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# **Contract No. AL G513**

# **Expansion of Wo Hop Shek Crematorium**

# Monthly EM&A Report No.5 (Period from 01 July to 31 July 2020)

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# **REVISION HISTORY**

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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 5<sup>th</sup> 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 July 2020 to 31 July 2020.
- 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:
  - Erecting tanking block wall
  - Applying waterproofing membrane
  - Mass filing
- A6. The major environmental impacts brought by the above construction works include:
  - Construction noise generation from block wall erection
  - Wastewater generation from mass filling
  - Waste generation from construction activities
- A7. The key environmental mitigation measures implemented for the Project in this reporting period associated with the above construction works include:
  - Reduction of noise from equipment and machinery on-site
  - Treatment of wastewater from mass filling through sedimentation tank
  - 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 2, 8, 15, 20 & 29 July 2020 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:
  - Construction works to footing
  - Mass filing

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

- Construction noise generation from constructing footing
- Wastewater generation from mass filling
- Waste generation from construction activities
- A15. The key environmental mitigation measures for the Project in the coming reporting period associated with the above construction works will include:
  - Reduction of noise from equipment and machinery on-site
  - Treatment of wastewater from mass filling through sedimentation tank
  - 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.

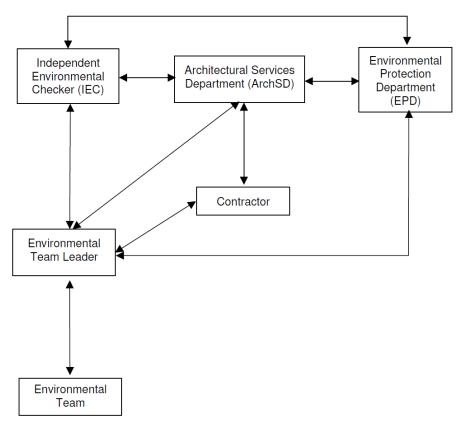
#### 1.2. THE REPORTING SCOPE

This is the 5<sup>th</sup> Monthly EM&A Report for the Project which summarizes the key findings of the EM&A programme during the reporting period from 01 July to 31 July 2020.

#### 1.3. PROJECT ORGANIZATION

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





#### **←** Line of Communication

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

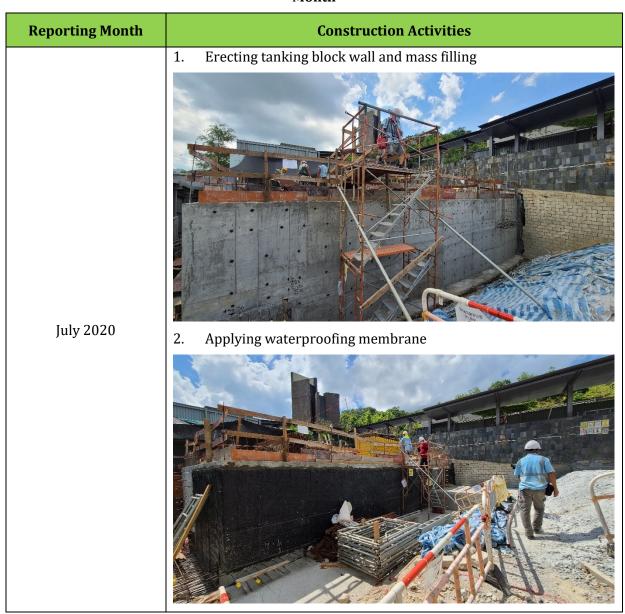
Party	Position	Name	Telephone no.
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Acuity Sustainability Consulting Limited	Environmental Team Leader	Kevin Li	2698-6833
Ove Arup & Partners Hong Kong Ltd	Independent Environmental Checker (IEC)	Sam Tsoi	2528-3031



# 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





### 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.

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

EP/FEP Condition (EP-457/2013/C)	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 2.4	Tree Transplant Proposal	12 Apr 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	Condition 5.2b Alternative Air Quality Monitoring Station	
Condition 5.4	Monthly EM&A Report (July 2020)	14 Aug 2020

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)	GW-RN0022-20	25 Jan 2020 – 12 July 2020	-
Construction Noise Permit (24 hours) (Renewal)	GW-RN0434-20	13 July 2020 – 12 Jan 2021	-
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 Impact, 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	992818	03 Sep 2019
1-hour TSP	LD-5R Digital Dust Indicator	851820	23 Aug 2019
TE-5170X High Volume Sampler		1049	04, 22 July 2020
24-hour TSP	TE-5170X High Volume Sampler	1050	04, 22 July 2020
	TE-5028A Calibration Kit	3702	10 Oct 2019

### 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° 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°C and not varied by more than ±3°C; 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 1.22-1.37<sup>m³min-³</sup>, which was within the range specified in the EM&A Manual (i.e. 0.6- 1.7 <sup>m³min-³</sup>);
- 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 04, 10, 16, 22 and 28 July 2020 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** 

<b>Monitoring Location</b>	itoring Location Range(μg/m³)		Limit Level(µg/m³)		
A10	27 - 63	290	500		
A20	37 - 68	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	13 - 23	169	260
A20	14 - 22	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 July 2020

		Actual Quantities of Inert C&D Materials Generated Monthly				Actual Quantities of C&D Wastes Generated Monthly					
Reporting Month	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / cardboard packaging	Plastics (see Note)	Chemical Waste	Others, e.g. general refuse
	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)
July 2020	4.95	0	0	0	0	0	0	0	0	0	4.95

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.
Tron mere deb vrustes	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.
Inert C&D Wastes	Excavated inert C&D materials were separately stored for subsequent backfilling, approximately 614 tonnes of excavated inert materials were stored in construction material storage area with coverage of impervious sheeting for on-site backfilling.
	2. Surplus excavated materials were delivered to public fill reception facilities.
Chemical Wastes	Unused chemicals or chemicals with remaining functional capacity were reused as far as practicable.



# 4. Summary of Monitoring Exceedance, Complaints, Notification of Summons and Prosecutions

The Environmental Complaint Handling Procedure is shown in below Figure 4.1:

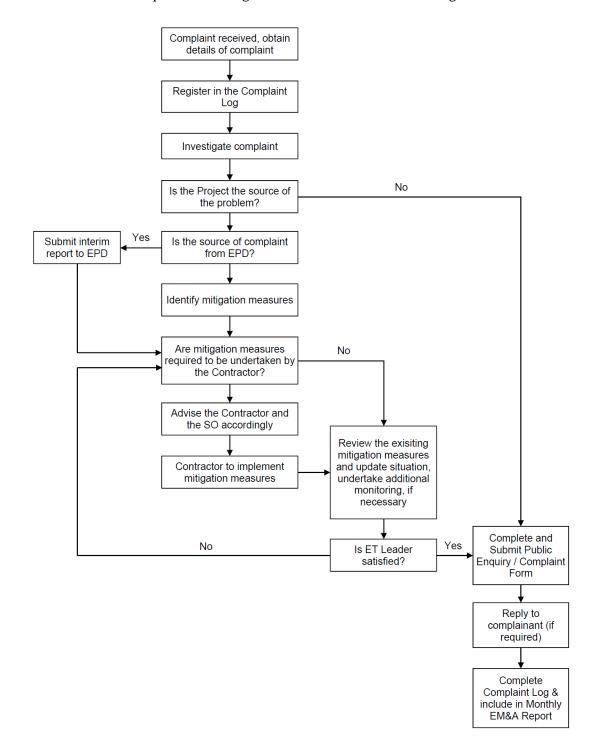


Figure 4.1 Environmental Complaint Handling Procedures



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**.



# 5. 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 02, 08, 15, 20 and 29 July 2020 at the site portions list in Table 5.1 below.

**Table 5.1 Summaries of Site Inspection Record** 

Date	Inspected Site Portion	Time
02 July 2020	Wo Hop Shek Crematorium	10:15 - 10:30 AM
08 July 2020	Wo Hop Shek Crematorium	10:15 - 10:30 AM
15 July 2020	Wo Hop Shek Crematorium	10:10 - 10:25 AM
20 July 2020	Wo Hop Shek Crematorium	11:00 – 11:15 AM
29 July 2020	Wo Hop Shek Crematorium	10:15 – 10:30 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**.

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



# **Table 5.2 Site Observations**

Date	Environmental Observations	Follow-up Status
02 July 2020 (Site inspection)	Observation(s)  1. No major observation was observed.  Reminder(s)  1. No reminder was recommended.	Nil.
08 July 2020 (Site inspection)	Observation(s)  1. No major observation was observed.  Reminder(s)  1. The tidiness of site should be maintained.	Nil.
15 July 2020 (Site inspection)	Observation(s)  1. No major observation was observed.  Reminder(s)  1. No reminder was recommended.	Nil.
20 July 2020 (Site inspection)	Observation(s)  1. No major observation was observed.  Reminder(s)  1. No reminder was recommended.	Nil.
29 July 2020 (Site inspection)	Observation(s)  1. No major observation was observed.  Reminder(s)  1. Mitigation measure for air-borne dust control should be adopted during back-filling.	Nil.



# 6. Future Key Issues

Works to be undertaken in the next reporting month are:

- Construction works to footing
- Mass filing

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

- Construction noise generation from constructing footing
- Wastewater generation from mass filling
- Waste generation from construction activities

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

- Reduction of noise from equipment and machinery on-site
- Treatment of wastewater from mass filling through sedimentation tank
- Sorting and storage of general refuse and construction waste

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



## 7. CONCLUSIONS AND RECOMMENDATIONS

This is the  $5^{th}$  Monthly EM&A Report for the Project which summarizes the key findings of the EM&A programme during the reporting period from 01 July to 31 July 2020., 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.

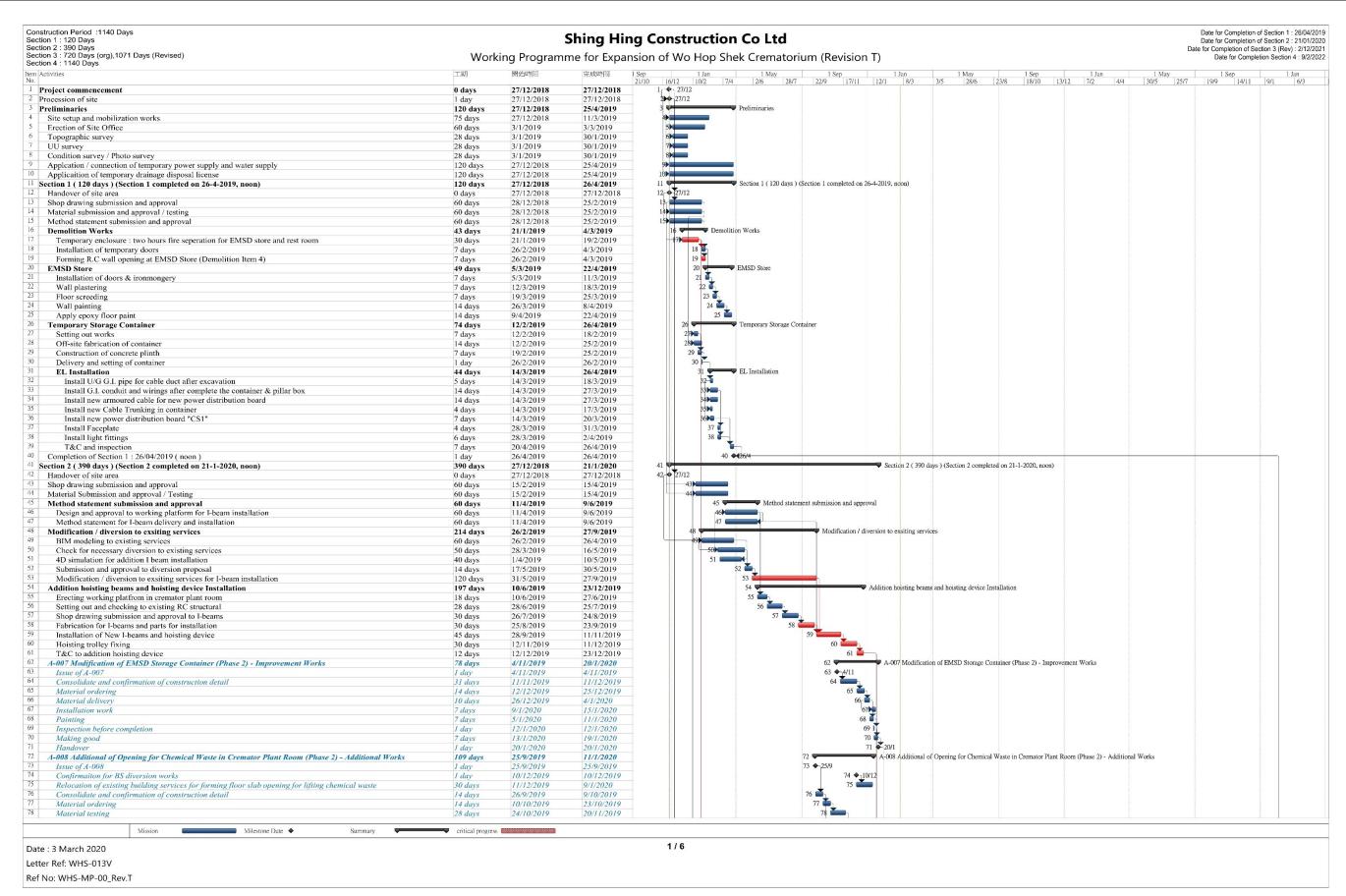
No notification of summons or prosecution was received since commencement of the Contract.

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

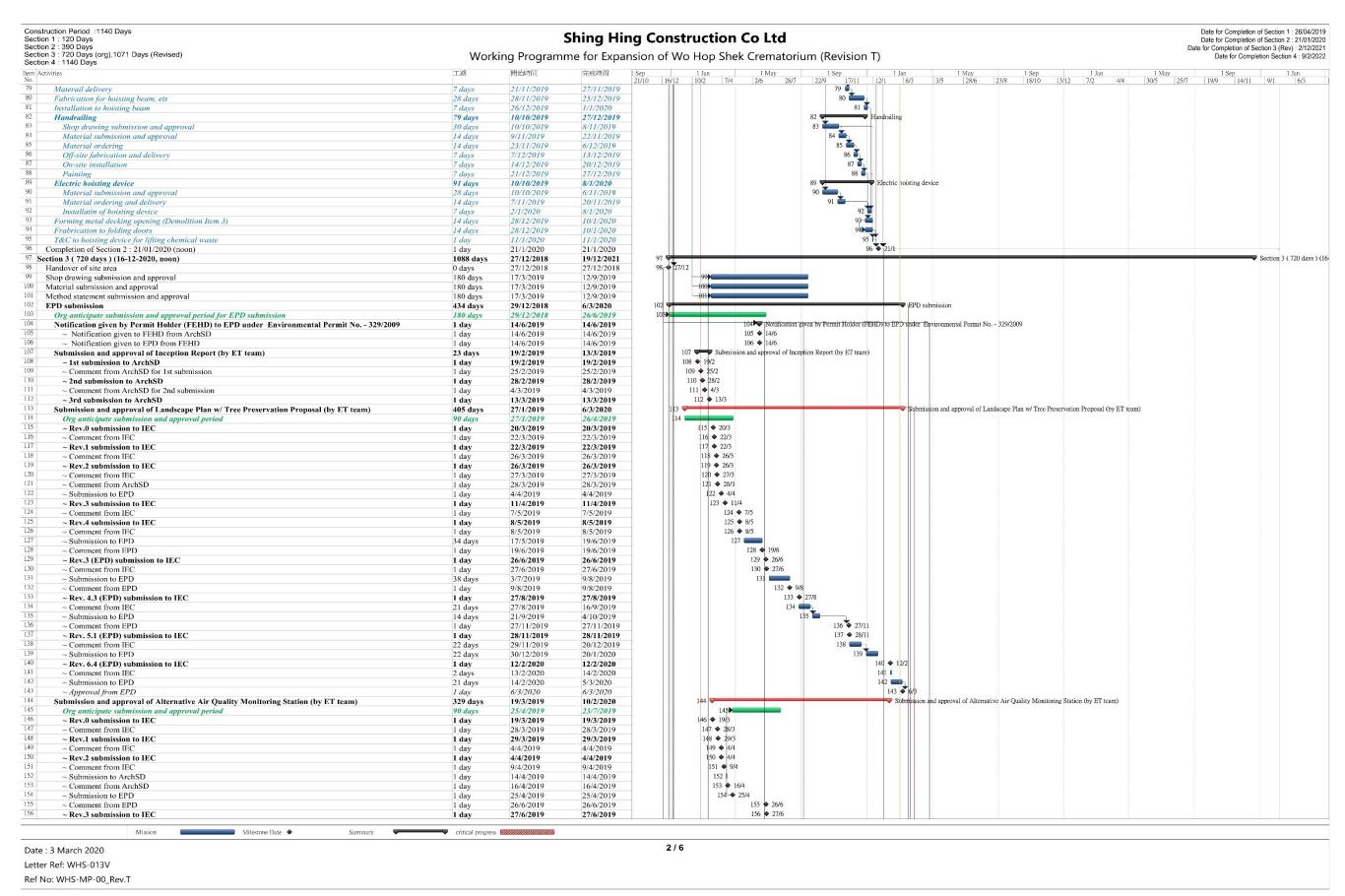


**APPENDIX A: MASTER PROGRAMME** 

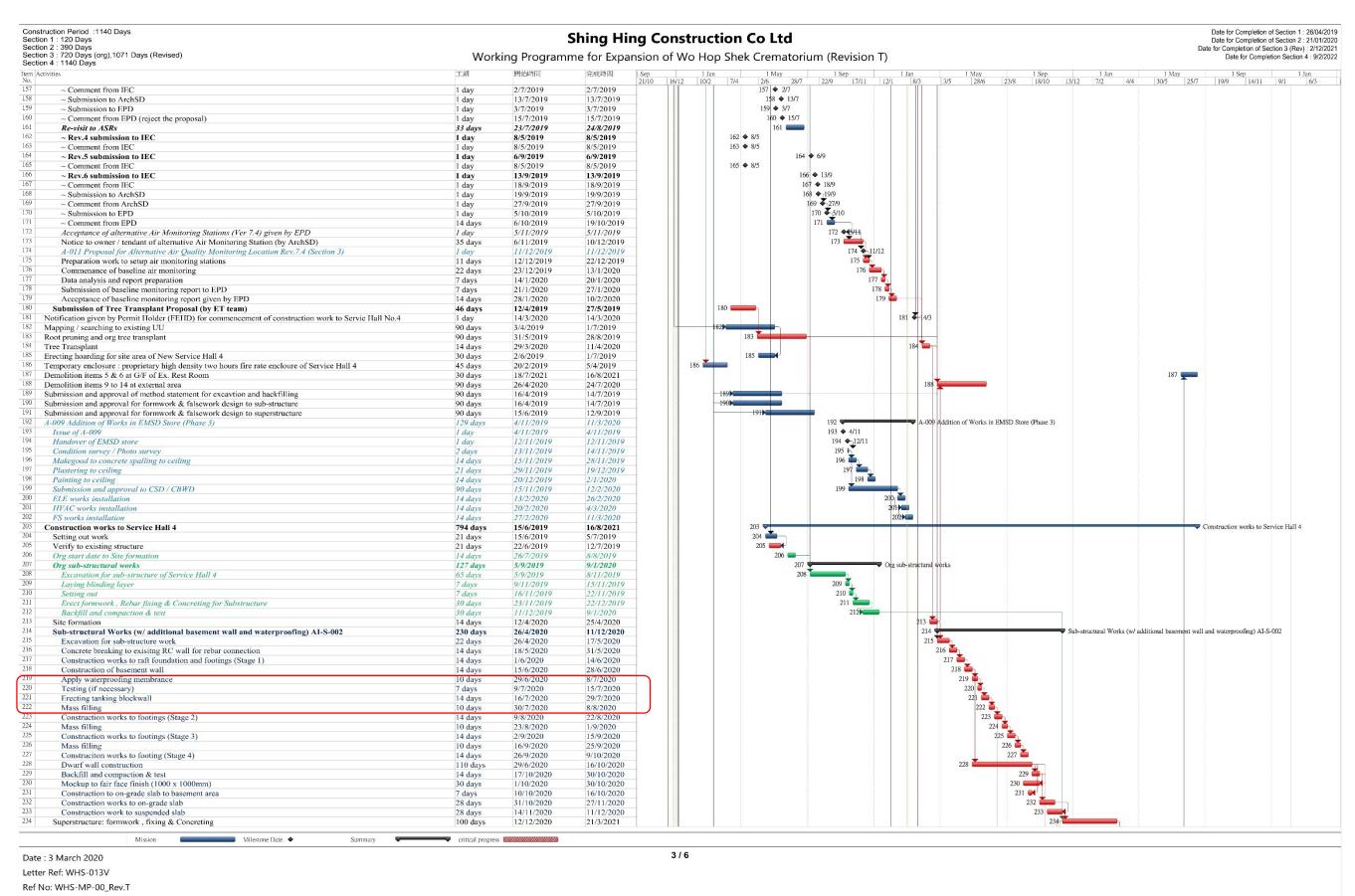




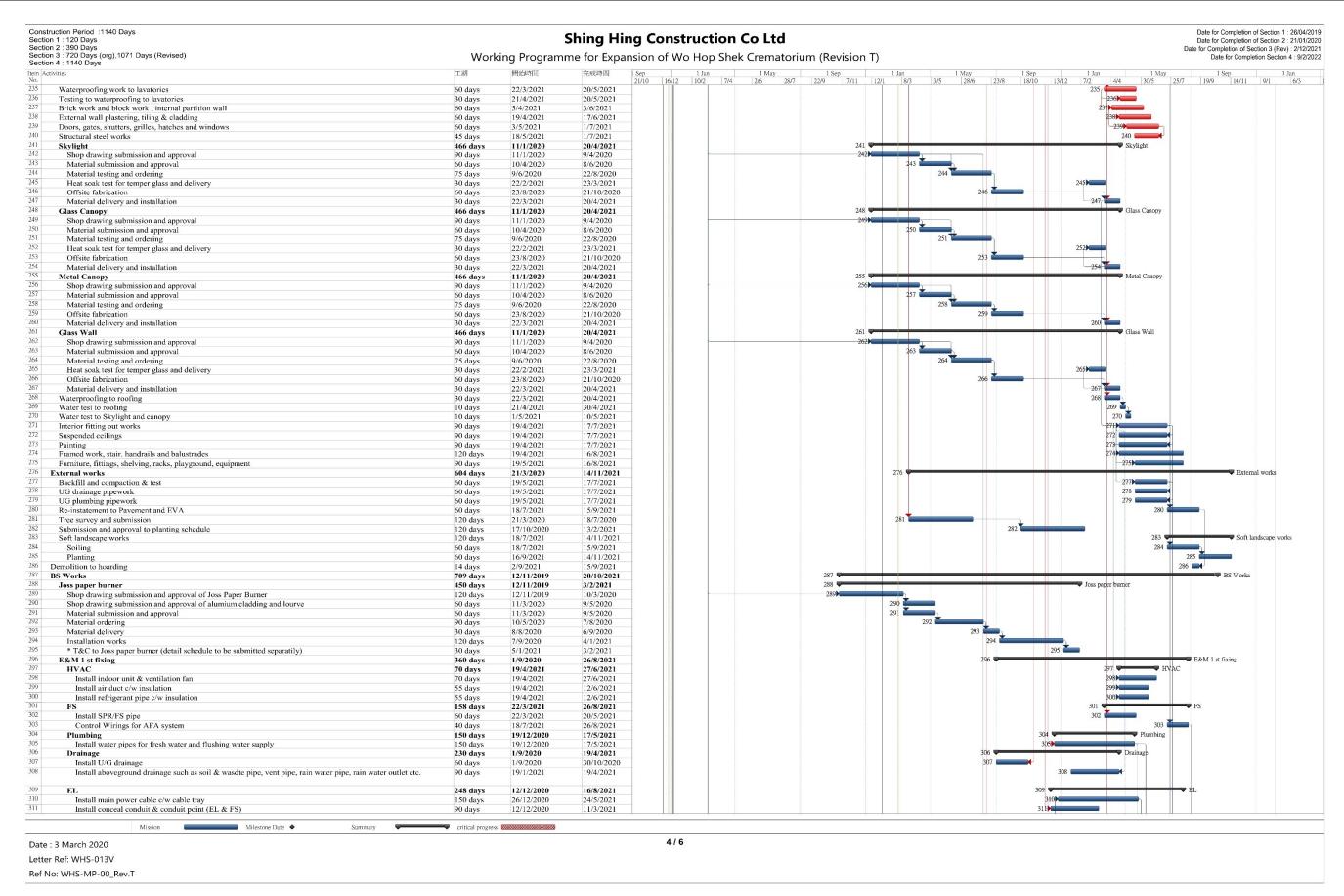




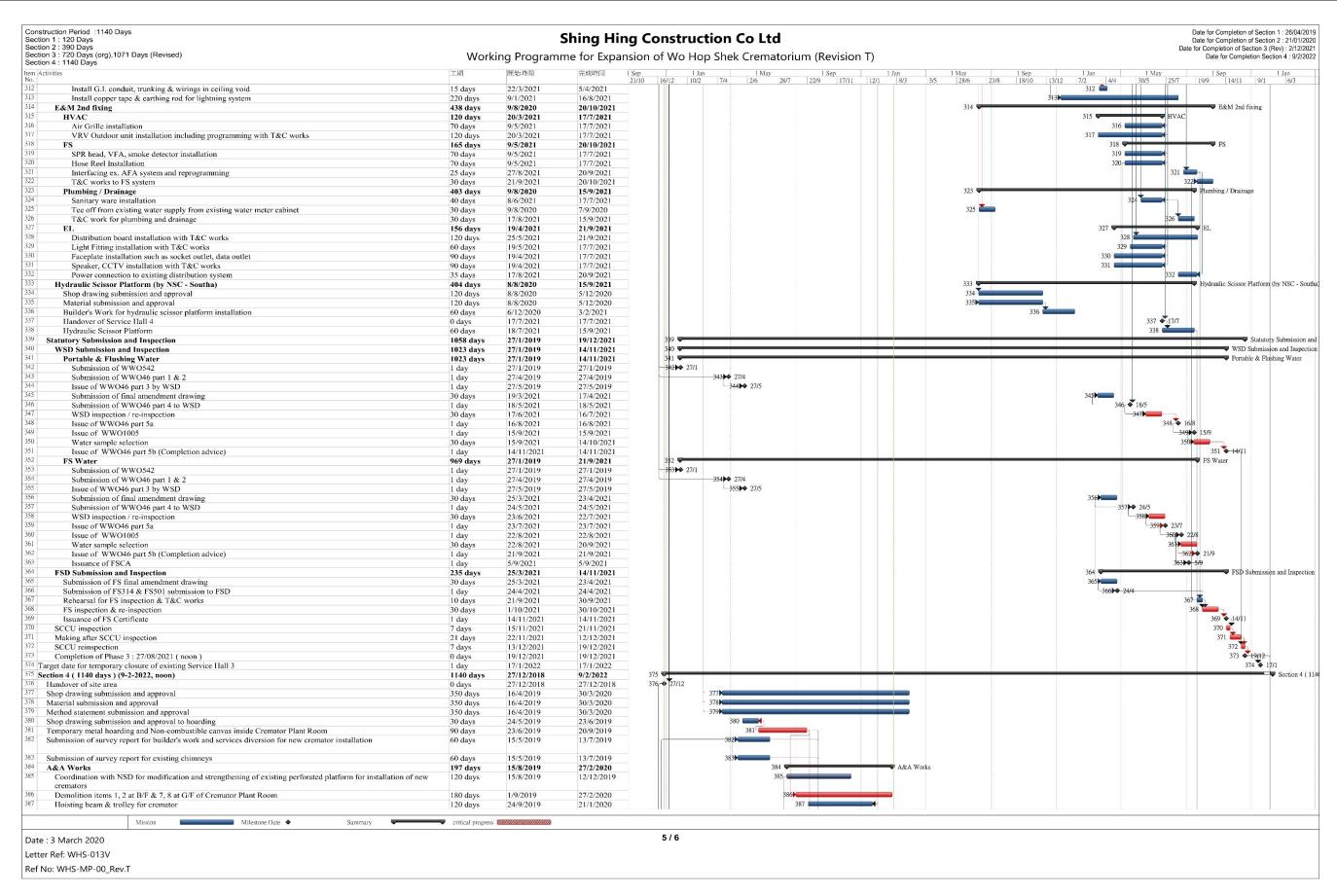




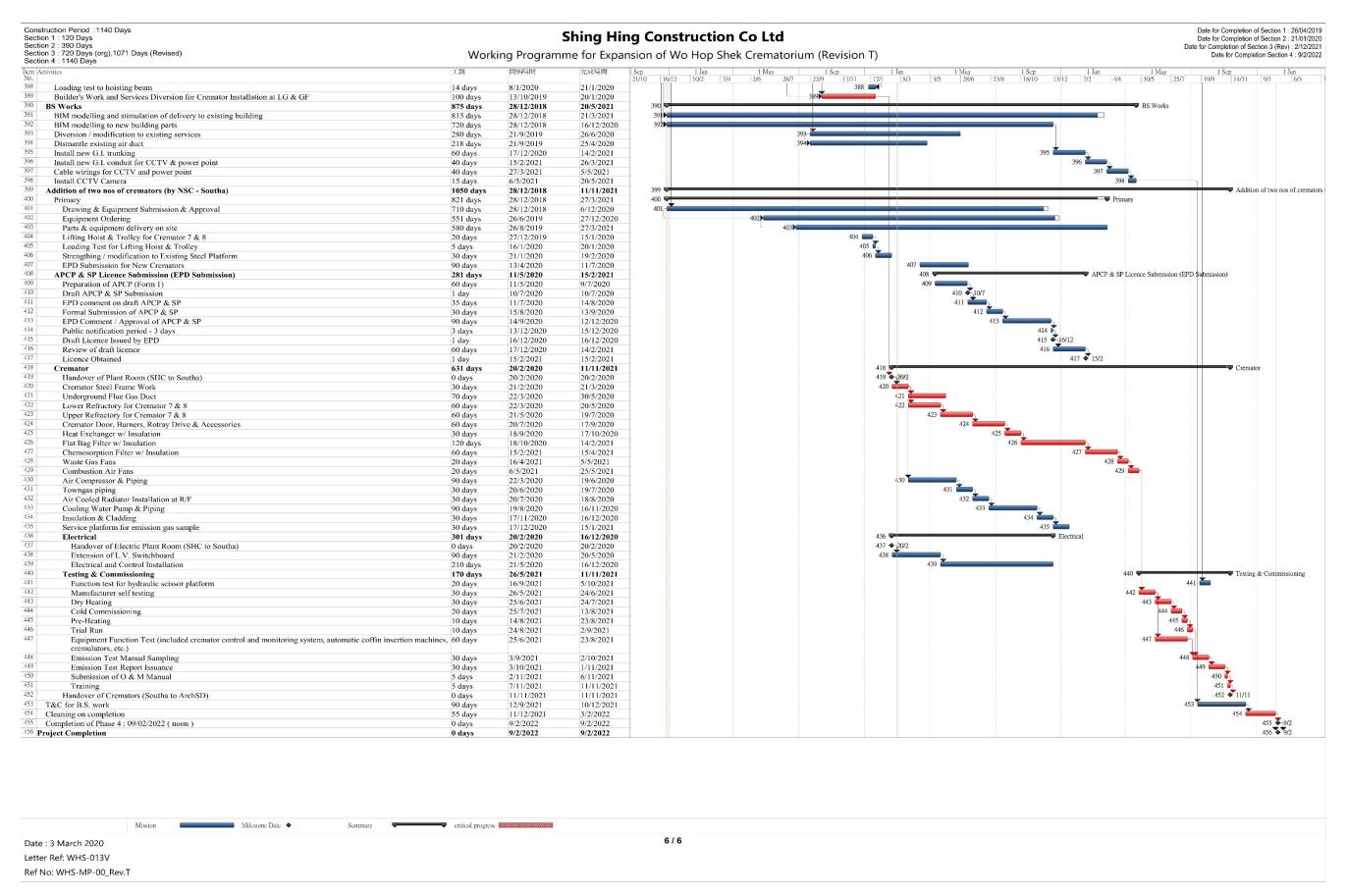








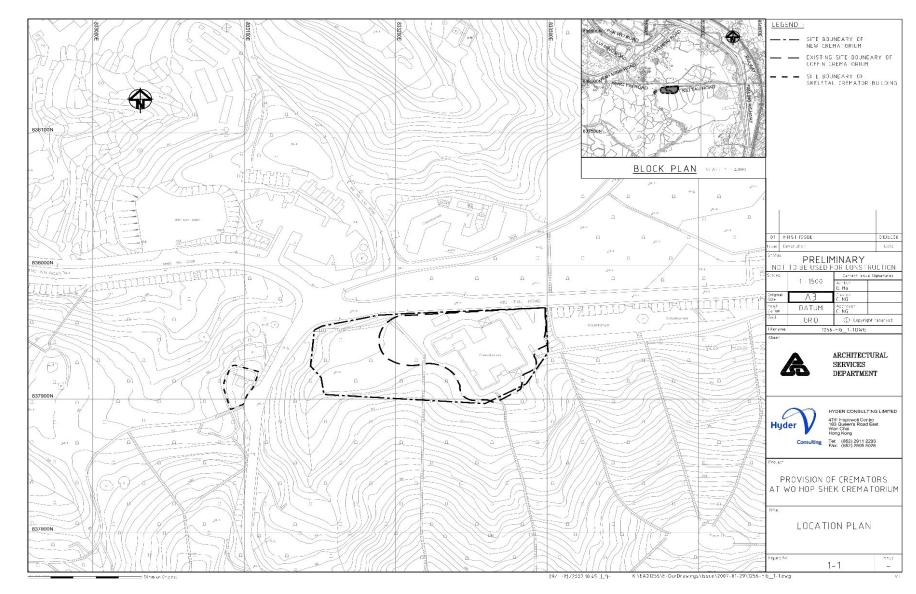






# APPENDIX B: WORK AREA FOR THE CONTRACT NO. AL G513







# 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 (Cons	r (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		Asbestos Investigation:	Incense burner,	Arch SD,	Construction Phase	APCO	NA										
S.3.9.2		■ 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).	coffin and skeletal crematorium / Prior to any demolition work commencing	Registered Asbestos Consultant, Registered Asbestos		AIR and AAP											
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.		-	_	-	-	-	-			_	-	-	Contractor		
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.															



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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:					NA
		■ 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.					
S.3.9.7 -		Other Site Management:					NA
S.3.9.9							
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:					NA
		■ 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.					
S.3.9.9		As different contractors may be working on-site at the same time, the following measures should be considered:					NA
		■ 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.					

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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.2.9.1 -	Good site management / practices to avoid / minimise incidences of dust emissions:	Project Site / Construction	Contractor	Construction Phase	Air Pollution Control (Construction Dust)	Implemented and rectified
S.3.10.4	S.2.9.3	Site Boundary and Entrance	and Demolition			Regulation APCO	according to observation
		■ 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.					



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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 to any 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 Co	nstruction 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 (Co		on 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.	Work site / Construction phase	Contractor	Construction Phase	GW-TM & NCO	Implemented
		■ 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 oriented to 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.					
-	taminat	ion (Construction Phase)	<u> </u>	T			1
S.5.7.2		Remedial Action Plan:	All areas	Contractor	Construction Phase	Waste Disposal	NA



EIA Ref	EM&A Ref.	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status
		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	
S.5.7.3		■ If disposal to landfills is chosen as the remediation measure, the criteria set primarily of Toxicity Characteristic Leaching Procedure (TCLP) limits, as stated in Annex E in the GN) should be met.				ProPECC Note PN3/94  Dutch A, B, C	NA
		■ 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.				Classificati-on system	
		■ 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).				WPCO Technical Memorandum on Standards for Effluents	
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.				Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters (TM)	NA



	Worth Report No.							
EIA Ref	EM&A Ref.	<b>Environmental Protection Measures / Mitigation Measures</b>	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status	
S.5.7.6		Confirmatory Soil Sampling					NA	
		<ul> <li>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.</li> <li>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.</li> </ul>						
		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.						
S.5.8	S.4	Further Site Investigation	Areas that are currently in use	Contractor	Construction Phase	Interim CAR and RAP	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.	and cannot be accessed, including the transformer room, dangerous			ProPECC Note PN3/94  Guidance Notes for Investigation and Remediation of		
S.5.8.2		The demolition contractor shall carry out further site investigations, after the decommissioning of the existing crematorium and skeletal cremator building.	goods stores, day tank room, fuel pump			Contaminated Sites of Petrol Filling Stations, Boatyards		
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.	room, sunken fuel pipe and cremator.			and Car		



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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 decommissioni ng of the existing crematorium and skeletal cremator building.			Repair / DismantlingWorkshop s	
Land Cor	  taminat	 cion (EM&A)					
S.11.2.9	S.4.1	Further Site Investigation:	After decommissioni	Contractor	Construction Phase	Interim CAR & RAP	NA
S.11.2.15	S.4.7	Conduct further site investigation for Petroleum hydrocarbons and PAH in soil samples.	ng, prior to				
3.11.2.15	3.4.7	Conduct further site investigation for PCBs in soil samples.	construction:				
		Conduct further site investigation for PAH, Dioxins and Metals	Existing				
		(Cr, Co, Ni, Cu, Zn, As, Mo, Cd, Sn, Ba, Hg, Pb) in soil samples.	crematorium:				
		(61) 60) 111, 641, 211, 115, 116) 641, 611, 241, 115, 1 67 in 5011 54111 press.	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				

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EIA Ref	EM&A Ref.	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status
			chimneys				
Waste Mar	nagemen	at (Construction Phase)	1				
S.6.7.24	lagemen	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.	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



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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		<ul> <li>Waste Reduction Measures:</li> <li>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.</li> <li>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.</li> <li>Any unused chemicals or those with remaining functional capacity shallbe recycled as far as practicable.</li> <li>Reuse C&amp;D materials when possible to reduce the amount of C&amp;D material/waste.</li> <li>Wood, steel and other metals shall be separated for reuse and / or recycling Prior to disposal of C&amp;D waste to minimise the quantity of waste to be disposed of to landfill.</li> <li>Minimise the potential for damage or contamination of construction material by having proper storage and site practices.</li> </ul>	Project site / construction and demolition stages	Contractor	Construction Phase	WBTC No. 32/1992 WBTC No. 19/2005	Implemented
		Plan and stock construction materials carefully to minimise the amount of waste generated.					



	Monthly EMAA Report No.5								
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.6.7.7	S.5.3.5 - S.5.3.9	<ul> <li>Construction and Demolition Material</li> <li>Reuse of the public fill and C&amp;D waste shall be practiced on site as faras practicable.</li> <li>The handling of C&amp;D materials is governed by WBTC No. 2/93. Inert C&amp;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 reduce the pressure on landfill sites.</li> <li>Individuals or companies who deliver public fill to public filling areas require dumping licences.</li> <li>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&amp;D waste generation.</li> <li>The contractor shall use as much as possible of the C&amp;D material onsite. Proper segregation of waste types on site will increase the feasibility of certain components of the waste stream by recycling</li> </ul>	Project site / construction and demolition stages	ArchSD / Contractor	Construction Phase	WBTC No. 2/93  The Land (Miscellaneous Provision) Ordinance  WBTC No. 19/2005	Implemented		



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EIA Ref	EM&A Ref.	Environmenta	l Protection Me	asures / Mitigati	on Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status
S.6.11.1 - S.6.11.5	S.5.3.1 0 - S.5.3.1 4	Contaminated Ma	terial – Further Cc	ntamination Invest	igation	Flues Chimneys and surrounding ProPECC PN 3/94		,	NA	
	4	Crematorium, the shall be carried	he following furth out to confirm the	to demolition of the er contamination in e quality and quanti treatment and disp	vestigations ty of ash waste	decommissioni ng but prior to demolition of the existing			APCO	
		Location Investigatio Investigatio Responsible n Period Party Parameter		crematorium.						
		Cremators / flue / chimney and surround ing areas	Asbestos (building structures)	After  decommissionin g but prior to demolition of the Existing	The Contractor					
		Cremators / flue / chimney and surrounding areas	Dioxins, heavy metals, PAH (ash waste)	Crematorium						
		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.								
		according to the procedures. If the materials prese	e Laboratory's HO he findings of the nt on the premise	presence and type of KLAS accredited test investigation indica is an Asbestos Abate encement of demolit	ting te ACM ment Plan					

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	Holding Estat Report No.						
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.6.9.7	S.5.3.1 5 - S.5.3.1 7	<ul> <li>Asbestos Containing Material</li> <li>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.</li> <li>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.</li> </ul>	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



		ny EMENT Report No.5								
EIA Ref	EM&A Ref.	Environmental Protec	tion Measures / M	litigation Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status	
		Classification of Contamination	Dioxin Level in ash waste	Heavy Metal Level / Polyaromatic Hydrocarbon in Ash Waste						
		Low Contaminated DCM/HMCM/PAHCM	<1 ppb TEQ	< Dutch "B" List						
		Moderately/Severely Contaminated HMCM/PAHCM	<1 ppb TEQ	> Dutch "B" List						
		Moderately Contaminated DCM	> 1 and < 10 ppb TEQ	Any Level						
		Severely contaminated DCM	>10 ppbTEQ	Any Level						
S.6.9.9	S.5.3.1 9	Demolition, Handling, Trea DCM / HMCM / PAHCM fro			Cremator room in Existing Crematorium / demolition	Contractor	Construction Phase	ProPECC PN 3/94 APCO	NA	
		■ Where the ash waste cor PAHCM, the contractor s during demolition. General followed. The ash waste	hall avoid ash waste l ral dust suppression i	becoming airborne measures shall be						
S.6.9.10 - S.6.9.14	S.5.3.2 0 - S.5.3.2 4	Demolition, Handling, Trea Severely Contaminated DC Contaminated HMCM / PAI Crematorium Site preparation procedures	M and Moderately / S HCM from Demolition	Severely	Cremator room in Existing Crematorium / demolition	Contractor	Construction Phase	Waste Disposal (Chemical Waste) (General) Regulation ProPECC PN 3/94	NA	
		Except the cremators/flue/chimney, all removable contaminated items shallbe removed as far as practicable to avoid obstructing the decontamination activities.					APCO			
		using High Efficiency Par	Preliminary site decontamination of all debris shall be carried out using High Efficiency Particulate Air (HEPA) vacuum cleaner.							
		A chamber with three lay	yers of polythene she	ets shall enclose the						

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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-layers of 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 also be 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 work area.					
		■ 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 the containment.					
		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 by HEPA vacuum.					
		■ If any contaminated wastewater needs to be discharged out of the					



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		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 shall be 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 layer of 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.5.3.2	Chemical Waste	Project site /	Contractor	Construction Phase	Code of Practice on the	Implemented and
- S.6.9.2	5	■ Should any chemical waste be generated, the Contractor must register with the EPD as chemical waste producer.	demolition			Packaging, Labelling and Storage of	rectified according to
	S.5.3.7	<ul> <li>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.</li> <li>Principles of reuse and recycle chemical waste on site as far as</li> </ul>				Chemical Wastes  Waste Disposal (Chemical Waste) (General) Regulation.	observation
		practicable shall be adopted by the Contractor.					



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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.5.3.2	Containers used for the storage of chemical waste shall:					
	8	■ 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 have been 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.5.3.2	The storage area for chemical waste shall:					
	9	■ 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.5.3.3	Disposal of chemical waste shall be:					
	0	■ 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.					



	Monthly Liver Report No.5						
EIA Ref	EM&A Ref.	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status
S.6.7.28	S.5.3.3 1 - S5.3.3 2	<ul> <li>General Refuse</li> <li>General refuse shall be stored in enclosed bins or compaction units separate from C&amp;D and chemical wastes. A reputable waste collector shall be employed by the contractor to remove general refuse from the site, separately from C&amp;D and chemical wastes, on a daily or every second day basis to minimise odour, pest and litter impacts.</li> <li>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.</li> </ul>	Project site / construction and demolition stages	Contractor	Construction Phase		Implemented
Waste Ma S.11.2.17		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 decommissioni ng 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
S.7.9.2 MC 1	e and Vi S.6.3.1	<ul> <li>Isual (Construction Phase)</li> <li>Site offices and construction yards:</li> <li>Site offices shall have olive green roof and façade coating or colour matches with existing environment.</li> <li>Site offices and the construction yard shall be decommissioned after construction.</li> </ul>	All site offices / Design and construction phases	ArchSD's Contractor	Construction Phase		Implemented
S.7.9.2 MC 2	S.6.3.1	<ul> <li>Height of site offices:</li> <li>The height of site offices, including the rooftop shall not exceed 10m.</li> <li>Building services equipment such as antennas may exceed 10m and shall be coated in black.</li> </ul>	All site offices / Design and construction phases	ArchSD's Contractor	Construction Phase		Implemented

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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	<ul> <li>Construction plant and building material:</li> <li>Shall be orderly and carefully stored in order to appear neat and avoid visibility from outside where practical.</li> <li>Excess materials shall be removed from site as soon as practical.</li> <li>All construction plants shall be removed from site upon completion of construction works.</li> </ul>	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



	Monthly Living Report No.5						
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	<ul> <li>Amenity planting:</li> <li>Planting works shall be carried out under the supervision of a specialist landscape sub-contractor.</li> <li>The rooftop of the cremation plant room shall be planted with lawn.</li> <li>Open spaces shall be included Project.</li> <li>Screen planting such as planting a roll of trees along the site boundary butting Kiu Tau Road shall be carried out.</li> <li>New trees, shrubs and groundcover shall be carefully selected and designed to homogenize with the environment.</li> </ul>	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
Landscap	oe and V	isual (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
	ality (C	onstruction Phase)					
	S.7.2.2	Construction Runoff and Drainage	Work site /	Contractor	Construction Phase	ProPECC PN 1-	Implemented
S.8.7.4	5.7.2.2	■ 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.	Construction	donatación		94 & WPCO	Impenience
		■ Provision of perimeter channels to intercept storm runoff from outside the Site. These shall be constructed in advance of site formation works and earthworks.					
		■ Sand/silt removal facilities such as sand traps, silt traps and sediment basins should be provided to remove sand/silt particles from runoff to meet the requirements of the Technical Memorandum standard under the WPCO.					
		■ Works shall be carefully programmed to minimise soil excavation works during rainy seasons.					
		Exposed soil surface shall be protected by paving as soon as possible to reduce the potential of soil erosion.					
		■ Temporary access roads shall be protected by crushed gravel and exposed slope surfaces shall be protected when rainstorms are likely to occur.					
		■ Trench excavation shall be avoided in the wet season as far as practicable, and if necessary, these trenches shall be excavated and backfilled in short sections.					
		Open stockpiles of construction materials on Site shall be covered with tarpaulin or similar fabric during rainstorms.					
		■ Sand and silt in the wash water from the wheel from the wheel washing facility shall be settled out and removed before discharging into the storm drain.					
		■ Oil receptor shall be provided in the drainage system and regularly emptied to prevent the release of oil and grease into the storm drainage system after accidental spillage.					



	Monthly EM&A Report No.5						GLIMITED
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	Work site /	Contractor	Construction Phase	ProPECC PN 1-	Implemented
		Debris and rubbish generated on Site shall be collected, handled and disposed of properly to avoid them entering the two streams.	Construction phase			94 & WPCO	
		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.					
S.8.7.6	S.7.2.4	Sewage from On-site Workforce:	Work site /	Contractor	Construction Phase	WPCO	Implemented
		■ 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.	Construction phase				
		■ 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.					
Ecology (	Constru	ction Phase)					
S.9.8.3 -	S.8.3.1	<ul> <li>Layout of the Project shall be carefully designed to avoid or minimise thearea of habitat loss and the numbers to trees to be felled.</li> <li>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.</li> </ul>	Work site particularly semi- natural woodland / Design and construction phases.	Arch SD / Contractor	Construction Phase	ETWB Technical Circular No. 3/2006	Implemented
		■ 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-					

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	1.101161	ny EMAA Report No.3					
EIA Ref	EM&A Ref.	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stage	Relevant Legislation and Guidelines	Implementation Status
00015	0.0.1	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.			Construction Plans		
S.9.8.15 - S.9.8.16	S.8.3.1	Mitigation to construction runoff through general good site practice:	Work site / Construction phase	Contractor	Construction Phase	ETWB Technical Circular (Works) No. 5/2005.	Implemented
		■ Temporary access to the work sites shall be carefully planned and located to 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 shall be 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 collected and/or treated.					



		ny Eman Report No.5					
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:	Work site /	Contractor	Construction Phase		NA
		■ 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.	Construction phase				
		■ No groundwater shall be pumped back to the two stream courses to protect the natural integrity of the stream habitat and the associated organism.					
S.9.8.20	S.8.3.1	Mitigation for noise and other disturbance on ecological integrity:	Work site /	Contractor	Construction Phase		Implemented
		■ Use of sturdy 1.8 metres protective fencing shall be located at the edge of the tree canopy but not around the trunk.	Construction phase				
		■ Works beneath the tree canopy shall be avoided: If encroachment under the canopy area is unavoidable, adequate protections shall be provided to ensure 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.					

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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 constructionworks 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.8.2.1	Audit/Inspection:	Work site /	Contractor	Construction Phase		Implemented
& S.11.2.29		Regular site audit / inspection shall be conducted at least once a week to inspect the implementation of the recommended	Construction phase				
S.11.2.32	S.8.2.2	mitigation measures (details to be outlined in the EM&A Manual).  Monitoring on Transplantation:	Work site /	Contractor	Construction Phase		Implemented
S.11.2.33	-	Trees requiring transplantation or protection shall be identified	Construction phase	Contractor			Implemented
		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.					



# APPENDIX D: IMPACT MONITORING SCHEDULE OF THE REPORTING MONTH



	<del></del>	Impact Monitoring Scl	hedule for Expansion of Wo H	op Shek Crematorium		
			Jul-20			
Sun	Mon	Tue				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
			Weekly ET site inspection and audit		Air monitoring for A10, A20 for 1-hr TSP and 24-hr TSP Monitoring Time: 0900-1630	
12	13	14	15	16	17	18
			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	
		Air monitoring for A10, A20 for 1-hr TSP and 24-hr TSP Monitoring Time: 0900-1630	Weekly ET site inspection and audit			

<sup>\*</sup>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



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



Event	Action							
Event	ET	IEC	AR	Contractor				
	additional monitoring.							
Limit Level								
1. Exceedance for one sample	<ol> <li>Identify source, investigate the causes of exceedance and propose remedial measures;</li> <li>Inform IEC, AR, Contractor and EPD;</li> <li>Repeat measurement to confirm finding;</li> <li>Increase monitoring frequency to daily;</li> <li>Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and AR informed of the results.</li> </ol>	<ol> <li>Check monitoring data submitted by ET;</li> <li>Check Contractor's working method;</li> <li>Discuss with ET and Contractor on possible remedial measures;</li> <li>Advise the AR on the effectiveness of the proposed remedial measures;</li> <li>Supervise implementation of remedial measures.</li> </ol>	<ol> <li>Confirm receipt of notification of exceedance in writing;</li> <li>Notify Contractor;</li> <li>Ensure remedial measures properly implemented.</li> </ol>	<ol> <li>Take immediate action to avoid further exceedance;</li> <li>Submit proposals for remedial actions to IEC within three working days of notification;</li> <li>Implement the agreed proposals;</li> <li>Amend proposal if appropriate.</li> </ol>				
2. Exceedance for two or more consecutive samples	<ol> <li>Notify IEC, AR, Contractor and EPD;</li> <li>Identify source;</li> <li>Repeat measurement to confirm findings;</li> <li>Increase monitoring frequency to daily;</li> <li>Carry out analysis of Contractor's working procedures to determine</li> </ol>	<ol> <li>Discuss amongst AR, ET, and Contractor on the potential remedial actions;</li> <li>Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the AR accordingly;</li> <li>Supervise the implementation of remedial</li> </ol>	<ol> <li>Confirm receipt of notification of exceedance in writing;</li> <li>Notify Contractor;</li> <li>In consultation with the IEC, agree with the Contractor on the remedial measures to be implemented;</li> <li>Ensure remedial measures</li> </ol>	<ol> <li>Take immediate action to avoid further exceedance;</li> <li>Submit proposals for remedial actions to IEC within three working days of notification;</li> <li>Implement the agreed proposals;</li> <li>Resubmit proposals if problem still not under</li> </ol>				



Event	Action					
Event	ET	IEC	AR	Contractor		
	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.	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.	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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#### DATA SHEET (TSP) HIVOL SAMPLER CALIBRATION

#### Site Information

Location:	Fung Kai Liu Yun Sum Memorial School	Site ID:	A10	Date:	04-Jul-2020
Serial No:	1049	Model:	TE-5170X	Operator:	Kelvin

#### Ambient Condition

Corrected Pressure (mm Hg):	757.4	Temperature (deg K):	304.5

#### Calibration Orifice

Model:	TE-5028	Slope:	1.66723
Serial No.:	3702	Intercept:	-0.03281
Calibration Due Date:	10-Oct-20	Corr. Coeff:	0.99991

#### Calibration Data

Plate or	In,H2O	Qa, X-Axis	I, CFM	IC, Y-Axis
Test #	(in)	(m3/min)	(chart)	(corrected)
1	1.03	0.621	29.4	29.03
2	1.47	0.738	31.7	31.31
3	1.97	0.851	34.1	33.68
4	2.63	0.980	36.4	35.95
5	3.58	1.140	39.9	39.40

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

-			•		
m=	19.8217	b=	16.7061	Corr. Coeff=	0.9996
Samp	oler set point(SSP)	41	CFM		
		(	Calculations		
Qstd = 1/m[Sqrt(I)]	H2O(Pa/Pstd)(Tstd/Ta))-b]		m = sampler slope		
IC = I[Sqrt(Pa/Pst)]	td)(Tstd/Ta)]		b = sampler intercept		
			I = chart response		

Tav = average temperature

Pav = average pressure

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 KPstd = 760 mm Hg

For subsequent calculation of sampler flow:

+b)/[Sart(298/Tay)(Pay/760)]

(1.21*m+b)/[Sqrt(	(298/Tav)(Pav/700)]		
	拉		
Checked by: _	Kelvin	Date:	04-Jul-2020
_	<u> </u>		



創新科儀有限公司

# HIVOL SAMPLER CALIBRATION DATA SHEET (TSP)

#### Site Information

Location:	Fung Kai Liu Yun Sum Memorial School	Site ID:	A10	Date:	22-Ju1-2020
Serial No:	1049	Model:	TE-5170X	Operator:	Kelvin

#### Ambient Condition

Corrected Pressure (mm Hg):	757.7	Temperature (deg K):	303.5

#### Calibration Orifice

Model:	TE-5028	Slope:	1.66723
Serial No.:	3702	Intercept:	-0.03281
Calibration Due Date:	10-Oct-20	Corr. Coeff:	0.99991

#### Calibration Data

Plate or	In,H2O	Qa, X-Axis	I, CFM	IC, Y-Axis
Test #	(in)	(m3/min)	(chart)	(corrected)
1	1.21	0.672	31.2	30.87
2	1.69	0.791	32.6	32.25
3	2.47	0.952	34.5	34.13
4	3.24	1.088	36.2	35.82
5	3.94	1.198	37.8	37.40

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

Sampler set point(SSP) 38 CFM

#### Calculations

m = sampler slope

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)]

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

	I
	-
	1

Checked by: \_\_\_\_ Kelvin Date: \_\_\_\_ 22-Jul-2020



創新科儀有限公司

#### DATA SHEET (TSP) HIVOL SAMPLER CALIBRATION

#### Site Information

STV III STMW TOIL					
Location:	Fanling Government School	Site ID:	A20	Date:	04-Jul-2020
Serial No:	1050	Model:	TE-5170X	Operator:	Kelvin

#### Ambient Condition

Corrected Pressure (mm Hg):	757.4	Temperature (deg K):	304.5

#### Calibration Orifice

Model:	TE-5028	Slope:	1.66723
Serial No.:	3702	Intercept:	-0.03281
Calibration Due Date:	10-Oct-20	Corr. Coeff:	0.99991

#### Calibration Data

Plate or	In,H2O	Qa, X-Axis	I, CFM	IC, Y-Axis
Test #	(in)	(m3/min)	(chart)	(corrected)
1	0.98	0.606	30.5	30.12
2	1.57	0.762	32.5	32.10
3	2.34	0.926	34.7	34.27
4	3.14	1.069	36.7	36.24
5	3.95	1.197	38.6	38.12

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

m=	13.5126	b=	21.8466	Corr. Coeff=	0.9996
Samp	oler set point(SSP)	39	CFM		

m = sampler slope

b = sampler intercept I = chart response

Pav = average pressure

Tav = average temperature

### 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)]

	<b>主</b>		
Checked by:	Kelvin	Date:	04-Jul-2020

-



創新科儀有限公司

# HIVOL SAMPLER CALIBRATION DATA SHEET (TSP)

#### Site Information

Location:	Fanling Government School	Site ID:	A20	Date:	22-Ju1-2020
Serial No:	1050	Model:	TE-5170X	Operator:	Kelvin

#### Ambient Condition

Corrected Pressure (mm Hg):	757.7	Temperature (deg K):	303.5			

#### Calibration Orifice

Model:	TE-5028	Slope:	1.66723
Serial No.:	3702	Intercept:	-0.03281
Calibration Due Date:	10-Oct-20	Corr. Coeff:	0.99991

#### Calibration Data

Plate or	In,H2O	Qa, X-Axis	I, CFM	IC, Y-Axis
Test #	(in)	(m3/min)	(chart)	(corrected)
1	0.93	0.592	30.5	30.18
2	1.27	0.688	31.7	31.36
3	2.31	0.922	34.8	34.43
4	3.07	1.059	36.6	36.21
5	3.69	1.160	38.1	37.70

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

-			•		
m=	13.1858	b=	22.3166	Corr. Coeff=	0.9998
Sam	npler set point(SSP)	39	CFM		
		C	alculations		
Qstd = 1/m[Sqrt]	(H2O(Pa/Pstd)(Tstd/Ta))-b]		m = sampler slope		
IC = I[Sqrt(Pa/P)]	Pstd)(Tstd/Ta)]		b = sampler intercept		
			I = chart response		
Qstd = standard	flow rate		Tav = average temperature		
IC = corrected c	hart response		Pav = average pressure		

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)]

	<u>~</u>
7	-1
-1	-12
	-

Checked by: Kelvin Date: 22-Jul-2020





TE-5028A

RECALIBRATION DUE DATE:

October 10, 2020

# Certificate of Calibration

Calibration Certification Information

Cal. Date: October 10, 2019

Rootsmeter S/N: 438320

Calibrator S/N: 3702

°K

mm Hg

Operator: Jim Tisch Calibration Model #:

п

Ta: 296

Pa: 748.03

Vol. Init Vol. Final ΔVol. ΔTime (in H2O) Run (m3)(m3)(m3)(min) (mm Hg) 1.3100 1.50 4.1 4 1.0240 6.7 2.50 5 6 0.9260 3.00 1 8.0 7 8 1 0.8620 9.4 3.50 9 10 0.6540 16.2 6.00

		Data Tabulat	ion		
Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H \left(\frac{Pa}{Pstd}\right) \left(\frac{Tstd}{Ta}\right)}$ (y-axis)	Va	Qa (x-axis)	√∆H(Ta/Pa)
0.9855	0.7523	1.2192	0.9945	0.7592	0.7704
0.9820	0.9590	1.5739	0.9910	0.9678	0.9946
0.9803	1.0586	1.7242	0.9893	1.0684	1.0895
0.9784	1.1351	1.8623	0.9874	1.1455	1.1768
0.9694	1.4823	2.4383	0.9783	1.4959	1.5409
	m=	1.66723		m=	1.04399
QSTD	b=	-0.03281	QA	b=	-0.02074
	r=	0.99991	7.	r=	0.99991

	Calculation	ns		
Vstd=	ΔVol((Pa-ΔP)/Pstd)(Tstd/Ta)	Va=	ΔVol((Pa-ΔP)/Pa)	
Qstd=	Vstd/ΔTime	Qa=	Va/ΔTime	
	For subsequent flow ra	te calculatio	ns:	
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: rootsmete	er manometer reading (mm Hg)
Ta: actual abs	olute temperature (°K)
Pa: actual bar	ometric 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





# SIBATA SCIENTIFIC TECHNOLOGY LTD.

1-1-62, Nakane, Soka, Saitama, 340-0005 Japan

TEL: 048-933-1582 FAX: 048-933-1591

#### **CALIBRATION CERTIFICATE**

Date: August 28th, 2019

**Equipment Name** : Digital Dust Indicator, Model LD-5R

: 640

Code No. : 080000-72 Quantity : 1 unit Serial No. : 851820

Sensitivity : 0.001 mg/m3

Sensitivity Adjustment Scale Setting : August 23rd, 2019

We hereby certify that the above mentioned instrument has been calibrated satisfactory.

Sincerely

SIBATA SCIENTIFIC TECHNOLOGY LTD.

Tong Zhang

Overseas & New Business Group

Overseas Sales Department





### SIBATA SCIENTIFIC TECHNOLOGY LTD.

1-1-62, Nakane, Soka, Saitama, 340-0005 Japan

TEL: 048-933-1582 FAX: 048-933-1591

#### **CALIBRATION CERTIFICATE**

Date: September 24th, 2019

Equipment Name : Digital Dust Indicator, Model LD-5R

Code No. : 080000-72 Quantity : 1 unit

Serial No. : 992818 Sensitivity : 0.001 mg/m3

Sensitivity Adjustment : 638CPM

Scale Setting : September 3rd, 2019

We hereby certify that the above mentioned instrment has been calibrated satisfactory.

Sincerely

SIBATA SCIENTIFIC TECHNOLOGY LTD.

Tong Zhang

Overseas & New Business Group

Overseas Sales Department

Contract No. AL G513 Expansion of Wo Hop Shek Crematorium Monthly EM&A Report No.5



# 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

has been accepted by the HKAS Executive, on the recommendation of the Accreditation Advisory Board, as a 為香港認可處執行機關根據認可諮詢委員會建議而接受的

#### **HOKLAS Accredited Laboratory** 「香港實驗所認可計劃」認可實驗所

This laboratory meets the requirements of ISO / IEC 17025: 2005 - General requirements for the competence 此實驗所符合ISO / IEC 17025: 2005 - (测試及校正實驗所能力的通用規定)所訂的要求 of testing and calibration laboratories and it has been accredited for performing specific tests or calibrations as 獲認可進行截於香港實驗所認可計劃(認可實驗所名冊)內下達測試類別中的指定 listed in the HOKLAS Directory of Accredited Laboratories within the test category of 測試或校正工作

#### **Environmental Testing** 環境測試

This laboratory is accredited in accordance with the recognised international Standard ISO / IEC 17025 : 2005. 本實驗所乃根據公認的國際標準 ISO / IEC 17025 : 2005 獲得認可。 This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory 這項認可資格淡示在指定範疇所需的技術能力及實驗所質量管理關系的運作 quality management system (see joint IAF-ILAC-ISO Communiqué). (是國際認可論理、國際實驗所認可含作組織及國際標準化組織的聯合公報)。

The common seal of the Hong Kong Accreditation Service is affixed hereto by the authority of the HKAS Executive 香港認可處根據認可處執行機關的權限在此蓋上通用印章

CHAN Sing Sing, Terence, Executive Administrator

執行幹事 陳成城 Issue Date: 5 May 2009

簽發日期:二零零九年五月五日

註冊號碼:

Registration Number : NOMAS 066

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應訂立的模數及條件發出

L 000552





**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

has been accepted by the HKAS Executive, on the recommendation of the Accreditation Advisory Board, as a 在認可諮詢委員會的建議下獲香港認可處執行機關接受為

> **HOKLAS** Accredited Laboratory 「香港實驗所認可計劃」認可實驗所

This laboratory meets the requirements of ISO/IEC 17025:2005 and it has been accredited for performing specific tests or calibrations as listed in the scope of accreditation within the test category of

#### **Environmental Testing**

此實驗所符合ISO/IEC 17025:2005所訂的要求 並獲認可進行載於認可範圍內下述測試類別中的指定測試或校正工作

#### 環境測試

This accreditation to ISO/IEC 17025:2005 demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (see joint IAF-ILAC-ISO Communiqué).

此項 ISO/IEC 17025:2005 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實驗所質量管理體系(見圖際認可論壇、圖際實驗所認可合作組織及圖際標準化組織的聯合公發)。

The common seal of the Hong Kong Accreditation Service 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

WONG Wang-wah, Executive Administrator

執行幹事 黃宏華 Issue Date: 16 July 2014

簽發日期:二零一四年七月十六日

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

L 001195

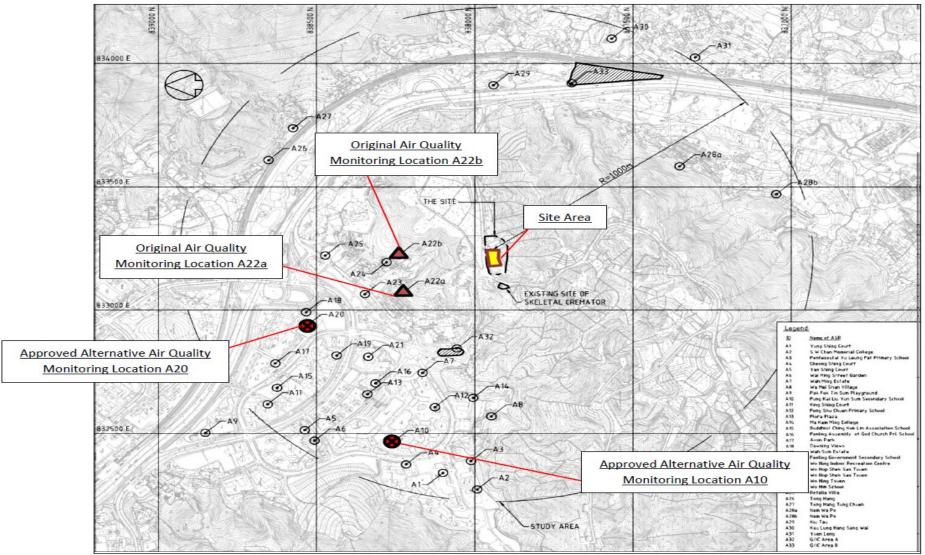
This certificate is issued subject to the terms and conditions laid down by HKAS 本證書按照香港認可處訂立的橡散及條件發出

Contract No. AL G513 Expansion of Wo Hop Shek Crematorium Monthly EM&A Report No.5



# APPENDIX H: LOCATION PLAN OF AIR QUALITY MONITORING STATION





Contract No. AL G513 Expansion of Wo Hop Shek Crematorium Monthly EM&A Report No.5



# APPENDIX I: AIR QUALITY MONITORING DATA



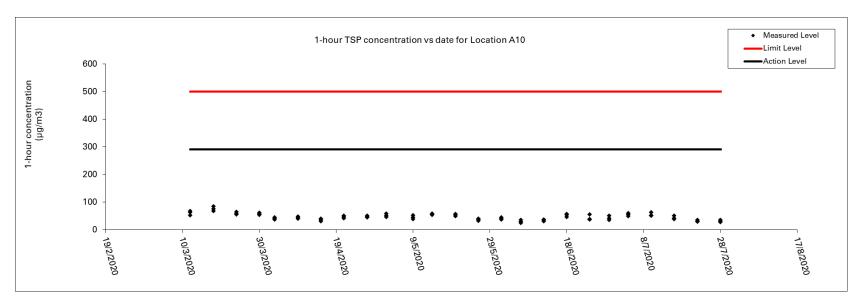
The Summary of 1-hour TSP Concentration ( $\mu g/m^3$ ) at A10

			ij oi i noui i		- (1·8/ ) ·	_		
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
04/07/2020	Sunny	12:40	13:40	14:40	56	49	60	55
10/07/2020	Sunny	11:49	12:49	13:49	63	52	50	55
16/07/2020	Sunny	10:45	11:55	12:55	50	39	42	44
22/07/2020	Sunny	10:24	11:24	12:24	31	35	29	32
28/07/2020	Sunny	10:48	11:48	12:48	27	35	31	31

**Average 1-hour TSP:** 43

**Max.:** 63

Min.: 27





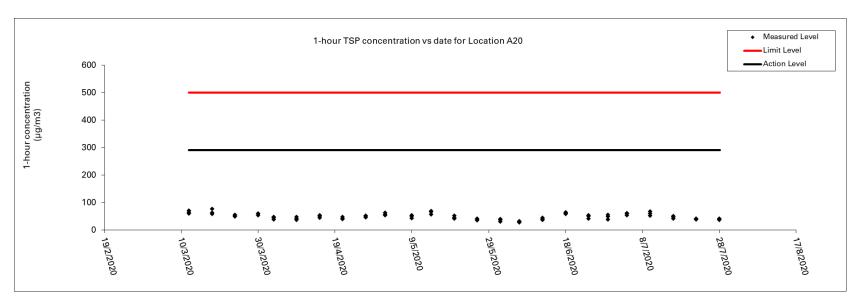
The Summary of 1-hour TSP Concentration (μg/m³) at A20

		1			2012 (pg/ 112 ) etc	1	1	
Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1) μg/m³	Reading (2) μg/m³	Reading (3) μg/m <sup>3</sup>	Average μg/m³
04/07/2020	Sunny	11:45	12:45	13:45	62	60	53	58
10/07/2020	Sunny	11:20	12:20	13:20	59	52	68	60
16/07/2020	Sunny	11:15	11:00	12:00	42	47	51	47
22/07/2020	Sunny	10:47	11:47	12:47	39	42	38	40
28/07/2020	Sunny	11:02	12:02	13:02	40	42	37	40

**Average 1-hour TSP:** 49

**Max.:** 68

**Min.:** 37



28/07/2020

Sunny

6178.8

6202.8

1440.0

38



Slop =

Intercept =

0.0261

19.8217

16.7061

4-Jul-20

17-Jul-20

**Date of Calibration:** 

1796

2.7192

2.7453

Calibration due date:

											Calibration: on due date:	,	ul-20	Slop =	12.3174
Start Date Weath		Elapse Time			Chart Reading Avg Air Temp			Avg Atmospheric Pressure	Flow Rate Standard Air Volume		4-Aug-20 Filter Weight (g)		Intercept =  Particulate weight	22.5127 Conc.	
	Condition	Initial	Final	Actual (min)	Min	Max	Avg	(°C)	(mm Hg)	(m³/min)	(m³)	Initial	Final	(g)	(μg/m³)
04/07/2020	Sunny	6081.1	6105.1	1440.0	39	40	39.5	31.5	757.4	1.12	1615	2.7411	2.7686	0.0275	17
10/07/2020	Sunny	6105.1	6129.1	1440.0	38	39	38.5	31.2	755.5	1.07	1538	2.7211	2.7561	0.0350	23
16/07/2020	Sunny	6129.1	6153.1	1440.0	39	39	39.0	32.2	754.9	1.09	1567	2.6986	2.7224	0.0238	15
22/07/2020	Sunny	6154.8	6178.8	1440.0	38	40	39.0	30.5	757.7	1.30	1872	2.7132	2.7367	0.0235	13

31.8

756.2

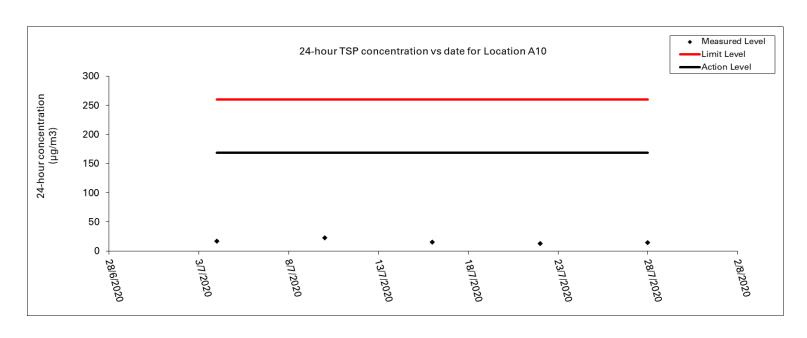
1.25

39

38.5

Min: 13 Max: 23 Avg: 16

15



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6301.8

Sunny

6325.8

1440.0

39

40

39.5

28/07/2020



Slop =

Intercept =

0.0340

2.7403

2.7063

13.5126

21.8466

4-Jul-20

17-Jul-20

Date of Calibration:

1807

Calibration due date:

										Date of	Calibration:	22-Jı	ıl-20	Slop =	13.1858
										Calibrati	on due date:	4-Au	g-20	Intercept =	22.3166
Start Date Weather Condition		Elapse Time		Chart Reading Avg Air Temp		Avg Atmospheric Pressure	Flow Rate	Standard Air Volume	Air Filter Weight		Particulate weight	Conc.			
	Condition	Initial	Final	Actual (min)	Min	Max	Avg	(°C)	(mm Hg)	(m³/min)	(m³)	Initial	Final	(g)	(μg/m³)
04/07/2020	Sunny	6204.2	6228.2	1440.0	40	40	40.0	31.5	757.4	1.30	1874	2.7048	2.7308	0.0260	14
10/07/2020	Sunny	6228.2	6252.2	1440.0	39	40	39.5	31.2	755.5	1.26	1813	2.7343	2.7732	0.0389	21
16/07/2020	Sunny	6252.2	6276.2	1440.0	39	39	39.0	32.2	754.9	1.22	1751	2.7784	2.8175	0.0391	22
22/07/2020	Sunny	6277.8	6301.8	1440.0	40	41	40.5	30.5	757.7	1.34	1932	2.7684	2.8036	0.0352	18

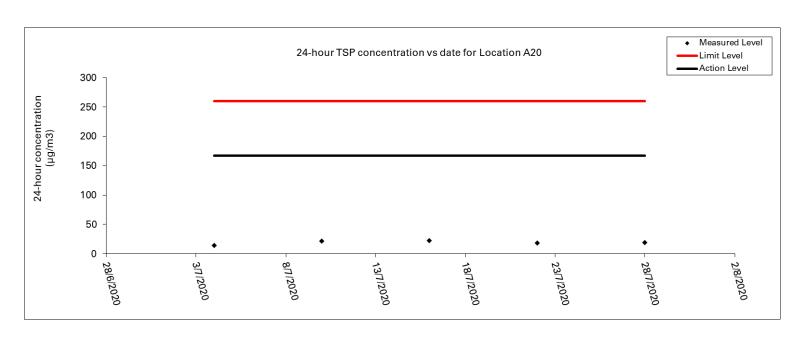
31.8

756.2

1.25

Min: 14 Max: 22 Avg: 19

19



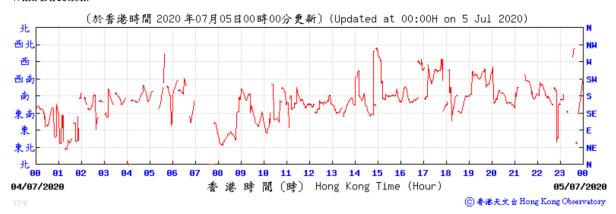
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#### Wind direction data for 04, 10, 16, 22 and 28 July 2020

#### A. 04/07/2020:

#### Wind Direction:

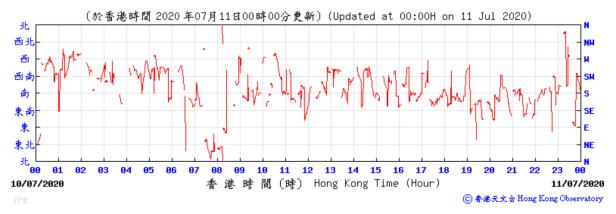


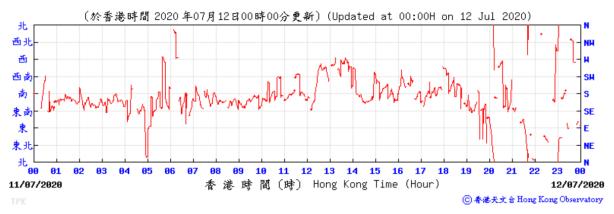




#### B. 10/07/2020:

#### Wind Direction:

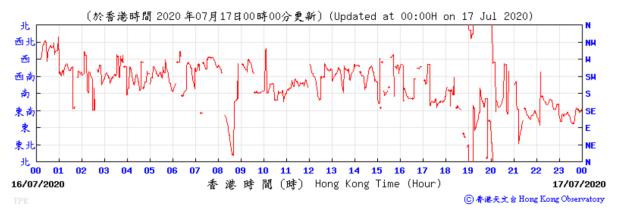






## C. 16/07/2020:

#### Wind Direction:

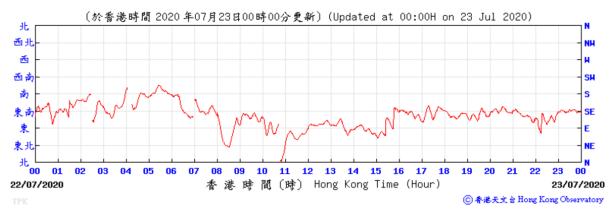


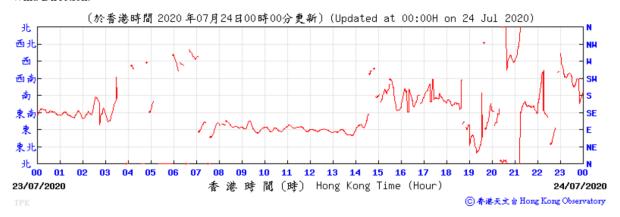




## D. 22/07/2020:

#### Wind Direction:

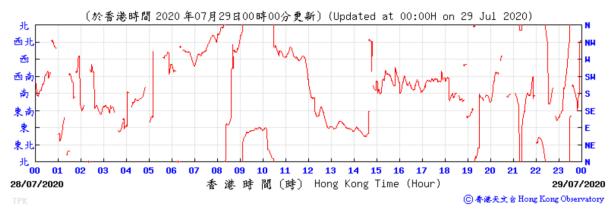






## E. 28/07/2020

## Wind Direction:



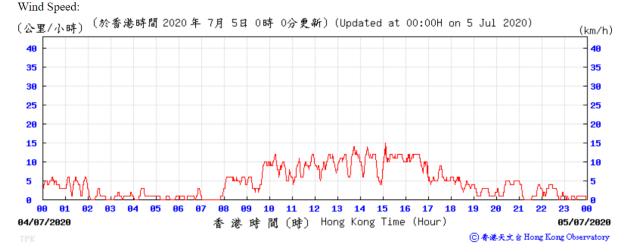


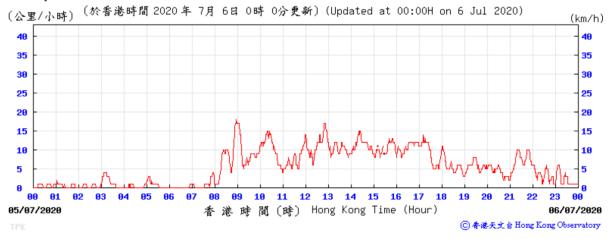


#### Wind speed data for 04, 10, 16, 22 and 28 July 2020

#### A. 04/07/2020:

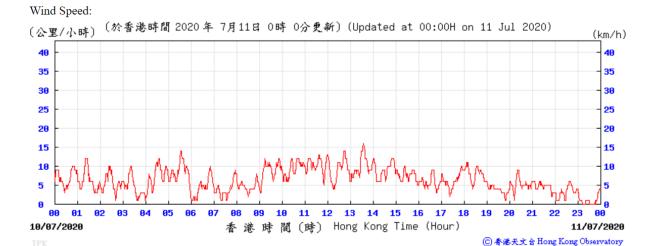
#### . . . . . .







#### B. 10/07/2020:

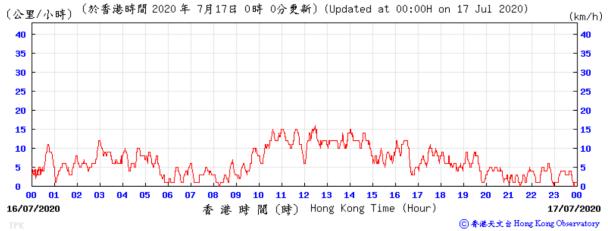


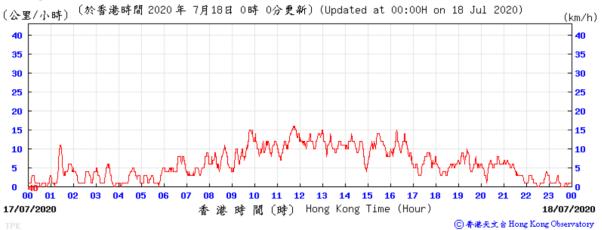




#### C. 16/07/2020:





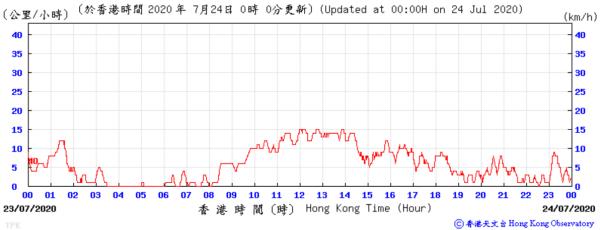




#### D. 22/07/2020:





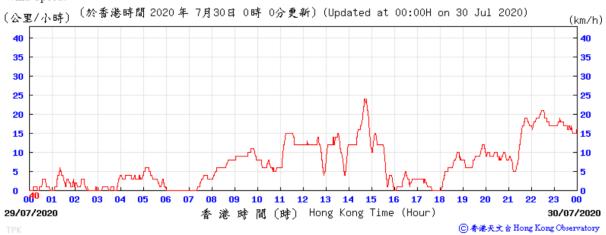




#### E. 28/07/2020







Contract No. AL G513 Expansion of Wo Hop Shek Crematorium Monthly EM&A Report No.5



APPENDIX J: WASTE FLOW TABLE



		Actual Qua	antities of Ine	ert C&D Matei	rials Generato	ed Monthly	Actual Quantities of C&D Wastes Generated Monthly					
Reporting Month	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / cardboard packaging	Plastics (see Note)	Chemical Waste	Others, e.g. general refuse	
	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	
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	

Remarks: The major excavation works were conducted in April and May, 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.

## Contract No. AL G513 Expansion of Wo Hop Shek Crematorium

Monthly EM&A Report No.5



Waste to Lan	dfill (July 202	0):								
Facility2	Date of transaction	Vehicle No.	Account No.	Chit No. 2	Time-in 2	Time-out 2	Waste depth (meter)	Weight-in (tonne)	Weight-out (tonne)	Net weight (tonne)
NENT	15/07/20	NP7*6	7032841	22174801	13:36	14:04	1.24	17.49	14.93	2.56
NENT	28/07/20	NP7*6	7032841	22174802	15:32	16:03	1.25	17.25	14.86	2.39
								Grand	Total:	4.95



## NT OF THE HKSAR CANSACTION RECORD

折界東北堆填區交收記錄

Datc: 母期	15/07/20	Veh. Reg. Mark: 車牌號碼	NP766	Transaction Ref. No: 備考號碼	4309522
Time in: 進入時間	13:36	Time out: 離開時間	14:04	Billing A/C No: 帳戶編號	7032841
In Weight(tonne): 入載重量(公噸)	17.49	Out Weight(tonne); 出載重量(公噸)	14.93	Chit No.: 載運入帳票編號	22174801

Estimated Net Weight /GVW Ratio: 淨重比率 11%

Waste depth (meter): 廢物深度(米) 1.24

Net Waste Load (tonne): 廢物淨重量(公噸) 2.56

# CHARGE RECORD (for reference only)

收費記錄

[僅供參考]

Charge Load (tonne): 收費重量(公噸) 2.6

Charge Amount (HK\$); 收費(港幣)

HK\$520.0

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。

		Control to Service and Control of the Control of th
Acco	unt Status	戶口狀況
A2:	No Billing Account Account Overdue Account Suspended Account Revoked	A1: 未有入帳戶口 A2: 戶口過期未繳費 A3: 戶口已用銷 A4: 戶口已撤銷
Reaso	ons For Rejecting	<b></b> 拒進原因一騎器

R1: Unsuitable Material RI。物料不符合要求 R2: No Valid Chit R2:無有效載運入帳票 R3: Unmatched Chit Information R3: 載運入帳票資料不符 R4: Others R4:其他

Recommended Disposal Facility For Construction Waste

介紹建築版物處置設施 DI: Landfill D1: 堆填區 D2 : Sorting Facility
D3 : Public Fill Reception Facility D2: 篩選分類設施 D3:公眾填料接收設施

Waste Hauler's Copy 運輸商副本

Enquiry phone: 26746505 查詢電話

## Contract No. AL G513 Expansion of Wo Hop Shek Crematorium Monthly EM&A Report No.5



Charge Load (tonn 收費重量(公噸)	e): 2.4			Charge Amount (HK\$): 收費(港幣)	HK\$480.0
		CHARGE R 收費記		(for reference on [僅供參考]	ly)
Estimated Net Weight /GVW Ratio: 淨重比率 10%		Waste depth (me 廢物深度(米)	1.25	Net Waste Load 廢物淨重量(公	、噸) 2.39
In Weight(tonne): 入載重量(公噸)	17.25	Out Weight(tonne): 出載重量(公噸)	14.86	Chit No.: 載運入帳票編號	22174802
· Time in: 進入時間	15:32	Time out: 離開時間	16:03	Billing A/C No: 帳戶編號	7032841
Date: 日期	28/07/20	Veh. Reg. Mark: 車牌號碼	NP766	Transaction Ref. No: 備考號碼	4320256

Contract No. AL G513 Expansion of Wo Hop Shek Crematorium Monthly EM&A Report No.5



**APPENDIX K: SITE INSPECTION PROFORMA** 



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

	WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST											
Inspe	ction Date: 2/7/201	0	Inspected by:		ET:	Jue	140		AR: N.S. Yeung			
Inspe	ction Time: UI			Contra	actor:	MY	Wony	I	EC: ///			
Weat	her						J					
Cond		☐ Fine	□ Overcast	☐ Drizzle		Ra	in	□ Sto	orm 🗆 Hazy			
Temp	erature 31 °C			Humidity		☐ Hig	gh	☑ Mo	oderate			
Wind	Calm	□ Light	□ Breeze	☐ Strong								
	Environmental Mitigation	Measures			N/A*	N/O*	Yes*	No*	Photo/Remarks			
1.00	Air (Construction Phase)											
	Vehicle washing facilities (i	ncluding a high pres	ssure water jet) were	provided at		500.007.00						
1.01	every discernible or designat											
	Road between the washing	facilities and the ex	cit point is paved wit	th concrete,								
1.02	bituminous or hardcore mate	rial.										
	Every main haul road is pa	ved with concrete, b	pituminous hardcore r	naterials or								
1.03	metal plates, and kept clear o						1					
	sprayed with water to keep th	ne entire road surface	e wet.									
	Stockpile of dusty material in	ncluding demolished	items is either:									
	a) covered entirely by imper	rvious sheeting, or										
1.04	b) placed in an area sheltere	d on the top and the	three sides, or									
	c) sprayed with water or a d	lust suppression cher	nical so as to maintain	n the entire		_						
	surface wet.											
	Exposed earth is properly trea	ated by compaction, h	nydroseeding, vegetati	on planting		\			The construction was			
1.05	or seating with latex, vinyl, l	bitumen within six n	nonths after the last co	onstruction		П		П	has not been comple			
	activity on the site or part of				_				yet			
							,	-	,			
1.06	Water is sprayed to all dusty	materials before load	ling or transfer operati	on.								
	Any debris is covered entire	rely by impervious	sheeting or stored in	n a debris					N V i			
1.07	collection area sheltered on th	ne top and the three s	ides.						todebris was			
1.00									10 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
1.08	Water is sprayed to debris bef	fore it is dumped into	a chute.						No debri, was			
1.00	Vehicles for transporting du	isty materials/spoils	are covered with ta	arpaulin or			_		37700			
1.09	similar material. The cover ex	stends over the edges	of the sides and tailb	oards.				Ш				
	Water is sprayed immediately	to the working area	for uprooting of trees,	, shrubs, or								
1.10	vegetation or the removal of	boulders, pole, pill	ars before, during an	d after the								
	operation.						•					
1.11	Workers at all levels are co-op	perative to avoid dust	generation and disper	rsion to the								
1.11	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.			Ø		
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).			ď		
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.			ď		
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?			Z		
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?			Ø		
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.			Ø		
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.			Ø		
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?			Ø		
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.			乜		
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?			ď		
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.			乜		
4.21	Are individuals or companies who deliver public fill to public filling areas obtained dumping licences?			d		



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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.			Ø		
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.			ď		
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.			$\square$		
	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.					No chemial ruste was generated
4.27	Principles of reuse and recycle chemical waste on site as far as practicable is adopted by the contractor.					No changal waste
4.28	Are unused chemicals or those with remaining functional capacity reused as far as practicable?					We chemical wante
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.					No chemical mute was generated.
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?			Ø		
5.02	Are site offices and the construction yard decommissioned after construction?	Þ				The construction has not been coopleted
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.			Ø		



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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?			Ø		
	5.05	Are construction plants and building materials orderly and carefully stored to appear neat and avoid visibility from outside where practical?			Þ		
	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 constantion has not been completed yet
	5.08	Are construction lights oriented away from the viewing location of VSRs?		Ø			
	5.09	Are all lightings facing sensitive receiver installed with frosted diffusers and reflective covers?		d			
	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.			ď		
4	5.12	The rooftop of the cremation plant room is planted with lawn.	Ø				The cremution plant 100 n has not been constructed
5	5.13	New trees, shrubs and groundcover are carefully selected and designed to homogenize with the environment.	Þ				No planting work
5	5.14	No tree is transplanted or felled without prior approval by relevant Government departments.			Ø		
5	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.			Ø		
5	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.					The chinney has put been contracted
5.	.19	The chimney stack is designed to locate at the least conspicuous location of the site to VSRs.					The chinney has not been contanted



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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.			Ø		
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	ď				Mplanting work
5.23	Is amenity planting for open spaces included in the Project?	Ø				No planting mork
5.24	Is screen planting such as planting a roll of trees along the site boundary butting Kiu Tau Road carried out?	d				Me 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.	Ø				No planting work
5.26	Is the 10m height headroom cremation plant room half-sunken to reduce the visual impact to pedestrians?	Þ				The cremiting plat
6.00	Water Quality (Construction Phase)					constanted
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.			Ø		
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.			卢		
6.04	Works are carefully programmed to minimise soil excavation works during rainy seasons.			ď		
6.05	Exposed soil surfaces are protected by paving as soon as possible to reduce the potential of soil erosion.					The constanting
6.06	Temporary access roads are protected by crushed gravel and exposed slope surfaces are protected when rainstorms are likely to occur.			Ø		
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.			P		
6.08	Open stockpiles of construction materials on site are covered with tarpaulin or similar fabric during rainstorms.			ď		



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						T
	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				л п	
	are settled out and removed before discharging into the storm drain.			<del>,</del>		
	Oil interceptor is provided in the drainage system and regularly emptied to			,		
6.10	prevent the release of oil and grease into the storm drainage system after			Ø		
	accidental spillage.					
6.11	Debris and rubbishes generated on site are collected, handled and disposed of					
	properly to avoid them entering the two streams.			Щ		
	All fuel tanks and storage areas are provided with locks and be sited on sealed					N C I
6.12	areas, within bunds of a capacity equal to 110% of the storage capacity of the	Ø				No tre was
	largest tank.					stored on-sitc.
6.13	Open storm water drains and culverts near the works area are covered to block the					
	entrance of large debris and refuse.					
	Portable chemical toilets handle the sewage from construction work force if the					
6.14	existing toilets in the Site are not adequate. Licensed contractors who are			Ø		
0.14	responsible for appropriate disposal and maintenance of these facilities provide					
	appropriate and adequate portable toilets.					
	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					
( 15	discharge of groundwater pumped out from any dewatering process of the	_				Mars Jantie
6.15	construction works is treated to comply with the standards set in the relevant					No grandwater vas generated
	discharge licence prior discharge. No discharge of the groundwater is allowed into					vas generated
	the two streams.					
7.00	Ecology (Construction Phase)					
7.01	Any affected trees are transplanted to grassland / scrubland within the Wo Hop			1		
7.01	Shek Cemetery.					
	Temporary accesses to the work sites are carefully planned and located to					
7.02	minimise disturbance caused to the streams and nearby habitats.					
<b>5</b> .02	Less or smaller construction plants are used to reduce disturbance to the nearby			/	1	
7.03	habitats.					
	Vehicles and other plants are carefully maintained and properly used to minimise			/		
7.04	the chance for accidental spillage.					
	Any spillages that do occur are quickly identified and appropriately cleaned up					I. at
7.05	before they can contaminate streams or groundwater.					No spillage was
7.06	Basement formation or any construction activities likely to pump out a large					Ollund
	quantity of groundwater are protected with sheet-piling at suitable locations	$\square$	П			No gould water
	around the basement footprint, or by any like method.		_			was general.
	No groundwater is pumped back to the two stream courses to protect the natural	/				no 1 .
7.07	integrity of the stream habitat and the associated organism.					Mr grand nater wy
	Samuel of Samuel.					oeverated



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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			Q		
	but not around the trunk.					
	Works beneath the tree canopy are avoided: If encroachment under the canopy					
7.09	area is unavoidable, adequate protections are provided to ensure no damage of any	Ш				
	part of the tree would occur due to the encroachment.					
	Any tree transplanting and planting works are implemented by an approved			Ø		
7.10	Landscape Contractor. Quality control of the work is undertaken by a qualified		Ш			
	Landscape Architect through site inspections and approval of works.					
7.11	Construction works are restricted within works area which are clearly defined.					
	Woodland or other habitats that are affected by the construction works are well-					
7.12	defined and minimised.					
	Human inference to habitats beyond the site boundary and habitats proposed to be					
7.13	retained are avoided by providing temporary barricades.					
7.14	Works area is reinstated immediately after completion of the construction.					
7.15	Uncontrolled burning of refuse is strictly prohibited. Appropriate fire control					
	measures are provided in order to protect nearby habitats.		П			
	Trees requiring transplantation or protection are identified based on the			ď		
7.16	information illustrated in the Tree Survey Report.					
	Is layout of the Project carefully designed to avoid or minimize the area of habitat			1 1		
7.17	loss and the numbers of trees to be felled?					
	All trees are preserved as far as possible, especially species of conservation					
7.18	concern. Recommendations provided in the Tree Survey Report to mitigate					
	impacts on trees shall be followed.					
	Disturbance to the two plant species of conservation concern, namely Aquilaria					
	sinensis and Cibotium barometz, is avoided. Where removal of these species is					
7.19	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;			h		
	Compensatory planting of the felled trees follows the Technical					No plantin wil
7.20	Circular No. 3/2006 issued by ETWB.	اعر				- F10(100111) 10 1P
	The Site inside or in the proximity of the streams and nearby habitats is			_		
7.21	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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# 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.			Ø		
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.			Ø		
7.25	Construction effluent, site runoff and sewage is properly collected and/or treated.			Ø		
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.			6		
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.			ď		

\*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:								
Ubservation	gs, : Nil							
Renimber (5)	Mel							
Signatures:								
ET ET	Contractor's	Architect's	IEC's					
Representative	Representative	Representative	Representative					
$\Omega$	/ ,							
	615							
(Name: Je H	(Name: M. Y. WONG	) (Name: N.S. Yeung	) (Name:	)				



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WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST										
Inspection Date: 8/7/1010			Inspected by	:	ET: Joe		e Ho		AR: L Mong	
Inspection Time: 1015					Contra	actor:	MY	Word	II	EC: Not
Weatl	her							J		
Condition Sunny   Fine				☐ Overcast	☐ Drizzle		☐ Rai	n	□ Sto	rm 🗆 Hazy
Temp	erature	31 ℃			Humidity		. Hig	şh	<b>⊠</b> Mo	•
Wind		Calm	□ Light	☐ Breeze	☐ Strong					
	Envir	onmental Mitigation	Measures			N/A*	N/O*	Yes*	No*	Photo/Remarks
1.00	Air (C	Construction Phase)								
	Vehicle	e washing facilities (	including a high pre	essure water jet) were	provided at					
1.01		discernible or designa								
	Road	between the washing	facilities and the e	xit point is paved wi	ith concrete,	_				
1.02	bitumi	nous or hardcore mate	erial.							
	Every	main haul road is pa	aved with concrete,	bituminous hardcore	materials or					
1.03	metal p	plates, and kept clear	of dusty materials. O	r unpaved haul roads a	and areas are					
		d with water to keep t								
	Stockp	oile of dusty material i	including demolished	d items is either:			*	-		
		vered entirely by impe								
1.04	b) pla	ced in an area shelter	ed on the top and the	three sides, or				M	П	
				emical so as to mainta	in the entire					
		face wet.								
		55 8	ated by compaction	hydroseeding, vegetat	tion planting					The Construction york
1.05				months after the last of						has not been complete
		y on the site or part of			construction					Yet
		on the one of part of	the site where the ca	sposed carm nes.						
1.06	Water i	is sprayed to all dusty	materials before loa	ding or transfer opera	tion.					
	Any d	abric is accurred out	iroly by immercial	s sheeting or stored						21/ 4 5
1.07		ion area sheltered on			in a debris					No debris was
	Conecti	ion area shellered on	the top and the three	sides.						stored onsite
1.08	Water i	is sprayed to debris be	efore it is dumped in	to a chute.						No debris uns
	37.1.5.1	C								stured enrite
1.09				s are covered with						
				es of the sides and tail						
				a for uprooting of tree		_	_	_	_	
1.10			of boulders, pole, pi	llars before, during a	nd after the	Ш				
	operation									
1.11			pperative to avoid dus	st generation and dispo	ersion to the					
	surroun	nding environment.			The state of the s		honoid	_		
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.			$\Box$					
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.			Þ					
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?			Ø					
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?			Ø		
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.			Ø		
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.			Ø		
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?			Ø		



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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.			Ø		
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.			Ø		
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.			Ø		
	Chemical Waste					
4.25	Contractor registers with the EPD as chemical waste producer if any chemical waste is generated			Ø		
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.	Ø				No chenical waste was generated
4.27	Principles of reuse and recycle chemical waste on site as far as practicable is adopted by the contractor.	Ø				ivo chemical moste was generated
4.28	Are unused chemicals or those with remaining functional capacity reused as far as practicable?					No chemical waste
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.	Ø				No chemical mite was generated
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?					The construction work has not been completed yet
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.			Ø		
	4	***************************************				***************************************



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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?  Are construction plants and building materials orderly and carefully stored to	
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?	
Are all construction plants removed from site upon completion of construction works?	The construction work has not been coyled
5.08 Are construction lights oriented away from the viewing location of VSRs?	
Are all lightings facing sensitive receiver installed with frosted diffusers and reflective covers?	
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.	
Planting works are carried out under the supervision of a specialist landscape specialist.	The irenation Plant re
5.12 The rooftop of the cremation plant room is planted with lawn.	has not been
New trees, shrubs and groundcover are carefully selected and designed to homogenize with the environment.	No planting work
No tree is transplanted or felled without prior approval by relevant Government departments.	
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.	
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.	
Existing shrub and ground cover planting areas that will not be removed are maintained in good condition and enhanced if practical.	
The chimney has been designed to have sculptural outlook and articulated. It is kept in proportion with the rest of the building.	The chimney has not been constructed
The chimney stack is designed to locate at the least conspicuous location of the site to VSRs.	The chinney has not been constructed



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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	Ø				Noplanting work
5.23	Is amenity planting for open spaces included in the Project?	Ø				I Vo planting most
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.	Ø				No planting work
5.26	Is the 10m height headroom cremation plant room half-sunken to reduce the visual impact to pedestrians?	Ø				No planting mick
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.					
6.05	Exposed soil surfaces are protected by paving as soon as possible to reduce the potential of soil erosion.					The construction has
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.					
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.					
	Oil interceptor is provided in the drainage system and regularly emptied to	-				
6.10				_	_	
0.10	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.					
	All fuel tanks and storage areas are provided with locks and be sited on sealed					* 6 1
6.12	areas, within bunds of a capacity equal to 110% of the storage capacity of the					No feel was stored
	largest tank.					unsite
6.13	Open storm water drains and culverts near the works area are covered to block the					
	entrance of large debris and refuse.		Ш		Ш	
	Portable chemical toilets handle the sewage from construction work force if the					
6.14	existing toilets in the Site are not adequate. Licensed contractors who are				_	
0.14	responsible for appropriate disposal and maintenance of these facilities provide	Ш				
	appropriate and adequate portable toilets.					
	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					March Len
6.15	construction works is treated to comply with the standards set in the relevant					- Water
	discharge licence prior discharge. No discharge of the groundwater is allowed into					My generated
	the two streams.					
7.00	Ecology (Construction Phase)					
	Any affected trees are transplanted to grassland / scrubland within the Wo Hop				T	
7.01	Shek Cemetery.					
7.02	Temporary accesses to the work sites are carefully planned and located to					
7.02	minimise disturbance caused to the streams and nearby habitats.				Ш	
7.03	Less or smaller construction plants are used to reduce disturbance to the nearby		_			
7.03	habitats.					
7.04	Vehicles and other plants are carefully maintained and properly used to minimise	_	_			
7.04	the chance for accidental spillage.					
7.05	Any spillages that do occur are quickly identified and appropriately cleaned up					1011
7.03	before they can contaminate streams or groundwater.					of spillage was
	Basement formation or any construction activities likely to pump out a large					
7.06	quantity of groundwater are protected with sheet-piling at suitable locations					to ground water
	around the basement footprint, or by any like method.			<del>-</del>		my generator
7.07	No groundwater is pumped back to the two stream courses to protect the natural					h(. )
7.07	integrity of the stream habitat and the associated organism.					10 grand water
						hard Day As Ister



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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.					
	Works beneath the tree canopy are avoided: If encroachment under the canopy					
7.09	area is unavoidable, adequate protections are provided to ensure no damage of any			Ø		
	part of the tree would occur due to the encroachment.					
	Any tree transplanting and planting works are implemented by an approved					
7.10	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.					
	Woodland or other habitats that are affected by the construction works are well-					
7.12	defined and minimised.					
	Human inference to habitats beyond the site boundary and habitats proposed to be					
7.13	retained are avoided by providing temporary barricades.					
7.14	Works area is reinstated immediately after completion of the construction.					
7.15	Uncontrolled burning of refuse is strictly prohibited. Appropriate fire control					
	measures are provided in order to protect nearby habitats.		Ш			
	Trees requiring transplantation or protection are identified based on the					
7.16	information illustrated in the Tree Survey Report.			Щ	Ш	
	Is layout of the Project carefully designed to avoid or minimize the area of habitat				П	
7.17	loss and the numbers of trees to be felled?					
	All trees are preserved as far as possible, especially species of conservation			,		
7.18	concern. Recommendations provided in the Tree Survey Report to mitigate					
	impacts on trees shall be followed.					
	Disturbance to the two plant species of conservation concern, namely Aquilaria					
	sinensis and Cibotium barometz, is avoided. Where removal of these species is					
7.19	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;					
	Compensatory planting of the felled trees follows the Technical					No plantin work
7.20	Circular No. 3/2006 issued by ETWB.					- Floring votile
	The Site inside or in the proximity of the streams and nearby habitats is					
7.21	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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### 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.			Ø		
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.			ď		
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 (1	) [Nil							
Reminder(s): 1. The tidine	ls of si-le s	hould be main	tained.					
Signatures:								
ET ET	Contractor's	Architect's	IEC's					
Representative	Representative	Representative	Representative					
(Name: J. p. 145)	(Name: H1 (110A)6	(Name: L. world)	(Name: )					



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		WEEKLY EN	VIRONMENTA	AL INSPE	CTIO	N CHE	CKLIS	T	
Inspec	tion Date: 15/7/2	والم	Inspected by	:	ET:	Tre 1	10	A	AR: Li Wong
Inspec	tion Time: 010			Contra	ctor:	MYV	Vong		EC: NA
Weath	er								
Condit	tion Sunny	☐ Fine	□ Overcast	□ Drizzle		☐ Rai	n	□ Sto	rm 🗆 Hazy
Tempe	erature 32 °C			Humidity		Hig		□Мо	
Wind	□ Calm	Light	□ Breeze	☐ Strong		,s	••	L 1410	detate 🗀 Low
		2 Light	L Diceze	LI Strong					
	Environmental Mitigat	ion Massuras			N/A*	N/O*	Yes*	No*	Photo/Remarks
1.00	Air (Construction Phas				11//4	11/0	ics	140	r noto/Remarks
1.00				11.1				-	
1.01	Vehicle washing facilitie			provided at					
	every discernible or design								
1.02	Road between the wash	-	xit point is paved w	ith concrete,					
	bituminous or hardcore n	naterial.							
	Every main haul road is	s paved with concrete,	bituminous hardcore	materials or		No. College	/		0
1.03	metal plates, and kept cle	ear of dusty materials. O	r unpaved haul roads	and areas are					-
	sprayed with water to kee	ep the entire road surfac	e wet.						
	Stockpile of dusty materi	ial including demolished	d items is either:						
	a) covered entirely by ir	mpervious sheeting, or							
1.04	b) placed in an area shel	Itered on the top and the	three sides, or						
	c) sprayed with water or	r a dust suppression che	emical so as to mainta	in the entire					
	surface wet.								
	Exposed earth is properly	treated by compaction,	hydroseeding, vegeta	tion planting					The constaution by
1.05	or seating with latex, vir	nyl, bitumen within six	months after the last	construction					has not been
	activity on the site or par	t of the site where the e	xposed earth lies.						completed yet
1.06	Water is sprayed to all du	usty materials before loa	ding or transfer opera	tion.					
	Any debris is covered	entirely by impervious	s sheeting or stored	in a debris					No debris stored
1.07	collection area sheltered								onsite
			×						No de bris stored
1.08	Water is sprayed to debri	s before it is dumped in	to a chute.						on-lite
	Vehicles for transporting	g dusty materials/spoil	s are covered with	tarnaulin or					
1.09	similar material. The cov								
	Water is sprayed immedi								
1.10		,					M		
1.10	vegetation or the remov	ai oi boulders, pole, pi	mars before, during a	and after the				Ш	
	operation.		, 108 · ·	N 1 11					
1.11	Workers at all levels are o		st generation and disp	ersion to the					
	surrounding environment						uroobsta.		
2.00	Noise (Construction Ph	ase)							



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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.			<b>A</b>					
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			$\square$					
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.			Ø					
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.			P					
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.			Ø					
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.			Ø					
4.05	Is authorised or licensed waste hauler used to collect specific category of waste?			Ø					
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.			Ø					
4.07	Training of site personnel in proper waste management and chemical waste handling procedures.			Á					



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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?			Ø		
4.09	Are sufficient waste disposal points and regular collection for disposal provided?			P		
4.10	Are appropriate measures to minimise windblown litter and dust during transportation of waste, such as covering trucks or transporting wastes in enclosed			Ø		
4.11	Is recording system for the amount of wastes generated, recycled and disposed of (including the disposal sites) implemented?			Ø		
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.			Ø		
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.			Ó		
4.14	Are C&D materials reused when possible to reduce the amount of C&D material/waste?			ď		
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?			Ø		
4.16	Minimise the potential for damage or contamination of construction material by having proper storage and site practices.			$\square$		
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.			Ø		
4.19	Is reuse of the public fill and C&D waste practiced on site as far as practicable?			Ø		
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.			Ø		
4.21	Are individuals or companies who deliver public fill to public filling areas obtained dumping licences?			Ø		



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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.			Ø		
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.			Ø		
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.			Ø		
	Chemical Waste					
4.25	Contractor registers with the EPD as chemical waste producer if any chemical waste is generated			Ø		
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.	Ø				No chemical moternas generated
4.27	Principles of reuse and recycle chemical waste on site as far as practicable is adopted by the contractor.					No chemical nate nor generated
4.28	Are unused chemicals or those with remaining functional capacity reused as far as practicable?	P				No chemien (nark nus generated
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.	ď				IV. chemical nate mas generated
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?					- co traveixo
5.02	Are site offices and the construction yard decommissioned after construction?					not been completed
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.			Ø		



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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?			ď		
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?			Ø		
5.07	Are all construction plants removed from site upon completion of construction works?	Ø				The constructor word Nos not heed 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.			Ø		
5.12	The rooftop of the cremation plant room is planted with lawn.	Ø				The creator plant ram has not been construsted
5.13	New trees, shrubs and groundcover are carefully selected and designed to homogenize with the environment.	<b>P</b>				No planting nock
5.14	No tree is transplanted or felled without prior approval by relevant Government departments.			Ø		
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.			Ø		
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.			6		-
5.18	The chimney has been designed to have sculptural outlook and articulated. It is kept in proportion with the rest of the building.				Ó	The chiany has not been constanted
5.19	The chimney stack is designed to locate at the least conspicuous location of the site to VSRs.	6				The chimney have but been constanted



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	Environmental Mitigation Measures	N/A*	N/O*	Yes"	No"	Filoto/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?			Ø		
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	P				N. planting rock
5.23	Is amenity planting for open spaces included in the Project?					No planting york
5.24	Is screen planting such as planting a roll of trees along the site boundary butting Kiu Tau Road carried out?	Ø				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.	Ø				No plantity work
5.26	Is the 10m height headroom cremation plant room half-sunken to reduce the visual impact to pedestrians?	d				No planting work
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.			Ø		
6.05	Exposed soil surfaces are protected by paving as soon as possible to reduce the potential of soil erosion.	Ø				not poen complete
6.06	Temporary access roads are protected by crushed gravel and exposed slope surfaces are protected when rainstorms are likely to occur.			Ø		
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.			Ó		
6.08	Open stockpiles of construction materials on site are covered with tarpaulin or similar fabric during rainstorms.			d		
		227				



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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.			Z		
				-		
6.10	Oil interceptor is provided in the drainage system and regularly emptied to		_	_		
6.10	prevent the release of oil and grease into the storm drainage system after				Ш	-
	accidental spillage.					
6.11	Debris and rubbishes generated on site are collected, handled and disposed of		П			
	properly to avoid them entering the two streams.					
	All fuel tanks and storage areas are provided with locks and be sited on sealed					No Cal
6.12	areas, within bunds of a capacity equal to 110% of the storage capacity of the					No fuel nas
	largest tank.					stored on 11te
6.13	Open storm water drains and culverts near the works area are covered to block the					
	entrance of large debris and refuse.					
	Portable chemical toilets handle the sewage from construction work force if the					
6.14	existing toilets in the Site are not adequate. Licensed contractors who are					
	responsible for appropriate disposal and maintenance of these facilities provide	Ш				
	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					1 6.
	discharge of groundwater pumped out from any dewatering process of the			_		No ground noter
0.13	construction works is treated to comply with the standards set in the relevant				Ш	No ground noter was openerated
	discharge licence prior discharge. No discharge of the groundwater is allowed into					
	the two streams.					
7.00	Ecology (Construction Phase)					
<b>7</b> 0.	Any affected trees are transplanted to grassland / scrubland within the Wo Hop					
7.01	Shek Cemetery.					-
7.00	Temporary accesses to the work sites are carefully planned and located to	_				
7.02	minimise disturbance caused to the streams and nearby habitats.					
	Less or smaller construction plants are used to reduce disturbance to the nearby					
7.03	habitats.					
	Vehicles and other plants are carefully maintained and properly used to minimise					
7.04	the chance for accidental spillage.					
	Any spillages that do occur are quickly identified and appropriately cleaned up					Ma callan
7.05	before they can contaminate streams or groundwater.					No spillage
	Basement formation or any construction activities likely to pump out a large					o carp
7.06	quantity of groundwater are protected with sheet-piling at suitable locations					No assentantes
	around the basement footprint, or by any like method.	<b>k</b>				uas generated
	No groundwater is pumped back to the two stream courses to protect the natural	/				200
7.07	integrity of the stream habitat and the associated organism.	$\not\square$				No grandouter
	o y and the dosociated organism.					mas conerated



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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			Ø		
7.09	but not around the trunk.  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.			Ø		
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.			Ø		
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.			ď		
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.	Ø				No planting nor
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.			Ø		



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### 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.			Ø		
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.			P		
7.27	Vehicles and other plant are carefully maintained and properly used to minimise the chance for accidental spillage.			Ø		
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.			otag		
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.			Ø		

\*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 (1)	: N.1						
000000	VV (1						
Reminder();	No. 1						
1 Only a second							
i i							
Signatures:							
ET	Contractor's	Architect's	IEC's				
Representative	Representative	Representative	Representative				
<u></u>	/ /^	1 11					
8	Lis	MIL					
(Name: $\sqrt{3}$ e H)	(Name: M.Y. WONG)	(Name: L. WOLL)	(Name: )				



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#### Contract no. AL G513 Expansion of Wo Hop Shek Crematorium

WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

Inspec	tion Date: 20/7/	2020	Inspected by	y:	ET:	100	Ho	_ A	R: L. Wong
Inspec	tion Time:	11:00		Contra	ctor:	MY	Wony	IE	c: Bryan
Weath	er d								•
Condit	ion Sunny	☐ Fine	□ Overcast	□ Drizzle		☐ Rai	n	□ Stor	m 🗆 Hazy
Tempe	rature <u>32</u> ℃			Humidity		☐ Hig	h	Mod	derate
Wind	□ Calm	Light	□ Breeze	☐ Strong					
	Environmental Mitiga	tion Measures			N/A*	N/O*	Yes*	No*	Photo/Remarks
1.00	Air (Construction Pha	se)							
	Vehicle washing faciliti	ies (including a high p	pressure water jet) wer	e provided at			_		
1.01	every discernible or des	ignated vehicle exit po	exit point.						
	Road between the wasl	hing facilities and the	exit point is paved v	vith concrete,					
1.02	bituminous or hardcore								
	Every main haul road i	is paved with concrete	e, bituminous hardcore	materials or					
1.03	metal plates, and kept cl	lear of dusty materials.	Or unpaved haul roads	and areas are					
	sprayed with water to ke								
	Stockpile of dusty mater	rial including demolish	ned items is either:						
	a) covered entirely by i	impervious sheeting, o	r						
1.04	b) placed in an area sheltered on the top and the three sides, or								
	c) sprayed with water of	or a dust suppression of	hemical so as to main	tain the entire					
	surface wet.								
	Exposed earth is properl	ly treated by compaction	n, hydroseeding, veget	ation planting					The custranton
1.05	or seating with latex, vi	inyl, bitumen within s	x months after the last	t construction	Ø		Ø,		has not bees
	activity on the site or pa	art of the site where the	exposed earth lies.				· On		The curtinature  bas not bees  (impleted
1.04									/
1.06	Water is sprayed to all d	flusty materials before I	oading or transfer oper	ration.		Ш		ш	
1.07	Any debris is covered	entirely by impervio	ous sheeting or stored	l in a debris			well		No deka um
1.07	collection area sheltered	d on the top and the thr	ee sides.						stred on yet
1.08	Water is sprayed to debr	ris before it is dumped	into a chute		M		FIX &		No debnic way
1.00	Water is sprayed to deor	nis octore it is dumped	into a criate.				¥_l~		Stored ornite
1.09	Vehicles for transporting	ng dusty materials/sp	oils are covered with	tarpaulin or					
1.07	similar material. The co	over extends over the ec	dges of the sides and ta	ilboards.	Ш		ķ.		-
	Water is sprayed immed	liately to the working a	area for uprooting of tre	ees, shrubs, or					
1.10	vegetation or the remov	val of boulders, pole,	pillars before, during	and after the					
	operation.								
1.11	Workers at all levels are	co-operative to avoid	dust generation and dis	persion to the			<b>/</b>		
1.11	surrounding environmen	nt.				Ц			
2.00	Noise (Construction Pl	hase)							



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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.			Ø						
2.02	Plant used intermittently is turned off or throttled down when not in active use.			Q						
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			Ø						
2.05	Where possible, mobile plant is sited away from NSRs			Ø						
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.			Ø						
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.			ď						
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.			Ø						
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.			Ø						
4.07	Training of site personnel in proper waste management and chemical waste handling procedures.			Ø						



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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.			Ø		
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.			Ø		
4.14	Are C&D materials reused when possible to reduce the amount of C&D material/waste?			Ø		
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?			Ø		
4.16	Minimise the potential for damage or contamination of construction material by having proper storage and site practices.			Ø		
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.			Ø		
4.21	Are individuals or companies who deliver public fill to public filling areas obtained dumping licences?			Ø		



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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.			Ø		
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.			Ø		
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.			<b>2</b>		
	Chemical Waste					
4.25	Contractor registers with the EPD as chemical waste producer if any chemical waste is generated			Ø		
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.	Ø				No chemical mater
4.28	Are unused chemicals or those with remaining functional capacity reused as far as practicable?	卢				No chemial myter
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.	Ø				No chemical mater way generated
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?	Ø				The constantin
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?			Ø		
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 constate has not been completed
5.08	Are construction lights oriented away from the viewing location of VSRs?		Z			
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.			Ø		
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.			a f		The commotion plant rodm has he holes Contracted
5.13	New trees, shrubs and groundcover are carefully selected and designed to homogenize with the environment.					No planting neck
5.14	No tree is transplanted or felled without prior approval by relevant Government departments.			卢		
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.			Z		
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.			Ø		
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.	Ø				The chimney has  not be a constated  The chimney has  not been consorted
5.19	The chimney stack is designed to locate at the least conspicuous location of the site to VSRs.	Ø				the Minney has



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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	Ø				No planting unde
5.23	Is amenity planting for open spaces included in the Project?	Q'				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?	尸				No planting norte
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.	Ø				to planting mayle
5.26	Is the 10m height headroom cremation plant room half-sunken to reduce the visual impact to pedestrians?	Ø				The cremative plant your has sto
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.			Ø		
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.					
	C 1/ Tr 1 C 17/2 I I I I I I I I I I I I I I I I I I I	1				
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.			Ø		
6.03	provided to remove sand/silt particles from runoff to meet the requirements of the			Ø		
	provided to remove sand/silt particles from runoff to meet the requirements of the Technical Memorandum standard under the WPCO.  Works are carefully programmed to minimise soil excavation works during					
6.04	provided to remove sand/silt particles from runoff to meet the requirements of the Technical Memorandum standard under the WPCO.  Works are carefully programmed to minimise soil excavation works during rainy seasons.  Exposed soil surfaces are protected by paving as soon as possible to reduce the					
6.04	provided to remove sand/silt particles from runoff to meet the requirements of the Technical Memorandum standard under the WPCO.  Works are carefully programmed to minimise soil excavation works during rainy seasons.  Exposed soil surfaces are protected by paving as soon as possible to reduce the potential of soil erosion.  Temporary access roads are protected by crushed gravel and exposed slope					
6.04	provided to remove sand/silt particles from runoff to meet the requirements of the Technical Memorandum standard under the WPCO.  Works are carefully programmed to minimise soil excavation works during rainy seasons.  Exposed soil surfaces are protected by paving as soon as possible to reduce the potential of soil erosion.  Temporary access roads are protected by crushed gravel and exposed slope surfaces are protected when rainstorms are likely to occur.  Trench excavation is avoided in the wet season as far as practicable, and if					



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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.					
	Oil interceptor is provided in the drainage system and regularly emptied to					
6.10	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					
0.11	properly to avoid them entering the two streams.		Ш	¥		
	All fuel tanks and storage areas are provided with locks and be sited on sealed					1. ( )
6.12	areas, within bunds of a capacity equal to 110% of the storage capacity of the					stand on site
	largest tank.					stud on site
( 12	Open storm water drains and culverts near the works area are covered to block the					
6.13	entrance of large debris and refuse.					***************************************
	Portable chemical toilets handle the sewage from construction work force if the					
	existing toilets in the Site are not adequate. Licensed contractors who are					
6.14	responsible for appropriate disposal and maintenance of these facilities provide		Ш	K	Ш	
	appropriate and adequate portable toilets.					
	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					We shoul when
6.15	construction works is treated to comply with the standards set in the relevant		Ш			We grand unter
	discharge licence prior discharge. No discharge of the groundwater is allowed into					your generation
	the two streams.					
7.00	Ecology (Construction Phase)					
	Any affected trees are transplanted to grassland / scrubland within the Wo Hop			_	_	
7.01	Shek Cemetery.					
	Temporary accesses to the work sites are carefully planned and located to				_	
7.02	minimise disturbance caused to the streams and nearby habitats.				Ш	
	Less or smaller construction plants are used to reduce disturbance to the nearby					
7.03	habitats.					
	Vehicles and other plants are carefully maintained and properly used to minimise					
7.04	the chance for accidental spillage.				Ш	-
	Any spillages that do occur are quickly identified and appropriately cleaned up				_	Mr. college 1
7.05	before they can contaminate streams or groundwater.				Ш	100 Spillage dansel
	Basement formation or any construction activities likely to pump out a large					
7.06	quantity of groundwater are protected with sheet-piling at suitable locations					No grand notes
7.06	around the basement footprint, or by any like method.			**************************************		his generated
	No groundwater is pumped back to the two stream courses to protect the natural					V
7.07	integrity of the stream habitat and the associated organism.					
		L				L



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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.					
	Works beneath the tree canopy are avoided: If encroachment under the canopy					
7.09	area is unavoidable, adequate protections are provided to ensure no damage of any					
	part of the tree would occur due to the encroachment.					
	Any tree transplanting and planting works are implemented by an approved					
7.10	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.					
	Woodland or other habitats that are affected by the construction works are well-					
7.12	defined and minimised.				Ш	-
	Human inference to habitats beyond the site boundary and habitats proposed to be					
7.13	retained are avoided by providing temporary barricades.				Ш	
7.14	Works area is reinstated immediately after completion of the construction.	<b>Q</b>				has not be an
7.15	Uncontrolled burning of refuse is strictly prohibited. Appropriate fire control			<u></u>		
7.15	measures are provided in order to protect nearby habitats.					
	Trees requiring transplantation or protection are identified based on the					
7.16	information illustrated in the Tree Survey Report.					
	Is layout of the Project carefully designed to avoid or minimize the area of habitat					
7.17	loss and the numbers of trees to be felled?					
	All trees are preserved as far as possible, especially species of conservation					
7.18	concern. Recommendations provided in the Tree Survey Report to mitigate					
	impacts on trees shall be followed.					
	Disturbance to the two plant species of conservation concern, namely Aquilaria					
	sinensis and Cibotium barometz, is avoided. Where removal of these species is					
7.19	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;					
70.5 (40.00)	Compensatory planting of the felled trees follows the Technical			*** ()		No 2 th
7.20	Circular No. 3/2006 issued by ETWB.			MA	Ш	o plan (12 por
	The Site inside or in the proximity of the streams and nearby habitats is			,		
7.21	temporarily isolated, by placing of sandbags or silt curtains with lead edge at the			$\angle$		
	bottom and properly supported props, to prevent adverse impacts on these areas.					
	L					L



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## 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.			Ø		
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.			Ø		
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.			Ø		
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.			Д		

\*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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D 1/E B 201	(a) and Non compliance(a) of Last Was	Lly Site Inspection	
Remark / Follow up of Observation	n(s) and Non-compliance(s) of Last Wee	My SHE HISPECHORE	
Observati	on (s): Nil		
Reminde	v (s) [ M]		
Signatures:			
ET ET	Contractor's	Architect's	IEC's
Representative	Representative	Representative	Representative Defailed
0,	12	Wille	Byl
(Name: Jas Ho	(Name: H.Y. III PN/2	) (Name: L WONG)	(Name: The first)



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				VIRONMENTA	L INSPE					1 2 16
Inspec	tion Date	e: 1917/100 G	)	Inspected by:		ET:	Joe H		A	R: N.S. Yeung
Inspec	tion Tim	ne: 10   5			Contra	ctor:	MY.V	bong	IE	C: NP
Weath	er							3		
Condit	tion	Sunny	Fine	□ Overcast	☐ Drizzle		☐ Raii	1	☐ Stor	m 🗆 Hazy
Tempe	erature	33 °C			Humidity		☐ Hig	h	Mod	derate $\square$ Low
Wind		Calm	□ Light	☐ Breeze	☐ Strong					
	Enviro	onmental Mitigation	Measures			N/A*	N/O*	Yes*	No*	Photo/Remarks
1.00	Air (Co	onstruction Phase)								
	Vehicle	e washing facilities (	including a high pre	essure water jet) were	provided at					
1.01	every d	discernible or designa	ted vehicle exit poir	it.		ш	Ш		Ш	
	Road b	between the washing	facilities and the o	exit point is paved wi	th concrete,					
1.02	bitumir	nous or hardcore mate	erial.			Ш	Ш		Ш	
	Every	main haul road is pa	aved with concrete,	bituminous hardcore	materials or					
1.03	metal p	plates, and kept clear	of dusty materials. C	or unpaved haul roads a	and areas are					
	sprayed	d with water to keep t	the entire road surfa	ce wet.						
	Stockp	ile of dusty material	including demolishe	d items is either:						
	a) cov	vered entirely by impo	ervious sheeting, or							
1.04	b) plac	ced in an area shelter	ed on the top and the	e three sides, or						
				emical so as to mainta	in the entire	_				
		face wet.	and a up process and							
	V		eated by compaction	, hydroseeding, vegeta	tion planting					The construction
1.05				months after the last					П	work has not
1.05		on the site or part of			construction					
	activity	on the site of part of	i the site where the c	Aposed carm nes.						
1.06	Water i	is sprayed to all dusty	materials before lo	ading or transfer opera	ition.					
	Annad	alasia in ingressed au	tirale: her favorandos	us shooting or stored	in a dabric			6		10. 4 1
1.07				is sheeting or stored	in a debris			MAG.		No debris mas
	conect	ion area sheltered on	the top and the three	e sides.						stored on-site
1.08	Water	is sprayed to debris b	efore it is dumped in	nto a chute.						No debris was
	*****									stored on site
1.09		_		ils are covered with				Z		
				ges of the sides and tai						
				ea for uprooting of tree				<del>-</del>		
1.10	vegetat	tion or the removal	of boulders, pole, p	oillars before, during a	and after the			$\square$		
	operati									
1.11	Worke	rs at all levels are co-	operative to avoid d	ust generation and disp	persion to the					
	surroui	nding environment.						7		
2.00	Noise	(Construction Phase	e)							



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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									
2.01	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.			Ø						
2.04	Silencers, mufflers and enclosures for plant are applied where possible and maintained adequately throughout the works			Ø						
2.05	Where possible, mobile plant is sited away from NSRs			Ø						
2.06	PME is well maintained and used properly on site to minimise any excessive noise generated.			Ø						
2.07	Stockpiles of excavated materials and other structures such as site buildings should be used effectively to screen noise from the works.			Ø						
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).			卢						
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.			ď						
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.			Ø						
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.			d						
4.07	Training of site personnel in proper waste management and chemical waste handling procedures.			Ø						



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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?			Ø		
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?			Ø		
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.			Ø		
4.14	Are C&D materials reused when possible to reduce the amount of C&D material/waste?			ď		
4.15	Are wood, steel and other metals separated for reuse and for recycling prior to disposal of C&D waste to minimise the quantity of waste to be disposed of to landfill?			Ø		
4.16	Minimise the potential for damage or contamination of construction material by having proper storage and site practices.			Ø		
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.			Ø		
4.21	Are individuals or companies who deliver public fill to public filling areas obtained dumping licences?			Ø		



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	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
	Are careful design, planning and good site management adopted to minimise					
	overordering and generation of waste materials such as concrete, mortar and					
4.22	cement grouts? The design of formwork maximise the use of standard wooden					
4.22	or metal panels so that high reuse levels can be achieved. Alternatives such as	ш				
	steel formwork, plastic fencing and reusable site office structures are considered					
	to increase the potential for reuse and minimize C&D waste generation.					
	The contractor uses as much as possible of the C&D material on-site. Proper					
4.23	segregation of waste types on site will increase the feasibility of certain					
	components of the waste stream by recycling contractors.					
	General refuse is stored in enclosed bins or compaction units separate					
	from C&D and chemical wastes. A reputable waste collector is					,
4.24	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					
	Contractor registers with the EPD as chemical waste producer if any chemical					
4.25	waste is generated			$\square$		
	All the chemical waste is handled according to the Code of Practice on the			0		
	Packaging, Labelling and Storage of Chemical Wastes. The chemical waste is			4		No chemical waste
4.26	stored and collected by an approved contractor for disposal at a licensed facility in		Ш			um devented
	accordance with the Waste Disposal (Chemical Waste) (General) Regulation.					40.000
	Principles of reuse and recycle chemical waste on site as far as practicable is	4				N. J I
4.27	adopted by the contractor.					va generated
	Are unused chemicals or those with remaining functional capacity reused as far as					W har I who
4.28	practicable?					way generated
	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					N- logs - 1
4.29	waste collection service and can supply the necessary storage containers or a					No chemical waste nas gereate
	waste recycling plant approved by EPD.					Waste van gerono
5.00	Landscape and Visual (Construction Phase)					
	Do site offices have olive green roof and façade coating or colour that matche					
5.01	with existing environment?	Ш				
						The construction
5.02	Are site offices and the construction yard decommissioned after construction?	Į	Ш	Ш	Ш	heen conneted
	The height of site offices, including the rooftop does not exceed 10m, except					
5.03	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?			Ø		
5.05	Are construction plants and building materials orderly and carefully stored to appear neat and avoid visibility from outside where practical?			d		
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?	Ø				not been completed
5.08	Are construction lights oriented away from the viewing location of VSRs?		Ø			
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.			Ø		
5.11	Planting works are carried out under the supervision of a specialist landscape specialist.	Ø				No planting mule
5.12	The rooftop of the cremation plant room is planted with lawn.	Ø				The cremation put became
5.13	New trees, shrubs and groundcover are carefully selected and designed to homogenize with the environment.	Ø				No planting Nork
5.14	No tree is transplanted or felled without prior approval by relevant Government departments.			Ø		
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.			Ø		
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.			ď		
5.17	Existing shrub and ground cover planting areas that will not be removed are maintained in good condition and enhanced if practical.			Ø		
5.18	The chimney has been designed to have sculptural outlook and articulated. It is kept in proportion with the rest of the building.	Ø				not been constructed
5.19	The chimney stack is designed to locate at the least conspicuous location of the site to VSRs.	Ø				The chiancy has



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	Environmental Mitigation Measures	N/A*	N/O*	Yes*	No*	Photo/Remarks
	Bi-weekly checking would be performed on the nine Terminalia mantaly trees					
5.20	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?					
	Is the tree compensation to tree loss ratio at least 1:1 in term of quantity?					
5.22	About 100 trees will be planted to compensate for the loss of 54 trees. 100 trees	K				No planting worls
5.22	will be planted on site and others, in locations within the vicinity approved by the					" J MC
	Architect					
5.23	Is amenity planting for open spaces included in the Project?					No planting scole
5.24	Is screen planting such as planting a roll of trees along the site boundary					No planting well
3.24	butting Kiu Tau Road carried out?			Ш		producting with
	Woodland mix, comprising of tree seedlings and shrubs, are planted within the					Ma al 45
5.25	Wo Hop Shek Cemetery to enhance the ecological value and compensatory of tree					planting nor c
	loss.					1
5.26	Is the 10m height headroom cremation plant room half-sunken to reduce the		П			The cremetran plant
	visual impact to pedestrians?	بحا				Constructed
6.00	Water Quality (Construction Phase)					,
	Wastewater is properly treated to meet the discharge standards set out in the					
6.01	relevant Water Pollution Control Ordinance (WPCO) discharge licence. No direct			Ņ		
	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.					
	Sand silt removal facilities such as sand traps, silt traps and sediment basins are					
6.03				_	_	,
	provided to remove sand/silt particles from runoff to meet the requirements of the			Ø		
	provided to remove sand/silt particles from runoff to meet the requirements of the Technical Memorandum standard under the WPCO.			Ø		
6.04	provided to remove sand/silt particles from runoff to meet the requirements of the Technical Memorandum standard under the WPCO.  Works are carefully programmed to minimise soil excavation works during			Ø		
6.04	provided to remove sand/silt particles from runoff to meet the requirements of the Technical Memorandum standard under the WPCO.  Works are carefully programmed to minimise soil excavation works during rainy seasons.			Ø		
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	provided to remove sand/silt particles from runoff to meet the requirements of the Technical Memorandum standard under the WPCO.  Works are carefully programmed to minimise soil excavation works during rainy seasons.  Exposed soil surfaces are protected by paving as soon as possible to reduce the potential of soil erosion.			Ø Ø		
	provided to remove sand/silt particles from runoff to meet the requirements of the Technical Memorandum standard under the WPCO.  Works are carefully programmed to minimise soil excavation works during rainy seasons.  Exposed soil surfaces are protected by paving as soon as possible to reduce the potential of soil erosion.  Temporary access roads are protected by crushed gravel and exposed slope					
6.05	provided to remove sand/silt particles from runoff to meet the requirements of the Technical Memorandum standard under the WPCO.  Works are carefully programmed to minimise soil excavation works during rainy seasons.  Exposed soil surfaces are protected by paving as soon as possible to reduce the potential of soil erosion.  Temporary access roads are protected by crushed gravel and exposed slope surfaces are protected when rainstorms are likely to occur.					
6.05	provided to remove sand/silt particles from runoff to meet the requirements of the Technical Memorandum standard under the WPCO.  Works are carefully programmed to minimise soil excavation works during rainy seasons.  Exposed soil surfaces are protected by paving as soon as possible to reduce the potential of soil erosion.  Temporary access roads are protected by crushed gravel and exposed slope surfaces are protected when rainstorms are likely to occur.  Trench excavation is avoided in the wet season as far as practicable, and if					
6.05	provided to remove sand/silt particles from runoff to meet the requirements of the Technical Memorandum standard under the WPCO.  Works are carefully programmed to minimise soil excavation works during rainy seasons.  Exposed soil surfaces are protected by paving as soon as possible to reduce the potential of soil erosion.  Temporary access roads are protected by crushed gravel and exposed slope surfaces are protected when rainstorms are likely to occur.  Trench excavation is avoided in the wet season as far as practicable, and if necessary, these trenches are excavated and backfilled in short sections.					
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minimise disturbance caused to the streams and nearby habitats.  1.03 Less or smaller construction plants are used to reduce disturbance to the nearby habitats.  1.04 Vehicles and other plants are carefully maintained and properly used to minimise the chance for accidental spillage.  1.05 Any spillages that do occur are quickly identified and appropriately cleaned up before they can contaminate streams or groundwater.  1.06 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.  1.07 No groundwater is pumped back to the two stream courses to protect the natural	7.02	Temporary accesses to the work sites are carefully planned and located to					
habitats.  Vehicles and other plants are carefully maintained and properly used to minimise the chance for accidental spillage.  Any spillages that do occur are quickly identified and appropriately cleaned up before they can contaminate streams or groundwater.  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 is pumped back to the two stream courses to protect the natural  My grand under the parameter of the protect of the protect of the natural of the protect of the natural of the protect of the natural of the protect of the protect of the natural of the protect of the protect of the natural of the protect of the natural of the protect of the pro	7.02	minimise disturbance caused to the streams and nearby habitats.					
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.  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 is pumped back to the two stream courses to protect the natural  Magrama mater	7.02	Less or smaller construction plants are used to reduce disturbance to the nearby					
the chance for accidental spillage.  Any spillages that do occur are quickly identified and appropriately cleaned up before they can contaminate streams or groundwater.  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 is pumped back to the two stream courses to protect the natural  Magrama water	7.03	habitats.		Ш	$\Box$	Ш	
the chance for accidental spillage.  Any spillages that do occur are quickly identified and appropriately cleaned up before they can contaminate streams or groundwater.  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 is pumped back to the two stream courses to protect the natural  Magrama mater	7.01	Vehicles and other plants are carefully maintained and properly used to minimise			$ \Box $		
before they can contaminate streams or groundwater.  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 is pumped back to the two stream courses to protect the natural  Magrama water	7.04	the chance for accidental spillage.		Ш		Ш	
before they can contaminate streams or groundwater.  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 is pumped back to the two stream courses to protect the natural  No groundwater is pumped back to the two stream courses to protect the natural	7.05	Any spillages that do occur are quickly identified and appropriately cleaned up	6				Me sallara sand
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around the basement footprint, or by any like method.  7.07  No groundwater is pumped back to the two stream courses to protect the natural  7.07  Mb. ground mater		Basement formation or any construction activities likely to pump out a large					ıi.
No groundwater is pumped back to the two stream courses to protect the natural  7.07  No groundwater is pumped back to the two stream courses to protect the natural	7.06	quantity of groundwater are protected with sheet-piling at suitable locations	Ø				Me grandmeten was
No groundwater is pumped back to the two stream courses to protect the natural  7.07  No groundwater is pumped back to the two stream courses to protect the natural	7.00	around the basement footprint, or by any like method.					generated
	7.07	No groundwater is pumped back to the two stream courses to protect the natural					Me a cumb. to
	7.07	integrity of the stream habitat and the associated organism.	4		Ш		was generated



## **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

	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: It 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.			Ø		
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.			$\square$		
7.11	Construction works are restricted within works area which are clearly defined.			$\square$		-
7.12	Woodland or other habitats that are affected by the construction works are well-defined and minimised.			Ø		
7.13	Human inference to habitats beyond the site boundary and habitats proposed to be retained are avoided by providing temporary barricades.			$\square$		
7.14	Works area is reinstated immediately after completion of the construction.	Ø				The constantion has not been considered
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.			Ø		
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?			d		
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.			ď		
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;			Ø		
7.20	Compensatory planting of the felled trees follows the Technical Circular No. 3/2006 issued by ETWB.					No plating nork
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.			6		



## **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

	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.			ď		
7.23	Stockpiling of construction materials, are covered and located away from the streams and nearby habitats.			Ø		
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.			Ø		
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.			Ø		
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.			Ó		
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.			Ø		

\*Remarks:

N/A = Not applicable at current stage

N/O = Not observed in the site walk

Yes = Compliance

No = Non-compliance



## **Acuity Sustainability Consulting Limited**

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#### Contract no. AL G513 Expansion of Wo Hop Shek Crematorium

Remark / Follow up of Observation(s	and Non-compliance(s) of Last Week	ly Site Inspection:	
Observation (5).	N i l		
		for air-borne di	ust eontrol
Maniadens) 1 Has	Lation heacup	for air-borne do	louted to during
Keminasia, 11. Mil	y the measure	V SHOWIO( WE DOO	g our rig
ba	ck-filling.		
	J		
Signatures:			
ET Representative	Contractor's Representative	Architect's Representative	IEC's Representative
0	/	m/	
St.		18	_
(Name: (Joe 4)	(Name: M. Y. WONG)	(Name: N. 5. Yeung)	(Name:

Contract No. AL G513 Expansion of Wo Hop Shek Crematorium Monthly EM&A Report No.5



# 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	Environmental Complaint Statistics			
Period	Frequency	Cumulative	Complaint Nature	
01 July 2020 - 31 July 2020	0	0	N/A	

**Statistical Summary of Environmental Non-compliance** 

Reporting Period	Environ Frequency	nmental Non-compliance Statistics  Cumulative Details				
01 July 2020 - 31 July 2020	0	0	N/A			

**Statistical Summary of Environmental Summons** 

Reporting	Envi	ronmental Summons Stat	istics
Period	Frequency	Cumulative	Details
01 July 2020 - 31 July 2020	0	0	N/A

**Statistical Summary of Environmental Prosecution** 

Reporting	Enviro	nvironmental Prosecution Statistics				
Period	Frequency	Cumulative	Details			
01 July 2020 - 31 July 2020	0	0	N/A			

Contract No. AL G513 Expansion of Wo Hop Shek Crematorium Monthly EM&A Report No.5



## APPENDIX M: IMPACT MONITORING SCHEDULE OF NEXT REPORTING MONTH



	Impact Monitoring Schedule for Expansion of Wo Hop Shek Crematorium							
			Aug-20					
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							

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

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

Contract No. AL G513 Expansion of Wo Hop Shek Crematorium Monthly EM&A Report No.5



**APPENDIX N: LAB REPORT** 

Lot 12, Tam Kon Shan Road, Tsing Yi (N), Hong Kong Tel: (852) 2333 6823 Fax: (852) 2333 1316

### **Test Report**

Page 1 of 2

Report Number

: Q200003aR200631

Job Number

: R200631

Issue Date

: 30/07/2020

Name of Applicant

: Acuity Sustainability Consulting Limited

Address of Applicant

: Unit C, 11/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

: R200631/1-2

Date of Sampling

: 04/07/2020

Date Received

: 04/07/2020

Test Period

: 04/07/2020 - 05/07/2020

Test Required

: 1. Total Suspended Particulates (TSP)

Method Used

: 1. 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

Lot 12, Tam Kon Shan Road, Tsing Yi (N), Hong Kong Tel: (852) 2333 6823 Fax: (852) 2333 1316

## **Test Report**

Page 2 of 2

Report Number

: Q200003aR200631

Job Number

: R200631

Issue Date

: 30/07/2020

#### **Test Result:**

Lab ID	Date of Sampling	Client Sample ID	Initial Weight (g)	Final Weight (g)	Total Suspended Particulates (g)
R200631/1	04/07/2020	Fung Kai Liu Yun Sum Memorial School	2.7411	2.7686	0.0275
R200631/2	04/07/2020	Fanling Government Secondary School	2.7048	2.7308	0.0260

Note:

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

\*\*\*End of Report\*\*\*

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### Test Report

Page 1 of 2

Report Number

: Q200003aR200632

Job Number

: R200632

Issue Date

: 30/07/2020

Name of Applicant

: Acuity Sustainability Consulting Limited

Address of Applicant

: Unit C, 11/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

: R200632/1-2

Date of Sampling

: 10/07/2020

Date Received

: 10/07/2020

Test Period

: 10/07/2020 - 11/07/2020

Test Required

: 1. Total Suspended Particulates (TSP)

Method Used

: 1. 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

Lot 12, Tam Kon Shan Road, Tsing Yi (N), Hong Kong Tel: (852) 2333 6823 Fax: (852) 2333 1316

## **Test Report**

Page 2 of 2

Report Number

: Q200003aR200632

Job Number

: R200632

Issue Date

: 30/07/2020

#### **Test Result:**

Lab ID	Date of Sampling	Client Sample ID	Initial Weight (g)	Final Weight (g)	Total Suspended Particulates (g)
R200632/1	10/07/2020	Fung Kai Liu Yun Sum Memorial School	2.7211	2.7561	0.0350
R200632/2	10/07/2020	Fanling Government Secondary School	2.7343	2.7732	0.0389

Note:

- < indicates less than.</li>
- 2. > indicates more than.
- 3. NA indicates Not Applicable.

\*\*\*End of Report\*\*\*

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## Test Report

Page 1 of 2

Report Number

: Q200003aR200663

Job Number

: R200663

Issue Date

: 04/08/2020

Name of Applicant

: Acuity Sustainability Consulting Limited

Address of Applicant

: Unit C, 11/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

: R200663/1-2

Date of Sampling

: 16/07/2020

**Date Received** 

: 16/07/2020

**Test Period** 

: 16/07/2020 - 17/07/2020

Test Required

: 1. Total Suspended Particulates (TSP)

Method Used

: 1. 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

Lot 12, Tam Kon Shan Road, Tsing Yi (N), Hong Kong Tel: (852) 2333 6823 Fax: (852) 2333 1316

## **Test Report**

Page 2 of 2

Report Number

: Q200003aR200663

Job Number

: R200663

Issue Date

: 04/08/2020

#### **Test Result:**

Lab ID	Date of Sampling	Client Sample ID	Initial Weight (g)	Final Weight (g)	Total Suspended Particulates (g)
R200663/1	16/07/2020	Fung Kai Liu Yun Sum Memorial School	2.6986	2.7224	0.0238
R200663/2	16/07/2020	Fanling Government Secondary School	2.7784	2.8175	0.0391

Note:

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

\*\*\*End of Report\*\*\*

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### Test Report

Page 1 of 2

Report Number : Q200003aR200687

Job Number : R200687

Issue Date : 07/08/2020

Name of Applicant : Acuity Sustainability Consulting Limited

Address of Applicant : Unit C, 11/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 : R200687/1-2

Date of Sampling : 22/07/2020 Date Received : 22/07/2020

Test Period : 22/07/2020 – 23/07/2020

Test Required : 1. Total Suspended Particulates (TSP)

Method Used : 1. 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

Lot 12, Tam Kon Shan Road, Tsing Yi (N), Hong Kong Tel: (852) 2333 6823 Fax: (852) 2333 1316

## **Test Report**

Page 2 of 2

Report Number

: Q200003aR200687

Job Number

: R200687

Issue Date

: 07/08/2020

#### **Test Result:**

Lab ID	Date of Sampling	Client Sample ID	Initial Weight (g)	Final Weight (g)	Total Suspended Particulates (g)
R200687/1	22/07/2020	Fung Kai Liu Yun Sum Memorial School	2.7132	2.7367	0.0235
R200687/2	22/07/2020	Fanling Government Secondary School	2.7684	2.8036	0.0352

Note:

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

\*\*\*End of Report\*\*\*

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## Test Report

Page 1 of 2

Report Number : Q200003aR200688

Job Number : R200688

Issue Date : 07/08/2020

Name of Applicant : Acuity Sustainability Consulting Limited

Address of Applicant : Unit C, 11/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 : R200688/1-2

Date of Sampling : 28/07/2020 Date Received : 28/07/2020

Test Period : 28/07/2020 – 29/07/2020

Test Required : 1. Total Suspended Particulates (TSP)

Method Used : 1. 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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## Test Report

Page 2 of 2

Report Number

: Q200003aR200688

Job Number

: R200688

Issue Date

: 07/08/2020

#### **Test Result:**

Lab ID	Date of Sampling	Client Sample ID	Initial Weight (g)	Final Weight (g)	Total Suspended Particulates (g)
R200688/1	28/07/2020	Fung Kai Liu Yun Sum Memorial School	2.7192	2.7453	0.0261
R200688/2	28/07/2020	Fanling Government Secondary School	2.7063	2.7403	0.0340

Note:

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

\*\*\*End of Report\*\*\*