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Contract No. AL G513

Expansion of Wo Hop Shek Crematorium

Monthly EM&A Report No.22
(Period from 01 December to 31 December 2021)

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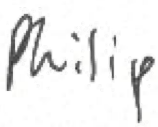
Signature			
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EXECUTIVE SUMMARY

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 a 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 22nd Monthly 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 reporting period from 01 December 2021 to 31 December 2021.

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 MAIN WORKS UNDERTAKEN & KEY MITIGATION MEASURES IMPLEMENTED

A5. Key activities carried out in this reporting period for the Project included the following:

- Fitting out
    1. Interior fitting out works
    2. External wall plastering, tiling & cladding
    3. Steel and metal works
- Construction to pedestrian pavement

A6. The major environmental impacts brought by the above construction works include:

- Construction noise generation from fitting out and pedestrian pavement activities
- Wastewater generation from pedestrian pavement activities
- Waste generation from fitting out and pedestrian pavement activities

A7. The key environmental mitigation measures implemented for the Project in this reporting period associated with the above construction works include:

- Reducing noise from equipment and machinery on-site by enclosing the construction site with plastic barrier and moving equipment and machinery inside the constructed building
- Treatment of wastewater from pedestrian pavement activities through sedimentation tank, wastewater was reused on-site and was not discharged
- Sorting and storage of general refuse and construction waste

SUMMARY OF EXCEEDANCE & INVESTIGATION & FOLLOW-UP

A8. No project-related exceedance in air quality monitoring, including 24-hour TSP and 1-hour TSP of the Action Level was recorded during the reporting period.

A9. Weekly site inspections of the construction work by ET were carried out on 01, 08, 15, 20 and 29 December 2021 to audit the mitigation measures implementation status. Observations were recorded in the site inspection checklists and provided to the contractors together with the appropriate follow-up actions where necessary.

COMPLAINT HANDLING AND PROSECUTION

A10. No project-related environmental complaint was received during the reporting period.

A11. Neither notifications of summons nor prosecution was received for the Project.

REPORTING CHANGE

A12. There was no change to be reported that may affect the on-going EM&A programme.

SUMMARY OF UPCOMING KEY ISSUES AND KEY MITIGATION MEASURES

A13. Key activities anticipated in the next reporting period for the Project will include the following:

- Fitting out
    1. Interior fitting works
    2. Steel and metal works
    3. Suspended ceiling
    4. Painting
- Construction to pedestrian pavement
- Re-instate to pedestrian pavement & EVA

A14. The major environmental impacts brought by the above construction works will include:

- Construction noise generation from fitting out and pedestrian pavement activities
- Wastewater generation from pedestrian pavement activities
- Waste generation from fitting out and pedestrian pavement activities

A15. The key environmental mitigation measures for the Project in the coming reporting period associated with the above construction works will include:

- Reducing noise from equipment and machinery on-site by enclosing the construction site with plastic barrier and moving equipment and machinery inside the constructed building
- Treatment of wastewater from pedestrian pavement activities through sedimentation tank, wastewater would be reused on-site and not be discharged
- Sorting and storage of general refuse and construction waste

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. Architectural Services Department (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 22nd Monthly EM&A Report for the Project which summarizes the key findings of the EM&A programme during the reporting period from 01 December to 31 December 2021.

1.3. PROJECT ORGANIZATION

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

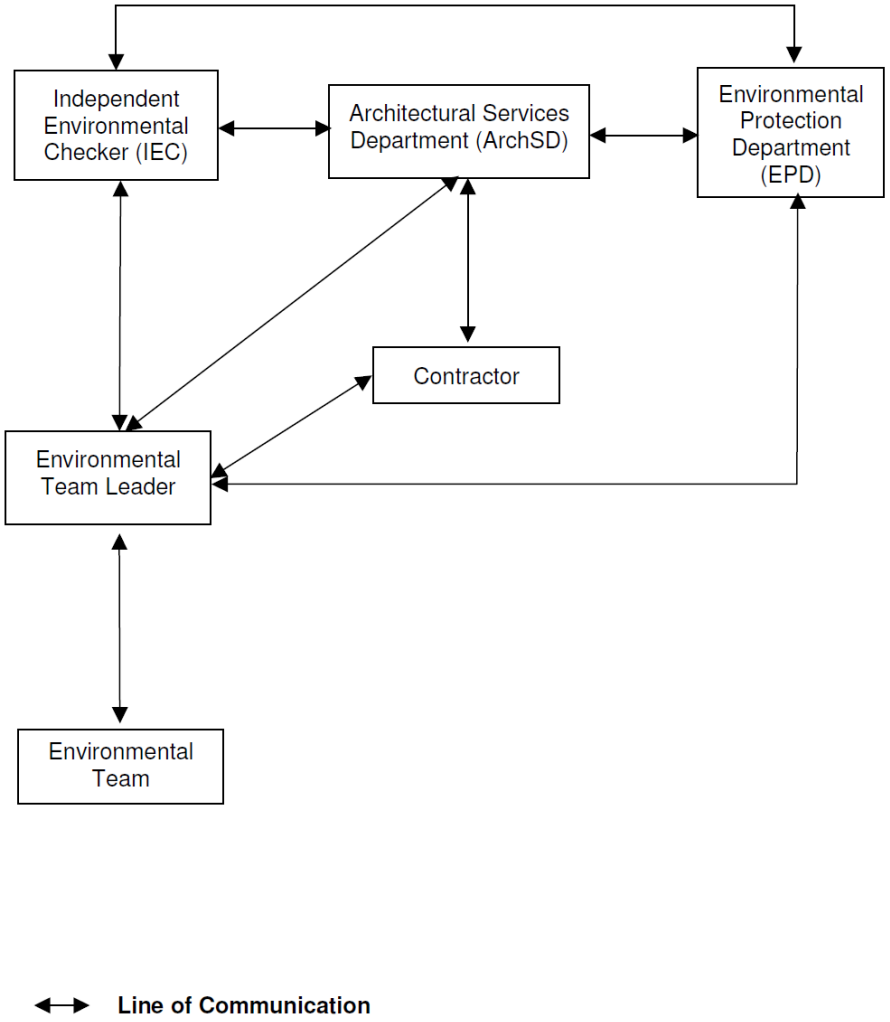


Figure 1.1 Project Organization Chart

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

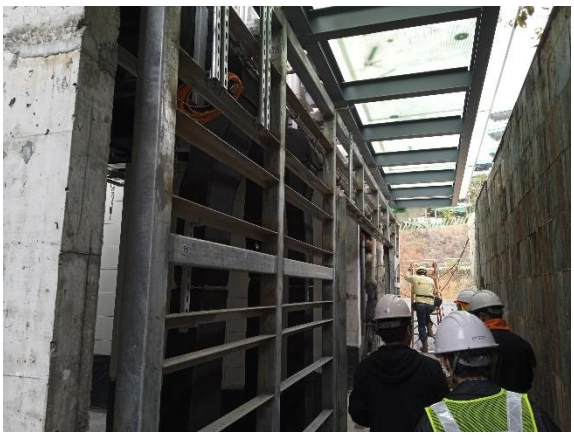
Table 1.1 Contact Details of Key Personnel

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 in this reporting 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 Reporting Month

Reporting Month	Construction Activities
December 2021	1. Fitting out   

	2. Construction to pedestrian pavement 

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	13 Mar 2019
Condition 2.5	Landscape Plan with Tree Preservation Proposal	14 Feb 2018
Condition 5.2a	Baseline Monitoring Report	21 Jan 2020
Condition 5.2b	Alternative Air Quality Monitoring Station	05 Oct 2019
Condition 5.4	Monthly EM&A Report (December 2021)	14 Jan 2022

A summary of the valid permits, licences, and /or notifications on environmental protection for this Project is presented in Table 1.4.

Table 1.4 Summary of the Status of Valid Environmental Licence, Notification, Permit and Documentations

Permit/ Licences/ Notification	Reference	Validity Period	Remarks
Environmental Permit	EP-329/2009	Throughout the Contract	-
Notification of Construction Works under the Air Pollution Control (Construction Dust) Regulation (Form NA)	Ref. Number: 455614	Throughout the Contract	-
Wastewater Discharge Licence	WT00034798-2019	10 Oct 2020 – 31 Oct 2024	-
Chemical Waste Producer Registration	5213-632-S4245-01	Throughout the Contract	-
Construction Noise Permit (24 hours) (Renewal)	GW-RN0401-21	13 Jul 2021 – 12 Jan 2022	-
Billing Account for Disposal of Construction Waste	7032841	Throughout the Contract	-

The status for all environmental aspects is presented in Table 1.5.

Table 1.5 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	On-going
Waste Management	
Mitigation Measures in Waste Monitoring Plan	On-going
Environmental Audit	
Site Inspection covering Measures of Air Quality, Noise, Water Quality, Waste, Ecological Quality, Landscape and Visual	On-going

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 in the reporting month.

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. Valid calibration certificate of dust monitoring equipment is attached in **Appendix F**.

A summary of the equipment that was deployed for the 24- hour averaged monitoring is shown in Table 2.1. The TSP monitoring was conducted as per the schedule presented in **Appendix D**.

The equipment used for 1-hour TSP and 24-hour TSP measurement and calibration are summarised in Table 2.1

Table 2.1 Construction Dust Monitoring Equipment

Monitoring Parameter	Monitoring Equipment	Serial Number	Date of Calibration
1-hour TSP	LD-5R Digital Dust Indicator	761173	01 Jul 2021
1-hour TSP	LD-5R Digital Dust Indicator	761174	01 Jul 2021
24-hour TSP	TE-5170X High Volume Sampler	1049	01 & 17 Dec 2021
24-hour TSP	TE-5170X High Volume Sampler	1050	01 & 17 Dec 2021

Monitoring Parameter	Monitoring Equipment	Serial Number	Date of Calibration
24-hour TSP	TE-5028A Calibration Kit	3702	03 Aug 2021

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 G**;
- 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. The calibration records for the HVS is given in **Appendix F**.

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 H**.

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

2.6. RESULT SUMMARY

According to our field observations, the major dust source identified at the designated air quality monitoring station in the reporting month 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

Air quality impact monitoring for the reporting month was carried out on 01, 07, 13, 17, 23 and 29 December 2021 at A10 and A20.

The results for 1-hour TSP and 24-hour TSP are summarized in Table 2.5 and Table 2.6. The measurement data and details of influencing factors such as weather conditions and site observation are presented in **Appendix I**.

Table 2.5 Summary of 1-hour TSP Monitoring Results

Monitoring Location	Range(μg/m³)	Action Level(μg/m³)	Limit Level(μg/m³)
A10	41 - 53	290	500
A20	44 - 58	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	54 - 71	169	260
A20	38 - 63	167	260

3. WASTE

3.1. WASTE RECORD OF REPORTING MONTH

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 in the reporting month are summarised in Table 3.1. Details of cumulative waste management data are presented as a waste flow table in **Appendix J.**

Table 3.1 Quantities of Waste Generated from the Project during December 2021

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)
December 2021	14.85	0	0	0	0	0	0	0	0	0	14.85

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.  Three-colour recycle bins  Enclosed rubbish bin for general waste 

Types of Waste	Mitigation Measures
	Skip for non-inert C&D waste 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 on-site.  Timber for formwork was reused on-site
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.  No excavated material was stored at material storage area in the reporting month.

Types of Waste	Mitigation Measures
	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.  Chemical with remaining functional capacity was stored in a designated area and reused on-site.

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 carried out on 01, 15 and 29 December 2021.

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

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

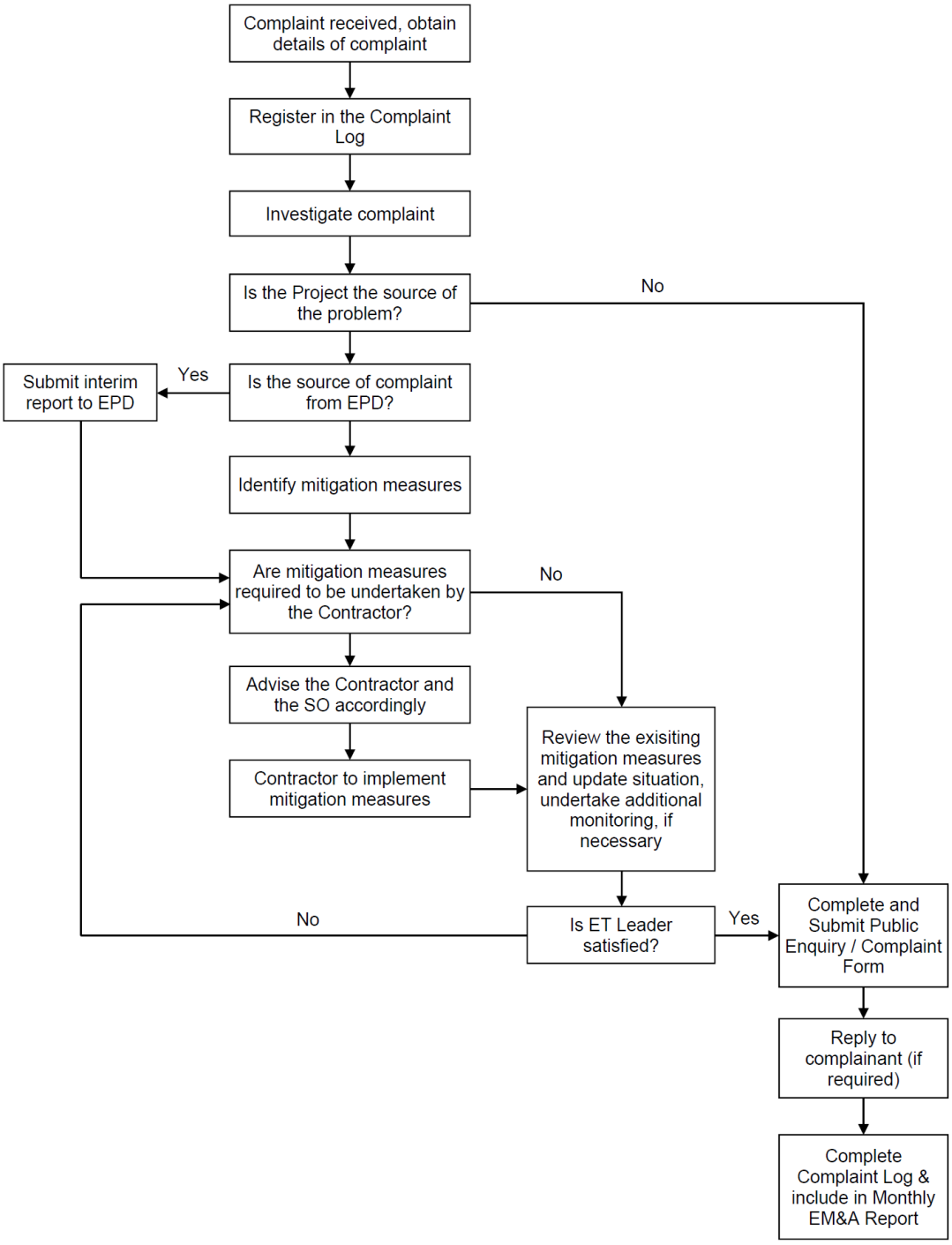


Figure 6.1 Environmental Complaint Handling Procedures

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 L**.

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. In the reporting period, site inspections were carried out on 01, 08, 15, 20 and 29 December 2021 at the site portions list in Table 7.1 below.

Table 7.1 Summaries of Site Inspection Record

Date	Inspected Site Portion	Time
01 December 2021	Wo Hop Shek Crematorium	10:00 – 10:20 AM
08 December 2021	Wo Hop Shek Crematorium	09:30 – 09:50 PM
15 December 2021	Wo Hop Shek Crematorium	10:00 – 10:15 AM
20 December 2021	Wo Hop Shek Crematorium	10:30 – 10:45 AM
29 December 2021	Wo Hop Shek Crematorium	10:00 – 10:20 AM

Environmental deficiencies were observed during weekly site inspection. Key observations during the site inspections and during the reporting period are summarized in **Table 5.2**.

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 N**. 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 in the reporting period. The detailed status of the implementation is provided in the section 5 in **Appendix K** of each site inspection.

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

Site inspection proforma of the reporting period is provided in **Appendix K**.

Table 7.2 Site Observations

Date	Environmental Observations	Follow-up Status
01 Dec 2021 (Site inspection)	Observation(s) 1. No major observation was observed. Reminder(s) 1. Housekeeping should be maintained.	Nil.
08 Dec 2021 (Site inspection)	Observation(s) 1. Chemical material should be placed on drip tray. Reminder(s) Nil	1. Chemicals were removed.
15 Nov 2021 (Site inspection)	Observation(s) 1. No major observation was observed. Reminder(s) 1. Housekeeping should be maintained. 2. Chemical in-use should be placed on drip tray.	Nil.
20 Dec 2021 (Site inspection)	Observation(s) 1. No major observation was observed. Reminder(s) 1. Housekeeping should be maintained.	Nil.
29 Dec 2021 (Site inspection)	Observation(s)	Nil.

Date	Environmental Observations	Follow-up Status
	1. No major observation was observed. <u>Reminder(s)</u> 1. Housekeeping should be maintained.	

8. FUTURE KEY ISSUES

Works to be undertaken in the next reporting month are:

- Fitting out
    1. Interior fitting works
    2. Steel and metal works
    3. Suspended ceiling
    4. Painting
- Construction to pedestrian pavement
- Re-instate to pedestrian pavement & EVA

The major environmental impacts brought by the above construction works will include:

- Construction noise generation from fitting out and pedestrian pavement activities
- Wastewater generation from pedestrian pavement activities
- Waste generation from fitting out and pedestrian pavement activities

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

- Reducing noise from equipment and machinery on-site by enclosing the construction site with plastic barrier and moving equipment and machinery inside the constructed building
- Treatment of wastewater from pedestrian pavement activities through sedimentation tank, wastewater would be reused on-site and not be discharged
- Sorting and storage of general refuse and construction waste

The impact monitoring schedule for the next reporting month to be shown at **Appendix M**.

9. CONCLUSIONS AND RECOMMENDATIONS

This is the 22nd Monthly EM&A Report for the Project which summarizes the key findings of the EM&A programme during the reporting period from 01 December to 31 December 2021, in accordance with the EM&A Manual and the requirement under EP – 329/2009.

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

Weekly environmental site inspection was conducted during the reporting period. Some observations were observed during site inspection and rectifications had been accomplished by contractor within a week after site inspection. The environmental performance of the project was therefore considered satisfactory.

No environmental complaint was received in the reporting period.

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

The ET will keep track on the construction works to confirm compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

APPENDIX A: MASTER PROGRAMME

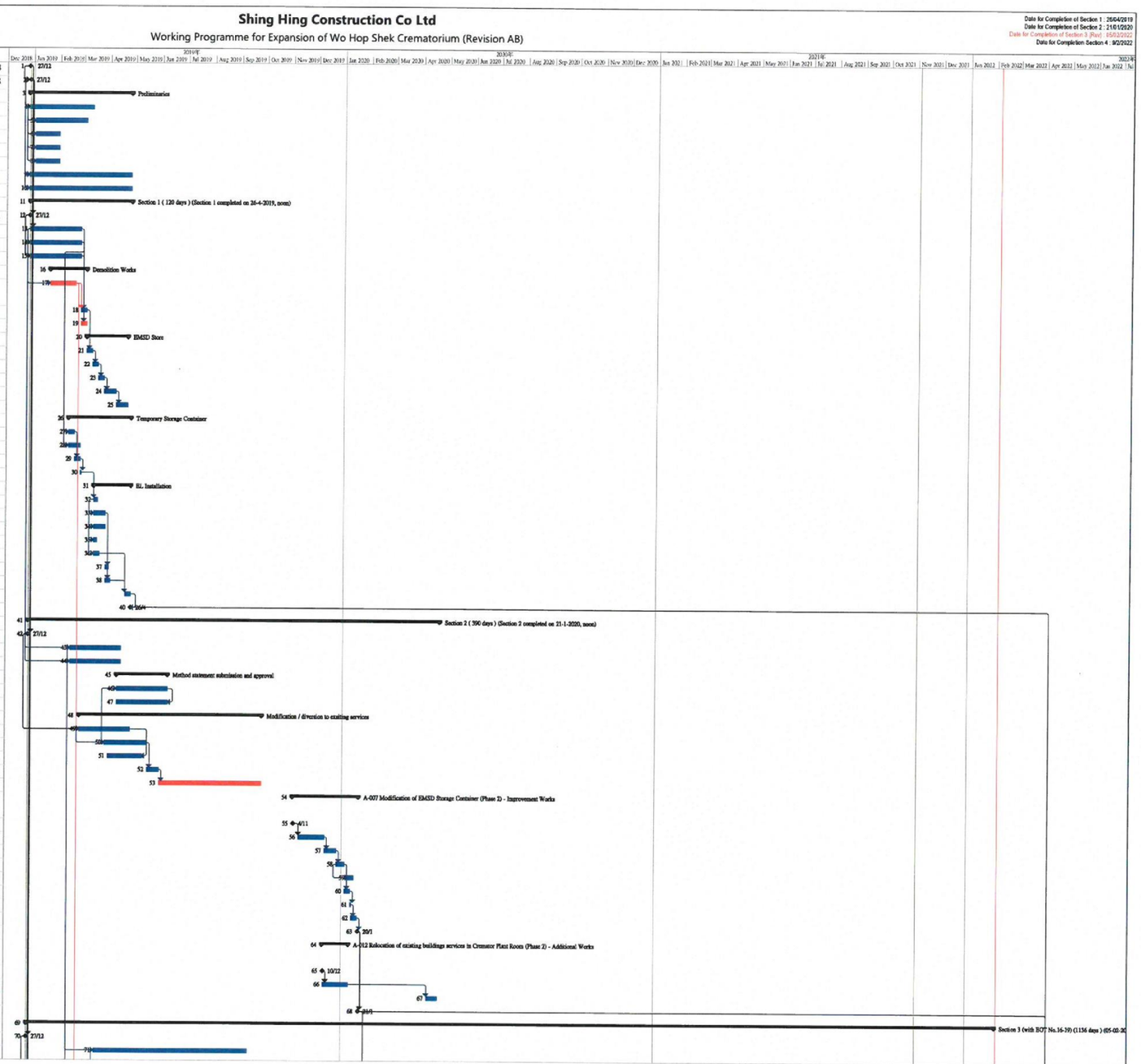
Construction Period : 1140 Days
Section 1 : 120 Days
Section 2 : 390 Days
Section 3 : 720 Days (org), 1136 Days (EOT16-18)
Section 4 : 1140 Days

Shing Hing Construction Co Ltd

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

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. : 05/02/2022
Date for Completion Section 4 : 3/2/2022

Item No.	Activities	工期	開始時間	完成時間
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	Application 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 reloaction 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)***	***1135 days***	***27/12/2018***	***4/2/2022***
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



Mission | Milestone Date | Summary | critical progress

Date : 5 November 2021
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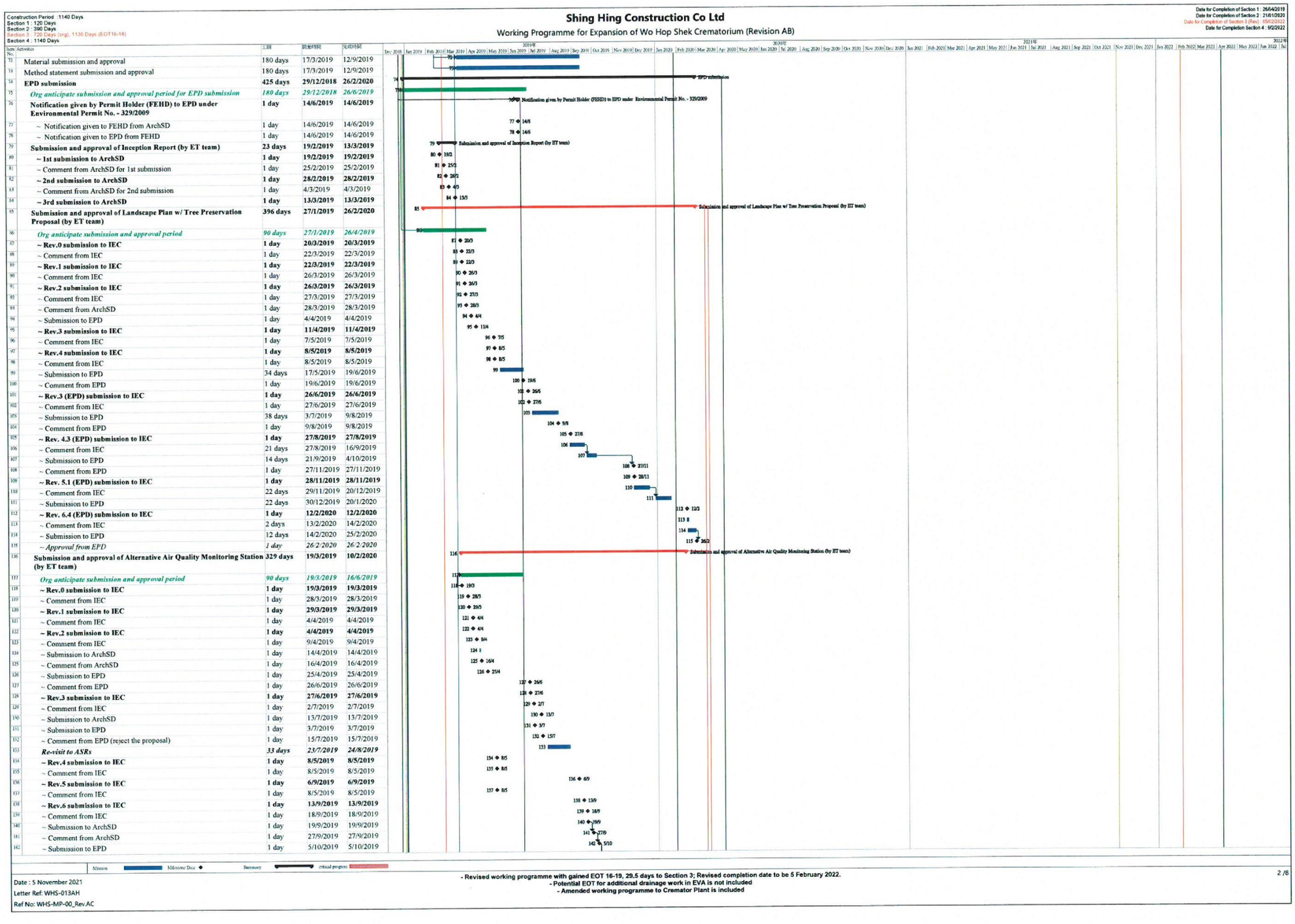


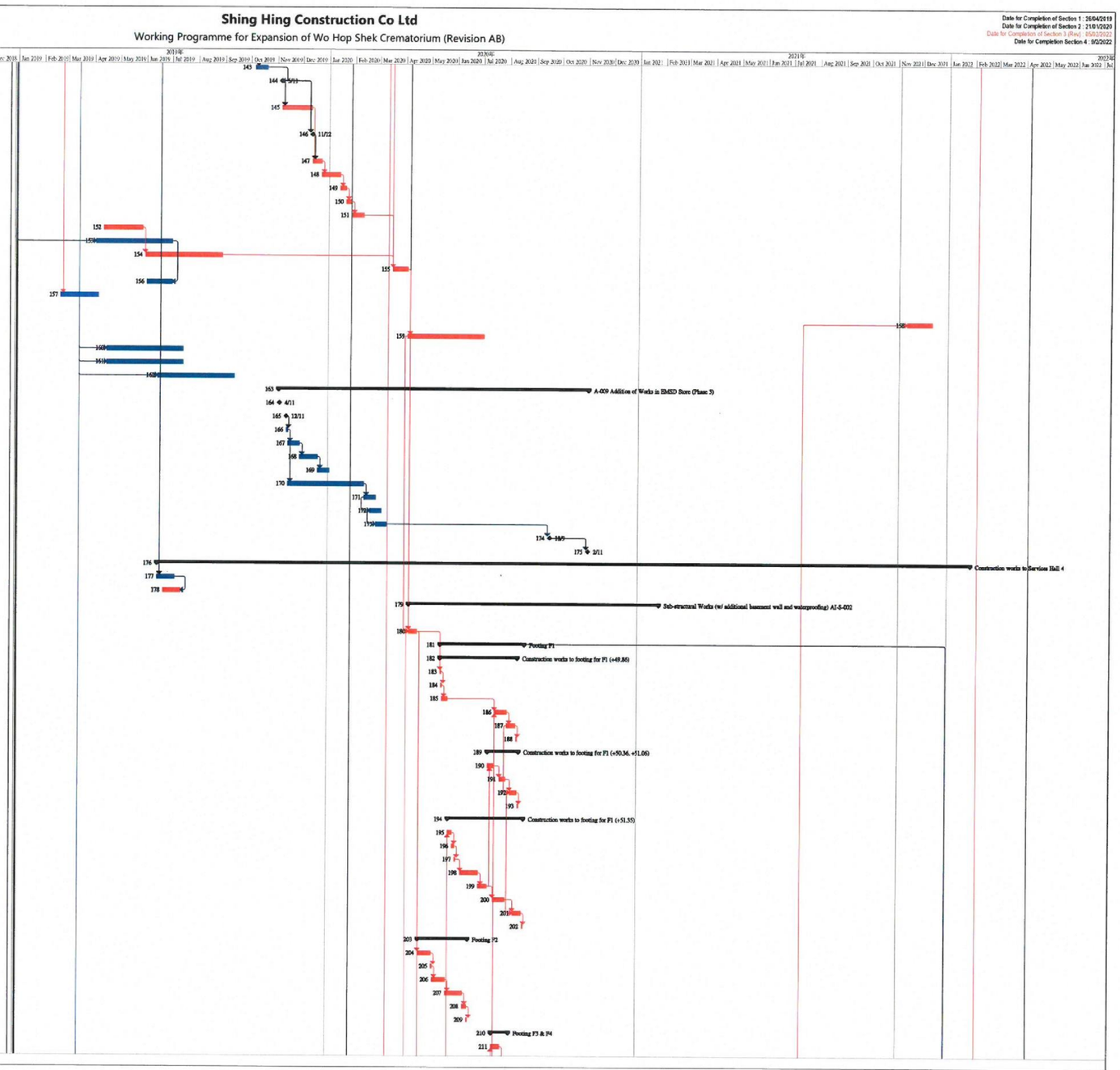
Construction Period : 1140 Days
Section 1 : 120 Days
Section 2 : 990 Days
Section 3 : 720 Days (org); 1135 Days (EOT 16-18)
Section 4 : 1140 Days

Shing Hing Construction Co Ltd

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

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) : 05/02/2022
Date for Completion Section 4 : 9/2/2022

Item No.	Activities	工期	開始時間	完成時間
143	– Comment from EPD	14 days	6/10/2019	19/10/2019
144	*Acceptance of alternative Air Monitoring Stations (Ver 7.4) given by EPD*	*1 day*	*5/11/2019*	*5/11/2019*
145	Notice to owner / tendant of alternative Air Monitoring Station (by ArchSD)	35 days	6/11/2019	10/12/2019
146	*A-011 Proposal for Alternative Air Quality Monitoring Location Rev.7.4 (Section 3)*	*1 day*	*11/12/2019*	*11/12/2019*
147	Preparation work to setup air monitoring stations	11 days	12/12/2019	22/12/2019
148	Commenance of baseline air monitoring	22 days	23/12/2019	13/1/2020
149	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 enclosure 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



Mission | Milestone Date | Summary | critical progress

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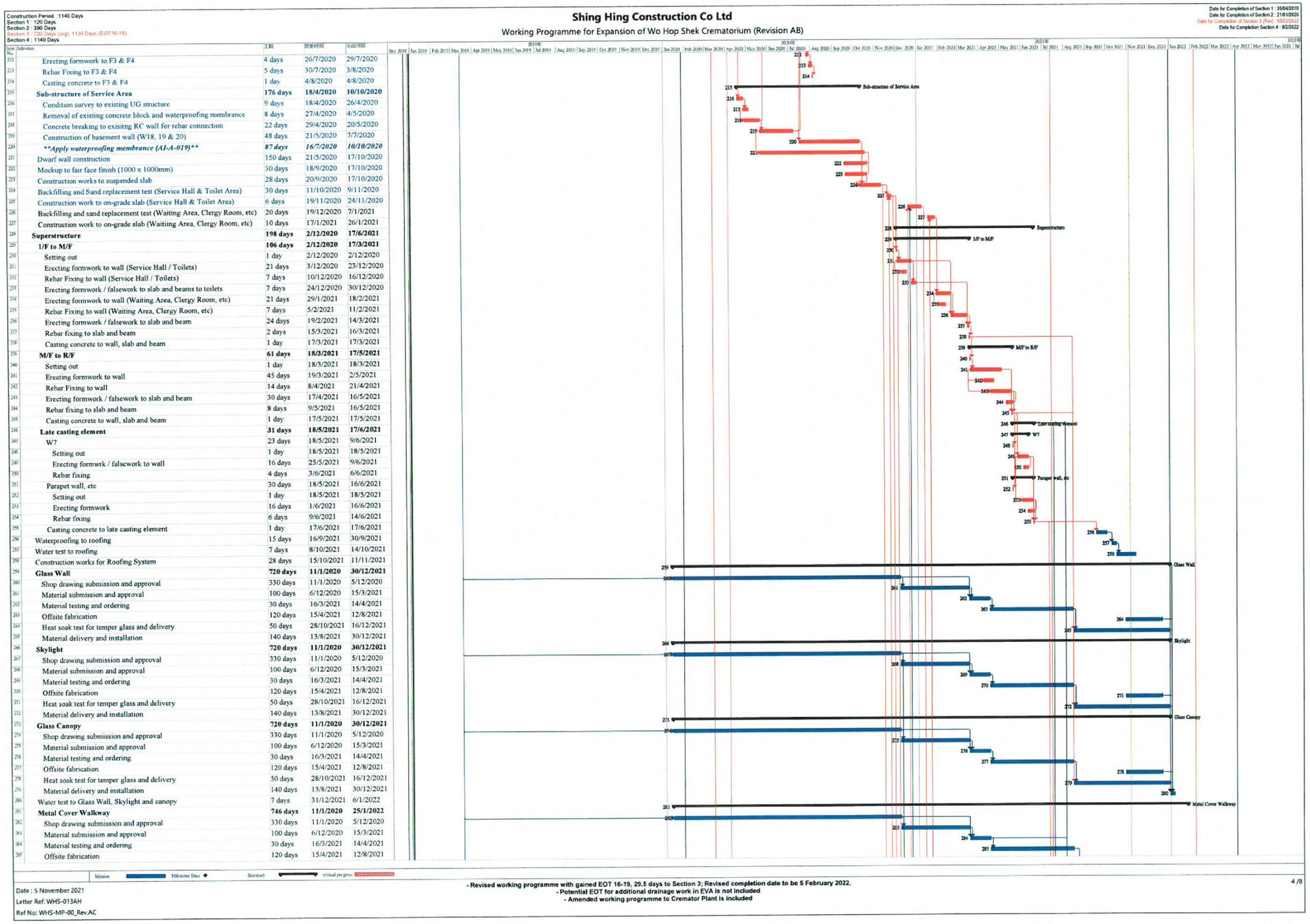

Item No.	Activities	工期	開始時間	完成時間
212	Erecting formwork to F3 & F4	4 days	26/7/2020	29/7/2020
213	Rebar Fixing to F3 & F4	5 days	30/7/2020	3/8/2020
214	Casting concrete to F3 & F4	1 day	4/8/2020	4/8/2020
215	**Sub-structure of Service Area**	**176 days**	**18/4/2020**	**10/10/2020**
216	Condition survey 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 (AI-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 (Waiting 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

Construction Period : 1140 Days
Section 1 : 120 Days
Section 2 : 390 Days
Section 3 : 720 Days (org), 1136 Days (EOT 16-18)
Section 4 : 1140 Days

Shing Hing Construction Co Ltd

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

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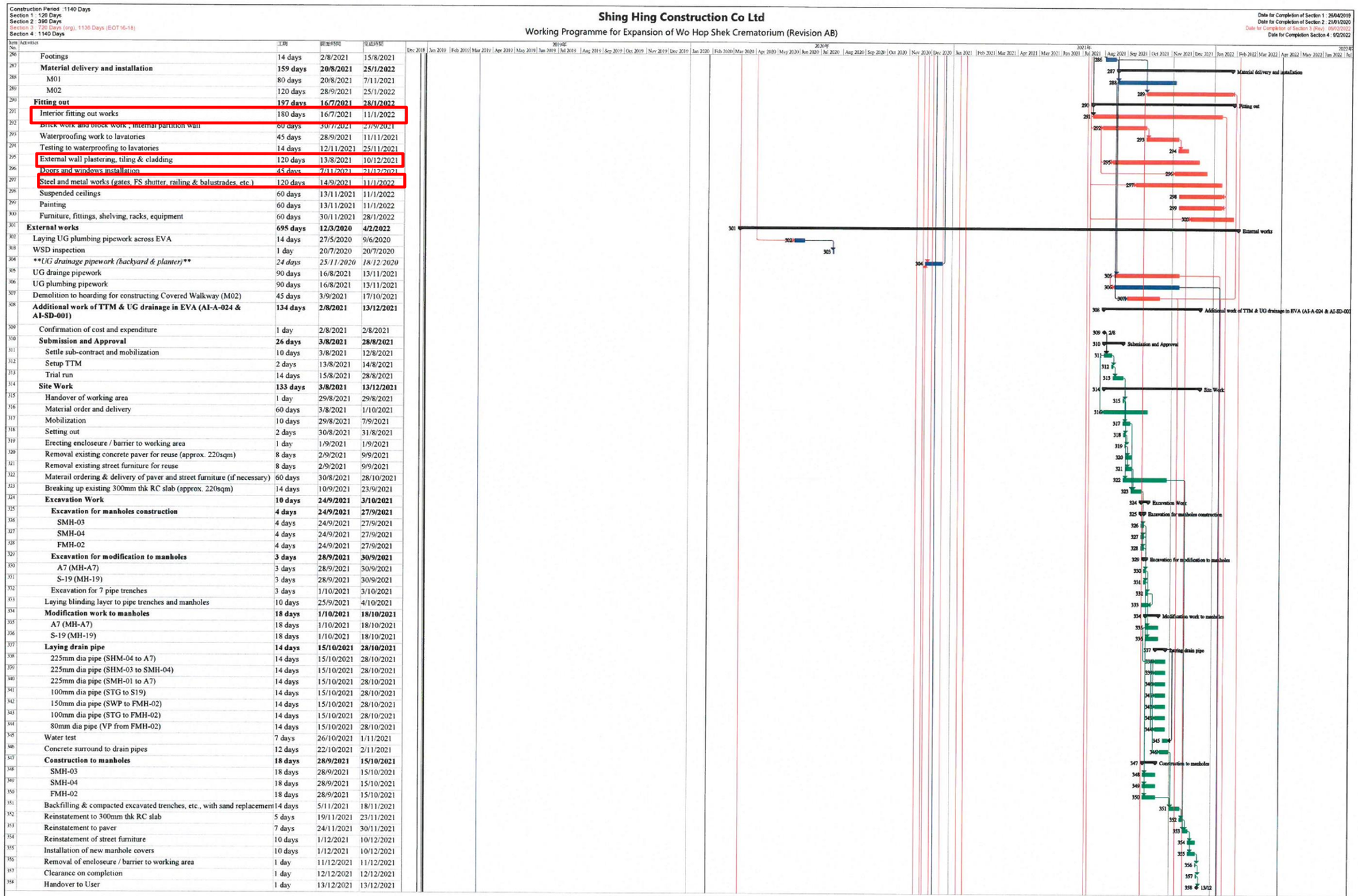
Date for Completion Section 4 : 6/2/2022

Item No.	Activities	工期	開始日期	完成日期
286	Footings	14 days	2/8/2021	15/8/2021
287	**Material delivery and installation**	**159 days**	**20/8/2021**	**25/1/2022**
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	180 days	16/7/2021	11/1/2022
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	13/11/2021	11/1/2022
299	Painting	60 days	13/11/2021	11/1/2022
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 encloseure / 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	Materail 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



Mission | Milestone Date | Summary | critical progress

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5 /8

Construction Period : 1140 Days
Section 1 : 120 Days
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Section 3 : 730 Days (org), 1136 Days (EOT16-18)
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Shing Hing Construction Co Ltd

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

Date for Completion of Section 1 : 26/04/2019
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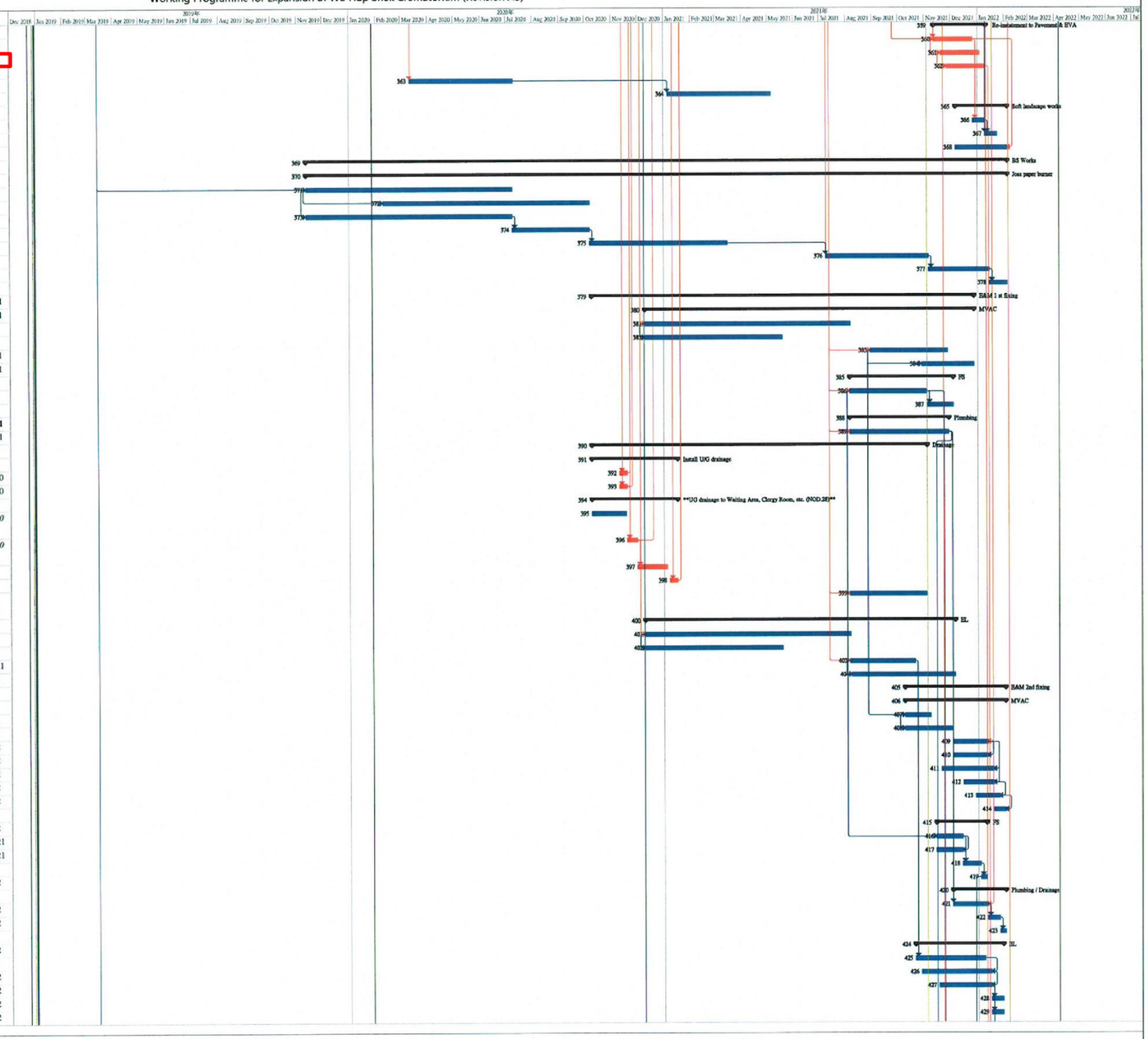
Date for Completion of Section 3 (Rev) : 05/02/2022
Date for Completion Section 4 : 9/2/2022

Item No.	Activities	工期	開始時間	完成時間
359	**Re-instatement to Pavement & EVA**	**60 days**	**12/11/2021**	**10/1/2022**
360	Construction work to lay-by area	45 days	12/11/2021	26/12/2021
361	Construction to pedestrian pavement	45 days	20/11/2021	3/1/2022
362	Re-instate to pedestrian pavement & EVA	45 days	27/11/2021	10/1/2022
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**	**816 days**	**12/11/2019**	**4/2/2022**
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**	**116 days**	**9/10/2021**	**1/2/2022**
406	**MVAC**	**116 days**	**9/10/2021**	**1/2/2022**
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	3/12/2021	11/1/2022
410	Control system installation	40 days	3/12/2021	11/1/2022
411	Hydraulic test	60 days	20/11/2021	18/1/2022
412	Air Balancing	35 days	15/12/2021	18/1/2022
413	System test	28 days	29/12/2021	25/1/2022
414	T&C for control system	14 days	19/1/2022	1/2/2022
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**	**61 days**	**3/12/2021**	**1/2/2022**
421	Sanitary ware installation	40 days	3/12/2021	11/1/2022
422	T&C work for plumbing and drainage	14 days	12/1/2022	25/1/2022
423	Tee off from existing water supply from existing water meter cabinet	7 days	26/1/2022	1/2/2022
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



Mission | Milestone Date | Summary | critical progress

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Construction Period :1140 Days
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Working Programme for Expansion of Wo Hop Shek Crematorium (Revision AB)

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Date for Completion Section 4 : 8/2/2022

Item No.	Activities	工期	開始時間	完成時間
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**
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**	**1103 days**	**27/1/2019**	**2/2/2022**
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
464	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**	**67 days**	**27/11/2021**	**1/2/2022**
469	Submission of FS final amendment drawing	30 days	27/11/2021	26/12/2021
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	27/12/2021	28/12/2021
473	FS inspection & re-inspection	7 days	11/1/2022	17/1/2022
473	Issuance of FS Certificate	1 day	1/2/2022	1/2/2022
474	SCCU inspection	1 day	18/1/2022	18/1/2022
475	Making after SCCU inspection	14 days	19/1/2022	1/2/2022
476	SCCU reinspection	1 day	2/2/2022	2/2/2022
477	Completion of Phase 3 : 05/02/2022	1 day	2/2/2022	2/2/2022
478	**Section 4 (1140 days) (9-2-2022, noon)**	**1198 days?**	**27/12/2018**	**8/4/2022**
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**	**1169 days**	**28/12/2018**	**10/3/2022**
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	15/12/2021	11/1/2022
498	Install new G.I. conduit for CCTV & power point	28 days	12/1/2022	8/2/2022
499	Cable wirings for CCTV and power point	15 days	9/2/2022	23/2/2022
500	Install CCTV Camera	15 days	24/2/2022	10/3/2022

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Item No.	Activities	LBR	實際開始	完成時間
501	**Addition of two nos of cremators, No.7 & No.8 (by NSC - Southa)**	**1198 days**	**28/12/2018**	**8/4/2022**
502	Primary	773 days	28/12/2018	7/2/2021
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**	**779 days**	**20/2/2020**	**8/4/2022**
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 Refractory 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**	**685 days**	**20/2/2020**	**4/1/2022**
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)*	*227 days*	*2/5/2021*	*14/12/2021*
546	*Programming and SCADA (Supervised by Manufacturer)*	*21 days*	*15/12/2021*	*4/1/2022*
547	**Testing & Commissioning**	**115 days**	**15/12/2021**	**8/4/2022**
548	Cremators	115 days	15/12/2021	8/4/2022
549	Energetication to new switch box	1 day	15/12/2021	15/12/2021
550	Towngas available	1 day	15/12/2021	15/12/2021
551	Equipment function test	21 days	15/12/2021	4/1/2022
552	Cremator 7 dry heating	30 days	5/1/2022	3/2/2022
553	Cremator 8 dry heating	30 days	5/1/2022	3/2/2022
554	Cold commissioning	15 days	4/2/2022	18/2/2022
555	Pre-heating	4 days	19/2/2022	22/2/2022
556	Trial-run for Cremator 7 (5 samples / day)	2 days	23/2/2022	24/2/2022
557	Trial-run for Cremator 8 (5 samples / day)	2 days	24/2/2022	25/2/2022
558	Cremator 7 emission test (3 samples / day, w/ witness of EPD)	4 days	26/2/2022	1/3/2022
559	Cremator 7 & 8 emission test (6 samples / day, w/ witness of EPD)	3 days	2/3/2022	4/3/2022
560	Cremator 8 emission test (3 samples / day, w/ witness of EPD)	3 days	7/3/2022	9/3/2022
561	Full load performance test for Cremator 7 & 8 (6 samples / day)	2 days	10/3/2022	11/3/2022
562	Emission test report issuance for Cremator 7 & 8	21 days	10/3/2022	30/3/2022
563	Functional test & performance test with witness of ArchSD	22 days	12/3/2022	2/4/2022
564	Training	4 days	4/4/2022	7/4/2022
565	Handover of Cremator to ArchSD	1 day	8/4/2022	8/4/2022
566	T&C for B.S. work	14 days	11/3/2022	24/3/2022
567	Cleaning on completion	14 days	25/3/2022	7/4/2022
568	Completion of Phase 4 : 09/02/2022 (noon)	0 days	8/4/2022	8/4/2022
569	**Project Completion**	**0 days**	**8/4/2022**	**8/4/2022**

Mission | Milestone Date | Summary | critical progress

Date : 5 November 2021
Letter Ref: WHS-013AH
Ref No: WHS-MP-00_Rev.AC

- Revised working programme with gained EOT 16-19, 29.5 days to Section 3; Revised completion date to be 5 February 2022.
- Potential EOT for additional drainage work in EVA is not included
- Amended working programme to Cremator Plant is included

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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
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

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
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
Land Contamination (Construction Phase)							
		Remedial Action Plan:	All areas	Contractor	Construction Phase	Waste Disposal	

EIA Ref	EM&A Ref.	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status
S.5.7.2		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.	requiring remedial works in Project site			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 and rectified according to observation

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

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
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

<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.	Cremator 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.	Cremator 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

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
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
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

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
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
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
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

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
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
Landscape and Visual (EM&A)							

EIA Ref	EM&A Ref.	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status
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 andearthworks. ▌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 washingfacility 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 and rectified according to observation

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
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
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

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

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

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
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

APPENDIX D: IMPACT MONITORING SCHEDULE OF THE REPORTING MONTH

Impact Monitoring Schedule for Expansion of Wo Hop Shek Crematorium

Dec-21						
Sun	Mon	Tue	Wed	Thur	Fri	Sat
			1	2	3	4
			Weekly ET site inspection and audit Air monitoring for A10, A20 for 1-hr TSP and 24-hr TSP Monitoring Time: 0900-1630			
5	6	7	8	9	10	11
		Air monitoring for A10, A20 for 1-hr TSP and 24-hr TSP Monitoring Time: 0900-1630	Weekly ET site inspection and audit			
12	13	14	15	16	17	18
	Air monitoring for A10, A20 for 1-hr TSP and 24-hr TSP Monitoring Time: 0900-1630		Weekly ET site inspection and audit		Air monitoring for A10, A20 for 1-hr TSP and 24-hr TSP Monitoring Time: 0900-1630	
19	20	21	22	23	24	25
	Weekly ET site inspection and audit			Air monitoring for A10, A20 for 1-hr TSP and 24-hr TSP Monitoring Time: 0900-1630		
26	27	28	29	30	31	
			Weekly ET site inspection and audit Air monitoring for A10, A20 for 1-hr TSP and 24-hr TSP Monitoring Time: 0900-1630			

***Remarks: 1. This impact monitoring schedule is subject to change due to adverse weather conditions or other rationales.**

2. Advance notification of the changes will be given to all relevant parties at lease 48 hours prior to implementation.

APPENDIX E: 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 F: DUST MONITORING EQUIPMENT CALIBRATION CERTIFICATE

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HIVOL SAMPLER CALIBRATION DATA SHEET (TSP)

Site Information

Location:	Fung Kai Liu Yun Sum Memorial School	Site ID:	A10	Date:	01-Dec-2021
Serial No:	1049	Model:	TE-5170X	Operator:	Casey Lau

Ambient Condition

Corrected Pressure (mm Hg):	766.1	Temperature (deg K):	290.3

Calibration Orifice

Model:	TE-5028A	Slope:	1.64554
Serial No.:	3702	Intercept:	-0.00368
Calibration Due Date:	3-Aug-21	Corr. Coeff:	0.99975

Calibration Data

Plate or Test #	In,H2O (in)	Qa, X-Axis (m3/min)	I, CFM (chart)	IC, Y-Axis (corrected)
1	1.54	0.770	31.5	32.08
2	2.33	0.947	34.4	35.00
3	3.53	1.164	38.1	38.72
4	4.73	1.346	40.6	41.34
5	5.74	1.484	42.9	43.60

Sampler Calibtation Relationship (Qa on x-axis, IC on y-axis)

m= 16.1064 b= 19.7527 Corr. Coeff= 0.9996

Sampler set point(SSP) 39 CFM

Calculations

Qstd = 1/m[Sqrt(H2O(Pa/Pstd)(Tstd/Ta))-b]
IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

Qstd = standard flow rate
IC = corrected chart response
I = actual chart response
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pa = actual pressure during calibration (mm Hg)
Tstd = 298 deg K
Pstd = 760 mm Hg

For subsequent calculation of sampler flow:
(1.21*m+b)/[Sqrt(298/Tav)(Pav/760)]

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

Checked by: Date: 01-Dec-2021

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HIVOL SAMPLER CALIBRATION DATA SHEET (TSP)

Site Information

Location:	Fung Kai Liu Yun Sum Memorial School	Site ID:	A10	Date:	17-Dec-2021
Serial No:	1049	Model:	TE-5170X	Operator:	Casey Lau

Ambient Condition

Corrected Pressure (mm Hg):	764.2	Temperature (deg K):	294.7

Calibration Orifice

Model:	TE-5028A	Slope:	1.64554
Serial No.:	3702	Intercept:	-0.00368
Calibration Due Date:	3-Aug-21	Corr. Coeff:	0.99975

Calibration Data

Plate or Test #	In,H2O (in)	Qa, X-Axis (m3/min)	I, CFM (chart)	IC, Y-Axis (corrected)
1	1.52	0.757	31.1	31.41
2	2.30	0.931	34.0	34.31
3	3.48	1.145	37.6	37.89
4	4.66	1.326	40.0	40.33
5	5.67	1.461	42.3	42.67

Sampler Calibtation Relationship (Qa on x-axis, IC on y-axis)

m= 15.8431 b= 19.5142 Corr. Coeff= 0.9994

Sampler set point(SSP) 38 CFM

Calculations

Qstd = 1/m[Sqrt(H2O(Pa/Pstd)(Tstd/Ta))-b]
IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

Qstd = standard flow rate
IC = corrected chart response
I = actual chart response
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pa = actual pressure during calibration (mm Hg)
Tstd = 298 deg K
Pstd = 760 mm Hg
For subsequent calculation of sampler flow:
(1.21*m+b)/[Sqrt(298/Tav)(Pav/760)]

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

Checked by: Date: 17-Dec-2021

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HIVOL SAMPLER CALIBRATION DATA SHEET (TSP)

Site Information

Location:	Fanling Government School	Site ID:	A20	Date:	01-Dec-2021
Serial No:	1050	Model:	TE-5170X	Operator:	Casey Lau

Ambient Condition

Corrected Pressure (mm Hg):	766.1	Temperature (deg K):	290.3

Calibration Orifice

Model:	TE-5028A	Slope:	1.64554
Serial No.:	3702	Intercept:	-0.00368
Calibration Due Date:	3-Aug-21	Corr. Coeff:	0.99975

Calibration Data

Plate or Test #	In,H2O (in)	Qa, X-Axis (m3/min)	I, CFM (chart)	IC, Y-Axis (corrected)
1	1.55	0.772	33.4	33.96
2	2.72	1.023	37.4	38.05
3	3.85	1.215	40.1	40.80
4	4.47	1.309	41.4	42.10
5	5.04	1.390	42.6	43.30

Sampler Calibtation Relationship (Qa on x-axis, IC on y-axis)

m= 15.0393 b= 22.4750 Corr. Coeff= 0.9994

Sampler set point(SSP) 40 CFM

Calculations

Qstd = 1/m[Sqrt(H2O(Pa/Pstd)(Tstd/Ta))-b]
IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

Qstd = standard flow rate
IC = corrected chart response
I = actual chart response
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pa = actual pressure during calibration (mm Hg)
Tstd = 298 deg K
Pstd = 760 mm Hg

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

For subsequent calculation of sampler flow:
(1.21*m+b)/[Sqrt(298/Tav)(Pav/760)]

Checked by: Date: 01-Dec-2021

InnoTech Instrumentation Co. Ltd.
創 新 科 儀 有 限 公 司

HIVOL SAMPLER CALIBRATION DATA SHEET (TSP)

Site Information

Location:	Fanling Government School	Site ID:	A20	Date:	17-Dec-2021
Serial No:	1050	Model:	TE-5170X	Operator:	Casey Lau

Ambient Condition

Corrected Pressure (mm Hg):	764.2	Temperature (deg K):	294.7

Calibration Orifice

Model:	TE-5028A	Slope:	1.64554
Serial No.:	3702	Intercept:	-0.00368
Calibration Due Date:	3-Aug-21	Corr. Coeff:	0.99975

Calibration Data

Plate or Test #	In,H2O (in)	Qa, X-Axis (m3/min)	I, CFM (chart)	IC, Y-Axis (corrected)
1	1.52	0.758	33.0	33.27
2	2.69	1.007	37.0	37.34
3	3.79	1.196	39.7	40.03
4	4.41	1.289	41.0	41.29
5	5.01	1.374	42.1	42.45

Sampler Calibtation Relationship (Qa on x-axis, IC on y-axis)

m= 14.8765 b= 22.1451 Corr. Coeff= 0.9991

Sampler set point(SSP) 40 CFM

Calculations

Qstd = 1/m[Sqrt(H2O(Pa/Pstd)(Tstd/Ta))-b]
IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

Qstd = standard flow rate
IC = corrected chart response
I = actual chart response
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pa = actual pressure during calibration (mm Hg)
Tstd = 298 deg K
Pstd = 760 mm Hg

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

For subsequent calculation of sampler flow:
(1.21*m+b)/[Sqrt(298/Tav)(Pav/760)]

Checked by: Date: 17-Dec-2021

TISCH Environmental

RECALIBRATION DUE DATE:
August 3, 2022

Certificate of Calibration

Calibration Certification Information				
Cal. Date:	August 3, 2021	Rootsmeter S/N: 438320	Ta: 295	°K
Operator:	Jim Tisch		Pa: 750.57	mm Hg
Calibration Model #:	TE-5028A	Calibrator S/N: 3702		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (In H2O)
1	1	2	1	1.3170	4.1	1.50
2	3	4	1	1.0350	6.7	2.50
3	5	6	1	0.9420	8.0	3.00
4	7	8	1	0.8650	9.3	3.50
5	9	10	1	0.6540	16.2	6.00

Data Tabulation

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H\left(Ta/Pa\right)}$ (y-axis)
0.9922	0.7534	1.2233	0.9945	0.7552	0.7678
0.9887	0.9553	1.5793	0.9911	0.9576	0.9913
0.9870	1.0478	1.7300	0.9893	1.0503	1.0859
0.9853	1.1390	1.8686	0.9876	1.1417	1.1729
0.9761	1.4925	2.4466	0.9784	1.4960	1.5356
QSTD	m=	1.64554	QA	m=	1.03041
	b=	-0.00368		b=	-0.00231
	r=	0.99975		r=	0.99975

Calculations

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

For subsequent flow rate calculations:

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

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

Key

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

RECALIBRATION

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

Tisch Environmental, Inc.
145 South Miami Avenue
Village of Cleves, OH 45002
www.tisch-env.com
TOLL FREE: (877)263-7610
FAX: (513)467-9009

ACUITY SUSTAINABILITY CONSULTING LIMITED

Website: www.acuityhk.com
Unit C, 11/F, Ford Glory Plaza, Nos. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon.
Tel. : (852) 2698 6833
Fax.: (852) 2698 9383

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

Verification Test Date:	27-Jun-21	to	1-Jul-21
Next Verification Test Date:	1-Jul-22		
Unit-under-Test- Model No.	Sibata LD-5R		
Unit-under-Test Serial No.	761173		
Our Report Refrence No.	RPT-21-HVS-0003		

Standard Equipment Information		
Verification Equipment Type	Tisch's TSP HVS	Tish HVS Calibrator
Standard Equipment Model No.	TE-5170X	TE-5028
Equipment serial no.	MFC 1049	1050
Last Calibration Date	17-Jun-21	24-Sep-20
Next Calibration Date	17-Aug-21	24-Sep-21

Verification Test No.	Date	Time			K-Factor	Counts/ Minute (R)	Total Counts (TC)	TSP Sample ID No.	Dust Concentration (ug/m3), (C)
		Start-time	End-time	Elapsed Time (in min)	K-Factor (K=C/R)	x-axis			y axis
1	27/6/2021	1254.37	1257.37	180.00	0.00119	27.90	2652	R210872/1	33.33
2	27/6/2021	1258.44	1261.44	180.00	0.00096	61.70	1539	R210872/2	59.26
3	27/6/2021	1262.31	1265.31	180.00	0.00097	10.00	1983	R210872/3	9.72
4	1/7/2021	1265.84	1268.84	180.00	0.00093	78.30	2313	R210887/1	73.15
5	1/7/2021	1269.10	1272.10	180.00	0.00096	14.40	1407	R210887/2	13.89
6	1/7/2021	1272.50	1275.50	180.00	0.00084	28.50	1299	R210887/3	24.07
					0.00098				

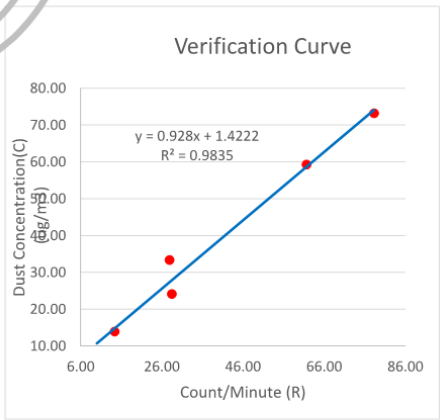
K-Factor to be inputted in LD-5R (corrected 1 decimal point): 1.0

By Linear Regression of y on x:

slope, mh= 0.9280
intercept,ch= 1.4222
*Correlation Coefficient R= 0.9917

Verification Test Result: Strong correlation, Results were accepted.

* If the Correlation Coefficient, R is <0.5. Checking and Re-verification are required.



Verified By: _____ Date: 20-07-2021

Technical Manager

ACUITY SUSTAINABILITY CONSULTING LIMITED
Website: www.acuityhk.com
Unit C, 11/F, Ford Glory Plaza, Nos. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon.
Tel.: [852) 2698 6835
Fax.: [852) 2698 9585

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

Verification Test Date:	27-Jun-21	to	1-Jul-21
Next Verification Test Date:	1-Jul-22		
Unit-under-Test- Model No.	Sibata LD-5R		
Unit-under-Test Serial No.	761174		
Our Report Refrence No.	RPT-21-HVS-0004		

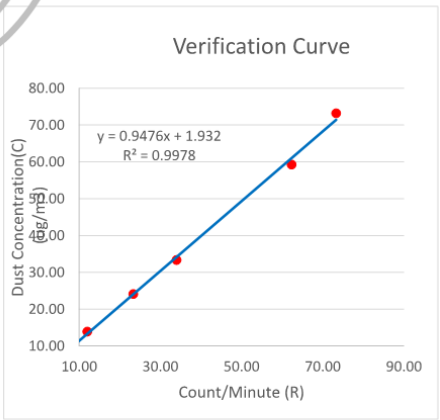
Standard Equipment Information		
Verification Equipment Type	Tisch's TSP HVS	Tish HVS Calibrator
Standard Equipment Model No.	TE-517 0X	TE-5028
Equipment serial no.	MFC 104	1050
Last Calibration Date	17-Jur -21	24-Sep-20
Next Calibration Date	17-Au -21	24-Sep-21

Verification Test No.	Date	Time			K-Factor	Counts/ Minute (R)	Total Counts (TC)	TSP Sample ID No.	Dust Concentration (ug/m3), (C)
		Start-time	End-time	Elapsed Time (in min)	K-Factor (K=C/R)	x-axis			y axis
1	27/6/2021	1254.37	1257.37	180.00	0.00098	34.00	6120	R210872/1	33.33
2	27/6/2021	1258.44	1261.44	180.00	0.00095	62.33	11220	R210872/2	59.26
3	27/6/2021	1262.31	1265.31	180.00	0.00122	8.00	1440	R210872/3	9.72
4	1/7/2021	1265.84	1268.84	180.00	0.00100	73.33	13200	R210887/1	73.15
5	1/7/2021	1269.10	1272.10	180.00	0.00116	12.00	2160	R210887/2	13.89
6	1/7/2021	1272.50	1275.50	180.00	0.00103	23.33	4200	R210887/3	24.07
					0.00106				

K-Factor to be inputted in LD-5R (corrected 1 decimal point): 1.1

By Linear Regression of y on x:

slope, mh= 0.9476
intercept,ch= 1.9320
*Correlation Coefficient R= 0.9989
Verification Test Result: Strong Correlation, Results were accepted.
* If the Correlation Coefficient, R is <0.5. Checking and Re-verification are required.



Verified By: _____ Date: 20-07-2021
Technical Manager

APPENDIX G: 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

Lot 12, Tam Kon Shan Road, North Tsing Yi, New Territories, Hong Kong
香港新界青衣北担杆山路12路段

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 : 2 December 2019
簽發日期：二零一九年十二月二日

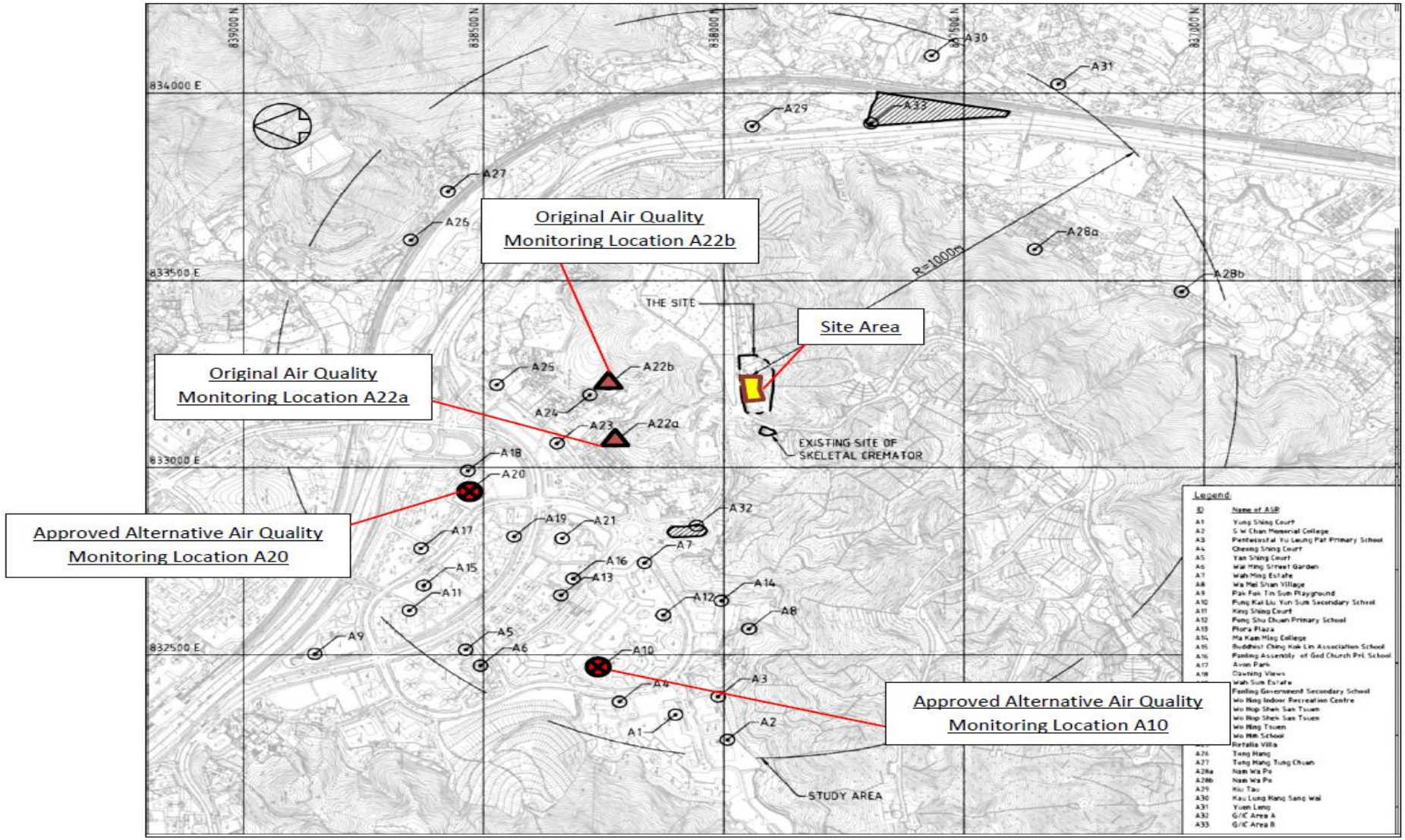
Registration Number : HOKLAS 241
註冊號碼：

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

L001875

APPENDIX H: LOCATION PLAN OF AIR QUALITY MONITORING STATION



APPENDIX I: AIR QUALITY MONITORING DATA

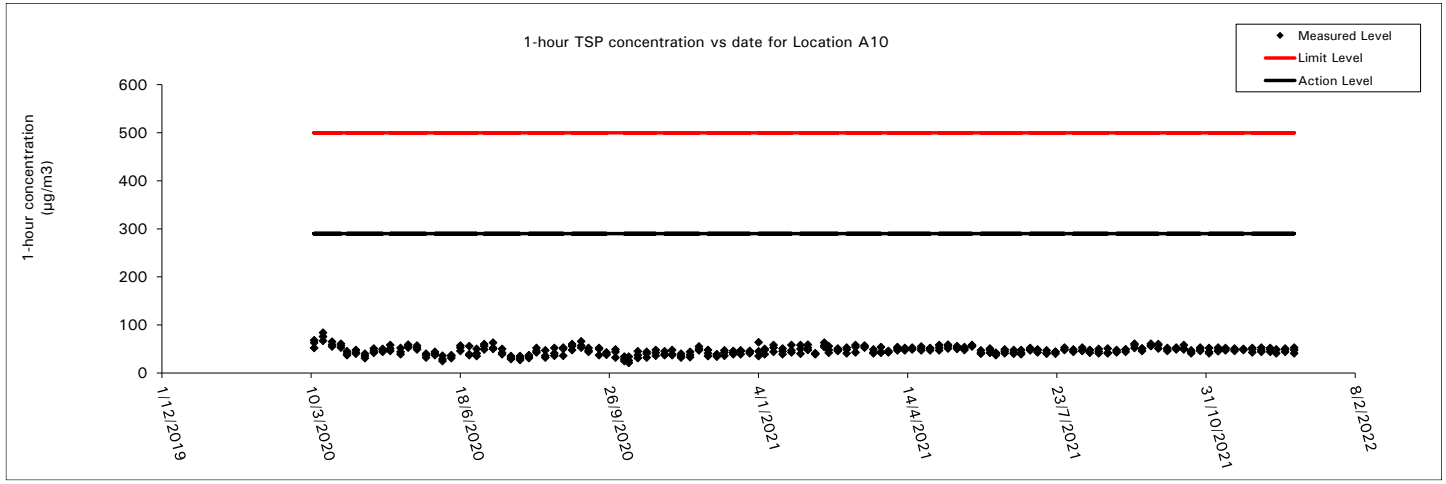
The Summary of 1-hour TSP Concentration (μg/m³) at A10

Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1) μg/m³	Reading (2) μg/m³	Reading (3) μg/m³	Average μg/m³
1/12/2021	Sunny	14:08	15:08	16:08	43	49	52	48
7/12/2021	Sunny	10:21	11:21	12:21	44	53	48	48
13/12/2021	Sunny	13:04	14:04	15:04	49	52	44	48
17/12/2021	Fine	09:54	10:54	11:54	41	49	48	46
23/12/2021	Sunny	9:55	10:55	11:55	44	51	49	48
29/12/2021	Sunny	9:56	10:56	11:56	41	53	48	47

Average 1-hour TSP: 48

Max.: 53

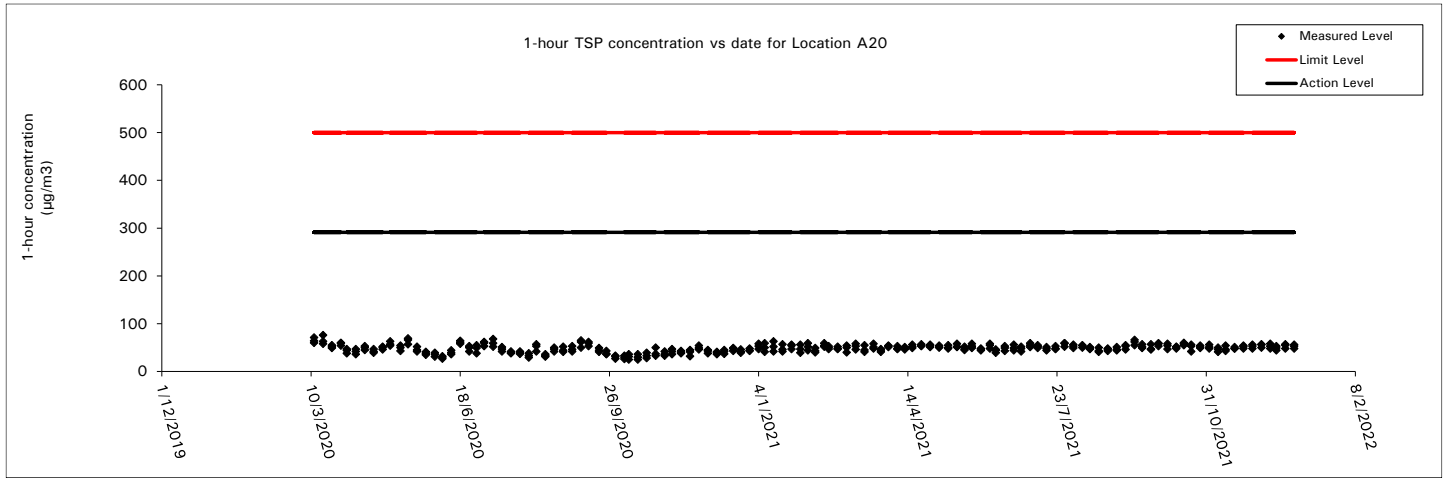
Min.: 41



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

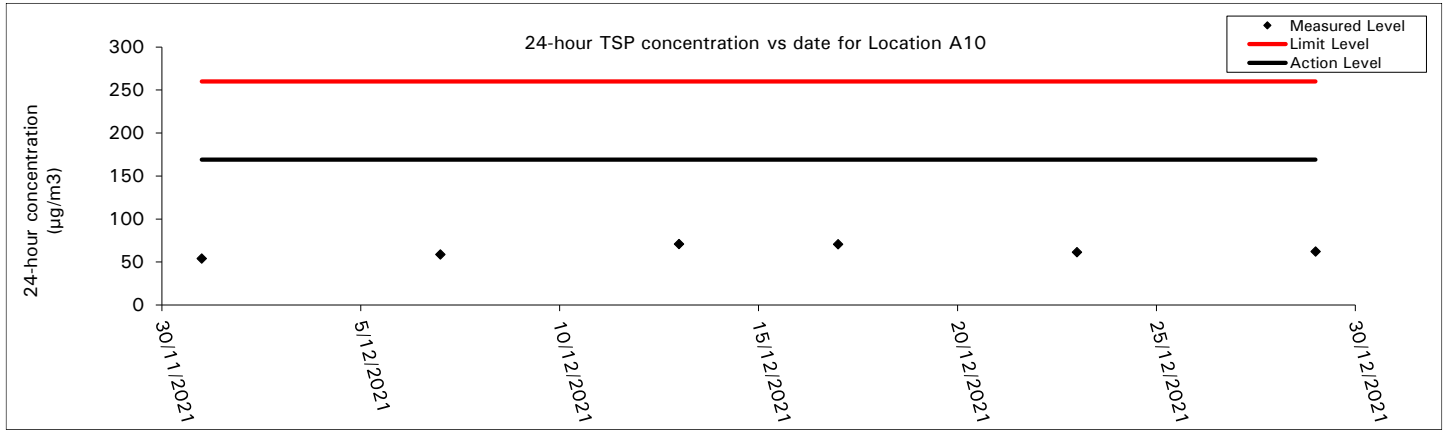
Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1) μg/m³	Reading (2) μg/m³	Reading (3) μg/m³	Average μg/m³
1/12/2021	Sunny	13:29	14:29	15:29	48	53	56	52
7/12/2021	Sunny	9:48	10:48	11:48	50	57	56	54
13/12/2021	Sunny	13:32	14:32	15:32	53	58	48	53
17/12/2021	Fine	09:20	10:20	11:20	44	53	49	49
23/12/2021	Sunny	9:27	10:27	11:27	48	57	55	53
29/12/2021	Sunny	9:27	10:27	11:27	48	56	53	52

Average 1-hour TSP: 52
Max.: 58
Min.: 44



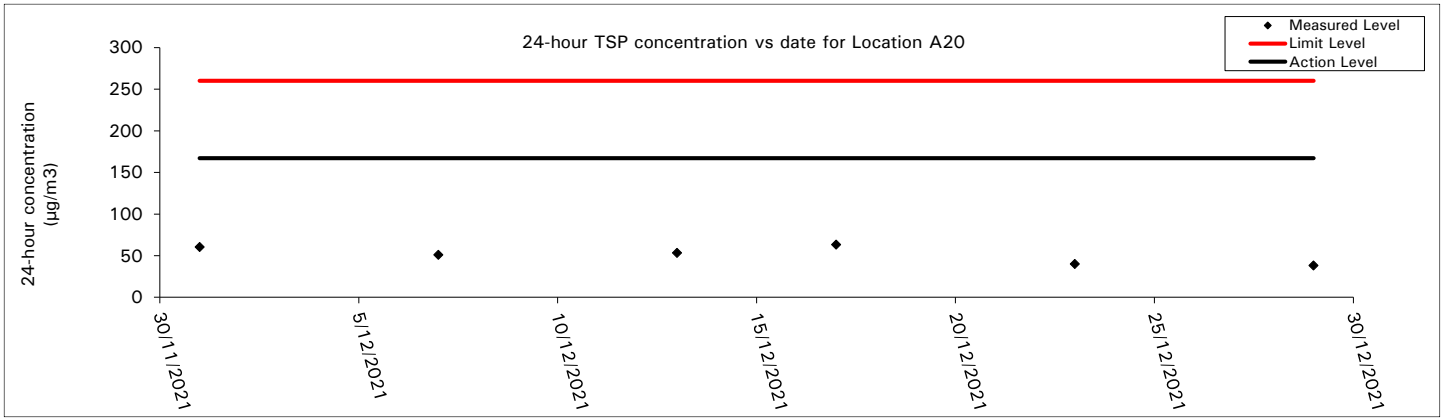
Date of Calibration:	01-Dec-21	Slope =	16.1064
Calibration due date:	14-Dec-21	Intercept =	19.7527
Date of Calibration:	17-Dec-21	Slope =	15.8431
Calibration due date:	30-Dec-21	Intercept =	19.5142

Start Date	Weather Condition	Elapse Time			Chart Reading			Avg Air Temp	Avg Atmospheric Pressure	Flow Rate	Standard Air Volume	Filter Weight (g)		Particulate weight	Conc.
		Initial	Final	Actual (min)	Min	Max	Avg	(°C)	(mm Hg)	(m^3/min)	(m^3)	Initial	Final	(g)	(µg/m^3)
01/12/2021	Sunny	8146.0	8170.0	1440.0	38	39	38.5	17.3	766.1	1.21	1750	2.7570	2.8515	0.0945	54
07/12/2021	Sunny	8170.0	8194.0	1440.0	38	39	38.5	19.9	765.7	1.20	1732	2.7815	2.8832	0.1017	59
13/12/2021	Sunny	8194.0	8218.0	1440.0	39	39	39.0	19.4	766.2	1.24	1783	2.7849	2.9111	0.1262	71
17/12/2021	Fine	8218.4	8242.4	1440.0	38	39	38.5	21.7	764.2	1.23	1765	2.7858	2.9106	0.1248	71
23/12/2021	Sunny	8242.4	8266.4	1440.0	39	40	39.5	19.9	762.6	1.29	1860	2.7436	2.8578	0.1142	61
29/12/2021	Sunny	8266.4	8290.4	1440.0	39	40	39.5	18.4	767.4	1.31	1892	2.7626	2.8802	0.1176	62
														Min:	54
														Max:	71
														Avg:	63



Date of Calibration:	01-Dec-21	Slope =	15.0393
Calibration due date:	14-Dec-21	Intercept =	22.4750
Date of Calibration:	17-Dec-21	Slope =	14.8765
Calibration due date:	30-Dec-21	Intercept =	22.1451

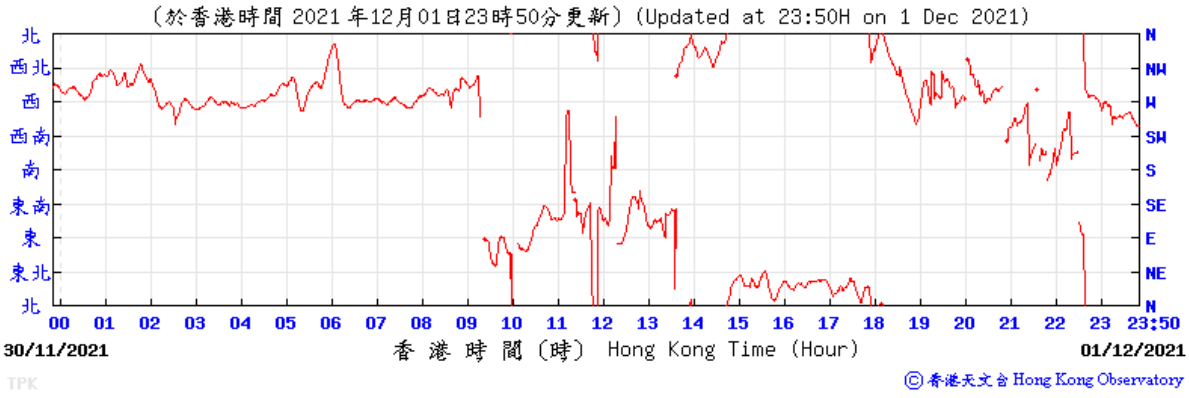
Start Date	Weather Condition	Elapse Time			Chart Reading			Avg Air Temp	Avg Atmospheric Pressure	Flow Rate	Standard Air Volume	Filter Weight (g)		Particulate weight	Conc.
		Initial	Final	Actual (min)	Min	Max	Avg	(°C)	(mm Hg)	(m³/min)	(m³)	Initial	Final	(g)	(µg/m³)
01/12/2021	Sunny	8410.9	8434.9	1440.0	40	40	40.0	17.3	766.1	1.22	1760	2.7841	2.8905	0.1064	60
07/12/2021	Sunny	8434.9	8458.9	1440.0	39	40	39.5	19.9	765.7	1.17	1691	2.7715	2.8577	0.0862	51
13/12/2021	Sunny	8458.9	8482.9	1440.0	39	40	39.5	19.4	766.2	1.18	1697	2.7729	2.8637	0.0908	53
17/12/2021	Fine	8483.2	8507.2	1440.0	40	40	40.0	21.7	764.2	1.23	1771	2.7677	2.8798	0.1121	63
23/12/2021	Sunny	8507.2	8531.2	1440.0	39	40	39.5	19.9	762.6	1.20	1726	2.7457	2.8149	0.0692	40
29/12/2021	Sunny	8531.2	8555.2	1440.0	39	40	39.5	18.4	767.4	1.22	1761	2.7554	2.8225	0.0671	38
														Min:	38
														Max:	63
														Avg:	51



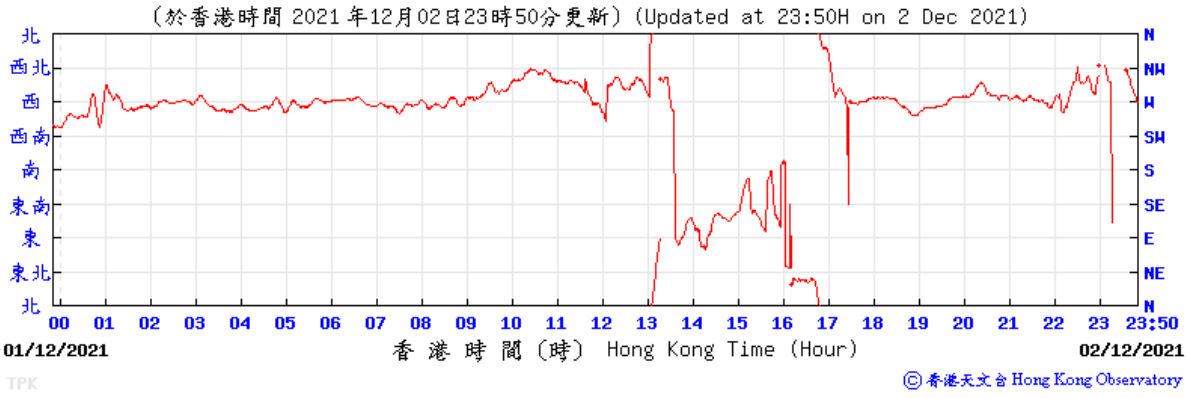
Wind direction data for 01, 07, 13, 17, 23 and 29 December 2021

A. 01/12/2021:

Wind Direction:

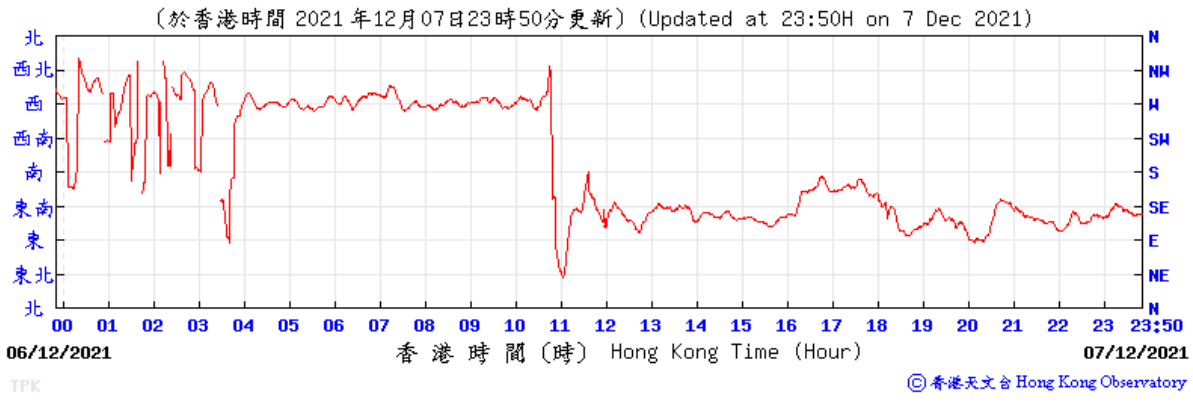


Wind Direction:

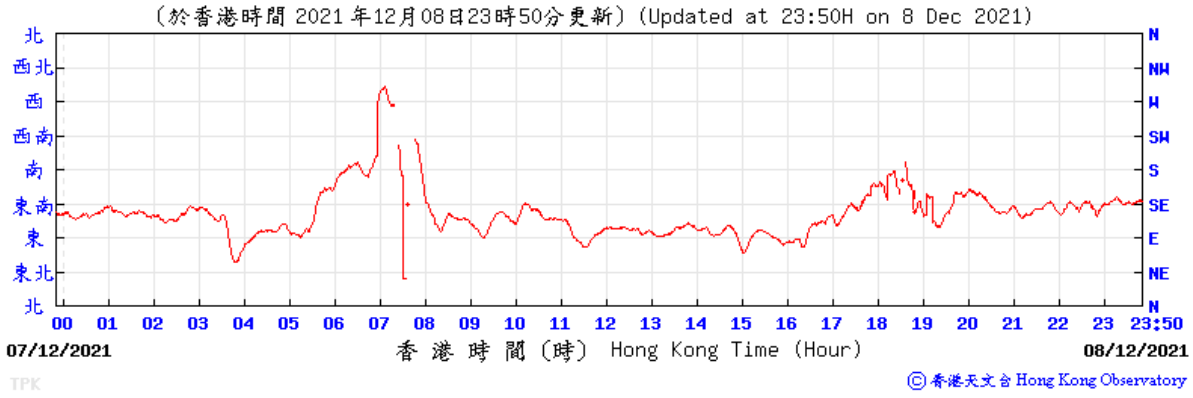


B. 07/12/2021:

Wind Direction:

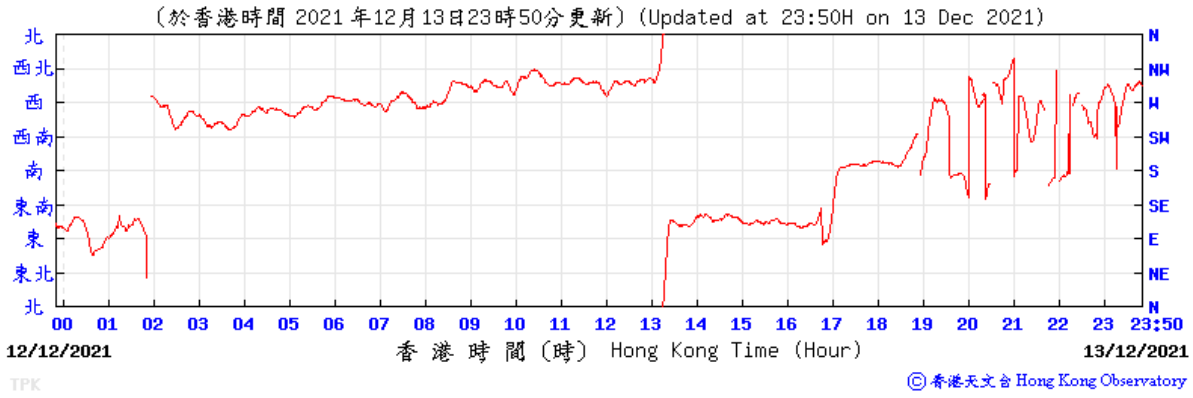


Wind Direction:



C. 13/12/2021:

Wind Direction:



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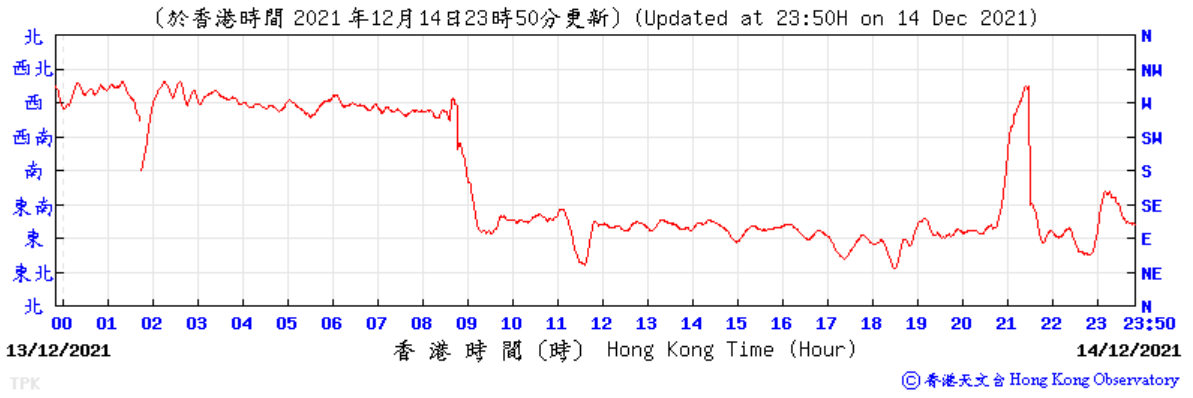
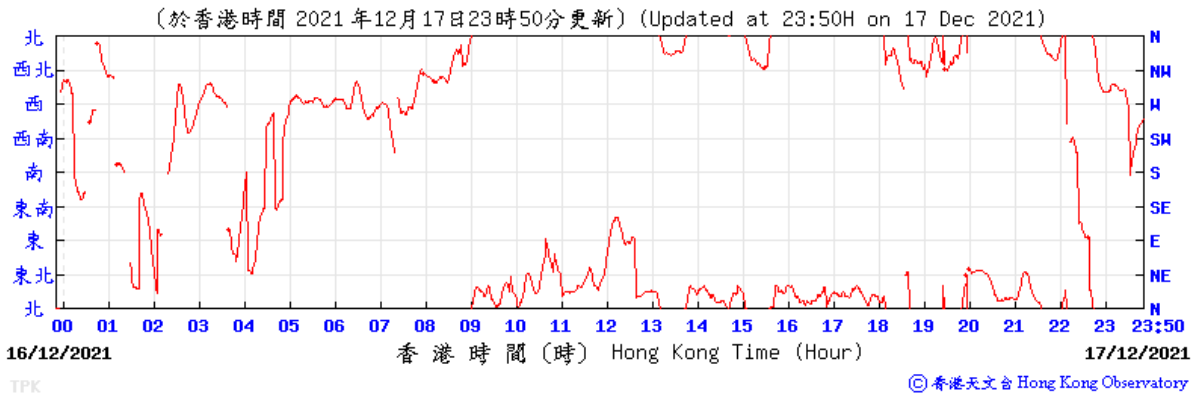


D. 17/12/2021:

Wind Direction:



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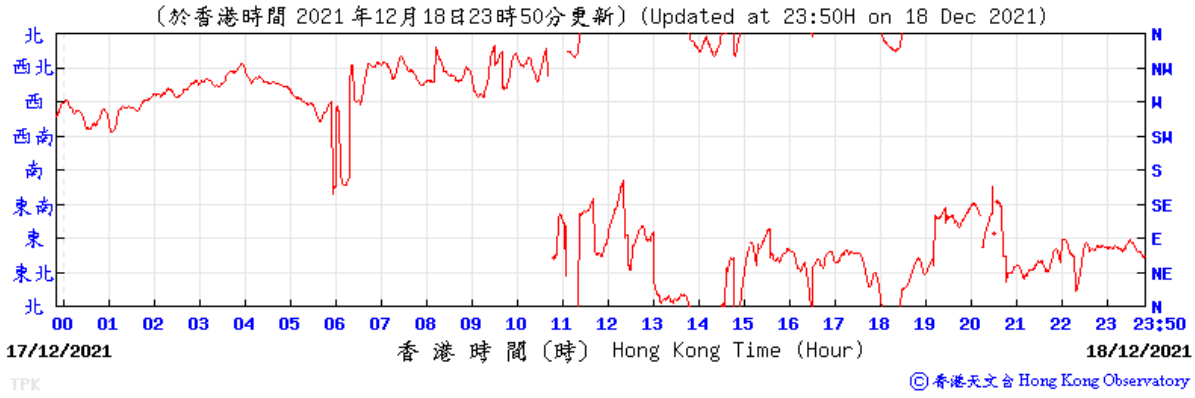
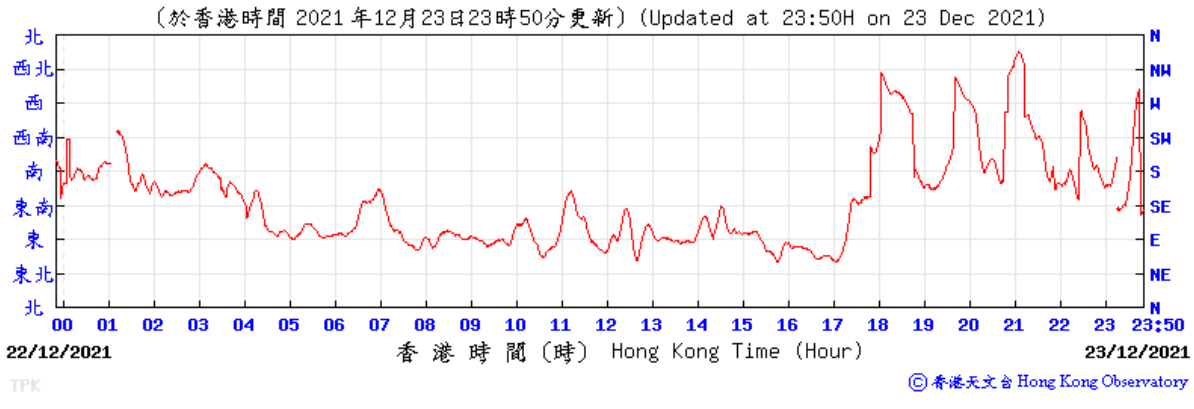


E. 23/12/2021

Wind Direction:



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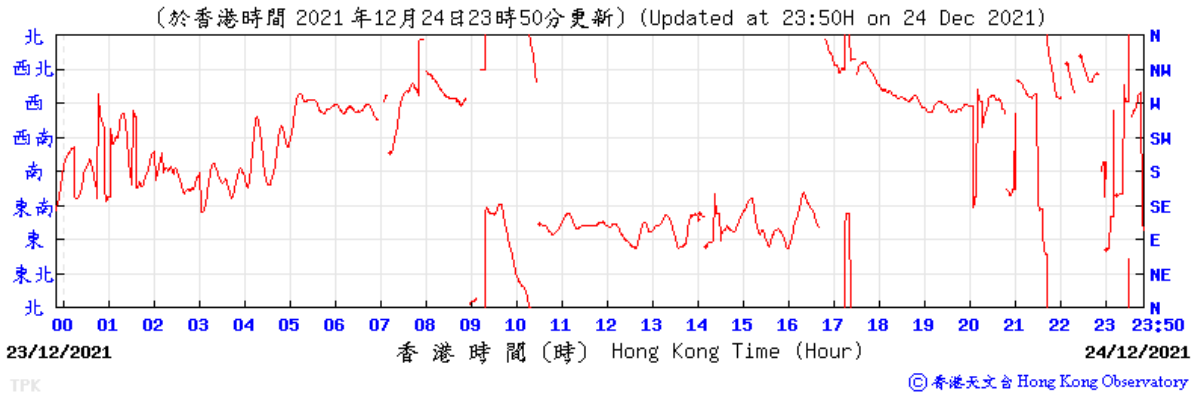

F. 29/12/2021

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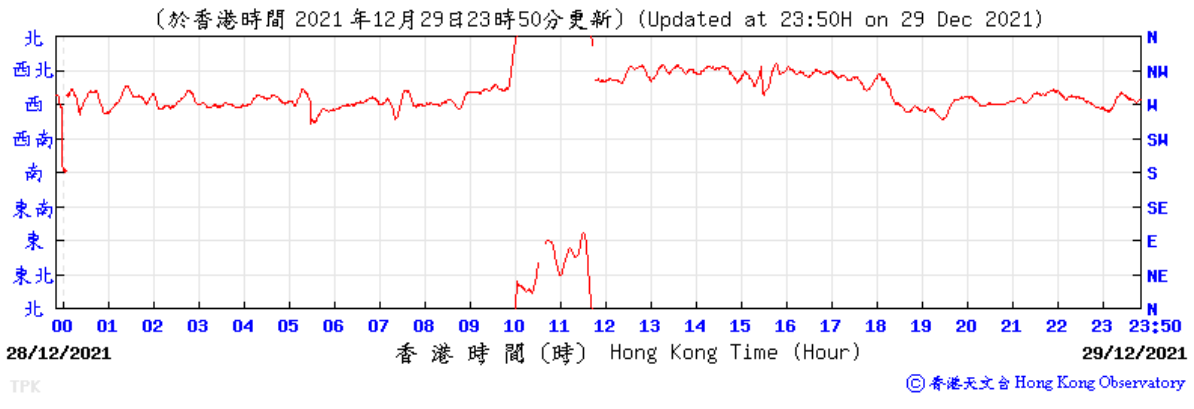

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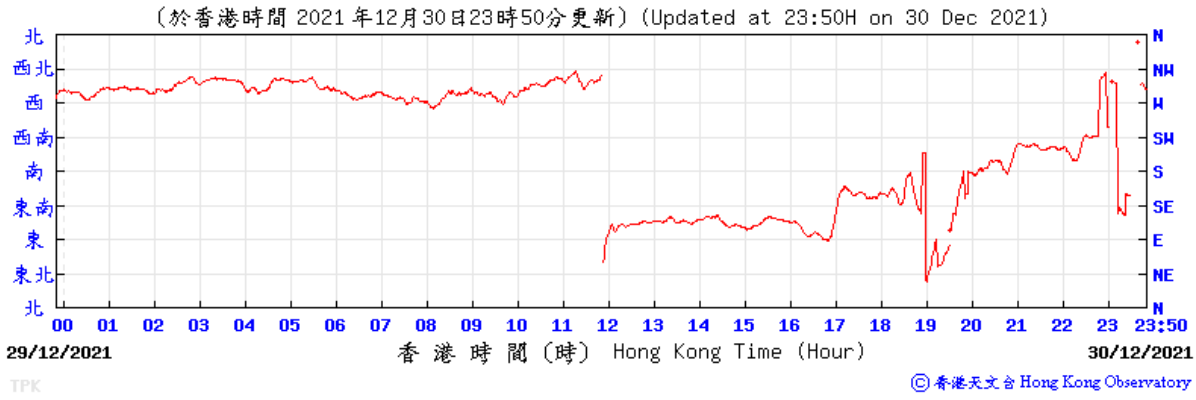

Wind speed data for 01, 07, 13, 17, 23 and 29 December 2021

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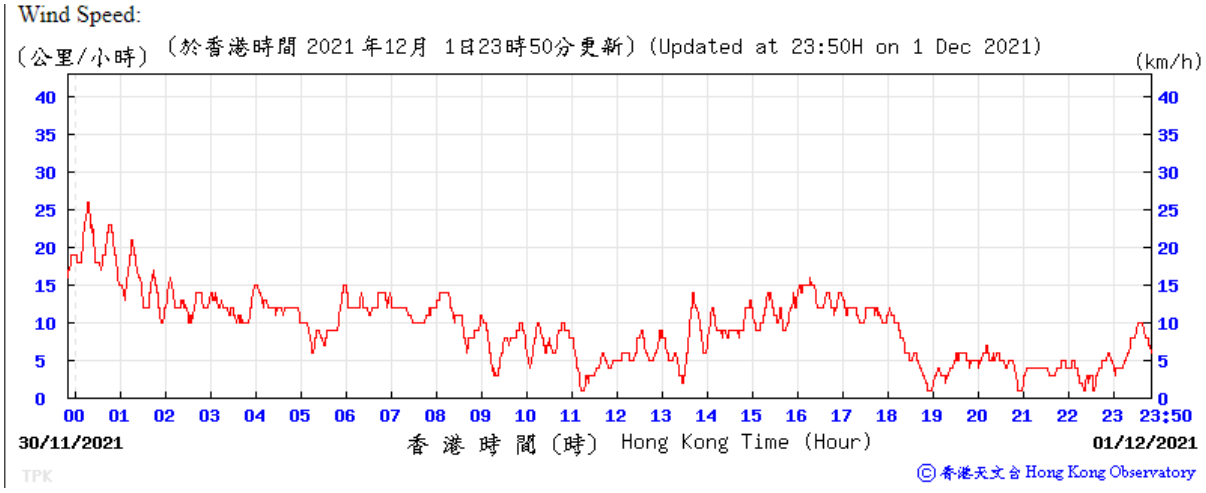

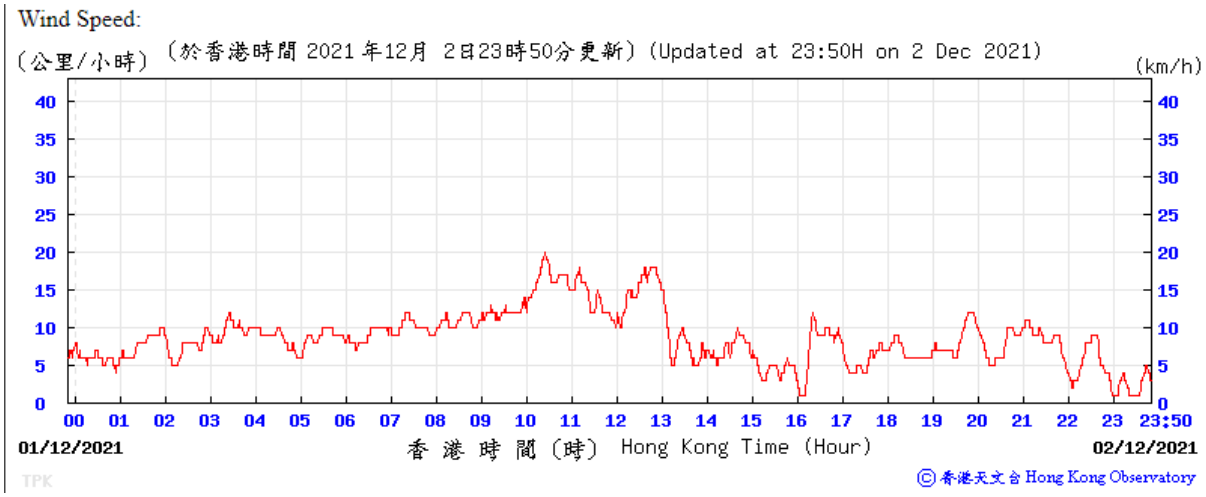

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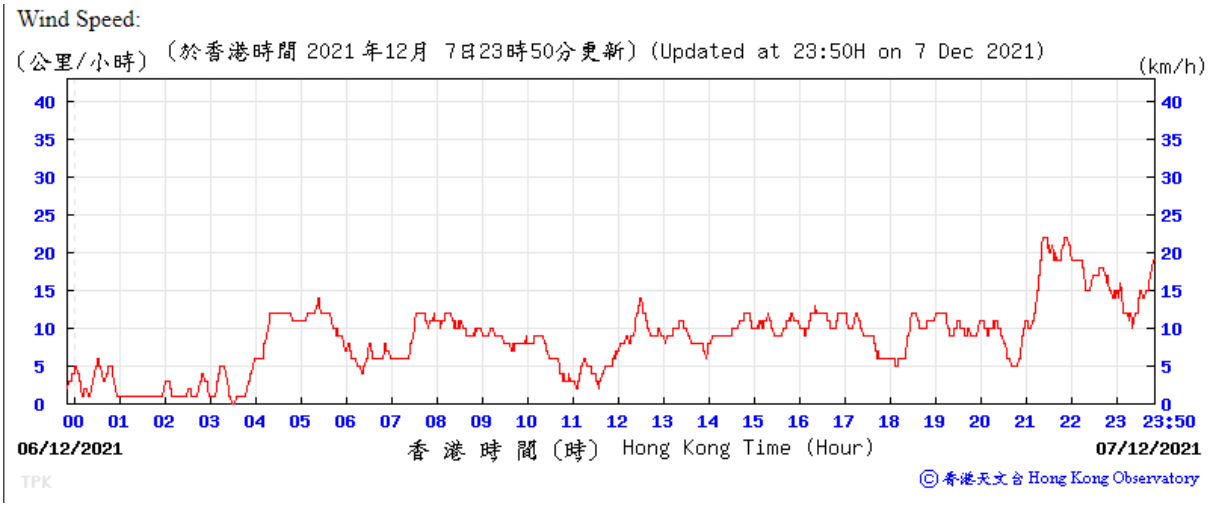
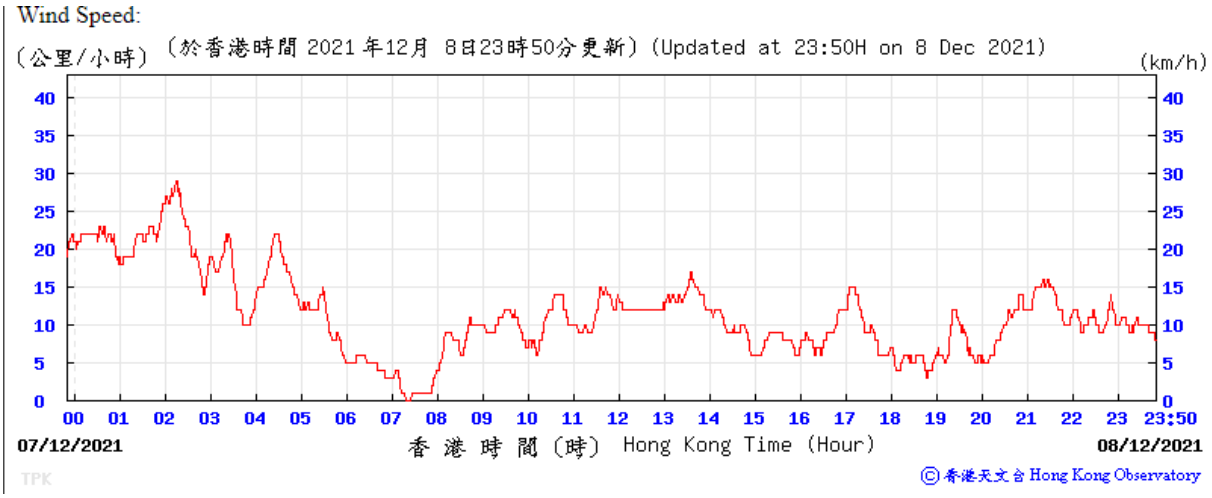
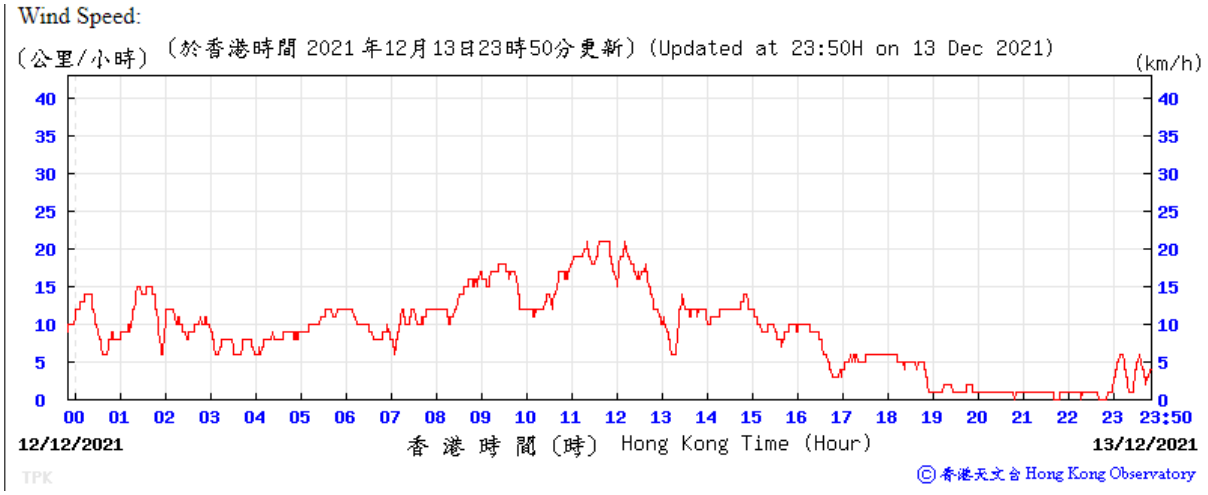
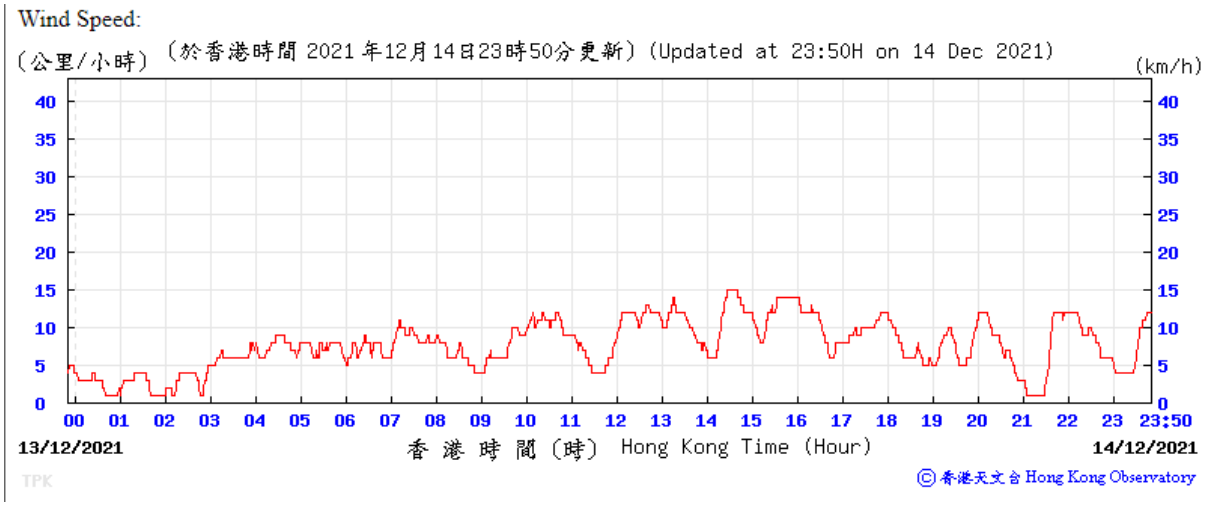




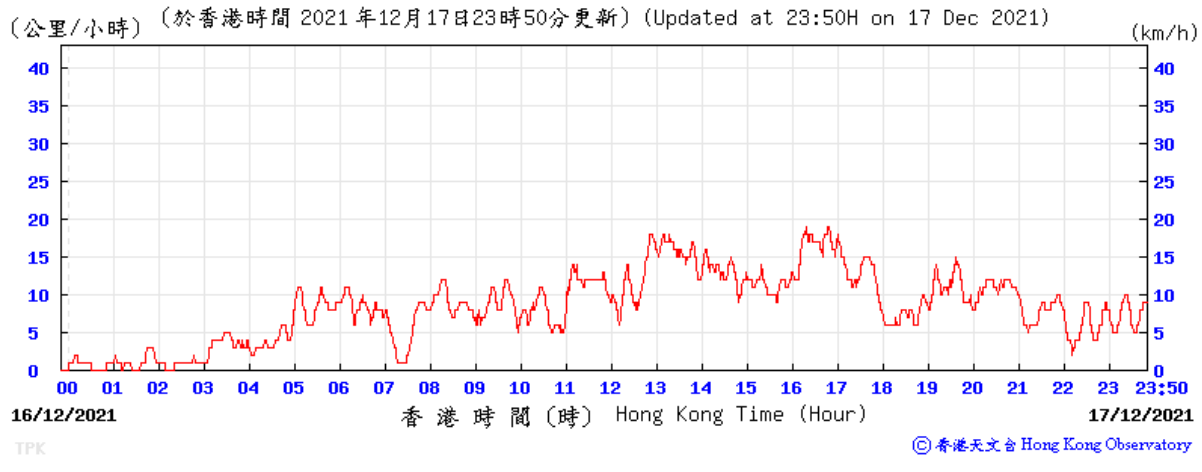
C. 13/12/2021:





D. 17/12/2021:

Wind Speed:



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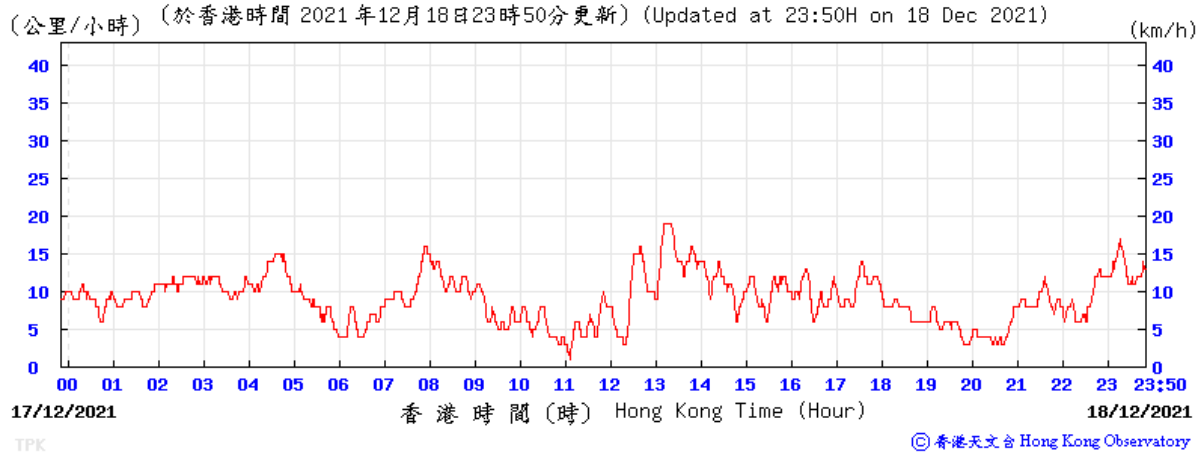
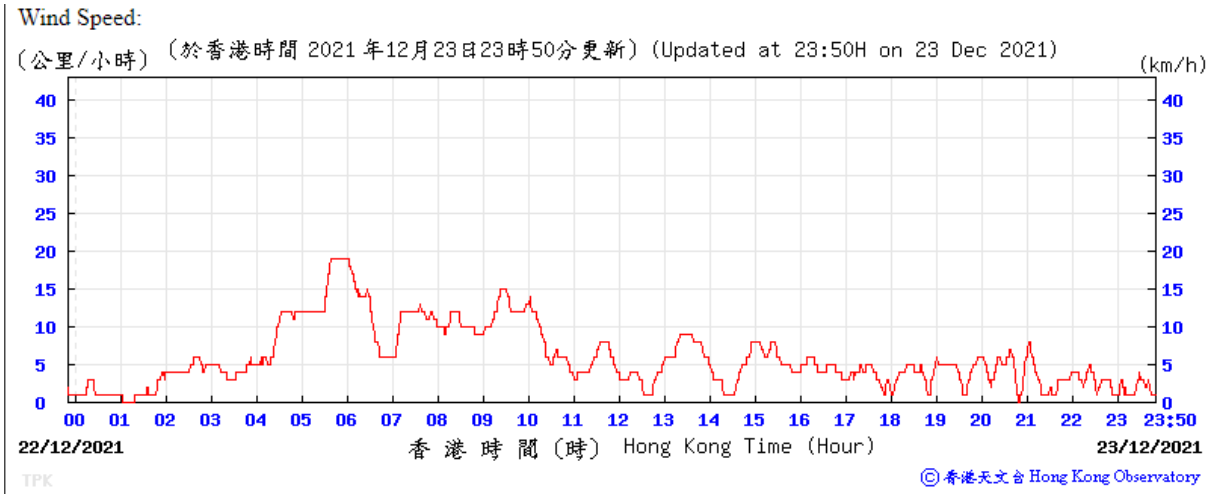
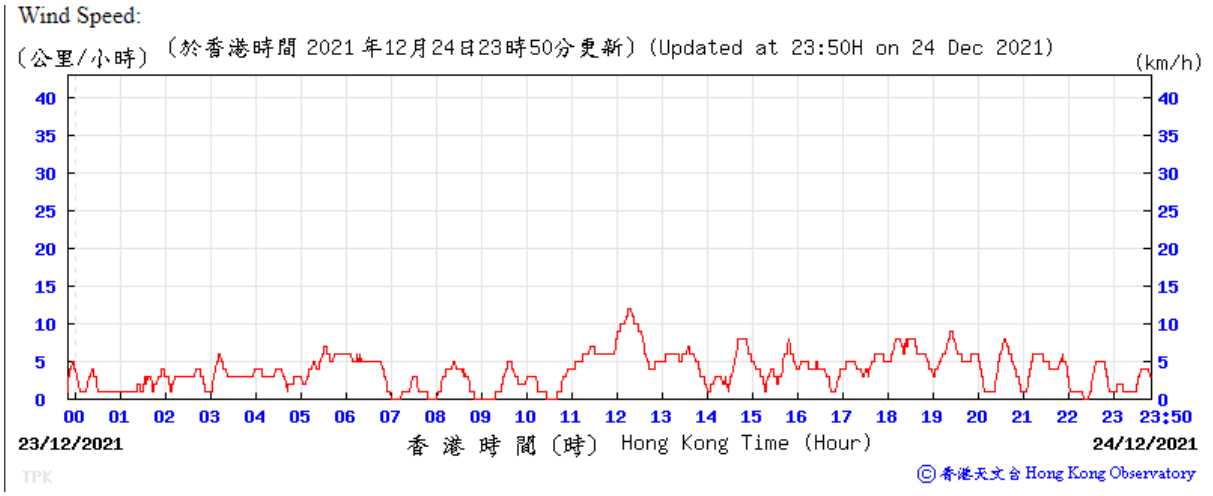
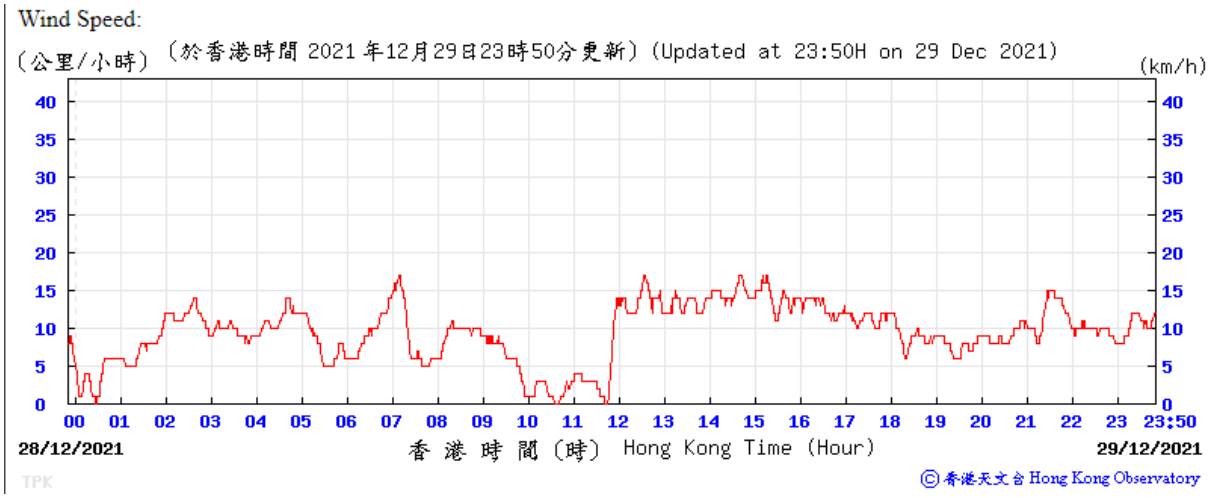


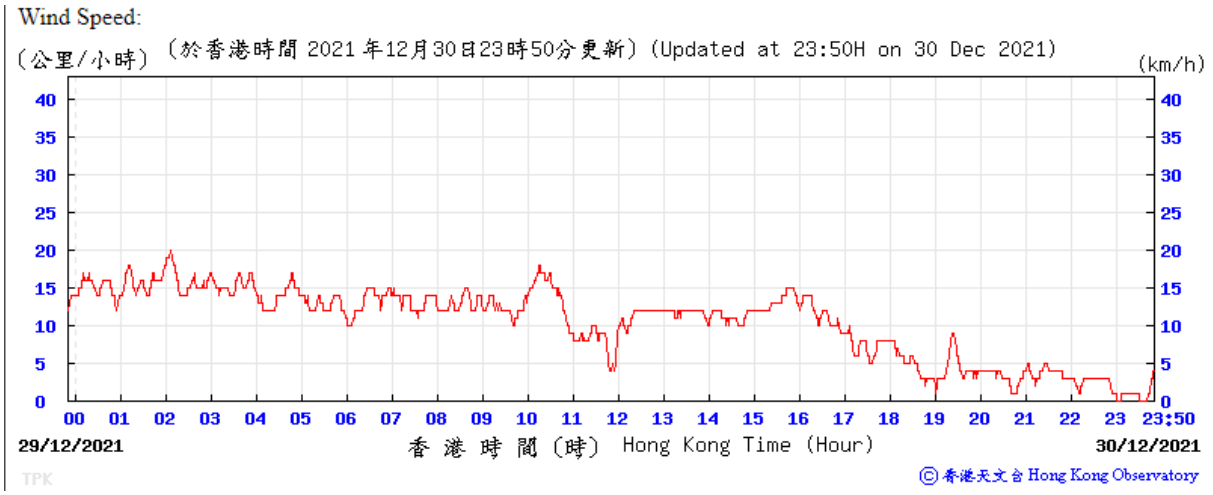
E. 23/12/2021





F. 29/12/2021





APPENDIX J: WASTE FLOW TABLE

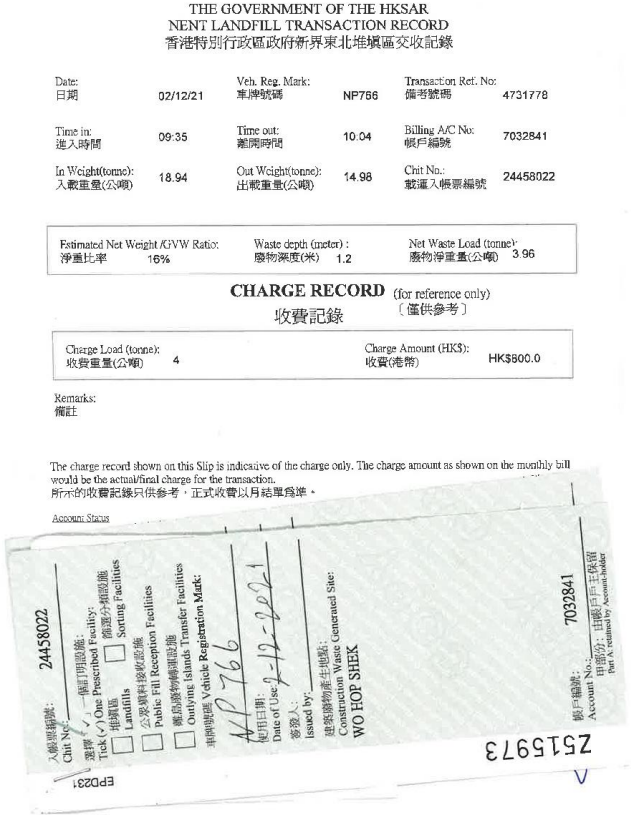
Reporting Month	Total Quantity Generated	Actual Quantities of Inert C&D Materials Generated Monthly					Actual Quantities of C&D Wastes Generated Monthly				
		Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / cardboard 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

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)
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
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

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.

Waste to Landfill (December 2021):

Facility	Date of transaction	Vehicle No.	Account No.	Chit No.	Time-in	Time-out	Waste depth (meter)	Weight-in (tonne)	Weight-out (tonne)	Net weight (tonne)
NENT	02/12/21	NP7*6	7032841	24458022	09:35	10:04	1.2	18.94	14.98	3.96
NENT	04/12/21	NP7*6	7032841	24458023	14:52	15:16	1.36	16.49	15.13	1.36
NENT	11/12/21	LA5*81	7032841	24458024	15:01	15:31	1.24	19.31	15.79	3.52
NENT	20/12/21	NP7*6	7032841	24458025	13:44	14:08	0.85	16.51	15.15	1.36
NENT	29/12/21	LA5*81	7032841	24458026	09:36	10:02	1.1	20.41	15.76	4.65
								Grand Total:		**14.85**



THE GOVERNMENT OF THE HKSAR
NENT LANDFILL TRANSACTION RECORD
香港特別行政區政府新界東北堆填區交收記錄

Date: 日期	02/12/21	Veh. Reg. Mark: 車牌號碼	NP756	Transaction Ref. No: 備考號碼	4731778
Time in: 進入時間	09:35	Time out: 離開時間	10:04	Billing A/C No: 帳戶編號	7032841
In Weight(tonne): 入載重量(公噸)	18.94	Out Weight(tonne): 出載重量(公噸)	14.98	Chit No.: 載運入帳票編號	24458022

Estimated Net Weight /GVW Ratio: 淨重比率 16%	Waste depth (meter) : 廢物深度(米) 1.2	Net Waste Load (tonne): 廢物淨重量(公噸) 3.96

CHARGE RECORD (for reference only)
收費記錄 〔僅供參考〕

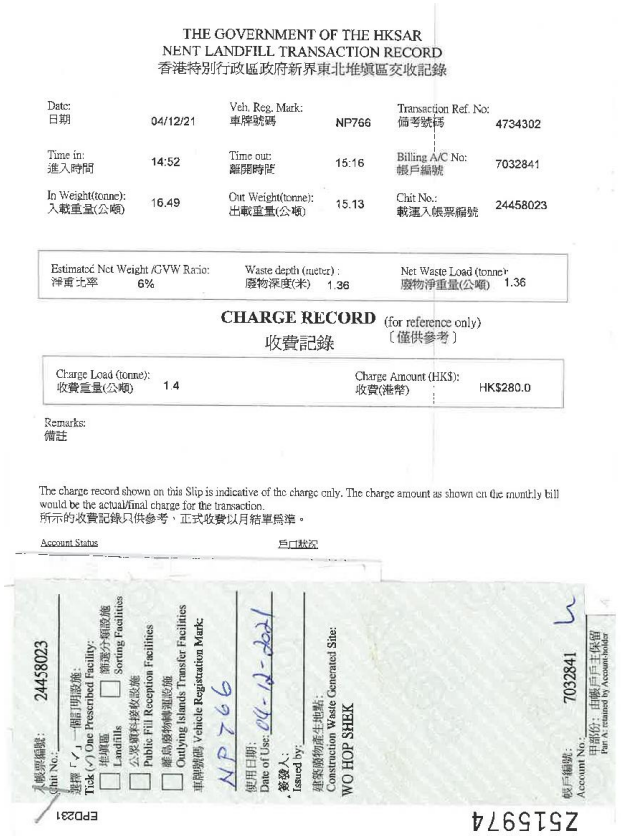
Charge Load (tonne): 收費重量(公噸)	4	Charge Amount (HK$): 收費(港幣)	HK$800.0

Remarks:
備註

The charge record shown on this Slip is indicative of the charge only. The charge amount as shown on the monthly bill would be the actual/final charge for the transition.
所示的收費記錄只供參考，正式收費以月結單爲準。

Account Status

入帳票編號: 24458022
Chit No.:
選擇「√」一個用途:
Tick (√) One Prescribed Facility:
□ 堆填區 Landfills
□ 分類設施 Sorting Facilities
□ 公眾卸料接收設施 Public Fill Reception Facilities
□ 離島廢物轉運設施 Outlying Islands Transfer Facilities
車牌號碼 Vehicle Registration Mark: NP766
使用日期: 2-12-2021
Date of Use:
簽發人:
Issued by:
建築廢物產生地點:
Construction Waste Generated Site: WO HOP SHEK
帳戶編號: 7032841
Account No.:
由帳戶持有人保留
Part A: retained by Account-holder
EPD231
Z5159731



THE GOVERNMENT OF THE HKSAR
NENT LANDFILL TRANSACTION RECORD
香港特別行政區政府新界東北堆填區交收記錄

Date: 日期	04/12/21	Veh. Reg. Mark: 車牌號碼	NP766	Transaction Ref. No: 備考號碼	4734302
Time in: 進入時間	14:52	Time out: 離開時間	15:16	Billing A/C No: 帳戶編號	7032841
In Weight(tonne): 入載重量(公噸)	16.49	Out Weight(tonne): 出載重量(公噸)	15.13	Chit No.: 載運入帳票編號	24458023

Estimated Net Weight /GVW Ratio: 淨重比率 6%	Waste depth (meter) : 廢物深度(米) 1.36	Net Waste Load (tonne): 廢物淨重量(公噸) 1.36

CHARGE RECORD (for reference only)
收費記錄 〔僅供參考〕

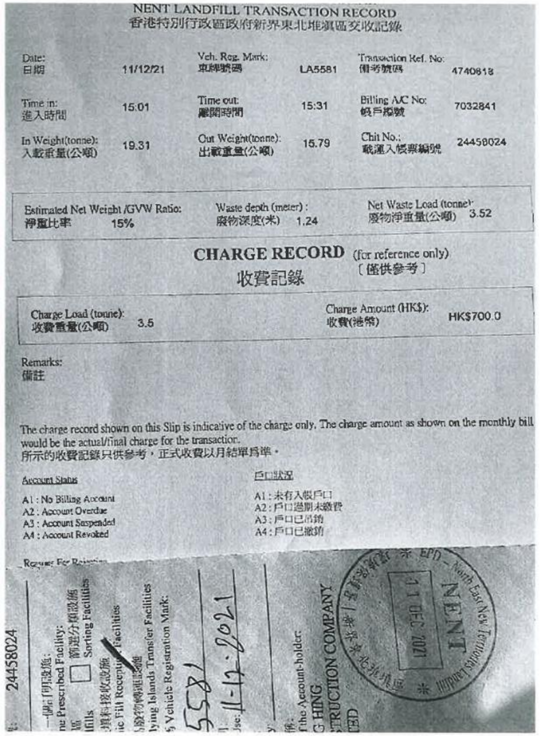
Charge Load (tonne): 收費重量(公噸)	1.4	Charge Amount (HK$): 收費(港幣)	HK$280.0

Remarks:
備註

The charge record shown on this Slip is indicative of the charge only. The charge amount as shown on the monthly bill would be the actual/final charge for the transition.
所示的收費記錄只供參考，正式收費以月結單爲準。

Account Status

入帳票編號: 24458023
Chit No.:
選擇「√」一個用途:
Tick (√) One Prescribed Facility:
□ 堆填區 Landfills
□ 分類設施 Sorting Facilities
□ 公眾卸料接收設施 Public Fill Reception Facilities
□ 離島廢物轉運設施 Outlying Islands Transfer Facilities
車牌號碼 Vehicle Registration Mark: NP766
使用日期: 04-12-2021
Date of Use:
簽發人:
Issued by:
建築廢物產生地點:
Construction Waste Generated Site: WO HOP SHEK
帳戶編號: 7032841
Account No.:
由帳戶持有人保留
Part A: retained by Account-holder
EPD231
Z5159741



NENT LANDFILL TRANSACTION RECORD
香港特別行政區政府新界東北堆填區交收記錄

Date: 日期	11/12/21	Veh. Reg. Mark: 車牌號碼	LA5581	Transaction Ref. No: 備考號碼	4740818
Time in: 進入時間	15:01	Time out: 離開時間	15:31	Billing A/C No: 帳戶編號	7032841
In Weight(tonne): 入載重量(公噸)	19.31	Out Weight(tonne): 出載重量(公噸)	15.79	Chit No.: 載運入帳票編號	24458024

Estimated Net Weight /GVW Ratio: 淨重比率 15%
Waste depth (meter): 廢物深度(米) 1.24
Net Waste Load (tonne): 廢物淨重量(公噸) 3.52

CHARGE RECORD (for reference only)
收費記錄 〔僅供參考〕

Charge Load (tonne): 收費重量(公噸) 3.5
Charge Amount (HK$): 收費(港幣) HK$700.0

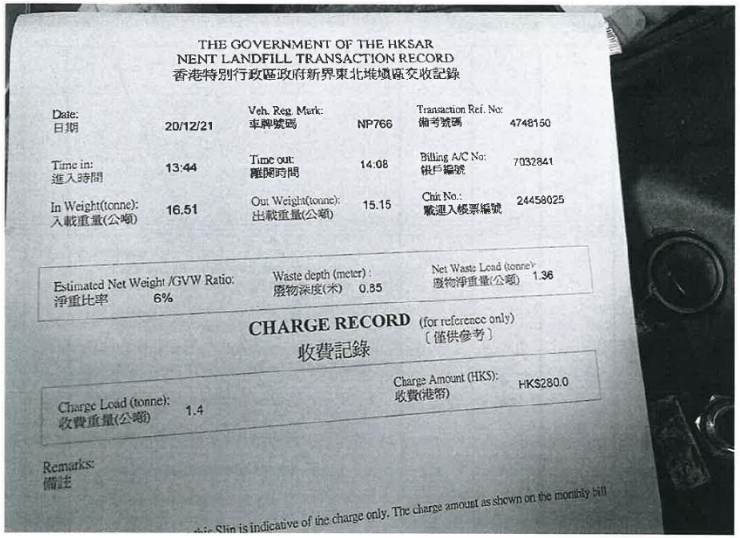
Remarks:
備註

The charge record shown on this Slip is indicative of the charge only. The charge amount as shown on the monthly bill would be the actual/final charge for the transaction.
所示的收費記錄只供參考，正式收費以月結單爲準。

Account Status
A1 : No Billing Account
A2 : Account Overdue
A3 : Account Suspended
A4 : Account Revoked

戶口狀況
A1 : 未有入帳戶口
A2 : 戶口過期未繳費
A3 : 戶口已停用
A4 : 戶口已撤銷

24458024
NENT
11 DEC 2021



THE GOVERNMENT OF THE HKSAR
NENT LANDFILL TRANSACTION RECORD
香港特別行政區政府新界東北堆填區交收記錄

Date: 日期	20/12/21	Veh. Reg. Mark: 車牌號碼	NP766	Transaction Ref. No: 備考號碼	4748150
Time in: 進入時間	13:44	Time out: 離開時間	14:08	Billing A/C No: 帳戶編號	7032841
In Weight(tonne): 入載重量(公噸)	16.51	Out Weight(tonne): 出載重量(公噸)	15.15	Chit No.: 載運入帳票編號	24458025

Estimated Net Weight /GVW Ratio: 淨重比率 6%
Waste depth (meter): 廢物深度(米) 0.85
Net Waste Load (tonne): 廢物淨重量(公噸) 1.36

CHARGE RECORD (for reference only)
收費記錄 〔僅供參考〕

Charge Load (tonne): 收費重量(公噸) 1.4
Charge Amount (HK$): 收費(港幣) HK$280.0

Remarks:
備註

...this Slip is indicative of the charge only. The charge amount as shown on the monthly bill

Date: 日期	29/12/21	Veh. Reg. Mark: 車牌號碼	LA5581	Transaction Ref. No: 交易號碼	6754977
Time in: 進入時間	09:36	Time out: 離開時間	10:02	Billing A/C No: 帳戶號碼	7032841
In Weight(tonne): 入載重量(公噸)	20.41	Out Weight(tonne): 出載重量(公噸)	15.76	Chit No.: 載運入帳票編號	24458026

Estimated Net Weight /GVW Ratio: 淨重比率 19%
Waste depth (meter): 廢物深度(米) 1.1
Net Waste Load (tonne): 廢物淨重量(公噸) 4.65

CHARGE RECORD (for reference only)
收費記錄 [僅供參考]

Charge Load (tonne): 收費重量(公噸) 4.7
Charge Amount (HK$): 收費(港幣) HK$940.0

Remarks:
備註

The charge record shown on this Slip is indicative of the charge only. The charge amount as shown on the monthly bill would be the actual/final charge for the transaction.
所示的收費記錄只供參考，正式收費以月結單為準。

Account Status
A1 : No Billing Account
A2 : Account Overdue
A3 : Account Suspended
A4 : Account Revoked

戶口狀況
A1 : 未有入帳戶口
A2 : 戶口過期未繳費
A3 : 戶口已吊銷
A4 : 戶口已撤銷

入帳票編號: Chit No.: 24458025
選擇一個訂明設施: Tick (✓) One Prescribed Facility:
堆填區 Landfills
篩選分類設施 Sorting Facilities
公眾填料接收設施 Public Fill Reception Facilities
離島廢物轉運設施 Outlying Islands Transfer Facilities
車輛登記號碼 Vehicle Registration Mark: LA5581
使用日期: Date of Use: 29-12-2021
簽發人: Issued by:
戶口名稱: Name of the Account-holder: SHING HING CONSTRUCTION COMPANY LIMITED
29 DEC 2021
7032841

APPENDIX K: SITE INSPECTION PROFORMA

Acuity Sustainability Consulting Limited
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Contract no. AL G513 Expansion of Wo Hop Shek Crematorium

WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

Inspection Date: 1 Dec 2021 **Inspected by:** **ET:** Johnny Kwong **AR:** L. Wong

Inspection Time: 10:00 **Contractor:** M.Y. Wong **IEC:** _____

Weather

Condition ☑ Sunny ☐ Fine ☐ Overcast ☐ Drizzle ☐ Rain ☐ Storm ☐ Hazy

Temperature 18.7 °C **Humidity** ☐ High ☑ Moderate ☐ Low

Wind ☐ Calm ☑ Light ☐ Breeze ☐ Strong

	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
1.00	**Air (Construction Phase)**					
1.01	Vehicle washing facilities (including a high pressure water jet) were provided at every discernible or designated vehicle exit point.	☐	☐	☑	☐	
1.02	Road between the washing facilities and the exit point is paved with concrete, bituminous or hardcore material.	☐	☐	☑	☐	
1.03	Every main haul road is paved with concrete, bituminous hardcore materials or metal plates, and kept clear of dusty materials. Or unpaved haul roads and areas are sprayed with water to keep the entire road surface wet.	☐	☐	☑	☐	
1.04	Stockpile of dusty material including demolished items is either: a) covered entirely by impervious sheeting, or 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.	☐	☐	☑	☐	
1.05	Exposed earth is properly treated by compaction, hydroseeding, vegetation planting or seating with latex, vinyl, bitumen within six months after the last construction activity on the site or part of the site where the exposed earth lies.	☐	☐	☑	☐	
1.06	Water is sprayed to all dusty materials before loading or transfer operation.	☐	☐	☑	☐	
1.07	Any debris is covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the three sides.	☐	☐	☑	☐	
1.08	Water is sprayed to debris before it is dumped into a chute.	☐	☐	☑	☐	
1.09	Vehicles for transporting dusty materials/spoils are covered with tarpaulin or similar material. The cover extends over the edges of the sides and tailboards.	☐	☐	☑	☐	
1.10	Water is sprayed immediately to the working area for uprooting of trees, shrubs, or vegetation or the removal of boulders, pole, pillars before, during and after the operation.	☐	☐	☑	☐	
1.11	Workers at all levels are co-operative to avoid dust generation and dispersion to the surrounding environment.	☐	☐	☑	☐	
2.00	**Noise (Construction Phase)**					

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	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
2.01	Only well-maintained plant is operated on site and the plant should be regularly serviced during the construction works..	☐	☐	☑	☐	
2.02	Plant used intermittently is turned off or throttled down when not in active use.	☐	☐	☑	☐	
2.03	Plant that emits noise strongly in one direction is oriented to face away from NSRs.	☐	☐	☑	☐	
2.04	Silencers, mufflers and enclosures for plant are applied where possible and maintained adequately throughout the works	☐	☐	☑	☐	
2.05	Where possible, mobile plant is sited away from NSRs	☐	☐	☑	☐	
2.06	PME is well maintained and used properly on site to minimise any excessive noise generated.	☐	☐	☑	☐	
2.07	Stockpiles of excavated materials and other structures such as site buildings should be used effectively to screen noise from the works.	☐	☐	☑	☐	
3.00	**Land Contamination (Construction Phase)**					
	N/A to the Phase III development					
4.00	**Waste Management (Construction Phase)**					
4.01	The necessary waste disposal permits from the appropriate authorities are obtained, in accordance with the Waste Disposal Ordinance (Cap. 354), Waste Disposal (Chemical Waste) (General) Regulation and the Land (Miscellaneous Provision) Ordinance (Cap. 28).	☐	☐	☑	☐	
4.02	A billing account with EPD for disposal of construction waste is obtained.	☐	☐	☑	☐	
4.03	A Waste Management Plan (WMP), incorporated in an Environmental Management Plan (EMP) is prepared and submitted to the Engineer/Supervising Officer for approval. Reference is made to Environment, Transport and Works Bureau Technical Circular (Works) (ETWB TCW) 19/2005.	☐	☐	☑	☐	
4.04	An approved person to be responsible for good site practice is nominated, including arrangements for collection and effective disposal to an appropriate facility of all wastes generated at the site.	☐	☐	☑	☐	
4.05	Is authorised or licensed waste hauler used to collect specific category of waste?	☐	☐	☑	☐	
4.06	A trip-ticket system is 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 is made to ETWB TCW No. 31/2004.	☐	☐	☑	☐	
4.07	Training of site personnel in proper waste management and chemical waste handling procedures.	☐	☐	☑	☐	

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	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
4.08	Is routine cleaning and maintenance programme for drainage systems, sumps and oil interceptors conducted?	☐	☐	☑	☐	
4.09	Are sufficient waste disposal points and regular collection for disposal provided?	☐	☐	☑	☐	
4.10	Are appropriate measures to minimise windblown litter and dust during transportation of waste, such as covering trucks or transporting wastes in enclosed containers adopted?	☐	☐	☑	☐	
4.11	Is recording system for the amount of wastes generated, recycled and disposed of (including the disposal sites) implemented?	☐	☐	☑	☐	
4.12	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.	☐	☐	☑	☐	
4.13	Encourage collection of aluminium cans, plastic bottles and packaging material (e.g. carton boxes) and office paper by individual collectors. Separately labelled bins are provided to help segregate this waste from other general refuse generated by the work force.	☐	☐	☑	☐	
4.14	Are C&D materials reused when possible to reduce the amount of C&D material/waste?	☐	☐	☑	☐	
4.15	Are wood, steel and other metals 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?	☐	☐	☑	☐	
4.16	Minimise the potential for damage or contamination of construction material by having proper storage and site practices.	☐	☐	☑	☐	
4.17	Plan and stock construction materials carefully to minimise the amount of surplus materials.	☐	☐	☑	☐	
4.18	Rock and soil generated from excavation are reused for site formation and excavated material from foundation work reused for landscaping as far as practicable to avoid disposal off-site.	☐	☐	☑	☐	
4.19	Is reuse of the public fill and C&D waste practiced on site as far as practicable?	☐	☐	☑	☐	
4.20	The handling of C&D materials is governed by WBTC No. 2/93. Inert C&D material (public fill) is 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 reduce the pressure on landfill sites.	☐	☐	☑	☐	
4.21	Are individuals or companies who deliver public fill to public filling areas obtained dumping licences?	☐	☐	☑	☐	

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	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
4.22	Are careful design, planning and good site management adopted to minimise overordering and generation of waste materials such as concrete, mortar and cement grouts? The design of formwork 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 are considered to increase the potential for reuse and minimize C&D waste generation.	☐	☐	☑	☐	
4.23	The contractor uses 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.	☐	☐	☑	☐	
4.24	General refuse is stored in enclosed bins or compaction units separate from C&D and chemical wastes. A reputable waste collector is 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.	☐	☐	☑	☐	
	Chemical Waste					
4.25	Contractor registers with the EPD as chemical waste producer if any chemical waste is generated	☐	☐	☑	☐	
4.26	All the chemical waste is handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. The chemical waste is stored and collected by an approved contractor for disposal at a licensed facility in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	☐	☐	☑	☐	
4.27	Principles of reuse and recycle chemical waste on site as far as practicable is adopted by the contractor.	☐	☐	☑	☐	
4.28	Are unused chemicals or those with remaining functional capacity reused as far as practicable?	☐	☐	☑	☐	
4.29	Disposal of chemical waste via 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.	☐	☐	☑	☐	
5.00	**Landscape and Visual (Construction Phase)**					
5.01	Do site offices have olive green roof and façade coating or colour that matche with existing environment?	☐	☐	☑	☐	
5.02	Are site offices and the construction yard decommissioned after construction?	☑	☐	☐	☐	
5.03	The height of site offices, including the rooftop does not exceed 10m, except building services equipment such as antennas, which exceeds 10 m but is coated in black.	☐	☐	☑	☐	

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	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
5.04	Is site hoarding with 2.4m height and colour in harmony with the surrounding environment erected along the site boundary until the completion of relevant construction phases?	☑	☐	☐	☐	site hoarding was removed but the plastic barrier has been in use.
5.05	Are construction plants and building materials orderly and carefully stored to appear neat and avoid visibility from outside where practical?	☐	☐	☑	☐	
5.06	Are excess materials removed from site as soon as practical?	☐	☐	☑	☐	
5.07	Are all construction plants removed from site upon completion of construction works?	☑	☐	☐	☐	The construction work has not been completed yet.
5.08	Are construction lights oriented away from the viewing location of VSRs?	☐	☐	☑	☐	
5.09	Are all lightings facing sensitive receiver installed with frosted diffusers and reflective covers?	☐	☐	☑	☐	
5.10	Trees that require removal are transplanted on site if practical. If not practical, these trees will be transplanted in locations within the vicinity as approved by the Architect.	☐	☐	☑	☐	
5.11	Planting works are carried out under the supervision of a specialist landscape specialist.	☐	☐	☑	☐	
5.12	The rooftop of the cremation plant room is planted with lawn.	☑	☐	☐	☐	Lawn has not been planted
5.13	New trees, shrubs and groundcover are carefully selected and designed to homogenize with the environment.	☑	☐	☐	☐	No planting work
5.14	No tree is transplanted or felled without prior approval by relevant Government departments.	☐	☐	☑	☐	
5.15	All trees that are marked for retention are fenced off with a 1.2m high fence around the dripline of trees or larger area as far as feasible.	☑	☐	☐	☐	All tree planting work has completed
5.16	Transplant preparation works are carried out as soon as possible after the commencement of construction. Over-pruning such as hard pruning of tree crown, pollarding or topping are avoided. Rootball and crown pruning are carried out over at least 3 months.	☐	☐	☑	☐	
5.17	Existing shrub and ground cover planting areas that will not be removed are maintained in good condition and enhanced if practical.	☐	☐	☑	☐	
5.18	The chimney has been designed to have sculptural outlook and articulated. It is kept in proportion with the rest of the building.	☐	☐	☑	☐	
5.19	The chimney stack is designed to locate at the least conspicuous location of the site to VSRs.	☐	☐	☑	☐	

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	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
5.20	Bi-weekly checking would be performed on the nine Terminalia mantaly trees within and outside the works area of the Project, or otherwise if the transplantations are not carried out according to the plan.	☐	☐	☑	☐	
5.21	Are silting traps installed to minimize silting to streams?	☐	☐	☑	☐	
5.22	Is the tree compensation to tree loss ratio at least 1:1 in term of quantity? About 100 trees will be planted to compensate for the loss of 54 trees. 100 trees will be planted on site and others, in locations within the vicinity approved by the Architect	☑	☐	☐	☐	No planting work
5.23	Is amenity planting for open spaces included in the Project?	☑	☐	☐	☐	No planting work
5.24	Is screen planting such as planting a roll of trees along the site boundary butting Kiu Tau Road carried out?	☑	☐	☐	☐	No planting work
5.25	Woodland mix, comprising of tree seedlings and shrubs, are planted within the Wo Hop Shek Cemetery to enhance the ecological value and compensatory of tree loss.	☑	☐	☐	☐	No planting work
5.26	Is the 10m height headroom cremation plant room half-sunken to reduce the visual impact to pedestrians?	☐	☐	☑	☐	
6.00	**Water Quality (Construction Phase)**					
6.01	Wastewater is 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 is allowed.	☐	☐	☑	☐	
6.02	Perimeter channels are provided to intercept storm runoff from outside the site. The channels are constructed in advance of site formation works and earthworks.	☐	☐	☑	☐	
6.03	Sand/silt removal facilities such as sand traps, silt traps and sediment basins are provided to remove sand/silt particles from runoff to meet the requirements of the Technical Memorandum standard under the WPCO.	☐	☐	☑	☐	
6.04	Works are carefully programmed to minimise soil excavation works during rainy seasons.	☑	☐	☐	☐	No excavation work
6.05	Exposed soil surfaces are protected by paving as soon as possible to reduce the potential of soil erosion.	☑	☐	☐	☐	No excavation work
6.06	Temporary access roads are protected by crushed gravel and exposed slope surfaces are protected when rainstorms are likely to occur.	☐	☐	☑	☐	
6.07	Trench excavation is avoided in the wet season as far as practicable, and if necessary, these trenches are excavated and backfilled in short sections.	☑	☐	☐	☐	No excavation work
6.08	Open stockpiles of construction materials on site are covered with tarpaulin or similar fabric during rainstorms.	☐	☐	☑	☐	

	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
6.09	Sand and silt in the wash water from the wheel from the wheel washing facility are settled out and removed before discharging into the storm drain.	☐	☐	☑	☐	
6.10	Oil interceptor is provided in the drainage system and regularly emptied to prevent the release of oil and grease into the storm drainage system after accidental spillage.	☐	☐	☑	☐	
6.11	Debris and rubbishes generated on site are collected, handled and disposed of properly to avoid them entering the two streams.	☐	☐	☑	☐	
6.12	All fuel tanks and storage areas are 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.	☐	☐	☑	☐	
6.13	Open storm water drains and culverts near the works area are covered to block the entrance of large debris and refuse.	☐	☐	☑	☐	
6.14	Portable chemical toilets handle the sewage from construction work force if the existing toilets in the Site are not adequate. Licensed contractors who are responsible for appropriate disposal and maintenance of these facilities provide appropriate and adequate portable toilets.	☐	☐	☑	☐	
6.15	Sheet piling is 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 is treated to comply with the standards set in the relevant discharge licence prior discharge. No discharge of the groundwater is allowed into the two streams.	☑	☐	☐	☐	No groundwater was generated.
7.00	**Ecology (Construction Phase)**					
7.01	Any affected trees are transplanted to grassland / scrubland within the Wo Hop Shek Cemetery.	☐	☐	☑	☐	
7.02	Temporary accesses to the work sites are carefully planned and located to minimise disturbance caused to the streams and nearby habitats.	☐	☐	☑	☐	
7.03	Less or smaller construction plants are used to reduce disturbance to the nearby habitats.	☐	☐	☑	☐	
7.04	Vehicles and other plants are carefully maintained and properly used to minimise the chance for accidental spillage.	☐	☐	☑	☐	
7.05	Any spillages that do occur are quickly identified and appropriately cleaned up before they can contaminate streams or groundwater.	☑	☐	☐	☐	No spillage occured
7.06	Basement formation or any construction activities likely to pump out a large quantity of groundwater are protected with sheet-piling at suitable locations around the basement footprint, or by any like method.	☑	☐	☐	☐	No groundwater was generated
7.07	No groundwater is pumped back to the two stream courses to protect the natural integrity of the stream habitat and the associated organism.	☑	☐	☐	☐	No groundwater was generated!

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	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
7.08	Sturdy 1.8 metres protective fencings are located at the edge of the tree canopy but not around the trunk.	☐	☐	☑	☐	
7.09	Works beneath the tree canopy are avoided: If encroachment under the canopy area is unavoidable, adequate protections are provided to ensure no damage of any part of the tree would occur due to the encroachment.	☐	☐	☑	☐	
7.10	Any tree transplanting and planting works are implemented by an approved Landscape Contractor. Quality control of the work is undertaken by a qualified Landscape Architect through site inspections and approval of works.	☐	☐	☑	☐	
7.11	Construction works are restricted within works area which are clearly defined.	☐	☐	☑	☐	
7.12	Woodland or other habitats that are affected by the construction works are well-defined and minimised.	☐	☐	☑	☐	
7.13	Human inference to habitats beyond the site boundary and habitats proposed to be retained are avoided by providing temporary barricades.	☐	☐	☑	☐	
7.14	Works area is reinstated immediately after completion of the construction.	☑	☐	☐	☐	The construction work has not been completed
7.15	Uncontrolled burning of refuse is strictly prohibited. Appropriate fire control measures are provided in order to protect nearby habitats.	☐	☐	☑	☐	
7.16	Trees requiring transplantation or protection are identified based on the information illustrated in the Tree Survey Report.	☐	☐	☑	☐	
7.17	Is layout of the Project carefully designed to avoid or minimize the area of habitat loss and the numbers of trees to be felled?	☐	☐	☑	☐	
7.18	All trees are preserved as far as possible, especially species of conservation concern. Recommendations provided in the Tree Survey Report to mitigate impacts on trees shall be followed.	☐	☐	☑	☐	
7.19	Disturbance to the two plant species of conservation concern, namely Aquilaria sinensis and Cibotium barometz, is avoided. Where removal of these species is unavoidable, it is recommended to transplant them to habitats with similar conditions. Following transplantation, regular monitoring of these plants is conducted by a suitable qualified botanist / horticulturist over a 12-month period;	☑	☐	☐	☐	
7.20	Compensatory planting of the felled trees follows the Technical Circular No. 3/2006 issued by ETWB.	☑	☐	☐	☐	No planting work
7.21	The Site inside or in the proximity of the streams and nearby habitats is temporarily isolated, by placing of sandbags or silt curtains with lead edge at the bottom and properly supported props, to prevent adverse impacts on these areas.	☐	☐	☑	☐	

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	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
7.22	Appropriate storage locations are situated well away from the streams and nearby habitats for the temporary storage of materials (e.g. equipment, filling materials, chemicals and fuel) and temporary stockpile of construction debris and spoil are identified before commencement of the works.	☐	☐	☑	☐	
7.23	Stockpiling of construction materials, are covered and located away from the streams and nearby habitats.	☐	☐	☑	☐	
7.24	Construction debris and spoil are covered up and/or properly disposed of as soon as possible to avoid being washed into the streams and nearby habitats by rain.	☐	☐	☑	☐	
7.25	Construction effluent, site runoff and sewage is properly collected and/or treated.	☐	☐	☑	☐	
7.26	Proper locations for discharge outlets of any wastewater treatment facilities well away from the streams and nearby habitats are identified.	☐	☐	☑	☐	
7.27	Vehicles and other plant are carefully maintained and properly used to minimise the chance for accidental spillage.	☐	☐	☑	☐	
7.28	Temporary geo-textile silt fences around earth moving works are erected to trap any sediments being washed away and prevent them from entering surrounding areas.	☐	☐	☑	☐	
7.29	Exposed soil or other loose materials are covered with tarpaulins to prevent erosion, and then seeded and covered with a biodegradable geotextile blanket for erosion control purposes.	☐	☐	☑	☐	

*Remarks: N/A = Not applicable at current stage

N/O = Not observed in the site walk

Yes = Compliance

No = Non-compliance

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Remark / Follow up of Observation(s) and Non-compliance(s) of Last Weekly Site Inspection:

Observation (s):

Reminder (s):

- Housekeeping should be maintain regularly

Note : Figure 4, 5 regarding to clause 3.6 of EP has been displayed at the entrance of the site.

Signatures:

ET Representative	Contractor's Representative	Architect's Representative	IEC's Representative
(Name: Johnny Kwong)	(Name: M.T. WONG)	(Name: K. WONG)	(Name:)

Acuity Sustainability Consulting Limited
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WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

Inspection Date: 8 Dec 2021 **Inspected by:** **ET:** Johnny Kwong **AR:** L. Wong
Inspection Time: 09:30 **Contractor:** M.Y. Wong **IEC:** Hilton Tam
Weather
Condition ☑ Sunny ☐ Fine ☐ Overcast ☐ Drizzle ☐ Rain ☐ Storm ☐ Hazy
Temperature 23.2 °C **Humidity** ☐ High ☑ Moderate ☐ Low
Wind ☐ Calm ☑ Light ☐ Breeze ☐ Strong

	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
1.00	**Air (Construction Phase)**					
1.01	Vehicle washing facilities (including a high pressure water jet) were provided at every discernible or designated vehicle exit point.	☐	☐	☑	☐	
1.02	Road between the washing facilities and the exit point is paved with concrete, bituminous or hardcore material.	☐	☐	☑	☐	
1.03	Every main haul road is paved with concrete, bituminous hardcore materials or metal plates, and kept clear of dusty materials. Or unpaved haul roads and areas are sprayed with water to keep the entire road surface wet.	☐	☐	☑	☐	
1.04	Stockpile of dusty material including demolished items is either: a) covered entirely by impervious sheeting, or 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.	☐	☐	☑	☐	
1.05	Exposed earth is properly treated by compaction, hydroseeding, vegetation planting or seating with latex, vinyl, bitumen within six months after the last construction activity on the site or part of the site where the exposed earth lies.	☐	☐	☑	☐	
1.06	Water is sprayed to all dusty materials before loading or transfer operation.	☐	☐	☑	☐	
1.07	Any debris is covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the three sides.	☐	☐	☑	☐	
1.08	Water is sprayed to debris before it is dumped into a chute.	☐	☐	☑	☐	
1.09	Vehicles for transporting dusty materials/spoils are covered with tarpaulin or similar material. The cover extends over the edges of the sides and tailboards.	☐	☐	☑	☐	
1.10	Water is sprayed immediately to the working area for uprooting of trees, shrubs, or vegetation or the removal of boulders, pole, pillars before, during and after the operation.	☐	☐	☑	☐	
1.11	Workers at all levels are co-operative to avoid dust generation and dispersion to the surrounding environment.	☐	☐	☑	☐	
2.00	**Noise (Construction Phase)**					

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2.01	Only well-maintained plant is operated on site and the plant should be regularly serviced during the construction works..	☐	☐	☑	☐	
2.02	Plant used intermittently is turned off or throttled down when not in active use.	☐	☐	☑	☐	
2.03	Plant that emits noise strongly in one direction is oriented to face away from NSRs.	☐	☐	☑	☐	
2.04	Silencers, mufflers and enclosures for plant are applied where possible and maintained adequately throughout the works	☐	☐	☑	☐	
2.05	Where possible, mobile plant is sited away from NSRs	☐	☐	☑	☐	
2.06	PME is well maintained and used properly on site to minimise any excessive noise generated.	☐	☐	☑	☐	
2.07	Stockpiles of excavated materials and other structures such as site buildings should be used effectively to screen noise from the works.	☐	☐	☑	☐	
3.00	**Land Contamination (Construction Phase)**					
	N/A to the Phase III development					
4.00	**Waste Management (Construction Phase)**					
4.01	The necessary waste disposal permits from the appropriate authorities are obtained, in accordance with the Waste Disposal Ordinance (Cap. 354), Waste Disposal (Chemical Waste) (General) Regulation and the Land (Miscellaneous Provision) Ordinance (Cap. 28).	☐	☐	☑	☐	
4.02	A billing account with EPD for disposal of construction waste is obtained.	☐	☐	☑	☐	
4.03	A Waste Management Plan (WMP), incorporated in an Environmental Management Plan (EMP) is prepared and submitted to the Engineer/Supervising Officer for approval. Reference is made to Environment, Transport and Works Bureau Technical Circular (Works) (ETWB TCW) 19/2005.	☐	☐	☑	☐	
4.04	An approved person to be responsible for good site practice is nominated, including arrangements for collection and effective disposal to an appropriate facility of all wastes generated at the site.	☐	☐	☑	☐	
4.05	Is authorised or licensed waste hauler used to collect specific category of waste?	☐	☐	☑	☐	
4.06	A trip-ticket system is 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 is made to ETWB TCW No. 31/2004.	☐	☐	☑	☐	
4.07	Training of site personnel in proper waste management and chemical waste handling procedures.	☐	☐	☑	☐	

Contract no. AL G513 Expansion of Wo Hop Shek Crematorium

	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
4.08	Is routine cleaning and maintenance programme for drainage systems, sumps and oil interceptors conducted?	☐	☐	☑	☐	
4.09	Are sufficient waste disposal points and regular collection for disposal provided?	☐	☐	☑	☐	
4.10	Are appropriate measures to minimise windblown litter and dust during transportation of waste, such as covering trucks or transporting wastes in enclosed containers adopted?	☐	☐	☑	☐	
4.11	Is recording system for the amount of wastes generated, recycled and disposed of (including the disposal sites) implemented?	☐	☐	☑	☐	
4.12	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.	☐	☐	☑	☐	
4.13	Encourage collection of aluminium cans, plastic bottles and packaging material (e.g. carton boxes) and office paper by individual collectors. Separately labelled bins are provided to help segregate this waste from other general refuse generated by the work force.	☐	☐	☑	☐	
4.14	Are C&D materials reused when possible to reduce the amount of C&D material/waste?	☐	☐	☑	☐	
4.15	Are wood, steel and other metals 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?	☐	☐	☑	☐	
4.16	Minimise the potential for damage or contamination of construction material by having proper storage and site practices.	☐	☐	☑	☐	
4.17	Plan and stock construction materials carefully to minimise the amount of surplus materials.	☐	☐	☑	☐	
4.18	Rock and soil generated from excavation are reused for site formation and excavated material from foundation work reused for landscaping as far as practicable to avoid disposal off-site.	☐	☐	☑	☐	
4.19	Is reuse of the public fill and C&D waste practiced on site as far as practicable?	☐	☐	☑	☐	
4.20	The handling of C&D materials is governed by WBTC No. 2/93. Inert C&D material (public fill) is 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 reduce the pressure on landfill sites.	☐	☐	☑	☐	
4.21	Are individuals or companies who deliver public fill to public filling areas obtained dumping licences?	☐	☐	☑	☐	

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	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
4.22	Are careful design, planning and good site management adopted to minimise overordering and generation of waste materials such as concrete, mortar and cement grouts? The design of formwork 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 are considered to increase the potential for reuse and minimize C&D waste generation.	☐	☐	☑	☐	
4.23	The contractor uses 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.	☐	☐	☑	☐	
4.24	General refuse is stored in enclosed bins or compaction units separate from C&D and chemical wastes. A reputable waste collector is 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.	☐	☐	☑	☐	
	Chemical Waste					
4.25	Contractor registers with the EPD as chemical waste producer if any chemical waste is generated	☐	☐	☑	☐	
4.26	All the chemical waste is handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. The chemical waste is stored and collected by an approved contractor for disposal at a licensed facility in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	☐	☐	☑	☐	
4.27	Principles of reuse and recycle chemical waste on site as far as practicable is adopted by the contractor.	☐	☐	☑	☐	
4.28	Are unused chemicals or those with remaining functional capacity reused as far as practicable?	☐	☐	☑	☐	
4.29	Disposal of chemical waste via 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.	☐	☐	☑	☐	
5.00	**Landscape and Visual (Construction Phase)**					
5.01	Do site offices have olive green roof and façade coating or colour that matche with existing environment?	☐	☐	☑	☐	
5.02	Are site offices and the construction yard decommissioned after construction?	☑	☐	☐	☐	
5.03	The height of site offices, including the rooftop does not exceed 10m, except building services equipment such as antennas, which exceeds 10 m but is coated in black.	☐	☐	☑	☐	

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	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
5.04	Is site hoarding with 2.4m height and colour in harmony with the surrounding environment erected along the site boundary until the completion of relevant construction phases?	☑	☐	☐	☐	site hoarding was removed but the plastic barrier has been in use
5.05	Are construction plants and building materials orderly and carefully stored to appear neat and avoid visibility from outside where practical?	☐	☐	☑	☐	
5.06	Are excess materials removed from site as soon as practical?	☐	☐	☑	☐	
5.07	Are all construction plants removed from site upon completion of construction works?	☑	☐	☐	☐	
5.08	Are construction lights oriented away from the viewing location of VSRs?	☐	☐	☑	☐	
5.09	Are all lightings facing sensitive receiver installed with frosted diffusers and reflective covers?	☐	☐	☑	☐	
5.10	Trees that require removal are transplanted on site if practical. If not practical, these trees will be transplanted in locations within the vicinity as approved by the Architect.	☐	☐	☑	☐	
5.11	Planting works are carried out under the supervision of a specialist landscape specialist.	☐	☐	☑	☐	
5.12	The rooftop of the cremation plant room is planted with lawn.	☑	☐	☐	☐	lawn has not been planted.
5.13	New trees, shrubs and groundcover are carefully selected and designed to homogenize with the environment.	☑	☐	☐	☐	No planting work
5.14	No tree is transplanted or felled without prior approval by relevant Government departments.	☐	☐	☑	☐	
5.15	All trees that are marked for retention are fenced off with a 1.2m high fence around the dripline of trees or larger area as far as feasible.	☑	☐	☐	☐	All tree protection work was completed.
5.16	Transplant preparation works are carried out as soon as possible after the commencement of construction. Over-pruning such as hard pruning of tree crown, pollarding or topping are avoided. Rootball and crown pruning are carried out over at least 3 months.	☐	☐	☑	☐	
5.17	Existing shrub and ground cover planting areas that will not be removed are maintained in good condition and enhanced if practical.	☐	☐	☑	☐	
5.18	The chimney has been designed to have sculptural outlook and articulated. It is kept in proportion with the rest of the building.	☐	☐	☑	☐	
5.19	The chimney stack is designed to locate at the least conspicuous location of the site to VSRs.	☐	☐	☑	☐	

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	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
5.20	Bi-weekly checking would be performed on the nine Terminalia mantaly trees within and outside the works area of the Project, or otherwise if the transplantations are not carried out according to the plan.	☐	☐	☑	☐	
5.21	Are silting traps installed to minimize silting to streams?	☐	☐	☑	☐	
5.22	Is the tree compensation to tree loss ratio at least 1:1 in term of quantity? About 100 trees will be planted to compensate for the loss of 54 trees. 100 trees will be planted on site and others, in locations within the vicinity approved by the Architect	☑	☐	☐	☐	
5.23	Is amenity planting for open spaces included in the Project?	☑	☐	☐	☐	
5.24	Is screen planting such as planting a roll of trees along the site boundary butting Kiu Tau Road carried out?	☑	☐	☐	☐	No planting work
5.25	Woodland mix, comprising of tree seedlings and shrubs, are planted within the Wo Hop Shek Cemetery to enhance the ecological value and compensatory of tree loss.	☑	☐	☐	☐	No planting work.
5.26	Is the 10m height headroom cremation plant room half-sunken to reduce the visual impact to pedestrians?	☐	☐	☑	☐	
6.00	**Water Quality (Construction Phase)**					
6.01	Wastewater is 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 is allowed.	☐	☐	☑	☐	
6.02	Perimeter channels are provided to intercept storm runoff from outside the site. The channels are constructed in advance of site formation works and earthworks.	☐	☐	☑	☐	
6.03	Sand/silt removal facilities such as sand traps, silt traps and sediment basins are provided to remove sand/silt particles from runoff to meet the requirements of the Technical Memorandum standard under the WPCO.	☐	☐	☑	☐	
6.04	Works are carefully programmed to minimise soil excavation works during rainy seasons.	☑	☐	☐	☐	No excavation work
6.05	Exposed soil surfaces are protected by paving as soon as possible to reduce the potential of soil erosion.	☑	☐	☐	☐	No excavation work
6.06	Temporary access roads are protected by crushed gravel and exposed slope surfaces are protected when rainstorms are likely to occur.	☐	☐	☑	☐	
6.07	Trench excavation is avoided in the wet season as far as practicable, and if necessary, these trenches are excavated and backfilled in short sections.	☑	☐	☐	☐	No excavation work
6.08	Open stockpiles of construction materials on site are covered with tarpaulin or similar fabric during rainstorms.	☐	☐	☑	☐	

	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
6.09	Sand and silt in the wash water from the wheel from the wheel washing facility are settled out and removed before discharging into the storm drain.	☐	☐	☑	☐	
6.10	Oil interceptor is provided in the drainage system and regularly emptied to prevent the release of oil and grease into the storm drainage system after accidental spillage.	☐	☐	☑	☐	
6.11	Debris and rubbishes generated on site are collected, handled and disposed of properly to avoid them entering the two streams.	☐	☐	☑	☐	
6.12	All fuel tanks and storage areas are 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.	☐	☐	☑	☐	
6.13	Open storm water drains and culverts near the works area are covered to block the entrance of large debris and refuse.	☐	☐	☑	☐	
6.14	Portable chemical toilets handle the sewage from construction work force if the existing toilets in the Site are not adequate. Licensed contractors who are responsible for appropriate disposal and maintenance of these facilities provide appropriate and adequate portable toilets.	☐	☐	☑	☐	
6.15	Sheet piling is 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 is treated to comply with the standards set in the relevant discharge licence prior discharge. No discharge of the groundwater is allowed into the two streams.	☑	☐	☐	☐	No groundwater was generated
7.00	**Ecology (Construction Phase)**					
7.01	Any affected trees are transplanted to grassland / scrubland within the Wo Hop Shek Cemetery.	☐	☐	☑	☐	
7.02	Temporary accesses to the work sites are carefully planned and located to minimise disturbance caused to the streams and nearby habitats.	☐	☐	☑	☐	
7.03	Less or smaller construction plants are used to reduce disturbance to the nearby habitats.	☐	☐	☑	☐	
7.04	Vehicles and other plants are carefully maintained and properly used to minimise the chance for accidental spillage.	☐	☐	☑	☐	
7.05	Any spillages that do occur are quickly identified and appropriately cleaned up before they can contaminate streams or groundwater.	☑	☐	☐	☐	No spillage occured.
7.06	Basement formation or any construction activities likely to pump out a large quantity of groundwater are protected with sheet-piling at suitable locations around the basement footprint, or by any like method.	☑	☐	☐	☐	No groundwater was generated
7.07	No groundwater is pumped back to the two stream courses to protect the natural integrity of the stream habitat and the associated organism.	☑	☐	☐	☐	No groundwater was generated

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	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
7.08	Sturdy 1.8 metres protective fencings are located at the edge of the tree canopy but not around the trunk.	☐	☐	☑	☐	
7.09	Works beneath the tree canopy are avoided: If encroachment under the canopy area is unavoidable, adequate protections are provided to ensure no damage of any part of the tree would occur due to the encroachment.	☐	☐	☑	☐	
7.10	Any tree transplanting and planting works are implemented by an approved Landscape Contractor. Quality control of the work is undertaken by a qualified Landscape Architect through site inspections and approval of works.	☐	☐	☑	☐	
7.11	Construction works are restricted within works area which are clearly defined.	☐	☐	☑	☐	
7.12	Woodland or other habitats that are affected by the construction works are well-defined and minimised.	☐	☐	☑	☐	
7.13	Human inference to habitats beyond the site boundary and habitats proposed to be retained are avoided by providing temporary barricades.	☐	☐	☑	☐	
7.14	Works area is reinstated immediately after completion of the construction.	☑	☐	☐	☐	The construction work has not been completed
7.15	Uncontrolled burning of refuse is strictly prohibited. Appropriate fire control measures are provided in order to protect nearby habitats.	☐	☐	☑	☐	
7.16	Trees requiring transplantation or protection are identified based on the information illustrated in the Tree Survey Report.	☐	☐	☑	☐	
7.17	Is layout of the Project carefully designed to avoid or minimize the area of habitat loss and the numbers of trees to be felled?	☐	☐	☑	☐	
7.18	All trees are preserved as far as possible, especially species of conservation concern. Recommendations provided in the Tree Survey Report to mitigate impacts on trees shall be followed.	☐	☐	☑	☐	
7.19	Disturbance to the two plant species of conservation concern, namely Aquilaria sinensis and Cibotium barometz, is avoided. Where removal of these species is unavoidable, it is recommended to transplant them to habitats with similar conditions. Following transplantation, regular monitoring of these plants is conducted by a suitable qualified botanist / horticulturist over a 12-month period;	☑	☐	☐	☐	
7.20	Compensatory planting of the felled trees follows the Technical Circular No. 3/2006 issued by ETWB.	☑	☐	☐	☐	No planting work.
7.21	The Site inside or in the proximity of the streams and nearby habitats is temporarily isolated, by placing of sandbags or silt curtains with lead edge at the bottom and properly supported props, to prevent adverse impacts on these areas.	☐	☐	☑	☐	

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	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
7.22	Appropriate storage locations are situated well away from the streams and nearby habitats for the temporary storage of materials (e.g. equipment, filling materials, chemicals and fuel) and temporary stockpile of construction debris and spoil are identified before commencement of the works.	☐	☐	☑	☐	
7.23	Stockpiling of construction materials, are covered and located away from the streams and nearby habitats.	☐	☐	☑	☐	
7.24	Construction debris and spoil are covered up and/or properly disposed of as soon as possible to avoid being washed into the streams and nearby habitats by rain.	☐	☐	☑	☐	
7.25	Construction effluent, site runoff and sewage is properly collected and/or treated.	☐	☐	☑	☐	
7.26	Proper locations for discharge outlets of any wastewater treatment facilities well away from the streams and nearby habitats are identified.	☐	☐	☑	☐	
7.27	Vehicles and other plant are carefully maintained and properly used to minimise the chance for accidental spillage.	☐	☐	☑	☐	
7.28	Temporary geo-textile silt fences around earth moving works are erected to trap any sediments being washed away and prevent them from entering surrounding areas.	☐	☐	☑	☐	
7.29	Exposed soil or other loose materials are covered with tarpaulins to prevent erosion, and then seeded and covered with a biodegradable geotextile blanket for erosion control purposes.	☐	☐	☑	☐	

*Remarks: N/A = Not applicable at current stage

N/O = Not observed in the site walk

Yes = Compliance

No = Non-compliance

Contract no. AL G513 Expansion of Wo Hop Shek Crematorium

Remark / Follow up of Observation(s) and Non-compliance(s) of Last Weekly Site Inspection:

Observation (s) :
- Chemical material should be placed on drip tray

Reminder (s):

Nil

Note: Figure 4.5 regarding to clause 3.6 of EP has been displayed at the entrance of the site.

Signatures:

ET Representative	Contractor's Representative	Architect's Representative	IEC's Representative
(Name: Johnny Kwong)	(Name: M.Y. WONG)	(Name: L. Wong)	(Name: Hatton TAM)

Acuity Sustainability Consulting Limited
Unit 1908, Nos. 301-305 Castle Peak Road, Kwai Chung, N.T.
O: 2333-6823 | F: 2333-1316 | E: general@acuityhk.com | www.acuityhk.com

Contract no. AL G513 Expansion of Wo Hop Shek Crematorium

WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

Inspection Date: 15 Dec 2021 **Inspected by:** **ET:** Johnny Kwong **AR:** Mr. Y.C. Chui

Inspection Time: 10:00 **Contractor:** M.Y. Wong **IEC:** /

Weather

Condition ☑ Sunny ☐ Fine ☐ Overcast ☐ Drizzle ☐ Rain ☐ Storm ☐ Hazy

Temperature 24.1 °C **Humidity** ☐ High ☑ Moderate ☐ Low

Wind ☐ Calm ☑ Light ☐ Breeze ☐ Strong

	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
1.00	**Air (Construction Phase)**					
1.01	Vehicle washing facilities (including a high pressure water jet) were provided at every discernible or designated vehicle exit point.	☐	☐	☑	☐	
1.02	Road between the washing facilities and the exit point is paved with concrete, bituminous or hardcore material.	☐	☐	☑	☐	
1.03	Every main haul road is paved with concrete, bituminous hardcore materials or metal plates, and kept clear of dusty materials. Or unpaved haul roads and areas are sprayed with water to keep the entire road surface wet.	☐	☐	☑	☐	
1.04	Stockpile of dusty material including demolished items is either: a) covered entirely by impervious sheeting, or 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.	☐	☐	☑	☐	
1.05	Exposed earth is properly treated by compaction, hydroseeding, vegetation planting or seating with latex, vinyl, bitumen within six months after the last construction activity on the site or part of the site where the exposed earth lies.	☐	☐	☑	☐	
1.06	Water is sprayed to all dusty materials before loading or transfer operation.	☐	☐	☑	☐	
1.07	Any debris is covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the three sides.	☐	☐	☑	☐	
1.08	Water is sprayed to debris before it is dumped into a chute.	☐	☐	☑	☐	
1.09	Vehicles for transporting dusty materials/spoils are covered with tarpaulin or similar material. The cover extends over the edges of the sides and tailboards.	☐	☐	☑	☐	
1.10	Water is sprayed immediately to the working area for uprooting of trees, shrubs, or vegetation or the removal of boulders, pole, pillars before, during and after the operation.	☐	☐	☑	☐	
1.11	Workers at all levels are co-operative to avoid dust generation and dispersion to the surrounding environment.	☐	☐	☑	☐	
2.00	**Noise (Construction Phase)**					

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	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
2.01	Only well-maintained plant is operated on site and the plant should be regularly serviced during the construction works..	☐	☐	☑	☐	
2.02	Plant used intermittently is turned off or throttled down when not in active use.	☐	☐	☑	☐	
2.03	Plant that emits noise strongly in one direction is oriented to face away from NSRs.	☐	☐	☑	☐	
2.04	Silencers, mufflers and enclosures for plant are applied where possible and maintained adequately throughout the works	☐	☐	☑	☐	
2.05	Where possible, mobile plant is sited away from NSRs	☐	☐	☑	☐	
2.06	PME is well maintained and used properly on site to minimise any excessive noise generated.	☐	☐	☑	☐	
2.07	Stockpiles of excavated materials and other structures such as site buildings should be used effectively to screen noise from the works.	☐	☐	☑	☐	
3.00	**Land Contamination (Construction Phase)**					
	N/A to the Phase III development					
4.00	**Waste Management (Construction Phase)**					
4.01	The necessary waste disposal permits from the appropriate authorities are obtained, in accordance with the Waste Disposal Ordinance (Cap. 354), Waste Disposal (Chemical Waste) (General) Regulation and the Land (Miscellaneous Provision) Ordinance (Cap. 28).	☐	☐	☑	☐	
4.02	A billing account with EPD for disposal of construction waste is obtained.	☐	☐	☑	☐	
4.03	A Waste Management Plan (WMP), incorporated in an Environmental Management Plan (EMP) is prepared and submitted to the Engineer/Supervising Officer for approval. Reference is made to Environment, Transport and Works Bureau Technical Circular (Works) (ETWB TCW) 19/2005.	☐	☐	☑	☐	
4.04	An approved person to be responsible for good site practice is nominated, including arrangements for collection and effective disposal to an appropriate facility of all wastes generated at the site.	☐	☐	☑	☐	
4.05	Is authorised or licensed waste hauler used to collect specific category of waste?	☐	☐	☑	☐	
4.06	A trip-ticket system is 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 is made to ETWB TCW No. 31/2004.	☐	☐	☑	☐	
4.07	Training of site personnel in proper waste management and chemical waste handling procedures.	☐	☐	☑	☐	

Contract no. AL G513 Expansion of Wo Hop Shek Crematorium

	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
4.08	Is routine cleaning and maintenance programme for drainage systems, sumps and oil interceptors conducted?	☐	☐	☑	☐	
4.09	Are sufficient waste disposal points and regular collection for disposal provided?	☐	☐	☑	☐	
4.10	Are appropriate measures to minimise windblown litter and dust during transportation of waste, such as covering trucks or transporting wastes in enclosed containers adopted?	☐	☐	☑	☐	
4.11	Is recording system for the amount of wastes generated, recycled and disposed of (including the disposal sites) implemented?	☐	☐	☑	☐	
4.12	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.	☐	☐	☑	☐	
4.13	Encourage collection of aluminium cans, plastic bottles and packaging material (e.g. carton boxes) and office paper by individual collectors. Separately labelled bins are provided to help segregate this waste from other general refuse generated by the work force.	☐	☐	☑	☐	
4.14	Are C&D materials reused when possible to reduce the amount of C&D material/waste?	☐	☐	☑	☐	
4.15	Are wood, steel and other metals 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?	☐	☐	☑	☐	
4.16	Minimise the potential for damage or contamination of construction material by having proper storage and site practices.	☐	☐	☑	☐	
4.17	Plan and stock construction materials carefully to minimise the amount of surplus materials.	☐	☐	☑	☐	
4.18	Rock and soil generated from excavation are reused for site formation and excavated material from foundation work reused for landscaping as far as practicable to avoid disposal off-site.	☐	☐	☑	☐	
4.19	Is reuse of the public fill and C&D waste practiced on site as far as practicable?	☐	☐	☑	☐	
4.20	The handling of C&D materials is governed by WBTC No. 2/93. Inert C&D material (public fill) is 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 reduce the pressure on landfill sites.	☐	☐	☑	☐	
4.21	Are individuals or companies who deliver public fill to public filling areas obtained dumping licences?	☐	☐	☑	☐	

Contract no. AL G513 Expansion of Wo Hop Shek Crematorium

	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
4.22	Are careful design, planning and good site management adopted to minimise overordering and generation of waste materials such as concrete, mortar and cement grouts? The design of formwork 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 are considered to increase the potential for reuse and minimize C&D waste generation.	☐	☐	☑	☐	
4.23	The contractor uses 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.	☐	☐	☑	☐	
4.24	General refuse is stored in enclosed bins or compaction units separate from C&D and chemical wastes. A reputable waste collector is 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.	☐	☐	☑	☐	
	Chemical Waste					
4.25	Contractor registers with the EPD as chemical waste producer if any chemical waste is generated	☐	☐	☑	☐	
4.26	All the chemical waste is handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. The chemical waste is stored and collected by an approved contractor for disposal at a licensed facility in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	☐	☐	☑	☐	
4.27	Principles of reuse and recycle chemical waste on site as far as practicable is adopted by the contractor.	☐	☐	☑	☐	
4.28	Are unused chemicals or those with remaining functional capacity reused as far as practicable?	☐	☐	☑	☐	
4.29	Disposal of chemical waste via 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.	☐	☐	☑	☐	
5.00	**Landscape and Visual (Construction Phase)**					
5.01	Do site offices have olive green roof and façade coating or colour that matche with existing environment?	☐	☐	☑	☐	
5.02	Are site offices and the construction yard decommissioned after construction?	☐	☐	☑	☐	
5.03	The height of site offices, including the rooftop does not exceed 10m, except building services equipment such as antennas, which exceeds 10 m but is coated in black.	☐	☐	☑	☐	

Contract no. AL G513 Expansion of Wo Hop Shek Crematorium

	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
5.04	Is site hoarding with 2.4m height and colour in harmony with the surrounding environment erected along the site boundary until the completion of relevant construction phases?	☑	☐	☐	☐	site hoarding was removed but the plastic barrier has been in use
5.05	Are construction plants and building materials orderly and carefully stored to appear neat and avoid visibility from outside where practical?	☐	☐	☑	☐	
5.06	Are excess materials removed from site as soon as practical?	☐	☐	☑	☐	
5.07	Are all construction plants removed from site upon completion of construction works?	☑	☐	☐	☐	No planting work
5.08	Are construction lights oriented away from the viewing location of VSRs?	☐	☐	☑	☐	
5.09	Are all lightings facing sensitive receiver installed with frosted diffusers and reflective covers?	☐	☐	☑	☐	
5.10	Trees that require removal are transplanted on site if practical. If not practical, these trees will be transplanted in locations within the vicinity as approved by the Architect.	☐	☐	☑	☐	
5.11	Planting works are carried out under the supervision of a specialist landscape specialist.	☐	☐	☑	☐	
5.12	The rooftop of the cremation plant room is planted with lawn.	☑	☐	☐	☐	lawn has not been planted
5.13	New trees, shrubs and groundcover are carefully selected and designed to homogenize with the environment.	☑	☐	☐	☐	No planting work
5.14	No tree is transplanted or felled without prior approval by relevant Government departments.	☐	☐	☑	☐	
5.15	All trees that are marked for retention are fenced off with a 1.2m high fence around the dripline of trees or larger area as far as feasible.	☑	☐	☐	☐	All tree planting work was completed
5.16	Transplant preparation works are carried out as soon as possible after the commencement of construction. Over-pruning such as hard pruning of tree crown, pollarding or topping are avoided. Rootball and crown pruning are carried out over at least 3 months.	☐	☐	☑	☐	
5.17	Existing shrub and ground cover planting areas that will not be removed are maintained in good condition and enhanced if practical.	☐	☐	☑	☐	
5.18	The chimney has been designed to have sculptural outlook and articulated. It is kept in proportion with the rest of the building.	☐	☐	☑	☐	
5.19	The chimney stack is designed to locate at the least conspicuous location of the site to VSRs.	☐	☐	☑	☐	

Contract no. AL G513 Expansion of Wo Hop Shek Crematorium

	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
5.20	Bi-weekly checking would be performed on the nine Terminalia mantaly trees within and outside the works area of the Project, or otherwise if the transplantations are not carried out according to the plan.	☐	☐	☑	☐	
5.21	Are silting traps installed to minimize silting to streams?	☐	☐	☑	☐	
5.22	Is the tree compensation to tree loss ratio at least 1:1 in term of quantity? About 100 trees will be planted to compensate for the loss of 54 trees. 100 trees will be planted on site and others, in locations within the vicinity approved by the Architect	☑	☐	☐	☐	No planting work.
5.23	Is amenity planting for open spaces included in the Project?	☑	☐	☐	☐	No planting work.
5.24	Is screen planting such as planting a roll of trees along the site boundary butting Kiu Tau Road carried out?	☑	☐	☐	☐	No planting work
5.25	Woodland mix, comprising of tree seedlings and shrubs, are planted within the Wo Hop Shek Cemetery to enhance the ecological value and compensatory of tree loss.	☑	☐	☐	☐	No planting work
5.26	Is the 10m height headroom cremation plant room half-sunken to reduce the visual impact to pedestrians?	☐	☐	☑	☐	
6.00	**Water Quality (Construction Phase)**					
6.01	Wastewater is 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 is allowed.	☐	☐	☑	☐	
6.02	Perimeter channels are provided to intercept storm runoff from outside the site. The channels are constructed in advance of site formation works and earthworks.	☐	☐	☑	☐	
6.03	Sand/silt removal facilities such as sand traps, silt traps and sediment basins are provided to remove sand/silt particles from runoff to meet the requirements of the Technical Memorandum standard under the WPCO.	☐	☐	☑	☐	
6.04	Works are carefully programmed to minimise soil excavation works during rainy seasons.	☑	☐	☐	☐	No excavation work
6.05	Exposed soil surfaces are protected by paving as soon as possible to reduce the potential of soil erosion.	☑	☐	☐	☐	No excavation work
6.06	Temporary access roads are protected by crushed gravel and exposed slope surfaces are protected when rainstorms are likely to occur.	☐	☐	☑	☐	
6.07	Trench excavation is avoided in the wet season as far as practicable, and if necessary, these trenches are excavated and backfilled in short sections.	☑	☐	☐	☐	No excavation work
6.08	Open stockpiles of construction materials on site are covered with tarpaulin or similar fabric during rainstorms.	☐	☐	☑	☐	

	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
6.09	Sand and silt in the wash water from the wheel from the wheel washing facility are settled out and removed before discharging into the storm drain.	☐	☐	☑	☐	
6.10	Oil interceptor is provided in the drainage system and regularly emptied to prevent the release of oil and grease into the storm drainage system after accidental spillage.	☐	☐	☑	☐	
6.11	Debris and rubbishes generated on site are collected, handled and disposed of properly to avoid them entering the two streams.	☐	☐	☑	☐	
6.12	All fuel tanks and storage areas are 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.	☐	☐	☑	☐	
6.13	Open storm water drains and culverts near the works area are covered to block the entrance of large debris and refuse.	☐	☐	☑	☐	
6.14	Portable chemical toilets handle the sewage from construction work force if the existing toilets in the Site are not adequate. Licensed contractors who are responsible for appropriate disposal and maintenance of these facilities provide appropriate and adequate portable toilets.	☐	☐	☑	☐	
6.15	Sheet piling is 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 is treated to comply with the standards set in the relevant discharge licence prior discharge. No discharge of the groundwater is allowed into the two streams.	☑	☐	☐	☐	No groundwater was generated
7.00	**Ecology (Construction Phase)**					
7.01	Any affected trees are transplanted to grassland / scrubland within the Wo Hop Shek Cemetery.	☐	☐	☑	☐	
7.02	Temporary accesses to the work sites are carefully planned and located to minimise disturbance caused to the streams and nearby habitats.	☐	☐	☑	☐	
7.03	Less or smaller construction plants are used to reduce disturbance to the nearby habitats.	☐	☐	☑	☐	
7.04	Vehicles and other plants are carefully maintained and properly used to minimise the chance for accidental spillage.	☐	☐	☑	☐	
7.05	Any spillages that do occur are quickly identified and appropriately cleaned up before they can contaminate streams or groundwater.	☑	☐	☐	☐	No spillage occured
7.06	Basement formation or any construction activities likely to pump out a large quantity of groundwater are protected with sheet-piling at suitable locations around the basement footprint, or by any like method.	☑	☐	☐	☐	No Groundwater was generated
7.07	No groundwater is pumped back to the two stream courses to protect the natural integrity of the stream habitat and the associated organism.	☑	☐	☐	☐	No Groundwater was generated

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	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
7.08	Sturdy 1.8 metres protective fencings are located at the edge of the tree canopy but not around the trunk.	☐	☐	☑	☐	
7.09	Works beneath the tree canopy are avoided: If encroachment under the canopy area is unavoidable, adequate protections are provided to ensure no damage of any part of the tree would occur due to the encroachment.	☐	☐	☑	☐	
7.10	Any tree transplanting and planting works are implemented by an approved Landscape Contractor. Quality control of the work is undertaken by a qualified Landscape Architect through site inspections and approval of works.	☐	☐	☑	☐	
7.11	Construction works are restricted within works area which are clearly defined.	☐	☐	☑	☐	
7.12	Woodland or other habitats that are affected by the construction works are well-defined and minimised.	☐	☐	☑	☐	
7.13	Human inference to habitats beyond the site boundary and habitats proposed to be retained are avoided by providing temporary barricades.	☐	☐	☑	☐	
7.14	Works area is reinstated immediately after completion of the construction.	☑	☐	☐	☐	The construction work has not been completed
7.15	Uncontrolled burning of refuse is strictly prohibited. Appropriate fire control measures are provided in order to protect nearby habitats.	☐	☐	☑	☐	
7.16	Trees requiring transplantation or protection are identified based on the information illustrated in the Tree Survey Report.	☐	☐	☑	☐	
7.17	Is layout of the Project carefully designed to avoid or minimize the area of habitat loss and the numbers of trees to be felled?	☐	☐	☑	☐	
7.18	All trees are preserved as far as possible, especially species of conservation concern. Recommendations provided in the Tree Survey Report to mitigate impacts on trees shall be followed.	☐	☐	☑	☐	
7.19	Disturbance to the two plant species of conservation concern, namely Aquilaria sinensis and Cibotium barometz, is avoided. Where removal of these species is unavoidable, it is recommended to transplant them to habitats with similar conditions. Following transplantation, regular monitoring of these plants is conducted by a suitable qualified botanist / horticulturist over a 12-month period;	☑	☐	☐	☐	
7.20	Compensatory planting of the felled trees follows the Technical Circular No. 3/2006 issued by ETWB.	☑	☐	☐	☐	No planting work
7.21	The Site inside or in the proximity of the streams and nearby habitats is temporarily isolated, by placing of sandbags or silt curtains with lead edge at the bottom and properly supported props, to prevent adverse impacts on these areas.	☐	☐	☑	☐	

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	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
7.22	Appropriate storage locations are situated well away from the streams and nearby habitats for the temporary storage of materials (e.g. equipment, filling materials, chemicals and fuel) and temporary stockpile of construction debris and spoil are identified before commencement of the works.	☐	☐	☑	☐	
7.23	Stockpiling of construction materials, are covered and located away from the streams and nearby habitats.	☐	☐	☑	☐	
7.24	Construction debris and spoil are covered up and/or properly disposed of as soon as possible to avoid being washed into the streams and nearby habitats by rain.	☐	☐	☑	☐	
7.25	Construction effluent, site runoff and sewage is properly collected and/or treated.	☐	☐	☑	☐	
7.26	Proper locations for discharge outlets of any wastewater treatment facilities well away from the streams and nearby habitats are identified.	☐	☐	☑	☐	
7.27	Vehicles and other plant are carefully maintained and properly used to minimise the chance for accidental spillage.	☐	☐	☑	☐	
7.28	Temporary geo-textile silt fences around earth moving works are erected to trap any sediments being washed away and prevent them from entering surrounding areas.	☐	☐	☑	☐	
7.29	Exposed soil or other loose materials are covered with tarpaulins to prevent erosion, and then seeded and covered with a biodegradable geotextile blanket for erosion control purposes.	☐	☐	☑	☐	

*Remarks: N/A = Not applicable at current stage

N/O = Not observed in the site walk

Yes = Compliance

No = Non-compliance

Contract no. AL G513 Expansion of Wo Hop Shek Crematorium

Remark / Follow up of Observation(s) and Non-compliance(s) of Last Weekly Site Inspection:

~~Reminder (S)~~

Observation (S) :

Nil

Reminder (S):

- Chemical meterial should be placed on drip tray
- Housekeeping should be maintain

Note : Figure. 4,5 regarding to clause 3.6 of EP has been displayed at the entrance of the site.

Signatures:

ET Representative	Contractor's Representative	Architect's Representative	IEC's Representative
(Name: Johnny Kwong)	(Name: M.F.WONG)	(Name: T.C.Chui/ACW)	(Name:)

Acuity Sustainability Consulting Limited
Unit 1908, Nos. 301-305 Castle Peak Road, Kwai Chung, N.T.
O: 2333-6823 | F: 2333-1316 | E: general@acuityhk.com | www.acuityhk.com

Contract no. AL G513 Expansion of Wo Hop Shek Crematorium

WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

Inspection Date: 20 Dec 2021 **Inspected by:** **ET:** Johnny Kwong **AR:** L. Wong.

Inspection Time: 10:30 **Contractor:** K. S. Lee **IEC:** /

Weather

Condition ☐ Sunny ☑ Fine ☐ Overcast ☐ Drizzle ☐ Rain ☐ Storm ☐ Hazy

Temperature 20.7 °C **Humidity** ☑ High ☐ Moderate ☐ Low

Wind ☐ Calm ☑ Light ☐ Breeze ☐ Strong

	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
1.00	**Air (Construction Phase)**					
1.01	Vehicle washing facilities (including a high pressure water jet) were provided at every discernible or designated vehicle exit point.	☐	☐	☑	☐	
1.02	Road between the washing facilities and the exit point is paved with concrete, bituminous or hardcore material.	☐	☐	☑	☐	
1.03	Every main haul road is paved with concrete, bituminous hardcore materials or metal plates, and kept clear of dusty materials. Or unpaved haul roads and areas are sprayed with water to keep the entire road surface wet.	☐	☐	☑	☐	
1.04	Stockpile of dusty material including demolished items is either: a) covered entirely by impervious sheeting, or 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.	☐	☐	☑	☐	
1.05	Exposed earth is properly treated by compaction, hydroseeding, vegetation planting or seating with latex, vinyl, bitumen within six months after the last construction activity on the site or part of the site where the exposed earth lies.	☐	☐	☑	☐	
1.06	Water is sprayed to all dusty materials before loading or transfer operation.	☐	☐	☑	☐	
1.07	Any debris is covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the three sides.	☐	☐	☑	☐	
1.08	Water is sprayed to debris before it is dumped into a chute.	☐	☐	☑	☐	
1.09	Vehicles for transporting dusty materials/spoils are covered with tarpaulin or similar material. The cover extends over the edges of the sides and tailboards.	☐	☐	☑	☐	
1.10	Water is sprayed immediately to the working area for uprooting of trees, shrubs, or vegetation or the removal of boulders, pole, pillars before, during and after the operation.	☐	☐	☑	☐	
1.11	Workers at all levels are co-operative to avoid dust generation and dispersion to the surrounding environment.	☐	☐	☑	☐	
2.00	**Noise (Construction Phase)**					

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	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
2.01	Only well-maintained plant is operated on site and the plant should be regularly serviced during the construction works..	☐	☐	☑	☐	
2.02	Plant used intermittently is turned off or throttled down when not in active use.	☐	☐	☑	☐	
2.03	Plant that emits noise strongly in one direction is oriented to face away from NSRs.	☐	☐	☑	☐	
2.04	Silencers, mufflers and enclosures for plant are applied where possible and maintained adequately throughout the works	☐	☐	☑	☐	
2.05	Where possible, mobile plant is sited away from NSRs	☐	☐	☑	☐	
2.06	PME is well maintained and used properly on site to minimise any excessive noise generated.	☐	☐	☑	☐	
2.07	Stockpiles of excavated materials and other structures such as site buildings should be used effectively to screen noise from the works.	☐	☐	☑	☐	
3.00	**Land Contamination (Construction Phase)**					
	N/A to the Phase III development					
4.00	**Waste Management (Construction Phase)**					
4.01	The necessary waste disposal permits from the appropriate authorities are obtained, in accordance with the Waste Disposal Ordinance (Cap. 354), Waste Disposal (Chemical Waste) (General) Regulation and the Land (Miscellaneous Provision) Ordinance (Cap. 28).	☐	☐	☑	☐	
4.02	A billing account with EPD for disposal of construction waste is obtained.	☐	☐	☑	☐	
4.03	A Waste Management Plan (WMP), incorporated in an Environmental Management Plan (EMP) is prepared and submitted to the Engineer/Supervising Officer for approval. Reference is made to Environment, Transport and Works Bureau Technical Circular (Works) (ETWB TCW) 19/2005.	☐	☐	☑	☐	
4.04	An approved person to be responsible for good site practice is nominated, including arrangements for collection and effective disposal to an appropriate facility of all wastes generated at the site.	☐	☐	☑	☐	
4.05	Is authorised or licensed waste hauler used to collect specific category of waste?	☐	☐	☑	☐	
4.06	A trip-ticket system is 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 is made to ETWB TCW No. 31/2004.	☐	☐	☑	☐	
4.07	Training of site personnel in proper waste management and chemical waste handling procedures.	☐	☐	☑	☐	

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	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
4.08	Is routine cleaning and maintenance programme for drainage systems, sumps and oil interceptors conducted?	☐	☐	☑	☐	
4.09	Are sufficient waste disposal points and regular collection for disposal provided?	☐	☐	☑	☐	
4.10	Are appropriate measures to minimise windblown litter and dust during transportation of waste, such as covering trucks or transporting wastes in enclosed containers adopted?	☐	☐	☑	☐	
4.11	Is recording system for the amount of wastes generated, recycled and disposed of (including the disposal sites) implemented?	☐	☐	☑	☐	
4.12	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.	☐	☐	☑	☐	
4.13	Encourage collection of aluminium cans, plastic bottles and packaging material (e.g. carton boxes) and office paper by individual collectors. Separately labelled bins are provided to help segregate this waste from other general refuse generated by the work force.	☐	☐	☑	☐	
4.14	Are C&D materials reused when possible to reduce the amount of C&D material/waste?	☐	☐	☑	☐	
4.15	Are wood, steel and other metals 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?	☐	☐	☑	☐	
4.16	Minimise the potential for damage or contamination of construction material by having proper storage and site practices.	☐	☐	☑	☐	
4.17	Plan and stock construction materials carefully to minimise the amount of surplus materials.	☐	☐	☑	☐	
4.18	Rock and soil generated from excavation are reused for site formation and excavated material from foundation work reused for landscaping as far as practicable to avoid disposal off-site.	☐	☐	☑	☐	
4.19	Is reuse of the public fill and C&D waste practiced on site as far as practicable?	☐	☐	☑	☐	
4.20	The handling of C&D materials is governed by WBTC No. 2/93. Inert C&D material (public fill) is 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 reduce the pressure on landfill sites.	☐	☐	☑	☐	
4.21	Are individuals or companies who deliver public fill to public filling areas obtained dumping licences?	☐	☐	☑	☐	

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	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
4.22	Are careful design, planning and good site management adopted to minimise overordering and generation of waste materials such as concrete, mortar and cement grouts? The design of formwork 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 are considered to increase the potential for reuse and minimize C&D waste generation.	☐	☐	☑	☐	
4.23	The contractor uses 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.	☐	☐	☑	☐	
4.24	General refuse is stored in enclosed bins or compaction units separate from C&D and chemical wastes. A reputable waste collector is 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.	☐	☐	☑	☐	
	Chemical Waste					
4.25	Contractor registers with the EPD as chemical waste producer if any chemical waste is generated	☐	☐	☑	☐	
4.26	All the chemical waste is handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. The chemical waste is stored and collected by an approved contractor for disposal at a licensed facility in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	☐	☐	☑	☐	
4.27	Principles of reuse and recycle chemical waste on site as far as practicable is adopted by the contractor.	☐	☐	☑	☐	
4.28	Are unused chemicals or those with remaining functional capacity reused as far as practicable?	☐	☐	☑	☐	
4.29	Disposal of chemical waste via 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.	☐	☐	☑	☐	
5.00	**Landscape and Visual (Construction Phase)**					
5.01	Do site offices have olive green roof and façade coating or colour that matche with existing environment?	☐	☐	☑	☐	
5.02	Are site offices and the construction yard decommissioned after construction?	☐	☐	☑	☐	
5.03	The height of site offices, including the rooftop does not exceed 10m, except building services equipment such as antennas, which exceeds 10 m but is coated in black.	☐	☐	☑	☐	

Contract no. AL G513 Expansion of Wo Hop Shek Crematorium

	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
5.04	Is site hoarding with 2.4m height and colour in harmony with the surrounding environment erected along the site boundary until the completion of relevant construction phases?	☑	☐	☐	☐	Site hoarding was removed but the plastic barrier has been in use.
5.05	Are construction plants and building materials orderly and carefully stored to appear neat and avoid visibility from outside where practical?	☐	☐	☑	☐	
5.06	Are excess materials removed from site as soon as practical?	☐	☐	☑	☐	
5.07	Are all construction plants removed from site upon completion of construction works?	☑	☐	☐	☐	No planting work.
5.08	Are construction lights oriented away from the viewing location of VSRs?	☐	☐	☑	☐	
5.09	Are all lightings facing sensitive receiver installed with frosted diffusers and reflective covers?	☐	☐	☑	☐	
5.10	Trees that require removal are transplanted on site if practical. If not practical, these trees will be transplanted in locations within the vicinity as approved by the Architect.	☐	☐	☑	☐	
5.11	Planting works are carried out under the supervision of a specialist landscape specialist.	☐	☐	☑	☐	
5.12	The rooftop of the cremation plant room is planted with lawn.	☑	☐	☐	☐	Lawn has not been planted
5.13	New trees, shrubs and groundcover are carefully selected and designed to homogenize with the environment.	☑	☐	☐	☐	No planting work
5.14	No tree is transplanted or felled without prior approval by relevant Government departments.	☐	☐	☑	☐	
5.15	All trees that are marked for retention are fenced off with a 1.2m high fence around the dripline of trees or larger area as far as feasible.	☑	☐	☐	☐	All tree planting work was completed
5.16	Transplant preparation works are carried out as soon as possible after the commencement of construction. Over-pruning such as hard pruning of tree crown, pollarding or topping are avoided. Rootball and crown pruning are carried out over at least 3 months.	☐	☐	☑	☐	
5.17	Existing shrub and ground cover planting areas that will not be removed are maintained in good condition and enhanced if practical.	☐	☐	☑	☐	
5.18	The chimney has been designed to have sculptural outlook and articulated. It is kept in proportion with the rest of the building.	☐	☐	☑	☐	
5.19	The chimney stack is designed to locate at the least conspicuous location of the site to VSRs.	☐	☐	☑	☐	

Contract no. AL G513 Expansion of Wo Hop Shek Crematorium

	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
5.20	Bi-weekly checking would be performed on the nine Terminalia mantaly trees within and outside the works area of the Project, or otherwise if the transplantations are not carried out according to the plan.	☐	☐	☑	☐	
5.21	Are silting traps installed to minimize silting to streams?	☐	☐	☑	☐	
5.22	Is the tree compensation to tree loss ratio at least 1:1 in term of quantity? About 100 trees will be planted to compensate for the loss of 54 trees. 100 trees will be planted on site and others, in locations within the vicinity approved by the Architect	☑	☐	☐	☐	No planting work
5.23	Is amenity planting for open spaces included in the Project?	☑	☐	☐	☐	No planting work
5.24	Is screen planting such as planting a roll of trees along the site boundary butting Kiu Tau Road carried out?	☑	☐	☐	☐	No planting work
5.25	Woodland mix, comprising of tree seedlings and shrubs, are planted within the Wo Hop Shek Cemetery to enhance the ecological value and compensatory of tree loss.	☑	☐	☐	☐	No planting work
5.26	Is the 10m height headroom cremation plant room half-sunken to reduce the visual impact to pedestrians?	☐	☐	☑	☐	
6.00	**Water Quality (Construction Phase)**					
6.01	Wastewater is 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 is allowed.	☐	☐	☑	☐	
6.02	Perimeter channels are provided to intercept storm runoff from outside the site. The channels are constructed in advance of site formation works and earthworks.	☐	☐	☑	☐	
6.03	Sand/silt removal facilities such as sand traps, silt traps and sediment basins are provided to remove sand/silt particles from runoff to meet the requirements of the Technical Memorandum standard under the WPCO.	☐	☐	☑	☐	
6.04	Works are carefully programmed to minimise soil excavation works during rainy seasons.	☑	☐	☐	☐	No excavation work
6.05	Exposed soil surfaces are protected by paving as soon as possible to reduce the potential of soil erosion.	☑	☐	☐	☐	No excavation work
6.06	Temporary access roads are protected by crushed gravel and exposed slope surfaces are protected when rainstorms are likely to occur.	☐	☐	☑	☐	
6.07	Trench excavation is avoided in the wet season as far as practicable, and if necessary, these trenches are excavated and backfilled in short sections.	☑	☐	☐	☐	No excavation work.
6.08	Open stockpiles of construction materials on site are covered with tarpaulin or similar fabric during rainstorms.	☐	☐	☑	☐	

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	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
6.09	Sand and silt in the wash water from the wheel from the wheel washing facility are settled out and removed before discharging into the storm drain.	☐	☐	☑	☐	
6.10	Oil interceptor is provided in the drainage system and regularly emptied to prevent the release of oil and grease into the storm drainage system after accidental spillage.	☐	☐	☑	☐	
6.11	Debris and rubbishes generated on site are collected, handled and disposed of properly to avoid them entering the two streams.	☐	☐	☑	☐	
6.12	All fuel tanks and storage areas are 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.	☐	☐	☑	☐	
6.13	Open storm water drains and culverts near the works area are covered to block the entrance of large debris and refuse.	☐	☐	☑	☐	
6.14	Portable chemical toilets handle the sewage from construction work force if the existing toilets in the Site are not adequate. Licensed contractors who are responsible for appropriate disposal and maintenance of these facilities provide appropriate and adequate portable toilets.	☐	☐	☑	☐	
6.15	Sheet piling is 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 is treated to comply with the standards set in the relevant discharge licence prior discharge. No discharge of the groundwater is allowed into the two streams.	☑	☐	☐	☐	No groundwater was generated
7.00	**Ecology (Construction Phase)**					
7.01	Any affected trees are transplanted to grassland / scrubland within the Wo Hop Shek Cemetery.	☐	☐	☑	☐	
7.02	Temporary accesses to the work sites are carefully planned and located to minimise disturbance caused to the streams and nearby habitats.	☐	☐	☑	☐	
7.03	Less or smaller construction plants are used to reduce disturbance to the nearby habitats.	☐	☐	☑	☐	
7.04	Vehicles and other plants are carefully maintained and properly used to minimise the chance for accidental spillage.	☐	☐	☑	☐	
7.05	Any spillages that do occur are quickly identified and appropriately cleaned up before they can contaminate streams or groundwater.	☑	☐	☐	☐	No spillage occured
7.06	Basement formation or any construction activities likely to pump out a large quantity of groundwater are protected with sheet-piling at suitable locations around the basement footprint, or by any like method.	☑	☐	☐	☐	No groundwater was generated
7.07	No groundwater is pumped back to the two stream courses to protect the natural integrity of the stream habitat and the associated organism.	☑	☐	☐	☐	No groundwater was generated

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	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
7.08	Sturdy 1.8 metres protective fencings are located at the edge of the tree canopy but not around the trunk.	☐	☐	☑	☐	
7.09	Works beneath the tree canopy are avoided: If encroachment under the canopy area is unavoidable, adequate protections are provided to ensure no damage of any part of the tree would occur due to the encroachment.	☐	☐	☑	☐	
7.10	Any tree transplanting and planting works are implemented by an approved Landscape Contractor. Quality control of the work is undertaken by a qualified Landscape Architect through site inspections and approval of works.	☐	☐	☑	☐	
7.11	Construction works are restricted within works area which are clearly defined.	☐	☐	☑	☐	
7.12	Woodland or other habitats that are affected by the construction works are well-defined and minimised.	☐	☐	☑	☐	
7.13	Human inference to habitats beyond the site boundary and habitats proposed to be retained are avoided by providing temporary barricades.	☐	☐	☑	☐	
7.14	Works area is reinstated immediately after completion of the construction.	☑	☐	☐	☐	The construction work has not been completed
7.15	Uncontrolled burning of refuse is strictly prohibited. Appropriate fire control measures are provided in order to protect nearby habitats.	☐	☐	☑	☐	
7.16	Trees requiring transplantation or protection are identified based on the information illustrated in the Tree Survey Report.	☐	☐	☑	☐	
7.17	Is layout of the Project carefully designed to avoid or minimize the area of habitat loss and the numbers of trees to be felled?	☐	☐	☑	☐	
7.18	All trees are preserved as far as possible, especially species of conservation concern. Recommendations provided in the Tree Survey Report to mitigate impacts on trees shall be followed.	☐	☐	☑	☐	
7.19	Disturbance to the two plant species of conservation concern, namely Aquilaria sinensis and Cibotium barometz, is avoided. Where removal of these species is unavoidable, it is recommended to transplant them to habitats with similar conditions. Following transplantation, regular monitoring of these plants is conducted by a suitable qualified botanist / horticulturist over a 12-month period;	☑	☐	☐	☐	
7.20	Compensatory planting of the felled trees follows the Technical Circular No. 3/2006 issued by ETWB.	☑	☐	☐	☐	No planting work
7.21	The Site inside or in the proximity of the streams and nearby habitats is temporarily isolated, by placing of sandbags or silt curtains with lead edge at the bottom and properly supported props, to prevent adverse impacts on these areas.	☐	☐	☑	☐	

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	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
7.22	Appropriate storage locations are situated well away from the streams and nearby habitats for the temporary storage of materials (e.g. equipment, filling materials, chemicals and fuel) and temporary stockpile of construction debris and spoil are identified before commencement of the works.	☐	☐	☑	☐	
7.23	Stockpiling of construction materials, are covered and located away from the streams and nearby habitats.	☐	☐	☑	☐	
7.24	Construction debris and spoil are covered up and/or properly disposed of as soon as possible to avoid being washed into the streams and nearby habitats by rain.	☐	☐	☑	☐	
7.25	Construction effluent, site runoff and sewage is properly collected and/or treated.	☐	☐	☑	☐	
7.26	Proper locations for discharge outlets of any wastewater treatment facilities well away from the streams and nearby habitats are identified.	☐	☐	☑	☐	
7.27	Vehicles and other plant are carefully maintained and properly used to minimise the chance for accidental spillage.	☐	☐	☑	☐	
7.28	Temporary geo-textile silt fences around earth moving works are erected to trap any sediments being washed away and prevent them from entering surrounding areas.	☐	☐	☑	☐	
7.29	Exposed soil or other loose materials are covered with tarpaulins to prevent erosion, and then seeded and covered with a biodegradable geotextile blanket for erosion control purposes.	☐	☐	☑	☐	

*Remarks: N/A = Not applicable at current stage

N/O = Not observed in the site walk

Yes = Compliance

No = Non-compliance

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Remark / Follow up of Observation(s) and Non-compliance(s) of Last Weekly Site Inspection:

Observation (s):

Nil

Reminder (S):
- Gernal Housekeeping should be maitain

Note: Figure 4.3 regarding to clause 7.6 of EP has been displayed at the ~~entrance~~ entrance of the site

Signatures:

ET Representative	Contractor's Representative	Architect's Representative	IEC's Representative
(Name: Johnny Kwong)	(Name: Y S LEE)	(Name: L. WONG)	(Name:)

Acuity Sustainability Consulting Limited
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Contract no. AL G513 Expansion of Wo Hop Shek Crematorium

WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

Inspection Date: 29 Dec 2021 **Inspected by:** **ET:** Johnny Kwong **AR:** Y.C. Chui

Inspection Time: 10:00 **Contractor:** M.Y. Wong **IEC:** _____

Weather

Condition ☑ Sunny ☐ Fine ☐ Overcast ☐ Drizzle ☐ Rain ☐ Storm ☐ Hazy

Temperature 19.7 °C **Humidity** ☐ High ☑ Moderate ☐ Low

Wind ☐ Calm ☑ Light ☐ Breeze ☐ Strong

	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
1.00	**Air (Construction Phase)**					
1.01	Vehicle washing facilities (including a high pressure water jet) were provided at every discernible or designated vehicle exit point.	☐	☐	☑	☐	
1.02	Road between the washing facilities and the exit point is paved with concrete, bituminous or hardcore material.	☐	☐	☑	☐	
1.03	Every main haul road is paved with concrete, bituminous hardcore materials or metal plates, and kept clear of dusty materials. Or unpaved haul roads and areas are sprayed with water to keep the entire road surface wet.	☐	☐	☑	☐	
1.04	Stockpile of dusty material including demolished items is either: a) covered entirely by impervious sheeting, or 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.	☐	☐	☑	☐	
1.05	Exposed earth is properly treated by compaction, hydroseeding, vegetation planting or seating with latex, vinyl, bitumen within six months after the last construction activity on the site or part of the site where the exposed earth lies.	☐	☐	☑	☐	
1.06	Water is sprayed to all dusty materials before loading or transfer operation.	☐	☐	☑	☐	
1.07	Any debris is covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the three sides.	☐	☐	☑	☐	
1.08	Water is sprayed to debris before it is dumped into a chute.	☐	☐	☑	☐	
1.09	Vehicles for transporting dusty materials/spoils are covered with tarpaulin or similar material. The cover extends over the edges of the sides and tailboards.	☐	☐	☑	☐	
1.10	Water is sprayed immediately to the working area for uprooting of trees, shrubs, or vegetation or the removal of boulders, pole, pillars before, during and after the operation.	☐	☐	☑	☐	
1.11	Workers at all levels are co-operative to avoid dust generation and dispersion to the surrounding environment.	☐	☐	☑	☐	
2.00	**Noise (Construction Phase)**					

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	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
2.01	Only well-maintained plant is operated on site and the plant should be regularly serviced during the construction works..	☐	☐	☑	☐	
2.02	Plant used intermittently is turned off or throttled down when not in active use.	☐	☐	☑	☐	
2.03	Plant that emits noise strongly in one direction is oriented to face away from NSRs.	☐	☐	☑	☐	
2.04	Silencers, mufflers and enclosures for plant are applied where possible and maintained adequately throughout the works	☐	☐	☑	☐	
2.05	Where possible, mobile plant is sited away from NSRs	☐	☐	☑	☐	
2.06	PME is well maintained and used properly on site to minimise any excessive noise generated.	☐	☐	☑	☐	
2.07	Stockpiles of excavated materials and other structures such as site buildings should be used effectively to screen noise from the works.	☐	☐	☑	☐	
3.00	**Land Contamination (Construction Phase)**					
	N/A to the Phase III development					
4.00	**Waste Management (Construction Phase)**					
4.01	The necessary waste disposal permits from the appropriate authorities are obtained, in accordance with the Waste Disposal Ordinance (Cap. 354), Waste Disposal (Chemical Waste) (General) Regulation and the Land (Miscellaneous Provision) Ordinance (Cap. 28).	☐	☐	☑	☐	
4.02	A billing account with EPD for disposal of construction waste is obtained.	☐	☐	☑	☐	
4.03	A Waste Management Plan (WMP), incorporated in an Environmental Management Plan (EMP) is prepared and submitted to the Engineer/Supervising Officer for approval. Reference is made to Environment, Transport and Works Bureau Technical Circular (Works) (ETWB TCW) 19/2005.	☐	☐	☑	☐	
4.04	An approved person to be responsible for good site practice is nominated, including arrangements for collection and effective disposal to an appropriate facility of all wastes generated at the site.	☐	☐	☑	☐	
4.05	Is authorised or licensed waste hauler used to collect specific category of waste?	☐	☐	☑	☐	
4.06	A trip-ticket system is 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 is made to ETWB TCW No. 31/2004.	☐	☐	☑	☐	
4.07	Training of site personnel in proper waste management and chemical waste handling procedures.	☐	☐	☑	☐	

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	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
4.08	Is routine cleaning and maintenance programme for drainage systems, sumps and oil interceptors conducted?	☐	☐	☑	☐	
4.09	Are sufficient waste disposal points and regular collection for disposal provided?	☐	☐	☑	☐	
4.10	Are appropriate measures to minimise windblown litter and dust during transportation of waste, such as covering trucks or transporting wastes in enclosed containers adopted?	☐	☐	☑	☐	
4.11	Is recording system for the amount of wastes generated, recycled and disposed of (including the disposal sites) implemented?	☐	☐	☑	☐	
4.12	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.	☐	☐	☑	☐	
4.13	Encourage collection of aluminium cans, plastic bottles and packaging material (e.g. carton boxes) and office paper by individual collectors. Separately labelled bins are provided to help segregate this waste from other general refuse generated by the work force.	☐	☐	☑	☐	
4.14	Are C&D materials reused when possible to reduce the amount of C&D material/waste?	☐	☐	☑	☐	
4.15	Are wood, steel and other metals 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?	☐	☐	☑	☐	
4.16	Minimise the potential for damage or contamination of construction material by having proper storage and site practices.	☐	☐	☑	☐	
4.17	Plan and stock construction materials carefully to minimise the amount of surplus materials.	☐	☐	☑	☐	
4.18	Rock and soil generated from excavation are reused for site formation and excavated material from foundation work reused for landscaping as far as practicable to avoid disposal off-site.	☐	☐	☑	☐	
4.19	Is reuse of the public fill and C&D waste practiced on site as far as practicable?	☐	☐	☑	☐	
4.20	The handling of C&D materials is governed by WBTC No. 2/93. Inert C&D material (public fill) is 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 reduce the pressure on landfill sites.	☐	☐	☑	☐	
4.21	Are individuals or companies who deliver public fill to public filling areas obtained dumping licences?	☐	☐	☑	☐	

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	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
4.22	Are careful design, planning and good site management adopted to minimise overordering and generation of waste materials such as concrete, mortar and cement grouts? The design of formwork 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 are considered to increase the potential for reuse and minimize C&D waste generation.	☐	☐	☑	☐	
4.23	The contractor uses 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.	☐	☐	☑	☐	
4.24	General refuse is stored in enclosed bins or compaction units separate from C&D and chemical wastes. A reputable waste collector is 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.	☐	☐	☑	☐	
	Chemical Waste					
4.25	Contractor registers with the EPD as chemical waste producer if any chemical waste is generated	☐	☐	☑	☐	
4.26	All the chemical waste is handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. The chemical waste is stored and collected by an approved contractor for disposal at a licensed facility in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	☐	☐	☑	☐	
4.27	Principles of reuse and recycle chemical waste on site as far as practicable is adopted by the contractor.	☐	☐	☑	☐	
4.28	Are unused chemicals or those with remaining functional capacity reused as far as practicable?	☐	☐	☑	☐	
4.29	Disposal of chemical waste via 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.	☐	☐	☑	☐	
5.00	**Landscape and Visual (Construction Phase)**					
5.01	Do site offices have olive green roof and façade coating or colour that matche with existing environment?	☐	☐	☑	☐	
5.02	Are site offices and the construction yard decommissioned after construction?	☐	☐	☑	☐	
5.03	The height of site offices, including the rooftop does not exceed 10m, except building services equipment such as antennas, which exceeds 10 m but is coated in black.	☐	☐	☑	☐	

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	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
5.04	Is site hoarding with 2.4m height and colour in harmony with the surrounding environment erected along the site boundary until the completion of relevant construction phases?	☑	☐	☐	☐	Site hoarding was removed but the plastic barrier has been in use.
5.05	Are construction plants and building materials orderly and carefully stored to appear neat and avoid visibility from outside where practical?	☐	☐	☑	☐	
5.06	Are excess materials removed from site as soon as practical?	☐	☐	☑	☐	
5.07	Are all construction plants removed from site upon completion of construction works?	☑	☐	☐	☐	No planting work.
5.08	Are construction lights oriented away from the viewing location of VSRs?	☐	☐	☑	☐	
5.09	Are all lightings facing sensitive receiver installed with frosted diffusers and reflective covers?	☐	☐	☑	☐	
5.10	Trees that require removal are transplanted on site if practical. If not practical, these trees will be transplanted in locations within the vicinity as approved by the Architect.	☐	☐	☑	☐	
5.11	Planting works are carried out under the supervision of a specialist landscape specialist.	☐	☐	☑	☐	
5.12	The rooftop of the cremation plant room is planted with lawn.	☑	☐	☐	☐	Lawn has not been planted.
5.13	New trees, shrubs and groundcover are carefully selected and designed to homogenize with the environment.	☑	☐	☐	☐	No planting work.
5.14	No tree is transplanted or felled without prior approval by relevant Government departments.	☐	☐	☑	☐	
5.15	All trees that are marked for retention are fenced off with a 1.2m high fence around the dripline of trees or larger area as far as feasible.	☑	☐	☐	☐	All tree planting work was completed
5.16	Transplant preparation works are carried out as soon as possible after the commencement of construction. Over-pruning such as hard pruning of tree crown, pollarding or topping are avoided. Rootball and crown pruning are carried out over at least 3 months.	☐	☐	☑	☐	
5.17	Existing shrub and ground cover planting areas that will not be removed are maintained in good condition and enhanced if practical.	☐	☐	☑	☐	
5.18	The chimney has been designed to have sculptural outlook and articulated. It is kept in proportion with the rest of the building.	☐	☐	☑	☐	
5.19	The chimney stack is designed to locate at the least conspicuous location of the site to VSRs.	☐	☐	☑	☐	

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	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
5.20	Bi-weekly checking would be performed on the nine Terminalia mantaly trees within and outside the works area of the Project, or otherwise if the transplantations are not carried out according to the plan.	☐	☐	☑	☐	
5.21	Are silting traps installed to minimize silting to streams?	☐	☐	☑	☐	
5.22	Is the tree compensation to tree loss ratio at least 1:1 in term of quantity? About 100 trees will be planted to compensate for the loss of 54 trees. 100 trees will be planted on site and others, in locations within the vicinity approved by the Architect	☑	☐	☐	☐	No planting work
5.23	Is amenity planting for open spaces included in the Project?	☑	☐	☐	☐	No planting work
5.24	Is screen planting such as planting a roll of trees along the site boundary butting Kiu Tau Road carried out?	☑	☐	☐	☐	No planting work
5.25	Woodland mix, comprising of tree seedlings and shrubs, are planted within the Wo Hop Shek Cemetery to enhance the ecological value and compensatory of tree loss.	☑	☐	☐	☐	No planting work
5.26	Is the 10m height headroom cremation plant room half-sunken to reduce the visual impact to pedestrians?	☐	☐	☑	☐	
6.00	**Water Quality (Construction Phase)**					
6.01	Wastewater is 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 is allowed.	☐	☐	☑	☐	
6.02	Perimeter channels are provided to intercept storm runoff from outside the site. The channels are constructed in advance of site formation works and earthworks.	☐	☐	☑	☐	
6.03	Sand/silt removal facilities such as sand traps, silt traps and sediment basins are provided to remove sand/silt particles from runoff to meet the requirements of the Technical Memorandum standard under the WPCO.	☐	☐	☑	☐	
6.04	Works are carefully programmed to minimise soil excavation works during rainy seasons.	☑	☐	☐	☐	No excavation work
6.05	Exposed soil surfaces are protected by paving as soon as possible to reduce the potential of soil erosion.	☑	☐	☐	☐	No excavation work
6.06	Temporary access roads are protected by crushed gravel and exposed slope surfaces are protected when rainstorms are likely to occur.	☐	☐	☑	☐	
6.07	Trench excavation is avoided in the wet season as far as practicable, and if necessary, these trenches are excavated and backfilled in short sections.	☑	☐	☐	☐	No excavation work.
6.08	Open stockpiles of construction materials on site are covered with tarpaulin or similar fabric during rainstorms.	☐	☐	☑	☐	

Contract no. AL G513 Expansion of Wo Hop Shek Crematorium

	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
6.09	Sand and silt in the wash water from the wheel from the wheel washing facility are settled out and removed before discharging into the storm drain.	☐	☐	☑	☐	
6.10	Oil interceptor is provided in the drainage system and regularly emptied to prevent the release of oil and grease into the storm drainage system after accidental spillage.	☐	☐	☑	☐	
6.11	Debris and rubbishes generated on site are collected, handled and disposed of properly to avoid them entering the two streams.	☐	☐	☑	☐	
6.12	All fuel tanks and storage areas are 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.	☐	☐	☑	☐	
6.13	Open storm water drains and culverts near the works area are covered to block the entrance of large debris and refuse.	☐	☐	☑	☐	
6.14	Portable chemical toilets handle the sewage from construction work force if the existing toilets in the Site are not adequate. Licensed contractors who are responsible for appropriate disposal and maintenance of these facilities provide appropriate and adequate portable toilets.	☐	☐	☑	☐	
6.15	Sheet piling is 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 is treated to comply with the standards set in the relevant discharge licence prior discharge. No discharge of the groundwater is allowed into the two streams.	☑	☐	☐	☐	No groundwater was generated!
7.00	**Ecology (Construction Phase)**					
7.01	Any affected trees are transplanted to grassland / scrubland within the Wo Hop Shek Cemetery.	☐	☐	☑	☐	
7.02	Temporary accesses to the work sites are carefully planned and located to minimise disturbance caused to the streams and nearby habitats.	☐	☐	☑	☐	
7.03	Less or smaller construction plants are used to reduce disturbance to the nearby habitats.	☐	☐	☑	☐	
7.04	Vehicles and other plants are carefully maintained and properly used to minimise the chance for accidental spillage.	☐	☐	☑	☐	
7.05	Any spillages that do occur are quickly identified and appropriately cleaned up before they can contaminate streams or groundwater.	☑	☐	☐	☐	No spillage occured.
7.06	Basement formation or any construction activities likely to pump out a large quantity of groundwater are protected with sheet-piling at suitable locations around the basement footprint, or by any like method.	☑	☐	☐	☐	No groundwater was generated.
7.07	No groundwater is pumped back to the two stream courses to protect the natural integrity of the stream habitat and the associated organism.	☑	☐	☐	☐	No groundwater was generated!

Contract no. AL G513 Expansion of Wo Hop Shek Crematorium

	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
7.08	Sturdy 1.8 metres protective fencings are located at the edge of the tree canopy but not around the trunk.	☐	☐	☑	☐	
7.09	Works beneath the tree canopy are avoided: If encroachment under the canopy area is unavoidable, adequate protections are provided to ensure no damage of any part of the tree would occur due to the encroachment.	☐	☐	☑	☐	
7.10	Any tree transplanting and planting works are implemented by an approved Landscape Contractor. Quality control of the work is undertaken by a qualified Landscape Architect through site inspections and approval of works.	☐	☐	☑	☐	
7.11	Construction works are restricted within works area which are clearly defined.	☐	☐	☑	☐	
7.12	Woodland or other habitats that are affected by the construction works are well-defined and minimised.	☐	☐	☑	☐	
7.13	Human inference to habitats beyond the site boundary and habitats proposed to be retained are avoided by providing temporary barricades.	☐	☐	☑	☐	
7.14	Works area is reinstated immediately after completion of the construction.	☑	☐	☐	☐	The construction work has not been completed
7.15	Uncontrolled burning of refuse is strictly prohibited. Appropriate fire control measures are provided in order to protect nearby habitats.	☐	☐	☑	☐	
7.16	Trees requiring transplantation or protection are identified based on the information illustrated in the Tree Survey Report.	☐	☐	☑	☐	
7.17	Is layout of the Project carefully designed to avoid or minimize the area of habitat loss and the numbers of trees to be felled?	☐	☐	☑	☐	
7.18	All trees are preserved as far as possible, especially species of conservation concern. Recommendations provided in the Tree Survey Report to mitigate impacts on trees shall be followed.	☐	☐	☑	☐	
7.19	Disturbance to the two plant species of conservation concern, namely Aquilaria sinensis and Cibotium barometz, is avoided. Where removal of these species is unavoidable, it is recommended to transplant them to habitats with similar conditions. Following transplantation, regular monitoring of these plants is conducted by a suitable qualified botanist / horticulturist over a 12-month period;	☑	☐	☐	☐	
7.20	Compensatory planting of the felled trees follows the Technical Circular No. 3/2006 issued by ETWB.	☑	☐	☐	☐	No planting work.
7.21	The Site inside or in the proximity of the streams and nearby habitats is temporarily isolated, by placing of sandbags or silt curtains with lead edge at the bottom and properly supported props, to prevent adverse impacts on these areas.	☐	☐	☑	☐	

Contract no. AL G513 Expansion of Wo Hop Shek Crematorium

	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
7.22	Appropriate storage locations are situated well away from the streams and nearby habitats for the temporary storage of materials (e.g. equipment, filling materials, chemicals and fuel) and temporary stockpile of construction debris and spoil are identified before commencement of the works.	☐	☐	☑	☐	
7.23	Stockpiling of construction materials, are covered and located away from the streams and nearby habitats.	☐	☐	☑	☐	
7.24	Construction debris and spoil are covered up and/or properly disposed of as soon as possible to avoid being washed into the streams and nearby habitats by rain.	☐	☐	☑	☐	
7.25	Construction effluent, site runoff and sewage is properly collected and/or treated.	☐	☐	☑	☐	
7.26	Proper locations for discharge outlets of any wastewater treatment facilities well away from the streams and nearby habitats are identified.	☐	☐	☑	☐	
7.27	Vehicles and other plant are carefully maintained and properly used to minimise the chance for accidental spillage.	☐	☐	☑	☐	
7.28	Temporary geo-textile silt fences around earth moving works are erected to trap any sediments being washed away and prevent them from entering surrounding areas.	☐	☐	☑	☐	
7.29	Exposed soil or other loose materials are covered with tarpaulins to prevent erosion, and then seeded and covered with a biodegradable geotextile blanket for erosion control purposes.	☐	☐	☑	☐	

*Remarks: N/A = Not applicable at current stage

N/O = Not observed in the site walk

Yes = Compliance

No = Non-compliance

Contract no. AL G513 Expansion of Wo Hop Shek Crematorium

Remark / Follow up of Observation(s) and Non-compliance(s) of Last Weekly Site Inspection:

Observation (S):

Nil

Reminder (S):

- Housekeping should be maintain regularly

Note: Figuare 4, 5 regarding to clause of EP has been displayed at the entrance of the site.

Signatures:

ET Representative	Contractor's Representative	Architect's Representative	IEC's Representative
(Name: Johnny Kwong)	(Name: M.Y.WONG)	(Name: Y.C.Chan)	(Name:)

APPENDIX L: 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**
01 December 2021 – 31 December 2021	0	0	N/A

Statistical Summary of Environmental Non-compliance

Reporting Period	**Environmental Non-compliance Statistics**		
	Frequency	**Cumulative**	**Details**
01 December 2021 – 31 December 2021	0	0	N/A

Statistical Summary of Environmental Summons

Reporting Period	**Environmental Summons Statistics**		
	Frequency	**Cumulative**	**Details**
01 December 2021 – 31 December 2021	0	0	N/A

Statistical Summary of Environmental Prosecution

Reporting Period	**Environmental Prosecution Statistics**		
	Frequency	**Cumulative**	**Details**
01 December 2021 – 31 December 2021	0	0	N/A

APPENDIX M: IMPACT MONITORING SCHEDULE OF NEXT REPORTING MONTH

Impact Monitoring Schedule for Expansion of Wo Hop Shek Crematorium

Jan-22						
Sun	Mon	Tue	Wed	Thur	Fri	Sat
						1
2	3	4	5	6	7	8
		Air monitoring for A10, A20 for 1-hr TSP and 24-hr TSP Monitoring Time: 0900-1630	Weekly ET site inspection and audit			Air monitoring for A10, A20 for 1-hr TSP and 24-hr TSP Monitoring Time: 0900-1630
9	10	11	12	13	14	15
			Weekly ET site inspection and audit		Air monitoring for A10, A20 for 1-hr TSP and 24-hr TSP Monitoring Time: 0900-1630	
16	17	18	19	20	21	22
			Weekly ET site inspection and audit	Air monitoring for A10, A20 for 1-hr TSP and 24-hr TSP Monitoring Time: 0900-1630		
23	24	25	26	27	28	29
			Weekly ET site inspection and audit Air monitoring for A10, A20 for 1-hr TSP and 24-hr TSP Monitoring Time: 0900-1630			
30	31					
	Air monitoring for A10, A20 for 1-hr TSP and 24-hr TSP Monitoring Time: 0900-1630					

***Remarks: 1. This impact monitoring schedule is subject to change due to adverse weather conditions or other rationales.**

2. Advance notification of the changes will be given to all relevant parties at lease 48 hours prior to implementation.

APPENDIX N: TRANSPORTATION ROUTES TO/FROM THE SITE

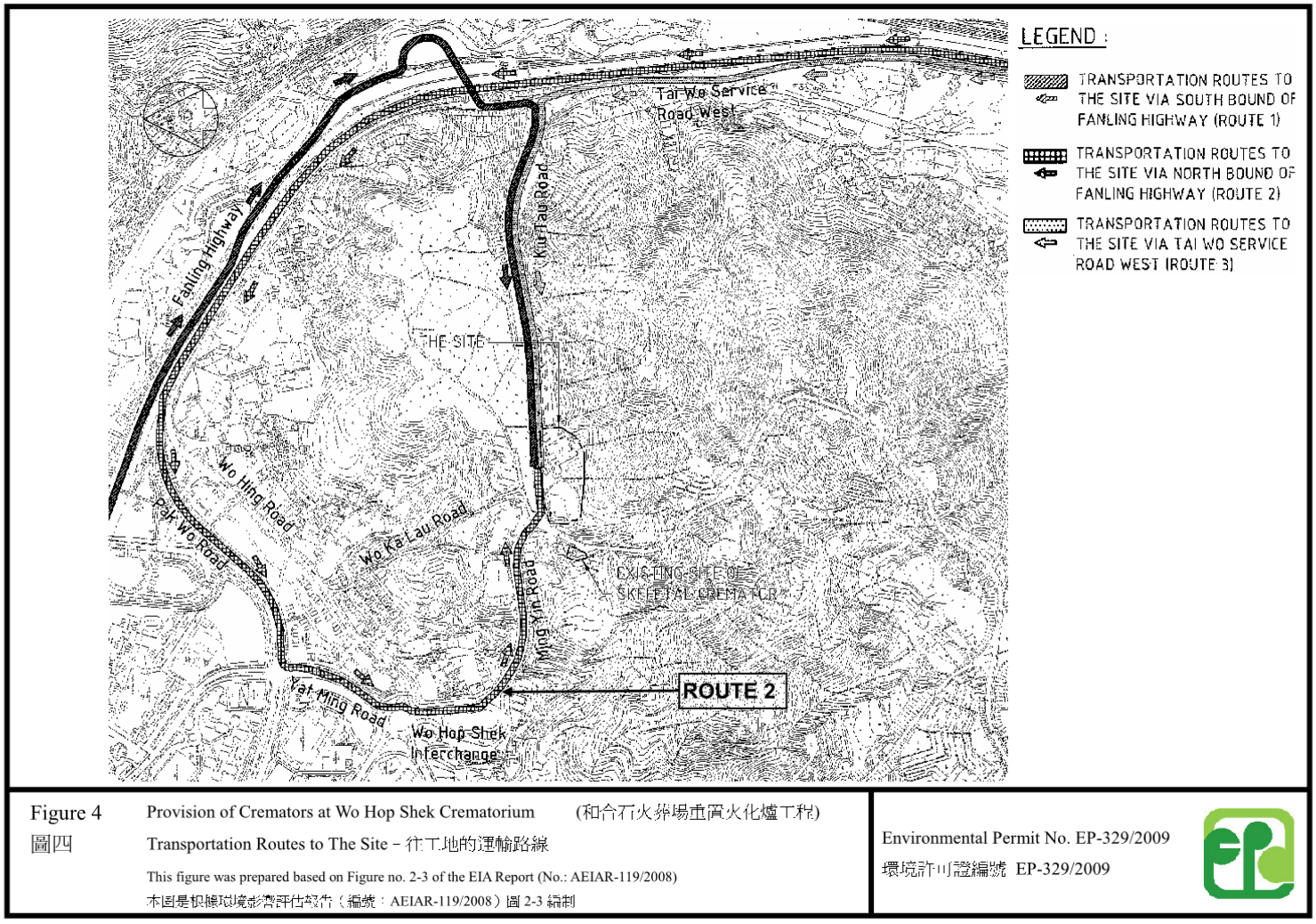

Figure 4 Provision of Cremators at Wo Hop Shek Crematorium (和合石火葬場重置火化爐工程)
圖四 Transportation Routes to The Site – 往工地的運輸路線

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

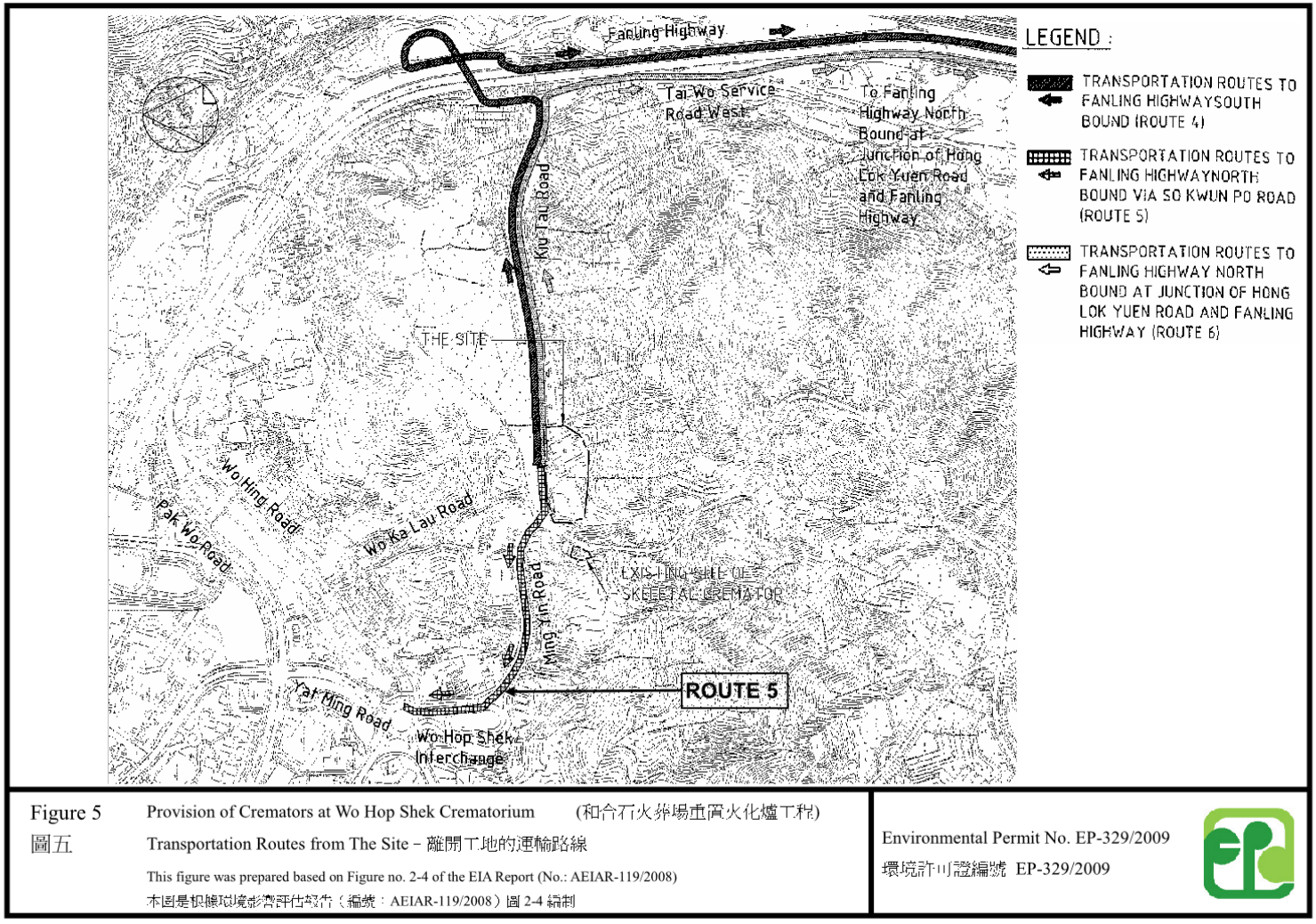

Figure 5 Provision of Cremators at Wo Hop Shek Crematorium (和合石火葬場重置火化爐工程)
圖五 Transportation Routes from The Site – 離開工地的運輸路線

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

APPENDIX O: LAB REPORT

acumen

Acumen Laboratory and Testing Limited
Unit D, 12/F, Ford Glory Plaza, No. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong
Tel: (852) 2333 6823 Fax: (852) 2333 1316

Test Report

Report Number	: Q210003aR211694
Job Number	: R211694
Issue Date	: 09/12/2021
Name of Applicant	: Acuity Sustainability Consulting Limited
Address of Applicant	: Unit E, 12/F, Ford Glory Plaza, No. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong
Project Name	: ASCL-2018028 Expansion of Wo Hop Shek Crematorium
Sample Description	: Total Suspended Particulates
Laboratory ID	: R211694/1-2
Date of Sampling	: 01/12/2021
Date Received	: 01/12/2021
Test Period	: 01/12/2021 – 02/12/2021
Test Required	: Total Suspended Particulates (TSP)
Method Used	: Gravimetric method
Test Result	: Refer to the results on page 2.

For and on behalf of

Acumen Laboratory and Testing Limited

Authorized Signature: _____

Hui Wai Fung, Huntington
Laboratory Manager
Chemical Division

acumen

Acumen Laboratory and Testing Limited
Unit D, 12/F, Ford Glory Plaza, No. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong
Tel: (852) 2333 6823 Fax: (852) 2333 1316

Test Report

Report Number : Q210003aR211694

Job Number : R211694

Issue Date : 09/12/2021

Test Result:

Lab ID	Date of Sampling	Client Sample ID	Initial Weight (g)	Final Weight (g)	Total Suspended Particulates (g)
R211694/1	01/12/2021	Fung Kai Liu Yun Sum Memorial School	2.7570	2.8515	0.0945
R211694/2	01/12/2021	Fanling Government Secondary School	2.7841	2.8905	0.1064

Note:
1. < indicates less than.
2. > indicates more than.
3. NA indicates Not Applicable.

End of Report

acumen

Acumen Laboratory and Testing Limited
Unit D, 12/F, Ford Glory Plaza, No. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong
Tel: (852) 2333 6823 Fax: (852) 2333 1316

Test Report

Report Number	: Q210003aR211741
Job Number	: R211741
Issue Date	: 14/12/2021
Name of Applicant	: Acuity Sustainability Consulting Limited
Address of Applicant	: Unit E, 12/F, Ford Glory Plaza, No. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong
Project Name	: ASCL-2018028 Expansion of Wo Hop Shek Crematorium
Sample Description	: Total Suspended Particulates
Laboratory ID	: R211741/1-2
Date of Sampling	: 07/12/2021
Date Received	: 07/12/2021
Test Period	: 07/12/2021 – 08/12/2021
Test Required	: Total Suspended Particulates (TSP)
Method Used	: Gravimetric method
Test Result	: Refer to the results on page 2.

For and on behalf of
Acumen Laboratory and Testing Limited

Authorized Signature: _____

Hui Wai Fung, Huntington
Laboratory Manager
Chemical Division

acumen

Acumen Laboratory and Testing Limited
Unit D, 12/F, Ford Glory Plaza, No. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong
Tel: (852) 2333 6823 Fax: (852) 2333 1316

Test Report

Report Number : Q210003aR211741

Job Number : R211741

Issue Date : 14/12/2021

Test Result:

Lab ID	Date of Sampling	Client Sample ID	Initial Weight (g)	Final Weight (g)	Total Suspended Particulates (g)
R211741/1	07/12/2021	Fung Kai Liu Yun Sum Memorial School	2.7815	2.8832	0.1017
R211741/2	07/12/2021	Fanling Government Secondary School	2.7715	2.8577	0.0862

Note:
1. < indicates less than.
2. > indicates more than.
3. NA indicates Not Applicable.

End of Report

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Acumen Laboratory and Testing Limited
Unit D, 12/F, Ford Glory Plaza, No. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong
Tel: (852) 2333 6823 Fax: (852) 2333 1316

Test Report

Report Number	: Q210003aR211782
Job Number	: R211782
Issue Date	: 21/12/2021
Name of Applicant	: Acuity Sustainability Consulting Limited
Address of Applicant	: Unit E, 12/F, Ford Glory Plaza, No. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong
Project Name	: ASCL-2018028 Expansion of Wo Hop Shek Crematorium
Sample Description	: Total Suspended Particulates
Laboratory ID	: R211782/1-2
Date of Sampling	: 13/12/2021
Date Received	: 13/12/2021
Test Period	: 13/12/2021 – 14/12/2021
Test Required	: Total Suspended Particulates (TSP)
Method Used	: Gravimetric method
Test Result	: Refer to the results on page 2.

For and on behalf of

Acumen Laboratory and Testing Limited

Authorized Signature: _____

Hui Wai Fung, Huntington
Laboratory Manager
Chemical Division

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Tel: (852) 2333 6823 Fax: (852) 2333 1316

Test Report

Report Number : Q210003aR211782

Job Number : R211782

Issue Date : 21/12/2021

Test Result:

Lab ID	Date of Sampling	Client Sample ID	Initial Weight (g)	Final Weight (g)	Total Suspended Particulates (g)
R211782/1	13/12/2021	Fung Kai Liu Yun Sum Memorial School	2.9111	2.7849	0.1262
R211782/2	13/12/2021	Fanling Government Secondary School	2.7729	2.8637	0.0908

Note:
1. < indicates less than.
2. > indicates more than.
3. NA indicates Not Applicable.

End of Report

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Acumen Laboratory and Testing Limited
Unit D, 12/F, Ford Glory Plaza, No. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong
Tel: (852) 2333 6823 Fax: (852) 2333 1316

Test Report

Report Number	: Q210003aR211833
Job Number	: R211833
Issue Date	: 28/12/2021
Name of Applicant	: Acuity Sustainability Consulting Limited
Address of Applicant	: Unit E, 12/F, Ford Glory Plaza, No. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong
Project Name	: ASCL-2018028 Expansion of Wo Hop Shek Crematorium
Sample Description	: Total Suspended Particulates
Laboratory ID	: R211833/1-2
Date of Sampling	: 17/12/2021
Date Received	: 17/12/2021
Test Period	: 17/12/2021 – 18/12/2021
Test Required	: Total Suspended Particulates (TSP)
Method Used	: Gravimetric method
Test Result	: Refer to the results on page 2.

For and on behalf of

Acumen Laboratory and Testing Limited

Authorized Signature: _____

Hui Wai Fung, Huntington
Laboratory Manager
Chemical Division

acumen

Acumen Laboratory and Testing Limited
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Tel: (852) 2333 6823 Fax: (852) 2333 1316

Test Report

Report Number : Q210003aR211833

Job Number : R211833

Issue Date : 28/12/2021

Test Result:

Lab ID	Date of Sampling	Client Sample ID	Initial Weight (g)	Final Weight (g)	Total Suspended Particulates (g)
R211833/1	17/12/2021	Fung Kai Liu Yun Sum Memorial School	2.7858	2.9106	0.1248
R211833/2	17/12/2021	Fanling Government Secondary School	2.7677	2.8798	0.1121

Note:
1. < indicates less than.
2. > indicates more than.
3. NA indicates Not Applicable.

End of Report

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Acumen Laboratory and Testing Limited
Unit D, 12/F, Ford Glory Plaza, No. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong
Tel: (852) 2333 6823 Fax: (852) 2333 1316

Test Report

Report Number	: Q210003aR211834
Job Number	: R211834
Issue Date	: 28/12/2021
Name of Applicant	: Acuity Sustainability Consulting Limited
Address of Applicant	: Unit E, 12/F, Ford Glory Plaza, No. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong
Project Name	: ASCL-2018028 Expansion of Wo Hop Shek Crematorium
Sample Description	: Total Suspended Particulates
Laboratory ID	: R211834/1-2
Date of Sampling	: 23/12/2021
Date Received	: 23/12/2021
Test Period	: 23/12/2021 – 24/12/2021
Test Required	: Total Suspended Particulates (TSP)
Method Used	: Gravimetric method
Test Result	: Refer to the results on page 2.

For and on behalf of

Acumen Laboratory and Testing Limited

Authorized Signature: _____

Hui Wai Fung, Huntington
Laboratory Manager
Chemical Division

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Acumen Laboratory and Testing Limited
Unit D, 12/F, Ford Glory Plaza, No. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong
Tel: (852) 2333 6823 Fax: (852) 2333 1316

Test Report

Report Number : Q210003aR211834

Job Number : R211834

Issue Date : 28/12/2021

Test Result:

Lab ID	Date of Sampling	Client Sample ID	Initial Weight (g)	Final Weight (g)	Total Suspended Particulates (g)
R211834/1	23/12/2021	Fung Kai Liu Yun Sum Memorial School	2.7436	2.8578	0.1142
R211834/2	23/12/2021	Fanling Government Secondary School	2.7457	2.8149	0.0692

Note:
1. < indicates less than.
2. > indicates more than.
3. NA indicates Not Applicable.

End of Report

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Acumen Laboratory and Testing Limited
Unit D, 12/F, Ford Glory Plaza, No. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong
Tel: (852) 2333 6823 Fax: (852) 2333 1316

Test Report

Report Number	: Q220003aR220035
Job Number	: R220035
Issue Date	: 06/01/2022
Name of Applicant	: Acuity Sustainability Consulting Limited
Address of Applicant	: Unit E, 12/F, Ford Glory Plaza, No. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong
Project Name	: ASCL-2018028 Expansion of Wo Hop Shek Crematorium
Sample Description	: Total Suspended Particulates
Laboratory ID	: R220035/1-2
Date of Sampling	: 29/12/2021
Date Received	: 04/01/2022
Test Period	: 04/01/2022 – 05/01/2022
Test Required	: Total Suspended Particulates (TSP)
Method Used	: Gravimetric method
Test Result	: Refer to the results on page 2.

For and on behalf of

Acumen Laboratory and Testing Limited

Authorized Signature: _____

Hui Wai Fung, Huntington
Laboratory Manager
Chemical Division

acumen

Acumen Laboratory and Testing Limited

Unit D, 12/F, Ford Glory Plaza, No. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong
Tel: (852) 2333 6823 Fax: (852) 2333 1316

Test Report

Report Number : Q220003aR220035

Job Number : R220035

Issue Date : 06/01/2022

Test Result:

Lab ID	Date of Sampling	Client Sample ID	Initial Weight (g)	Final Weight (g)	Total Suspended Particulates (g)
R220035/1	29/12/2021	Fung Kai Liu Yun Sum Memorial School	2.7626	2.8802	0.1176
R220035/2	29/12/2021	Fanling Government Secondary School	2.7554	2.8225	0.0671

Note:
1. < indicates less than.
2. > indicates more than.
3. NA indicates Not Applicable.

End of Report