JOB NO.: TCS01321/23

CEDD SERVICE CONTRACT NO. EDO 12/2023 ENVIRONMENTAL TEAM FOR DEVELOPMENT OF ANDERSON ROAD QUARRY SITE – SITE FORMATION AND ASSOCIATED INFRASTRUCTURE WORKS

MONTHLY ENVIRONMENTAL MONITORING AND AUDIT REPORT (APRIL 2025)

PREPARED FOR
CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT (CEDD)

Date	Reference No.	Prepared By	Certified By
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Version	Date	Remarks
1	14 May 2025	First submission
2	16 May 2025	Amended according to IEC's comment

EXECUTIVE SUMMARY

ES01 Action-United Environmental Services & Consulting (AUES) has been awarded the Civil Engineering and Development Department (CEDD) Service Contract No. EDO 8/2022 - Environmental Team for Development of Anderson Road Quarry Site – Site Formation and Associated Infrastructure Works (hereinafter called "the Service Contract) on 15 September 2023. As notifying by AECOM Asia Company Limited (Engineer's Representative) subsequently, the commencement date of the Service Contract is on 22 September 2023 for the Contract Period of 22 months.

ES02 The previous service contract nos. NTE/07/2016 and EDO 8/2022, covering the environmental monitoring and audit (EM&A) service for the Development of Anderson Quarry Site (ARQ) for Contracts 1, 2, 3, 4 and 5 was completed in September 2022 and September 2023 respectively.

ES03 The Services under the Service Contract is to provide EM&A services for the Works Contracts pursuant to the requirement of Environmental Team (ET) under the EM&A manual to ensure that the environmental performance of the Works Contracts comply with the requirement specified in the EM&A Manual and EIA Report of Development of ARQ and other relevant statutory requirements.

ES04 To facilitate the project management and implementation, the ARQ project involved five major infrastructure works CEDD contracts, the commencement date and anticipated completion date of the five works contracts are summarized in below table.

Contract	Commencement date	Anticipated completion date
NE/2016/01 (Contract 1)	December 2016	September 2023
NE/2016/05 (Contract 2)	March 2017	September 2023
NE/2017/03 (Contract 3)	May 2018	January 2025
ED/2020/02 (Contract 4)	July 2021	September 2025
ED/2019/02 (Contract 5)	March 2021	January 2025

ES05 As notified by AECOM, the certificate of completion of the last section of the works have been issued for Contract 1 and Contract 2 on 30 June 2023 and 15 May 2023 respectively. Moreover, contract nos. NE/2017/03 (Contract 3) and ED/2019/02 (Contract 5), covering the environmental monitoring and audit (EM&A) service was completed in January 2025. In view of the completion of major construction works, the EM&A service for Contract 1 and Contract 2 under service contract no. EDO 8/2022 was ceased in late September 2023 and the relevant monitoring stations have been handover to current contract no. EDO 8/2022.

ES06 This is the monthly EM&A report presenting the monitoring results and inspection findings for Contracts 4 for the period from **1 to 30 April 2025** (hereinafter 'the Reporting Period').

ENVIRONMENTAL MONITORING AND AUDIT ACTIVITIES

ES07 Environmental monitoring activities under the EM&A programme in the Reporting Period are summarized in the following table.

Environmental Aspect	Environmental Monitoring Parameters / Inspection	Reporting Period	
		Number of Active Monitoring Locations	Total Occasions
Air Quality	1-hour TSP	**7**	**105**
	24-hour TSP	**4**	**24**
Construction Noise	$L_{eq(30min)}$ Daytime for Contract NE/2016/01	**8**	**32**
	$L_{eq(30min)}$ Daytime for Contract NE/2017/03	**1**	**4**

BREACH OF ACTION AND LIMIT (A/L) LEVELS

ES08 In the Reporting Month, one (1) exceedance of Limit Level and one (1) Action Level were recorded on 14 April 2025. Notification of Exceedance (NOE) with preliminary investigation and on-site observation were issued to all parties, i.e. ER, Contractor, IEC and EPD. For construction noise monitoring, no Limit Level exceedance was recorded and no noise complaint (which triggered Action Level) was received in the reporting period. The environmental exceedance, NOE issued and investigation of exceedance are summarized in the following table.

Environmental Aspect	Monitoring Parameters	Action Level	Limit Level	Event & Action	
				NOE Issued	Corrective Actions
Air Quality	1-hour TSP	0	0	0	NA
	24-hour TSP	1	1	1	NA
Construction Noise	$L_{eq(30min)}$ Daytime	0	0	0	NA

ENVIRONMENTAL COMPLAINT

ES09 In the reporting period, no environmental complaint was received in the Reporting Period.

NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS

ES10 No environmental summons or successful prosecutions for the Project were recorded in the Reporting Period.

REPORTING CHANGE

ES11 There is no reporting change in the Reporting Period.

SITE INSPECTION

ES12 In this Reporting Period, joint site inspections to evaluate the site environmental performance for ***Contract 4*** were carried out by the RE, ET and Contractor on **1, 8, 15, 25 and 29 April 2025** in which IEC joined the site inspection with SSEMC on **25 April 2025.** No non-compliance was noted during the site inspection.

FUTURE KEY ISSUES

ES13 The Contractor are reminded to pay special attention on water quality mitigation measures and should fully implement the measures as recommended in the EM&A Manual, in particular to prevent muddy water or other water pollutants from site surface overflow to public area should be properly maintained.

ES14 Since construction site is highly visible to the resident at nearby estates, the Contractors should pay special attention on potential environmental impact generated by the site activities and adhere implement adequate air quality and noise mitigation measures as far as practicable to reduce the impact to the public.

ES15 Construction noise is one of the key environmental issues during construction work of the Project. Noise mitigation measures such as using quiet plants and noise barriers shall be implemented where practicable according to the EM&A manual.

ES16 In addition, the Contractors should ensure all effluent discharge shall be fulfilled the Technical Memorandum of Effluent Discharged into Drainage and Sewerage Systems, inland and Coastal Waters criteria or relevant discharge license requirement.

Table of Contents

LIST OF TABLES

LIST OF APPENDICES

1. INTRODUCTION

PROJECT BACKGROUND

1.1.1 Development of Anderson Road Quarry (ARQ) is to provide land and the associated infrastructures for the proposed land used at the existing ARQ Site at the North-eastern of East Kowloon according to the final Recommended Outline Development Plan (hereinafter named as the Project Works).

1.1.2 To facilitate the project management and implementation, the ARQ project involved five major infrastructure works CEDD contracts, the commencement date and anticipated completion date of the five works contracts are summarized in below table.

Contract	Commencement date	Anticipated completion date
NE/2016/01 (Contract 1)	December 2016	September 2023
NE/2016/05 (Contract 2)	March 2017	September 2023
NE/2017/03 (Contract 3)	May 2018	January 2025
ED/2020/02 (Contract 4)	July 2021	September 2025
ED/2019/02 (Contract 5)	March 2021	January 2025

1.1.3 Action-United Environmental Services & Consulting (AUES) has been awarded the Civil Engineering and Development Department (CEDD) Service Contract No. EDO 8/2022 - Environmental Team for Development of Anderson Road Quarry Site – Site Formation and Associated Infrastructure Works (hereinafter called "the Service Contract) on 15 September 2023. As notifying by AECOM Asia Company Limited (Engineer's Representative) subsequently, the commencement date of the Service Contract is on 22 September 2023 for the Contract Period of 22 months.

1.1.4 The Services under the Service Contract is to provide EM&A services for the Works Contracts pursuant to the requirement of Environmental Team (ET) under the EM&A manual to ensure that the environmental performance of the Works Contracts comply with the requirement specified in the EM&A Manual and Environmental Impact Assessment (EIA) Report of Development of Anderson Road Quarry and other relevant statutory requirements.

1.1.5 The previous service contract nos. NTE/07/2016 and EDO 8/2022, covering the EM&A services for the Development of ARQ site for Contracts 1, 2, 3, 4 and 5 was completed in September 2022 and September 2023 respectively.

1.1.6 As notified by AECOM, the certificate of completion of the last section of the works have been issued for Contract 1 and Contract 2 on 30 June 2023 and 15 May 2023 respectively. Moreover, contract nos. NE/2017/03 (Contract 3) and ED/2019/02 (Contract 5), covering the environmental monitoring and audit (EM&A) service was completed in January 2025. In view of the completion of major construction works, the EM&A service for Contract 1 and Contract 2 under service contract no. EDO 8/2022 was ceased in late September 2023 and the relevant monitoring stations have been handover to current contract no. EDO 8/2022.

1.1.7 According to the Approved EM&A Manual, air quality and noise monitoring are required to be monitored during the construction phase of the Project. As part of the EM&A program, baseline monitoring is required to determine the ambient environmental conditions. Baseline monitoring including air quality and noise conducted between ***January*** and ***April 2019*** at all designated monitoring locations were before construction work commencement. Furthermore, the Baseline Monitoring Report which verified by the Independent Environmental Checker (hereinafter referred as "the IEC") has been submitted to Environmental Protection Department **(**EPD) on ***9 May 2017*** for endorsement.

1.1.8 This is the monthly EM&A report presenting the monitoring results and inspection findings for Contracts 4 for the period from **1 to 30 April 2025** (hereinafter 'the Reporting Period').

REPORT STRUCTURE

1.2.1 The monthly EM&A Report is structured into the following sections:-

Section 1	*Introduction*
Section 2	*Project Organization and Construction Progress*
Section 3	*Summary of Impact Monitoring Requirements*
Section 4	*Air Quality Monitoring*
Section 5	*Construction Noise Monitoring*
Section 6	*Waste Management*
Section 7	*Site Inspections*
Section 8	*Environmental Complaints and Non-Compliance*
Section 9	*Implementation Status of Mitigation Measures*
Section 10	*Conclusions and Recommendations*

2. PROJECT ORGANIZATION AND CONSTRUCTION PROGRESS

2.1 CONSTRUCTION CONTRACT PACKAGING

2.1.1 To facilitate the project management and implementation, the Project was divided by 5 works contracts as described in following. The details of each contract are summarized below and the delineation of each contract is shown in ***Appendix A***.

Contract 1 (Contract No. NE/2016/01)

2.1.2 Commencement date of Contract 1 was in late December 2016 and the major construction work was completed in June 2023. The major scope of work of Contract 1 is listed below:

- Formation of about 40 hectares (ha) of land platforms at the ARQ site and the associated geotechnical works;
- Road works including construction of approximately 3-kilometer long vehicular roads, footpaths, cycle tracks, an approximately 130-meter long underpass at the southern end an a public transport terminus at the northern end at the ARQ site;
- Provision of and improvement to water supply, drainage and sewerage systems as well as landscaping works; and
- Construction of proposed subway structures and lift tower structures of pedestrian connectivity facilities.

Contract 2 (Contract No. NE/2016/05)

2.1.3 Commencement date of Contract 2 was in March 2017 and the major construction work was completed in May 2023. The major Scope of Work of the Contract 2 is listed below:

(i) Construction of the following pedestrian connectivity facilities with covered elevated walkways, covered at grad walkways, escalators, life towers with associate staircase and lifts:-
  (a) Linking Hiu Kwong street with Hiu Ming Street (E1)
  (b) Linking the proposed "Footbridge Link at Sau Ming Road" with Hiu Ming Street (E2, C1 and E3)
  (c) Linking the proposed bus-to-bus interchange at Tseung Kwan O Tunnel Toll Plaza with Lin Tak Road (E12)

(ii) Construction of bus-to-bus interchange (BBI) at Tseung Kwan O Tunnel Toll Plaza;

(iii) Associated landscape works

Contract 3 (Contract No. NE/2017/03)

2.1.4 The commencement date of Contract 3 was in May 2018 and the tentative completion date in September 2023. The major Scope of Work of the Contract 3 is listed below:

(i) Site formation and road works in the following sections:-
  (a) at junction of Clear Water Bay Road (CWBR) and On Sau Road constructed under the Development at Anderson Road (DAR) project including the provision of U-turn facility and noise mitigation measures (RIW1);
  (b) at New Clear Water Bay Road (NCWBR) near Shun Lee Tsuen Road including the road widening works at NCWBR, modification of existing subway structure and provision of noise mitigation measures (RIW2); and
  (c) at the junction of Lin Tak Road and Sau Mau Ping Road, construction of flyover above Tseung Kwan O Road, provision of loading and unloading bays along Lin Tak Road and noise mitigation measures (RIW3).

(ii) Construction of the following pedestrian connectivity facilities with covered elevated walkways, escalators and lift towers with associated staircases and lifts:-
  (a) linking Anderson Road Quarry site with the DAR Site (except the works covered under Contract 1) (System A and System B);
  (b) linking Hiu Ming Street with Hiu Yuk Path (E8); and

(c) linking the proposed bus-bus interchange at Tseung Kwan O Tunnel Toll Plaza with Sau Mau Ping Road (E11).

(iii) Associated landscape works.

Contract 4 (Contract No. ED/2020/02)

2.1.5 The commencement date of Contract 4 is in July 2021 and tentative completion date in December 2023. The major Scope of Work of the Contract 4 is listed below:

- Hard landscaping and other ancillary works (e.g. paver footpath, planter walls, benches, lighting etc.)
- Soft landscaping works; landscape deck, emergency vehicular access, access road:
- Park lighting system;
- Electrical and mechanical engineering works for underground water treatment facilities and pumping system for Artificial Flood Attenuation Lake; and
- Potential slope enhancement requested by GEO.

Contract 5 (Contract No. ED/2019/02)

2.1.6 The commencement date of Contract 5 in March 2021 and tentative completion data in April 2024. The major Scope of Work of the Contract 5 is listed below:

- Construction pedestrian connectivity facility with covered elevated walkway, covered at grade walkway and escalators linking Sau Mau Ping Road with the existing covered elevated walkway to Po Tat Estate (E5);
- Construction a pedestrian connectivity facility with covered elevated walkway, covered at grade walkway and escalators linking Sau Mau Ping South Estate with the existing covered walkway to Sau Mau Ping Road (E6);
- Construction a pedestrian connectivity facility with covered elevated walkway, elevated walkway, lift tower with associated staircase and lifts linking Hiu Kwong Street with podium of Sau Ming House, Sau Mau Ping Estate, provision of at grade staircase (E7)'
- Construction a pedestrian connectivity facility with covered elevated walkway, lift tower with associated staircase and lifts linking podium of Po Tat Estate to Sau Mau Ping Road (E10); and
- Ancillary works including electrical and mechanical, slope stabilization, drainage, utilities and landscaping works.

2.2 PROJECT ORGANIZATION

2.2.1 The project organization and contact details for Contracts 4 are shown in ***Appendix B***.

2.3 CONSTRUCTION PROGRESS

2.3.1 The 3-month rolling construction programme for Contracts 4 are shown in ***Appendix C***. The major construction activities conducted in the Reporting Period are summarized in below.

Contract 4 (ED/2020/02)

- Excavation work for Drainage Works at Portion 1a, 2a, 6, 8 & 12
- Drainage works at Portion 1a, 2a, 6, 8, 9 & 12
- Construction of E&M works at Portion 1a, 2a, 6, 8 & 12
- Construction of Planter at Portion 6, 8, 12
- Construction of hard landscape at Portion 6, 8, 12
- Construction of slab planter on elevated walkway at Portion 13b
- Backfilling works for B3 & B4 at Portion 13b
- Sewerage and Road works at G2-Site at Portion 13b
- Installation of rock mesh at Portion 10
- Repair works at Portion 10 and Portion 17

- Construction of Footpath at Portion 9
- Watermain works at Portion 13b

2.3.2 Summary of the relevant permits, licenses, and/or notifications on environmental protection for the Project of contracts 3, 4 and 5 are presented in ***Tables 2-1***.

Table 2-1 Status of Environmental Licenses and Permits of the Contract 4

Item	Description	License/Permit Status			
		Permit no./ account no./ Ref. no.	Valid Period		Status
			From	To	
1	Form NA – Notification pursuant to Air Pollution Control (Construction Dust) Regulation	EPD ref. no. 470496	19-Aug-21	NA	Valid
2	Waste Disposal Regulation – Billing Account for Disposal of Construction Waste	Account no. 7041336	6-Sep-21	NA	Valid
3	Chemical Waste Producer Registration	Registration no. WPN 5213-296-C1206-12	14-Sep-21	End of project	Valid
4	Water Pollution Control Ordinance – Discharge License	WT00043000-2003	30-Jan-23	31-Jan-28	Valid

3. SUMMARY OF IMPACT MONITORING REQUIREMENTS

3.1 General

3.1.1 The Environmental Monitoring and Audit requirements are set out in the Approved EM&A manual. Environmental issues such as air quality, construction noise and water quality were identified as the key issues during the construction phase of the Project.

3.1.2 A summary of construction phase EM&A requirements are presented in the sub-sections below.

3.2 Monitoring Parameters

3.2.1 The EM&A program of construction phase monitoring shall cover the following environmental issues:

- Air quality; and
- Construction noise

3.2.2 A summary of the monitoring parameters is presented in ***Table 3-1.***

Table 3-1 Summary of EM&A Requirements

Environmental Issue	Parameters
Air Quality	• 1-hour TSP by Real-Time Portable Dust Meter; and • 24-hour TSP by High Volume Air Sampler
Noise	• Leq(30min) in normal working days (Monday to Saturday) 07:00-19:00 except public holiday • Supplementary information for data auditing, statistical results such as L_{10} and L_{90} shall also be obtained for reference.

3.3 Monitoring Locations

3.3.1 According to the EM&A Manual Section 4.6, seven (7) most representative and affected air sensitive receivers (ASR) were selected as air monitoring stations (AQM). During site visit at the subject site before the baseline monitoring, it was noted that some planned ASRs identified in the EM&A Manual are still under construction/ has not yet constructed and there were no suitable location to set up the high volume sampler to carry out the baseline 24-hour TSP monitoring. Therefore, a proposed change for the baseline monitoring programme was submitted and agreed by EPD before the baseline monitoring. The impact air quality monitoring locations are listed in ***Table 3-2*** and illustrated in ***Appendix D.***

Table 3-2 Impact Monitoring Stations – Air Quality

ID	ASR ID in EIA	Location in the EM&A Manual	Identified Location during Site Visit	Status
AMS-1	ACYC-01	Chi Yum Ching She	Ground of Chi Yum Ching facing the project site	Replaced by AMS-1a
AMS-1a (*)	ACYC-01	Tan Shan Village No. 5 - 6	Ground of Tan Shan Village No. 5 - 6 facing the project site	Active
AMS-2 (#)	DARB-13	Block 8, Site B	Ground of Fung Tai House of On Tai Estate	Active
AMS-3 (:)	DARC-16	Planned Clinic and Community Centre, Site C2	Ground of Planned Clinic and Community Centre facing Anderson Road (Ancillary Facilities Building)	Active
AMS-4 (:)	DARC-26	Planned School, Site C2 Note 1	Ground of Active	Active
AMS-5	DARE-06	Block 5, DAR Site E	Main roof of Oi Tat House of On Tat Estate facing the project site	Active
AMS-6	DARE-17	Block 9, Site E	Main roof of Hau Tat House of	Active

ID	ASR ID in EIA	Location in the EM&A Manual	Identified Location during Site Visit	Status
			On Tat Estate facing the project site	
AMS-7	AMYT-04	Ma Yau Tong Village	Balcony at 2nd floor of Village House Anderson Road No. 1 facing the project site	Active

Note 1: The ASR is under construction.

(#) AMS-2 was activated on 26 November 2018 since Fung Tai House became an air sensitive receiver. 1-hour TSP monitoring was commenced on 26 November 2018 while installation of HVS for 24-hour TSP was pending approval from Housing Authority.

(*) 24-hour TSP monitoring at AMS1 was abandoned since May 2019 due to lack of power supply and the landlord was unreachable. The alternation location of AMS1a was activated on 15 June 2019 for 1-hour and 24-hour TSP monitoring. The proposal was agreed by EPD on 9 Aug 2019.

(:) AMS-3 was effective on 3 December 2019 and AMS-4 was effective on 4 January 2023

Construction Noise

3.3.2 According to the EM&A Manual Section 5.5, three (3) most representative and affected noise sensitive receivers (NSR) were selected as monitoring stations. As recommended by the RE and agreed by IEC, one (1) additional noise monitoring location is proposed to add in Oi Tat House of On Tat Estate (hereafter "NMS-4") to oversee the possible noise impact pose to the resident in On Tat Estate, which is an existing NSR close to the major works activities. Moreover, review of impact monitoring location was proposed to IEC in view of the current site condition and it was agreed by all parties. The details of noise monitoring location are listed in ***Table 3-3*** and illustrated in ***Appendix D***.

Table 3-3 Impact Monitoring Stations – Construction Noise

ID	NSR ID in EIA	Location	Status
NMS-1(:)	Site C2 – School 05 Note 1	Ground of Maryknoll Secondary School	Active
NMS-2(:)	Site E – School	Rooftop of S.K.H. St. John's Tsang Shiu Tim Primary School, where 1m from the exterior of the building facing the project site	Active
NMS-3(:)	Site C2 – R102–	Ground of Ancillary Facilities Building facing the project site	Active
NMS-4*	Oi Tat House	1m from the exterior of ground floor façade of Oi Tat House of On Tat Estate facing the project site	Suspended
NMS-4a#	Oi Tat House	Rooftop of Oi Tat House where 1m from the exterior of Oi Tat House facing the project site	Active
NMS-5#	Hau Tat House	22/F, refuge floor of Hau Tat House where 1m from the exterior of Hau Tat House facing the project site.	Active
NMS-6~	Yung Tai House of On Tai Estate	Rooftop of Yung Tai House where 1m from the exterior of the building facing the project site)	Active
NMS-7~	Chi Tai House of On Tai Estate	Rooftop of Chi Tai House where 1m from the exterior of the building facing the project site	Active
NMS-8^	No. 3-4 Ma Yau Tong Village	1m from the exterior of the building façade and facing the construction site	Active

ID	NSR ID in EIA	Location	Status

Note 1: Construction of the NSR is not yet commenced.

(*) Additional noise monitoring location was recommended by RE and agreed by IEC. It was temporary suspended and the monitoring location is relocated to NMS4a with effective on 15 Nov 2017.

(:) NMS-2 was effective on 15 November 2019, NMS-3 was effective on 3 December 2019 and NMS-1 was effective on 4 January 2023.

(#) Review of noise monitoring locations was proposed by ET and NMS-5 was effective on 15 November 2017.

(˜) Review of noise monitoring locations was proposed by ET and NMS-6 and NMS-7 were effective on 28 Feb 2018.

(ˆ) Review of noise monitoring locations was proposed by ET and NMS-8 was effective on 18 April 2018. Noise monitoring at NMS-8 was started on 3 May 2018 upon commencement of construction at relevant section.

Addition Construction Noise Monitoring Location

3.3.3 A Work Instruction was issued from AECOM to AUES in November 2018 for installing three additional noise monitoring stations under Contract 3. According to the Work Instruction, one noise monitoring station was proposed to install at System A Area and two station monitoring points were proposed to install at E8 Area. The noise monitoring locations are shown in ***Table 3-4*** below and illustrated in ***Appendix D***.

Table 3-4 Additional Impact Monitoring Stations – Construction Noise

ID	Location	Description
CN1*	Holm Glad College	Ground floor of Holm Glad College, where 1m from the exterior of the building facing E8
CN2*	Leung Shek Chee College	Ground floor of Leung Shek Chee College, where 1m from the exterior of the building facing E8
CN3	Oi Tat House of On Tat Estate	Ground floor of Oi Tat House of On Tat Estate, where 1m from the exterior of the building facing System A

Note 1: Construction of the NSR is not yet commenced.

(*) Additional noise monitoring location was terminated by RE as the construction work at E8 was completed in September 2022. The last monitoring for CN1&CN2 was on 15 September 2022.

3.4 MONITORING FREQUENCY AND PERIOD

3.4.1 The requirements of impact monitoring in the approved *EM&A Manual* and presented as follows.

Air Quality Monitoring

3.4.2 Frequency of impact air quality monitoring is as follows:

- 1-hour TSP 3 times every six days during course of works throughout the construction period
- 24-hour TSP Once every 6 days during course of works throughout the construction period

Noise Monitoring

3.4.3 Noise monitoring will be to conduct at the all available designated monitoring stations. The monitoring frequency shall depend on the scale of the construction activities. The following is an initial guide on the regular monitoring frequency for each station on a weekly basis when noise generating activities are underway:

- one set of $Leq_{(30min)}$ measurements between 07:00 and 19:00 hours on normal weekdays

3.5 MONITORING EQUIPMENT

Air Quality Monitoring

3.5.1 The 24-hour and 1-hour TSP levels shall be measured by following the standard high volume sampling method as set out in the *Title 40 of the Code of Federal Regulations, Chapter 1 (Part 50),* Appendix *B*. If the ET proposes to use a direct reading dust meter to measure 1-hour TSP levels, it shall submit sufficient information to the IEC to prove that the instrument is capable of achieving a comparable results to the HVS. The instrument should be calibrated regularly, and the 1-hour sampling shall be determined on yearly basis by the HVS to check the validity and accuracy of the results measured by direct reading method. The filter paper of 24-hour TSP measurement shall be determined by HOKLAS accredited laboratory.

3.5.2 All equipment to be used for air quality monitoring is listed in ***Table 3-5***.

Table 3-5 Air Quality Monitoring Equipment

Equipment		Model
24-hour TSP	High Volume Air Sampler	TISCH High Volume Air Sampler, HVS Model TE-5170
	Calibration Kit	TISCH Model TE-5025A
1- hour TSP	Portable Dust Meter	Sibata LD-3B Laser Dust Monitor

Noise Monitoring

3.5.3 Sound level meter in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications shall be used for carrying out the noise monitoring. The sound level meter shall be checked using an acoustic calibrator. The wind speed shall be checked with a portable wind speed meter capable of measuring the wind speed in ms-1.

3.5.4 Noise equipment as perform for construction phase monitoring is listed in ***Table 3-6***.

Table 3-6 Construction Noise Monitoring Equipment

Equipment	Model
Integrating Sound Level Meter	Bruel & Kjaer 2238, Rion NL-31, Rion NL-52
Calibrator	Bruel & Kjaer 4231, NC-73, NC-75
Portable Wind Speed Indicator	Anemometer AZ Instrument 8908

3.6 MONITORING METHODOLOGY

1-hour TSP

3.6.1 The 1-hour TSP monitor was a brand named "Sibata LD-3 Laser Dust monitor Particle Mass Profiler & Counter" which is a portable, battery-operated laser photometer. The 1-hour TSP meter provides a real time 1-hour TSP measurement based on 90^{o} light scattering. The 1-hour TSP monitor consists of the following:

(a.) A pump to draw sample aerosol through the optic chamber where TSP is measured;

(b.) A sheath air system to isolate the aerosol in the chamber to keep the optics clean for maximum reliability; and

(c.) A built-in data logger compatible with Windows based program to facilitate data collection, analysis and reporting.

3.6.2 The 1-hour TSP meter to be used will be within the valid period, calibrated by the manufacturer prior to purchasing. Zero response of the instrument will be checked before and after each monitoring event.

24-hour TSP

3.6.3 The equipment used for 24-hour TSP measurement is Thermo Andersen Model GS2310 TSP

high volume air sampling system, which complied with *EPA Code of Federal Regulation, Appendix B to Part 50*. The High Volume Air Sampler (HVS) consists of the following:

(a.) An anodized aluminum shelter;
(b.) A 8"x10" stainless steel filter holder;
(c.) A blower motor assembly;
(d.) A continuous flow/pressure recorder;
(e.) A motor speed-voltage control/elapsed time indicator;
(f.) A 7-day mechanical timer, and
(g.) A power supply of 220v/50 Hz

3.6.4 For HVS for 24-hour TSP monitoring, the HVS is mounted in a metallic cage with a top for protection and also it is sat on the existing ground or the roof of building. The flow rate of the HVS between 0.6m^3/min and 1.7m^3/min will be properly set in accordance with the manufacturer's instruction to within the range recommended in *EPA Code of Federal Regulation, Appendix B to Part 50*. Glass Fiber Filter 8" x 10" of TE-653 will be used for 24-Hour TSP monitoring and would be supplied by laboratory. The general procedures of sampling are described as below:-

- A horizontal platform with appropriate support to secure the samples against gusty wind should be provided;
- No two samplers should be placed less than 2 meters apart;
- The distance between the sampler and an obstacle, such as building, must be at least twice the height that the obstacle protrudes above the sample;
- A minimum of 2 meters of separation from any supporting structure, measured horizontally is required;
- Before placing any filter media at the HVS, the power supply will be checked to ensure the sampler work properly;
- The filter paper will be set to align on the screen of HVS to ensure that the gasket formed an air tight seal on the outer edges of the filter. Then filter holder frame will be tightened to the filter hold with swing bolts. The holding pressure should be sufficient to avoid air leakage at the edge;
- The mechanical timer will be set for a sampling period of 24 hours (00:00 mid-night to 00:00 mid-night next day). Information will be recorded on the field data sheet, which would be included the sampling data, starting time, the weather condition at current and the filter paper ID with the initial weight;
- After sampling, the filter paper will be collected and transfer from the filter holder of the HVS to a sealed envelope and sent to a local HOKLAS accredited laboratory for quantifying.

3.6.5 All the sampled 24-hour TSP filters will be kept in normal air conditioned room conditions, i.e. 70% HR (Relative Humidity) and 25^{o}C, for six months prior to disposal.

3.6.6 The HVS used for 24-hour TSP monitoring will be calibrated before the commencement for sampling, and after in two months interval for 1 point checking of maintenance and six months interval for five points calibrate in accordance with the manufacturer's instruction using the NIST-certified standard calibrator (Tisch Calibration Kit Model TE-5025A) to establish a relationship between the follow recorder meter reading in cfm (cubic feet per minute) and the standard flow rate, Qstd, in m^3/min. Motor brushes of HVS will be regularly replaced of about five hundred hours per time. The calibration certificates of all monitoring equipment used for the impact monitoring program in the Reporting Period and the HOKLAS accredited certificate of laboratory are attached in ***Appendix E***.

Noise Monitoring

3.6.7 As referred to in the Technical Memorandum (TM) issued under the NCO, sound level meters in compliance with the International Electrotechnical Commission Publications 651: 1979

(Type 1) and 804:1985 (Type 1) specifications shall be used for carrying out the noise monitoring. Immediately prior to and following each noise measurement the accuracy of the sound level meter shall be checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements may be accepted as valid only if the calibration levels from before and after the noise measurement agree to within 1.0 dB.

3.6.8 All noise measurements will be performed with the meter set to FAST response and on the A-weighted equivalent continuous sound pressure level (Leq). $Leq_{(30\ min)}$ in six consecutive $Leq_{(5\ min)}$ measurements will be used as the monitoring parameter for the time period between 07:00-19:00 hours on weekdays throughout the construction period.

3.6.9 The sound level meter will be mounted d on a tripod at a height of 1.2 m and placed at the assessment point and oriented such that the microphone is pointed to the site with the microphone facing perpendicular to the line of sight. The windshield will be fitted for all measurements. Where a measurement is to be carried out at a building, the assessment point would normally be at a position 1 m from the exterior of the building façade. Where a measurement is to be made for noise being received at a place other than a building, the assessment point would be at a position 1.2 m above the ground in a free-field situation, i.e. at least 3.5 m away from reflective surfaces such as adjacent buildings or walls.

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

3.6.11 Noise measurements will not be made in fog, rain, wind with a steady speed exceeding 5m/s or wind with gusts exceeding 10m/s. The wind speed will be checked with a portable wind speed meter capable of measuring the wind speed in m/s.

3.6.12 The sound level meter and calibrator are calibrated and certified by a laboratory accredited under HOKLAS or any other international accreditation scheme at yearly basis. The calibration certificates of all monitoring equipment used for the impact monitoring program in the Reporting Period is attached in ***Appendix E***.

Meteorological Information

3.6.13 The meteorological information including wind direction, wind speed, humidity, rainfall, air pressure and temperature etc. during baseline monitoring is extracted from the closest Hong Kong Observatory Station. To obtain the most appropriate meteorological information where available, the data of temperature is extracted from the Kwun Tong Observatory Station; the data of wind speed and wind direction are extracted from Kai Tak Observatory Station and the data of humidity is extracted from King's Park Station.

3.7 DERIVATION OF ACTION/LIMIT (A/L) LEVELS

3.7.1 The baseline results form the basis for determining the environmental acceptance criteria for the impact monitoring. According to the approved Environmental Monitoring and Audit Manual, the air quality, construction noise were set up, namely Action and Limit levels are listed in ***Tables 3-7 and 3-8***.

Table 3-7 Action and Limit Levels for Air Quality Monitoring

Monitoring Station	Action Level (μg /m^3)		Limit Level (μg/m^3)	
	1-hour TSP	24-hour TSP	1-hour TSP	24-hour TSP
AMS-1	313	154	500	260
AMS-1a*(*)*	313	154	500	260
AMS-2	319	165	500	260
AMS-3	319	165	500	260
AMS-4	315	165	500	260

Monitoring Station	Action Level (μg /m^3)		Limit Level (μg/m^3)	
	1-hour TSP	24-hour TSP	1-hour TSP	24-hour TSP
AMS-5	299	166	500	260
AMS-6	303	168	500	260
AMS-7	307	156	500	260

(*) 24-hour TSP monitoring at AMS1 was abandoned since May 2019 due to lack of power supply and the landlord was unreachable. The alternation location of AMS1a was activated on 15 June 2019 for 1-hour and 24-hour TSP monitoring. The proposal was agreed by EPD on 9 Aug 2019.

Table 3-8 Action and Limit Levels for Construction Noise

Monitoring Location	Action Level	Limit Level in dB(A)
	Time Period: 0700-1900 hours on normal weekdays	
NMS-1	When one or more documented complaints are received	***70*** dB(A)[Note 1] / ***65*** dB(A)[Note 1]
NMS-2(@)		
NMS-3(:)		***75*** dB(A)
NMS-4*		***75*** dB(A)
NMS-4a#		***75*** dB(A)
NMS-5#		***75*** dB(A)
NMS-6~		***75*** dB(A)
NMS-7~		***75*** dB(A)
NMS-8^		***75*** dB(A)
CN1+		***70*** dB(A)[Note 1] / ***65*** dB(A)[Note 1]
CN2+		***70*** dB(A)[Note 1] / ***65*** dB(A)[Note 1]
CN3+		***75*** dB(A)

Note 1: Noise Limit Levels for school is 70dB(A) and should be reduced to 65dB(A) during examination period.

Note: 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.

Remark: (*) Additional noise monitoring location was recommended by RE and agreed by IEC. It was temporary suspended and the monitoring location is relocated to NMS4a with effective on 15 Nov 2017.
(@) NMS-2 was effective on 15 November 2019.
(:) NMS-3 was effective on 3 December 2019
(#) Review of noise monitoring locations was proposed by ET and NMS-5 was effective on 15 Nov 2017.
(~) Review of noise monitoring locations was proposed by ET and NMS-6 and NMS-7 were effective on 28 Feb 2018.
(^) Review of noise monitoring locations was proposed by ET and NMS-8 was effective on 18 April 2018. Noise monitoring at NMS-8 was started on 3 May 2018 upon commencement of construction at relevant section.
(+) Additional noise monitoring locations as instructed by AECOM which effective in Dec 18.

3.7.2 Should non-compliance of the environmental quality criteria occurs, remedial actions will be triggered according to the Event and Action Plan which presented in ***Appendix F.***

3.8 DATA MANAGEMENT AND DATA QA/QC CONTROL

3.8.1 All monitoring data will be handled by the ET's in-house data recording and management system. The monitoring data recorded in the equipment will be downloaded directly from the equipment at the end of each monitoring day. The downloaded monitoring data will input into a computerized database properly maintained by the ET. The laboratory results will be input directly into the computerized database and checked by personnel other than those who input the data.

3.8.2 For monitoring parameters that require laboratory analysis, the local laboratory shall follow the QA/QC requirements as set out under the HOKLAS scheme for the relevant laboratory tests.

4 AIR QUALITY MONITORING

4.1 GENERAL

4.1.1 In the Reporting Period, air quality monitoring was performed at the active designated monitoring locations AMS-1a, AMS-2, AMS-3, AMS-4, AMS-5, AMS-6 and AMS-7. Since installation of HVS for 24-hour TSP at AMS-2, AMS-3 and AMS-4 were pending approval from relevant departments, only 1-hour TSP monitoring was conducted at AMS-2, AMS-3 and AMS-4. Liaise with the Maryknool Secondary School of AMS-4 for installation of monitoring equipment at rooftop is in progress.

4.1.2 The air quality monitoring schedule is presented in ***Appendix G*** and the monitoring results are summarized in the following sub-sections.

4.2 RESULTS OF AIR QUALITY MONITORING

4.2.1 In the Reporting Period, a total of ***105*** events of 1-hour TSP monitoring and ***24*** events of 24-hours TSP were carried out and the monitoring results are summarized in ***Tables 4-1 to 4-5***. The detailed 24-hour TSP monitoring data are presented in ***Appendix H*** and the relevant graphical plots are shown in ***Appendix I***.

Table 4-1 Summary of 24-hour and 1-hour TSP Monitoring Results (AMS-1a)

Date	24-hour TSP (μg/m³)	1-hour TSP (μg/m³)				
		Date	Start Time	1st reading	2nd reading	3rd reading
2-Apr-25	27	5-Apr-25	14:05	60	62	58
8-Apr-25	26	10-Apr-25	9:10	56	58	66
14-Apr-25	201	16-Apr-25	9:00	46	43	50
17-Apr-25	38	22-Apr-25	14:25	58	60	63
23-Apr-25	33	28-Apr-25	9:00	62	58	58
29-Apr-25	28	--	--	--	--	--
Average (Range)	**59 (26 – 201)**	Average (Range)		**57 (43 – 66)**		

Table 4-2 Summary of 1-hour TSP Monitoring Results (AMS-2)

1-hour TSP (μg/m³)				
Date	Start Time	1st reading	2nd reading	3rd reading
5-Apr-25	9:08	75	71	68
10-Apr-25	9:30	64	72	56
16-Apr-25	9:30	62	58	64
22-Apr-25	8:40	77	82	71
28-Apr-25	9:30	64	58	64
Average (Range)		**67 (56 – 82)**		

Table 4-3 Summary of 1-hour TSP Monitoring Results (AMS-3)

1-hour TSP (μg/m³)				
Date	Start Time	1st reading	2nd reading	3rd reading
5-Apr-25	8:55	56	63	60
10-Apr-25	13:30	58	56	48
16-Apr-25	13:00	52	56	54
22-Apr-25	9:00	59	53	57
28-Apr-25	13:00	58	56	60
Average (Range)		**56 (48 – 63)**		

Table 4-4 Summary of 1-hour TSP Monitoring Results (AMS-4)

1-hour TSP (μg/m³)				
Date	**Start Time**	**1st reading**	**2nd reading**	**3rd reading**
5-Apr-25	13:10	67	72	70
10-Apr-25	9:25	70	74	64
16-Apr-25	8:55	74	76	76
22-Apr-25	13:10	63	67	64
28-Apr-25	8:55	70	74	76
Average (Range)		**70 (63 – 76)**		

Table 4-5 Summary of 24-hour and 1-hour TSP Monitoring Results (AMS-5)

Date	**24-hour TSP (μg/m³)**	**1-hour TSP (μg/m³)**				
		Date	**Start Time**	**1st reading**	**2nd reading**	**3rd reading**
2-Apr-25	33	5-Apr-25	9:10	63	65	68
8-Apr-25	51	10-Apr-25	13:00	62	64	67
14-Apr-25	341	16-Apr-25	9:40	62	71	65
17-Apr-25	94	22-Apr-25	9:10	62	67	65
23-Apr-25	32	28-Apr-25	9:40	60	58	69
29-Apr-25	35	--	--	--	--	--
Average (Range)	**98 (32 – 341)**	Average (Range)		**65 (58 – 71)**		

Table 4-6 Summary of 24-hour and 1-hour TSP Monitoring Results (AMS-6)

Date	**24-hour TSP (μg/m³)**	**1-hour TSP (μg/m³)**				
		Date	**Start Time**	**1st reading**	**2nd reading**	**3rd reading**
2-Apr-25	30	5-Apr-25	9:50	64	67	69
8-Apr-25	57	10-Apr-25	14:00	60	66	62
14-Apr-25	116	16-Apr-25	13:00	63	70	66
17-Apr-25	38	22-Apr-25	9:50	65	69	71
23-Apr-25	33	28-Apr-25	14:00	60	63	66
29-Apr-25	63	--	--	--	--	--
Average (Range)	**56 (30 – 116)**	Average (Range)		**65 (60 – 71)**		

Table 4-7 Summary of 24-hour and 1-hour TSP Monitoring Results (AMS-7)

Date	**24-hour TSP (μg/m³)**	**1-hour TSP (μg/m³)**				
		Date	**Start Time**	**1st reading**	**2nd reading**	**3rd reading**
2-Apr-25	10	5-Apr-25	13:00	78	71	80
8-Apr-25	29	10-Apr-25	14:00	69	64	70
14-Apr-25	28	16-Apr-25	14:00	56	52	56
17-Apr-25	57	22-Apr-25	13:05	72	77	66
23-Apr-25	15	28-Apr-25	14:00	69	73	71
29-Apr-25	2	--	--	--	--	--
Average (Range)	**24 (2 – 57)**	Average (Range)		**68 (52 – 80)**		

4.2.2 As shown in ***Tables 4-1 to 4-7***, all the 1-hour TSP monitoring results in the Reporting Period were below the Action and Limit Levels. One (1) Limit Level and one (1) Action Level

exceedance of 24-hour TSP monitoring was recorded, investigation results of the exceedance are shown in ***Table 4-8***.

Table 4-8 Summary of Investigation Result for 24-Hour TSP Monitoring Exceedance

Date	Station	Exceedance	Investigation
14 April 2025	AMS1a and AMS5	Action Level and Limit Level	The monitoring results of 24-hour TSP on 14 April 2025 exceeded the Action Level at AMS1a and Limit level at AMS5 respectively. According to the information from the Environmental Protection Department, the level of suspended particulates in Hong Kong began to rise due to a dusty air stream associated with the northeast monsoon, starting at 10 PM on 12 April 2025. On 13 April 2025, Hong Kong recorded significant impacts from these dusty air streams, with effects lasting from a few hours to several days. On 14 and 15 April 2025, the Air Quality Health Index (AQHI) at the Kwun Tong air monitoring station reached the "Serious (10+)" risk level. Based on the AQHIs, it implied that the localized air quality was generally poor. According to the site information provided by Contractor of Contract 4, the major construction activities conducted on 14 April 2025 included formboard erecting and reinforcement fixing work at Portion 8 Wing A; manhole cover works at Portion 12; and tree planting at Portion 6. These are general site activities to be carried out in recent months. To reduce dust impact arising from the construction, mitigation measures for dust control were implemented, including: - Water trucks were deployed and water spraying on haul road to keep road surface wet. - Covered exposed slope with tarpaulin sheet to minimize dust impact. During the joint site inspection with RSS, Contractor and ET on 15 April 2025, no dust emissions from the works area was observed. The Contractor was properly implementing the dust mitigation measure under EMIS and no adverse environmental issue related to dust aspect was observed. In our investigation, it is concluded that the exceedances of 24-hours TSP on 14 April 2025 appeared to be associated with other pollutant sources and short-term impact, and unlikely to be caused by the project work. The Contractor was reminded to fully implement the dust mitigation measures as recommended in the implementation schedule for environmental mitigation measures in the EM&A Manual.

4.2.3 The meteorological data during the impact monitoring days are summarized in ***Appendix J***.

5 CONSTRUCTION NOISE MONITORING

5.1 GENERAL

5.1.1 In the Reporting Period, noise monitoring was performed at designated monitoring locations NMS1, NMS2 and NMS3 and the additional monitoring locations NMS4a, NMS5, NMS6, NMS7 and NMS8.

5.1.2 In addition, a Work Instruction was issued from AECOM to AUES in November 2018 for installing three additional noise monitoring stations, i.e., CN1, CN2 and CN3 for Contract 3. Impact noise monitoring was performed at the three additional noise monitoring locations since December 2018. Additional noise monitoring location was terminated by RE as the construction work at E8 was completed in September 2022. The last monitoring for CN1 & CN2 was on 15 September 2022.

5.1.3 The noise monitoring schedule is presented in ***Appendix G*** and the monitoring results are summarized in the following sub-sections.

5.2 NOISE MONITORING RESULTS IN REPORTING MONTH

5.2.1 In the Reporting Period, a total of **32** events noise measurements were carried out at the designated locations under Contract 1. The noise monitoring results at the designated locations are summarized in ***Tables 5-1.*** The detailed noise monitoring data are presented in ***Appendix H*** and the relevant graphical plots are shown in ***Appendix I***.

Table 5-1 Summary of Construction Noise Monitoring Results for Contract 1

Construction Noise Level ($L_{eq30min}$), dB(A)								
Date	**NMS1**	**NMS2**	**NMS3**	**NMS4a**	**NMS5**	**NMS6**	**NMS7**	**NMS8**
10-Apr-25	**70**	61	55	56	62	67	66	62
16-Apr-25	**70**	61	58	67	58	64	62	61
22-Apr-25	64	64	63	66	64	65	64	65
28-Apr-25	**70**	59	63	62	60	67	64	60
Limit Level	***70*** dB(A) / ***65*** dB(A)[Note 1]		**75 dB(A)**					

Note 1: Noise Limit Levels for school is 70dB(A) and should be reduced to 65dB(A) during examination period
NMS1 DSE examination period: 1 to 30 April 2025
NMS2 examination period: 9 to 15 April 2025

5.2.2 As shown in above table, the noise measurement result at NMS1 on 10, 16 and 28 April 2025 was 70dB(A), which exceeded the Limit Level. The baseline noise level measured at NMS1 was 69.0dB(A), and baseline noise correction should be applied to the impact monitoring result, where exceedance occurred. With reference to the baseline, the corrected construction noise level at NMS1 on 10, 16 and 28 April 2025 is 63.1, which fall within the Limit Level.

5.2.3 For the additional noise monitoring under Contract 3, a total of **4** events noise measurements were performed for the Contract. The noise monitoring results are summarized in ***Tables 5-2.*** The detailed noise monitoring data are presented in ***Appendix H*** and the relevant graphical plots are shown in ***Appendix I***.

Table 5-2 Summary of Construction Noise Monitoring Results for Contract 3

Construction Noise Level ($L_{eq30min}$), dB(A)	
Date	**CN3**
10-Apr-25	60
16-Apr-25	61
22-Apr-25	63
28-Apr-25	62
Limit Level	**75 dB(A)**

Note 1: Noise Limit Levels for school is 70dB(A) and should be reduced to 65dB(A) during examination period.

5.2.4 As shown in ***Tables 5-1 and 5-2,*** no Limit Level exceedance was recorded in this Reporting Period. No noise complaint (which triggered Action level exceedance) was received under the Project.

6 WASTE MANAGEMENT

6.1 GENERAL WASTE MANAGEMENT

6.1.1 Waste management was carried out by an on-site Environmental Officer or an Environmental Supervisor from time to time.

6.2 RECORDS OF WASTE QUANTITIES

6.2.1 All types of waste arising from the construction work are classified into the following:

- Construction & Demolition (C&D) Material;
- Chemical Waste;
- General Refuse; and
- Excavated Soil.

6.2.2 The quantities of waste for disposal in this Reporting Period are summarized in ***Tables 6-1*** and ***6-2*** and the Monthly Summary Waste Flow Table is shown in ***Appendix K***. Whenever possible, materials were reused on-site as far as practicable.

Table 6-1 Summary of Quantities of Inert C&D Materials

Type of Waste	Contract 4	
	Quantity	Disposal Location
Total generated Inert C&D Materials ('000m^3) (#)	1.028	-
Hard Rock and Large Broken Concrete ('000m^3)	0	-
Reused in this Contract (Inert) ('000m^3)	0	-
Reused in other Projects (Inert) ('000m^3)	0	-
Disposal as Public Fill (Inert) ('000m^3)	1.028	TKO 137

Remark (#): The total generated inert C&D materials will not take account for the hard rock and large broken concrete.
(*) Approved alternative disposal ground.

Table 6-2 Summary of Quantities of C&D Wastes

Type of Waste	Contract 4	
	Quantity	Disposal Location
Recycled Metal ('000kg)	0	-
Recycled Paper / Cardboard Packing ('000kg)	0	-
Recycled Plastic ('000kg)	0	-
Chemical Wastes ('000kg)	0	-
General Refuses ('000m^3)	0.045	-

7 SITE INSPECTION

7.1 REQUIREMENTS

7.1.1 According to the approved EM&A Manual, the environmental site inspection shall be formulation by ET Leader. Weekly environmental site inspections should be carried out to confirm the environmental performance.

7.2 FINDINGS / DEFICIENCIES DURING THE REPORTING MONTH

Contract 4

7.2.1 In the Reporting Period, joint site inspections for Contract 4 to evaluate site environmental performance were carried out by the RE, ET and the Contractor on **1, 8, 15, 25 and 29 April 2025** in which IEC joined the site inspection with SSEMC on **25 April 2025**. No non-compliance was noted. The findings / deficiencies of ***Contract 4*** that observed during the weekly site inspection are listed in ***Table 7-1.***

Table 7-1 Site Observations of Contract 4

Date	Findings / Deficiencies	Follow-Up Status
1 April 2025	• General waste was found on the ground which should be store at designated area to maintain site hygiene.	• General waste was removed and stored at designated area.
8 April 2025	• Dusty area should be spray with water to prevent dust pollution.	• Dusty area were sprayed with water to prevent dust pollution.
15 April 2025	• The Contractor was reminded to enhance measurement to prevent storm runoff from crossing the site.	• Reminder only.
25 April 2025	• The Contractor was reminded to maintain drainage system.	• Reminder only.
29 April 2025	• No environmental issue was observed during site inspection.	• NA

8 ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE

8.1 ENVIRONMENTAL COMPLAINT, SUMMONS AND PROSECUTION

8.1.1 In the Reporting Period, no environmental complaint was received. Besides, no summons and prosecution under the EM&A Programme was lodged for the project.

8.1.2 The complaint log is shown in ***Appendix M.***

8.1.3 The statistical summary table of environmental complaint, summons and prosecution is presented in ***Tables 8-1, 8-2*** and ***8-3***.

Table 8-1 Statistical Summary of Environmental Complaints

Reporting Period	Contract no.	Environmental Complaint Statistics		
		Frequency	Cumulative	Complaint Nature
27 Sep 2021 – 31 March 2025	4	0	**11**	NA
1 – 30 April 2025	1	0	**70**	NA
	2	0	**10**	NA
	3	0	**9**	NA
	4	0	**13**	NA
	5	0	**0**	NA

Table 8-2 Statistical Summary of Environmental Summons

Reporting Period	Contract no.	Environmental Summons Statistics		
		Frequency	Cumulative	Summons Nature
27 Sep 2021 – 31 March 2025	4	0	0	NA
1 – 30 April 2025	1	0	0	NA
	2	0	0	NA
	3	0	0	NA
	4	0	0	NA
	5	0	0	NA

Table 8-3 Statistical Summary of Environmental Prosecution

Reporting Period	Contract no.	Environmental Prosecution Statistics		
		Frequency	Cumulative	Prosecution Nature
27 Sep 2021 – 31 March 2025	4	0	0	NA
1 – 30 April 2025	1	0	0	NA
	2	0	0	NA
	3	0	0	NA
	4	0	0	NA
	5	0	0	NA

9 IMPLEMENTATION STATUS OF MITIGATION MEASURES

9.1 General Requirements

9.1.1 The environmental mitigation measures that recommended in the Implementation Schedule for Environmental Mitigation Measures (ISEMM) in the approved EM&A Manual covered the issues of dust, noise, water and waste and they are summarized presented in ***Appendix L.***

9.1.2 All contracts under the Project shall be implementing the required environmental mitigation measures according to the approved EM&A Manual as subject to the site condition. Environmental mitigation measures generally implemented in this Reporting Period are summarized in ***Table 9-1***.

Table 9-1 Environmental Mitigation Measures

Issues	Environmental Mitigation Measures
Water Quality	• Wastewater to be treated by filtration system; such as, silt curtain or sedimentation tank before discharge. • Replace silt curtain materials if necessary
Air Quality	• Maintain damp / wet surface on access road • Keep slow speed in the sites • All vehicles must use wheel washing facility before off site • All vehicles must use wheel washing facility before off site • Sprayed water during breaking works
Noise	• Restrain operation time of plants from 07:00 to 19:00 on any working day except for Public Holiday and Sunday. • Keep good maintenance of plants • Place noisy plants away from residence or school • Provide noise barriers or hoarding to enclose the noisy plants or works • Shut down the plants when not in used.
Waste and Chemical Management	• On-site sorting prior to disposal • Follow requirements and procedures of the “Trip-ticket System” • Predict required quantity of • concrete accurately • Collect the unused fresh concrete at designated locations in the sites for subsequent disposal
General	• The site was generally kept tidy and clean.

9.2 Tentative Construction Activities in the Coming Month

Contract 4 (ED/2020/02)

- Excavation work for Drainage Works at Portion 1a, 2a, 6 ,8 & 12
- Drainage works at Portion 1a, 2a, 6 ,8, 9 & 12
- Construction of E&M works at Portion 1a, 2a, 6, 8, 12
- Construction of Planter at Portion 6, 8, 12
- Construction of hard landscape at Portion 6, 8, 12
- Construction of slab planter on elevated walkway at Portion 13b
- Backfilling works for B3 &B4 at Portion 13b
- Sewerage and Road works at G2-Site at Portion 13b
- Installation of rock mesh at Portion 10
- Repair works at Portion 10 and Portion 17
- Construction of Footpath at Portion 9
- Watermain works at Portion 13b
- Planting works at Portion 2a, 2b, 6, 8 and 12
- Hard landscape works at Portion 2b
- Scaffolding erection works for the buildings at Portion 2a

9.3 KEY ISSUES FOR THE COMING MONTH

9.3.1 Key issues to be considered in the coming month include:

- Implementation of dust suppression measures at all times;
- Potential wastewater quality impact due to surface runoff;
- Potential fugitive dust quality impact due from the dry/loose/exposure soil surface/dusty material;
- Disposal of empty engine oil containers within site area;
- Ensure dust suppression measures are implemented properly;
- Sediment catch-pits and silt removal facilities should be regularly maintained;
- Management of chemical wastes;
- Discharge of site effluent to the nearby wetland, stockpiling or disposal of materials, and any dredging or construction area at this area are prohibited;
- Follow-up of improvement on general waste management issues; and
- Implementation of construction noise preventative control measures

9.3.2 The Contractor should fully implement air quality mitigation measures to reduce construction dust emission as far as practicable. Furthermore, since construction site is highly visible to the resident at nearby estates, noise mitigation measures such as using of quiet plants should be implemented in accordance with the EM&A requirement.

9.3.3 During wet season, the Contractors should pay special attention on water quality mitigation measures and fully implement according to the ISEMM of the EM&A Manual, in particular to prevent muddy water or other water pollutants from site surface overflow to public area should be properly maintained. The implementation of water quality mitigation measures conducted by the Contractor is shown in *Appendix N.*

10 CONCLUSIONS AND RECOMMENDATIONS

10.1 CONCLUSIONS

10.1.1 This is **97th** monthly EM&A report presenting the monitoring results and inspection findings for the Reporting Period from **1 to 30 April 2025.**

10.1.2 The previous service contractor nos. NTE/07/2016 and EDO 8/2022, covering the EM&A service for the Development ARQ for Contracts 1, 2, 3, 4 and 5 was completed in September 2022 and September 2023 respectively. In view of the completion of major construction works, the EM&A service for Contract 1 and Contract 2 under service contract no. EDO 8/2022 was ceased in late September 2023 and the relevant monitoring stations have been handover to current contract no. EDO 8/2022.

10.1.3 In the Reporting Period, no 1-hour TSP monitoring and noise monitoring results that triggered the Action or Limit Levels were recorded. One (1) Limit Level and one (1) Action Level on 24-hour TSP monitoring was recorded on 14 April 2025. Notification of Exceedance (NOE) with preliminary investigation and on-site observation were issued to all parties, i.e. ER, Contractor, IEC and EPD.

10.1.4 In the Reporting Period, no environmental complaint was received in Reporting Period.

10.1.5 No notification of summons or successful prosecution was received under the Project.

10.1.6 During the Reporting Period, weekly joint site inspection by the RE, ET with the relevant Main-contractor was carried out for Contracts 4 in accordance with the EM&A Manual stipulation whereas IEC performed monthly site inspection for both contracts. No non-compliance observed during the site inspection.

10.2 RECOMMENDATIONS

10.2.1 The Contractors are reminded to pay special attention on water quality mitigation measures and should fully implement the measures as recommended in the EM&A Manual, in particular to prevent muddy water or other water pollutants from site surface overflow to public area should be properly maintained.

10.2.2 Since construction site is highly visible to the resident at nearby estates, the Contractors should pay special attention on potential environmental impact generated by the site activities and adhere implement adequate air quality and noise mitigation measures as far as practicable to reduce the impact to the public.

10.2.3 Construction noise is one of the key environmental issues during construction work of the Project. Noise mitigation measures such as using quiet plants and noise barriers shall be implemented where practicable according to the EM&A manual.

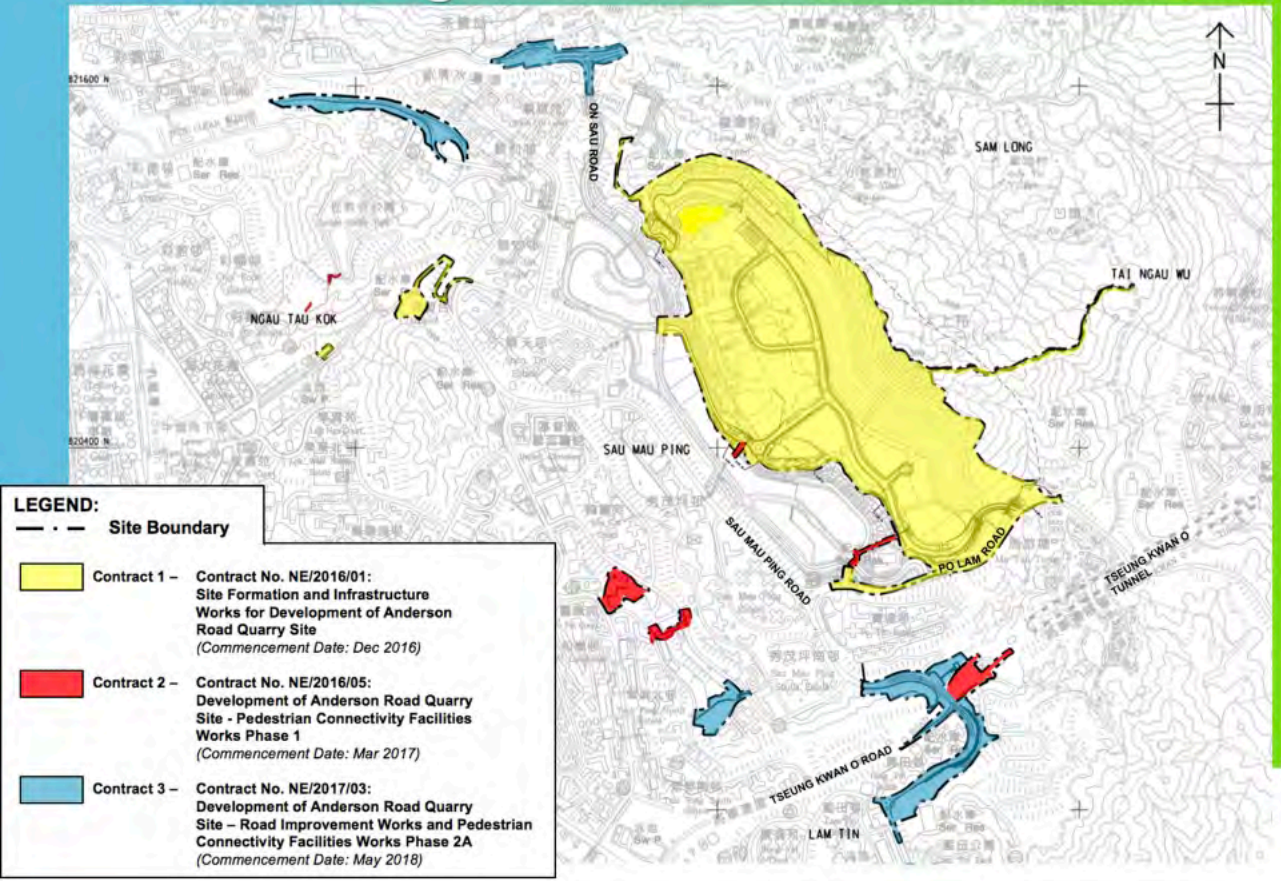
10.2.4 In addition, the Contractors should ensure all effluent discharge shall be fulfilled the Technical Memorandum of Effluent Discharged into Drainage and Sewerage Systems, inland and Coastal Waters criteria or relevant discharge license requirement.

10.2.5 Mosquito control measures should be continued to prevent mosquito breeding on site.

Appendix A

Layout plan of the Project

Contract Packages



LEGEND:

— · — **Site Boundary**

Contract 1 – **Contract No. NE/2016/01:**
Site Formation and Infrastructure Works for Development of Anderson Road Quarry Site
(Commencement Date: Dec 2016)

Contract 2 – **Contract No. NE/2016/05:**
Development of Anderson Road Quarry Site - Pedestrian Connectivity Facilities Works Phase 1
(Commencement Date: Mar 2017)

Contract 3 – **Contract No. NE/2017/03:**
Development of Anderson Road Quarry Site – Road Improvement Works and Pedestrian Connectivity Facilities Works Phase 2A
(Commencement Date: May 2018)

Layout plan of Contract 4 (ED/2020/02)

Project Management Initials: Designer: DKMW Checked: AWYC Approved: HKT ISO A1 594mm x 841mm

840800 E | 842000 E | 843200 E

821600 N

820400 N

819200 N

LEGEND:

SITE BOUNDARY

SHEET 1 OF 5

SHEET 2 OF 5

SHEET 3 OF 5

SHEET 4 OF 5

SHEET 5 OF 5

ROAD L1

ROAD L2

ROAD L3

ROAD L4

ROAD L5

CLEAR WATER BAY ROAD

TSEUNG KWAN O TUNNEL

TSEUNG KWAN O ROAD

KWUN TONG ROAD

KWUN TONG BYPASS

N

WAN

NGAU TAU KOK

NGAU TAU KOK

CROCODILE HILL

JORDAN VALLEY

KWUN TONG

KWUN TONG

TAN SHAN

SAM LONG

TAI NGAU WU

TAI NGAU WU

SAU MAU PING

LAM TIN

LAM TIN

TSUI LAM

觀塘避風塘

Kwun Tong Typhoon Shelter

Plot File by:- YangRO 3/19/2021
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AECOM

PROJECT
項目

DEVELOPMENT OF
ANDERSON ROAD
QUARRY SITE - INVESTIGATION,
DESIGN AND CONSTRUCTION

CONTRACT TITLE
DEVELOPMENT OF ANDERSON ROAD
QUARRY SITE - INFRASTRUCTURE,
GREENING AND LANDSCAPE WORKS

CLIENT
客戶

土木工程拓展署
CEDD Civil Engineering and Development Department

CONSULTANT
工程顧問公司

AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 複核
-	MAR. 21	TENDER DRAWING	AWYC

STATUS
階段

SCALE 比例: A1 1 : 6000
DIMENSION UNIT 尺寸單位: METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號: 60328348
CONTRACT NO. 合約編號: ED/2020/02

SHEET TITLE
圖紙名稱

KEY PLAN

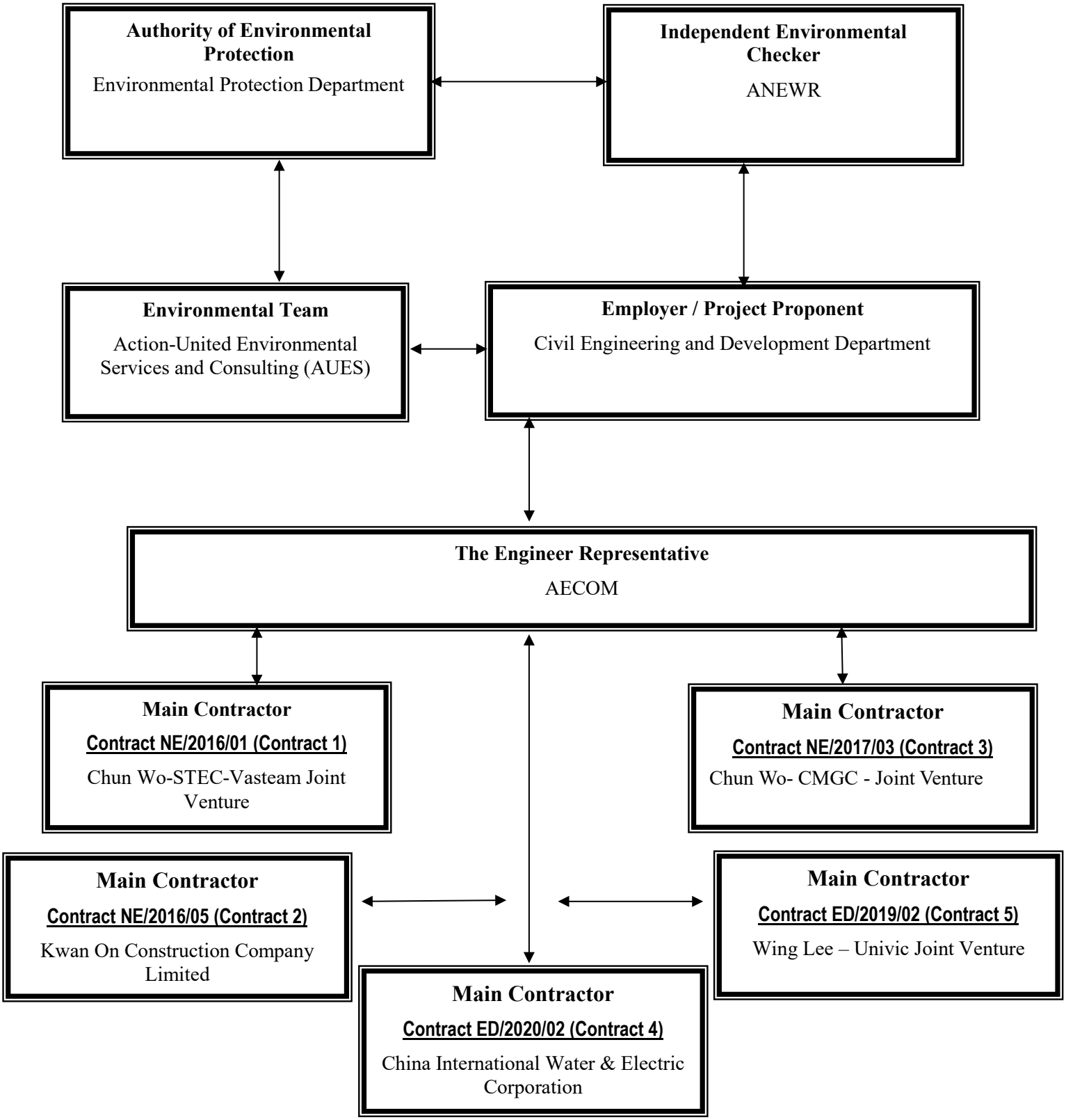
SHEET NUMBER
圖紙編號

60328348/LS/1000

Appendix B

Project Organization Structure

Project Organization Structure



Contact Details of Key Personnel for Contract 4 –ED/2020/02

Organization	Project Role	Name of Key Staff	Tel No.	Fax No.
CEDD	Engineer	Mr Leung Chi Foon	3842 7087	2739 0076
AECOM	Chief Resident Engineer	Lee, Yu Ching Paul	5723 6880	2473 3221
AECOM	Senior Resident Engineer	Li, Ling Tommy	9389 8792	2473 3221
ANEWR	Independent Environmental Checker	James Choi	2618 2836	3007 8648
CIWEC	Project Director	Kevin, Chan Ka Shing	6159 9750	2508 0987
CIWEC	Site Agent	John Dan	9463 3062	2508 0987
CIWEC	Environmental Officer	Man Chun Ning	6299 8850	2508 0987
CIWEC	Environmental Supervisor	Chan Ben Sun, Benson	6695 5417	2508 0987
AUES	Environmental Team Leader	T. W. Tam	2959 6059	2959 6079
AUES	Environmental Consultant	Nicola Hon	2959 6059	2959 6079
AUES	Environmental Consultant	Ben Tam	2959 6059	2959 6079

Legend:

CEDD (Employer) – Civil Engineering and Development Department

AECOM (Engineer) – AECOM Asia Co. Ltd.

CIWEC (Main Contractor) –China International Water & Electric Corporation

ANEWR (IEC) –ANewR Consulting Limited

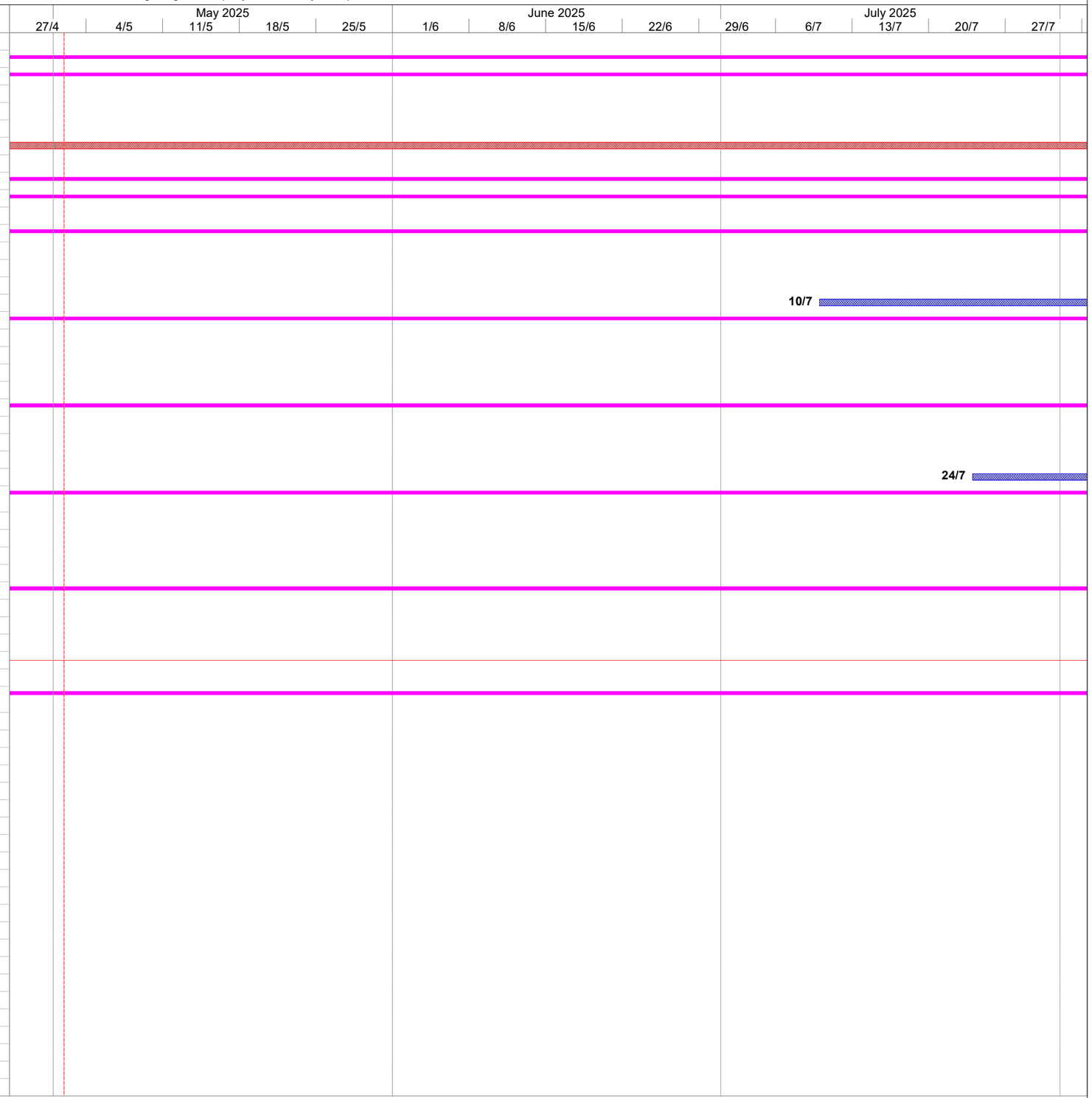
AUES (ET) – Action-United Environmental Services & Consulting

Appendix C

Construction Programme
(a) Contract 4 (ED/2020/02)

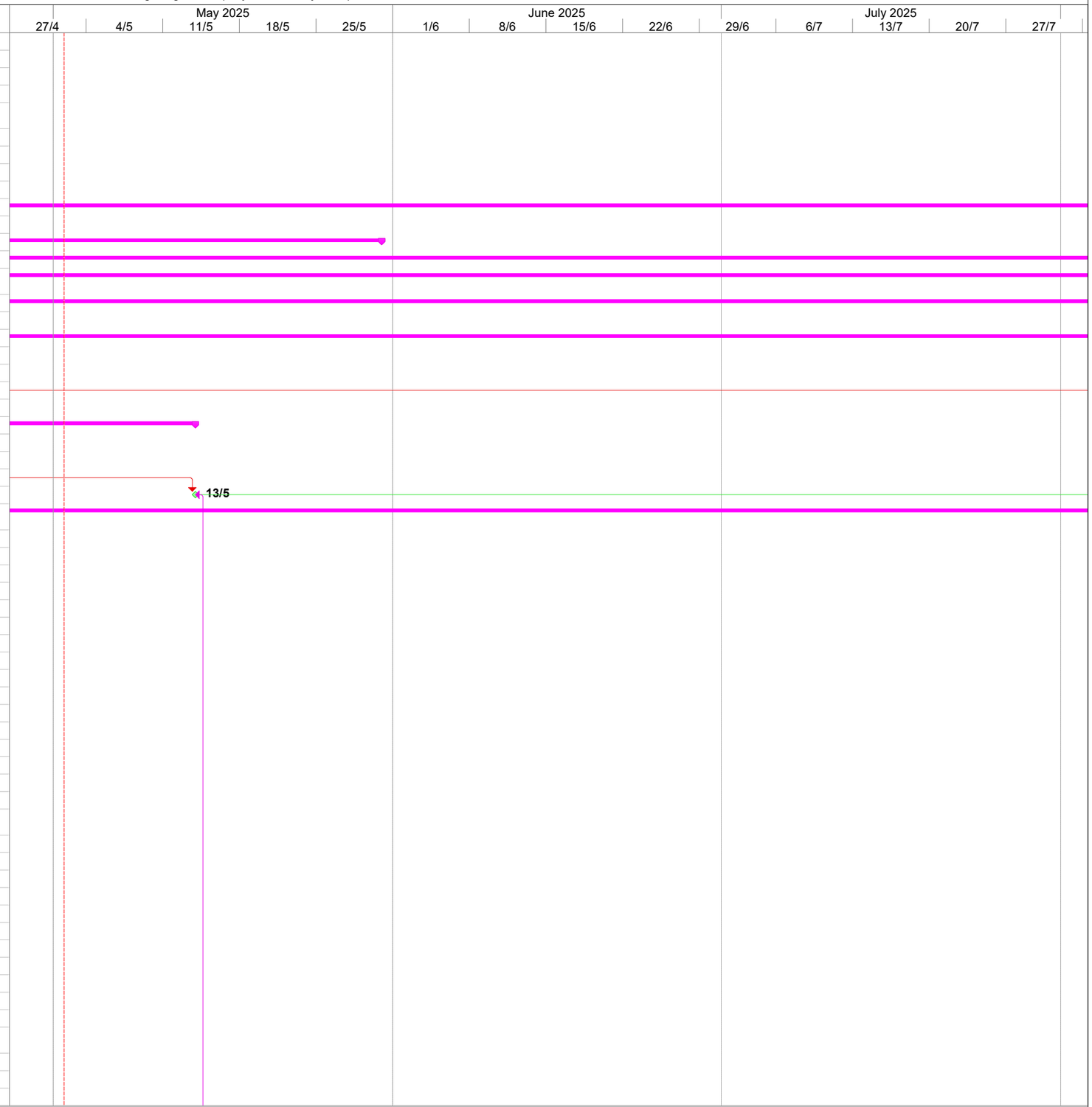
Contract 4 (ED/2020/02)

ID	Task Name	Duration	Start	Finish	Predecessors
1	**<New Summary Task>**	**1567 days**	**Fri 30/7/21**	**Wed 12/11/25**	
2	**<New Summary Task>**	**1986 days**	**Fri 30/7/21**	**Mon 8/3/27**	
3	**Contract Period**	**1986 days**	**Fri 30/7/21**	**Mon 8/3/27**	
4	Contract Starting Date [Contract Award Date 21 Jul 2021]	0 days	Fri 30/7/21	Fri 30/7/21	
5	Contract Duration	1248 days	Fri 30/7/21	Sat 28/12/24	4SS
6	Original Completion Date	0 days	Sat 28/12/24	Sat 28/12/24	5
7	Potential EOT due to CEs and Inclement weather	319 days	Sun 29/12/24	Wed 12/11/25	6
8	Anticipated Completion of the Whole of the Works	0 days	Mon 8/3/27	Mon 8/3/27	27FF,7
9	**Section of Works and Relevant Portions of Work**	**2235 days**	**Fri 30/7/21**	**Thu 23/12/27**	
10	**Section of Works 1 - Portions 1a, 2a & 2b**	**1590 days**	**Mon 30/8/21**	**Tue 6/1/26**	
11	Original Completion Date	0 days	Wed 13/12/23	Wed 13/12/23	4FS+867 days
12	**Portion 1a**	**1348 days**	**Fri 29/4/22**	**Tue 6/1/26**	
13	Access date	0 days	Fri 29/4/22	Fri 29/4/22	4FS+273 days
14	Construction Duration	563 days	Fri 29/4/22	Sun 12/11/23	13SS
15	Potential EOT due to Inclement weather and CEs	335 days	Mon 13/11/23	Sat 12/10/24	14
16	Anticipated Completion Date	180 days	Thu 10/7/25	Tue 6/1/26	
17	**Portion 2a**	**1557 days**	**Mon 30/8/21**	**Wed 3/12/25**	
18	Access date	0 days	Mon 30/8/21	Mon 30/8/21	4FS+31 days
19	Construction Duration	836 days	Mon 30/8/21	Wed 13/12/23	18SS
20	Potential EOT due to Inclement weather and CEs	335 days	Thu 14/12/23	Tue 12/11/24	19
21	Anticipated Completion Date	92 days	Wed 3/9/25	Wed 3/12/25	
22	**Portion 2b**	**1472 days**	**Tue 14/12/21**	**Wed 24/12/25**	
23	Access date	0 days	Tue 14/12/21	Tue 14/12/21	4FS+137 days
24	Construction Duration	730 days	Tue 14/12/21	Wed 13/12/23	23SS
25	Potential EOT due to Inclement weather and CEs	292 days	Thu 14/12/23	Mon 30/9/24	24
26	Anticipated Completion Date	154 days	Thu 24/7/25	Wed 24/12/25	
27	**Section of Works 1A - Establishment Works for all Landscape Softworks in Section 1 of the Works**	**754 days**	**Thu 12/12/24**	**Mon 8/3/27**	
28	Original Completion Date	0 days	Thu 12/12/24	Thu 12/12/24	11FS+365 days
29	Commencement of Establishment Work	0 days	Wed 7/1/26	Wed 7/1/26	30SS
30	Establishment Work Duration	365 days	Wed 7/1/26	Mon 8/3/27	16,21,26
31	Anticipated Completion Date	0 days	Mon 8/3/27	Mon 8/3/27	30FF
32	**Section of Works 2 - Portion 8**	**1509 days**	**Fri 30/7/21**	**Mon 15/9/25**	
33	Original Completion Date	0 days	Sat 29/7/23	Sat 29/7/23	
34	Access date	0 days	Fri 30/7/21	Fri 30/7/21	4
35	Construction Duration	730 days	Fri 30/7/21	Sat 29/7/23	34
36	Potential EOT due to Inclement weather and CEs up to Jan 2023	385 days	Sun 30/7/23	Sat 17/8/24	35
37	Anticipated Completion Date	0 days	Mon 15/9/25	Mon 15/9/25	403FF,36
38	**Section of Works 2A - Establishment Works for all Landscape Softworks in Section 2 of the Works**	**631 days**	**Mon 23/12/24**	**Wed 28/10/26**	
39	Original Completion Date	0 days	Mon 23/12/24	Mon 23/12/24	
40	Commencement of Establishment Work	0 days	Tue 16/9/25	Tue 16/9/25	41SS
41	Establishment Work Duration	365 days	Tue 16/9/25	Wed 28/10/26	37
42	Anticipated Completion Date	0 days	Wed 28/10/26	Wed 28/10/26	41FF
43	**Section of Works 3 - Portions 1b, 3, 4, 5**	**763 days**	**Fri 30/7/21**	**Thu 31/8/23**	
44	Original Completion Date	0 days	Tue 30/5/23	Tue 30/5/23	4FS+669 days
45	**Portion 1b**	**276 days**	**Tue 29/11/22**	**Thu 31/8/23**	
46	Access date	0 days	Tue 29/11/22	Tue 29/11/22	4FS+487 days
47	Construction Duration	183 days	Tue 29/11/22	Tue 30/5/23	46
48	Potential EOT due to Inclement weather and CEs	93 days	Wed 31/5/23	Thu 31/8/23	47
49	Anticipated Completion Date	0 days	Thu 31/8/23	Thu 31/8/23	577FF,48
50	**Portion 3**	**702 days**	**Wed 29/9/21**	**Thu 31/8/23**	
51	Access date	0 days	Wed 29/9/21	Wed 29/9/21	4FS+61 days
52	Construction Duration	609 days	Wed 29/9/21	Tue 30/5/23	51
53	Potential EOT due to Inclement weather and CEs	93 days	Wed 31/5/23	Thu 31/8/23	52
54	Anticipated Completion Date	0 days	Thu 31/8/23	Thu 31/8/23	589FF,53
55	**Portion 4**	**763 days**	**Fri 30/7/21**	**Thu 31/8/23**	
56	Access date	0 days	Fri 30/7/21	Fri 30/7/21	4
57	Construction Duration	670 days	Fri 30/7/21	Tue 30/5/23	56
58	Potential EOT due to Inclement weather and CEs	93 days	Wed 31/5/23	Thu 31/8/23	57
59	Anticipated Completion Date	0 days	Thu 31/8/23	Thu 31/8/23	600FF,58
60	**Portion 5**	**551 days**	**Sun 27/2/22**	**Thu 31/8/23**	



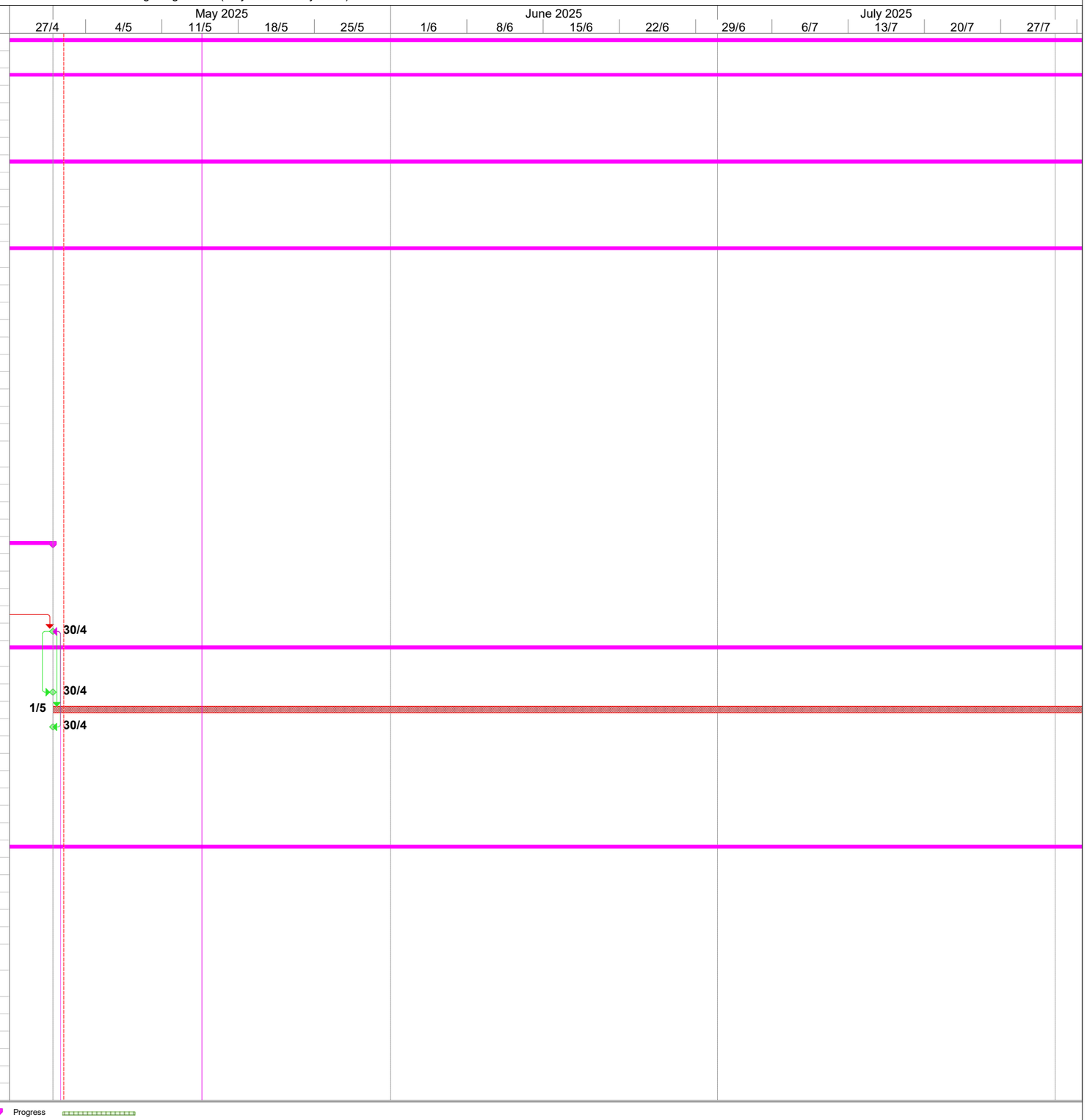
Task | Critical Task | Milestone | Summary | Progress

ID	Task Name	Duration	Start	Finish	Predecessors
61	Access date	0 days	Sun 27/2/22	Sun 27/2/22	4
62	Construction Duration	458 days	Sun 27/2/22	Tue 30/5/23	61
63	Potential EOT due to Inclement weather and CEs	93 days	Wed 31/5/23	Thu 31/8/23	62
64	Anticipated Completion Date	0 days	Thu 31/8/23	Thu 31/8/23	604FF,63
65	**Section of Works 3A - Establishment Works for all Landscape Softworks in Section 3 of the Works**	**365 days**	**Fri 1/9/23**	**Fri 30/8/24**	
66	Original Completion Date	0 days	Tue 28/5/24	Tue 28/5/24	44FS+365 days
67	Commencement of Establishment Work	0 days	Fri 1/9/23	Fri 1/9/23	68SS
68	Establishment Work Duration	365 days	Fri 1/9/23	Fri 30/8/24	54,49,59,64
69	Anticipated Completion Date	0 days	Fri 30/8/24	Fri 30/8/24	68FF
70	**Section of Works 4 - Portions 6, 12**	**1870 days**	**Fri 30/7/21**	**Fri 23/10/26**	
71	Original Completion Date	0 days	Tue 13/6/23	Tue 13/6/23	4FS+683 days
72	**Portion 6**	**1218 days**	**Sat 29/1/22**	**Fri 30/5/25**	
77	**Portion 12**	**1870 days**	**Fri 30/7/21**	**Fri 23/10/26**	
82	**Section of Works 4A - Establishment Works for all Landscape Softworks in Section 4 of the Works**	**1186 days**	**Wed 12/6/24**	**Thu 23/12/27**	
87	**Section of Works 5A - Portions 9, 10**	**1487 days**	**Fri 30/7/21**	**Sun 24/8/25**	
88	Original Completion Date	0 days	Wed 28/6/23	Wed 28/6/23	4FS+698 days
89	**Porion 9**	**1426 days**	**Wed 29/9/21**	**Sun 24/8/25**	
90	Access date	0 days	Wed 29/9/21	Wed 29/9/21	4FS+61 days
91	Construction Duration	638 days	Wed 29/9/21	Wed 28/6/23	90
92	Potential EOT due to Inclement weather and CEs	460 days	Thu 29/6/23	Mon 30/9/24	91
93	Anticipated Completion Date	0 days	Sun 24/8/25	Sun 24/8/25	92,762FF
94	**Portion 10**	**1384 days**	**Fri 30/7/21**	**Tue 13/5/25**	
95	Access date for Portion	0 days	Fri 30/7/21	Fri 30/7/21	4
96	Construction Duration for Portion	699 days	Fri 30/7/21	Wed 28/6/23	95
97	Potential EOT due to Inclement weather and CEs	460 days	Thu 29/6/23	Mon 30/9/24	96
98	Anticipated Completion Date	0 days	Tue 13/5/25	Tue 13/5/25	809FF,97
99	**Section of Works 5AI - Establishment Works for all Landscape Softworks in Section 5A of the Works**	**789 days**	**Wed 26/6/24**	**Fri 2/10/26**	
100	Original Completion Date	0 days	Wed 26/6/24	Wed 26/6/24	88FS+365 days
101	Commencement of Establishment Work	0 days	Mon 25/8/25	Mon 25/8/25	102SS
102	Establishment Work Duration	365 days	Mon 25/8/25	Fri 2/10/26	93,98
103	Anticipated Completion Date	0 days	Fri 2/10/26	Fri 2/10/26	102FF
104	**Section of Works 5B - Portion 11**	**954 days**	**Sun 27/2/22**	**Mon 7/10/24**	
105	Original Completion Date	0 days	Tue 27/6/23	Tue 27/6/23	4FS+697 days
106	Access date	0 days	Sun 27/2/22	Sun 27/2/22	4FS+211 days
107	Construction Duration	487 days	Sun 27/2/22	Wed 28/6/23	106SS
108	Potential EOT due to Inclement weather and CEs	460 days	Thu 29/6/23	Mon 30/9/24	107
109	Anticipated Completion Date	0 days	Mon 7/10/24	Mon 7/10/24	108,900FF
110	**Section of Works 6 - Portion 7**	**494 days**	**Tue 29/11/22**	**Fri 5/4/24**	
111	Original Completion Date	0 days	Tue 28/11/23	Tue 28/11/23	4FS+851 days
112	Access date	0 days	Tue 29/11/22	Tue 29/11/22	4FS+487 days
113	Construction Duration	365 days	Tue 29/11/22	Tue 28/11/23	112
114	Deferred possession (CE 067)	90 days	Wed 29/11/23	Mon 26/2/24	113
115	Anticipated Completion Date	0 days	Fri 5/4/24	Fri 5/4/24	906FF,114
116	**Section of Works 6A - Establishment Works for all Landscape Softworks in Section 6 of the Works**	**365 days**	**Sat 6/4/24**	**Sat 5/4/25**	
117	Original Completion Date	0 days	Wed 27/11/24	Wed 27/11/24	111FS+365 days
118	Commencement of Establishment Work	0 days	Sat 6/4/24	Sat 6/4/24	119SS
119	Establishment Work Duration	365 days	Sat 6/4/24	Sat 5/4/25	115
120	Anticipated Completion Date	0 days	Sat 5/4/25	Sat 5/4/25	119FF
121	**Section of Works 7A - Portions 13a, 14 (DELETED)**	**669 days**	**Fri 30/7/21**	**Mon 29/5/23**	
122	Access date for Portion 13a	0 days	Sat 29/1/22	Sat 29/1/22	4
123	Construction Duration for Portion 13a	486 days	Sat 29/1/22	Mon 29/5/23	122
124	Completion of Works in Portion 13a	0 days	Mon 29/5/23	Mon 29/5/23	123,937
125	Access date for Portion 14	0 days	Fri 30/7/21	Fri 30/7/21	4
126	Construction Duration for Portion 14	669 days	Fri 30/7/21	Mon 29/5/23	125
127	Completion of Works in Portion 14	0 days	Mon 29/5/23	Mon 29/5/23	126,949,948
128	**Section of Works 7AI - Establishment Works for all Landscape Softworks in Section 7A of the Works (DELETED)**	**365 days**	**Mon 29/5/23**	**Tue 28/5/24**	
129	Commencement of Establishment Work for Section 7A	0 days	Mon 29/5/23	Mon 29/5/23	127
130	Establishment Work Duration for Section 7A	365 days	Tue 30/5/23	Tue 28/5/24	129
131	Completion of Works in Section 7A	0 days	Tue 28/5/24	Tue 28/5/24	130,954



Task | Critical Task | Milestone | Summary | Progress

ID	Task Name	Duration	Start	Finish	Predecessors
132	**Section of Works 7B - Portions 13b, 15**	**1295 days**	**Sat 26/2/22**	**Fri 12/9/25**	
133	Original Completion Date	0 days	Fri 29/12/23	Fri 29/12/23	4FS+882 days
134	**Portion 13b**	**1295 days**	**Sat 26/2/22**	**Fri 12/9/25**	
135	Access date	0 days	Sat 26/2/22	Sat 26/2/22	4FS+211 days
136	Construction Duration	671 days	Sun 27/2/22	Fri 29/12/23	
137	Potential EOT due to Inclement weather and CEs up to Jan 2023	300 days	Sat 30/12/23	Thu 24/10/24	136
138	Anticipated Completion Date	0 days	Fri 12/9/25	Fri 12/9/25	955FF
139	**Portion 15**	**1294 days**	**Sun 27/2/22**	**Fri 12/9/25**	
140	Access date	0 days	Sun 27/2/22	Sun 27/2/22	4
141	Construction Duration	671 days	Sun 27/2/22	Fri 29/12/23	140
142	Potential EOT due to Inclement weather and CEs	300 days	Sat 30/12/23	Thu 24/10/24	141
143	Anticipated Completion Date	0 days	Fri 12/9/25	Fri 12/9/25	955FF
144	**Section of Works 7BI - Establishment Works for all Landscape Softworks in Section 7B of the Works**	**624 days**	**Fri 27/12/24**	**Sat 24/10/26**	
145	Original Completion Date	0 days	Fri 27/12/24	Fri 27/12/24	133FS+365 days
146	Commencement of Establishment Work	0 days	Sat 13/9/25	Sat 13/9/25	147SS
147	Establishment Work Duration	365 days	Sat 13/9/25	Sat 24/10/26	138,143
148	Anticipated Completion Date	0 days	Sat 24/10/26	Sat 24/10/26	147FF
149	**Section of Works 8 - Portion 16**	**564 days**	**Thu 16/6/22**	**Sun 31/12/23**	
150	Original Completion Date	0 days	Wed 28/6/23	Wed 28/6/23	4FS+698 days
151	Access date	0 days	Thu 16/6/22	Thu 16/6/22	4FS+321 days
152	Construction Duration	378 days	Thu 16/6/22	Wed 28/6/23	151
153	Potential EOT due to Inclement weather and CEs	186 days	Thu 29/6/23	Sun 31/12/23	152
154	Anticipated Completion Date	0 days	Sun 31/12/23	Sun 31/12/23	153,1134FF
155	**Section of Works 8A - Establishment Works for all Landscape Softworks in Section 8 of the Works**	**365 days**	**Mon 1/1/24**	**Mon 30/12/24**	
156	Original Completion Date	0 days	Thu 27/6/24	Thu 27/6/24	150FS+365 days
157	Commencement of Establishment Work	0 days	Mon 1/1/24	Mon 1/1/24	158SS
158	Establishment Work Duration	365 days	Mon 1/1/24	Mon 30/12/24	154
159	Anticipated Completion Date	0 days	Mon 30/12/24	Mon 30/12/24	158FF
160	**Section of Works 9 - Portion 17**	**1159 days**	**Sun 27/2/22**	**Wed 30/4/25**	
161	Original Completion Date	0 days	Fri 29/12/23	Fri 29/12/23	4FS+882 days
162	Access date	0 days	Sun 27/2/22	Sun 27/2/22	4FS+212 days
163	Construction Duration	671 days	Sun 27/2/22	Fri 29/12/23	162
164	Potential EOT due to Inclement weather and CEs	306 days	Sat 30/12/23	Wed 30/10/24	163
165	Anticipated Completion Date	0 days	Wed 30/4/25	Wed 30/4/25	164,1150FF
166	**Section of Works 9A - Establishment Works for all Landscape Softworks in Section 9 of the Works**	**488 days**	**Sat 28/12/24**	**Wed 20/5/26**	
167	Original Completion Date	0 days	Sat 28/12/24	Sat 28/12/24	161FS+365 days
168	Commencement of Establishment Work	0 days	Wed 30/4/25	Wed 30/4/25	165SS
169	Establishment Work Duration	365 days	Thu 1/5/25	Wed 20/5/26	165
170	Anticipated Completion Date	0 days	Wed 30/4/25	Wed 30/4/25	165FF
171	**Section of Works 10 - All Tree Protection and Preservation Works**	**1202 days**	**Fri 30/7/21**	**Tue 12/11/24**	
172	Original Completion Date	0 days	Fri 29/12/23	Fri 29/12/23	133FF
173	Commencement of All Tree Protection and Preservation Work	0 days	Fri 30/7/21	Fri 30/7/21	4
174	All Tree Protection and Preservation Work	883 days	Fri 30/7/21	Fri 29/12/23	173
175	Potential EOT due to Inclement weather and CE	319 days	Sat 30/12/23	Tue 12/11/24	174
176	Completion of All Tree Protection and Preservation Work	0 days	Tue 12/11/24	Tue 12/11/24	175,1226FF
177	**Preliminaries**	**1567 days**	**Fri 30/7/21**	**Wed 12/11/25**	
178	**Establishment of Commercial/Organization**	**370 days**	**Fri 30/7/21**	**Wed 3/8/22**	
179	Inform Contractor of the name and delegated authorities of the PMD (ER)	7 days	Fri 30/7/21	Thu 5/8/21	4
180	Confirmation and arrangement of the method of payment	7 days	Fri 30/7/21	Thu 5/8/21	4
181	Issue forms to CIC& PCFB	14 days	Fri 30/7/21	Thu 12/8/21	4
182	Submission of MPF form to MPFSA	7 days	Fri 30/7/21	Thu 5/8/21	4
183	Notification to Labour Department/Marine Department of the commencement date and other details of the contract	7 days	Fri 30/7/21	Thu 5/8/21	4
184	Submission of Summary Details of Contract to the Departmental Safety and Environmental	21 days	Fri 30/7/21	Thu 19/8/21	4
185	Nominate a Labour Officer	7 days	Fri 30/7/21	Thu 5/8/21	4
186	Set up Site Liaison Group (SLG)	7 days	Fri 30/7/21	Thu 5/8/21	4
187	Professional video production company and a competent video director	7 days	Fri 30/7/21	Thu 5/8/21	4
188	Surveyor, Key People	7 days	Fri 30/7/21	Thu 5/8/21	4
189	Traffic Consultant, Traffic Engineer	7 days	Fri 30/7/21	Thu 5/8/21	4
190	Particulars of Independent service provider for Digital Works Supervision Syst	7 days	Fri 30/7/21	Thu 5/8/21	4

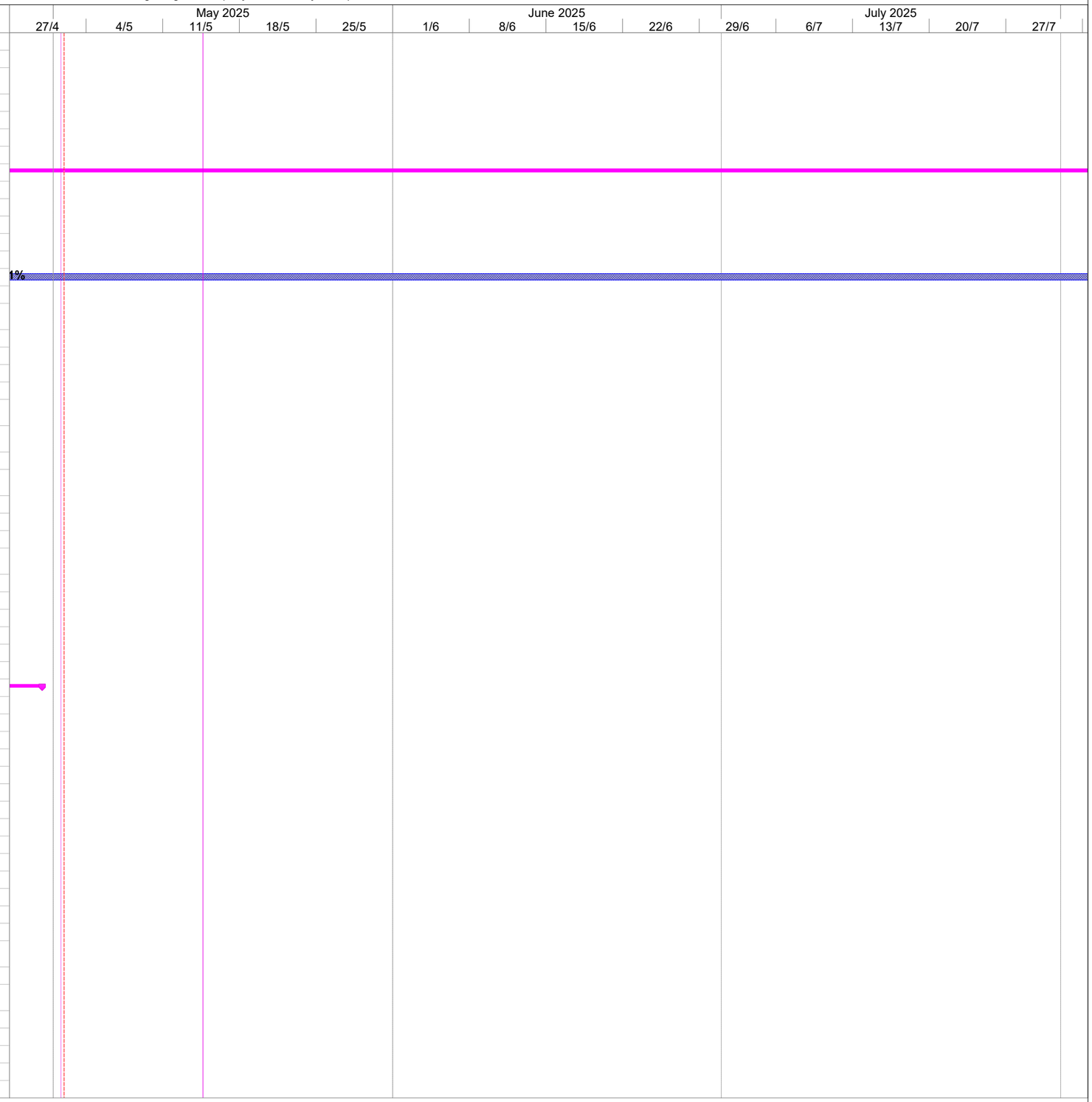


Task | Critical Task | Milestone | Summary | Progress

ID	Task Name	Duration	Start	Finish	Predecessors
191	Contractor's Management Team	14 days	Fri 30/7/21	Thu 12/8/21	4
192	BIM team	14 days	Fri 30/7/21	Thu 12/8/21	4
193	Competent member of the sites supervisory staff to oversee and supervise tree works related to arboricultural operations and preservation of trees within	21 days	Fri 30/7/21	Thu 19/8/21	4
194	Content of Contract Webpage (Monthly update afterwards)	21 days	Fri 30/7/21	Thu 19/8/21	4
195	Particulars of the assigned person (competent member with arboriculture knowledge of the site supervisory for tree preservation)	21 days	Fri 30/7/21	Thu 19/8/21	4
196	Details of Geotechnical monitoring team	21 days	Fri 30/7/21	Thu 19/8/21	4
197	Design of the CRE Site Office certified by an accepted ICE	30 days	Fri 30/7/21	Sat 28/8/21	4
198	Design Architect	30 days	Fri 30/7/21	Sat 28/8/21	4
199	Specially required staff	30 days	Fri 30/7/21	Sat 28/8/21	4
200	Public Relation Officer	30 days	Fri 30/7/21	Sat 28/8/21	4
201	Site Safety Committee (SSC) Meeting (monthly afterwards)	30 days	Fri 30/7/21	Sat 28/8/21	4
202	Meeting of the SSMC (monthly afterwards)	30 days	Fri 30/7/21	Sat 28/8/21	4
203	Professional Indemnity Insurance in respect of Contractor's Design	60 days	Fri 30/7/21	Mon 27/9/21	4
204	Proposed gasket material for waterworks	60 days	Fri 30/7/21	Mon 27/9/21	4
205	7 days advance notice of the date on which workers begin to wear Site uniform; Provide uniforms within 5 days after the design is accepted by PM	60 days	Fri 30/7/21	Mon 27/9/21	4
206	2 Engineering Graduates & 3 Technician apprentices	90 days	Fri 30/7/21	Wed 27/10/21	4
207	Commissioning of DWSS	90 days	Fri 30/7/21	Wed 27/10/21	4
208	Agree on the content and presentation of the dashboard of DWSS	90 days	Fri 30/7/21	Wed 27/10/21	4
209	Monthly collaboration and information exchange of BIM	90 days	Fri 30/7/21	Wed 27/10/21	4
210	Combined Services Drawing (CSD) and CBWD generated from BIM model	90 days	Fri 30/7/21	Wed 27/10/21	4
211	Video script for Project Video Film	180 days	Fri 30/7/21	Tue 25/1/22	4
212	Employment of Construction Industry Council's Graduates (min. 4 graduates)	180 days	Fri 30/7/21	Tue 25/1/22	4
213	Nomination of Treatment process specialist, Design Engineer, and Independent Checking Engineer (ICE)	34 days	Fri 1/7/22	Wed 3/8/22	
214	**Plan & Proposals**	**60 days**	**Fri 30/7/21**	**Mon 27/9/21**	
215	Preparation and submission of Noise Mitigation Plan (3 hard copies, 2 electronic copies)	30 days	Fri 30/7/21	Sat 28/8/21	4
216	Preparation and submission of Waste Management Plan (WMP)	30 days	Fri 30/7/21	Sat 28/8/21	4
217	Preparation and submission of Draft Construction Health and Safety Plan (3 copies)	7 days	Fri 30/7/21	Thu 5/8/21	4
218	Preparation and submission of Quality Policy statement and quality plan	7 days	Fri 30/7/21	Thu 5/8/21	4
219	Preparation and submission of Draft Environmental Management Plan (EMP) 3 copies	4 days	Fri 30/7/21	Mon 2/8/21	4
220	Tender requirements for suppliers of Plant and Materials, Equipment and Insurance Proposal	14 days	Fri 30/7/21	Thu 12/8/21	4
221	Preparation of Proposal for arrangement for placement of storage compartments/ drinking water facilities/ toilet/ hand-wash facilities/ showering/ rubbishbin/ working shelter on Site	14 days	Fri 30/7/21	Thu 12/8/21	4
222	Preparation Proposal for security system	14 days	Fri 30/7/21	Thu 12/8/21	4
223	Preparation and submission of DWSS proposal	21 days	Fri 30/7/21	Thu 19/8/21	4
224	Preparation and submission of Subcontractor Management Plan (SMP)	21 days	Fri 30/7/21	Thu 19/8/21	4
225	Preparation and submission of Construction Health and Safety Plan (6 copies)	30 days	Fri 30/7/21	Sat 28/8/21	4
226	Weather protection scheme	30 days	Fri 30/7/21	Sat 28/8/21	4
227	Proposal of COBie information requirements	30 days	Fri 30/7/21	Sat 28/8/21	4
228	Preparation and submission of Final Environmental Management Plan (EMP) 3 copies	30 days	Fri 30/7/21	Sat 28/8/21	4
229	Preparation of Proposed Plans for submission of each Release of construction and Project Video Films	30 days	Fri 30/7/21	Sat 28/8/21	4
230	Preparation and submission of Site Traffic Safety Management Plan (STSMP), (monthly update)	60 days	Fri 30/7/21	Mon 27/9/21	4
231	Preparation and submission of Site Management Plan for TTS	60 days	Fri 30/7/21	Mon 27/9/21	4
232	Preparation and submission of BIM Execution Plan accordance with the PSA 1.14D	60 days	Fri 30/7/21	Mon 27/9/21	4
233	Public Relation (PR) Company, PR plan	60 days	Fri 30/7/21	Mon 27/9/21	4
234	Preparation and submission of Temporary drainage management plan	7 days	Fri 30/7/21	Thu 5/8/21	4
235	**Procurements of Major Materials**	**411 days**	**Thu 16/3/23**	**Mon 29/4/24**	
236	Procurement & material submission of bearing for elevated walkway	45 days	Thu 16/3/23	Sat 29/4/23	
237	Design, manufacturing and FAT of bearing for elevated walkway	115 days	Sun 30/4/23	Tue 22/8/23	236
238	Deliveries and site inspection of bearing for elevated walkway etc.	15 days	Wed 23/8/23	Wed 6/9/23	237
239	Procurement & material submission of movement joinst for elevated walkway	45 days	Thu 16/3/23	Sat 29/4/23	
240	Design, manufacturing and FAT of movement joinst for elevated walkway	115 days	Sun 30/4/23	Tue 22/8/23	239
241	Deliveries and site inspection of movement joinst for elevated walkway etc.	15 days	Wed 23/8/23	Wed 6/9/23	240
242	Procurement of Raise Planter Type A&B	60 days	Mon 1/1/24	Thu 29/2/24	
243	Manufacturing, FAT & delivery of Raise Planter Type A&B	60 days	Fri 1/3/24	Mon 29/4/24	242
244	Procurement of Balustrade Wall BW1-2	60 days	Mon 1/1/24	Thu 29/2/24	

Task | Critical Task | Milestone | Summary | Progress

ID	Task Name	Duration	Start	Finish	Predecessors
245	Manufacturing, FAT & delivery of Balustrade Wall BW1-2	60 days	Fri 1/3/24	Mon 29/4/24	244
246	Procurement of Children Play Areas & water play area Park Facilities	60 days	Mon 1/1/24	Thu 29/2/24	
247	Design, Manufacturing, FAT & delivery of Children Play Areas & water play area Park Facilities	60 days	Fri 1/3/24	Mon 29/4/24	246
248	Procurement of Adult fitness Area Park Facilities	60 days	Mon 1/1/24	Thu 29/2/24	
249	Design Manufacturing, FAT & delivery of Adult fitness Area Park Facilities	60 days	Fri 1/3/24	Mon 29/4/24	248
250	Procurement of Elderly fitness Area Park Facilities	60 days	Mon 1/1/24	Thu 29/2/24	
251	Design, Manufacturing, FAT & delivery of Elderly fitness Area Park Facilities	60 days	Fri 1/3/24	Mon 29/4/24	250
252	**Programme**	**1537 days**	**Fri 30/7/21**	**Mon 13/10/25**	
253	Preparation & Submission of First Works Program	6 days	Fri 30/7/21	Wed 4/8/21	4
254	Preparation & Submission of Three Months Rolling Program	14 days	Fri 30/7/21	Thu 12/8/21	4
255	Program Review and Acceptance of First Program	14 days	Thu 5/8/21	Wed 18/8/21	253
256	Preparation and Submission of Detailed Works Program	60 days	Thu 19/8/21	Sun 17/10/21	255,254
257	Program Review and Acceptance of Works Program	14 days	Mon 18/10/21	Sun 31/10/21	256
258	Implementation of Programme Management and Monthly Reporting	1443 days	Mon 1/11/21	Mon 13/10/25	257
259	**Permit and Licences**	**60 days**	**Fri 30/7/21**	**Mon 27/9/21**	
260	Detailed construction sequences with associated traffic diversion schemes and obtain endorsement in principle from the relevant authorities and the	30 days	Fri 30/7/21	Sat 28/8/21	4
261	Risk Assessment for slope works	7 days	Fri 30/7/21	Thu 5/8/21	4
262	Welfare facilities for workers in accordance with requirements in PS Clause 1.	7 days	Fri 30/7/21	Thu 5/8/21	4
263	UU detection equipment brand/model	7 days	Fri 30/7/21	Thu 5/8/21	4
264	Certified calibration certificates	7 days	Fri 30/7/21	Thu 5/8/21	4
265	Contract Computer Facilities, Electronic Document Management System, Site Record Information System, Digital Works Supervision System and other	6 days	Fri 30/7/21	Wed 4/8/21	4
266	Name of the designated bank and all related arrangement details for payment of wages to all the Site Workers	6 days	Fri 30/7/21	Wed 4/8/21	4
267	Site Cleanliness and Tidiness	7 days	Fri 30/7/21	Thu 5/8/21	4
268	3 sets of coloured record photos in SR size (recording existing building/ street furniture……)	7 days	Fri 30/7/21	Thu 5/8/21	4
269	Contract Cars	7 days	Fri 30/7/21	Thu 5/8/21	4
270	Design of uniform for site workers	7 days	Fri 30/7/21	Thu 5/8/21	4
271	Survey Equipment for Initial survey	7 days	Fri 30/7/21	Thu 5/8/21	4
272	Inclinometer access tubes - suppliers, material specification and samples of the tubes and couplings	14 days	Fri 30/7/21	Thu 12/8/21	4
273	Payment of Wages System for Site Workers	14 days	Fri 30/7/21	Thu 12/8/21	4
274	Tree survey record	14 days	Fri 30/7/21	Thu 12/8/21	4
275	Supply of Survey Equipment for PM use	30 days	Fri 30/7/21	Sat 28/8/21	4
276	Complete setting up and begin to operate the Security System	60 days	Fri 30/7/21	Mon 27/9/21	4
277	Initial Survey	60 days	Fri 30/7/21	Mon 27/9/21	4
278	Assessment for the risk resulting from working in hot weather	60 days	Fri 30/7/21	Mon 27/9/21	4
279	**Contractor's Design**	**1034 days**	**Fri 1/7/22**	**Tue 29/4/25**	
280	**Architectural & Structural**	**183 days**	**Fri 1/7/22**	**Fri 30/12/22**	
281	Prepare & Submission	31 days	Fri 1/7/22	Sun 31/7/22	4
282	Internal Review & Submission	15 days	Mon 1/8/22	Mon 15/8/22	281
283	PM Review & AIP	16 days	Tue 16/8/22	Wed 31/8/22	282
284	Re-submission	30 days	Thu 1/9/22	Fri 30/9/22	283
285	Design Checker Review & Endorsement	7 days	Sat 1/10/22	Fri 7/10/22	284
286	DDA Submission (circulation to Government Authorities)	8 days	Sat 8/10/22	Sat 15/10/22	285
287	Time risk allowance for DDA processing	7 days	Sun 16/10/22	Sat 22/10/22	286
288	Vetting Process and Approval by Government Authorities and PM	69 days	Sun 23/10/22	Fri 30/12/22	287
289	Park lighting, irrigation system, smart system etc.	341 days	Mon 14/11/22	Fri 20/10/23	
290	**Covered walkway**	**180 days**	**Fri 1/11/24**	**Tue 29/4/25**	
291	Prepare	30 days	Wed 6/11/24	Thu 5/12/24	
292	Internal review, ICE, CSD and submission	60 days	Fri 6/12/24	Mon 3/2/25	291
293	AIP	30 days	Tue 4/2/25	Wed 5/3/25	292
294	**Contractor's Design [Enhancement on Architectural Design & Associated Works]**	**1036 days**	**Fri 14/1/22**	**Thu 14/11/24**	
295	Engagement of Design Architectural Firm (CE 005)	0 days	Fri 14/1/22	Fri 14/1/22	
296	Enhancement on Architectual Design & Associated Works at Portions 1a, 2a and 2b (Quarry Lake) (CE 070)	0 days	Tue 4/4/23	Tue 4/4/23	295
297	**AIP and approvals**	**275 days**	**Fri 1/7/22**	**Sat 1/4/23**	
298	Schematic Landscape Master Plan (LMP), Design AIP, GBP approval	153 days	Fri 1/7/22	Wed 30/11/22	295
299	Production of AIP Drawings	92 days	Sat 31/12/22	Sat 1/4/23	298
300	DSD's AIP approval	0 days	Sat 1/4/23	Sat 1/4/23	299
301	**Detailed Design Submission Schedule**	**473 days**	**Mon 31/7/23**	**Thu 14/11/24**	

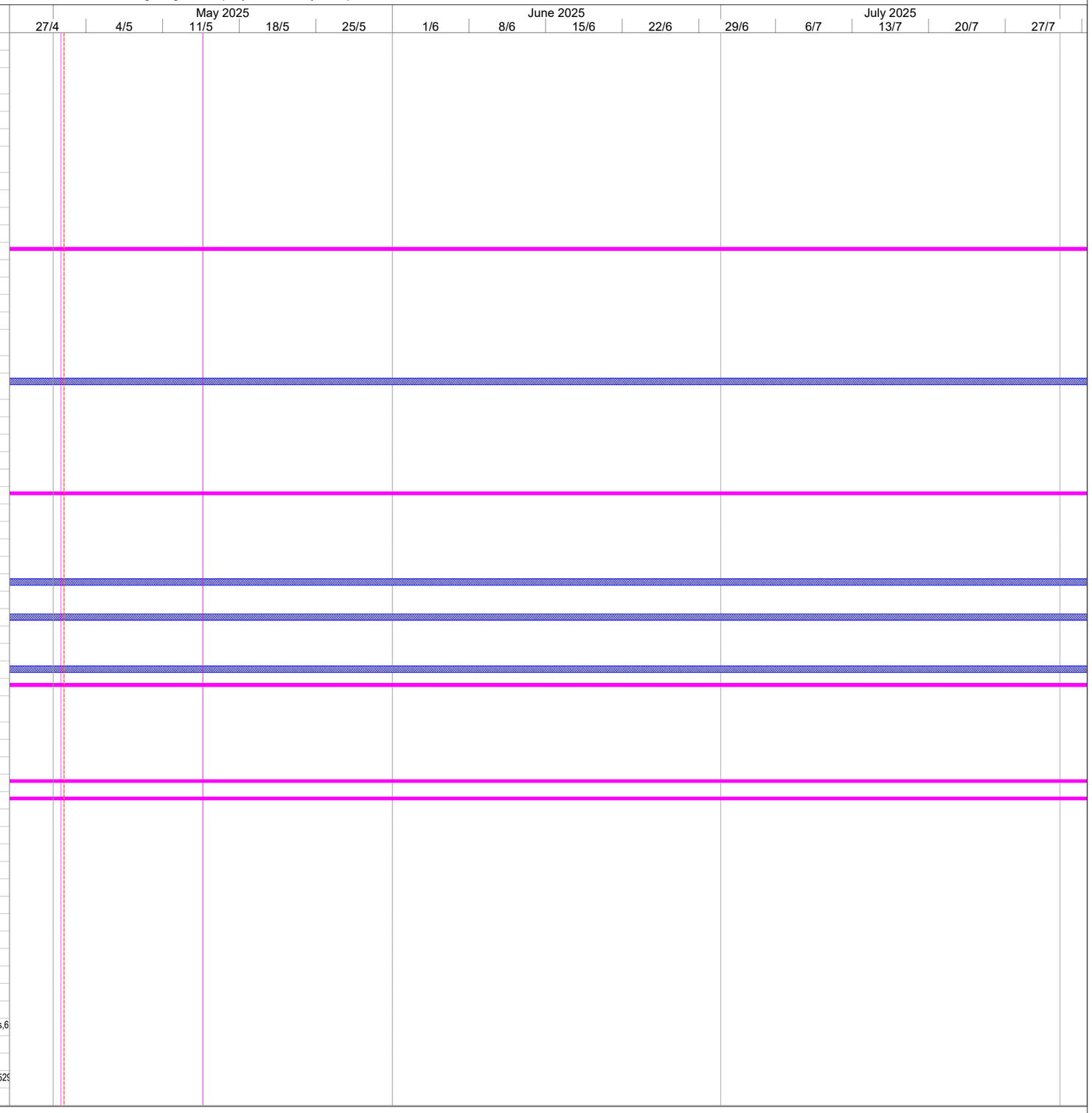


Task | Critical Task | Milestone | Summary | Progress

ID	Task Name	Duration	Start	Finish	Predecessors
302	**Statutory submission**	**92 days**	**Wed 30/8/23**	**Thu 30/11/23**	**300**
303	FSD submission for GBP	0 days	Thu 30/11/23	Thu 30/11/23	
304	WWO542 documment	0 days	Wed 30/8/23	Wed 30/8/23	
305	**Civil**	**46 days**	**Wed 30/8/23**	**Sun 15/10/23**	**300**
306	Underground rain water drainage	0 days	Sun 15/10/23	Sun 15/10/23	
307	Underground watermain	0 days	Wed 30/8/23	Wed 30/8/23	
308	Undergroud sewerage	0 days	Sat 30/9/23	Sat 30/9/23	
309	Irrigation	0 days	Wed 30/8/23	Wed 30/8/23	
310	**Landscape and Miscellaneous**	**101 days**	**Mon 21/8/23**	**Thu 30/11/23**	**300**
311	Landscape	56 days	Mon 21/8/23	Sun 15/10/23	
312	Smart weir system	0 days	Mon 30/10/23	Mon 30/10/23	
313	Flood warning system	0 days	Thu 30/11/23	Thu 30/11/23	
314	**Building**	**473 days**	**Mon 31/7/23**	**Thu 14/11/24**	
315	**A1: Lavatories**	**473 days**	**Mon 31/7/23**	**Thu 14/11/24**	
316	Architecture	32 days	Mon 31/7/23	Thu 31/8/23	
317	Structure	150 days	Sat 7/10/23	Mon 4/3/24	
318	E& M	316 days	Thu 4/1/24	Thu 14/11/24	
319	**A2: Management Office Building**	**458 days**	**Tue 15/8/23**	**Thu 14/11/24**	
320	Architecture	17 days	Tue 15/8/23	Thu 31/8/23	
321	Structure	220 days	Sat 14/10/23	Mon 20/5/24	
322	E& M	214 days	Mon 15/4/24	Thu 14/11/24	
323	**B1: Multi-Purpose Building**	**458 days**	**Tue 15/8/23**	**Thu 14/11/24**	
324	Architecture	17 days	Tue 15/8/23	Thu 31/8/23	
325	Structure	224 days	Sat 28/10/23	Fri 7/6/24	
326	E& M	251 days	Sat 9/3/24	Thu 14/11/24	
327	**B2: TX Room/Lavatories**	**458 days**	**Tue 15/8/23**	**Thu 14/11/24**	
328	Architecture	29 days	Tue 15/8/23	Tue 12/9/23	
329	Structure	199 days	Thu 21/12/23	Sat 6/7/24	
330	E& M	263 days	Mon 26/2/24	Thu 14/11/24	
331	**C2: Water Treatment Plant Room**	**458 days**	**Tue 15/8/23**	**Thu 14/11/24**	
332	Architecture	17 days	Tue 15/8/23	Thu 31/8/23	
333	Structure	271 days	Sat 7/10/23	Wed 3/7/24	
334	E& M	196 days	Fri 3/5/24	Thu 14/11/24	
335	**Schedule of Accommodation (SoA) Submission**	**141 days**	**Sun 2/4/23**	**Mon 21/8/23**	**300**
336	**Stage 1**	**56 days**	**Sun 2/4/23**	**Sat 27/5/23**	
337	Agree SoA with DSD	14 days	Sun 2/4/23	Sat 15/4/23	
338	Workshop	8 days	Sun 16/4/23	Sun 23/4/23	337
339	GPA submission and approval	34 days	Mon 24/4/23	Sat 27/5/23	338
340	**Stage 2**	**63 days**	**Mon 19/6/23**	**Mon 21/8/23**	**339**
341	Submission	0 days	Mon 19/6/23	Mon 19/6/23	
342	approval	0 days	Mon 21/8/23	Mon 21/8/23	341
343	**DSD's VCAB submission**	**183 days**	**Fri 7/4/23**	**Fri 6/10/23**	
344	**Stage 1 - AIP**	**28 days**	**Fri 7/4/23**	**Thu 4/5/23**	
345	Submission and presentation	8 days	Fri 7/4/23	Fri 14/4/23	
346	Approval	20 days	Sat 15/4/23	Thu 4/5/23	345
347	**Stage 2 - Detailed design**	**67 days**	**Tue 1/8/23**	**Fri 6/10/23**	**346**
348	Submission and presentation	0 days	Tue 1/8/23	Tue 1/8/23	
349	VCAB meeting	0 days	Thu 7/9/23	Thu 7/9/23	348
350	Approval	30 days	Thu 7/9/23	Fri 6/10/23	349
351	**Sub-letting (Cost Trimming Scheme)**	**211 days**	**Wed 1/3/23**	**Wed 27/9/23**	
352	Drawings for cost estimation	30 days	Wed 1/3/23	Thu 30/3/23	300FS-32 days
353	Tender approval	11 days	Fri 31/3/23	Mon 10/4/23	352
354	Tender addendum	8 days	Mon 17/4/23	Mon 24/4/23	353
355	Sub-letting Period	25 days	Tue 4/4/23	Fri 28/4/23	354FS-21 days
356	Tender Assessment & approval	12 days	Sat 29/4/23	Wed 10/5/23	355
357	PMI preparation	58 days	Thu 11/5/23	Fri 7/7/23	356
358	Recost trimming by DSD	21 days	Sat 8/7/23	Fri 28/7/23	357
359	Resubmission of detailed design	30 days	Tue 8/8/23	Wed 6/9/23	358
360	Retendering	21 days	Thu 7/9/23	Wed 27/9/23	359
361	Material submission	181 days	Thu 28/9/23	Tue 26/3/24	360
362	**Method Statements & Temporary Works**	**792 days**	**Fri 30/7/21**	**Fri 29/9/23**	

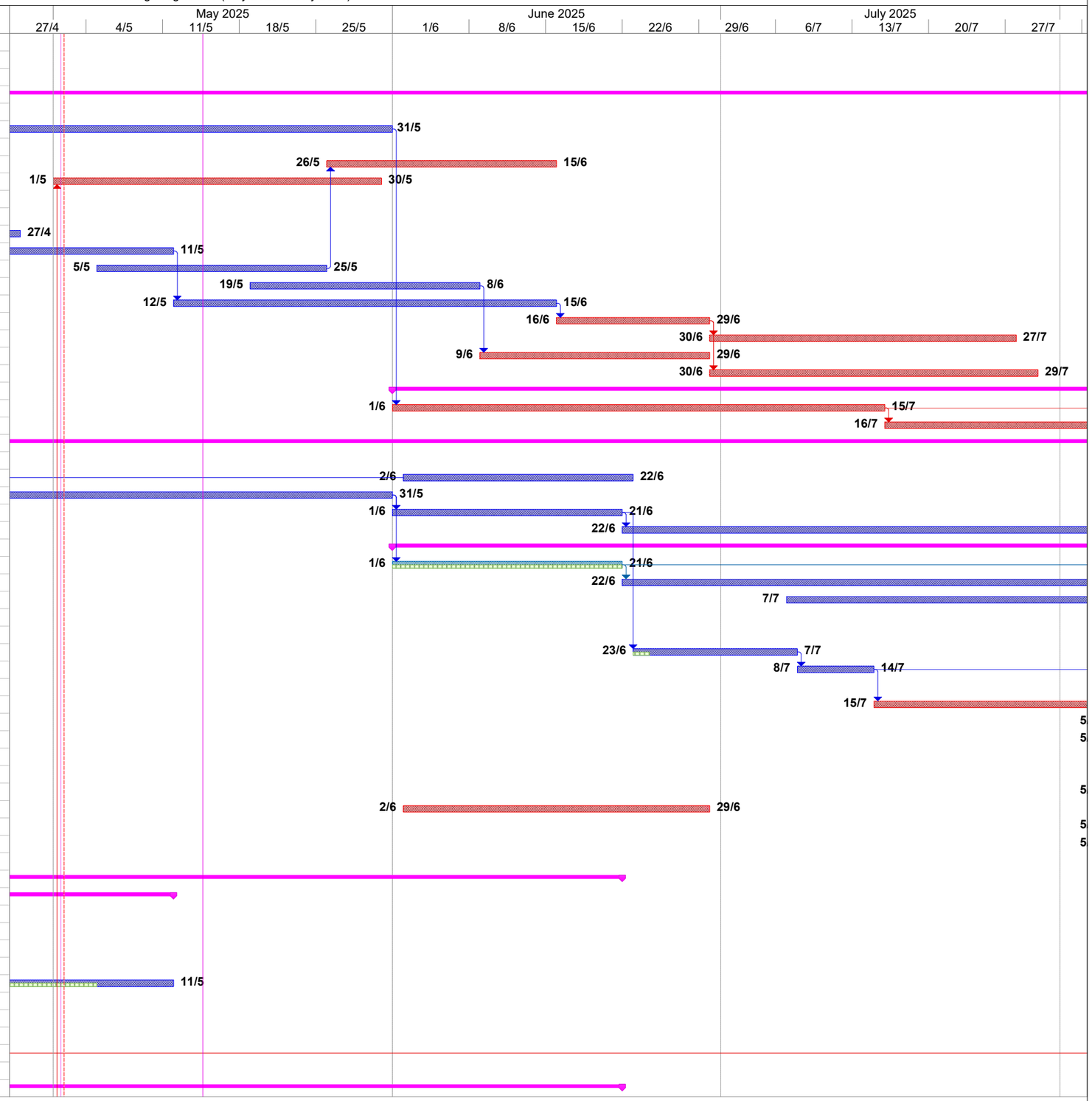
Task | Critical Task | Milestone | Summary | Progress

ID	Task Name	Duration	Start	Finish	Predecessors
363	Prepartion & submission of generic method statement for site formation work	60 days	Tue 1/11/22	Fri 30/12/22	
364	Preparation & submission of generic method statement for earth slope works	60 days	Tue 1/11/22	Fri 30/12/22	
365	Preparation & submission of generic method statement for retaining wall construction	60 days	Wed 1/6/22	Sat 30/7/22	
366	Preparation & submission of generic method statement for G.I works	60 days	Fri 30/7/21	Mon 27/9/21	
367	Preparation & Submission of generic method statement for drainage works	60 days	Fri 30/7/21	Mon 27/9/21	
368	Preparation and submission of generic method statement of road works	60 days	Tue 1/11/22	Fri 30/12/22	
369	Preparation & submission of generic method statement of elevated walkway construciton	60 days	Thu 1/6/23	Sun 30/7/23	
370	Temporary Work for cut/fill slope works	60 days	Tue 1/11/22	Fri 30/12/22	
371	Temporary Work for retaining wall construction	60 days	Wed 1/6/22	Sat 30/7/22	
372	Temporary Work for elevated walkway construction	60 days	Tue 1/8/23	Fri 29/9/23	
373	Temporary Work for road and drainage works	60 days	Fri 30/7/21	Mon 27/9/21	
374	**BIM Deliverable**	**1567 days**	**Fri 30/7/21**	**Wed 12/11/25**	
375	Submission of COBie Information Requirements for Asset Management	30 days	Fri 30/7/21	Sat 28/8/21	
376	Submission of BIM Execution Plan in accordance with the PS Appendix 1.14D	60 days	Fri 30/7/21	Mon 27/9/21	
377	Submission of Combined Services Drawings	90 days	Fri 30/7/21	Wed 27/10/21	
378	Submission of proposal for BIM training plan	90 days	Fri 30/7/21	Wed 27/10/21	
379	Nomination of staff or subcontractor to attend BIM skill training courses under the pre approved list of the CITF managed by the CIC	120 days	Fri 30/7/21	Fri 26/11/21	
380	Collaboration and Model Sharing	60 days	Thu 28/10/21	Sun 26/12/21	376FS+30 days
381	Monthly Coordination meeting& Submission of monthly BIM progress reports & Submission of 4D Simulation	1417 days	Mon 27/12/21	Wed 12/11/25	380
382	Submission of COBie data deliverables	30 days	Sun 14/9/25	Mon 13/10/25	381FS-60 days
383	Submission of a Fully Coordinated BIM Model with field verified in LOD 500	30 days	Thu 2/10/25	Fri 31/10/25	381FS-42 days
384	Submission of O&M Manuals, Product Catalogues and Operating Data	30 days	Thu 2/10/25	Fri 31/10/25	381FS-42 days
385	Submission of As-built drawings	30 days	Thu 2/10/25	Fri 31/10/25	381FS-42 days
386	Submission of Asset Data	30 days	Thu 2/10/25	Fri 31/10/25	381FS-42 days
387	**Work Area**	**1572 days**	**Fri 30/7/21**	**Mon 17/11/25**	
388	CRE Site Office Design & ICE Endorsement	30 days	Fri 30/7/21	Sat 28/8/21	
389	CRE Site office Design Review and Acceptance	30 days	Sun 29/8/21	Mon 27/9/21	388
390	CRE Site office Construction Works	90 days	Tue 28/9/21	Sun 26/12/21	389
391	Completion of CRE Site office Construction Works	0 days	Mon 24/1/22	Mon 24/1/22	390
392	CRE Site office Mobilization & Maintenance	1394 days	Mon 24/1/22	Mon 17/11/25	390,391
393	Access for Works Area	0 days	Fri 30/7/21	Fri 30/7/21	
394	Maintenance Duration for Works Area	1566 days	Sat 31/7/21	Wed 12/11/25	393FS+1 day
395	Vacate / Handover Works Area	0 days	Wed 12/11/25	Wed 12/11/25	
396	Setting up Contractor's Project office	90 days	Tue 28/9/21	Sun 26/12/21	4
397	Contractor Site office Maintenance	1389 days	Mon 24/1/22	Wed 12/11/25	396
398	**Construction Works**	**1871 days?**	**Thu 29/7/21**	**Fri 23/10/26**	
399	**Section of Works 1A - Establishment Works for all Landscape Softworks in Section 1 of the Works**	**365 days**	**Thu 29/7/21**	**Thu 28/7/22**	
400	Commencement of Establishment Work for Section 1	0 days	Fri 30/7/21	Fri 30/7/21	
401	Establishment Work Duration for Section 1	365 days	Thu 29/7/21	Thu 28/7/22	400SS-1 day
402	Completion of Works in Section 1	0 days	Thu 28/7/22	Thu 28/7/22	401
403	**Section of Works 2 - Portion 8**	**1509 days?**	**Fri 30/7/21**	**Mon 15/9/25**	
404	**Portion 8**	**1509 days?**	**Fri 30/7/21**	**Mon 15/9/25**	
405	Provision of site access [on starting date as per Contract]	7 days	Fri 30/7/21	Thu 5/8/21	34SS
406	Mobilization& Site Clearance	14 days	Fri 6/8/21	Thu 19/8/21	405
407	Preparation & submission of MS, Temp works, associated plans & docs	52 days	Fri 20/8/21	Sun 10/10/21	406
408	Engineer's AIP of MS, Temp works, plans& associated docs	22 days	Mon 11/10/21	Mon 1/11/21	407
409	**Drainage pipe and manhole**	**350 days**	**Tue 2/11/21**	**Mon 17/10/22**	
410	Excavation	350 days	Tue 2/11/21	Mon 17/10/22	408
411	Pipe laying and manhole construction including backfilling	295 days	Tue 7/12/21	Tue 27/9/22	410SS+35 days
412	Excavation for planter	20 days	Wed 28/9/22	Mon 17/10/22	411
413	Awaiting for revision of design by PM	219 days	Tue 18/10/22	Wed 24/5/23	412
414	Time Risk Allowance	14 days	Tue 18/10/22	Mon 31/10/22	412
415	Application for electricity power supply	421 days	Mon 14/11/22	Mon 8/1/24	
416	Design Change of Master Layout	293 days?	Sun 30/7/23	Fri 17/5/24	
417	Lighting design	610 days	Mon 14/11/22	Tue 16/7/24	415SS,416FF+60 days,6
418	Approval of lighting design by LCSD	30 days	Wed 17/7/24	Thu 15/8/24	417
419	Design and fabrication for lamp post holding down bolt	150 days	Thu 1/2/24	Sat 29/6/24	
420	Cable wiring & accessories	21 days	Thu 21/8/25	Wed 10/9/25	452,480,443,528,532,52
421	Testing and commissioning of lighting	5 days	Thu 11/9/25	Mon 15/9/25	420,453,454,463



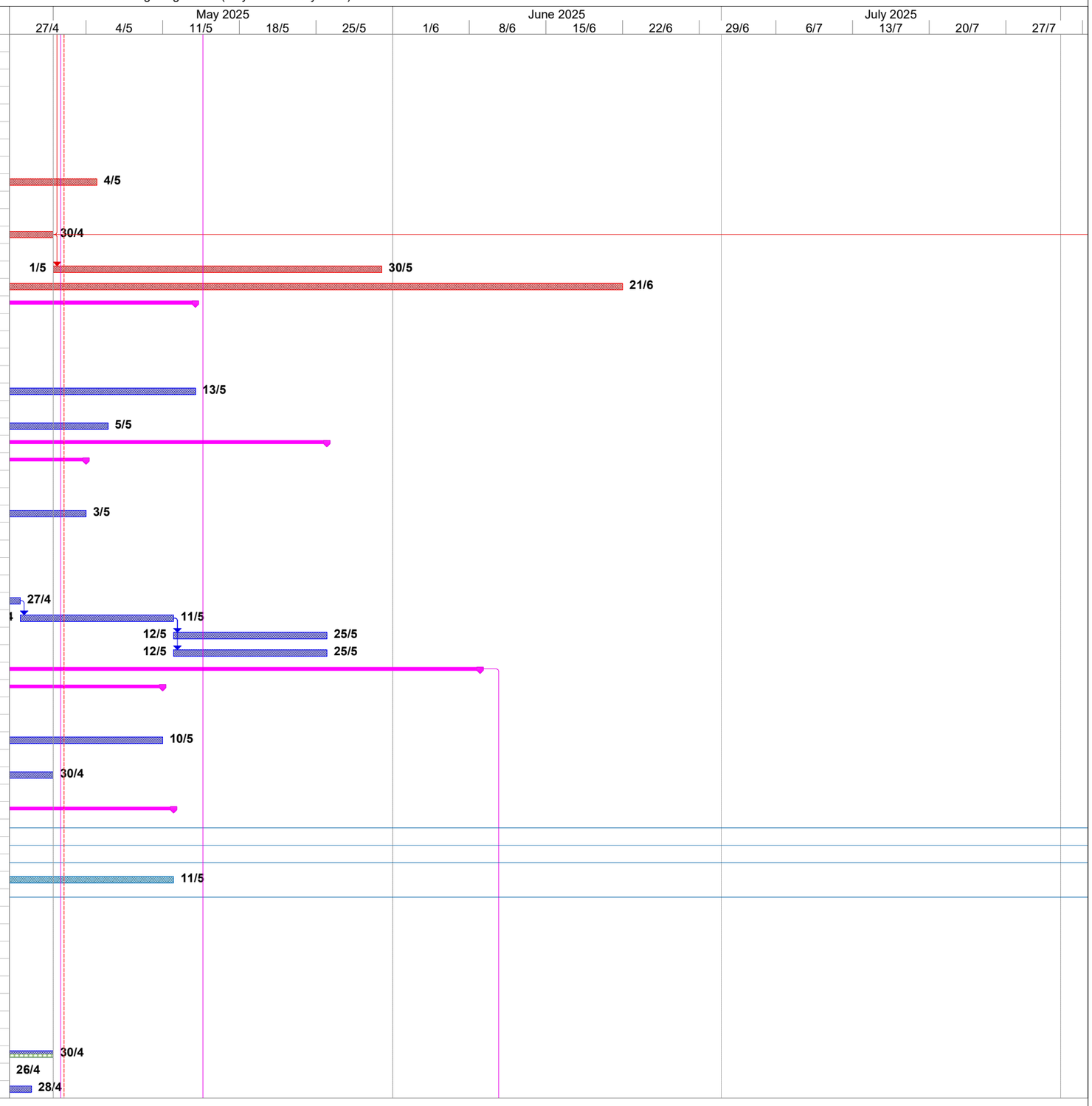
Task | Critical Task | Milestone | Summary | Progress

ID	Task Name	Duration	Start	Finish	Predecessors
422	**Irrigation system**	**72 days**	**Mon 18/12/23**	**Tue 27/2/24**	
423	Approval of WWO542	40 days	Mon 18/12/23	Fri 26/1/24	
424	Approval of Form WWO 046	32 days	Sat 27/1/24	Tue 27/2/24	423
425	**Wing A**	**675 days**	**Mon 2/10/23**	**Wed 6/8/25**	
426	Awaiting hanover from R2-3	348 days	Mon 2/10/23	Fri 13/9/24	
427	U channel and catchpit	212 days	Fri 1/11/24	Sat 31/5/25	
428	Play area formation	75 days	Wed 6/11/24	Sun 19/1/25	
429	Play area slab	21 days	Mon 26/5/25	Sun 15/6/25	435
430	Installation, Inspection/certification of play area equipment	30 days	Thu 1/5/25	Fri 30/5/25	494
431	Planters RP6	33 days	Mon 17/2/25	Fri 21/3/25	
432	Planters RP5	26 days	Mon 10/3/25	Fri 4/4/25	
433	Planters RP3	21 days	Mon 7/4/25	Sun 27/4/25	
434	Planters RP2	21 days	Mon 21/4/25	Sun 11/5/25	
435	Planters RP1	21 days	Mon 5/5/25	Sun 25/5/25	
436	Planters RP4	21 days	Mon 19/5/25	Sun 8/6/25	
437	Soil replacement	35 days	Mon 12/5/25	Sun 15/6/25	434
438	Irrigation system	14 days	Mon 16/6/25	Sun 29/6/25	437
439	Edge and pavement	28 days	Mon 30/6/25	Sun 27/7/25	438
440	Fininshing to planter wall, seat wall and panter kerb	21 days	Mon 9/6/25	Sun 29/6/25	436
441	Soft landscaping works	30 days	Mon 30/6/25	Tue 29/7/25	438
442	**Lighting System**	**67 days**	**Sun 1/6/25**	**Wed 6/8/25**	
443	Cable Duct, pillar box, cable drawpit & lamp post footing	45 days	Sun 1/6/25	Tue 15/7/25	427
444	Installation of Lamp post	22 days	Wed 16/7/25	Wed 6/8/25	443
445	**Wing C**	**775 days**	**Thu 3/8/23**	**Mon 15/9/25**	
446	Catchpit (Stage 1)	211 days	Thu 3/8/23	Thu 29/2/24	
447	Catchpit (Stage 2)	21 days	Mon 2/6/25	Sun 22/6/25	
448	(awaiting for R2-6)	83 days	Mon 10/3/25	Sat 31/5/25	
449	U Channel (Stage 1)	21 days	Sun 1/6/25	Sat 21/6/25	448
450	U Channel (Stage 2)	60 days	Sun 22/6/25	Wed 20/8/25	449
451	**Lighting System**	**96 days**	**Sun 1/6/25**	**Thu 4/9/25**	
452	Cable Duct, pillar box, cable drawpit & lamp post footing (Stage 1)	21 days	Sun 1/6/25	Sat 21/6/25	448
453	Cable Duct, pillar box, cable drawpit & lamp post footing (Stage 2)	60 days	Sun 22/6/25	Wed 20/8/25	452
454	Installation of Lamp post	60 days	Mon 7/7/25	Thu 4/9/25	
455	Planter (RP 9)	40 days	Mon 16/9/24	Fri 25/10/24	
456	Planter (RP7)	19 days	Mon 10/2/25	Fri 28/2/25	
457	Planter (RP8)	15 days	Mon 23/6/25	Mon 7/7/25	449
458	Soil replacement (RP7 & RP8)	7 days	Tue 8/7/25	Mon 14/7/25	457
459	Procurement of safety mat for play area	76 days	Mon 16/9/24	Sat 30/11/24	
460	Installation of safety mat for play area	21 days	Tue 15/7/25	Mon 4/8/25	458
461	Installation, Inspection/certification of play area equipment	14 days	Tue 5/8/25	Mon 18/8/25	460,494
462	Seat	14 days	Tue 5/8/25	Mon 18/8/25	460
463	Planter (RP10)	7 days	Tue 19/8/25	Mon 25/8/25	462
464	Soil replacement (RP9& RP10)	7 days	Tue 26/8/25	Mon 1/9/25	463
465	Irrigation system	21 days	Tue 5/8/25	Mon 25/8/25	460
466	Edge and pavemen t(Stage 1-MOE)	28 days	Mon 2/6/25	Sun 29/6/25	
467	Edge and pavemen t(Stage 2)	40 days	Tue 5/8/25	Sat 13/9/25	460
468	Soft landscaping works	42 days	Tue 5/8/25	Mon 15/9/25	460
469	Fininshing to planter wall, seat wall and planter kerb	14 days	Tue 26/8/25	Mon 8/9/25	458,463
470	**Wing B**	**536 days**	**Wed 3/1/24**	**Sat 21/6/25**	
471	**Shelter (1 nos)**	412 days	Tue 26/3/24	Sun 11/5/25	
472	Submission of design	60 days	Tue 26/3/24	Fri 24/5/24	
473	Approval of design	21 days	Thu 11/7/24	Wed 31/7/24	472
474	Construction of footing	45 days	Thu 15/8/24	Sat 28/9/24	473
475	Fabrication of superstructure	170 days	Fri 1/11/24	Sat 19/4/25	
476	Construction of superstructure	21 days	Mon 21/4/25	Sun 11/5/25	475
477	U channel and Catchpit (Stage 1)	211 days	Wed 3/1/24	Wed 31/7/24	446SS,447SS
478	U channel and Catchpit (Stage 2)	163 days	Fri 1/11/24	Sat 12/4/25	
479	**Lighting system (Stage 1)**	**307 days**	**Mon 10/6/24**	**Sat 12/4/25**	
480	Cable Duct, pillar box, cable pit & lamp post footing	97 days	Mon 10/6/24	Sat 14/9/24	
481	Installation of lamp post	21 days	Wed 19/3/25	Sat 12/4/25	419
482	**Hard Lanscape (Stage 1)**	**293 days**	**Mon 2/9/24**	**Sat 21/6/25**	



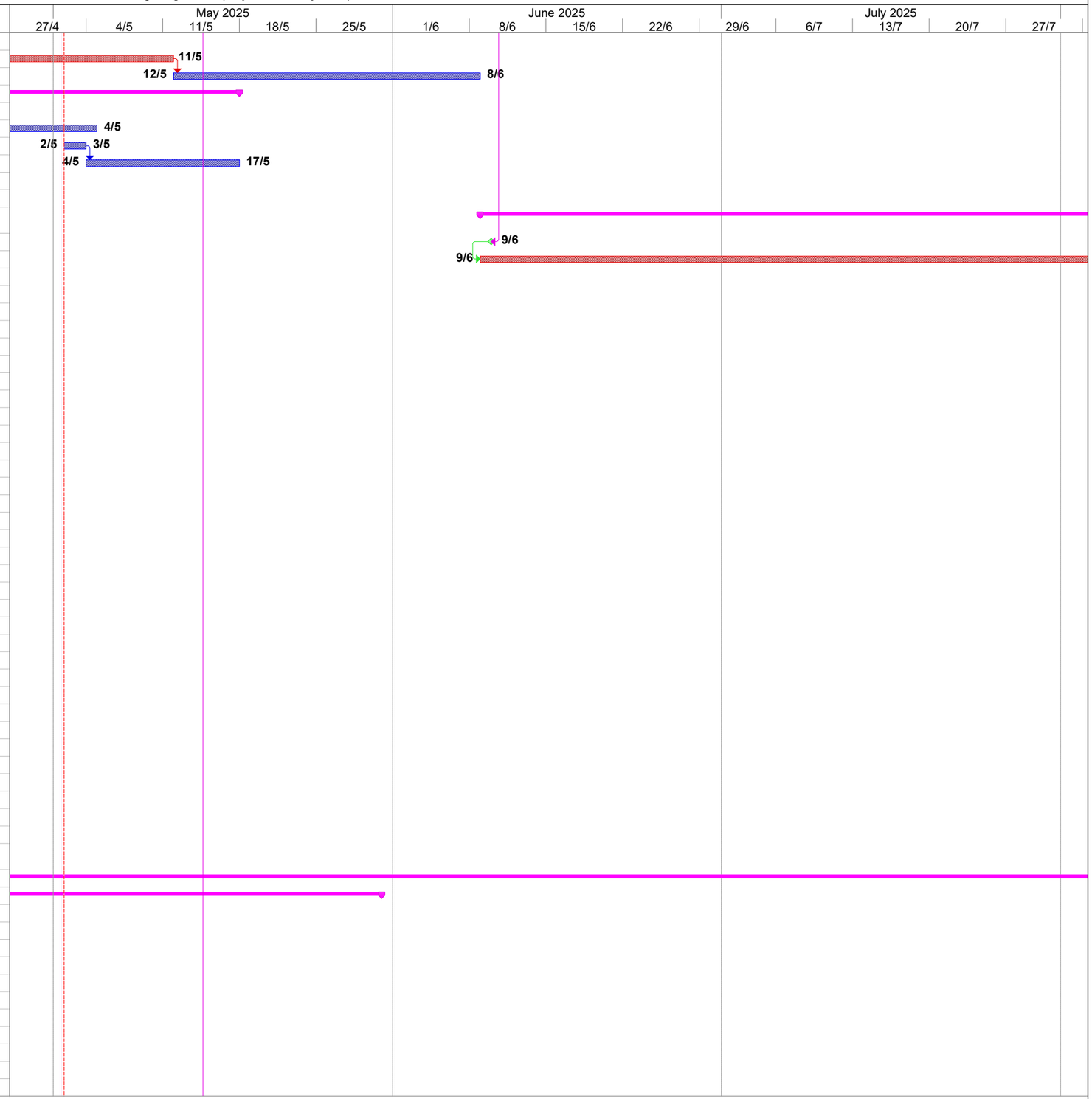
Task | Critical Task | Milestone | Summary | Progress

ID	Task Name	Duration	Start	Finish	Predecessors
483	Staircase B2 & B3	28 days	Mon 2/9/24	Sun 29/9/24	
484	Edge	45 days	Mon 16/9/24	Wed 30/10/24	
485	Soil replacement	142 days	Mon 14/10/24	Sat 8/3/25	484
486	Irrigation system	30 days	Tue 7/1/25	Wed 5/2/25	484
487	Seat (PMI)	44 days	Fri 1/11/24	Sat 14/12/24	
488	Staircase B5 & B6	41 days	Wed 9/10/24	Mon 18/11/24	
489	Staircase B4 (PMI)	18 days	Fri 1/11/24	Mon 18/11/24	
490	pavement	41 days	Mon 10/3/25	Sat 19/4/25	
491	Fiinshing to planter wall, seat wall and planter kerb	28 days	Mon 7/4/25	Sun 4/5/25	
492	Open tender for play area equipment	41 days	Mon 2/9/24	Thu 31/10/24	
493	Design Submission for play area equipment	30 days	Mon 14/10/24	Tue 12/11/24	492
494	Procurement of safety mat and equipment for play area	122 days	Mon 30/12/24	Wed 30/4/25	493
495	Play area slab	14 days	Sat 15/3/25	Fri 28/3/25	493
496	Installation, Inspection/certification of for play equipment	30 days	Thu 1/5/25	Fri 30/5/25	494
497	Soft landscaping works	90 days	Mon 24/3/25	Sat 21/6/25	
498	**Hard Lanscape (Stage 2)**	**194 days**	**Fri 1/11/24**	**Tue 13/5/25**	
499	Irrigation system	14 days	Fri 1/11/24	Thu 14/11/24	
500	Staircase B1	28 days	Mon 6/1/25	Sun 2/2/25	499
501	Edge	76 days	Mon 3/2/25	Sat 19/4/25	500
502	Soil replacement	7 days	Mon 17/2/25	Fri 28/3/25	501
503	pavement	30 days	Mon 14/4/25	Tue 13/5/25	502
504	Fiinshing to planter wall, seat wall and planter kerb	28 days	Tue 25/3/25	Mon 21/4/25	
505	Soft landscaping works	14 days	Tue 22/4/25	Mon 5/5/25	504
506	**Hard Lanscape (Stage 3 Intersaction area)**	**206 days**	**Fri 1/11/24**	**Sun 25/5/25**	
507	**Shelter (1 nos)**	184 days	Fri 1/11/24	Sat 3/5/25	
508	Construction of footing	28 days	Mon 17/3/25	Sun 13/4/25	
509	Fabrication of superstructure	170 days	Fri 1/11/24	Sat 19/4/25	
510	Construction of superstructure	14 days	Sun 20/4/25	Sat 3/5/25	509
511	Dwarf Wall DW26	28 days	Mon 17/3/25	Sun 13/4/25	
512	Staircase B7	14 days	Thu 2/1/25	Wed 15/1/25	
513	Edge	14 days	Mon 24/3/25	Sun 6/4/25	512
514	Soil replacement	7 days	Mon 7/4/25	Sun 13/4/25	513
515	Irrigation system	14 days	Mon 14/4/25	Sun 27/4/25	514
516	pavement	14 days	Mon 28/4/25	Sun 11/5/25	515
517	Fiinshing to planter wall, seat wall and planter kerb	14 days	Mon 12/5/25	Sun 25/5/25	516
518	Soft landscaping works	14 days	Mon 12/5/25	Sun 25/5/25	516
519	**Wing D**	**1014 days**	**Tue 30/8/22**	**Sun 8/6/25**	
520	**Shelter (2 nos)**	251 days	Mon 2/9/24	Sat 10/5/25	
521	Construction of footing	28 days	Mon 2/9/24	Sun 29/9/24	
522	Fabrication of superstructure	45 days	Fri 1/11/24	Sun 15/12/24	
523	Construction of superstructure	118 days	Mon 13/1/25	Sat 10/5/25	
524	U channel and Catchpit (Stage 1, near Site E-1)	46 days	Tue 30/1/24	Fri 15/3/24	
525	U channel and Catchpit (Stage 2)	181 days	Fri 1/11/24	Wed 30/4/25	
526	Dwarf Wall DW24 & DW25	28 days	Mon 2/9/24	Mon 30/9/24	
527	**Lighting system**	**314 days**	**Tue 2/7/24**	**Sun 11/5/25**	
528	Cable Duct	125 days	Tue 2/7/24	Sun 3/11/24	
529	cable pit	125 days	Tue 2/7/24	Sun 3/11/24	
530	Lamp post footing	125 days	Tue 2/7/24	Sun 3/11/24	
531	Installation of lamp post	21 days	Mon 21/4/25	Sun 11/5/25	
532	Pillar Box	60 days	Mon 2/12/24	Thu 30/1/25	
533	Irrigation system	45 days	Mon 2/12/24	Wed 15/1/25	
534	**Retainning Wall**	**671 days**	**Tue 30/8/22**	**Sun 30/6/24**	
553	Staircase D1	30 days	Tue 2/7/24	Wed 31/7/24	
554	Staircase D2 & D3	30 days	Wed 2/10/24	Thu 31/10/24	
555	Planter(community garden)	166 days	Mon 4/11/24	Fri 18/4/25	
556	Edge	75 days	Mon 4/11/24	Fri 17/1/25	
557	Planter/Seat	80 days	Thu 2/1/25	Sat 22/3/25	
558	Soil replacement	67.5 days	Fri 3/1/25	Mon 24/3/25	557
559	irrigation	108 days	Mon 13/1/25	Wed 30/4/25	
560	pavement	76 days	Mon 10/2/25	Sat 26/4/25	
561	Finishing to planter wall, seat wall and planter kerb	35 days	Tue 25/3/25	Mon 28/4/25	



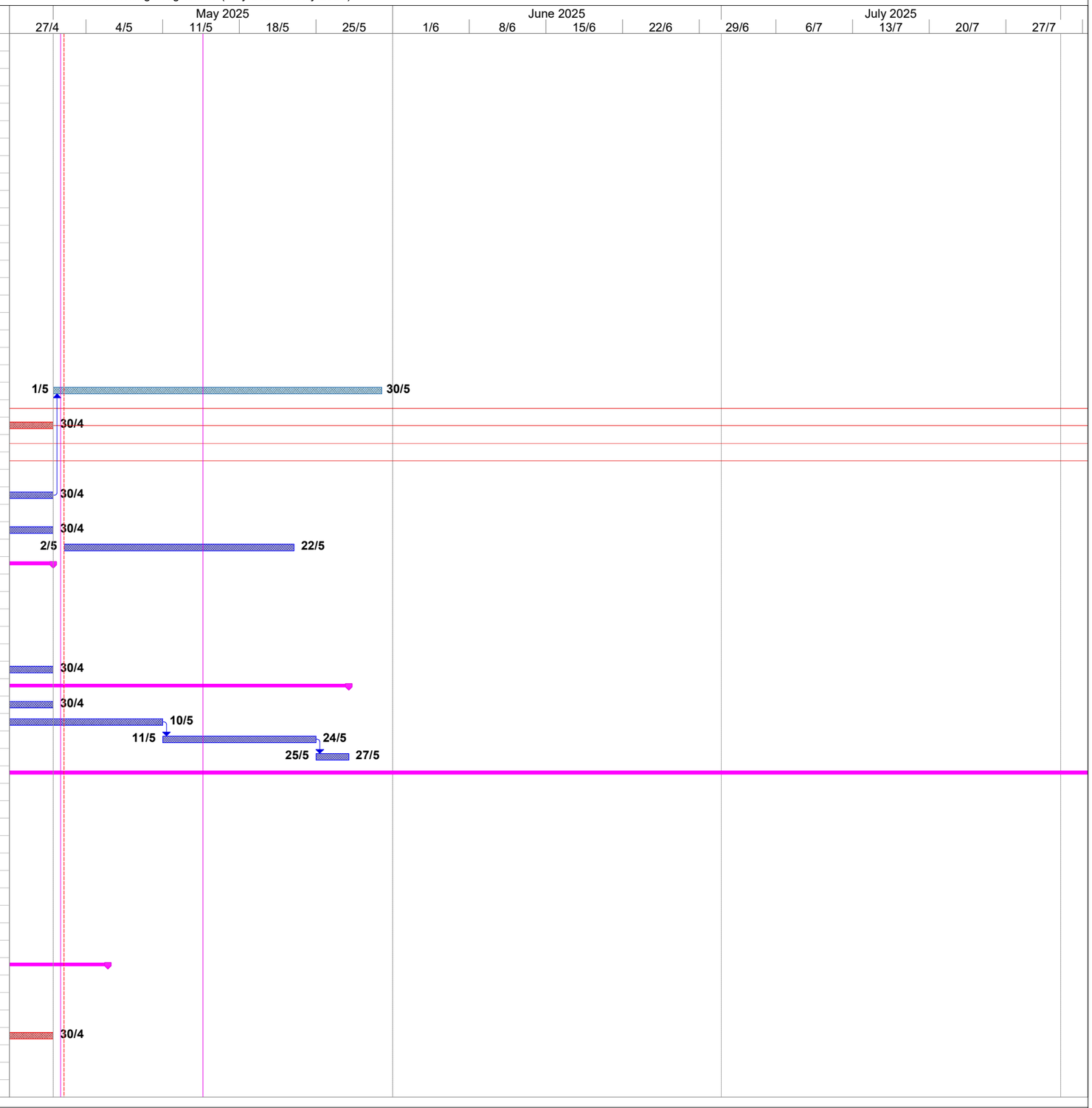
Task | Critical Task | Milestone | Summary | Progress

ID	Task Name	Duration	Start	Finish	Predecessors
562	Tree Plaza	43 days	Mon 2/12/24	Mon 13/1/25	
563	Soft landscaping works	28 days	Mon 14/4/25	Sun 11/5/25	
564	Railing/fence and signage	28 days	Mon 12/5/25	Sun 8/6/25	563
565	**Store room**	**135 days**	**Fri 3/1/25**	**Sat 17/5/25**	
566	Store room design	72 days	Fri 3/1/25	Sat 15/3/25	
567	Store room foundation	21 days	Mon 14/4/25	Sun 4/5/25	
568	Store room installation	2 days	Fri 2/5/25	Sat 3/5/25	
569	Store room E & M	14 days	Sun 4/5/25	Sat 17/5/25	568
570	**Energization**	**14 days**	**Tue 2/9/25**	**Mon 15/9/25**	
571	CLP ducting and energization	14 days	Tue 2/9/25	Mon 15/9/25	453
572	**Section of Works 2A - Establishment Works for all Landscape Softworks in Section 2 of the Works**	**365 days**	**Mon 9/6/25**	**Sat 4/7/26**	
573	Commencement of Establishment Work for Section 2	0 days	Mon 9/6/25	Mon 9/6/25	519FF+1 day
574	Establishment Work Duration for Section 2	365 days	Mon 9/6/25	Sat 4/7/26	573SS-1 day
575	Completion of Works in Section 2	0 days	Sat 4/7/26	Sat 4/7/26	574
576	**Section of Works 3 - Portions 1b, 3, 4, 5**	**763 days**	**Fri 30/7/21**	**Thu 31/8/23**	
577	**Portion 1b**	**276 days**	**Tue 29/11/22**	**Thu 31/8/23**	
578	Provision of site access [487 days after starting date as per Contract]	7 days	Tue 29/11/22	Mon 5/12/22	46SS
579	Mobilization& Site Clearance	14 days	Tue 6/12/22	Mon 19/12/22	578
580	Time Risk Allowance	7 days	Tue 20/12/22	Mon 26/12/22	579
581	PMI 066	**50 days**	**Thu 13/7/23**	**Thu 31/8/23**	
582	Sewerage pipes and manholes	50 days	Thu 13/7/23	Thu 31/8/23	580
583	Greywater pipes and manholes	50 days	Thu 13/7/23	Thu 31/8/23	582SS
584	Laying of 75mm thick milled asphalt chips	7 days	Fri 25/8/23	Thu 31/8/23	583FF
585	**Lighting**	**163 days**	**Wed 22/3/23**	**Thu 31/8/23**	
586	Application for electricity power supply	83 days	Wed 22/3/23	Mon 12/6/23	
587	Lighting design	140 days	Wed 22/3/23	Tue 8/8/23	586SS
588	Installation including ducting, draw pit and lighting	23 days	Wed 9/8/23	Thu 31/8/23	587,583FF
589	**Portion 3**	**702 days**	**Wed 29/9/21**	**Thu 31/8/23**	
590	Access date	0 days	Wed 29/9/21	Wed 29/9/21	51SS
591	Deferred possession (CE 004 & 006)	61 days	Wed 29/9/21	Sun 28/11/21	
592	Provision of site access	7 days	Mon 29/11/21	Sun 5/12/21	591
593	Mobilization& Site Clearance	14 days	Mon 6/12/21	Sun 19/12/21	592
594	Preparation& submission of MS, Temp works, associated plans & docs	52 days	Mon 20/12/21	Wed 9/2/22	593
595	Engineer AIP of MS, Temp works, plans& associated docs	21 days	Thu 10/2/22	Wed 2/3/22	594
596	Installation of chain link fencing	92 days	Thu 1/6/23	Thu 31/8/23	595
597	Soft landscaping works - hydroseeding	30 days	Wed 2/8/23	Thu 31/8/23	
598	GI works (PMI 006)	7 days	Mon 3/10/22	Sun 9/10/22	
599	Additional drainage works (PMI 075)	30 days	Wed 2/8/23	Thu 31/8/23	596FF,597FF
600	**Portion 4**	**763 days**	**Fri 30/7/21**	**Thu 31/8/23**	
601	Provision of site access [on starting date as per Contract]	7 days	Fri 30/7/21	Thu 5/8/21	56SS
602	Soft landscaping works - hydroseeding	30 days	Wed 2/8/23	Thu 31/8/23	597FF,606FF
603	GI works (PMI 006)	10 days	Mon 10/10/22	Wed 19/10/22	598
604	**Portion 5**	**551 days**	**Sun 27/2/22**	**Thu 31/8/23**	
605	Provision of site access [212 days after starting date as per Contract]	7 days	Sun 27/2/22	Sat 5/3/22	61SS
606	Soft landscaping works - hydroseeding	30 days	Wed 2/8/23	Thu 31/8/23	
607	Installation of chain link fencing	31 days	Tue 1/8/23	Thu 31/8/23	606FF
608	**Section of Works 3A - Establishment Works for all Landscape Softworks in Section 3 of the Works**	**365 days**	**Fri 1/9/23**	**Fri 30/8/24**	
612	**Section of Works 4 - Portions 6, 12**	**1870 days?**	**Fri 30/7/21**	**Fri 23/10/26**	
613	**Portion 6**	**1218 days?**	**Sat 29/1/22**	**Fri 30/5/25**	
614	Provision of site access [183 days after starting date as per Contract]	0 days	Sat 29/1/22	Sat 29/1/22	73SS
615	Deferred possession	81 days	Sat 29/1/22	Tue 19/4/22	614
616	Mobilization& Site Clearance	14 days	Wed 20/4/22	Tue 3/5/22	615
617	Issuance of site sketch for retaining wall (Letter C10/500/400739)	0 days	Wed 14/9/22	Wed 14/9/22	616
618	Drainage works under PMQP 004	0 days	Fri 14/10/22	Fri 14/10/22	616
619	Application for electricity power supply	421 days	Mon 14/11/22	Mon 8/1/24	415SS
620	Design Change of Layout (PMI-085)	1 day	Wed 5/7/23	Wed 5/7/23	
621	Park Lighting Design	612 days	Mon 14/11/22	Wed 17/7/24	619SS
622	Approval of lighting design by LCSD	30 days	Thu 18/7/24	Fri 16/8/24	621
623	Time Risk Allowance	14 days	Fri 14/10/22	Thu 27/10/22	622
624	**Retaining wall RWA20**	**618 days**	**Tue 2/5/23**	**Wed 8/1/25**	



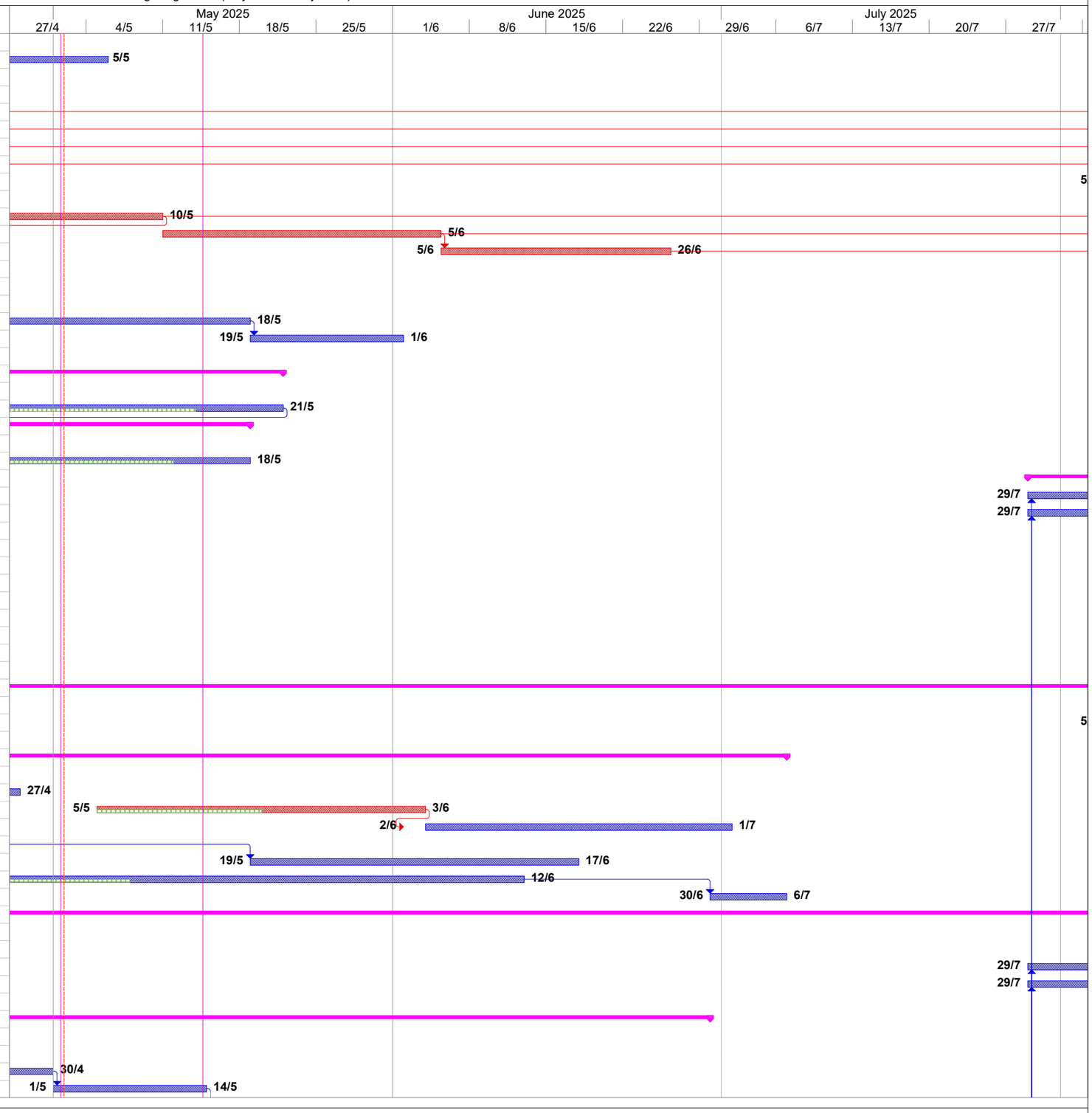
Task | Critical Task | Milestone | Summary | Progress

ID	Task Name	Duration	Start	Finish	Predecessors
625	Excavation	112 days	Tue 2/5/23	Mon 21/8/23	
626	Blinding layer	110 days	Tue 9/5/23	Sat 26/8/23	625SS+7 days
627	Base slab (21 bays)	169 days	Tue 16/5/23	Tue 31/10/23	626SS+7 days
628	Wall stem (21 bays)	136 days	Mon 3/7/23	Wed 15/11/23	627SS+10 days
629	Additional Sewage System (PMI 086)	170 days	Thu 30/11/23	Fri 17/5/24	628
630	PMI for Grey Water	30 days	Sat 18/5/24	Sun 16/6/24	629
631	pipe laying and drainage structure (Stage 1)	183 days	Wed 31/1/24	Wed 31/7/24	
632	pipe laying and drainage structure (Stage 2)	7 days	Thu 2/1/25	Wed 8/1/25	
633	Backfilling (15 layers)	117 days	Tue 16/4/24	Sat 10/8/24	
634	**Retaining wall RWA19**	**382 days?**	**Fri 1/12/23**	**Mon 16/12/24**	
635	Blinding layer (1-13)	45 days	Fri 1/12/23	Sun 14/1/24	
636	Base slab (1-13)	50 days	Mon 18/12/23	Mon 5/2/24	635SS+5 days
637	Wall stem (1-13)	59 days	Tue 2/1/24	Thu 29/2/24	636SS+9 days
638	pipe laying and drainage structure	30 days	Thu 1/8/24	Fri 30/8/24	
639	Backfilling (1-11)	69 days	Mon 2/9/24	Sat 9/11/24	
640	Blinding layer (14-18)	28 days	Sat 4/5/24	Fri 31/5/24	
641	Base slab (14-18)	28 days	Sun 5/5/24	Sat 1/6/24	
642	Wall stem (14-18)	45 days	Thu 9/5/24	Sat 22/6/24	
643	Pipe Laying and Drainage Structure (12-18)	148 days?	Mon 22/7/24	Mon 16/12/24	
644	Backfilling (12-18)	71 days	Mon 2/9/24	Mon 11/11/24	
645	Railing for RWA 19 & 20	30 days	Thu 1/5/25	Fri 30/5/25	651
646	U channel & catchpit (1-11)	113 days	Mon 10/6/24	Mon 30/9/24	
647	U channel & catchpit (12-18)	180 days	Sat 2/11/24	Wed 30/4/25	
648	edging (1-11)	144 days	Mon 10/6/24	Thu 31/10/24	
649	edging (12-18)	6 days	Mon 18/11/24	Sat 23/11/24	
650	pavement	70 days	Mon 9/9/24	Mon 17/2/25	
651	Finsihing	52 days	Mon 10/3/25	Wed 30/4/25	649
652	Soft landscaping works (Stage 1)	24 days	Mon 2/9/24	Wed 25/9/24	
653	Soft landscaping works (Stage 2)	59 days	Mon 3/3/25	Wed 30/4/25	
654	CCTV inspection, testing and commissioning	21 days	Fri 2/5/25	Thu 22/5/25	
655	**Irrigation system Submission**	**716 days**	**Tue 16/5/23**	**Wed 30/4/25**	
656	Contractor's design	79 days	Tue 16/5/23	Wed 2/8/23	
657	Approval of WWO542	40 days	Wed 1/11/23	Sun 10/12/23	656
658	Approval of Form WWO 046	32 days	Mon 11/12/23	Thu 11/1/24	657
659	Approval of WWO542 (amendment)	30 days	Mon 30/12/24	Tue 28/1/25	
660	Approval of Form WWO 046 (amendment)	30 days	Wed 29/1/25	Thu 27/2/25	659
661	Irrigation system	163 days	Mon 8/7/24	Wed 30/4/25	
662	**Lighting system**	**338 days**	**Mon 24/6/24**	**Tue 27/5/25**	
663	Cable Duct, pillar box, cable pit & lamp post footing	311 days	Mon 24/6/24	Wed 30/4/25	
664	Cable wiring & accessories	83 days	Mon 17/2/25	Sat 10/5/25	
665	Installation of lamp post	14 days	Sun 11/5/25	Sat 24/5/25	664
666	Testing and Commissioning of lighting	3 days	Sun 25/5/25	Tue 27/5/25	665
667	**Portion 12**	**1495 days?**	**Fri 30/7/21**	**Mon 1/9/25**	
668	Provision of site access [on starting date as per Contract]	7 days	Fri 30/7/21	Thu 5/8/21	
669	Mobilization& Site Clearance	14 days	Fri 6/8/21	Thu 19/8/21	
670	Preparation& submission of MS, Temp works, associated plans & docs	52 days	Fri 20/8/21	Sun 10/10/21	
671	Engineer's AIP of MS, Temp works, plans& associated docs	22 days	Mon 11/10/21	Mon 1/11/21	
672	Additional GI at Portion 12 (PMI 005)	15 days	Wed 1/6/22	Wed 15/6/22	
673	**Drainage pipe and manhole**	**379 days**	**Tue 2/11/21**	**Tue 15/11/22**	
674	Excavation	364 days	Tue 2/11/21	Mon 31/10/22	
675	Pipe laying and manhole consstruction including backfilling	245 days	Wed 16/3/22	Tue 15/11/22	
676	Dwaf wall construction (Stage 1)	105 days	Wed 16/11/22	Tue 28/2/23	
677	Awaiting for revision of design by PM due to interface	97 days	Wed 1/3/23	Mon 5/6/23	
678	**Staircase**	**630 days?**	**Tue 15/8/23**	**Mon 5/5/25**	
679	Footing (S1-10)	231 days	Tue 15/8/23	Mon 1/4/24	
680	Slab & Vertical Wall (S1-10)	258 days	Mon 28/8/23	Sat 11/5/24	
681	Wing Wall	70 days?	Sun 12/5/24	Sat 20/7/24	
682	Seat and railing (precast)	241 days	Mon 2/9/24	Wed 30/4/25	
683	Footing (S12-16)	141 days	Mon 13/5/24	Mon 30/9/24	
684	Footing (S11)	14 days	Mon 7/10/24	Sun 20/10/24	
685	Slab & Vertical & Wing Wall (S12-15)	123 days	Fri 31/5/24	Mon 30/9/24	



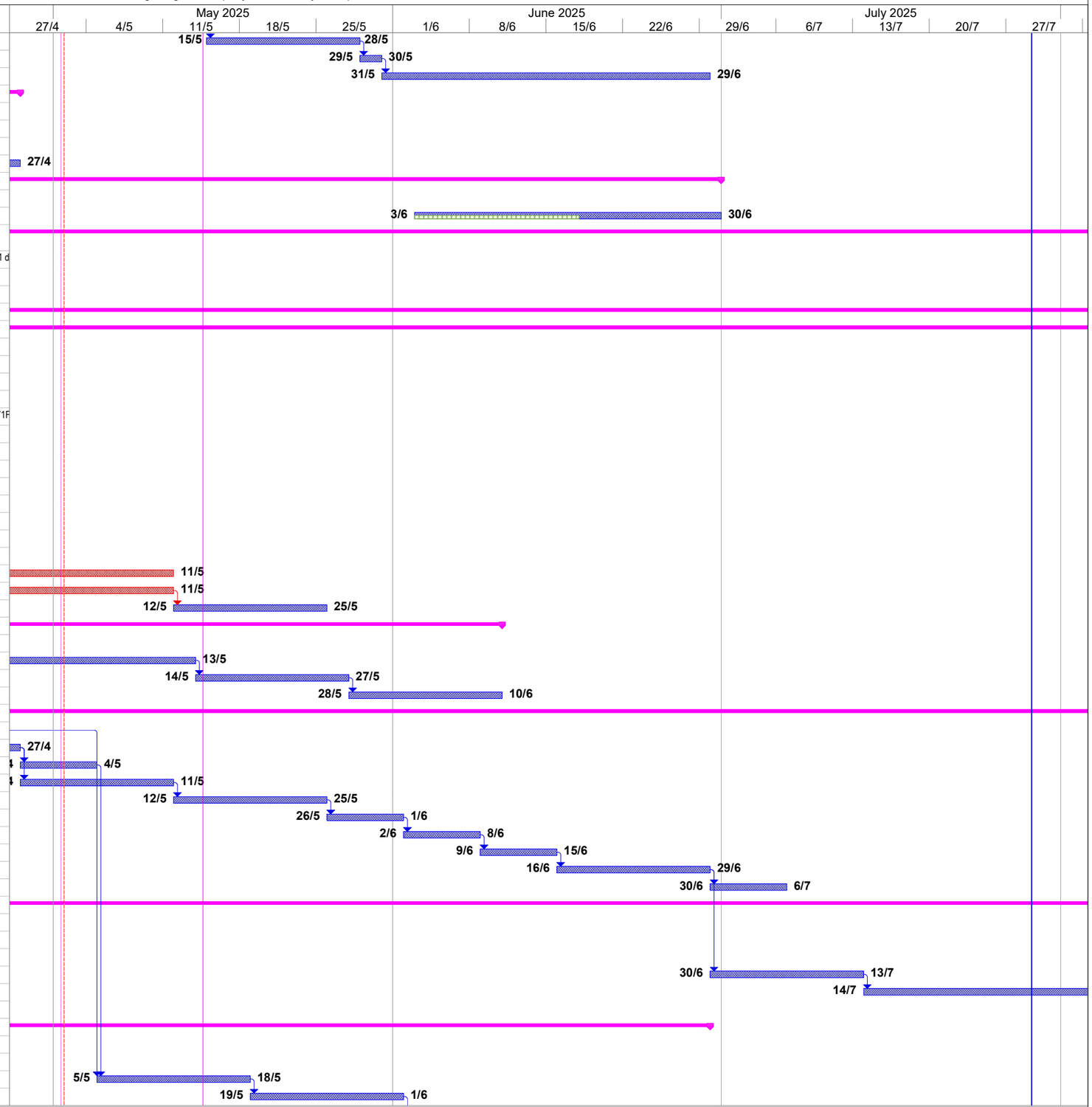
Task | Critical Task | Milestone | Summary | Progress

ID	Task Name	Duration	Start	Finish	Predecessors
686	Slab & Vertical & Wing Wall (S11)	48 days	Mon 21/10/24	Sat 7/12/24	684
687	Slab & Vertical & Wing Wall (S16)	21 days	Tue 15/4/25	Mon 5/5/25	
688	Dwaft wall (resumption) - Stage 2	286 days	Mon 4/3/24	Sat 14/12/24	
689	Confirmation of recess cover for u channel	1 day	Thu 25/4/24	Thu 25/4/24	
690	U channel & catchpit (Stage 1-S1-16)	239 days	Mon 15/7/24	Mon 10/3/25	
691	Edging (Stage1)	169 days	Mon 26/8/24	Mon 10/2/25	
692	Paving (Stage1)	30 days	Mon 24/3/25	Tue 22/4/25	691
693	U channel & catchpit (Stage 2- Civic Plaza)	30 days	Thu 9/1/25	Fri 7/2/25	
694	Edging (Stage 2)	14 days	Tue 5/8/25	Mon 18/8/25	712
695	Paving (Stage 2)	14 days	Tue 19/8/25	Mon 1/9/25	694
696	U channel & catchpit (Stage 3 -Play Area)	160 days	Mon 2/12/24	Sat 10/5/25	
697	Edging (Stage 3)	28 days	Sun 13/4/25	Thu 5/6/25	696
698	Paving (Stage 3)	21 days	Thu 5/6/25	Thu 26/6/25	697
699	Soft landscaping (Stage 1)	172 days	Wed 2/10/24	Sat 22/3/25	
700	Soft landscaping (Stage 2)	14 days	Tue 19/8/25	Mon 1/9/25	694
701	Soft landscaping (Stage 3)	14 days	Tue 1/4/25	Mon 14/4/25	
702	Children play area slab CPA 1	28 days	Mon 21/4/25	Sun 18/5/25	
703	Installation, Inspection/certification of for play equipment	14 days	Mon 19/5/25	Sun 1/6/25	702
704	Signage Post	21 days	Mon 3/3/25	Sun 23/3/25	
705	**Drainage pipe and manhole (Storm Water-Stage 1)**	**154 days**	**Thu 19/12/24**	**Wed 21/5/25**	
706	Excavation /Sheet Piling	14 days	Thu 19/12/24	Wed 1/1/25	
707	Pipe laying and manhole (TM/T2_1) consstruction including backfilling	38 days	Mon 14/4/25	Wed 21/5/25	
708	**Drainage pipe and manhole (Storm Water-Stage 2)**	**86 days**	**Sat 22/2/25**	**Sun 18/5/25**	
709	Excavation /Sheet Piling	14 days	Sat 22/2/25	Fri 7/3/25	707
710	Pipe laying and manhole (AMH3a,) consstruction including backfilling	28 days	Mon 21/4/25	Sun 18/5/25	709
711	**Drainage pipe and manhole (Storm Water-Stage 3)**	**14 days**	**Tue 29/7/25**	**Mon 11/8/25**	
712	Catchpit	7 days	Tue 29/7/25	Mon 4/8/25	1016
713	U-channel &Pipe laying	14 days	Tue 29/7/25	Mon 11/8/25	1016
714	**Sunken Plaza**	**538 days**	**Mon 30/10/23**	**Sat 19/4/25**	
715	Excavation	7 days	Mon 30/10/23	Sun 5/11/23	
716	Subsoil drain	30 days	Thu 2/5/24	Fri 31/5/24	
717	U channel and catchpit	43 days	Wed 19/6/24	Wed 31/7/24	716
718	Underground cable duct	30 days	Sat 1/6/24	Sun 30/6/24	
719	RC structure - Stage 1	30 days	Thu 1/2/24	Fri 1/3/24	
720	RC structure - Stage 2 (resumption)	49 days	Sat 15/6/24	Fri 2/8/24	719
721	Finishing	30 days	Mon 17/3/25	Tue 15/4/25	
722	Soft landscaping	31 days	Thu 20/3/25	Sat 19/4/25	
723	**Irrigation system**	**254 days**	**Sun 1/12/24**	**Mon 11/8/25**	
724	Irrigation system (Stage 1 - S1-16)	140 days	Sun 1/12/24	Sat 19/4/25	
725	Irrigation system (Stage 2 - Civic Plaza)	7 days	Tue 5/8/25	Mon 11/8/25	712
726	Irrigation system (Stage 3 - Play Area)	7 days	Mon 14/4/25	Sun 20/4/25	
727	**Lighting system**	**462 days**	**Mon 1/4/24**	**Sun 6/7/25**	
728	Cable Duct, pillar box, cable pit & lamp post footing (Stage 1)	244 days	Mon 1/4/24	Sat 30/11/24	
729	Installation of lamp post (Stage 1)	14 days	Mon 14/4/25	Sun 27/4/25	
730	Cable Duct, pillar box, cable pit & lamp post footing (Stage 2)	30 days	Mon 5/5/25	Tue 3/6/25	
731	Installation of lamp post (Stage 2)	28 days	Mon 2/6/25	Tue 1/7/25	730
732	Cable Duct, pillar box, cable pit & lamp post footing (Stage 3)	60 days	Mon 17/2/25	Thu 17/4/25	
733	Installation of lamp post (Stage 3)	30 days	Mon 19/5/25	Tue 17/6/25	732
734	Cable wiring & accessories	60 days	Mon 14/4/25	Thu 12/6/25	
735	Testing and Commissioning of lighting	7 days	Mon 30/6/25	Sun 6/7/25	734
736	**Foul & Grey Water (Civic Plaza)**	**281 days**	**Mon 11/11/24**	**Mon 18/8/25**	
737	Pipe laying (Stage 1)	30 days	Mon 10/3/25	Sun 20/4/25	
738	GMH/FMH (Stage 1- FHM-B15 & GMH-13)	91 days	Mon 11/11/24	Fri 21/2/25	
739	Pipe laying (Stage 2)	7 days	Tue 29/7/25	Mon 4/8/25	1016
740	GMH/FMH (Stage 2 - FHM-B16 & GMH-14)	14 days	Tue 29/7/25	Mon 11/8/25	1016
741	CCTV inspection, testing and commissioning	7 days	Tue 12/8/25	Mon 18/8/25	740
742	**Water Fountain (PMI)**	**210 days**	**Mon 2/12/24**	**Sun 29/6/25**	
743	Approval of WWO542	60 days	Mon 2/12/24	Thu 30/1/25	
744	Approval of Form WWO 046	46 days	Fri 31/1/25	Mon 17/3/25	743
745	power cable ducting and cable llaying	30 days	Tue 1/4/25	Wed 30/4/25	
746	Drain and plumbing pipe laying	14 days	Thu 1/5/25	Wed 14/5/25	745



Task | Critical Task | Milestone | Summary | Progress

ID	Task Name	Duration	Start	Finish	Predecessors
747	Fountain footing	14 days	Thu 15/5/25	Wed 28/5/25	746
748	Installtion of fountain	2 days	Thu 29/5/25	Fri 30/5/25	747
749	WSD inspection and water sampling	30 days	Sat 31/5/25	Sun 29/6/25	748
750	**Railing**	**224 days?**	**Mon 16/9/24**	**Sun 27/4/25**	
751	Design Submission	46 days?	Mon 16/9/24	Thu 31/10/24	
752	Mockup	60 days	Tue 19/11/24	Fri 17/1/25	751
753	Fabrication	60 days	Sat 18/1/25	Tue 18/3/25	752
754	Installation	21 days	Mon 7/4/25	Sun 27/4/25	753
755	**Energization**	**267 days**	**Mon 7/10/24**	**Mon 30/6/25**	
756	Pillar Box	75 days	Mon 7/10/24	Fri 20/12/24	
757	CLP ducting and energization	28 days	Tue 3/6/25	Mon 30/6/25	
758	**Section of Works 4A - Establishment Works for all Landscape Softworks in Section 4 of the Works**	**1870 days?**	**Fri 30/7/21**	**Fri 23/10/26**	
759	Commencement of Establishment Work for Section 4	0 days	Tue 2/9/25	Tue 2/9/25	646FS+1 day,690FS+1 d
760	Establishment Work Duration for Section 4	365 days	Tue 2/9/25	Mon 12/10/26	759SS-1 day
761	Completion of Works in Section 4	0 days	Mon 12/10/26	Mon 12/10/26	760
762	**Section of Works 5A - Portions 9, 10**	**1487 days**	**Fri 30/7/21**	**Sun 24/8/25**	
763	**Portion 9 [Sitting Out Area C & R2-1 Footpath]**	**1426 days**	**Wed 29/9/21**	**Sun 24/8/25**	
764	Provision of site access [61 days after starting date as per Contract]	8 days	Wed 29/9/21	Wed 6/10/21	90SS
765	Mobilization& Site Clearance	15 days	Thu 7/10/21	Thu 21/10/21	764
766	Preparation& submission of MS, Temp works, associated plans & do	75 days	Tue 1/2/22	Sat 16/4/22	765
767	Engineer AIP of MS, Temp works, plans& associated docs	60 days	Sun 17/4/22	Wed 15/6/22	766
768	Construction of U channel and catchpit	256 days	Thu 16/6/22	Sun 26/2/23	767,770FS-65 days,771F
769	Time Risk Allowance	15 days	Mon 27/2/23	Mon 13/3/23	768
770	Modification of existing surface drain at slope toe (PMI 032)	0 days	Fri 19/8/22	Fri 19/8/22	
771	Modification of existing surface drain at slope toe (PMI 050)	0 days	Wed 28/9/22	Wed 28/9/22	770
772	Interface RS-1 and return of Site	574 days	Tue 14/3/23	Mon 7/10/24	
773	Resumption of modification of existing drain at slope toe (late return	60 days	Mon 14/10/24	Thu 12/12/24	772
774	Backfilling and compaction of road materials	74 days	Fri 13/12/24	Mon 24/2/25	773
775	Installation of E1 kerbs	54 days	Tue 25/2/25	Sat 19/4/25	774
776	Construction of porous pavement footpath	28 days	Mon 17/3/25	Sun 13/4/25	
777	Installation of street furniture, traffic signs, bollards and road marking	28 days	Mon 14/4/25	Sun 11/5/25	776
778	Landscaping works	28 days	Mon 14/4/25	Sun 11/5/25	776
779	Modification of existing kerb to drop kerb	14 days	Mon 12/5/25	Sun 25/5/25	778
780	**Lighting system (Footpath)**	**246 days**	**Tue 8/10/24**	**Tue 10/6/25**	
781	Cable Duct, pillar box, cable pit & lamp post footing	137 days	Tue 8/10/24	Fri 21/2/25	772
782	Installation of lamp post (by HWY)	30 days	Mon 14/4/25	Tue 13/5/25	781
783	Cable wiring & accessories	14 days	Wed 14/5/25	Tue 27/5/25	782
784	Testing and Commissioning of lighting	14 days	Wed 28/5/25	Tue 10/6/25	783
785	**Sitting Out Area (DOS)**	**832 days**	**Tue 16/5/23**	**Sun 24/8/25**	
786	Site Access Blocked by Shui On	48 days	Mon 24/2/25	Sat 12/4/25	
787	Impleentation of TTA for site acces	2 days	Sat 26/4/25	Sun 27/4/25	786
788	Site Formation	7 days	Mon 28/4/25	Sun 4/5/25	787
789	U channel and catchpit	14 days	Mon 28/4/25	Sun 11/5/25	787
790	Kerb (E27)	14 days	Mon 12/5/25	Sun 25/5/25	789
791	Drainage layer & sub soil drain	7 days	Mon 26/5/25	Sun 1/6/25	790
792	Soil replacement	7 days	Mon 2/6/25	Sun 8/6/25	791
793	Concrete Seat	7 days	Mon 9/6/25	Sun 15/6/25	792
794	Subbase and paving	14 days	Mon 16/6/25	Sun 29/6/25	793
795	Moveable Planter	7 days	Mon 30/6/25	Sun 6/7/25	794
796	**Irrigation system (DOS)**	**832 days**	**Tue 16/5/23**	**Sun 24/8/25**	
797	Contractor's design	79 days	Tue 16/5/23	Wed 2/8/23	
798	Approval of WWO542	40 days	Mon 18/12/23	Fri 26/1/24	797
799	Approval of Form WWO 046	32 days	Sat 27/1/24	Tue 27/2/24	798
800	Irrigation system	14 days	Mon 30/6/25	Sun 13/7/25	794
801	Testing	28 days	Mon 14/7/25	Sun 10/8/25	800
802	Reinstatement of cycling track and road marking	14 days	Mon 11/8/25	Sun 24/8/25	801
803	**Lighting system (Park Light- DOS)**	**459 days**	**Thu 28/3/24**	**Sun 29/6/25**	
804	Design and fabrication for lamp post holding down bolt	94 days	Thu 28/3/24	Sat 29/6/24	
805	Cable Duct, pillar box, cable pit & lamp post footing	14 days	Tue 1/4/25	Mon 14/4/25	
806	Installation of lamp post	14 days	Mon 5/5/25	Sun 18/5/25	788,786
807	Cable wiring & accessories	14 days	Mon 19/5/25	Sun 1/6/25	806

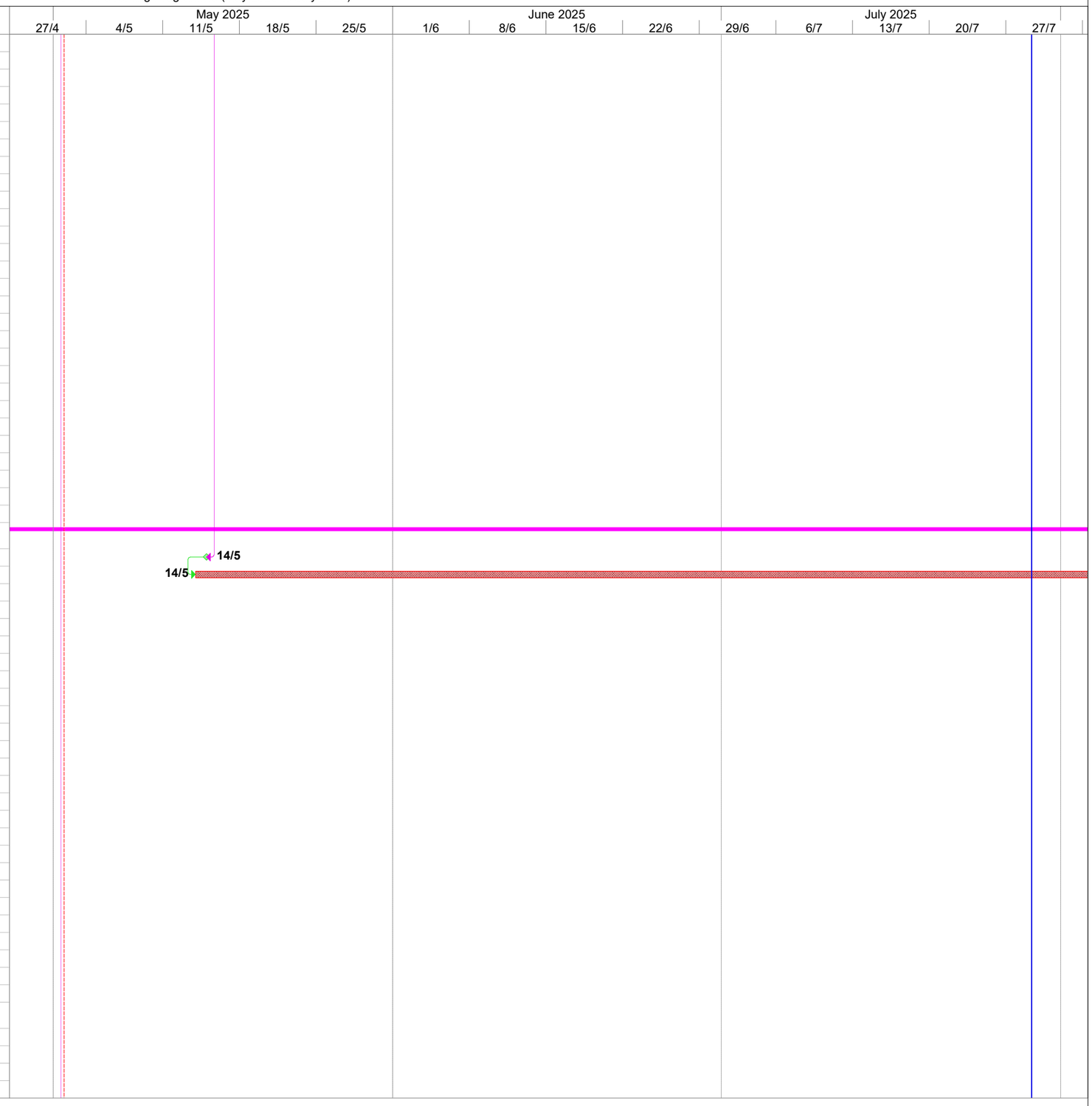


Task | Critical Task | Milestone | Summary | Progress

ID	Task Name	Duration	Start	Finish	Predecessors
808	CLP ducting and energization	28 days	Mon 2/6/25	Sun 29/6/25	807
809	**Portion 10**	**1384 days**	**Fri 30/7/21**	**Tue 13/5/25**	
810	Provision of site access [on starting date as per Contract]	7 days	Fri 30/7/21	Thu 5/8/21	95SS
811	Slope inspection & assessment work	50 days	Fri 6/8/21	Fri 24/9/21	810
812	Mobilization, access arrangements, logistic plan & Site Clearance	52 days	Sat 25/9/21	Mon 15/11/21	811
813	Preparation & submission of MS, Temp works, associated plans & d	37 days	Tue 16/11/21	Wed 22/12/21	812
814	Time Risk Allowance	16 days	Thu 23/12/21	Fri 7/1/22	813
815	Main access blocked by C1at hiking trail	181 days	Mon 3/7/23	Sat 30/12/23	
816	Engineer's AIP of MS, Temp.works, plans & associated docs	21 days	Sat 8/1/22	Fri 28/1/22	814
817	Demolition and removal of disused water pipe and sprinkler system	160 days	Sat 29/1/22	Thu 7/7/22	816
818	Repair of cracks at drainage channel and concrete berm	884 days	Thu 1/9/22	Fri 31/1/25	817
819	Reinstatement of joint sealant at drainage channel	899 days	Fri 16/9/22	Sun 2/3/25	817
820	Installation of display sign for slope registration	59 days	Wed 1/1/25	Fri 28/2/25	
821	**Slope Works at Feature No. 11NE-D/C947 (420m)**	**463 days**	**Sun 31/12/23**	**Sun 6/4/25**	
822	Removal of damaged wire mesh and installation of wire mesh (Stage 1 at +330 mPD)	30 days	Sun 31/12/23	Mon 29/1/24	815
823	Installation of wire mesh (Stage 2 at +330mPD)	30 days	Tue 15/10/24	Wed 13/11/24	
824	Filling of void with cement soil	7 days	Tue 18/2/25	Mon 24/2/25	859
825	Reinstatement of concrete berm	14 days	Mon 24/3/25	Sun 6/4/25	824
826	Installation of hand railings	7 days	Sat 21/9/24	Fri 27/9/24	825
827	Repainting of handrailing	19 days	Mon 10/3/25	Fri 28/3/25	
828	**Slope Works at Feature No. 11NE-D/C976 (185m)**	**198 days**	**Sat 21/9/24**	**Sun 6/4/25**	
829	Construction of concrete berm	21 days	Sat 21/9/24	Fri 11/10/24	825
830	Installation of hand railings	7 days	Sat 12/10/24	Fri 18/10/24	829
831	Repainting of existing steel maintenance staircase	7 days	Mon 24/3/25	Sun 30/3/25	
832	Removal of existing handrailing and steel landing plates and re-construction	7 days	Mon 31/3/25	Sun 6/4/25	831
833	Construction of wire mesh	73 days	Thu 2/1/25	Sat 15/3/25	
834	**Slope Works at Feature No. 11NE-D/C977 (300m)**	**309 days**	**Sun 26/5/24**	**Sun 30/3/25**	
835	Construction of wire mesh	28 days	Sat 1/2/25	Sat 29/3/25	833
836	Construction of concrete berm	14 days	Sat 12/10/24	Fri 25/10/24	829
837	Construction of handrailing	7 days	Sun 26/5/24	Sat 1/6/24	
838	Repair drainage channel	7 days	Mon 24/3/25	Sun 30/3/25	
839	**Slope Works at Feature No. 11NE-D/C986 (190m)**	**332 days**	**Fri 3/5/24**	**Sun 30/3/25**	
840	Filling of void with cement soil	7 days	Mon 24/3/25	Sun 30/3/25	
841	Construction of concrete berm	14 days	Fri 3/5/24	Thu 16/5/24	
842	Installation of hand railings	6 days	Fri 26/7/24	Wed 31/7/24	
843	Construction of wire mesh	55 days	Mon 20/1/25	Sat 15/3/25	
844	**Slope Works at Feature No. 11NE-D/C1026 (60m)**	**441 days**	**Fri 18/8/23**	**Thu 31/10/24**	
845	Filling of void with cement soil	30 days	Wed 1/11/23	Thu 30/11/23	
846	Installation of non-biodegradable erosion control mat	30 days	Fri 1/12/23	Sat 30/12/23	845
847	Hydroseeding	30 days	Wed 2/10/24	Thu 31/10/24	
848	Repainting of handrailing	90 days	Fri 18/8/23	Wed 15/11/23	
849	**Slope Works at Feature No. 11NE-D/C987 (90m)**	**863 days**	**Fri 8/7/22**	**Sat 16/11/24**	
850	Construction of concrete berm	30 days	Mon 1/1/24	Tue 30/1/24	845
851	Installation of hand railings	7 days	Thu 8/2/24	Wed 14/2/24	850
852	Installation of non-biodegradable erosion control mat	30 days	Fri 8/7/22	Sat 6/8/22	817
853	Hydroseeding	16 days	Fri 1/11/24	Sat 16/11/24	
854	Repainting of handrailing	90 days	Fri 18/8/23	Wed 15/11/23	
855	**Slope Works at Feature No. 11NE-D/C871 (260m)**	**347 days**	**Sat 1/6/24**	**Tue 13/5/25**	
856	Construction of lockable gate	14 days	Tue 1/4/25	Mon 14/4/25	860
857	Removal/Repair of existing damaged hand railings	14 days	Tue 15/4/25	Mon 28/4/25	856
858	Installation of hand railings	60 days	Sat 1/6/24	Tue 30/7/24	
859	Reinstatement of concrete berm	15 days	Tue 29/4/25	Tue 13/5/25	857
860	Repainting of handrailing	85 days	Mon 6/1/25	Mon 31/3/25	
861	**Slope Works at Feature No. 11NE-D/C979 (45m)**	**294 days**	**Fri 18/8/23**	**Thu 6/6/24**	
862	Construction of concrete berm	14 days	Fri 17/5/24	Thu 30/5/24	
863	Installation of hand railings	7 days	Fri 31/5/24	Thu 6/6/24	862
864	Repainting of handrailing	90 days	Fri 18/8/23	Wed 15/11/23	
865	**Slope Works at Feature No. 11NE-D/C988 (370m)**	**21 days**	**Fri 31/5/24**	**Thu 20/6/24**	
866	Construction of concrete berm	14 days	Fri 31/5/24	Thu 13/6/24	862
867	Installation of hand railings	7 days	Fri 14/6/24	Thu 20/6/24	866

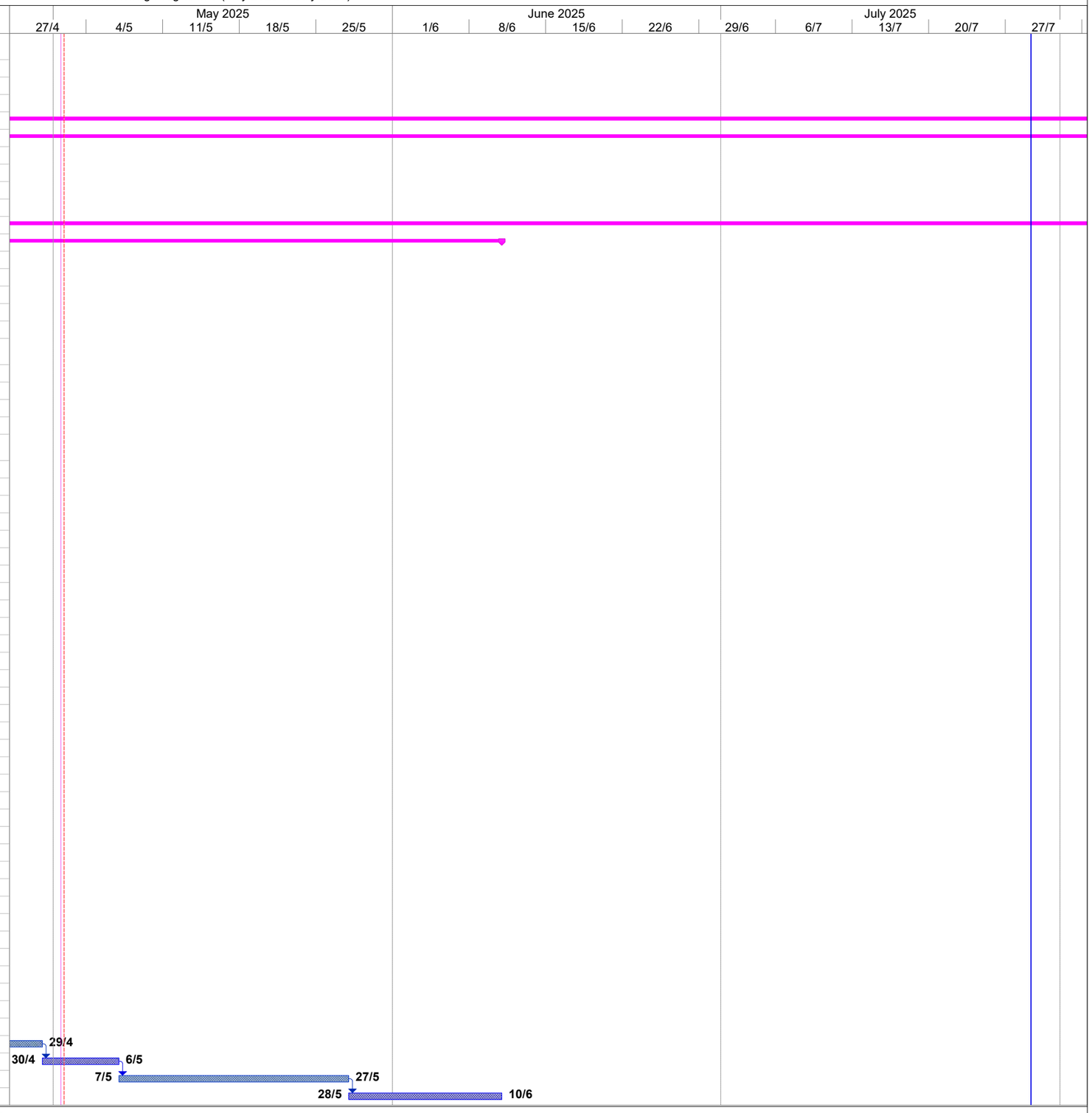
Task | Critical Task | Milestone | Summary | Progress

ID	Task Name	Duration	Start	Finish	Predecessors
868	**Slope Works at Feature No. 11NE-D/C1003 (265m)**	**28 days**	**Fri 14/6/24**	**Thu 11/7/24**	
869	Removal of disused pipes	21 days	Fri 14/6/24	Thu 4/7/24	866
870	Installation of hand railings	7 days	Fri 5/7/24	Thu 11/7/24	869
871	**Slope Works at Feature No. 11NE-D/FR657 (63m)**	**169 days**	**Thu 25/1/24**	**Thu 11/7/24**	
872	Filling of void with cement soil	7 days	Fri 5/7/24	Thu 11/7/24	869
873	Repainting of handrailing	140 days	Thu 25/1/24	Wed 12/6/24	
874	**Slope Works at Feature No. 11NE-D/C1006 (60m)**	**57 days**	**Thu 1/2/24**	**Thu 28/3/24**	
875	Construction of concrete berm (~30m)	28 days	Thu 1/2/24	Wed 28/2/24	
876	Installation of hand railings (~30m)	14 days	Thu 29/2/24	Wed 13/3/24	875
877	Repainting of handrailing	14 days	Thu 14/3/24	Wed 27/3/24	876
878	**Slope Works at Feature No. 11NE-D/C980 (55m)**	**104 days**	**Thu 29/2/24**	**Tue 11/6/24**	
879	Construction of concrete berm	14 days	Thu 29/2/24	Wed 13/3/24	875
880	Installation of hand railings	7 days	Thu 14/3/24	Wed 20/3/24	879
881	Repainting of handrailing	90 days	Thu 14/3/24	Tue 11/6/24	
882	**Slope Works at Feature No. 11NE-D/C174 (70m)**	**14 days**	**Thu 14/3/24**	**Wed 27/3/24**	
883	Reinstatement of sprayed concrete	14 days	Thu 14/3/24	Wed 27/3/24	879
884	**Slope Works at Feature No. 11NE-D/C688 (167m)**	**28 days**	**Wed 31/1/24**	**Tue 27/2/24**	
885	Constructiion of tree rings x9	28 days	Wed 31/1/24	Tue 27/2/24	
886	Reinstatement of sprayed concrete	7 days	Thu 17/8/23	Wed 23/8/23	
887	**Slope Works at Feature No. 11NE-D/C978 (350m)**	**1349 days**	**Fri 30/7/21**	**Tue 8/4/25**	
888	Construction of concrete berm	8 days	Fri 30/7/21	Fri 6/8/21	
889	Installation of hand railings	8 days	Fri 30/7/21	Fri 6/8/21	
890	Repairing of existing steel maintenance staircase	8 days	Tue 1/4/25	Tue 8/4/25	
891	**Slope Works at Feature No. 11NE-D/C1004 (375m)**	**7 days**	**Tue 1/4/25**	**Mon 7/4/25**	
892	Repainting of handrailing	7 days	Tue 1/4/25	Mon 7/4/25	
893	**Slope Works at Feature No. 11NE-D/C998 (409m)**	**760 days**	**Mon 14/2/22**	**Thu 14/3/24**	
894	Construction of concrete maintenance staircase	19 days	Mon 14/2/22	Fri 4/3/22	
895	Handrailing	14 days	Fri 1/3/24	Thu 14/3/24	
896	**Section of Works 5AI - Establishment Works for all Landscape Softworks in Section 5A of the Works**	**1870 days?**	**Fri 30/7/21**	**Fri 23/10/26**	
897	Commencement of Establishment Work for Section 5A	0 days	Wed 14/5/25	Wed 14/5/25	809FF+1 day
898	Establishment Work Duration for Section 5A	365 days	Wed 14/5/25	Thu 4/6/26	897SS-1 day
899	Completion of Works in Section 5A	0 days	Thu 4/6/26	Thu 4/6/26	898
900	**Section of Works 5B - Portion 11**	**954 days**	**Sun 27/2/22**	**Mon 7/10/24**	
901	Portion 11	954 days	**Sun 27/2/22**	**Mon 7/10/24**	
902	Provision of site access [212 days after starting date as per Contr	0 days	Sun 27/2/22	Sun 27/2/22	
903	Portion 9 delay (Handover site to other Contractor)	231.47 days	Tue 14/3/23	Sat 31/8/24	
904	Provision of site access and stockpile area for works at Portion 9	1 day	Mon 7/10/24	Mon 7/10/24	903
905	**Section of Works 6 - Portion 7**	**494 days**	**Tue 29/11/22**	**Fri 5/4/24**	
906	**Portion 7**	**494 days**	**Tue 29/11/22**	**Fri 5/4/24**	
907	Access date [487 days after starting date as per Contract]	0 days	Tue 29/11/22	Tue 29/11/22	112SS
908	Deferred possession (PMI 58)	90 days	Tue 29/11/22	Sun 26/2/23	907
909	Provision of site access	7 days	Mon 27/2/23	Sun 5/3/23	908
910	Mobilization& Site Clearance	60 days	Mon 6/3/23	Thu 4/5/23	909
911	Time Risk Allowance	15 days	Fri 5/5/23	Fri 19/5/23	910
912	Excavation/backfilling and compaction of material	30 days	Fri 1/12/23	Sat 30/12/23	910,911
913	Construction of U-channels with cover and catchpits	30 days	Sun 31/12/23	Mon 29/1/24	912
914	Road Paving work and asscociates street furniture	15 days	Tue 19/3/24	Fri 5/4/24	
915	Soft landscaping works	10 days	Wed 20/3/24	Fri 29/3/24	
916	**Irrigation system**	**196 days**	**Sat 16/9/23**	**Fri 29/3/24**	
917	Contractor's design	45 days	Sat 16/9/23	Mon 30/10/23	
918	Approval of WWO542	30 days	Wed 1/11/23	Thu 30/11/23	917
919	Approval of Form WWO 046	21 days	Fri 1/12/23	Thu 21/12/23	918
920	Underground water supply for irrigation	10 days	Fri 22/12/23	Sun 31/12/23	919
921	Irrigation system	10 days	Fri 1/3/24	Sun 10/3/24	
922	Modification of Manhole and catchpits	12 days	Mon 18/3/24	Fri 29/3/24	
923	**Section of Works 6A - Establishment Works for all Landscape Softworks in Section 6 of the Works**	**858 days**	**Tue 29/11/22**	**Fri 4/4/25**	
924	Commencement of Establishment Work for Section 6	0 days	Tue 29/11/22	Tue 29/11/22	
925	Completion of Works in Section 6	0 days	Fri 5/4/24	Fri 5/4/24	924
926	Establishment Work Duration for Section 6	365 days	Fri 5/4/24	Fri 4/4/25	925
927	**Section of Works 7A - Portions 13a, 14 (DELETED)**	**479 days**	**Fri 30/7/21**	**Sun 20/11/22**	



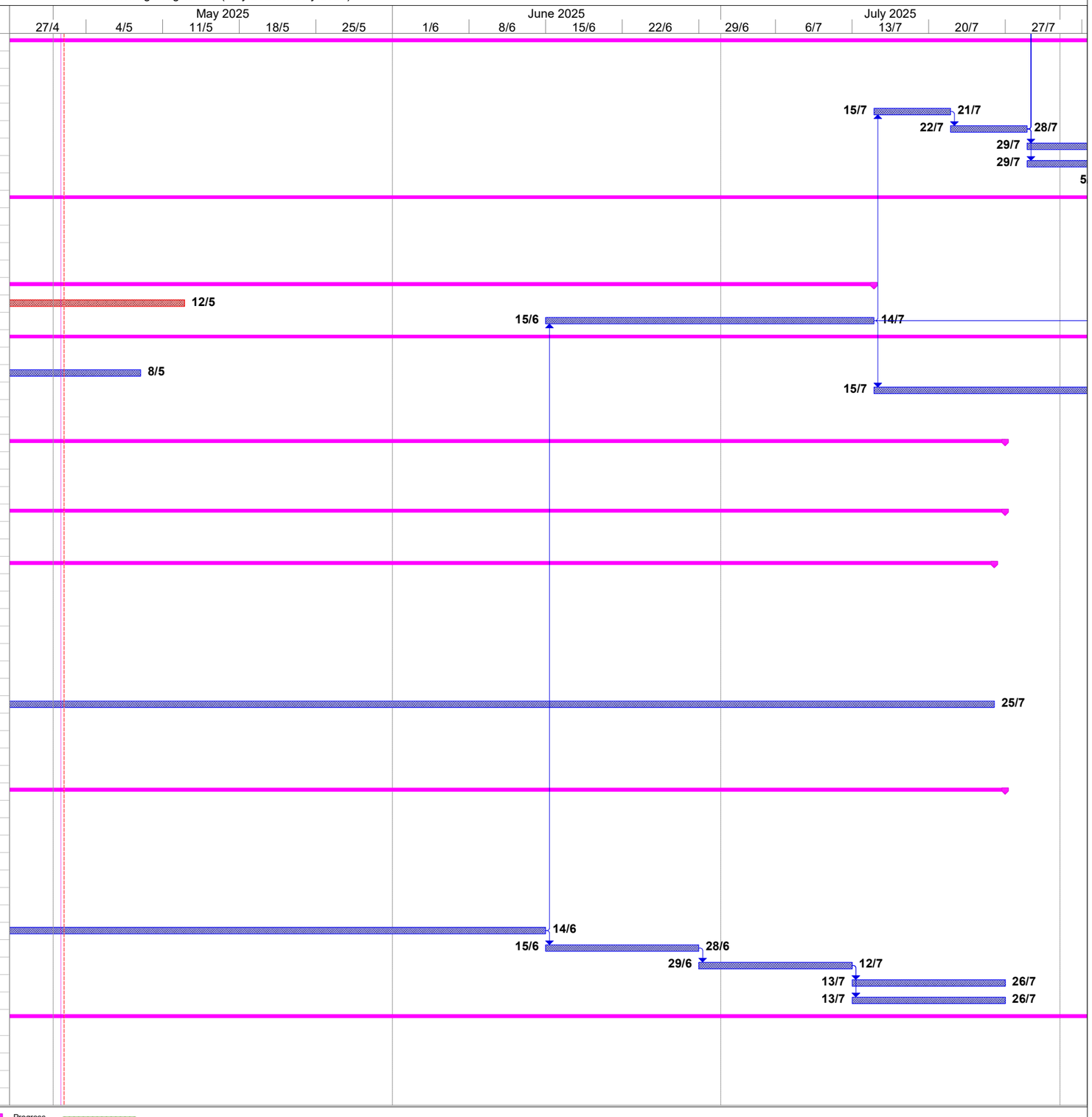
Task | Critical Task | Milestone | Summary | Progress

ID	Task Name	Duration	Start	Finish	Predecessors
951	**Section of Works 7AI - Establishment Works for all Landscape Softworks in Section 7A of the Works (DELETED)**	**365 days**	**Fri 30/7/21**	**Fri 29/7/22**	
952	Commencement of Establishment Work for Section 7A	0 days	Fri 30/7/21	Fri 30/7/21	
953	Establishment Work Duration for Section 7A	365 days	Fri 30/7/21	Fri 29/7/22	
954	Completion of Works in Section 7A	0 days	Fri 29/7/22	Fri 29/7/22	953
955	**Section of Works 7B - Portions 13b, 15**	**1295 days**	**Sat 26/2/22**	**Fri 12/9/25**	
956	Portion 13b & 15	1295 days	**Sat 26/2/22**	**Fri 12/9/25**	
957	Provision of site access [212 days after starting date as per Contr	7 days	Sun 27/2/22	Sat 5/3/22	135
958	Deferred possession	52 days	Sat 26/2/22	Mon 18/4/22	135SS
959	Mobilization& Site Clearance	21 days	Tue 19/4/22	Mon 9/5/22	958
960	Time Risk Allowance	15 days	Tue 10/5/22	Tue 24/5/22	959,365
961	**Portion 13b**	**1207 days**	**Wed 25/5/22**	**Fri 12/9/25**	**960**
962	**Elevated walkway**	**1113 days**	**Wed 25/5/22**	**Tue 10/6/25**	
963	Modification of existing retaining wall RWA10 (PMI 033)	60 days	Wed 25/5/22	Sat 23/7/22	959,365
964	**Modification of existing retaining wall RWA9 & 10**	**447 days**	**Sun 24/7/22**	**Fri 13/10/23**	**959,365,960,963**
965	**Wall RWA10**	**447 days**	**Sun 24/7/22**	**Fri 13/10/23**	
966	Excavation	100 days	Sun 24/7/22	Mon 31/10/22	963
967	Cutting away existing coping by wire sawing machine	75 days	Tue 1/11/22	Sat 14/1/23	966
968	Hacking away existing wall stem by hydraulic breaker (existing vertical bar to be retained for	45 days	Sun 15/1/23	Tue 28/2/23	967
969	Construction of new RC wall stem	86 days	Mon 17/7/23	Tue 10/10/23	968
970	Backfilling	4 days	Tue 10/10/23	Fri 13/10/23	
971	**Wall RWA9**	**165 days**	**Thu 16/3/23**	**Sun 27/8/23**	
972	Excavation	15 days	Thu 16/3/23	Thu 30/3/23	968FS+15 days
973	Hacking away existing wall stem by hydraulic breaker (existing vertical bar to be retained for	60 days	Fri 31/3/23	Mon 29/5/23	972
974	Construction of new RC wall stem	75 days	Sat 10/6/23	Wed 23/8/23	973
975	Backfilling	4 days	Thu 24/8/23	Sun 27/8/23	974
976	**Bearing**	**252 days**	**Thu 16/3/23**	**Wed 22/11/23**	
977	Material submission for appproval	30 days	Thu 16/3/23	Fri 14/4/23	
978	Fabrication	106 days	Sat 15/4/23	Sat 29/7/23	977
979	Testing	29 days	Sun 30/7/23	Sun 27/8/23	978
980	Installation	7 days	Wed 1/11/23	Tue 7/11/23	979,970,975
981	Grouting to bearing bases and curing	15 days	Wed 8/11/23	Wed 22/11/23	980
982	**Precast beams**	**536 days**	**Wed 7/6/23**	**Sat 23/11/24**	
983	Submission for approval	78 days	Wed 7/6/23	Wed 23/8/23	
984	Fabrication	58 days	Wed 4/10/23	Thu 30/11/23	983
985	Post-tensioning and grouting	59 days	Tue 31/10/23	Thu 28/12/23	984FS-31 days
986	Capping ends	3 days	Fri 29/12/23	Sun 31/12/23	985
987	Installation	10 days	Mon 15/1/24	Wed 24/1/24	986,981
988	Grouting to bearing tops and curing	15 days	Thu 25/1/24	Thu 8/2/24	987
989	Fabrication of permanent formwork	30 days	Fri 1/3/24	Sat 30/3/24	
990	Installation of permanent formwork (stage 1)	31 days	Sun 31/3/24	Tue 30/4/24	989
991	Casting of in-situ tie beams & slab (Stage 1)	15 days	Wed 1/5/24	Wed 15/5/24	990
992	Removal of Formwork (Stage 1)	7 days	Thu 16/5/24	Wed 22/5/24	991
993	Edge beam painting suspended due to inclement weather	3 days	Wed 19/6/24	Fri 21/6/24	992
994	Edge beam painting (Stage 1)	3 days	Sat 22/6/24	Mon 24/6/24	993
995	Stage 2 TTA & Falsework	13 days	Fri 19/7/24	Wed 31/7/24	994
996	Installation of permanent formwork (stage 2)	21 days	Thu 1/8/24	Wed 21/8/24	995
997	Casting of in-situ tie beams & slab (Stage 2)	28 days	Thu 1/8/24	Wed 28/8/24	995
998	Removal of Formwork (Stage 2)	4 days	Thu 29/8/24	Sun 1/9/24	997
999	Edge beam painting (Stage 2)	3 days	Mon 23/9/24	Wed 25/9/24	
1000	Removal of Falsework and TTA	6 days	Wed 25/9/24	Mon 30/9/24	
1001	U-channels	21 days	Mon 24/2/25	Sun 16/3/25	
1002	movement joint	7 days	Mon 17/3/25	Sun 23/3/25	1001
1003	Planters design submission	64 days	Mon 7/10/24	Mon 9/12/24	
1004	Planters construction	45 days	Mon 17/2/25	Wed 2/4/25	
1005	Coping Design	30 days	Mon 10/2/25	Tue 11/3/25	
1006	Coping fabrication	28 days	Wed 12/3/25	Tue 8/4/25	1005
1007	Finsihing on planters	21 days	Wed 9/4/25	Tue 29/4/25	1006
1008	soft lanscape	7 days	Wed 30/4/25	Tue 6/5/25	1007
1009	Paving	21 days	Wed 7/5/25	Tue 27/5/25	1008
1010	Railing	14 days	Wed 28/5/25	Tue 10/6/25	1009



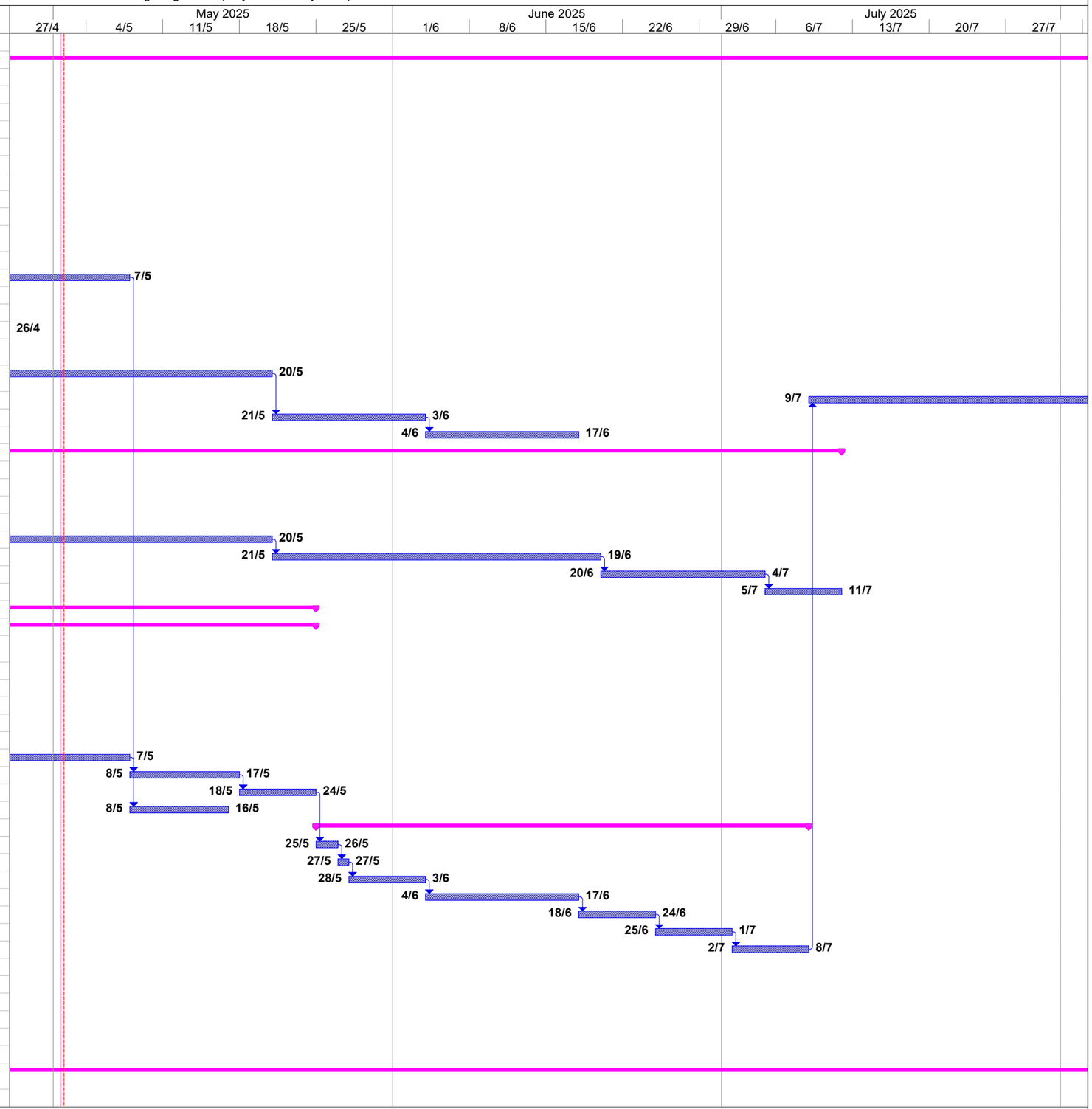
Task | Critical Task | Milestone | Summary | Progress

ID	Task Name	Duration	Start	Finish	Predecessors
1011	**Portion 14**	**253 days**	**Mon 9/12/24**	**Mon 18/8/25**	
1012	Demolition of Existing u-channel	14 days	Mon 9/12/24	Tue 31/12/24	
1013	Construction of storm manhole and catchpit	97 days	Mon 9/12/24	Sat 15/3/25	
1014	Construction of u-channel	14 days	Mon 6/1/25	Thu 27/3/25	1013
1015	Installation of cable drawpit	7 days	Tue 15/7/25	Mon 21/7/25	1027
1016	Installation of Lamp post footing	7 days	Tue 22/7/25	Mon 28/7/25	1015
1017	Erection of Lamp post	7 days	Tue 29/7/25	Mon 4/8/25	1016
1018	Irrigation	7 days	Tue 29/7/25	Mon 4/8/25	1016
1019	Paving blocks	14 days	Tue 5/8/25	Mon 18/8/25	1018
1020	**Covered Walkway under PMQP 004**	**709 days**	**Thu 5/10/23**	**Fri 12/9/25**	
1021	Awaiting finished level from PM due to interfacing party	138 days	Thu 5/10/23	Mon 19/2/24	
1022	**Contractor Design**	**213 days**	**Thu 12/9/24**	**Sat 12/4/25**	
1023	Submission	178 days	Thu 12/9/24	Sat 8/3/25	
1024	Approval	14 days	Sun 30/3/25	Sat 12/4/25	1023
1025	**Construction**	**93 days**	**Sun 13/4/25**	**Mon 14/7/25**	
1026	Footing	30 days	Sun 13/4/25	Mon 12/5/25	1024
1027	Superstructure	30 days	Sun 15/6/25	Mon 14/7/25	1062
1028	**Lighting system**	**187 days**	**Mon 10/3/25**	**Fri 12/9/25**	**1026SS**
1029	Design Submission	30 days	Mon 10/3/25	Tue 8/4/25	
1030	Approval	30 days	Wed 9/4/25	Thu 8/5/25	1029
1031	Installation of Lighting	30 days	Tue 15/7/25	Wed 13/8/25	1027
1032	Energization	15 days	Thu 14/8/25	Thu 28/8/25	1031,1017,1027
1033	Testing and Commissioning	15 days	Fri 29/8/25	Fri 12/9/25	1032
1034	**Additional works under PMQP 004**	**1007 days**	**Mon 24/10/22**	**Sat 26/7/25**	
1035	Issuance of PMQP 004	0 days	Mon 24/10/22	Mon 24/10/22	
1036	Hoarding and gate around Site G2	153 days	Wed 1/3/23	Mon 31/7/23	1035
1037	Greywater drainage pipes and manholes at Portion 12	60 days	Thu 1/2/24	Sun 31/3/24	
1038	**Revised slope works including U-channel & catchpit**	**1007 days**	**Mon 24/10/22**	**Sat 26/7/25**	
1039	Late handover of site by others	195 days	Mon 24/10/22	Sat 6/5/23	1035SS
1040	Installation of monitoring instruments	14 days	Sun 17/12/23	Sat 30/12/23	1039
1041	**Slope B3**	**512 days**	**Fri 1/3/24**	**Fri 25/7/25**	
1042	Works area handed over by others	46 days	Fri 1/3/24	Mon 15/4/24	1040
1043	Confirmation of Slope Profiles	38 days	Sat 27/7/24	Mon 2/9/24	1042
1044	Preparation of Slope details	69 days	Fri 24/5/24	Wed 31/7/24	1043
1045	Form slope formation	18 days	Mon 2/9/24	Thu 19/9/24	1044
1046	Construction of sub-soil & laying filter layer	28 days	Fri 20/9/24	Thu 17/10/24	1045
1047	Construction of no fine concrete for sub-soil	7 days	Fri 18/10/24	Thu 24/10/24	1046
1048	Backfill & compacted soil & SRT (1-4 layers)	57 days	Mon 2/12/24	Mon 27/1/25	1047
1049	Backfill & compacted soil & SRT (5-37 layers)	124 days	Mon 24/3/25	Fri 25/7/25	1047
1050	Construction of concrete berm/ handrails	14 days	Tue 28/1/25	Mon 10/2/25	1048
1051	Construction of surface drain	14 days	Tue 11/2/25	Mon 24/2/25	1050
1052	Soil mix	14 days	Tue 25/2/25	Mon 10/3/25	1051
1053	Planting	14 days	Tue 17/12/24	Mon 30/12/24	
1054	**Slope B4**	**572 days**	**Tue 2/1/24**	**Sat 26/7/25**	
1055	Preparation of Slope details	23 days	Tue 2/1/24	Wed 24/1/24	
1056	Form slope formation	17 days	Tue 20/2/24	Thu 7/3/24	
1057	Construction of sub-soil & laying filter layer	9 days	Tue 20/2/24	Wed 28/2/24	
1058	Construction of no fine concrete for sub-soil	9 days	Tue 20/2/24	Wed 28/2/24	
1059	Backfill & compacted soil & SRT (4 layers)	49 days	Fri 1/3/24	Thu 18/4/24	
1060	Inclement weather	156 days	Fri 19/4/24	Sat 21/9/24	1059
1061	Backfill & compacted soil & SRT (5-9 layers)	90 days	Mon 28/10/24	Sat 25/1/25	1060
1062	Backfill & compacted soil & SRT (10-29 layers) -resu	80 days	Thu 27/3/25	Sat 14/6/25	1060
1063	Construction of concrete berm/ handrails	14 days	Sun 15/6/25	Sat 28/6/25	1062
1064	Construction of surface drain	14 days	Sun 29/6/25	Sat 12/7/25	1063
1065	Soil mix	14 days	Sun 13/7/25	Sat 26/7/25	1064
1066	Planting	14 days	Sun 13/7/25	Sat 26/7/25	1064
1067	**Revised access road including roundabout, drainage, sewerage and water mains**	**998 days**	**Mon 14/11/22**	**Thu 7/8/25**	
1068	Drainage	184 days	Wed 1/3/23	Thu 31/8/23	
1069	manholes connection for drainage	184 days	Wed 1/3/23	Thu 31/8/23	
1070	sewerage (Stage 1)	184 days	Wed 1/3/23	Thu 31/8/23	
1071	sewerage (Stage 2 -connect to G2-B4)	30 days	Mon 13/1/25	Tue 11/2/25	



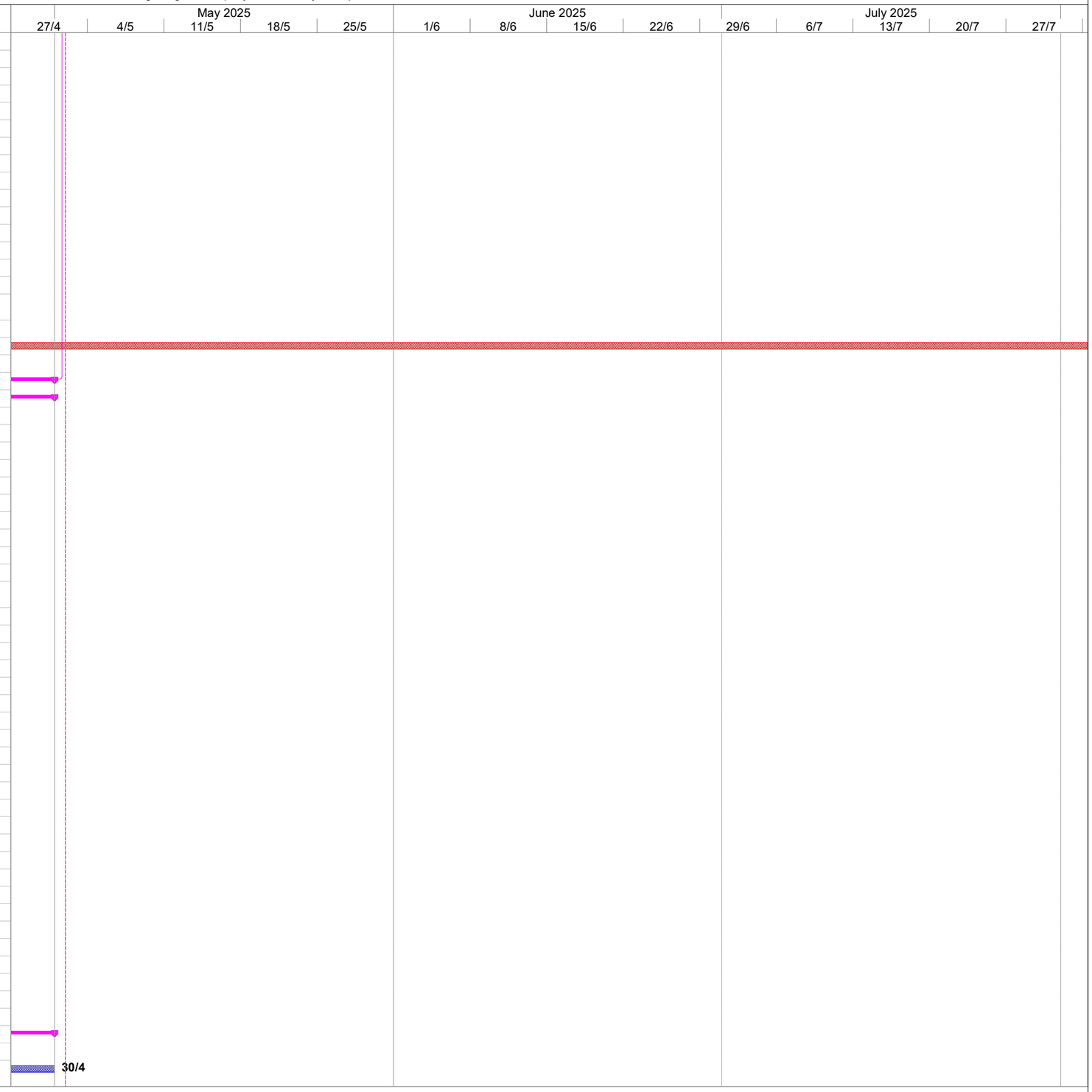
Task | Critical Task | Milestone | Summary | Progress

ID	Task Name	Duration	Start	Finish	Predecessors
1072	Concrete pavement at roundabout (Stage 1)	61 days	Thu 1/6/23	Mon 31/7/23	
1073	**footpath**	**998 days**	**Mon 14/11/22**	**Thu 7/8/25**	
1074	Implementation of TTA	1 day	Mon 12/12/22	Mon 12/12/22	1035
1075	UU detection	7 days	Tue 13/12/22	Mon 19/12/22	1074
1076	Trial pit	14 days	Tue 20/12/22	Mon 2/1/23	1075
1077	HYD condition letter and WSD's approval	60 days	Mon 8/7/24	Mon 30/9/24	
1078	Change design by Highways Department Lighting	67 days	Fri 29/9/23	Mon 4/12/23	1077
1079	TTA design review and revise	50 days	Tue 5/12/23	Tue 23/1/24	1078
1080	Implementation of TTA	1 day	Wed 24/1/24	Wed 24/1/24	1079
1081	UU detection	3 days	Thu 25/1/24	Sat 27/1/24	1080
1082	Trial pit	7 days	Sun 28/1/24	Sat 3/2/24	1081
1083	Completion of handover of existing watermain to WSD, subject to C1(Since commencement of G2)	0 days	Fri 1/3/24	Fri 1/3/24	1082
1084	G-2 Interface issue	199 days	Sat 2/3/24	Mon 16/9/24	1083
1085	Watermain along new footpath at Slope B4	45 days	Mon 24/3/25	Wed 7/5/25	
1086	UU protection, relocation of hydrant	30 days	Mon 23/12/24	Tue 21/1/25	
1087	Cable for relocation of lamp post	27 days	Mon 17/3/25	Sat 12/4/25	1071
1088	Relocation of Lamp post	14 days	Sun 13/4/25	Sat 26/4/25	1087
1089	Installation of site UU lead in (by others) - Stage 1 (Telecom ,CLP, gas)	60 days	Mon 25/11/24	Thu 23/1/25	
1090	Installation of site UU lead in (by others) - Stage 2 (Telecom ,CLP, gas)	30 days	Mon 21/4/25	Tue 20/5/25	
1091	Installation of site UU lead in (by others) - Stage 3 (CLP	30 days	Wed 9/7/25	Thu 7/8/25	1122
1092	New Lamp Post (Highways)	14 days	Wed 21/5/25	Tue 3/6/25	1090
1093	paving	14 days	Wed 4/6/25	Tue 17/6/25	1092
1094	**Park Lighting system (DOS)**	**971 days**	**Mon 14/11/22**	**Fri 11/7/25**	
1095	Application for electricity power supply	421 days	Mon 14/11/22	Mon 8/1/24	619SS
1096	Design Change of Layout (PMI-085)	1 day	Mon 8/1/24	Mon 8/1/24	620SS
1097	Park Lighting Design	612 days	Mon 14/11/22	Wed 17/7/24	621SS
1098	LCSD's approval of lighting system	30 days	Thu 18/7/24	Fri 16/8/24	622SS
1099	Installation including ducting and draw pit	30 days	Mon 21/4/25	Tue 20/5/25	1098,1004
1100	Installation of lighting	30 days	Wed 21/5/25	Thu 19/6/25	1099
1101	Energization	15 days	Fri 20/6/25	Fri 4/7/25	1100
1102	Testing and Commissioning	7 days	Sat 5/7/25	Fri 11/7/25	1101
1103	**Portion 15- Sewerage Works**	**356 days**	**Mon 3/6/24**	**Sat 24/5/25**	
1104	**Pipe pile wall**	**356 days**	**Mon 3/6/24**	**Sat 24/5/25**	
1105	Temp Work re-design due to unforeseen ground condition	141 days	Mon 3/6/24	Mon 21/10/24	
1106	Implementation of TTA	2 days	Mon 21/10/24	Tue 22/10/24	
1107	UU Detection	1 day	Wed 23/10/24	Wed 23/10/24	1106
1108	Trial pit	7 days	Thu 24/10/24	Wed 30/10/24	1107
1109	Pipe Plie Installation	14 days	Sun 3/11/24	Sat 16/11/24	1108
1110	Excavation	56 days	Sun 17/11/24	Sat 11/1/25	1109
1111	Sewerage manhole (G2-B4) and HDPE pipe	45 days	Mon 24/3/25	Wed 7/5/25	1110
1112	Backfill	10 days	Thu 8/5/25	Sat 17/5/25	1111
1113	roadwork reinstatement	7 days	Sun 18/5/25	Sat 24/5/25	1112
1114	Watermain pipe works (uphill of On Kin Road)	9 days	Thu 8/5/25	Fri 16/5/25	1085
1115	**Watermain downhill of On Kin Road**	**45 days**	**Sun 25/5/25**	**Tue 8/7/25**	
1116	Implementation of TTA	2 days	Sun 25/5/25	Mon 26/5/25	1113
1117	UU Detection	1 day	Tue 27/5/25	Tue 27/5/25	1116
1118	Trial pit	7 days	Wed 28/5/25	Tue 3/6/25	1117
1119	Watermain pipe works	14 days	Wed 4/6/25	Tue 17/6/25	1118
1120	WSD connection	7 days	Wed 18/6/25	Tue 24/6/25	1119
1121	Backfill	7 days	Wed 25/6/25	Tue 1/7/25	1120
1122	roadwork reinstatement	7 days	Wed 2/7/25	Tue 8/7/25	1121
1123	**Irrigation system**	**699 days**	**Fri 19/5/23**	**Wed 16/4/25**	
1124	Contractor's design	76 days	Fri 19/5/23	Wed 2/8/23	
1125	Approval of WWO542	30 days	Thu 3/8/23	Fri 1/9/23	1124
1126	Approval of Form WWO 046	21 days	Sat 2/9/23	Fri 22/9/23	1125
1127	Underground water supply for irrigation	60 days	Sat 23/9/23	Tue 21/11/23	
1128	Irrigation system	45 days	Mon 3/3/25	Wed 16/4/25	
1129	**Section of Works 7BI - Establishment Works for all Landscape Softworks in Section 7B of the Works**	**1870 days?**	**Fri 30/7/21**	**Fri 23/10/26**	
1130	Commencement of Establishment Work for Section 7B	0 days	Fri 12/9/25	Fri 12/9/25	961



Task | Critical Task | Milestone | Summary | Progress

ID	Task Name	Duration	Start	Finish	Predecessors
1131	Establishment Work Duration for Section 7B	365 days	Fri 12/9/25	Fri 23/10/26	1130SS-1 day
1132	Completion of Works in Section 7B	0 days	Fri 23/10/26	Fri 23/10/26	1131
1133	**Section of Works 8 - Portion 16**	**556 days**	**Thu 16/6/22**	**Sat 23/12/23**	
1134	Portion 16	556 days	**Thu 16/6/22**	**Sat 23/12/23**	
1135	Site access date [321 days after starting date as per Contract]	0 days	Thu 16/6/22	Thu 16/6/22	151SS
1136	Time Risk Allowance	24 days	Thu 16/6/22	Sat 9/7/22	1135
1137	Late handover of site by others	350 days	Thu 16/6/22	Wed 31/5/23	1136
1138	Mobilization& Site Clearance	4 days	Thu 1/6/23	Sun 4/6/23	1137
1139	Removal of existing rock slope	45 days	Mon 5/6/23	Wed 19/7/23	1138
1140	Construction of fill slope A7	90 days	Thu 20/7/23	Tue 17/10/23	1139
1141	Construction of fill slope A8	80 days	Sun 30/7/23	Tue 17/10/23	1140FF
1142	Construction of slope surface drainage system	45 days	Wed 18/10/23	Fri 1/12/23	1140
1143	Hydroseeding	22 days	Sat 2/12/23	Sat 23/12/23	1142
1144	Chain link fence	30 days	Fri 24/11/23	Sat 23/12/23	1142FF
1145	Thrust boring of additional pipe from S201D to MHT1	78 days	Mon 2/10/23	Mon 18/12/23	
1146	**Section of Works 8A - Establishment Works for all Landscape Softworks in Section 8 of the Works**	**365 days**	**Fri 27/9/24**	**Fri 26/9/25**	
1147	Commencement of Establishment Work for Section 8	0 days	Fri 27/9/24	Fri 27/9/24	1148SS
1148	Establishment Work Duration for Section 8	365 days	Fri 27/9/24	Fri 26/9/25	1143
1149	Completion of Works in Section 8	0 days	Fri 26/9/25	Fri 26/9/25	1148FF
1150	**Section of Works 9 - Portion 17**	**1371 days**	**Fri 30/7/21**	**Wed 30/4/25**	
1151	**Portion 17**	**1371 days**	**Fri 30/7/21**	**Wed 30/4/25**	
1152	Provision of site access [212 days after starting date as per Cc	0 days	Sun 27/2/22	Sun 27/2/22	162SS
1153	Deferred possession	30 days	Sun 27/2/22	Mon 28/3/22	1152
1154	Slope inspection & assessment work & Tree Survey	23 days	Tue 29/3/22	Wed 20/4/22	1153
1155	Mobilization, access & Site Clearance	15 days	Thu 21/4/22	Thu 5/5/22	1154
1156	Time Risk Allowance	14 days	Fri 6/5/22	Thu 19/5/22	1154,1155
1157	Access blocked by C1 at hiking trail	181 days	Mon 3/7/23	Sat 30/12/23	
1158	Demolition and removal of disused water pipe and sprinkler sy	50 days	Fri 20/5/22	Fri 8/7/22	1156
1159	Repair of cracks at drainage channel and concrete berm	777 days	Sat 14/1/23	Fri 28/2/25	1158
1160	Reinstatemnt of joint sealant at drainage channel	776 days	Sun 15/1/23	Fri 28/2/25	
1161	Installation of display sign for slope registration	60 days	Tue 31/12/24	Fri 28/2/25	
1162	Reinstatement of eroded soil berm due to inclement weather (PMI 117)	128 days	Thu 7/9/23	Fri 12/1/24	
1163	**Slope Works at Feature No. 11NE-D/C948 (310m)**	**352 days**	**Sun 31/12/23**	**Mon 16/12/24**	
1164	Construction of concrete berm	14 days	Thu 25/7/24	Wed 7/8/24	1216
1165	Repainting of existing steel maintenance staircase	7 days	Tue 10/12/24	Mon 16/12/24	1164
1166	Construction of wire mesh	352 days	Sun 31/12/23	Mon 16/12/24	1157
1167	**Slope Works at Feature No. 11NE-D/C949 (603m)**	**1154 days**	**Fri 30/7/21**	**Wed 25/9/24**	
1168	Construction of concrete berm	14 days	Fri 30/7/21	Thu 12/8/21	
1169	Installation of hand railings	7 days	Fri 13/8/21	Thu 19/8/21	1168
1170	Construction of wire mesh	30 days	Tue 27/8/24	Wed 25/9/24	1166,1169
1171	**Slope Works at Feature No. 11NE-D/C981 (390m)**	**1170 days**	**Fri 13/8/21**	**Fri 25/10/24**	
1172	Construction of concrete berm	14 days	Fri 13/8/21	Thu 26/8/21	1168
1173	Installation of hand railings	7 days	Fri 27/8/21	Thu 2/9/21	1172
1174	Construction of wire mesh	30 days	Thu 26/9/24	Fri 25/10/24	1170
1175	**Slope Works at Feature No. 11NE-B/C1013 (340m)**	**1186 days**	**Fri 27/8/21**	**Sun 24/11/24**	
1176	Construction of wire mesh	30 days	Sat 26/10/24	Sun 24/11/24	1174
1177	Construction of concrete berm	14 days	Fri 27/8/21	Thu 9/9/21	1172
1178	Installation of hand railings	7 days	Fri 10/9/21	Thu 16/9/21	1177
1179	Construction of concrete maintenance staircase with hand	33 days	Mon 19/2/24	Fri 22/3/24	
1180	**Slope Works at Feature No. 11NE-B/C902 (360m)**	**326 days**	**Wed 24/1/24**	**Sat 14/12/24**	
1181	Filling of void with concrete	20 days	Mon 25/11/24	Sat 14/12/24	
1182	Construction of concrete berm	14 days	Wed 24/1/24	Tue 6/2/24	
1183	Installation of hand railings	7 days	Wed 7/2/24	Tue 13/2/24	
1184	Repainting of existing steel maintenance staircase	14 days	Thu 28/3/24	Wed 10/4/24	
1185	**Slope Works at Feature No. 11NE-B/C224 (40m)**	**14 days**	**Wed 16/10/24**	**Tue 29/10/24**	
1186	Reinstatement of sprayed concrete	14 days	Wed 16/10/24	Tue 29/10/24	
1187	**Slope Works at Feature No. 11NE-B/C225 (60m)**	**183 days**	**Wed 30/10/24**	**Wed 30/4/25**	
1188	Reinstatement of sprayed concrete	14 days	Wed 30/10/24	Tue 12/11/24	1186
1189	Reinstatement of damaged granite stone planter wall and granoite stone facing	73 days	Mon 17/2/25	Wed 30/4/25	



Task | Critical Task | Milestone | Summary | Progress

ID	Task Name	Duration	Start	Finish	Predecessors
1190	Make good and provide cover for existing damaged U-channel	108 days	Mon 13/1/25	Wed 30/4/25	
1191	**Slope Works at Feature No. 11NE-B/C1014 (90m)**	**14 days**	**Wed 13/11/24**	**Tue 26/11/24**	
1192	Remove water pump & electric box	14 days	Wed 13/11/24	Tue 26/11/24	1188
1193	**Slope Works at Feature No. 11NE-B/C901 (290m)**	**518 days**	**Fri 2/6/23**	**Thu 31/10/24**	
1194	Installation of non-biodegradable erosion control mat	90 days	Fri 2/6/23	Wed 30/8/23	
1195	Hydroseeding	30 days	Wed 2/10/24	Thu 31/10/24	
1196	Installation of hand railings	36 days	Thu 7/9/23	Thu 12/10/23	
1197	Repainting of handrailing	20 days	Sun 22/10/23	Fri 10/11/23	
1198	Filling of void with concrete	37 days	Tue 2/1/24	Wed 7/2/24	
1199	Reinstatement of concrete berm	14 days	Thu 6/6/24	Wed 19/6/24	1198
1200	Construction of lockable gate	7 days	Thu 20/6/24	Wed 26/6/24	1199
1201	**Slope Works at Feature No. 11NE-B/C900 (335m)**	**892 days**	**Sat 9/7/22**	**Mon 16/12/24**	
1202	Installation of non-biodegradable erosion control mat	78 days	Sun 12/2/23	Sun 30/4/23	
1203	Hydroseeding	30 days	Fri 1/11/24	Sat 30/11/24	
1204	Installation of hand railings	60 days	Sat 9/7/22	Tue 6/9/22	
1205	Reinstatement of concrete berm	7 days	Thu 20/6/24	Wed 26/6/24	1199
1206	Repainting of handrailing	30 days	Wed 10/5/23	Thu 8/6/23	
1207	Construction of Wire mesh	15 days	Mon 2/12/24	Mon 16/12/24	
1208	**Slope Works at Feature No. 11NE-B/C899 (280m)**	**388 days**	**Mon 19/6/23**	**Wed 10/7/24**	
1209	Filling of voids with concrete	7 days	Thu 27/6/24	Wed 3/7/24	1205
1210	Construction of concrete berm	7 days	Thu 4/7/24	Wed 10/7/24	1209
1211	Installation of hand railings	60 days	Mon 19/6/23	Thu 17/8/23	
1212	Repainting of handrailing	30 days	Thu 6/7/23	Fri 4/8/23	
1213	**Slope Works at Feature No. 11NE-D/C872 (250m)**	**892 days**	**Sat 9/7/22**	**Mon 16/12/24**	
1214	Installation of hand railings	60 days	Sat 9/7/22	Tue 6/9/22	
1215	Repainting of handrailing	30 days	Sun 2/4/23	Mon 1/5/23	
1216	Reinstatement of concrete berm	7 days	Tue 10/12/24	Mon 16/12/24	1217
1217	Filling of void with concrete	7 days	Tue 3/12/24	Mon 9/12/24	1210
1218	**Slope Works at Feature No. 11NE-C/900 (Stage 2)**	**45 days**	**Thu 2/1/25**	**Sat 15/2/25**	
1219	Installation of non-biodegradable erosion control mat	45 days	Thu 2/1/25	Sat 15/2/25	
1220	**Slope Works at Feature No. 11NE-B/C903**	**30 days**	**Mon 2/12/24**	**Tue 31/12/24**	
1221	Installation of non-biodegradable erosion control mat	30 days	Mon 2/12/24	Tue 31/12/24	
1222	**Section of Works 9A - Establishment Works for all Landscape Softworks in Section 9 of the Works**	**365 days**	**Fri 28/2/25**	**Mon 9/3/26**	
1223	Commencement of Establishment Work for Section 9	0 days	Fri 28/2/25	Fri 28/2/25	
1224	Establishment Work Duration for Section 9	365 days	Fri 28/2/25	Mon 9/3/26	1223
1225	Completion of Works in Section 9	0 days	Mon 9/3/26	Mon 9/3/26	1224
1226	**Section of Works 10 - All Tree Protection and Preservation Works**	**1202 days?**	**Fri 30/7/21**	**Tue 12/11/24**	
1227	Commencement of All Tree Protection and Preservation Work	0 days	Fri 30/7/21	Fri 30/7/21	
1228	All Tree Protection and Preservation Work	1202 days	Fri 30/7/21	Tue 12/11/24	
1229	Completion of All Tree Protection and Preservation Work	0 days	Tue 12/11/24	Tue 12/11/24	1228

Task | Critical Task | Milestone | Summary | Progress

Appendix D

Monitoring Locations for Impact Monitoring

Monitoring Locations for Contract 1 (NE/2016/01)

HVS in AMS-1 for 24-Hour TSP

AMS-1

AMS-1a

AMS-2

AMS-3

Legend

- Study Area
- 500m Assessment Area
- Dust Monitoring Locations

Rev	Description	By	Date
B	SECOND ISSUE	GL	03/14
A	FIRST ISSUE	GL	10/13

Consultant

ARUP

Contract No. and Title

Agreement No. CE 18/2012(CE)

Development of Anderson Road Quarry - Investigation

Drawing title

Locations of Construction Dust Monitoring (Sheet 1 of 3)

Drawing no.		Rev.
227724/E/1045		B
Drawn: GL	Date: 03/14	Checked: TC / Approved: ST
Scale: 1:5000 @A3	Status: PRELIMINARY	

CEDD 土木工程拓展署 Civil Engineering and Development Department

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METRES
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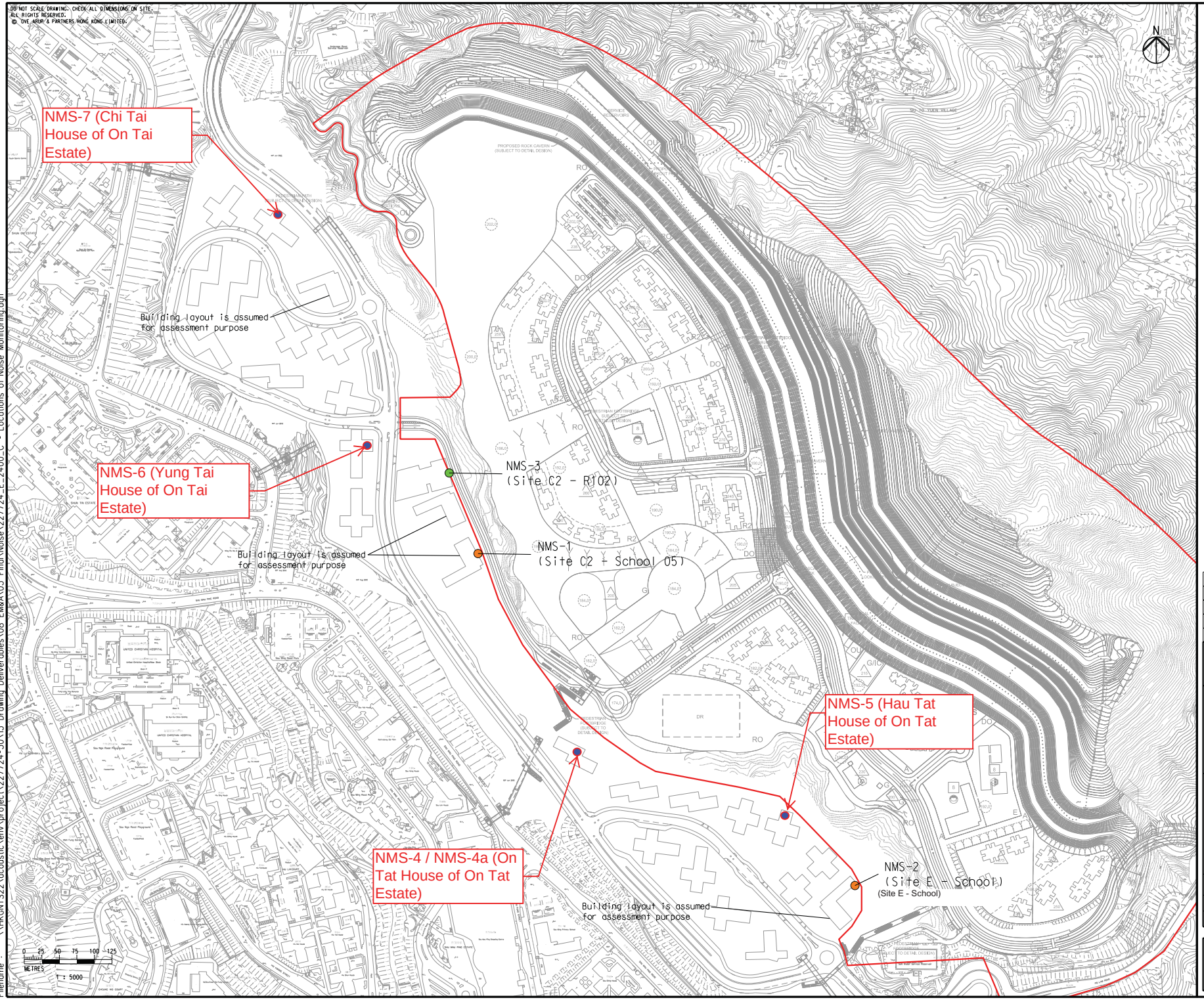
Printed by : 4/8/2014
Filename : G:\env\project\227724-50\13 Drawing Deliverables\08 EM&A\02 Revised draft\Air\227724_E_1045_B - Locations of Construction Dust Monitoring (Sheet 1 of 3).dgn



Legend

- Study Area
- Construction Noise Monitoring Location
- Construction and Operational Road Traffic Noise Monitoring Location
- Review Noise monitoring Location

Rev	Description	By	Date
C	THIRD ISSUE	GL	05/14
B	SECOND ISSUE	GL	03/14
A	FIRST ISSUE	GL	10/13

Consultant

ARUP

Contract No. and Title

Agreement No. CE 18/2012(CE)

Development of Anderson Road Quarry - Investigation

Drawing title

Locations of Noise Monitoring

Drawing no.	Rev.
227724/E/2400	C

Drawn	Date	Checked	Approved
GL	05/14	TC	ST

Scale: 1:5000 @A3

Status: PRELIMINARY

CEDD 土木工程拓展署 Civil Engineering and Development Department

Printed by : 6/3/2014
Filename : \\HKGNTS22\acoustic\env\project\227724-50\13 Drawing Deliverables\08 EM&A\03 Final\Noise\227724_E_2400_C - Locations of Noise Monitoring.dgn

AMS-3

AMS-4

AMS-5

AMS-6

HVS in AMS-5 for 24-Hour TSP

HVS in AMS-6 for 24-Hour TSP

Legend

- Study Area
- 500m Assessment Area
- Dust Monitoring Locations

N

0 25 50 75 100 125
METRES
1 : 5000

Rev	Description	By	Date
B	SECOND ISSUE	GL	03/14
A	FIRST ISSUE	GL	10/13

Consultant

ARUP

Contract No. and Title

Agreement No. CE 18/2012(CE)

Development of Anderson Road Quarry - Investigation

Drawing title

Locations of Construction Dust Monitoring (Sheet 2 of 3)

Drawing no.	Rev.
227724/E/1046	B

Drawn	Date	Checked	Approved
GL	03/14	TC	ST

Scale: 1:5000 @A3

Status: PRELIMINARY

CEDD 土木工程拓展署 Civil Engineering and Development Department

Printed by : 4/8/2014
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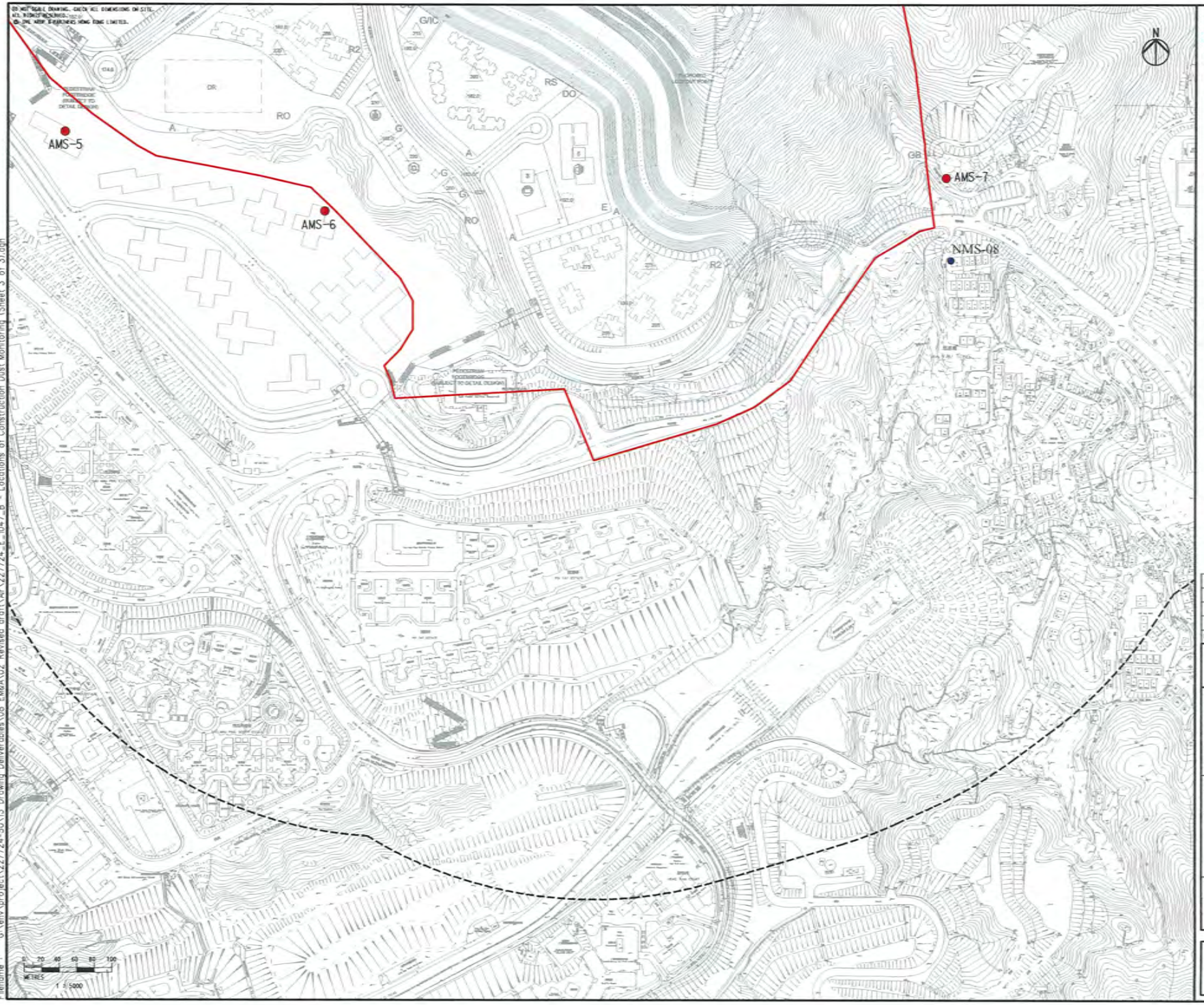


Rev	Description	By	Date
B	SECOND ISSUE	GL	03/14
A	FIRST ISSUE	GL	10/13

Consultant

Contract No. and Title

Agreement No. CE 18/2012(CE)

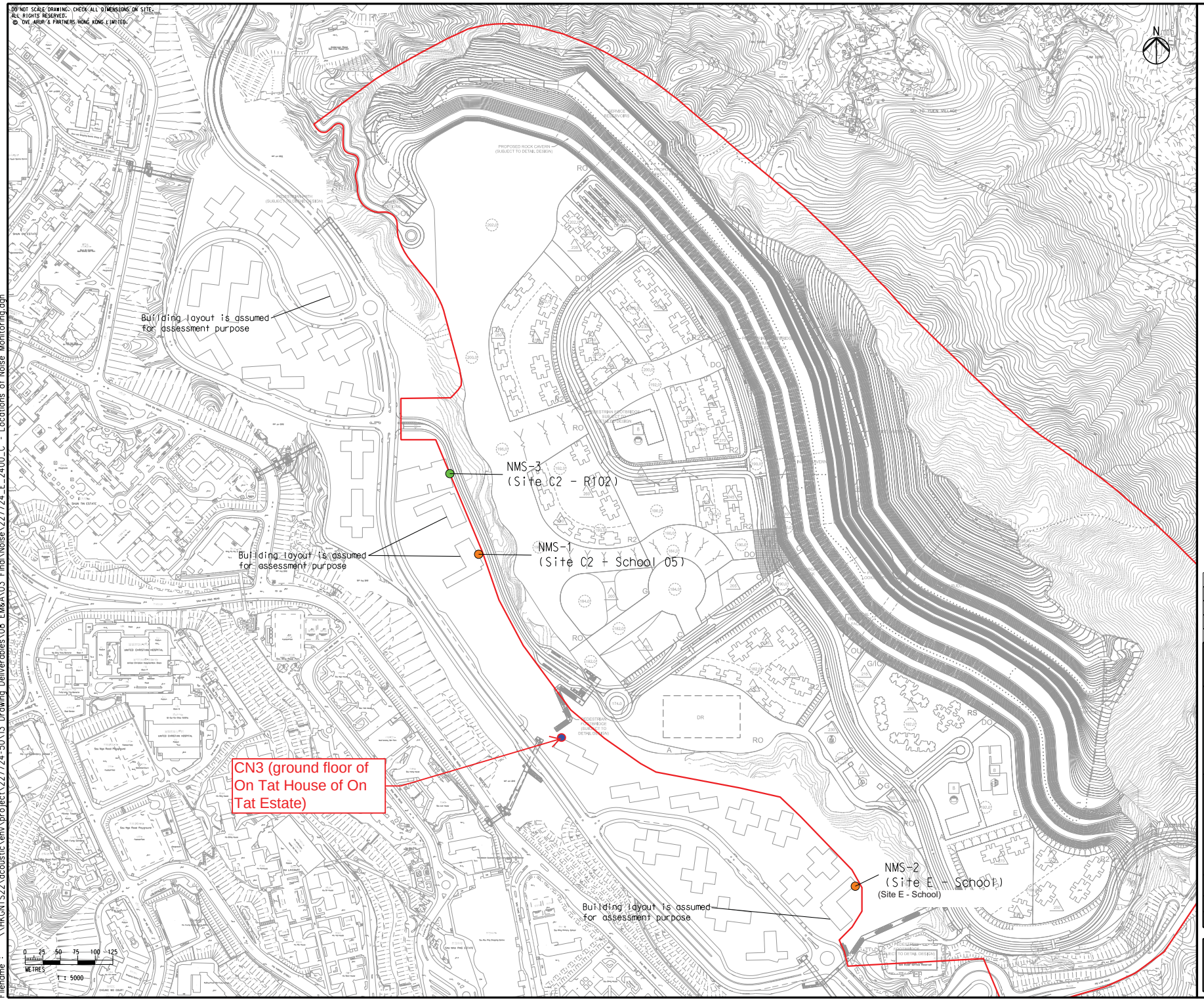
Development of Anderson Road Quarry - Investigation

Drawing title

Locations of Construction Dust and Noise Monitoring

Printed by : 4/8/2014
Filename : G:\env\project\227724-50\13 Drawing Deliverables\08 EM&A\02 Revised draft\Air\227724_E_1047_B - Locations of Construction Dust Monitoring (Sheet 3 of 3).dgn

Monitoring Locations for Contract 3 (NE/2017/03)



Legend

- Study Area
- Construction Noise Monitoring Location
- Construction and Operational Road Traffic Noise Monitoring Location
- Noise monitoring Location

Rev	Description	By	Date
C	THIRD ISSUE	GL	05/14
B	SECOND ISSUE	GL	03/14
A	FIRST ISSUE	GL	10/13

Consultant

ARUP

Contract No. and Title

Agreement No. CE 18/2012(CE)

Development of Anderson Road Quarry - Investigation

Drawing title

Locations of Noise Monitoring

Drawing no.	Rev.
227724/E/2400	C

Drawn	Date	Checked	Approved
GL	05/14	TC	ST

Scale: 1:5000 @A3

Status: PRELIMINARY

CEDD 土木工程拓展署 Civil Engineering and Development Department

Printed by : 6/3/2014
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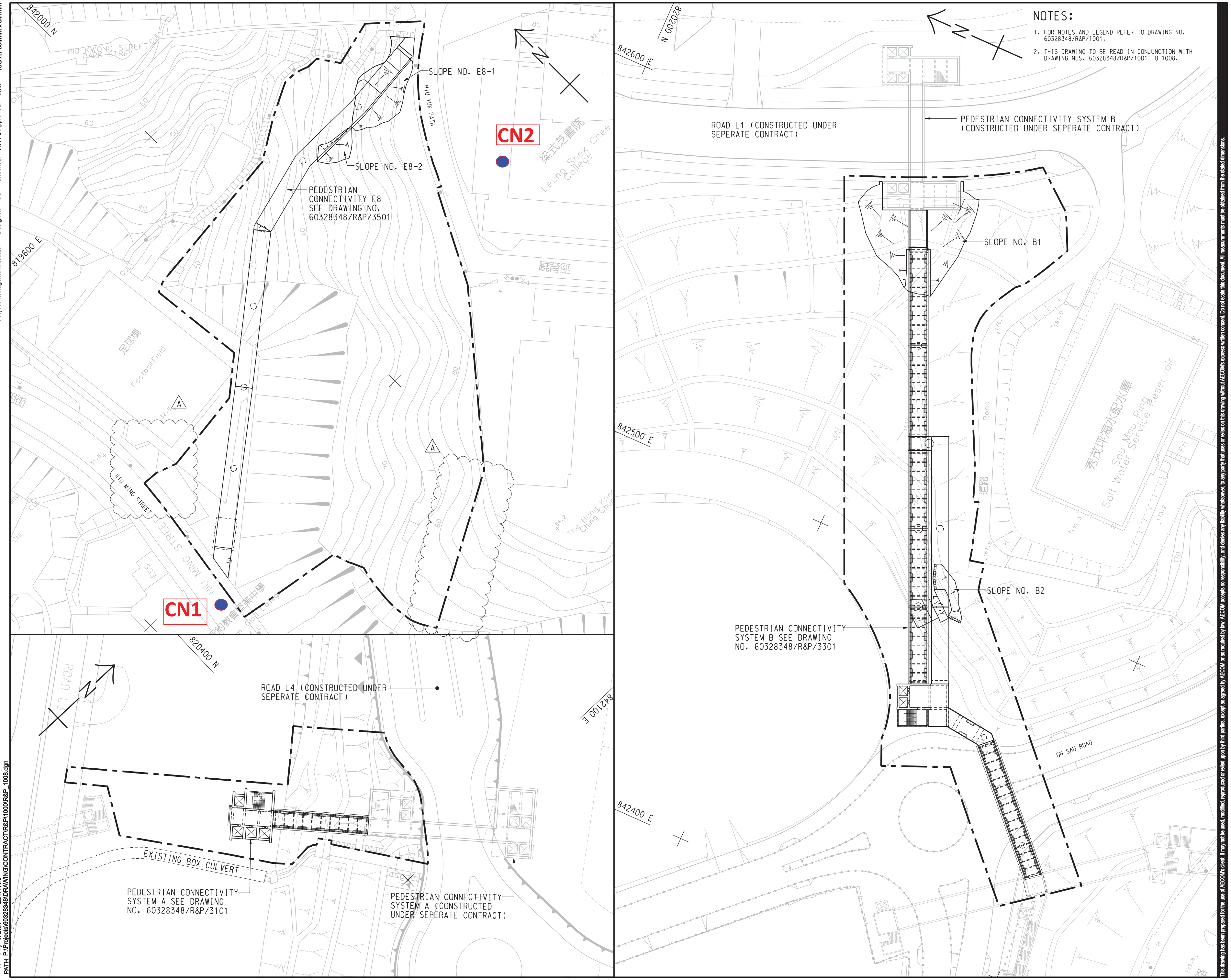

Project Management Initials: Designer: CCYT Checked: AWYC Approved: HKT ISO A1 594mm x 841mm

Plot File by: WUMT 2017/11/9
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PROJECT 項目

DEVELOPMENT OF ANDERSON ROAD QUARRY SITE - INVESTIGATION, DESIGN AND CONSTRUCTION

CONTRACT TITLE
DEVELOPMENT OF ANDERSON ROAD QUARRY SITE - ROAD IMPROVEMENT WORKS AND PEDESTRIAN CONNECTIVITY FACILITIES WORKS PHASE 2A

CLIENT 業主

土木工程拓展署
CEDD Civil Engineering and Development Department

CONSULTANT 工程顧問公司

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ISSUE/REVISION 修訂

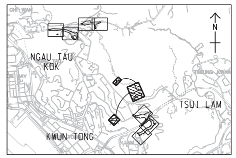
I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 複核
A	NOV. 17	TENDER ADDENDUM NO. 1	AWYC
-	OCT. 17	TENDER DRAWING	AWYC

STATUS 階段

SCALE 比例 A1 1:500

DIMENSION UNIT 尺寸單位 METRES

KEY PLAN 索引圖 A1 1:60000



PROJECT NO. 項目編號 60328348

CONTRACT NO. 合約編號 NE/2017/03

SHEET TITLE 圖紙名稱

GENERAL LAYOUT

SHEET 8 OF 8

SHEET NUMBER 圖紙編號

60328348/R&P/1008A

Appendix E

Calibration Certificate of Monitoring Equipment and HOKLAS-accreditation Certificate of the Testing Laboratory

TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location : Tan Shan Village No. 5 - 6		Date of Calibration:	28-Feb-25
Location ID : AMS1a		Next Calibration Date:	30-Apr-25
Model:TISCH High Volume Air Sampler TE-5170		Technician:	Martin

CONDITIONS

Sea Level Pressure (hPa)	1019.2	Corrected Pressure (mm Hg)	764.4
Temperature (℃)	17.8	Temperature (K)	291

CALIBRATION ORIFICE

Make->	TISCH	Qstd Slope ->	2.10977
Model->	TE-5025A	Qstd Intercept ->	-0.03782
Serial # ->	1941		

CALIBRATION

Plate No.	H20 (L) (in)	H2O (R) (in)	H20 (in)	Qstd (m3/min)	I (chart)	IC corrected	LINEAR REGRESSION
18	6.5	6.5	13	1.753	52	52.79	Slope = 40.5141
13	5.6	5.6	11.2	1.628	47	47.72	Intercept = -18.7829
10	3.9	3.9	7.8	1.362	35	35.53	Corr. coeff. = 0.9962
7	2.8	2.8	5.6	1.157	26	26.40	
5	1.6	1.6	3.2	0.879	18	18.27	

Calculations :

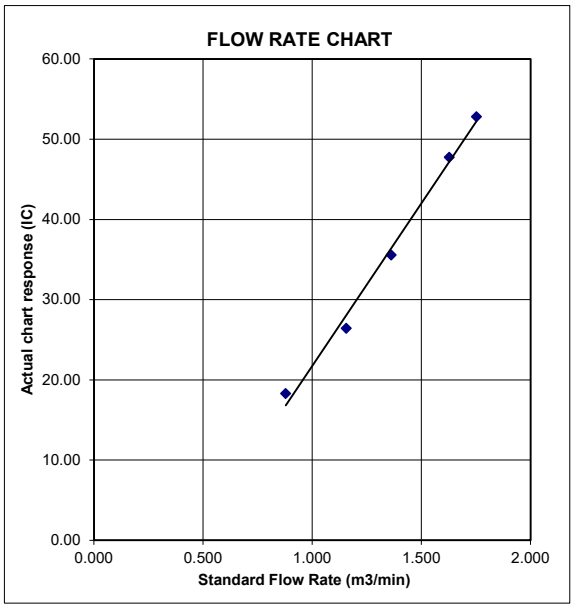
Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b]
IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

Qstd = standard flow rate
IC = corrected chart respones
I = actual chart response
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pstd = actual pressure during calibration (mm Hg)

For subsequent calculation of sampler flow:

1/m((I)[Sqrt(298/Tav)(Pav/760)]-b)

m = sampler slope
b = sampler intercept
I = chart response
Tav = daily average temperature
Pav = daily average pressure



TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location :	Oi Tat House	Date of Calibration:	28-Feb-25
Location ID :	AMS 5	Next Calibration Date:	30-Apr-25
Model:TISCH High Volume Air Sampler TE-5170		Technician:	Martin

CONDITIONS

Sea Level Pressure (hPa)	1019.2	Corrected Pressure (mm Hg)	764.4
Temperature (°C)	17.8	Temperature (K)	291

CALIBRATION ORIFICE

Make->	TISCH	Qstd Slope ->	2.10977
Model->	TE-5025A	Qstd Intercept ->	-0.03782
Serial # ->	1941		

CALIBRATION

Plate No.	H20 (L) (in)	H2O (R) (in)	H20 (in)	Qstd (m3/min)	I (chart)	IC corrected	LINEAR REGRESSION	
18	6.4	6.4	12.8	1.740	53	53.81	Slope =	39.1494
13	5.3	5.3	10.6	1.585	46	46.70	Intercept =	-14.8447
10	4	4	8	1.379	38	38.58	Corr. coeff. =	0.9992
7	2.6	2.6	5.2	1.115	29	29.44		
5	1.4	1.4	2.8	0.823	17	17.26		

Calculations :

Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b]

IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

Qstd = standard flow rate

IC = corrected chart respones

I = actual chart response

m = calibrator Qstd slope

b = calibrator Qstd intercept

Ta = actual temperature during calibration (deg K

Pstd = actual pressure during calibration (mm Hg

For subsequent calculation of sampler flow:

1/m((I)[Sqrt(298/Tav)(Pav/760)]-b)

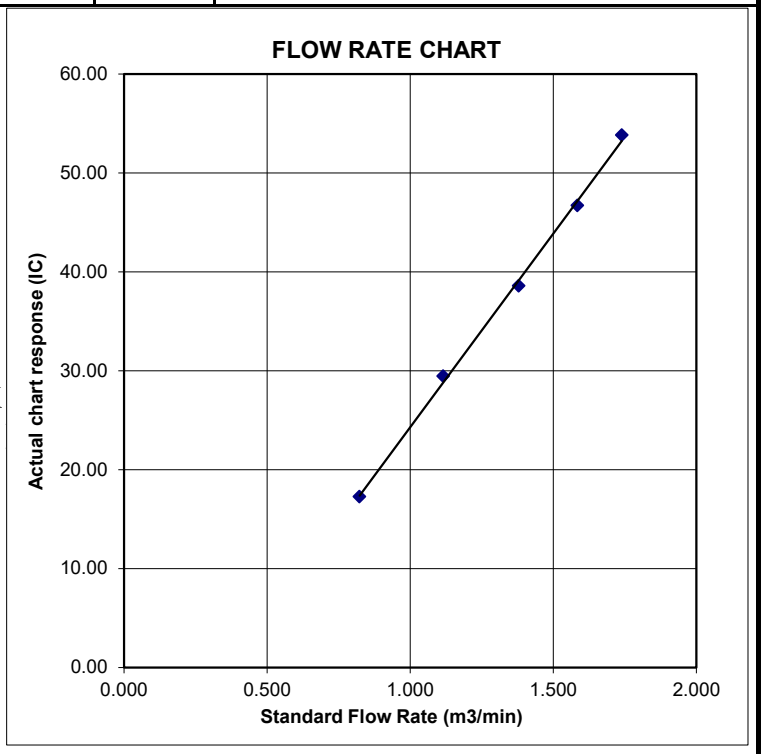
m = sampler slope

b = sampler intercept

I = chart response

Tav = daily average temperature

Pav = daily average pressure



TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location :	Hau Tat House	Date of Calibration:	28-Feb-25
Location ID :	AMS 6	Next Calibration Date:	30-Apr-25
Model:TISCH High Volume Air Sampler TE-5170		Technician:	Martin

CONDITIONS

Sea Level Pressure (hPa)	1019.2	Corrected Pressure (mm Hg)	764.4
Temperature (°C)	17.8	Temperature (K)	291

CALIBRATION ORIFICE

Make->	TISCH	Qstd Slope ->	2.10977
Model->	TE-5025A	Qstd Intercept ->	-0.03782
Serial # ->	1941		

CALIBRATION

Plate No.	H20 (L) (in)	H2O (R) (in)	H20 (in)	Qstd (m3/min)	I (chart)	IC corrected	LINEAR REGRESSION
18	6.2	6.2	12.4	1.712	51	51.78	Slope = 38.7146
13	5.4	5.4	10.8	1.599	46	46.00	Intercept = -15.1994
10	3.7	3.7	7.4	1.327	35	35.53	Corr. coeff. = 0.9983
7	2.4	2.4	4.8	1.072	27	27.41	
5	1.4	1.4	2.8	0.823	16	16.24	

Calculations :

Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b]

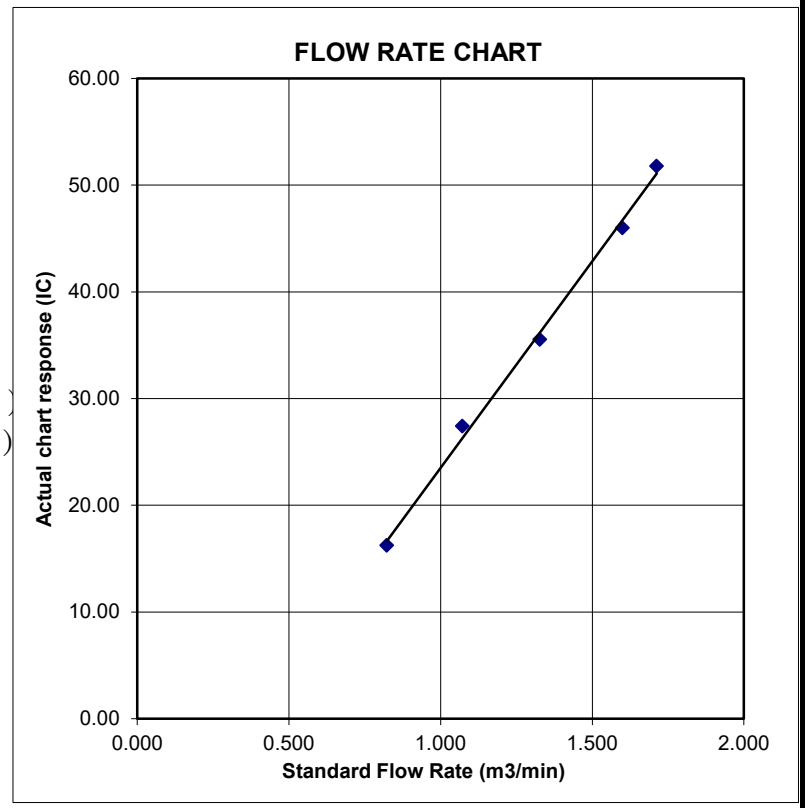
IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

Qstd = standard flow rate
IC = corrected chart respones
I = actual chart response
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pstd = actual pressure during calibration (mm Hg)

For subsequent calculation of sampler flow:

1/m((I)[Sqrt(298/Tav)(Pav/760)]-b)

m = sampler slope
b = sampler intercept
I = chart response
Tav = daily average temperature
Pav = daily average pressure



TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location :	Ma Yau Tong Village	Date of Calibration:	28-Feb-25
Location ID :	AMS 7	Next Calibration Date:	30-Apr-25
Model:TISCH High Volume Air Sampler TE-5170		Technician:	Martin

CONDITIONS

Sea Level Pressure (hPa)	1019.2	Corrected Pressure (mm Hg)	764.4
Temperature (°C)	17.8	Temperature (K)	291

CALIBRATION ORIFICE

Make->	TISCH	Qstd Slope ->	2.10977
Model->	TE-5025A	Qstd Intercept ->	-0.03782
Serial # ->	1941		

CALIBRATION

Plate No.	H20 (L) (in)	H2O (R) (in)	H20 (in)	Qstd (m3/min)	I (chart)	IC corrected	LINEAR REGRESSION
18	6.2	6.2	12.4	1.712	51	51.78	Slope = 39.0945
13	5.4	5.4	10.8	1.599	46	46.70	Intercept = -15.5557
10	3.7	3.7	7.4	1.327	35	35.53	Corr. coeff. = 0.9987
7	2.4	2.4	4.8	1.072	27	27.41	
5	1.4	1.4	2.8	0.823	16	16.24	

Calculations :

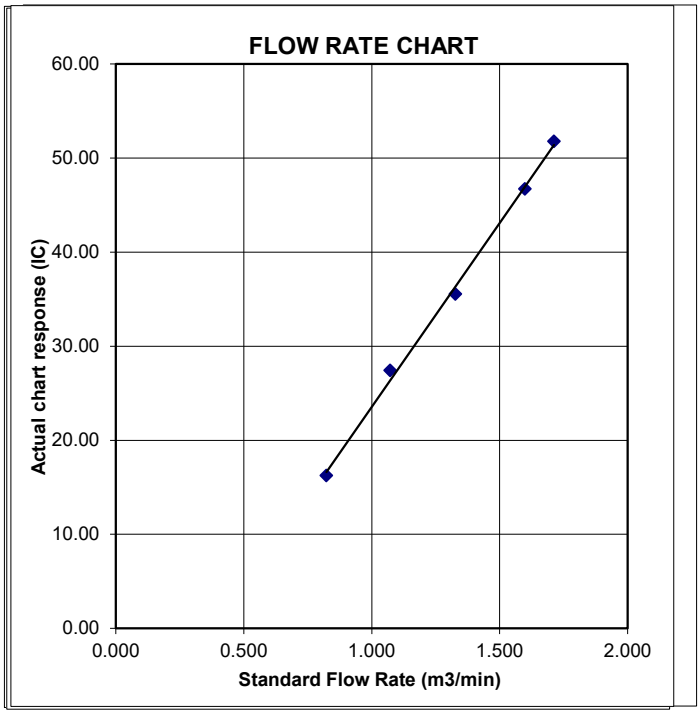
Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b]
IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

Qstd = standard flow rate
IC = corrected chart respones
I = actual chart response
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pstd = actual pressure during calibration (mm Hg)

For subsequent calculation of sampler flow:

1/m((I)[Sqrt(298/Tav)(Pav/760)]-b)

m = sampler slope
b = sampler intercept
I = chart response
Tav = daily average temperature
Pav = daily average pressure



TISCH Environmental

RECALIBRATION DUE DATE:
December 16, 2025

Certificate of Calibration

Calibration Certification Information					
Cal. Date:	December 16, 2024	**Rootsmeter S/N:** 438320	**Ta:** 293	°K	
Operator:	Jim Tisch		**Pa:** 749.0	mm Hg	
Calibration Model #:	TE-5025A	**Calibrator S/N:** **4064**			

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4600	3.2	2.00
2	3	4	1	1.0300	6.4	4.00
3	5	6	1	0.9220	8.0	5.00
4	7	8	1	0.8770	8.8	5.50
5	9	10	1	0.7250	12.8	8.00

Data Tabulation

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H\left(Ta/Pa\right)}$ (y-axis)
0.9981	0.6836	1.4159	0.9957	0.6820	0.8845
0.9938	0.9649	2.0024	0.9915	0.9626	1.2509
0.9917	1.0756	2.2388	0.9893	1.0730	1.3985
0.9906	1.1296	2.3480	0.9883	1.1269	1.4668
0.9853	1.3590	2.8318	0.9829	1.3557	1.7690
QSTD	**m=**	**2.09671**	**QA**	**m=**	**1.31292**
	b=	**-0.01852**		**b=**	**-0.01157**
	r=	**0.99999**		**r=**	**0.99999**

Calculations

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

For subsequent flow rate calculations:

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

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

Standard Conditions	
Tstd:	298.15 °K
Pstd:	760 mm Hg

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

RECALIBRATION

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

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FAX: (513)467-9009

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

SUB-CONTRACTING REPORT

CONTACT	: MR BEN TAM	WORK ORDER	: HK2437857
CLIENT	: ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING		
ADDRESS	: RM A 20/F., GOLD KING IND BLDG, NO. 35-41 TAI LIN PAI ROAD, KWAI CHUNG, N.T.	SUB-BATCH	: 1
		DATE RECEIVED	: 16-SEP-2024
		DATE OF ISSUE	: 24-SEP-2024
PROJECT	: ----	NO. OF SAMPLES	: 1
		CLIENT ORDER	: ---

General Comments

- **Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.**
- **Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified. The result(s) is/are related only to the item(s) tested.**
- **Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in ambient condition.**
- **Calibration was subcontracted to and analysed by Action United Environmental Services & Consulting.**

Signatories

This document has been signed by those names that appear on this report and are the authorised signatories

Signatories	*Position*
Richard Fung	Managing Director

This report supersedes any previous report(s) with the same work order number.

All pages of this report have been checked and approved for release.

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Part of the **ALS Laboratory Group**

11/F. Chung Shun Knitting Centre 1 - 3 Wing Yip Street Kwai Chung N.T. Hong Kong
Tel. +852 2610 1044 Fax. +852 2610 2021 **www.alsglobal.com**

WORK ORDER : HK2437857
SUB-BATCH : 1
CLIENT : ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING
PROJECT : ----

ALS Lab ID	Client's Sample ID	Sample Type	Sample Date	External Lab Report No.
HK2437857-001	S/N: 467389 (EQ125)	AIR	16-Sep-2024	S/N: 467389 (EQ125)

-------- END OF REPORT --------

Equipment Verification Report (TSP)

Equipment Calibrated:

Type:	Laser Dust monitor
Manufacturer:	Sibata LD-5R
Serial No.	467389
Equipment Ref:	EQ125

Standard Equipment:

Standard Equipment:	Higher Volume Sampler (TSP)
Location & Location ID:	AUES office (calibration room)
Equipment Ref:	HVS 018
Last Calibration Date:	15 August 2024

Equipment Verification Results:

Verification Date: 3 September 2024

Date	Hour	Time	Mean Temp °C	Mean Pressure (hPa)	Concentration in ug/m^3 (Standard Equipment)	Total Count (Calibrated Equipment)	Count/Minute (Total Count/min)
3-Sep-24	2hr00mins	09:26 ~ 11:26	30.2	1006.1	24.3	2216	18.5
3-Sep-24	2hr00mins	11:37 ~ 13:37	30.2	1006.1	42.3	3932	32.8
3-Sep-24	2hr00mins	12:49 ~ 14:49	30.2	1006.1	45.5	4413	36.8

Sensitivity Adjustment Scale Setting (Before Calibration) 704 (CPM)

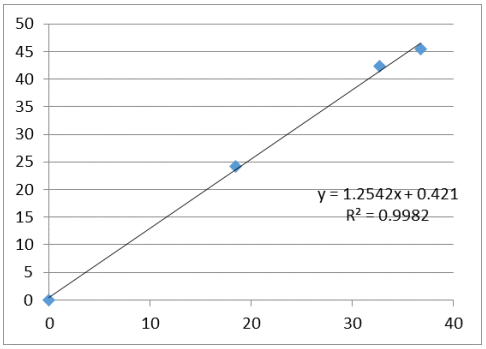
Sensitivity Adjustment Scale Setting (After Calibration) 705 (CPM)

Linear Regression of Y or X

Slope (K-factor): 1.2542 (µg/m^3)/CPM

Correlation Coefficient (R) 0.9991

Date of Issue 10 September 2024



Remarks:

1. **Strong** Correlation (R>0.8)
2. Factor 1.2542 (µg/m^3)/CPM should be apply for TSP monitoring

*If R<0.5, repair or re-verification is required for the equipment

Operator : Martin Li Signature : Date : 10 September 2024

QC Reviewer : Ben Tam Signature : Date : 10 September 2024

TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location :	Gold King Industrial Building, Kwai Chung	Date of Calibration:	15-Aug-24
Location ID :	Calibration Room - TISCH Higher Volume Sampler (Model TE-5170) S/N:1260	Next Calibration Date:	15-Nov-24

CONDITIONS

Sea Level Pressure (hPa)	1005.2	Corrected Pressure (mm Hg)	753.9
Temperature (°C)	27.7	Temperature (K)	301

CALIBRATION ORIFICE

Make->	TISCH	Qstd Slope ->	2.13163
Model->	5025A	Qstd Intercept ->	-0.03523
Calibration Date->	15-Dec-23	Expiry Date->	15-Dec-24

CALIBRATION

Plate No.	H20 (L) (in)	H2O (R) (in)	H20 (in)	Qstd (m3/min)	I (chart)	IC corrected	LINEAR REGRESSION
18	6.4	6.4	12.8	1.681	46	45.61	Slope = 31.2876
13	5.2	5.2	10.4	1.517	40	39.66	Intercept = -7.3464
10	4	4	8.0	1.332	35	34.70	Corr. coeff. = 0.9981
8	2.5	2.5	5.0	1.057	25	24.79	
5	1.6	1.6	3.2	0.849	20	19.83	

Calculations :

Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b]

IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

Qstd = standard flow rate

IC = corrected chart respones

I = actual chart response

m = calibrator Qstd slope

b = calibrator Qstd intercept

Ta = actual temperature during calibration (deg K)

Pstd = actual pressure during calibration (mm Hg)

For subsequent calculation of sampler flow:

1/m((I)[Sqrt(298/Tav)(Pav/760)]-b)

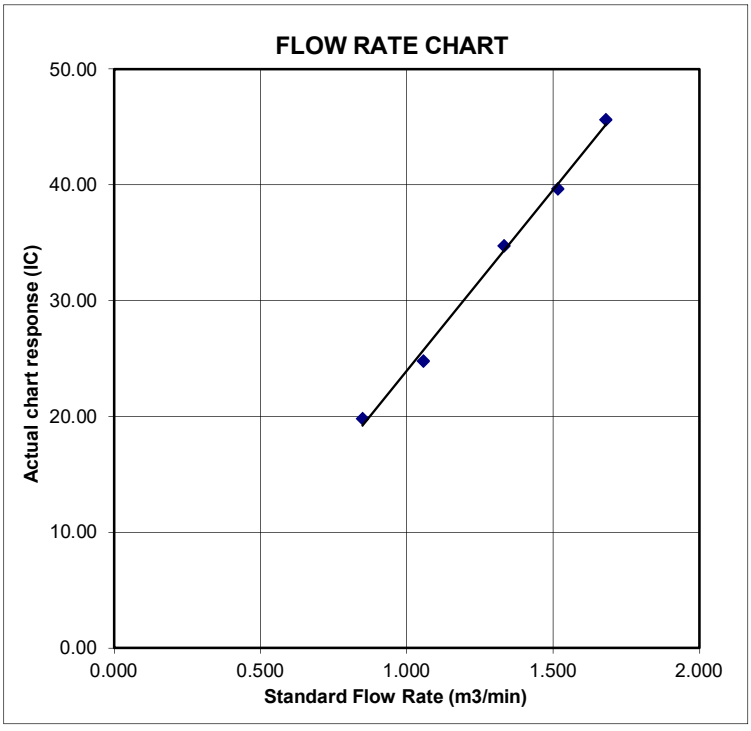
m = sampler slope

b = sampler intercept

I = chart response

Tav = daily average temperature

Pav = daily average pressure



TISCH Environmental

RECALIBRATION DUE DATE:
December 15, 2024

Certificate of Calibration

Calibration Certification Information				
Cal. Date:	December 15, 2023	**Rootsmeter S/N:** 438320	**Ta:** 295	°K
Operator:	Jim Tisch		**Pa:** 748.5	mm Hg
Calibration Model #:	TE-5025A	**Calibrator S/N:** **1941**		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4590	3.2	2.00
2	3	4	1	1.0360	6.4	4.00
3	5	6	1	0.9260	8.0	5.00
4	7	8	1	0.8840	8.9	5.50
5	9	10	1	0.7290	12.9	8.00

Data Tabulation

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H\left(Ta/Pa\right)}$ (y-axis)
0.9907	0.6790	1.4106	0.9957	0.6825	0.8878
0.9864	0.9522	1.9949	0.9914	0.9570	1.2556
0.9843	1.0630	2.2304	0.9893	1.0684	1.4037
0.9831	1.1121	2.3393	0.9881	1.1178	1.4723
0.9778	1.3413	2.8213	0.9828	1.3481	1.7756
QSTD	**m=**	**2.13163**	**QA**	**m=**	**1.33479**
	b=	**-0.03523**		**b=**	**-0.02217**
	r=	**0.99999**		**r=**	**0.99999**

Calculations

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

For subsequent flow rate calculations:

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

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

Standard Conditions	
Tstd:	298.15 °K
Pstd:	760 mm Hg

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

RECALIBRATION

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

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ANALYTICAL CHEMISTRY & TESTING SERVICES

SUB-CONTRACTING REPORT

CONTACT	: MR BEN TAM	WORK ORDER	: HK2437858
CLIENT	: ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING		
ADDRESS	: RM A 20/F., GOLD KING IND BLDG, NO. 35-41 TAI LIN PAI ROAD, KWAI CHUNG, N.T.	SUB-BATCH	: 1
		DATE RECEIVED	: 16-SEP-2024
		DATE OF ISSUE	: 24-SEP-2024
PROJECT	: ----	NO. OF SAMPLES	: 1
		CLIENT ORDER	: ---

General Comments

- **Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.**
- **Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified. The result(s) is/are related only to the item(s) tested.**
- **Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in ambient condition.**
- **Calibration was subcontracted to and analysed by Action United Environmental Services & Consulting.**

Signatories

This document has been signed by those names that appear on this report and are the authorised signatories

Signatories	*Position*
Richard Fung	Managing Director

This report supersedes any previous report(s) with the same work order number.

All pages of this report have been checked and approved for release.

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Tel. +852 2610 1044 Fax. +852 2610 2021 **www.alsglobal.com**

WORK ORDER : HK2437858
SUB-BATCH : 1
CLIENT : ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING
PROJECT : ----

ALS Lab ID	Client's Sample ID	Sample Type	Sample Date	External Lab Report No.
HK2437858-001	S/N: 467390 (EQ126)	AIR	16-Sep-2024	S/N: 467390 (EQ126)

-------- END OF REPORT --------

Equipment Verification Report (TSP)

Equipment Calibrated:

Type:	Laser Dust monitor
Manufacturer:	Sibata LD-5R
Serial No.	467390
Equipment Ref:	EQ126

Standard Equipment:

Standard Equipment:	Higher Volume Sampler (TSP)
Location & Location ID:	AUES office (calibration room)
Equipment Ref:	HVS 018
Last Calibration Date:	15 August 2024

Equipment Verification Results:

Verification Date: 3 September 2024

Date	Hour	Time	Mean Temp °C	Mean Pressure (hPa)	Concentration in ug/m^3 (Standard Equipment)	Total Count (Calibrated Equipment)	Count/Minute (Total Count/min)
3-Sep-24	2hr00mins	09:26 ~ 11:26	30.2	1006.1	24.3	2225	18.5
3-Sep-24	2hr00mins	11:37 ~ 13:37	30.2	1006.1	42.3	4033	33.6
3-Sep-24	2hr00mins	12:49 ~ 14:49	30.2	1006.1	45.5	4455	37.1

Sensitivity Adjustment Scale Setting (Before Calibration) 613 (CPM)

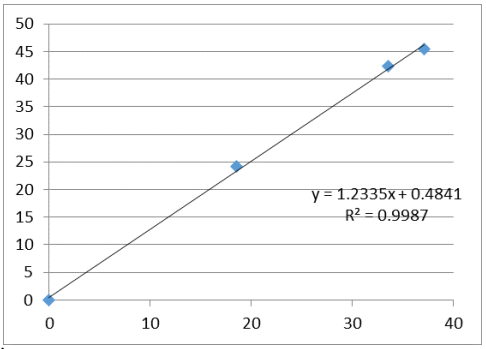
Sensitivity Adjustment Scale Setting (After Calibration) 612 (CPM)

Linear Regression of Y or X

Slope (K-factor): 1.2335 (µg/m^3)/CPM

Correlation Coefficient (R) 0.9993

Date of Issue 10 September 2024



Remarks:

1. **Strong** Correlation (R>0.8)
2. Factor 1.2335 (µg/m^3)/CPM should be apply for TSP monitoring

*If R<0.5, repair or re-verification is required for the equipment

Operator : Martin Li Signature : Date : 10 September 2024

QC Reviewer : Ben Tam Signature : Date : 10 September 2024

TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location :	Gold King Industrial Building, Kwai Chung	Date of Calibration:	15-Aug-24
Location ID :	Calibration Room - TISCH Higher Volume Sampler (Model TE-5170) S/N:1260	Next Calibration Date:	15-Nov-24

CONDITIONS

Sea Level Pressure (hPa)	1005.2	Corrected Pressure (mm Hg)	753.9
Temperature (°C)	27.7	Temperature (K)	301

CALIBRATION ORIFICE

Make->	TISCH	Qstd Slope ->	2.13163
Model->	5025A	Qstd Intercept ->	-0.03523
Calibration Date->	15-Dec-23	Expiry Date->	15-Dec-24

CALIBRATION

Plate No.	H20 (L) (in)	H2O (R) (in)	H20 (in)	Qstd (m3/min)	I (chart)	IC corrected	LINEAR REGRESSION
18	6.4	6.4	12.8	1.681	46	45.61	Slope = 31.2876
13	5.2	5.2	10.4	1.517	40	39.66	Intercept = -7.3464
10	4	4	8.0	1.332	35	34.70	Corr. coeff. = 0.9981
8	2.5	2.5	5.0	1.057	25	24.79	
5	1.6	1.6	3.2	0.849	20	19.83	

Calculations :

Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b]

IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

Qstd = standard flow rate

IC = corrected chart respones

I = actual chart response

m = calibrator Qstd slope

b = calibrator Qstd intercept

Ta = actual temperature during calibration (deg K)

Pstd = actual pressure during calibration (mm Hg)

For subsequent calculation of sampler flow:

1/m((I)[Sqrt(298/Tav)(Pav/760)]-b)

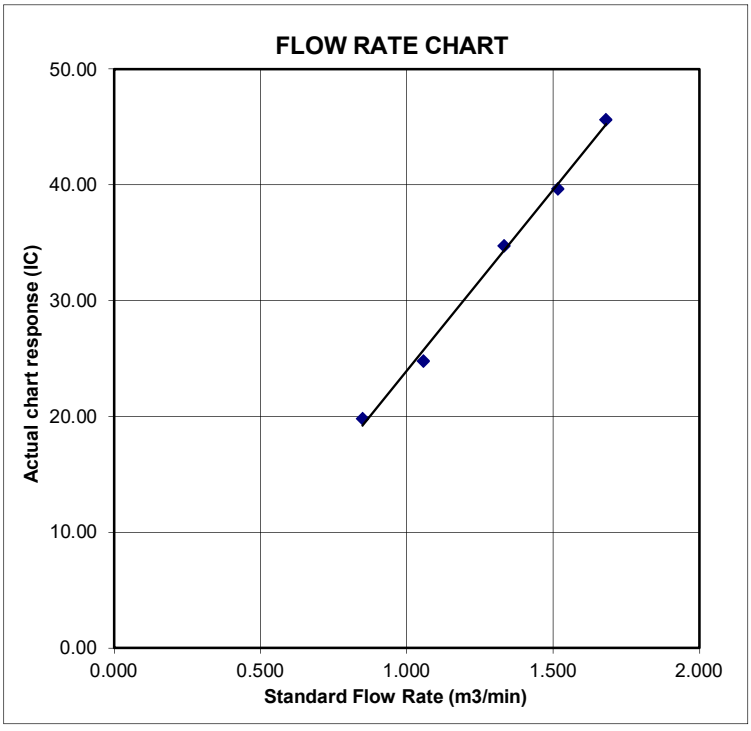
m = sampler slope

b = sampler intercept

I = chart response

Tav = daily average temperature

Pav = daily average pressure



TISCH Environmental

RECALIBRATION DUE DATE:
December 15, 2024

Certificate of Calibration

Calibration Certification Information				
Cal. Date:	December 15, 2023	**Rootsmeter S/N:** 438320	**Ta:** 295	°K
Operator:	Jim Tisch		**Pa:** 748.5	mm Hg
Calibration Model #:	TE-5025A	**Calibrator S/N:** **1941**		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4590	3.2	2.00
2	3	4	1	1.0360	6.4	4.00
3	5	6	1	0.9260	8.0	5.00
4	7	8	1	0.8840	8.9	5.50
5	9	10	1	0.7290	12.9	8.00

Data Tabulation

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H\left(Ta/Pa\right)}$ (y-axis)
0.9907	0.6790	1.4106	0.9957	0.6825	0.8878
0.9864	0.9522	1.9949	0.9914	0.9570	1.2556
0.9843	1.0630	2.2304	0.9893	1.0684	1.4037
0.9831	1.1121	2.3393	0.9881	1.1178	1.4723
0.9778	1.3413	2.8213	0.9828	1.3481	1.7756
QSTD	**m=**	**2.13163**	**QA**	**m=**	**1.33479**
	b=	**-0.03523**		**b=**	**-0.02217**
	r=	**0.99999**		**r=**	**0.99999**

Calculations

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

For subsequent flow rate calculations:

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

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

Standard Conditions	
Tstd:	298.15 °K
Pstd:	760 mm Hg

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

RECALIBRATION

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

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ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

SUB-CONTRACTING REPORT

CONTACT	: MR BEN TAM	WORK ORDER	: HK2437859
CLIENT	: ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING		
ADDRESS	: RM A 20/F., GOLD KING IND BLDG, NO. 35-41 TAI LIN PAI ROAD, KWAI CHUNG, N.T.	SUB-BATCH	: 1
		DATE RECEIVED	: 16-SEP-2024
		DATE OF ISSUE	: 24-SEP-2024
PROJECT	: ----	NO. OF SAMPLES	: 1
		CLIENT ORDER	: ---

General Comments

- **Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.**
- **Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified. The result(s) is/are related only to the item(s) tested.**
- **Calibration was subcontracted to and analysed by Action United Environmental Services & Consulting.**
- **Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in ambient condition.**

Signatories

This document has been signed by those names that appear on this report and are the authorised signatories

Signatories	*Position*
Richard Fung	Managing Director

This report supersedes any previous report(s) with the same work order number.

All pages of this report have been checked and approved for release.

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WORK ORDER : HK2437859
SUB-BATCH : 1
CLIENT : ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING
PROJECT : ----

ALS Lab ID	Client's Sample ID	Sample Type	Sample Date	External Lab Report No.
HK2437859-001	S/N: 467391 (EQ127)	AIR	16-Sep-2024	S/N: 467391 (EQ127)

-------- END OF REPORT --------

Equipment Verification Report (TSP)

Equipment Calibrated:

Type:	Laser Dust monitor
Manufacturer:	Sibata LD-5R
Serial No.	467391
Equipment Ref:	EQ127

Standard Equipment:

Standard Equipment:	Higher Volume Sampler (TSP)
Location & Location ID:	AUES office (calibration room)
Equipment Ref:	HVS 018
Last Calibration Date:	15 August 2024

Equipment Verification Results:

Verification Date: 3 September 2024

Date	Hour	Time	Mean Temp °C	Mean Pressure (hPa)	Concentration in ug/m^3 (Standard Equipment)	Total Count (Calibrated Equipment)	Count/Minute (Total Count/min)
3-Sep-24	2hr00mins	09:26 ~ 11:26	30.2	1006.1	24.3	2221	18.5
3-Sep-24	2hr00mins	11:37 ~ 13:37	30.2	1006.1	42.3	3972	33.1
3-Sep-24	2hr00mins	12:49 ~ 14:49	30.2	1006.1	45.5	4481	37.3

Sensitivity Adjustment Scale Setting (Before Calibration) 665 (CPM)

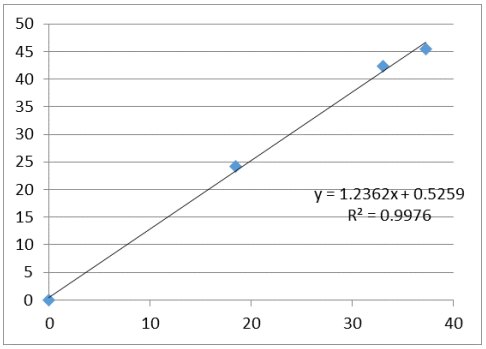
Sensitivity Adjustment Scale Setting (After Calibration) 665 (CPM)

Linear Regression of Y or X

Slope (K-factor): 1.2362 (µg/m^3)/CPM

Correlation Coefficient (R) 0.9987

Date of Issue 10 September 2024



Remarks:

1. **Strong** Correlation (R>0.8)
2. Factor 1.2362 (µg/m^3)/CPM should be apply for TSP monitoring

*If R<0.5, repair or re-verification is required for the equipment

Operator : Martin Li Signature : Date : 10 September 2024

QC Reviewer : Ben Tam Signature : Date : 10 September 2024

TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location :	Gold King Industrial Building, Kwai Chung	Date of Calibration:	15-Aug-24
Location ID :	Calibration Room - TISCH Higher Volume Sampler (Model TE-5170) S/N:1260	Next Calibration Date:	15-Nov-24

CONDITIONS

Sea Level Pressure (hPa)	1005.2	Corrected Pressure (mm Hg)	753.9
Temperature (°C)	27.7	Temperature (K)	301

CALIBRATION ORIFICE

Make->	TISCH	Qstd Slope ->	2.13163
Model->	5025A	Qstd Intercept ->	-0.03523
Calibration Date->	15-Dec-23	Expiry Date->	15-Dec-24

CALIBRATION

Plate No.	H20 (L) (in)	H2O (R) (in)	H20 (in)	Qstd (m3/min)	I (chart)	IC corrected	LINEAR REGRESSION
18	6.4	6.4	12.8	1.681	46	45.61	Slope = 31.2876
13	5.2	5.2	10.4	1.517	40	39.66	Intercept = -7.3464
10	4	4	8.0	1.332	35	34.70	Corr. coeff. = 0.9981
8	2.5	2.5	5.0	1.057	25	24.79	
5	1.6	1.6	3.2	0.849	20	19.83	

Calculations :

Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b]

IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

Qstd = standard flow rate

IC = corrected chart respones

I = actual chart response

m = calibrator Qstd slope

b = calibrator Qstd intercept

Ta = actual temperature during calibration (deg K)

Pstd = actual pressure during calibration (mm Hg)

For subsequent calculation of sampler flow:

1/m((I)[Sqrt(298/Tav)(Pav/760)]-b)

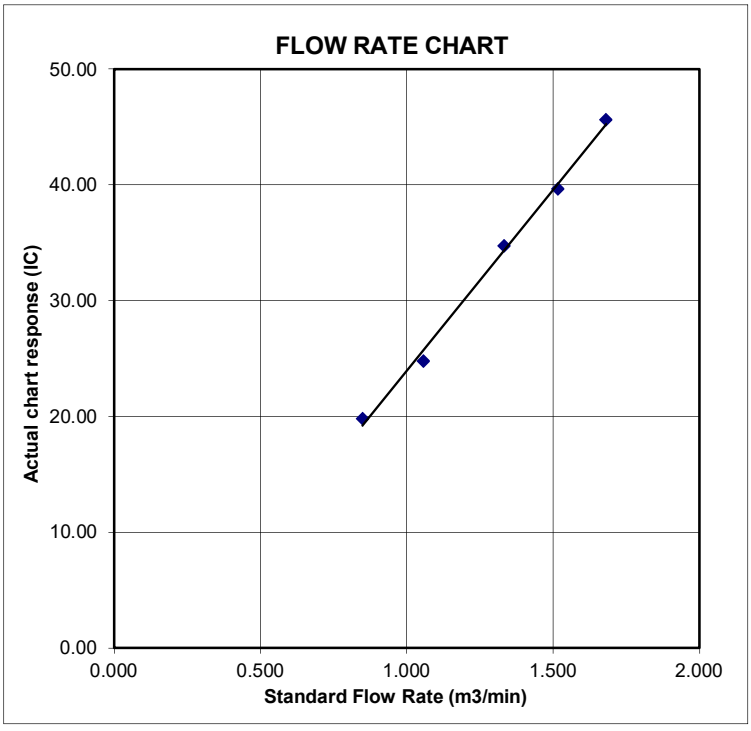
m = sampler slope

b = sampler intercept

I = chart response

Tav = daily average temperature

Pav = daily average pressure



TISCH Environmental

RECALIBRATION DUE DATE:
December 15, 2024

Certificate of Calibration

Calibration Certification Information				
Cal. Date:	December 15, 2023	**Rootsmeter S/N:** 438320	**Ta:** 295	°K
Operator:	Jim Tisch		**Pa:** 748.5	mm Hg
Calibration Model #:	TE-5025A	**Calibrator S/N:** **1941**		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4590	3.2	2.00
2	3	4	1	1.0360	6.4	4.00
3	5	6	1	0.9260	8.0	5.00
4	7	8	1	0.8840	8.9	5.50
5	9	10	1	0.7290	12.9	8.00

Data Tabulation

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H\left(Ta/Pa\right)}$ (y-axis)
0.9907	0.6790	1.4106	0.9957	0.6825	0.8878
0.9864	0.9522	1.9949	0.9914	0.9570	1.2556
0.9843	1.0630	2.2304	0.9893	1.0684	1.4037
0.9831	1.1121	2.3393	0.9881	1.1178	1.4723
0.9778	1.3413	2.8213	0.9828	1.3481	1.7756
QSTD	**m=**	**2.13163**	**QA**	**m=**	**1.33479**
	b=	**-0.03523**		**b=**	**-0.02217**
	r=	**0.99999**		**r=**	**0.99999**

Calculations

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

For subsequent flow rate calculations:

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

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

Standard Conditions	
Tstd:	298.15 °K
Pstd:	760 mm Hg

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

RECALIBRATION

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

Tisch Environmental, Inc.
145 South Miami Avenue
Village of Cleves, OH 45002

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

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

SUB-CONTRACTING REPORT

CONTACT	: MR BEN TAM	WORK ORDER	: **HK2437860**
CLIENT	: **ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING**		
ADDRESS	: RM A 20/F., GOLD KING IND BLDG, NO. 35-41 TAI LIN PAI ROAD, KWAI CHUNG, N.T.	SUB-BATCH	: 1
		DATE RECEIVED	: 16-SEP-2024
		DATE OF ISSUE	: 24-SEP-2024
PROJECT	: ----	NO. OF SAMPLES	: 1
		CLIENT ORDER	: ---

General Comments

- **Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.**
- **Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified. The result(s) is/are related only to the item(s) tested.**
- **Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in ambient condition.**
- **Calibration was subcontracted to and analysed by Action United Environmental Services & Consulting.**

Signatories

This document has been signed by those names that appear on this report and are the authorised signatories

Signatories	*Position*
Richard Fung	Managing Director

This report supersedes any previous report(s) with the same work order number.

All pages of this report have been checked and approved for release.

ALS Technichem (HK) Pty Ltd
Part of the **ALS Laboratory Group**

11/F. Chung Shun Knitting Centre 1 - 3 Wing Yip Street Kwai Chung N.T. Hong Kong
Tel. +852 2610 1044 Fax. +852 2610 2021 **www.alsglobal.com**

WORK ORDER : HK2437860
SUB-BATCH : 1
CLIENT : ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING
PROJECT : ----

ALS Lab ID	Client's Sample ID	Sample Type	Sample Date	External Lab Report No.
HK2437860-001	S/N: 467392 (EQ128)	AIR	16-Sep-2024	S/N: 467392 (EQ128)

-------- END OF REPORT --------

Equipment Verification Report (TSP)

Equipment Calibrated:

Type:	Laser Dust monitor
Manufacturer:	Sibata LD-5R
Serial No.	467392
Equipment Ref:	EQ128

Standard Equipment:

Standard Equipment:	Higher Volume Sampler (TSP)
Location & Location ID:	AUES office (calibration room)
Equipment Ref:	HVS 018
Last Calibration Date:	15 August 2024

Equipment Verification Results:

Verification Date: 3 September 2024

Date	Hour	Time	Mean Temp °C	Mean Pressure (hPa)	Concentration in ug/m^3 (Standard Equipment)	Total Count (Calibrated Equipment)	Count/Minute (Total Count/min)
3-Sep-24	2hr00mins	09:26 ~ 11:26	30.2	1006.1	24.3	2190	18.3
3-Sep-24	2hr00mins	11:37 ~ 13:37	30.2	1006.1	42.3	3887	32.4
3-Sep-24	2hr00mins	12:49 ~ 14:49	30.2	1006.1	45.5	4273	35.6

Sensitivity Adjustment Scale Setting (Before Calibration) 715 (CPM)

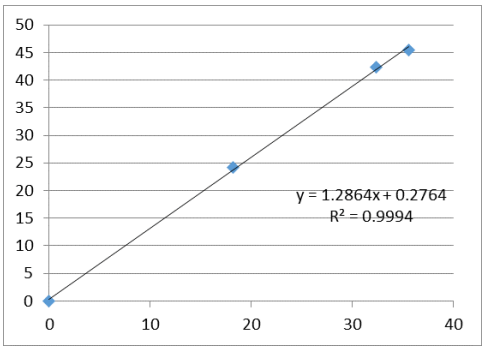
Sensitivity Adjustment Scale Setting (After Calibration) 714 (CPM)

Linear Regression of Y or X

Slope (K-factor): 1.2864g/m^3)/CPM

Correlation Coefficient (R) 0.9997

Date of Issue 10 September 2024



Remarks:

1. **Strong** Correlation (R>0.8)
2. Factor 1.2864g/m^3)/CPM should be apply for TSP monitoring

*If R<0.5, repair or re-verification is required for the equipment

Operator : Martin Li Signature : Date : 10 September 2024

QC Reviewer : Ben Tam Signature : Date : 10 September 2024

TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location :	Gold King Industrial Building, Kwai Chung	Date of Calibration:	15-Aug-24
Location ID :	Calibration Room - TISCH Higher Volume Sampler (Model TE-5170) S/N:1260	Next Calibration Date:	15-Nov-24

CONDITIONS

Sea Level Pressure (hPa)	1005.2	Corrected Pressure (mm Hg)	753.9
Temperature (°C)	27.7	Temperature (K)	301

CALIBRATION ORIFICE

Make->	TISCH	Qstd Slope ->	2.13163
Model->	5025A	Qstd Intercept ->	-0.03523
Calibration Date->	15-Dec-23	Expiry Date->	15-Dec-24

CALIBRATION

Plate No.	H20 (L) (in)	H2O (R) (in)	H20 (in)	Qstd (m3/min)	I (chart)	IC corrected	LINEAR REGRESSION
18	6.4	6.4	12.8	1.681	46	45.61	Slope = 31.2876
13	5.2	5.2	10.4	1.517	40	39.66	Intercept = -7.3464
10	4	4	8.0	1.332	35	34.70	Corr. coeff. = 0.9981
8	2.5	2.5	5.0	1.057	25	24.79	
5	1.6	1.6	3.2	0.849	20	19.83	

Calculations :

Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b]

IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

Qstd = standard flow rate

IC = corrected chart respones

I = actual chart response

m = calibrator Qstd slope

b = calibrator Qstd intercept

Ta = actual temperature during calibration (deg K)

Pstd = actual pressure during calibration (mm Hg)

For subsequent calculation of sampler flow:

1/m((I)[Sqrt(298/Tav)(Pav/760)]-b)

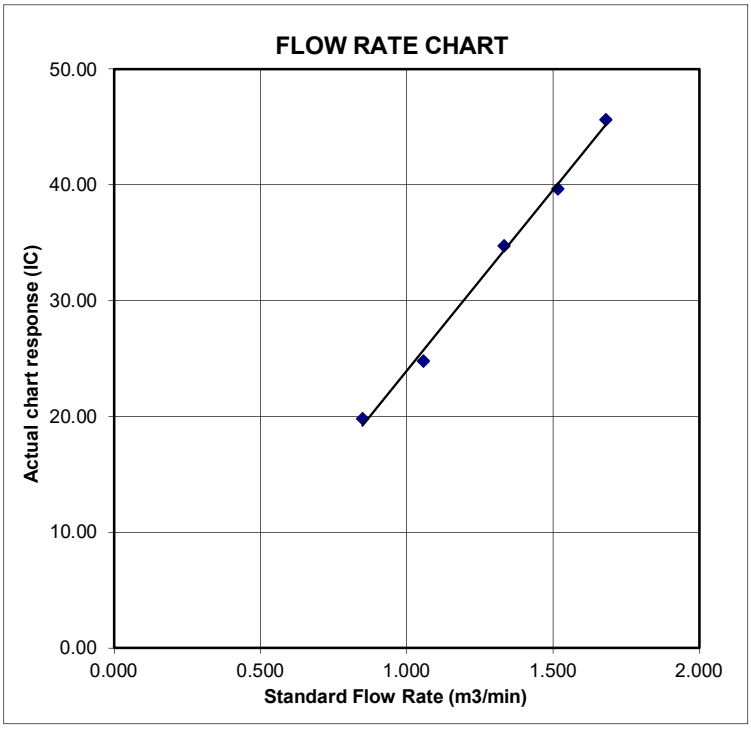
m = sampler slope

b = sampler intercept

I = chart response

Tav = daily average temperature

Pav = daily average pressure



TISCH Environmental

RECALIBRATION DUE DATE:
December 15, 2024

Certificate of Calibration

Calibration Certification Information				
Cal. Date:	December 15, 2023	**Rootsmeter S/N:** 438320	**Ta:** 295	°K
Operator:	Jim Tisch		**Pa:** 748.5	mm Hg
Calibration Model #:	TE-5025A	**Calibrator S/N:** **1941**		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4590	3.2	2.00
2	3	4	1	1.0360	6.4	4.00
3	5	6	1	0.9260	8.0	5.00
4	7	8	1	0.8840	8.9	5.50
5	9	10	1	0.7290	12.9	8.00

Data Tabulation

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H\left(Ta/Pa\right)}$ (y-axis)
0.9907	0.6790	1.4106	0.9957	0.6825	0.8878
0.9864	0.9522	1.9949	0.9914	0.9570	1.2556
0.9843	1.0630	2.2304	0.9893	1.0684	1.4037
0.9831	1.1121	2.3393	0.9881	1.1178	1.4723
0.9778	1.3413	2.8213	0.9828	1.3481	1.7756
QSTD	**m=**	**2.13163**	**QA**	**m=**	**1.33479**
	b=	**-0.03523**		**b=**	**-0.02217**
	r=	**0.99999**		**r=**	**0.99999**

Calculations

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

For subsequent flow rate calculations:

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

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

Standard Conditions	
Tstd:	298.15 °K
Pstd:	760 mm Hg

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

RECALIBRATION

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

Tisch Environmental, Inc.
145 South Miami Avenue
Village of Cleves, OH 45002

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輝創工程有限公司
Sun Creation Engineering Limited
Calibration & Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C242244
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC24-0561) Date of Receipt / 收件日期 : 3 April 2024

Description / 儀器名稱 : Integrating Sound Level Meter (EQ006)
Manufacturer / 製造商 : Brüel & Kjær
Model No. / 型號 : 2238
Serial No. / 編號 : 2285762
Supplied By / 委託者 : Action-United Environmental Services and Consulting
Unit A, 20/F., Gold King Industrial Building,
35-41 Tai Lin Pai Road, Kwai Chung, N.T.

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C Relative Humidity / 相對濕度 : (50 ± 25)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 20 April 2024

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
The results do not exceed specified limits.
These limits refer to manufacturer's published tolerances as requested by the customer.
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Hottinger Brüel & Kjær Calibration Laboratory, Denmark
- Agilent Technologies / Keysight Technologies
- Fluke Everett Service Center, USA

Tested By 測試 : H T Wong, Assistant Engineer

Certified By 核證 : K C Lee, Engineer

Date of Issue 簽發日期 : 22 April 2024

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 - 校正及檢測實驗所
c/o 香港新界屯門興安里一號四樓
Tel/電話: (852) 2927 2606 Fax/傳真: (852) 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

Certificate of Calibration
校正證書

Certificate No. : C242244
證書編號

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours, and switched on to warm up for over 10 minutes before the commencement of the test.

2. The results presented are the mean of 3 measurements at each calibration point.

3. Test equipment :

Equipment ID	Description	Certificate No.
CL280	40 MHz Arbitrary Waveform Generator	C240212
CL281	Multifunction Acoustic Calibrator	CDK2302738

4. Test procedure : MA101N.

5. Results :

5.1 Sound Pressure Level

5.1.1 Reference Sound Pressure Level

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Limit (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
50 - 130	L_{AFP}	A	F	94.00	1	94.0	± 0.7

5.1.2 Linearity

UUT Setting				Applied Value		UUT Reading (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	
50 - 130	L_{AFP}	A	F	94.00	1	94.0 (Ref.)
				104.00		104.0
				114.00		114.0

IEC 60651 Type 1 Limit : ± 0.4 dB per 10 dB step and ± 0.7 dB for overall different.

5.2 Time Weighting

5.2.1 Continuous Signal

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Limit (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
50 - 130	L_{AFP}	A	F	94.00	1	94.0	Ref.
	L_{ASP}		S			94.0	± 0.1
	L_{AIP}		I			94.1	± 0.1

Certificate of Calibration
校正證書

Certificate No. : C242244
證書編號

5.2.2 Tone Burst Signal (2 kHz)

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Limit (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Burst Duration		
30 - 110	L_{AFP}	A	F	106.0	Continuous	106.0	Ref.
	L_{AFMax}				200 ms	105.0	-1.0 ± 1.0
	L_{ASP}		S		Continuous	106.0	Ref.
	L_{ASMax}				500 ms	102.0	-4.1 ± 1.0

5.3 Frequency Weighting

5.3.1 A-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Limit (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
50 - 130	L_{AFP}	A	F	94.00	31.5 Hz	55.1	-39.4 ± 1.5
					63 Hz	68.0	-26.2 ± 1.5
					125 Hz	77.9	-16.1 ± 1.0
					250 Hz	85.3	-8.6 ± 1.0
					500 Hz	90.8	-3.2 ± 1.0
					1 kHz	94.0	Ref.
					2 kHz	95.3	+1.2 ± 1.0
					4 kHz	95.0	+1.0 ± 1.0
					8 kHz	92.9	-1.1 (+1.5 ; -3.0)
					12.5 kHz	89.8	-4.3 (+3.0 ; -6.0)

5.3.2 C-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Limit (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
50 - 130	L_{CFP}	C	F	94.00	31.5 Hz	91.4	-3.0 ± 1.5
					63 Hz	93.3	-0.8 ± 1.5
					125 Hz	93.9	-0.2 ± 1.0
					250 Hz	94.0	0.0 ± 1.0
					500 Hz	94.0	0.0 ± 1.0
					1 kHz	94.0	Ref.
					2 kHz	93.8	-0.2 ± 1.0
					4 kHz	93.2	-0.8 ± 1.0
					8 kHz	91.0	-3.0 (+1.5 ; -3.0)
					12.5 kHz	87.8	-6.2 (+3.0 ; -6.0)

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 - 校正及檢測實驗所
c/o 香港新界屯門興安里一號四樓
Tel/電話: (852) 2927 2606 Fax/傳真: (852) 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

Certificate of Calibration
校正證書

Certificate No. : C242244
證書編號

5.4 Time Averaging

UUT Setting				Applied Value					UUT	IEC 60804
Range (dB)	Parameter	Frequency Weighting	Integrating Time	Frequency (kHz)	Burst Duration (ms)	Burst Duty Factor	Burst Level (dB)	Equivalent Level (dB)	Reading (dB)	Type 1 Limit (dB)
30 - 110	L_{Aeq}	A	10 sec.	4	1	1/10	110.0	100	100.0	± 0.5
						$1/10^2$		90	90.0	± 0.5
			60 sec.			$1/10^3$		80	79.4	± 1.0
			5 min.			$1/10^4$		70	69.3	± 1.0

Remarks : - UUT Microphone Model No. : 4188 & S/N : 2250447

- Mfr's Limit : IEC 60651 Type 1 & IEC 60804 Type 1

- Uncertainties of Applied Value :

94 dB	: 31.5 Hz - 125 Hz	: ± 0.35 dB
	250 Hz - 500 Hz	: ± 0.30 dB
	1 kHz	: ± 0.20 dB
	2 kHz - 4 kHz	: ± 0.35 dB
	8 kHz	: ± 0.45 dB
	12.5 kHz	: ± 0.70 dB
104 dB	: 1 kHz	: ± 0.10 dB (Ref. 94 dB)
114 dB	: 1 kHz	: ± 0.10 dB (Ref. 94 dB)
Burst equivalent level		: ± 0.2 dB (Ref. 110 dB continuous sound level)

- The uncertainties are for a confidence probability of not less than 95 %.

Note :
Only the original copy or the laboratory's certified true copy is valid.

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 - 校正及檢測實驗所
c/o 香港新界屯門興安里一號四樓
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輝創工程有限公司
Sun Creation Engineering Limited
Calibration & Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C242243
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC24-0561) Date of Receipt / 收件日期 : 28 March 2024

Description / 儀器名稱 : Sound Level Meter (EQ068)
Manufacturer / 製造商 : Rion
Model No. / 型號 : NL-31
Serial No. / 編號 : 00410247
Supplied By / 委託者 : Action-United Environmental Services and Consulting
Unit A, 20/F., Gold King Industrial Building,
35-41 Tai Lin Pai Road, Kwai Chung, N.T.

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C Relative Humidity / 相對濕度 : (50 ± 25)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 20 April 2024

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
The results do not exceed specified limits.
These limits refer to manufacturer's published tolerances as requested by the customer.
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Hottinger Brüel & Kjær Calibration Laboratory, Denmark
- Agilent Technologies / Keysight Technologies
- Fluke Everett Service Center, USA

Tested By 測試 : H T Wong
Assistant Engineer

Certified By 核證 : K C Lee
Engineer

Date of Issue 簽發日期 : 22 April 2024

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 - 校正及檢測實驗所
c/o 香港新界屯門興安里一號四樓
Tel/電話: (852) 2927 2606 Fax/傳真: (852) 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

Certificate of Calibration
校正證書

Certificate No. : C242243
證書編號

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours, and switched on to warm up for over 10 minutes before the commencement of the test.

2. Self-calibration was performed before the test.

3. The results presented are the mean of 3 measurements at each calibration point.

4. Test equipment :

Equipment ID	Description	Certificate No.
CL280	40 MHz Arbitrary Waveform Generator	C240212
CL281	Multifunction Acoustic Calibrator	CDK2302738

5. Test procedure : MA101N.

6. Results :

6.1 Sound Pressure Level

6.1.1 Reference Sound Pressure Level

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Limit (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 120	L_A	A	Fast	94.00	1	93.8	± 1.1

6.1.2 Linearity

UUT Setting				Applied Value		UUT Reading (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	
30 - 120	L_A	A	Fast	94.00	1	93.8 (Ref.)
				104.00		103.8
				114.00		113.8

IEC 61672 Class 1 Limit : ± 0.6 dB per 10 dB step and ± 1.1 dB for overall different.

6.2 Time Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Limit (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 120	L_A	A	Fast	94.00	1	93.8	Ref.
			Slow			93.8	± 0.3

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 - 校正及檢測實驗所
c/o 香港新界屯門興安里一號四樓
Tel/電話: (852) 2927 2606 Fax/傳真: (852) 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

Certificate of Calibration
校正證書

Certificate No. : C242243
證書編號

6.3 Frequency Weighting

6.3.1 A-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Limit (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 120	L_A	A	Fast	94.00	63 Hz	67.6	-26.2 ± 1.5
					125 Hz	77.6	-16.1 ± 1.5
					250 Hz	85.1	-8.6 ± 1.4
					500 Hz	90.6	-3.2 ± 1.4
					1 kHz	93.8	Ref.
					2 kHz	95.1	+1.2 ± 1.6
					4 kHz	95.0	+1.0 ± 1.6
					8 kHz	92.8	-1.1 (+2.1 ; -3.1)
					16 kHz	87.5	-6.6 (+3.5 ; -17.0)

6.3.2 C-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Limit (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 120	L_C	C	Fast	94.00	63 Hz	93.0	-0.8 ± 1.5
					125 Hz	93.6	-0.2 ± 1.5
					250 Hz	93.8	0.0 ± 1.4
					500 Hz	93.9	0.0 ± 1.4
					1 kHz	93.9	Ref.
					2 kHz	93.8	-0.2 ± 1.6
					4 kHz	93.2	-0.8 ± 1.6
					8 kHz	90.9	-3.0 (+2.1 ; -3.1)
					16 kHz	85.5	-8.5 (+3.5 ; -17.0)

Certificate of Calibration
校正證書

Certificate No. : C242243
證書編號

Remarks : - UUT Microphone Model No. : UC-53A & S/N : 322738

- Mfr's Limit : IEC 61672 Class 1

- Uncertainties of Applied Value :

94 dB	: 63 Hz - 125 Hz	:	± 0.35 dB
	250 Hz - 500 Hz	:	± 0.30 dB
	1 kHz	:	± 0.20 dB
	2 kHz - 4 kHz	:	± 0.35 dB
	8 kHz	:	± 0.45 dB
	16 kHz	:	± 0.70 dB
104 dB	: 1 kHz	:	± 0.10 dB (Ref. 94 dB)
114 dB	: 1 kHz	:	± 0.10 dB (Ref. 94 dB)

- The uncertainties are for a confidence probability of not less than 95 %.

Note :
Only the original copy or the laboratory's certified true copy is valid.

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 - 校正及檢測實驗所
c/o 香港新界屯門興安里一號四樓
Tel/電話: (852) 2927 2606 Fax/傳真: (852) 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

Hong Kong Calibration Ltd.
香 港 校 正 有限公司

Calibration Certificate

Certificate No. 411103

Customer : Action-Unltod Environmental Services & consulting

Address : Unit A, 20/F, Gold King Industrial Building, 35-41 Tai Lin Pai Road, Kwai Chung, New Territories, Hong Kong

Order No. : Q44140 **Date of receipt :** 25-Oct-24

Item Tested

Description : Sound Level Meter
Manufacturer : B&K **I.D.** : EQ0215
Model : 2238 **Serial No.** : 2285722

Test Conditions

Date of Test : 8-Nov-24 **Supply Voltage** : --
Ambient Temperature : (23 ± 3)°C **Relative Humidity :** (50 ± 25) %

Test Specifications

Calibration check.
The UUT has an indication that it conforms to IEC 61672 Class 1.
Ref. Document/Procedure: Z01, IEC 61672-1:2002.

Test Results

All results were within the IEC 61672 Class 1 specification or Tolerance.(where applicable)
The results are shown in the attached page(s).

Main Test equipment used:

Equipment No.	Description	Cert. No.	Traceable to
S017	Multi-Function Generator	C211339	SCL-HKSAR
S240	Sound Level Calibrator	405380	NIM-PRC & SCL-HKSAR

The values given in this Calibration Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Hong Kong Calibration Ltd. shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration are traceable to International System of Units (SI), or by reference to a natural constant.
The test results apply to the above Unit-Under-Test only

Calibrated by : Elva Chong

Approved by : Kin Wong

Date: 8-Nov-24

This Certificate is issued by:
Hong Kong Calibration Ltd.
Unit 8B, 24/F., Well Fung Industrial Centre, No. 58-76, Ta Chuen Ping Street,Kwai Chung, NT,Hong Kong.
Tel: 2425 8801 Fax: 2425 8646

Calibration Certificate

All tests were performed on the UUT's Reference Level Range: 54.0-134.0 dB, unless specified otherwise.

Results :

Acoustical signal test

1. Indication at the Calibration Check Frequency (1kHz)

UUT Setting		Applied Value (dB)	UUT Reading (dB)
Weight.	Response		After Adjust.*
A	F	94.0	93.8
	S		93.8
C	F		93.8
L			93.8

*Adjustment using the customer's sound calibrator was performed immediately before test.

Tolerance : ± 1.0 dB
Uncertainty : ± 0.1 dB

Self-generated noise (Microphone Installed, most sensitive range) **:** 23.7 dBA

Electrical signal tests

2. Frequency weightings (A ,F)

Frequency	Attenuation (dB)	IEC 61672-1 Class 1 Spec.
31.5 Hz	-39.5	- 39.4 dB, ± 1.5 dB
63 Hz	-26.2	- 26.2 dB, ± 1.0 dB
125 Hz	-16.2	- 16.1 dB, ± 1.0 dB
250 Hz	-8.7	- 8.6 dB, ± 1.0 dB
500 Hz	-3.3	- 3.2 dB, ± 1.0 dB
1 kHz	0.0 (Ref)	0 dB, ± 0.7 dB
2 kHz	+1.2	+ 1.2 dB, ± 1.0 dB
4 kHz	+0.9	+ 1.0 dB, ± 1.0 dB
8 kHz	-1.3	- 1.1 dB, + 1.5 dB ~ -2.5 dB
16 kHz	-6.8	- 6.6 dB, + 2.5 dB ~ - 16.0 dB

Uncertainty : ± 0.1 dB

Calibration Certificate

3. Frequency & Time weightings

3.1 Frequency Weighting (1kHz)

UUT Setting		Anticipated Value (dB)	UUT Reading (dB)	IEC 61672-1 Class 1 Spec.
Time Weight.	Freq. Weight.			
F	A	94.0	94.0 (Ref.)	--
	C		94.0	± 0.2 dB
	L		94.0	

Uncertainty : ± 0.1 dB

3.2 Time Weighting (1kHz)

UUT Setting		Anticipated Value (dB)	UUT Reading (dB)	IEC 61672-1 Class 1 Spec.
Time Weight.	Freq. Weight.			
F	A	94.0	94.0 (Ref.)	--
S			94.0	± 0.1 dB
eq			93.9	

Uncertainty : ± 0.1 dB

5. Level Linearity on the Reference Level Range (8 kHz, A, F)

Anticipated Value (dB)	UUT Reading (dB)	IEC 61672-1 Class 1 Spec.
124.0	123.8	± 0.8 dB
114.0	113.9	
104.0	103.9	
94.0	94.0 (Ref.)	
84.0	84.0	
74.0	74.0	
64.0	64.1	
54.0	54.2	

Uncertainty : ± 0.1 dB

Calibration Certificate

6. Level Linearity including the level range control (1 kHz, A, F)

UUT Range (dB)	Anticipated Value (dB)	UUT Reading (dB)	IEC 61672-1 Class 1 Spec.
14.0-94.0	94.0	93.8	± 0.8 dB
24.0-104.0		94.0	
34.0-114.0		94.0	
44.0-124.0		94.0	
54.0-134.0		94.0 (Ref.)	
64.0-144.0		94.1	

Uncertainty : ± 0.1 dB

Remarks : 1. UUT : Unit-Under-Test
2. The uncertainty claimed is for a confidence probability of not less than 95%.
3. Atmospheric Pressure: 1 008 hPa.
4. Microphone model: 4188, S/N: 2812706.

---------- END ----------

Certificate of Calibration

for

Description:	***Sound Level Meter***
Manufacturer:	***RION***
Type No.:	***NL-52 (Serial No.: 00921191)***
Microphone:	***RION UC-59 (Serial No.: 12910)***
Preamplifier:	***NH-25 (Serial No.: 32609)***

Submitted by:

Customer:	*Action-United Environmental Services & Consulting*
Address:	*Unit A, 20/F, Gold King Industrial Building*
	35-41 Tai Lin Pai Road, Kwai Chung,
	New Territories, Hong Kong

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

☑ **Within (31.5Hz – 8kHz)**
☐ **Outside**
the allowable tolerance.

The test equipment used for calibration are traceable to National Standards via:
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

Date of receipt: 16 December 2024

Date of calibration: 20 December 2024

Date of NEXT calibration: 19 December 2025

Calibrated by: _____
Calibration Technician

Certified by: _____
Mr. Ng Yan Wa
Laboratory Manager

Date of issue: **20 December 2024**

ACOUSTICS AND AIR TESTING LABORATORY CO. LTD. (A+A) *L

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

1. *Calibration Precaution:*

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.

- The results presented are the mean of 3 measurements at each calibration point.

2. *Calibration Conditions:*

Air Temperature: 23.3 °C
Air Pressure: 1005 hPa
Relative Humidity: 25.1 %

3. *Calibration Equipment:*

	Type	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV240081	HOKLAS

4. *Calibration Results*

Sound Pressure Level

Reference Sound Pressure Level

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
30-130	dBA SPL	Fast	94	1000	94.0	±0.4

Linearity

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
30-130	dBA SPL	Fast	94	1000	94.0	Ref
			104		104.0	±0.3
			114		114.0	±0.3

Time Weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
30-130	dBA SPL	Fast	94	1000	94.0	Ref
		Slow			94.0	±0.3

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
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Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

Frequency Response

Linear Response

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
30-130	dB SPL	Fast	94	31.5	94.0	±2.0
				63	94.2	±1.5
				125	94.1	±1.5
				250	94.1	±1.4
				500	94.1	±1.4
				1000	94.0	Ref
				2000	93.6	±1.6
				4000	92.8	±1.6
				8000	91.0	+2.1; -3.1

A-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
30-130	dBA SPL	Fast	94	31.5	54.7	-39.4 ±2.0
				63	68.0	-26.2 ±1.5
				125	78.0	-16.1 ±1.5
				250	85.4	-8.6 ±1.4
				500	90.8	-3.2 ±1.4
				1000	94.0	Ref
				2000	94.8	+1.2 ±1.6
				4000	93.8	+1.0 ±1.6
				8000	90.1	-1.1+2.1; -3.1

C-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
30-130	dBC SPL	Fast	94	31.5	91.0	-3.0 ±2.0
				63	93.3	-0.8 ±1.5
				125	93.9	-0.2 ±1.5
				250	94.1	-0.0 ±1.4
				500	94.1	-0.0 ±1.4
				1000	94.0	Ref
				2000	93.5	-0.2 ±1.6
				4000	92.0	-0.8 ±1.6
				8000	88.1	–3.0 +2.1: –3.1

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

5. *Calibration Results Applied*

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

Uncertainties of Applied Value:

94 dB	31.5 Hz	± 0.15
	63 Hz	± 0.10
	125 Hz	± 0.05
	250 Hz	± 0.05
	500 Hz	± 0.05
	1000 Hz	± 0.05
	2000 Hz	± 0.05
	4000 Hz	± 0.05
	8000 Hz	± 0.10
104 dB	1000 Hz	± 0.05
114 dB	1000 Hz	± 0.05

The uncertainties are evaluated for a 95% confidence level.

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

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

Hong Kong Calibration Ltd.
香 港 校 正 有限公司

Calibration Certificate

Certificate No. 411106

Customer : Action-Unltod Environmental Services & consulting

Address : Unit A, 20/F, Gold King Industrial Building, 35-41 Tai Lin Pai Road, Kwai Chung, New Territories, Hong Kong

Order No. : Q44140 **Date of receipt :** 25-Oct-24

Item Tested

Description : Sound Calibrator
Manufacturer : B&K
Model : Type 4231
I.D. : EQ082
Serial No. : 2713428

Test Conditions

Date of Test : 8-Nov-24
Ambient Temperature : (23 ± 3)°C
Supply Voltage : --
Relative Humidity : (50 ± 25) %

Test Specifications

Calibration check.
The UUT has an indication that it conforms to IEC 60942:2017 Class 1.
Ref. Document/Procedure : F21, Z02, IEC 60942:2017.

Test Results

All results were within the IEC 60942 Class 1 specification.
The results are shown in the attached page(s).

Main Test equipment used:

Equipment No.	Description	Cert. No.	Traceable to
S240	Sound Level Calibrator	405380	NIM-PRC & SCL-HKSAR
S014	Spectrum Analyzer	405219	NIM-PRC & SCL-HKSAR
S041	Universal Counter	402289	SCL-HKSAR
S206	Sound Level Meter	405379	SCL-HKSAR

The values given in this Calibration Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Hong Kong Calibration Ltd. shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration are traceable to International System of Units (SI), or by reference to a natural constant.
The test results apply to the above Unit-Under-Test only

Calibrated by : Elva Chong

Approved by : Kin Wong

Date: 8-Nov-24

This Certificate is issued by:
Hong Kong Calibration Ltd.
Unit 8B, 24/F., Well Fung Industrial Centre, No. 58-76, Ta Chuen Ping Street,Kwai Chung, NT,Hong Kong.
Tel. 2425 8801 Fax. 2425 8646

Calibration Certificate

Results :

1. Generated Sound Pressure Level

UUT Nominal Value (dB)	Measured Value (dB)	IEC 60942 Class 1 Spec.
94.0	94.1	± 0.4 dB
114.0	114.0	

Uncertainty : ± 0.2 dB

2. Short-term Level Fluctuation : 0.0 dB

IEC 60942 Class 1 Spec. : ± 0.1 dB
Uncertainty : ± 0.05 dB

3. Frequency

UUT Nominal Value (kHz)	Measured Value (kHz)	IEC 60942 Class 1 Spec.
1	1.000	± 1 %

Uncertainty : $\pm 3.6 \times 10^{-6}$

4. Total Distortion + Noise : < 0.2 %

IEC 60942 Class 1 Spec. : < 3.0 %
Uncertainty : ± 2.3 % of reading

Remark : 1. UUT : Unit-Under-Test
2. The uncertainty claimed is for a confidence probability of not less than 95%.
3. Atmospheric Pressure : 1 008 hPa.

---------- END ----------

Hong Kong Calibration Ltd.
香 港 校 正 有限公司

Calibration Certificate

Certificate No. 411107

Customer : Action-Unltod Environmental Services & consulting

Address : Unit A, 20/F, Gold King Industrial Building, 35-41 Tai Lin Pai Road, Kwai Chung, New Territories, Hong Kong

Order No. : Q44140 **Date of receipt :** 25-Oct-24

Item Tested

Description : Sound Level Calibrator
Manufacturer : Rion
Model : NC-73
I.D. : EQ085
Serial No. : 10655561

Test Conditions

Date of Test : 8-Nov-24
Ambient Temperature : (23 ± 3)°C
Supply Voltage : --
Relative Humidity : (50 ± 25) %

Test Specifications

Calibration check.
Ref. Document/Procedure : F21, Z02, IEC 60942:2017.

Test Results

The results are shown in the attached page(s).

Main Test equipment used:

Equipment No.	Description	Cert. No.	Traceable to
S014	Spectrum Analyzer	405219	NIM-PRC & SCL-HKSAR
S240	Sound Level Calibrator	405380	NIM-PRC & SCL-HKSAR
S041	Universal Counter	402289	SCL-HKSAR
S206	Sound Level Meter	405379	SCL-HKSAR

The values given in this Calibration Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Hong Kong Calibration Ltd. shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration are traceable to International System of Units (SI), or by reference to a natural constant.
The test results apply to the above Unit-Under-Test only

Calibrated by : Elva Chong

Approved by : Kin Wong

Date: 8-Nov-24

This Certificate is issued by:
Hong Kong Calibration Ltd.
Unit 8B, 24/F., Well Fung Industrial Centre, No. 58-76, Ta Chuen Ping Street,Kwai Chung, NT,Hong Kong.
Tel: 2425 8801 Fax: 2425 8646

Calibration Certificate

Results :

1. Generated Sound Pressure Level

UUT Nominal Value (dB)	Measured Value (dB)	Tolerance (Ref: IEC 60942 Class 2 Spec.)
94.0	94.1	± 0.4 dB

Uncertainty : ± 0.2 dB

2. Short-term Level Fluctuation : 0.0 dB

Tolerance (Ref: IEC 60942 Class 2 Spec.) : ± 0.15 dB
Uncertainty : ± 0.05 dB

3. Frequency

UUT Nominal Value (kHz)	Measured Value (kHz)	Tolerance (Ref: IEC 60942 Class 2 Spec.)
1	*0.952	± 1.7 %

Uncertainty : $\pm 3.6 \times 10^{-6}$

4. Total Distortion + Noise : < 0.1 %

Tolerance (Ref: IEC 60942 Class 2 Spec.) : < 3.0 %
Uncertainty : ± 2.3 % of reading

Remark : 1. UUT : Unit-Under-Test
2. The uncertainty claimed is for a confidence probability of not less than 95%.
3. Atmospheric Pressure : 1 008 hPa.
4. *Out of Tolerance.

---------- END ----------

輝創工程有限公司
Sun Creation Engineering Limited
Calibration & Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C242239
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC24-0561) Date of Receipt / 收件日期 : 28 March 2024

Description / 儀器名稱 : Sound Calibrator (EQ089)
Manufacturer / 製造商 : Rion
Model No. / 型號 : NC-75
Serial No. / 編號 : 34680623
Supplied By / 委託者 : Action-United Environmental Services and Consulting
Unit A, 20/F., Gold King Industrial Building,
35-41 Tai Lin Pai Road, Kwai Chung, N.T.

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C Relative Humidity / 相對濕度 : (50 ± 25)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 20 April 2024

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
The results do not exceed specified limits.
These limits refer to manufacturer's published tolerances as requested by the customer.
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Hottinger Brüel & Kjær Calibration Laboratory, Denmark
- Agilent Technologies / Keysight Technologies
- Fluke Everett Service Center, USA

Tested By 測試 : H T Wong, Assistant Engineer

Certified By 核證 : K C Lee, Engineer

Date of Issue 簽發日期 : 22 April 2024

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 - 校正及檢測實驗所
c/o 香港新界屯門興安里一號四樓
Tel/電話: (852) 2927 2606 Fax/傳真: (852) 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

Certificate of Calibration
校正證書

Certificate No. : C242239
證書編號

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.

2. The results presented are the mean of 3 measurements at each calibration point.

3. Test equipment :

Equipment ID	Description	Certificate No.
CL130	Universal Counter	C233799
CL281	Multifunction Acoustic Calibrator	CDK2302738
TST150A	Measuring Amplifier	C241879

4. Test procedure : MA100N.

5. Results :

5.1 Sound Level Accuracy

UUT Nominal Value	Measured Value (dB)	Mfr's Limit (dB)	Uncertainty of Measured Value (dB)
94 dB, 1 kHz	94.05	± 0.25	± 0.20

5.2 Frequency Accuracy

UUT Nominal Value (kHz)	Measured Value (kHz)	Mfr's Limit	Uncertainty of Measured Value (Hz)
1	1.000 0	1 kHz ± 0.1 %	± 0.1

Remark : The uncertainties are for a confidence probability of not less than 95 %.

Note :
Only the original copy or the laboratory's certified true copy is valid.

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 - 校正及檢測實驗所
c/o 香港新界屯門興安里一號四樓
Tel/電話: (852) 2927 2606 Fax/傳真: (852) 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

Appendix F

Event and Action Plan

Event / Action Plan for construction dust

Event	Action			
	ET	**IEC**	**ER**	**Contractor**
Action Level exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform IEC, ER and Contractor; 3. Repeat measurement to confirm finding; and 4. Increase monitoring frequency to daily.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; and 3. Review and advise the ET and ER on the effectiveness of the proposed remedial measures.	1. Notify Contractor.	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Rectify any unacceptable practice and implement remedial measures; and 3. Amend working methods agreed with ER if appropriate.
Action Level exceedance for two or more consecutive samples	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform IEC, ER and Contractor; 3. Advise the ER and Contractor on the effectiveness of the proposed remedial measures; 4. Repeat measurements to confirm findings; 5. Increase monitoring frequency to daily; 6. Discuss with IEC, ER and Contractor on remedial actions required; 7. If exceedance continues, arrange meeting with IEC and ER; and 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ET and ER on the effectiveness of the proposed remedial measures; and 5. Supervise Implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; and 3. Supervise and ensure remedial measures properly implemented.	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification; 3. Implement the agreed proposals; and 4. Amend proposal if appropriate.
Limit Level exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform ER, Contractor, IEC and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; and 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET, ER and Contractor on possible remedial measures; 4. Advise the ER and ET on the effectiveness of the proposed remedial measures; and 5. Supervise implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; and 3. Supervise and ensure remedial measures properly implemented.	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Take immediate action to avoid further exceedance; 3. Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification; 4. Implement the agreed proposals; and 5. Amend proposal if appropriate.
Limit Level exceedance for two or more consecutive samples	1. Notify IEC, ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Arrange meeting with IEC, Contractor and ER to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; and 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 4. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; and 5. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise and ensure remedial measures properly implemented; and 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Take immediate action to avoid further exceedance; 3. Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification; 4. Implement the agreed proposals; 5. Resubmit proposals if problem still not under control; and 6. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Event and Action Plan for Construction Noise

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

Appendix G

Impact Monitoring Schedule

Impact Monitoring Schedule for the Reporting Period

Date		NOISE MONITORING (0700 – 1900)	AIR QUALITY MONITORING	
			1-HOUR TSP	24-HOUR TSP
Tue	1-Apr-25			
Wed	2-Apr-25			✓
Thu	3-Apr-25			
Fri	4-Apr-25			
Sat	5-Apr-25		✓	
Sun	6-Apr-25			
Mon	7-Apr-25			
Tue	8-Apr-25			✓
Wed	9-Apr-25			
Thu	10-Apr-25	✓	✓	
Fri	11-Apr-25			
Sat	12-Apr-25			
Sun	13-Apr-25			
Mon	14-Apr-25			✓
Tue	15-Apr-25			
Wed	16-Apr-25	✓	✓	
Thu	17-Apr-25			
Fri	18-Apr-25			
Sat	19-Apr-25			
Sun	20-Apr-25			
Mon	21-Apr-25			
Tue	22-Apr-25	✓	✓	
Wed	23-Apr-25			✓
Thu	24-Apr-25			
Fri	25-Apr-25			
Sat	26-Apr-25			
Sun	27-Apr-25			
Mon	28-Apr-25	✓	✓	
Tue	29-Apr-25			✓
Wed	30-Apr-25			

✓	Monitoring Day
	Sunday or Public Holiday

Impact Monitoring Schedule for next Reporting Period

Date		NOISE MONITORING (0700 – 1900)	AIR QUALITY MONITORING	
			1-HOUR TSP	24-HOUR TSP
Thu	1-May-25			
Fri	2-May-25		✓	
Sat	3-May-25			✓
Sun	4-May-25			
Mon	5-May-25			
Tue	6-May-25			
Wed	7-May-25			
Thu	8-May-25	✓	✓	
Fri	9-May-25			✓
Sat	10-May-25			
Sun	11-May-25			
Mon	12-May-25			
Tue	13-May-25			
Wed	14-May-25	✓	✓	
Thu	15-May-25			✓
Fri	16-May-25			
Sat	17-May-25			
Sun	18-May-25			
Mon	19-May-25			
Tue	20-May-25	✓	✓	
Wed	21-May-25			✓
Thu	22-May-25			
Fri	23-May-25			
Sat	24-May-25			
Sun	25-May-25			
Mon	26-May-25	✓	✓	
Tue	27-May-25			✓
Wed	28-May-25			
Thu	29-May-25			
Fri	30-May-25		✓	
Sat	31-May-25			

✓	Monitoring Day
	Sunday or Public Holiday

Appendix H

Database of Monitoring Result

24-HOUR TSP MONITORING RESULT DATABASE

24-hour TSP Monitoring Data for AMS1a

DATE	SAMPLE NUMBER	ELAPSED TIME			CHART READING			AVG TEMP	AVG AIR PRESS	STANDARD FLOW RATE	AIR VOLUME	FILTER WEIGHT (g)		DUST WEIGHT COLLECTED	24-hr TSP
		INITIAL	FINAL	(min)	MIN	MAX	AVG	(°C)	(hPa)	(m^3/min)	(std m^3)	INITIAL	FINAL	(g)	(µg/m^3)
2-Apr-25	21395	28823.96	28847.96	1440	41	41	41	23.4	1019.1	1.48	2133	2.6758	2.7334	0.0576	27
8-Apr-25	21391	28847.96	28871.96	1440	41	41	41	26.7	1016.2	1.47	2123	2.6681	2.7234	0.0553	26
14-Apr-25	21421	28871.96	28895.96	1440	41	41	41	26.2	1012.9	1.47	2122	2.7339	3.1599	0.426	201
17-Apr-25	21122	28895.96	28919.96	1440	41	41	41	28.7	1014.7	1.47	2117	2.8018	2.8818	0.08	38
23-Apr-25	21464	28919.96	28943.96	1440	41	41	41	27.8	1009.3	1.47	2115	2.7345	2.8035	0.069	33
29-Apr-25	21457	28943.96	28967.96	1440	41	41	41	28.3	1013.5	1.47	2117	2.751	2.8095	0.0585	28

24-hour TSP Monitoring Data for AMS-5

DATE	SAMPLE NUMBER	ELAPSED TIME			CHART READING			AVG TEMP	AVG AIR PRESS	STANDARD FLOW RATE	AIR VOLUME	FILTER WEIGHT (g)		DUST WEIGHT COLLECTED	24-hr TSP
		INITIAL	FINAL	(min)	MIN	MAX	AVG	(°C)	(hPa)	(m^3/min)	(std m^3)	INITIAL	FINAL	(g)	(µg/m^3)
2-Apr-25	21296	16893.03	16917.03	1440.00	39	39	39.0	23.4	1019.2	1.38	1989	2.8283	2.8939	0.0656	33
8-Apr-25	21392	16917.03	16941.03	1440.00	39	39	39.0	26.7	1016.2	1.37	1978	2.6739	2.7751	0.1012	51
14-Apr-25	21423	16941.03	16965.03	1440.00	39	39	39.0	26.2	1012.9	1.37	1977	2.7455	3.4206	0.6751	341
17-Apr-25	21426	16965.03	16989.03	1440.00	39	39	39.0	28.7	1010.4	1.37	1970	2.7379	2.9233	0.1854	94
23-Apr-25	21462	16989.03	17013.03	1440.00	39	39	39.0	27.8	1009.3	1.37	1971	2.7456	2.8092	0.0636	32
29-Apr-25	21459	17013.03	17037.03	1440.00	39	39	39.0	28.3	1013.5	1.37	1973	2.7496	2.8196	0.0700	35

24-hour TSP Monitoring Data for AMS-6

DATE	SAMPLE NUMBER	ELAPSED TIME			CHART READING			AVG TEMP	AVG AIR PRESS	STANDARD FLOW RATE	AIR VOLUME	FILTER WEIGHT (g)		DUST WEIGHT COLLECTED	24-hr TSP
		INITIAL	FINAL	(min)	MIN	MAX	AVG	(°C)	(hPa)	(m^3/min)	(std m^3)	INITIAL	FINAL	(g)	(µg/m^3)
2-Apr-25	21397	21960.10	21984.10	1440.00	42	42	42.0	23.4	1019.1	1.48	2136	2.6764	2.7400	0.0636	30
8-Apr-25	21393	21984.10	22008.10	1440.00	42	42	42.0	26.7	1016.2	1.48	2125	2.6738	2.7950	0.1212	57
14-Apr-25	21425	22008.10	22032.10	1440.00	42	42	42.0	26.2	1012.9	1.48	2124	2.7485	2.9941	0.2456	116
17-Apr-25	21432	22032.10	22056.10	1440.00	42	42	42.0	28.7	1010.4	1.47	2116	2.7616	2.8424	0.0808	38
23-Apr-25	21463	22056.10	22080.10	1440.00	42	42	42.0	27.8	1009.3	1.47	2117	2.7291	2.7989	0.0698	33
29-Apr-25	21460	22080.10	22104.10	1440.00	42	42	42.0	28.3	1013.5	1.47	2119	2.7601	2.8944	0.1343	63

24-hour TSP Monitoring Data for AMS-7

DATE	SAMPLE NUMBER	ELAPSED TIME			CHART READING			AVG TEMP	AVG AIR PRESS	STANDARD FLOW RATE	AIR VOLUME	FILTER WEIGHT (g)		DUST WEIGHT COLLECTED	24-hr TSP
		INITIAL	FINAL	(min)	MIN	MAX	AVG	(℃)	(hPa)	(m^3/min)	(std m^3)	INITIAL	FINAL	(g)	($\mu g/m^3$)
2-Apr-25	21396	16763.32	16787.32	1440.00	41	41	41.0	23.4	1019.1	1.45	2092	2.6739	2.6956	0.0217	10
8-Apr-25	21394	16787.32	16811.32	1440.00	41	41	41.0	26.7	1016.7	1.45	2081	2.6897	2.7497	0.0600	29
14-Apr-25	21422	16811.32	16835.32	1440.00	41	41	41.0	26.2	1012.9	1.44	2081	2.7425	2.8012	0.0587	28
17-Apr-25	21121	16835.32	16859.32	1440.00	41	41	41.0	28.7	1010.4	1.44	2072	2.7957	2.9147	0.1190	57
23-Apr-25	21461	16859.32	16883.32	1440.00	41	41	41.0	28	1009.8	1.44	2073	2.7447	2.7757	0.0310	15
29-Apr-25	21458	16883.32	16907.32	1440.00	41	41	41.0	28.3	1013.5	1.44	2075	2.7605	2.7648	0.0043	2

NOISE MONITORING RESULT DATABASE FOR CONTRACT 1

Noise Measurement Results (dB) of NMS1

Date	Start Time	1st Leq (5min)			2nd Leq (5min)			3rd Leq (5min)			4th Leq (5min)			5th Leq (5min)			6th Leq (5min)			Leq30 min, dB(A)	Limit Level dB(A)
		Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)		
10-Apr-25	11:29	72.9	77.6	57.1	69.7	73.2	54.1	67.3	72.2	54.9	68.4	73.0	54.8	71.0	76.9	53.6	71.1	75.9	53.4	70	70
16-Apr-25	9:00	69.5	73.8	58.4	70.1	75.2	58.9	68.5	73.1	57.3	71.2	75.6	57.5	70.5	75.0	56.7	70.4	75.6	56.0	70	70
22-Apr-25	13:10	65.8	67.5	56.5	61.6	65.5	54.5	63.1	66.5	56.5	64.4	67.0	55.5	62.8	66.5	54.5	63.7	67.5	56.0	64	70
28-Apr-25	9:00	72.0	67.6	61.9	69.7	73.4	58.1	68.0	70.6	58.2	69.5	72.8	63.9	68.6	71.1	59.5	68.7	73.1	56.7	70	70

Noise Measurement Results (dB) of NMS2

Date	Start Time	1st Leq (5min)			2nd Leq (5min)			3rd Leq (5min)			4th Leq (5min)			5th Leq (5min)			6th Leq (5min)			Leq30 min, dB(A)	Limit Level dB(A)
		Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)		
10-Apr-25	9:00	62.2	65.1	61.6	62.5	65.0	57.3	59.6	62.2	55.7	58.9	62.5	51.7	63.6	66.0	55.9	58.5	60.2	54.9	61	70
16-Apr-25	13:10	65.7	67.5	63.9	55.2	56.1	53.8	55.8	57.0	53.9	57.9	60.3	54.5	59.9	61.7	54.9	58.9	61.1	54.7	61	70
22-Apr-25	10:40	63.3	66.5	60.5	64.7	67.5	61.0	64.1	67.0	61.5	65.8	68.5	62.5	63.9	67.5	61.5	62.6	66.0	60.5	64	70
28-Apr-25	13:00	58.1	61.6	51.3	59.6	63.6	51.5	59.8	63.8	51.2	58.9	62.5	51.7	56.8	59.8	50.2	58.8	62.5	52.4	59	70

Noise Measurement Results (dB) of NMS3

Date	Start Time	1st Leq (5min)			2nd Leq (5min)			3rd Leq (5min)			4th Leq (5min)			5th Leq (5min)			6th Leq (5min)			Leq30min, dB(A)	Limit Level dB(A)
		Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)		
10-Apr-25	13:00	54.2	55.7	52.3	54.2	56.8	50.0	55.2	57.0	52.1	54.3	56.1	51.8	56.9	59.6	52.9	56.8	54.2	52.3	55	75
16-Apr-25	13:00	58.6	60.3	54.7	58.9	61.7	53.2	58.1	60.6	54.6	56.3	59.4	54.5	57.8	60.7	54.2	56.5	59.0	53.3	58	75
22-Apr-25	9:00	60.0	63.5	56.3	62.8	65.8	56.7	63.9	66.3	57.0	60.7	63.4	56.2	64.4	67.2	56.8	63.9	65.1	57.4	63	75
28-Apr-25	8:25	62.4	67.3	60.3	60.7	62.5	58.4	63.8	65.5	57.8	62.5	63.8	60.4	63.9	67.6	60.0	64.9	65.5	56.0	63	75

Noise Measurement Results (dB) of NMS4a

Date	Start Time	1st Leq (5min)			2nd Leq (5min)			3rd Leq (5min)			4th Leq (5min)			5th Leq (5min)			6th Leq (5min)			Leq30min, dB(A)	Limit Level dB(A)
		Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)		
10-Apr-25	10:15	56.3	57.9	54.4	56.9	58.8	54.2	56.4	58.8	53.5	56.2	57.8	53.6	56.1	57.6	54.1	55.2	57.1	52.6	56	75
16-Apr-25	10:15	67.4	70.8	59.0	68.9	72.9	58.3	68.3	71.5	58.5	64.1	65.2	59.2	67.7	70.6	58.2	62.9	62.8	57.5	67	75
22-Apr-25	9:10	66.8	69.5	61.5	65.3	68.5	61.0	67.5	70.5	63.5	65.9	68.0	62.5	66.3	69.0	62.0	66.7	69.5	63.5	66	75
28-Apr-25	14:00	67.4	70.8	59.0	56.8	58.4	54.8	59.8	60.8	54.2	59.5	61.8	55.7	57.4	60.0	53.1	61.5	65.5	52.7	62	75

Noise Measurement Results (dB) of NMS5

Date	Start Time	1st Leq (5min)			2nd Leq (5min)			3rd Leq (5min)			4th Leq (5min)			5th Leq (5min)			6th Leq (5min)			Leq30min, dB(A)	Limit Level dB(A)
		Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)		
10-Apr-25	9:35	58.5	60.2	54.9	58.5	60.8	53.9	63.1	65.5	60.5	61.6	64.3	57.2	64.4	67.7	54.0	62.8	66.0	55.7	62	75
16-Apr-25	10:55	55.7	57.5	53.9	55.2	56.1	53.8	55.6	57.6	54.0	57.6	60.2	54.2	59.9	61.8	54.9	58.9	61.3	54.9	58	75
22-Apr-25	10:00	65.4	67.5	61.5	64.9	66.5	62.0	64.5	66.0	61.5	63.8	65.5	60.5	62.4	64.5	59.5	63.6	66.0	61.0	64	75
28-Apr-25	10:50	61.3	62.6	59.1	59.5	61.8	59.0	60.6	61.0	58.3	59.9	61.2	58.3	59.8	61.1	58.3	60.1	61.9	58.1	60	75

Noise Measurement Results (dB) of NMS6

Date	Start Time	1st Leq (5min)			2nd Leq (5min)			3rd Leq (5min)			4th Leq (5min)			5th Leq (5min)			6th Leq (5min)			Leq30min, dB(A)	Limit Level dB(A)
		Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)		
10-Apr-25	13:35	68.4	70.5	65.5	65.3	66.4	63.4	65.8	68.5	60.5	67.2	69.5	61.6	64.8	71.7	65.6	69.5	71.6	65.5	67	75
16-Apr-25	10:20	62.8	64.5	59.0	63.4	65.6	58.5	64.2	66.9	60.4	64.7	66.3	60.5	63.5	65.9	60.4	64.1	67.7	59.3	64	75
22-Apr-25	9:45	66.2	70.6	60.8	67.1	71.8	60.9	64.8	68.5	60.5	60.1	63.5	57.3	61.7	64.6	58.5	64.3	66.9	58.8	65	75
28-Apr-25	10:28	68.2	72.0	65.0	66.6	70.0	64.5	65.4	68.5	62.5	65.6	70.5	63.0	66.3	70.0	63.0	67.2	70.7	64.0	67	75

Noise Measurement Results (dB) of NMS7

Date	Start Time	1st Leq (5min)			2nd Leq (5min)			3rd Leq (5min)			4th Leq (5min)			5th Leq (5min)			6th Leq (5min)			Leq30min, dB(A)	Limit Level dB(A)
		Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)		
10-Apr-25	14:10	61.4	62.8	58.6	72.0	69.6	55.4	60.4	62.2	58.5	60.4	65.3	59.7	61.5	62.4	57.3	63.8	65.5	58.4	66	75
16-Apr-25	9:45	62.5	64.9	53.8	61.9	63.7	54.6	60.6	62.5	53.7	61.3	63.1	55.6	62.7	63.9	56.3	60.8	62.4	54.5	62	75
22-Apr-25	10:45	65.9	68.4	55.6	64.2	67.8	55.5	62.9	66.0	56.3	61.6	64.2	56.0	65.8	68.9	59.2	61.8	65.3	58.9	64	75
28-Apr-25	11:20	61.8	62.9	58.7	61.8	64.2	57.5	65.2	65.3	60.8	63.7	65.7	59.9	64.1	66.1	60.2	65.6	67.9	60.9	64	75

Noise Measurement Results (dB) of NMS8

Date	Start Time	1st Leq (5min)			2nd Leq (5min)			3rd Leq (5min)			4th Leq (5min)			5th Leq (5min)			6th Leq (5min)			Leq30min, dB(A)	Limit Level dB(A)
		Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)		
10-Apr-25	14:40	59.7	62.6	54.7	62.3	54.2	54.0	57.0	70.7	54.4	66.5	71.1	55.3	54.9	62.1	51.9	58.1	61.1	52.4	62	75
16-Apr-25	14:15	60.3	64.5	54.1	59.9	62.7	54.5	62.4	66.3	54.8	59.9	62.6	55.6	61.3	64.4	55.7	60.8	62.9	57.5	61	75
22-Apr-25	13:10	68.7	73.5	64.4	67.1	72.3	64.0	63.4	67.3	61.9	62.3	65.8	61.5	61.4	64.4	57.2	63.9	66.4	60.1	65	75
28-Apr-25	15:00	60.3	64.3	53.7	59.8	63.2	54.6	64.2	65.2	55.3	58.9	62.5	51.7	56.8	59.8	50.7	58.8	62.5	52.4	60	75

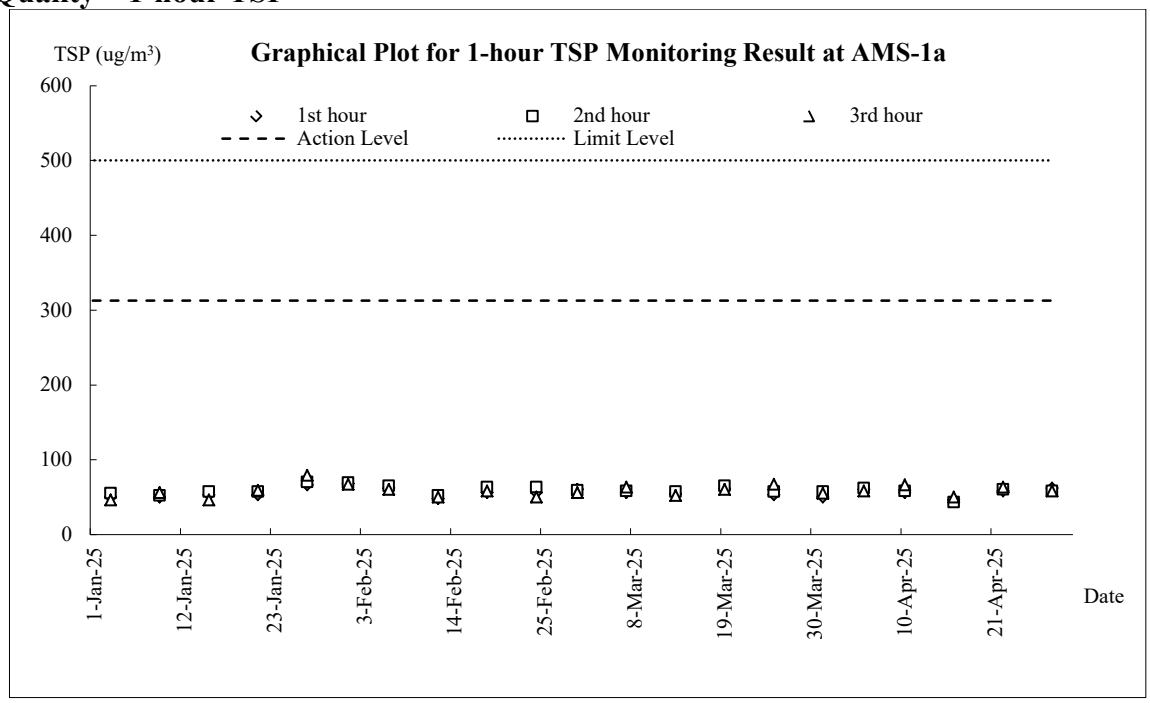
NOISE MONITORING RESULT DATABASE FOR CONTRACT 3

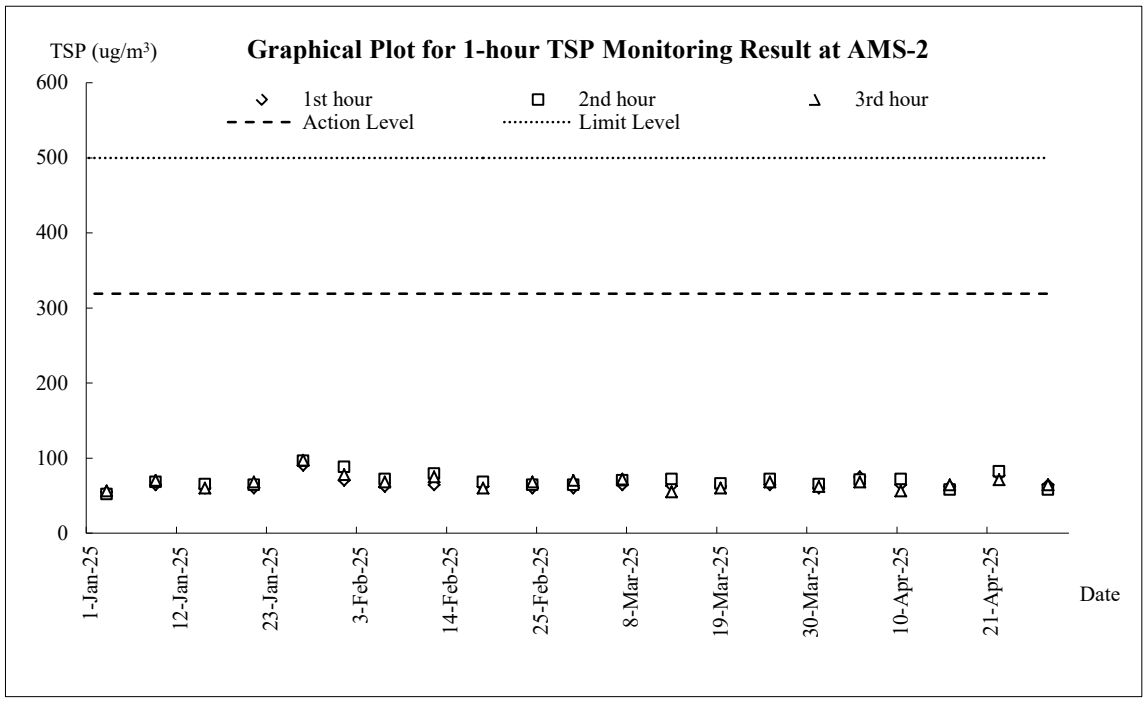
Noise Measurement Results (dB) of CN3																				
Date	Start Time	1st Leq (5min)			2nd Leq (5min)			3rd Leq (5min)			4th Leq (5min)			5th Leq (5min)			6th Leq (5min)			Leq30min, dB(A)	Limit Level dB(A)
		Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)		
10-Apr-25	10:50	58.4	60.5	53.8	58.6	61.5	53.7	61.3	65.2	54.2	59.8	63.2	54.3	59.5	62.7	53.0	59.8	63.3	54.0	60	75
16-Apr-25	9:35	57.5	60.6	53.8	61.9	65.9	54.3	62.1	65.8	54.5	61.9	66.0	54.2	59.6	63.2	54.2	59.6	62.8	55.2	61	75
22-Apr-25	9:30	62.9	66.5	58.5	61.7	65.5	57.5	63.3	66.0	59.5	61.8	64.5	58.0	62.9	66.0	58.5	62.5	66.5	59.0	63	75
28-Apr-25	9:40	60.2	63.0	57.1	64.0	66.9	52.7	62.2	66.4	56.5	61.8	65.8	55.8	60.9	63.8	54.1	63.0	67.0	55.8	62	75

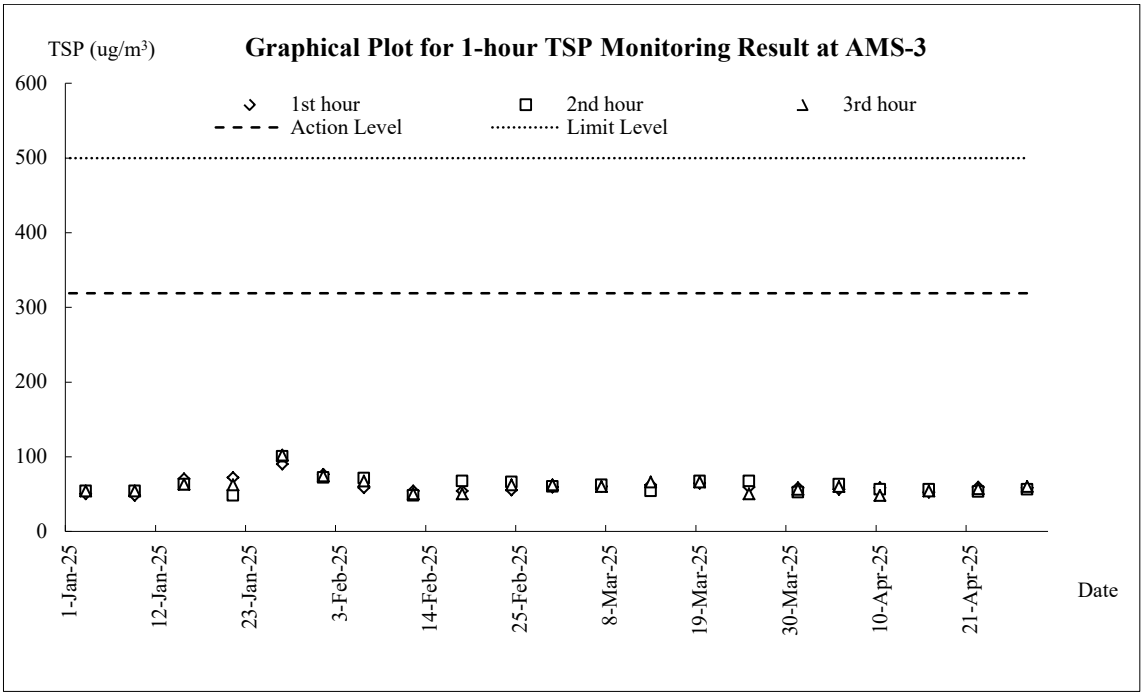
Appendix I

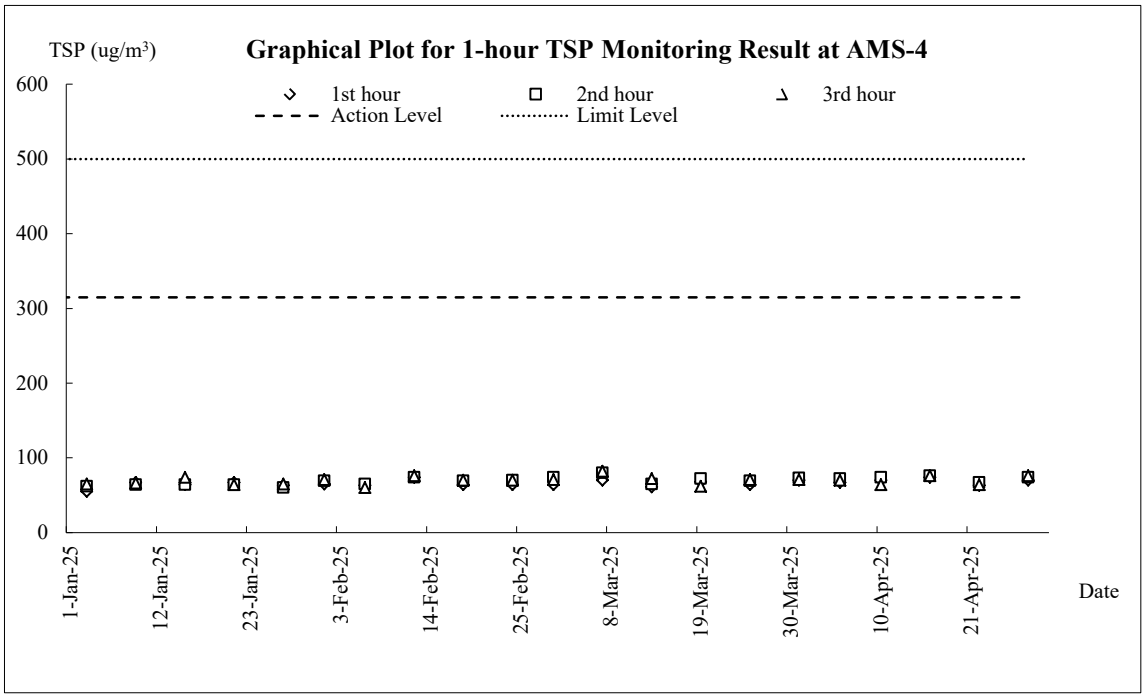
Graphical Plots for Monitoring Result

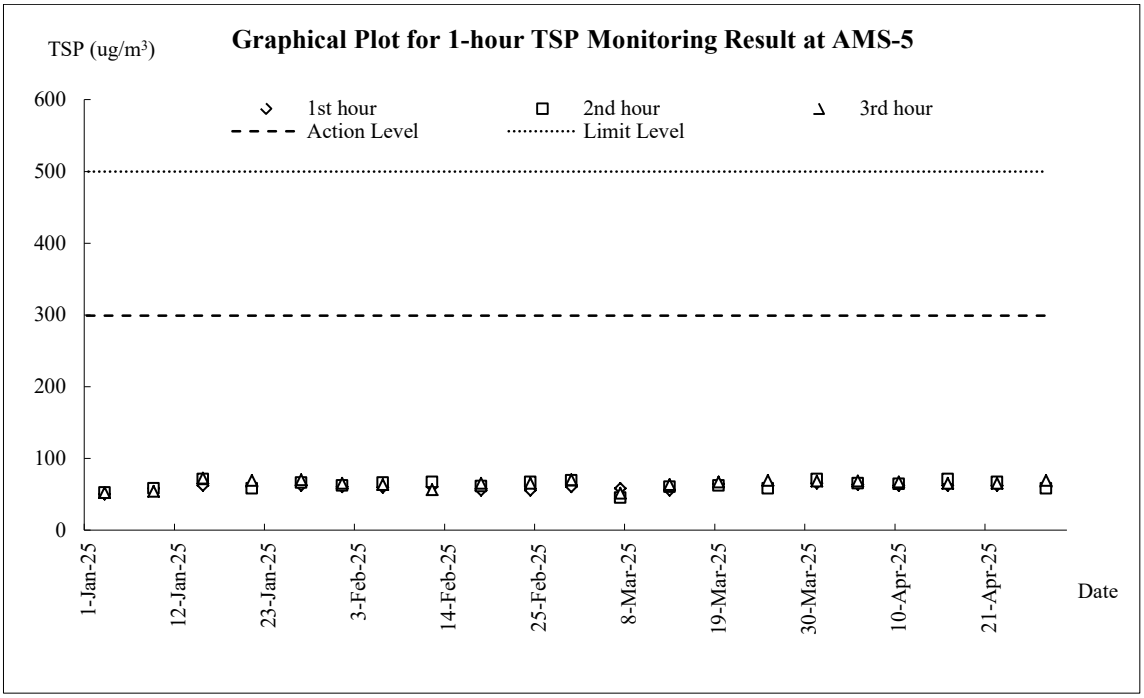
Air Quality – 1-hour TSP

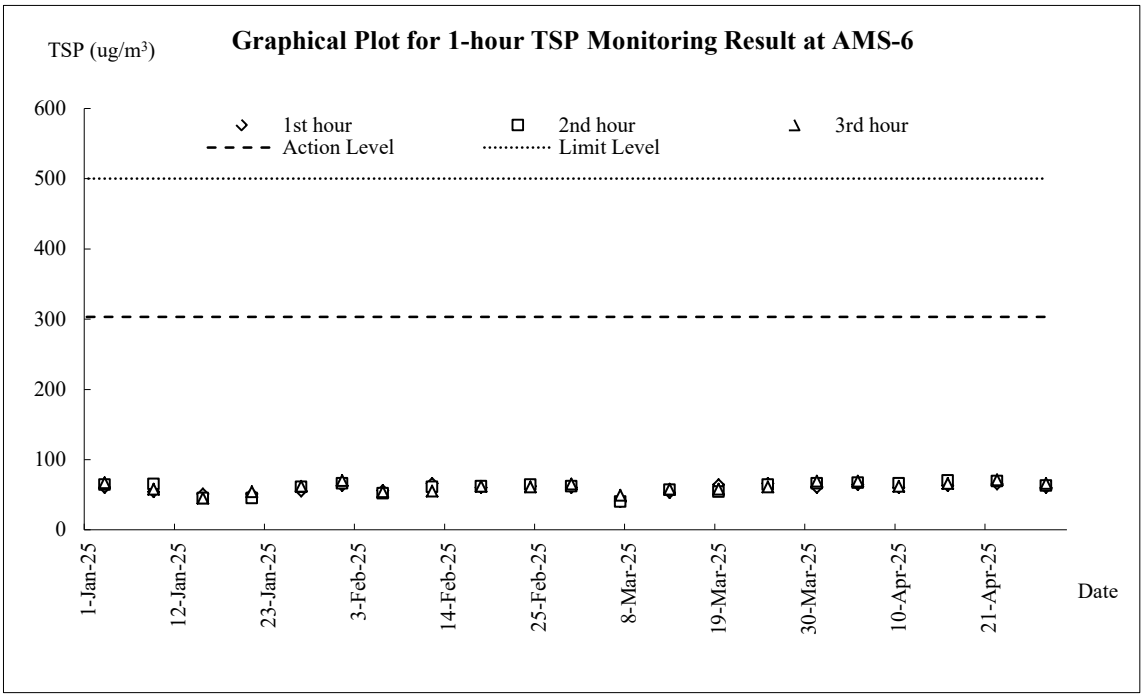


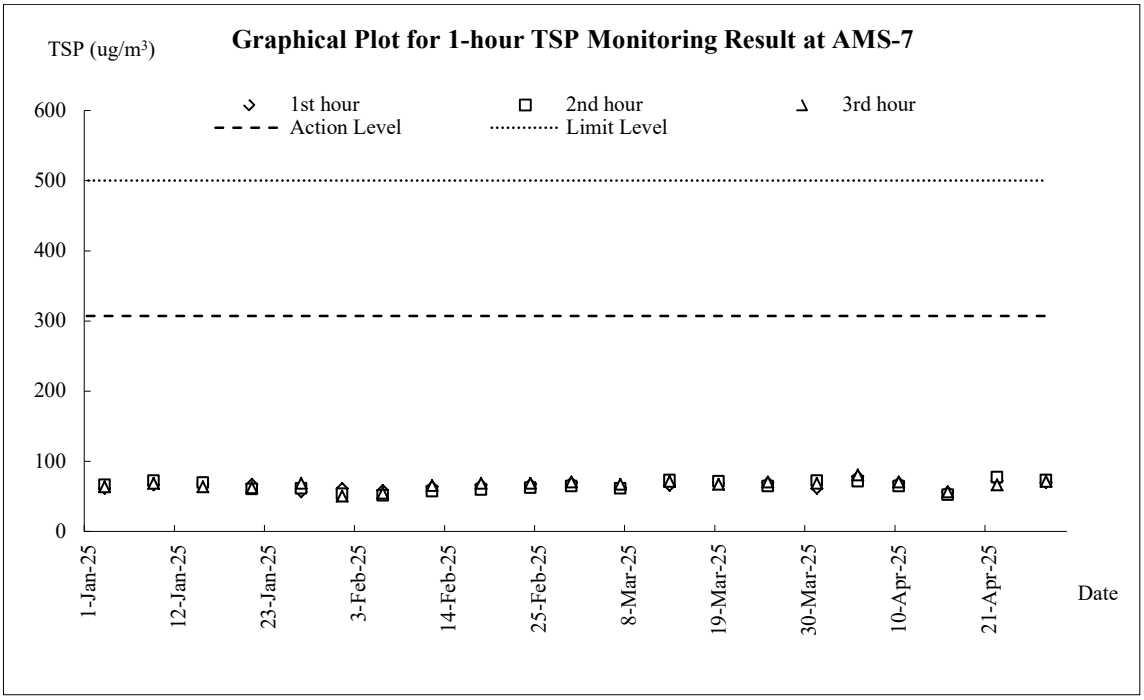



TSP (ug/m³)
Graphical Plot for 1-hour TSP Monitoring Result at AMS-3
1st hour
2nd hour
3rd hour
Action Level
Limit Level
600
500
400
300
200
100
0
1-Jan-25
12-Jan-25
23-Jan-25
3-Feb-25
14-Feb-25
25-Feb-25
8-Mar-25
19-Mar-25
30-Mar-25
10-Apr-25
21-Apr-25
Date

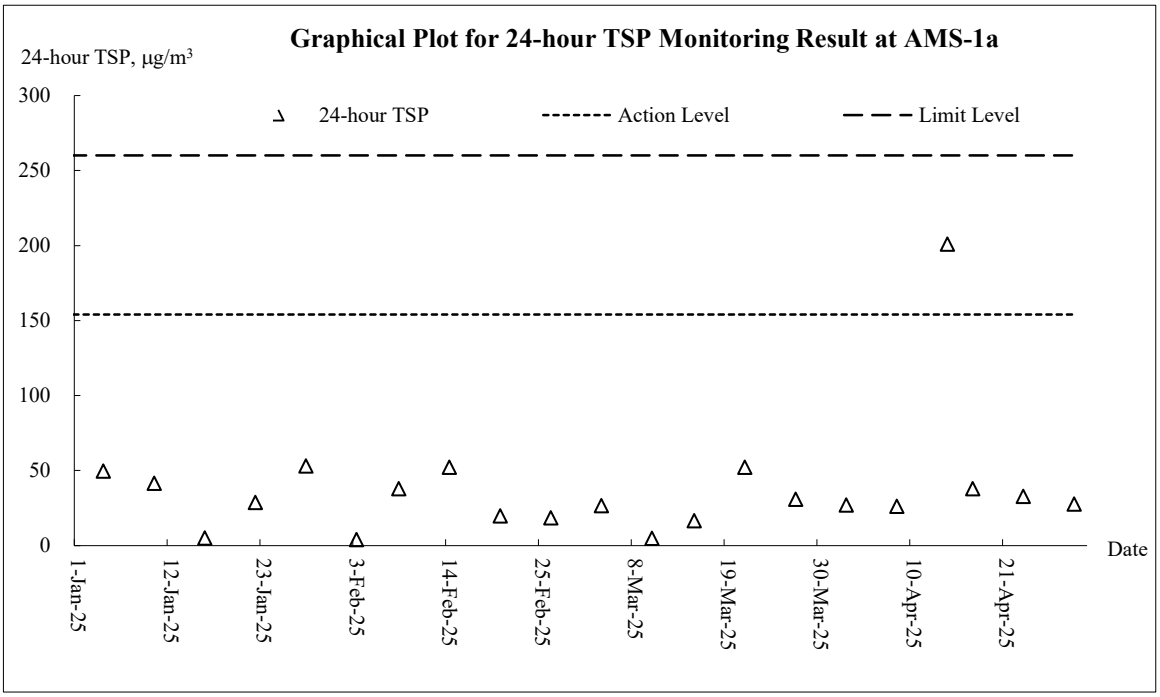

TSP (ug/m³)
Graphical Plot for 1-hour TSP Monitoring Result at AMS-4
1st hour
2nd hour
3rd hour
Action Level
Limit Level
600
500
400
300
200
100
0
1-Jan-25
12-Jan-25
23-Jan-25
3-Feb-25
14-Feb-25
25-Feb-25
8-Mar-25
19-Mar-25
30-Mar-25
10-Apr-25
21-Apr-25
Date

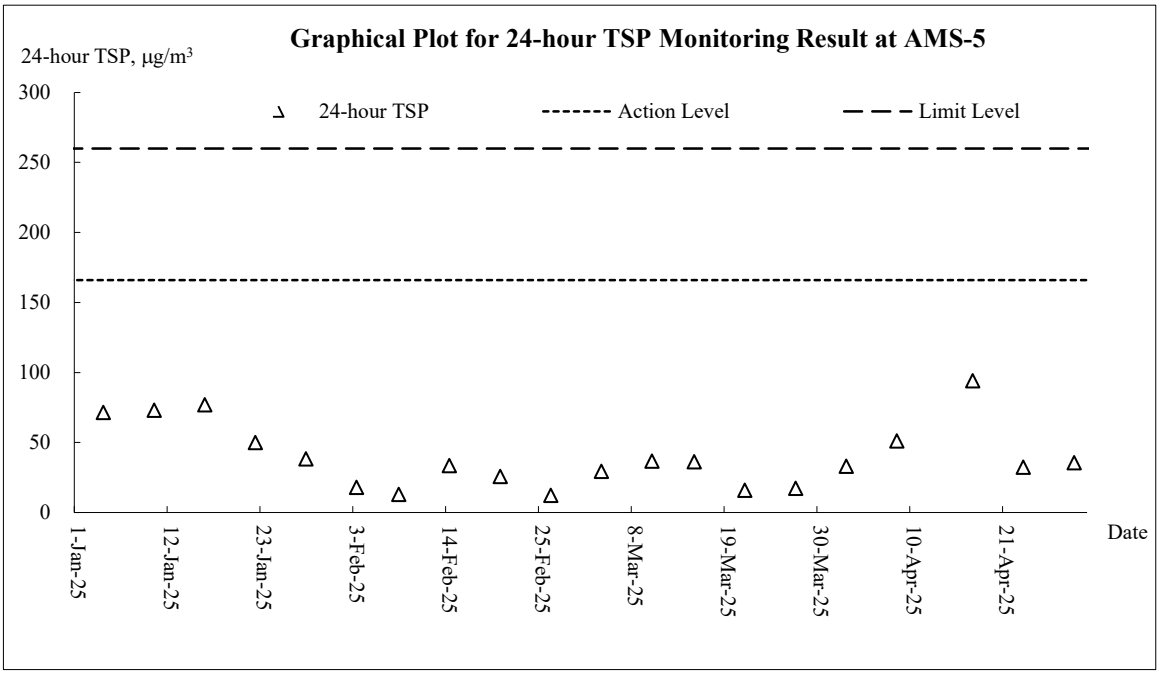

Graphical Plot for 1-hour TSP Monitoring Result at AMS-5
TSP (ug/m³)
1st hour
2nd hour
3rd hour
Action Level
Limit Level
600
500
400
300
200
100
0
1-Jan-25
12-Jan-25
23-Jan-25
3-Feb-25
14-Feb-25
25-Feb-25
8-Mar-25
19-Mar-25
30-Mar-25
10-Apr-25
21-Apr-25
Date

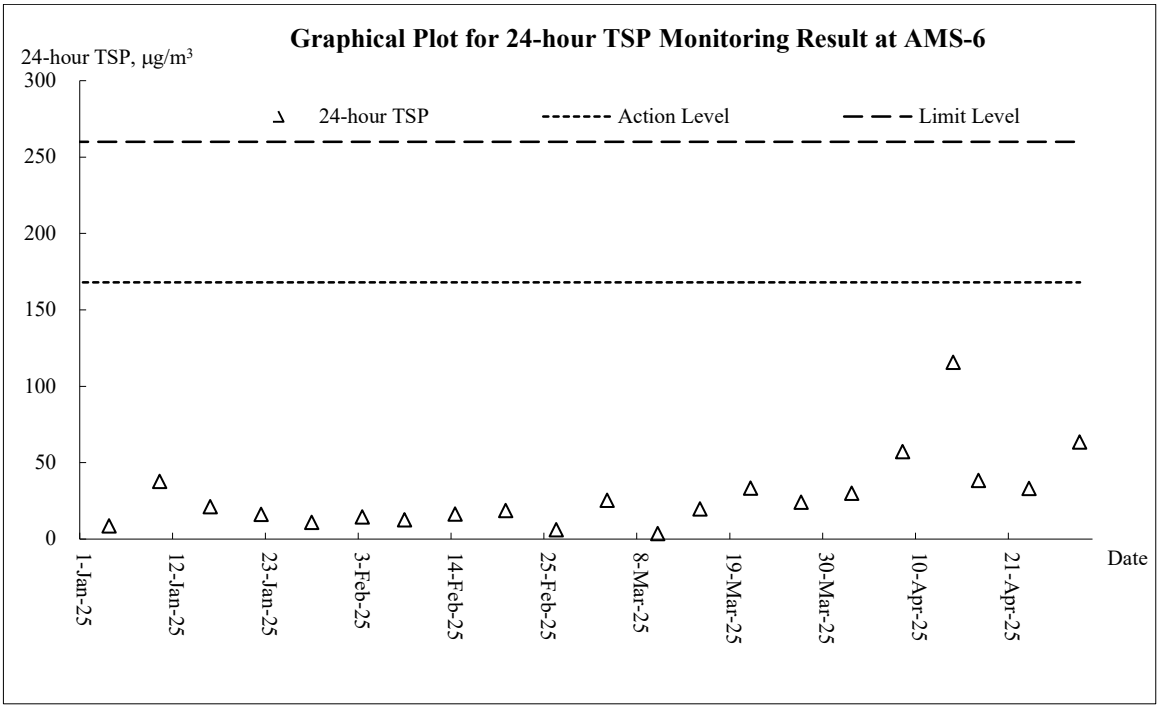

Graphical Plot for 1-hour TSP Monitoring Result at AMS-6
TSP (ug/m³)
1st hour
2nd hour
3rd hour
Action Level
Limit Level
600
500
400
300
200
100
0
1-Jan-25
12-Jan-25
23-Jan-25
3-Feb-25
14-Feb-25
25-Feb-25
8-Mar-25
19-Mar-25
30-Mar-25
10-Apr-25
21-Apr-25
Date

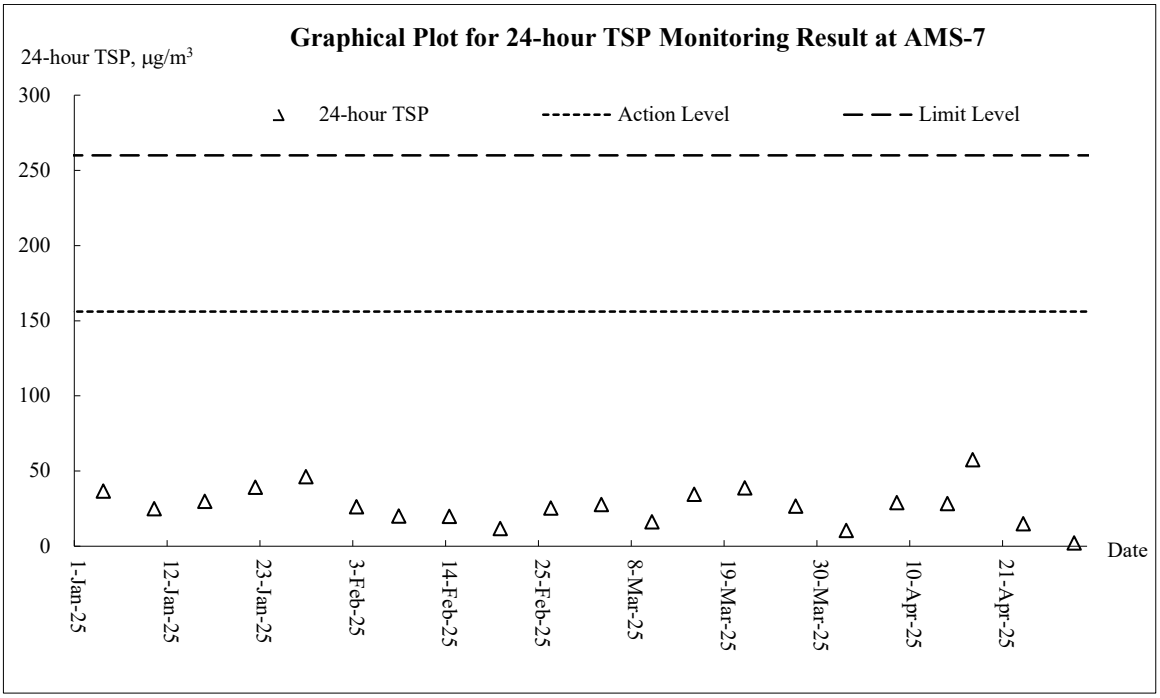

Graphical Plot for 1-hour TSP Monitoring Result at AMS-7
TSP (ug/m³)
1st hour
2nd hour
3rd hour
Action Level
Limit Level
600
500
400
300
200
100
0
1-Jan-25
12-Jan-25
23-Jan-25
3-Feb-25
14-Feb-25
25-Feb-25
8-Mar-25
19-Mar-25
30-Mar-25
10-Apr-25
21-Apr-25
Date

Air Quality – 24-hour TSP

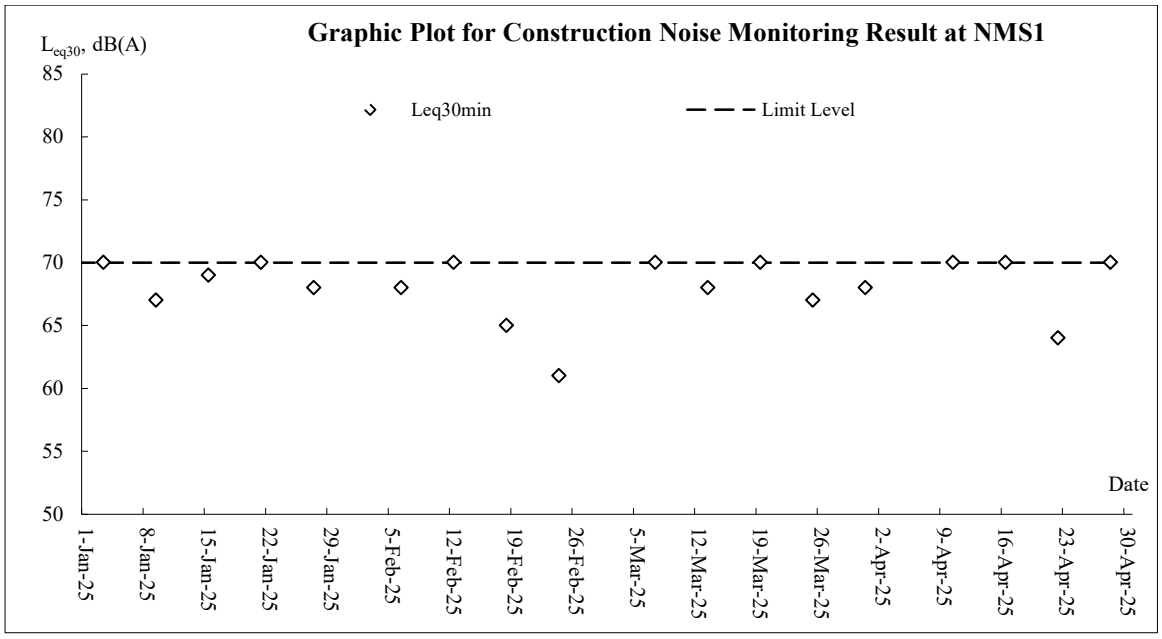


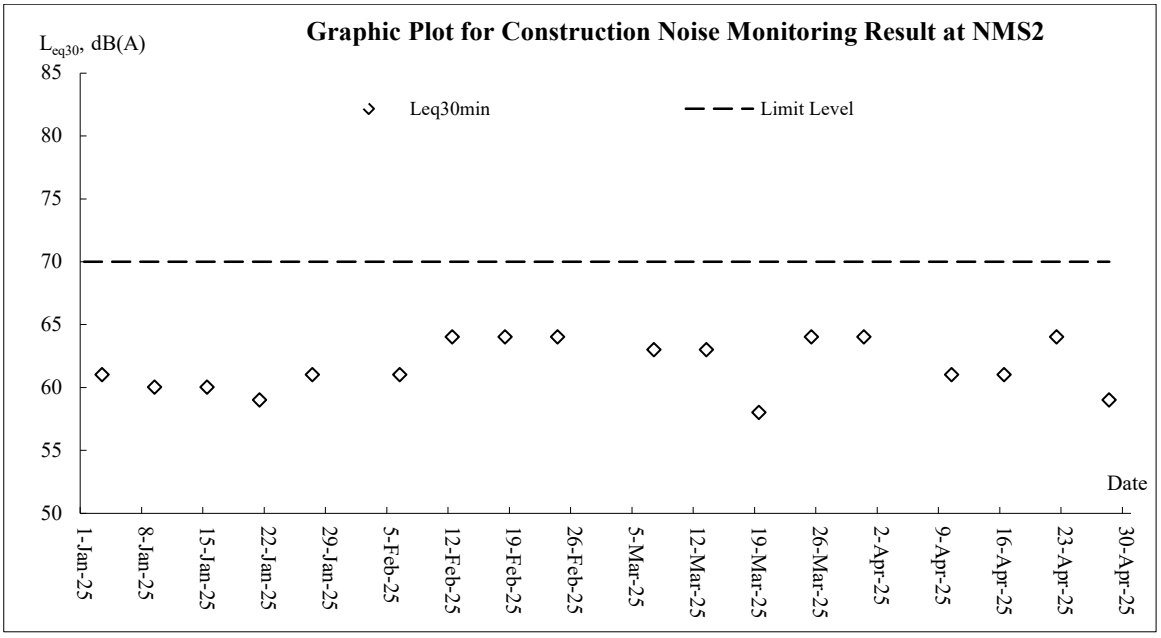


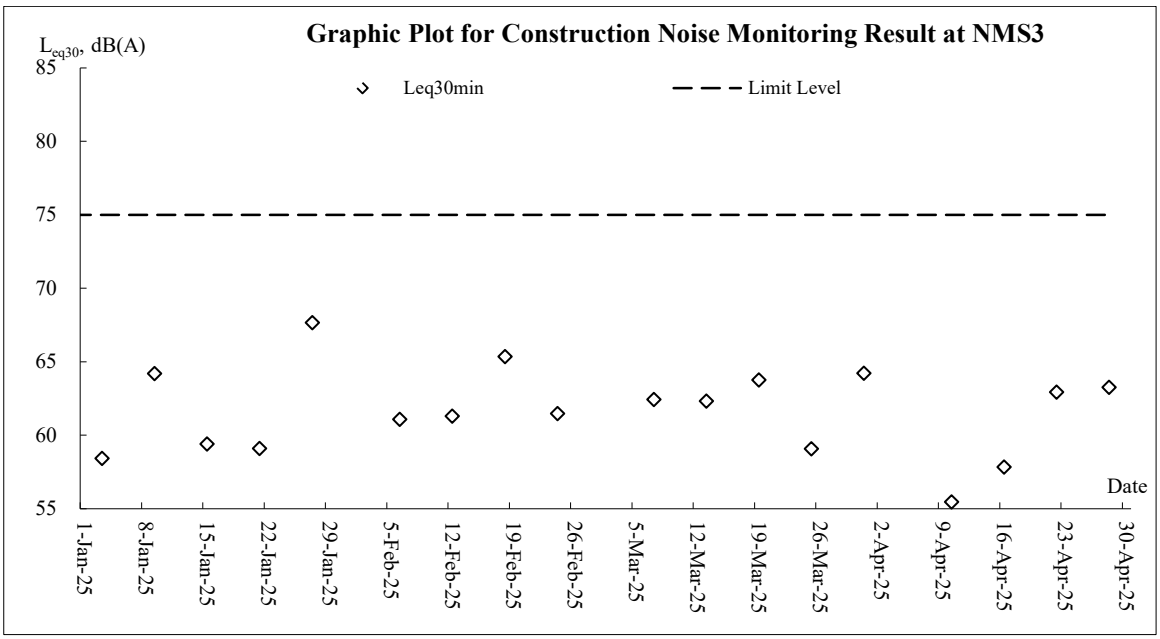

Graphical Plot for 24-hour TSP Monitoring Result at AMS-6
24-hour TSP, μg/m³
24-hour TSP
Action Level
Limit Level
300
250
200
150
100
50
0
1-Jan-25
12-Jan-25
23-Jan-25
3-Feb-25
14-Feb-25
25-Feb-25
8-Mar-25
19-Mar-25
30-Mar-25
10-Apr-25
21-Apr-25
Date

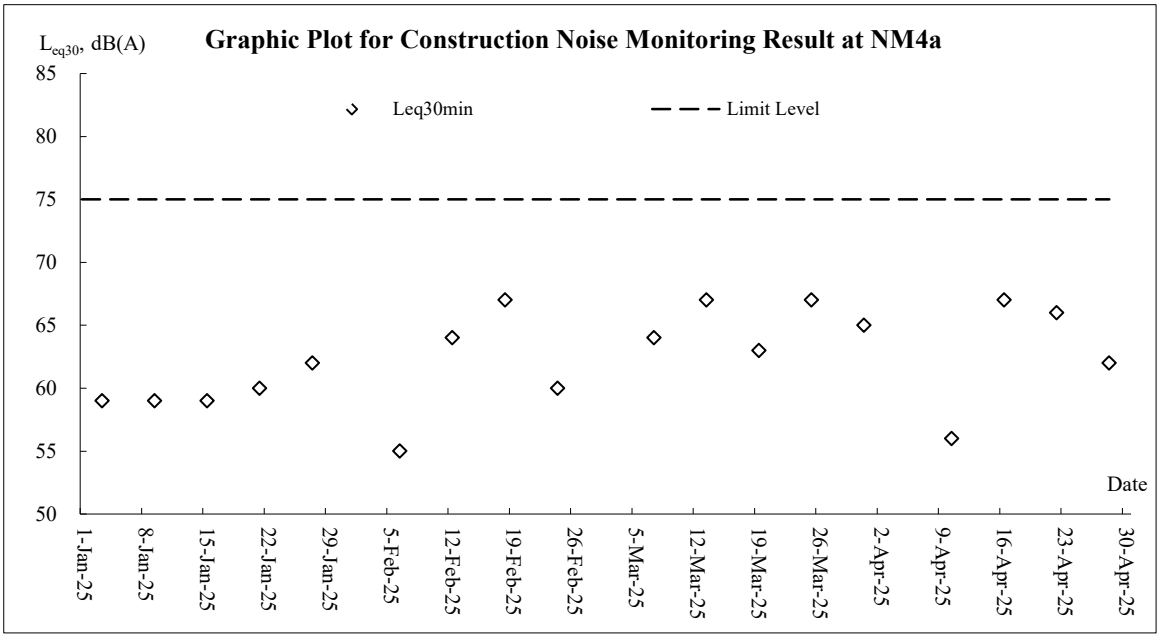

Graphical Plot for 24-hour TSP Monitoring Result at AMS-7
24-hour TSP, μg/m³
24-hour TSP
Action Level
Limit Level
300
250
200
150
100
50
0
1-Jan-25
12-Jan-25
23-Jan-25
3-Feb-25
14-Feb-25
25-Feb-25
8-Mar-25
19-Mar-25
30-Mar-25
10-Apr-25
21-Apr-25
Date

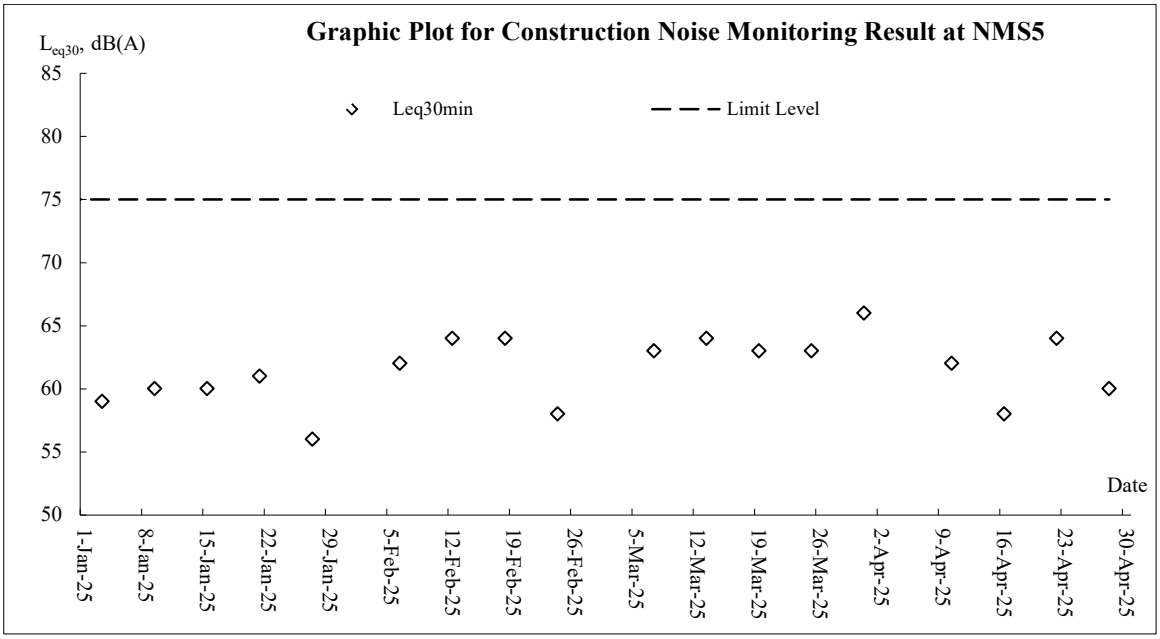
Noise

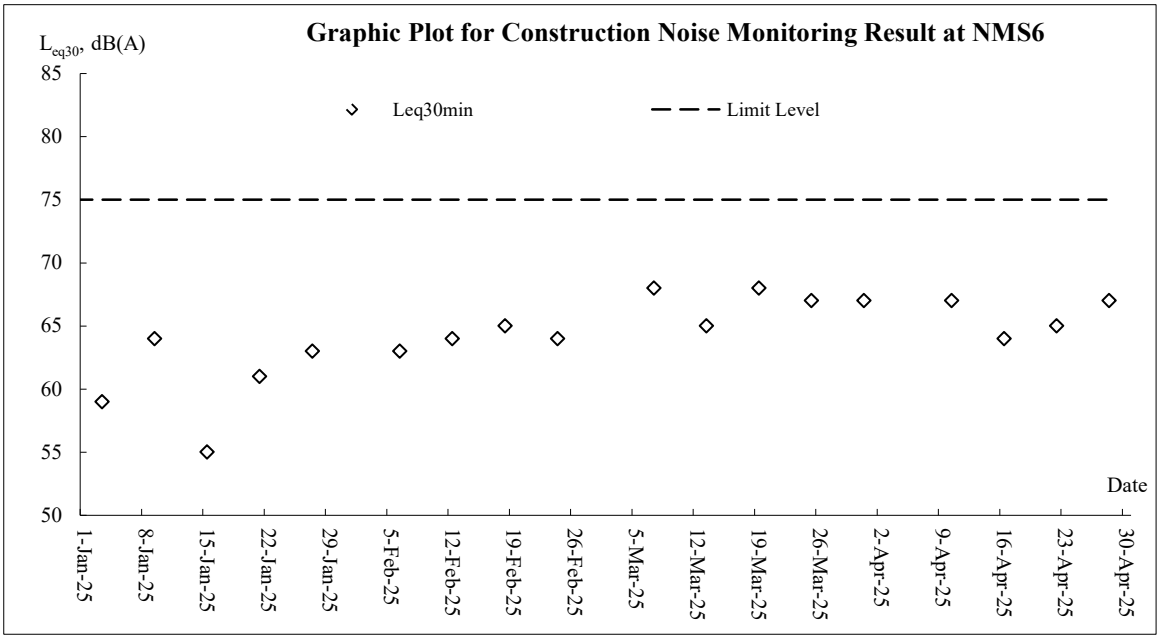

Graphic Plot for Construction Noise Monitoring Result at NMS1
L_{eq30}, dB(A)
Leq30min
Limit Level
85
80
75
70
65
60
55
50
Date
1-Jan-25
8-Jan-25
15-Jan-25
22-Jan-25
29-Jan-25
5-Feb-25
12-Feb-25
19-Feb-25
26-Feb-25
5-Mar-25
12-Mar-25
19-Mar-25
26-Mar-25
2-Apr-25
9-Apr-25
16-Apr-25
23-Apr-25
30-Apr-25

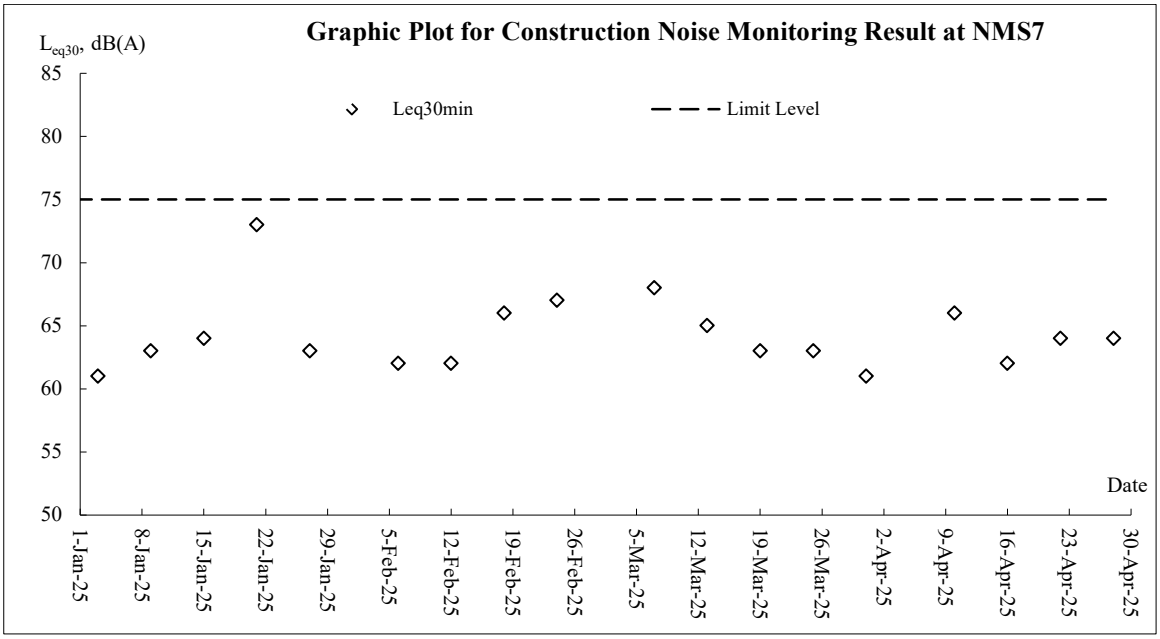

Graphic Plot for Construction Noise Monitoring Result at NMS2
L_{eq30}, dB(A)
Leq30min
Limit Level
85
80
75
70
65
60
55
50
Date
1-Jan-25
8-Jan-25
15-Jan-25
22-Jan-25
29-Jan-25
5-Feb-25
12-Feb-25
19-Feb-25
26-Feb-25
5-Mar-25
12-Mar-25
19-Mar-25
26-Mar-25
2-Apr-25
9-Apr-25
16-Apr-25
23-Apr-25
30-Apr-25

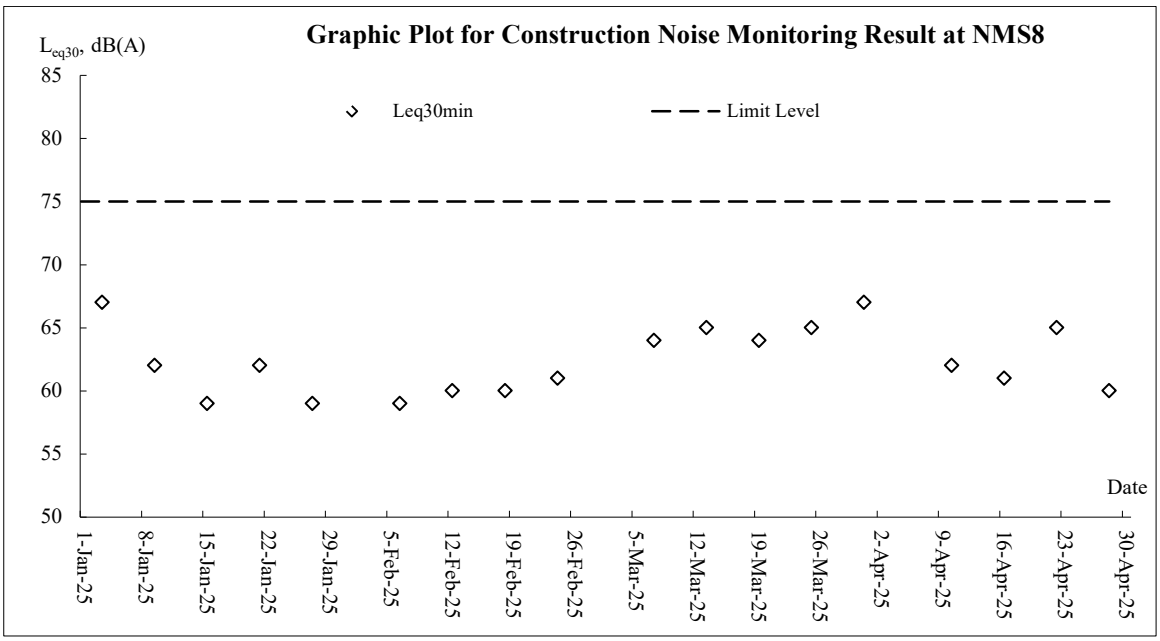

Graphic Plot for Construction Noise Monitoring Result at NMS3
L_{eq30}, dB(A)
Leq30min
Limit Level
85
80
75
70
65
60
55
Date
1-Jan-25
8-Jan-25
15-Jan-25
22-Jan-25
29-Jan-25
5-Feb-25
12-Feb-25
19-Feb-25
26-Feb-25
5-Mar-25
12-Mar-25
19-Mar-25
26-Mar-25
2-Apr-25
9-Apr-25
16-Apr-25
23-Apr-25
30-Apr-25

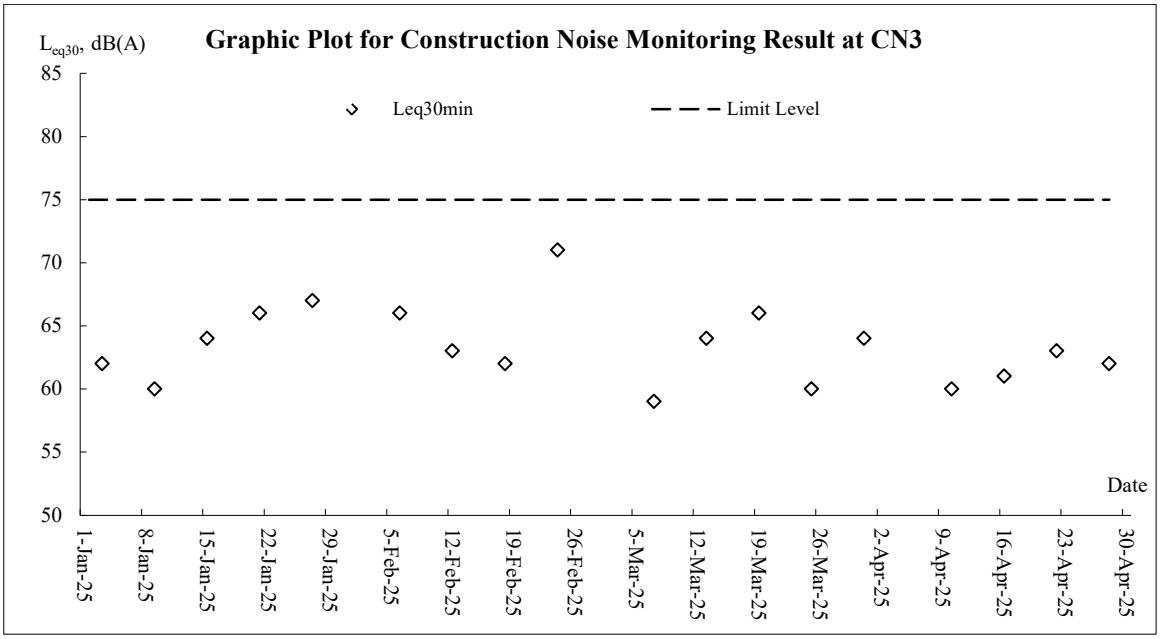

Graphic Plot for Construction Noise Monitoring Result at NM4a
L_{eq30}, dB(A)
Leq30min
Limit Level
85
80
75
70
65
60
55
50
Date
1-Jan-25
8-Jan-25
15-Jan-25
22-Jan-25
29-Jan-25
5-Feb-25
12-Feb-25
19-Feb-25
26-Feb-25
5-Mar-25
12-Mar-25
19-Mar-25
26-Mar-25
2-Apr-25
9-Apr-25
16-Apr-25
23-Apr-25
30-Apr-25


Graphic Plot for Construction Noise Monitoring Result at NMS5
L_{eq30}, dB(A)
Leq30min
Limit Level
85
80
75
70
65
60
55
50
Date
1-Jan-25
8-Jan-25
15-Jan-25
22-Jan-25
29-Jan-25
5-Feb-25
12-Feb-25
19-Feb-25
26-Feb-25
5-Mar-25
12-Mar-25
19-Mar-25
26-Mar-25
2-Apr-25
9-Apr-25
16-Apr-25
23-Apr-25
30-Apr-25


Graphic Plot for Construction Noise Monitoring Result at NMS6
L_{eq30}, dB(A)
Leq30min
Limit Level
85
80
75
70
65
60
55
50
Date
1-Jan-25
8-Jan-25
15-Jan-25
22-Jan-25
29-Jan-25
5-Feb-25
12-Feb-25
19-Feb-25
26-Feb-25
5-Mar-25
12-Mar-25
19-Mar-25
26-Mar-25
2-Apr-25
9-Apr-25
16-Apr-25
23-Apr-25
30-Apr-25


Graphic Plot for Construction Noise Monitoring Result at NMS7
L_{eq30}, dB(A)
Leq30min
Limit Level
85
80
75
70
65
60
55
50
Date
1-Jan-25
8-Jan-25
15-Jan-25
22-Jan-25
29-Jan-25
5-Feb-25
12-Feb-25
19-Feb-25
26-Feb-25
5-Mar-25
12-Mar-25
19-Mar-25
26-Mar-25
2-Apr-25
9-Apr-25
16-Apr-25
23-Apr-25
30-Apr-25


Graphic Plot for Construction Noise Monitoring Result at NMS8
L_{eq30}, dB(A)
Leq30min
Limit Level
85
80
75
70
65
60
55
50
Date
1-Jan-25
8-Jan-25
15-Jan-25
22-Jan-25
29-Jan-25
5-Feb-25
12-Feb-25
19-Feb-25
26-Feb-25
5-Mar-25
12-Mar-25
19-Mar-25
26-Mar-25
2-Apr-25
9-Apr-25
16-Apr-25
23-Apr-25
30-Apr-25


Graphic Plot for Construction Noise Monitoring Result at CN3
L_{eq30}, dB(A)
Leq30min
Limit Level
85
80
75
70
65
60
55
50
Date
1-Jan-25
8-Jan-25
15-Jan-25
22-Jan-25
29-Jan-25
5-Feb-25
12-Feb-25
19-Feb-25
26-Feb-25
5-Mar-25
12-Mar-25
19-Mar-25
26-Mar-25
2-Apr-25
9-Apr-25
16-Apr-25
23-Apr-25
30-Apr-25

Appendix J

Meteorological Data

Date		Weather	Total Rainfall (mm)	Kwun Tong Station	Kai Tak Station		King's Park Station
				Mean Air Temp. (°C)	Wind Speed (km/h)	Wind Direction	Mean Relative Humidity (%)
1-Apr-25	Tue	Sunny periods in the afternoon. Mainly cloudy	0	17.6	8.5	NW	65.5
2-Apr-25	Wed	Fine. Warm and very dry	0	18.1	11.2	S/SE	57
3-Apr-25	Thu	Moderate east to northeasterly winds.	0	20.3	10.5	S/SE	48
4-Apr-25	Fri	Mainly cloudy.	Trace	19.2	8.7	S/SE	51
5-Apr-25	Sat	Sunny intervals. Light to moderate easterly winds.	7.3	Maintenance	8.1	SE	42.7
6-Apr-25	Sun	Sunny periods in the afternoon. Mainly cloudy	Trace	20.5	7.5	E/SE	68
7-Apr-25	Mon	Mainly cloudy.	0	21.8	11.7	E/SE	53
8-Apr-25	Tue	Light to moderate southerly winds.	0	22.3	8.7	SE	70
9-Apr-25	Wed	Rather warm during the day.	0	24.6	6.2	S/SE	75
10-Apr-25	Thu	Sunny intervals. Misty	0	25	6.2	W/SW	77.5
11-Apr-25	Fri	Sunny intervals. Light to moderate easterly winds.	Trace	25.4	6.2	S/SE	86.2
12-Apr-25	Sat	Light to moderate southerly winds.	6.9	22.8	7.5	NW	58.4
13-Apr-25	Sun	Rather warm during the day.	Trace	21.7	8.7	NW	28
14-Apr-25	Mon	Very dry at first.	0	23.3	8	W/SW	43
15-Apr-25	Tue	Very dry at first.	0	25.9	13	S/SE	49.5
16-Apr-25	Wed	Mainly cloudy.	0	24.2	14.5	SE	69
17-Apr-25	Thu	Sunny periods in the afternoon. Mainly cloudy	0	24.2	10.7	S/SE	77.5
18-Apr-25	Fri	Light to moderate southerly winds.	3.5	24.1	11.2	S/SE	76
19-Apr-25	Sat	One or two showers later.	0.1	26.4	8.9	SE	72.8
20-Apr-25	Sun	Hot with sunny periods.	0	27.5	7.1	N/NW	77.2
21-Apr-25	Mon	Hot with sunny periods.	0	26.7	8.2	W/SW	76
22-Apr-25	Tue	Hot with sunny periods	0	27.5	9	W/SW	78.5
23-Apr-25	Wed	Moderate southerly winds.	0	2.8	10	W/SW	75.7
24-Apr-25	Thu	Mainly cloudy.	0.5	28.1	9.5	SW	75.5
25-Apr-25	Fri	Sunny periods in the afternoon.	18.9	24.4	9.5	S/SE	90
26-Apr-25	Sat	One or two light rain	Trace	21.2	17.5	E/SE	86.5
27-Apr-25	Sun	Mainly cloudy.	0.8	21.4	7.5	E/SE	91.7
28-Apr-25	Mon	Sunny periods. Light winds	19.1	25.9	6.2	S/SE	83.7
29-Apr-25	Tue	Mainly cloudy with isolated showers	0	24.4	15	E/SE	62.2
30-Apr-25	Wed	Moderate easterly winds.	0	25.1	11.5	S/SE	72.5

Appendix K

Waste Flow Table

APPENDIX 2

Contract No.: ED/2020/02

Monthly Summary Waste Flow Table for 2025

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity of Materials Generated	Hard Rock, Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics	Chemical Waste	Others, e.g. general refuse
	(in '000 m^3)	(in '000 m^3)	(in '000 m^3)	(in '000 m^3)	(in '000 m^3)**	(in '000 m^3)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 m^3)*
Jan	3.641	0.000	0.000	0.000	3.641	0.000	0.000	0.000	0.000	0.000	0.065
Feb	1.533	0.000	0.000	0.000	1.533	0.000	0.000	0.000	0.000	0.000	0.071
Mar	1.216	0.000	0.000	0.000	1.216	0.000	0.000	0.000	0.000	0.000	0.099
Apr	1.028	0.000	0.000	0.000	1.028	0.000	0.000	0.000	0.000	0.000	0.045
May											
June											
July											
Aug											
Sep											
Oct											
Nov											
Dec											
Total	**7.417**	**0.000**	**0.000**	**0.000**	**7.417**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.280**

Notes: * Conversion factor for general refuse, 1 tonne = $2m^3$

** Conversion factor for general fill, 2 tonne = $1m^3$

Estimation for next month

Appendix L

Implementation Schedule for Environmental Mitigation Measures

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	Implementation Status				
					Contract 1	Contract 2	Contract 3	Contract 4	Contract 5
Dust Impact (Contraction Phase)									
S4.7.2 to S4.7.5	Mitigation measures in form of regular watering under a good site practice should be adopted. Watering once per hour on exposed worksites and haul road is proposed to achieve dust removal efficiency of 91.7%. While the above watering frequencies are to be followed, the extent of watering may vary depending on actual site conditions but should be sufficient to maintain an equivalent intensity of no less than 1.75 L/m^2 to achieve the respective dust removal efficiencies.	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	V	V	V	V	V
S4.7.6	The Contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction ion Dust) Regulation.	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	V	V	V	V	V
S4.7.6	Following dust suppression measures should also be incorporated by the Contractor to control the dust nuisance throughout the construction phase: • Any excavated or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading; • Any dusty materials remaining after a stockpile is removed should be wet ted with water and cleared from the surface of roads; • A stockpile of dusty material should not be extend beyond the pedestrian barriers, fencing or traffic cones; • The load of dusty materials on a vehicle leaving a construction ion site should be covered entirely by impervious sheeting to ensure that the dusty materials do not leak from the vehicle; • Where practicable, vehicle washing facilities with high pressure water jet should be provided at every discernible or designated vehicle exit point. The area where vehicle washing takes place and the road sect ion between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores; • When there are open excavation and reinstatement	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	@	@	@	@	@

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	Implementation Status				
					Contract 1	Contract 2	Contract 3	Contract 4	Contract 5
	works, hoarding of not less than 2.4m high should be provided as far as practicable along the site boundary with provision for public crossing. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are properly maintained throughout the construction ion period. • The port ion of any road leading only to construction ion site that is within 30m of a vehicle entrance or exit should be kept clear of dusty materials; • Surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operation takes place should be sprayed with water or a dust suppression chemical continuously; • Any area that involves demolition activities should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet ; • Where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting should be provided to enclose the scaffolding from the ground floor level of the building, or a canopy should be provided from the first floor level up to the highest level of the scaffolding; • Any skip hoist for material transport should be totally enclosed by impervious sheeting; • 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; • Cement or dry PFA delivered in bulk should be stored in a closed silo fit ted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed; and • Exposed earth should be properly treated by compact ion, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen,								

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	Implementation Status				
					Contract 1	Contract 2	Contract 3	Contract 4	Contract 5
	shortcrete or other suitable surface stabiliser within six months after the last construction activity on the construction site or part of the construction site where the exposed earth lies.								
S4.7.7	Implement regular dust monitoring under EM&A programme during the Construction phase.	Control construction airborne noise	Selected Representative dust monitoring station	All construction sites where practicable	V	N/A	V	N/A	N/A
Noise Impact (Contraction Phase)									
S5.6.9	Implement the following good site management practices: • only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction ion programme; • machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; • plant known to emit noise strongly in one direct ion, where possible, be orientated so that the noise is directed away from nearby NSRs; • silencers or mufflers on construction ion equipment should be properly fit ted and maintained during the construction ion works; • mobile plant should be sited as far away from NSRs as possible and practicable; and • material stockpiles, mobile container site office and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.	Control construction ion airborne noise	Contractor	All construction sites where practicable	@	V	V	@	@
S5.6.11 to S5.6.13	Use of "Quiet" Plant and Working Methods.	Reduce the noise levels of plant items	Contractor	All construction sites where practicable	V	N/A	N/A	N/A	N/A
S5.6.14	Install temporary site hoarding (approx 2.5m high) located on the site boundaries between noisy construction activities and NSRs. The conditions of the hoardings shall be properly maintained throughout the construction period.	Reduce the construction ion noise levels at low-level zone of NSRs through partial screening.	Contractor	All construction sites where practicable	V	V	V	V	V
S5.6.15 to S5.6.18	Install movable noise barriers, full enclosure and acoustic mat, screen the noisy plants including air compressor and generator.	Screen the noisy plant items to be used at all construction sites	Contractor	All construction ion sites where practicable	V	V	N/A	V	N/A
S5.6.19	Sequencing operation of construction plants equipment.	Operate sequentially	Contractor	All construction	V	V	N/A	N/A	N/A

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	Implementation Status				
					Contract 1	Contract 2	Contract 3	Contract 4	Contract 5
		within the same work site to reduce the construction airborne noise		ion sites where practicable					
S5.6.34	Implement temporary noise barrier along Road L4.	Further reduce the construction ion airborne noise	Contractor	Road L4 of ARQ	N/A	N/A	N/A	N/A	N/A
S5.6.35	Implement a noise monitoring under EM&A programme.	Monitor the construction noise levels at the selected representative locations	Contractor	Selected Representative Noise monitoring stations	V	N/A	V	N/A	N/A
B	**Water Quality Impact (Contraction Phase)**								
S6.6.3	Construction Runoff In accordance with the Practice Note for Professional Persons on Construction ion Site Drainage, Environmental Protect ion Department , 1994 (ProPECC PN 1/94), best management practices should be implemented as far as practicable as below: • At the start of site establishment , perimeter cut -off drains to direct off-site water around the site should be constructed with internal drainage works. Channels (both temporary and permanent drainage pipes and culverts), earth bunds or sand bag barriers should be provided on site to direct stormwater to silt removal facilities. • Diversion of natural stormwater should be provided as far as possible. The design of temporary on-site drainage should prevent runoff going through site surface, construction machinery and equipment in order to avoid or minimize polluted runoff. Sediment at ion tanks with sufficient capacity, constructed from preformed individual cells of approximately 6 to 8 m^3 capacities, are recommended as a general mitigation measure which can be used for set t ling surface runoff prior to disposal. The system capacity shall be flexible and able to handle multiple inputs from a variety of sources and suited to applications where the influent is pumped.	Control construction runoff	Contractor	All construction sites	@	@	@	@	V

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	Implementation Status				
					Contract 1	Contract 2	Contract 3	Contract 4	Contract 5
	• The dikes or embankments for flood protect ion should be implemented around the boundaries of earthwork areas. Temporary ditches should be provided to facilitate the runoff discharge into an appropriate watercourse, through a silt /sediment t rap. The silt /sediment t raps should be incorporated in the permanent drainage channels to enhance deposit ion rates. • The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94. The detailed design of the sand/silt traps should be undertaken by the contractor prior to the commencement of construction ion. • Construction works should be programmed to minimize surface excavation works during the rainy seasons (April to September). All exposed earth areas should be completed and vegetated as soon as possible after earthworks have been completed. 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. • All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rainstorms. Deposited silt and grit should be removed regularly and disposed of by spreading evenly over stable, vegetated areas. • Measures should be taken to minimise the ingress of site drainage into excavations. If the excavation of trenches in wet periods is necessary, it should be dug and backfilled in short sect ions wherever practicable. Water pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities. • All open stockpiles of construction ion materials (for example, aggregates, sand and fill material) of should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to								

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	Implementation Status				
					Contract 1	Contract 2	Contract 3	Contract 4	Contract 5
	prevent the washing away of construction ion materials, soil, silt or debris into any drainage system. • Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction ion materials or debris being washed into the drainage system and storm runoff being directed into foul sewers. • Precautions to be taken at any time of year when rainstorms are likely, act ions to be taken when a rainstorm is imminent or forecasted, and act ions to be taken during or after rainstorms are summarized in Appendix A2 of ***ProPECC PN 1/94***. Particular attention should be paid to the control of silty surface runoff during storm events. • All vehicles and plant should be cleaned before leaving a construction ion site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing facilities should be provided at every construction ion site exit where practicable. Wash-water should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process. The sect ion of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient back all toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and rains. • Oil interceptors should be provided in the drainage system downstream of any oil/fuel pollution sources. The oil interceptors should be emptied and cleaned regularly to prevent the release of oil and grease into the storm water drainage system after accidental spillage. A bypass should be provided for the oil interceptors to prevent flushing during heavy rain. • Construction ion solid waste, debris and rubbish on site should be collected, handled and disposed of properly to avoid water quality impacts.								

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	Implementation Status				
					Contract 1	Contract 2	Contract 3	Contract 4	Contract 5
	• All fuel tanks and storage areas should be provided with locks and sited on sealed areas, within bun ds of a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled fuel oils from reaching water sensitive receivers nearby. • Regular environmental audit on the construction site should be carried out in order to prevent any malpractices. Not ices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the rivers.								
S6.6.6 and 6.6.7	<u>Sewage from Workforce</u> • Portable chemical toilets should be provided for handling the construction sewage generated by the workforce. Assume that the capacity of the chemical toilets would be 0.4m3 and suck up twice a day under normal practices, around 45 chemical toilets would be required for the whole site at peak hour. And it should be noted that under normal construction periods, less chemical toilets would be needed. In addition, the total number of the chemical toilets would be subject to later detailed design, the capacity of the chemical toilets, and contractor's site practices. Nevertheless, a licensed contractor should be employed to provide appropriate and adequate portable toilets to cater around 37.5 m3/day sewage and be responsible for appropriate disposal and maintenance. Since portable chemical toilets will be provided, no adverse water quality impact from the workforce sewage is anticipated. • Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment during the construction ion phase of the Project . Regular environmental audit on the construction ion site should be conducted in order to provide an effective control of any malpractices and achieve continual improvement of environmental performance on site. It is anticipated that sewage generation during the construction phase of the Project would not cause	Handling of site sewage	Contractor	All construction sites	V	V	V	V	V

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	Implementation Status				
					Contract 1	Contract 2	Contract 3	Contract 4	Contract 5
	water quality impact after undertaking all required measure								
S6.6.8 and 6.6.9	<u>Accidental Spillage</u> To prevent accidental spillage of chemicals, proper storage and handling facilities should be provided. All the tanks, containers and storage area should be bunded and the locations should be locked as far as possible from the sensitive watercourse and storm drains. The Contractor is required to register as a chemical waste producer if chemical wastes would be generated from the construction ion activities. Storage of chemical waste arising from the construction ion activities should be well managed with suitable labels an d warnings while disposal of those chemical wastes should be comply with the requirement states in Waste Disposal Ordinance (Cap 354) as well as Waste Disposal (Chemical Waste) (General) Regulations.	Prevention of accidental spillage	Contractor	All construction sites	@	V	V	V	V
S6.6.11-S6.6.14	<u>Groundwater from Contaminated Area</u> The Contractor should apply for a discharge licence under the WPCO through the Regional Office of EPD for groundwater discharge. Prior to the excavation works within these potentially contaminated areas, the groundwater quality should be reviewed during the process of discharge license application. The compliancy to the TM-DSS and the existence of prohibited substance should be confirmed after further SI. If the review results indicated that the groundwater to be generated from the excavation works would be contaminated, the contaminated groundwater should be either properly treated in compliance with TMDSS or properly recharged into the ground. If wastewater treatment is deployed, the wastewater treatment unit shall deploy suitable treatment process (e.g. oil interceptor / activated carbon) to reduce the pollution level to an acceptable standard and remove any prohibited substances (e.g. Petroleum Carbon Ranges (PCRs)). All treated effluent from wastewater treatment plant shall meet the requirements as stated in TM-DSS and should be	Minimize contaminated groundwater impacts	Contractor	All construction sites	N/A	N/A	N/A	N/A	N/A

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	Implementation Status				
					Contract 1	Contract 2	Contract 3	Contract 4	Contract 5
	discharged into the foul sewers. If groundwater recharging wells are deployed, recharging wells should be installed as appropriate for recharging the contaminated groundwater back into the ground. The recharging wells should be selected at places where the groundwater quality will not be affected by the recharge operation as indicated in the Sect ion 2.3 of TM-DSS. The baseline groundwater quality shall be determined prior to the select ion of the recharge wells, and submit a working plan (including the laboratory analytical results showing the quality of groundwater at the proposed recharge location(s) as well as the pollutant levels of groundwater to be recharged) to EPD for agreement . Pollution levels of groundwater to be recharged shall not be higher than pollutant levels of ambient groundwater at the recharge well. Prior to recharge, any prohibited substances such as PCRs should be removed as necessary by installing the petrol interceptor.								
	Waste Management (Contraction Phase)								
S8.5.2	<u>Good Site Practice</u> The following good site practices are recommended throughout the construction ion activities: • nomination of an approved personnel, such as a site manager, to be responsible for the implementation of good site practices, arrangements for collect ion and effective disposal to an appropriate facility, of all wastes generated at the site; • training of site personnel in site cleanliness, appropriate waste management procedures and concepts of waste reduction, reuse and recycling; • provision of sufficient waste disposal points and regular collect ion for disposal; • appropriate measures to minimize windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; • regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors;	Minimize waste generation during construction	Contractor	All construction sites	V	@	V	@	V
S8.5.2 (6)	The contractor should submit a Waste Management Plan	Minimize waste	Contractor	All construction	V	V	V	V	V

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	Implementation Status				
					Contract 1	Contract 2	Contract 3	Contract 4	Contract 5
	(WMP) as part of the Environmental Management Plan (EMP) in accordance with the ***ETWB TC(W) No. 19/2005*** for construction ion phase. The EMP should be submit ted to the Engineer for approval. Mitigation measures proposed in the EIA Report and the EM&A Manual should be adopted.	generation during construction		sites					
S8.5.3	<u>Waste Reduction Measures</u> Waste reduction is best achieved at the planning and design phase, as well as by ensuring the implementation of good site practices. The following recommendations are proposed to achieve reduction: • segregate and store different types of waste in different containers, skip or stockpiles to enhance reuse or recycling o materials and their proper disposal; • proper storage and site practices to minimize the potential for damage and contamination of construction ion materials; • plan and stock construction ion materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste; • sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable port ions (i.e. soil, broken concrete, metal etc.); • provide training to workers on the importance of appropriate waste management procedures, including waste reduction, reuse and recycling.	Reduce waste generation	Contractor	All construction sites where practicable	V	V	V	V	V
S8.5.5	<u>Storage of Waste</u> The following recommendation should be implemented to minimize the impacts: • waste such as soil should be handled and stored well to ensure secure containment ; • stockpiling area should be provided with covers and water spraying system to prevent materials from wind-blown or being washed away; • different locations should be designated to stockpile each material to enhance reuse;	Minimize waste impacts from storage	Contractor Contractor	All construction sites	V	V	V	V	V
S8.5.6	<u>Collection and Transportation of Waste</u> The following recommendation should be implemented to minimize the impacts:	Minimize waste impacts from storage	Contractor	All construction sites	V	@	V	@	@

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	Implementation Status				
					Contract 1	Contract 2	Contract 3	Contract 4	Contract 5
	• remove waste in timely manner; • employ the trucks with cover or enclosed containers for waste • transportation; • obtain relevant waste disposal permits from the appropriate authorities; and • disposal of waste should be done at licensed waste disposal facilities.								
S8.5.8	Excavated and C&D Material Wherever practicable, C&D materials should be segregated from other wastes to avoid contamination and ensure acceptability at public filling areas or reclamation sites. The following mitigation measures should be implemented in handling the excavated and C&D materials: • maintain temporary stockpiles and reuse excavated fill material for backfilling; • carry out on-site sorting; • make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate; • implement a recording system for the amount of waste generated, recycled and disposed of for checking; The recommended C&D materials handling should include: • On-site sorting of C&D materials • Reuse of C&D materials • Use of Standard Formwork and Planning of Construction Materials purchasing • Provision of wheel wash facilities	Minimize waste impacts from excavated and C&D materials	Contractor	All construction sites	V	V	V	V	V
S8.5.15	Contaminated Soil As a precaution, it is recommended that standard good site practice should be implemented during the construction phase to minimize any potential exposure to contaminated soils or groundwater. The details of mitigation measures to minimize the potential environmental implications arising from the handling of contaminated materials refer to Land Contamination Section.	Remediate contaminated soil	Contractor	All construction sites where applicable	V	V	N/A	N/A	N/A
S8.5.17	Chemical Waste	Control the chemical	Contractor	All construction	V	V	V	V	V

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	Implementation Status				
					Contract 1	Contract 2	Contract 3	Contract 4	Contract 5
	• If chemical wastes are produced at the construction ion site, the Contractors should register with EPD as chemical waste producer. Chemical wastes should be stored in appropriate containers and collected by a licensed chemical waste Contractor. Chemical wastes (e.g. spent lubricant oil) should be recycled at an appropriate facility as far as possible, while the chemical waste that cannot be recycled should be disposed of at either the Chemical Waste Treatment Cent re, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	waste and ensure proper storage, handling and disposal.		sites					
S8.5.18	<u>General Waste</u> • General refuse should be stored in enclosed bins separately from construction and chemical wastes. Recycling bins should also be placed to encourage recycling. • Preferably enclosed and covered areas should be provided for general refuse collect ion and routine cleaning for these areas should also be implemented to keep areas clean. • A reputable waste collector should be employed to remove general refuse on a daily basis.	Minimize production of the general refuse and avoid odour, pest and litter impacts	Contractor	All construction sites	@	V	V	V	@
S8.5.19	<u>Sewage</u> • The WMP should document the locations and number of portable chemical toilets depending on the number of workers, land availability, site condition and activities. • Regularly collect ion by licensed collectors should be arranged to minimize potential environmental impacts.	Minimize production of sewage impacts	Contractor	All construction sites	V	V	V	V	V
Ecology (Contraction Phase)									
S. 10.7.2 to 10.7.6	Re-provision of Wooded Area for ecological function at the future Quarry Park.	Compensate for the loss of three woodland patches of a total area of about 1.13ha.	Contractor/ Detailed Design Consultant (qualified botanist / horticulturist / Certified Arborist to supervise the planting).	Northern part of the proposed Quarry Park.	N/A	N/A	N/A	N/A	N/A

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	Implementation Status				
					Contract 1	Contract 2	Contract 3	Contract 4	Contract 5
.10.7.10	Construction phase in situ mitigation measures to minimize impacts on hydrological condition and water quality of hillside watercourses include: • Temporary sewerage and drainage will be designed and installed to collect wastewater and prevent it from entering nearby watercourses; • Proper locations well away from nearby watercourses will be used for temporary storage of materials (i.e. equipment , fill materials, chemicals and fuel) and temporary stockpile of construction debris and spoil, and these will be identified before commencement of works; • To prevent muddy water entering nearby watercourses, work sites close to nearby watercourses will be isolated, using such items as sandbags or silt curtains with lead edge at bot tom and properly supported props. Other protective measures will also be taken to ensure that no pollution or siltation occurs to the water gathering grounds of the works site; • Stockpiling of construction materials, if necessary, will be properly covered and located away from nearby watercourses; • Erection of temporary geotextile silt fences will be carried out around earth-moving works to trap any sediments and prevent them from entering watercourses; • Construction debris and spoil will be covered and/or properly disposed as soon as possible to avoid being washed into nearby watercourses; • Exposed soil will be covered as quickly as possible following format ion works, followed, where appropriate, by covering with biodegradable geotextile blanket for erosion control purposes; • Where appropriate, earth-bunding will be carried out of areas where soils have been disturbed or where vegetation has been cleared, to ensure that surface runoff will not move soils off-site; • Construction ion effluent, site run-off and sewage will be probably collected and/or treated. Wastewater from any construction ion site will be	Minimize impacts on Hydrological condition and water quality of hillside watercourses.	Contractor	All construction sites	V	N/A	V	V	N/A

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	Implementation Status				
					Contract 1	Contract 2	Contract 3	Contract 4	Contract 5
	minimised via the following in descending order: reuse, recycling and treatment ; • Proper locations for discharge out lets of wastewater treatment facilities well away from sensitive receivers will be identified and used; • Silt traps will be installed at points where drainage from the site enters local watercourses; • Appropriate sanitary facilities for on-site workers will be provided; • The site boundary will be clearly marked and any works beyond the boundary strictly prohibited, and • Regular water monitoring and site audit will be carried out at suitable points. If the monitoring and audit results show that pollution occurs, adequate measures including temporary cessation of works will be considered.								
S.10.7.11	Implement an emergency contingency plan during the construction phase and the plan will include, but not be limited to, the following: • Potential emergency situations; • Chemicals or hazardous materials used on-site (and their location); • Emergency response team; • Emergency response procedures; • List of emergency telephone hot lines; • Locations and types of emergency response equipment , and • Training plan and testing for effectiveness.	Minimize impacts on Hydrological condition and water quality of hillside watercourses.	Contractor	All construction sites	N/A	N/A	N/A	N/A	N/A
Landscape and visual (Contraction Phase)									
S11.14.23, Table 11.9, CM1 [4]	All existing trees to be retained shall be carefully protected during construction.	Avoid disturbance and protection of the existing trees	Detailed Design Consultant /	The whole project area where applicable	V	V	@	V	@
S11.14.23, Table 11.9, CM2 [3]	Tree Transplantation - Should removal of trees be unavoidable due to construction impacts, trees will be transplanted or felled. Detailed transplanting proposal will be submit ted to relevant government departments for approval in accordance with **LAO GN No. 7/2007**, ***ETWB TCW No. 29/2004*** and ***10/2013***. Final locations of transplanted trees shall be agreed prior to commencement of the work.	Minimize landscape impact and retention of landscape resources	Detailed Design Consultant /	Onsite where possible. Otherwise consider offsite locations	*	N/A	N/A	V	V

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	Implementation Status				
					Contract 1	Contract 2	Contract 3	Contract 4	Contract 5
S11.14.23, Table 11.9, CM3 [4]	Control of operation night -time glare with well-planned lighting operation system to minimize potential glare impact to adjacent VSRs	Minimize glare impact to adjacent VSRs	Contractor/ CEDD	The whole project area where applicable	V	V	@	V	N/A
S11.14.23, Table 11.9, CM [4]	Erection of decorative screen hoarding.	Minimize visual impact	Contractor/ CEDD	The whole project area where applicable	N/A	N/A	N/A	N/A	N/A
S11.14.23, Table 11.9, CM5 [2]	Minimise disturbance and limitation of run-off – temporary structures and construction works should be planned with care to minimize disturbance to adjacent landscape, vegetation, natural stream habitats.	Minimize visual impact	Contractor/ CEDD	The whole project area where applicable	V	V	V	V	N/A

Legend: V = implemented; x = not implemented; @ = partially implemented; * = pending to be implemented; N/A = not applicable

Appendix M

Complaint Log

Appendix M1 Cumulative Complaint and Summons/ prosecution

Reporting Month	Number of Complaints in Reporting Month	Number of Summons/ Prosecution in Reporting Month
March 2017	1	0
April 2017	0	0
May 2017	0	0
June 2017	2	0
July 2017	3	0
August 2017	3	0
September 2017	4	0
October 2017	2	0
November 2017	3	0
December 2017	3	0
January 2018	1	0
February 2018	4	0
March 2018	0	0
April 2018	2	0
May 2018	1	0
June 2018	1	0
July 2018	0	0
August 2018	1	0
September 2018	1	0
October 2018	1	0
November 2018	3	0
December 2018	2	0
January 2019	2	0
February 2019	3	0
March 2019	1	0
April 2019	0	0
May 2019	0	0
June 2019	1	0
July 2019	1	0
August 2019	1	0
September 2019	0	0
October 2019	1	0
November 2019	4	0
December 2019	0	0
January 2020	0	0
February 2020	0	0
March 2020	4	0
April 2020	1	0
May 2020	1	0
June 2020	1	0
July 2020	0	0
August 2020	0	0
September 2020	0	0
October 2020	0	0
November 2020	1	0
December 2020	2	0
January 2021	1	0
February 2021	0	0
March 2021	2	0

April 2021	**1**	0
May 2021	**0**	0
June 2021	**1**	0
July 2021	**1**	0
August 2021	**0**	0
September 2021	**2**	0
October 2021	**0**	0
November 2021	**0**	0
December 2021	**0**	0
January 2022	**0**	0
February 2022	**0**	0
March 2022	**1**	0
April 2022	**1**	0
May 2022	**3**	0
June 2022	**2**	0
July 2022	**0**	0
August 2022	**2**	0
September 2022	**1**	0
October 2022	**1**	0
November 2022	**0**	0
December 2022	**0**	0
January 2023	**0**	0
February 2023	**0**	0
March 2023	**0**	0
April 2023	**0**	0
May 2023	**1**	0
June 2023	**0**	0
July 2023	**1**	0
August 2023	**0**	0
September 2023	**0**	0
October 2023	**0**	0
November 2023	**0**	0
December 2023	**0**	0
January 2024	**1**	0
February 2024	**0**	0
March 2024	**0**	0
April 2024	**1**	0
May 2024	**2**	0
June 2024	**0**	0
July 2024	**0**	0
August 2024	**0**	0
September 2024	**1**	0
October 2024	**0**	0
November 2024	**0**	0
December 2024	**1**	0
January 2025	**1**	0
February 2025	**1**	0
March 2025	**0**	0
April 2025	**0**	0
Overall Total	**91**	**0**

Appendix M2 Complaint Log

Log ref.	Date of Complaint	Date of Received by ET	Complaint Location	Complainant	Complaint nature	Channel	Ref. no.	Complaint details	Follow up action	Log ref.	Date of Complaint
1	23-Mar-17	8-Jun-17	On Tat Estate	Resident of On Tat Estate	Construction noise	SPRO hotline	NA	A resident living in On Tat House reported that some night works with noise and flashing caused nuisance to nearby resident after 11:00 pm on 23 March 2017.	According the incident report conducted by the CWSTVJV, demobilization of crawler crane was undertaken on 23 March 2017 11pm and it is TD requirement to carry out demobilization of heavy machine at nighttime. It is considered this complaint was a single incident and would not be happened again in future.	no comment by IEC on 11 Oct 2017	TCS00864/16/300/F0087
2	28-Jul-17	28-Jul-17	38/F of Yin Tat House (賢達樓), On Tat Estate	Resident of On Tat Estate	Construction noise	SPRO hotline	NA	Mr. Hsu received a complaint from a resident living in the flat on 38/F of Yin Tat House (賢達樓), On Tat Estate. The resident complained about the noise level of our works during daytime.	Noise monitoring by Contractor was conducted in Yin Tat House, On Tat Estate, at around 2 pm on 28-Jul-2017. Another noise monitoring was carried out by ET (AUES) and representatives of AECOM and JV in the presence of the complainant in her flat at 10 am on 1-Aug-2017 and was witnessed by Mr. Hsu. No exceedance of noise was recorded. The complainant was satisfied about the monitoring results.	no comment by IEC on 9 Aug 2017	TCS00864/16/300/F0060
3	29-Aug-17	29-Aug-17	Shing Tat House 24/F	Resident of On Tat Estate	Construction noise	SPRO hotline	NA	Mr. Hsu Yau Wai (Tel no.9519 5663) reported that he received complaint from a resident (Ms Cheng) living at Shing Tat House 24/F Room 22 about the noise generated from our site this week. The noise heard was mainly rock breaking noise from our site.	Noise monitoring was carried out by ET (AUES) and representatives of AECOM and JV in the presence of the complainant in her flat at 3pm on 30-Aug-2017. No exceedance of noise was recorded. The complainant was satisfied about the monitoring results.	no comment by IEC on 8 Sep 2017	TCS00864/16/300/F0081

Log ref.	Date of Complaint	Date of Received by ET	Complaint Location	Complainant	Complaint nature	Channel	Ref. no.	Complaint details	Follow up action	Log ref.	Date of Complaint
4	21-Jun-17	29-Aug-17	Tat Yan House, Po Tat Estate	Resident of Po Tat Estate	Construction noise	EPD	EPD (ref.N08/RE/0001 9373-17)	day time construciton noise of breakers (8am to 6pm)	Since these two complaints were forwarded by CEDD to ET on 31 August 2017 which way after the complaint dates. Investigation would be conducted based on the site information by the Contractor of Contract 1 - NE/2016/01 (CWSTVJV) as well as the observation during weekly site inspection carried out ET during June 2017. In our investigation, CWSTVJV has implemented noise mitigation measures to reduce the noise impact to the nearby resident and the working hour 08:00 to 18:00 did not breach any legal requirement. To eliminate the inconvenience caused to the nearby resident CWSTVJV was advised to further enhance the noise mitigation measures as appropriately.	no comment by IEC on 3 Nov 2017	TCS00864/16/300/F0093
5	22-Jun-17	29-Aug-17	Tat Yan House, Po Tat Estate	Resident of Po Tat Estate	Dust & Construction noise	EPD	EPD (ref. N08/RE/0001942 8-17)	Day time construction noise of breakers (8AM to 6PM). Requested to delay the operating hour of breakers to 10AM or 11AM			TCS00864/16/300/F0093
6	15-Jul-17	29-Aug-17	Tat Yi House, Po Tat Estate	Resident of Po Tat Estate	Construction noise	EPD	EPD (ref.N08/RE/0002 2479-17)	Construction noise	CWSTVJV has implemented noise mitigation measures to reduce the noise impact to the nearby resident and the working hour 08:00 to 18:00 did not breach any legal requirement. To eliminate the inconvenience caused to the nearby resident, CWSTVJV was advised to further enhance the noise mitigation measures as appropriately.	no comment by IEC on 3 Nov 2017	TCS00864/16/300/F0094
7	28-Jul-17	29-Aug-17	Anderson Road	unknown	Dust	EPD	EPD (ref.N08/RE/0002 3986-17)	Poor control on dust emission at Anderson Road Construction Site	CWSTVJV has implemented dust mitigation measures to eliminate the inconvenience caused to the nearby resident and status of the implementation of dust mitigation measures was considered effective based on the site observation.	no comment by IEC on 15 Nov 2017	TCS00864/16/300/F0097

Log ref.	Date of Complaint	Date of Received by ET	Complaint Location	Complainant	Complaint nature	Channel	Ref. no.	Complaint details	Follow up action	Log ref.	Date of Complaint
8	2-Aug-17	29-Aug-17	Chun Tat House, On Tat Estate	Resident of On Tat Estate	Construction noise	EPD	EPD (ref.N08/RE/0002 4557-17)	Day time construction noise of breakers (8AM to 6PM)	CWSTVJV has implemented noise mitigation measures to reduce the noise impact to the nearby resident. According to the impact noise monitoring result obtained in August 2017, there were no breaches of EM&A requirement. However, to eliminate the inconvenience caused to the nearby resident, CWSTVJV should further enhance the noise mitigation measures as appropriately. Since the works were carried out within the non-restricted hours, it is considered that the works under the project did not breach the Noise Control Ordinance.	no comment by IEC on 15 Nov 2017	TCS00864/16/300/F0098
9	19-Sep-17	19-Sep-17	Sau Mau Ping Estate Sau Nga House	Resident of Sau Mau Ping Estate	Construction noise	SPRO hotline	NA	The complainant is living at Sau Mau Ping Estate Sau Nga House (秀雅樓) 38/F. He complained about the noise nuisance recently from August to September especially during night time after 12:00 am, even in Saturdays and Sundays. The noise nuisance caused a great disturbance to him. He made a request to conduct investigation about the source of the noise during night time.	ET has conducted an ad-hoc noise measurement for Leq (30min) on the rooftop of 秀雅樓 and 秀義樓 in the afternoon of 22 September 2017. (Photo 1 & 2) During the course of noise measurement, construction activities such as excavation and breaking were conducted in the Quarry Site. The measurement results taken at both 秀雅樓 and 秀義樓 were 63dB(A) which below the Limit Level under the EM&A Programme.	no comment by IEC on 18 Oct 2017	TCS00864/16/300/F0088

Log ref.	Date of Complaint	Date of Received by ET	Complaint Location	Complainant	Complaint nature	Channel	Ref. no.	Complaint details	Follow up action	Log ref.	Date of Complaint
10	21-Sep-17	13-Oct-17	Sau Mau Ping Estate Sau Nga House and Sau Yee House	Resident of Sau Mau Ping Estate	Construction noise	EPD	EPD (ref.N08/RE/00031074-17)	On 21 September 2017, the same complaint further reported that the noise can be heard at both Sau Yee House and Sau Nga House even in daytime and he strongly requested the Contractor to follow up the case immediately.	ET has conducted an ad-hoc noise measurement for Leq (30min) on the rooftop of 秀雅樓 and 秀義樓 in the afternoon of 22 September 2017. (Photo 1 & 2) During the course of noise measurement, construction activities such as excavation and breaking were conducted in the Quarry Site. The measurement results taken at both 秀雅樓 and 秀義樓 were 63dB(A) which below the Limit Level under the EM&A Programme.		TCS00864/16/300/F0088
11	27-Sep-17	13-Oct-17	Chun Tat House, On Tat Estate	Resident of On Tat Estate	Construction noise	EPD	EPD (ref.N08/RE/00029489-17)	The complainant questioned why there were 6 to 7 breakers operating in the monring but only 1 operating in the afternoon. He requested to shift the operation of the breakers to afternoon.	CWSTVJV has implemented noise mitigation measures to reduce the noise impact to the nearby resident. According to the impact noise monitoring result obtained in September and October 2017, there were no breaches of EM&A requirement. However, to eliminate the inconvenience caused to the nearby resident, CWSTVJV should properly maintain the noise mitigation measures as appropriate. Since the works were carried out within the non-restricted hours, it is considered that the works under the project did not breach the Noise Control Ordinance.	no comment by IEC on 30 Nov 2017	TCS00864/16/300/F0106
12	3-Oct-17	13-Oct-17	Chun Tat House, On Tat Estate	Resident of On Tat Estate	Construction noise	EPD	EPD (ref. N08/RE/00032407-17)	Day time construction noise, the complainant requested using less breaker at one time, erecting taller noise barrier to cover the equipment. In addition, the complainant would like to know the construction schedule whether there will be more breaking activities in near future			TCS00864/16/300/F0106
13	25-Oct-17	26-Oct-17	Tat Kwai House, Po Tat Estate	Resident of Po Tat	Dust	EPD	NA	投訴安達臣道地盤的泥車落泥，令他達貴樓的住所受到大塵影響，要求跟進	Investigation revealed that CWSTVJV has implemented dust mitigation measures to eliminate the inconvenience caused to the	no comment by IEC on	TCS00864/16/300/F0100

Log ref.	Date of Complaint	Date of Received by ET	Complaint Location	Complainant	Complaint nature	Channel	Ref. no.	Complaint details	Follow up action	Log ref.	Date of Complaint
				Estate				及回覆	nearby resident. Nevertheless, based on the observation during site inspection on 31 October 2017, CWSTVJV was advised to enhance the dust mitigation measures particularly during dry season.	15 Nov 2017	
14	6-Nov-17	7-Nov-17	Chun Tat House, On Tat Estate	Resident of On Tat Estate	Noise	EPD	NA	安達邨俊達樓居民投訴石礦場地盤又再於早上07:45 開始傳出機器不停掘石的噪音(幾乎每日在08:00-19:00 進行工程),已持續一年，他全家人受到滋擾。	Ad-hoc noise measurement was conducted by ET at rooftop of Chun Tat House in the morning of 20 November 2017 and measurement result was below the Limit Level under the EM&A Programme. CWSTVJV has implemented noise mitigation measures to reduce the noise impact to the nearby resident. Since the works were carried out within the non-restricted hours, it is considered that the works under the project did not breach the Noise Control Ordinance.	no comment by IEC on 30 Nov 2017	TCS00864/16/300/F0109
15	13-Nov-17	14-Nov-17	Chi Tai House, On Tai Estate	Mr. Lam Wai	light pollution and noise	SPRO hotline	NA	1. 智泰樓面向安達臣地盤方向，有照射燈深夜時分仍然常開，影響居民正常睡眠質素，照成一定的精神壓力。 2. 隔音布未固定，大風吹過發出極大的聲浪	To ease the concern by the complaint, CWSTVJV has adjusted the lights to the orientation pointing the ground and that to minimise the nuisance. For the maintenance of noise barrier, CWSTVJV has immediately fixed the noise barrier nearest to On Tai Estate and prolonged the cover area of the noise barrier to reduce the noise impact to the public.	no comment by IEC on 24 Nov 2017	TCS00864/16/300/F0104

Log ref.	Date of Complaint	Date of Received by ET	Complaint Location	Complainant	Complaint nature	Channel	Ref. no.	Complaint details	Follow up action	Log ref.	Date of Complaint
16	1-Nov-17	14-Nov-17	Shing Tat House, On Tat Estate	Resident of Po Tat Estate	Noise	EPD	NA	居住於安達邨誠達樓高層的投訴人投訴由早上八時半至下午六時聽到搽鐵噪音。	As advised by the Contractor, the works that most likely induced the iron hammering noise to Shing Tat House shall be the rock breaking works to the hard rock of the Southeastern side of the Underground Stormwater Retention Tank. CWSTVJV had already deployed the acoustic mat as noise barrier at the site boundary near Shing Tat House. To enhance the noise mitigation measures, CWSTVJV deployed an acoustic mat as noise barrier for the breaking work in order to reduce construction noise affecting the upper floor of On Tat Estate Since the works were carried out within the non-restricted hours, it is considered that the works under the project did not breach the Noise Control Ordinance.	no comment by IEC on 13 Dec 2017	TCS00864/16/300/F0110
17	25-Aug-17	26-Oct-17	Sau Yee House, Sau Mau Ping Estate	Resident of Sau Mau Ping Estate	Construction Noise	EPD	EPD (ref.N08/RE/00027738-17)	Night time construction noise of hammering (around 12AM)	As advised by CWSTVJV, there was a CNP (GW-RE0763-17) in force for the subject site for operation of generator and electric submersible water pump for the wastewater treatment plant and it is considered that abovementioned PMEs should not generate significant noise. Moreover, it is confirmed by CWSTVJV and checked against the site diary that no construction activities were carried out after 19:00 at the subject site. Therefore, the complaint about noise nuisance during night time should not be related to the Project.	no comment by IEC on 14 Dec 2017	TCS00864/16/300/F0114

Log ref.	Date of Complaint	Date of Received by ET	Complaint Location	Complainant	Complaint nature	Channel	Ref. no.	Complaint details	Follow up action	Log ref.	Date of Complaint
18	12-Sep-17	26-Oct-17	Chun Tat House, On Tat Estate	Resident of On Tat Estate	Construction Noise	EPD	EPD (ref. N08/RE/0002948 9-17)	Day time construction noise of breakers (8AM to 5PM)	Noise mitigation measures were implemented to reduce the noise impact to the nearby resident. According to the impact noise monitoring result in September 2017, there were no breaches of EM&A requirement. Since the works were carried out within the non-restricted hours, it is considered that the works under the project did not breach the Noise Control Ordinance.	no comment by IEC on 10 Jan 2018	TCS00864/16/300/F01117
19	15-Dec-17	21-Dec-17	Sau Yee House	Resident of Sau Mau Ping Estate	Construction Noise	EPD	NA	Resident of Sau Yee House complained suspected construction noise from Anderson Construction Site at restricted hour (7pm to 7am).	It is confirmed by CWSTVJV and checked against the site diary that no construction activities were carried out after 19:00 at the subject site. Therefore, the complaint about noise nuisance during night time should not be related to the Project.	no comment by IEC on 10 Jan 2018	TCS00864/16/300/F01118
20	20-Dec-17	21-Dec-17	On Tat Estate	Resident of On Tat Estate	Dust	EPD	NA	Resident of On Tat Estate complained that the traffic of construction vehicles generated dust problem and arouse air pollution to On Tat Estate. 投訴安達臣道信和地盤水車已經壞了十多天， 一直無灑水，四周非常大塵。 投訴人住於安達邨，投訴安達臣道石礦場有大地盤，地盤大車工作時間不停出入揚起沙塵，吹到安達邨，影響空氣環境，要求部門到場視察。	CWSTVJV has implemented dust mitigation measures to eliminate the inconvenience caused to the nearby resident. It is considered that the complaint was an isolated case due to malfunction of water tanker and CWSTVJV has promptly rectified the deficiency. As advised by CWSTVJV, another water tanker will be deployed in mid-January 2018 to enhance the dust suppression measures throughout the construction site.	no comment by IEC on 25 Jan 2018	TCS00864/16/300/F0121
21	28-Dec-17	10-Jan-18	Sau Yee House	Resident of Sau	Construction Noise	CE's office	NA	日間及凌晨均聽到轟隆聲的噪音及震動，懷疑是由	ET has conducted an ad-hoc noise measurement for Leq (30min) in the	no comment	TCS00864/16/300/F0129

Log ref.	Date of Complaint	Date of Received by ET	Complaint Location	Complainant	Complaint nature	Channel	Ref. no.	Complaint details	Follow up action	Log ref.	Date of Complaint
				Mau Ping Estate				附近工程引起* Thomas 先生表示居於秀茂坪邨秀義樓，指附近的安達臣道一個由土木工程拓展署管轄的石礦場不時於非允許時段(即晚上七時後至翌日早上)發出疑似打地基的轟轟聲巨響，最近一次就是今早(28/12)凌晨五時多再次聽到石礦場傳來聲響，將 Thomas 先生吵醒，懷疑有人刻意在無人監管下施工，更表示曾向環保署及土木工程署作出投訴，但環保署表示巡查後無發現在非允許時段有工程進行，而土木工程署則表示晚上七時後不會再進行工程。Thomas 指石礦場經常在晚上八至十二時，或凌晨時份發出巨響，對附近居民已造成很大的滋擾，要求相關部門儘快作出跟進及回覆。	complainant's flat in the monitoring of 17 January 2018.It was noted that the complainant's flat is not in direct line of sight to the Anderson Road Quarry Site. The measurement noise result was below the Limit Level under the EM&A Programme. Moroever, it is confirmed by CWSTVJV and checked against the site diary that no construction activities were carried out during restricted hour at the subject site. Therefore, the complaint about noise nuisance during restricted hour should not be related to the Project.	by IEC on 8 Feb 2018	
22	15-Jan-18	15-Jan-18	Chun Tat House	Resident of Chun Tat House of On Tat	Construction Noise	SPRO mobile	NA	She is irritated by the construction noise of breaking rock for a long time and strongly requested to know exactly when will be the completion date of the	CWSTVJV has implemented noise mitigation measures to reduce the noise impact to the nearby resident. According to the impact noise monitoring result obtained in January 2018, there were no breaches of EM&A requirement. However, to eliminate the inconvenience caused to	no comment by IEC on 8 Feb 2018	TCS00864/16/300/F0130

Log ref.	Date of Complaint	Date of Received by ET	Complaint Location	Complainant	Complaint nature	Channel	Ref. no.	Complaint details	Follow up action	Log ref.	Date of Complaint
				Estate, 40/F				breaking rock part of works opposite to Chun Tat House. She said we should do more on the mitigation measures because our site is very close to the residents nearby.	the nearby resident, CWSTVJV should properly maintain the noise mitigation measures as appropriate. Since the works were carried out within the non-restricted hours, it is considered that the works under the project did not breach the Noise Control Ordinance.		
23	1-Feb-18	2-Feb-18	Chi Tai House of On Tai Estate	Resident of On Tai Estate (referred by Mr. Lam Wai)	Construction Noise	SPRO hotline	NA	"智泰對出，白天噪音過大，可否加裝隔音板?高層受影響"	the Environmental Team has conducted an ad-hoc noise measurement for Leq(30min) at the corridor of 22/F of Chi Tai House on 2 February 2018 facing the construction site. The measurement noise result was 65dB(A) which below the Limit Level under the EM&A Programme. In our investigation, CWSTVJV has implemented noise mitigation measures to reduce the noise impact to the nearby resident. According to the impact noise monitoring result obtained in January 2018, there were no breaches of EM&A requirement.	no comment by IEC on 22 Feb 2018	TCS00864/16/300/F0137
24	1-Feb-18	2-Feb-18	Shing Tat House of On Tat Estate	Resident of Shing Tat House (referred by Mr. Hsu Yau Wai)	Construction Noise	SPRO hotline	NA	Mr. Hsu reported that some disturbing noise was heard after 6:00 pm from the site near Shing Tat House of On Tat Estate.	AECOM has liaised with Mr. Hsu on 2 February 2018 for the complaint matter and he reported to AECOM that the noise was generated until 7:00 pm on 1 February 2018. 3. As advised by Contractor of Contract 1, breaking works at USRT area which opposite to Shing Tat House was only carried out from 8:00 to 18:00. However, rock breaking at System A was extended to 19:00 on 1 February 2018. As noise mitigation measures, noise barriers were erected for the works area.	no comment by IEC on 28 Feb 2018	TCS00864/16/300/F0140

Log ref.	Date of Complaint	Date of Received by ET	Complaint Location	Complainant	Complaint nature	Channel	Ref. no.	Complaint details	Follow up action	Log ref.	Date of Complaint
									Further to the complaint case, CWSTVJV would seek for other quiet work method such as using drilling machine to reduce noise level and speed up the rock breaking process, so that to reduce the noise intensity level and the duration of exposure.		
25	28-Feb-18	28-Feb-18	Shing Tat House of On Tat Estate	Resident of Shing Tat House	Construction Noise	EPD	NA	安達邨誠達樓居民, 投訴人是返夜班, 一年半以來長期受對出地盤日間掾石仔噪音滋擾, 由於單位與地盤太近, 堅持環保署跟進及回覆如何處理及減低噪音, 他亦要求知道何日完工.	Breaking works at Underground Stormwater Retention Tank area which opposite to Shing Tat House was carried out from 8:00 to 18:00. The Contractor has implemented noise mitigation measures to reduce the noise impact to the nearby resident. It was advised that the rock breaking works shall tentatively be completed by end of April and it is believe that the noise impact should be minimized. Since the works were carried out within the non-restricted hours and noise monitoring noise were within acceptable level, it is considered that the works under the project did not breach the Noise Control Ordinance.	no comment by IEC on 19 Mar 2018	TCS00864/16/300/F0143
26	11-Apr-18	12-Apr-18	Him Tat House of On Tat Estate	Resident of Him Tat House	Construction Noise	SPRO mobile	NA	Mr. Hui Yau Wai reported that the noise irritation was becoming more severe recently and asked about the completion date of the works close to Him Tat House. The resident suspected that the noise comes from piling works nearby.	In our investigation, since construction noise was generating from other construction site next to Him Tat House, it is considered that the complaint is due to cumulative noise generated by both construction sites. However, CWSTVJV should properly provide the noise mitigation measures at works area in System B to minimize the noise impact to the resident nearby. As advised by CWSTVJV on 20 April 2018, noise barrier	no comment by IEC on 7 May 2018	TCS00864/16/300/F0160b

Log ref.	Date of Complaint	Date of Received by ET	Complaint Location	Complainant	Complaint nature	Channel	Ref. no.	Complaint details	Follow up action	Log ref.	Date of Complaint
									was being erected at works area in System B as noise mitigation measures. According to the site photo, it is considered that the coverage of noise barrier is not sufficient and CWSTVJV should enhance the measure as far as practicable. The implementation of noise mitigation measures will be kept in view in subsequent site inspection.		
27	25-Apr-18	7-May-18	Junction of Hiu Kwong Street and Hiu Ming Street	A school but name of school not disclosed	Construction Noise	EPD	NA	This case is considered as an enquiry and no investigation is required under the EM&A Programme.			
28	18-May-18	24-May-18	Anderson Road Quarry Site	Undisclosed	Construction Noise	EPD	NA	投訴人指安達臣道石礦場地盤(NE/2016/01)在入夜19:00 後仍見到有長臂喉工程車在運作，及持續產生大噪音及閃燈，非常擾民。	As advised by CWSTVJV and confirmed by RE/AECOM, there were no construction activities carried out after 19:00 and concreting was completed before 19:00. It is concluded that the retracting process is not a general construction work using Powered Mechanical Equipment and complaint was an isolated case due to misunderstanding of the site operation. To prevent similar incidents in future, CWSTVJV has recommended several mitigation measures.	no comment by IEC on 30 July 2018	TCS00864/16/300/F0174b
29	25-Jun-18	19-Jul-18	Pedestrian Connectively E8 under Contract 3	Kwun Tong DC member Ms.	Waste Management	CEDD	NA	A public complaint was referred from CEDD on 4 July 2018 regarding accumulation of dead leaves and branches found	CW-CMGC-JV has immediately clear the dead leaves and maintain the site cleanliness. Since the construction work has not yet commenced and the dead leaves and overgrown branches were not	no comment by IEC on 24 Sep 2018	TCS00864/16/300/F0189b

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				So Lai-chun				at slope (GLA-TNK 2458) near Hiu Yuk Path on 25 June 2018. The complainant requested the relevant department to clear the leaves and branch asap	related project works, it is considered that the complaint is not valid the project.		
30	22-Aug-18	29-Aug-18	Hong Wah Court	Resident of Hong Wah Court	Construction Noise	1823 Hotline	NA	吳先生於 2018 年 8 月 22 日致電 1823 熱線投訴，指馬游塘區堆填區往將軍澳方向行車入口因配合項目需要而進行移除山坡工程，但其鑽地鑿石的噪音嚴重影響藍田康雅苑*居民，要求有關部門跟進。 *註:投訴人於 2018 年 8 月 27 日更正指受影響屋苑應為藍田康華苑。	to reduce the inconvenience caused to the nearby resident, Kwan On should properly maintain the noise mitigation measures as appropriate, such as maintain good site practice including intermittent use of machine and plant and Sequencing operation of construction plant equipment. Since the works were carried out within the non-restricted hours, it is considered that the works under the project did not breach the Noise Control Ordinance.	no comment by IEC on 7 Sep 2018	TCS00864/16/300/F0196a
31	28-Aug-18	31-Jul-18	Anderson Road Quarry Site	Undisclosed	Construction Noise	EPD	NA	安達邨誠達樓後面地盤，2 月 26 日晚，晚上 7 時後，還在落石屎，相片拍攝時間大概晚上 9 時半，一直至晚上十一時五十分還有工程車在地盤行駛。影響居民休息。	According to the site diary which countersigned by RE, there was no concreting work carried out after 18:00 and the construction activities conducted during restricted hours with valid CNP were completed at 23:00. It is considered that the complaint was not valid to the Project. Nevertheless, CWSTVJV was reminded that in case of any work activities need to be carried out during restricted hours, CWSTVJV should strictly follow the requirements specified in the valid CNP.	no comment by IEC on 10 Oct 2018	TCS00864/16/300/F0197a

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32	6-Sep-18	7-Sep-18	Tsui Yeung House	Resident of Tsui Yeung House	Construction Noise	Verbal	NA	Mr. CHENG Keung-fung complained that the contractor has conducted the noisy works such as rock excavation beyond the normal hours.	Kwan On has implemented noise mitigation measures to reduce the noise impact to the nearby resident. As advised by Kwan On, the rock breaking works shall tentatively be completed by end of December 2018 and the mitigation measures will implemented continuously during slope construction work and the slope construction will be carried out within the working hours at Portion 2. Since the works were carried out within the non-restricted hours, it is considered that the works under the project did not breach the Noise Control Ordinance.	no comment by IEC on 22 Oct 2018	TCS00864/16/300/F0201
33	24-Oct-18	25-Oct-18	E3	Kwun Tong DC member Ms. So Lai-chun	Construction Noise	Whatsapp Message	NA	KTDC member, Ms. Ann So, complaining the noise of the breaker at E3	As advised by the Contractor, the acoustic material wrapped on the breaker was worn-out on 24 October 2018 and replacement of new acoustic materials has been installed on the breaker immediately on 25 October 2018. The rock breaking works shall tentatively be completed to the road level in the middle of November 2018 and the mitigation measures will implemented continuously during slope construction work and the slope construction will be carried out within the working hours at Portion 2. It is considered the complaint was an isolate case.	no comment by IEC on 23 Nov 2018	TCS00864/16/300/F0209a
34	12-Nov-18	13-Nov-18	Anderson Road Quarry Site	Resident of ChingTat House(referred	Construction Noise	SPRO Hotline	NA	Mr. Hui reported that he received complaint from a resident living in Ching Tat House about noise nuisance recently. Mr. Hui asked if project team can	The SPRO contacted Mr. Hiu and explained to him about the purpose and benefits of the tunnel to the residents nearby and the expected date of completion of the tunnel will be earlier than 2020. Moreover, the noise mitigation measures	no comment by IEC on 12 Dec 2018	TCS00864/16/300/F0222a

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				by Mr. Hui Yau Wai)				arrange some noise monitoring to check the noise level at the concerned flat or the same level at Ching Tat House.	had implemented to reduce the noise level effectively and the work progress will be closely updated to nearby stakeholders to enhance communication. Mr. Hiu satisfied with the reply from SPRO and he agreed that the proposed noise monitoring in Ching Tat House was not needed. Since the works were conducted within approved normal hours with implementation of noise mitigation measures, there were no breaches of legislative requirement.		
35	14-Nov-18	14-Nov-18	Anderson Road Quarry Site	Undisclosed	Light and Noise	EPD	NA	凌晨 1 時，地盤仍有大光燈正射民居和機器移動聲音，影響附近居民睡眠及違反環保條例。	CWSTVJV immediately adjusted the angle and brightness of the lighting to minimize the nuisance to the resident nearby. In response to the complaint, CWSTVJV immediate carried out remedial action to minimize the nuisance to the public. It was considered that complaint for noise generated by machine moving was an isolated case. CWSTVJV was reminded to closely monitor the plant use and sequence of night work and do not to violate CNP conditions.	no comment by IEC on 3 Jan 2019	TCS00864/16/300/F0223a
36	13-Nov-18	14-Nov-18	Anderson Road Quarry Site	Undisclosed	Noise and dust	1823	NA	Complainant requested to postpone the starting time of construction work at project site and also to solve the problem of construction noise and dust.	In our investigation, acoustic barrier and site hoarding were in place along the works area. No noticeable noise and dust impact was observed during the site inspection. As advised by CWSTVJV, the normal working hour of the construction site is 8am to 6pm and there were no violation of the relevant regulations. The senior public relation officer contacted the complainant Ms. Ma on 26 November 2018 to explain the site situation and she	no comment by IEC on 18 Feb 2019	TCS00864/16/300/F0224

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									was satisfied with the reply. Investigation Report has been completed by ET without comment from IEC.		
37	9-Dec-18	12-Dec-18	Anderson Road Quarry Site	Undisclosed	Construction noise	1823	2-4927907305	1823 has referred a case to CEDD on 10 December 2018, which the complainant complained that construction noise was generated from project site on Sunday and was affecting the resident at Hau Tat House, On Tat Estate. The complainant requested follow up action from related department as soon as possible.	In our investigation based on the information provided by CWSTVJV, there was no site activities undertaken at site access road as concerned by the complainant. The construction work carried out on Sunday was fully compliance with the CNP requirement. In response to the complaint, CWSTVJV was reminded to closely monitor the plant use and sequence of night work and do not to violate CNP conditions.	no comment by IEC on 10 Jan 2019	TCS00864/16/300/F0230a
38	19-Dec-18	27-Dec-18	Anderson Road Quarry Site	Undisclosed	Construction noise	1823	2-4948074127	1823 has referred a case to CEDD on 27 December 2018, which the complainant complained that noise barriers near the round-about at On Sau Road were not enough, and construction noise generated from the project site was affecting the resident at Ming Tai House, On Tai Estate. The complainant requested follow up actions from related department as soon as possible.	Joint site inspection was carried out on 3 January 2019 the status of implemented mitigation measures provided by CWSTVJV was inspected. It was observed that noise mitigation measures including temporary noise barrier, acoustic mat and wrapped by acoustic materials are implemented on site. However, CWSTVJV was advised to extend the coverage of noise barrier as far as practicable and fully enclose the concerned works area which has been completed on 15 January 2019. Since the works were carried out within the non-restricted hours, it is considered that the works under the project did not breach the Noise Control Ordinance.	no comment by IEC on 31 Jan 2019	TCS00864/16/300/F0237a

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39	24-Jan-19	29-Jan-19	Anderson Road Quarry Site	Undisclosed	wastewater	Referred from DSD	NA	DSD has referred a case to CEDD on 24 January 2019 regarding suspended illegal discharge of cementitious slurry from construction site of Development of ARQ Site to nearby Public Stormwater Drainage System.	In our investigation, the concerned catchpit and U-channel mainly received the runoff from Po Lam Road as well as the discharge from the Anderson Road Quarry Site. It is suspected that the mud and silt found on the downstream has been accumulated over time particularly by rainstorm as well as routine discharge from construction site. As remedial action, CWSTVJV immediately clean the affected area where accessible. Nevertheless, in order to protection the watercourse at downstream of the construction site, CWSTVJV has some enhancement measures.	no comment by IEC on 29 Mar 2019	TCS00864/16/300/F0248a
40	30-Jan-19	30-Jan-19	Anderson Road Quarry Site	Undisclosed	noise	SPRO hotline	NA	A public complaint was received by SPRO hotline on 30 January 2019 regarding the construction noise near Ma Yau Tong Village and requested to add noise barrier as soon as possible.	In our investigation, CWSTVJV had provided the noise mitigation measures to minimize the noise impact to the resident nearby. The impact monitoring result obtained at Ma Yau Tong Village revealed that the construction noise were within acceptable level. Since the works were conducted within approved normal hours with implementation of noise and dust mitigation measures, there were no breaches of legislative requirement.	no comment by IEC on 15 Mar 2019	TCS00864/16/300/F0249a
41	15-Feb-19	25-Feb-19	Anderson Road Quarry Site	Undisclosed	noise	1823	2-4948074127	1823 has referred a case to CEDD on 15 February 2019, which the complainant complained about the construction noise generated from the CEDD site near 法源寺 (Ma Yau Tong Village). The complainant requested	In response to the complainant, CWSTVJV has proposed alterative quiet work method to alleviate the noise impact to the public. They will schedule the noisy activities to be carried out after 10am as far as practicable to minimize the impact to resident nearby, given that not affecting the site progress. Moreover, the coverage of acoustic barriers will be extended in view	no comment by IEC on 29 Mar 2019	TCS00864/16/300/F0251a

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								for the details of works and the completion date, the complainant also requested CEDD to use other construction methods in order to re	of the works programme.		
42	21-Feb-19	25-Feb-19	Anderson Road Quarry Site	Undisclosed	noise	EPD	NA	The resident from Sau Hong House complained that the noise from the Anderson Road Quarry construction site has gotten worse. In addition, sometimes even after midnight there are noise coming from the site. With the echo produces from the environment, this is not helping at all. Really a big disturbance to the residence in the area. The complainant suspecting the sound proof measure has lessen as time goes. Follow action is requested.	In our investigation, CWSTVJV has implemented noise mitigation measures to reduce the noise impact to the nearby resident. However, to eliminate the inconvenience caused to the nearby resident, CWSTVJV should properly maintain the noise mitigation measures as appropriate, such as maintain good site practices such as intermittent use of machine and plant and Sequencing operation of construction plant equipment. Since the works were carried out within the non-restricted hours, it is considered that the works under the project did not breach the Noise Control Ordinance.erway by ET.	no comment by IEC on 28 Mar 2019	TCS00864/16/300/F0250

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43	21-Feb-19	26-Feb-19	Anderson Road Quarry Site	Undisclosed	noise	received by DEVB and referred to CEDD	NA	A public complaint was received by DEVB and referred to CEDD on 25 February 2019 regarding on the noise generated from the construction works of the Anderson Road Quarry Site affecting a local resident residing at the Anderson Road Squatter Area	Additional acoustic mat has been erected in front of the Squatter Area to minimize the noise impact. Noise mitigation measures such as acoustic barriers erected along the works area and breaker head wrapped with acoustic material were implemented continually. Alterative quiet work method was adopted such as drilling the hard rock before the breaking work to reduce the breaking duration. In our investigation, CWSTVJV had enhanced the noise mitigation measures to ease the complainant's concerns. CWSTVJV will continually implement the noise mitigation measures to reduce to noise impact to the public.	no comment by IEC on 29 Mar 2019	TCS00864/16/300/F0252a
44	1-Mar-19	26-Feb-19	E3 of Contract 2	Undisclosed	noise	CEDD	NA	A complaint is forwarded by CEDD which was received by KTDC member Mr CHENG Keung Fung from the residents of Tsui Yeung House(翠楊樓) about the noise nuisance generated and the working time up to 7:00 pm from the rock excavation of E3 lift tower. Follow up action is requested.	The representative of the engineering team explained to Mr. Cheng about the project's details and concerned site was being constructed for the future pedestrian connection facilities. The related stone drilling process is expected to be completed in mid-April to end of April 2019. Mr. Cheng was satisfied with the rapid response from CEDD and the engineering team. In our investigation, Kwan On has implemented noise mitigation measures to reduce the noise impact to the nearby resident. Since the works were carried out within the non-restricted hours, it is considered that the works under the project did not breach the Noise Control Ordinance.	no comment by IEC on 6 May 2019	TCS00864/16/300/F0264

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45	16-Jun-19	18-Jun-19	Anderson Road Quarry Site	Undisclosed	noise	EPD	NA	EPD referred a case to CEDD on 17 June 2019 regarding the construction noise heard at On Tat Estate on Sunday.	The Contractor explained that general cleaning by water jet was carried out in the construction site on the concerned day. Since the work did not involve the use of Powered Mechanical Equipment (PME), it would not violate the noise control ordinance. The Investigation report is underway by ET.	no comment by IEC on 21 August 2019	TCS00864/16/300/F0301a
46	12-Jul-19	15-Jul-19	Anderson Road Quarry Site	Undisclosed	dust	EPD	NA	On 12 July 2019, a complaint was received by EPD regarding the dust impact to the residents at Po Tat Estate and On Tat Estate due to the dust emission at Anderson Road Quarry site.	In our investigation, CWSTVJV has implemented dust mitigation measures to eliminate the inconvenience caused to the nearby resident and status of implementation of dust mitigation measures was considered effective based on the site observation. Moreover, there was mostly rainy day throughout June and July 2019 in typical rainy season in Hong Kong and the dust impact was considered not significant in addition to the dust mitigation measures implemented provided by the Contractor. Nevertheless, the ET will closely monitor the environmental performance and dust mitigation measures in subsequent site inspection. The IR is under reviewed by IEC.	no comment by IEC on 12 August 2019	TCS00864/16/300/F0292b

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47	6-Aug-19	14-Aug-19	Work Area Portion 2 E3 (Slope of Hiu Ming Street opposite of Tsui Yeung House)	翠屏(北)邨物業服務辦事處	Noise	1823	NA	A public complaint was received by 1823 on 6 August 2019 relating to the noise generated from construction work at the lift tower site (Slope E3) at Hui Ming Street from the residents of Tsui Yeung House. The complainant expressed that the construction works has been undertaken for 2 years and generated construction noise from 8am every day, which causing serious nuisance to the nearby residents.	In our investigation, Kwan On has implemented noise mitigation measures to reduce the noise impact to the nearby resident. Nevertheless, since the construction site is close to the residential area, adequate noise mitigation measures shall be provided to reduce to noise nuisance to the public. It is concluded that the complaint was valid to the contract. As the works were carried out within the non-restricted hours, it is considered that the works under the contract did not breach the Noise Control Ordinance.	no comment by IEC on 16 Sep 2019	TCS00864/16/300/F0310a
48	15-Oct-19	18-Oct-19	Work Area Portion 6 (Tseung Kwan O Tunnel Bus-Bus Interchange Pedestrian Connectivity Facilities E12)	Mr. Ng	Noise	1823	NA	A public complaint was received by 1823 on 15 October 2019 relating to the noise generated from construction work at Tseung Kwan O Tunnel Bus to Bus Interchange Pedestrian Connectivity Facilities E12. The complainant expressed that the construction noise was generated from breaking work at 8:20 am without noise mitigation measure, which causing nuisance to the nearby residents.	In our investigation, Kwan On has implemented noise mitigation measures to reduce the noise impact to the nearby resident. Nevertheless, since the construction site is close to the residential area, adequate noise mitigation measures shall be provided to reduce to noise nuisance to the public. As the works were carried out within the non-restricted hours, it is considered that the works under the contract did not breach the Noise Control Ordinance. Kwan On was reminded to implement the mitigation measures as far as practicable as recommended in the EM&A Programme.	no comment by IEC on 13 Nov 2019	TCS00864/16/300/F0326a

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49	5-Nov-19	11-Nov-19	Work Area Portion 2&3 (lift tower construction work at Hiu Kwong Street)	NA	Noise	EPD	NA	A public complaint was received by EPD relating to the noise generated from breaking work of lift tower construction work at Hiu Kwong Street (Portion 2&3).	In our investigation, Kwan On has implemented noise mitigation measures to reduce the noise impact to the nearby resident. Nevertheless, since the construction site is close to the residential area, adequate noise mitigation measures shall be provided to reduce to noise nuisance to the public. As the works were carried out within the non-restricted hours, it is considered that the works under the contract did not breach the Noise Control Ordinance. Kwan On was reminded to implement the mitigation measures as far as practicable as recommended in the EM&A Programme.	no comment by IEC on 27 Dec 2019	TCS00864/16/300/F0332a
50	7-Nov-19	11-Nov-19	Work Area Portion 6	Mr. Cheng	Noise	EPD	NA	寶達邨居民鄭先生，表示將軍澳隧道出口工程，日間噪音嚴重，8:30-17:00, 幾部幾同時開動，而且無防音欄，之前是有，現要求環保署向對方反映改善	In our investigation, Kwan On has implemented noise mitigation measures to reduce the noise impact to the nearby resident. Nevertheless, since the construction site is close to the residential area, adequate noise mitigation measures shall be provided to reduce to noise nuisance to the public. As the works were carried out within the non-restricted hours, it is considered that the works under the contract did not breach the Noise Control Ordinance. Kwan On was reminded to implement the mitigation measures as far as practicable as recommended in the EM&A Programme.	no comment by IEC on 27 Dec 2019	TCS00864/16/300/F0333a

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51	10-Nov-19	12-Nov-19	Underpass	Undisclosed	Noise	EPD	NA	On 10 November 2019 投訴人為馬游塘村居民，自本年初寶林路開展掘隧道工程，每天噪音不斷，由 8 至 6，由於欠缺遮擋，聲音直向 4 至 22 號村屋，將來通車，相信噪音不只 8-6，現懇請環保署為本村居民正式評估，並向政府提出村民困擾，考慮盡快設置隔音屏。 On 11 November 2019 寶琳路近馬游塘村開掘隧道的工程地盤每日 8am-6pm 發出噪音，欠缺遮擋，聲音影響馬游塘村 4-22 號村屋。希望政府部門 1.調查地盤有否違規 2.實施減音措施以減低對附近居民的滋擾	In our investigation, CWSTVJV had implemented the noise mitigation measures to reduce to noise impact to the public. Since the works were conducted within approved normal hours with implementation of noise mitigation measures, there were no violation of legislative requirement. For the complainant's concern on the operation noise after commencement of the project, it is out of the scope of the EM&A programme and the relevant department will follow up the concern.	no comment by IEC on 30 Dec 2019	TCS00864/16/300/F0337

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52	11-Nov-19	20-Nov-19	Construction site near on Tai Estate Ancillary Facilities Building on On Sau Road	Mr. Wong (resident of Yung Tai House of On Tai Estate)	Noise	1823	ref. 2-5976303183	黃先生投訴安秀道安泰邨服務設施大樓附近掘路工程已持續數年還未完成，並投訴其經常發出噪音滋擾，要求部門跟進。 On 22 November 2019, the project hotline received a call from the same complainant reported on the noise nuisance near On Sau Road and On Yan Street. He suggested to speed up the noise making works by intensely concentrate the excavation works during day time. No intermittence is suggested in order to speed up the works and to avoid waste of manpower.	In our investigation, CWSTVJV had implemented the noise mitigation measures to reduce to noise impact to the public. However, in response to the complaint, the Contractor was advised to enhance the performance of the temporary noise barriers such as increase the coverage of the noise barrier. Since the works were conducted within normal working hours with implementation of noise mitigation measures, there were no breaches of legislative requirement.	no comment by IEC on 27 Dec 2019	TCS00864/16/300/F0338a
53	5-Mar-20	6-Mar-20	Tunnel work of Anderson Road Quarry Site (the Underpass)	Resident of On Tat Estate	Noise	EPD	NA	本人是安達邨居民，隧道工程在安達臣的工程，施工至今嘈音間中改善，最近又有嘈音出現，仲係重低音，希望能加裝隔音設備，工程不知何時將嘈音減至最低 。1. A public complaint was received by EPD on 5 March 2020 regarding the construction noise generated from the tunnel work of the subject site. The complainant	In our investigation, CWSTVJV had implemented the noise mitigation measures to reduce to noise impact to the public. In response to the complaint, CWSTVJV had immediately installed a layer of acoustic mat at boundary of System A. Since the works were conducted within approved normal hours with implementation of noise mitigation measures, there were no violation of legislative requirement.	no comment by IEC on 1 Apr 2020	TCS00864/16/300/F0357a

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								mentioned that the noise from construction was improved before but it became serious recently.			
54	4-Mar-20	17-Mar-20	Near Hiu Ming Street Playground (E8)	Undisclosed	Noise	1823	ref. 3-6283237171	投訴人投訴有關秀茂坪邨秀安樓附近有兩個地盤，地盤由星期一至五，每天早上約 9AM-5 PM 持續不斷發出強烈的嘈音，投訴人表示地盤是在曉明街藍球場旁邊的位置(投訴人未能告知確實街號)，因此要求部門盡快回覆及告知有關情況。 A public complaint was received by 1823 on 4 March 2020 regarding the construction noise. The complainant mentioned that there were two construction sites near Hiu Ming Street Playground generated construction noise continuously during 9AM to 5PM on weekdays.	In our investigation, CW-CMGCJV had implemented the noise mitigation measures for the works at upper section of E8 near Hiu Yuk Path and no noise impact was observed and anticipated in Hiu Ming Street based on the site activities and our inspection record. It is considered that the complaint is likely related to another construction site located near Hiu Ming Street Playground and not caused by the works under the Project. Since the works were conducted within approved normal hours with implementation of noise mitigation measures, there were no violation of legislative requirement.	no comment by IEC on 15 Apr 2020	TCS00864/16/300/F0359a

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55	23-Mar-20	23-Mar-20	Near Lin Tak Road (E11)	Undisclosed	Water Quality	Project hotline	NA	藍田居民梁先生反映在將軍澳道往連德道天橋的大彎位，其中有一個車輛出入口每日早上八時左右不時有泥水從地盤流出路面，估計泥水是清洗工程車輛所致，令梁先生的車輛每次駛經時被濺濕及弄污，請問有何措施改善問題？ A public complaint was received by project hotline on 23 March 2020 regarding overflow of muddy water from the construction site. The complainant mentioned that muddy water came out from site entrance, which spotted on his car, at 8am every morning.	In our investigation, the wheel washing facilities at site exit of E11 is one of the dust quality mitigation measures conducted by CW-CMGCJV and corresponding measure was implemented to prevent overflow of wastewater out of the site. In our recent site inspection, no outflow of muddy water from the site was observed and the condition of concerned Lin Tak Road was satisfactory. It is considered that the complaint was unlikely due to the project.	no comment by IEC on 15 Apr 2020	TCS00864/16/300/F0360a
56	17-Mar-20	19-Mar-20	Anderson Road Quarry Site	Resident of Yan Tat House	Noise	Project hotline	NA	許有為區議員接獲安達邨仁達樓 2613 室居民反映，安達臣道石礦場發展用地工程噪音持續兩年，要求工程團隊下周派員到有關單位視察，並採取可行的噪音緩解措施。許有為區議員要求陪同視察。 A public complaint was received by hotline on 17 March 2020 regarding the construction noise	In our investigation, CW-CMGCJV has implemented noise mitigation measures to reduce the noise impact and nuisance to the public. However, to eliminate the inconvenience caused to the nearby residents, CW-CMGCJV was advised to further adopt good practices on mitigating construction noise to reduce the noise impact to the nearby residents. 5. Since the works were carried out within the non-restricted hours, it is considered that the works under the contract did not breach the Noise Control Ordinance.	no comment by IEC on 11 May 2020	TCS00864/16/300/F0361a

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								generated from the Anderson Road Quarry Site. The complainant mentioned that the construction noise generated from the Anderson Road Quarry Site had been continued for two years.	Nevertheless, as the construction site is close to the residential area, CW-CMGCJV was reminded to implement the mitigation measures as far as practicable as recommended in the EM&A Programme.		
57	1-Apr-20	20-Apr-20	Work Area Portion 2	Undisclosed	Noise	1823	NA	觀塘秀茂坪紀念公園傍及曉明街的地盤，共兩個地盤，是地政總署管轄的。投訴人表示已被工程噪音滋擾了兩年多；另外投訴人得知完工時間要到2021年，投訴人不明白為何工程頭尾要3年多時間.要求地政總署直接以電郵回覆工程長的原因及有沒有措施解決地盤發出的噪音。 A public complaint was received by 1823 on 1 April 2020 and subsequently transmitted to Environmental Team (ET) on 20 April 2020, regarding the noise nuisance generated from the construction site in Hui Ming Street. The complainant concerned about the slow progress and implementation of	In our investigation, Kwan On has implemented noise mitigation measures to reduce the noise impact to the nearby resident. Nevertheless, since the construction site is close to the residential area, adequate noise mitigation measures shall be provided to reduce to noise nuisance to the public. It is concluded that the complaint was valid to the contract. However, as the works were carried out within the non-restricted hours, it is considered that the works under the contract did not breach the Noise Control Ordinance. Kwan On was reminded to implement the mitigation measures as far as practicable as recommended in the EM&A Programme.	no comment by IEC on 7 May 2020	TCS00864/16/300/F0366a

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								noise mitigation measures to alleviate the noise impact arising from the construction work.			
58	11-May-20	12-May-20	Work Area Portion 2	Undisclosed	Noise	Project hotline	NA	陳先生住於翠楊樓 17 樓，投訴對面鑽石工程產生噪音對母親健康構成影響，現查詢完工日期、噪音監控標準及措施。 A public complaint was received by Project Hotline on 11 May 2020 regarding the noise generated from rock breaking work from a construction site opposite to Tsui Yeung House, which affecting his mother’s health. The complainant enquired about the completion date of construction work, construction noise level standard and implementation of noise mitigation measures on site.	In our investigation, Kwan On has enhanced the noise mitigation measures to reduce the noise impact to the nearby resident. Based on the noise measurement result, the construction noise was reduced to acceptable level after the additional noise mitigation measures in place. Nevertheless, Kwan On was reminded to continually implement the noise mitigation measures as far as practicable in the remaining work. The performance of noise mitigation measures will keep in view by ET in subsequent site inspection	no comment by IEC on 28 May 2020	TCS00864/16/300/F0370a

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59	18-Jun-20	23-Jun-20	Anderson Road Quarry Site, System B	Undisclosed	Noise	EPD	NA	A public complaint was received by EPD on 18 June 2020 regarding the noise generated from rock breaking by machinery before 7pm from construction site near Hau Tat House. The complainant understood that the Contractor could carry out construction works, other than percussive piling, before 7pm under the CNP and hoped that the Contractor could arrange the noisy construction works to be carried out before 6pm. According to the information provided by the complainant, it is suspected complaint location would be Anderson Road Quarry Site, System B.	In our investigation, the Contractor has implemented noise mitigation measures to reduce the noise impact and nuisance to the public. Since the works were carried out within the non-restricted hours, it is considered that the works under the contract did not breach the Noise Control Ordinance. Nevertheless, as the construction site is close to the residential area, the Contractor was reminded to implement the mitigation measures as far as practicable as recommended in the EM&A Programme	no comment by IEC on 17 July 2020	TCS00864/16/300/F0391a
59#	23-Jul-20	24-Jul-20	Anderson Road Quarry Site near On Tat Estate	Undisclosed	Noise	EPD	NA	A public complaint was received by EPD on 23 July 2020 regarding the construction noise generated from the use of PME at Anderson Road Quarry Site near On Tat Estate at 6:30am (restricted hours). He/ she requested	In our investigation, CWSTVJV had restricted the use of PME before 7am. There was no construction work and use of PME during the restricted hours. Since the works were conducted within approved normal hours with implementation of noise mitigation measures, there were no violation of legislative requirement. Nevertheless, as the construction site is	no comment by IEC on 25 August 2020	TCS00864/16/300/F0401

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								relevant department to follow up.	close to the residential area, CWSTVJV was reminded to implement the mitigation measures as far as practicable as recommended in the EM&A Programme		
60	14-Nov-20	18-Nov-20	Near Hiu Ming Street Playground (E8)	Undisclosed	Noise	1823	NA	A public complaint was received by 1823 on 14 November 2020 regarding the construction noise. The complainant mentioned that there was piling works at Hiu Ming Street Playground, generating huge noise during 9AM to 10AM on 14 November 2020. He/she requested relevant department to follow up	In our investigation, there was no noise impact was observed and anticipated in Hiu Ming Street based on the site activities and our inspection record. Since the works were conducted within approved normal hours with implementation of noise mitigation measures, there were no violation of legislative requirement	no comment by IEC on 4 January 2021	TCS00864/16/300/F0424
61	4-Dec-20	7-Dec-20	Opposite to On Tai Estate – lower portion of Road L4	Undisclosed	Dust	EPD	NA	A public complaint was received by EPD on 4 December 2020 regarding the dust impact. The complainant mentioned that the construction site opposite to On Tai Estate had dust emission problem due to lack of water spraying. He/she requested relevant department to follow up	In our investigation, CWSTVJV has implemented dust mitigation measures to eliminate the inconvenience caused to the nearby resident. In view of the potential traffic dust impact and implementation of dust mitigation measures, it is considered that the complaint was not valid to the Project	no comment by IEC on 4 January 2021	TCS00864/16/300/F0434
62	3-Dec-20	7-Dec-20	Ma Yau Tong Village (East Portal)	Undisclosed	Noise and dust	1823 & EPD	3-6574141017	A public complaint was received by 1823 and EPD on 14 November 2020	In our investigation, CWSTVJV had provided the dust and noise mitigation measures to minimize the dust and noise	no comment by IEC on	TCS00864/16/300/F0435

Log ref.	Date of Complaint	Date of Received by ET	Complaint Location	Complainant	Complaint nature	Channel	Ref. no.	Complaint details	Follow up action	Log ref.	Date of Complaint
								regarding the construction dust and noise impact arising from the project. There were acoustic mats erected on the slope of East Portal, however, the complainant enquired about effectiveness of the noise barriers with dozens of 15 cm "X"-shaped cuts. Moreover, there was lack of water sprinkling on the site and fugitive dust was blowing to the village	impact to the resident nearby. To response the concern from the complainant, as enhancement noise measure, the Contractor extended the noise barrier to encircle noisy activity. Since the works were conducted within approved normal hours with implementation of noise and dust mitigation measures, there were no breaches of legislative requirement	4 January 2021	
63	7-Jan-21	7-Jan-21	System B	Resident of Yan Tat House	Noise	Project hotline	NA	A public complaint was referred by district Councillor Mr. HSU Yau-wai and received by project hotline on 7 January 2021 regarding the construction noise. The complainant mentioned that the construction site next to SKH St. John's Tsang Shiu Tim Primary School generated noise problem and she requested relevant department to follow up.	In our investigation, the Contractor has implemented noise mitigation measures to reduce the noise impact and nuisance to the public.6. Since the works were carried out within the non-restricted hours, it is considered that the works under the contract did not breach the Noise Control Ordinance. Nevertheless, as the construction site is close to the residential area, the Contractor was reminded to implement the mitigation measures as far as practicable as recommended in the EM&A Programme.	no comment by IEC on 19 July 2021	TCS00864/16/300/F0441

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64	18-Mar-21	18-Mar-21	Anderson Road Quarry Site (between On Tat Estate and On Tai Estate)	Undisclosed	Noise	1823 & EPD	NA	A public complaint was received by 1823 and referred by EPD on 18 March 2021 regarding the construction noise generated from construction works at Anderson Road Quarry Site between On Tat Estate and On Tai Estate. The complainant expressed that construction works of the site started from 6:45am everyday which causing noise disturbance to the nearby resident and he/ she requested relevant department to follow up	In our investigation, CWSTVJV had restricted the use of PME before 7am. There was no construction work and use of PME during the restricted hours and there should not be any non-compliance of Noise Control Ordinance. Nevertheless, as the construction site is close to the residential area, CWSTVJV was reminded to implement the mitigation measures as far as practicable as recommended in the EM&A Programme	no comment by IEC on 1 April 2021	TCS00864/16/300/F0454
65	1-Apr-21	1-Apr-21	Construction site near SKH St. John's Tsang Shiu Tim Primary School (System B under Contract 3)	Undisclosed	Noise	EPD	NA	A complaint was received by EPD and referred to CEDD on 1 April 2021 regarding the construction noise. The complainant mentioned that piling work was conducted at construction site near SKH St. John's Tsang Shiu Tim Primary School in recent week which generated noise problem. Moreover, there were no noise mitigation measures provided in the construction site	In our investigation, the Contractor has implemented noise mitigation measures to reduce the noise impact and nuisance to the public. Since the works were carried out within the non-restricted hours, it is considered that the works under the contract did not breach the Noise Control Ordinance. Moreover, the Contractor has adopted noise mitigation measures to minimise noise impact to the public. Since the construction site is close to the residential area, the Contractor was reminded to implement the mitigation measures as far as practicable as recommended in the EM&A Programme	no comment by IEC on 19 July 2021	TCS00864/16/300/F0458a

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66	28-Mar-21	30-Mar-21	Anderson Road Quarry Site (between On Tat Estate and On Tai Estate)	Resident of Tai Fung House of On Tai Estate	Noise	EPD	K13/RE/00007086-21	A public complaint was received by EPD on 28 March 2021 regarding the construction noise generated from construction works at Anderson Road Quarry Site until 9pm on Monday to Saturday. Moreover, the complaint concerned about the construction noise heard on 28 March 2021 which was a Sunday.	In our investigation, CWSTVJV had followed that CNP for work during restricted hour and there should not be any non-compliance of Noise Control Ordinance. Nevertheless, some site areas had been handed over to other contract and construction noise generated from others is not controlled by the project. As a reminder, CWSTVJV should implement the mitigation measures as far as practicable as recommended in the EM&A Programme.	no comment by IEC on 22 April 2021	TCS00864/16/300/F0459
67	11-Jun-21	11-Jun-21	Anderson Road Quarry Site	Resident of Chi Tat House, On Tai Estate	Noise	EPD	EPD Ref.: 13208-21	A public complaint was received by EPD on 11 June 2021 and complained about noise nuisance from multiple construction sites on Anderson Road Quarry Site. The complainant stated that there were noise nuisances from different construction sites from 0800 am to 1800 pm from Monday to Saturday without adequate noise mitigation measures. On 17 June 2021, the complainant added that the noise was generated from rock breaking works in front of Chi Tai House (not from the housing sites near the Tai Sheung Tok slope)	6. In our investigation, CWSTVJV had implemented the noise mitigation measures to reduce to noise impact to the public. In response to the complaint, CWSTVJV had immediately installed a layer of acoustic barrier at boundary of concern works area. Since the works were conducted within approved normal hours with implementation of noise mitigation measures, there were no violation of legislative requirement.	no comment by IEC on 19 July 2021	TCS00864/16/300/F0478a

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								and no mitigation measure was implemented for the rock breaking works.			
68	20&21/June/21	23-Jul-21	Anderson Road Quarry Site	DSD	Water Quality	EPD	EPD Ref.: 13208-21	EPD received complaints from DSD on 20 and 21 July 2021 concerning about discharge of muddy water as found on Po Lam Road and at the drainage facility near Tin Hau temple.	In our investigation, CWSTVJV had implemented the water quality mitigation measures to minimise the impact arising from the construction site. In view of the site condition and inclement weather condition on the complaint days, it is considered that the complaints raised by DSD were unlikely due to the C1 Project. Nevertheless, CWSTVJV was advised to closely monitor the discharge quality to avoid non-compliance of water quality happened in the construction site. Moreover, to cope with the adverse weather condition in wet season, CWSTVJV should regularly review the drainage plan as needed.	no comment by IEC on 6 August 2021	TCS00864/16/300/F0485b
69	14&16/Sep/21	15-Sep-21	Anderson Road Quarry Site	DSD	Water Quality	EPD	NA	EPD received complaints from DSD on 14 Sep 2021 and 16 Sep 2021 concerning about discharge of muddy water as found at the catchpit SCH4003250 near Po Lam Road and catchpit SSH4001400 near Po Tat Tin Hau Temple.	In our investigation, CWSTVJV had implemented the water quality mitigation measures to minimise the impact arising from the construction site. However, there were incidents of seepage of silty water at Q2 and Q3 and rectified actions were undertaken immediately. Having investigated, the incidents were considered very short term and would not generate large amount of muddy water. In view of the inclement weather condition and there were other major sources, it is considered that the complaints raised by DSD were not fully contributed byC1 Project. Nevertheless, CWSTVJV was advised to	no comment by IEC on 6 October 2021	

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									closely monitor the discharge quality to avoid non-compliance of water quality happened in the construction site. Moreover, to cope with the adverse weather condition in wet season, CWSTVJV should regularly review the drainage plan as needed.		
70	23/Sep/21	29-Sep-21	Anderson Road Quarry Site	CEDD & EPD	Noise	CEDD &EPD	NA	A public complaint was referred by 1823 to both CEDD and EPD on 23 September 2021. The complainant stated that the construction works at Anderson Road Quarry Site started before 7am, which generated construction noise and affecting the upper floor resident of On Tat Estate. EPD have contacted the complainant and clarify that the concerned about construction dust and daytime construction noise after 7am.	Our investigation revealed that there was no construction works under the Project undertaken during the concerned period by the complainant, and there were other concurrent contracts on Anderson Road Quarry Site and the contribution noise may be related to others. Therefore, it is considered that the noise complaint was unlikely to be related to the works under the Project. Nevertheless, CWSTVJV was reminded to properly maintain the noise mitigation measures as far as practicable considering the construction site is relatively close to residential area.	No comment by IEC on 15 November 2021	
71	30/Mar/22	12/Apr/22	Anderson Road Quarry Site	DSD	Water Quality	DSD	NA	EPD received complaint from DSD on 28 March 2022 concerning about siltation and discharge of muddy water observed at the public drainage system	In our investigation, the Contractor had implemented the water quality mitigation measures to minimise the impact arising from the construction site. Based on the investigation findings, it is considered that the complaint was likely caused by the	No comment by IEC on 19 April 2022	TCS00864/16/300/F0540

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								at catchpit SSH4001400 near Tin Hau Temple and the site discharge points at Po Lam Road on 28 March 2022	interfacing contractors under rainy days and not due to the works under the Project.		
72	14/Apr/22	25/Apr/22	Anderson Road Quarry Site	DSD	Water Quality	DSD	NA	DSD carried out site inspection at site discharge point at Po Lam Road on 12 April 2022 and observed discharge of muddy water at public drainage system. The case was then referred to CEDD and EPD to investigate the source of the muddy water discharge.	In our investigation, the Contractor had implemented the water quality mitigation measures to minimise the impact arising from the construction site. Based on the investigation findings, it is considered that the complaint was likely caused by the interfacing contractors and not due to the works under the Project.	No comment by IEC on 16 May 2022	TCS00864/16/300/F0541
73	11/May/2022	25/May/2022	Anderson Road Quarry Site	DSD	Water Quality	DSD	NA	EPD received complaint from DSD on 11 May 2022 concerning about muddy water observed entering Tsui Ping River, with similar situation observed at Tin Hau Temple and Po Lam Road.	Based on the above findings and successive heavy rainstorm on 11 to 13 May 2022, it is considered the muddy water found in the concerned catchpit SSH4001400 near Tin Hau Temple and Po Lam Road on 11 to 13 May 2022 were likely caused by impact of rainstorm and partially contributed by the interfacing contractors at Sites R2-9 & R2-10.	No comment by IEC on 13 June 2022	TCS00864/16/300/F559
74	17/May/2022	30/May/2022	Anderson Road Quarry Site	DSD	Water Quality	DSD	NA	EPD received complaint from DSD on 14 and 16 May 2022 concerning about muddy water observed entering Tsui Ping River.	Heavy rain led to large amount of storm runoff from roads and landscape into the public drainage system, which deteriorated the water quality in the drainage system. Besides, there were several construction sites at upstream of Tsui Ping River. It is considered that complaint mainly related to the interfacing contractor(s) and unlikely to	No comment by IEC on 13 June 2022	TCS00864/16/300/F562a

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									have been caused by the project.		
75	27/May/2022	9/Jun/2022	Anderson Road Quarry Site	DSD	Water Quality	DSD	NA	EPD received complaint from DSD on 27 May 2022 concerning about muddy water observed entering Tsui Ping River, with similar situation observed at Tin Hau Temple and Po Lam Road.	Heavy rain led to large amount of storm runoff from roads and landscape into the public drainage system, which deteriorated the water quality in the drainage system. Besides, there were several construction sites at upstream of Tsui Ping River. It is considered that complaint mainly related to the interfacing contractor(s) and unlikely to have been caused by the project.	No comment by IEC on 13 June 2022	TCS00864/16/300/F563
76	6, 7, 8/Jun/2022	7, 8, 9/Jun/2022	Anderson Road Quarry Site	DSD	Water Quality	DSD	NA	On 6 June 2022, DSD informed that dirty water with bad odour was observed entering Tsui Ping River this morning at the upstream near junction of Kai Lim Road and Tsui Ping Road. The situation has persisted over 50 mins. Furthermore, muddy water was observed entering Tsui Ping River, with similar situation at Tin Hau Temple and Po Lam Road (山渠) on 6, 7 and 8 June 2022.	As a matter of fact, heavy rain led to large amount of storm runoff from roads and landscape into the public drainage system, which deteriorated the water quality in the drainage system. Besides, there were several construction sites at upstream of Tsui Ping River. It is considered that complaint mainly related to the interfacing contractor(s) and unlikely to have been caused by the project.	Sent to EPD on 21 June 2022	TCS00864/16/300/F565
77	14/Jun/2022	15/Jun/2022	Anderson Road Quarry Site	DSD	Water Quality	DSD	NA	DSD concerning muddy water discharge found at Tin Hau Temple and Po Lam Road on 14 June pm.	As a matter of fact, heavy rain led to large amount of storm runoff from roads and landscape into the public drainage system, which deteriorated the water quality in the drainage system. Besides, there were several construction sites at upstream of Tsui Ping River. It is considered that	Sent to EPD on 29 June 2022	TCS00864/16/300/F566

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									complaint mainly related to the interfacing contractor(s) and unlikely to have been caused by the project.		
78	8/Aug/2022	8/Aug/2022	Anderson Road Quarry Site	DSD	Water Quality	DSD	NA	DSD advised EPD that muddy water was observed entering Tsui Ping River in the morning of 8 August 2022, with similar situation at Tin Hau Temple and Po Lam Road	As a matter of fact, heavy rain led to large amount of storm runoff from roads and landscape into the public drainage system, which deteriorated the water quality in the drainage system. No muddy water discharge was evident in the morning or afternoon of 8 August 2022. It is therefore considered that the muddy water discharge observed by DSD in the morning of 8 August 2022 was unlikely to have been caused by the ARQ contracts of C1 or C4.	No comment by IEC on 19 September 2022	TCS00864/16/300/F580
79	12/Aug/2022	12/Aug/2022	Anderson Road Quarry Site	DSD	Water Quality	DSD	NA	DSD advised EPD that muddy water was observed entering Tsui Ping River in the morning of 12 August 2022, with similar situation at Tin Hau Temple and Po Lam Road (山渠).	As a matter of fact, heavy rain led to large amount of storm runoff from roads and landscape into the public drainage system, which deteriorated the water quality in the drainage system. No muddy water discharge was evident in the morning of 12 August 2022. It is therefore considered that the muddy water discharge observed by DSD in the morning of 12 August 2022 was unlikely to have been caused by the ARQ contracts of C1 or C4.	No comment by IEC on 19 September 2022	TCS00864/16/300/F581
80	29&30/Sep/2022	29/Sep/2022 & 3 Oct 2022	Anderson Road Quarry (ARQ) Site	DSD	Water Quality	DSD	NA	DSD's complaint was made to EPD who requested CEDD in the same respective mornings to handle and investigate in	As a matter of fact, heavy rain led to large amount of storm runoff from roads and landscape into the public drainage system, which deteriorated the water quality in the drainage system. No muddy water	Sent to EPD on 18 October 2022	TCS00864/16/300/F593

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								accordance with the procedure in EM&A Manual.	discharge from ARQ Site was evident in the morning of 29 and 30 September 2022. It is therefore considered that the muddy water discharge observed by DSD in the morning of 29 and 30 September was unlikely to have been caused by the ARQ contracts of C1 or C4. During wet season, the Contractor was strongly reminded to implement adequate water quality mitigation measures to minimise the impact arising from the construction site. The Contractor should closely monitor the discharge quality from the Site to avoid non-compliance. The ET will pay special attention on water quality mitigation measures implementation on site through regular site inspection, and give advice on remedial action when necessary. Incidentally, it is noted that Site R2-9 has kept discharging muddy water to downstream manhole D310. Record photos of the manhole dated 6, 7 and 8 October 2022 are enclosed for reference.		
81	18/Oct/2022	20/Oct/2022	Anderson Road Quarry (ARQ) Site	DSD	Dust Quality	Referred by 1823 to EPD	NA	A public complaint was referred by 1823 to EPD on 18 October 2022, regarding the dust problem generated from the construction site in Anderson Road near On Tai Estate due to typhoon signal no. 3. EPD	In our investigation, both the Contractors had implemented dust mitigation measures to reduce to potential impact to the public. However, in particular during dry season, Contract 4 was reminded to enhance the dust suppressive measures as far as practicable. As there were no air monitoring results exceeding the limit level, it is considered that the dust	Sent to EPD on 3 November 2022	TCS00864/16/300/F596

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								contacted the complainant who was a resident of Shing Tai House, On Tai Estate. The complainant expressed concern about the construction dust generated from Anderson Road Quarry (ARQ) site and requested the site to step up dust suppression measures.	mitigation measures implemented were effective in suppressing the fugitive dust. Nevertheless, as the construction site is close to the residential area, both the Contractors were reminded to implement the mitigation measures as far as practicable as recommended in the EM&A Programme.		
82	17/May/2023	19/May/2023	Anderson Road Quarry (ARQ) Site	DSD	Water Quality	DSD	NA	EPD received complaint from DSD concerning muddy water was observed entering Tsui Ping River from the upstream in the afternoon of 17th May 2023, with similar situation at Po Lam Road (山渠)。 The case was then referred from EPD to CEDD for follow-up. Environmental Team (ET) initiated the handing procedure in accordance with the Environmental Monitoring & Audit Manual to investigate whether it is related to the Project of Development of Anderson Road Quarry (ARQ) Site.	As a matter of fact, the heavy rains led to large amount of storm runoff from roads and landscape into the public drainage system, which deteriorated the water quality in the drainage system. There was no evident muddy water discharge from ARQ Site in the afternoon of 17th May 2023. Therefore, it is considered unlikely that the muddy water discharge observed by DSD in the afternoon of 17 May 2023 was caused by the ARQ contracts of Contract 1 or Contract 4. During the wet season, the Contractor was strongly reminded to implement adequate water quality mitigation measures to minimise the impact arising from the construction site. The Contractor should closely monitor the quality if the discharge from the Site to avoid non-compliance. The ET will pay special attention to the implementation of water quality mitigation measures on site through regular site	Sent to EPD on 29 May 2023	TCS00864/16/300/F643

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									inspections, and provide advice on remedial action when necessary.		
83	4 July 2023	4 July 2023	Anderson Road Quarry (ARQ) Site	DSD	Water Quality	DSD	NA	EPD received complaint from DSD concerning muddy water was observed entering Tsui Ping River from the upstream in the morning of 4 July 2023, with similar situation at Po Lam Road (山渠).	As a matter of fact, the heavy rains led to large amount of storm runoff from roads and landscape into the public drainage system, which deteriorated the water quality in the drainage system. There was no evident muddy water discharge from ARQ Site in the morning of 4 July 2023. Therefore, it is considered unlikely that the muddy water discharge observed by DSD in the morning of 4 July 2023 was caused by the ARQ contracts of Contract 1 or Contract 4. During the wet season, the Contractor was strongly reminded to implement adequate water quality mitigation measures to minimise the impact arising from the construction site. The Contractor should closely monitor the quality of the discharge from the Site to avoid non-compliance. The ET will pay special attention to the implementation of water quality mitigation measures on site through regular site inspections, and provide advice on remedial action when necessary.	Sent to EPD on 18 July 2023	TCS00864/16/300/F653
84	19 Jan 2024	23 Jan 2024	On Kin Road, Anderson Road Quarry	KTDC member Mr. Hsu Yau-wai	Noise Quality	EPD	NA	A public complaint was received by EPD Regional Office (East) on 19 January 2024 regarding the construction noise generated from construction works at On	As advised by the RE of Contract 4, under CEDD Contract No. ED/2020/02, the Contractor was required to lift 9 precast beams of an elevated walkway. The works was carried out over for four consecutive nights starting from 16 January 2024 and has already completed. The Contractor	Sent to EPD on 29 January 2024	TCS00864/16/300/F684a

Log ref.	Date of Complaint	Date of Received by ET	Complaint Location	Complainant	Complaint nature	Channel	Ref. no.	Complaint details	Follow up action	Log ref.	Date of Complaint
								Kin Road, Anderson Road Quarry (CEDD Contract No. ED/2020/02) at night from 10pm to 6am.	possessed a valid Construction Noise Permit (CNP) (GW-RE0030-24) from 15 to 24 January 2024. The Contractor also confirmed that lift beams work was undertaken on On Kin Road between 16 to 20 January 2024. These works were conducted from 23:00 to 02:00 and involve the use of a crane as the only PEM, which complied with the relevant CNP (GW-RE0030-24). To mitigation noise impact on the public during nighttime, a series of acoustic mats were erected around the work area.		
85	23 and 26 Apr 2024	23 and 26 Apr 2024	Anderson Road Quarry (ARQ) Site	DSD	Water Quality	EPD	NA	EPD received complaint from DSD concerning muddy water was observed entering Tsui Ping River from the upstream on 23 and 26 April 2024, with similar situation at the catchpit at Tin Hau Temple.	Joint site inspection among the RSS, Contractor of Contract 4 and ET was carried out on weekly basis to audit the environmental performance. The implementation of mitigation measures were summarized below:- (a) The wastewater treatment facilities were implemented and properly functioned. (b) To minimize the generation of muddy water, the exposed areas were covered either with an impervious sheet or through hydroseeding. (c) Sump pits were constructed at the lowest point of the work area to store continuous rainfall, which helps prevent overload of wastewater treatment facilities were and ensures wastewater was properly treated	Sent to EPD on 6 May 2024	TCS00864/16/300/F698a

Log ref.	Date of Complaint	Date of Received by ET	Complaint Location	Complainant	Complaint nature	Channel	Ref. no.	Complaint details	Follow up action	Log ref.	Date of Complaint
									before discharge to the designated discharge points.		
86	6 May 2024	6 May 2024	Anderson Road Quarry (ARQ) Site	DSD	Water Quality	EPD	NA	EPD received complaint from DSD concerning muddy water was observed entering Tsui Ping River from the upstream on 6 May 2024, with similar situation at the catchpit at Tin Hau Temple.	Joint site inspection among the RSS, Contractor of Contract 4 and ET was carried out on weekly basis to audit the environmental performance. The implementation of mitigation measures were summarized below: - The wastewater treatment facilities were implemented and properly functioned. - To minimize the generation of muddy water, the exposed areas were covered either with an impervious sheet or through hydroseeding. - Sump pits were constructed at the lowest point of the work area to store continuous rainfall, which helps prevent overload of wastewater treatment facilities were and ensures wastewater was properly treated before discharge to the designated discharge points.	Sent to EPD on 20 May 2024	TCS00864/16/300/F701a
87	20 May 2024	20 May 2024	Anderson Road Quarry (ARQ) Site	DSD	Water Quality	EPD	NA	EPD received complaint from DSD concerning muddy water was observed discharge from upstream of Tsui Ping River and at Tin Hau Temple in the morning of 20 May 2024.	Joint site inspection among the RSS, Contractor of Contract 4 and ET was carried out on weekly basis to audit the environmental performance. The implementation of mitigation measures were summarized below: - The wastewater treatment facilities were implemented and properly	Sent to EPD on 30 May 2024	TCS00864/16/300/F0702a

Log ref.	Date of Complaint	Date of Received by ET	Complaint Location	Complainant	Complaint nature	Channel	Ref. no.	Complaint details	Follow up action	Log ref.	Date of Complaint
									functioned. - To minimize the generation of muddy water, the exposed areas were covered either with an impervious sheet or through hydroseeding. - Sump pits were constructed at the lowest point of the work area to store continuous rainfall, which helps prevent overload of wastewater treatment facilities were and ensures wastewater was properly treated before discharge to the designated discharge points.		
88	9 September 2024	10 September 2024	Anderson Road Quarry (ARQ) Site	DSD	Water Quality	EPD	NA	EPD received complaint from DSD concerning muddy water was observed entering Tsui Ping River (TPR) from the upstream at Tin Hau Temple in the morning of 9 September 2024.	Joint site inspection among the RSS, Contractor of Contract 4 and ET was carried out on weekly basis to audit the environmental performance. The implementation of mitigation measures were summarized below:- (a) The wastewater treatment facilities were implemented and properly functioned. (b) To minimize the generation of muddy water, the exposed areas were covered either with an impervious sheet or through hydroseeding. (c) Sump pits were constructed at the lowest point of the work area to store continuous rainfall, which helps prevent overload of	Sent to EPD on 23 September 2024	TCS00864/16/300/F0718a

Log ref.	Date of Complaint	Date of Received by ET	Complaint Location	Complainant	Complaint nature	Channel	Ref. no.	Complaint details	Follow up action	Log ref.	Date of Complaint
									wastewater treatment facilities and ensures wastewater was properly treated before discharge to the designated discharge points.		
89	15 and 18 December 2024	20 December 2024	Anderson Road Quarry (ARQ) Site	Public	Dust and Muddy Water	EPD	NA	成條街道沙塵滾滾和大量泥水流出地盤，直接流到外面雨水渠。大型地盤車輛，泥頭車無洗車設施離開地盤，成條街道沙塵，經常吹到成條街沙塵滾滾建築物料沒有掩蓋，經常吹到成條街沙塵滾滾，掘挖機操作時未有做好防塵措施，導致塵土飛揚。地盤工人沖刷泥頭車灰塵及泥土到雨水渠。 A public complaint was referred by EPD on 19 December 2024, regarding the dust and muddy water arising from the project. The complainant mentioned that the muddy water runoff from site and discharge of muddy water observed at the public drainage system. Moreover, sandy stockpile was not covered properly and lack of dust mitigation measures when the	As confirmed by the Contractor of Contract 3 – NE/2017/03, no major construction activities was carried out in Site E3, but transportation of stockpiles and materials for storage in Site E3. Site inspection was carried out by the Contractor, the observation during site inspection on 15 and 18 December 2024 are summarised as follow. (a) As dust mitigation measures, sandy stockpile was covered and water spraying was provided to reduce dust impact. (b) Vehicular access roads under Contract 3 were hard paved on haul road at exit point and sprayed continuously by water bowser to minimize generation of fugitive dust. (c) Vehicle wheel and body washing was provided before leaving site and facilities were constructed to collect wastewater from wheel washing to prevent muddy water runoff from site. (d) Mechanical cover for dump truck used to reduce dust impact.	Sent to EPD on 30 December 2024	TCS00864/16/300/F0730a

Log ref.	Date of Complaint	Date of Received by ET	Complaint Location	Complainant	Complaint nature	Channel	Ref. no.	Complaint details	Follow up action	Log ref.	Date of Complaint
								excavator was operation and fugitive dust was blowing to the street.			
90	22 January 2025	23 January 2025	Anderson Road Quarry (ARQ) Site	DSD	Muddy Water	EPD	NA	Muddy water was observed from the upstream drainage systems collecting discharged from the development sites of ARQ. EPD received complaint from DSD concerning muddy water discharge was observed from the upstream drainage systems collecting discharges from the development sites of ARQ on 22 January 2025. As the muddy water would finally enter Tsui Ping River (TPR) and causes pollution problem to TPR.	As advised by the RSS and the Contractor of Contract 1, the majority of the Contract 1 area has been handed over to other contracts on ARQ Site (such as building contract). Each of these interfacing contractors should have been granted a licence for discharge under the Water Pollution Control Ordinance. The discharge points of ARQ Site were located at Q2 and catchpit at Po Lam Road. The remaining area under Contract 1 were some hard paved roads within the ARQ Site. There were no water quality impact anticpated for Contract 1 from the remaining works. Joint site inspection among the RSS, Contractor of Contract 4 and ET was carried out on weekly basis to audit the environmental performance. The implementation of mitigation measures were summarized below:- (a) The wastewater treatment facilities were implemented and properly functioned. (b) To minimize the generation of muddy water, the exposed areas were covered either with a tarpaulin sheet or through hydroseeding. (c) Temporary water storage areas	Sent to EPD on 10 February 2025	TCS00864/16/300/F0738a

Log ref.	Date of Complaint	Date of Received by ET	Complaint Location	Complainant	Complaint nature	Channel	Ref. no.	Complaint details	Follow up action	Log ref.	Date of Complaint
									were constructed at the lowest point of the work area to store continuous rainfall, which helps prevent overload of wastewater treatment facilities and ensures wastewater was properly treated before discharge to the designated discharge points.		
91	27 and 28 February 2025	28 February and 1 March 2025	Anderson Road Quarry (ARQ) Site	DSD	Water Quality	EPD	NA	During DSD's site inspection at ARQ Site Underground Stormwater Retention (USTR) Tank on 27 Feb 2025, continuous inflow of muddy water, construction debris and cementitious material into the tank was observed. Additionally, discharge of tar from the upstream drainage systems at ARQ sites into the tank was also observed during DSD's site inspection on 28 Feb 2025.	As advised by the RSS, the majority of the Contract 1 area has been handed over to other contracts on ARQ Site (such as building contract). Each of these interfacing contractors should have been granted a license for discharge under the Water Pollution Control Ordinance. The remaining work under Contract 1 includes recent road resurfacing. However, based on the work nature and lack of rainfall in recent weeks, the release of cementitious material, muddy water and tar into the USRT were not anticipated. Joint site inspection among the RSS, Contractor of Contract 4 and ET was carried out on weekly basis to audit the environmental performance. The implementation of mitigation measures were summarized below:- (d) The wastewater treatment facilities were implemented and properly functioned. (e) To minimize the generation of muddy water, the exposed areas were covered either with a	Sent to EPD on 5 March 2025	TCS00864/16/300/F0742b

Log ref.	Date of Complaint	Date of Received by ET	Complaint Location	Complainant	Complaint nature	Channel	Ref. no.	Complaint details	Follow up action	Log ref.	Date of Complaint
									tarpaulin sheet or through hydroseeding. (f) The haul road under Contract 4 was hard-paved to minimize the generation of muddy water, and no muddy runoff from the site was observed.		

Appendix N

Implementation Status for Water Quality Mitigation Measures

Water Quality Mitigation Measure

Q1. Wastewater treatment facility 30 cu.m Sedimentation Tank + AquaSed of 15 cu.m per hour + WETSEP

Q1. Wastewater treatment facility 30 cu.m Sedimentation Tank + AquaSed of 15 cu.m per hour + WETSEP