ACUITY sustainability
Member of the Aurecon Group

aurecon

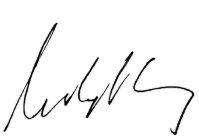
Contract No. AL G513

Expansion of Wo Hop Shek Crematorium

Final EM&A Report
(Period from 10 March 2020 to 30 June 2022)

Document No.

ASCL	/	2018028	/	Final	/	A
Publisher		Project Code		Sequential No.		Revision Index

	Prepared by:	Reviewed by:	Certified by:
Name	Joe HO	Tandy TSE	Kevin LI
Position	Environmental Team Member	Environmental Team Member	Environmental Team Leader
Signature			
Date:	25/08/2022	25/08/2022	25/08/2022

Acuity Sustainability Consulting Limited
Flat/RM E, 12/F, Ford Glory Plaza,
Nos. 37-39 Wing Hong Street, Kowloon, Hong Kong
tel +852 2698 6833
fax +852 2698 9383 | e-mail admin@acuityhk.com
http www.acuityhk.com | www.aurecongroup.com

REVISION HISTORY

REV.	DESCRIPTION OF MODIFICATION	DATE
A	First Issue for Comments	25 Aug 2022

CONTENTS

EXECUTIVE SUMMARY

INTRODUCTION

A1. The Project, Expansion of Wo Hop Shek Crematorium, is a Designated Project under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO) and is currently governed by an Environmental Permit (EP No. EP – 329/2009) for the construction and operation of the Project.

A2. In accordance with the Environmental Monitoring and Audit (EM&A) Manual for the Project, EM&A works for air quality monitoring and waste management should be carried out by Environmental Team (ET), Acuity Sustainability Consulting Limited (ASCL), during the construction phase of the Project.

A3. This is the Final EM&A Report, prepared by ASCL, for the Project summarizing the monitoring results and audit findings of the EM&A programme at and around Wo Hop Shek Crematorium during the construction period from 10 March 2020 to 30 June 2022. As notified by Architectural Services Department (ArchSD) on 30 June 2022, the Phase III works was substantially completed, all the above ground construction works were completed. The memo with reference number ASD52/8417/ALG513/C25/001 is presented in **Appendix J**.

A4. The EM&A programme for this contract has covered environmental monitoring on construction dust level at selected NSRs and Contractor's environmental performance auditing in the aspects of construction dust, construction noise, water quality, waste management, Landscape and Visual and Ecology.

SUMMARY OF EXCEEDANCE & INVESTIGATION & FOLLOW-UP

A5. No project-related exceedance in air quality monitoring, including 24-hour TSP and 1-hour TSP of the Action Level was recorded during the construction period.

COMPLAINT HANDLING AND PROSECUTION

A6. No project-related environmental complaint was received during the construction period.

A7. Neither notifications of summons nor prosecution was received for the Project.

1. BASIC PROJECT INFORMATION

1.1. BACKGROUND

The Food and Environmental Hygiene Department (FEHD) is responsible for the operation of public crematorium in Hong Kong including the Cremators at Wo Hop Shek Crematorium pursuant to Environmental Permit No. EP-329/2009. The existing Wo Hop Shek Crematorium (WHSC) was re-provisioned in February 2013. It comprises six body cremators, one bone cremator and three service halls. At the design stage, areas had already been reserved for the addition of two body cremators and one service hall. In order to cope with increasing demand for cremation sessions, Expansion of Wo Hop Shek Crematorium (the Project) is being taken forward in this juncture. This Project shall provide two new cremators at WHSC and one service hall for commissioning. ArchSD acts as the works agent for FEHD, is responsible for the project management of the project.

The Project consists of three construction phases. Phase I of the project was substantially completed in October 2012 while Phase II of the project was substantially completed in November 2013. The Project has been re-initiated as Phase III and Shing Hing Construction Co. Ltd. (the Contractor) has been awarded the construction contract for the Project with contract no. AL G513.

The scope of the Project comprises provision of:

- Two new body cremators;
- One new multi-purpose service hall;
- A full range of ancillary facilities; and
- Addition, alteration and modification works that are necessary for the additional cremators and service hall.

1.2. THE REPORTING SCOPE

This is the Final EM&A Report for the Project which summarizes the key findings of the EM&A programme during the reporting period from 10 March 2020 to 30 June 2022.

1.3. PROJECT ORGANIZATION

The Project Organization structure for Construction Phase is presented in Figure 1.1.

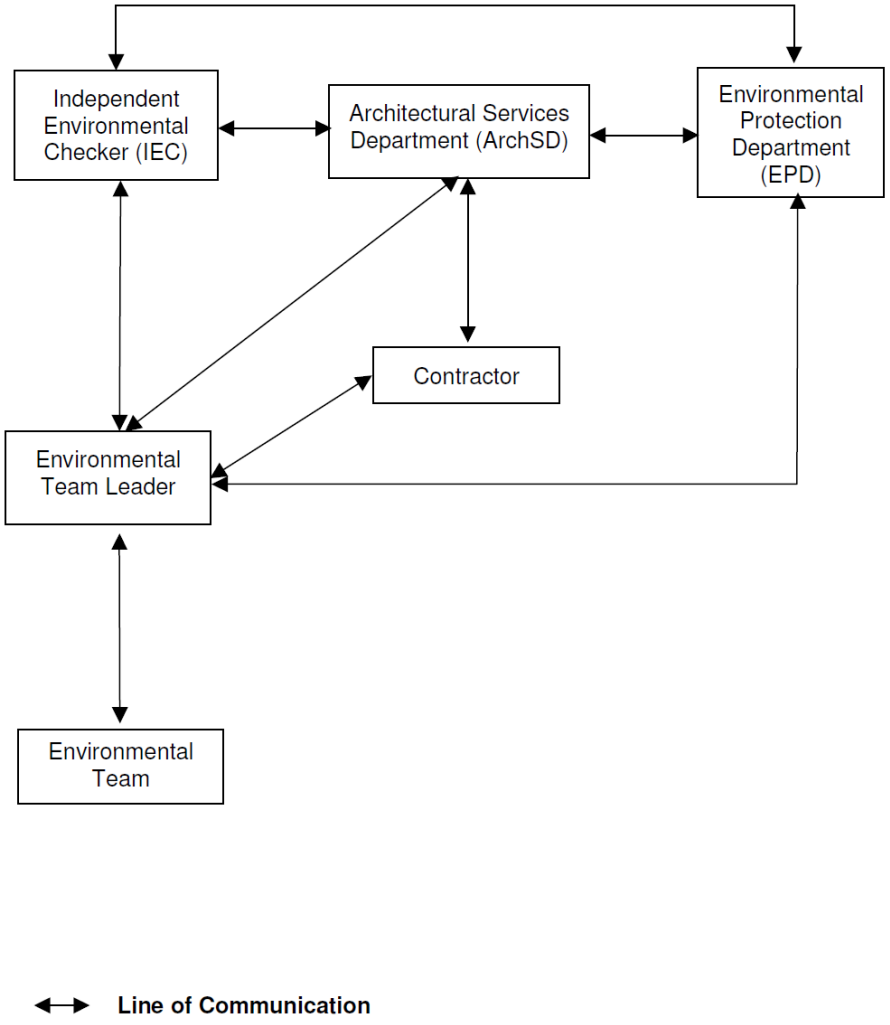


Figure 1.1 Project Organization Chart

Contact details of the key personnel are presented in **Table 1.1** below:

Table 1.1 Contact Details of Key Personnel

Party	Position	Name	Telephone no.
Shing Hing Construction Co Ltd	Site Agent	M.Y. Wong	2807-4665
Acuity Sustainability Consulting Limited	Environmental Team Leader	Kevin Li	2698-6833
Ove Arup & Partners Hong Kong Ltd	Independent Environmental Checker (IEC)	Franki Chiu	2268-3207

1.4. SUMMARY OF CONSTRUCTION WORKS

Details of the major construction activities undertaken during the period are shown in **Table 1.2** below. The construction programme is presented in **Appendix A**.

Table 1.2 Summary of the Construction Activities Undertaken during the Construction Period

Reporting Month	Construction Activities
March 2020	- Access Road Construction - Tree Transplanting Works (T041-T047)
April 2020	- Site formation works - Excavation for sub-structure work
May 2020	- Excavation for sub-structure work - Concrete breaking to existing Reinforced Concrete (RC) wall for rebar connection
June 2020	- Construction works to raft foundation and footings - Construction of basement wall
July 2020	- Erecting tanking block wall - Applying waterproofing membrane - Mass filing
August 2020	- Mass filling - Construction works to footings - Dwarf wall construction
September 2020	- Mass filling - Construction works to footings - Dwarf wall construction
October 2020	- Backfill and compaction & test - Construction works to footings - Dwarf wall construction - Mockup to fair face finish (1000x1000mm) - Construction to on-grade slab to basement area
November 2020	- Construction to on-grade slab - Construction to suspended slab
December 2020	- Superstructure: formwork, fixing & concreting
January 2021	- Superstructure: formwork, fixing & concreting
February 2021	- Superstructure: Formwork, fixing & Concreting
March 2021	- Superstructure: Formwork, fixing & Concreting
April 2021	- Brick work and block work; internal partition wall

Reporting Month	Construction Activities
May 2021	- Superstructure 1. M/F to R/F • Erecting formwork / falsework to slab and beam • Rebar fixing to slab and beam • Casting concrete to wall, slab and beam 2. Late casting element • W7 Setting out • W7 Erecting formwork / falsework to wall • Parapet wall Setting out
June 2021	- Superstructure 1. Late casting element • W7 Rebar fixing • Parapet wall Erecting formwork • Parapet wall Rebar fixing • Casting concrete to late casting element
July 2021	- Fitting out 1. Interior fitting out works 2. Brick work and block work; internal partition wall
August 2021	- Fitting out 1. Brick work and block work; internal partition wall 2. External wall plastering, tiling & cladding
September 2021	- Fitting out 1. Brick work and block work; internal partition wall 2. Waterproofing work to lavatories 3. External wall plastering, tiling & cladding 4. Steel and metal works
October 2021	- Fitting out 1. Interior fitting out works 2. External wall plastering, tiling & cladding 3. Suspended Ceilings 4. Furniture, fitting, shelving, racks, equipment - Construction to pedestrian pavement
November 2021	- Fitting out 1. Interior fitting out works 2. Suspended Ceilings 3. Steel and metal works - Construction to pedestrian pavement
December 2021	- Fitting out 1. Interior fitting out works 2. External wall plastering, tiling & cladding 3. Steel and metal works - Construction to pedestrian pavement

Reporting Month	Construction Activities
January 2022	- Fitting out 1. Interior fitting out works 2. Steel and metal works 3. Suspended ceiling 4. Painting - Construction to pedestrian pavement 1. Re-instate to pedestrian pavement & EVA
February 2022	- External Work – Soft landscape works 1. Excavation work to planter 2. Soiling 3. Planting/transplanting (T48/T49)
March 2022	- External Work – Soft landscape works 1. Excavation work to planter 2. Soiling 3. Planting/transplanting (T48/T49)
April 2022	- External Work – Soft landscape works 1. Excavation work to planter 2. Soiling 3. Planting/transplanting (T48/T49)
May 2022	- External Work – Soft landscape works 1. Excavation work to planter 2. Soiling 3. Planting/transplanting (T48/T49)
June 2022	- External Work – Soft landscape works 1. Excavation work to planter 2. Soiling 3. Planting/transplanting (T48/T49)

1.5. SUMMARY OF ENVIRONMENTAL STATUS

Environmental permit (EP) conditions under the EIAO, submission status under the EP and implementation status of mitigation measures had been reviewed and implemented on schedule. The status of required submissions under the EP (EP-329/2009) as of the reporting period for the Project are summarised in **Table 1.3**. The Condition 2.4 under the EP (EP-329/2009) was conducted not in this stage of the project.

Table 1.3 Summary of Status of Required Submission for EP-329/2009 for the Project

EP/FEP Condition (EP-329/2009)	Submission	Submission date
Condition 1.12	Notification of Commencement Date of Construction of the Project	14 Mar 2020
Condition 2.3	Inception Report	28 Feb 2019
Condition 2.5	Landscape Plan with Tree Preservation Proposal	14 Feb 2020
Condition 2.5	Detailed landscape as-built drawing	Will be submitted by Sep 2022
Condition 5.2a	Baseline Monitoring Report	21 Jan 2020
Condition 5.2b	Alternative Air Quality Monitoring Station	05 Oct 2019
Condition 5.4	Final EM&A Report	25 Aug 2022

The status for all environmental aspects is presented in **Table 1.4**.

Table 1.4 Summary of Status for Key Environmental Aspects under the Updated EM&A Manual

Parameters	Status
Dust	
Baseline Monitoring	The baseline dust monitoring result has been reported in Baseline Monitoring Report and submitted to EPD under EP Condition 5.2a.
Impact Monitoring	Completed
Waste Management	
Mitigation Measures in Waste Monitoring Plan	Completed
Environmental Audit	
Site Inspection covering Measures of Air Quality, Noise, Water Quality, Waste, Ecological Quality, Landscape and Visual	Completed

Other than the EM&A work by ET, environmental briefings, trainings and regular environmental management meetings were conducted, in order to enhance environmental awareness and closely monitor the environmental performance of the contractors.

The EM&A programme has been implemented in accordance with the recommendations presented in the approved EIA Report and the Updated EM&A Manual. A summary of implementation status of the environmental mitigation measures for the construction phase of the Project during the reporting period is provided in **Appendix C**.

2. MONITORING RESULTS

2.1. MONITORING PARAMETERS

The impact monitoring had been carried out in accordance with section 2.6 of the approved EM&A Manual to determine the 1-hour and 24-hour total suspended particulates (TSP) levels at the monitoring locations during construction phase.

The sampling frequency of at least once in every 6 days, shall be strictly observed at the monitoring stations for 24-hour TSP monitoring. For 1-hour TSP monitoring, the sampling frequency of at least 3 times in every 6 days should be undertaken when the highest dust impact occurs.

General meteorological conditions (wind speed, direction and precipitation) and notes regarding any significant adjacent dust producing sources had also been recorded throughout the impact monitoring period.

2.2. MONITORING EQUIPMENT

1-hour TSP levels and 24-hour TSP had been measured with direct reading dust meter and High Volume Samplers respectively. It has been demonstrated its capability in achieving comparable results with high volume sampling method as set out in the Title 40 of the Code of Federal Regulations, Chapter 1 (Part 50).

The 1-hour TSP meter was calibrated by the manufacturer prior to purchasing. Zero response of the instrument was checked before and after each monitoring event. Operation of the 1-hour TSP meter followed manufacturer's Operation and Service Manual. The 24-hour TSP meter was calibrated against firmware 80570-8100-V1.0.4, annually. Operation of the 24-hour TSP meter followed manufacturer's Operation and Service Manual.

2.3. MONITORING METHODOLOGY AND QA/QC RESULTS

The 1-hour TSP monitor, portable dust meters (Sibata Digital Dust Indicator Model LD-5R) was used for the impact monitoring. The 1-hour TSP meters provides a real time 1-hour TSP measurement based on 90^{o} light scattering. Three 1-hour TSP level were logged per every six days.

The 24-hour TSP monitor, High Volume Samplers (Tisch TE-5170X High Volume Air Sampler) were used for the impact monitoring. The 24-hour TSP monitoring consists of the following:

- The HVS was set at the monitoring location, with electricity supply connected and secured;
- HVS was calibrated before commencing the 1st measurement;
- The filter paper was weight and provided by HOKLAS lab (Acumen Laboratory and Testing Limited and ALS Technichem (HK) Pty Ltd) before and after the sampling. Certificate of HOKLAS accredited laboratory can be referred to **Appendix E**;

- The airflow over time during sampling process was recorded by the HVS.

HVSs was free-standing with no obstruction. The following criteria were considered in the installation of the HVS:

- Appropriate support to secure the samples against gusty wind needed to be provided the monitoring station;
- A minimum of 2m separation from walls, parapets and penthouses was required for rooftop samplers;
- No furnace or incinerator flues was nearby;
- Airflow around the sampler was unrestricted; and
- Permission could be obtained to set up the samplers and gain access to the monitoring station.

Preparation of Filter Papers

- Glass fiber filters were labelled and sufficient filters that were clean and without pinholes were selected;
- All filters were equilibrated in the conditioning environment for 24 hours before weighing. The conditioning environment temperature was around 25℃ and not varied by more than ±3℃; the relative humidity (RH)was 40%; and
- Acumen Laboratory and Testing Limited and ALS Technichem (HK) Pty Limited, as HOKLAS accredited laboratory, implemented comprehensive quality assurance and quality control programmes on the filters.

Field Monitoring

- The power supply was checked to ensure that the HVS was working properly;
- The filter holder and area surrounding the filter were cleaned;
- The filter holder was removed by loosening the foul bolts and a new filter, with stamped number upward, on a supporting screen was aligned carefully;
- The filter was properly aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter;
- The swing bolts were fastened to hold the filter holder down to the frame. The pressure applied should be sufficient to avoid air leakage at the edges;
- The shelter lid was closed and secured with an aluminum strip;
- The HVS was warmed- up for about 5 minutes to establish run- temperature conditions;
- A new flow rate record sheet was inserted into the flow recorder;

- The flow rates of the HVS was checked and adjusted to between 1.13-1.19 m^3min^{-1}, which was within the range specified in the EM&A Manual (i.e. 0.6- 1.7 m^3min^{-1});
- The programmable timer was set for a sampling period of 24 hours ±hour, and the starting time, weather condition and filter number were recorded;
- The initial elapsed time was recorded;
- At the end of sampling, the sampled filter was removed carefully and folded in half so that only surfaces with collected particulate matter were in contact;
- The filter paper was placed in a clean plastic envelope and sealed; all monitoring information was recorded on a standard data sheet and
- The filters were sent to (Acumen Laboratory and Testing Ltd and ALS Technichem (HK) Pty Ltd) for analysis.

Maintenance and Calibration

- The HVS and their accessories were maintained in a good working condition. For example, motor brushes were replaced routinely and electrical wiring was checked to ensure a continuous power supply; and
- The flow rate of each HVS with mass flow controller was calibrated using an orifice calibrator, Initial calibrations of the dust monitoring equipment were conducted upon installation and prior to commissioning. Five-point calibration was carried out for HVS using TE-5025 Calibration Kit. HVS is calibrated bimonthly.

Wind Data Monitoring

- The wind speed has been recorded from Hong Kong Observatory- Tai Po Kau meteorological station, along with portable wind speed meter stand by as back up if malfunction occurred or data was not recorded from HKO.

2.4. MONITORING LOCATIONS

Due to the disagreement of occupants in establishment of air quality monitoring station at their private permits, both of the original proposed dust monitoring locations were rejected. Two alternative air monitoring stations Fung Kai Liu Yun Sum Memorial School and Fanling Government School had been proposed by ET and approved by IEC. Two designated air monitoring locations were identified and agreed with IEC and EPD. Details of air monitoring stations are described in **Table 2.2**. The location plan of air quality monitoring stations is shown in **Appendix F**.

Table 2.2 Location of the Dust Monitoring Stations

Air Quality Monitoring Station	Dust Monitoring Station
A10	Fung Kai Liu Yun Sum Memorial School
A20	Fanling Government School

2.5. MONITORING DATE, TIME, FREQUENCY AND DURATION

A summary of impact monitoring duration, sampling parameter and frequency is presented in **Table 2.3**.

Table 2.3 Summary of Impact Monitoring Programme

Impact Monitoring	Duration	Sampling Parameter	Frequency
Dust	1-hour continuous measurement	1-hour TSP	3 times per six days
Dust	24-hour continuous sampling	24-hour TSP	Once per six days

Result Summary

According to our field observations, the major dust source identified at the designated air quality monitoring station during construction phase are summarised in **Table 2.4**.

Table 2.4 Observation at Dust Monitoring Station

Monitoring Station	Major Dust Source
A10	Nearby traffic
A20	Nearby traffic

The results for 1-hour TSP and 24-hour TSP during construction phase are summarized in **Table 2.5** and **Table 2.6**. The measurement data are summarized in **Appendix G**.

Table 2.5 Summary of 1-hour TSP Monitoring Results

Monitoring Location	Range (µg/m³)	Action Level (µg/m³)	Limit Level (µg/m³)
A10	21 – 64	290	500
A20	24 - 66	291	500

Table 2.6 Summary of 24-hour TSP Monitoring Results

Monitoring Location	Range (µg/m³)	Action Level (µg/m³)	Limit Level (µg/m³)
A10	2 - 134	169	260
A20	4 - 111	167	260

3. WASTE

3.1. WASTE RECORD OF CONSTRUCTION PHASE

The waste generated from this Project includes inert construction and demolition (C&D) materials, and non-inert C&D materials. Non-inert C&D materials are made up of general refuse, vegetative wastes, and recyclable wastes such as plastics and paper/cardboard packaging waste. Steel materials generated from the project are also grouped into non-inert C&D materials as the materials were not disposed of with other inert C&D materials. With reference to relevant handling records and trip tickets of this Project, the quantities of different types of waste generated during the construction phase are summarized in **Table 3.1**. Details of cumulative waste management data are presented as a waste flow table in **Appendix H.**

Table 3.1 Quantities of Waste Generated from the Project during Construction Phase

Total Quantity Generated	**Actual Quantities of Inert C&D Materials Generated**					**Actual Quantities of C&D Wastes Generated**				
	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / cardboard packaging	Plastics (see Note)	Chemical Waste	Others, e.g. general refuse
(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)
2662.89	0	614.00	0	1859.13	0	0	0	0	0	189.76

Notes: (1) Plastics refer to plastic bottles / containers, plastic sheets / foam from packaging material

3.2. MITIGATION MEASURES TO WASTE PRODUCTION

Mitigation measures adopted for reducing waste production are summarized in **Table 3.2**.

Table 3.2 Mitigation measures adopted for waste reduction

Types of Waste	Mitigation Measures
Non-inert C&D Wastes	1. On-site segregation was adopted to wastes to enhance the reuse and recycling of non-inert C&D wastes. Separated containers are provided for temporary storage of different types of non-inert wastes, including the deployment of three-colour recycle bins for paper, aluminium cans, and plastic bottle recycling. 2. Careful design and planning with good site management to minimize over ordering and generation of waste materials. 3. Reuse non-inert C&D materials when possible to reduce the amount of C&D waste. The timber for formwork was reused onsite.
Inert C&D Wastes	1. Excavated inert C&D materials were separately stored for subsequent backfilling, approximately 614 tonnes of excavated inert materials were stored in construction material storage area with coverage of impervious sheeting for on-site backfilling. 2. Surplus excavated materials were delivered to public fill reception facilities.
Chemical Wastes	1. Unused chemicals or chemicals with remaining functional capacity were reused as far as practicable.

4. ECOLOGICAL MONITORING

The ecological monitoring was completed in August 2010 by China-Hong Kong Ecology Consultants Co. who was employed by Allied Environmental Consultants Ltd to conduct tree monitoring and advice on tree maintenance during construction period of "Provision of Cremators at Wo Hop Shek Crematorium" starting from September 2009.

5. LANDSCAPE AND VISUAL IMPACTS

No deficiency was observed during landscape and visual impact inspection during construction phase.

6. SUMMARY OF MONITORING EXCEEDANCE, COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTIONS

The Environmental Complaint Handling Procedure is shown in below Figure 6.1:

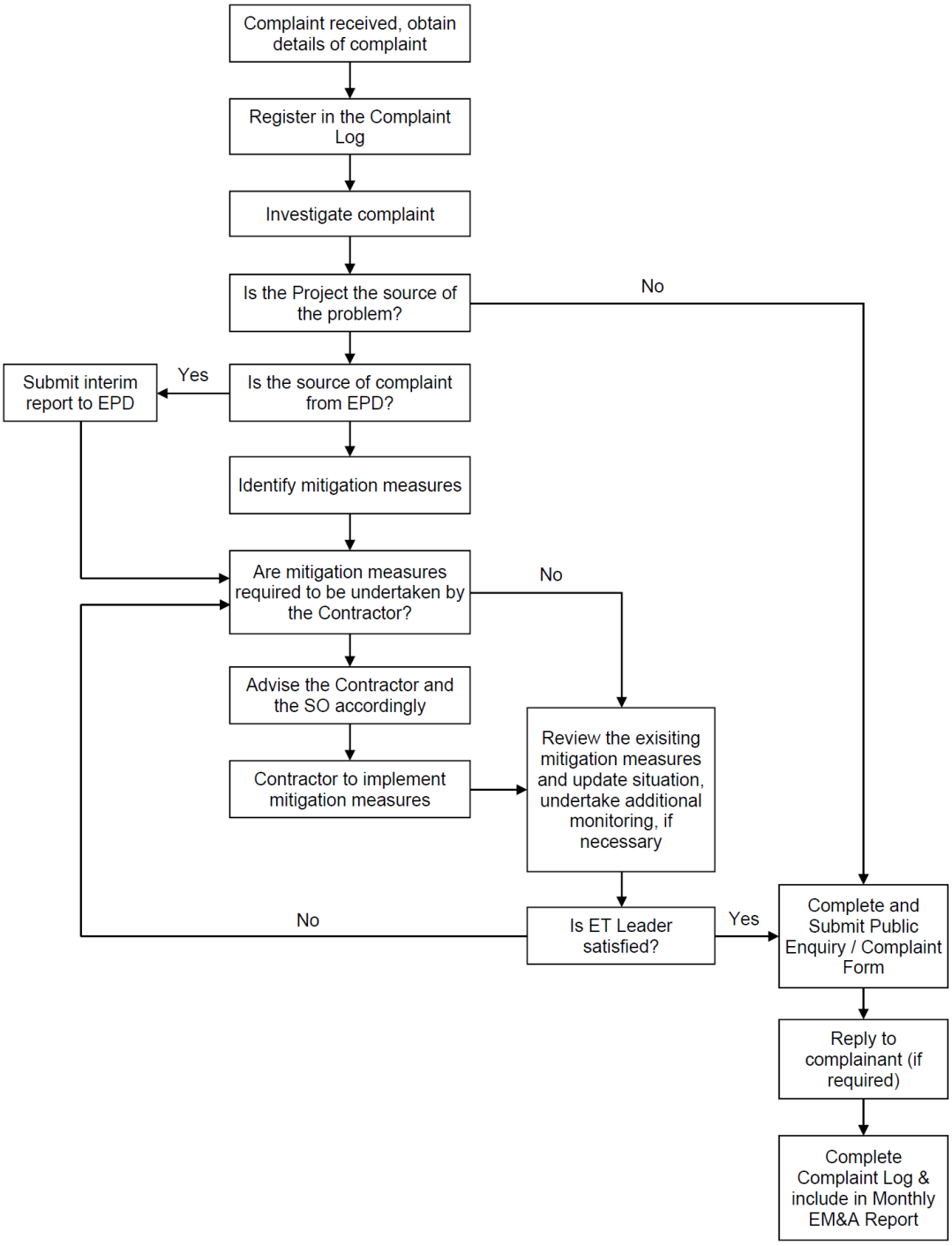


Figure 6.1 Environmental Complaint Handling Procedures

Air quality monitoring was conducted in the reporting period and no project-related exceedance of the Action Level was recorded during the reporting period.

No notification of summons and prosecution was received in the reporting period.

Statistics on complaints and regulatory compliance are summarized in **Appendix I**.

7. EM&A SITE INSPECTION

Site inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures under the Contract.

According to the EIA Study Report, Environmental Permit, contract documents and EM&A Manual, the mitigation measures detailed in the documents are implemented as much as practical during the reporting period. An updated Implementation Status of Environmental Mitigation Measures (EMIS) is provided in **Appendix C**.

According to the Environmental Permit (EP) clause 3.6, route 2 and route 5 shall not be used as transportation routes during construction, which was attached in **Appendix K**. The measures implemented to comply with the EP's requirement are listed as follows:

1. Induction training including the proper transportation routes use
2. Posting extracts of the transportation route to/from the site outside the entrance
3. Toolbox training provided to the drivers entering the site

Measure no.2 of the above was observed during the site inspections.

In order to comply with the requirement of the EP clause 3.5, the implementation of all landscaping and visual mitigation measures in accordance with the landscape plan approved was audited during construction period.

Bi-weekly checking for the transplanted tree was conducted during the site inspections. No major observation was found related to the landscaping and visual.

8. CONCLUSIONS AND RECOMMENDATIONS

This is the Final EM&A Report for the Project which summarizes the key findings of the EM&A programme during the construction phase in accordance with the EM&A Manual and the requirement under EP – 329/2009.

As notified by ArchSD on 30 June 2022, the Phase III works was substantially completed, all the above ground construction works were completed. The memo with reference number ASD52/8417/ALG513/C25/001 is presented in **Appendix J**.

Air quality monitoring was conducted in the reporting period and no project-related exceedance of the Action Level was recorded during the reporting period.

No environmental complaint was received in the reporting period.

No notification of summons or prosecution was received since commencement of the Contract.

APPENDIX A: MASTER PROGRAMME

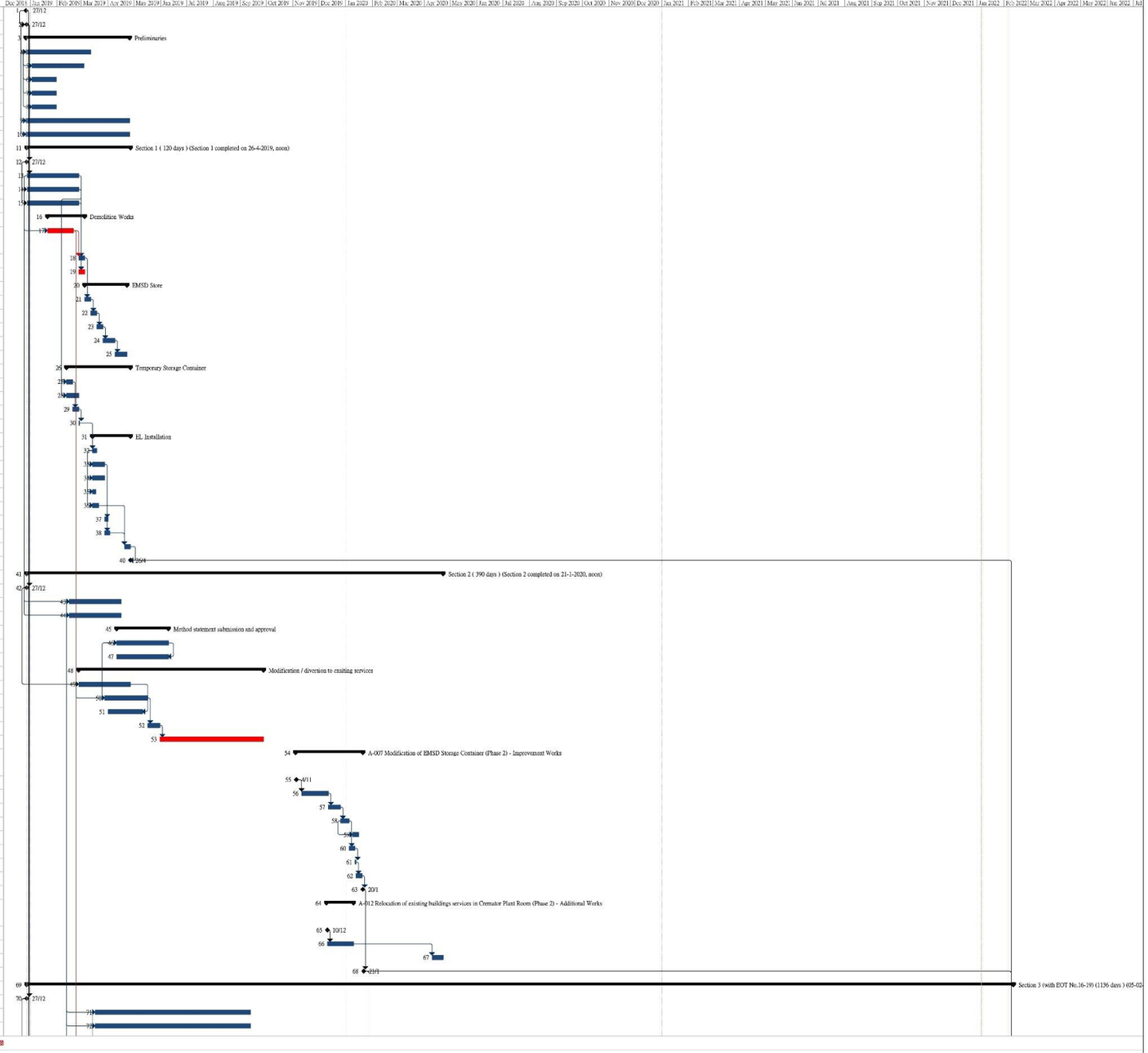
Construction Period :1140 Days
Section 1 : 120 Days
Section 2 : 390 Days
Section 3 : 720 Days (org), 1142 Days (EOT20)
Section 4 : 1140 Days

Shing Hing Construction Co Ltd

Working Programme for Expansion of Wo Hop Shek Crematorium (Revision AC)

Date for Completion of Section 1 : 26/04/2019
Date for Completion of Section 2 : 21/01/2020
Date for Completion Section 3 (Rev) : 11/02/2022
Date for Completion Section 4 : 9/2/2022

Item No.	Activities	工期	開始日期	完成日期
1	**Project commencement**	**0 days**	**27/12/2018**	**27/12/2018**
2	Procession of site	1 day	27/12/2018	27/12/2018
3	**Preliminaries**	**120 days**	**27/12/2018**	**25/4/2019**
4	Site setup and mobilization works	75 days	27/12/2018	11/3/2019
5	Erection of Site Office	60 days	3/1/2019	3/3/2019
6	Topographic survey	28 days	3/1/2019	30/1/2019
7	UU survey	28 days	3/1/2019	30/1/2019
8	Condition survey / Photo survey	28 days	3/1/2019	30/1/2019
9	Application / connection of temporary power supply and water supply	120 days	27/12/2018	25/4/2019
10	Applicaition of temporary drainage disposal license	120 days	27/12/2018	25/4/2019
11	**Section 1 (120 days) (Section 1 completed on 26-4-2019, noon)**	**120 days**	**27/12/2018**	**26/4/2019**
12	Handover of site area	0 days	27/12/2018	27/12/2018
13	Shop drawing submission and approval	60 days	28/12/2018	25/2/2019
14	Material submission and approval / testing	60 days	28/12/2018	25/2/2019
15	Method statement submission and approval	60 days	28/12/2018	25/2/2019
16	**Demolition Works**	**43 days**	**21/1/2019**	**4/3/2019**
17	Temporary enclosure : two hours fire seperation for EMSD store and rest room	30 days	21/1/2019	19/2/2019
18	Installation of temporary doors	7 days	26/2/2019	4/3/2019
19	Forming R.C wall opening at EMSD Store (Demolition Item 4)	7 days	26/2/2019	4/3/2019
20	**EMSD Store**	**49 days**	**5/3/2019**	**22/4/2019**
21	Installation of doors & ironmongery	7 days	5/3/2019	11/3/2019
22	Wall plastering	7 days	12/3/2019	18/3/2019
23	Floor screeding	7 days	19/3/2019	25/3/2019
24	Wall painting	14 days	26/3/2019	8/4/2019
25	Apply epoxy floor paint	14 days	9/4/2019	22/4/2019
26	**Temporary Storage Container**	**74 days**	**12/2/2019**	**26/4/2019**
27	Setting out works	7 days	12/2/2019	18/2/2019
28	Off-site fabrication of container	14 days	12/2/2019	25/2/2019
29	Construction of concrete plinth	7 days	19/2/2019	25/2/2019
30	Delivery and setting of container	1 day	26/2/2019	26/2/2019
31	**EL Installation**	**44 days**	**14/3/2019**	**26/4/2019**
32	Install U/G G.I. pipe for cable duct after excavation	5 days	14/3/2019	18/3/2019
33	Install G.I. conduit and wirings after complete the container & pillar box	14 days	14/3/2019	27/3/2019
34	Install new armoured cable for new power distribution board	14 days	14/3/2019	27/3/2019
35	Install new Cable Trunking in container	4 days	14/3/2019	17/3/2019
36	Install new power distribution board "CS1"	7 days	14/3/2019	20/3/2019
37	Install Faceplate	4 days	28/3/2019	31/3/2019
38	Install light fittings	6 days	28/3/2019	2/4/2019
39	T&C and inspection	7 days	20/4/2019	26/4/2019
40	Completion of Section 1 : 26/04/2019 (noon)	1 day	26/4/2019	26/4/2019
41	**Section 2 (390 days) (Section 2 completed on 21-1-2020, noon)**	**482 days**	**27/12/2018**	**22/4/2020**
42	Handover of site area	0 days	27/12/2018	27/12/2018
43	Shop drawing submission and approval	60 days	15/2/2019	15/4/2019
44	Material Submission and approval / Testing	60 days	15/2/2019	15/4/2019
45	**Method statement submission and approval**	**60 days**	**11/4/2019**	**9/6/2019**
46	Design and approval to working platform for I-beam installation	60 days	11/4/2019	9/6/2019
47	Method statement for I-beam delivery and installation	60 days	11/4/2019	9/6/2019
48	**Modification / diversion to exsiting services**	**214 days**	**26/2/2019**	**27/9/2019**
49	BIM modeling to existing services	60 days	26/2/2019	26/4/2019
50	Check for necessary diversion to existing services	50 days	28/3/2019	16/5/2019
51	4D simulation for addition I beam installation	40 days	1/4/2019	10/5/2019
52	Submission and approval to diversion proposal	14 days	17/5/2019	30/5/2019
53	Modification / diversion to exsiting services for I-beam installation	120 days	31/5/2019	27/9/2019
54	***A-007 Modification of EMSD Storage Container (Phase 2) - Improvement Works***	***78 days***	***4/11/2019***	***20/1/2020***
55	*Issue of A-007*	*1 day*	*4/11/2019*	*4/11/2019*
56	*Consolidate and confirmation of construction detail*	*31 days*	*11/11/2019*	*11/12/2019*
57	*Material ordering*	*14 days*	*12/12/2019*	*25/12/2019*
58	*Material delivery*	*10 days*	*26/12/2019*	*4/1/2020*
59	*Installation work*	*7 days*	*9/1/2020*	*15/1/2020*
60	*Painting*	*7 days*	*5/1/2020*	*11/1/2020*
61	*Inspection before completion*	*1 day*	*12/1/2020*	*12/1/2020*
62	*Making good*	*7 days*	*13/1/2020*	*19/1/2020*
63	*Handover*	*1 day*	*20/1/2020*	*20/1/2020*
64	***A-012 Relocation of existing buildings services in Cremator Plant Room (Phase 2) - Additional Works***	***31 days***	***10/12/2019***	***9/1/2020***
65	*Confirmaiton for BS diversion works*	*1 day*	*10/12/2019*	*10/12/2019*
66	*Relocation of existing building services*	*30 days*	*11/12/2019*	*9/1/2020*
67	Submission of FS251 to FSD for relocation of Hose Reel	13 days	10/4/2020	22/4/2020
68	Completion of Section 2 : 21/01/2020 (noon)	1 day	21/1/2020	21/1/2020
69	***Section 3 (with EOT No.16-19) (1136 days) (05-02-2022)***	***1142 days***	***27/12/2018***	***11/2/2022***
70	Handover of site area	0 days	27/12/2018	27/12/2018
71	Shop drawing submission and approval	180 days	17/3/2019	12/9/2019
72	Material submission and approval	180 days	17/3/2019	12/9/2019



Date : 6 January 2022
Letter Ref: WHS-013AK
Ref No: WHS-MP-00_Rev.AD

- Revised working programme with gained EOT 20, 6 days to Section 3; Revised completion date to be 11 February 2022.
- Potential EOT for additional drainage work in EVA is not included

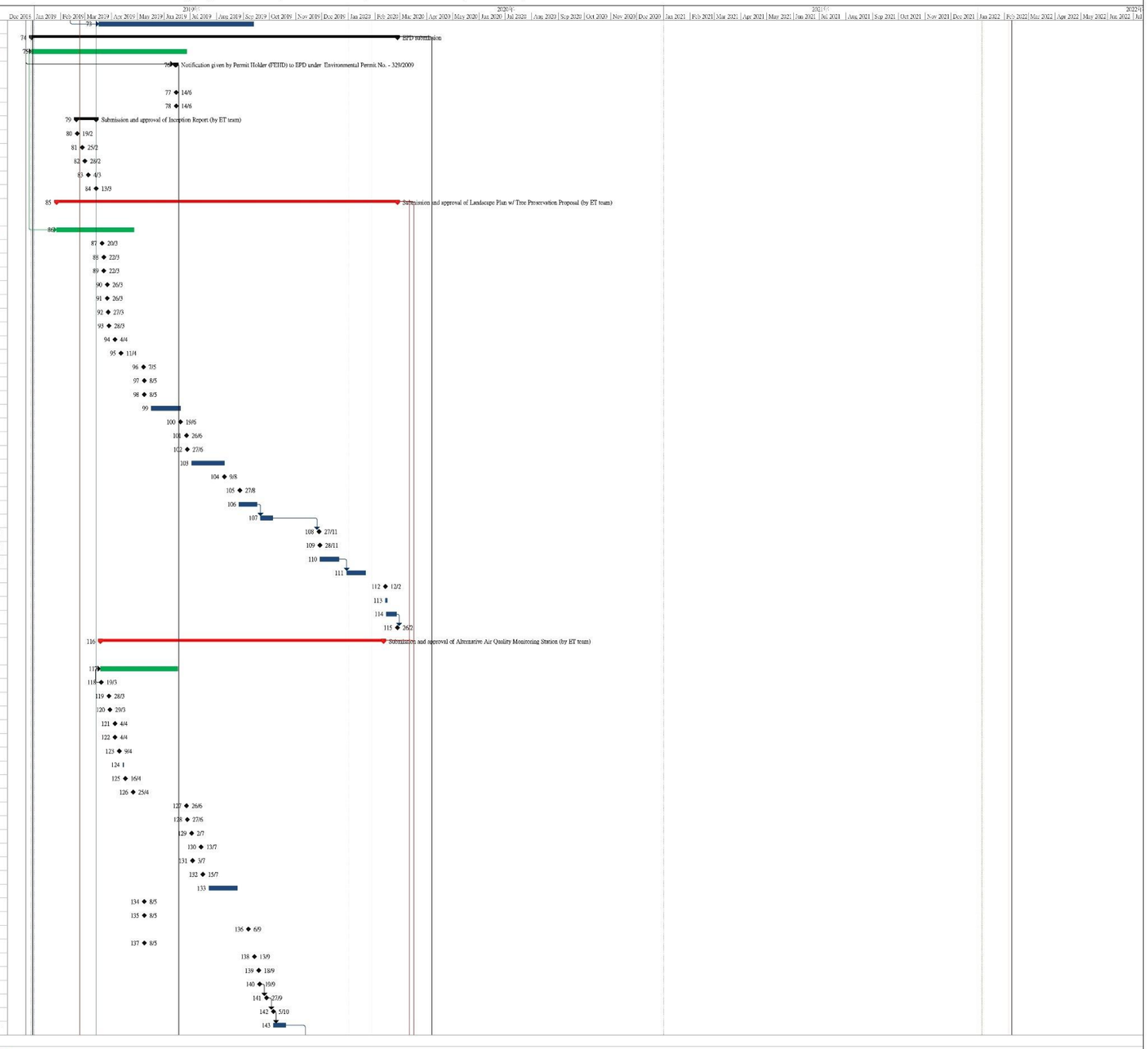
Construction Period :1140 Days
Section 1 : 120 Days
Section 2 : 390 Days
Section 3 : 720 Days (org), 1142 Days (EOT20)
Section 4 : 1140 Days

Shing Hing Construction Co Ltd

Working Programme for Expansion of Wo Hop Shek Crematorium (Revision AC)

Date for Completion of Section 1 : 26/04/2019
Date for Completion of Section 2 : 21/01/2020
Date for Completion Section 3 (Rev) : 11/02/2022
Date for Completion Section 4 : 9/2/2022

Item No.	Activities	工期	開始日期	完成日期
73	Method statement submission and approval	180 days	17/3/2019	12/9/2019
74	**EPD submission**	**425 days**	**29/12/2018**	**26/2/2020**
75	***Org anticipate submission and approval period for EPD submission***	***180 days***	***29/12/2018***	***26/6/2019***
76	**Notification given by Permit Holder (FEHD) to EPD under Environmental Permit No. - 329/2009**	**1 day**	**14/6/2019**	**14/6/2019**
77	~ Notification given to FEHD from ArchSD	1 day	14/6/2019	14/6/2019
78	~ Notification given to EPD from FEHD	1 day	14/6/2019	14/6/2019
79	**Submission and approval of Inception Report (by ET team)**	**23 days**	**19/2/2019**	**13/3/2019**
80	**~ 1st submission to ArchSD**	**1 day**	**19/2/2019**	**19/2/2019**
81	~ Comment from ArchSD for 1st submission	1 day	25/2/2019	25/2/2019
82	**~ 2nd submission to ArchSD**	**1 day**	**28/2/2019**	**28/2/2019**
83	~ Comment from ArchSD for 2nd submission	1 day	4/3/2019	4/3/2019
84	**~ 3rd submission to ArchSD**	**1 day**	**13/3/2019**	**13/3/2019**
85	**Submission and approval of Landscape Plan w/ Tree Preservation Proposal (by ET team)**	**396 days**	**27/1/2019**	**26/2/2020**
86	***Org anticipate submission and approval period***	***90 days***	***27/1/2019***	***26/4/2019***
87	**~ Rev.0 submission to IEC**	**1 day**	**20/3/2019**	**20/3/2019**
88	~ Comment from IEC	1 day	22/3/2019	22/3/2019
89	**~ Rev.1 submission to IEC**	**1 day**	**22/3/2019**	**22/3/2019**
90	~ Comment from IEC	1 day	26/3/2019	26/3/2019
91	**~ Rev.2 submission to IEC**	**1 day**	**26/3/2019**	**26/3/2019**
92	~ Comment from IEC	1 day	27/3/2019	27/3/2019
93	~ Comment from ArchSD	1 day	28/3/2019	28/3/2019
94	~ Submission to EPD	1 day	4/4/2019	4/4/2019
95	**~ Rev.3 submission to IEC**	**1 day**	**11/4/2019**	**11/4/2019**
96	~ Comment from IEC	1 day	7/5/2019	7/5/2019
97	**~ Rev.4 submission to IEC**	**1 day**	**8/5/2019**	**8/5/2019**
98	~ Comment from IEC	1 day	8/5/2019	8/5/2019
99	~ Submission to EPD	34 days	17/5/2019	19/6/2019
100	~ Comment from EPD	1 day	19/6/2019	19/6/2019
101	**~ Rev.3 (EPD) submission to IEC**	**1 day**	**26/6/2019**	**26/6/2019**
102	~ Comment from IEC	1 day	27/6/2019	27/6/2019
103	~ Submission to EPD	38 days	3/7/2019	9/8/2019
104	~ Commcat from EPD	1 day	9/8/2019	9/8/2019
105	**~ Rev. 4.3 (EPD) submission to IEC**	**1 day**	**27/8/2019**	**27/8/2019**
106	~ Comment from IEC	21 days	27/8/2019	16/9/2019
107	~ Submission to EPD	14 days	21/9/2019	4/10/2019
108	~ Comment from EPD	1 day	27/11/2019	27/11/2019
109	**~ Rev. 5.1 (EPD) submission to IEC**	**1 day**	**28/11/2019**	**28/11/2019**
110	~ Comment from IEC	22 days	29/11/2019	20/12/2019
111	~ Submission to EPD	22 days	30/12/2019	20/1/2020
112	**~ Rev. 6.4 (EPD) submission to IEC**	**1 day**	**12/2/2020**	**12/2/2020**
113	~ Comment from IEC	2 days	13/2/2020	14/2/2020
114	~ Submission to EPD	12 days	14/2/2020	25/2/2020
115	*~ Approval from EPD*	*1 day*	*26/2/2020*	*26/2/2020*
116	**Submission and approval of Alternative Air Quality Monitoring Station (by ET team)**	**329 days**	**19/3/2019**	**10/2/2020**
117	***Org anticipate submission and approval period***	***90 days***	***19/3/2019***	***16/6/2019***
118	**~ Rev.0 submission to IEC**	**1 day**	**19/3/2019**	**19/3/2019**
119	~ Comment from IEC	1 day	28/3/2019	28/3/2019
120	**~ Rev.1 submission to IEC**	**1 day**	**29/3/2019**	**29/3/2019**
121	~ Comment from IEC	1 day	4/4/2019	4/4/2019
122	**~ Rev.2 submission to IEC**	**1 day**	**4/4/2019**	**4/4/2019**
123	~ Comment from IEC	1 day	9/4/2019	9/4/2019
124	~ Submission to ArchSD	1 day	14/4/2019	14/4/2019
125	~ Comment from ArchSD	1 day	16/4/2019	16/4/2019
126	~ Submission to EPD	1 day	25/4/2019	25/4/2019
127	~ Comment from EPD	1 day	26/6/2019	26/6/2019
128	**~ Rev.3 submission to IEC**	**1 day**	**27/6/2019**	**27/6/2019**
129	~ Comment from IEC	1 day	2/7/2019	2/7/2019
130	~ Submission to ArchSD	1 day	13/7/2019	13/7/2019
131	~ Submission to EPD	1 day	3/7/2019	3/7/2019
132	~ Comment from EPD (reject the proposal)	1 day	15/7/2019	15/7/2019
133	***Re-visit to ASRs***	***33 days***	***23/7/2019***	***24/8/2019***
134	**~ Rev.4 submission to IEC**	**1 day**	**8/5/2019**	**8/5/2019**
135	~ Comment from IEC	1 day	8/5/2019	8/5/2019
136	**~ Rev.5 submission to IEC**	**1 day**	**6/9/2019**	**6/9/2019**
137	~ Comment from IEC	1 day	8/5/2019	8/5/2019
138	**~ Rev.6 submission to IEC**	**1 day**	**13/9/2019**	**13/9/2019**
139	~ Comment from IEC	1 day	18/9/2019	18/9/2019
140	~ Submission to ArchSD	1 day	19/9/2019	19/9/2019
141	~ Comment from ArchSD	1 day	27/9/2019	27/9/2019
142	~ Submission to EPD	1 day	5/10/2019	5/10/2019
143	~ Comment from EPD	14 days	6/10/2019	19/10/2019



Mason Milestone Date Summary critical progress

Date : 6 January 2022
Letter Ref: WHS-013AK
Ref No: WHS-MP-00_Rev.AD

- Revised working programme with gained EOT 20, 6 days to Section 3; Revised completion date to be 11 February 2022.
- Potential EOT for additional drainage work in EVA is not included

2 /8

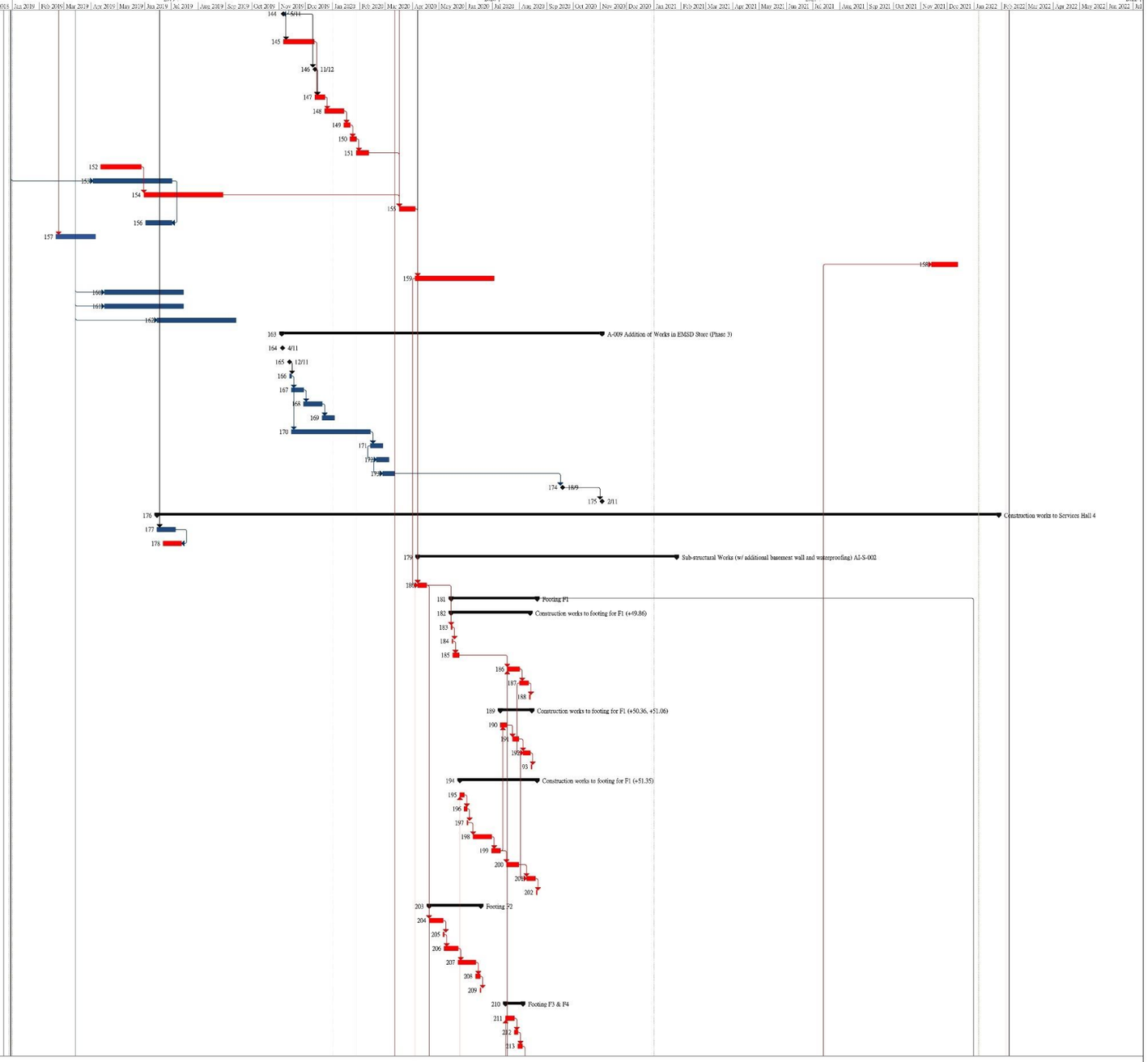
Construction Period :1140 Days
Section 1 : 120 Days
Section 2 : 390 Days
Section 3 : 720 Days (org), 1142 Days (EOT20)
Section 4 : 1140 Days

Shing Hing Construction Co Ltd

Working Programme for Expansion of Wo Hop Shek Crematorium (Revision AC)

Date for Completion of Section 1 : 26/04/2019
Date for Completion of Section 2 : 21/01/2020
Date for Completion Section 3 (Rev) : 11/02/2022
Date for Completion Section 4 : 9/2/2022

Item No.	Activities	工期	開始日期	完成日期
114	*Acceptance of alternative Air Monitoring Stations (Ver 7.4) given by EPD*	*1 day*	*5/11/2019*	*5/11/2019*
115	Notice to owner / tendant of alternative Air Monitoring Station (by ArchSD)	35 days	6/11/2019	10/12/2019
116	*A-011 Proposal for Alternative Air Quality Monitoring Location Rev.7.4 (Section 3)*	*1 day*	*11/12/2019*	*11/12/2019*
117	Preparation work to setup air monitoring stations	11 days	12/12/2019	22/12/2019
118	Commenance of baseline air monitoring	22 days	23/12/2019	13/1/2020
119	Data analysis and report preparation	7 days	14/1/2020	20/1/2020
150	Submission of baseline monitoring report to EPD	7 days	21/1/2020	27/1/2020
151	Acceptance of baseline monitoring report given by EPD	14 days	28/1/2020	10/2/2020
152	**Submission of Tree Transplant Proposal (by ET team)**	**46 days**	**12/4/2019**	**27/5/2019**
153	Mapping / searching to existing UU	90 days	3/4/2019	1/7/2019
154	Root pruning and org tree transplant	90 days	31/5/2019	28/8/2019
155	Tree Transplant	18 days	17/3/2020	3/4/2020
156	Erecting hoarding for site area of New Service Hall 4	30 days	2/6/2019	1/7/2019
157	Temporary enclosure : proprietary high density two hours fire rate encloure of Service Hall 4	45 days	20/2/2019	5/4/2019
158	Demolition items 5 & 6 at G/F of Ex. Rest Room	30 days	13/11/2021	12/12/2021
159	Demolition items 9 to 14 at external area	90 days	4/4/2020	2/7/2020
160	Submission and approval of method statement for excavtion and backfilling	90 days	16/4/2019	14/7/2019
161	Submission and approval for formwork & falsework design to sub-structure	90 days	16/4/2019	14/7/2019
162	Submission and approval for formwork & falsework design to superstructure	90 days	15/6/2019	12/9/2019
163	*A-009 Addition of Works in EMSD Store (Phase 3)*	*365 days*	*4/11/2019*	*2/11/2020*
164	*Issue of A-009*	*1 day*	*4/11/2019*	*4/11/2019*
165	*Handover of EMSD store*	*1 day*	*12/11/2019*	*12/11/2019*
166	*Condition survey / Photo survey*	*2 days*	*13/11/2019*	*14/11/2019*
167	*Makegood to concrete spalling to ceiling*	*14 days*	*15/11/2019*	*28/11/2019*
168	*Plastering to ceiling*	*21 days*	*29/11/2019*	*19/12/2019*
169	*Painting to ceiling*	*14 days*	*20/12/2019*	*2/1/2020*
170	*Submission and approval to CSD / CBWD*	*90 days*	*15/11/2019*	*12/2/2020*
171	*ELE works installation*	*14 days*	*13/2/2020*	*26/2/2020*
172	*HVAC works installation*	*14 days*	*20/2/2020*	*4/3/2020*
173	*FS works installation*	*14 days*	*27/2/2020*	*11/3/2020*
174	*Completion of EMSD Store*	*1 day*	*18/9/2020*	*18/9/2020*
175	*Handover of EMSD Store to User*	*1 day*	*2/11/2020*	*2/11/2020*
176	**Construction works to Services Hall 4**	**959 days**	**15/6/2019**	**28/1/2022**
177	Setting out work	21 days	15/6/2019	5/7/2019
178	Verify to existing structure	21 days	22/6/2019	12/7/2019
179	**Sub-structural Works (w/ additional basement wall and waterproofing) AI-S-002**	**295 days**	**7/4/2020**	**26/1/2021**
180	Excavation for sub-structure work	10 days	7/4/2020	16/4/2020
181	**Footing F1**	**98 days**	**15/5/2020**	**20/8/2020**
182	Construction works to footing for F1 (+49.86)	90 days	15/5/2020	12/8/2020
183	Probing test	1 day	15/5/2020	15/5/2020
184	Laying blinding layer	1 day	16/5/2020	16/5/2020
185	Erecting formwork to F1	7 days	17/5/2020	23/5/2020
186	Construction to drill-in bar for F1	14 days	18/7/2020	31/7/2020
187	Rebar fixing to F1	10 days	1/8/2020	10/8/2020
188	Casting concrete to F1 (to +49.86)	1 day	12/8/2020	12/8/2020
189	**Construction works to footing for F1 (+50.36, +51.06)**	**36 days**	**10/7/2020**	**14/8/2020**
190	Mass filling / Laying blinding layer	7 days	10/7/2020	16/7/2020
191	Erecting formwork to F1	7 days	24/7/2020	30/7/2020
192	Rebar fixing to F1	8 days	5/8/2020	12/8/2020
193	Casting concrete to F1 (to +50.36 & +51.06)	1 day	14/8/2020	14/8/2020
194	**Construction works to footing for F1 (+51.35)**	**88 days**	**25/5/2020**	**20/8/2020**
195	Excavation for mass filling (for obstructure to existing cable pit)	5 days	25/5/2020	29/5/2020
196	Erecting formwork to mass filling	3 days	30/5/2020	1/6/2020
197	Mass filling	1 day	2/6/2020	2/6/2020
198	Backfilling and Sand replacement test	21 days	9/6/2020	29/6/2020
199	Laying blinding layer / Mass filling	10 days	30/6/2020	9/7/2020
200	Erecting formwork to F1	14 days	17/7/2020	30/7/2020
201	Rebar fixing to F1	10 days	9/8/2020	18/8/2020
202	Casting concrete to F1 (to +51.35)	1 day	20/8/2020	20/8/2020
203	**Footing F2**	**59 days**	**20/4/2020**	**17/6/2020**
204	Probing test	16 days	20/4/2020	5/5/2020
205	Laying blinding layer	1 day	6/5/2020	6/5/2020
206	Erecting foormwork to F2	16 days	7/5/2020	22/5/2020
207	Construction work to drill-in bar for F2	20 days	23/5/2020	11/6/2020
208	Rebar fixing to F2	5 days	12/6/2020	16/6/2020
209	Casting concrete to F2	1 day	17/6/2020	17/6/2020
210	**Footing F3 & F4**	**20 days**	**16/7/2020**	**4/8/2020**
211	Mass concrete filling for F3 & F4	10 days	16/7/2020	25/7/2020
212	Erecting formwork to F3 & F4	4 days	26/7/2020	29/7/2020
213	Rebar Fixing to F3 & F4	5 days	30/7/2020	3/8/2020



Mason | Milestone Date | Summary | critical progress

Date : 6 January 2022
Letter Ref: WHS-013AK
Ref No: WHS-MP-00_Rev.AD

- Revised working programme with gained EOT 20, 6 days to Section 3; Revised completion date to be 11 February 2022.
- Potential EOT for additional drainage work in EVA is not included

3 /8

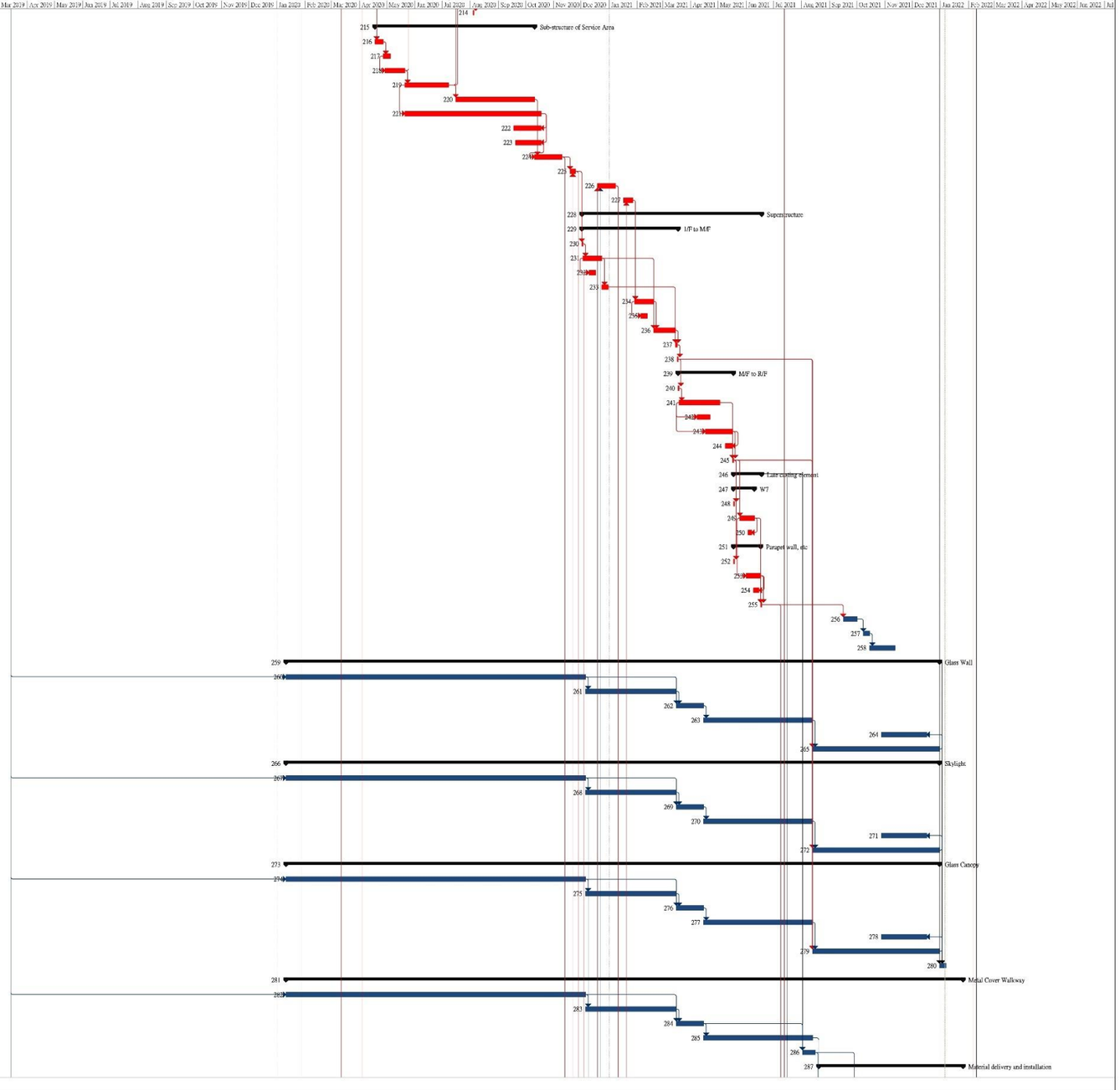
Construction Period :1140 Days
Section 1 : 120 Days
Section 2 : 390 Days
Section 3 : 720 Days (org), 1142 Days (EOT20)
Section 4 : 1140 Days

Shing Hing Construction Co Ltd

Working Programme for Expansion of Wo Hop Shek Crematorium (Revision AC)

Date for Completion of Section 1 : 26/04/2019
Date for Completion of Section 2 : 21/01/2020
Date for Completion of Section 3 (Rev) : 11/02/2022
Date for Completion Section 4 : 9/2/2022

Item No.	Activities	工期	開始日期	完成日期
214	Casting concrete to F3 & F4	1 day	4/8/2020	4/8/2020
215	**Sub-structure of Service Area**	**176 days**	**18/4/2020**	**10/10/2020**
216	Condition survey to existing UG structure	9 days	18/4/2020	26/4/2020
217	Removal of existing concrete block and waterproofing membrance	8 days	27/4/2020	4/5/2020
218	Concrete breaking to exisitng RC wall for rebar connection	22 days	29/4/2020	20/5/2020
219	Construction of basement wall (W18, 19 & 20)	48 days	21/5/2020	7/7/2020
220	***Apply waterproofing membrance (AT-A-019)**	***87 days***	***16/7/2020***	***10/10/2020***
221	Dwarf wall construction	150 days	21/5/2020	17/10/2020
222	Mockup to fair face finish (1000 x 1000mm)	30 days	18/9/2020	17/10/2020
223	Construction works to suspended slab	28 days	20/9/2020	17/10/2020
224	Backfilling and Sand replacement test (Service Hall & Toilet Area)	30 days	11/10/2020	9/11/2020
225	Construction work to on-grade slab (Service Hall & Toilet Area)	6 days	19/11/2020	24/11/2020
226	Backfilling and sand replacement test (Waiting Area, Clergy Room, etc)	20 days	19/12/2020	7/1/2021
227	Construction work to on-grade slab (Waitiing Area, Clergy Room, etc)	10 days	17/1/2021	26/1/2021
228	**Superstructure**	**198 days**	**2/12/2020**	**17/6/2021**
229	**1/F to M/F**	**106 days**	**2/12/2020**	**17/3/2021**
230	Setting out	1 day	2/12/2020	2/12/2020
231	Erecting formwork to wall (Service Hall / Toilets)	21 days	3/12/2020	23/12/2020
232	Rebar Fixing to wall (Service Hall / Toilets)	7 days	10/12/2020	16/12/2020
233	Erecting formwork / falsework to slab and beams to toilets	7 days	24/12/2020	30/12/2020
234	Erecting formwork to wall (Waiting Area, Clergy Room, etc)	21 days	29/1/2021	18/2/2021
235	Rebar Fixing to wall (Waiting Area, Clergy Room, etc)	7 days	5/2/2021	11/2/2021
236	Erecting formwork / falsework to slab and beam	24 days	19/2/2021	14/3/2021
237	Rebar fixing to slab and beam	2 days	15/3/2021	16/3/2021
238	Casting concrete to wall, slab and beam	1 day	17/3/2021	17/3/2021
239	**M/F to R/F**	**61 days**	**18/3/2021**	**17/5/2021**
240	Setting out	1 day	18/3/2021	18/3/2021
241	Erecting formwork to wall	45 days	19/3/2021	2/5/2021
242	Rebar Fixing to wall	14 days	8/4/2021	21/4/2021
243	Erecting formwork / falsework to slab and beam	30 days	17/4/2021	16/5/2021
244	Rebar fixing to slab and beam	8 days	9/5/2021	16/5/2021
245	Casting concrete to wall, slab and beam	1 day	17/5/2021	17/5/2021
246	**Late casting element**	**31 days**	**18/5/2021**	**17/6/2021**
247	W7	23 days	18/5/2021	9/6/2021
248	Setting out	1 day	18/5/2021	18/5/2021
249	Erecting formwrk / falsework to wall	16 days	25/5/2021	9/6/2021
250	Rebar fixing	4 days	3/6/2021	6/6/2021
251	Parapet wall, etc	30 days	18/5/2021	16/6/2021
252	Setting out	1 day	18/5/2021	18/5/2021
253	Erecting formwork	16 days	1/6/2021	16/6/2021
254	Rebar fixing	6 days	9/6/2021	14/6/2021
255	Casting concrete to late casting element	1 day	17/6/2021	17/6/2021
256	Waterproofing to roofing	15 days	16/9/2021	30/9/2021
257	Water test to roofing	7 days	8/10/2021	14/10/2021
258	Construction works for Roofing System	28 days	15/10/2021	11/11/2021
259	**Glass Wall**	**720 days**	**11/1/2020**	**30/12/2021**
260	Shop drawing submission and approval	330 days	11/1/2020	5/12/2020
261	Material submission and approval	100 days	6/12/2020	15/3/2021
262	Material testing and ordering	30 days	16/3/2021	14/4/2021
263	Offsite fabrication	120 days	15/4/2021	12/8/2021
264	Heat soak test for temper glass and delivery	50 days	28/10/2021	16/12/2021
265	Material delivery and installation	140 days	13/8/2021	30/12/2021
266	**Skylight**	**720 days**	**11/1/2020**	**30/12/2021**
267	Shop drawing submission and approval	330 days	11/1/2020	5/12/2020
268	Material submission and approval	100 days	6/12/2020	15/3/2021
269	Material testing and ordering	30 days	16/3/2021	14/4/2021
270	Offsite fabrication	120 days	15/4/2021	12/8/2021
271	Heat soak test for temper glass and delivery	50 days	28/10/2021	16/12/2021
272	Material delivery and installation	140 days	13/8/2021	30/12/2021
273	**Glass Canopy**	**720 days**	**11/1/2020**	**30/12/2021**
274	Shop drawing submission and approval	330 days	11/1/2020	5/12/2020
275	Material submission and approval	100 days	6/12/2020	15/3/2021
276	Material testing and ordering	30 days	16/3/2021	14/4/2021
277	Offsite fabrication	120 days	15/4/2021	12/8/2021
278	Heat soak test for temper glass and delivery	50 days	28/10/2021	16/12/2021
279	Material delivery and installation	140 days	13/8/2021	30/12/2021
280	Water test to Glass Wall, Skylight and canopy	7 days	31/12/2021	6/1/2022
281	**Metal Cover Walkway**	**746 days**	**11/1/2020**	**25/1/2022**
282	Shop drawing submission and approval	330 days	11/1/2020	5/12/2020
283	Material submission and approval	100 days	6/12/2020	15/3/2021
284	Material testing and ordering	30 days	16/3/2021	14/4/2021
285	Offsite fabrication	120 days	15/4/2021	12/8/2021
286	Footings	14 days	2/8/2021	15/8/2021
287	**Material delivery and installation**	**159 days**	**20/8/2021**	**25/1/2022**



Mission | Milestone Date | Summary | critical progress

Date : 6 January 2022
Letter Ref: WHS-013AK
Ref No: WHS-MP-00_Rev.AD

- Revised working programme with gained EOT 20, 6 days to Section 3; Revised completion date to be 11 February 2022.
- Potential EOT for additional drainage work in EVA is not included

4 /8

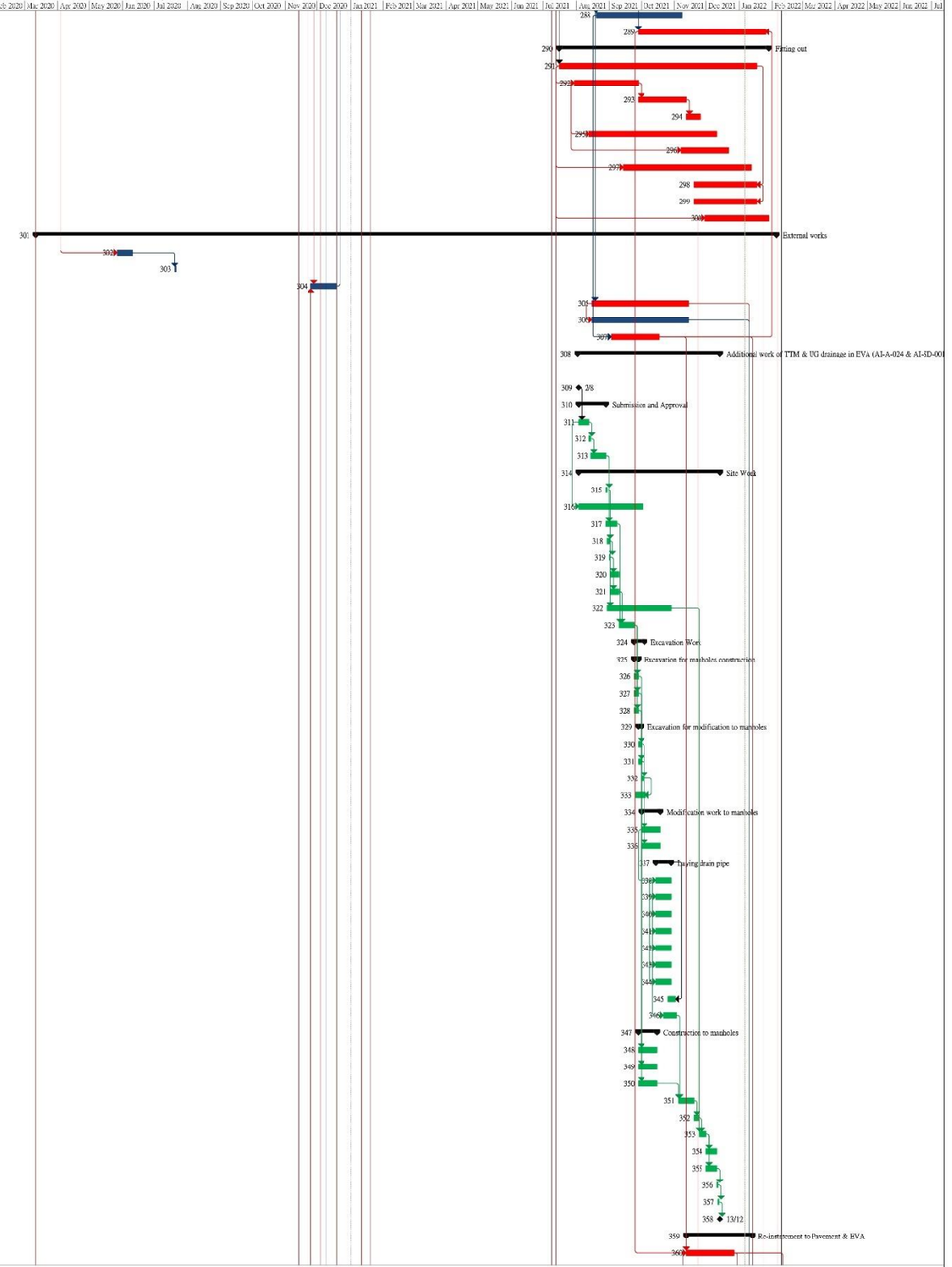
Construction Period :1140 Days
Section 1 : 120 Days
Section 2 : 390 Days
Section 3 : 720 Days (org), 1142 Days (EOT20)
Section 4 : 1140 Days

Shing Hing Construction Co Ltd

Working Programme for Expansion of Wo Hop Shek Crematorium (Revision AC)

Date for Completion of Section 1 : 26/04/2019
Date for Completion of Section 2 : 21/01/2020
Date for Completion Section 3 (Rev) : 11/02/2022
Date for Completion Section 4 : 9/2/2022

Item No.	Activities	工期	開始日期	完成日期
288	M01	80 days	20/8/2021	7/11/2021
289	M02	120 days	28/9/2021	25/1/2022
290	**Fitting out**	**197 days**	**16/7/2021**	**28/1/2022**
291	Interior fitting out works	186 days	16/7/2021	17/1/2022
292	Brick work and block work ; internal partition wall	60 days	30/7/2021	27/9/2021
293	Waterproofing work to lavatories	45 days	28/9/2021	11/11/2021
294	Testing to waterproofing to lavatories	14 days	12/11/2021	25/11/2021
295	External wall plastering, tiling & cladding	120 days	13/8/2021	10/12/2021
296	Doors and windows installation	45 days	7/11/2021	21/12/2021
297	Steel and metal works (gates, FS shutter, railing & balustrades, etc.)	120 days	14/9/2021	11/1/2022
298	Suspended ceilings	60 days	19/11/2021	17/1/2022
299	Painting	60 days	19/11/2021	17/1/2022
300	Furniture, fittings, shelving, racks, equipment	60 days	30/11/2021	28/1/2022
301	**External works**	**695 days**	**12/3/2020**	**4/2/2022**
302	Laying UG plumbing pipework across EVA	14 days	27/5/2020	9/6/2020
303	WSD inspection	1 day	20/7/2020	20/7/2020
304	***UG drainage pipework (backyard & planter)***	*24 days*	*25/11/2020*	*18/12/2020*
305	UG drainge pipework	90 days	16/8/2021	13/11/2021
306	UG plumbing pipework	90 days	16/8/2021	13/11/2021
307	Demolition to hoarding for constructing Covered Walkway (M02)	45 days	3/9/2021	17/10/2021
308	**Additional work of TTM & UG drainage in EVA (AI-A-024 & AI-SD-001)**	**134 days**	**2/8/2021**	**13/12/2021**
309	Confirmation of cost and expenditure	1 day	2/8/2021	2/8/2021
310	**Submission and Approval**	**26 days**	**3/8/2021**	**28/8/2021**
311	Settle sub-contract and mobilization	10 days	3/8/2021	12/8/2021
312	Setup TTM	2 days	13/8/2021	14/8/2021
313	Trial run	14 days	15/8/2021	28/8/2021
314	**Site Work**	**133 days**	**3/8/2021**	**13/12/2021**
315	Handover of working area	1 day	29/8/2021	29/8/2021
316	Material order and delivery	60 days	3/8/2021	1/10/2021
317	Mobilization	10 days	29/8/2021	7/9/2021
318	Setting out	2 days	30/8/2021	31/8/2021
319	Erecting enclosecure / barrier to working area	1 day	1/9/2021	1/9/2021
320	Removal existing concrete paver for reuse (approx. 220sqm)	8 days	2/9/2021	9/9/2021
321	Removal existing street furniture for reuse	8 days	2/9/2021	9/9/2021
322	Matcrail ordering & delivery of paver and street furniture (if necessary)	60 days	30/8/2021	28/10/2021
323	Breaking up existing 300mm thk RC slab (approx. 220sqm)	14 days	10/9/2021	23/9/2021
324	**Excavation Work**	**10 days**	**24/9/2021**	**3/10/2021**
325	**Excavation for manholes construction**	**4 days**	**24/9/2021**	**27/9/2021**
326	SMH-03	4 days	24/9/2021	27/9/2021
327	SMH-04	4 days	24/9/2021	27/9/2021
328	FMH-02	4 days	24/9/2021	27/9/2021
329	**Excavation for modification to manholes**	**3 days**	**28/9/2021**	**30/9/2021**
330	A7 (MH-A7)	3 days	28/9/2021	30/9/2021
331	S-19 (MH-19)	3 days	28/9/2021	30/9/2021
332	Excavation for 7 pipe trenches	3 days	1/10/2021	3/10/2021
333	Laying blinding layer to pipe trenches and manholes	10 days	25/9/2021	4/10/2021
334	**Modification work to manholes**	**18 days**	**1/10/2021**	**18/10/2021**
335	A7 (MH-A7)	18 days	1/10/2021	18/10/2021
336	S-19 (MH-19)	18 days	1/10/2021	18/10/2021
337	**Laying drain pipe**	**14 days**	**15/10/2021**	**28/10/2021**
338	225mm dia pipe (SHM-04 to A7)	14 days	15/10/2021	28/10/2021
339	225mm dia pipe (SHM-03 to SMH-04)	14 days	15/10/2021	28/10/2021
340	225mm dia pipe (SMH-01 to A7)	14 days	15/10/2021	28/10/2021
341	100mm dia pipe (STG to S19)	14 days	15/10/2021	28/10/2021
342	150mm dia pipe (SWP to FMH-02)	14 days	15/10/2021	28/10/2021
343	100mm dia pipe (STG to FMH-02)	14 days	15/10/2021	28/10/2021
344	80mm dia pipe (VP from FMH-02)	14 days	15/10/2021	28/10/2021
345	Water test	7 days	26/10/2021	1/11/2021
346	Concrete surround to drain pipes	12 days	22/10/2021	2/11/2021
347	**Construction to manholes**	**18 days**	**28/9/2021**	**15/10/2021**
348	SMH-03	18 days	28/9/2021	15/10/2021
349	SMH-04	18 days	28/9/2021	15/10/2021
350	FMH-02	18 days	28/9/2021	15/10/2021
351	Backfilling & compacted excavated trenches, etc., with sand replacement	14 days	5/11/2021	18/11/2021
352	Reinstatement to 300mm thk RC slab	5 days	19/11/2021	23/11/2021
353	Reinstatement to paver	7 days	24/11/2021	30/11/2021
354	Reinstatement of street furniture	10 days	1/12/2021	10/12/2021
355	Installation of new manhole covers	10 days	1/12/2021	10/12/2021
356	Removal of encloseure / barrier to working area	1 day	11/12/2021	11/12/2021
357	Clearance on completion	1 day	12/12/2021	12/12/2021
358	Handover to User	1 day	13/12/2021	13/12/2021
359	**Re-instatement to Pavement & EVA**	**62 days**	**12/11/2021**	**12/1/2022**
360	Construction work to lay-by area	45 days	12/11/2021	26/12/2021



Mission | Milestone Date | Summary | critical progress

Date : 6 January 2022
Letter Ref: WHS-013AK
Ref No: WHS-MP-00_Rev.AD

- Revised working programme with gained EOT 20, 6 days to Section 3; Revised completion date to be 11 February 2022.
- Potential EOT for additional drainage work in EVA is not included

5 /8

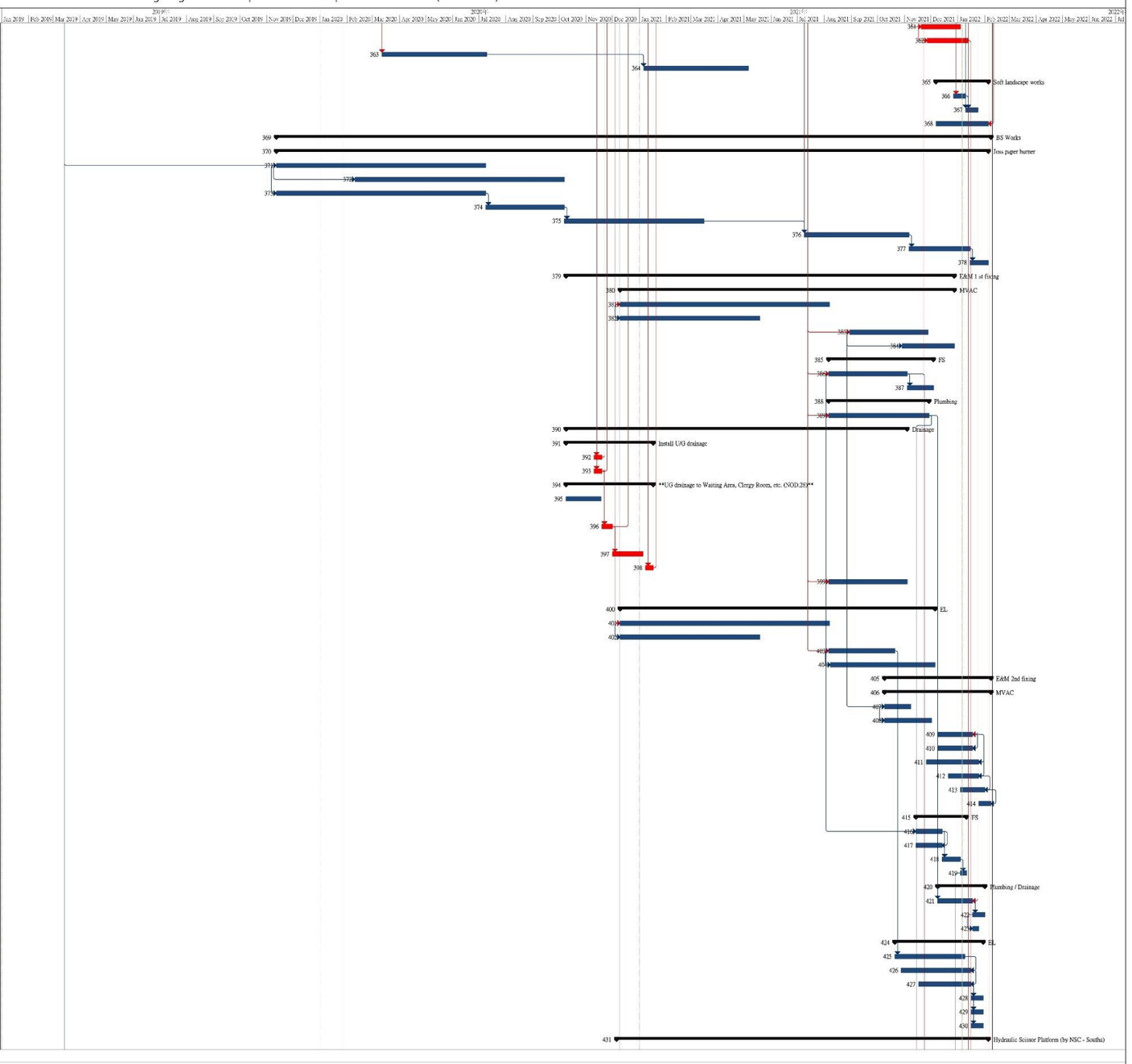
Construction Period :1140 Days
Section 1 : 120 Days
Section 2 : 390 Days
Section 3 : 720 Days (org), 1142 Days (EOT20)
Section 4 : 1140 Days

Shing Hing Construction Co Ltd

Working Programme for Expansion of Wo Hop Shek Crematorium (Revision AC)

Date for Completion of Section 1 : 26/04/2019
Date for Completion of Section 2 : 21/01/2020
Date for Completion of Section 3 (Rev) : 11/02/2022
Date for Completion Section 4 : 9/2/2022

Item No.	Activities	工期	開始日期	完成日期
361	Construction to pedestrian pavement	45 days	20/11/2021	3/1/2022
362	Re-instate to pedestrian pavement & EVA	47 days	27/11/2021	12/1/2022
363	Tree survey and submission	120 days	12/3/2020	9/7/2020
364	Submission and approval to planting schedule	120 days	6/1/2021	5/5/2021
365	Soft landscape works	60 days	7/12/2021	4/2/2022
366	Excavation work to planter	14 days	27/12/2021	9/1/2022
367	Soiling	14 days	10/1/2022	23/1/2022
368	Planting / transplanting (T48 & T49)	60 days	7/12/2021	4/2/2022
369	**BS Works**	**819 days**	**12/11/2019**	**7/2/2022**
370	**Joss paper burner**	**816 days**	**12/11/2019**	**4/2/2022**
371	Shop drawing submission and approval of Joss Paper Burner	240 days	12/11/2019	8/7/2020
372	Shop drawing submission and approval of alumium cladding and louvre	240 days	10/2/2020	6/10/2020
373	Material submission and approval	240 days	12/11/2019	8/7/2020
374	Material ordering	90 days	9/7/2020	6/10/2020
375	Fabrication of Joss Paper Burner (Off-site)	160 days	7/10/2020	15/3/2021
376	Material delivery	120 days	9/7/2021	5/11/2021
377	Installation works	70 days	6/11/2021	14/1/2022
378	* T&C to Joss paper burner (detail schedule to be submitted separatily)	21 days	15/1/2022	4/2/2022
379	**E&M 1 st fixing**	**445 days**	**9/10/2020**	**27/12/2021**
380	**MVAC**	**383 days**	**10/12/2020**	**27/12/2021**
381	Concealed conduit installation	240 days	10/12/2020	6/8/2021
382	Cable containment installation	160 days	10/12/2020	18/5/2021
383	MVAC air duct installation	90 days	30/8/2021	27/11/2021
384	MVAC water pipework installation	60 days	29/10/2021	27/12/2021
385	**FS**	**120 days**	**6/8/2021**	**3/12/2021**
386	Install SPR/FS pipe	90 days	6/8/2021	3/11/2021
387	Control Wirings for AFA system	30 days	4/11/2021	3/12/2021
388	**Plumbing**	**115 days**	**6/8/2021**	**28/11/2021**
389	Install water pipes for fresh water and flushing water supply	115 days	6/8/2021	28/11/2021
390	**Drainage**	**391 days**	**9/10/2020**	**3/11/2021**
391	Install U/G drainage	100 days	9/10/2020	16/1/2021
392	UG drainge to Toilet Area	9 days	10/11/2020	18/11/2020
393	UG drainge to Service Hall	9 days	10/11/2020	18/11/2020
394	***UG drainage to Waiting Area, Clergy Room, etc. (NOD.28)***	*100 days*	*9/10/2020*	*16/1/2021*
395	*Pending for consolidation to the amendment of drainge design intend since of SCCU late request (NOD28)*	*40 days*	*9/10/2020*	*17/11/2020*
396	*Construction to deep STG for suit site situation of large level different between service hall & EVA*	*12 days*	*19/11/2020*	*30/11/2020*
397	*Material ordering and delivery*	*35 days*	*1/12/2020*	*4/1/2021*
398	*UG drainage to Waiting Area, Clergy Room, etc.*	*9 days*	*8/1/2021*	*16/1/2021*
399	Install aboveground drainage such as soil & waste pipe, vent pipe, rain water pipe, rain water outlet etc.	90 days	6/8/2021	3/11/2021
400	**EL**	**361 days**	**10/12/2020**	**5/12/2021**
401	Concealed conduit installation	240 days	10/12/2020	6/8/2021
402	Cable containment installation	160 days	10/12/2020	18/5/2021
403	Panel & electrical installation	76 days	6/8/2021	20/10/2021
404	MCB/MCCB installation	120 days	8/8/2021	5/12/2021
405	**E&M 2nd fixing**	**122 days**	**9/10/2021**	**7/2/2022**
406	**MVAC**	**122 days**	**9/10/2021**	**7/2/2022**
407	Ventilation fan and AC equipment installation	30 days	9/10/2021	7/11/2021
408	Cabling wiring and final circuit termination	54 days	9/10/2021	1/12/2021
409	Grilles/ diffuser / dampers & final connection	40 days	9/12/2021	17/1/2022
410	Control system installation	40 days	9/12/2021	17/1/2022
411	Hydraulic test	60 days	26/11/2021	24/1/2022
412	Air Balancing	35 days	21/12/2021	24/1/2022
413	System test	28 days	4/1/2022	31/1/2022
414	T&C for control system	14 days	25/1/2022	7/2/2022
415	**FS**	**58 days**	**14/11/2021**	**10/1/2022**
416	SPR head, VFA, smoke detector installation	30 days	14/11/2021	13/12/2021
417	Hose Reel Installation	30 days	14/11/2021	13/12/2021
418	Interfacing ex. AFA system and reprogramming	21 days	14/12/2021	3/1/2022
419	T&C works to FS system	7 days	4/1/2022	10/1/2022
420	**Plumbing / Drainage**	**54 days**	**9/12/2021**	**31/1/2022**
421	Sanitary ware installation	40 days	9/12/2021	17/1/2022
422	T&C work for plumbing and drainage	14 days	18/1/2022	31/1/2022
423	Tee off from existing water supply from existing water meter cabinet	7 days	18/1/2022	24/1/2022
424	**EL**	**101 days**	**21/10/2021**	**29/1/2022**
425	Cabling wiring works	80 days	21/10/2021	8/1/2022
426	Lighting and final circuit termination	80 days	28/10/2021	15/1/2022
427	Wiring & accessories installation	60 days	17/11/2021	15/1/2022
428	T&C for submain, final circuit electrical system	14 days	16/1/2022	29/1/2022
429	T&C for essential power	14 days	16/1/2022	29/1/2022
430	T&C for CCTV, specker, lighting control test	14 days	16/1/2022	29/1/2022
431	**Hydraulic Scissor Platform (by NSC - Southa)**	**426 days**	**6/12/2020**	**4/2/2022**



Mission | Milestone Date | Summary | critical progress

Date : 6 January 2022
Letter Ref: WHS-013AK
Ref No: WHS-MP-00_Rev.AD

- Revised working programme with gained EOT 20, 6 days to Section 3; Revised completion date to be 11 February 2022.
- Potential EOT for additional drainage work in EVA is not included

6 /8

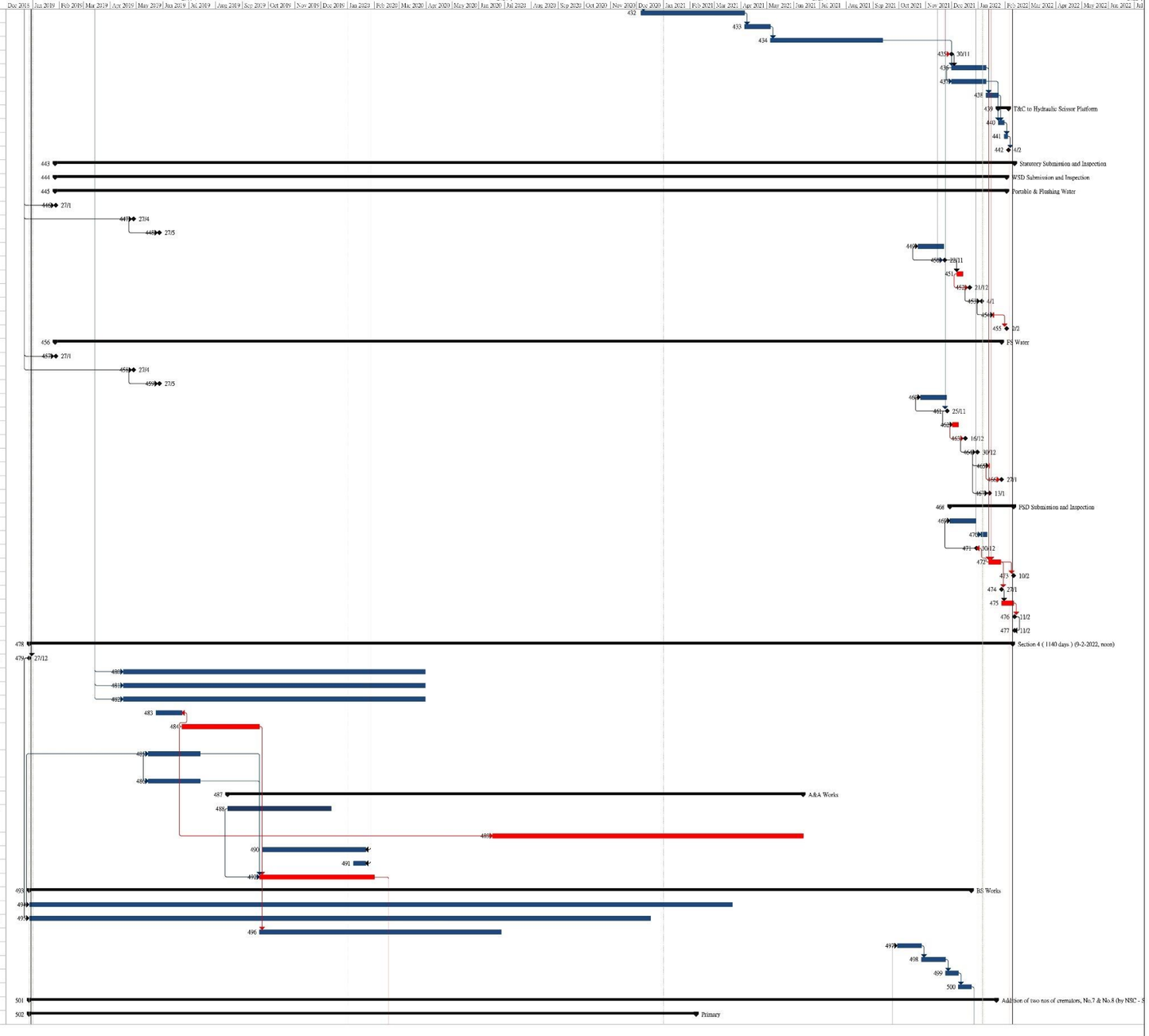
Construction Period :1140 Days
Section 1 : 120 Days
Section 2 : 390 Days
Section 3 : 720 Days (org), 1142 Days (EOT20)
Section 4 : 1140 Days

Shing Hing Construction Co Ltd

Working Programme for Expansion of Wo Hop Shek Crematorium (Revision AC)

Date for Completion of Section 1 : 26/04/2019
Date for Completion of Section 2 : 21/01/2020
Date for Completion of Section 3 (Rev) : 11/02/2022
Date for Completion Section 4 : 9/2/2022

Item No.	Activities	工期	開始日期	完成日期
432	Shop drawing submission and approval	120 days	6/12/2020	4/4/2021
433	Materail submission and approval	30 days	5/4/2021	4/5/2021
434	Material ordering and delivery	130 days	5/5/2021	11/9/2021
435	Handover of Service Hall 4	1 day	30/11/2021	30/11/2021
436	Hydraulic Scissor Platform and Screen Door	40 days	1/12/2021	9/1/2022
437	Electrical and Control Installation	40 days	1/12/2021	9/1/2022
438	Installaion of Natural Grantie	14 days	10/1/2022	23/1/2022
439	T&C to Hydraulic Scissor Platform	12 days	24/1/2022	4/2/2022
440	Equipment function test	7 days	24/1/2022	30/1/2022
441	Submission of O & M Manual	4 days	31/1/2022	3/2/2022
442	Training	1 day	4/2/2022	4/2/2022
443	**Statutory Submission and Inspection**	**1112 days**	**27/1/2019**	**11/2/2022**
444	**WSD Submission and Inspection**	**1103 days**	**27/1/2019**	**2/2/2022**
445	**Portable & Flushing Water**	**1103 days**	**27/1/2019**	**2/2/2022**
446	Submission of WWO542	1 day	27/1/2019	27/1/2019
447	Submission of WWO46 part 1 & 2	1 day	27/4/2019	27/4/2019
448	Issue of WWO46 part 3 by WSD	1 day	27/5/2019	27/5/2019
449	Submission of final amendment drawing	30 days	23/10/2021	21/11/2021
450	Submission of WWO46 part 4 to WSD	1 day	22/11/2021	22/11/2021
451	WSD inspection / re-inspection	7 days	7/12/2021	13/12/2021
452	Issue of WWO46 part 5a	1 day	21/12/2021	21/12/2021
453	Issue of WWO1005	1 day	4/1/2022	4/1/2022
454	Water sampling & testing	1 day	18/1/2022	18/1/2022
455	Issue of WWO46 part 5b (Completion advice)	1 day	2/2/2022	2/2/2022
456	**FS Water**	**1097 days**	**27/1/2019**	**27/1/2022**
457	Submission of WWO542	1 day	27/1/2019	27/1/2019
458	Submission of WWO46 part 1 & 2	1 day	27/4/2019	27/4/2019
459	Issue of WWO46 part 3 by WSD	1 day	27/5/2019	27/5/2019
460	Submission of final amendment drawing	30 days	26/10/2021	24/11/2021
461	Submission of WWO46 part 4 to WSD	1 day	25/11/2021	25/11/2021
462	WSD inspection / re-inspection	7 days	2/12/2021	8/12/2021
463	Issue of WWO46 part 5a	1 day	16/12/2021	16/12/2021
465	Issue of WWO1005	1 day	30/12/2021	30/12/2021
465	Water sample selection	1 day	13/1/2022	13/1/2022
466	Issue of WWO46 part 5b (Completion advice)	1 day	27/1/2022	27/1/2022
467	Issuance of FSCA	1 day	13/1/2022	13/1/2022
468	**FSD Submission and Inspection**	**74 days**	**29/11/2021**	**10/2/2022**
469	Submission of FS final amendment drawing	30 days	29/11/2021	28/12/2021
470	Rehearsal for FS inspection & T&C works	7 days	4/1/2022	10/1/2022
471	Submission of FS314 & FS501 submission to FSD	1 day	29/12/2021	30/12/2021
472	FS inspection & re-inspection	14 days	13/1/2022	26/1/2022
473	Issuance of FS Certificate	1 day	10/2/2022	10/2/2022
474	SCCU inspection	1 day	27/1/2022	27/1/2022
475	Making after SCCU inspection	14 days	28/1/2022	10/2/2022
476	SCCU reinspection	1 day	11/2/2022	11/2/2022
477	Completion of Phase 3 : 05/02/2022	1 day	11/2/2022	11/2/2022
478	**Section 4 (1140 days) (9-2-2022, noon)**	**1140 days**	**27/12/2018**	**9/2/2022**
479	Handover of site area	0 days	27/12/2018	27/12/2018
480	Shop drawing submission and approval	350 days	16/4/2019	30/3/2020
481	Material submission and approval	350 days	16/4/2019	30/3/2020
482	Method statement submission and approval	350 days	16/4/2019	30/3/2020
483	Shop drawing submission and approval to hoarding	30 days	24/5/2019	23/6/2019
484	Temporary metal hoarding and Non-combustible canvas inside Cremator Plant Room	90 days	23/6/2019	20/9/2019
485	Submission of survey report for builder's work and services diversion for new cremator installation	60 days	15/5/2019	13/7/2019
486	Submission of survey report for existing chimneys	60 days	15/5/2019	13/7/2019
487	**A&A Works**	**667 days**	**15/8/2019**	**11/6/2021**
488	Coordination with NSD for modification and strengthening of existing perforated platform for installation of new cremators	120 days	15/8/2019	12/12/2019
489	Demolition items 1, 2 at B/F & 7, 8 at G/F of Cremator Plant Room	360 days	17/6/2020	11/6/2021
490	Hoisting beam & trolley for cremator	120 days	24/9/2019	21/1/2020
491	Loading test to hoisting beam	14 days	8/1/2020	21/1/2020
492	Builder's Work and Services Diversion for Cremator Installation at LG & GF	133 days	21/9/2019	31/1/2020
493	**BS Works**	**1092 days**	**28/12/2018**	**23/12/2021**
494	BIM modelling and stimulation of delivery to existing building	815 days	28/12/2018	21/3/2021
495	BIM modelling to new building parts	720 days	28/12/2018	16/12/2020
496	Diversion / modification to existing services	280 days	21/9/2019	26/6/2020
497	Install new G.I. trunking	28 days	29/9/2021	26/10/2021
498	Install new G.I. conduit for CCTV & power point	28 days	27/10/2021	23/11/2021
499	Cable wirings for CCTV and power point	15 days	24/11/2021	8/12/2021
500	Install CCTV Camera	15 days	9/12/2021	23/12/2021
501	**Addition of two nos of cremators, No.7 & No.8 (by NSC - Southa)**	**1121 days**	**28/12/2018**	**21/1/2022**
502	Primary	773 days	28/12/2018	7/2/2021



Mission | Milestone Date | Summary | critical progress

Date : 6 January 2022
Letter Ref: WHS-013AK
Ref No: WHS-MP-00_Rev.AD

- Revised working programme with gained EOT 20, 6 days to Section 3; Revised completion date to be 11 February 2022.
- Potential EOT for additional drainage work in EVA is not included

7 /8

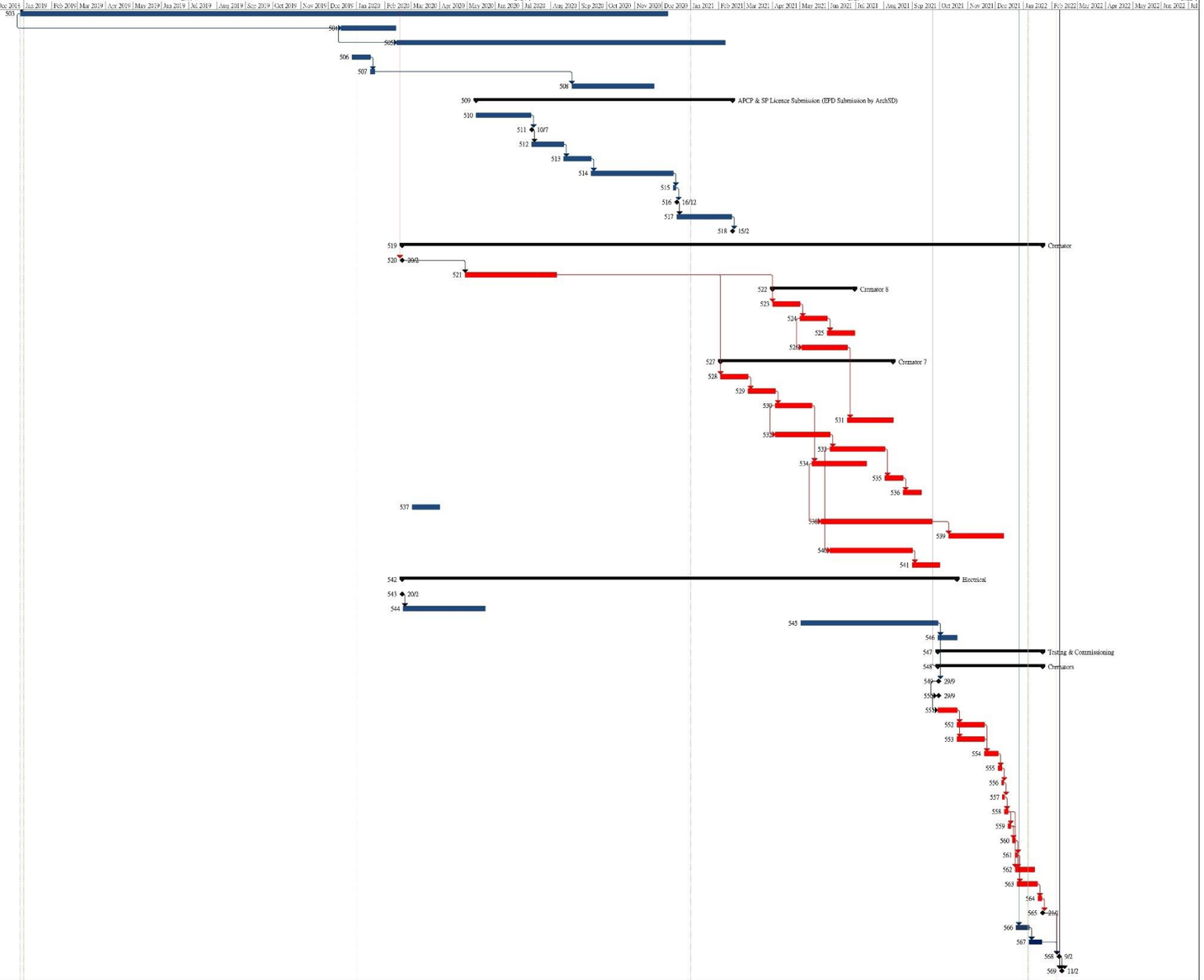
Construction Period :1140 Days
Section 1 : 120 Days
Section 2 : 390 Days
Section 3 : 720 Days (org), 1142 Days (EOT20)
Section 4 : 1140 Days

Shing Hing Construction Co Ltd

Working Programme for Expansion of Wo Hop Shek Crematorium (Revision AC)

Date for Completion of Section 1 : 26/04/2019
Date for Completion of Section 2 : 21/01/2020
Date for Completion of Section 3 (Rev) : 11/02/2022
Date for Completion Section 4 : 9/2/2022

Item No.	Activities	工期	開始日期	完成日期
503	Drawing & Equipment Submission & Approval	710 days	28/12/2018	6/12/2020
504	Equipment Ordering	60 days	15/12/2019	12/2/2020
505	Parts & equipment delivery on site	360 days	14/2/2020	7/2/2021
506	Lifting Hoist & Trolley for Cremator 7 & 8	20 days	27/12/2019	15/1/2020
507	Loading Test for Lifting Hoist & Trolley	5 days	16/1/2020	20/1/2020
508	Strengthing / modification to Existing Steel Platform	90 days	24/8/2020	21/11/2020
509	**APCP & SP Licence Submission (EPD Submission by ArchSD)**	**281 days**	**11/5/2020**	**15/2/2021**
510	Preparation of APCP (Form 1)	60 days	11/5/2020	9/7/2020
511	Draft APCP & SP Submission	1 day	10/7/2020	10/7/2020
512	EPD comment on draft APCP & SP	35 days	11/7/2020	14/8/2020
513	Formal Submission of APCP & SP	30 days	15/8/2020	13/9/2020
514	EPD Comment / Approval of APCP & SP	90 days	14/9/2020	12/12/2020
515	Public notification period - 3 days	3 days	13/12/2020	15/12/2020
516	Draft Licence Issued by EPD	1 day	16/12/2020	16/12/2020
517	Review of draft licence	60 days	17/12/2020	14/2/2021
518	Licence Obtained	1 day	15/2/2021	15/2/2021
519	**Cremator**	**702 days**	**20/2/2020**	**21/1/2022**
520	Handover of Plant Room (SHC to Southa)	0 days	20/2/2020	20/2/2020
521	Underground Flue Gas Duct	100 days	29/4/2020	6/8/2020
522	**Cremator 8**	**90 days**	**1/4/2021**	**29/6/2021**
523	Cremator Steel Frame Work for Cremator 8	30 days	1/4/2021	30/4/2021
524	Lower Refractory for Cremator 8	30 days	1/5/2021	30/5/2021
525	Upper Refractory for Cremator 8	30 days	31/5/2021	29/6/2021
526	Heat exchange w/ Insulation for Cremator 8	50 days	3/5/2021	21/6/2021
527	**Cremator 7**	**189 days**	**3/2/2021**	**10/8/2021**
528	Cremator Steel Frame Work for Cremator 7	30 days	3/2/2021	4/3/2021
529	Lower Refractory for Cremator 7	30 days	5/3/2021	3/4/2021
530	Upper Refactory for Cremator 7	40 days	4/4/2021	13/5/2021
531	Heat exchange w/ Insulation for Cremator 7	50 days	22/6/2021	10/8/2021
532	Flat Bag Filter w/ Insulation	60 days	4/4/2021	2/6/2021
533	Chemosorption Filter w/ Insulation	60 days	3/6/2021	1/8/2021
534	Cremator Door, Burners, Rotray Drive & Accessories	60 days	14/5/2021	12/7/2021
535	*Waste Gas Fans (Supervised by Manufacturer)*	*20 days*	*2/8/2021*	*21/8/2021*
536	*Combustion Air Fans (Supervised by Manufacturer)*	*20 days*	*22/8/2021*	*10/9/2021*
537	Air Cooled Radiator Installation at R/F	30 days	2/3/2020	31/3/2020
538	Cooling Water Pump & Piping	122 days	24/5/2021	22/9/2021
539	Cooling Water Pipe Insulation & Cladding	60 days	11/10/2021	9/12/2021
540	Air Compressor & Piping	90 days	3/6/2021	31/8/2021
541	Towngas piping	30 days	1/9/2021	30/9/2021
542	**Electrical**	**608 days**	**20/2/2020**	**19/10/2021**
543	Handover of Electric Plant Room (SHC to Southa)	0 days	20/2/2020	20/2/2020
544	Extension of L.V. Switchboard	90 days	21/2/2020	20/5/2020
545	*Electrical and Control Installation (Supervised by Manufacturer)*	*150 days*	*2/5/2021*	*28/9/2021*
546	*Programming and SCADA (Supervised by Manufacturer)*	*21 days*	*29/9/2021*	*19/10/2021*
547	**Testing & Commissioning**	**115 days**	**29/9/2021**	**21/1/2022**
548	Cremators	115 days	29/9/2021	21/1/2022
549	Energetication to new switch box	1 day	29/9/2021	29/9/2021
550	Towngas available	1 day	29/9/2021	29/9/2021
551	Equipment function test	21 days	29/9/2021	19/10/2021
552	Cremator 7 dry heating	30 days	20/10/2021	18/11/2021
553	Cremator 8 dry heating	30 days	20/10/2021	18/11/2021
554	Cold commissioning	15 days	19/11/2021	3/12/2021
555	Pre-heating	4 days	4/12/2021	7/12/2021
556	Trial-run for Cremator 7 (5 samples / day)	2 days	8/12/2021	9/12/2021
557	Trial-run for Cremator 8 (5 samples / day)	2 days	9/12/2021	10/12/2021
558	Cremator 7 emission test (3 samples / day, w/ witness of EPD)	4 days	11/12/2021	14/12/2021
559	Cremator 7 & 8 emission test (6 samples / day, w/ witness of EPD)	3 days	15/12/2021	17/12/2021
560	Cremator 8 emission test (3 samples / day, w/ witness of EPD)	3 days	20/12/2021	22/12/2021
561	Full load performance test for Cremator 7 & 8 (6 samples / day)	2 days	23/12/2021	24/12/2021
562	Emission test report issuance for Cremator 7 & 8	21 days	23/12/2021	12/1/2022
563	Functional test & performance test with witness of ArchSD	22 days	25/12/2021	15/1/2022
564	Training	4 days	17/1/2022	20/1/2022
565	Handover of Cremator to ArchSD	1 day	21/1/2022	21/1/2022
566	T&C for B.S. work	14 days	24/12/2021	6/1/2022
567	Cleaning on completion	14 days	7/1/2022	20/1/2022
568	Completion of Phase 4 : 09/02/2022 (noon)	0 days	9/2/2022	9/2/2022
569	**Project Completion**	**0 days**	**11/2/2022**	**11/2/2022**



Mission | Milestone Date | Summary | critical progress

Date : 6 January 2022
Letter Ref: WHS-013AK
Ref No: WHS-MP-00_Rev.AD

- Revised working programme with gained EOT 20, 6 days to Section 3; Revised completion date to be 11 February 2022.
- Potential EOT for additional drainage work in EVA is not included

8 /8

APPENDIX B: WORK AREA FOR THE CONTRACT NO. AL G513

APPENDIX C: SUMMARY OF IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION

EIA Ref	EM&A Ref.	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status
Air (Construction Phase)							
S.3.3.5		Under the Air Pollution Control (Specified Process) Regulation, an incinerator (including cremator) with an installed capacity exceeding 0.5 tonnes per hour, is classified as a specified process, and requires a Specified Process license to operate. FEHD shall apply for a specified licence under the APCO.	New Cremators in the New Crematorium / prior to operation	FEHD	Construction Phase	APCO	NA
S.3.9 S.3.9.2		Asbestos Investigation: ▌ The incense burner, coffin and skeletal crematorium shall be thoroughly investigated prior to any demolition work commencing to ascertain the presence of any ACM. A registered asbestos consultant shall carry outan asbestos investigation report (AIR).	Incense burner, coffin and skeletal crematorium / Prior to any demolition work commencing	Arch SD, Registered Asbestos Consultant, Registered Asbestos Contractor	Construction Phase	APCO AIR and AAP	NA
S.3.9.3		▌ If any ACM are identified in the existing crematorium, an asbestos abatement plan shall be submitted to EPD prior to any asbestos abatement works.					
S.3.9.4		The following precautionary and mitigation measures shall be implemented during the removal of ACM: ▌ Enclosure of the work area. ▌ Containment and sealing for the asbestos containing waste. ▌ Provision of personal decontamination facility. ▌ Use of personal respiratory/protection equipment. ▌ Use of vacuum cleaner equipped with high-efficiency air particulate (HEPA) filter for cleaning up the work area. ▌ Carrying out air quality monitoring during the asbestos abatement works.					

EIA Ref	EM&A Ref.	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status
S.3.9.5		The following qualified personnel shall be appointed to carry out the asbestos abatement works: ▌Registered asbestos contractor for carrying out the asbestos removal works. ▌Registered asbestos supervisor for supervising the asbestos abatement works. ▌Registered asbestos laboratory for monitoring the air quality during the asbestos abatement works. ▌Registered asbestos consultant for supervising and certifying theasbestos abatement works.					NA
S.3.9.7 – S.3.9.9		Other Site Management:					NA
S.3.9.7		The asbestos materials in each building/premises must be abated before other contractors/trades are allowed to work in the building/premises.					NA
S.3.9.8		Tight security measures shall be taken at the asbestos abatement works site to prevent any disturbance to ACM that may result from the stealing of valuable items on site such as electrical cable and copper pipes. It is recommended that priority shall be given for the abatement of all friable ACM.					NA
S.3.9.9		As different contractors may be working on-site at the same time, the following measures should be considered: ▌If there is a sensitive receptor around the area, conduct environmentalair monitoring at this off-site receptor. ▌Submit to EPD a completion report, including photos and air monitoring results, immediately after completion of asbestos abatement work for every work zone.					NA
S.3.9.9		As different contractors may be working on-site at the same time, the following measures should be considered: ▌If there is a sensitive receptor around the area, conduct environmentalair monitoring at this off-site receptor. ▌Submit to EPD a completion report, including photos and air monitoring results, immediately after completion of asbestos abatement work for every work zone.					NA

EIA Ref	EM&A Ref.	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status
S.3.10.1 - S.3.10.2		The contractor has a responsibility to notify EPD for undertaking any 'notifiable' works prior to the commencement of such works. In addition, the contractor is also required to fulfil specific dust control requirements given in the APCO Regulation's Schedule for specific jobs.	Prior to 'notifiable' works including Construction of the foundation of a building and construction of the superstructure of a building	Contractor	Construction Phase	Air Pollution Control (Construction Dust) Regulation APCO	Implemented during construction phase
S.3.10.3 - S.3.10.4	S.2.9.1 - S.2.9.3	Good site management / practices to avoid / minimise incidences of dust emissions: *Site Boundary and Entrance* ▌Vehicle washing facilities including a high pressure water jet shall be provided at every discernible or designated vehicle exit point. ▌The area at which vehicle washing takes place and the section of the road between the washing facilities and the exit point shall be paved with concrete, bituminous or hardcore material. *Access Haul Roads and Unpaved Areas* ▌Each and every main haul road shall be paved with concrete, bituminous hardcore materials or metal plates, and kept clear of dusty materials. Or ▌Unpaved haul roads and areas shall be sprayed with water so as to keep the entire road surface wet.	Project Site / Construction and Demolition	Contractor	Construction Phase	Air Pollution Control (Construction Dust) Regulation APCO	Implemented during construction phase

EIA Ref	EM&A Ref.	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status
		Excavated Materials ▌ Any stockpile of dusty material shall be either: (a) covered entirely by impervious sheeting. (b) placed in an area sheltered on the top and the three sides. or (c) sprayed with water or a dust suppression chemical so as to maintain the entire surface wet. *Exposed Earth* ▌ Exposed earth shall be properly treated by compaction, hydroseeding, vegetation planting or seating with latex, vinyl, bitumen within six monthsafter the last construction activity on the site or part of the site where the exposed earth lies. *Loading, Unloading or Transfer of Dusty Materials* ▌ All dusty materials shall be sprayed with water immediately prior toany loading or transfer operation so as to keep the dusty material wet. *Debris Handling* ▌ Any debris shall be covered entirely by impervious sheeting or stored ina debris collection area sheltered on the top and the three sides. ▌ Before debris is dumped into a chute, water shall be sprayed so that itremains wet when it is dumped. *Transport of Dusty Materials* ▌ Vehicles used for transporting dusty materials/spoils shall be covered with tarpaulin or similar material. The cover shall extend over the edges of the sides and tailboards. *Site Clearance* ▌ The working area for the uprooting of trees, shrubs, or vegetation or the removal of boulders, pole, pillars shall be sprayed with water immediately before, during and immediately after the operation so as to maintain theentire surface wet. ▌ All demolished items shall be covered by impervious sheeting or placed in a spot with shelters on top and three sides within a day of the demolition. ▌ Workers at all levels should be co-operative to avoid dust generation and dispersion to the surrounding environment.					

EIA Ref	EM&A Ref.	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status
Air (EM&A for Construction Phase							
S.11.2.4 - S.11.2.5	S.2.5 - S.2.6	Conduct baseline and regular 1-hr and 24-hr TSP monitoring at 2 measurement locations at a 6-day frequency	A22a and A22b / Baseline monitoring prior to construction works / Regular monitoring throughout construction period	Contractor	Construction Phase	EIAO	Implemented during construction phase
Noise (Construction Phase)							
S.4.4.9 - S.4.4.10	S.3.2.1 - S.3.2.2	Good Site Practice and Noise Management: ▌Only well-maintained plant shall be operated on site and the plant shallbe regularly serviced during the construction works. ▌Plant used intermittently shall be turned off or throttled down when notin active use. ▌Plant that is known to emit noise strongly in one direction shall be orientedto face away from NSRs. ▌Silencers, mufflers and enclosures for plant shall be used where possible and maintained adequately throughout the works. ▌Mobile plant shall be sited away from NSRs. ▌Stockpiles of excavated materials and other structures such as site buildings shall be used effectively to screen noise from the works. ▌PME shall be well maintained and use properly on site to minimise the any excessive noise generated.	Work site / Construction phase	Contractor	Construction Phase	GW-TM & NCO	Implemented during construction phase

EIA Ref	EM&A Ref.	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status
Land Contamination (Construction Phase)							
S.5.7.2		Remedial Action Plan: If large amounts of contaminated soil (say 500m³) are found following further site investigation after the decommissioning of the crematorium, remediation options such as bioremediation for organics should be considered. Although disposal of smallamount of contaminated soil to landfills might be considered as an economic and acceptable option for remediation, it should be considered as the last resort if all remediation options including reuse are considered to be inappropriate or infeasible.	All areas requiring remedial works in Project site	Contractor	Construction Phase	Waste Disposal Ordinance (Cap.354) Waste Disposal (Chemical Waste) Regulations Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes CAP ProPECC Note PN3/94 Dutch A, B, C Classificati-on system WPCO Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters (TM)	NA
S.5.7.3		▌If disposal to landfills is chosen asthe remediation measure, the criteria set primarily of Toxicity Characteristic Leaching Procedure (TCLP) limits, as stated in Annex E in the GN) should be met. ▌At least three soil samples should be taken from the most contaminated area(s) and tested for TCLP for a full suite of parameters (16 metals) asstated in Table E1 in Annex E in the GN. ▌If the testing result shows that any of the TCLP limits cannot be met, the soil shall be treated by cement stabilization and further tested for TCLP prior to landfill disposal or treated as chemical waste and disposed of at the Chemical Waste Treatment Centre (CWTC).					NA
S.5.7.4		All soil treated as a chemical waste, shall be collected by a registered chemical waste contractor and the Waste Disposal (Chemical Waste) Regulations under the Waste Disposal Ordinance (Cap.354) shall be observed. Reference shall be made to the Registration of Chemical Waste Producers and Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes, issued by EPD.					NA

EIA Ref	EM&A Ref.	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status
S.5.7.6		Confirmatory Soil Sampling ▌ In order to confirm the extent of the soil contamination and if the contaminated soil should be removed or treated, confirmatory soil sampling shall be carried out during the remediation works. ▌ This shall consist of five to six samples in each location where soil contamination is identified from SI works. The locations will be to the north, south, east and west of the location where contaminated soil is found. Two locations should also be above and below the location (in terms of elevation) where contaminated soil is found. ▌ If analytical results exceed the Dutch B Levels or other agreed remedialtarget suggested in a supplementary CAR, the contaminated area shall be extended and further confirmatory sampling shall be carried out until no further contamination is encountered.					NA
S.5.8	S.4	Further Site Investigation	Areas that are currently in use and cannot be accessed, including the transformer room, dangerous goods stores, day tank room, fuel pump room, sunken fuel pipe and cremator.	Contractor	Construction Phase	Interim CAR and RAP ProPECC Note PN3/94 Guidance Notes for Investigation and Remediation of Contaminated Sites of Petrol Filling Stations, Boatyards and Car	NA
S.5.8.1	S.4.1 - S.4.7	Further site investigations in areas that are currently in use and cannot be accessed are required. These areas include the transformer room, dangerous goods stores, day tank room, fuel pump room, sunken fuel pipe and cremator.					
S.5.8.2		The demolition contractor shall carry out further site investigations, after the decommissioning of the existing crematorium and skeletal cremator building.					
S.5.8.3		Potential contaminants in the soils have been identified in CAP and the parameters to be analysed for soils at different locations are summarised in Table 5-3 in S.5.8.3.					

EIA Ref	EM&A Ref.	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status
S.5.8.4		Sampling and analysis plans for these investigations shall be prepared and submitted to EPD for approval prior to any of these investigation works. Supplementary CAR and RAP shall be prepared to describe the results and findings of these site investigations and, if necessary, any remedial works.	After the decommissioning of the existing crematorium and skeletal cremator building.			Repair / DismantlingWorkshops	
Land Contamination (EM&A)							
S.11.2.9 - S.11.2.15	S.4.1 - S.4.7	Further Site Investigation: ▌Conduct further site investigation for Petroleum hydrocarbons and PAH in soil samples. ▌Conduct further site investigation for PCBs in soil samples. ▌Conduct further site investigation for PAH, Dioxins and Metals (Cr, Co, Ni, Cu, Zn, As, Mo, Cd, Sn, Ba, Hg, Pb) in soil samples.	After decommissioning, prior to construction: Existing crematorium: Dangerous goods store, Daily tank room, fuel pump room and sunken fuel pipe Skeletal Cremator Building: Dangerous goods store Existing crematorium: Transformer room Cremators (residual inside the cremator, flue and	Contractor	Construction Phase	Interim CAR & RAP	NA

EIA Ref	EM&A Ref.	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status
			chimneys				
Waste Management (Construction Phase)							
S.6.7.24		Good Site Practice: ▌Obtain the necessary waste disposal permits from the appropriate authorities, if they are required, in accordance with the Waste Disposal Ordinance (Cap. 354), Waste Disposal (Chemical Waste) (General) Regulation and the Land (Miscellaneous Provision) Ordinance (Cap. 28). ▌Obtain a billing account with EPD for disposal of construction waste. ▌A Waste Management Plan (WMP), incorporated in an Environmental Management Plan (EMP) shall be prepared and submitted to the Engineer/Supervising Officer for approval. Reference shall be made to Environment, Transport and Works Bureau Technical Circular (Works)(ETWB TCW) 19/2005. ▌Nomination of an approved person to be responsible for good site practice, arrangements for collection and effective disposal to an appropriate facility of all wastes generated at the site. ▌Use of a waste haulier, authorised or licensed to collect specific category of waste. ▌A trip-ticket system shall be included as one of the contractual requirements and implemented by the Environmental Team to monitor the disposal of C&D and solid wastes at public filling facilities and landfills, and to control fly tipping. Reference shall be made to ETWB TCW No. 31/2004. ▌Training of site personnel in proper waste management and chemicalwaste handling procedures. ▌Separation of chemical wastes for special handling and appropriate treatment at a licensed facility. ▌Routine cleaning and maintenance programme for drainage systems,sumps and oil interceptors. ▌Provision of sufficient waste disposal points and regular collection for disposal. ▌Adoption of appropriate measures to minimise windblown litter and dustduring transportation of waste, such as covering trucks or transporting wastes in enclosed containers. ▌Implementation of a recording system for the amount of wastes	Project site/ design, construction and demolition stages	Contractor	Construction Phase	Waste Disposal Ordinance (Cap. 354) Waste Disposal (Chemical Waste) (General) Regulation Waste Disposal (Charges for Disposal of Construction Waste) Regulation	Implemented during construction phase

EIA Ref	EM&A Ref.	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status
		generated, recycled and disposed of (including the disposal sites).					
S.6.7.25		Waste Reduction Measures: ▌Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal. ▌Encourage collection of aluminium cans, plastic bottles and packaging material (e.g. carton boxes) and office paper by individual collectors. Separate labelled bins shall be provided to help segregate this waste from other general refuse generated by the work force. ▌Any unused chemicals or those with remaining functional capacity shallbe recycled as far as practicable. ▌Reuse C&D materials when possible to reduce the amount ofC&D material/waste. ▌Wood, steel and other metals shall be separated for reuse and / or recycling Prior to disposal of C&D waste to minimise the quantity of waste to be disposed of to landfill. ▌Minimise the potential for damage or contamination of construction material by having proper storage and site practices. ▌Plan and stock construction materials carefully to minimise the amount of waste generated.	Project site / construction and demolition stages	Contractor	Construction Phase	WBTC No. 32/1992 WBTC No. 19/2005	Implemented during construction phase

EIA Ref	EM&A Ref.	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status
S.6.7.4		*Excavated Material* Rock and soil generated from excavation shall be reused for site formation and excavated material from foundation work reused for landscaping as far as practicable to avoid disposal off-site.	Project site / construction and demolition stages	Contractor	Construction Phase	WBTC No. 12/2000	Implemented during construction phase
S.6.7.5 - S.6.7.7	S.5.3.5 - S.5.3.9	*Construction and Demolition Material* ▌Reuse of the public fill and C&D waste shall be practiced on site as faras practicable. ▌The handling of C&D materials is governed by WBTC No. 2/93. Inert C&D material (public fill) shall be directed to an approved public filling area or reclamation site, where it has the benefit of offsetting the need for removal of materials from borrow areas for reclamation purposes and helps to reducethe pressure on landfill sites. ▌Individuals or companies who deliver public fill to public filling areas require dumping licences. ▌Careful design, planning and good site management can minimise over- ordering and generation of waste materials such as concrete, mortar and cement grouts. The design of formwork shall maximise the use of standard wooden or metal panels so that high reuse levels can be achieved. Alternatives such as. steel formwork, plastic fencing and reusable site office structures shall be considered to increase the potential for reuse and minimise C&D waste generation. ▌The contractor shall use as much as possible of the C&D material on-site. Proper segregation of waste types on site will increase the feasibility of certain components of the waste stream by recycling contractors.	Project site / construction and demolition stages	ArchSD / Contractor	Construction Phase	WBTC No. 2/93 The Land (Miscellaneous Provision) Ordinance WBTC No. 19/2005	Implemented during construction phase

<table>
<tr><th>EIA Ref</th><th>EM&A Ref.</th><th>Environmental Protection Measures / Mitigation Measures</th><th>Location / Timing</th><th>Implementation Agent</th><th>Implementation Stage</th><th>Relevant Legislation and Guidelines</th><th>Implementation Status</th></tr>
<tr><td>S.6.11.1 - S.6.11.5</td><td>S.5.3.10 - S.5.3.14</td><td>Contaminated Material – Further Contamination Investigation

▌ After decommissioning but prior to demolition of the Existing Crematorium, the following further contamination investigations shall be carried out to confirm the quality and quantity of ash waste and building structures requiring treatment and disposal.

<table>
<tr><th>Location</th><th>Investigation Parameter</th><th>Investigation Period</th><th>Responsible Party</th></tr>
<tr><td>Cremators / flue / chimney and surrounding areas</td><td>Asbestos (building structures)</td><td rowspan="2">After decommissioning but prior to demolition of the Existing Crematorium</td><td rowspan="2">The Contractor</td></tr>
<tr><td>Cremators / flue / chimney and surrounding areas</td><td>Dioxins, heavy metals, PAH (ash waste)</td></tr>
</table>

▌ Prior to any demolition work commencing, these areas suspected to contain asbestos containing material (ACM) shall be further inspected by aregistered asbestos consultant to determine the presence of any ACM. These areas shall be thoroughly investigated and the additional findings submitted as supplementary information to the Asbestos Investigation Report.
▌ Samples shall be analysed for the presence and type of asbestos according to the Laboratory's HOKLAS accredited testing procedures. If the findings of the investigation indicate ACM materials present on the premises an Asbestos Abatement Plan must be prepared prior to commencement of demolition works.</td><td>Cremators, Flues Chimneys and surrounding areas / After decommissioning but prior to demolition of the existing crematorium.</td><td>FEHD, ArchSD, Contractor</td><td>Construction Phase</td><td>ProPECC PN 2/97

ProPECC PN 3/94

APCO</td><td>NA</td></tr>
</table>

EIA Ref	EM&A Ref.	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status
		▌It is not currently possible to conduct inspection and sampling within the cremators, chimney and flues to assess the levels of contamination due to the operation of the crematorium. It is recommended that samples shall be collected from the potential areas of contamination for testing of dioxin, heavy metal and PAH after decommissioning and prior to the demolition of the Existing Crematorium.					
S.6.9.6 - S.6.9.7	S.5.3.15 - S.5.3.17	Asbestos Containing Material ▌Asbestos wastes shall be handled in accordance with the Code of Practice on the Handling, Transportation and Disposal of Asbestos Waste issued by the Environment and Food Bureau. ▌Production, collection and disposal of Asbestos waste will follow the 'trip-ticket' system. The registered asbestos contractor shall appoint a licensed asbestos waste collector to collect the packaged asbestos waste and deliver it to the designated landfill for disposal. Notification has to be given to EPD for its disposal. EPD will normally require ten working days notice of the intention to dispose of any quantity of asbestos waste. After processing the notification, EPD will issue specific instructions and directions for disposal of the waste. The waste producer or agent must strictly follow these directions.	Crematorium room in Existing Crematorium / before demolition and after decommission	Contractor	Construction Phase	COP on Handling, Transportation and Disposal of Asbestos Waste under the Waste Disposal (Chemical Waste) (General) Regulation.	NA
		Dioxin Contaminated Materials (DCM) / Heavy Metal Contaminated Materials (HMCM) / Polyaromatic Hydrocarbon Contaminated Materials (PAHCM) from Demolition of the Existing Crematorium ▌Proposed Contamination Classifications for Ash Waste with DCM / HMCM / PAHCM.	Crematorium room in Existing Crematorium / before demolition and after decommission	Contractor	Construction Phase	ProPECC PN 3/94 APCO	NA

EIA Ref	EM&A Ref.	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status
		<table><tr><td>Classification of Contamination</td><td>Dioxin Level in ash waste</td><td>Heavy Metal Level / Polyaromatic Hydrocarbon in Ash Waste</td></tr><tr><td>Low Contaminated DCM/HMCM/PAHCM</td><td><1 ppb TEQ</td><td>< Dutch "B" List</td></tr><tr><td>Moderately/Severely Contaminated HMCM/PAHCM</td><td><1 ppb TEQ</td><td>> Dutch "B" List</td></tr><tr><td>Moderately Contaminated DCM</td><td>> 1 and < 10 ppb TEQ</td><td>Any Level</td></tr><tr><td>Severely contaminated DCM</td><td>>10 ppbTEQ</td><td>Any Level</td></tr></table>					
S.6.9.9	S.5.3.19	Demolition, Handling, Treatment and Disposal of Low Contaminated DCM / HMCM / PAHCM from Demolition of Existing Crematorium ▌ Where the ash waste contains low contaminated DCM / HMCM / PAHCM, the contractor shall avoid ash waste becoming airborne during demolition. General dust suppression measures shall be followed. The ash waste can be directly disposed of at a landfill site.	Cremator room in Existing Crematorium / demolition	Contractor	Construction Phase	ProPECC PN 3/94 APCO	NA
S.6.9.10 - S.6.9.14	S.5.3.20 - S.5.3.24	Demolition, Handling, Treatment and Disposal of Moderately / Severely Contaminated DCM and Moderately / Severely Contaminated HMCM / PAHCM from Demolition of the Existing Crematorium *Site preparation procedures:* ▌ Except the cremators/flue/chimney, all removable contaminated items shallbe removed as far as practicable to avoid obstructing the decontamination activities. ▌ Preliminary site decontamination of all debris shall be carried out using High Efficiency Particulate Air (HEPA) vacuum cleaner. ▌ A chamber with three layers of polythene sheets shall enclose the	Cremator room in Existing Crematorium / demolition	Contractor	Construction Phase	Waste Disposal (Chemical Waste) (General) Regulation ProPECC PN 3/94 APCO	NA

EIA Ref	EM&A Ref.	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status
		top portion of the chimney above the roof. ▌A 3-chamber decontamination unit shall be constructed at the entrance to the cremators/flues/chimney for entry and exit from the work area. It shall comprise a dirty room, a shower room and a clean room of at least 1m x 1m base with 3 layers of fire retardant polythene sheet. ▌Workers shall carry out decontamination procedures before leaving thework area. ▌All workers shall wear full protective equipment, disposable protective overall, nitrile gloves, rubber boots, and full-face positive pressure respirator. ▌Warning signs in both Chinese and English shall be put up in conspicuous areas. *Site preparation procedures specific to severely contaminated DCM:* ▌The walls, floor and ceiling of the cremator room shall be lined with 3-layersof fire retardant polythene sheets. ▌Air movers shall be installed at the cremator room, and at the bottom of the chimney to exhaust air from the work area. A stand by air mover shall alsobe installed with each of the air movers. Sufficient air movement shall be maintained to give a minimum of 6 air changes per hour to the workarea. ▌New pre-filters and HEPA filters shall be used on the air movers. ▌Before commencement of the decommissioning work a smoke test with non- toxic smoke shall be carried out to ensure the air tightness of thecontainment. *Demolition and handling procedures:* ▌The cremators/flue/chimney shall be removed from top down. ▌Scrubbing and HEPA vacuuming shall be used to remove any ash or residues attached to the cremators, flue, chimney and other building structures. ▌Wastes generated from the contaminant or decontamination unit including the workers protection clothing shall be disposed of at landfill site. ▌After completion of removal, all surfaces shall be decontaminated byHEPA vacuum. ▌If any contaminated wastewater needs to be discharged out of the					

EIA Ref	EM&A Ref.	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status
		site, it shall be properly treated to WPCO requirements with prior agreements with EPDon discharge standards. *Demolition and handling procedures specific to severely contaminated DCM:* ▌The contaminated detached sections of the building structures shall be wrapped with 2 layers of fire retardant polythene sheets. A third layer shallbe wrapped and secured with duct tape. Wet wiping shall be used to decontaminate the outer layer. ▌After completion of removal and decontamination, spray the innermost layerof the fire retardant polythene sheet with PVA. Upon drying, peel off and dispose of at landfill site. Repeat for the other 2 layers disposing the final layer as contaminated wastes. *Treatment and disposal procedures:* ▌Immobilise the ash waste by mixing with cement in the correct ratio as determined by pilot mixing and TCLP test. ▌Place material in polythene lined steel drums for disposal at landfill. The drums should clearly be marked with "DANGEROUS CHEMICAL WASTE"in English and Chinese. Prior agreement of the disposal criteria must be obtained from EPD and the landfill operator. ▌If the landfill disposal criteria cannot be met, disposal at the CWTC in TsingYi shall be considered.					
S.6.9.1 - S.6.9.2	S.5.3.25 - S.5.3.7	Chemical Waste ▌Should any chemical waste be generated, the Contractor must registerwith the EPD as chemical waste producer. ▌All the chemical waste shall be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. The chemical waste shall be stored and collected by an approved contractor for disposalat a licensed facility in accordance with the Waste Disposal (Chemical Waste) (General) Regulation. ▌Principles of reuse and recycle chemical waste on site as far as practicable shall be adopted by the Contractor.	Project site / demolition	Contractor	Construction Phase	Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes Waste Disposal (Chemical Waste) (General) Regulation.	Implemented during construction phase

EIA Ref	EM&A Ref.	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status
S.6.9.3	S.5.3.28	Containers used for the storage of chemical waste shall: ▌ Be suitable for the substance they are holding, resistant to corrosion, maintained in good condition, and securely closed. ▌ Have a capacity of less than 450 litres unless the specifications havebeen approved by the EPD. ▌ Display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Waste Disposal (Chemical Waste) (General) Regulation.					
S.6.9.4	S.5.3.29	The storage area for chemical waste shall: ▌ Be clearly labelled and used solely for the storage of chemical waste. ▌ Be enclosed on at least 3 sides. ▌ Have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest. ▌ Have adequate ventilation. ▌ Be covered to prevent rainfall entering (water collected within the bundmust be tested and disposed as chemical waste if necessary). ▌ Be properly arranged so that incompatible materials are adequately separated.					
S.6.9.25	S.5.3.30	Disposal of chemical waste shall be: ▌ Via a licensed waste collector. ▌ A facility licensed to receive chemical waste, such as the Chemical Waste Treatment Facility at Tsing Yi, which offers a chemical waste collection service and can supply the necessary storage containers. or ▌ A waste recycling plant approved by EPD.					

EIA Ref	EM&A Ref.	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status
S.6.7.27 - S.6.7.28	S.5.3.31 - S5.3.32	General Refuse ▌ General refuse shall be stored in enclosed bins or compaction units separate from C&D and chemical wastes. A reputable waste collector shall be employed by the contractor to remove general refuse from the site, separately from C&D and chemical wastes, on a daily or every second day basis to minimise odour, pest and litter impacts. ▌ Individual collectors often recover aluminium cans from the waste stream if they are segregated or easily accessible. Therefore, separately labelled bins for their deposit shall be provided if feasible. Similarly, plastic bottles and carton package material generated on site shall be separated for recycling as far as possible. Site office waste shall be reduced through recycling of paper if volumes are large enough to warrant collection. Participation in a local collection scheme shall be considered if one is available.	Project site / construction and demolition stages	Contractor	Construction Phase		Implemented during construction phase
Waste Management (EM&A)							
S.11.2.17	S.5.3.10	Supplementary site investigations shall be conducted for asbestos in building structures and for dioxins, heavy metals and PAH in ash/particular matter samples.	Cremators / flue / chimney and surrounding area. After decommissioning but prior to demolition	Contractor	Construction Phase	ProPECC PN 2/97 and 3/94 AIR, AMP/AAP to be submitted under APCO Future Supplementary Investigation Site Plan	NA
Landscape and Visual (Construction Phase)							
S.7.9.2 MC 1	S.6.3.1	Site offices and construction yards: ▌ Site offices shall have olive green roof and façade coating or colour matches with existing environment. ▌ Site offices and the construction yard shall be decommissioned after construction.	All site offices / Design and construction phases	ArchSD's Contractor	Construction Phase		Implemented during construction phase
S.7.9.2 MC 2	S.6.3.1	Height of site offices: ▌ The height of site offices, including the rooftop shall not exceed 10m. ▌ Building services equipment such as antennas may exceed 10m and shall be coated in black.	All site offices / Design and construction phases	ArchSD's Contractor	Construction Phase		Implemented during construction phase

EIA Ref	EM&A Ref.	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status
S.7.9.2 MC 3	S.6.3.1	Hoarding and screening: ▌ Where practical the site offices areas, construction yards and storage areas shall be screened using colour in harmony with the surrounding environment around the peripheries of the works area until the completion of relevant construction phases.	All site offices and construction yard areas / Design and construction phases	ArchSD's Contractor	Construction Phase		Implemented during construction phase
S.7.9.2 MC 4	S.6.3.1	Construction plant and building material: ▌ Shall be orderly and carefully stored in order to appear neat and avoid visibility from outside where practical. ▌ Excess materials shall be removed from site as soon as practical. ▌ All construction plants shall be removed from site upon completion of construction works.	Works site / Design and construction phases	ArchSD's Contractor	Construction Phase		Implemented during construction phase
S.7.9.2 MC 5	S.6.3.1	Construction light: ▌ To be oriented away from the viewing location of VSRs. ▌ All lighting facing sensitive receiver shall have frosted diffusers and reflective covers.	All construction lights / Design and construction phases	ArchSD's Contractor	Construction Phase		Implemented during construction phase
S.7.9.2 MC 6	S.6.3.1	Silting trap: ▌ Silting traps shall be installed to minimise silting to streams.	Streams / Construction phase	Contractor	Construction Phase		NA
S.7.9.3 MT 1	S.6.3.1	Compensation for losses: ▌ The tree compensation to tree loss ratio shall be at least 1:1 in term of quantity.	Within the Wo Hop Shek Crematorium	ArchSD's Contractor	Construction Phase	ETWB TCW No. 2/2004 ETWB TCW No. 3/2006	NA
S.7.9.3 MT 2	S.6.3.1	Where practical, trees that require removal shall be transplanted on Site.	Work site / Design and construction phases	ArchSD's Contractor	Construction Phase	ETWB TCW No. 2/2004 ETWB TCW No. 3/2006	Implemented during construction phase

EIA Ref	EM&A Ref.	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status
S.7.9.3 MT 3	S.6.3.1	Amenity planting: ▌Planting works shall be carried out under the supervision of a specialist landscape sub-contractor. ▌The rooftop of the cremation plant room shall be planted with lawn. ▌Open spaces shall be included Project. ▌Screen planting such as planting a roll of trees along the site boundary butting Kiu Tau Road shall be carried out. ▌New trees, shrubs and groundcover shall be carefully selected and designed to homogenize with the environment.	As shown on mitigation measure plans / All phases	ArchSD's & FEHD's Contractor	Construction Phase	ETWB 2/2004	NA
S.7.9.3 MT 4	S.6.3.1	Woodland mix planting: ▌Woodland mix, comprising of tree seedlings and shrubs, shall be planted within the Wo Hop Shek Cemetery to enhance the ecological value and compensatory of tree loss.	Within the Wo Hop Shek Cemetery / All phases	ArchSD's Contractor	Construction Phase	ETWB TCW No. 2/2004ETWB TCW No. 3/2006	NA
S.7.9.3 MT 5	S.6.3.1	Preservation: No tree shall be transplanted or felled without prior approval by relevant Government departments. ▌All trees that are marked for retention shall be fenced off with a 1.2mhigh fence around the dripline of trees or larger area as far as feasible. ▌Transplant preparation works shall be carried as soon as possible after commencement of construction. Over-pruning such as hard pruning of tree crown, pollarding or topping shall be avoided. Rootball and crown pruning shall be carried out over at least 3 months. ▌Existing shrub and ground cover planting areas that will not be removed shall be maintained in good condition and enhanced where practical.	Work site / All phases	ArchSD's Contractor	Construction Phase	ETWB TCW No. 2/2004 ETWB TCW No.	Implemented during construction phase
S.7.9.4 MB 1	S.6.3.1	The 10m height headroom cremation plant room shall be half sunken to reduce the visual impact to pedestrians.	Cremation plant room / Design phase	ArchSD's Contractor	Construction Phase		NA
S.7.9.4 MB 2	S.6.3.1	The chimney shall be designed to have sculptural outlook and articulated.	Chimney / Design phase	ArchSD's Contractor	Construction Phase		NA
S.7.9.4 MB 3:	S.6.3.1	The chimney stacks shall be designed to locate at the least conspicuous location of the site to VSRs.	Chimney / Design phase	ArchSD's Contractor	Construction Phase		NA

EIA Ref	EM&A Ref.	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status
Landscape and Visual (EM&A)							
S.11.2.23 - S.11.2.24	S.6.2	Details of the inspection frequency and parameters will be outlined in the EM&A Manual.	Work site / Construction	Contractor	Construction Phase		NA
Water Quality (Construction Phase)							
S.8.7.1 - S.8.7.4	S.7.2.2	Construction Runoff and Drainage ▌Wastewater shall be properly treated to meet the discharge standards set out in the relevant Water Pollution Control Ordinance (WPCO) discharge licence. No direct discharge of site runoff into the two streams shall be allowed. ▌Provision of perimeter channels to intercept storm runoff from outside the Site. These shall be constructed in advance of site formation works and earthworks. ▌Sand/silt removal facilities such as sand traps, silt traps and sediment basins should be provided to remove sand/silt particles from runoff to meet the requirements of the Technical Memorandum standard under the WPCO. ▌Works shall be carefully programmed to minimise soil excavation works during rainy seasons. Exposed soil surface shall be protected by paving as soon as possible to reduce the potential of soil erosion. ▌Temporary access roads shall be protected by crushed gravel and exposed slope surfaces shall be protected when rainstorms are likely to occur. ▌Trench excavation shall be avoided in the wet season as far as practicable, and if necessary, these trenches shall be excavated and backfilled in short sections. ▌Open stockpiles of construction materials on Site shall be covered with tarpaulin or similar fabric during rainstorms. ▌Sand and silt in the wash water from the wheel from the wheel washing facility shall be settled out and removed before discharging into the storm drain. ▌Oil receptor shall be provided in the drainage system and regularly emptied to prevent the release of oil and grease into the storm drainage system after accidental spillage.	Work site / Construction	Contractor	Construction Phase	ProPECC PN 1-94 & WPCO	Implemented during construction phase

EIA Ref	EM&A Ref.	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status
S.8.7.5	S.7.2.3	General Construction Activities ▌ Debris and rubbish generated on Site shall be collected, handled and disposed of properly to avoid them entering the two streams. ▌ All fuel tanks and storage areas shall be provided with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank. ▌ Open storm water drains and culverts near the works area shall be covered to block the entrance of large debris and refuse.	Work site / Construction phase	Contractor	Construction Phase	ProPECC PN 1-94 & WPCO	Implemented during construction phase
S.8.7.6	S.7.2.4	Sewage from On-site Workforce: ▌ Portable chemical toilets shall handle the sewage from construction work force if the existing toilets in the Site are not adequate. Licensed contractors who shall be responsible for appropriate disposal and maintenance of these facilities shall provide appropriate and adequate portable toilets. ▌ Sheet piling shall be provided at suitable location around the basement excavation to reduce the effect of lowering the water table from any dewatering process. Any discharge of groundwater pumped out from any dewatering process of the construction works shall be treated to comply with the standards set in the relevant discharge licence prior discharge. No discharge of the groundwater shall be allowed into the two streams.	Work site / Construction phase	Contractor	Construction Phase	WPCO	Implemented during construction phase
Ecology (Construction Phase)							
S.9.8.3 -	S.8.3.1	Mitigation to minimise impacts on habitat and vegetation loss: ▌ Layout of the Project shall be carefully designed to avoid or minimise the area of habitat loss and the numbers to trees to be felled. ▌ All trees shall be preserved as far as possible, especially species of conservation concern. Recommendations to be provided in the Tree Survey Report to mitigate impacts on trees shall be followed. ▌ Disturbance of individuals of the shrub / tree Transplantation of the two shrub / tree species of conservation concern, namely *Aquilaria sinensis* and *Cibotium barometz*, shall be avoided. Where loss of these species would be unavoidable, it is recommended to transplant them to same habitats with similar conditions. Following transplantation, regular monitoring of these trees shall be conducted by a suitable qualified botanist / horticulturist over a 12-	Work site particularly semi- natural woodland / Design and construction phases.	Arch SD / Contractor	Construction Phase	ETWB Technical Circular No. 3/2006	Implemented during construction phase

EIA Ref	EM&A Ref.	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status
		month period. ▌ Transplantation of any affected trees to grassland / scrubland within theWo Hop Shek Cemetery. ▌ Compensatory planting of the felled trees shall follow the Technical Circular No. 3/2006 issued by ETWB.					
S.9.8.15 - S.9.8.16	S.8.3.1	Mitigation to construction runoff through general good site practice: ▌ Temporary access to the work sites shall be carefully planned and locatedto minimise disturbance caused to the streams and nearby habitats. ▌ Use of less or smaller construction plant may be specified toreduce disturbance to the streams and nearby habitats. ▌ Temporary sewage system shall be designed and installed to collect wastewater and prevent it from entering the streams and nearbyhabitats. ▌ The Site inside or in the proximity of the streams and nearby habitats shallbe temporarily isolated, such as by placing of sandbags or silt curtains with lead edge at bottom and properly supported props, to prevent adverse impacts on these areas. ▌ Natural bottom and existing flow in the streams shall be preserved as muchas possible to avoid disturbance to the stream habitats. ▌ Proper locations well away from the streams and nearby habitats for temporary storage of materials (e.g. equipment, filling materials, chemicals and fuel) and temporary stockpile of construction debris and spoil shall be identified before commencement of the works. ▌ Stockpiling of construction materials, if necessary, shall be properly covered and located away from the streams and nearby habitats. ▌ Construction debris and spoil shall be covered up and/or properly disposed of as soon as possible to avoid being washed into the streams and nearby habitats by rain. ▌ Construction effluent, site runoff and sewage shall be properly collectedand/or treated.	Work site / Construction phase	Contractor	Construction Phase	ETWB Technical Circular (Works) No. 5/2005.	Implemented during construction phase

EIA Ref	EM&A Ref.	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status
		▌Proper locations for discharge outlets of wastewater treatment facilities well away from the streams and nearby habitats shall be identified. ▌Vehicles and other plant shall be carefully maintained and properly used to minimise the chance for accidental spillage. ▌Any spillages that do occur shall be quickly identified and appropriately cleaned up before they can contaminate streams or groundwater. ▌Temporary geo-textile silt fences around earth moving works shall beerected to trap any sediments being washed away and prevent them from entering surrounding areas. ▌Silt traps shall be installed at points where drainage from the Site enters temporary sewage system. ▌Exposed soil or other loose materials shall be covered with tarpaulins to prevent erosion, and then seeded and covered with a biodegradable geo- textile blanket for erosion control purposes.					
S.9.8.18		Mitigation to protect the groundwater: ▌Basement formation or any construction activities likely to pump out a large quantity of groundwater shall be protected with sheet-piling at suitable locations around the basement footprint, or by any like method. ▌No groundwater shall be pumped back to the two stream courses to protect the natural integrity of the stream habitat and the associated organism.	Work site / Construction phase	Contractor	Construction Phase		NA
S.9.8.20	S.8.3.1	Mitigation for noise and other disturbance on ecological integrity: ▌Use of sturdy 1.8 metres protective fencing shall be located at the edge ofthe tree canopy but not around the trunk. ▌Works beneath the tree canopy shall be avoided: If encroachment under the canopy area is unavoidable, adequate protections shall be provided toensure no damage of any part of the tree would occur due to the encroachment. ▌An approved Landscape Contractor shall implement any tree transplanting and planting works. Quality control of the work shall be undertaken by a qualified Landscape Architect through site inspections and approval of works.	Work site / Construction phase	Contractor	Construction Phase		Implemented during construction phase

EIA Ref	EM&A Ref.	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status
		▌Construction works shall be restricted to works area which are clearly defined. ▌Woodland or other habitats that would be affected by the construction works shall be well-defined and minimised. ▌Human inference to habitats beyond the site boundary and habitats proposed to be retained shall be avoided by providing temporary barricades. ▌Works area shall be reinstated immediately after completion of the construction. ▌Waste and other garbage generated during the construction of the proposed development shall be dumped properly. ▌Uncontrolled fire shall be strictly prohibited. Appropriate fire control measures shall be provided in order to protect nearby habitats.					
Ecology (EM&A)							
S.9.11 & S.11.2.29	S.8.2.1	Audit/Inspection: ▌Regular site audit / inspection shall be conducted at least once a week to inspect the implementation of the recommended mitigation measures (details to be outlined in the EM&A Manual).	Work site / Construction phase	Contractor	Construction Phase		Implemented during construction phase
S.11.2.32 - S.11.2.33	S.8.2.2 - S.8.2.4	Monitoring on Transplantation: ▌Trees requiring transplantation or protection shall be identified based on the information illustrated in the Tree Survey Report. ▌Regular monitoring after transplantation of Aquilaria sinensis and Cibotium barometz individuals shall be conducted to check on the health and conditions of the plants. Monitoring shall cover the 12-month period following transplantation. The monitoring shall be conducted by a suitably qualified botanist / horticulturist at least twice a month for the first four months after transplantation, and once a month for the remaining eight months.	Work site / Construction phase	Contractor	Construction Phase		Implemented during construction phase

APPENDIX D: EVENT/ACTION PLAN FOR DUST EXCEEDANCE

Event	Action			
	ET	IEC	AR	Contractor
Action Level				
1. Exceedance for one sample	1. Identify source, investigate the causes of complaint and propose remedial measures; 2. Inform IEC and AR; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method.	1. Notify Contractor.	1. Rectify any unacceptable practice; 2. Amend working methods if appropriate.
2. Exceedance for two or more consecutive samples	1. Identify source; 2. Inform IEC and AR; 3. Advise the AR on the effectiveness of the proposed remedial measures; 4. Repeat measurements to confirm findings; 5. Increase monitoring frequency to daily; 6. Discuss with IEC and Contractor on remedial actions required; 7. If exceedance continues, arrange meeting with IEC and AR;	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ET on the effectiveness of the proposed remedial measures; 5. Supervise Implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Submit proposals for remedial to AR within three working days of notification; 2. Implement the agreed proposals; 3. Amend proposal if appropriate.

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

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

APPENDIX E: THE CERTIFICATION OF LABORATORY CERTIFICATE

Hong Kong Accreditation Service
香港認可處

Certificate of Accreditation
認可證書

This is to certify that
特此證明

ALS TECHNICHEM (HK) PTY LIMITED

11/F, Chung Shun Knitting Centre, 1-3 Wing Yip Street, Kwai Chung, New Territories, Hong Kong
香港新界葵涌永業街1-3號忠信針織中心11樓

is accredited by the Hong Kong Accreditation Service (HKAS) to ISO/IEC 17025:2017
for performing specific laboratory activities as listed in the scope of accreditation within the test category of
獲香港認可處根據ISO/IEC 17025:2017認可
進行載於認可範圍內下述測試類別中的指定實驗所活動

Environmental Testing
環境測試

This accreditation to ISO/IEC 17025:2017 demonstrates technical competence for a defined scope and the implementation of a management system relevant to laboratory operation (see joint IAF-ILAC-ISO Communiqué).
此項 ISO/IEC 17025:2017 的認可資格證明此實驗所具備指定範疇內所須的技術能力並實施一套與實驗所運作相關的管理體系（見國際認可論壇、國際實驗所認可合作組織及國際標準化組織的聯合公報）。

The common seal of HKAS is affixed hereto by the authority of the HKAS Executive
現經香港認可處執行機關授權在此蓋上香港認可處的印章

SHUM Wai-leung, Executive Administrator
執行幹事 沈偉良
Issue Date : 28 February 2020
簽發日期：二零二零年二月二十八日

Registration Number : HOKLAS 066
註冊號碼：

Date of First Registration : 15 September 1995
首次註冊日期：一九九五年九月十五日

This certificate is issued subject to the terms and conditions laid down by HKAS
本證書按照香港認可處訂立的條款及條件發出

L001934

Hong Kong Accreditation Service
香港認可處

Certificate of Accreditation
認可證書

This is to certify that
特此證明

ACUMEN LABORATORY AND TESTING LIMITED
浩科檢測中心有限公司

Flat/Rm D, 12/F, Ford Glory Plaza, Nos. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong
香港九龍長沙灣永康街37-39號福源廣場12樓D室

is accredited by the Hong Kong Accreditation Service (HKAS) to ISO/IEC 17025:2017
for performing specific laboratory activities as listed in the scope of accreditation within the test category of
獲香港認可處根據ISO/IEC 17025:2017認可
進行載於認可範圍內下述測試類別中的指定實驗所活動

Environmental Testing
環境測試

This accreditation to ISO/IEC 17025:2017 demonstrates technical competence for a defined scope and the implementation of a management system relevant to laboratory operation (see joint IAF-ILAC-ISO Communiqué).
此項 ISO/IEC 17025:2017 的認可資格證明此實驗所具備指定範疇內所須的技術能力並實施一套與實驗所運作相關的管理體系
(見國際認可論壇、國際實驗所認可合作組織及國際標準化組織的聯合公報)。

The common seal of HKAS is affixed hereto by the authority of the HKAS Executive
現經香港認可處執行機關授權在此蓋上香港認可處的印章

SHUM Wai-leung, Executive Administrator
執行幹事 沈偉良
Issue Date : 15 November 2021
簽發日期：二零二一年十一月十五日

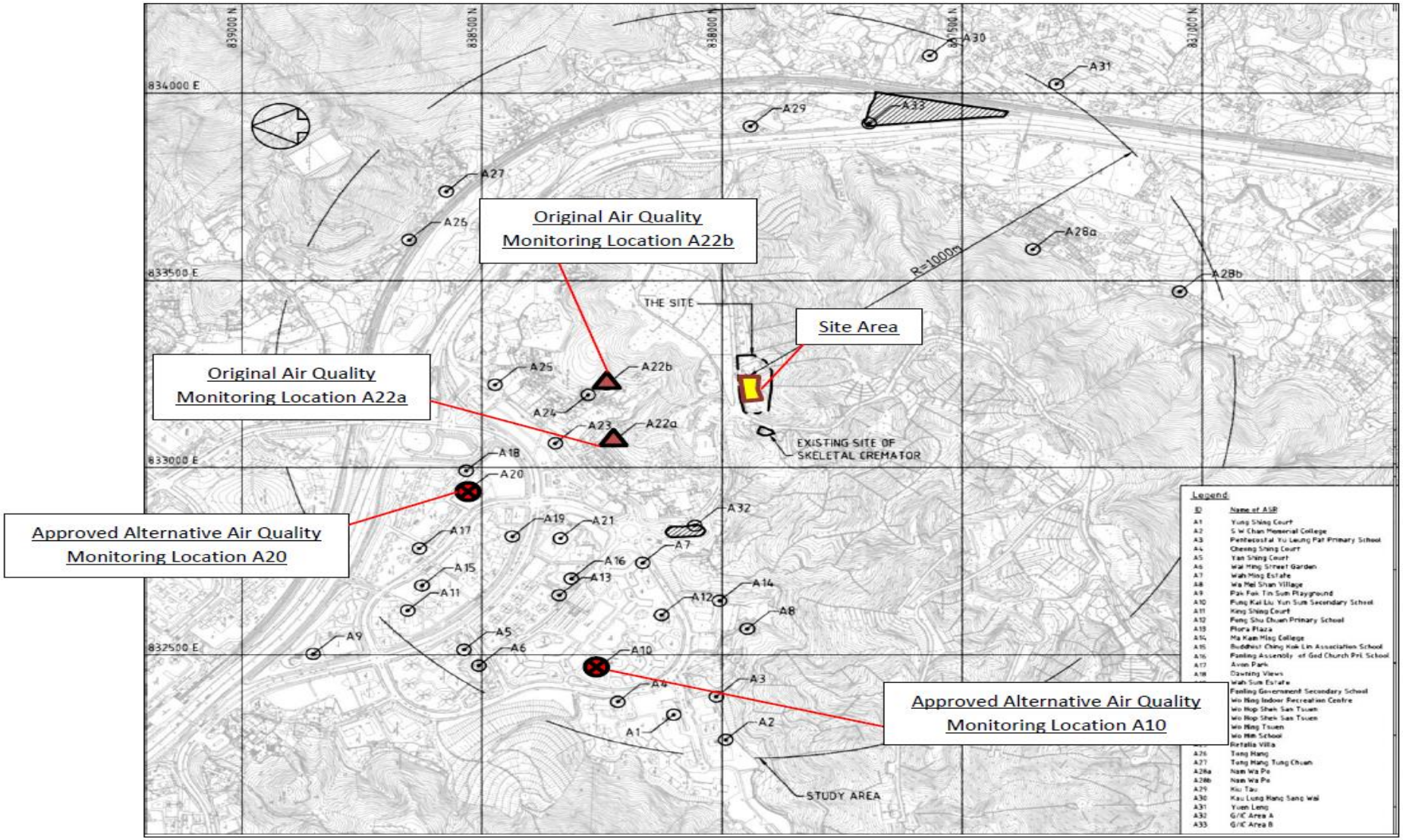
Registration Number : HOKLAS 241
註冊號碼：

Date of First Registration : 16 July 2014
首次註冊日期：二零一四年七月十六日

This certificate is issued subject to the terms and conditions laid down by HKAS
本證書按照香港認可處訂立的條款及條件發出

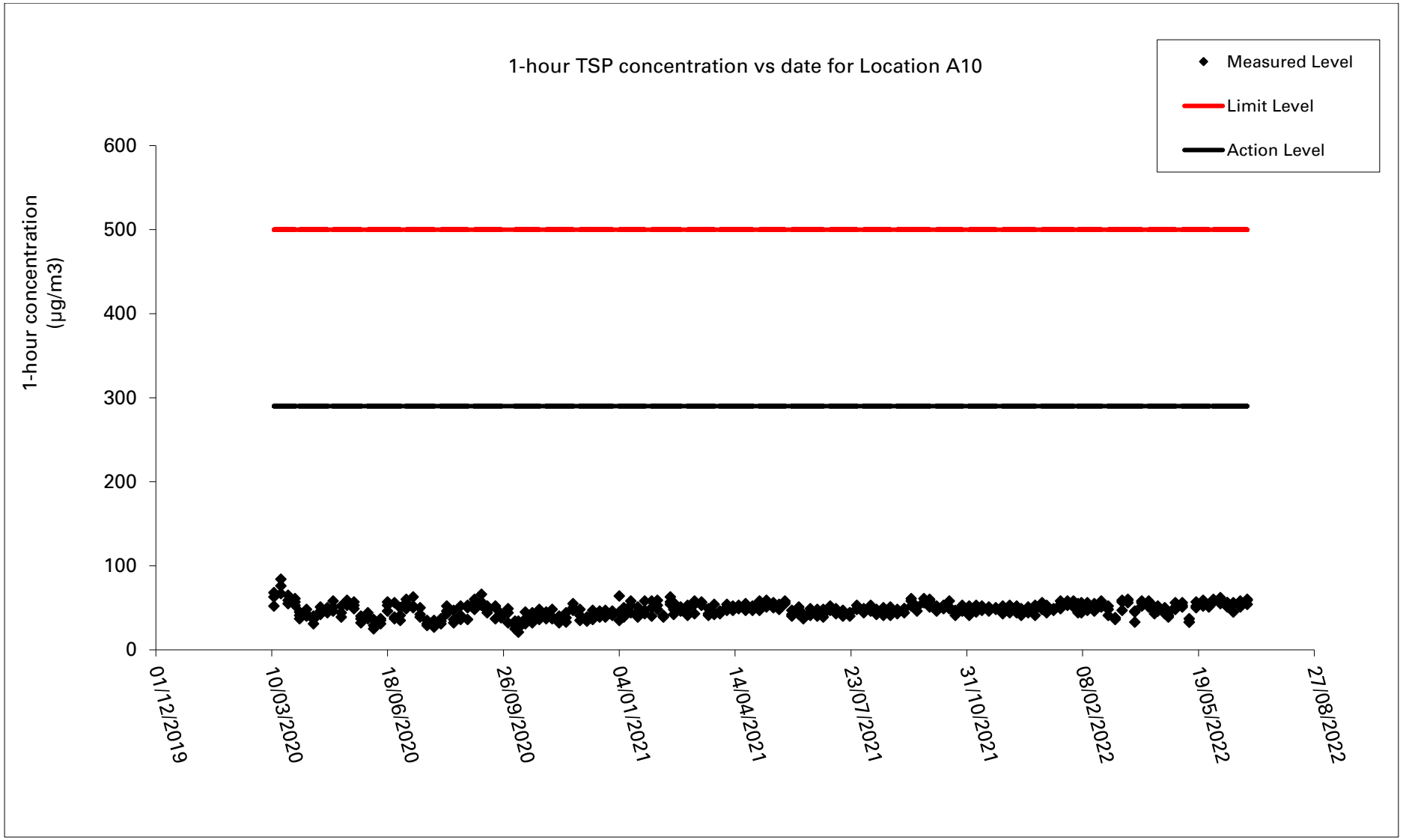
L002316

APPENDIX F: LOCATION PLAN OF AIR QUALITY MONITORING STATION

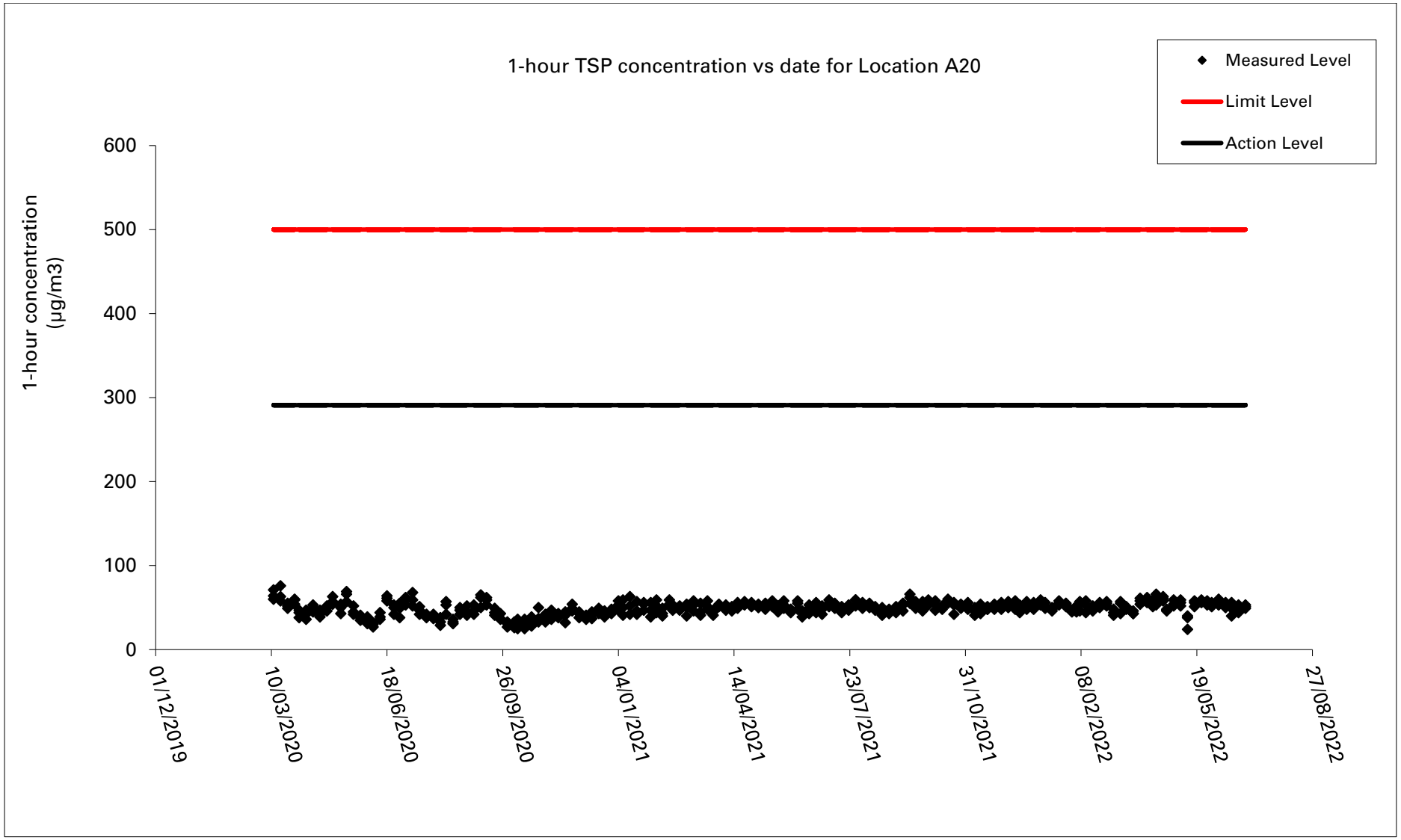


APPENDIX G: AIR QUALITY MONITORING DATA

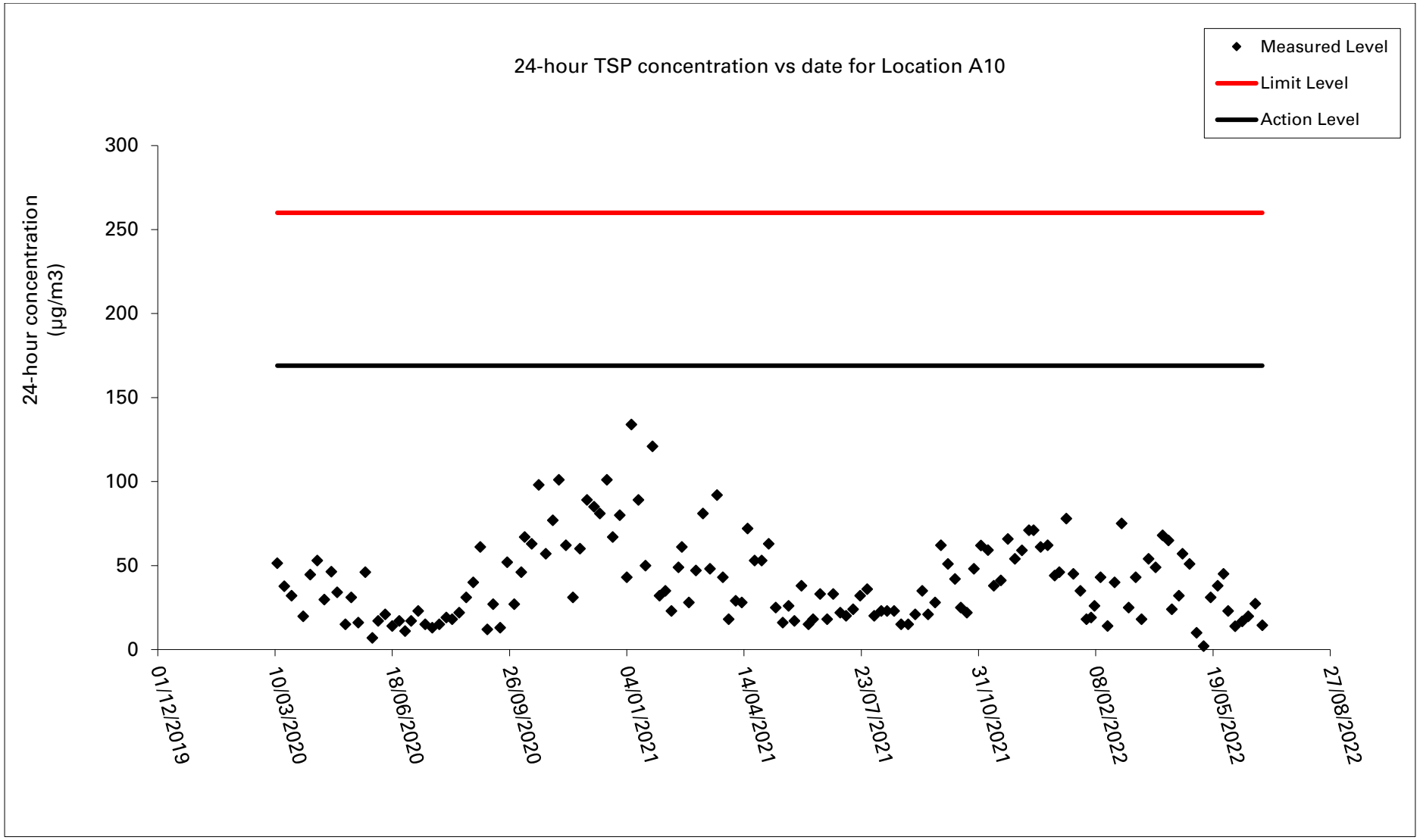
The Summary of 1-hour TSP Concentration (µg/m³) at A10



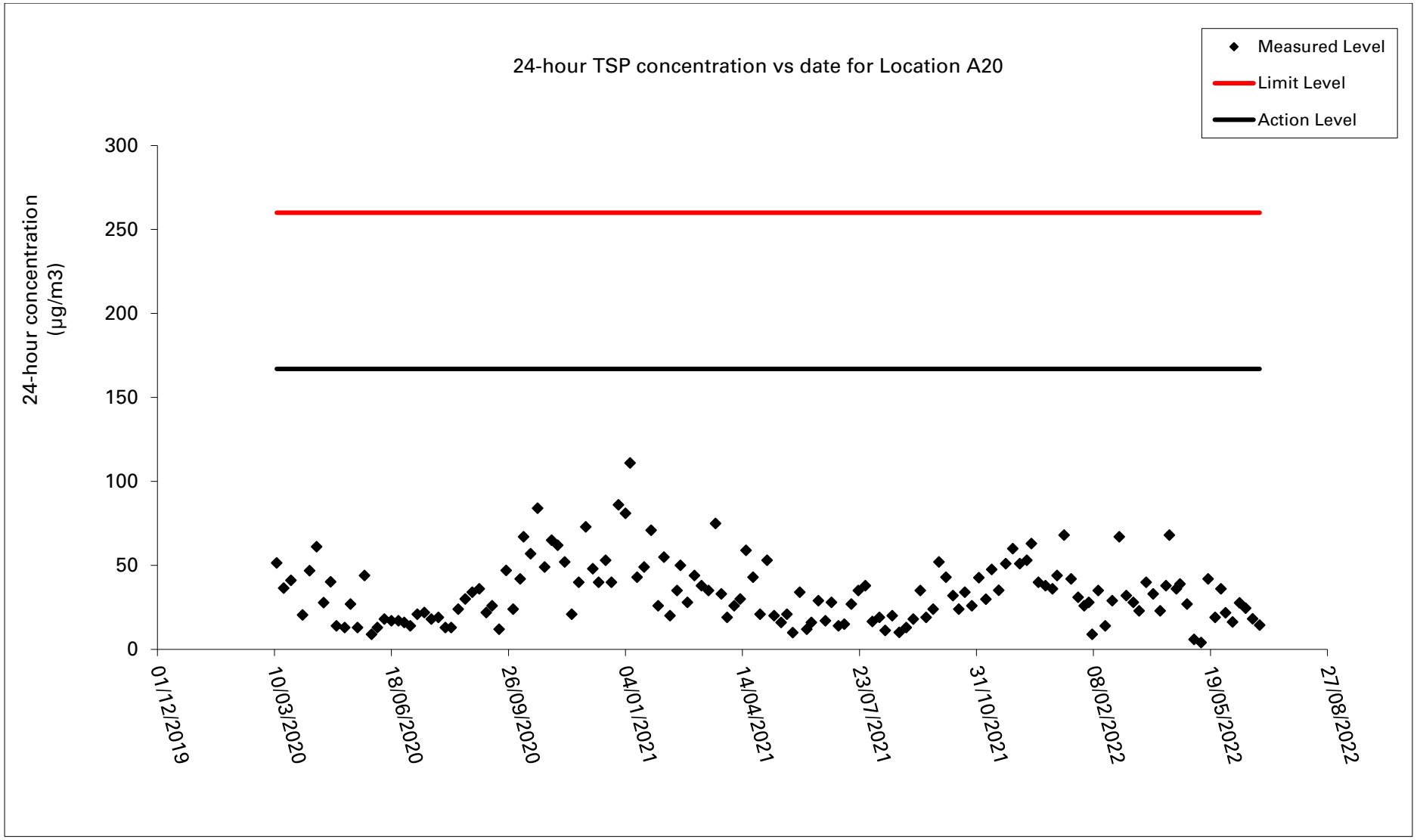
The Summary of 1-hour TSP Concentration (μg/m³) at A20



The Summary of 24-hour TSP Concentration (μg/m³) at A10



The Summary of 24-hour TSP Concentration (μg/m³) at A20



APPENDIX H: WASTE FLOW TABLE

Reporting Month	Total Quantity Generated	Actual Quantities of Inert C&D Materials Generated Monthly					Actual Quantities of C&D Wastes Generated Monthly				
		Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / cardboard packaging	Plastics (see Note)	Chemical Waste	Others, e.g. general refuse
	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)
March 2020	1.35	0	0	0	1.35	0	0	0	0	0	0
April 2020	1472.9	0	614.00	0	855.61	0	0	0	0	0	3.29
May 2020	213.75	0	0	0	205.94	0	0	0	0	0	7.81
June 2020	1.86	0	0	0	0	0	0	0	0	0	1.86
July 2020	4.95	0	0	0	0	0	0	0	0	0	4.95
August 2020	308.99	0	0	0	306.38	0	0	0	0	0	2.61
September 2020	31.11	0	0	0	22.38	0	0	0	0	0	8.73
October 2020	18.08	0	0	0	14.33	0	0	0	0	0	3.75
November 2020	1.42	0	0	0	0	0	0	0	0	0	1.42
December 2020	16.99	0	0	0	14.88	0	0	0	0	0	2.11
January 2021	25.87	0	0	0	22.12	0	0	0	0	0	3.75
February 2021	2.00	0	0	0	0	0	0	0	0	0	2.00

Reporting Month	Total Quantity Generated	Actual Quantities of Inert C&D Materials Generated Monthly					Actual Quantities of C&D Wastes Generated Monthly				
		Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / cardboard packaging	Plastics (see Note)	Chemical Waste	Others, e.g. general refuse
	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)
March 2021	3.79	0	0	0	0	0	0	0	0	0	3.79
April 2021	7.40	0	0	0	0	0	0	0	0	0	7.40
May 2021	8.30	0	0	0	0	0	0	0	0	0	8.30
June 2021	11.12	0	0	0	0	0	0	0	0	0	11.12
July 2021	19.70	0	0	0	7.73	0	0	0	0	0	11.97
August 2021	20.29	0	0	0	14.95	0	0	0	0	0	5.34
September 2021	219.20	0	0	0	214.71	0	0	0	0	0	4.49
October 2021	23.59	0	0	0	14.62	0	0	0	0	0	8.97
November 2021	59.40	0	0	0	52.88	0	0	0	0	0	6.52
December 2021	14.85	0	0	0	0	0	0	0	0	0	14.85
January 2022	64.95	0	0	0	54.69	0	0	0	0	0	10.26
February 2022	6.09	0	0	0	0	0	0	0	0	0	6.09

Reporting Month	Total Quantity Generated	Actual Quantities of Inert C&D Materials Generated Monthly					Actual Quantities of C&D Wastes Generated Monthly				
		Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / cardboard packaging	Plastics (see Note)	Chemical Waste	Others, e.g. general refuse
	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)
March 2022	13.87	0	0	0	0	0	0	0	0	0	13.87
April 2022	6.08	0	0	0	0	0	0	0	0	0	6.08
May 2022	82.71	0	0	0	56.56	0	0	0	0	0	26.15
June 2022	2.28	0	0	0	0	0	0	0	0	0	2.28

Remarks: The major excavation works were conducted in April and May 2020, approximately 1675.55 tonnes of inert excavated materials were generated. 614 tonnes of excavated materials were stored in the material storage area for the subsequent backfilling. Due the limited space and the construction of basement and other substructure works, the remaining 1061.55 tonnes of excavated material were delivered to public fill reception facilities. Some minor excavation works may be conducted in the later work processes.

APPENDIX I: STATISTICS ON COMPLAINT, NOTIFICATIONS OF SUMMONS AND SUCCESSFUL PROSECUTIONS

Statistical Summary of Exceedances

Air Quality			
Location	**Action Level**	**Limit Level**	**Total**
A10	0	0	0
A20	0	0	0

Statistical Summary of Environmental Complaints

Reporting Period	**Environmental Complaint Statistics**		
	Frequency	**Cumulative**	**Complaint Nature**
10 March 2020 – 30 June 2022	0	0	N/A

Statistical Summary of Environmental Non-compliance

Reporting Period	**Environmental Non-compliance Statistics**		
	Frequency	**Cumulative**	**Details**
10 March 2020 – 30 June 2022	0	0	N/A

Statistical Summary of Environmental Summons

Reporting Period	**Environmental Summons Statistics**		
	Frequency	**Cumulative**	**Details**
10 March 2020 – 30 June 2022	0	0	N/A

Statistical Summary of Environmental Prosecution

Reporting Period	**Environmental Prosecution Statistics**		
	Frequency	**Cumulative**	**Details**
10 March 2020 – 30 June 2022	0	0	N/A

APPENDIX J: LETTER OF SUBSTANTIAL COMPLETION FOR PHASE 3

30-JUN-2022 11:14 FROM TO 27433198 P.001

ARCHITECTURAL SERVICES DEPARTMENT 建築署

QUEENSWAY GOVERNMENT OFFICES, 66 QUEENSWAY, HONG KONG. 香港金鐘道六十六號金鐘道政府合署

Our Ref. : ASD52/8417/ALG513/C25/001
Tel. : 2867 3801
Fax No. : 2524 8194

By Fax (2743 3198) and By Collection

Shing Hing Construction Company Limited
Unit 1, 28/F, CEO Tower,
77 Wing Hong Street, Cheung Sha Wan,
Kowloon, Hong Kong

28 June 2022

Attn: Mr. Wong Ming Yip (Site Agent)

Dear Sirs,

Letter of Substantial Completion for Section 3 of the Works

Contract No. : AL G513
Contract Title : Expansion of Wo Hop Shek Crematorium (Programme No. 026NB)

Section 3 of the Works for the above Contract was recently substantially completed and the attached sheet lists the defects and outstanding work to be completed during the Maintenance Period.

2. On receiving from you a written undertaking to complete the defects rectification and outstanding work within the respective time frame, a certificate of completion in respect of Section 3 of the Works will be issued.

3. Please be reminded that notwithstanding the defects mentioned in the list, the Supervising Officer shall order any defective work to be rectified by you during the Maintenance Period or within 14 days after its expiry in accordance with Clause 56 of the General Conditions of Contract.

Yours faithfully

(M. C. CHUNG)
Chief Architect/2
The Supervising Officer for
the Contract

Encl. - list of defects and outstanding work
c.c. (w/ encl.)
PM - Mr. Jairus WONG (via SPM336)
PSE - Mr. Sammy YUE
PBSE - Mr. Tiger LAU (via SEME/2A)
PLA - Ms. Jenny LEUNG
LQS - Ms. Kathy TSUI
PQS - Ms. Veronica WONG (KCT Fax: 2865 4751)
File via STO(A)/AB2/7
JGSL/TYPY

PSM - Ms. CHU Pui-ki, Maggie
PCOW - Mr. HUNG Fan-leung
PBSI - Mr. LO Shi-yi
PEMI - Mr. CHAN Kwok-ki
EC&IEC - Mr. Franki Chiu (Arup Fax: 2268 3950)

APPENDIX K: TRANSPORTATION ROUTES TO/FROM THE SITE

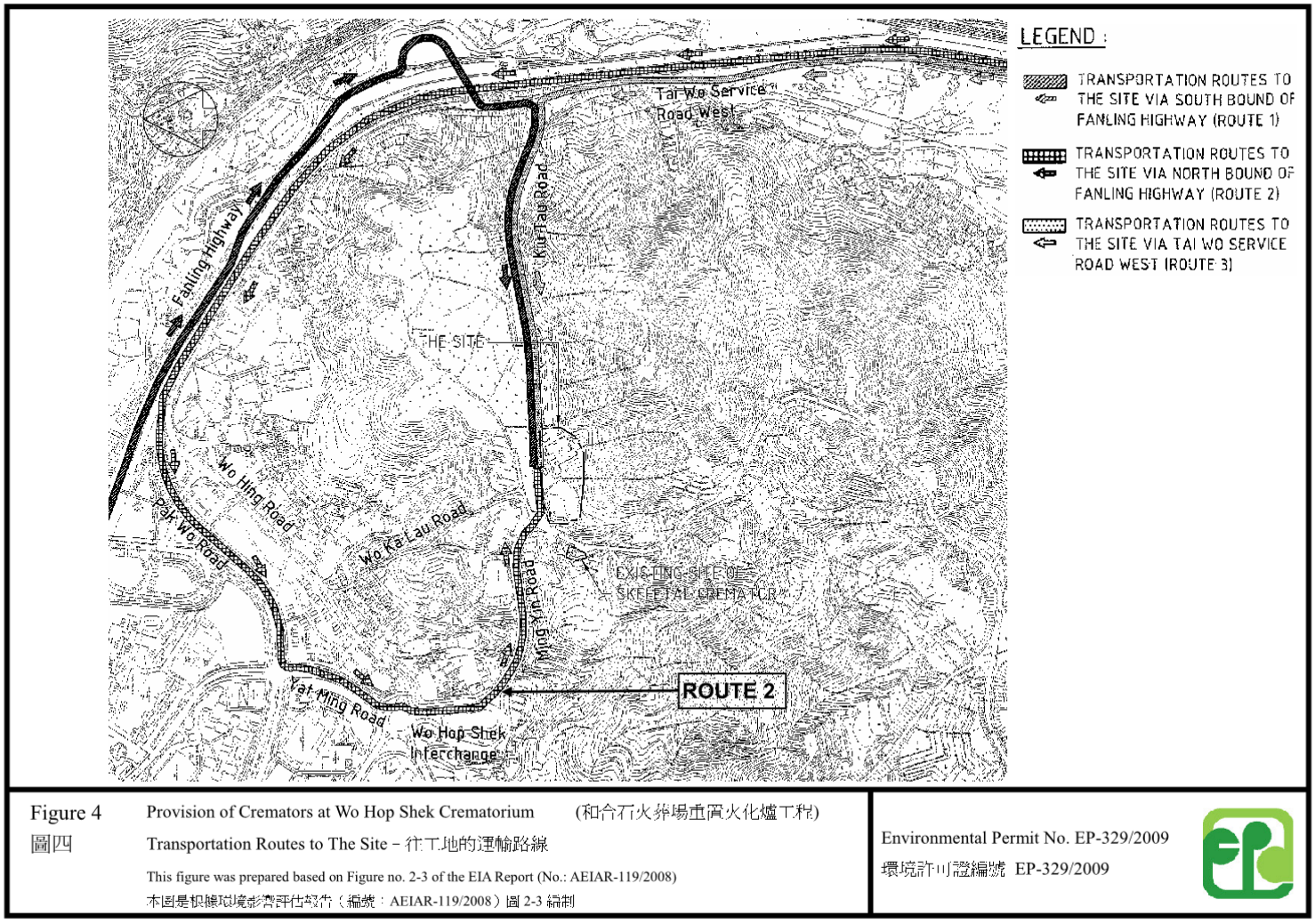


Figure 4 Provision of Cremators at Wo Hop Shek Crematorium (和合石火葬場重置火化爐工程)
圖四 Transportation Routes to The Site – 往工地的運輸路線

This figure was prepared based on Figure no. 2-3 of the EIA Report (No.: AEIAR-119/2008)
本圖是根據環境影響評估報告（編號：AEIAR-119/2008）圖 2-3 編制

Environmental Permit No. EP-329/2009
環境許可證編號 EP-329/2009

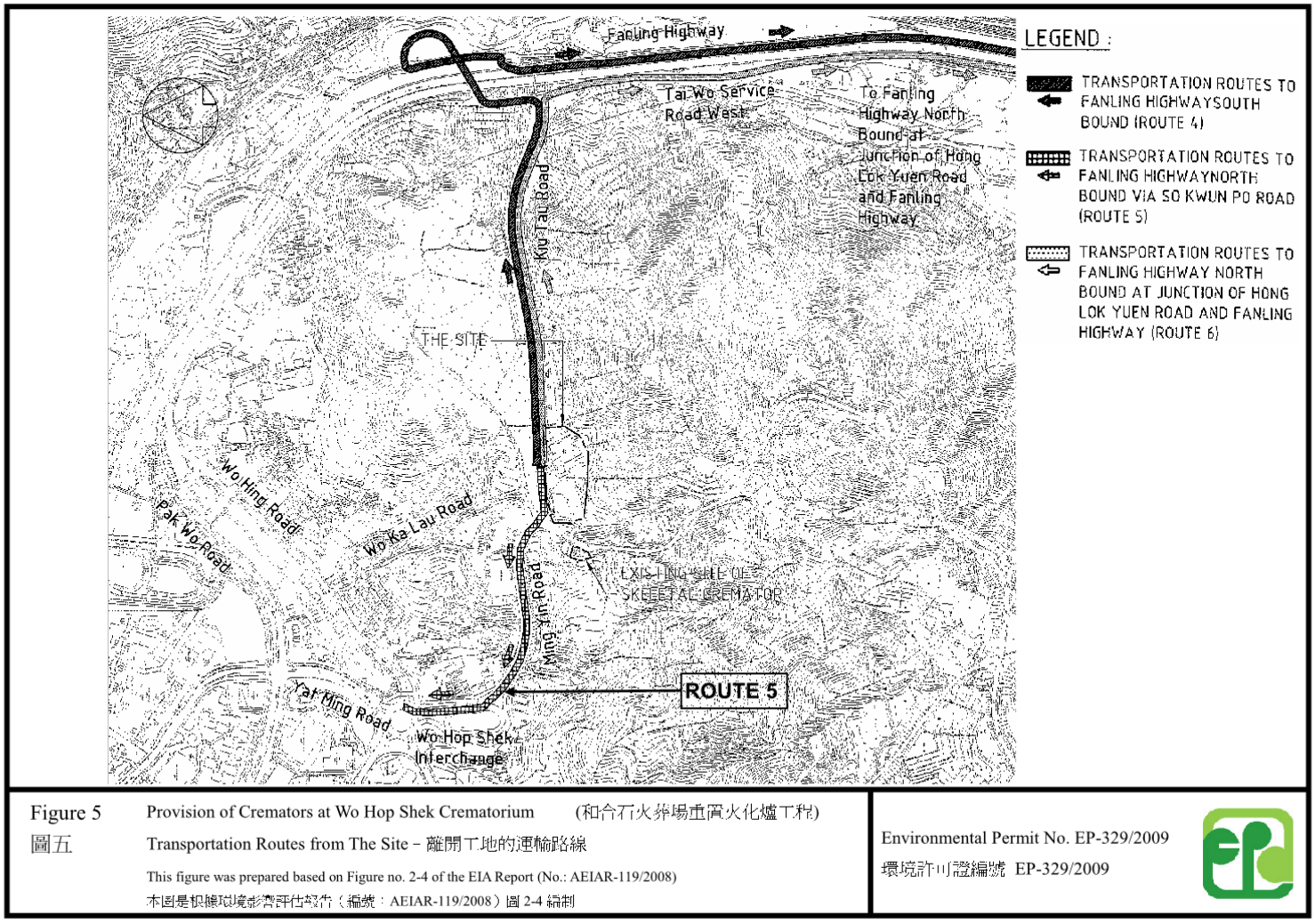


Figure 5 Provision of Cremators at Wo Hop Shek Crematorium (和合石火葬場重置火化爐工程)
圖五 Transportation Routes from The Site – 離開工地的運輸路線

This figure was prepared based on Figure no. 2-4 of the EIA Report (No.: AEIAR-119/2008)
本圖是根據環境影響評估報告（編號：AEIAR-119/2008）圖 2-4 編制

Environmental Permit No. EP-329/2009
環境許可證編號 EP-329/2009