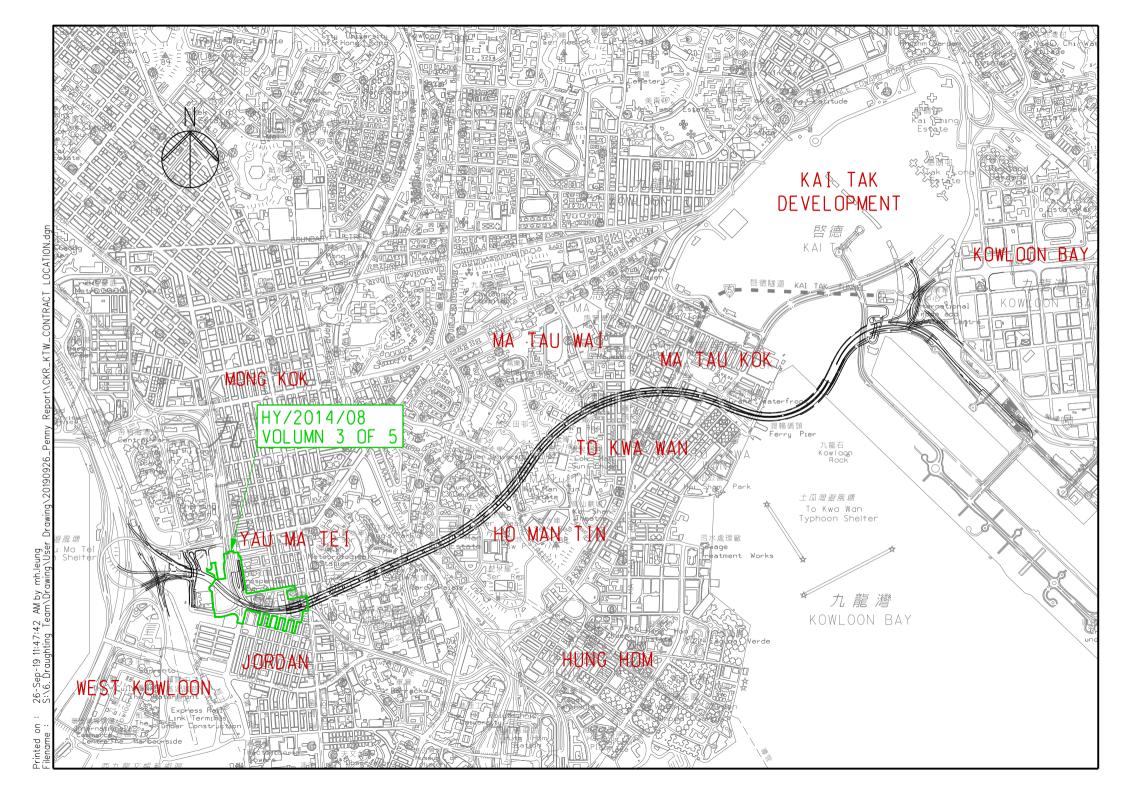
# Vol. 3 of 5 FEP-03/457/2013/D Central Kowloon Route Yau Ma Tei East Contract No. HY/2014/08 August 2025







### Environmental Permit No. EP-457/2013/D

### Central Kowloon Route

### **Independent Environmental Checker Verification**

Reference Document/Plan	
Document/Plan to be Certified/ Verified:	Monthly EM&A Report No.89 (August 2025)
Date of Report:	10 September 2025
Date received by IEC:	10 September 2025

Yau Ma Tei East (HY/2014/08)

### **Reference EP Condition**

**Works Contract:** 

Environmental Permit Condition: 3.4

Submission of Monthly EM&A Report of the Project

3.4 Four hard copies and one electronic copy of monthly EM&A Report shall be submitted to the Director within 2 weeks after the end of each reporting month throughout the entire construction period. The EM&A Reports shall include a summary of all non-compliance. The submissions shall be certified by the ET Leader and verified by the IEC as complying with the requirements as set out in the EM&A Manual before submission to the Director. Additional copies of the submission shall be provided to the Director upon request by the Director.

### **IEC Verification**

I hereby verify that the above referenced document/<del>plan</del> complies with the above referenced condition of EP-457/2013/D.

Ms Mandy To

Mondy 20.

Date: 11 September 2025

Independent Environmental Checker

Our ref: 0436942 IEC Verification Cert YMTE Monthly EM&A Rpt No.89.docx





# Build King – SK ecoplant Joint Venture

# Central Kowloon Route Contract HY/2014/08 Section of Yau Ma Tei East

Monthly EM&A Report No. 89

(Period from 01 to 31 August 2025)

Rev. 1 (10 September 2025)

	Name	Signature
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### **EXECUTIVE SUMMARY**

- A.1 Build King SK ecoplant Joint Venture ("Contractor") commenced the construction works of Highway Department (HyD) Central Kowloon Route Contract No. HY/2014/08 Section of Yau Ma Tei East ("The Project") on 20 April 2018. This is the 89<sup>th</sup> monthly Environmental Monitoring and Audit (EM&A) report presenting the EM&A works carried out during the period from 01 August 2025 to 31 August 2025.
- A.2 A summary of the construction works reported by Main Contractor for the Project during the reporting month is listed below.

### **Construction Activities undertaken**

- Backfilling and UU reinstatement works at Zones A, B, C, D, F & G
- Constructing W/B RGRF Deck at P1R-P7R
- Constructing socketed H-piles, pile caps, ground beams, RC columns, Steel Posts, Steel Main Beams, Steel Tie Beams and Acoustic Panels for Noise Enclosure at Zone 3
- Pipe Piles, Barrette, Caps/Footings, Steel Columns, Girder Beams, Steel Posts, Steel Main Beams, Steel Tie Beams, Acoustic Panels and Smoke Van. Panels for Noise Enclosure at Zone 2
- A.3 A summary of regular construction noise and construction dust monitoring activities in this reporting period is listed below:

### Regular construction noise monitoring during normal working hours

W-N1A, W-P11, W-N18, W-N25A 5 times

**Construction dust (24-hour TSP) monitoring** 

W-A1 5 times W-A6 5 times

Construction dust (1-hour TSP) monitoring

W-A1, W-A6 15 times

- A.4 Bi-weekly inspection of the implementation of landscape and visual mitigation measures was conducted on 14 and 27 August 2025. Details of the audit findings and implementation status are presented in Section 5.
- A.5 Joint weekly site inspections were conducted by representatives of the Environmental Team (ET), Contractor and Engineer on 07, 14, 21 and 27 August 2025. One joint site inspection with IEC was also undertaken on 27 August 2025. Details of the audit findings and implementation status are presented in Section 5.
- A.6 Details of waste management are presented in Section 3.
- A.7 Four Action Levels of construction noise were triggered during the reporting month as four documented complaints regarding noise were received. No exceedance of Limit Level of construction noise was recorded in the reporting month. No exceedance of the Action and Limit Level of 24-hour TSP and 1-hour TSP was recorded in the reporting month.

- A.8 A total of six environmental complaints were received in the reporting month. After investigation with the Contractor, precautionary measures had been proposed to the Contractor by ET. The interim reports for the complaints are shown in Appendix Q.
- A.9 No non-compliance was reported in the reporting month.
- A.10 No notification of summon or prosecution was received in this reporting month.
- A.11 A summary of the construction activities provided by Main Contractor in the next reporting month is listed below:

### **Construction Activities to be undertaken**

- Backfilling and reinstatement works at Zones A, B, C, D, F & G
- Bridge Works:
  - i. P2R to P7R Continue construction of longitudinal stitch
  - ii. Repair works for existing GRF pavement
  - iii. Continue construction of MJ (Pier 1 and Pier 7) at Westbound
  - iv. Removal of temporary kerbs at railing at Eastbound
- Continue installation of secondary tie beams and acoustic panels, smoke ventilation panels, welding splice joints of main beams and installation of MIC module for PMMA panels for Noise Enclosure F02 in Zone 3 (night works). Continue piling works at Portion 2 and construct ground beams at Portion 1 along Ching Ping Street for C07 Noise Enclosure.
- Works at Zone 2 Noise Enclosure are as the followings:
  - i. Complete girder beam installation & welding joints for IMG5. Columns A to A1 (stage 1)
  - ii. Installation of posts and main beams with temporary supports East side
- Works at Zone 1 Noise Enclosure Continue install steel posts and steel main beams, secondary tie beams, installation of smoke ventilation panels, absorptive panels and PMMA panels at the West side of Noise Enclosure Zone 1.
- Noise Enclosure steelworks fabrication at the yards in Zhuhai, China
- Monitoring of instrumentation for all areas

### 1. BASIC PROJECT INFORMATION

- 1.1. Central Kowloon Route (CKR) is a 4.7 km long dual 3-lane trunk road in Central Kowloon linking Yau Ma Tei Interchange in West Kowloon with the road network on Kai Tak Development and Kowloon Bay in East Kowloon.
- 1.2. The Central Kowloon Route Design and Construction Environmental Impact Assessment Report (Register No.: AEIAR-171/2013) was approved with conditions by the Environmental Protection Department (EPD) on 11 July 2013. An Environmental Permit (EP 457/2013) was issued on 9 August 2013. Variations of EP (VEP) was applied for and the EP (EP-457/2013/C) was issued by EPD on 16 January 2017. Variations of EP (VEP) was subsequently applied for and the latest EP (EP-457/2013/D) was issued by EPD on 15 June 2021. A Further EP (FEP-03/457/2013/D) was issued by EPD on 5 November 2021.
- 1.3. The construction of the CKR had been divided into different sections. This Contract No. HY/2014/08 Section of Yau Ma Tei East (YMTE) covers part of the construction activities located at Yau Ma Tei under the EP and FEP which includes:
  - Section of Yau Ma Tei Fast
  - i. Construction of Cut-and-Cover Tunnel in compliance with all statutory requirements and the requirements specified under the Contract while maintaining the traffic with all necessary provisions
  - ii. Construction and subsequent handover of Yau Ma Tei Access Shaft for facilitating the access and use by the contractor of Central Kowloon Route Central Tunnel contract
  - iii. Demolition of existing buildings including Yau Ma Tei Multi-storey Carpark Building, Yau Ma Tei Specialist Clinic Extension Building and Yau Ma Tei Jade Hawker Bazaars
  - iv. Demolition and re-provisioning of Gascoigne Road Flyover and the underpinning works for the existing Ferry Street Flyover and Yau Ma Tei Police Station New Wing Building
  - v. Construction of civil provisions and coordination with the contractor of Central Kowloon Route Tunnel Electrical & Mechanical contract
  - vi. Design and construction of Noise Barrier Works
  - vii. Prepare temporary traffic arrangement proposals, discuss at Traffic Management Liaison Group meeting and obtain its agreement and approval/endorsement from relevant authorities at suitable times to enable the execution of the Works

The alignment and works area for the Contract No. HY/2014/08 - are shown in Appendix A.

1.4. A summary of the major construction activities undertaken in this reporting period is shown in Table 1.1. The construction programme is presented in Appendix B.

Table 1.1 Summary of the Construction Activities reported by Main Contractor during the Reporting Month

### **Construction Activities undertaken**

- Backfilling and UU reinstatement works at Zones A, B, C, D, F & G
- Constructing W/B RGRF Deck at P1R-P7R
- Constructing socketed H-piles, pile caps, ground beams, RC columns, Steel Posts, Steel Main Beams, Steel Tie Beams and Acoustic Panels for Noise Enclosure at Zone 3
- Pipe Piles, Barrette, Caps/Footings, Steel Columns, Girder Beams, Steel Posts, Steel Main Beams, Steel Tie Beams, Acoustic Panels and Smoke Van. Panels for Noise Enclosure at Zone 2
  - 1.5. The project organisational chart specifying management structure and contact details are shown in Appendix C.
  - 1.6. A summary of the valid permits, licences, and /or notifications on environmental protection for this Project is presented in Table 1.2.

Table 1.2 Summary of the Status of Valid Environmental Licence

### Notification, Permit and Documentations

Permit/ Licences/	Valid	Period			
Notification	y and	Cilou	Status	Remark	
/Reference No.	From	To	Status	Kemark	
Environmental Permit					
EP-457/2013/D	15 Jun 2021	End of Duciost	Valid	1	
		End of Project	vand	-	
Further Environmental		I = 1 0 = 1	** 1.1	T	
FEP-03/457/2013/D	5 Nov 2021	End of Project	Valid		
Wastewater Discharge I		T			
WT00043433-2023	14 Aug 2024	31 Mar 2028	Valid	-	
WT00045552-2024	21 Nov 2024	30 Nov 2029	Valid	-	
<b>Notification of Construc</b>	ction Works unde	er the Air Pollutio	on Control (Const	truction Dust) Regulation	
471691	14 Sep 2021	End of Project	Notified	-	
<b>Chemical Waste Produc</b>	er Registration				
WPN5213-225-B2526-		E. 1. CD	37.11.1		
01	14 Mar 2018	End of Project	Valid	-	
Billing Account for Disp	osal of Construc	tion Waste			
7029997	1 Feb 2018	End of Project	Valid	-	
<b>Construction Noise Peri</b>	Construction Noise Permit				
				Construction Noise Permit at	
GW-RE0223-25	12 Mar 2025	11 Sep 2025	Valid	Zone B1-B3, C & F and	
		1		Column C & D	
				Construction Noise Permit	
GW-RE0307-25	5 Apr 2025	4 Oct 2025	Valid	for Zone A & B and Column	
	_			A	
				Construction Noise Permit at	
GW-RE0366-25	7 Apr 2025	3 Oct 2025	Valid	Zone B1-B3, C & F and	
				Column C & D	
				Construction Noise Permit	
GW-RE0420-25	14 Apr 2025	9 Oct 2025	Valid	for Welding at Column E, G	
				& H	

Permit/ Licences/	Valid	Period			
Notification /Reference No.	From	То	Status	Remark	
GW-RE0541-25	21 May 2025	20 Nov 2025	Valid	Construction Noise Permit at Zone B1-B3, C & F and Column C & D	
GW-RE0603-25	2 Jun 2025	31 Aug 2025	Expired during reporting month	Construction Noise Permit for Construction of Parapet Wall at GRF near Shanghai Street	
GW-RE0616-25	2 Jun 2025	31 Aug 2025	Expired during reporting month	Construction Noise Permit for Construction of Parapet Wall at Reclamation Street	
GW-RE0619-25	2 Jun 2025	31 Aug 2025	Expired during reporting month	Construction Noise Permit for Construction of Parapet Wall at Temple Street	
GW-RE0628-25	11 Jun 2025	31 Aug 2025	Expired during reporting month	Construction Noise Permit for Erection of Enclosure at Zone 3 and Stitching Works of GRF	
GW-RE0745-25	28 Jun 2025	27 Dec 2025	Valid	Construction Noise Permit at Zone D & G	
GW-RE0757-25	1 Jul 2025	30 Sep 2025	Valid	Construction Noise Permit for Column Lifting at Column E	
GW-RE0864-25	26 Jul 2025	31 Aug 2025	Expired during reporting month	Construction Noise Permit for TTA Implementation at Ferry Street, Kansu Street and Yan Cheung Road	
GW-RE0871-25	30 Jul 2025	30 Sep 2025	Valid	Erection of Enclosure at Zone 1-3 and Stitching Works of GRF	
GW-RE0940-25	15 Aug 2025	31 Oct 2025	Valid	TTA Modification at Yau Cheung Road	
GW-RE0903-25	9 Aug 2025	31 Oct 2025	Valid	Construction Noise Permit for Erection of Temporary Support for Girder Beam Installation of Noise Enclosure at Ferry Street Southbound	
GW-RE0942-25	15 Aug 2025	31 Oct 2025	Valid	TTA Implementation for Reprovisioning of Gascoigne Road Flyover	
GW-RE0988-25	20 Aug 2025	31 Aug 2025	Expired during reporting month	Construction Noise Permit for Construction of Parapet Wall at GRF near Shanghai Street	
	N	Marine Dumping	g Permit		
Nil	-	-	-	-	

### 2. ENVIRONMENTAL STATUS

2.1. 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-457/2013/D) and FEP (FEP-03/457/2013/D) as of the reporting period for the Project are summarised in Table 2.1

Table 2.1 Summary of Status of Required Submission for EP-457/2013/D and FEP-03/457/2013/D for the Project

EP/FEP Condition (EP-457/2013/D) (FEP-03/457/2013/D)	Submission	Submission date
Condition 3.4	Monthly EM&A Report (July 2025)	08 August 2025

2.2. Details of the major construction activities reported by Main Contractor in this reporting period are shown in Table 2.2.

Table 2.2 Summary of the Construction Activities reported by Main Contractor during the Reporting Month

Co	nstruction activities undertaken	Re	marks on progress
•	Backfilling and UU reinstatement works at Zones A, B, C, D, F & G	•	80% completion
•	Construct W/B RGRF Deck at P1R-P7R	•	98% completion
•	Construct socketed H-piles, pile caps, ground beams, RC columns,	•	85% completion
	Steel Posts, Steel Main Beams, Steel Tie Beams and Acoustic Panels		
	for Noise Enclosure at Zone 3		
•	Pipe Piles, Barrette, Caps/Footings, Steel Columns, Girder Beams,	•	48% completion
	Steel Posts, Steel Main Beams, Steel Tie Beams, Acoustic Panels and		
	Smoke Van. Panels for Noise Enclosure at Zone 2		

2.3. The drawing showing the project layout and the location of the monitoring station and environmental sensitive receivers are attached in Appendix A and Appendix K. Co-ordinates of the monitoring location are shown in Table 2.3.

Table 2.3 Summary for the location of the monitoring station

Monitoring Location	<b>Location ID</b>	Latitude	Longitude
Yau Ma Tei Catholic Primary School (Hoi Wang Road)*	W-A1/ W-N1A	22.31345	114.16409
Man Cheong Building	W-A6	22.308185	114.166033
Hydan Place	W-N18	22.30858	114.170185
Prosperous Garden Block 1	W-N25A	22.309846	114.168072
The Coronation Tower 1	W-P11	22.309824	114.165616

Remark: \*The High Volume Sampler (HVS) at dust impact monitoring location W-A1 had been relocated on 6 Sep 2022 due to installation work of PV panel at Yau Ma Tei Catholic Primary School. The relocation of HVS was approved by ER and agreed with IEC.

### 3. MONITORING RESULTS

3.1. Monitoring Parameters

### **Air Quality**

- 3.1.1. The impact monitoring had been carried out in accordance with section 5.8 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.
- 3.1.2. 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.
- 3.1.3. 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.

### Noise

- 3.1.4. Construction noise level shall be measured in terms of the A-weighted equivalent continuous sound pressure level (L<sub>eq</sub>). Leq (30min) shall be used as the monitoring parameter for the time period between 0700 and 1900 hours on normal weekdays.
- 3.1.5. For all other time periods, Leq (5min) shall be employed for comparison with the Noise Control Ordinance (NCO) criteria.
- 3.1.6. As supplementary information for data auditing, statistical results such as  $L_{10}$  and  $L_{90}$  shall also be obtained for reference.
- 3.2. Monitoring Equipment

### **Air Quality**

- 3.2.1. 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).
- 3.2.2. 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 certificates of dust monitoring equipment are attached in Appendix H.
- 3.2.3. A summary of the equipment that was deployed for the 24- hour averaged monitoring is shown in Table 3.1. The TSP monitoring was conducted as per the schedule presented in Appendix G.

3.2.4. The equipment used for 1-hour TSP and 24-hour TSP measurement and calibration are summarised in Table 3.1

Monitoring Parameter	Monitoring Equipment	Serial Number	Date of Calibration
	LD-5R Digital Dust Indicator	761173	23 Feb 2025
1-hour TSP	LD-5R Digital Dust Indicator	761174	23 Feb 2025
1-Hour 1SP	LD-5R Digital Dust Indicator	851816	23 Feb 2025
	LD-5R Digital Dust Indicator	851817	23 Feb 2025
	TE-5170X High Volume	1084	01 August 2025 and
	Sampler		16 August 2025
24-hour TSP	TE-5170X High Volume	1050	01 August 2025 and
	Sampler		16 August 2025
	TE-5025A Calibration Kit	3465	02 Dec 2024

Table 3.1 Construction Dust Monitoring Equipment

### Noise

- 3.2.5. Sound level meter in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications has been used for carrying out the noise monitoring. The sound level meter has been checked using an acoustic calibrator. The wind speed and other metrological data has been recorded from Hong Kong Observatory- King's Park meteorological station, along with portable wind speed meter stand by as back up when the information are not available from HKO.
- 3.2.6. Acoustic calibrators and sound level meters using for the monitoring is within the valid period and were calibrated per year. Valid calibration certificate of noise monitoring equipment is attached in Appendix I.
- 3.2.7. The details of equipment using for monitoring are listed in Table 3.2, as below:

	$\mathcal{E}$ 1 1	$\mathcal{E}$
Monitoring Equipment	Serial Number	Date of Calibration
Nti XL3 Sound Level Meter	A3A-01229-F0	24 Jul 2025
Nti XL3 Sound Level Meter	A3A-01220-F0	03 Sep 2024
Rion NC-75 Sound Level Calibrator	35124528	13 Feb 2025

Table 3.2 Monitoring Equipment Used in Monitoring

3.3. Monitoring Methodology and QA/QC results

### **Air Quality**

- 3.3.1. The 1-hour TSP monitor, portable dust meters (Sibata Digital Dust Indicator Model LD-5R and PC-3A(E) digital dust indicator) were 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.
- 3.3.2. 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 1<sup>st</sup> 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 J;
- ◆ The airflow over time during sampling process was recorded by the HVS.

# 3.3.3. HVSs were 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.

### 3.3.4. 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.

### 3.3.5. 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 0.64-1.52m³min⁻¹, which was within the range specified in the EM&A Manual (i.e. 0.6-1.7m³min⁻¹);

- ◆ The programmable timer was set for a sampling period of 24 hours, 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.

### 3.3.6. 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 H.

### 3.3.7. Wind Data Monitoring

♦ The wind speed has been recorded from Hong Kong Observatory- King's Park meteorological station, along with portable wind speed meter stand by as back up when the information are not available from HKO.

### Noise

- 3.3.8. All noise measurements by the meter were set to FAST response and on the A-weighted equivalent continuous sound pressure level (L<sub>eq</sub>) in decibels dB(A). L<sub>Aeq(30min)</sub> was used as the monitoring metric for the time period between 0700 –1900 hours on normal weekdays. The measured noise levels were logged every 5 minutes throughout the monitoring period.
- 3.3.9. Prior to the noise measurement, the accuracy of the sound level meter was checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Checking was conducted before and after the monitoring. The calibration level before and after the noise measurement is agreed to within 1.0 dB(A).
- 3.3.10. Noise measurements should not be made in presence of fog, rain, wind with a steady speed exceeding 5 ms<sup>-1</sup> or wind with gusts exceeding 10 ms<sup>-1</sup>. The wind speed was checked with a portable wind speed meter capable of measuring with speeds in ms<sup>-1</sup>.

### 3.4. Monitoring Locations

### **Air Quality**

3.4.1. During the site visit, both of the original proposed dust monitoring locations were rejected due to the condition at The Coronation was not favourable for monitoring and the access was declined by the management office of Hong Kong Community College (HKCC) of PolyU. Two alternative air monitoring stations Yau Ma Tei Catholic Primary School (Hoi Wang Road) and Man Cheong Building had been proposed by ET and approved by IEC. 2 designated air monitoring locations were identified and agreed with IEC and EPD. Details of air monitoring stations are described in Table 3.3. The location plan of air quality monitoring stations is shown in Appendix K.

Table 3.3 Location of the Dust Monitoring Stations

Air Quality Monitoring Station	Dust Monitoring Station
W-A1	Yau Ma Tei Catholic Primary School (Hoi Wang Road)
W-A6	Man Cheong Building

### **Noise**

3.4.2. During the site visit, one of the original proposed noise monitoring locations Tak Cheong Building was rejected by the president of the owner's corporation. Alternative noise monitoring station Hydan place had been proposed by ET and approved by IEC. 4 noise sensitive receivers designated noise monitoring locations were identified and agreed with IEC and EPD. The designated monitoring stations are identified and access was granted by the premises. The details of noise monitoring stations are described in Table 3.4 and the location plan of noise monitoring station is shown in Appendix K.

Table 3.4 Noise Monitoring Stations

Noise Monitoring Station	Identified Noise Monitoring Station	Type of Measurement
W-N1A	Yau Ma Tei Catholic Primary School (Hoi Wang Road)	Façade
W-N18	Hydan Place	Façade
W-N25A	Prosperous Garden Block 1	Façade
W-P11	The Coronation Tower 1	Façade

- 3.5. Monitoring date, time, frequency and duration
- 3.5.1. A summary of impact monitoring duration, sampling parameter and frequency is presented in Table 3.5.

Impact Duration **Sampling Parameter Frequency** Monitoring 1-hour continuous 1-hour TSP Dust 3 times per six days measurement 24-hour continuous Dust 24-hour TSP Once per six days sampling 30-minute continuous Leq 30 min, Noise Once per week (0700 - 1900)measurement L<sub>10</sub> and L<sub>90</sub> as reference.

Table 3.5 Summary of Impact Monitoring Programme

3.6. Result Summary

### **Air Quality**

3.6.1. According to our field observations, the major dust source identified at the designated air quality monitoring stations in the reporting month are summarised in Table 3.6.

Table 3.6 Observation at Dust Monitoring Stations

Monitoring Station	Major Dust Source	
W-A1	Nearby traffic	
W-A6	Nearby traffic	

- 3.6.2. Air quality impact monitoring for the reporting month was carried out on 06, 11, 14, 20 and 26 August 2025. The monitoring works originally scheduled on 05 August 2025 was rescheduled to 06 August 2025 due to unfavourable weather conditions. The Weather Warning and Signals Record could be found in Appendix R.
- 3.6.3. The results for 1-hour TSP and 24-hour TSP are summarized in Table 3.7 and Table 3.8. The measurement data and details of influencing factors such as weather conditions and site observation are presented in Appendix L.

Table 3.7 Summary of 1-hour TSP Monitoring Results

<b>Monitoring Location</b>	Range(µg/m³)	Action Level(µg/m3)	Limit Level(µg/m3)
W-A1	13 - 43	319	500
W-A6	18 – 43	306	500

Table 3.8 Summary of 24-hour TSP Monitoring Results

Monitoring Location	Range(µg/m³)	Action Level(μg/m3)	Limit Level(µg/m3)
W-A1	30 – 46	167	260
W-A6	29 – 61	166	260

### Noise

3.6.4. According to our field observations, the major noise source identified at the designated noise monitoring station in the reporting month are summarised in Table 3.9:

Monitoring Station

W-N1A

Wearby traffic

W-N18

Nearby traffic

W-N25A

Nearby traffic

W-P11

Nearby traffic

Table 3.9 Observation at Noise Monitoring Stations

- 3.6.5. The construction noise impact monitoring for the reporting month was carried out on 06, 11, 14, 20 and 26 August 2025. The monitoring works originally scheduled on 05 August 2025 was rescheduled to 06 August 2025 due to unfavourable weather conditions. The Weather Warning and Signals Record could be found in Appendix R.
- 3.6.6. The result for noise monitoring is summarized in Table 3.10. The measurement data are shown in Appendix M.

Time **Monitoring** Range, dB(A) Parameter Period location **Action Level** Limit Level#  $L_{eq}$  $L_{10}$  $L_{90}$ 70dB(A) or 65 W-N1A\* 58.2 - 60.859.2 - 64.956.8 - 58.5dB(A) during examination W-N18 61.9 - 69.664.3 - 72.460.0 - 66.5Normal When one working Leq documented hour from 30min complaint is 0700-1900 received W-N25A 75dB(A)# 66.9 - 73.470.2 - 75.465.4 - 71.6W-P11 62.9 - 74.160.9 - 71.259.3 - 67.8

Table 3.10 Summary of Noise Monitoring Results

Remarks:

- 1. # If works are to be carried out during restricted hours, the conditions stipulated in the construction noise permit by the Noise Control Authority have to be followed.
- 2. \* Examination was not scheduled at Yau Ma Tei Catholic Primary School during the reporting month.

### Waste management

3.6.7. The waste generated from this Project includes inert 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 3.11. Details of cumulative waste management data are presented as a waste flow table in Appendix N.

Table 3.11 Quantities of waste generated from the Project

	Quantity					
Reporting period		Non-inert C&D Materials				
		Others, e.g.	Recy	ycled material	s	
	Inert C&D Materials (in 'tonnes)	Chemical Waste (in'000 Kg)	General Refuse disposed	Paper/card board (in '000 Kg)		Metals (in '000 Kg )
August 2025	3410.20	0.00	75.20	0.80	0.00	91.80

# 4. SUMMARY OF COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTIONS

4.1. The Environmental Complaint Handling Procedure is shown in below Table 4.1:

Table 4.1 Environmental Complaint Handling Procedure

Complaint Received via 1823 or from other government departments				
ER notify Contractor, ET and IEC				
to the complaint database. Contractor, ER and ET to gation of complaint				
If complaint is found valid				
Contractor to identify and implement remedial measures in consultation with the IEC, ET and ER.				
The ER, ET and IEC to review the effectiveness of the Contractor's remedial measures and the updated situation; ET to undertake additional monitoring and audit to verify the situation if necessary, and oversee that circumstances leading to the complaint do not recur. ER to conduct further inspection as necessary.				
If the complaint is referred by the EPD, the Contractor to prepare interim report on the status of the complaint investigation and follow-up actions stipulated above, including the details of the remedial measures and additional monitoring identified or already taken, for submission to EPD within the time frame assigned by the EPD				

The ET to record the details of the complaint, results of the investigation, subsequent actions taken to address the complaint and updated situation including the effectiveness of the remedial measures, supported by regular and additional monitoring results in the monthly EM&A reports

- 4.2. Should non-compliance of the criteria occur, action in accordance with the Event and Action Plan in Appendix D and Appendix E shall be carried out.
- 4.3. Four Action Levels of construction noise were triggered during the reporting month as four documented complaints regarding noise was received. No exceedance of Limit Level of construction noise was recorded in the reporting month. No exceedance of the Action and Limit Level of 24-hour TSP and 1-hour TSP was recorded in the reporting month.
- 4.4. A total of six environmental complaints were received in the reporting month. After investigation with Contractor, precautionary measures had been proposed to the Contractor by ET. The interim reports for the complaints are shown in Appendix Q.
- 4.5. No non-compliance was reported in the reporting month.
- 4.6. No notification of summon and prosecution was received in the reporting period.
- 4.7. Statistics on complaints, notifications of summons and successful prosecutions are summarized in Appendix O.

### 5. EM&A SITE INSPECTION

- 5.1. 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, four (4) site inspections were carried out on 07, 14, 21 and 27 August 2025, along with bi-weekly inspection of the implementation of landscape and visual mitigation measures conducted on 14 and 27 August 2025.
- 5.2. One joint site inspection with IEC also undertaken on 27 August 2025. Minor deficiencies were observed during weekly site inspection. Key observations during the site inspections are summarized in Table 5.1.

**Environmental Observations** Date Follow-up Status 1. At Zone B3, NRMM labels are to be placed on PMEs at where it could be 1. The two excavators in Zone B3 were easily seen. removed from the works area. 07 August 2025 2. At Ching Ping Street, sandbags should 2. Strom drains were protected properly with sandbags at Ching Ping Street. be provided surrounding the storm drains on site. 1. At Gascoigne Road Flyover, housekeeping should be enhanced. 1. At Gascoigne Road Flyover, the 2. At Zone G, an excavator was observed housekeeping of the site area was without the display of NRMM label. enhanced. NRMM label should be fixed and 14 August 2025 2. The NRMM label was displayed on the displayed at a conspicuous position of excavator conspicuously. the machine. 3. Noise barrier canvas was deployed for 3. At Zone 3, noise barrier canvas should the air compressor. be deployed for the air compressor to minimise noise impact. 1. At Zone 3, Zone P6 and Zone F. chemicals on site should be placed on 1. The chemical containers were removed drip tray. If the containers are emptied, by the sub-contractors. 21 August 2025 they should be removed properly. 2. The excavator was removed from the 2. At Zone F, NRMM labels should be works area. applied to the PMEs on site. 1. At Yau Ma Tei Jockey Club Polyclinic 1. The chemical containers and the and Canton Road, chemicals and 27 August 2025 breakers on site should be placed on breaker were removed. drip tray or on impervious sheets.

Table 5.1 Site Observations

- 5.3. The Contractor had rectified all observation identified during environmental site inspection in the reporting period.
- 5.4. 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 F.

### 6. FUTURE KEY ISSUES

6.1. The construction activities provided by Main Contractor in the next reporting month are:

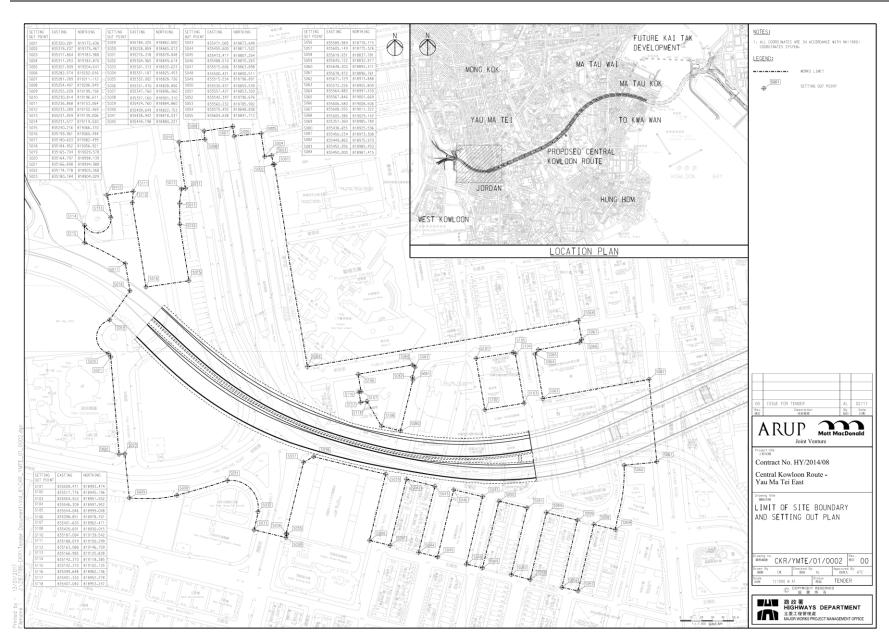
### **Construction Activities to be undertaken**

- Backfilling and reinstatement works at Zones A, B, C, D, F & G
- Bridge Works:
  - i. P2R to P7R Continue construction of longitudinal stitch
  - ii. Repair works for existing GRF pavement
  - iii. Continue construction of MJ (Pier 1 and Pier 7) at Westbound
  - iv. Removal of temporary kerbs at railing at Eastbound
- Continue installation of secondary tie beams and acoustic panels, smoke ventilation panels, welding splice joints of main beams and installation of MIC module for PMMA panels for Noise Enclosure F02 in Zone 3 (night works). Continue piling works at Portion 2 and construct ground beams at Portion 1 along Ching Ping Street for C07 Noise Enclosure.
- Works at Zone 2 Noise Enclosure are as the followings:
  - i. Complete girder beam installation & welding joints for IMG5. Columns A to A1 (stage 1)
  - ii. Installation of posts and main beams with temporary supports East side
- Works at Zone 1 Noise Enclosure Continue install steel posts and steel main beams, secondary tie beams, installation of smoke ventilation panels, absorptive panels and PMMA panels at the West side of Noise Enclosure Zone 1.
- Noise Enclosure steelworks fabrication at the yards in Zhuhai, China
- Monitoring of instrumentation for all areas
- 6.2. Potential environmental impacts arising from the above construction activities are mainly associated with dust, construction noise and waste management.
- 6.3. The tentative schedule of regular construction noise, 1-hour TSP and 24-hour TSP monitoring in the next reporting period is presented in Appendix P.
- 6.4. The construction programme for the Project for the next reporting month is presented in Appendix B.

### 7. CONCLUSION AND RECOMMENDATIONS

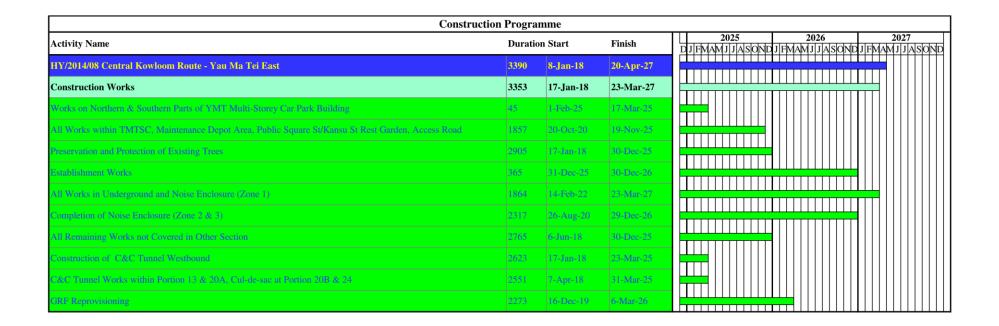
- 7.1. This 89<sup>th</sup> monthly EM&A Report presents the EM&A works undertaken during the period from 01 August 2025 to 31 August 2025 in accordance with the EM&A Manual and the requirement under EP- 457/2013/D and FEP-03/457/2013/D.
- 7.2. Four Action Levels of construction noise were triggered during the reporting month as four documented complaints regarding noise were received. No exceedance of Limit Level of construction noise was recorded in the reporting month. No exceedance of the Action and Limit Level of 24-hour TSP and 1-hour TSP was recorded in the reporting month.
- 7.3. A total of six environmental complaints were received in the reporting month. After investigation with Contractor, precautionary measures had been proposed to the Contractor by ET. The interim reports for the complaints are shown in Appendix Q.
- 7.4. No non-compliance was reported in the reporting month.
- 7.5. No notification of summons or prosecution was received in the reporting month.
- 7.6. The ET will keep track on the construction works to confirm compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

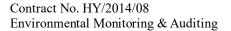
Contract No. HY/2014/08 Environmental Monitoring & Auditing
Appendix A
Alignment and Works Area For the Contract No.
HY/2014/08



Contract No. HY/2014/08
Environmental Monitoring & Auditing

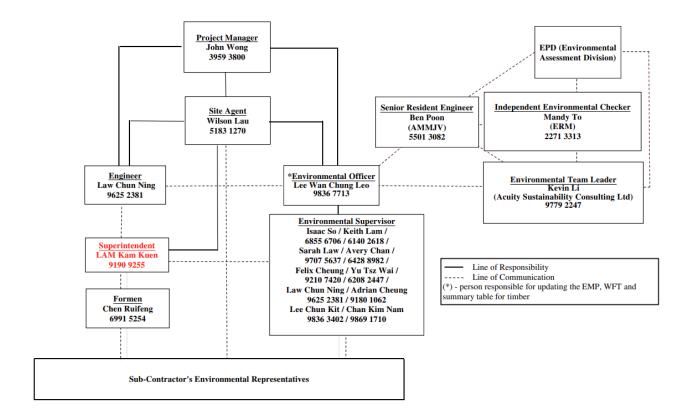
Appendix B
Construction Programme

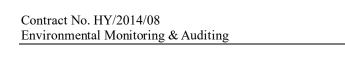




Appendix C Project Organization Chart

# **Project O-Chart**





Appendix D

Dust Event-Action Plan (EAP)

EVENT	ACTION						
EVENI	ET	IEC	ER	CONTRACTOR			
ACTION LEV	ACTION LEVEL						
1.Exceedance for one sample	Identify source, investigate the causes of exceedance and propose remedial measures;     Inform IEC and ER;     Repeat measurement to confirm finding;     Increase monitoring frequency to daily.	<ol> <li>Check monitoring data submitted by ET;</li> <li>Check Contractor's working method.</li> </ol>	1. Notify Contractor.	<ol> <li>Rectify any unacceptable practice;</li> <li>Amend working methods if appropriate.</li> </ol>			
2.Exceedance for two or more consecutive samples	<ol> <li>Identify source;</li> <li>Inform IEC and ER;</li> <li>Advise the ER 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 ER;</li> <li>If exceedance stops, cease additional monitoring.</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 ET on the effectiveness of the proposed remedial measures;</li> <li>Supervise Implementation of remedial measures.</li> </ol>	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	<ol> <li>Submit proposals for remedial to ER within 3 working days of notification;</li> <li>Implement the agreed proposals;</li> <li>Amend proposal if appropriate.</li> </ol>			
LIMIT LEVEL			•				
1.Exceedance for one sample	Identify source, investigate the causes of exceedance and propose remedial measures;     Inform ER, Contractor and	<ol> <li>Check monitoring data submitted by ET;</li> <li>Check Contractor's working method;</li> </ol>	Confirm receipt of notification of failure in writing;     Notify Contractor;	Take immediate action to avoid further exceedance;     Submit proposals for remedial actions to IEC			

EVENT	ACTION				
EVENI	ET	IEC	ER	CONTRACTOR	
	<ul> <li>EPD;</li> <li>3. Repeat measurement to confirm finding;</li> <li>4. Increase monitoring frequency to daily;</li> <li>5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results.</li> </ul>	<ul> <li>3. Discuss with ET and Contractor on possible remedial measures;</li> <li>4. Advise the ER on the effectiveness of the proposed remedial measures;</li> <li>5. Supervise implementation of remedial measures.</li> </ul>	3. Ensure remedial measures properly implemented.	within 3 working days of notification; Implement the agreed proposals; 4. Amend proposal if appropriate.	
2.Exceedance for two or more consecutive samples	<ol> <li>Notify IEC, ER, 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 possible mitigation to be implemented;</li> <li>Arrange meeting with IEC and ER to discuss the remedial actions to be taken;</li> <li>Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results;</li> <li>If exceedance stops, cease additional monitoring.</li> </ol>	<ol> <li>Discuss amongst ER, ET, and Contractor on the potential remedial actions;</li> <li>Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly;</li> <li>Supervise the implementation of remedial measures.</li> </ol>	<ol> <li>Confirm receipt of notification of failure 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 properly implemented;</li> <li>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.</li> </ol>	<ol> <li>Take immediate action to avoid further exceedance;</li> <li>Submit proposals for remedial actions to IEC within 3 working days of notification;</li> <li>Implement the agreed proposals;</li> <li>Resubmit proposals if problem still not under control;</li> <li>Stop the relevant portion of works as determined by the ER until the exceedance is abated.</li> </ol>	

Note:

ET – Environmental Team

ER – Engineer's Representative

IEC – Independent Environmental Checker



Appendix E Noise Event-Action Plan (EAP)

EVENT		ACTIO	)N	
	ET	IEC	ER	CONTRACTOR
Action Level	<ol> <li>Identify source, investigate the causes of exceedance and propose remedial measures;</li> <li>Notify IEC and Contractor;</li> <li>Report the results of investigation to the IEC, ER and Contractor;</li> <li>Discuss with the Contractor and formulate remedial measures;</li> <li>Increase monitoring frequency to check mitigation effectiveness.</li> </ol>	<ol> <li>Review the analysed results submitted by the ET;</li> <li>Review the proposed remedial measures by the Contractor and advise the ER accordingly;</li> <li>Supervise the implementation of remedial measures.</li> </ol>	<ol> <li>Confirm receipt of notification of failure in writing;</li> <li>Notify Contractor;</li> <li>Require Contractor to propose remedial measures for the analysed noise problem;</li> <li>Ensure remedial measures are properly implemented</li> </ol>	Submit noise mitigation proposals to IEC;     Implement noise mitigation proposals.
Limit	<ol> <li>Identify source;</li> <li>Inform IEC, ER, EPD and Contractor;</li> <li>Repeat measurements to confirm findings;</li> <li>Increase monitoring frequency;</li> <li>Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented;</li> <li>Inform IEC, ER and EPD the causes and actions taken for the exceedances;</li> <li>Assess effectiveness of Contractor's remedial actions</li> </ol>	<ol> <li>Discuss amongst ER, ET, and Contractor on the potential remedial actions;</li> <li>Review Contractors remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly;</li> <li>Supervise the implementation of remedial measures.</li> </ol>	<ol> <li>Confirm receipt of notification of failure in writing;</li> <li>Notify Contractor;</li> <li>Require Contractor to propose remedial measures for the analysed noise problem;</li> <li>Ensure remedial measures properly implemented;</li> <li>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</li> </ol>	<ol> <li>Take immediate action to avoid further exceedance;</li> <li>Submit proposals for remedial actions to IEC within 3 working days of notification;</li> <li>Implement the agreed proposals;</li> <li>Resubmit proposals if problem still not under control;</li> <li>Stop the relevant portion of works as determined by the ER until the exceedance is abated.</li> </ol>

EVENT	ACTION							
	ET	IEC	ER	CONTRACTOR				
	and keep IEC, EPD and ER informed of the results;		abated.					
	8. If exceedance stops, cease additional monitoring.							

Note:

ET – Environmental Team

IEC – Independent Environmental Checker

ER – Engineer's Representative

Appendix F
Environmental Mitigation Implementation
Schedule (EMIS)

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Objectives of the Recommende d Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and/ or standards to be achieved	Implementation Status
			Constru	ction Dust Impact				
S4.3.10	D1	The contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction Dust) Regulation	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction stage	APCO     To control the dust impact     To meet     HKAQO and     TM-EIA     criteria	Implemented
\$4.3.10	D2	• Mitigation measures in form of regular watering under a good site practice should be adopted. Watering once per hour on exposed worksites and haul road should be conducted to achieve dust removal efficiencies of 91.7%. While the above watering frequencies are to be followed, the extent of watering may vary depending on actual site conditions but should be sufficient to maintain an equivalent intensity of no less than 1.3 L/m² to achieve the dust removal efficiency.	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction stage	APCO     To control the dust impact     To meet     HKAQO and     TM-EIA     criteria	• Implemented
S4.3.10	D3	<ul> <li>Proper watering at exposed spoil should be undertaken throughout the construction phase;</li> <li>Any excavated or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading;</li> <li>Any dusty materials remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads;</li> <li>A stockpile of dusty material should not be</li> </ul>	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction stage	APCO     To control the dust impact     To meet     HKAQO and     TM-EIA     criteria	• Implemented

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Objectives of the Recommende d Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and/ or standards to be achieved	Implementation Status
		extended beyond the pedestrian barriers, fencing or traffic cones;  The load of dusty materials on a vehicle leaving a construction site should be covered entirely by impervious sheeting to ensure that the dusty materials do not leak from the vehicle.  Where practicable, vehicle washing facilities with high pressure water jet should be provided at every discernible or designated vehicle exit point. The area where vehicle washing takes place and the road section between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores;  When there are open excavation and reinstatement works, hoarding of not less than 2.4m high should be provided and properly maintained as far as practicable along the site boundary with provision for public crossing. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are properly maintained throughout the construction period;  The portion of any road leading only to construction site that is within 30m of a vehicle entrance or exit should be kept clear of dusty materials;  Surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operation takes place should be sprayed with water or a dust suppression chemical						

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Objectives of the Recommende d Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and/ or standards to be achieved	Implementation Status
S4.3.10	D6	<ul> <li>continuously;</li> <li>Any area that involves demolition activities should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet;</li> <li>Any skip hoist for material transport should be totally enclosed by impervious sheeting;</li> <li>Every stock of more than 20 bags of cement or dry-pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides;</li> <li>Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system</li> <li>Exposed earth should be properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shotcrete or other suitable surface stabilizer within six months after the last construction activity on the construction site or part of the construction site where the exposed earth lies.</li> <li>Implement regular dust monitoring under EM&amp;A programme during the construction stage.</li> </ul>	Monitoring of dust impact	Contractor	Selected rep. dust monitoring	Construction stage	• TM-EIA	• Implemented
			Construc	 tion Noise (Airborn	station e)			

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EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Objectives of the Recommende d Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and/or standards to be achieved	Implementation Status
\$5.4.1	N1	<ul> <li>Implement the following good site practices:</li> <li>Only well-maintained plant should be operated onsite and plant should be serviced regularly during the construction programme;</li> <li>Machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum;</li> <li>Plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs;</li> <li>Silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works;</li> <li>Mobile plant should be sited as far away from NSRs as possible and practicable;</li> <li>Material stockpiles, mobile container site office and other structures should be effectively utilized, where practicable, to screen noise from on-site construction activities.</li> </ul>	Control construction airborne noise	Contractor	All construction sites	Construction stage	• Annex 5, TM- EIAO	• Implemented
\$5.4.1	N2	Install temporary hoarding located on the site boundaries between noisy construction activities and NSRs. The conditions of hoardings shall be properly maintained throughout the construction period.	Reduce the construction noise levels at low-level zone of NSRs through partial screening	Contractor	All construction sites	Construction stage	• Annex 5, TM- EIAO	Implemented
\$5.4.1	N3	Install movable noise barriers (typical design is wooden framed barrier with a small-cantilevered on a skid footing with 25mm thick internal sound absorptive lining), acoustic mat or full enclosure,	Sreen the noisy plant items to be used at all construction	Contractor	All construction sites where practicable	Construction stage	Annex 5, TM- EIAO	Implemented, deficiency rectified after observation

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Objectives of the Recommende d Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and/ or standards to be achieved	Implementation Status
		screen the noisy plants including air compressors, generators and handheld breakers, etc.	sites					
S5.4.1	N4	Use 'Quiet plant'	Reduce the noise levels of plant items	Contractor	All construction sites where practicable	Construction stage	• Annex 5, TM- EIAO	Implemented
S5.4.1	N5	Loading/ unloading activities should be carried out inside the full enclosure of mucking out points.	Reduce the noise levels of loading/ unloading activities	Contractor	Mucking out locations	Construction stage	• Annex 5, TM- EIAO	Implemented
S5.4.1	N6	Sequencing operation of construction plants where practicable.	Operate sequentially within the same work site to reduce the construction airborne noise	Contractor	All construction sites where practicable	Construction stage	• Annex 5, TM- EIAO	Implemented
S5.4.1	N7	Implement a noise monitoring programme under EM&A programme.	Monitor the construction noise levels at the selected representative locations	Contractor ity (Construction Pl	Selected rep. noise monitoring station	Construction stage	• TM-EIAO	Implemented

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EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Objectives of the Recommende d Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and/ or standards to be achieved	Implementation Status
S6.9.1.1	W1	In accordance with the Practice Note for Professional Persons on Construction Site Drainage, Environmental Protection Department, 1994 (ProPECC PN1/94), construction phase mitigation measures shall include the following:  Construction Runoff  At the start of site establishment, perimeter cut-off drains to direct off-site water around the site should be constructed with internal drainage works and erosion and sedimentation control facilities implemented. Channels (both temporary and permanent drainage pipes and culverts), earth bunds or sand bag barriers should be provided on site to direct stormwater to silt removal facilities. The design of the temporary on-site drainage system will be undertaken by the contractor prior to the commencement of construction;  The dikes or embankments for flood protection should be implemented around the boundaries of earthwork areas. Temporary ditches should be provided to facilitate the runoff discharge into an appropriate watercourse, through a silt/ sediment trap. The sediment/ silt traps should be incorporated in the permanent drainage channels to enhance deposition rates;  The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94, which states that the retention time for silt/ sand traps should be 5 minutes under	To minimize water quality impact from the construction site runoff and general construction activities	Contractor	All construction sites where practicable	Construction stage	Water Pollution Control Ordinance ProPECC PN 1/94 TM-EIAO TM-DSS	Implemented, deficiency rectified after observation

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Objectives of the Recommende d Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and/ or standards to be achieved	Implementation Status
		maximum flow conditions. Sizes may vary depending upon the flow rate, but for a flow rate of 0.1 m3/s a sedimentation basin of 30 m3 would be required and for a flow rate of 0.5 m3/s the basin would be 150 m3. The detailed design of the sand/silt traps shall be undertaken by the contractor prior to the commencement of construction;  • All exposed earth areas should be completed and vegetated as soon as possible after earthworks have been completed, or alternatively, within 14 days of the cessation of earthworks where practicable. Exposed slope surfaces should be covered by tarpaulin or other means;  • The overall slope of the site should be kept to a minimum to reduce the erosive potential of surface water flows, and all traffic areas and access roads protected by coarse stone ballast. An additional advantage accruing from the use of crushed stone is the positive traction gained during prolonged periods of inclement weather and the reduction of surface sheet flows;  • All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rainstorms. Deposited silt and grit should be removed regularly and disposed of by spreading evenly over stable, vegetated areas;  • Measures should be taken to minimize the ingress of site drainage into excavations. If the excavation						

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Objectives of the Recommende d Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and/ or standards to be achieved	Implementation Status
		of trenches in wet periods is necessary, they should be dug and backfilled in short sections wherever practicable. Water pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities;  Open stockpiles of construction materials (for example, aggregates, sand and fill material) of more than 50m3 should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system;  Manholes should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and storm runoff being directed into foul sewers;  Precautions be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent or forecasted, and actions to be taken during or after rainstorms are summarized in Appendix A2 of ProPECC PN 1/94. Particular attention should be paid to the control of silty surface runoff during storm events, especially for areas located near steep slopes;  All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and site wheel washing facilities should be provided at every construction						

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		site exit where practicable. Wash-water should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel wash bay to the public road should be paved with sufficient backfall toward the wheel wash bay to prevent vehicle tracking of soil and silty water to public roads and drains;  Oil interceptors should be provided in the drainage system downstream of any oil/ fuel pollution sources. The oil interceptors should be emptied and cleaned regularly to prevent the release of oil and grease into the storm water drainage system after accidental spillage. A bypass should be provided for the oil interceptors to prevent flushing during heavy rain;  Construction solid waste, debris and rubbish on site should be collected, handled and disposed of properly to avoid water quality impacts;  All fuel tanks and storage areas should be provided with locks and sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled fuel oils from reaching water sensitive receivers nearby;  Adopt best management practices;  All earth works should be conducted sequentially to limit the amount of construction runoff generated from exposed areas during the wet season (April to January) as far as practicable.						

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S6.9.1.2	W2	<ul> <li>Cut-&amp;-cover tunneling work should be conducted sequentially to limit the amount of construction runoff generated from exposed areas during the wet season (April to January) as far as practicable.</li> <li>Uncontaminated discharge should pass through sedimentation tanks prior to off-site discharge;</li> <li>The wastewater with a high concentration of SS should be treated (e.g. by sedimentation tanks with sufficient retention time) before discharge. Oil interceptors would also be required to remove the oil, lubricants and grease from the wastewater;</li> <li>Direct discharge of the bentonite slurry (as a result of D-wall) is not allowed. It should be reconditioned and reused wherever practicable. Temporary storage locations (typically a properly closed warehouse) should be provided on site for any unused bentonite that needs to be transported away after all the related construction activities area completed. The requirements in ProPECC PN 1/94 should be adhered to in the handling and disposal of bentonite slurries.</li> </ul>	To minimize construction water quality impact from tunneling works	Contractor	All tunneling portion	Construction stage	Water     Pollution     Control     Ordinance     ProPECC PN     1/94     TM-DSS     TM-EIAO	• Implemented
S6.9.1.3	W3	Portable chemical toilets and sewage holding tanks are recommended for handling the construction sewage generated by the workforce. A licensed contractor should be employed to provide appropriate and adequate portable toilets and be	To minimize water quality from sewage effluent	Contractor	All construction sites where practicable	Construction stage	Water     Pollution     Control     Ordinance     TM-DSS	Implemented

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		responsible for appropriate disposal and maintenance.						
\$6.9.1.5	W4	<ul> <li>No direct discharge of groundwater from contaminated areas should be adopted.</li> <li>A discharge license under the WPCO through the Regional Office of EPD for groundwater discharge should be applied. Prior to the excavation works within these potentially contaminated areas, the groundwater quality should be reviewed during the process of discharge license application. The compliance to the Technical Memorandum on Standards for Effluents Discharged into Drainage on Sewerage Systems, Inland and Coastal Waters (TM-DSS) and the existence of prohibited substance should be confirmed. If the review results indicated that the groundwater to be generated from the excavation works would be contaminated, the contaminated groundwater should be either properly treated in compliance with the requirements of the TM-DSS or properly recharged into the ground.</li> <li>If wastewater treatment is deployed, the wastewater treatment unit shall deploy suitable treatment process (e.g. oil interceptor / activated carbon) to reduce the pollution level to an</li> </ul>	To minimize groundwater quality impact from contaminated area	Contractor	Excavation areas where contamination is found	Construction stage	Water     Pollution     Control     Ordinance     TM-DSS     TM-EIAO	• Implemented

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		acceptable standard and remove any prohibited substances (e.g. TPH) to undetectable range. All treated effluent from wastewater treatment plant shall meet the requirements as stated in TM-DSS and should be discharged into the foul sewers.  • If groundwater recharging wells are deployed, recharging wells should be installed as appropriate for recharging the contaminated groundwater back into the ground. The recharging wells should be selected at places where the groundwater quality will not be affected by the recharge operation as indicated in the Section 2.3 of TM-DSS. The baseline groundwater quality shall be determined prior to the selection of the recharge wells, and submit a working plan (including the laboratory analytical results showing the quality of groundwater at the proposed recharge location(s) as well as the pollutant levels of groundwater to be recharged) to EPD for agreement. Pollution levels of groundwater to be recharged shall not be higher than pollutant levels of ambient groundwater at the recharge well. Prior to recharge, any prohibited substances such as TPH products should be removed as necessary by installing the petrol interceptor.						
\$6.9.1.6	W6	Accidental Spillage  In order to prevent accidental spillage of chemicals, the following is recommended:	To minimize water quality impact from accidental	Contractor	All construction site where practicable	Construction stage	Water     Pollution     Control     Ordinance	Implemented

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		<ul> <li>All the tanks, containers, storage area should be bunded and the locations should be locked as far as possible from the sensitive watercourse and stormwater drains;</li> <li>The Contractor should register as a chemical waste producer if chemical wastes would be generated. Storage of chemical waste arising from the construction activities should be stored with suitable labels and warnings.</li> <li>Disposal of chemical wastes should be conducted in compliance with the requirements as stated in the Waste Disposal (Chemical Waste) (General) Regulation.</li> </ul>	spillage				<ul> <li>ProPECC PN 1/94</li> <li>TM-EIAO</li> <li>TM-DSS</li> </ul>	
			Waste Manage	ement (Construction	Waste)			
S7.4.1	WM1	On-site sorting of C&D material  Geological assessment should be carried out by competent persons on site during excavation to identify materials which are not suitable to use as aggregate in structural concrete (e.g. volcanic rock, Aplite dyke rock, etc.). Volcanic rock and Aplite dyke rock should be separated at the source sites as far as practicable and stored at designated stockpile area preventing them from delivering to crushing facilities. The crushing plant operator should also be reminded to set up measures to prevent unsuitable rock from ending up at concrete	Separation of unsuitable rock from ending up at concrete batching plants and be turned into concrete for structural use	Contractor	All construction sites	Construction stage	• DEVB (W) No. 6/2010	• Implemented

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\$7.5.1	WM2	batching plants and be turned into concrete for structural use. Details regarding control measures at source site and crushing facilities should be submitted by the Contractor for the Engineer to review and agree. In addition, site records should also be kept for the types of rock materials excavated and the traceability of delivery will be ensured with the implementation of Trip Ticket System and enforced by site supervisory staff as stipulated under DEVB TC(W) No. 6/2010 for tracking of the correct delivery to the rock crushing facilities for processing into aggregates. Alternative disposal option for the reuse of volcanic rock and Aplite Dyke rock, etc. should be explored.	Good site	Contractor	All	Construction stage	• Land	• Implemented
37.3.1	VVIVIZ	<ul> <li>Maintain temporary stockpiles and reuse excavated fill material for backfilling and reinstatement;</li> <li>Carry out on-site sorting;</li> <li>Make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate;</li> <li>Adopt 'selective demolition' technique to demolish the existing structures and facilities with a view to recovering broken concrete effectively for recycling purpose, where possible;</li> <li>Implement a trip-ticket system for each works contract to ensure that the disposal of C&amp;D materials are properly documented and verified; and</li> </ul>	practice to minimize the waste generation and recycle the C&D materials as far as practicable so as to reduce the amount for final disposal	Contractor	construction sites	Constituction stage	(Miscellaneo us Provisions) Ordinance  Waste Disposal Ordinance  ETWB TCW No. 19/2005	- implemented

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		Implement an enhanced Waste Management Plan similar to ETWBTC (Works) No. 19/2005 – "Environmental Management on Construction Sites" to encourage on-site sorting of C&D materials and to minimize their generation during the course of construction.						
S7.5.1	WM3	<ul> <li>Standard formwork or pre-fabrication should be used as far as practicable in order to minimize the arising of C&amp;D materials. The use of more durable formwork or plastic facing for the construction works should be considered. Use of wooden hoardings should not be used, as in other projects. Metal hoarding should be used to enhance the possibility of recycling. The purchasing of construction materials will be carefully planned in order to avoid over ordering and wastage;</li> <li>The Contractor should recycle as much of the C&amp;D materials as possible on-site. Public fill and C&amp;D waste should be segregated and stored in different containers or skips to enhance reuse or recycling of materials and their proper disposal. Where practicable, concrete and masonry can be crushed and used as fill. Steel reinforcement bar can be used by scrap steel mills. Different areas of the sites should be considered for such segregation and storage.</li> </ul>	Good site practice to minimize the waste generation and recycle the C&D materials as far as practicable so as to reduce the amount for final disposal	Contractor	All construction sites	Construction stage	Land     (Miscellaneo     us Provisions)     Ordinance     Waste     Disposal     Ordinance     ETWB TCW     No. 19/2005	• Implemented

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\$7.5.1	WM5	<ul> <li>All construction plant and equipment shall be designed and maintained to minimize the risk of silt, sediments, contaminants or other pollutants being released into the water column or deposited in the locations other than designated location;</li> <li>All vessels shall be sized such that adequate draft is maintained between vessels and the sea bed at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash;</li> <li>Before moving the vessels which are used for transporting dredged material, excess material shall be cleaned from the decks and exposed fittings of vessels and the excess materials shall never be dumped into the sea except at the approved locations;</li> <li>Adequate freeboard shall be maintained on barges to ensure that decks are not washed by wave action.</li> <li>The Contractors shall monitor all vessels transporting material to ensure that no dumping outside the approved location takes place. The Contractor shall keep and produce logs and other records to demonstrate compliance and that journeys are consistent with designated locations and copies of such records shall be submitted to the engineers;</li> <li>The Contractors shall comply with the conditions in the dumping license.</li> </ul>	To control pollution due to marine sediment	Contractor	Along CKR alignment	Construction stage	• ETWB TCW No. 34/2002	• Implemented

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		<ul> <li>All bottom dumping vessels (Hopper barges) shall be fitted with tight fittings seals to their bottom openings to prevent leakage of material;</li> <li>The material shall be placed into the disposal pit by bottom dumping;</li> <li>Contaminated marine mud shall be transported by spit barge of not less than 750m3 capacity and capable of rapid opening and discharge at the disposal site;</li> <li>Discharge shall be undertaken rapidly and the hoppers shall be closed immediately. Material adhering to the sides of the hopper shall not be washed out of the hopper and the hopper shall remain closed until the barge returns to the disposal site.</li> <li>For Type 3 special disposal treatment, sealing of contaminant with geosynthetic containment before dropping designated mud pit would be a possible arrangement. A geosynthetic containment method is a method whereby the sediments are sealed in geosynthetic containers and, the containers would be dropped into the designated contaminated mud pit where they would be covered by further mud disposal and later by the mud pit capping at the disposal site, thereby fulfilling the requirements for fully confined mud disposal.</li> </ul>						
\$7.5.1	WM6	Chemical Waste     Chemical waste that is produced, as defined by Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, should be handled in	Control the chemical waste and ensure proper storage,	Contractor	All construction sites	Construction stage	• Waste Disposal (Chemical Waste)	Implemented, deficiency rectified after observation

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		<ul> <li>accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes;</li> <li>Containers used for the storage of chemical wastes should be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed, have a capacity of less than 450 L unless the specification has been approved by EPD, and display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the regulation;</li> <li>The storage area for chemical wastes should be clearly labelled and used solely for the storage of chemical waste, enclosed on at least 3 sides, have an impermeable floor and bunding of sufficient capacity to accommodate 110% of the volume of the largest container or 20% of the total volume of waste stored in that area, whichever is the greatest, have adequate ventilation, covered to prevent rainfall entering, and arranged so that incompatible materials are adequately separated;</li> <li>Disposal of chemical waste should be via a licensed waste collector, be to a facility licensed to receive chemical waste, such as the Chemical Waste Treatment Centre which also offers a chemical waste collection service and can supply the necessary storage containers, or be to a reuser of the waste, under approval from EPD.</li> </ul>	handling and disposal				(General) Regulation Code of Practice on the Packaging, Labelling and Storage of Chemical Waste	

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S7.5.1	WM7	<ul> <li>General Refuse</li> <li>General refuse generated on-site should be stored in enclosed bins or compaction units separately from construction and chemical wastes;</li> <li>A reputable waste collector should be employed by the Contractor to remove general refuse from the site, separately from construction and chemical wastes, on a daily basis to minimize odour, pest and litter impacts. Burning of refuse on construction sites is prohibited by law.</li> <li>Aluminum cans are often recovered from the waste stream by individual collectors if they are segregated and made easily accessible. Separate labelled bins for their deposit should be provided if feasible;</li> <li>Office wastes can be reduced through the recycling of paper if volumes are large enough to warrant collection. Participation in a local collection scheme should be considered by the Contractor.</li> </ul>	Minimize production of the general refuse and avoid odour, pest and litter impacts	Contractor	All construction sites	Construction stage	Waste     Disposal     Ordinance	Implemented, deficiency rectified after observation
		series and a se considered by the contractor.	Land Contamin	ation				
S8.9 & Appendix 8.4	LC2	Prior to commencement of the excavation works at the contamination zone, the zone should be clearly marked out on site and the surface levels recorded.     Excavation of contaminated material should be undertaken using dedicated earth-moving plant.     The excavated contaminated soils would be stockpiled at designated area on site and covered by sheet to prevent dispersion of contamination	The contaminated soil will be excavated for on-site reuse	Contractor	РВН4	Prior to commencement of construction works within the contaminated area	Practice     Guide (PG)     for     Investigation     and     Remediation     of     Contaminate     d Land	Implemented

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		during stockpiling.  • The Contractor should pay attention to the selection of suitable groundwater lowering schemes and discharge points if the groundwater table is higher than the contaminated soils during excavation. The Contractor should also obtain a valid Water Pollution Control Ordinance (WPCO) discharge licence from EPD where applicable.					Guidance     Notes for     Contaminate     d Land     Assessment     and     Remediation     Guidance	
S8.9 & Appendix 8.4	LC3	Following completion of the excavation to the specified depth, at least one sample from the base of the excavation and four samples evenly distributed along the boundary of the excavation shall be taken for a closure assessment testing. The acceptance criterion is shown below:  Locations Testing Acceptance Criteria  PBH4 PCBs RBRGs (Public Park)  If the results of analysis below the RBRGs (Public Park), no further excavation will be required.  If the analysis indicates presence of contamination (i.e. noncompliance of the acceptance criteria),					Guidance     Manual for     Use of Risk- Based     Remediation     Goals     (RBRGs) for     Contaminate     d Land     Management	• Implemented
		further excavation shall be carried out in 0.5m increment vertically and/or horizontally depending on the location(s) of the sample(s) which has exceeded the acceptance criteria. Further sampling shall also be conducted for compliance testing. The process of						

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		excavation, sampling and compliance testing should continue until all contaminated materials are removed and should be supervised by a Land Contamination Specialist.						
Appendix 8.4	LC4	A Remediation Report (RR) to demonstrate adequate clean-up shall be prepared and submitted to EPD for endorsement prior to the commencement of any construction/development works within the sites. No construction/development works shall be carried out prior to the endorsement of the RR by EPD.						Implemented
				Hazard to Life				
\$9.18	H1	Blasting activities regarding transport and use of explosives should be supervised and audited by competent site staff to ensure full compliance with the blasting permit conditions.	To ensure that the risks from the proposed explosives handling and transport would be acceptable	Contractor	Works areas at which explosives would be used	Construction stage	Dangerous Goods Ordinance	• N/A
S9.6, para.4	H2	Detonators shall not be transported in the same vehicle with other Category 1 Dangerous Goods.	To reduce the risk of explosion during the transport of cartridged emulsion	Contractor	-	Construction stage	Dangerous Goods Ordinance	• N/A
S9.6, para.8	Н3	The explosives delivery trucks should be approved by Mines Division and should meet the regulatory requirements for transport of explosives.	To comply with the requirements for approval of an explosives	Contractor	-	Construction stage	Dangerous Goods Ordinance	• N/A

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			delivery vehicle					
S9.10, para.7 and S9.18	Н4	Blast cover should be provided for shaft at HMT, and kept closed during blasting.  Provision of blast doors or heavy duty blast curtains should be implemented at the shaft to prevent flyrock and control the air overpressure.	To ensure safe use of explosives	Contractor	Shaft	Construction stage	-	• N/A
\$9.16	Н5	Only the required quantity of explosives for a particular blast should be transported to avoid the return.	To reduce risks during explosives transport	Contractor	Works areas at which explosives would be used	Construction stage	-	• N/A
S9.18	Н7	The approved truck dedicated for transport of explosives should comply with the "Guidance Note on Requirements for Approval of an Explosives Delivery Vehicle" issued by CEDD Mines Division. The truck should be periodically inspected and properly maintained in good operation conditions. The fuel carried in the fuel tank should be minimized to reduce the duration of fire. Adequate fire fighting equipment shall be provided, inspected and replaced periodically (e.g. fire extinguishers).	explosives transport	Contractor	Works areas of which explosives would be used	Construction stage	Dangerous Goods Ordinance	• N/A
\$9.18	Н8	The driver and his assistant should be physically healthy, experienced and have good safe driving records. The driver should hold a proper driving licence for the approved transport truck. Dedicated training programme and regular road safety briefing	risk during explosives	Contractor	Works areas at which explosives would be used	Construction stage	-	• N/A

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		sessions/ workshops should be provided to enhance their safe driving attitude and practice. Smoking should be strictly prohibited.						
S9.18	Н9	Emergency response plans in case of road accident should be prepared and implemented. The driver and his assistant should be familiar with the emergency procedures including evacuation, and proper communication/ fire-fighting equipment should be provided to the driver and his assistant.	To reduce the risk during explosives transport	Contractor	Works areas at which explosives would be used	Construction stage	-	• N/A
S9.18	H10	Close liaison and communication among Mines Division, Contractors for transport of explosives, and working staff of the blasting should be established. In case of any change of work schedule leading to cancellation or variation of explosives required, relevant parties should be informed in time to avoid unused explosives at the work sites.	To reduce the risk during explosives transport	Contractor	Works areas at which explosives would be used	Construction stage	-	• N/A
\$9.18	H11	Close liaison and communication with Fire Services Department should be established to reduce the accidental detonation escalated from a fire. The contractors for transport of explosives should use the preferred transport routes as far as practicable.	To reduce the risk during explosives transport	Contractor	Works areas at which explosives would be used	Construction stage	-	• N/A
\$9.18	H12	Contingency plan should be prepared for transport of explosives under severe weather conditions such as rainstorms and thunderstorms.	To reduce the risk during explosives transport	Contractor	Works areas at which explosives would be used	Construction stage	-	• N/A

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S9.18	H13	For explosive transport, all packages of explosives on the truck should be properly stored in the truck compartment as required. Packaging of the explosives should remain intact (i.e. damage free) until they are transferred to the blasting site.	To reduce the risk during explosives transport	Contractor	Works areas at which explosives would be used	Construction stage	-	• N/A
S9.18	H14	Availability of a parking space should be ensured before commencement of transport of explosives. Location for loading and unloading of explosives should be as close as possible to the shaft. No hot work should be performed in the vicinity during the time of loading and unloading.	To reduce the risk during explosives transport	Contractor	Works areas at which explosives would be used	Construction stage	-	• N/A
\$9.18	H22	It is recommended to explore to minimize the use of the cartridged emulsion explosives and maximize the use of bulk emulsion explosive as far as practicable.	To reduce the risk during explosives transport	Contractor	Works areas at which explosives would be used	Construction stage	-	• N/A
S9.18	H24	It is recommended to explore to use smaller explosive charges such as 'cast boosters' or 'mini-cast booster' instead of cartridged emulsion as primers for bulk emulsion. This option reduces the quantity of explosives required for transportation for the sections where bulk emulsion will be used.	To reduce the risk during explosives transport	Contractor	Works areas at which explosives would be used	Construction stage	-	• N/A
			Lan	dscape & Visual				
S10.10.1 Table 10.11	LV3	Good Site Management     Large temporary stockpiles of excavated material shall be covered with unobtrusive sheeting to prevent dust and dirt spreading to adjacent landscape areas and vegetation, and to create a neat and tidy visual appearance.	Minimize visual impact	Contractor	Within Project site	Construction stage	-	Implemented

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		<ul> <li>Construction plant and building material shall be orderly and carefully stored in order to create a neat and tidy visual appearance.</li> </ul>						
S10.10.1 Table 10.11	LV4	<ul> <li>Screen Hoarding</li> <li>Decorative screen hoarding should be erected to screen the public from the construction area. It should be designed to be compatible with the existing urban context.</li> </ul>	Minimize visual impact	Contractor	Within Project site	Construction stage	-	Implemented
S10.10.1 Table 10.11	LV5	Lighting Control during Construction  All lighting in the construction site shall be carefully controlled to minimize light pollution and night-time glare to nearby residencies and GIC. The Contractor shall consider other security measures, which shall minimize the visual impacts.	Minimize visual impact	Contractor	Within Project site	Construction stage	-	Implemented
S10.10.1 Table 10.11	LV6	Erosion Control     The potential for soil erosion shall be reduced by minimizing the extent of vegetation disturbance on site and by providing a protective cover over newly exposed soil.	Minimize landscape impact	Contractor	Within Project site	Construction stage	-	• N/A
S10.10.1 Table 10.11	LV7	Tree Protection & Preservation  • Carefully protected during construction. Tree protection measures will be detailed at the Tree Removal Application stage and plans submitted to the relevant Government Department for approval in due course in accordance with ETWB TC no. 3/2006.	Minimize landscape and visual impact	Contractor	Within Project site	Construction stage	• 'Guidelines for Tree Risk Management and Assessment Arrangement on an Area Basis and on a Tree Basis', Greening,	Implemented, deficiency rectified after reminder

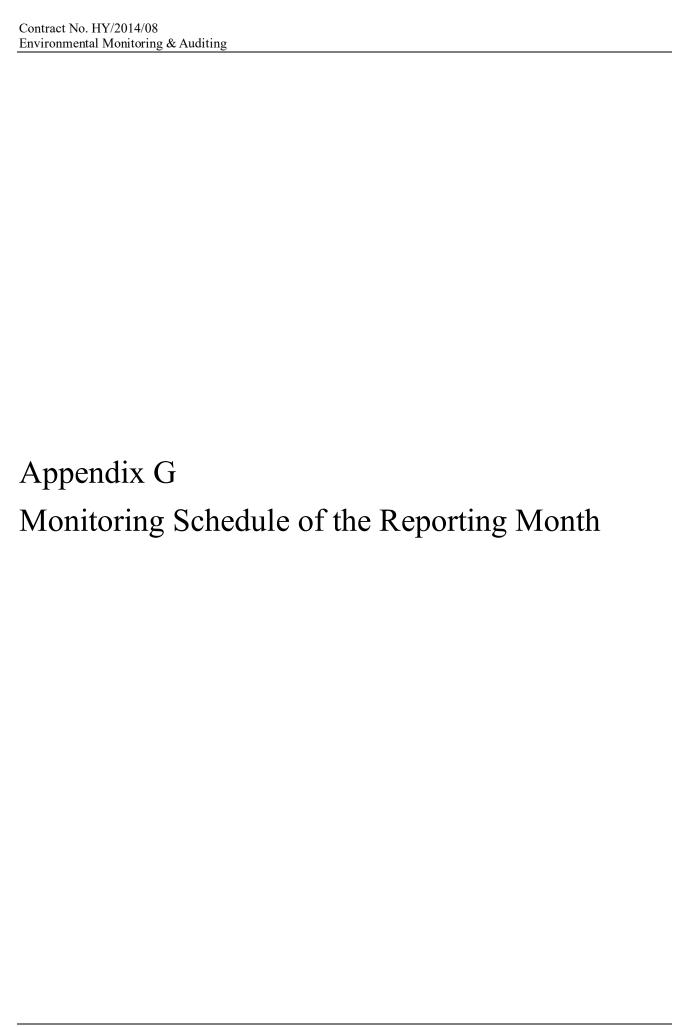
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\$10.10.1 Table 10.11	LV8	Tree Transplantation  • For trees unavoidably affected by the Project that have to be removed, where practical transplantation will be chosen as the top priority method of removal. If this is not possible or practical compensatory planting will be provided for trees unavoidably felled (See LV10). For trees unavoidably affected by the Project works that are transplanted, transplantation must be carried out in accordance with ETWB TCW 2/2004 and 3/2006.	Minimize landscape and visual impact	Contractor	Within Project site and designated off-site locations	Prior to Construction stage	Landscape and Tree Management (GLTM) Section, DEVB Latest recommende d horticultural practices from GLTM Section, DEVB ETWB TCW 3/2006 Latest recommende d horticultural practices from Greening, Landscape and Tree Management (GLTM) Section, DEVB	• N/A

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Objectives of the Recommende d Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and/ or standards to be achieved	Implementation Status
							2/2004	
S10.10.1 Table 10.11	LV9	<ul> <li>Compensatory Planting</li> <li>For trees unavoidably affected by the Project that have to be removed, where practical transportation will be chosen as the top priority method of removal but if this is not possible or practical compensatory planting will be provided for trees unavoidably felled. All felled trees shall be compensated for by planting trees to the satisfaction of relevant Government projects. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Felling Application process under ETWBTC 3/2006.</li> <li>Compensatory tree planting may be incorporated into public open spaces and along roadside amenity areas affected by the construction works and therefore be part of the bigger wider planting plans. Onsite compensation planting is preferred but if necessary, additional receptor sites outside the Works Area shall be agreed separately with Government during the Tree Felling Application process.</li> </ul>	Minimize visual impact and also enhance landscape	Contractor	Within Project site	Construction stage	ETWB TCW 3/2006     Latest recommende d horticultural practices from Greening, Landscape and Tree Management (GLTM) Section, DEVB     ETWB TCW 2/2004	• N/A
			Cultural Heritage	Impact (Construct	on Phase)			

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Objectives of the Recommende d Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and/ or standards to be achieved	Implementation Status
S11.4.4	CH1	The contractor should be alerted during the construction on the possibility of locating archaeological remains and as a precautionary measure, AMO shall be informed immediately in case of discovery of antiquities or supposed antiquities in the subject sites.	To preserve any cultural heritage items which may be removed and damaged by the excavation	Contractor	During construction works for cut and cover tunnels	Construction stage	AMOs requirements	Implemented
S12.6.1	CH3	<ul> <li>Protective covering should be provided for the buildings in the form of plastic sheeting;</li> <li>Buffer zones should be provided between the construction works and the external walls of the buildings and should be as large as site restrictions allow and be marked out by temporary fencing or hoarding;</li> <li>An underpinning scheme is required to transfer the existing column loadings to a deeper rock stratum. The supporting system includes cutting the existing ground floor slab to expose the existing pile caps and then construct transfer beams at both sides of the pile caps. The transfer beams will tie up with the existing caps. Loadings of the transfer beams will be transferred to the rock socket piles installed at the two ends of the beams;</li> <li>The AAA settlement and tilting limit should be 6/8/10 mm and1/2000, 1/1500 and 1/1000;</li> <li>Monitoring of vibration levels will be undertaken during the construction phase and the Alert, Alarm and Action (AAA) vibration limit will be set at 5/6/7.5 mm/s. The monitoring proposal should be sent to AMO for comment;</li> </ul>	Protect the building from damage from construction works	Contractor	Yau Ma Tei Police Station (Old Wing) (CKR-01)	Prior to commencement of and during the construction phase	Guidelines     for Cultural     Heritage     Impact     Assessment     EIAO-TM     Annex 10 and     Annex 19     AMO     Proposed     Vibration     Limits	• Implemented

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Objectives of the Recommende d Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and/ or standards to be achieved	Implementation Status
		<ul> <li>Regular site inspections and monitoring works will be carried out by the contractor and the monitoring results will be submitted to the resident site staff of HyD to ensure compliance.</li> </ul>						
\$12.6.1		<ul> <li>Adopting diaphragm wall construction method;</li> <li>Grout curtain should be provided in front of the building;</li> <li>Recharging system should be installed as a contingency measure to mitigate the fluctuation of water table;</li> <li>the AAA settlement and tilting limit should be 6/8/10 mm and 1/2000, 1/1500 and 1/1000;</li> <li>Monitoring of vibration levels will be undertaken during the construction phase and the Alert, Alarm and Action (AAA) vibration limit will be set at 5/6/7.5 mm/s. The monitoring proposal should be sent to AMO for comment;.</li> <li>Regular site inspections and monitoring works will be carried out by the contractor and the monitoring results will be submitted to the resident site staff of HyD to ensure compliance.</li> </ul>	Protect the building from damage from construction works	Contractor	Yau Ma Tei Police Station (Old Wing) (CKR-01)	Prior to commencement of and during the construction phase	Guidelines for Cultural Heritage Impact Assessment     EIAO-TM Annex 10 and Annex 19     AMO Proposed Vibration Limits	• Implemented
S12.6.1 Table 12.2		<ul> <li>The Alert, Alarm and Action (AAA) vibration limit will be set at 3/4/5 mm/s and a condition survey shall be carried out by the project proponent prior to the construction phase to confirm this assessment</li> <li>Vibration monitoring of the structure shall be employed during the construction phase to ensure that the level is not exceeded. The monitoring proposal should be sent to AMO for comment.</li> </ul>	Protect the building from damage from construction works	Contractor	Tin Hau Temple (CKR- 02)	Prior to commencement of and during the construction phase	Guidelines     for Cultural     Heritage     Impact     Assessment     EIAO-TM     Annex 10 and     Annex 19     AMO	• Implemented

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Objectives of the Recommende d Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and/or standards to be achieved	Implementation Status
							Proposed Vibration Limits	
				EM&A Project				
S13.2	EM1	An Independent Environmental Checker needs to be employed as per the EM&A Manual	Control EM&A Performance	Highways Department	All construction sites	Construction stage	• EIAO Guidance Note No. 4/2010 • TM-EIAO	Implemented
S13.2-13.4	EM2	<ul> <li>An Environmental Team needs to be employed as per the EM&amp;A Manual;</li> <li>Prepare a systematic Environmental Management Plan to ensure effective implementation of the mitigation measures;</li> <li>An environmental impact monitoring needs to be implemented by the Environmental Team to ensure all the requirements given in the EM&amp;A Manual are fully complied with.</li> </ul>	Perform environmental monitoring & auditing	Highways Department/ Contractor	All construction sites	Construction stage	• EIAO Guidance Note No. 4/2010 • TM-EIAO	Implemented



		Impa	ct Monitoring Schedule for	YMTE		
			Aug-25			
Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5 Impact	6 Impact	7	8	9
		Air monitoring for W-A6 &W-A1 Noise monitoring for W-N1A,	Air monitoring for W-A6 &W-A1 Noise monitoring for W-N1A,			
		W-P11,W-N18 & W-N25A	W-P11,W-N18 & W-N25A			
		(Rescheduled to 6 August 2025)				
10	11 Impact	12	13	14 Impact	15	16
	Air monitoring for W-A6 &W-A1 Noise monitoring for W-N1A,			Air monitoring for W-A6 &W-A1 Noise monitoring for W-N1A,		
	W-P11,W-N18 & W-N25A			W-P11,W-N18 & W-N25A		
17	18	19	Impact Impact	21	22	23
			Air monitoring for W-A6 &W-A1			
			Noise monitoring for W-N1A,			
			W-P11,W-N18 & W-N25A			
24	25	26 Impact	27	28	29	30
		Air monitoring for W-A6 &W-A1				
		Noise monitoring for W-N1A,				
		W-P11,W-N18 & W-N25A				
24						
31						

Remarks: The monitoring works originally scheduled on 5 August 2025 was rescheduled to 6 August 2025 due to unfavourable weather conditions

Appendix H
Calibration Certificates
(Air Monitoring)



#### Information of Calibrated Equipment

Verification Test Date:	23-Feb-25	to	2-Mar-25	Next Verification Test Date:	23-Feb-26
Jnit-under-Test- Model No.:		Sibata LD-5R		_	
Unit-under-Test Serial No.:		761173			
Our Report Reference No.:	R	PT-25-HVS-01	02		
Calibration Location:	AM2,	location near	the Leachate Treatme	ent Works within the NENTX Landfill	

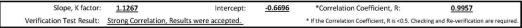
#### Standard Equipment Information

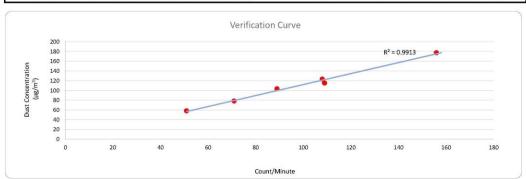
		****	
Verification Equipment Type:	Tisch TSP HVS	Tisch HVS Calibrator	
Standard Equipment Model No.:	TE-5170X	TE-5025A	
Equipment serial no.:	1106	3465	
Last Calibration Date:	10-Feb-25	2-Dec-24	
Next Calibration Date:	9-Apr-25	2-Dec-25	

#### **Equipment Verification Result**

Verification		Duration			Results from	Calibrated Equipment	Results from Standard Equipment
Test No.	Date	Start-time	End-time	Elapsed Time (in min)	Total Counts	Counts/ Minute x-axis	Dust Concentration (μg/m³) y-axis
1	23/02/2025	5385.00	5388.00	180.00	12780	71	78
2	23/02/2025	5388.00	5391.00	180.00	28080	156	177
3	23/02/2025	5394.00	5397.00	180.00	19620	109	115
4	2/03/2025	5397.00	5400.00	180.00	9180	51	58
5	2/03/2025	5400.00	5403.00	180.00	16020	89	103
6	2/03/2025	5403.00	5406.00	180.00	19440	108	123

### Linear Regression of y on x







#### Information of Calibrated Equipment

Verification Test Date:	23-Feb-25	to	2-Mar-25	Next Verification Test Date:	23-Feb-26
Init-under-Test- Model No.:		Sibata LD-5R		_	
Unit-under-Test Serial No.:		761174			
Our Report Reference No.:	R	PT-25-HVS-01	01		
Calibration Location:	AM2,	location near	the Leachate Treatm	ent Works within the NENTX Landfill	

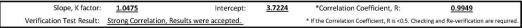
#### Standard Equipment Information

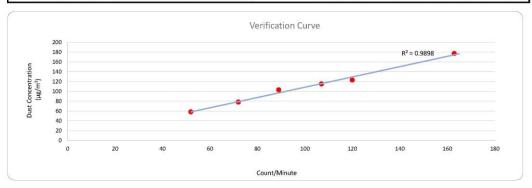
		****	
Verification Equipment Type:	Tisch TSP HVS	Tisch HVS Calibrator	
Standard Equipment Model No.:	TE-5170X	TE-5025A	
Equipment serial no.:	1106	3465	
Last Calibration Date:	10-Feb-25	2-Dec-24	
Next Calibration Date:	9-Apr-25	2-Dec-25	

#### **Equipment Verification Result**

Verification		Duration		Duration Results from Calibrated Equipment		Calibrated Equipment	Results from Standard Equipment
Test No.	Date	Start-time	End-time	Elapsed Time (in min)	Total Counts	Counts/ Minute x-axis	Dust Concentration (μg/m³) y-axis
1	23/02/2025	5385.00	5388.00	180.00	12960	72	78
2	23/02/2025	5388.00	5391.00	180.00	29340	163	177
3	23/02/2025	5394.00	5397.00	180.00	19260	107	115
4	2/03/2025	5397.00	5400.00	180.00	9360	52	58
5	2/03/2025	5400.00	5403.00	180.00	16020	89	103
6	2/03/2025	5403.00	5406.00	180.00	21600	120	123

### Linear Regression of y on x







#### Information of Calibrated Equipment

Verification Test Date:	23-Feb-25	to	2-Mar-25	Next Verification Test Date:	23-Feb-26
Unit-under-Test- Model No.:		Sibata LD-5R		_	
Unit-under-Test Serial No.:		851816			
Our Report Reference No.:	F	PT-25-HVS-01	03		
Calibration Location:	AM2.	location near t	the Leachate Trea	tment Works within the NENTX Landfill	

#### Standard Equipment Information

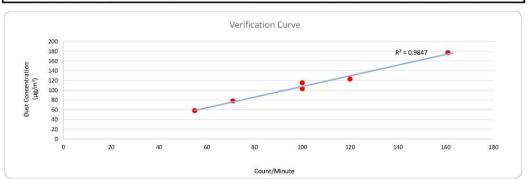
Verification Equipment Type:	Tisch TSP HVS	Tisch HVS Calibrator	
Standard Equipment Model No.:	TE-5170X	TE-5025A	
Equipment serial no.:	1106	3465	
Last Calibration Date:	10-Feb-25	2-Dec-24	
Next Calibration Date:	9-Apr-25	2-Dec-25	

#### **Equipment Verification Result**

Verification		Duration			Results from	Calibrated Equipment	Results from Standard Equipment
Test No.	Date	Start-time	End-time	Elapsed Time (in min)	Total Counts	Counts/ Minute x-axis	Dust Concentration (μg/m³) y-axis
1	23/02/2025	5385.00	5388.00	180.00	12780	71	78
2	23/02/2025	5388.00	5391.00	180.00	28980	161	177
3	23/02/2025	5394.00	5397.00	180.00	18000	100	115
4	2/03/2025	5397.00	5400.00	180.00	9900	55	58
5	2/03/2025	5400.00	5403.00	180.00	18000	100	103
6	2/03/2025	5403.00	5406.00	180.00	21600	120	123

### Linear Regression of y on x







#### Information of Calibrated Equipment

Verification Test Date:	23-Feb-25	to	2-Mar-25	Next Verification Test Date:	23-Feb-26
Jnit-under-Test- Model No.:		Sibata LD-5R		_	
Unit-under-Test Serial No.:		851817			
Our Report Reference No.:	R	PT-25-HVS-01	04		
Calibration Location:	AM2.	location near t	he Leachate Treatn	nent Works within the NENTX Landfill	

#### Standard Equipment Information

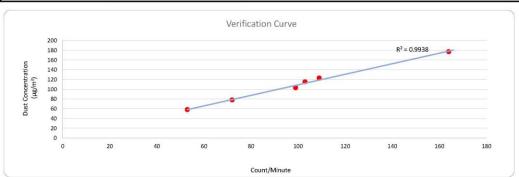
Verification Equipment Type:	Tisch TSP HVS	Tisch HVS Calibrator	
Standard Equipment Model No.:	TE-5170X	TE-5025A	
Equipment serial no.:	1106	3465	
Last Calibration Date:	10-Feb-25	2-Dec-24	
Next Calibration Date:	9-Apr-25	2-Dec-25	

#### **Equipment Verification Result**

Verification		Duration			Results from	Calibrated Equipment	Results from Standard Equipment
Test No.	Date	Start-time	End-time	Elapsed Time (in min)	Total Counts	Counts/ Minute x-axis	Dust Concentration (μg/m³) y-axis
1	23/02/2025	5385.00	5388.00	180.00	12960	72	78
2	23/02/2025	5388.00	5391.00	180.00	29520	164	177
3	23/02/2025	5394.00	5397.00	180.00	18540	103	115
4	2/03/2025	5397.00	5400.00	180.00	9540	53	58
5	2/03/2025	5400.00	5403.00	180.00	17820	99	103
6	2/03/2025	5403.00	5406.00	180.00	19620	109	123

## Linear Regression of y on x







RECALIBRATION
DUE DATE:

December 2, 2025

# Certificate of Calibration

**Calibration Certification Information** 

Cal. Date: December 2, 2024

Calibration Model #: TE-5025A

Rootsmeter S/N: 438320

Ta: 293 Pa: 757.4 °K

Operator: Jim Tisch

Calibrator S/N: 3465

mm Hg

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4300	3.2	2.00
2	3	4	1	1.0190	6.4	4.00
3	5	6	1	0.9090	7.9	5.00
4	7	8	1	0.8680	8.8	5.50
5	9	10	1	0.7170	12.8	8.00

		Data Tabula	tion		
Vstd	Qstd	$\sqrt{\Delta H \left(\frac{Pa}{Pstd}\right) \left(\frac{Tstd}{Ta}\right)}$		Qa	√∆H(Ta/Pa)
(m3)	(x-axis)	(y-axis)	Va	(x-axis)	(y-axis)
1.0093	0.7058	1.4238	0.9958	0.6963	0.8796
1.0051	0.9863	2.0136	0.9916	0.9731	1.2439
1.0031	1.1035	2.2512	0.9896	1.0886	1.3907
1.0018	1.1542	2.3611	0.9884	1.1387	1.4586
0.9965	1.3898	2.8476	0.9831	1.3711	1.7592
	m=	2.08107		m=	1.30313
QSTD[	b=	-0.04295	QA	b=	-0.02653
•	r=	0.99999	4.	r=	0.99999

	Calculation	ns	
Vstd=	ΔVol((Pa-ΔP)/Pstd)(Tstd/Ta)	Va=	ΔVol((Pa-ΔP)/Pa)
Qstd=	Vstd/∆Time	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





#### **Site Information**

Location:	YMT Catholic Primary School	Site ID:	W-A1	Date:	01-Aug-2025	
Serial No:	1084	Model:	TE-5170X	Operator:	Andy Li	

#### **Ambient Condition**

		to the state of the second control of the se	
Actual Pressure during Calibration (P <sub>a</sub> ) (mm Hg):	750.3	Actual Temperature during Calibration (T <sub>a</sub> ) (deg K):	303.3

#### **Calibration Orifice**

Model:	TE-5025A	Slope (m <sub>c</sub> ):	2.08107
Serial No.:	3465	Intercept (b <sub>c</sub> ):	-0.04295
Calibration Due Date:	2-Dec-25	Corr. Coeff:	0.99999

#### **Calibration Data**

Plate or	ΔH <sub>2</sub> O	Qa, X-Axis	I, CFM	IC, Y-Axis
Test #	(in)	(m³/min)	(chart)	(corrected)
18	10.50	1.554	56.0	55.16
13	8.50	1.401	53.0	52.20
10	6.30	1.209	49.0	48.26
7	4.60	1.036	45.0	44.32
5	2.70	0.798	42.0	41.37

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

Corr. Coeff= 18.7772 25.7396 0.9950

#### Calculations

 $Qa = 1/m_c * [Sqrt (\Delta H_2 O * (P_a/P_{Std}) * (T_{Std}/T_a)) - b_c]$ 

 $IC = I*(Sqrt(P_a/P_{Std})*(T_{Std}/T_a))$ 

Qa = actual flow rate IC = corrected chart response I = actual chart response m<sub>c</sub> = calibrator slope

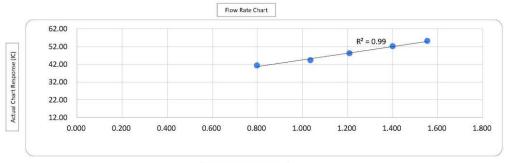
b<sub>c</sub> = calibrator intercept

m = sampler slope

b = sampler intercept

 $T_{Std} = 298 \text{ deg K}$ P<sub>Std</sub> = 760 mm Hg

 $P_a$  = actual temperature during calibration (deg K)  $P_a$  = actual pressure during calibration (mm Hg)



Standard Flow Rate

Checked by Date: 01-Aug-2025





## Site Information

20	One information					
Location:	Man Cheong Building	Site ID:	W-A6	Date:	01-Aug-2025	٦
Serial No:	1050	Model:	TE-5170X	Operator:	Andy Li	٦

#### **Ambient Condition**

				_
Actual Pressure during Calibration (P <sub>a</sub> ) (mm Hg):	750.3	Actual Temperature during Calibration (T <sub>a</sub> ) (deg K):	303.3	

#### **Calibration Orifice**

Model:	TE-5025A	Slope (m <sub>c</sub> ):	2.08107
Serial No.:	3465	Intercept (b <sub>c</sub> ):	-0.04295
Calibration Due Date:	2-Dec-25	Corr. Coeff:	0.99999

#### **Calibration Data**

Plate or	ΔH <sub>2</sub> O	Qa, X-Axis	I, CFM	IC, Y-Axis
Test#	(in)	(m³/min)	(chart)	(corrected)
18	10.90	1.583	57.0	56.14
13	9.70	1.495	54.0	53.19
10	8.60	1.409	52.0	51.22
7	4.50	1.025	44.0	43.34
5	2.30	0.738	39.0	38.41

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

m= 20.5443 b= 22.7810 Corr. Coeff= 0.9965

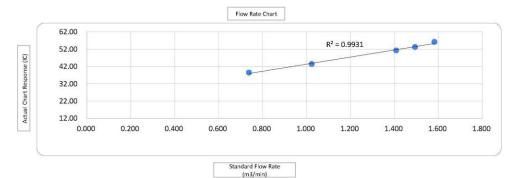
#### Calculations

 $Qa = 1/m_c*[Sqrt (\Delta H_2O*(P_a/P_{Std})*(T_{Std}/T_a))-b_c] \\ IC = I*(Sqrt (P_a/P_{Std})*(T_{Std}/T_a))$ 

 $IC = I^*(Sqrt(P_a/P_{Std})^*(I_{Std}/I_a)$ 

Qa = actual flow rate IC = corrected chart response I = actual chart response  $m_c$  = calibrator slope  $b_c$  = calibrator intercept m = sampler slope b = sampler intercept  $T_{Std}$  = 298 deg K  $P_{Std}$  = 760 mm Hg

 $T_a$  = actual temperature during calibration (deg K)  $P_a$  = actual pressure during calibration (mm Hg)



 Checked by
 Date:
 01-Aug-2025





#### **Site Information**

Location:	YMT Catholic Primary School	Site ID:	W-A1	Date:	16-Aug-2025					
Serial No:	1084	Model:	TE-5170X	Operator:	Andy Li					

#### **Ambient Condition**

-	040479E007719H6346	Company of the Compan	
Actual Pressure during Calibration (P <sub>a</sub> ) (mm Hg):	756.4	Actual Temperature during Calibration (T <sub>a</sub> ) (deg K):	302.5

#### **Calibration Orifice**

Model:	TE-5025A	Slope (m <sub>c</sub> ):	2.08107	
Serial No.:	3465	Intercept (b <sub>c</sub> ):	-0.04295	
Calibration Due Date:	2-Dec-25	Corr. Coeff:	0.99999	

#### **Calibration Data**

Plate or	ΔH <sub>2</sub> O	Qa, X-Axis	I, CFM	IC, Y-Axis
Test #	(in)	(m³/min)	(chart)	(corrected)
18	10.60	1.570	57.0	56.45
13	8.40	1.400	54.0	53.48
10	6.40	1.224	51.0	50.50
7	4.80	1.063	46.0	45.55
5	2.60	0.788	40.0	39.61

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

21.9461 22.5841 Corr. Coeff= 0.9953

#### Calculations

 $Qa = 1/m_c * [Sqrt (\Delta H_2 O * (P_a/P_{Std}) * (T_{Std}/T_a)) - b_c]$  $IC = I*(Sqrt(P_a/P_{Std})*(T_{Std}/T_a))$ 

Qa = actual flow rate IC = corrected chart response I = actual chart response m<sub>c</sub> = calibrator slope

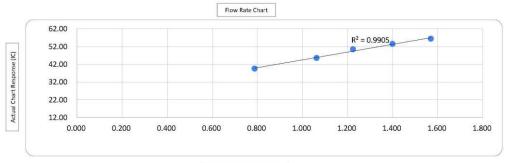
b<sub>c</sub> = calibrator intercept

m = sampler slope

b = sampler intercept

 $T_{Std} = 298 \text{ deg K}$ P<sub>Std</sub> = 760 mm Hg

 $P_a$  = actual temperature during calibration (deg K)  $P_a$  = actual pressure during calibration (mm Hg)



Standard Flow Rate

Checked by Date: 16-Aug-2025





#### Site Information

Location:	Man Cheong Building	Site ID:	W-A6	Date:	16-Aug-2025	
Serial No:	1050	Model:	TE-5170X	Operator:	Andy Li	

#### **Ambient Condition**

Actual Pressure during Calibration (Pa) (mm Hg):	756.4	Actual Temperature during Calibration (T <sub>a</sub> ) (deg K):	302.5
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#### **Calibration Orifice**

Model:	TE-5025A	Slope (m <sub>c</sub> ):	2.08107	
Serial No.:	3465	Intercept (b <sub>c</sub> ):	-0.04295	
Calibration Due Date:	2-Dec-25	Corr. Coeff:	0.99999	

#### **Calibration Data**

Plate or	ΔH <sub>2</sub> O	Qa, X-Axis	I, CFM	IC, Y-Axis
Test#	(in)	(m³/min)	(chart)	(corrected)
18	10.80	1.584	58.0	57.44
13	9.40	1.480	55.0	54.47
10	8.20	1.383	53.0	52.49
7	4.60	1.041	47.0	46.54
5	2.40	0.758	43.0	42.58

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

17.5557 28.7707 Corr. Coeff= 0.9944

#### Calculations

 $Qa = 1/m_c*[Sqrt (\Delta H_2O*(P_a/P_{Std})*(T_{Std}/T_a))-b_c]$ 

 $IC = I^*(Sqrt (P_a/P_{Std})^*(T_{Std}/T_a))$ 

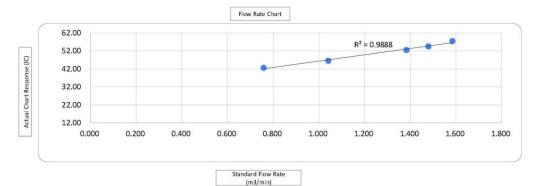
Qa = actual flow rate IC = corrected chart response I = actual chart response  $m_c$  = calibrator slope

 $b_c$  = calibrator intercept

m = sampler slope b = sampler intercept T<sub>Std</sub> = 298 deg K

P<sub>Std</sub> = 760 mm Hg

T<sub>a</sub> = actual temperature during calibration (deg K) P<sub>a</sub> = actual pressure during calibration (mm Hg)



Checked by

16-Aug-2025 Date:

Contract No. HY/2014/08			
Environmental Monitoring & Aud	iting		

Appendix I
Calibration Certificates (Noise)







Description:

Sound Level Meter

Manufacturer:

NTi

Type No .:

XL3 (Serial No.: A3A-01229-F0)

Microphone:

MC230A (Serial No.: A28290)

Preamplifier:

MA230 (Serial No.:1794)

## Submitted by:

Customer:

Aurecon Hong Kong Limited

Address:

Unit 1608, 16/F, Tower B,

Manulife Financial Centre,

223-231 Wai Yip Street, Kwun Tong,

Kowloon, Hong Kong

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

✓ Within (31.5Hz – 8kHz)

☐ Outside

the allowable tolerance.

The test equipment used for calibration are traceable to National Standards via:

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

Date of receipt: 23 July 2025

Date of calibration: 24 July 2025

Date of NEXT calibration: 23 July 2026

Certified by:

Mr. Ng Yan Wa Laboratory Manager

Page 1 of 4

Date of issue: 24 July 2025

Certificate No.: APJ25-046-CC001

Room 422, Leader Industrial Centre, 57-59 Au Pui Wan Street, Fo Tan, Shatin, N.T., Hong Kong

Tel: (852) 2668 3423

Fax:(852) 2668 6946

Homepage: http://www.aa-lab.com

E-mail: inquiry@aa-lab.com

## (A+A)\* L Acoustics and Air Testing Laboratory Co. Ltd. 聲學及空氣測試實驗室有限公司

### 1. Calibration Precaution:

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.

## 2. Calibration Conditions:

Air Temperature: Air Pressure: 24.6 °C

Relative Humidity:

1006 hPa 57.8 %

B&K 4226

## 3. Calibration Equipment:

Type Serial No.

Calibration Report Number

Traceable to

**Multifunction Calibrator** 

2288467

AV240081

HOKLAS

### 4. Calibration Results

Sound Pressure Level

Reference Sound Pressure Level

Sett	Setting of Unit-under-test (UUT) Applied value		Applied value		UUT Reading,	IEC 61672 Class 1	
Range, dB	Freq. W	eighting/	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
20-120	dBA	SPL	Fast	94	1000	94.0	±0.4

## Linearity

Setting of Unit-under-test (UUT)			App	lied value	UUT Reading,	IEC 61672 Class 1	
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
380				94		94.0	Ref
20-120	dBA	SPL	Fast	104	1000	104.0	±0.3
CONTROL NAME OF STREET	0-50000	114		114.0	±0.3		

## Time Weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1	
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
20.120	JD 4	CDI	Fast	9.4	1000	94.0	Ref
20-120	dBA SPL	Slow	94	1000	94.0	±0.3	

Certificate No.: APJ25-046-CC001

Page 2 of 4

Room 422, Leader Industrial Centre, 57-59 Au Pui Wan Street , Fo Tan, Shatin, N.T., Hong Kong Tel: (852) 2668 3423 Fax: (852) 2668 6946

Homepage: http://www.aa-lab.com

E-mail: inquiry@aa-lab.com



## Acoustics and Air Testing Laboratory Co. Ltd. 聲學及空氣測試實驗室有限公司

Frequency Response

Linear Response

Sett	Setting of Unit-under-test (UUT)				lied value	UUT Reading,	IEC 61672 Class 1	
Range, dB	Freq. We	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB	
					31.5	94.3	±2.0	
			63	94.2	±1.5			
				125	94.2	±1.5		
					250	94.1	±1.4 ±1.4	
20-120	dB	SPL	Fast	94	500	94.1		
AD LUBO WATER	*00000000		202202		1000	94.0	Ref	
					2000	94.0	±1.6	
					4000	93.9	±1.6	
				8000	91.7	+2.1; -3.1		

A-weighting

Sett	Setting of Unit-under-test (UUT)				lied value	UUT Reading,	IEC 61672 Class 1	
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB	
0.000		25. 300			31.5	54.9	-39.4 ±2.0	
					63	68.0	-26.2 ±1.5	
			125	78.1	-16.I ±1.5			
	******			250 85.5	85.5	-8.6 ±1.4		
20-120	dBA		500	90.9	-3.2 ±1.4			
				100	1000	94.0	Ref	
					2000	95.2	+1.2±1.6	
					4000	94.9	+1.0 ±1.6	
				8000	90.5	-1.1+2.1; -3.1		

## C-weighting

Sett	Setting of Unit-under-test (UUT)			App	lied value	UUT Reading,	IEC 61672 Class 1	
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB	
					31.5	91.3	-3.0 ±2.0	
					63	93.4	-0.8 ±1.5	
				125	94.0	-0.2 ±1.5		
			Fast	94	250	94.1	-0.0±1.4	
20-120	dBC	SPL			500	94.2	-0.0 ±1.4	
Telephonesis.	700000		23524	100000	1000	94.0	Ref	
					2000	93.9	-0.2 ±1.6	
					4000	93.1	-0.8 ±1.6	
					8000	88.6	-3.0 +2.1: -3.1	

Certificate No.: APJ25-046-CC001



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



## 5. Calibration Results Applied

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

Uncertainties of Applied Value:

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

The uncertainties are evaluated for a 95% confidence level.

#### Note:

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

Certificate No.: APJ25-046-CC001



Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong Tel: (852) 2668 3423 Fax:(852) 2668 6946

Homepage: http://www.aa-lab.com E

E-mail: inquiry@aa-lab.com



## **Manufacturer Calibration Certificate**

The sound level meter submitted for testing successfully completed the periodic tests of IEC 61672-3. All tests are traceable in accordance with ISO/IEC 17025.

No pattern approval is available for this sound level meter configuration.

#### **Sound Level Meter**

Manufacturer	NTi Audio		
Type	XL3	S/N	A3A-01220-F0
Firmware	V1.38		
Microphone Model	M2340		
Preamplifier	MA230	S/N	1831
Microphone Capsule	MC230A	S/N	A28677
Performance class			
Customer Inventory Nr.			

## Customer

Date 03 September 2024

Certificate FL-24-126

Results PASSED

(for detailed report see next pages)

Operator Markus Frick

NTi Audio AG • Im alten Riet 102, 9494 Schaan • Liechtenstein info@nti-audio.com • www.nti-audio.com



## Measurement equipment

#### **Test System**

Model NTi Audio FX100, S/No. 11094

Last Calibration 02 July 2024
Cal Certificate NTI Cal #3393
Next Calibration 02 July 2025

#### Reference Microphone

Model MTG MV203 S/N #2435, Mic Capsule MK202 S/No. #7313

Last Calibration 18 November 2022
Cal Certificate DAkkS-000875
Next Calibration 17 November 2024

#### **Sound Calibrator**

Model Norsonic 1251 S/No. #30930

Reference Level 114 dB Calibration Frequency 1000 Hz

Last Calibration 08 December 2022
Cal Certificate METAS #259-19602
Next Calibration 07 December 2024

#### **Environmental conditions**

Temperature 23 °C Humidity 50 % Pressure 965 hPa

## Notes

- This calibration certificate documents the traceability to national standards, which realize the units of measurement according to the international Systems of Units (SI).
- The user is obliged to have the object recalibrated at appropriate intervals.
- This calibration certificate may not be reproduced other than in full except with the permission of the issuing laboratory. Calibration certificates without signature are not valid.
- · All limits listed in this report are acceptance limits in accordance with IEC61672.
- The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with the regulations of the GUM.



## 1. Indication at the calibration check frequency

The indication of the sound level meter at the calibration check frequency is checked by application of the sound calibrator and adjusted, if necessary, to indicate the required sound level for the environmental conditions under which the tests are performed. All levels in [dB].

Sensitivity	Sensitivity	Meas	Limit -	Limit +	Uncert.	Status
before calibration	after calibration	level				
42.8 mV/Pa	44.0 mV/Pa	114	113	115	0.2	Passed

## 2. Self-generated noise

#### 2.1 Microphone cartridge installed

The self-generated noise is measured in the most-sensitive level range as a time-averaged sound pressure level with frequency-weighting A and an averaging time of 30 seconds. All levels in [dB].

Weight-	Meas	Limit +	Uncert.	Status
ing	level			
Α	16.2	19.0	0.1	Passed

#### 2.2 Microphone cartridge replaced by the capsule replacement NTI-K65-15

The self-generated noise is measured in the most-sensitive level range as a time-averaged sound pressure level for all frequency-weightings and an averaging time of 30 seconds. All levels in [dB] referenced to S = 42 mV/Pa.

Weight- ing	Meas level	Limit +	Uncert.	Status
Α	10.5	13.0	0.1	Passed
С	13.6	16.0	0.1	Passed
Z	21.4	24.0	0.1	Passed

## 3. Acoustic signal tests of a frequency weighting

The frequency weighting is tested for frequency-weighting A, using an acoustic test facility. The sound level meter is set to a fast time-weighted sound level in the reference level range. All levels in [dB].

Fred [Hz		Gen. level	Meas level	Dev	Limit -	Limit +	Uncert.	Status
	125	70.0	69.4	-0.6	-1.0	1.0	0.4	Passed
2	250	77.1	77.2	0.1	-1.0	1.0	0.4	Passed
	500	82.7	82.8	0.1	-1.0	1.0	0.4	Passed
10	000	86.0	86.1	0.1	-0.7	0.7	0.4	Passed
20	000	87.2	87.4	0.2	-1.0	1.0	0.4	Passed
40	000	87.0	87.0	0.0	-1.0	1.0	0.4	Passed
80	000	84.9	84.6	-0.3	-2.5	1.5	0.4	Passed



## 4. Electric signal tests of frequency weightings

Frequency weightings are determined relative to the response at 1 kHz using steady sinusoidal electrical input signals. The sound level meter is set to display F-time-weighted sound level in the reference level range. All available frequency weightings provided in the sound level meter are verified. All levels in [dB].

## 4.1 A-Weighting

Freq. [Hz]	Gen. level	Meas level	Dev	Limit -	Limit +	Uncert.	Status
1000	80.0	80.0	0.0	-0.7	0.7	0.1	Passed
63	106.2	80.0	0.0	-1.0	1.0	0.1	Passed
125	96.1	80.0	0.0	-1.0	1.0	0.1	Passed
250	88.6	80.0	0.0	-1.0	1.0	0.1	Passed
500	83.2	80.0	0.0	-1.0	1.0	0.1	Passed
2000	78.8	80.0	0.0	-1.0	1.0	0.1	Passed
4000	79.0	79.9	-0.1	-1.0	1.0	0.1	Passed
8000	81.1	79.7	-0.3	-2.5	1.5	0.1	Passed
12500	84.3	79.4	-0.6	-2.5	1.5	0.1	Passed
16000	86.6	78.7	-1.3	-2.5	1.5	0.1	Passed

#### 4.2 C-Weighting

Freq.	Gen.	Meas	Dev	Limit -	Limit +	Uncert.	Status
[Hz]	level	level					
1000	80.0	80.0	0.0	-0.7	0.7	0.1	Passed
63	80.8	79.9	-0.1	-1.0	1.0	0.1	Passed
125	80.2	80.0	0.0	-1.0	1.0	0.1	Passed
250	80.0	80.0	0.0	-1.0	1.0	0.1	Passed
500	80.0	80.0	0.0	-1.0	1.0	0.1	Passed
2000	80.2	80.0	0.0	-1.0	1.0	0.1	Passed
4000	80.8	79.8	-0.2	-1.0	1.0	0.1	Passed
8000	83.0	79.6	-0.4	-2.5	1.5	0.1	Passed
12500	86.2	79.3	-0.7	-2.5	1.5	0.1	Passed
16000	88.5	78.5	-1.5	-2.5	1.5	0.1	Passed

## 4.3 Z-Weighting

Freq. [Hz]	Gen. level	Meas level	Dev	Limit -	Limit +	Uncert.	Status
1000	80.0	80.0	0.0	-0.7	0.7	0.1	Passed
63	80.0	80.1	0.1	-1.0	1.0	0.1	Passed
125	80.0	80.0	0.0	-1.0	1.0	0.1	Passed
250	80.0	80.0	0.0	-1.0	1.0	0.1	Passed
500	80.0	80.0	0.0	-1.0	1.0	0.1	Passed
2000	80.0	80.0	0.0	-1.0	1.0	0.1	Passed
4000	80.0	80.0	0.0	-1.0	1.0	0.1	Passed
8000	80.0	79.9	-0.1	-2.5	1.5	0.1	Passed
12500	80.0	79.8	-0.2	-2.5	1.5	0.1	Passed
16000	80.0	79.9	-0.1	-2.5	1.5	0.1	Passed

4/8



## 5. Frequency and time weightings at 1kHz

While injecting a constant steady signal at the reference frequency of 1 kHz the F-time-weighted sound level, S-time-weighted sound level and time-averaged sound level are verified with frequency weighting A. Additionally the F-time-weighted sound level for frequency weightings C and Z is measured. The first measurement serves as reference and differences in the reading with respect to this first one are determined. All levels in [dB].

Level	Exp level	Meas	Dev	Limit -	Limit +	Uncert.	Status
LAF	114.0	114.0	0.0	-0.7	0.7	0.1	Passed
LAS	114.0	113.8	-0.2	-0.7	0.7	0.1	Passed
LAeq	114.0	114.0	0.0	-0.7	0.7	0.1	Passed
LCF	114.0	114.0	0.0	-0.7	0.7	0.1	Passed
LCeq	114.0	114.0	0.0	-0.7	0.7	0.1	Passed
LZF	114.0	114.0	0.0	-0.7	0.7	0.1	Passed
LZeq	114.0	114.0	0.0	-0.7	0.7	0.1	Passed



## 6. Level linearity on the reference level range

The level linearity on the reference level range is determined by applying steady sinusoidal electrical signals at a frequency of 8 kHz with the sound level meter set for frequency-weighting A and fast time-weighting. All levels in [dB].

Exp abs level	Meas. level	Abs dev	Abs Limit -	Abs Limit +	Exp rel level	Rel dev	Rel Limit	Rel Limit +	Uncert.	Status
114.0	114.0	0.0	-0.8	8.0	0.0	0.0	-0.3	0.3	0.1	Passed
119.0	119.0	0.0	-0.8	0.8	119.0	0.0	-0.3	0.3	0.1	Passed
124.0	124.0	0.0	-0.8	0.8	124.0	0.0	-0.3	0.3	0.1	Passed
129.0	129.0	0.0	-0.8	0.8	129.0	0.0	-0.3	0.3	0.1	Passed
134.0	134.0	0.0	-0.8	0.8	134.0	0.0	-0.3	0.3	0.1	Passed
135.0	135.0	0.0	-0.8	0.8	135.0	0.0	-0.3	0.3	0.1	Passed
136.0	136.0	0.0	-0.8	8.0	136.0	0.0	-0.3	0.3	0.1	Passed
114.0	114.0	0.0	-0.8	0.8	0.0	0.0	-0.3	0.3	0.1	Passed
109.0	109.0	0.0	-0.8	8.0	109.0	0.0	-0.3	0.3	0.1	Passed
104.0	104.0	0.0	-0.8	0.8	104.0	0.0	-0.3	0.3	0.1	Passed
99.0	99.0	0.0	-0.8	0.8	99.0	0.0	-0.3	0.3	0.1	Passed
94.0	94.0	0.0	-0.8	8.0	94.0	0.0	-0.3	0.3	0.1	Passed
89.0	89.0	0.0	-0.8	8.0	89.0	0.0	-0.3	0.3	0.1	Passed
84.0	84.0	0.0	-0.8	0.8	84.0	0.0	-0.3	0.3	0.1	Passed
79.0	79.0	0.0	-0.8	0.8	79.0	0.0	-0.3	0.3	0.1	Passed
74.0	74.0	0.0	-0.8	8.0	74.0	0.0	-0.3	0.3	0.1	Passed
69.0	69.0	0.0	-0.8	0.8	69.0	0.0	-0.3	0.3	0.1	Passed
64.0	64.0	0.0	-0.8	0.8	64.0	0.0	-0.3	0.3	0.1	Passed
59.0	59.0	0.0	-0.8	8.0	59.0	0.0	-0.3	0.3	0.1	Passed
54.0	54.0	0.0	-0.8	8.0	54.0	0.0	-0.3	0.3	0.1	Passed
49.0	49.0	0.0	-0.8	8.0	49.0	0.0	-0.3	0.3	0.1	Passed
44.0	44.0	0.0	-0.8	8.0	44.0	0.0	-0.3	0.3	0.1	Passed
39.0	39.0	0.0	-0.8	8.0	39.0	0.0	-0.3	0.3	0.1	Passed
34.0	34.0	0.0	-0.8	0.8	34.0	0.0	-0.3	0.3	0.1	Passed
29.0	29.0	0.0	-0.8	8.0	29.0	0.0	-0.3	0.3	0.1	Passed
28.0	28.0	0.0	-0.8	8.0	28.0	0.0	-0.3	0.3	0.1	Passed
27.0	27.1	0.1	-0.8	8.0	27.0	0.1	-0.3	0.3	0.1	Passed
26.0	26.1	0.1	-0.8	8.0	26.1	0.0	-0.3	0.3	0.1	Passed
25.0	25.1	0.1	-0.8	8.0	25.1	0.0	-0.3	0.3	0.1	Passed



## 7. Level linearity including the level range control

This test is not applicable for a single-range sound level meter.

## 8. Toneburst response

The response of the sound level meter to short-duration signals is tested on the reference level range with 4 kHz tonebursts that start and stop at zero crossings and are extracted from steady 4 kHz sinusoidal electrical input signals. The sound level meter is set for frequency weighting A. All levels in [dB].

The continuous signal level is 123 dB.

Burst signal	Burst duration [ms]	Exp level	Meas level	Dev	Limit -	Limit +	Uncert.	Status
LAF	200	122.0	121.9	-0.1	-0.5	0.5	0.2	Passed
LAF	2	105.0	104.8	-0.2	-1.5	1.0	0.2	Passed
LAF	0.25	96.0	95.6	-0.4	-3.0	1.0	0.2	Passed
LAS	200	115.6	115.5	-0.1	-0.5	0.5	0.2	Passed
LAS	2	96.0	95.9	-0.1	-3.0	1.0	0.2	Passed
LAeq10s	200	106.0	105.9	-0.1	-0.5	0.5	0.2	Passed
LAeq10s	2	86.0	85.9	-0.1	-0.5	0.5	0.2	Passed
LAeq10s	0.25	77.0	76.8	-0.2	-0.5	0.5	0.2	Passed



## 9. C-weighted peak sound level

The sound level meter is tested on the least-sensitive level range with fast time weighting and C frequency weighting. The test signals are a single complete cycle of an 8 kHz sinusoid starting and stopping at zero crossings and positive and negative half cycles of a 500 Hz sinusoid that also start and stop at zero crossings. All levels in [dB].

Burst signal	Source level	Exp LCp-LCF	Meas LCp-LCF	Dev	Limit -	Limit +	Uncert.	Status
8kHz	114.0	3.4	3.1	-0.3	-2.0	2.0	0.2	Passed
500Hz +	132.0	2.4	2.2	-0.2	-1.0	1.0	0.2	Passed
500Hz -	132.0	2.4	2.2	-0.2	-1.0	1.0	0.2	Passed

#### 10. Overload Indication

Overload indication is tested on the least-sensitive level range with the sound level meter set to A-weighted, time-averaged sound level. Positive and negative one-half-cycle sinusoidal electrical signals at a frequency of 4 kHz are used. All levels in [dB].

Start	OV +	OV -	Dev	Limit -	Limit +	Uncert.	Status
	139.2	139.3	0.1	-1.5	1.5	0.3	Passed



## Certificate of Calibration

for

Description:

Sound Level Calibrator

Manufacturer:

RION

Type No.:

NC-75

Serial No .:

35124528

Submitted by:

Customer:

Aurecon Hong Kong Limited

Address:

Unit 1608, 16/F, Tower B,

Manulife Financial Centre,

223-231 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong

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

✓ Within

☐ Outside

the allowable tolerance.

The test equipments used for calibration are traceable to National Standards via:

The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

Date of receipt: 12 February 2025

Date of calibration: 13 February 2025

Date of NEXT calibration: 12 February 2026

Calibrated by:

Certified by:

Mr. Ng Yan Wa Laboratory Manager

Date of issue: 13 February 2025

Certificate No.: APJ24-145-CC002

Page 1 of 2

Room 422, Leader Industrial Centre, 57-59 Au Pui Wan Street, Fo Tan, Shatin, N.T., Hong Kong Tel: (852) 2668 3423 Fax:(852) 2668 6946



#### 1. Calibration Precautions:

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.

## 2. Calibration Specifications:

Calibration check

#### 3. Calibration Conditions:

Air Temperature: 24.3 °C
Air Pressure: 1006 hPa
Relative Humidity: 68.2 %

## 4. Calibration Equipment:

Test Equipment	Type	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV240081	HOKLAS
Sound Level Meter	RION NA-28	30721812	AV240109	HOKLAS

#### 5. Calibration Results

#### 5.1 Sound Pressure Level

2000000	minal value Accept lower level dB dB		Accept upper level dB	Measured value dB		
94	.0	93.6	94.4	94.1		

## 6. Calibration Results Applied

The results apply to the particular unit-under-test only. All calibration points are within manufacture's specification as IEC 60942 Class 1.

Note:

The values given in this certification only related to the values measured at the time of the calibration.

Certificate No.: APJ24-145-CC002

(A+A) \*L Page 2 of 2

Room 422, Leader Industrial Centre, 57-59 Au Pui Wan Street , Fo Tan, Shatin, N.T., Hong Kong Tel: (852) 2668 3423 Fax: (852) 2668 6946



Appendix J
The Certification of Laboratory with HOKLAS
Accredited Analytical Tests



#### Hong Kong Accreditation Service 香港認可處

## **Certificate of Accreditation**

認可證書

This is to certify that 特此證明

#### ACUMEN LABORATORY AND TESTING LIMITED

浩科檢測中心有限公司

Flat/Rm D, 12/F, Ford Glory Plaza, Nos. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong

香港九龍長沙灣永康街37-39號福源廣場12樓D室

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

## **Environmental Testing**

環境測試

This accreditation to ISO/IEC 17025:2017 demonstrates technical competence for a defined scope and the implementation of a management system relevant to laboratory operation (see joint IAF-ILAC-ISO Communiqué).

此项 ISO/IEC 17025:2017 的認可資格證明此實驗所具備指定範疇內所須的技術能力並 實施一套與實驗所運作相關的管理關系 (見國際認可結婚、國際實驗所認可合作組織及國際標準化組織的聯合公報)。

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

SHUM Wai-leung, Executive Administrator

執行幹事 沈偉良

Issue Date: 15 November 2021

笯 發 日期:二零二一年十一月十五日

Registration Number HOKLAS 241

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

This certificate is issued subject to the terms and conditions laid down by HKAS 本體書按照者連認可應訂立的條款及條件發出

L002316



Hong Kong Accreditation Service 香港認可處

## Certificate of Accreditation

認可證書

This is to certify that 特此證明

## ALS TECHNICHEM (HK) PTY LIMITED

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

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

#### **Environmental Testing**

環境測試

This accreditation to ISO/IEC 17025:2017 demonstrates technical competence for a defined scope and the implementation of a management system relevant to laboratory operation (see joint IAF-ILAC-ISO Communiqué).

此項 ISO/IEC 17025:2017 的想可資格證明此實驗所具備指定範疇內所須的技術能力並 實施一套與實驗所運作相關的管理體系 (見國際認可論理、國際實驗所認可合作組織及國際標準化組織的聯合公報)。

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

SHUM Wai-leung, Executive Administrator

執行幹事 沈偉良

Issue Date: 28 February 2020

**簽發日期:二零二零年二月二十八日** 

Registration Number : HOKLAS 066

註冊號碼:

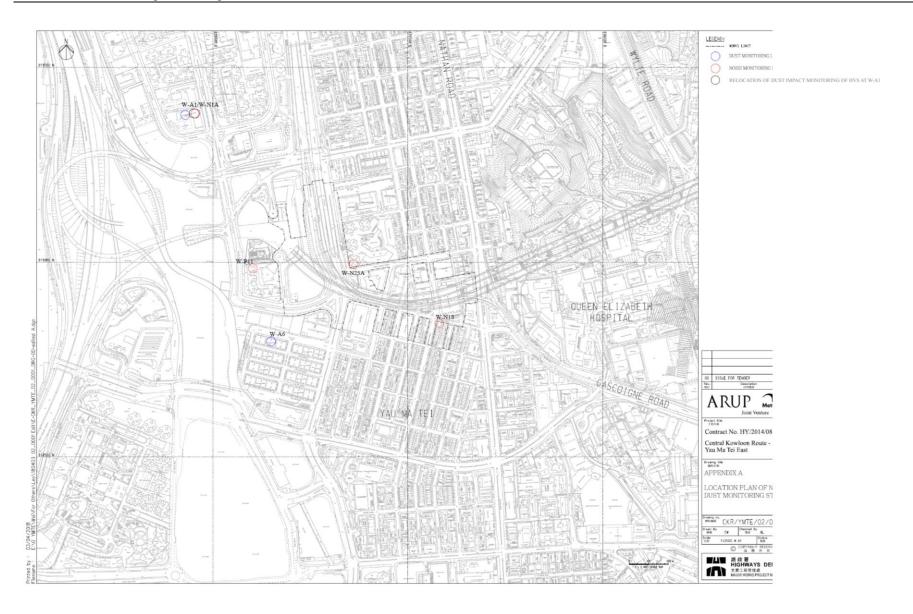
Date of First Registration: 15 September 1995 首次註冊日期:一九九五年九月十五日

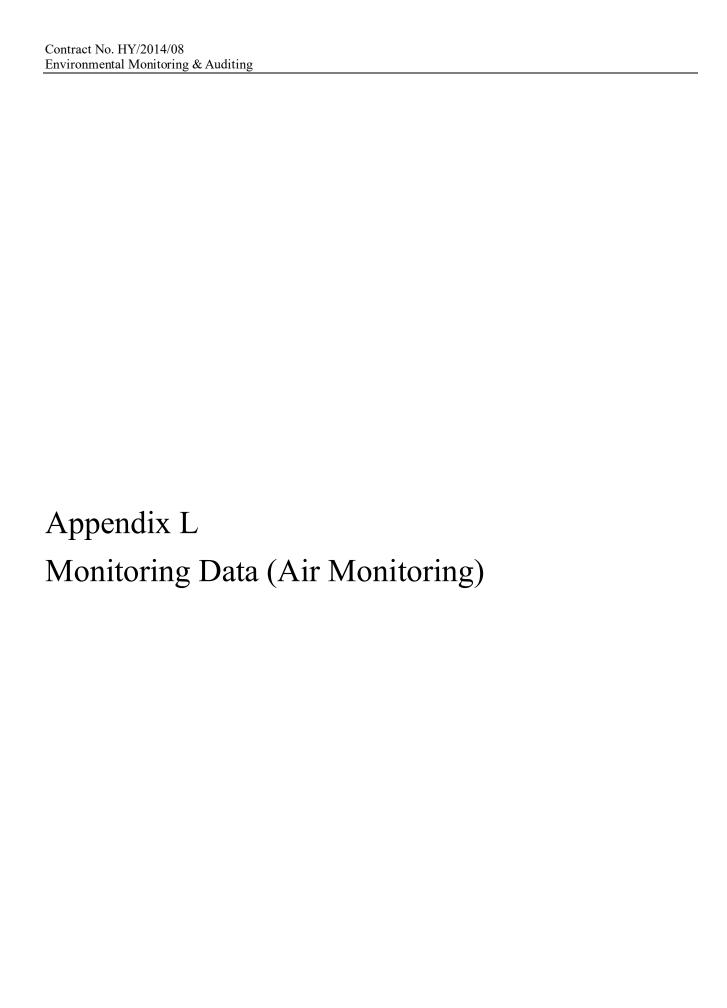
This certificate is issued subject to the terms and conditions laid down by HKAS 本證書按照香港即可處訂立的複數及條件發出

L001934

Contract No. HY/2014/08
Environmental Monitoring & Auditing

Appendix K
Location Plan of Noise and Air Quality
Monitoring Station





Location: Yau Ma Tei Catholic Primary School (Hoi Wang Road) (W-A1)

Monitoring date: 06, 11, 14, 20, and 26 August 2025

Parameter: TSP 1-hour Other Factors: Nearby traffic

	1-hour TSP (μg/m³)									
Date	Weather	Start Time	1 <sup>st</sup> Hour (μg/m³)	2 <sup>nd</sup> Hour (μg/m³)	3 <sup>rd</sup> Hour (μg/m³)					
06/08/2025	Cloudy	9:18	26	18	22					
11/08/2025	Fine	14:44	35	37	30					
14/08/2025	Cloudy	13:30	19	13	14					
20/08/2025	Cloudy	9:56	32	24	21					
26/08/2025	Fine	9:35	38	43	37					
Mir	nimum: 13 μg/m	3		Maximum: 43 μg/m <sup>3</sup>						

Remarks: The monitoring works originally scheduled on 5 August 2025 was rescheduled to 6 August 2025 due to unfavourable weather conditions

Location: Man Cheong Building (W-A6)
Monitoring date: 06, 11, 14, 20, and 26 August 2025

Parameter: TSP 1-hour Other Factors Nearby traffic

			1-	hour TSP (	μg/m³)			
Date	Weather	Start Time		t Hour ug/m³)	2 <sup>nd</sup> Hour (μg/m³)	3 <sup>rd</sup> Hour (μg/m³)		
06/08/2025	Cloudy	13:12		35	43	43		
11/08/2025	Fine	13:30		35	35	40		
14/08/2025	Cloudy	14:25		21	24	18		
20/08/2025	Cloudy	9:31		39	27	34		
26/08/2025	Fine	10:28		32	30	23		
	Minimum: 18	ug/m <sup>3</sup>		Maximum: 43 μg/m <sup>3</sup>				

Remarks: The monitoring works originally scheduled on 5 August 2025 was rescheduled to 6 August 2025 due to unfavourable weather conditions

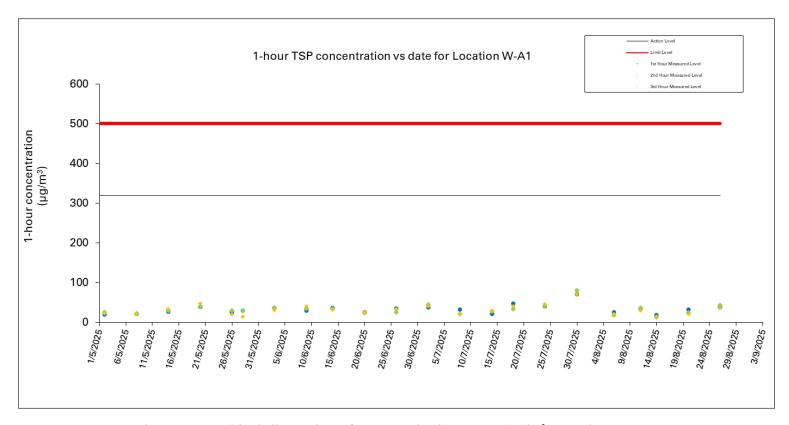


Figure 1: Graphical Illustration of Measured 1-hour TSP (μg/m³) Levels at W-A1

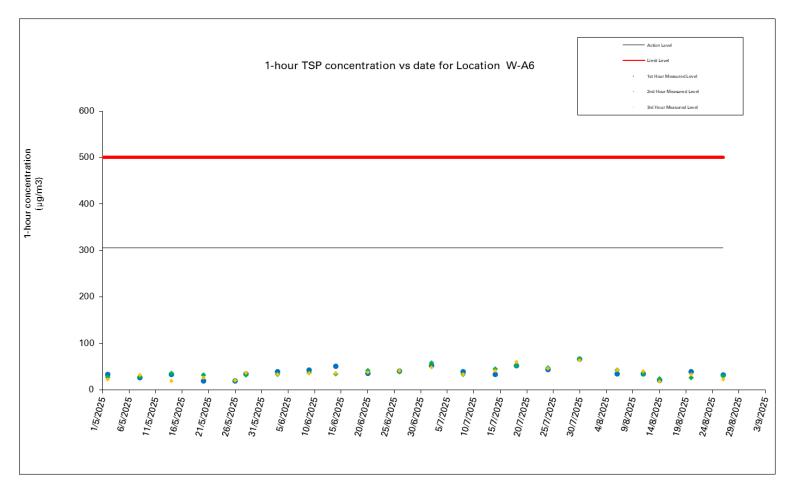


Figure 2: Graphical Illustration of Measured 1-hour TSP (μg/m³) Levels at W-A6

Location: Yau Ma Tei Catholic Primary School (Hoi Wang Road) (W-A1)

Monitoring date: 06, 11, 14, 20, and 26 August 2025

Parameter: TSP 24-hour Other Factors Nearby traffic

Summary of TSP-24hr Concrentration (  $\mu$  g/m<sup>3</sup>) at Location W-A1

Date of Calibration:	1-Aug-25	Slope =	18.7772
Calibration due date:	16-Aug-25	Intercept =	25.7396
Date of Calibration:	16-Aug-25	Slope =	21.9461
Calibration due date:	31-Aug-25	Intercept =	22.5841

Start Date	Weather Condition		Elapse Time		CI	Chart Reading		Avg Air Temp	Avg Atmospheric Pressure	Flow Rate Standard Air Volume		Filter Weight (g)		Particulate weight	Corr.
	Condition	Initial	Final	Actual (min)	Min	Max	Avg	(°C)	(hPa)	(m <sup>3</sup> /min)	(m <sup>3</sup> )	Initial	Final	(g)	(μg/m <sup>3</sup> )
6/8/2025	Cloudy	11158.4	11182.4	1440.0	39	40	39.5	28.4	1008.5	0.71	1024	2.7152	2.7512	0.0360	35
11/8/2025	Fine	11182.4	11206.4	1440.0	40	41	40.5	29.8	1006.6	0.76	1087	2.7168	2.7537	0.0369	34
14/8/2025	Cloudy	11206.4	11230.4	1440.0	39	40	39.5	26.9	1007.2	0.71	1028	2.7058	2.7525	0.0467	45
20/8/2025	Cloudy	11230.4	11254.4	1440.0	39	40	39.5	29.3	1011.1	0.75	1086	2.6862	2.7186	0.0324	30
26/8/2025	Fine	11254.4	11278.4	1440.0	39	39	39.0	30.1	1009.0	0.73	1045	2.7152	2.7636	0.0484	46
			1						Maximum:	46	$\mu g/m^3$	Minimum:	30	$\mu g/m^3$	

Remarks: The monitoring works originally scheduled on 5 August 2025 was rescheduled to 6 August 2025 due to unfavourable weather conditions.

Location: Man Cheong Building (W-A6)
Monitoring date: 06, 11, 14, 20, and 26 August 2025

Parameter: TSP 24-hour Other Factors Nearby traffic

Summary of TSP-24hr Concrentration ( $\mu$  g/m<sup>3</sup>) at Location W-A6

Date of Calibration:	1-Aug-25	Slope =	20.5443
Calibration due date:	16-Aug-25	Intercept =	22.7810
Date of Calibration:	16-Aug-25	Slope =	17.5557
Calibration due date:	31-Aug-25	Intercept =	28.7707

Start Date	Weather Condition	Elapse Time		Chart Reading		Avg Air Temp	Avg Atmospheric Pressure	Flow Rate	Standard Air Volume	Filter V	Veight (g)	Particulate weight	Conc.		
		Initial	Final	Actual (min)	Min	Max	Avg	(°C)	(hPa)	(m <sup>3</sup> /min)	(m <sup>3</sup> )	Initial	Final	(g)	(μg/m <sup>3</sup> )
6/8/2025	Cloudy	13958.4	13982.4	1440.00	39	40	39.5	28.4	1008.5	0.79	1143	2.6926	2.7488	0.0562	49
11/8/2025	Fine	13982.4	14006.4	1440.00	39	40	39.5	29.8	1006.6	0.79	1132	2.6781	2.7104	0.0323	29
14/8/2025	Cloudy	14006.4	14030.4	1440.00	40	40	40.0	26.9	1007.2	0.82	1181	2.7042	2.7562	0.0520	44
20/8/2025	Cloudy	14030.4	14054.4	1440.00	41	41	41.0	29.3	1011.1	0.67	972	2.6824	2.7198	0.0374	38
26/8/2025	Fine	14054.4	14078.4	1440.00	40	41	40.5	30.1	1009.0	0.64	920	2.7014	2.7571	0.0557	61
										Maximum:	61	μg/m³	Minimum:	29	μg/m³

Remarks: The monitoring works originally scheduled on 5 August 2025 was rescheduled to 6 August 2025 due to unfavourable weather conditions.

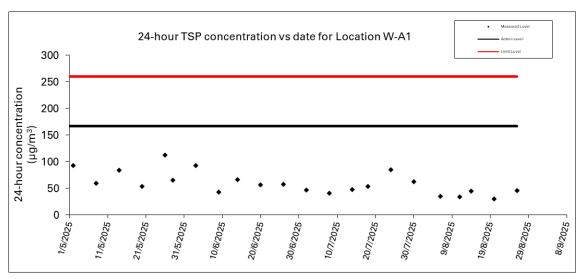


Figure 3: Graphical Illustration of Measured 24-hour TSP ( $\mu g/m^3$ ) Levels at W-A1

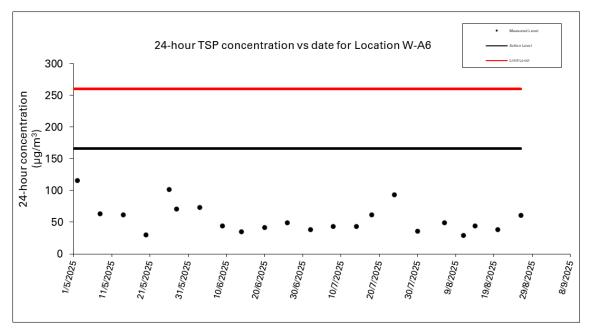
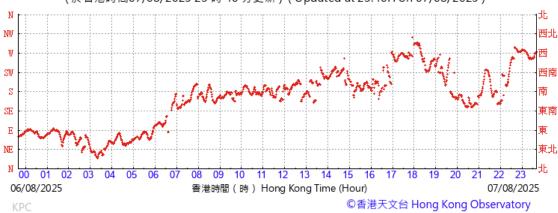
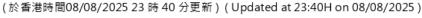


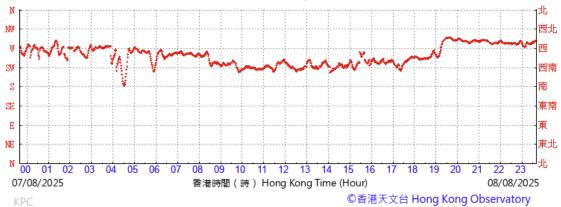
Figure 4: Graphical Illustration of Measured 24-hour TSP (μg/m³) Levels at W-A6

#### Wind direction data for 6, 7, 11, 12, 14, 15, 20, 21, 26 and 27 August 2025

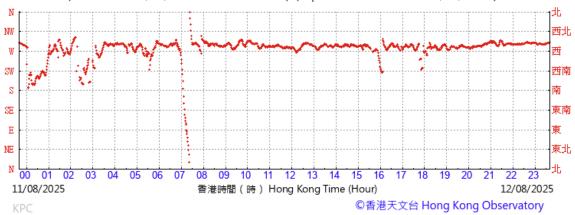
(於香港時間07/08/2025 23 時 40 分更新) (Updated at 23:40H on 07/08/2025)

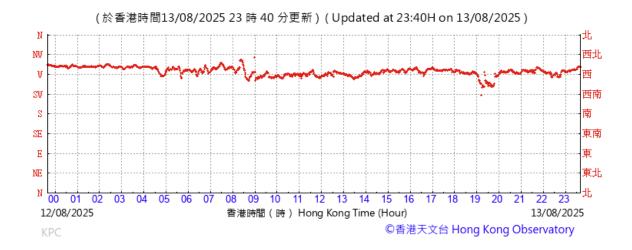


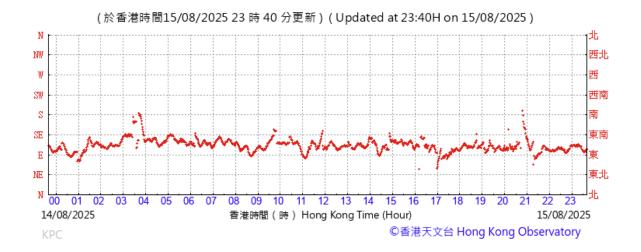


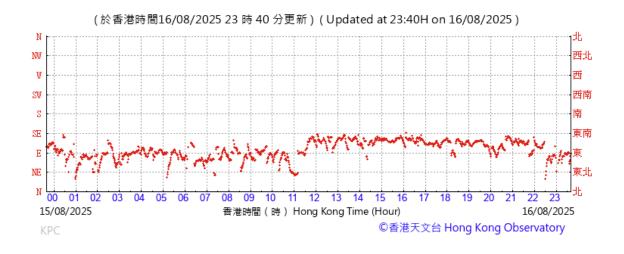


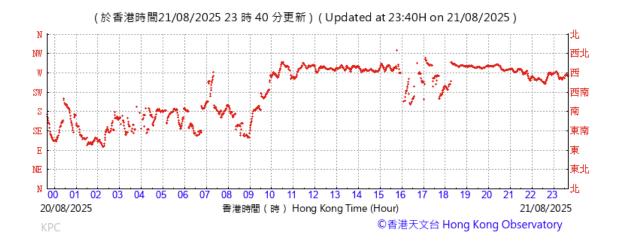


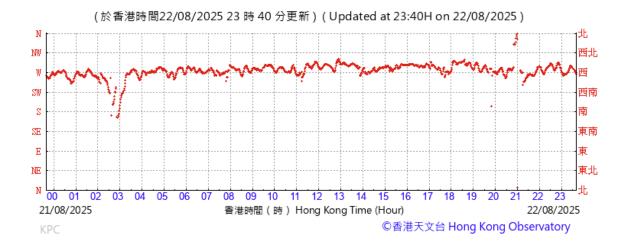




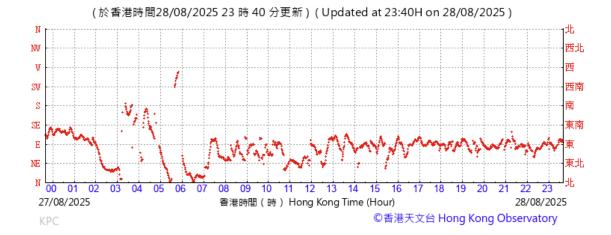




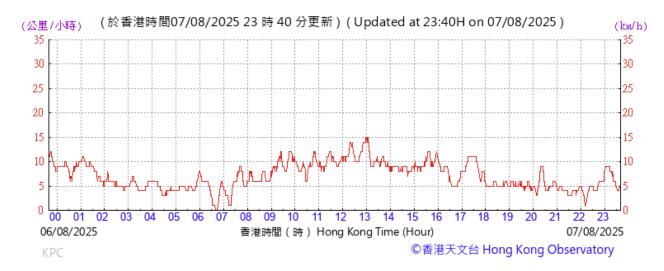








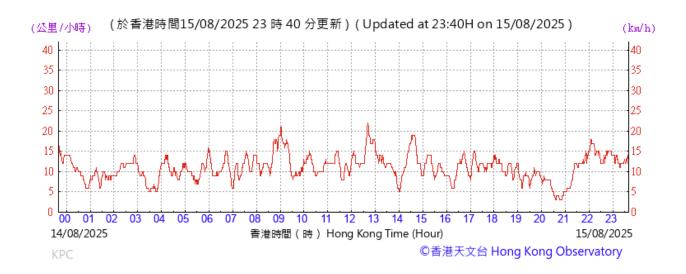
#### Wind speed data for 6, 7, 11, 12, 14, 15, 20, 21, 26 and 27 August 2025



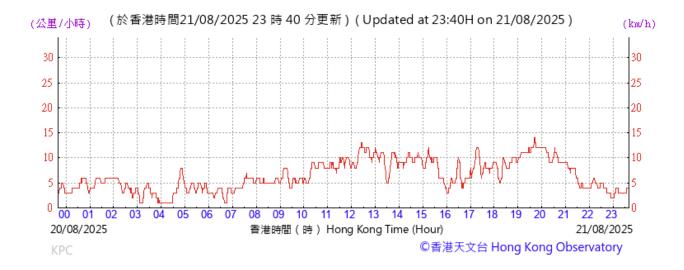


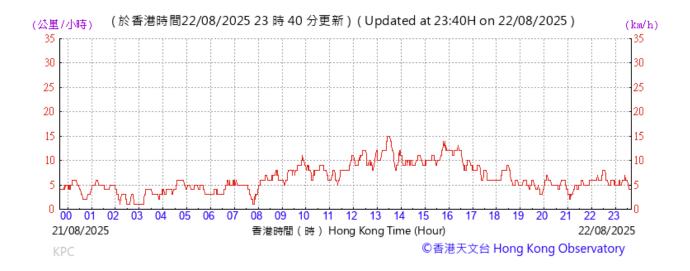


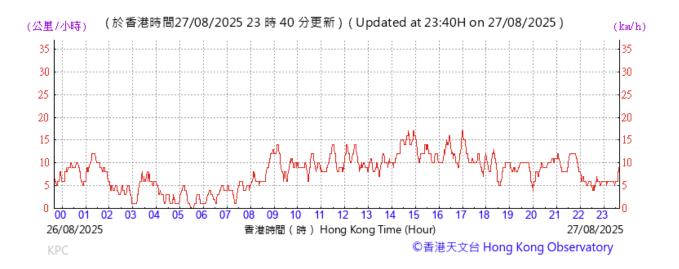




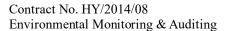












Appendix M Monitoring Data (Noise) Location: Yau Ma Tei Catholic Primary School (Hoi Wang Road) (W-N1A)

Monitoring date: 06, 11, 14, 20, and 26 August 2025

 $\begin{array}{ll} \text{Parameter:} & L_{\text{eq}},\,L_{10},\,L_{90} \\ \text{Other Factors} & \text{Nearby traffic} \end{array}$ 

### Noise Monitoring data:

Date	Weather	Start Time	-	End Time	Leq	$L_{10}$	L <sub>90</sub>	Wind speed (m/s)
06/08/2025	Cloudy	9:18	-	9:48	59.3	61.5	56.8	2.8
11/08/2025	Fine	14:43	-	15:13	60.8	64.9	58.5	4.7
14/08/2025	Cloudy	13:40	-	14:10	59.4	61.3	58.0	3.3
20/08/2025	Cloudy	9:57	-	10:27	58.2	59.2	57.4	1.8
26/08/2025	Fine	9:40	-	10:10	58.8	59.6	57.5	2.5

Remarks: Examination was not scheduled at Yau Ma Tei Catholic Primary School during the reporting month.

The monitoring works originally scheduled on 05 August 2025 was rescheduled to 06 August 2025 due to unfavourable weather conditions

Location: Hydan Place (W-N18)

Monitoring date: 06, 11, 14, 20, and 26 August 2025

 $\begin{array}{ll} Parameter: & L_{eq.}\,L_{10,}\,\,L_{90} \\ Other\,\,Factors & Nearby\,\,traffic \end{array}$ 

## Noise Monitoring data:

Date	Weather	Start Time	-	End Time	Leq	$L_{10}$	L <sub>90</sub>	Wind speed (m/s)
06/08/2025	Cloudy	13:41	-	14:11	68.2	70.4	66.5	2.4
11/08/2025	Fine	14:00	-	14:30	69.6	72.4	66.0	3.5
14/08/2025	Cloudy	16:29	-	16:59	61.9	64.3	60.0	3.5
20/08/2025	Cloudy	15:05	-	15:35	62.2	64.4	60.1	2.5
26/08/2025	Fine	14:22	-	14:52	62.5	64.9	60.5	4.0

Remarks: The monitoring works originally scheduled on 05 August 2025 was rescheduled to 06 August 2025 due to unfavourable weather conditions

Location: Prosperous Garden Block 1 (W-N25A)

Monitoring date: 06, 11, 14, 20, and 26 August 2025

 $\begin{array}{ll} Parameter: & L_{eq.}\,L_{10,}\,\,L_{90} \\ Other\,\,Factors & Nearby\,\,traffic \end{array}$ 

### Noise Monitoring data:

Date	Weather	Start Time	-	End Time	Leq	$L_{10}$	L <sub>90</sub>	Wind speed (m/s)
06/08/2025	Cloudy	14:36	-	15:06	73.4	75.2	71.6	2.4
11/08/2025	Fine	14:48	-	15:18	72.6	75.1	66.1	4.4
14/08/2025	Cloudy	14:15	-	14:45	66.9	70.2	65.4	3.1
20/08/2025	Cloudy	16:30	-	17:00	72.3	75.2	69.2	2.8
26/08/2025	Fine	15:15	_	15:45	71.9	75.4	68.8	3.3

Remarks: The monitoring works originally scheduled on 05 August 2025 was rescheduled to 06 August 2025 due to unfavourable weather conditions

Location: The Coronation Tower 1 (W-P11)

Monitoring date: 06, 11, 14, 20, and 26 August 2025

 $\begin{array}{ll} Parameter: & L_{eq.}\,L_{10,}\,L_{90} \\ Other\ Factors & Nearby\ traffic \end{array}$ 

### Noise Monitoring data:

Date	Weather	Start Time	-	End Time	Leq	$L_{10}$	L <sub>90</sub>	Wind speed (m/s)
06/08/2025	Cloudy	10:09	-	10:39	60.9	62.9	59.3	3.9
11/08/2025	Fine	13:52	-	14:22	66.4	68.4	65.3	3.1
14/08/2025	Cloudy	15:00	-	15:30	67.4	69.6	64.5	2.6
20/08/2025	Cloudy	10:47	-	11:17	66.7	68.3	65.6	2.5
26/08/2025	Fine	11:05	-	11:35	71.2	74.1	67.8	2.4

Remarks: The monitoring works originally scheduled on 05 August 2025 was rescheduled to 06 August 2025 due to unfavourable weather conditions

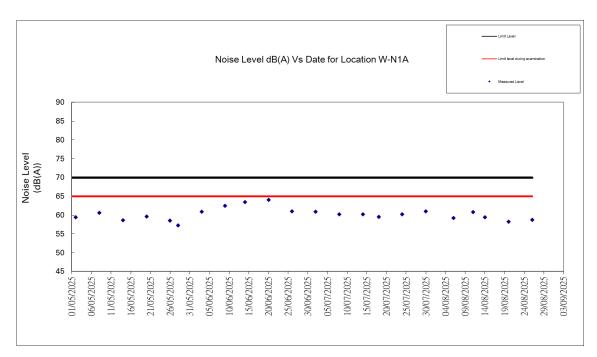


Figure 1: Graphical Illustration of Measured Noise Levels at W-N1A

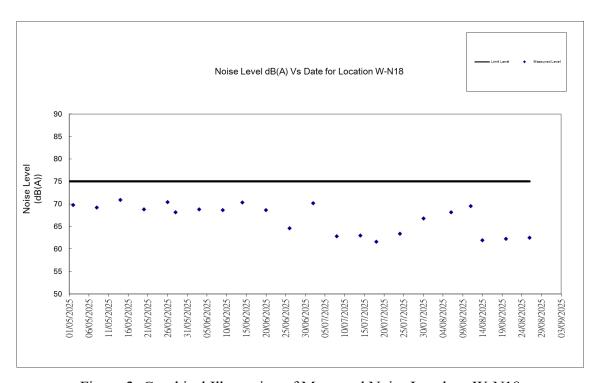


Figure 2: Graphical Illustration of Measured Noise Levels at W-N18

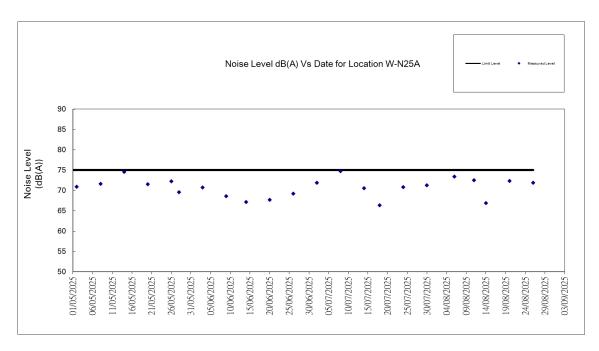


Figure 3: Graphical Illustration of Measured Noise Levels at W-N25A

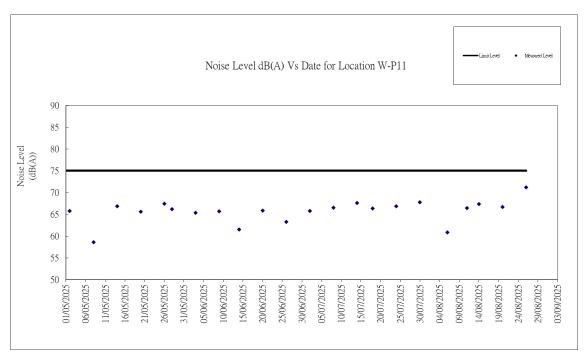


Figure 4: Graphical Illustration of Measured Noise Levels at W-P11

Contract No. HY/2014/08
Environmental Monitoring & Auditing

Appendix N Waste Flow Table

### **Monthly Summary Waste Flow Table**

Name of Department: Highways Department Contract No. / Works Order No.: HY/2014/08

Monthly Summary Waste Flow Table for August 2025

[to be submitted not later than the 15<sup>th</sup> day of each month following reporting month] (All quantities shall be rounded off to 2 decimal places.)

		Actual	Quantities of <u>Iner</u>	<u>rt</u> Construction Wa	iste Generated Mo	onthly
Month	(a)=(b)+(c)+(d)+(e)+ (f)+ (g)+ (h)+ (i)+ (j)+ (k) Total Quantity Generated	(b) Hard Rock and Large Broken	(c) Reused in the Contract	(d) Reused in other Projects	(e) Disposed of as Public Fill	(f) Imported Fill
	(in 'tonnes)	(in 'tonnes)	(in 'tonnes)	(in 'tonnes)	(in 'tonnes)	(in 'tonnes)
Jan-25	13132.80	540.30	0.00	1156.60	1303.10	9936.80
Feb-25	20719.10	156.90	0.00	0.00	568.90	19863.00
Mar-25	22668.26	501.20	0.00	0.00	1613.20	20461.30
Apr-25	20858.50	347.20	0.00	0.00	112.10	19984.10
May-25	16744.61	337.20	0.00	0.00	343.50	15932.80
Jun-25	8480.70	378.10	0.00	0.00	361.00	7640.90
Sub-total	102603.97	2260.90	0.00	1156.60	4301.80	93818.90
Jul-25	5121.60	351.60	0.00	0.00	732.60	3930.60
Aug-25	3578.00	190.70	343.10	0.00	685.40	2191.00
Sep-25						
Oct-25						
Nov-25						
Dec-25						
Total	111303.57	2803.20	343.10	1156.60	5719.80	99940.50
2018	51057.90	0.00	0.00	0.00	47715.60	2877.40
2019	112830.10	541.00	1523.80	13525.00	93132.90	3155.60
2020	193021.92	58778.00	1205.60	19108.60	112556.80	0.00
2021	104679.02	6461.30	1393.70	1144.70	92950.20	1542.90
2022	114787.22	3600.50	1804.50	18471.20	90202.70	0.00
2023	192946.67	73219.70	1670.00	20008.60	96991.50	0.00
2024	282726.21	52152.28	25269.83	70408.56	128027.11	4773.80
Accumulated Total	1163352.61	197555.98	33210.53	143823.26	667296.61	112290.20

	Actual Quantities of Non-inert Construction Waste Generated Monthly								
Month	(į Me	g) tals	(h Paper/ ca packa	ardboard	(i Plas		( Chemica	j) al Waste	(k) Others, e.g. General Refuse disposed at Landfill
	(in '00	00kg)	(in '00	)0kg)	(in '00	00kg)	(in '00	00kg)	(in 'tonnes)
	generated	recycled	generated	recycled	generated	recycled	generated	recycled	generated
Jan-25	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.00	195.60
Feb-25	0.00	1.60	0.00	0.00	0.00	0.00	0.00	0.00	128.70
Mar-25	0.00	2.10	0.00	0.26	0.00	0.00	0.00	0.00	90.20
Apr-25	0.00	332.00	0.00	0.80	0.00	0.00	0.00	0.00	82.30
May-25	0.00	71.90	0.00	0.00	0.00	0.01	0.00	0.00	59.20
Jun-25	0.00	28.10	0.00	0.00	0.00	0.00	0.00	0.00	72.60
Sub-total	0.00	435.70	0.00	1.46	0.00	0.01	0.00	0.00	628.60
Jul-25	0.00	25.80	0.00	0.00	0.00	0.00	0.00	0.00	81.00
Aug-25	0.00	91.80	0.00	0.80	0.00	0.00	0.00	0.00	75.20
Sep-25									
Oct-25									
Nov-25									
Dec-25									
Total	0.00	553.30	0.00	2.26	0.00	0.01	0.00	0.00	784.80
2018	28.40	0.00	0.00	0.00	0.00	0.00	2.00	0.00	434.50
2019	0.00	9.10	3.40	6.80	0.00	0.00	5.20	0.00	927.30
2020	69.20	0.00	3.30	0.00	0.02	0.00	25.30	0.00	1275.10
2021	30.20	0.00	4.80	0.00	0.02	0.00	25.50	0.00	1125.70
2022	108.60	0.00	3.30	0.40	0.02	0.00	1.20	0.00	594.80
2023	0.00	65.70	0.00	2.71	0.00	0.06	0.00	0.00	988.40
2024	0.00	143.41	0.00	5.28	0.00	0.81	0.00	4.00	1941.13
Accumulated Total	236.40	771.51	14.80	17.45	0.06	0.88	59.20	4.00	8071.73



Appendix O
Statistics on Complaint, Notifications of
Summons and Successful Prosecutions

Statistical Summary of Exceedances

	Air Quality						
Reporting Period	Action Level	Limit Level					
01 – 31 August 2025	0	0					
	Noise						
Reporting Period	Action Level	Limit Level					
01 – 31 August 2025	0	0					

Statistical Summary of Environmental Complaints

Danauting Danied		<b>Environmental Complaint Sta</b>	tistics
Reporting Period	Frequency	Cumulative	Complaint Nature
01 – 31 August 2025	6	177	Dust Impact, Noise Impact, Wastewater

Statistical Summary of Environmental Non-compliance

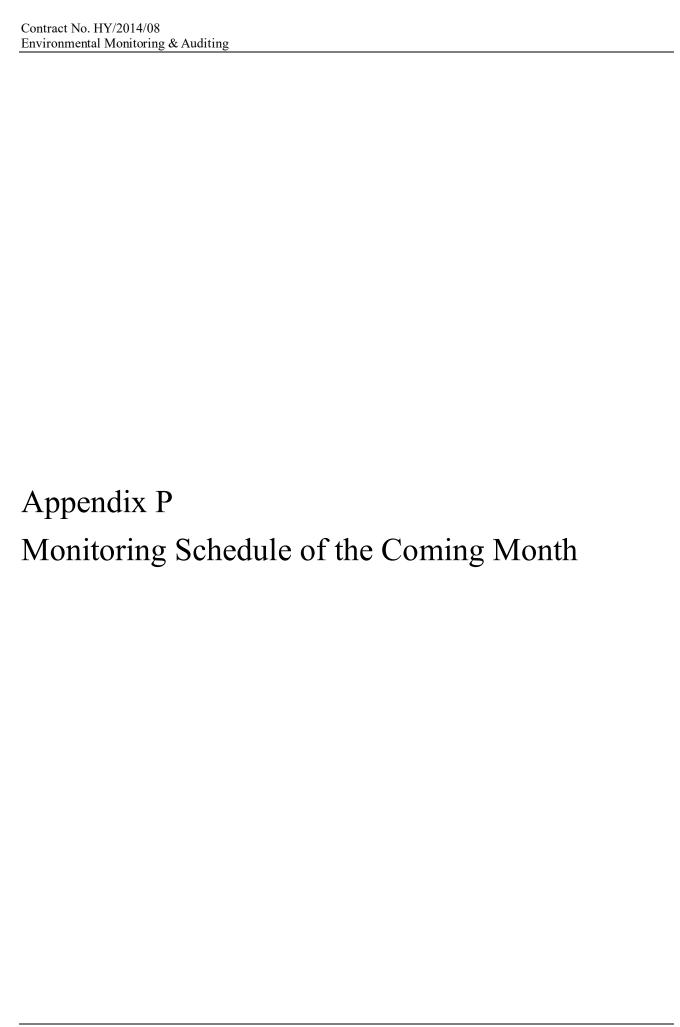
Donauting Davied	En	vironmental Non-compliance	Statistics
Reporting Period	Frequency	Cumulative	Details
01 – 31 August 2025	0	2	N/A

Statistical Summary of Environmental Summons

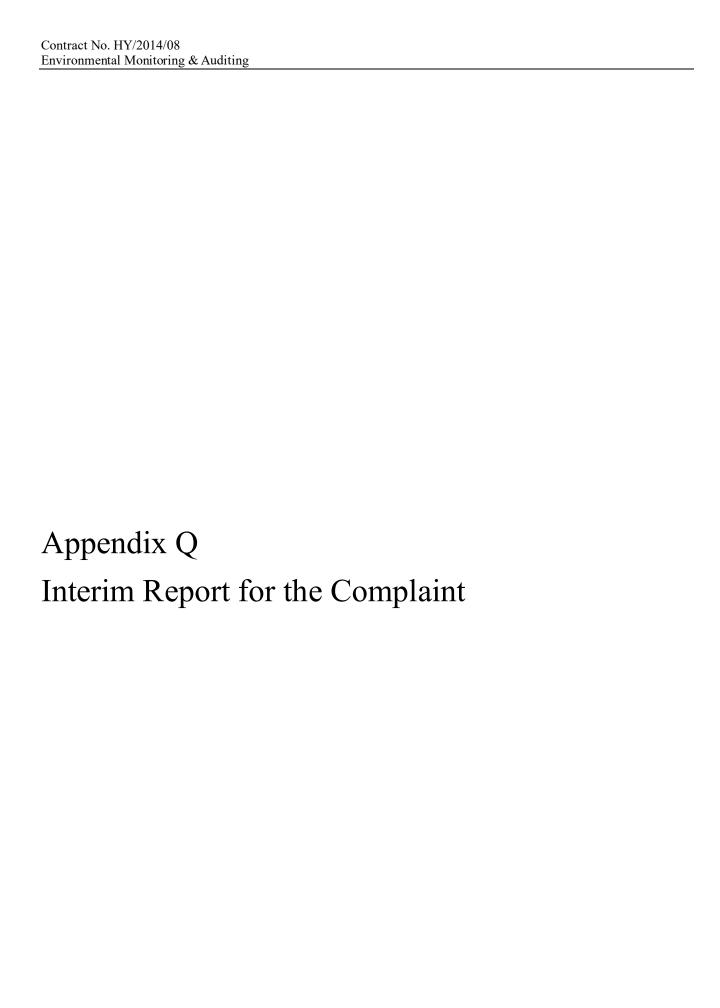
Donouting Davied		<b>Environmental Summons Stat</b>	istics
Reporting Period	Frequency	Cumulative	Details
01 – 31 August 2025	0	1	N/A

Statistical Summary of Environmental Prosecution

Donauting David	Environmental Prosecution Statistics					
Reporting Period	Frequency	Cumulative	Details			
01 – 31 August 2025	0	0	N/A			



Impact Monitoring Schedule for YMTE						
	Sep-25					
Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
	Impact Air monitoring for W-A6 &W-A1 Noise monitoring for W-N1A, W-P11,W-N18 & W-N25A (Rescheduled to 6 August 2025)					Impact Air monitoring for W-A6 &W-A1 Noise monitoring for W-N1A, W-P11,W-N18 & W-N25A (Rescheduled to 6 August 2025)
7	8	9	10	11	12	13
					Impact  Air monitoring for W-A6 &W-A1  Noise monitoring for W-N1A,  W-P11,W-N18 & W-N25A  (Rescheduled to 6 August 2025)	
14	15	16	17	18	19	20
				Impact Air monitoring for W-A6 &W-A1 Noise monitoring for W-N1A, W-P11,W-N18 & W-N25A		
21	22	23		25	26	27
			Impact Air monitoring for W-A6 &W-A1 Noise monitoring for W-N1A, W-P11,W-N18 & W-N25A			
28	29	30				
		Impact Air monitoring for W-A6 &W-A1 Noise monitoring for W-N1A, W-P11,W-N18 & W-N25A				



# **Interim Report on Environmental Complaint**

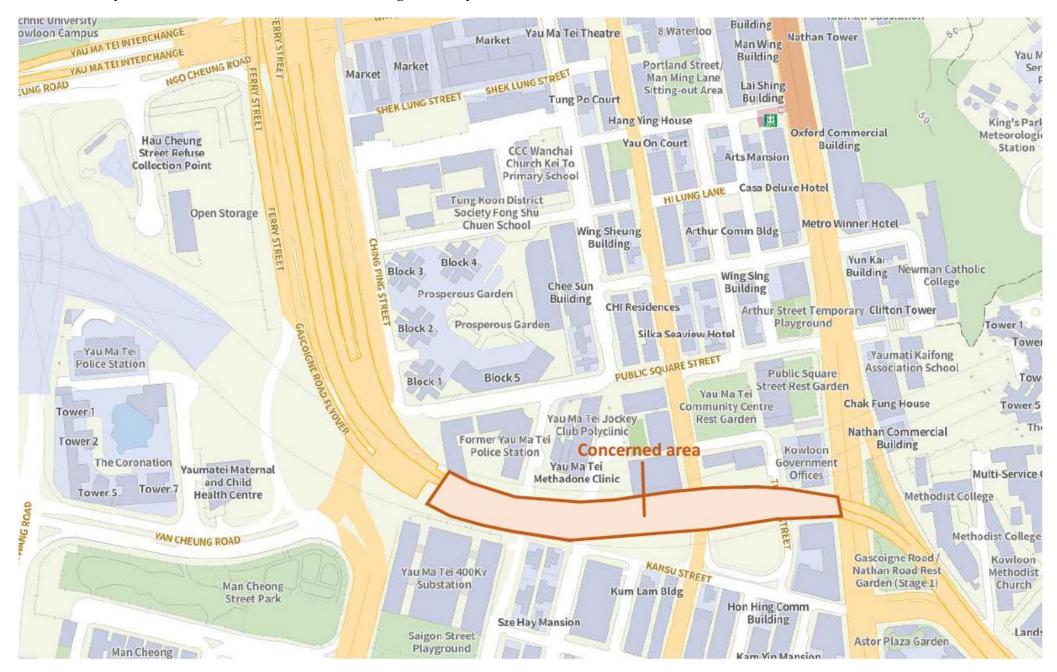
Project	Central Kowloon Route, Yau Ma Tei East Section			
Complaint Code	EC172-CKRYMTE20250807 001			
Complaint description	The 1823 complaint was forwarded to the Contractor and the Environmental Team (ET)			
	on 07 August 2025. The complaint was concerned about the construction noise from the			
	site area at Gascoigne Road Flyover during nighttime hours, specifically at 2:00 am to			
	3:00 am on 31 July 2025.			
Parameter	Construction Noise			
Investigation finding	The complaint was about the construction noise received by the complainant during nighttime hours. At the time of concern, nighttime work was carried out at Working Zone D at Gascoigne Road Flyover [1] for the construction of noise enclosure. This work was conducted from 12:00 am till 5:00 am on 31 July 2025.			
	For construction works undertaken within restricted hours, Construction Noise Permits (CNP) have been applied by the Contractor. The work conducted at nighttime on 31 July 2025 was covered by a valid CNP with no. GW-RE0871-25 granted by the EPD. Advance notification of CNP [2] had been submitted to the EPD via the online system within 14 days but not less than 48 hours before the commencement of work.			
	The Powered Mechanical Equipment (PMEs) used for works conducted at nighttime and the prescribed construction works carried out during the period include the following:			
	Working Zone PME(s)			
	D • 2 Cherry Pickers			
	1 Lorry, with crane, 5.5 tonne <gross td="" tonne<="" vehicle="" weight="" ≤38=""></gross>			
	1 Long, with crane, 5.5 toline \gross vehicle weight \subsetential 50 toline			
	Prescribed Construction Work			
	Hammering			
	According to the CNPs, the above PMEs were approved to operate within their respective Working Zone during the permitted hours specified in the CNP. The Contractor has confirmed that noise mitigation measures were implemented on-site. These measures included covering the power generating parts of the PMEs with acoustic sheds and switching off all idling PMEs, in compliance with the requirements outlined in CNP [3]. All PMEs that were used on site were well-functioned. For hammering works conducted at nighttime, plastic hammers with non-metallic tips were utilized as per requested in the CNP [3].			
	Upon consideration of the fulfillment of the stipulated requirements by the contractor for the approved Environmental Monitoring & Audit (EM&A) manual and the valid CNP, it is concluded that there was no non-compliance regarding construction noise impact in the Project's work conducted at nighttime on 31 July 2025.			
Actions taken / to be taken	The Contractor has adhered to the stipulated requirements outlined in the EM&A manual and the valid CNP. Mitigation measures have been implemented to minimize any nuisance to the public.			
	The following additional remediation measures have been taken:			
	<ul> <li>Arranging works to be completed as soon as possible to minimize nuisance to the</li> </ul>			
	public			
	Carrying out site inspection to ensure all PMEs are well-maintained and in proper function to avoid excessive noise			
	<ul> <li>Providing training to workers on using PME carefully to minimize noise caused</li> </ul>			

Remarks (Shown in next pages)	<ol> <li>Layout of the concerned site area &amp; Working Zone Layout of CNP GW-RE0871-25</li> <li>Record of Advance Notification to EPD via online system</li> <li>Site photos of noise mitigation measures</li> </ol>			
Prepared by ET (Acuity Sustainability Consulting Limited)	Natalie Wong	Notalie		
Reviewed by ETL (Acuity Sustainability Consulting Limited)	Kevin Li	K		
Verified by IEC (ERM-Hong Kong, Limited)	Mandy To	Mandy's.		

13 August 2025

Date

Remark 1: Layout of the concerned site area & Working Zone Layout of CNP GW-RE0871-25





### Remark 2: Record of Advance Notification to EPD via online system

2025/8/8 中午12:03

[Acknowledgement] GW-RE0871-25 Yau Tsim Mong - Lee Wan Chung, Leo - Outlook



Outlook

#### [Acknowledgement] GW-RE0871-25 Yau Tsim Mong

From Online Submission for Advance Notification of CNPs <admin@nco-emergencywork.hk>

Date Fri 7/25/2025 4:28 PM

To Lee Wan Chung, Leo <leo.lee@buildking.hk>

CAUTION: This email originated from outside of the company. DO NOT click links or open attachments unless you recognise the sender

Allow sender Block sender Report

This email acknowledges your advance notification submitted at 25/07/2025 on 16:27. Information appended below:

CNP No. :	GW-RE0871-25		
Date and time of receiving notification :	25/07/2025 16:27:59		
Notification Ref :	GW-RE0871-25-002		
CNP holder :	Build King - SK ecoplant Joint Venture		
Location of Work :			
- District :	Yau Tsim Mong		
- Affected TPUs :	221,225,226,228,229,252,253		

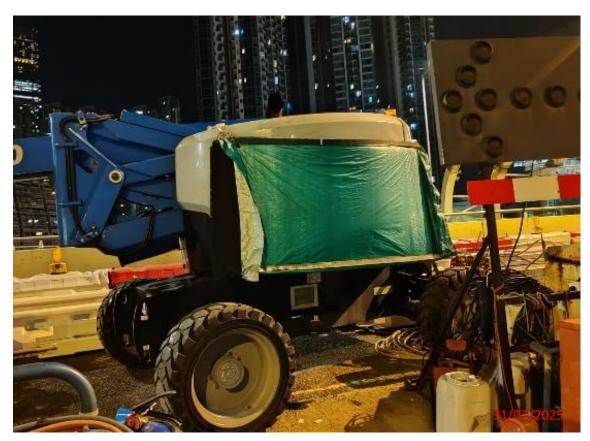
#### Details of work:

Details Location of Work	Date & Time	Details of work program
Road Sections of Ferry Street (from Waterloo Road to Kansu Street) to Road Sections of West Kowloon Corridor and Gascoigne Road Flyover (from Boundary Street to Wylie Road), Kowloon	19:00 End:	TTA Implementation 2. Construction Activities 3. Road Reinstatement

Company Details (Contact) :					
Name of company conducting the work :	Build King - SK ecoplant Joint Venture				
Name & title of responsible person :	Bosco Lee/ Construction Manager				
Fax number :					
Telephone number :	98363402				
Email :	leo.lee@buildking.hk				

about-blank 1/1

Remark 3: Site photos of noise mitigation measures

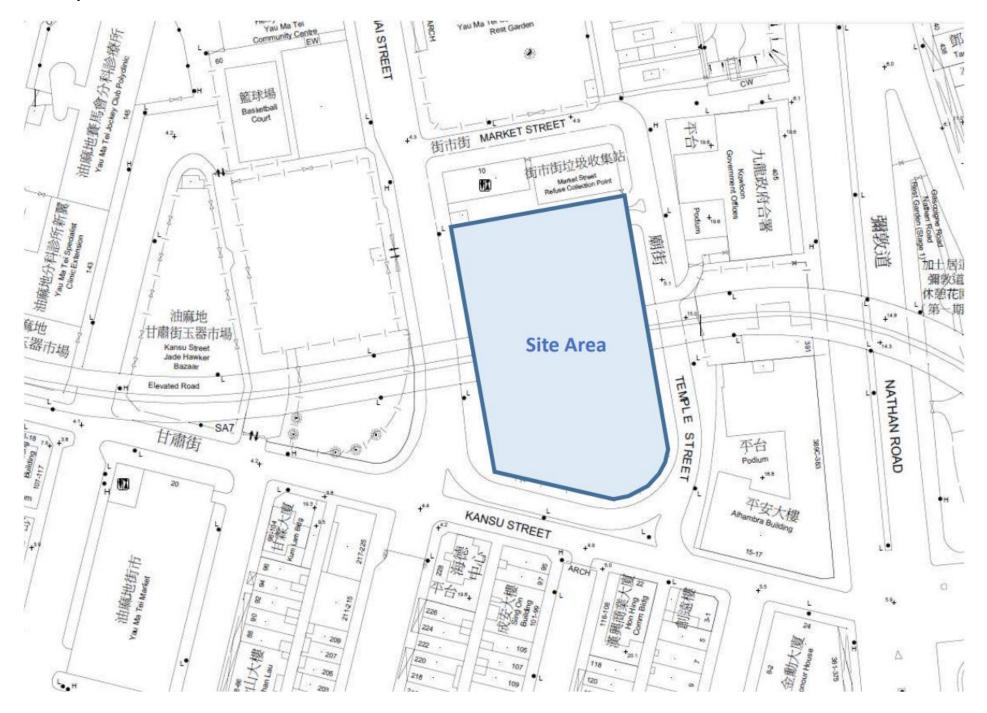




# **Interim Report on Environmental Complaint**

Project	Central Kowloon I	Route, Van Ma Tei	East Section		
Complaint Code	Central Kowloon Route, Yau Ma Tei East Section  EC173-CKRYMTE20250812 001				
Complaint description	The complaint case lodged on 12 August 2025 was referred to the Contractor by the EPD and then referred to the Environmental Team (ET) on 12 August 2025. The complaint concerned water flowing onto the pedestrian walkway from the site area.				
Parameter	Wastewater				
Investigation finding	The complaint pertained to the water flowing onto the pedestrian walkway from Working Zone P6 at the junction of Shanghai Street and Kansu Street [1]. According to the site records, the area was used for material storage and lifting operations were the major activities carried out in the concerned working zone in August 2025.				
	Based on the photo records provided by the complainant, water was observed near the site boundary on the pedestrian walkway of Shanghai Street. The ground of the site is concrete-paved, and the footing of the hoarding was covered with cement. A broken water hose was found in the site area near the site boundary. Since no construction activities other than lifting operations were conducted at the working zone, the water flowing to the concerned area was suspected to have originated from the potable water leaking from the broken water hose on site.				
	Upon being notified of the complainant's concern on 12 August 2025, the Contractor promptly cleaned up the water on the pedestrian walkway <sup>[2]</sup> and replaced the broken water hose with a new intact water hose. The condition of the bunding at the bottom part of the hoarding was inspected and the bunding was mended where necessary.				
Actions taken / to be taken	Mitigation measures have been implemented to prevent water from site from entering the public road.				
	<ul> <li>The following additional remediation measures have been taken:</li> <li>Carrying out site inspection to ensure wastewater from construction works is directed to the wastewater treatment tanks and discharged after treatment on site according to the Water Pollution Control Ordinance</li> <li>Providing training to workers on the proper handling of construction wastewater and promoting good water usage practice on site</li> </ul>				
Remarks	1. Layout of the concerned site area				
(Shown in next pages)  Prepared by ET (Acuity Sustainability Consulting Limited)	2. Site photo  Natalie Wong	of mitigation action	n		
Reviewed by ETL (Acuity Sustainability Consulting Limited)	Kevin Li	K			
Verified by IEC (ERM-Hong Kong, Limited)	Mandy To	Mandy2.			
Date	18 August	2025			

Remark 1: Layout of the concerned site area



Remark 2: Site photo of mitigation action



# **Interim Report on Environmental Complaint**

Project	Central Kowloon I	Route, Yau Ma Tei	East Section		
Complaint Code	EC174-CKRYMTE20250814_001				
Complaint description	The complaint case that was created on 5 August 2025 was referred to the Contractor on 13 August 2025 and subsequently to the Environmental Team (ET) on 14 August 2025. The complaint pertained to turbid water flowing onto the public road from the site area.				
Parameter	Wastewater				
Investigation finding	The complaint was concerned about the turbid water flowing onto the public road from the site area near the Former Yau Ma Tei Police Station [1]. A Black Rainstorm Warning Signal was hoisted on 5 August 2025 from 5:50 am to 5:05 pm on the day the complaint was lodged [2]. Hence, no construction activities were carried out at all site area on that day.				
	Inspections were carried out by the frontline staff on 5 August during the period when the Black Rainstorm Warning Signal was active. No turbid or muddy water seepage from the concerned site area was observed during the inspection [3], and the rainwater that entered the site area was effectively collected within the cofferdam in the site.				
	Since no construction activities were carried out at all site area, and no seepage of turbid water from the site was observed during the inspection on 5 August, no non-compliance was concluded for this complaint case.				
Actions taken / to be taken	Mitigation measures have been implemented to prevent water from the site from entering the public road during adverse weather.				
	The following additional mitigation measures have been taken:  Conducting site inspection to ensure wastewater from construction works is directed to the wastewater treatment tanks and discharged after treatment on site according to the Water Pollution Control Ordinance				
	<ul> <li>Assigning personnel for any emergency situations during the adverse weather</li> <li>Providing stand-by pumps or other equipment for emergency situations</li> <li>Providing additional sandbag bunding at the bottom part of the hoarding where necessary</li> </ul>				
Remarks (Shown in next pages)	<ol> <li>Layout of the concerned site area</li> <li>Weather information, 5 August 2025</li> <li>Photos of the area concerned during inspection on 5 August 2025</li> </ol>				
Prepared by ET (Acuity Sustainability Consulting Limited)	Natalie Wong	Notalie	<del>-</del> <del>-</del> <del>-</del>		
Reviewed by ETL (Acuity Sustainability Consulting Limited)	Kevin Li	K			
Verified by IEC (ERM-Hong Kong, Limited)	Mandy To	Mandy 2.			
Date	18 August	2025			

Remark 1: Layout of the concerned site area

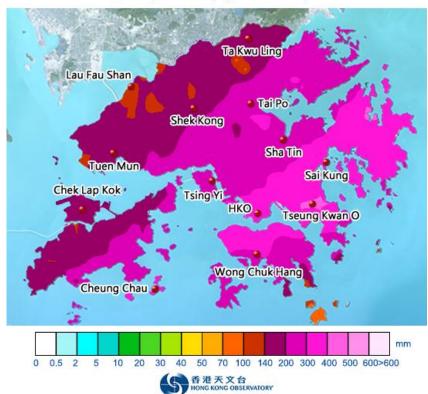


# Weather Warning and Signals Record(2025-08-05)

#### Rainstorm Warnings

	Warning and Signals	Start	Time	End Time	
	warning and Signals	hh:mm	dd/mon/yyyy	hh:mm	dd/mon/yyyy
Black 黑	Black Rainstorm Warning Signal	23:45	04/Aug/2025	02:10	05/Aug/2025
SSSSS Red #I	Red Rainstorm Warning Signal	02:10	05/Aug/2025	03:00	05/Aug/2025
////// Amber 页	Amber Rainstorm Warning Signal	03:00	05/Aug/2025	05:20	05/Aug/2025
Red it	Red Rainstorm Warning Signal	05:20	05/Aug/2025	05:50	05/Aug/2025
Black 黑	Black Rainstorm Warning Signal	05:50	05/Aug/2025	17:05	05/Aug/2025
/ssiss Amber 页	Amber Rainstorm Warning Signal	17:05	05/Aug/2025	18:15	05/Aug/2025
/////////////////////////////////////	Amber Rainstorm Warning Signal	22:55	05/Aug/2025	00:30	06/Aug/2025

Total rainfall on 5-Aug-2025 (based on raingauges and radar data)



Remark 3: Photos of the area concerned during inspection on 5 August 2025





## **Interim Report on Environmental Complaint**

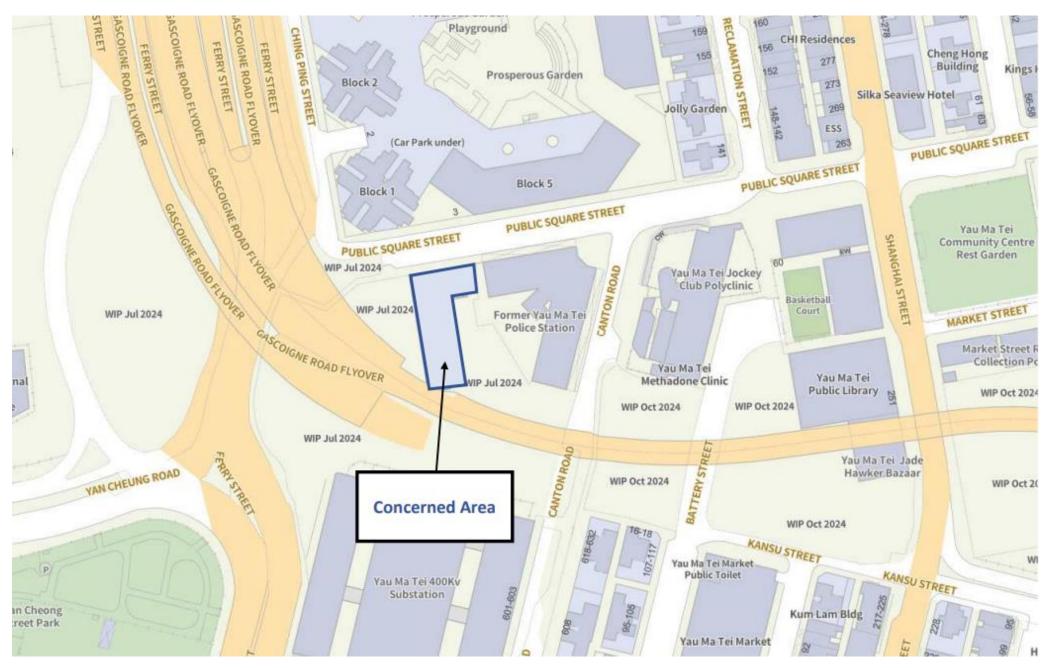
Project	Central Kowloon Route, Yau Ma Tei East Section
Complaint Code	EC175-CKRYMTE20250815 001
Complaint description	The complaint case made on 13 August 2025 was referred to the Contractor by the EPD and subsequently to the Environmental Team (ET) on 15 August 2025, about the dust emissions and noise impacts from the site area at the Former Yau Ma Tei Police Station.
Parameter	Air Quality, Construction Noise
Investigation finding	The complaint was concerned about the dust and construction noise emitted from the site area at the rooftop of the Former Yau Ma Tei Police Station [1].
	According to site records and from the photo provided by the complainant, the major construction work conducted at the concerned area was concrete breaking work. The work was carried out at the rooftop from 9:00 am to 11:30 am, and from 1:30 pm to 5:30 pm on the complaint date, which was conducted within the permitted hours (i.e. 07:00-19:00 on normal weekdays) under the stipulated Noise Control Ordinance (NCO) requirement. Two hand-held breakers were the only Powered Mechanical Equipment (PMEs) used for the construction works at the concerned area on 13 August 2025.
	As confirmed by the contractor, proper dust and noise mitigation measures were implemented on site [2] in accordance with the approved Environmental Monitoring & Audit (EM&A) manual and recommendations outlined in the Environmental Impact Assessment (EIA) Report. The mitigation measures include carrying out the noisy work at less-sensitive hours (i.e. after 9:00 am), operating PMEs intermittently to minimize continuous noise impact, avoiding the simultaneous operation of all PMEs as far as possible, and wetting the work area before conducting breaking works.
	Regular air quality and noise impact monitoring was conducted on 11 August 2025. No exceedance of action or limit levels in construction dust monitoring [3] was recorded on the monitoring date at the two dust monitoring stations (i.e. W-A1 (Yau Ma Tei Catholic Primary School (Hoi Wang Road)) and W-A6 (Man Cheong Building)) [1]. There was also no exceedance of limit level in construction noise monitoring [3] at the two nearest noise monitoring stations to the Former Yau Ma Tei Police Station (i.e. W-N18 (Hydan Place) and W-N25A (Prosperous Garden Block 1)) <sup>[1]</sup> .
	According to the weekly site inspection record on 7 August 2025, no non-compliance in the aspects of air quality or construction noise was observed, which proper site practices and measures were implemented on site.
Actions taken / to be taken	The Contractor has adhered to the requirements stipulated in the EM&A manual and the recommendations outlined in the EIA Report. Mitigation measures have been implemented to minimize the air quality and construction noise impact and reduce potential effects on the public:
	• Employing water spraying during activities such as loading, unloading, drilling, and other operations likely to generate dust. The frequency of water spraying is regularly reviewed, with adjustments made to increase the spraying frequency when necessary.
	<ul> <li>Providing vehicle washing facilities at vehicle exit points.</li> <li>Carrying out site inspection to ensure that all PMEs are well maintained and are functioning properly to avoid excessive noise generation.</li> </ul>
	<ul> <li>Switching off unused machinery and equipment to minimize noise generation.</li> <li>Providing induction/ refresher training and tool-box talks of proper implementation of construction dust and noise control measures to frontline staff.</li> </ul>

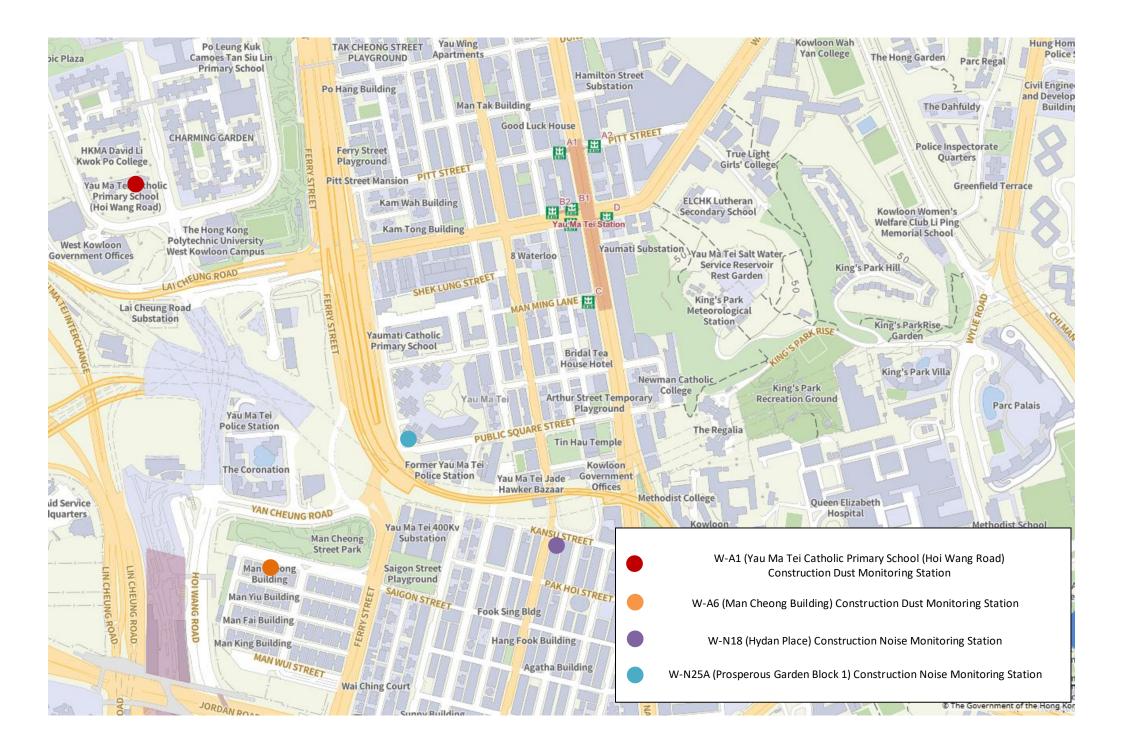
Remarks (Shown in next pages)	<ol> <li>Layout of the concerned area and the locations of the relevant construction dust and noise monitoring stations</li> <li>Site photo of dust mitigation measure</li> <li>Results of construction dust and noise impact monitoring on 11 August 2025</li> </ol>				
Prepared by ET (Acuity Sustainability Consulting Limited)	Natalie Wong	Notalie			
Reviewed by ETL (Acuity Sustainability Consulting Limited)	Kevin Li	K			
Verified by IEC (ERM-Hong Kong, Limited)	Mandy To	Mandy 2.			

21 August 2025

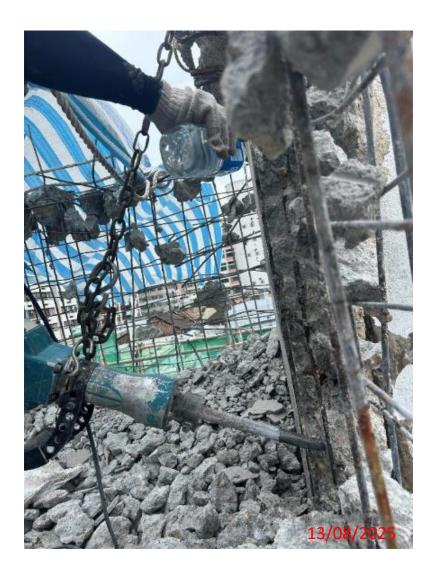
Date

Remark 1: Layout of the concerned area and the locations of the relevant construction dust and noise monitoring stations





Remark 2: Site photo of dust mitigation measure



Remark 3: Results of construction dust and noise impact monitoring on 11 August 2025

							1-hour 7	ΓSP (μg/m	1 <sup>3</sup> )		
Date	Monit	oring Station	Weather	Start Time	-	<b>End Time</b>	1st Hour	2nd Hour	3rd Hour	Action Level	Limit Level
11/8/2025	W-A1	Yau Ma Tei Catholic Primary School (Hoi Wang Road)	Fine	14:44	-	17:44	35	37	30	319	500
11/8/2025	W-A6	Man Cheong Building	Fine	13:30	-	16:30	35	35	40	306	500

			24-hour TSP (μg/m³)						
Date	Monit	oring Station	Weather	Initial Time	-	Final Time	Measured Level	<b>Action Level</b>	Limit Level
11/8/2025	W-A1	Yau Ma Tei Catholic Primary School (Hoi Wang Road)	Fine	14:44 (11/8/2025)	-	14:44 (12/8/2025)	34	167	260
11/8/2025	W-A6	Man Cheong Building	Fine	13:30 (11/8/2025)	-	13:30 (12/8/2025)	29	166	260

Date	Mon	itoring Station	Weather	Start Time	-	End Time	Leq (dB)	L10(dB)	L90(dB)	Limit Level (dB)
11/8/2025	W-N18	Hydan Place	Fine	14:00	-	14:30	69.6	72.4	66.0	75
11/8/2025	W-N25A	Prosperous Garden Block 1	Fine	14:48	-	15:18	72.6	75.1	66.1	75

# **Interim Report on Environmental Complaint**

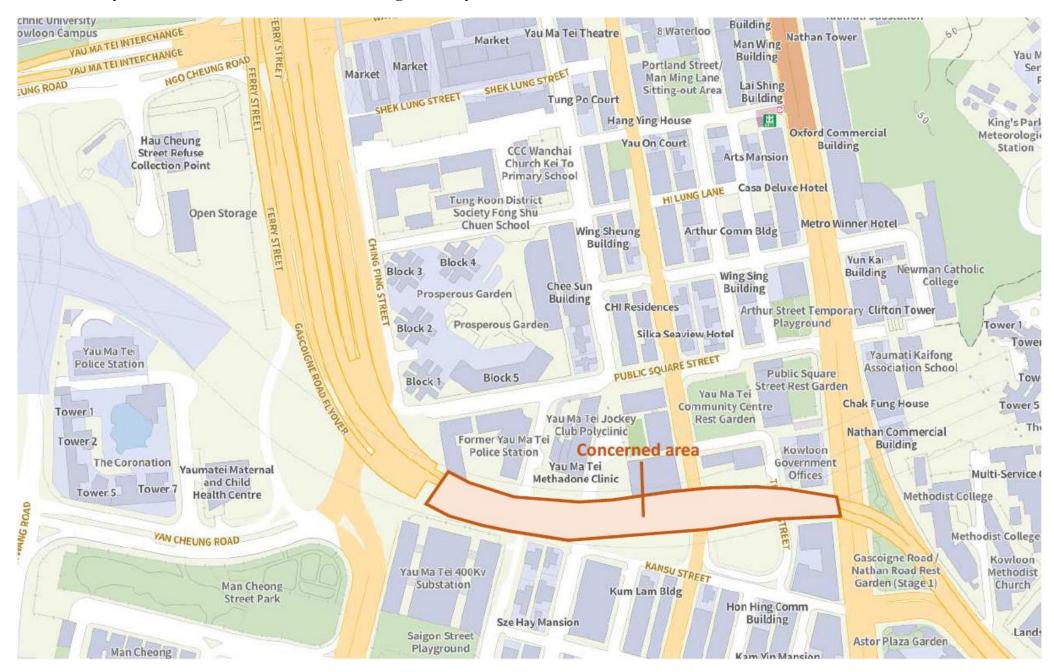
Project	Central Kowloon Route, Yau Ma Tei East Section					
Complaint Code	EC176-CKRYMTE20250819 001.					
Complaint description	The complaint was forwarded to the Contractor by the EPD and to the Environmental					
1	Team (ET) on 19 August 2025. The complaint pertained to construction noise from the					
	site area at Gascoigne Road Flyover during nighttime hours on 15 August 2025.					
Parameter	Construction Noise					
Investigation finding	The complaint referred to the construction noise received by the complainant during nighttime hours. Nighttime work was carried out at Working Zone D at Gascoigne Road Flyover [1] for the construction of noise enclosure. This work activity was conducted from 7:00 pm on 15 August 2025 to 6:00 am on 16 August 2025.					
	For construction works undertaken within restricted hours, Construction Noise Permits (CNP) have been applied by the Contractor. The work conducted at nighttime on 15 August 2025 was covered under a valid CNP with no. GW-RE0871-25 granted by the EPD. An advance notification of CNP [2] had been submitted to the EPD via the online system within 14 days but not fewer than 48 hours before the commencement of work.					
	The Powered Mechanical Equipment (PMEs) used for works conducted at nighttime and					
	the prescribed construction works carried out during the period included the following:					
	Working Zone PME(s)					
	D THE(b)					
	1 Cherry Picker					
	• 1 Lorry, with crane, 5.5 tonne <gross td="" tonne<="" vehicle="" weight="" ≤38=""></gross>					
	Prescribed Construction Work					
	Hammering					
	According to the CNPs, the above PMEs were authorized to operate within their respective Working Zone during the permitted hours specified in the CNP. The Contractor confirmed that noise mitigation measures were implemented on-site. These measures included covering the power generating parts of the PMEs with acoustic sheds and switching off all idling PMEs, in compliance with the requirements outlined in CNP [3]. All PMEs that were used on site were properly functioning. For hammering works conducted at nighttime, plastic hammer with non-metallic tips were utilized, as required by the CNP [3].					
	Upon consideration of the fulfillment of the stipulated requirements by the contractor for the approved Environmental Monitoring & Audit (EM&A) manual and the valid CNP, it is concluded that there was no non-compliance regarding construction noise impact in the Project's work conducted at nighttime on 15 August 2025.					
Actions taken / to be taken	The Contractor has adhered to the stipulated requirements outlined in the EM&A manual and the valid CNP. Mitigation measures have been implemented to minimize any nuisance to the public.					
	The following additional remediation measures were undertaken:					
	• Arranging works to be completed as soon as possible to minimize disruption caused					
	to the public					
	• Conducting site inspections to ensure all PMEs are well-maintained and properly					
	functioning to avoid excessive noise					
	• Providing training to workers on the careful operation of PMEs to minimize noise impacts					

Remarks	<ol> <li>Layout of the concerned site area &amp; Working Zone Layout of CNP GW-RE0871-25</li> </ol>				
(Shown in next pages)		-			
			ion to EPD via online system		
	<ol><li>Site photo</li></ol>	s of noise mitigation	n measures		
Prepared by ET (Acuity Sustainability Consulting Limited)	Natalie Wong	Notalie			
Reviewed by ETL (Acuity Sustainability Consulting Limited)	Kevin Li	K			
Verified by IEC (ERM-Hong Kong, Limited)	Mandy To	Mandy's.			

22 August 2025

Date

Remark 1: Layout of the concerned site area & Working Zone Layout of CNP GW-RE0871-25





### Remark 2: Record of Advance Notification to EPD via online system

2025/8/19 下午4:32

[Acknowledgement] GW-RE0871-25 Yau Tsim Mong - Lee Wan Chung, Leo - Outlook



Outlook

### [Acknowledgement] GW-RE0871-25 Yau Tsim Mong

From Online Submission for Advance Notification of CNPs <admin@nco-emergencywork.hk> Date Fri 8/8/2025 8:25 AM

To Lee Wan Chung, Leo <leo.lee@buildking.hk>

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Report

This email acknowledges your advance notification submitted at 08/08/2025 on 08:24. Information appended below:

CNP No. :	GW-RE0871-25
Date and time of receiving notification :	08/08/2025 08:24:48
Notification Ref :	GW-RE0871-25-016
CNP holder :	Build King - SK ecoplant Joint Venture
Location of Work :	
- District :	Yau Tsim Mong
- Affected TPUs :	221,225,226,228,229,252,253

#### Details of work:

Details Location of Work	Date & Time	Details of work program
Road Sections of Ferry Street (from Waterloo Road to Kansu Street) to Road Sections of West Kowloon Corridor and Gascoigne Road Flyover (from Boundary Street to Wylie Road), Kowloon	19:00 End:	TTA Implementation 2. Construction Activities 3. Road Reinstatement

Company Details	Company Details (Contact) :					
Name of company conducting the work:	Build King - SK ecoplant Joint Venture					
Name & title of responsible person :	Bosco Lee/ Construction Manager					
Fax number :						
Telephone number :	98363402					
Email:	leo.lee@buildking.hk					

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Remark 3: Site photos of noise mitigation measures





## **Interim Report on Environmental Complaint**

Project	Central Kowloon Route, Yau Ma Tei East Section
Complaint Code	EC177-CKRYMTE20250819_002
Complaint description	The complaint case made on 8 August 2025 was referred to the Contractor by the EPD and subsequently to the Environmental Team (ET) on 19 August 2025. It was concerned with the dust emissions and noise impacts from the site area near Prosperous Garden Block 1. No specified date of complaint was raised in the complaint.
Parameter	Air Quality, Noise Impact
Investigation finding	The complaint raised concerns about the impact of dust and noise from the site area near Prosperous Garden Block 1. The letter is a general complaint in which no specific date or time was mentioned. Five matters of concern are referred to in the complaint, including: the location of impact noise monitoring, the noise generated from vehicles when passing through the movement joint of flyover, the daytime noise, the nighttime noise, and the air quality.
	Location of Impact Noise Monitoring The impact noise monitoring locations are selected according to Section 6.4 of the approved Environmental Monitoring & Audit (EM&A) manual. The locations are chosen based on the following criteria:
	<ul> <li>All locations close to the major site activities which are likely to have noise impacts;</li> <li>Close to the most affected existing noise sensitive receivers (NSRs); and</li> <li>For monitoring locations located in the vicinity of the sensitive receivers, care should be taken to cause minimal disturbance to the occupants during monitoring.</li> </ul>
	Major construction activities are being conducted at the site areas at Kansu Street and Ching Ping Street. Considering the overall noise impacts of the site areas and the proximity to the most affected NSRs, the current monitoring station W-N25A at Prosperous Garden Block 1 <sup>[1]</sup> , is considered a valid monitoring location.
	Noise Generated from Vehicles when Passing through the Movement Joint of Flyover As confirmed by the contractor, the project team continues to review the status of the movement joint at the concerned area of Gascoigne Road Flyover [2] and conduct repairs and maintenance as necessary to avoid noise generation from vehicles passing over it.
	Daytime Noise According to the site record, daytime works not requiring a Construction Noise Permit (CNP) were conducted within the permitted hours (i.e. 07:00-19:00 on normal weekdays) under the stipulated Noise Control Ordinance (NCO) requirement. As confirmed by the contractor, noise mitigation measures [3] were implemented at the site with reference to the approved EM&A manual and the Construction Noise Mitigation Measures Plan (CNMMP). These mitigation measures will continue to be reviewed and strengthened where appropriate.
	Regular construction noise impact monitoring was conducted as required in the EM&A Manual. A review of the monitoring data of the recent months (24, 30 July 2025 and 6, 11, 14 August 2025) showed no exceedance of limit level in construction noise monitoring [4] at W-N25A (i.e. Prosperous Garden Block 1) noise monitoring station [1]. According to the weekly site inspection records from the recent months (24, 31 July and 7, 14 August 2025), no non-compliance with the aspect of construction noise was observed in general. A deficiency was identified on 14 August 2025 during weekly site inspection, where noise barrier canvas was recommended to be deployed for the air compressor at Zone 3. The observation was rectified by the Contractor promptly on the same day [5].
	Nighttime Noise For nighttime works undertaken within restricted hours (i.e. 00:00 - 07:00 and 19:00 – 24:00 any day), CNPs have been applied by the Contractor. The existing works conducted are covered by a valid CNP with no. GW-RE0871-25 and advance notifications of CNP

were submitted to the EPD via the online system within 14 days but not fewer than 48 hours before the commencement of work. As confirmed by the contractor, noise mitigation measures [3], including erecting movable noise barriers, covering the power generating parts of the PMEs with acoustic sheds, and switching off all idling PMEs, were implemented on site to fulfill the requirements in the EM&A Manual and the valid CNPs.

#### Air Quality

The Contractor confirmed that proper dust mitigation measures [3] were implemented on site in accordance with the approved EM&A manual and recommendations outlined in the Environmental Impact Assessment (EIA) Report to reduce the dust impacts on the air sensitive receivers (ASRs).

Regular air quality monitoring has been conducted for the captioned project. No exceedance of action or limit levels in construction dust monitoring [4] was recorded on monitoring dates at the two dust monitoring stations (i.e. W-A1 (Yau Ma Tei Catholic Primary School (Hoi Wang Road)) and W-A6 (Man Cheong Building)) [1] over the recent months (24, 30 July 2025 and 6, 11, 14 August 2025). According to the weekly site inspection records from the recent months (24, 31 July and 7, 14 August 2025), no noncompliance in the air quality records was observed. Proper site practices and mitigation measures were implemented on site. The Project Team will continue monitoring the effectiveness of the air quality mitigation measures and enhance them when necessary.

#### Actions taken / to be taken

The Contractor has adhered to the requirements stipulated in the EM&A manual and the recommendations outlined in the EIA Report. Mitigation measures have been implemented to minimize the air quality and construction noise impact and reduce potential effects on the public:

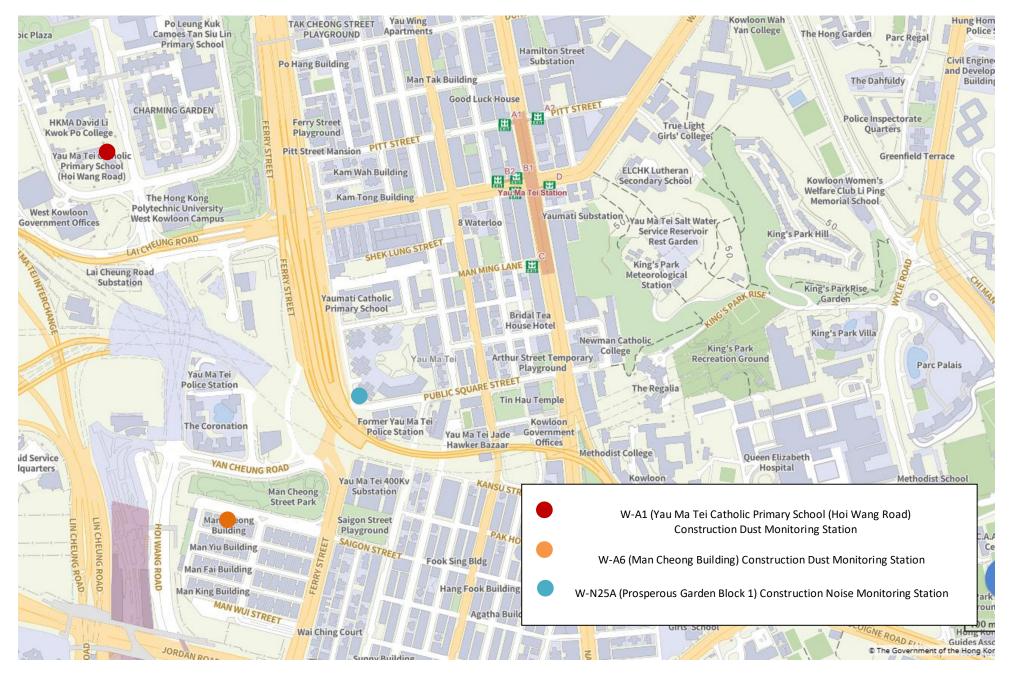
- Employing water spraying during activities such as loading, unloading, drilling, and other operations likely to generate dust. The frequency of water spraying is regularly reviewed, with adjustments made to increase the spraying frequency when necessary.
- Providing vehicle washing facilities at vehicle exit points.
- Carrying out site inspection to ensure that all PMEs are well maintained and are functioning properly to avoid excessive noise generation.
- Switching off unused machinery and equipment to minimize noise generation.
- Arranging works to be completed as soon as possible to minimize disruption caused to the public
- Providing induction/ refresher training and tool-box talks of proper implementation of construction dust and noise control measures to frontline staff.

Remarks (Shown in next pages)	monitoring 2. Layout of 3. Site photo 4. Results of 11, 14 Au	Site photos of dust and noise mitigation measures Results of construction dust and noise impact monitoring on 24, 30 July and 6, 11, 14 August 2025				
Prepared by ET (Acuity Sustainability Consulting Limited)	Natalie Wong	Notalie	Triagust 2025			
Reviewed by ETL (Acuity Sustainability Consulting Limited)	Kevin Li	K				
Verified by IEC (ERM-Hong Kong, Limited)	Mandy To	Mandy's.				

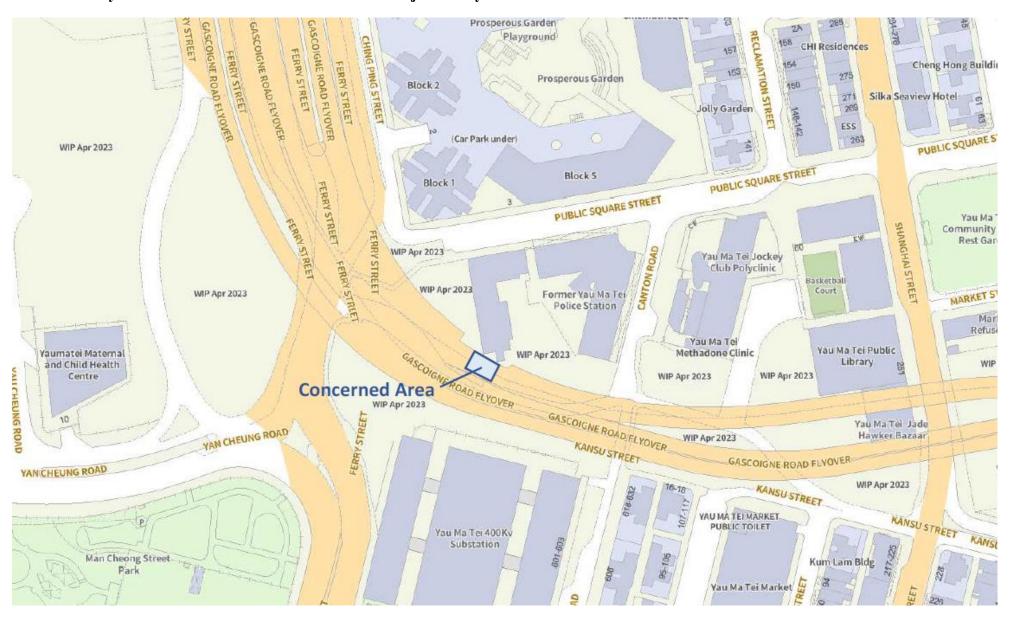
24 August 2025

Date

Remark 1: Locations of the construction dust and the W-N25A construction noise impact monitoring stations



Remark 2: Layout of the concerned area of the movement joint of flyover



## Remark 3: Site photos of dust and noise mitigation measures



**Noise Mitigation Measures at Daytime** 



Noise Mitigation Measures at Nighttime



**Dust Mitigation Measures** 

Remark 4: Results of construction dust and noise impact monitoring on 24, 30 July and 6, 11, 14 August 2025

	Monitoring Station			1-hour TSP (μg/m³)									
Date			Weather	Start Time	-	End Time	1st Hour	2nd Hour	3rd Hour	Action Level	Limit Level		
24/7/2025		Yau Ma Tei Catholic Primary School (Hoi Wang Road)	Sunny	11:00	-	14:00	40	42	46	_			
30/7/2025			Sunny	09:33	-	12:33	71	80	70				
6/8/2025	W-A1		Cloudy	09:18	-	12:18	26	18	22	319	500		
11/8/2025			Fine	14:44	-	17:44	35	37	30				
14/8/2025			Cloudy	13:30	-	16:30	19	13	14				

	Monitoring Station			1-hour TSP (μg/m³)									
Date			Weather	Start Time	-	End Time	1st Hour	2nd Hour	3rd Hour	Action Level	Limit Level		
24/7/2025			Sunny	10:32	-	13:32	44	47	46				
30/7/2025		Man Cheong Building	Sunny	11:03	-	14:03	66	67	64				
6/8/2025	W-A6		_	Cloudy	13:12	-	16:12	35	43	43	306	500	
11/8/2025			Fine	13:30	-	16:30	35	35	40				
14/8/2025			Cloudy	14:25	-	17:25	21	24	18				

<sup>\*</sup>Remark: The air and noise monitoring work on 5 August 2025 was rescheduled to 6 August 2025 due to the Black Rainstorm Warning Signal hoisted on 5 August 2025

	Monitoring Station			24-hour TSP (μg/m³)							
Date			Weather	Initial Time	-	Final Time	Measured Level	Action Level	Limit Level		
24/7/2025				11:00 (24/7/2025)	-	11:00 (25/7/2025)	85				
30/7/2025		Yau Ma Tei	Sunny	09:33 (30/7/2025)	-	09:33 (31/7/2025)	63		260		
6/8/2025	W-A1	Catholic Primary	Cloudy	09:18 (6/8/2025)	-	09:18 (7/8/2025)	35	167			
11/8/2025		School (Hoi Wang Road)	Fine	14:44 (11/8/2025)	-	14:44 (12/8/2025)	34				
14/8/2025			Cloudy	13:30 (14/8/2025)	-	13:30 (15/8/2025)	45				

	Monitoring Station			24-hour TSP (μg/m³)							
Date			Weather	Initial Time	-	Final Time	Measured Level	Action Level	Limit Level		
24/7/2025			Sunny	10:32 (24/7/2025)	-	10:32 (25/7/2025)	93		260		
30/7/2025			Sunny	11:03 (30/7/2025)	-	11:03 (31/7/2025)	36				
6/8/2025	W-A6	Man Cheong Building	Cloudy	13:12 (6/8/2025)	-	13:12 (7/8/2025)	49	166			
11/8/2025		-	Fine	13:30 (11/8/2025)	-	13:30 (12/8/2025)	29				
14/8/2025		Cloudy	Cloudy	14:25 (14/8/2025)	-	14:25 (15/8/2025)	44				

<sup>\*</sup>Remark: The air and noise monitoring work on 5 August 2025 was rescheduled to 6 August 2025 due to the Black Rainstorm Warning Signal hoisted on 5 August 2025

Date	Monitoring Station		Weather	Start Time	-	End Time	Leq (dB)	L10(dB)	L90(dB)	Limit Level (dB)
24/7/2025			Sunny	09:08	-	09:38	70.8	73.9	67.5	
30/7/2025			Sunny	09:11	-	09:41	71.3	74.1	68.4	
6/8/2025	W-N25A	Prosperous Garden Block 1	Cloudy	14:36	-	15:06	73.4	75.2	71.6	75
11/8/2025			Fine	14:48	-	15:18	72.6	75.1	66.1	
14/8/2025			Cloudy	14:15	-	14:45	66.9	70.1	64.2	

<sup>\*</sup>Remark: The air and noise monitoring work on 5 August 2025 was rescheduled to 6 August 2025 due to the Black Rainstorm Warning Signal hoisted on 5 August 2025

Remark 5: Rectification record for the deficiency observed on 14 August 2025

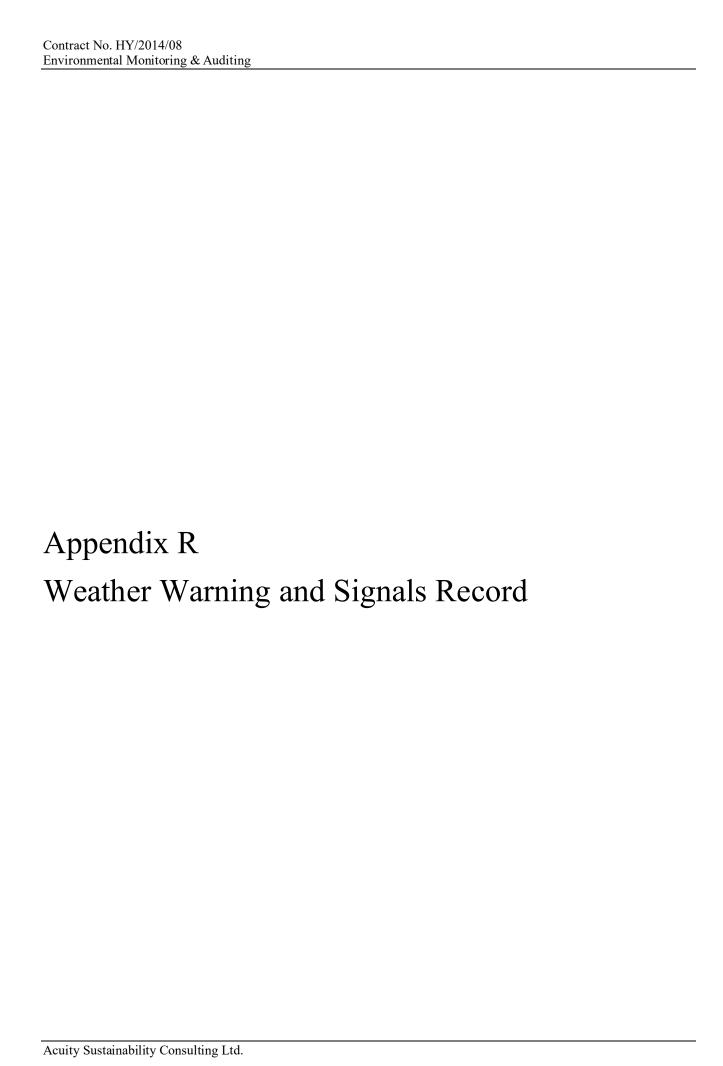
At Zone 3, noise barrier canvas should be deployed for the air

compressor to minimise noise impact.

At Zone 3, noise barrier canvas was deployed for the air compressor to minimise noise impact.









### Weather Warning and Signals Record(2025-08-05)

### Rainstorm Warnings

	Marrian and Cinnala	Start	Time	End Time		
	Warning and Signals hh:mm dd/m		dd/mon/yyyy	hh:mm	dd/mon/yyyy	
Black 🔀	Black Rainstorm Warning Signal	23:45	04/Aug/2025	02:10	05/Aug/2025	
Red AL	Red Rainstorm Warning Signal	02:10	05/Aug/2025	03:00	05/Aug/2025	
Amber 199	Amber Rainstorm Warning Signal	03:00	05/Aug/2025	05:20	05/Aug/2025	
strets Red #L	Red Rainstorm Warning Signal	05:20	05/Aug/2025	05:50	05/Aug/2025	
が出げ Black 黒	Black Rainstorm Warning Signal	05:50	05/Aug/2025	17:05	05/Aug/2025	
Amber 199	Amber Rainstorm Warning Signal	17:05	05/Aug/2025	18:15	05/Aug/2025	
Amber M	Amber Rainstorm Warning Signal	22:55	05/Aug/2025	00:30	06/Aug/2025	