749.7	28.9
22-Aug-22	Fine	3.3292	3.4157	0.0865	31579.1	31603.1	24.0	1.21	1.21	1.21	1744.9	49.6
27-Aug-22	Fine	3.2949	3.3900	0.0951	31603.1	31627.1	24.0	1.22	1.21	1.21	1748.7	54.4
											Min	28.9
											Max	54.4

Average 39.1

Average 21.2

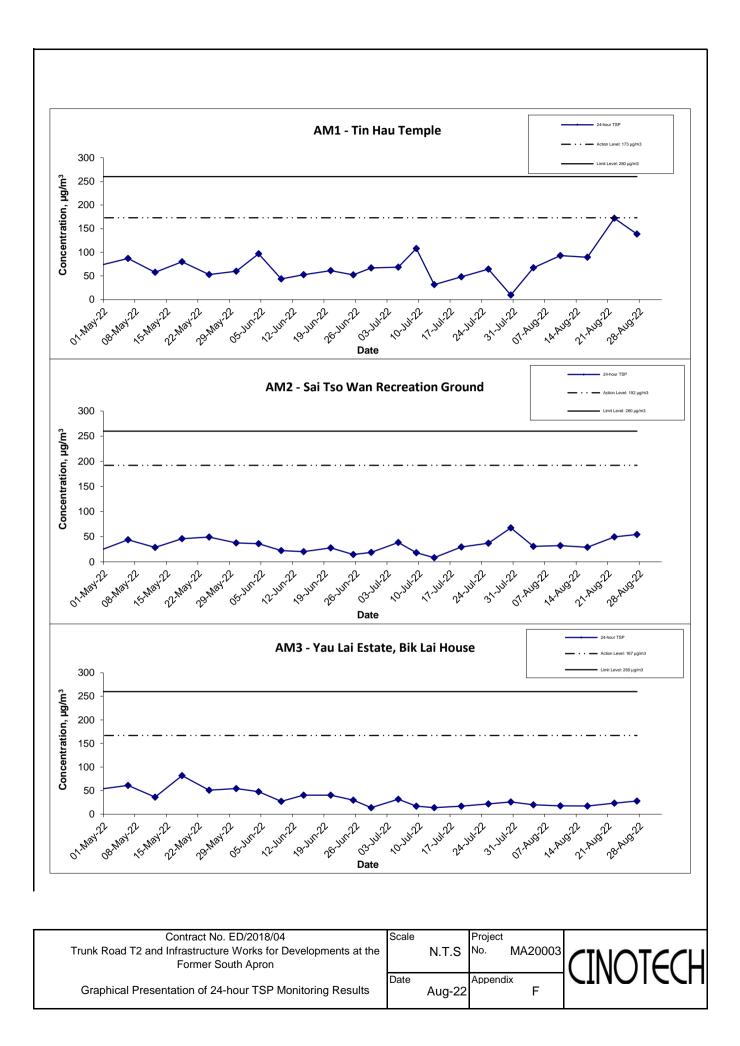
Location AM3 - Yau Lai Estate, Bik Lai House

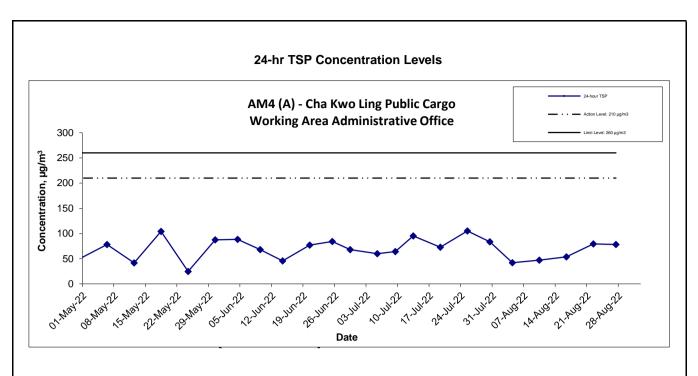
Start Date	Weather	Filter Weight (g)		Particulate	Elaps	e Time	Sampling Flow Ra		e (m ³ /min.)	Av. flow	Total vol.	Conc.
Start Date	Condition	Initial	Final	Weight (g)	Initial	Final	Time(hrs.)	Initial	Final	(m ³ /min)	(m ³)	$(\mu g/m^3)$
4-Aug-22	Rainy	3.3611	3.3961	0.0350	5849.6	5873.6	24.0	1.22	1.22	1.22	1754.4	19.9
10-Aug-22	Rainy	3.2836	3.3147	0.0311	5873.6	5897.6	24.0	1.22	1.22	1.22	1755.7	17.7
16-Aug-22	Cloudy	3.3166	3.3468	0.0302	5897.6	5921.6	24.0	1.21	1.22	1.22	1751.4	17.2
22-Aug-22	Sunny	3.3375	3.3782	0.0407	5921.6	5945.6	24.0	1.21	1.21	1.21	1745.3	23.3
27-Aug-22	Fine	3.3144	3.3630	0.0486	5945.6	5969.6	24.0	1.22	1.21	1.22	1750.4	27.8
											Min	17.2
											Max	27.8

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

Start Date	Weather	Filter Weight (g)		Particulate Elapse Time		Sampling	Flow Rate (m ³ /min.)		Av. flow	Total vol.	Conc.	
Start Date	Condition	Initial	Final	Weight (g)	Initial	Final	Time(hrs.)	Initial	Final	(m ³ /min)	(m ³)	(µg/m ³)
4-Aug-22	Rainy	3.3186	3.3925	0.0739	16863.7	16887.7	24.0	1.22	1.22	1.22	1761.7	41.9
10-Aug-22	Rainy	3.3407	3.4236	0.0829	16887.7	16911.7	24.0	1.22	1.22	1.22	1760.5	47.1
16-Aug-22	Rainy	3.3029	3.3970	0.0941	16911.7	16935.7	24.0	1.22	1.22	1.22	1755.9	53.6
22-Aug-22	Sunny	3.3975	3.5363	0.1388	16935.7	16959.7	24.0	1.22	1.21	1.22	1751.0	79.3
27-Aug-22	Sunny	3.4086	3.5459	0.1373	16959.7	16983.7	24.0	1.22	1.22	1.22	1754.3	78.3
											Min	41.9
											Max	79.3

Average 60.0 *In June 2022, the 24 TSP Monitoring at AM4(A) is suspended and under application for relocation. Once the proposal for relocation is approved, the monitoring at AM4(A) will be conducted at AM4(B). For the time being, as the station CKL2 for the 24 hr TSP monitoring, carried out under EM&A works for Trunk Road T2 Project (EP-451/2013), is located in close proximity to AM4(A); the results from CKL2 are adopted as reference for the 24 TSP monitoring at AM4(A), which has similar environment when compared with that for CKL2.





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.
- 4) *In June 2022, the 24 TSP Monitoring at AM4(A) is suspended and under application for relocation.Once the proposal for relocation is approved, the monitoring at AM4(A) will at conducted at AM4(B). For the time being, as the station CKL2 for the 24 hr TSP monitoring, carried out under EM&A works for Trunk Road T2 Project (EP-451/2013), is located in close proximity to AM4(A); the results from CKL2 are adopted as reference for the 24 TSP monitoring at AM4(A), which has similar environment when compared with that for CKL2.

					1
Contract No. ED/2018/04	Scale	Project			I
Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron	N.T	Г.S ^{No.}	MA20003	CINOTECH	
Graphical Presentation of 24-hour TSP Monitoring Results	Date Aug	Appendi g-22			

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									
				Unit: dB (A) (30-min)					
Date	Time	Weather	Meas	sured Noise	Level	Baseline Level	Construction Noise Level		
Duit	Time	Weather	L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}		
1 Aug 2022	9:42	Sunny	72.9	75.9	70.4	65.5	72		
11 Aug 2022	11:40	Drizzle	74.9	76.9	72.2	65.5	74		
17 Aug 2022	11:48	Cloudy	73.2	74.4	71.7	65.5	72		
23 Aug 2022	16:35	Fine	68.6	71.5	62.7	65.5	66		
29 Aug 2022	13:20	Sunny	71.4	72.6	70.0	65.5	70		

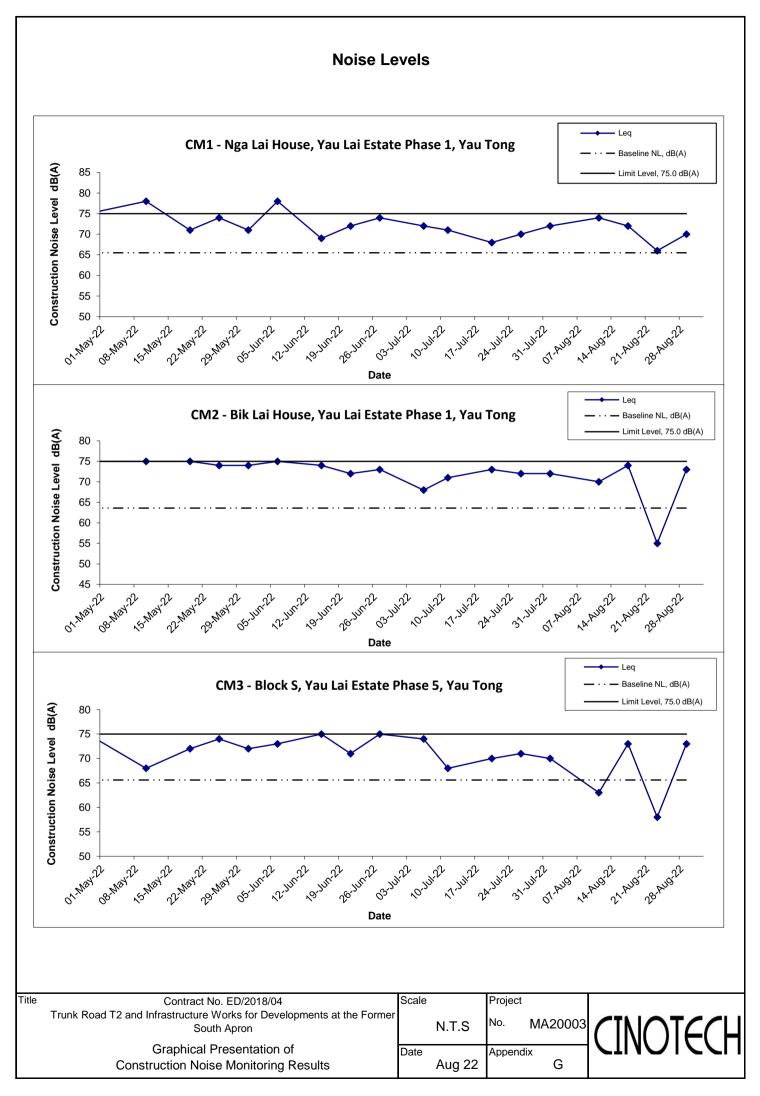
Location CM2 - Bik Lai House, Yau Lai Estate Phase 1, Yau Tong									
			Unit: dB (A) (30-min)						
Date	Time	Weather	Meas	sured Noise I	_evel	Baseline Level	Construction Noise Level		
Duit	Time	Weather	L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}		
1 Aug 2022	9:00	Sunny	72.3	75.1	70.1	63.6	72		
11 Aug 2022	10:55	Drizzle	70.8	72.9	68.0	63.6	70		
17 Aug 2022	11:02	Cloudy	74.3	76.4	71.2	63.6	74		
23 Aug 2022	17:05	Fine	54.6	57.2	50.5	63.6	55 Measured \leq Baseline		
29 Aug 2022	14:05	Sunny	73.8	75.8	71.2	63.6	73		

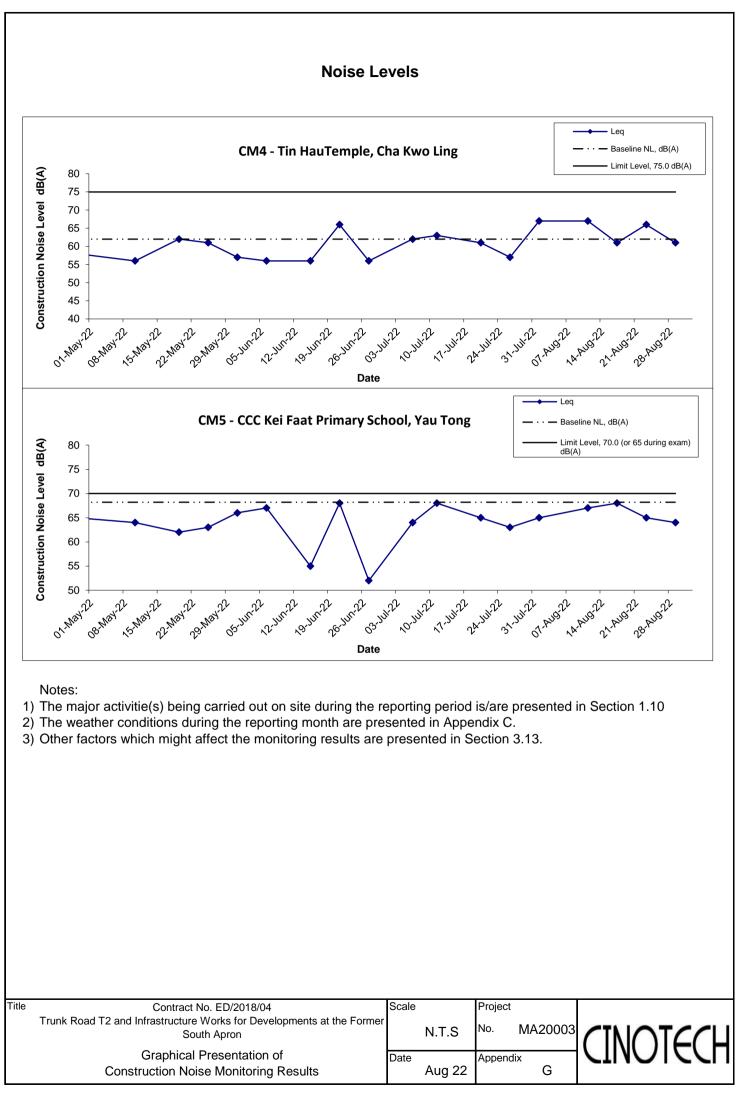
Location CM3 -	Location CM3 - Block S, Yau Lai Estate Phase 5, Yau Tong									
				Unit: dB (A) (30-min)						
Date	Time	Weather	Meas	sured Noise I	_evel	Baseline Level	Construction Noise Level			
	Time	Weather	L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}			
1 Aug 2022	10:21	Sunny	71.2	74.9	69.3	65.6	70			
11 Aug 2022	10:05	Drizzle	67.6	68.9	66.2	65.6	63			
17 Aug 2022	10:10	Cloudy	74.1	76.0	71.5	65.6	73			
23 Aug 2022	17:15	Fine	58.1	59.2	56.7	65.6	58 Measured \leq Baseline			
29 Aug 2022	15:00	Sunny	73.7	75.5	71.4	65.6	73			

ocation CM4 - Tin Hau Temple, Cha Kwo Ling										
				Unit: dB (A) (30-min)						
Date	Time	Weather	Meas	sured Noise	Level	Baseline Level	Construction Noise Level			
Date	Time	vvcatilei	L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}			
1 Aug 2022	13:05	Sunny	68.3	70.2	66.1	62.0	67			
11 Aug 2022	14:05	Drizzle	68.3	71.3	60.5	62.0	67			
17 Aug 2022	13:54	Cloudy	64.7	65.5	60.8	62.0	61			
23 Aug 2022	10:11	Sunny	67.5	69.9	63.5	62.0	66			
29 Aug 2022	10:20	Fine	60.8	62.0	57.4	62.0	61 Measured ≦ Baseline			

Location CM5 - CCC Kei Faat Primary School, Yau Tong										
			Unit: dB (A) (30-min)							
Date	Time	Weather	Meas	sured Noise I	_evel	Baseline Level	Construction Noise Level			
Duit		Weather	L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}			
1 Aug 2022	10:56	Sunny	64.9	66.9	62.1	68.2	65 Measured ≦ Baseline			
11 Aug 2022	9:20	Drizzle	70.5	72.7	67.3	68.2	67			
17 Aug 2022	9:24	Cloudy	71.2	73.5	68.0	68.2	68			
23 Aug 2022	11:00	Sunny	69.8	71.9	67.0	68.2	65			
29 Aug 2022	9:30	Fine	69.7	71.6	66.9	68.2	64			

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APPENDIX H WASTE GENERATION IN THE REPORTING MONTH



Name of Department: CEDD

Monthly Summary Waste Flow Table for 2022 (CKL)

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

	Actu	al Quantities	of Inert C&D	Materials G	enerated Mo	nthly	Actual C	Quantities of	C&D Wastes	s Generated	Monthly
Month	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		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	4.615	4.615	0.000	4.615	0.000	0.000	0.000	0.000	0.000	0.000	0.031
February	1.374	1.374	0.000	1.374	0.000	0.000	0.000	0.000	0.000	0.000	0.005
March	2.227	2.227	0.000	2.227	0.000	0.000	0.000	0.000	0.000	0.000	0.009
April	2.249	2.249	0.000	2.249	0.000	0.000	0.000	0.000	0.000	0.000	0.019
May	4.334	4.334	0.000	4.334	0.000	0.000	0.000	0.000	0.000	3.200	0.024
June	3.429	3.429	0.000	3.429	0.000	0.000	0.000	0.000	0.000	0.000	0.026
Sub-total	18.228	18.228	0.000	18.228	0.000	0.000	0.000	0.000	0.000	3.200	0.114
July	3.158	3.158	0.000	3.158	0.000	0.000	0.000	0.000	0.000	0.000	0.019
August	1.770	1.770	0.000	1.770	0.000	0.000	0.000	0.000	0.000	3.810	0.020
September											
October											
November											
December											
Total	23.156	23.156	0.000	23.156	0.000	0.000	0.000	0.000	0.000	7.010	0.153

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

Contract No. ED/2018/04

Environmental Team for Trunk Road T2 and Infrastructure Works at the Former South Apron

Weekly Site Inspection Record Summary Inspection Information 220804 Checklist Reference Number 220804 Date 04 August 2022 (Thursday) 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.				
	 <i>C. Air Quality</i> No environmental deficiency was identified during site inspection. <i>D. Construction Noise Impact</i> 				
	• 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.:220728), no major environmental deficiency was				
	identified.				

	Name	Signature	Date
Recorded by	Tim Lui	Cigl-	04 August 2022
Checked by	Karina Chan	Zelle	04 August 2022

Weekly Site Inspection Record Summary

Inspection Information					
Checklist Reference Number	220811				
Date	11 August 2022 (Thursday)				
Time	09:30 – 12:00				

Checklist Reference Number		220811	
Date		11 August 2022 (Thursday)	
Time		09:30 - 12:00	
		· ·	
D 4 M	Non-Compliance		Related
Pof No			
Ref. No.	Non-Compnance		Item No.

Ref. No.	Remarks/Observations			
	<i>B. Water Quality</i>No environmental deficiency was identified during site inspection.			
	<i>C. Air Quality</i>No environmental deficiency was identified during site inspection.			
	<i>D. Construction Noise Impact</i>No environmental deficiency was identified during site inspection.			
	 <i>E. Waste/Chemical Management</i> No environmental deficiency was identified during site inspection. 			
	<i>F. Visual and Landscape</i>No environmental deficiency was identified during site inspection.			
	<i>G. Permits/Licences</i>No environmental deficiency was identified during site inspection.			
	<i>H. Marine Ecology</i>No environmental deficiency was identified during site inspection.			
	<i>I. Others</i>Follow up on the previous session (Ref No.:220804), no major environmental deficiency was identified.			

	Name	Signature	Date
Recorded by	Tim Lui	Cife-	11 August 2022
Checked by	Karina Chan	Zelle	11 August 2022

Contract No. ED/2018/04

Environmental Team for Trunk Road T2 and Infrastructure Works at the Former South Apron

Weekly Site Inspection Record Summary Inspection Information 220818 Checklist Reference Number 220818 Date 18 August 2022 (Thursday) Time 09:30 – 12:00

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

Ref. No.	Remarks/Observations	Related Item No
	<i>B. Water Quality</i>No environmental deficiency was identified during site inspection.	
	<i>C. Air Quality</i>No environmental deficiency was identified during site inspection.	
	<i>D. Construction Noise Impact</i>No environmental deficiency was identified during site inspection.	
	<i>E. Waste/Chemical Management</i>No environmental deficiency was identified during site inspection.	
	<i>F. Visual and Landscape</i>No environmental deficiency was identified during site inspection.	
	<i>G. Permits/Licences</i>No environmental deficiency was identified during site inspection.	
	<i>H. Marine Ecology</i>No environmental deficiency was identified during site inspection.	
	<i>I. Others</i>Follow up on the previous session (Ref No.:220811), no major environmental deficiency was identified.	

	Name	Signature	Date
Recorded by	Tim Lui	Cigl:	18 August 2022
Checked by	Karina Chan	Jalle	18 August 2022

Contract No. ED/2018/04

Environmental Team for Trunk Road T2 and Infrastructure Works at the Former South Apron

Weekly Site Inspection Record Summary Inspection Information

Checklist Reference Number	220824
Date	24 August 2022 (Wednesday)
Time	09:30 - 12:00

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

Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Water Quality</i>No environmental deficiency was identified during site inspection.	
220824 - R1	<i>C. Air Quality</i>Damaged NRMM label was observed on the PME.	C21
	<i>D. Construction Noise Impact</i>No environmental deficiency was identified during site inspection.	
	<i>E. Waste/Chemical Management</i>No environmental deficiency was identified during site inspection.	
	<i>F. Visual and Landscape</i>No environmental deficiency was identified during site inspection.	
	<i>G. Permits/Licences</i>No environmental deficiency was identified during site inspection.	
	<i>H. Marine Ecology</i>No environmental deficiency was identified during site inspection.	
	 <i>I. Others</i> Follow up on the previous session (Ref No.:220818), no major environmental deficiency was identified. 	

	Name	Signature	Date
Recorded by	Tim Lui	Cigl-	24 August 2022
Checked by	Karina Chan	Zelle	24 August 2022

APPENDIX J ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

App J - ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

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						
\$3.8.1	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
\$3.8.1	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
\$3.8.7	 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

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?
	Valid No-road Mobile Machinery (NRMM) labels should be provided to regulated machines	Reduce air pollution emission from construction				APCO
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 Sitencers or mulflers 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 storgly 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 Impac	et (Construction Phase)					
\$5.6.24	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
\$5.8.1	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
\$5.8.2	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

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?
\$5.8.3	 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 	Control potential impacts from filling activities and marine-based construction	CEDD's Contractors	Work site	Construction Phase	EIAO-TM, WPCO, Waste Disposal Ordinance (WDO)
\$5.8.4	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 \$5.6.1	 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. 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. It is important that appropriate measures are implemented to control runoff and drainage and prevent 	Control potential impacts from dredging and filling works for Reclamation for Road P2 Control potential impacts from construction site	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
\$5.8.5	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
\$5.8.6	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

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?
\$5.8.7	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
\$5.8.8 \$5.8.8	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	Control potential impacts from construction site runoff and land-based construction	CEDD's Contractors	Work site	Construction Phase	ProPECC PN 1/94, EIAOTM, WPCO
\$5.8.8	adequate maintenance of drainage systems to prevent flooding and overflow.					
\$5.8.9	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
\$5.8.10	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
\$5.8.11	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

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?
\$5.8.17	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
\$5.8.18	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
\$5.8.19	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
\$5.8.20	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
\$5.8.21	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
\$5.8.22	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
\$5.8.23	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
\$5.8.24	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
\$5.8.25 - \$5.8.27 & 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
\$5.8.28	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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\$5.8.32	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 sitt 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
\$5.8.35	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
\$5.8.38	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
\$5.8.39	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
\$5.8.42	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
\$5,8.46	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						
\$6.8.4	 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

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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 <i>Ouldstreat crispata</i>, 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 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. Post translocation Monitoring 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 connunsities. 	Minimize loss of coral	Design team, contractor, project operator	Within reclamation areas and pier footprint	Prior construction	N/A

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\$6.8.9 \$6.8.10	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
\$6.8.11	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						
\$7.7.3	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)
\$8.6.4	 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)
\$8.6.5	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

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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 keyt wet during excavated sediment to the barge should be controlled to avoid splashing and overflowing of the sediment to the barge should be controlled to avoid splashing and overflowing of the sediment shury to the surrounding water. 		Contractor	All works areas with sediments concern	Construction Phase	ETWB TCW No. 19/2005

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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 excavated 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 proved 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 conducted by aread or covered by limings 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 escavated sediment to the barge should be conducted to avoid splashing and overflowing of 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 materials does not take place during transportation. Transport barges or vessels shall be equipped with sutomatic self-monitoring devices as specified by the DEP. In order to minimise the exposure to contaminated materials, workers should, when recessary, wear appropriate personal protective equipments (P	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			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 H	eritage (Construction Phase)					
\$9.6.4	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
\$9.6.4	Indirect vibration impact • Vibration level is suggest to be controlled within a peak particle velocity (ppv) limit of Smm/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 Visua	l 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

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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 Contrac		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)			-			
\$11.5.9	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:	Protect the workers from landfill gas hazards	Contractor	Project sites within the Sai Tso Wan Landfill	Construction phase	EPD's Landfill Gas Hazard Assessment	
	Methane 0-100% LEL and 0100% v/v Carbon dioxide 0-100% Oxygen 0-21%			Consultation Zone		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?
\$11.5.10 \$11.5.25	 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 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 superofing 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 ho 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 whit the capacity to accumu	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?
	 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 ginition 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. 					
\$11.5.10 \$11.5.25	 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 asphysiating 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. 					
\$11.5.26 - \$11.5.31	 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 dearried 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
\$11.5.32	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

X 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								
	Damaged NRMM label was observed on the PME	The damaged NRMM label should be replaced by the valid NRMM label	24 Aug 2022	\checkmark				
Construction N	Noise Impact							
Water Quality	Impact							
Ecological Imp	Ecological Impact							
Fisheries Impa	uct							
Waste Manage	ement							
Landscape and	Landscape and Visual Impact							
Landfill Gas H	Landfill Gas Hazards							

APPENDIX L EVENT AND ACTION PLANS

Event and Action Plan for Air Quality (Dust)

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

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

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

Event and Action Plan for Construction Noise

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

Parameter	Limit Level	Action			
	<19%	• Ventilate to restore oxygen to >19%			
Ovugan		• Stop works			
Oxygen	<18%	• Evacuate personnel/prohibit entry			
		• Increase ventilation to restore oxygen to >19%			
	>100/ LEL (i.e. $> 0.50/$ by yolympe)	• Prohibit hot works			
	>10% LEL (i.e. > 0.5% by volume)	• Ventilate to restore methane to <10% LEL			
Methane		• Stop works			
	>20% LEL (i.e. > 1% by volume)	• Evacuate personnel / prohibit entry			
		• Increase ventilation to restore methane to <10% LEL			
	>0.5%	• Ventilate to restore carbon dioxide to $< 0.5\%$			
Carbon		• Stop works			
Dioxide	>1.5%	• Evacuate personnel / prohibit entry			
		\bullet Increase ventilation to restore carbon dioxide to ${<}0.5\%$			

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

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

Reporting Month: August 2022

Table M1Summary of Environmental Complaint, Warning, Summon and Notification of Successful Prosecution Received in the Reporting
Period

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

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

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

Table M2	Cumulative Log for Environmental Complaint, Warning, Summon and Notification of Successful Prosecution
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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
	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		• The construction activities of Trunk Road T2 conducted inside the tunnel area and the construction activities of TKO-LT Tunnel conducted inside	
Complaint #N04	Portion T1	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.	Noise	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	Monul: Aug	2ust 2022				
Log Ref.	Location	Received Date	Details of Complaint/warning/summon and prosecution	Nature	Investigation/Mitigation Action	Status
					 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-RE0071-21), the immediate remedial action shall be implemented in case adverse ground-borne noise impact on any noise sensitive receiver is received. 	

Appendix M – Summary of 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
		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.		• 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	
Complaint #N05	Portion T1	27 July 2021	Complainant further informed that they continued to hear underground breaking noise during 3-5 a.m. on 27 July 2021.	Noise	 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 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 	Closed

Appendix M – Summary of 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
					 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. 	
Complaint #N06	Portion T1	03-Nov- 2021	Complainant informed that underground breaking noise was heard at his/her residence (near Cha Kwo Ling Main Road) at about 10 p.m. on 03 Nov 2021. Also, the complainant further informed that recently they continued to hear underground breaking noise which had caused serious noise nuisance to the residents.	Noise	 No major construction noise related environmental deficiency was identified during ad-hoc inspection carried out by ET, RE and the Contractor representative on 12 November 2021. 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

Log Ref.	Location	Received Date	Details of Complaint/warning/summon and prosecution	Nature	Investigation/Mitigation Action	Status
Complaint #N06	Portion T1	25-Nov- 2021	Follow up complaint from the same complainant which informed that there was still ground bound noise nuisance after 10 p.m occasionally. The complainant further requested if the relevant works that may contribute to ground bound noise nuisance could be stopped after 10 p.m.	Noise	 A valid CNP was hold and the investigation is still undertaken in order to investigate 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-RE1035-21), the immediate remedial action shall be implemented in case adverse ground-borne noise impact on any noise sensitive receiver is received. 	Closed

Appendix M – Summary of 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	Portion	17-Feb- 22	 The construction activities of Trunk Road T2 conducted inside the tunne area and the construction activities TKO-LT Tunnel conducted inside the tunnel section at Kwun Tong Side 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 					
#N07	T1	24- March-22	Follow up complaint from the same complainant was received and he/she informed that the day	Noise	 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 	Closed		

Appendix M – Summary of 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
		12-April- 22	3 rd complaint from the same complainant was received again, he/ she complained that his/ her family were affected by the noise from construction site of T2 at the night-time period and felt no improvement on this issues.		 regularly maintenance for PMEs. Contractor is recommended to continue to strictly follow the requirements in the relevant CNP and the approved CNMP. According to the condition 3.d point 5 of the CNP (GW-RE1201-21, GW-RE0199-22), 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

Contract No. ED/2018/04

Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron

Appendix N – Summary of Exceedance

Reporting Period: August 2022

(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 Level exceedance was recorded due to the documented complaint in the reporting month.

No 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	Start	Finish										2022	i							App	endix A
				Febru 30 06		March	20 27	Ap 03 10	pril 17 24	May 01 08 15	<u> </u>	29 05	June 12 19	26 03	July 3 10 17	24	Augus		Septer		Octob	ober 16 23 D
ED/2018/04 - Trunk Road T2	932	13-Mar-21 A	29-Aug-24																			, <u> </u>
DESIGN SUBMISSION & APPROVAL	415	15-Mar-21 A	29-Nov-22					+														
GENERAL	314	10-Sep-21 A						÷														
DAP - WVB	12	18-Oct-22	31-Oct-22																		k	<u></u> !'
DDA - Draft - Final Review and prepare for 1st Sub	12	18-Oct-22	31-Oct-22		 								· · · · · · · · · · · · · · · · · · ·									+ /
DDA Street Lighting (AGR/ DPR/ S20/ L10/ L18)		22-Dec-21 A														- +						
DDA - 7th Review by SO					 								1 1 1 1 1 1 1 1 1 1			-						·
DDA - Further information required by SO	12			1 1	1	ion required by SO																
DDA - 8th Sub	0		27-Jan-22 A								· 1 1 · · · · 1 . · · · · · ·											, <u> </u>],
DDA - 8th Review by SO	35	28-Jan-22 A	29-Mar-22 A		;			DA - 8th Re	eview by SO		·				$r = \frac{1}{1} = \frac{1}{1} = \frac{1}{1} = \frac{1}{1} = \frac{1}{1} = \frac{1}{1} = \frac{1}{1}$,
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DDA Landscape Design		10-Sep-21 A																				
DDA - Further information required by SO	24	10-Sep-21 A	05-Jan-22 A	ation required	d by SO																	
DDA - 2nd Sub	0	1	05-Jan-22 A								· +											:
DDA - 2nd Review by SO	35	06-Jan-22 A	14-Mar-22 A				DA-2nd Re	view by SO							$\frac{1}{1}$							· · · · · · · · · · · · · · · · · · ·
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DDA - 3rd Review by SO	35	26-May-22 A	08-Jul-22												DDA - 3rd	Review	vby SO					י ן יו
DDA - SO Consent for Construction	0		08-Jul-22										- 		♦ DDA- SC) Çonser	nt for Construction	אר חו				ا
DEPRESSED ROAD [DPR]		09-Sep-21 A		1 1				+														· · · · · · · · · · · · · · · · · · ·
DDA DPR - Portal Structure		09-Sep-21 A	-						· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·											· · · · · · · · · · · · · · · · · · ·
DDA - Review by IP / DC	28	09-Sep-21 A	07-Jan-22 A	/ DC																		,
DDA - Further information required by SO	12	06-Oct-21 A	07-Jan-22 A	nation requir	red by SO)									$r = \frac{1}{1} - $							
DDA - 2nd Sub	0		07-Jan-22 A																			
DDA - 2nd Review by SO	35	08-Jan-22 A	21-Feb-22 A		D	DDA - 2nd Review by	y SO															
DDA - Further information required by SO	12	22-Feb-22 A	10-Mar-22 A			DDA	Further info	prmation req	quired by SO				 									· · · · · · · · · · · · · · · · · · ·
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DDA - 3rd Review by SO	35	11-Mar-22 A	31-Mar-22 A					DDA - 3rd F	Review by SO	ġ					· - 1							
DDA - Further information required by SO	12	01-Apr-22 A	06-Apr-22 A					DDA -	Further infor	rmation required	bySO			·	· - 1							
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DDA - SO Consent for Construction	0	1	04-May-22 A							DDA - SO) Consent f	for Construct	tion		$-\frac{1}{1}$ $-\frac{1}{1}$				$-\frac{1}{1}$ $-\frac{1}{1}$			
Stage 1A Completion	0		04-May-22 A					+		◆ Stage 1A	Completio	'n										,
WEST VENTILATION BUILDING [WVB]	354	14-May-21 A	16-Sep-22					+							· - 1							
DDA WVB - ABWF		11-Sep-21 A						+	· · · · · · · · · · · · · · · · · · ·		· +											· · · · · · · · · · · · · · · · · · ·
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Page 1 of 20 Data Date: 02-Jul-22 Milestone
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ED/2018/04 Trunk Road T2 and Infrastructure Works for Developments at South Apron

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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

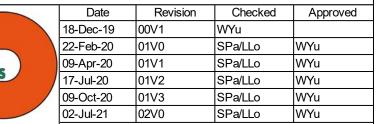
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DDA Road L10 (S) - Roadworks and Street Furniture	209	18-Nov-21 A	27-Jun-22 A	1		· · · · · · · · · · · · · · · · · · ·							·····					
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[STE] DDA KHR Modification - Permanent Utility Design	142	28-Dec-21 A	20-Aug-22																		
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18-Dec-19	00V1	WYu	
22-Feb-20	01V0	SPa/LLo	WYu
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DDA - Review by IP / DC	28	18-Jan-22 A	02-Mar-22 A	
DDA - Further information required by SO	12	12-Mar-22 A	27-Apr-22 A	DDA - Further information required by SO
DDA - 2nd Sub	0		27-Apr-22 A	
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DDA - 3rd Review by SO	35	23-Jun-22 A	27-Jul-22	DDA - 3rd Review by SO
DDA - SO Consent for Construction	0		27-Jul-22	◆ DDA - SO Consent: for Construction
[STE] DDA KHR Modification - Street Lighting	185	28-Dec-21 A	01-Aug-22	
DDA - Draft - Preparation by Designer	20	28-Dec-21 A	20-Jan-22 A	raft- Preparation by Designer
DDA - Draft - Final Review and prepare for 1st Sub	9	21-Jan-22 A	31-Jan-22 A	
DDA - 1st Sub	0		31-Jan-22 A	
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[STE] DDA Road L10 (N) - Permanent Utility Design	175	18-Dec-21 A	13-Aug-22	
DDA - 3rd Review by SO	35	18-Dec-21 A	05-Jan-22 A	SO
DDA - Further information required by SO	12	06-Jan-22 A	25-Feb-22 A	
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[STE] DDA Road L10 (N) - Roadworks and Street Furniture	108	07-Dec-21 A	11-Apr-22 A	
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18-Dec-19	00V1	WYu	
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09-Apr-20	01V1	SPa/LLo	WYu
17-Jul-20	01V2	SPa/LLo	WYu
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	DDA - Draft - Preparation by Designer	36	17-Dec-21 A	15-Feb-22 A				DA - D	raft - Pr	eparation	ı by Desi	ner											
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	DDA - C&C/LS Permanent Structure (C&C) (SG Scheme)	276	17-Jul-21 A	08-Jul-22				 															
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	DDA - Sub-sea Tunnel - Internal Structure (Corbel & OHVD)	134	-	09-Feb-22 A							-+				+								
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	FER - Fire Engineering Report (SG Scheme)	222	29-Dec-21 A	13-Jul-22																			
	FER - 3rd Review by SO	45		11-Jan-22 A		y SO																	
	FER - Further information required by SO	48	12-Jan-22 A	21-May-22 A														er inforn	natior	n requi	ed by	SO	
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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
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Activity Name	Dur	Start	Finish									2022			<u>.</u>					
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DDA - EVB - ABWF	203		· ·		:			(· · · · · · · · · · · · · · · · · · ·									· · · · · · · · · · · · · · · · · · ·	
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Page 6 of 20 ♦ Milestone Panned Bar Planned Bar			100401	04 Trunk F	.						1/~ m			1	B-Dec-19			WYu		Approved

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Actual Work

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	18-Dec-19	00V1	WYu	
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Activity Name	Dur Si	art Finish	
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DDA - Further information required by SO	24 09-J	ul-22 05-Aug-22	2 DDA - Further information required by SO
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DDA Foot Bridge FT-03 [NEW]	255 26-00	ct-21 A 09-Sep-22	
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DDA - SO Consent for Construction	0	09-Sep-22	2 DDA- SO Consent for Construction
DDA - EVB - General Building Plan (including SoA) (SG Scheme)	79 04-De	c-21 A 28-Feb-22	
DDA - 3rd Review by SO	35 04-De	c-21 A 28-Feb-22	A DDA - 3rd Review by SO
DDA - SO Consent for Construction	0	28-Feb-22	A DDA - SD Consent för Construction
TUNNEL E&M INSTALLATION & COMMISSIONING	415 15-Ma	ır-21 A 29-Nov-22	2
DDA - E&M Tunnel Ventilation Design (SG Scheme)	164 08-De	3	
DDA - 3rd Review by SO		c-21 A 24-Feb-22 A	
DDA - Further information required by SO	42 25-Fe		
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DDA - E&M Air Purification System (WVB)	331 15-Ma		
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DDA - E&M Fire Services Installation	252 09-Ju		
DDA - Review by IP / DC	28 09-Ju		
DDA - Further information required by SO	32 07-Ju		
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Page 7 of 20 ♦ Miestone	; /	<u>I</u>	Date Revision Checked Approved
Data Date: 02-Jul-22	E	ED/2018/	/04 Trunk Road T2 and Infrastructure Works
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Activity Name	Dur	Start	Finish			2022	
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DDA - E&M Plumbing & Drainage System	169 24	4-Dec-21 A	08-Jul-22				
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DDA - E&M Electrical Installation	278 1		20-Aug-22				
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DDA CLP Submission - Power Supply to EVB & WVB	63 1 [°]	1-Dec-21 A	28-Feb-22 A				
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DDA - E&M Tunnel Lighting Design			20-Aug-22				
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ED/2018/04 Trunk Road T2 and Infrastructure Works for Developments at South Apron

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Activity Name	Dur Start	Finish							2022						
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PAYMENT MILESTONE	424 13-Jan-22 A	28-Oct-22					÷						·		
1.1 Preliminaries and General Requirements	98 13-Jan-22 A	13-Apr-22 A													
1.1.42 Monthly Remaining value of this Cost Centre 1 Month 26	0	13-Jan-22 A	Remaining va	lue of this	Cost Centre 1	Vionth 26									
1.1.42 Monthly Remaining value of this Cost Centre 1 Month 27	0	14-Feb-22 A		1.1.42 Mo	nthly Remaining	yalue of this	Cost Centre 1 Month 27								
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3.1 for Trunk Road T2	162 13-Jan-22 A	19-Aug-22													
3.1.50 Approval AIP for completion of SUS	0	13-Jan-22 A	al AIP for com	pletion of S	US										
3.1.52 Approval DDA for completion of SUS	0	19-Aug-22									♦ 3.1 .52 /	Approval DDA for co	mpletion of	sus	
3.3 for the Remaining Stage 5 Infrastructure Works - Road L10 (Southe	0 13-Jan-22 A	13-Jan-22 A													
3.3 .16 Approval DDA for waterworks	0	13-Jan-22 A	al DDA for wat	erworks											
3.4 for the Remaining Stage 5 Infrastructure Works - FT02	51 13-Jan-22 A	14-Mar-22 A						ii							<u>+</u> -
3.4 .10 Approval DDA for modification of existing footbridge	0	13-Jan-22 A	al DDA for mo	dification o	f existing footbr	idge									
3.4.12 Approval Demolition plan for existing footbridge	0	14-Mar-22 A			♦ 3	8.4 .12 Appro	al Demolition plan for existing footbric	ge							
3.4.13 Complete whole activities of this cost centre	0	14-Mar-22 A			♦ 3	8.4 .13 Comp	ete whole activities of this cost centre							· · · · · · · · · · · · · · · · · · ·	
3.5 for Lam Chak Street and Kai Hing Road	21 27-Jul-22	20-Aug-22		IL- I I I I I I		- 4								· L	

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Actual Work

Critical A divity

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

Activity Name	Dur	Start	Finish	_										2022		1				-		_		_	
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3.5.8 Approval DDA for roadworks	0		27-Jul-22																	I DDA for ro					
3.5.24 Approval DDA for landscape works	0		27-Jul-22															♦ 3.5	.24 Approv	al DDA for la	andscapev	works			
3.5.25 Complete whole activities of this cost centre	0		27-Jul-22															◆ 3.5	.25 Compl	ete whole ac	tivities of th	nis cost ce	ntre		
3.5 .12 Approval DDA for storm water drainage works	0		20-Aug-22	!		L.		- +			·			L 						♦ 3.5.1	2 Approva	IDDA for s	stormwater d	raihage wo	rks
3.5 .16 Approval DDA for waterworks	0		20-Aug-22																	3.5 .1	6 Approva	IDDA for \	waterworks		
3.5 .20 Approval DDA for sewage works	0		20-Aug-22		+			- +												♦ 3.5.2	20 Approva	I DDA for s	sewage work	S	
3.6 for Road L10 (Northern Section)	0	02-Jul-22	02-Jul-22		+			-+														+			
3.6 .8 Approval DDA for Road L10 (northern section)	0		02-Jul-22*													◆ 3.6 .8 /	pproval DI	DA for R	oad L10 (n	orthern sect	ion)				
3.6.9 Complete whole activities of this cost centre	0		02-Jul-22*					-+			· · 					◆ 3.6 .9 (Complete w	hole act	tivities of th	is cost centr	e	+			
3.9 for the Pipelines for District Cooling System for Commissioning of	0	02-Jul-22	02-Jul-22		· · · · · · · · · · · · · · · · · · ·			- +			· l		· L	!							· · · · · · · · · · · · · · · · · · ·	+	L		
3.9.11 Submit O&M manual for DCS pipelines	0		02-Jul-22													♦ 3.9.11	Submit O&	M mạnu	al for DCS	pipelines					
4.2 Depressed Road and Remaining Ventilation Adits at the South Aprc	0	02-Jul-22	02-Jul-22		· · · · · · · · · · · · · · · · · · ·																	·			
4.2.23 Complete foundation of Depressed Road by length 1	0		02-Jul-22*															1		essed Road		1			
4.2.31 Complete permanent structure of Depressed Road by length 1	0		02-Jul-22*													♦ 4.2 .31	Complete	perman	entstructur	e of Depres	sed Road	by length 1	1		
5.2 Completion of SUS	0	17-Oct-22	17-Oct-22					-+														+			
5.2 .5 Complete overhead ventilation duct slab by length 0.1	0		17-Oct-22																						• 5.2 .5 Co
6.2 TBM Tunnel		10-Sep-22	24-Oct-22																						
6.2 .31 Complete TBM Tunnel overhead ventilation duct slab 0.1	0		10-Sep-22																				Complete TE		
6.2 .7 Complete excavation & installation of TBM Tunnel lining by length 0.35	0		22-Sep-22			L																	◆ 6.2 .7 Co	<u> </u>	
6.2.8 Complete excavation & installation of TBM Tunnel lining by length 0.4	0		08-Oct-22								1													🔶 6.2 .β (Complete e
6.2 .24 Complete TBM Tunnel waterproofing 0.4	0		08-Oct-22	· · · · · · · · · · · · · · · · · · ·									· · · · · · · · · · · · · · · · · · ·											♦ 6.2.24	4 Complete
6.2 .41 Complete TBM Tunnel Thermal Barrier to tunnel lining 0.1	0		18-Oct-22													+						+			● 6.2 .41 (
6.2.9 Complete excavation & installation of TBM Tunnel lining by length 0.45	0		19-Oct-22										1			+ +						+			♦ 6.2.90
6.2 .32 Complete TBM Tunnel overhead ventilation duct slab 0.2	0		24-Oct-22			L . 					·					+ +									♦ 6.2
6.3 Cross Passages for TBM Tunnel	40	03-Sep-22	24-Oct-22								·					+ +						1	·		
6.3 .5 Complete Ground treatment for all Cross Passages 0.2	0		03-Sep-22								1										♦ 6.3	.5 Comple	ete Ground tr	eatment for	all Cross I
6.3 .14 Complete excavation and support of Cross Passages 0.1	0		17-Sep-22											;								• 6.	.3 .14 Compl	ete excavat	tion and su
6.3 .6 Complete Ground treatment for all Cross Passages 0.3	0		17-Oct-22		· 											+						+		•	6.3 .6 Co
6.3 .15 Complete excavation and support of Cross Passages 0.2	0		24-Oct-22								· · · · · · · · · · · ·					+ +									♦ 6.3
7.1 Western Ventilation Building	74	13-Jun-22 A	29-Sep-22						- L				·	!		+ + +									
7.1 .5 Complete pile foundation for WVB 0.5	0		13-Jun-22 A											♦ 7.1	.5 Comp	lete pile fou	ndation for	WVB 0	.5						
7.1 .6 Complete pile foundation for WVB 1	0		18-Jun-22 A		· • • • • • • • • • • • • • • • • • • •										7.1 .6 C	omplete pil	foundatio	n for WV	/B 1			· · · · · · · · · · · · · · · · · · ·			
7.1 .7 Complete concrete works of gross plan area for WVB 0.25	0		29-Sep-22		· ;											+						+	♦ 7.1	.7 Comple	ete concrete
8.1 Eastern Ventilation Building	0	15-Sep-22	15-Sep-22		· · · · · · · · · · · · · · · · · · · 						·					++						+			
8.1.3 Complete excavation for EVB 1	0		15-Sep-22																			♦ 8.1	.3 Complete	excavation	n for EVB
9.1 Launching Shaft	36	03-Sep-22	19-Oct-22								 		·	!		+									
9.1.18 Complete permanent wall & bottom slab for Launching Shaft by length 0.2	0		03-Sep-22			 					1										♦ 9.1	18 Comp	oletė permano		
9.1 .19 Complete permanent wall & bottom slab for Launching Shaft by length 0.4	0		05-Oct-22																					9.1.19 C	
9.1 .20 Complete permanent wall & bottom slab for Launching Shaft by length 0.6	0		19-Oct-22													1									9.1.20
11.1 Drill and Break Tunnel	186	12-Feb-22 A	15-Oct-22					- 			· ¦ ·					+ 				¦¦- 				 	
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Page 10 of 20 Data Date: 02-Jul-22 Milestone
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ED/2018/04 Trunk Road T2 and Infrastructure Works for Developments at South Apron

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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

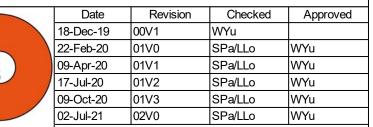
Activity Name	Dur	Start	Finish	2022
				February March April May June July August September October 80 06 13 20 27 03 10 17 24 01 08 15 22 29 05 12 19 26 03 10 17 24 01 08 15 22 29 05 12 19 26 03 10 17 24 04 11 18 25 02 09 16 23 0
11.1.2 Complete tunnel excavation 0.3 by length	0		12-Feb-22 A	
11.1.2 Complete tunnel excavation 0.4 by length	0		13-May-22 A	♦ 11.1.2 Complete tunnel excavation 0.4 by length
11.1.2 Complete tunnel excavation 0.5 by length	0		13-Jun-22 A	◆ 11.1.2 Complete tunnel excavation 0.5 by length
11.1.3 Complete tunnel excavation 0.6 by length	0		26-Aug-22	◆ 11 1.3 Complete tunnel excavation 0.6 by length
11.1.5 Complete tunnel excavation 0.7 by length	0		20-Sep-22	◆ 11.1.5 Complete tunnel excavation
11.1.7 Complete tunnel excavation 0.8 by length	0		15-Oct-22	◆ 11.1;7 Com
12.1 Drill and Blast Tunnel	177			
12.1.10 Complete tunnel excavation 0.9 by length	0		14-Mar-22 A	◆ 12.1.10 Complete tunnel excavation 0.9 by length
12.1.11 Complete tunnel excavation 1 by length	0		13-Apr-22 A	◆ 12.1.11 Complete tunnel excavation 1 by length
13.1 Lam Tin Interchange Works	0		20-Oct-22	
13.1.1 Complete foundation	0		20-Oct-22*	◆ 13.1.1
15.0 E&M Design Works			U	
15.0.25 Submit DDA for Tunnel lighting system	0			
15.0 .26 Approval DDA for Tunnel lighting system	0		20-Aug-22	◆ 15.0.26 Approval DDA for Tunnel Ighting system
15.4 APS Works for Western Ventilation Building	0	· · · ·	17-Sep-22	
15.4.1 Complete site delivery of DeNO2 filters	0		17-Sep-22*	● 15.4: 1 Complete site delivery of DeN
15.4.3 Complete site delivery of electrostatic precipitation system	0		17-Sep-22*	◆ 15.4, 3 Complete site delivery of elec
15.4 .5 Complete site delivery of wash down system	0		17-Sep-22*	◆ 15.4.5 Complete site delivery of was
15.4.7 Complete site delivery of support system	0		17-Sep-22*	◆ 15.4.7 Complete site delivery of sup
17.1 Works under Sections 6A, 6C and 12 and Associated Landscape 1	66	09-Aug-22	28-Oct-22	
17.1.13 Complete footpath 0.25	0		09-Aug-22	◆ 17.1.13 Complete footpath 0.25
17.1.15 Complete footpath 0.8	0		21-Sep-22	◆ 17.1.15 Complete footpath 0.8
17.1.17 Complete street furnitures of at-grade roads 0.25	0		24-Sep-22	◆ 17. I 17 Complete street furnit
17.1.16 Complete footpath 1	0		13-Oct-22	◆ 17.1.16 Com
17.1 .56 Complete landscaping works 0.5	0		28-Oct-22	
17.2 Irrigation System for Works under Sections 6A, 6C and 12 and As	18		28-Oct-22	
17.2.1 Complete irrigation system 0.3	0		07-Oct-22	◆ 17.2.1 Complete ir
17.2.2 Complete irrigation system 0.6	0		28-Oct-22	
17.5 Remaining Stage 5 Infrastructure Works - Landscaped Elevated V	119	13-Apr-22 A	26-Oct-22	
17.5 .11 Complete concrete works of pile caps 0.5	0		13-Apr-22 A	◆ 17.5.11 Complete concrete works of pile caps 0.5
17.5.16 Complete concrete works of piers 0.25	0		13-May-22 A	♦ 17.5, 16 Complete concrete works of piers 0.25
17.5.17 Complete concrete works of piers 0.5	0		13-Jun-22 A	♦ 17 5.17 Complete concrete works of piers 0.5
17.5.29 Complete lift shaft A and B 0.5	0		05-Sep-22	◆ 17,5.29 Complete lift shaft A and B 0.5
17.5.30 Complete lift shaft A and B 1	0		26-Sep-22	♦ 17.5.30 Complete lift shaft /
17.5.18 Complete concrete works of piers 0.8	0		05-Oct-22	◆ 17.5.18 Complete bi
17.5.12 Complete concrete works of pile caps 0.8	0		14-Oct-22	◆ 17.5.12 Còr
17.5.21 Complete concrete works of deck 0.25	0		26-Oct-22	
17.5.25 Complete prestressing works of deck 0.25	0		26-Oct-22	
21.5 Establishment Works for Improvement Works at the Junctions of	72			
21.5.3 Complete establishment works for 9 mths completion of softworks	0		13-Apr-22 A	◆ 21.5.3 Complete establishment works for 9 mths completion of softworks

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

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Activity Name	Dur	Start	Finish									2022											
,				February 80 06 13 20 1	27 0	March 06 13 20 27	Ap	oril 17	May 24 01 08 1	22 29		une 12 19	26	03 10	July) 17	24	Augu 31 07 14		28 0	September		tober 16	23)
21.5.4 Complete whole activities of this cost centre	0		13-Apr-22 A		21		00 10 ♦		Complete whole activ				20	00		27	51 07 .				02 07		23 -
22.1 Pipelines for District Cooling System for Commissioning of AMAV	415	13-Jan-22 A	13-Jun-22 A																·				
22.1.3 Complete DCS installation length 0.8	0		13-Jan-22 A	te DCS installation lengt	jth 0.8			· · · · · ·															
22.1.5 Complete T&C of DCS system 1	0		13-Jun-22 A								•	22.1.5	Comple	te T&C of	DCS sys	stem 1							
34.2 Common Utilities Enclosure (CUE) under Section 13 of the Works	35	25-Aug-22	08-Oct-22																				
34.2.4 Complete concrete works of base slab of CUE 0.5	0		25-Aug-22			ll I I I I I I I I I I I I I	- <u>+</u>		·									♦ 34	.2.4 C	Complete concrețe wor	ks of base sl	lab of C	UE 0.!
34.2.8 Complete concrete works of walls of CUE 0.5	0		13-Sep-22											·						♦ 34.2.8 Comp	ete concrete	eworks	of wall
34.2 .12 Complete concrete works of top slab of CUE 0.5	0		08-Oct-22																		♦ 34.3	2 .12 C	omplete
35 Services Gallery	119	13-Apr-22 A	26-Oct-22																				
35.16 Complete 20% of total length (measured on plan) of SG structures in Drill-and-Break and Drill-and-Blast Tunnel	0		13-Apr-22 A				♦	35.16 Co	omplete 20% of total	length (measu	ed on pla	an) of SC	6 structur	es in Dril	l-and-Bre	akand	Drill-and-Blast	Tunnel					
35.32 Complete 50% of total volume (measured on plan) of excavation for Lower Basement of East Ventilation Building	0		13-Apr-22 A				•	35.32 Co	omplete 50% of total	volume (measi	red on p	lan) of ex	xcavatior	n for Low	er Basem	ient of E	ast Ventilation	Building					
35.33 Complete 75% of total volume (measured on plan) of excavation for Lower Basement	0		13-Jun-22 A				- 4		·			35.33 C	Complete	e 75% of	total volui	me (mea	asured on plan) of excavat	tion for	Lower Basement of E			Ŭ
of Fast Ventilation Building 35.34 Complete 100% of total volume (measured on plan) of excavation for Lower	0		15-Sep-22															· <mark>-</mark>		◆ 35.34 Comp	lete 100% o	f total v	olume
Basement of East Ventilation Building 35.21 Complete 10% of total length (measured on plan) of Services Gallery structures and ancillaries in TBM Tunnel	0		16-Sep-22																	♦ 35.21 Com	plete 1,0% of	total le	ngth (n
35.14 Complete 80% of total length (measured on plan) of SG excavation in Drill-and-Break and Drill-and-Blast Tunnel	0		08-Oct-22																		• 35.1	14 Com	olete 80
35.22 Complete 20% of total length (measured on plan) of Services Gallery structures and	0		18-Oct-22																			♦ 35	.22 Co
ancillaries in TBM Tunnel 35.35 Complete concreting works of 25% of the total gross plan area for the Lower	0		26-Oct-22																				♦ 3!
Basement of East Ventilation Building SOUTH APRON EXTERNAL WORKS	787	11-Dec-21 A	29-Aug-24																				
AMAWBC	0	03-Oct-22	03-Oct-22													+							
Drainage & Sewerage	0	03-Oct-22	03-Oct-22				T																
Section D	0	03-Oct-22	03-Oct-22													+							
Section 6A Completion	0		03-Oct-22																		 Section 	6A Cor	pletion
[STE] District Cooling System for AMAWBC Section 6B	160															· · · · · ·						4	
Section 1 - Bay 3	98 9	23-Dec-21 A			Pov 2 D	Ding Installation Ding	wolding											·				4	
DCS - Bay 3 Pipe Installation - Pipe welding		23-Dec-21 A				Pipe Installation - Pipe		X15	· · · · · · · · · · · · · · · · · · ·									·					
DCS - Bay 3 Pipe Installation - Jointing (15nos)	10			+	DCS	S - Bay 3 Pipe Installat	ion - Jointing	(15nos)												· · · · · · · · · · · · · · · · · · ·			
DCS - Bay 3 Backfill		24-Mar-22 A										DC	. — вау	3 Backfill								¦¦	
Section 2 - Bay 5	88	14-Dec-21 A 14-Dec-21 A			C Dov	/5 Pipe Installation - J	ointing (20no																
DCS - Bay 5 Pipe Installation - Jointing (30nos)	10						-+	ν ε)															
DCS - Bay 5 Backfill						CS - Bay 5 Backfill																	
Section 2 - S20 DCS - S20 Pipe Installation - Jointing (27nos)	14	21-Dec-21 A		allation - Jointing (27nos)												+		·					· + -
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Section 2 - CUE DCS - CUE - Pipe welding	46 18	11-Dec-21 A	19-Jan-22 A 15-Jan-22 A	Pipe welding										·				·					
DCS - CUE - Jointing (42nos)	21	17-Jan-22 A		JE - Jointing (42nos)														· <mark>-</mark>					
Testing & Commissioning Section 6B Substantial Completion - Agreed with HMJV	0	11-Feb-22 A	10-Jun-22 A 11-Feb-22 A	♦ Section 68/S	Suhstan	ntial Completion - Agre	ed with HM I	V						·					·				·
Overall DCS - Testing & Commissioning	-	01-Mar-22 A)verall Di	CS - Tok	tina & Co	mmissio	hina		·					·
Section 6B completion	48	UT-IVIDI-ZZ A	10-Jun-22 A										Bicomple					·					
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[STE] Kai Hing Road / Lam Chak Street Modification	692 0	26-Mar-22 A	29-Aug-24 26-Mar-22 A				A Phasing											· 					
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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
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 | | |
| 15 | 22-Jan-22 A

 | 18-Feb-22 A | Excavation | n to below Strut S4
 | 8,930m³ | | | | |
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Milestone
Planned Bar
Critical A divity

Actual Milestone
 Actual Work

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

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	Date	Revision	Checked	Approved
	18-Dec-19	00V1	WYu	
١	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

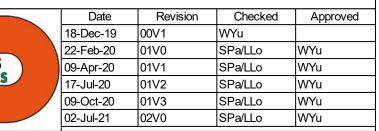
Activity Name	Dur	Start	Finish	2022
				February March April May June July August September October 80 06 13 20 27 03 10 17 24 01 08 15 22 29 05 12 19 26 03 10 17 24 01 08 15 22 29 05 12 19 26 03 10 17 24 31 07 14 21 28 04 11 18 25 02 09 16 23 04
Strut S4 Installation	20	10-Feb-22 A	15-Mar-22 A	
Strut S4 Pre-loading	2	16-Mar-22 A	17-Mar-22 A	2 A Strut \$4 Pre-loading
Excavation to FEL 9,230m ³	20	19-Mar-22 A	04-Apr-22 A	P A Excavation to FEL 9,230m ³
Building Structure	164	05-Apr-22 A	16-Nov-22	22
WVB - Base Slab		· · ·	30-Jun-22 A	
WVB - Earth Mat Installation	24	05-Apr-22 A	22-Apr-22 A	2 A WVB - Earth Mat Installation
Base Slab construction Bay 2 & 4	20	23-Apr-22 A	24-May-22 A	
Base Slab construction Bay 1, 3 & 4	20	19-May-22 A	18-Jun-22 A	Base Slab construction Bay 1, 3 & 4
Tower Crane Erection	7	20-Jun-22 A	30-Jun-22 A	2 A Tower Crane Erection
Tower Crane Operation	0		30-Jun-22 A	A Tower Crane Operation
Basement Structure	114	20-Jun-22 A	16-Nov-22	
WVB - Strut S4 Removal	18	20-Jun-22 A	09-Jul-22	2 WVB - Strut S4 Removal
WVB - Basement 2a Wall	21	04-Jul-22	27-Jul-22	
WVB - Basement 2 External wall waterproofng & Mass Fill	18	18-Jul-22	06-Aug-22	22 WVB - Basement 2 External wall waterproofing & Mass Fill
WVB - Strut S3 Removal	18	08-Aug-22	27-Aug-22	
WVB - Basement 2 Wall/Slab	36	18-Aug-22	29-Sep-22	22 WVB Basement 2 Wall/S
WVB - Strut S2 Removal	18	30-Sep-22	22-Oct-22	2 WVB
WVB - Basement 1a Wall	30	13-Oct-22	16-Nov-22	
WVB - Platform removal	12	24-Oct-22	05-Nov-22	22
SUPPORTING UNDERGROUND STRUCTURE [SUS]	163	04-Jul-22	16-Jan-23	3
Permanent Structure	49	04-Jul-22	29-Aug-22	22
SUS - EB Partition Wall CH6150-6260	24	04-Jul-22	30-Jul-22	
SUS - WB Partition Wall CH6150-6237	25	01-Aug-22	29-Aug-22*	2* SUS - WB Partition Wall C 16150-6237
Tunnel Internal Structure & Finishing	114	30-Aug-22	16-Jan-23	3
Westbound		30-Aug-22	16-Jan-23	3
SUS - WB - OHVD Formworks Assembly	18	30-Aug-22	20-Sep-22	22 SUS - WB - OHVD Formworks As
SUS - WB - OHVD In-situ 320m	96	21-Sep-22	16-Jan-23	3
C&C TUNNEL / LAUNCHING SHAFT [C&C / LS]	257	05-Feb-22 A	01-Nov-22	2
Civil Works for TBM Assembly	79	05-Feb-22 A	23-Feb-22 A	
Cell 1 & 2	79	05-Feb-22 A	23-Feb-22 A	2A
Tympanum	79	05-Feb-22 A	23-Feb-22 A	2A
Westbound Additional Mass Fill	15	05-Feb-22 A	12-Feb-22 A	
Eastbound Additional Mass Fill	7	14-Feb-22 A	23-Feb-22 A	2 A Eastbound Additional Mass Fil
Tunnel Permanent Works		09-Jul-22	01-Nov-22	
Cell 1/2 Westbound		01-Aug-22	31-Oct-22	
Cell 1/2 WB - Wall Below Road Level CPS		01-Aug-22	20-Aug-22	
Cell 1/2 WB - Road Slab CPS	12	22-Aug-22	03-Sep-22	
Road Diversion to WB CPS	0		03-Sep-22	
Cell 1/2 WB - Wall Below Road Level NCPS	12	05-Sep-22	19-Sep-22	
Cell 1/2 WB - Road Slab CPS	12	20-Sep-22	05-Oct-22	2 Cell 1/2 WB Road
Cell 1/2 WB - Wall Road Level	12	06-Oct-22	19-Oct-22	2 Cell 1/2

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Activity Name	Dur	Start	Finish												2022																
					ebruary	0 27	March 06 13	1 20 1	27 03	April	24 01	May 08 15	22		June 12 19 2	26 03	July 10 17	24 3		ugust 14 21	28 0	Septembe	er 18 25		ctober 16 23	3])					
Cell 1/2 WB - Wall Above Road Level	10	20-Oct-22	31-Oct-22																							i					
Cell 1/2 Eastbound	96	09-Jul-22	01-Nov-22																							- + -					
Cell 1/2 EB - Wall Below Road Level CPS	18	09-Jul-22	29-Jul-22														1	C	ell 1/2 EB	- Wall Belov	w Road L	evel CPS									
Cell 1/2 EB - Road Slab CPS	12	30-Jul-22	12-Aug-22					+					- +				 	+		Cell 1/2 EB	3 - Road S	Slab CPS		4		- + -					
Road Diversion to EB CPS	0		12-Aug-22					+					· - 1						•	Road Diver	rsion to E	BCPS		J 		- 1 -					
Cell 1/2 EB - Wall Below Road Level NCPS	12	13-Aug-22	26-Aug-22				 												·			EB - Wall E				- + -					
Cell 1/2 EB - Road Slab NCPS	12	27-Aug-22	09-Sep-22					+												I		Cell 1/2	2 EB - Roa	id Slab NC	P\$	- +					
Cell 1/2 EB - Wall Road Level	12	10-Sep-22	24-Sep-22					+										· · · · · · · ·	·				Cel	1/2 EB - V	all Road Le	vel					
Cell 1/2 EB - Wall Above Road Level	12	26-Sep-22	11-Oct-22				 	+										•i				+		·	Cell 1/2 EB	- W					
Cell 1/2 EB - Wall to TS	18	12-Oct-22	01-Nov-22				 	· · · ·										· · · · ·	·												
Cut & Cover	24	09-Jul-22	05-Aug-22				 											+	·					 		$x = \frac{1}{1} - \frac{1}{1}$					
C&C - Wall Stage 1 first 5m	9	09-Jul-22	19-Jul-22															C-Wal	Stage 1	irst 5m											
C&C - Wall Stage 2 up to OHVD level	9	20-Jul-22	29-Jul-22															1 1		Stage 2 up											
C&C - Wall Stage 3 up to Top Slab soffit	6	30-Jul-22	05-Aug-22														 		C&C	Wall Stage	3 up to	Top Slab so	ffit			- + -					
SUB-SEA TBM TUNNEL - WESTBOUND	303	27-Sep-21 A	16-Nov-22		- +			+										+						·		-+-					
Precast Fabrication		29-Nov-21 A	16-Nov-22																	 											
TBM Precast Segments		29-Nov-21 A	19-Oct-22						700/																						
Precast TBM Segment - 70%	36	29-Nov-21 A	26-Feb-22 A			Pre	cast TBM Se	egment _i -	70% 				, , , , , , , , , , , , , , , , , ,								;										
Precast TBM Segment - 80%	36	28-Feb-22 A	23-Jul-22					; ; ;		· · ·					-			1	- i - i	ment - 80%	: :					+-					
Precast TBM Segment - 90%	36	25-Jul-22	03-Sep-22																1 1	 		Precast TBN	VI Segmen	: - 90%							
Precast TBM Segment - 100%	36	05-Sep-22	19-Oct-22																						Prec	ast					
Service Gallery		28-Dec-21 A	12-Nov-22					4										4													
Precast Service Gallery - 3%	24						Precast Servi		2 1 1																						
Precast Service Gallery - 6%	24								Pr	reçast Servio	e Gallery - 69	%																			
Precast Service Gallery - 10%	24	03-Apr-22 A	14-May-22 A									Pre	ecast S	ervice Gallery	- 10%																
Precast Service Gallery - 20%	24	16-May-22 A	20-Jul-22										1		1 1		1	Precast S	ervice Ga	lery - 20%											
Precast Service Gallery - 30%	24	21-Jul-22	17-Aug-22																	Precas	st Service	Gallery - 30	0%								
Precast Service Gallery - 40%	24	18-Aug-22	15-Sep-22																			- i i	i i	vice Galler	i i						
Precast Service Gallery - 50%	24	16-Sep-22	15-Oct-22																						Precast	Ser					
Precast Service Gallery - 60%	24	17-Oct-22	12-Nov-22	1				÷								+		÷						 							
OHVD Slab	214	01-Feb-22 A	16-Nov-22					+									 	+			i					- + -					
Concrete Mix - Plant Trial	72	01-Feb-22 A	12-May-22 A		- 							Conc	icrete N	lix - Plant Trial									p	,		- T - - - -					
Precast OHVD Slab - Mould Fabrication & Setup	72	01-Feb-22 A	09-Jul-22	1	- +			+									Pre¢ast O	HVD Slat	- Mould F	abrication &	& Setup					-+-					
Precast OHVD Slab - Inspection	12	11-Jul-22	23-Jul-22					1 l 		!					kd 			i i .	- i - i	ab - Inspec	i i .			JL 							
Precast OHVD Slab - Mass Production Start	0	25-Jul-22		1												+		Preca	st OHVD	Slab - Mass	Productio	on Start		 							
Precast OHVD Slab - 3%	24	25-Jul-22	20-Aug-22	1				÷												Prec	cast OHV	D Slab - 3%	0	; 							
Precast OHVD Slab - 6%	24	22-Aug-22	19-Sep-22	1																····;	<u></u>		Precast	OHVD Sla	0 + 6%	- + -					
Precast OHVD Slab - 10%	24	20-Sep-22	19-Oct-22					+					· - +					+		 				4 	Prec	- 1					
Precast OHVD Slab - 20%	24	20-Oct-22	16-Nov-22							l							 	*		 ! ! ! !				J 							
Site Establishment	237	27-Sep-21 A	27-Aug-22										· - 1			· - +	· · · · · · · · · · · · · · · · · · ·	+		 I I I I			 	y 							
Page 15 of 20																				Date	Rev	vision	Check	ed	Approved	-					

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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	Start	Finish										2022								-	
				Feb 80 06	ruary 13 20	27 06	March 13 2	20 27	April 03 10 17 2	May 4 01 08 1	5 22		June 12 19 2	26 03	July 10 17 2	24 31	August 07 14 21		tember 1 18	25 02	October	
Gantry Crane Setup for TBMAssembly		04-Jul-22	27-Aug-22																			
Gantry Crane - Dismantling	48	04-Jul-22	27-Aug-22															Gantry Crane	e - Dismani	tling		
		27-Sep-21 A																				
Mortar Plant - Commissioning		27-Sep-21 A		commission	ning															1		
TBMAssembly		29-Nov-21 A									+											
Air / Water / Hydraulic Electrical Connections	22	29-Nov-21 A	01-Jan-22 A	ectrical Con	inections		 															
Testing & Commissioning	26	09-Dec-21 A	12-Jan-22 A	missioning																		
WB TBM Break-in	0	13-Jan-22 A		k-in																1		
		13-Jan-22 A	02-Nov-22	· · · · · · · · · · · · · · · · · · ·										· - +		· · · · · · · · · · · · · · · · · · ·						
WB TBM Tunnelling CH6642-6659 17m	15	13-Jan-22 A	19-Jan-22 A	Tunnelling	CH6642-665	9 17m																
WB TBM Tunnelling Stoppage due to Active Mortar injection	15 2	20-Jan-22 A	27-Jan-22 A	B TBM Tur	nnelling Stopp	age due to	Active N	lortar inject	tion													
WB TBM Tunnelling CH 6659-6660 18m	15 2	28-Jan-22 A	28-Jan-22 A	VB TBM Tu	nnelling CH6	659-6660 1	8m															
WB TBM Tunnelling Stoppage due to Additional Mass Fill	15	29-Jan-22 A	12-Feb-22 A		WB TBM Tu	innelling St	oppage o	lue to Addi	itional Mass Fill													
WB TBM Tunnelling Stoppage due to Covid-19 outbreak	15	13-Feb-22 A	28-Feb-22 A		⁻	WB TBN	l Tunnelli	ng Stoppa	ge due to Covid-19 or	utbreak			^L ¹ I I I I I I	+								
WB TBM Tunnelling CH6660-6665 B/I Plug 23m	3	01-Mar-22 A	01-Mar-22 A			WB TBI	M Tunnel	ling CH 666	50-6665 B/I Plug 23m													
WB TBM Tunnelling CH6665-6710 ALL/CDG 68m	16	02-Mar-22 A	10-Mar-22 A				WB TBM	l Tunnelling	g CH6665-6710 ALL/	CDG 68m												
WB TBM Tunnelling CH6710-6725 ALL/CDG 83m	7	11-Mar-22 A	13-Mar-22 A				WB TI	BM Tunnell	ling CH6710-6725 AL	L/CDG 83m												
WB TBM Tunnelling CH6725-6732 ALL/CDG 90m	7	14-Mar-22 A	04-Apr-22 A					·	WB TBM Tunnellin	ng CH6725-6732 A	LL/CDG 9	0m				· · · · · · · · · · · · · · · · · · ·						
WB Stoppage due to Disc Cutter Issue	7	05-Apr-22 A	06-May-22 A							WB Stop	opage due	to Disc Cuth	er Issµe									
WB TBM Tunnelling CH6732-6752 ALL/CDG 110m	7 (07-May-22 A	23-May-22 A										elling CH6732-		DG 110m							
WB TBM Stoppage due to Maind Drive issue	7 2	24-May-22 A	02-Jul-22 A											WB T	BM \$toppage	e due to Mair	nd Drive issue					
WB TBM Tunnelling CH6752-6756 ALL/CDG 114m	1	03-Jul-22	03-Jul-22				 							I WB	TBM Tunnellir	ng CH6752-0	5756 ALL/CDG 1	14m				
WB TBM Tunnelling CH6756-6777 CDG/Boulder 135m	4	04-Jul-22	07-Jul-22													i T	56-6777 CDG/Bo					
WB TBM Stoppage for ISIG 1 Installation	9	08-Jul-22	16-Jul-22												WB TE	3M \$toppage	e for ISIG 1 Insta	lation				
WB TBM Tunnelling CH6777-6789 CDG/Boulder 147m	3	17-Jul-22	19-Jul-22												1 1		lling CH6777-67	89 ¢ DG/Boulde	r 147m			
WB TBM Tunnelling CH6789-7098 ALL/CDG 456m	38	20-Jul-22	26-Aug-22				+ 							++-	····;····;···;··			WB TBM Tunr	nelling CH	6789 7098	ALL/CDG	456m
WB TBM Tunnelling CH7098-7198 ALL/CDG 556m	11	27-Aug-22	06-Sep-22															WB	TBM Tunh	elling CH7	098-7198 <i>F</i>	LL/CDG 5
WB TBM Tunnelling CH7198-7218 ALL/CDG 576m	2	07-Sep-22	08-Sep-22											+				■ WE	3 TBM Tur	nelling CH	17198-7218	ALL/CDC
WB TBM Tunnelling CH7218-7240 CDG/Boulder 598m	3	09-Sep-22	11-Sep-22															•	WB TBM	Tunnelling	CH7218-72	40 C DG/E
WB TBM Tunnelling CH7240-7284 ALL/CDG 642m	4	12-Sep-22	15-Sep-22																WB TE	3M Tunnell	ing CH724()-7284 AL
WB TBM Tunnelling CH7284-7379 ALL/CDG 737m	9	16-Sep-22	24-Sep-22																	WB TBM	Tunnelling	CH7284-
WB TBM Tunnelling CH7379-7391 CDG/Boulder 749m	2	25-Sep-22	26-Sep-22																	WB TB	M Tunnellir	ig CH7379
WB TBM Tunnelling CH7391-7434 Boulder 792m	7	27-Sep-22	03-Oct-22		k- k- k- k- k- k- k- k- k- k- k- k- k- k- k- k- 		. 													·	VB TBM Tu	nnelling C
WB TBM Tunnelling CH7434-7466 CDG/Boulder 824m	4	04-Oct-22	07-Oct-22		 		· · · · · · · · · · · · · · · · · · ·						 		 I I I I I I I I I I I	· · · · · · · · · · · · · · · · · · ·					WB TBN	Tunnellin
WB TBM Tunnelling CH7466-7623 ALL/CDG 981m	15	08-Oct-22	22-Oct-22																			WB T
WB TBM Tunnelling CH7623-7650 CDG/Boulder 1008m	4	23-Oct-22	26-Oct-22																			— W
WB TBM Tunnelling CH7650-7722 ALL/CDG 1080m	7	27-Oct-22	02-Nov-22																			
Gallery B Installation	249	27-Dec-21 A	31-Oct-22				, 									· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·					
WB TBM Tunnel - Gallery B CH7103-7203 100m CP12	10	23-Sep-22	06-Oct-22																		WB TBM	Tunnel - C
	I				1 1	1 1			1 1 1				1 1	<u> </u>	1 1					D		<u> </u>
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Critical Activity

Critical Activity

Actual Milestone

Actual Work

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

Activity Name	Dur	Start	Finish	2022
				February March April May June July 80 06 13 20 27 06 13 20 27 03 10 17 24 01 08 15 22 29 05 12 19 26 03 10 17
WB TBM Tunnel - Gallery B CH7203-7303 100m CP13	7	07-Oct-22	14-Oct-22	
WB TBM Tunnel - Gallery B CH7303-7403 100m CP14	7	15-Oct-22	22-Oct-22	
WB TBM Tunnel - Gallery B CH7403-7503 100m CP15	7	24-Oct-22	31-Oct-22	
Forecast	190	27-Dec-21 A	19-Aug-22	
Spreader Beam, Hook, Hook Block etc(from Italy by sea)	56	27-Dec-21 A	15-Mar-22 A	Spreader Beam, Hook, Hook Block etc. (from Italy by sea)
Wheels (from Italy by air)	10	30-Dec-21 A	07-Jan-22 A	y alf)
Ramp delivery (from China by road)	6	06-Jan-22 A	11-Jan-22 A	rom China by road)
Loader (from China by road)	13	21-Jan-22 A	26-Jan-22 A	ader (from China by road)
Ramp pre-assembly at surface	12	27-Jan-22 A	16-Feb-22 A	Ramp pre-assembly at surface
Loader pre-assembly at surface	6	17-Feb-22 A	25-Feb-22 A	Loader pre-assembly at surface
Lower ISIG into Shaft	3	08-Jul-22	10-Jul-22	Lower
Gallery G-W1 to W4 by crawler crane @ 1 no/d	2	11-Jul-22	12-Jul-22	■ Gall
Thrust Frame Removal	6	11-Jul-22	16-Jul-22	
Install abd Assembly of Spreader Beam	6	11-Jul-22	16-Jul-22	
Gallery EMVD installation by crawler crane	1	13-Jul-22	13-Jul-22	I Ga
ISIG Commissioning	6	17-Jul-22	22-Jul-22	
Gallery G-W5 to G-W11 installation by ISIG	3	23-Jul-22	26-Jul-22	
WB ISIG Gallery B Installation start	0	23-Jul-22		
Gallery B installation FTR-11 to FTR-7	3	27-Jul-22	29-Jul-22	
Steel Bridge Installation	1	30-Jul-22	30-Jul-22	
WB Sub-sea Galery B Installation started	0	01-Aug-22		
WB Gallery B CH6642-6742 100m @4nos/day	11	01-Aug-22	12-Aug-22	
WB Gallery B CH6742-6855 80m @6nos/day	6	13-Aug-22	19-Aug-22	
SUB-SEA TBM TUNNEL - EASTBOUND	270	14-Dec-21 A	04-Nov-22	
TBMAssembly	140	14-Dec-21 A	10-Mar-22 A	
Lifting & Welding of Tailskin to Shield	62	14-Dec-21 A	06-Jan-22 A	Tailskin to Shield
Air / Water / Hydraulic Electrical Connections	22	20-Dec-21 A	06-Jan-22 A	ic Electrical Connections
Testing & Commissioning	26	26-Dec-21 A	10-Mar-22 A	Testing & Commissioning
Thrust Frame Installation	22	30-Dec-21 A	06-Jan-22 A	htion
Power On	3	07-Jan-22 A	07-Jan-22 A	
S1282 EB TBM Break-in	0		10-Mar-22 A	◆ S1282 EB TBM Break-in
TBM Tunnelling	200	11-Mar-22 A	04-Nov-22	
EB TBM Tunnelling CH6640-6665 B/I Plug 25m	16	11-Mar-22 A	25-Mar-22 A	EB TBM Tunnelling CH6640-6665 B/I Plug 25m
EB TBM Tunnelling CH6665-6710 ALL/CDG 70m	15	26-Mar-22 A	02-Apr-22 A	EB TBM Tunnelling CH6665-6710 ALL/CDG 70m
EB TBM Tunnelling CH6710-6756 ALL/CDG 116m	7	03-Apr-22 A	27-Apr-22 A	EB TBM Tunhelling CH6710-6756 ALL/CDG 116m
EB TBM Tunnelling CH6756-6775 CDG/Boulder 135m	4	28-Apr-22 A	04-May-22 A	EB TBM Tunnelling CH6756-6775 CDG/Boulder 135m
WB TBM Stoppage for ISIG 1 Installation	9	06-May-22 A	12-May-22 A	WB TBM Stoppage for ISIG 1 Installation
EB TBM Tunnelling CH6775-6789 CDG/Boulder 149m	3	13-May-22 A	21-May-22 A	EB TBM Tunnelling CH6775-6789 CDG/Boulder 1
EB TBM Tunnelling CH6789-7098 ALL/CDG 458m	38	22-May-22 A	21-Jun-22 A	EB TBM Tunnelling CF
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- Milestone
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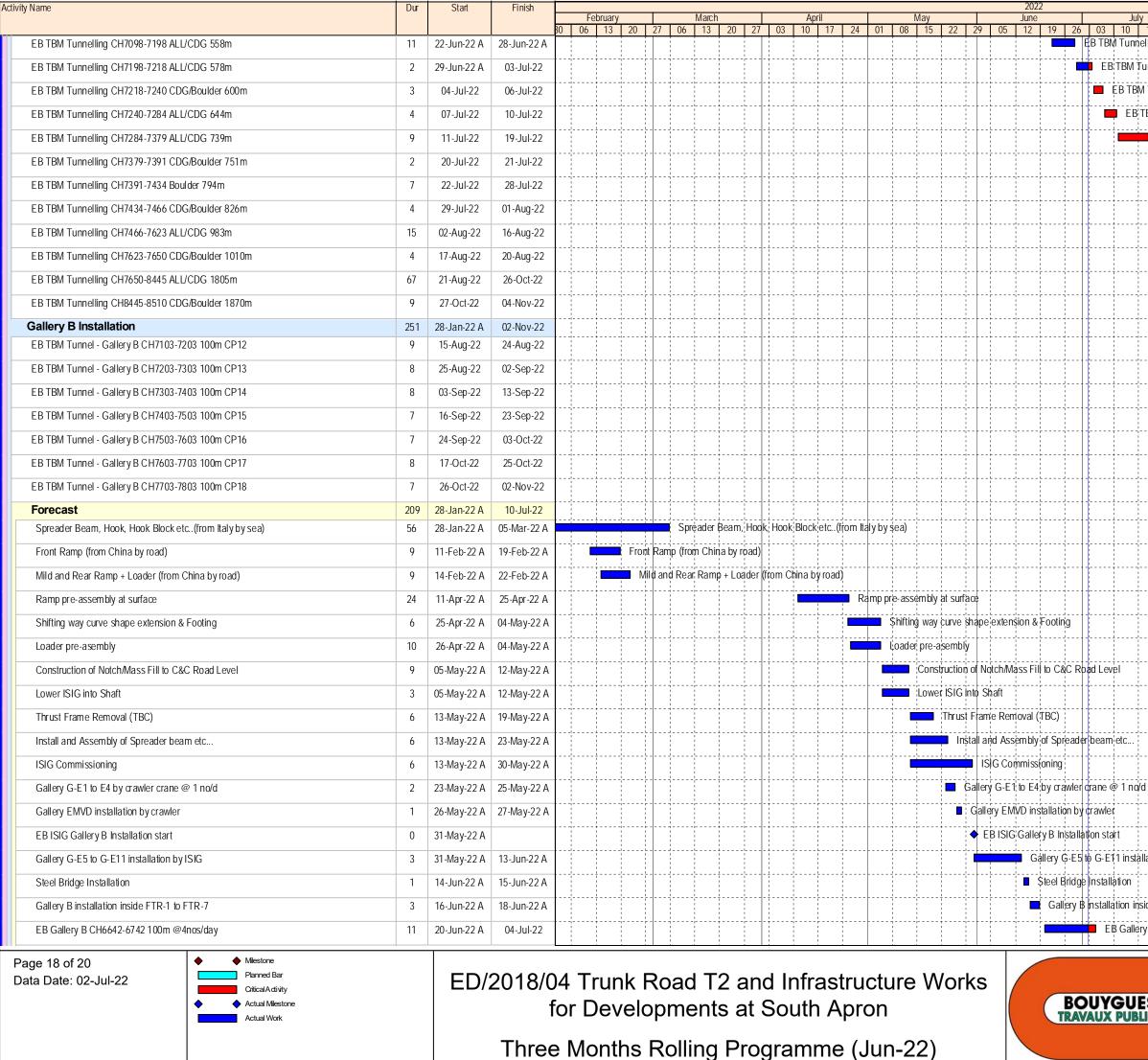
ED/2018/04 Trunk Road T2 and Infrastructure Works for Developments at South Apron

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Activity Name	Dur	Start	Finish	2022
				February March April May June July August September October 80 06 13 20 27 03 10 17 24 01 08 15 22 29 05 12 19 26 03 10 17 24 01 08 15 22 29 05 12 19 26 03 10 17 24 04 11 18 25 02 09 16 23 D
EB Gallery B CH6742-6855 80m @6nos/day	6	05-Jul-22	10-Jul-22	EB Gallery B CH 6742: 6855 80m @6nos/day
SUB-SEA TUNNEL CROSS PASSAGE (CP7-CP27a/b)	274	10-May-21 A	26-Nov-22	
CP TBM Design / Fabrication / FAT / Delivery	144	10-May-21 A	19-Mar-22 A	
Fabrication / Refurbishment	144	10-May-21 A	10-Feb-22 A	Fabrication / Refutbishment
FAT	24	11-Feb-22 A	28-Feb-22 A	FAT
Delivery of TBM components to the Site	24	01-Mar-22 A	19-Mar-22 A	Delivery of TBM; components; to the Site
CP Precast Lining Fabrication		17-Dec-21 A	29-Oct-22	
CP Precast Lining Segment - 3%	18			Lining Segment - 3%
CP Precast Lining Segment - 6%	18	17-Jan-22 A	29-Jan-22 A	CP Precast Lining Segment - 6%
CP Precast Lining Segment - 10%	24	31-Jan-22 A	19-Feb-22 A	
CP Precast Lining Segment - 20%	24	21-Feb-22 A	30-Mar-22 A	CP Precast Lining Segment - 20%
CP Precast Lining Segment - 30%	5	31-Mar-22 A	26-Apr-22 A	CP Precast Lining Segment - 30%
CP Precast Lining Segment - 40%	24	27-Apr-22 A	06-Jul-22	CP Precast Lining Segment - 40%
CP Precast Lining Segment - 50%	24	07-Jul-22	03-Aug-22	CP Precast Lining Segment - 50%
CP Precast Lining Segment- 60%	24	04-Aug-22	31-Aug-22	CP Precast Lining Segment- 60%
CP Precast Lining Segment - 70%	24	01-Sep-22	29-Sep-22	CP Precast Lining Segme
CP Precast Lining Segment - 80%	24	30-Sep-22	29-Oct-22	
WB CP Tympanum Structure	72	20-Aug-22	15-Nov-22	
CP7 - WB - Tympanum Civil works CH6705	24	20-Aug-22	17-Sep-22	CP7 - WB- Tympanum Civil works C
CP8 - WB - Tympanum Civil works CH6803	24	03-Sep-22	03-Oct-22	CP8 - WB - Tympanur
CP9 - WB - Tympanum Civil works CH6904	24	19-Sep-22	18-Oct-22	CP9-Wi
CP10 - WB - Tympanum Civil works CH7004	24	05-Oct-22	01-Nov-22	
CP11 - WB - Tympanum Civil works CH7103	24	19-Oct-22	15-Nov-22	
EB CP Tympanum Structure	108	11-Jul-22	16-Nov-22	
CP7 - EB - Tympanum Civil works CH6705	24	11-Jul-22	06-Aug-22	CP7 - EB - Tympanum Civil works CH6705
CP8 - EB - Tympanum Civil works CH6803	24	25-Jul-22	20-Aug-22	
CP9 - EB - Tympanum Civil works CH6904	24	08-Aug-22	03-Sep-22	CP9 - EB Tympanum Civil works CH6904
CP10 - EB - Tympanum Civil works CH7004	24	22-Aug-22	19-Sep-22	CP10 - EB - Tympanum Civil work:
CP11 - EB - Tympanum Civil works CH7103	24	05-Sep-22	05-Oct-22	¢P11-EB-Tympar
CP12 - EB - Tympanum Civil works CH7203	24	20-Sep-22	19-Oct-22	CP12-1
CP13 - EB - Tympanum Civil works CH7303	24	06-Oct-22	02-Nov-22	
CP14 - EB - Tympanum Civil works CH7403	24	20-Oct-22	16-Nov-22	
CP TBM Pipe Jacking	70	18-Sep-22	26-Nov-22	
CP7 to CP8	70	18-Sep-22	26-Nov-22	
CP7 - CP TBM cyde - Learning Curve	42	18-Sep-22	29-Oct-22	
CP8 - CP TBM cyde - Learning Curve	28	30-Oct-22	26-Nov-22	
SUB-SEA TUNNEL INTERNAL & FINISHING	38	19-Sep-22	03-Nov-22	
Corbel	38	19-Sep-22	03-Nov-22	
Westbound	38	19-Sep-22	03-Nov-22	
WB - TBM Tunnel - Corbel Structure up to CP7	9	19-Sep-22	28-Sep-22	WB - TBM Tunnel - Corbél
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Milestone

Critical A

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

Activity Name	Dur	Start Fi	Finish 2022 February March April May June July August September October																						
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WB - TBM Tunnel - Corbel Structure up to CP8	14 05-	5-Oct-22 20-C)ct-22			2.																		_	WB - T
WB - TBM Tunnel - Corbel Structure up to CP9	14 19-	9-Oct-22 03-N	lov-22		-+																				· /
CHA KWO LING ROAD WORKS	151 19-A	-Apr-21 A 30-Ma	ar-22 A					· · · · · · · · · · · · · · · · · · ·															-		
Wa i Yip Street / Cha Kwo Ling Road Junction	151 19-A	-Apr-21 A 30-Ma	ar-22 A							·			·	·											····
Reinstatement	30 19-A	-Apr-21 A 30-Ma	ar-22 A					· · · · · · · · · · · · · · · · · · ·	Rein	nstatement			·												
Section 8E Completion	0	30-M	ar-22 A					•	Secti	tion 8E Completion		·													
DRILL & BREAK TUNNEL [D&BR]	333 06-D	Dec-21 A 30-N	lov-22		- +							· 													·
Tunnel Excavation	333 06-D	Dec-21 A 30-N	lov-22	!				· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·			·												·····
EB - D&Br Tunnel - CH9025-9010 Type D - Excavation Top	40 06-Г	Dec-21 A 22-Ja	in-22 A	&Br¦Tun	nel - CH	19025-9	1 1	i i	op					·l				J					- J		/
EB - D&Br Tunnel - CH9055-9020 Type D - Excavation Bench & SG	72 23-D	Dec-21 A 07-A	ug-22								·				<u></u> +				B - D&	Br Tunnel (CH9055-90)20 Type D - I	Excavation Be	nch & S	3
EB - D&Br Tunnel - CH9010-8995 Type D - Excavation Top	39 24'	Jan-22 A 03-Ma	ay-22 A						- - 		EB - D&	Br Tunne	el - CH9010-8	995 Type D - I	Excavation	Тор		¦							
Probe hole at CH8995	1 04-1	May-22 A 04-Ma	ay-22 A	 	-+			· • • • • • • • • • • • • • • • • • • •			Probe h	nole aț C	H8995												
EB - D&Br Tunnel - CH8995-8976 Type D - Excavation Top	50 05-N	May-22 A 23	Jul-22										· · · · · · · · · · · · · · · · · · ·				EB	D&Br Tur	nnel - C	H8995-8976	, Type D - I	Excavation To	p		
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DRILL & BLAST TUNNEL [D&BL]	274 14-D	Dec-21 A 13-A	pr-22 A									·													
Tunnel Excavation	28 14-D	Dec-21 A 29-Ja	in-22 A																						
Eastbound	28 14-D	Dec-21 A 29-Ja	in-22 A																		+				·····
Full Face Drill & Blast	28 14-Г	Dec-21 A 29-Ja																	1						/
EB - D&BI Tunnel - Branch Tunnel S01	28 14-D	Dec-21 A 29-Ja	in-22 A	B D&I	BITunne	el - Bran	nch Tunnel S01																		
Tunnel Structure EB Type A	197 05-J	Jan-22 A 13-Aj	pr-22 A		- 4	-l						·						/							۲ ا
East Bound New Blast Door Installation	12 05-J	Jan-22 A 28-Fe	eb-22 A				East Bound N	lew Blast D		i i i		1													//
East Bound New Blast Door CNP Application	16 01-F	Feb-22 A 30-Ma	ar-22 A						1.1	t Bound New Blast D	1 1	1													
Removal of old Blast Door	22 08-N	Mar-22 A 13-A	pr-22 A					· · · · · · · · · · · · · · · · · · ·		Removal of c	1 1	:							1						
EAST VENTILATION BUILDING [EVB]	368 13-1	Mar-21 A 21-D	ec-22					· · · · · · · · · · · · · · · · · · ·		·			· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·											,
Excavation	297 13-N		ep-22																						
Westbound		Mar-21 A 15-Fe																· · · · · · · · · · · · · · · · · · ·							
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Eastbound	143 05-N		ep-22]																			
Eastbound Excavation	143 05-N	Mar-22 A 15-S	ep-22																1			Eastbound	dExcavation		
Foundation / Portal Structure	214 16-F		ec-22]								·											
Westbound	214 16-F																-								
Trench Excavation	24 16-F	Feb-22 A 26-Ma	ar-22 A					T	rench E	Excavation															
EVB - WB Earth Mat Installation	12 28-№	Mar-22 A 20-A	pr-22 A							EVB -	WB Earth Ma	t Installa	ition												
EVB - WB Drainage & Blinding	18 21 <i>-</i> A	Apr-22 A 08	Jul-22													EVB-W	B Draina	ge & Blind	linġ						
EVB - WB Foundation & SG Level Walls & Slab	91 09-	9-Jul-22 26-0	Oct-22		- 4							·						· · · · · · · · · · · · · · · · · · ·	- J						
EVB - WB Tunnel & Plenum Level Wall & Column	48 27-	7-Oct-22 21-D	ec-22					· · · · · · · · · · · · · · · · · · ·																	
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- Milestone
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02-Jul-21	02V0	SPa/LLo	WYu