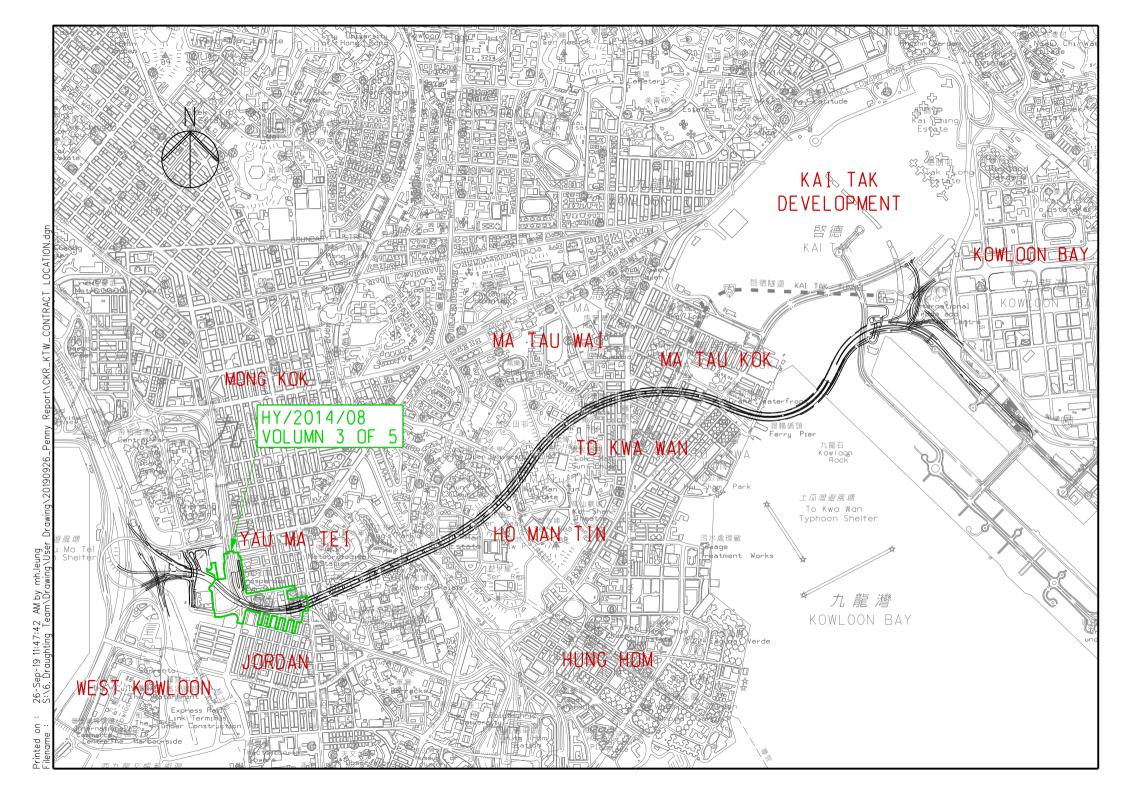
Vol. 3 of 5 FEP-03/457/2013/D Central Kowloon Route Yau Ma Tei East Contract No. HY/2014/08 April 2024







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.73 (April 2024)
Date of Report:	9 May 2024
Date received by IEC:	9 May 2024

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

Mondy 20.

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

Ms Mandy To

Independent Environmental Checker

Date: 9 May 2024

Our ref: 0436942_IEC Verification Cert_YMTE_Monthly EM&A Rpt No.73.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. 73

(Period from 1 to 30 April 2024)

Rev. 1

(9 May 2024)

	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 73rd monthly Environmental Monitoring and Audit (EM&A) report presenting the EM&A works carried out during the period from 1 April 2024 to 30 April 2024.
- 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

- Excavation and Lateral Support works/Excavation, Construct Roof Slab Ceiling Slab & Bottom Slab at Zone B-EB1/WB1
- Excavation and Lateral Support works/Excavation, Install Hanger Supports, Construct Roof, Ceiling & Bottom Slab at Zone B EB2
- Excavation and Lateral Support works/Excavation, Construct Roof Slab Ceiling Slab & Bottom Slab at C1/C2/C3, Rock Breaking & Underpinning Wall Works at Zone C3
- Excavation and Lateral Support works /Excavation, Install Hanger Supports, Construct
 Underpinning Walls at D1 and Bottom Slab and Reinforced Concrete Wall at Zone D2 & D3
- Excavation and Lateral Support works /Excavation, Install Hanger Supports, Construct Roof Slab, Ceiling Slab and Bottom Slab for Zone B3 & F
- Excavation and Lateral Support works /Excavation, Install Hanger Supports, Construct Roof Slab, Ceiling Slab and Underpinning Wall and Bottom Slab for Zone G1 & G2
- Construct W/B P5R Right-line Gascoigne Road Flyover Deck
- Construct W/B P4R Right-line Gascoigne Road Flyover Deck, Demolish Remaining Existing Gascoigne Road Flyover Footings
- Construct socketed H-piles, Pile caps, Ground beams, Reinforced concrete columns, Steel Posts, Steel Main Beams, Steel Tie Beams and Acoustic Panels for Noise Enclosure at Noise Enclosure at Zone 3
- Underground Utilities diversion, Construct permanent & Temporary pipe piles, Barrette walls for Noise Enclosure at Zone 2
- 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 6 times

Construction dust (24-hour TSP) monitoring

W-A1 6 times W-A6 6 times

Construction dust (1-hour TSP) monitoring

W-A1, W-A6 18 times

A.4 Bi-weekly inspection of the implementation of landscape and visual mitigation measures

- was conducted on 11 and 25 April 2024. 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 3, 11, 18 and 25 April 2024. One joint site inspection with IEC was also undertaken on 25 April 2024. 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 Six Action Level of construction noise were triggered during the reporting month as documented complaints 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 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

- Construct remaining in-situ Reinforced Concrete Wall (S1 Wall) and continue for road works at Zone A
- Construct roof slab/ceiling slab temporary openings and road works at Zone EB2/C1/C2
- Excavation and construct ceiling slab at Zone WB1
- Construct roof slab/ceiling slab temporary openings and continue road works at Zone D
- Install Underground Utilities hanger supports, excavation and install Excavation and Lateral Support to roof slab for construction of roof slab at Zone B3
- Install Underground Utilities hanger supports, excavation and install Excavation and Lateral Support to roof slab, construct transfer beam for Gascoigne Road Flyover pier P2R at Zone F
- Install Excavation and Lateral Support L2 and construct transfer beam for Gascoigne Road Flyover pier P3R and excavation to Excavation and Lateral Support L3 and install Excavation and Lateral Support L3 at Zone G1
- Excavate and install Excavation and Lateral Support from L4 to L6 at Zone G2
- Bridge Works:
 - i.Continue construct deck segments 6 and 9 at P4R
 - ii.Construction of pier head (remaining 2nd pour) for P6R
 - iii.Complete install temporary steel supports for end span construction for P7R and commence end span construction
- Continue erection of secondary tie beams and acoustic panels for Noise Enclosure F02 in Zone 3 (night works). Continue liaison with CLP and trial pit excavation for C07
- Works at Zone 2 Noise Enclosure are the following:
 - i.Column A Column Erection

Construction Activities to be undertaken

- ii.Column E Preparation works for implementation of TTA (KAS193) column erection of Column E
- iii.Columns G Construction of temporary platform for column erection
- iv.Columns C Install steel footing
- v.Column D Pending access for steel footing installation.
- vi.Column H Modification of temporary support to DN1800 Drainage for RC plinth construction of column H and construct RC plinth for column H.
- Noise Enclosure steelworks fabrication at the Fabrication Yards in Zhuhai, China
- Underpinning works for existing piers B1 (construct underpinning beam), C2 (construct underpinning beam) and C1 (bracing installation)
- 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 East
 - 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

- Excavation and Lateral Support works/Excavation, Construct Roof Slab Ceiling Slab & Bottom Slab at Zone B-EB1/WB1
- Excavation and Lateral Support works/Excavation, Install Hanger Supports, Construct Roof, Ceiling & Bottom Slab at Zone B EB2
- Excavation and Lateral Support works/Excavation, Construct Roof Slab Ceiling Slab & Bottom Slab at C1/C2/C3, Rock Breaking & Underpinning Wall Works at Zone C3
- Excavation and Lateral Support works /Excavation, Install Hanger Supports, Construct
 Underpinning Walls at D1 and Bottom Slab and Reinforced Concrete Wall at Zone D2 & D3
- Excavation and Lateral Support works /Excavation, Install Hanger Supports, Construct Roof Slab, Ceiling Slab and Bottom Slab for Zone B3 & F
- Excavation and Lateral Support works /Excavation, Install Hanger Supports, Construct Roof Slab, Ceiling Slab and Underpinning Wall and Bottom Slab for Zone G1 & G2
- Construct W/B P5R Right-line Gascoigne Road Flyover Deck
- Construct W/B P4R Right-line Gascoigne Road Flyover Deck, Demolish Remaining Existing Gascoigne Road Flyover Footings
- Construct socketed H-piles, Pile caps, Ground beams, Reinforced concrete columns, Steel Posts, Steel Main Beams, Steel Tie Beams and Acoustic Panels for Noise Enclosure at Noise Enclosure at Zone 3
- Underground Utilities diversion, Construct permanent & Temporary pipe piles, Barrette walls for Noise Enclosure at Zone 2
- 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

Permit/ Licences/ Valid Period **Notification** Status Remark To From /Reference No. **Environmental Permit** EP-457/2013/D 15 Jun 2021 End of Project Valid **Further Environmental Permit** FEP-03/457/2013/D 5 Nov 2021 End of Project Valid **Wastewater Discharge License** WT00043433-2023 17 Mar 2023 31 Mar 2028 Valid Notification of Construction Works under the Air Pollution Control (Construction Dust) Regulation 471691 14 Sep 2021 End of Project Notified **Chemical Waste Producer Registration** WPN5213-225-B2526-01 14 Mar 2018 **End of Project** Valid **Billing Account for Disposal of Construction Waste**

Notification, Permit and Documentations

Permit/ Licences/ Valid Period				
Notification /Reference No.	From	То	Status	Remark
7029997	1 Feb 2018	End of Project	Valid	-
Construction Noise Perm	it			
GW-RE0251-24	15 Mar 2024	14 Jun 2024	Superseded by GW-RE0356-24	Construction Noise Permit at Zone D & G
GW-RE0356-24	28 Mar 2024	27 Jun 2024	Valid	
GW-RE0050-24	27 Jan 2024	26 Jul 2024	Valid	Construction Noise Permit for Bridge Works at Shanghai Street
GW-RE0003-24	5 Jan 2024	4 Apr 2024	Superseded by GW-RE0373-24	Construction Noise Permit at Zone A & B1
GW-RE0373-24	5 Apr 2024	4 Oct 2024	Valid	
GW-RE0100-24	6 Feb 2024	5 Aug 2024	Superseded by GW-RE0454-24	Construction Noise Permit at Zone B1 & B2 & C
GW-RE0165-24	20 Feb 2024	19 Aug 2024	Superseded by GW-RE0454-24	Construction Noise Permit for Zone B3 & F
GW-RE0454-24	19 Apr 2024	18 Jul 2024	Valid	Construction Noise Permit at Zone B1 – B3 & C
GW-RE0051-24	1 Feb 2024	30 Apr 2024	Expired during reporting month	Construction Noise Permit for Formtraveller Launching at Battery Street
GW-RE0054-24	1 Feb 2024	30 Apr 2024	Expired during reporting month	Construction Noise Permit for Steel Platform Modification at Temple Street
GW-RE0279-24	9 Mar 2024	6 Sep 2024	Valid	Construction Noise Permit at P6
GW-RE0326-24	25 Mar 2024	30 Apr 2024	Expired during reporting month	Construction Noise Permit for Cleaning the Library Exterior Walls at Shanghai Street
GW-RE0327-24	25 Mar 2024	30 Apr 2024	Expired during reporting month	Construction Noise Permit for Storm Drain Clearance Works at Kansu Street
GW-RE0353-24	1 Apr 2024	30 Jun 2024	Valid	Construction Noise Permit for Erection of Enclosure at Zone 3
GW-RE0370-24	2 Apr 2024	28 Jun 2024	Valid	Construction Noise Permit for Erection of work platform at Zone 3
GW-RE0489-24	29 Apr 2024	18 Oct 2024	Valid	Construction Noise Permit for Welding at Column E
Marine Dumping Permit				
EP/MD/24-084	1 Apr 2024	30 Jun 2024	Valid	Type 1 – Open Sea Disposal (Mud Pit CMP Vd)
EP/MD/24-085	1 Apr 2024	30 Jun 2024	Valid	Type 1 – Open Sea Disposal (South Cheung Chau)

Permit/ Licences/	Valid	Period		
Notification /Reference No.	From	То	Status	Remark
EP/MD/24-086	1 Apr 2024	30 Jun 2024	Valid	Type 1 – Open Sea Disposal (Dedicated Site) & Type 2 - Confined Marine Disposal

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 (March 2024)	12 April 2024

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	Rei	marks on progress
•	Excavation and Lateral Support works/Excavation, Construct Roof Slab Ceiling Slab & Bottom Slab at Zone B-EB1/WB1	•	66% completion
•	Excavation and Lateral Support works/Excavation, Install Hanger Supports, Construct Roof, Ceiling Bottom Slab at Zone B EB2	•	Completed
•	Excavation and Lateral Support works/Excavation, Construct Roof Slab Ceiling Slab & Bottom Slab at C1/C2/C3, Rock Breaking & Underpinning Wall Works at Zone C3	•	Completed
•	Excavation and Lateral Support works /Excavation, Install Hanger Supports, Construct Underpinning Walls at D1 and Bottom Slab and Reinforced Concrete Wall at Zone D2 & D3	•	Completed
•	Excavation and Lateral Support works /Excavation, Install Hanger Supports, Construct Roof Slab, Ceiling Slab and Bottom Slab for Zone B3 & F	•	28% completion
•	Excavation and Lateral Support works /Excavation, Install Hanger Supports, Construct Roof Slab, Ceiling Slab and Underpinning Wall and Bottom Slab for Zone G1 & G2	•	30% completion
•	Construct W/B P5R Right-line Gascoigne Road Flyover Deck	•	Completed
•	Construct W/B P4R Right-line Gascoigne Road Flyover Deck, Demolish Remaining Existing Gascoigne Road Flyover Footings	•	66% completion
•	Construct socketed H-piles, Pile caps, Ground beams, Reinforced concrete columns, Steel Posts, Steel Main Beams, Steel Tie Beams and Acoustic Panels for Noise Enclosure at Noise Enclosure at Zone 3	•	73% completion
•	Underground Utilities diversion, Construct permanent & Temporary pipe piles, Barrette walls for Noise Enclosure at Zone 2	•	Completed
•	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	•	20% completion

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	Location ID	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_{eq}). 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	761172	28 Nov 2023
1-hour TSP	LD-5R Digital Dust Indicator	992821	28 Nov 2023
1-110ul 13F	PC-3A(E) Digital Dust Indicator	JC220710222	22 Jun 2023
	PC-3A(E) Digital Dust Indicator	JC220710223	22 Jun 2023
	TE-5170X High Volume	1084	30 Mar 2024 and
	Sampler		17 Apr 2024
24-hour TSP TE-5170X High Volume		1050	30 Mar 2024 and
	Sampler		17 Apr 2024
	TE-5028A Calibration Kit	3465	15 Jan 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:

Monitoring Equipment	Serial Number	Date of Calibration
Nti XL2 Sound Level Meter	A2A-09696-E0	2 March 2024
Rion NC-75 Sound Level Calibrator	34724244	3 Aug 2023

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 1st measurement;
- ◆ The filter paper was weight and provided by HOKLAS lab (Acumen Laboratory and Testing Limited and ALS Technichem (HK) Pty Ltd) before and after the sampling. Certificate of HOKLAS accredited laboratory can be referred to Appendix 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_{eq}) in decibels dB(A). $L_{Aeq(30min)}$ 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⁻¹ or wind with gusts exceeding 10 ms⁻¹. The wind speed was checked with a portable wind speed meter capable of measuring with speeds in ms⁻¹.

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 Sampling Parameter Duration **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 $L_{eq\ 30\ min}$, Noise Once per week (0700 - 1900)measurement L_{10} and L_{90} 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 2, 8, 13, 19, 25 and 30 April 2024.
- 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

Monitoring Location	Range(µg/m ³)	Action Level(µg/m3)	Limit Level(µg/m3)
W-A1	62 - 69	319	500
W-A6	63 - 74	306	500

Table 3.8 Summary of 24-hour TSP Monitoring Results

Monitoring Location	Range(μg/m ³)	Action Level(μg/m3)	Limit Level(µg/m3)
W-A1	50 – 71	167	260
W-A6	36 - 57	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

Nearby 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 2, 8, 13, 19, 25 and 30 April 2024.
- 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# $\mathbf{L}_{\mathbf{eq}}$ L_{10} L_{90} 70dB(A) or 65 W-N1A* 61.9 - 65.964.5 - 68.957.6 - 62.5dB(A) during examination W-N18 66.6 - 68.968.0 - 70.460.3 - 64.7Normal When one working Leq documented hour from 30min complaint is 0700-1900 received W-N25A 64.3 - 70.370.3 - 75.659.5 - 65.875dB(A)# W-P11 67.5 - 72.263.7 - 66.559.7 - 64.8

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. *No examination was scheduled at Yau Ma Tei Catholic Primary School in the reporting month. The limit level of W-N1A would be 70 dB(A).

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 Inert C&D Chemical Materials Waste (in 'tonnes) (in'000 Kg)		Non-inert C&D Materials				
		Others, e.g. Recycled materials		s		
	General Refuse disposed	Paper/card board (in '000 Kg)		Metals (in '000 Kg)		
Apr 2024	16925.3	0.00	270.6	0.00	0.00	0.00

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 Project Hotline	Complaint Received via 1823 or from other government departments				
Contractor notify ER, ET and IEC	ER notify Contractor, ET and IEC				
Contractor log complaint and date of receipt onto the complaint database. Contractor, ER and ET to conduct investigation of complaint					
If complaint is considered not valid	If complaint is found valid				
ET or ER to reply the complainant if necessary	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. Six Action Level of construction noise were triggered during the reporting month as documented complaints 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.
- 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 3, 11, 18 and 25 April 2024, along with bi-weekly inspection of the implementation of landscape and visual mitigation measures conducted on 11 and 25 April 2024.
- 5.2. One joint site inspection with IEC also undertaken on 25 April 2024. 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. Environmental permits should be 1. Environmental permits had been properly displayed at Zone A entrance. properly displayed. 2. Cement mixing platform should be 2. Cement mixing platform had been covered at 3 sides and top at Zone D. covered 3 sides and top. 3. Drip tray should be provided for 3 April 2024 3. Chemical containers had either been chemical containers at Zone A, B and removed or provided with drip tray. 4. Cement bags had been properly 4. Cement bags should be properly covered at Zone B. covered. 1. Drip tray should be provided for 1. Chemical containers had been chemical containers at Zone D. removed. 2. Chemical spillage should be cleaned 2. Chemical spillage had been cleaned up. 11 April 2024 3. Cement mixing platform had been up at Zone D. 3. Cement mixing platform should be properly covered. properly covered at Zone D. 1. Drip tray should be provided for 1. Chemical containers had been chemical containers at Zone B. removed. 18 April 2024 2. Cement bags should be properly 2. Cement bags had been removed. covered at Zone A. 1. Proper drip tray should be provided for 1. Proper drip tray had been provided. chemical containers at Zone C and 2. Cement bags had been properly 25 April 2024 covered. 2. Cement bags should be properly covered at Tunnel A East-bound.

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:

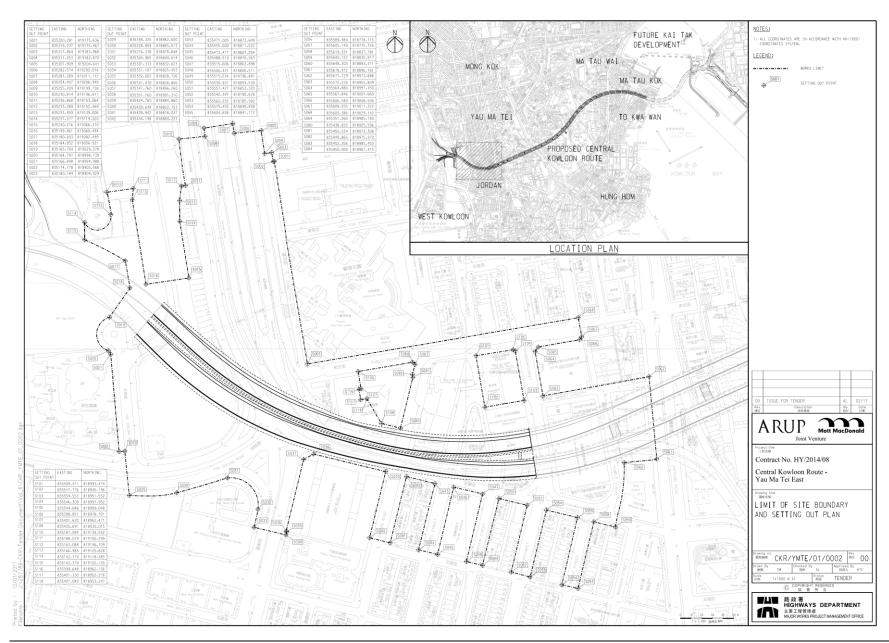
Construction Activities to be undertaken

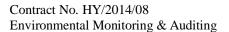
- Construct remaining in-situ Reinforced Concrete Wall (S1 Wall) and continue for road works at Zone A
- Construct roof slab/ceiling slab temporary openings and road works at Zone EB2/C1/C2
- Excavation and construct ceiling slab at Zone WB1
- Construct roof slab/ceiling slab temporary openings and continue road works at Zone D
- Install Underground Utilities hanger supports, excavation and install Excavation and Lateral Support to roof slab for construction of roof slab at Zone B3
- Install Underground Utilities hanger supports, excavation and install Excavation and Lateral Support to roof slab, construct transfer beam for Gascoigne Road Flyover pier P2R at Zone F
- Install Excavation and Lateral Support L2 and construct transfer beam for Gascoigne Road Flyover pier P3R and excavation to Excavation and Lateral Support L3 and install Excavation and Lateral Support L3 at Zone G1
- Excavate and install Excavation and Lateral Support from L4 to L6 at Zone G2
- Bridge Works:
 - i.Continue construct deck segments 6 and 9 at P4R
 - ii.Construction of pier head (remaining 2nd pour) for P6R
 - iii.Complete install temporary steel supports for end span construction for P7R and commence end span construction
- Continue erection of secondary tie beams and acoustic panels for Noise Enclosure F02 in Zone 3 (night works). Continue liaison with CLP and trial pit excavation for C07
- Works at Zone 2 Noise Enclosure are the following:
 - i.Column A Column Erection
 - ii.Column E Preparation works for implementation of TTA (KAS193) column erection of Column E
 - iii.Columns G Construction of temporary platform for column erection
 - iv.Columns C Install steel footing
 - v.Column D Pending access for steel footing installation.
 - vi.Column H Modification of temporary support to DN1800 Drainage for RC plinth construction of column H and construct RC plinth for column H.
- Noise Enclosure steelworks fabrication at the Fabrication Yards in Zhuhai, China
- Underpinning works for existing piers B1 (construct underpinning beam), C2 (construct underpinning beam) and C1 (bracing installation)
- 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

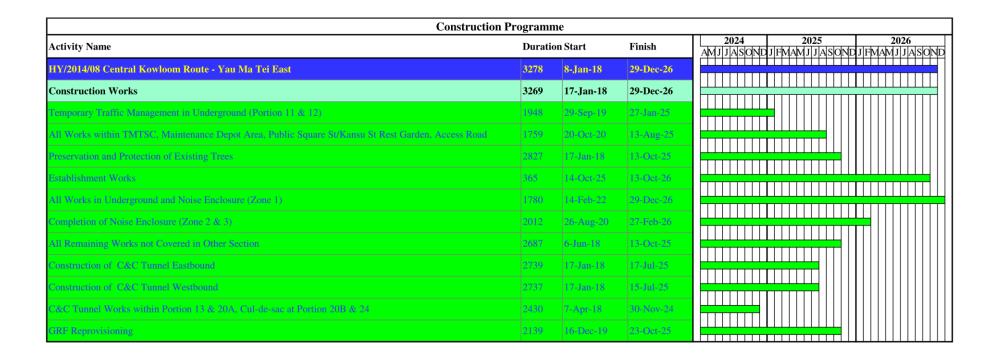
- 7.1. This 73rd monthly EM&A Report presents the EM&A works undertaken during the period from 1 April 2024 to 30 April 2024 in accordance with the EM&A Manual and the requirement under EP- 457/2013/D and FEP-03/457/2013/D.
- 7.2. Six Action Level of construction noise were triggered during the reporting month as documented complaints 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 complaint 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.

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





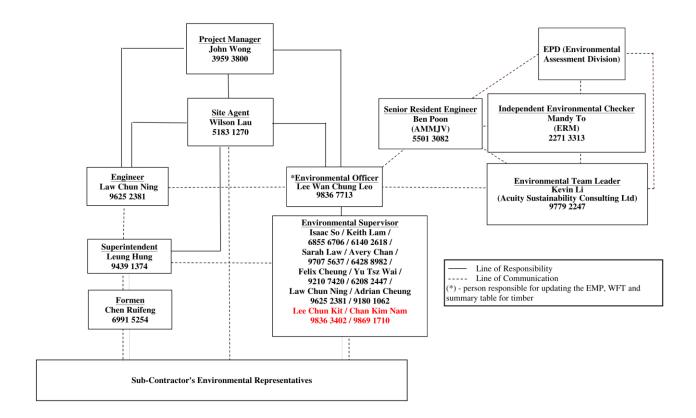
Appendix B
Construction Programme

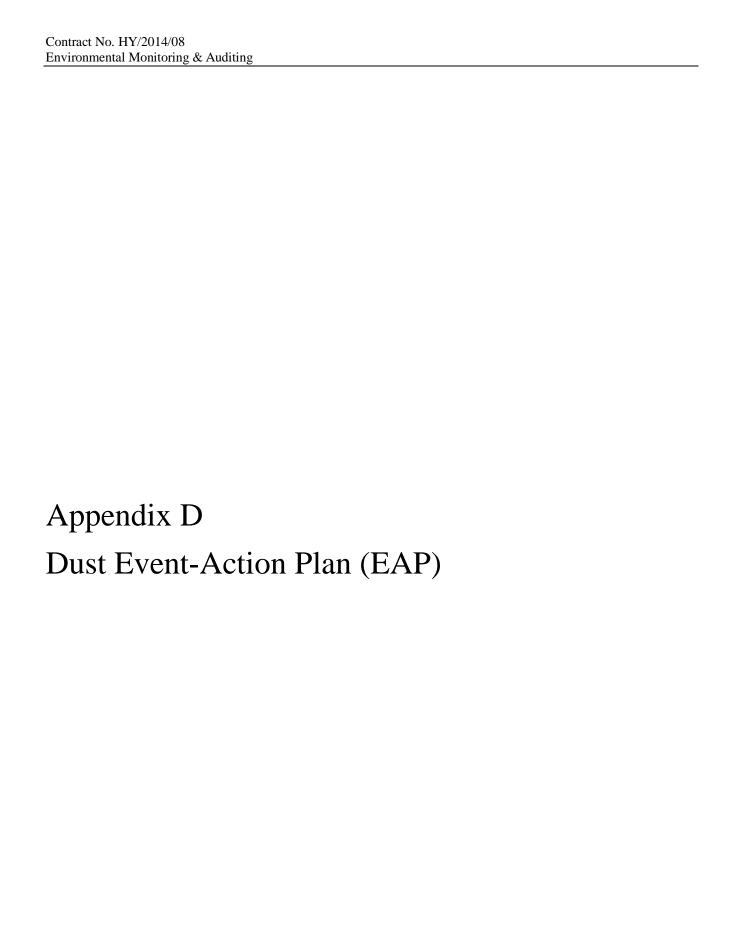


Contract No. HY/2014/08		
Environmental Monitoring & Auditing		

Appendix C Project Organization Chart

Project O-Chart





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

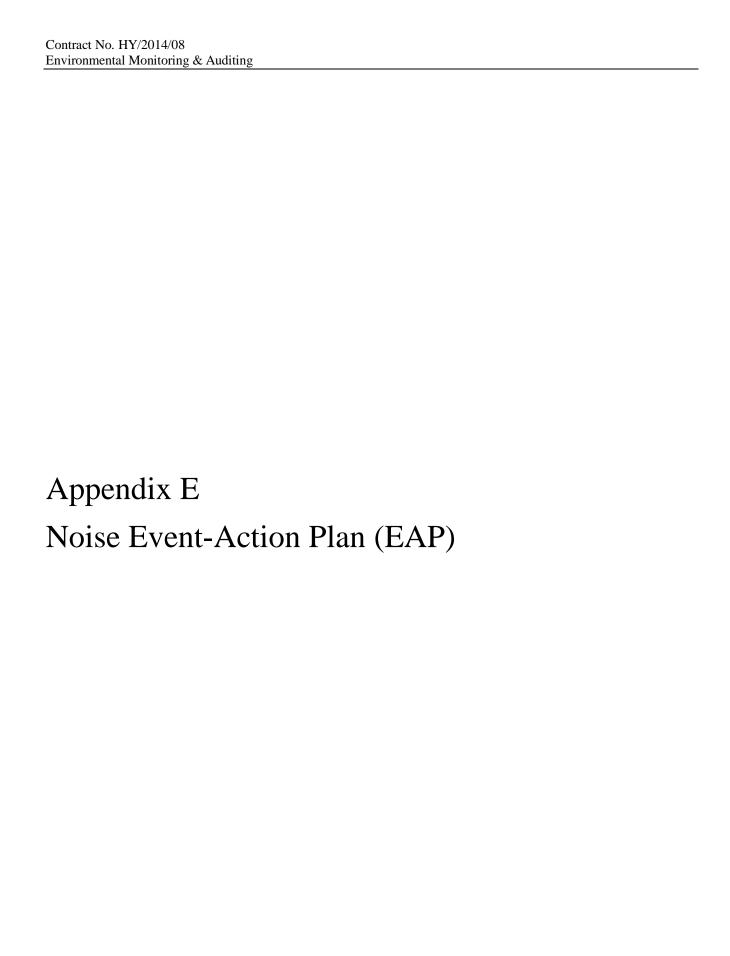
EVENT	ACTION							
EVENI	ET	IEC	ER	CONTRACTOR				
	 EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results. 	 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ER on the effectiveness of the proposed remedial measures; 5. Supervise implementation of remedial measures. 	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	 Notify IEC, ER, Contractor and EPD; Identify source; Repeat measurement to confirm findings; Increase monitoring frequency to daily; Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; Arrange meeting with IEC and ER to discuss the remedial actions to be taken; Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; If exceedance stops, cease additional monitoring. 	 Discuss amongst ER, ET, and Contractor on the potential remedial actions; Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; Supervise the implementation of remedial measures. 	 Confirm receipt of notification of failure in writing; Notify Contractor; In consultation with the IEC, agree with the Contractor on the remedial measures to be implemented; Ensure remedial measures properly implemented; 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. 	 Take immediate action to avoid further exceedance; Submit proposals for remedial actions to IEC within 3 working days of notification; Implement the agreed proposals; Resubmit proposals if problem still not under control; Stop the relevant portion of works as determined by the ER until the exceedance is abated. 				

Note:

ET – Environmental Team

ER – Engineer's Representative

IEC – Independent Environmental Checker



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

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

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

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				
\$4.3.10	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
\$4.3.10	D3	 Proper watering at exposed spoil should be undertaken throughout the construction phase; Any excavated or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading; Any dusty materials remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads; A stockpile of dusty material should not be 	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, 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
		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						

	Ref.	Recommended Mitigation Measures	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	 continuously; Any area that involves demolition activities should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet; Any skip hoist for material transport should be totally enclosed by impervious sheeting; Every stock of more than 20 bags of cement or dry-pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides; 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 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. Implement regular dust monitoring under EM&A 	Monitoring of	Contractor	Selected rep.	Construction stage	• TM-FIA	• Implemented
S4.3.10	D6	Implement regular dust monitoring under EM&A programme during the construction stage.	Monitoring of dust impact	Contractor	Selected rep. dust monitoring station	Construction stage	• TM-EIA	Implemented

Acuity Sustainability Consulting Ltd.

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
S5.4.1	N1	 Implement the following good site practices: Only well-maintained plant should be operated onsite and plant should be serviced regularly during the construction programme; Machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; Plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs; Silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works; Mobile plant should be sited as far away from NSRs as possible and practicable; Material stockpiles, mobile container site office and other structures should be effectively utilized, where practicable, to screen noise from on-site construction activities. 	Control construction airborne noise	Contractor	All construction sites	Construction stage	• Annex 5, TM- EIAO	Implemented, deficiency rectified after reminder
S5.4.1	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
S5.4.1	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

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	Selected rep. noise monitoring station	Construction stage	• TM-EIAO	Implemented

Water Quality (Construction 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
S6.9.1.1		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

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						

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		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	 Cut-&-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. Uncontaminated discharge should pass through sedimentation tanks prior to off-site discharge; 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; 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. 	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
\$6.9.1.3	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

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
		responsible for appropriate disposal and maintenance.						
S6.9.1.5	W4	 No direct discharge of groundwater from contaminated areas should be adopted. 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. 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 	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

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
		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		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, 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
		 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; 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. Disposal of chemical wastes should be conducted in compliance with the requirements as stated in the Waste Disposal (Chemical Waste) (General) Regulation. 	spillage				 ProPECC PN 1/94 TM-EIAO TM-DSS 	
			Waste Manage	ement (Construction	Waste)			
\$7.4.1	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

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
\$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. Construction and Demolition Material	Good site	Contractor	All	Construction stage	• Land	• Implemented
37.3.1	VVIVIZ	 Maintain temporary stockpiles and reuse excavated fill material for backfilling and reinstatement; Carry out on-site sorting; Make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate; Adopt 'selective demolition' technique to demolish the existing structures and facilities with a view to recovering broken concrete effectively for recycling purpose, where possible; Implement a trip-ticket system for each works contract to ensure that the disposal of C&D materials are properly documented and verified; and 	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	Construction stage	(Miscellaneo us Provisions) Ordinance Waste Disposal Ordinance ETWB TCW No. 19/2005	mplemented

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
		• 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	 Standard formwork or pre-fabrication should be used as far as practicable in order to minimize the arising of C&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; The Contractor should recycle as much of the C&D materials as possible on-site. Public fill and C&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. 	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

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
\$7.5.1	WM5	 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; 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; 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; Adequate freeboard shall be maintained on barges to ensure that decks are not washed by wave action. 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; The Contractors shall comply with the conditions in the dumping licence. 	To control pollution due to marine sediment	Contractor	Along CKR alignment	Construction stage	• ETWB TCW No. 34/2002	• 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
		 All bottom dumping vessels (Hopper barges) shall be fitted with tight fittings seals to their bottom openings to prevent leakage of material; The material shall be placed into the disposal pit by bottom dumping; 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; 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. 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. 						
S7.5.1	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

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
		accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes; 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; 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; 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.	handling and disposal				(General) Regulation Code of Practice on the Packaging, Labelling and Storage of Chemical Waste	

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
\$7.5.1	WM7	 General Refuse General refuse generated on-site should be stored in enclosed bins or compaction units separately from construction and chemical wastes; 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. 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; 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. 	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 reminder
		scheme should be 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

EIA Ref.	EM&A Log Ref.	Reco	mmended Mitigat	tion 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
		selection schemes table is h excavation valid Wat discharge	tractor should pa of suitable gr and discharge poin igher than the cont n. The Contractor ter Pollution Contro licence from EPD w						Guidance Notes for Contaminate d Land Assessment and Remediation Guidance	
S8.9 & Appendix 8.4	LC3	specified of the distribute shall be	depth, at least one excavation and for depth and for the bound	ne excavation to the sample from the base our samples evenly lary of the excavation e assessment testing. nown below:					Manual for Use of Risk- Based Remediation Goals (RBRGs) for Contaminate	Implemented
		Park), no find the analysis (i.e. noncorfurther excaincrement vertice locations the acceptant	further excavation value of the avation shall be obtained by or the sample(s) of the sample(s) of the sample(s) are criteria. Further	Acceptance Criteria RBRGs (Public Park) ow the RBRGs (Public vill be required. nce of contamination acceptance criteria), carried out in 0.5m zontally depending on which has exceeded sampling shall also be ting. The process of					d Land Management	

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
Appendix	LC4	excavation, sampling and compliance testing should continue until all contaminated materials are removed and should be supervised by a Land Contamination Specialist. A Remediation Report (RR) to demonstrate adequate						Implemented
8.4		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.						
				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	H5	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).	To reduce the risk during 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	To reduce the risk during explosives transport	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
\$9.18	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
S9.18	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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		 Construction plant and building material shall be orderly and carefully stored in order to create a neat and tidy visual appearance. 						
S10.10.1 Table 10.11	LV4	 Screen Hoarding 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. 	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 observation

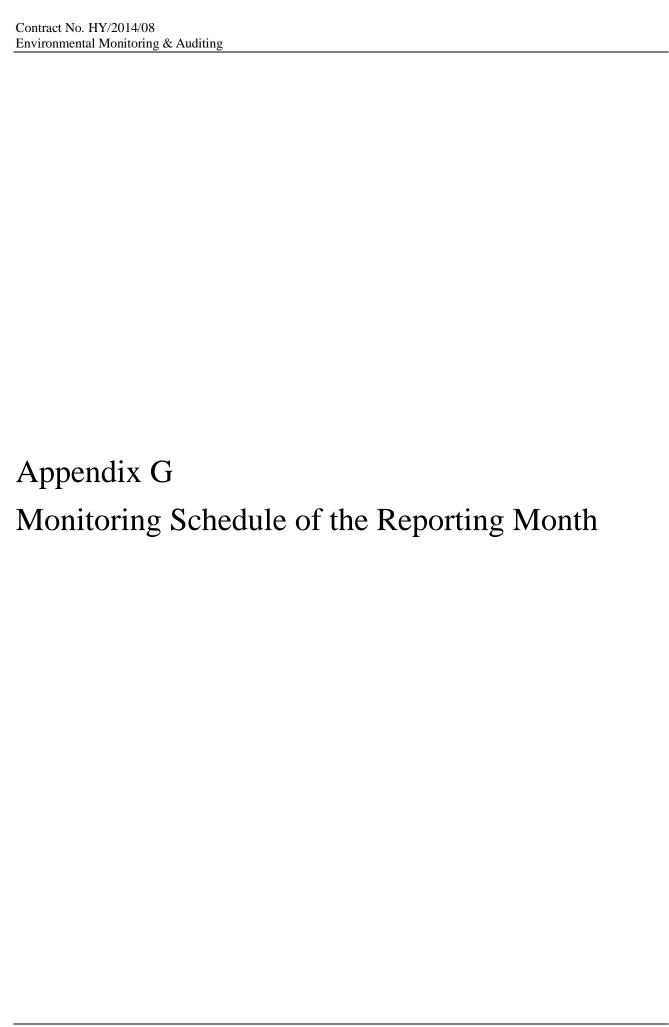
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S10.10.1 Table 10.11	LV8	Tree Transplantation • For trees unavoidably affected by the Project that have to be removed, where practical transplantation will be chosen as the top priority method of removal. If this is not possible or practical compensatory 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	 Compensatory Planting 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. 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. 	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 (Constructi	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	 Protective covering should be provided for the buildings in the form of plastic sheeting; 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; 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; The AAA settlement and tilting limit should be 6/8/10 mm and1/2000, 1/1500 and 1/1000; 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; 	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
		 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. 						
S12.6.1		 Adopting diaphragm wall construction method; Grout curtain should be provided in front of the building; Recharging system should be installed as a contingency measure to mitigate the fluctuation of water table; the AAA settlement and tilting limit should be 6/8/10 mm and 1/2000, 1/1500 and 1/1000; 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; 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. 	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		 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 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. 	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
\$13.2-13.4	EM2	 An Environmental Team needs to be employed as per the EM&A Manual; Prepare a systematic Environmental Management Plan to ensure effective implementation of the mitigation measures; An environmental impact monitoring needs to be implemented by the Environmental Team to ensure all the requirements given in the EM&A Manual are fully complied with. 	Perform environmental monitoring & auditing	Highways Department/ Contractor	All construction sites	Construction stage	• EIAO Guidance Note No. 4/2010 • TM-EIAO	Implemented



	Impact Monitoring Schedule for YMTE							
			Apr-24	Apr-24				
Sun	Mon	Tue	Wed	Thu	Fri	Sat		
	1	Impact Air monitoring for W-A6 &W-A1 Noise monitoring for W-N1A, W-P11,W-N18 & W-N25A	3	4	5	6		
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					Impact Air monitoring for W-A6 &W-A1 Noise monitoring for W-N1A, W-P11,W-N18 & W-N25A		
14	15	16	17	18		20		
					Impact Air monitoring for W-A6 &W-A1 Noise monitoring for W-N1A, W-P11,W-N18 & W-N25A			
21	22	23	24	25 Impact	26	27		
				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						

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

Appendix H
Calibration Certificates
(Air Monitoring)



Information of Calibrated Equipement

mornation of canonated Equipement					
Verification Test Date:	28-Nov-23	to	30-Nov-23	Next Verification Test Date:	28-Nov-24
Unit-under-Test- Model No.:	Sibata LD-5R			•	
Unit-under-Test Serial No.:	761172			•	
Our Report Refrence No.:	RPT-23-HVS-0066		56	•	
Calibration Location:	AM2, location near the Leachate Tre		the Leachate Tre	eatment Works within the NENTX Landfill	
-					•

Standard Equipment Information

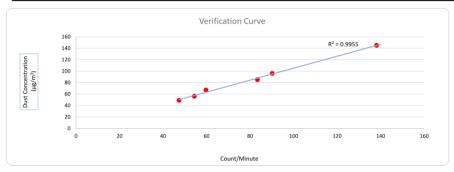
Verification Equipment Type:	Tisch TSP HVS	Tisch HVS Calibrator
Standard Equipment Model No.:	TE-5170X	TE-5025A
Equipment serial no.:	1106	4166
Last Calibration Date:	4-Nov-23	19-Jun-23
Next Calibration Date:	3-Jan-24	19-Jun-24

Equipement Vertification Result

Verification		Duration			Results from	Calibrated Equipement	Results from Standard Equipment
Test No.	t No.	Start-time	End-time	Elapsed Time (in min)	Total Counts	Counts/ Minute x-axis	Dust Concentration (μg/m³) y-axis
1	28/11/2023	8789.68	8792.68	180.00	16234	90	96
2	28/11/2023	8792.68	8795.68	180.00	15010	83	85
3	28/11/2023	8795.68	8798.68	180.00	8526	47	49
4	30/11/2023	8798.68	8801.68	180.00	10756	60	67
5	30/11/2023	8801.68	8804.68	180.00	24867	138	145
6	30/11/2023	8804.68	8807.68	180.00	9785	54	56

Linear Regression of y on x

1	Slope, K factor:	<u>1.0443</u>	Intercept:	0.6370	*Correlation Coefficient,R:	0.9978
	Verification Test Result:	Strong Correlation, Results were accepted.			* If the Correlation Coefficient, R is <0.5. Chec	king and Re-verification are required.



Operated By:

Andy Li
Project Technician, Environmental

Checked By:

Tandy Tse

Date: 30-11-2023



Information of Calibrated Equipement

Verification Test Date:	28-Nov-23	to	30-Nov-23	Next Verification Test Date:	28-Nov-24
Unit-under-Test- Model No.:		Sibata LD-5R			
Unit-under-Test Serial No.:		992821			
Our Report Refrence No.:	F	RPT-23-HVS-007	'2		
Calibration Location:	AM2, location near the Leachate Tro		the Leachate Tre	eatment Works within the NENTX Landfill	

Standard Equipment Information

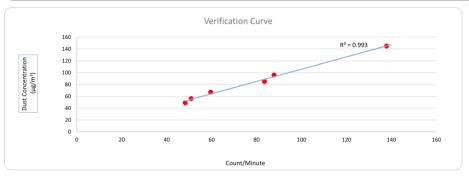
	otaliaala Equipilicite	mornium di
Verification Equipment Type:	Tisch TSP HVS	Tisch HVS Calibrator
Standard Equipment Model No.:	TE-5170X	TE-5025A
Equipment serial no.:	1106	4166
Last Calibration Date:	4-Nov-23	19-Jun-23
Next Calibration Date:	3-Jan-24	19-Jun-24

Equipement Vertification Result

Verification	Duration		Results from Calibrated Equipement			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	28/11/2023	8789.68	8792.68	180.00	15798	88	96
2	28/11/2023	8792.68	8795.68	180.00	15038	84	85
3	28/11/2023	8795.68	8798.68	180.00	8687	48	49
4	30/11/2023	8798.68	8801.68	180.00	10732	60	67
5	30/11/2023	8801.68	8804.68	180.00	24813	138	145
6	30/11/2023	8804.68	8807.68	180.00	9156	51	56

Linear Regression of y on x





Operated By:

Andy Li
Project Technician, Environmental

Checked By:

Tandy Tse
Senjor Consultant, Environmental

Date: 30-11-2023





Verification Test Date:	22-Jun-23	to	25-Jun-23	Next Verification Test Date:	22-Jun-24
Unit-under-Test- Model No.:	PC-3A(E)				
Unit-under-Test Serial No.:	JC-220710222		2	-	
Our Report Refrence No.:	RPT-23-HVS-0053		153	-	
Calibration Location:	1			- Emax	
-					-

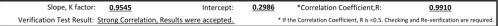
Standard Equipment Information

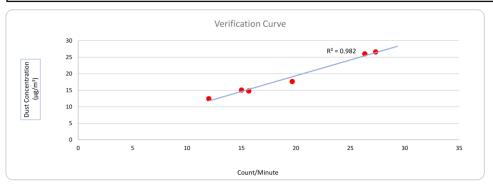
Verification Equipment Type:	Tisch TSP HVS	Tisch HVS Calibrator
Standard Equipment Model No.:	TE-5170X	TE-5028A
Equipment serial no.:	1049	3702
Last Calibration Date:	22-Jun-23	31-Mar-23
Next Calibration Date:	21-Aug-23	30-Mar-24

Equipement Vertification Result

Equiperion vertification neonic								
Verification		Duration		Duration Results from Calibrated Equipement		Results from Standard Equipment		
Test No.	Date	Start-time	tart-time End-time Elapsed Time (in min) Total Counts		Total Counts	Counts/ Minute x-axis	Dust Concentration (μg/m³) y-axis	
1	22/6/2023	7339.85	7342.85	180.00	2700	15	15	
2	22/6/2023	7342.85	7345.85	180.00	2820	16	15	
3	22/6/2023	7345.85	7348.85	180.00	4740	26	26	
4	25/6/2023	7349.74	7352.74	180.00	2160	12	12	
5	25/6/2023	7352.76	7355.76	180.00	3540	20	18	
6	25/6/2023	7355.77	7358.77	180.00	4920	27	27	

Linear Regression of y on x





Operated By:

Andy Li

Project Technician, Environmental

Date: 03-07-2023

Checked By:

Tandy Tse
Senior Consultant, Environmental

Date: 03-07-2023





Information of Calibrated Equipement	
--------------------------------------	--

Verification Test Date:	22-Jun-23	to	25-Jun-23		Next Verification Test Date:	22-Jun-24
Init-under-Test- Model No.:		PC-3A(E)				
Unit-under-Test Serial No.:	J	C-22071022	3			
Our Report Refrence No.:	RP	T-23-HVS-00	48			
Calibration Location:			E	max		

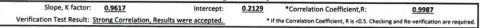
Standard Equipment Information

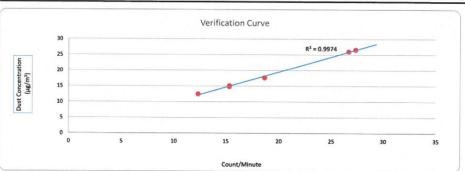
_		- terrial and additional and and and		
	Verification Equipment Type:	Tisch TSP HVS	Tisch HVS Calibrator	
1	Standard Equipment Model No.:	TE-5170X	TE-5028A	- 1
1	Equipment serial no.:	1049	3702	- 1
1	Last Calibration Date:	22-Jun-23	31-Mar-23	- 1
	Next Calibration Date:	21-Aug-23	30-Mar-24	

Equipement Vertification Result

Verification			Duration		Results from C	alibrated Equipement	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	22/6/2023	7339.85	7342.85	180.00	2760	15	15
2	22/6/2023	7342.85	7345.85	180.00	2760	15	15
3	22/6/2023	7345.85	7348.85	180.00	4800	27	26
4	25/6/2023	7349.74	7352.74	180.00	2220	12	12
5	25/6/2023	7352.76	7355.76	180.00	3360	19	18
6	25/6/2023	7355.77	7358.77	180.00	4920	27	27

Linear Regression of y on x





Operated By:

Andy Li

Project Technician, Environmental

Date: 03-07-2023

Checked By: Tandy Tse Date: 03-07-2023



RECALIBRATION DUE DATE:

January 15, 2025

Certificate of Calibration

Calibration Certification Information

Cal. Date: January 15, 2024 Rootsmeter S/N: 438320

5

Ta: 294 Pa: 755.9

8.9

12.9

°K mm Hg

5.50

8.00

Operator: Jim Tisch Calibration Model #:

CH

3

5

Run

TE-5025A

Vol. Init

(m3)

Calibrator S/N: 3465

Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
2	1	1.4350	3.3	2.00
4	1	1.0180	6.4	4.00
6	1	0.9090	8.0	5.00

0.8670

	Data Tabulation							
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)			
1.0037	0.6995	1.4200	0.9956	0.6938	0.8820			
0.9996	0.9819	2.0081	0.9915	0.9740	1.2473			
0.9975	1.0973	2.2452	0.9894	1.0885	1.3945			
0.9963	1.1491	2.3547	0.9882	1.1398	1.4626			
0.9909	1.3859	2.8399	0.9829	1.3747	1.7639			
	m=	2.06920		m=	1.29570			
QSTD	b=	-0.02547	QA	b=	-0.01582			
	r=	0.99999	~.	r=	0.99999			

	Calculation	ıs			
Vstd=	ΔVol((Pa-ΔP)/Pstd)(Tstd/Ta)	Va=	ΔVol((Pa-ΔP)/Pa)		
Qstd= Vstd/ΔTime		Qa= Va/ΔTime			
	For subsequent flow rat	e calculatio	ns:		
$\mathbf{Qstd} = \frac{1}{m} \left(\left(\sqrt{\Delta H \left(\frac{Pa}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)} \right) - b \right) \qquad \mathbf{Qa} = \frac{1}{m} \left(\left(\sqrt{\Delta H \left(Ta/Pa \right)} \right) - b \right)$					

	Standard Conditions
Tstd:	298.15 ° _K
Pstd:	760 mm Hg
	Key
	manometer reading (in H2O)
ΔP: rootsmete	r manometer reading (mm Hg)
	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-A6	Date:	30-Mar-2024
Serial No:	1084	Model:	TE-5170X	Operator:	Andy Li

Ambient Condition

, and one contained					
Actual Pressure during Calibration (Pa)	760.2	Actual Temperature during	299.6		
(mm Hg):	760.2	Calibration (T _a) (deg K):	299.6		

Calibration Orifice

Model:	TE-5028A	Slope (m _c):	2.06920
Serial No.:	3465	Intercept (b _c):	-0.02547
Calibration Due Date:	15-Jan-25	Corr. Coeff:	0.99999

Calibration Data

Plate or	∆H ₂ O	Qa, X-Axis	I, CFM	IC, Y-Axis
Test #	(in)	(m³/min)	(chart)	(corrected)
18	10.00	1.537	61.0	60.85
13	7.40	1.324	54.0	53.87
10	6.00	1.193	51.0	50.87
7	3.90	0.964	43.0	42.89
5	2.40	0.759	38.0	37.91

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

Corr. Coeff= 0.9983 29.7550 14.8979

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

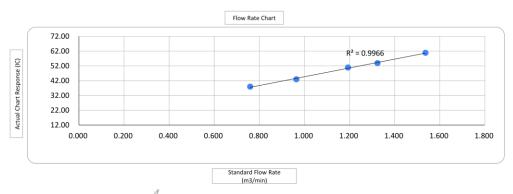
m = sampler slope

b = sampler intercept T_{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: 30-Mar-2024





Site Information

Location:	Man Cheong Building	Site ID:	W-A6	Date:	30-Mar-2024
Serial No:	1050	Model:	TE-5170X	Operator:	Andy Li

Ambient Condition

Actual Pressure during Calibration (Pa)	750.3	Actual Temperature during	200.6
(mm Hg):	760.2	Calibration (T _a) (deg K):	299.6

Calibration Orifice

Model:	TE-5028A	Slope (m _c):	2.06920
Serial No.:	3465	Intercept (b _c):	-0.02547
Calibration Due Date:	15-Jan-25	Corr. Coeff:	0.99999

Calibration Data

Plate or	∆H ₂ O	Qa, X-Axis	I, CFM	IC, Y-Axis
Test #	(in)	(m³/min)	(chart)	(corrected)
18	9.50	1.498	62.0	61.85
13	7.70	1.350	57.0	56.86
10	5.70	1.163	50.0	49.88
7	4.00	0.976	42.0	41.90
5	2.80	0.819	38.0	37.91

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

m=	36.3552	b= 7.4543	Corr. Coeff= 0.9979	
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Calculations

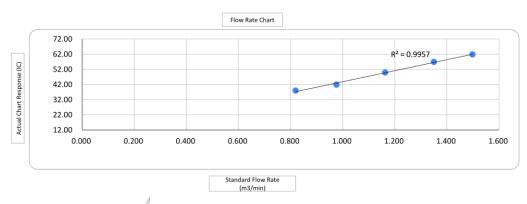
 $Qa = 1/m_c*[Sqrt (\Delta H_2 O*(P_a/P_{Std})*(T_{Std}/T_a))-b_c]$

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

Qa = actual flow rate IC = corrected chart response I = actual chart response m_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: 30-Mar-2024





Site Information

Location:	YMT Catholic Primary School	Site ID:	W-A6	Date:	17-Apr-2024
Serial No:	1084	Model:	TE-5170X	Operator:	Andy Li

Ambient Condition

Actual Pressure during Calibration (Pa)	757.5	Actual Temperature during	301.6
(mm Hg):	/5/.5	Calibration (T _a) (deg K):	301.6

Calibration Orifice

Model:	TE-5028A	Slope (m _c):	2.06920
Serial No.:	3465	Intercept (b _c):	-0.02547
Calibration Due Date:	15-Jan-25	Corr. Coeff:	0.9999

Calibration Data

Plate or	∆H ₂ O	Qa, X-Axis	I, CFM	IC, Y-Axis
Test #	(in)	(m³/min)	(chart)	(corrected)
18	10.20	1.544	60.0	59.55
13	8.40	1.402	55.0	54.58
10	6.90	1.272	51.0	50.62
7	4.50	1.030	45.0	44.66
5	2.80	0.815	40.0	39.70

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

m= 26.8124 b= 17.3064 Corr. Coeff= 0.9963	Corr. Coeff= 0.9963
---	---------------------

Calculations

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

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

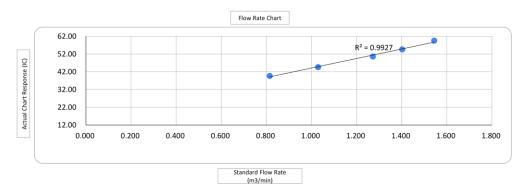
 $\begin{aligned} &Qa = actual \ flow \ rate \\ &IC = corrected \ chart \ response \\ &I = actual \ chart \ response \\ &m_c = calibrator \ slope \end{aligned}$

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: 17-Apr-2024





Site Information

Lo	cation:	Man Cheong Building	Site ID:	W-A6	Date:	17-Apr-2024	
Se	rial No:	1050	Model:	TE-5170X	Operator:	Andy Li	

Ambient Condition

Actual Pressure during Calibration (Pa)	757.5	Actual Temperature during	201.6
(mm Hg):	757.5	Calibration (T _a) (deg K):	301.6

Calibration Orifice

Model:	TE-5028A	Slope (m _c):	2.06920
Serial No.:	3465	Intercept (b _c):	-0.02547
Calibration Due Date:	15-Jan-25	Corr. Coeff:	0.99999

Calibration Data

Plate or	∆H ₂ O	Qa, X-Axis	I, CFM	IC, Y-Axis
Test #	(in)	(m³/min)	(chart)	(corrected)
18	10.30	1.552	60.0	59.55
13	9.00	1.451	57.0	56.57
10	6.40	1.226	50.0	49.62
7	4.20	0.995	45.0	44.66
5	3.10	0.857	41.0	40.69

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

m=	26.8017	b= 17.6242	Corr. Coeff= 0.9980	

Calculations

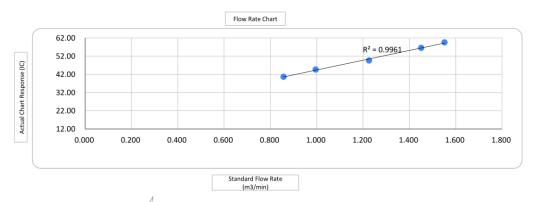
 $Qa = 1/m_c*[Sqrt (\Delta H_2 O*(P_a/P_{Std})*(T_{Std}/T_a))-b_c]$

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

Qa = actual flow rate IC = corrected chart response I = actual chart response m_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: 17-Apr-2024

Environmental Monitoring & Auditing
A 1' T
Appendix I
1 1
Calibration Certificates (Noise)
Cantilation Certificates (Noise)

Contract No. HY/2014/08

Acuity Sustainability Consulting Ltd.





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

Certificate of Calibration

for

Description:

Sound Level Meter

Manufacturer:

NTi Audio

Type No .:

XL2 (Serial No.: A2A-09696-E0)

Microphone:

ACO 7052 (Serial No.:73780)

Preamplifier:

NTi Audio MA220 (Serial No.:6282)

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: 28 February 2024

Date of calibration: 02 March 2024

Date of NEXT calibration: 01 March 2025

Calibration Technician

Certified by:

Mr. Ng Yan Wa Laboratory Manager

Date of issue: 02 March 2024

Certificate No.: APJ23-146-CC003

age 1 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

(**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:22.9 °CAir Pressure:1005 hPaRelative Humidity:61.2 %

3. Calibration Equipment:

	Type	Serial No.	Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV220061	HOKLAS

4. Calibration Results

Sound Pressure Level

Reference Sound Pressure Level

Setting of Unit-under-test (UUT)				Appl	ied value	UUT Reading,	IEC 61672 Class 1
Range, dB Freq. Weighting Time Weighting		Level, dB	Frequency, Hz	dB	Specification, dB		
30-130	dBA	SPL	Fast	94	1000	94.1	±0.4

Linearity

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
				94		94.1	Ref
30-130	dBA	SPL	Fast	104	1000	104.1	±0.3
				114		114.1	±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	dBA	SPL	Fast	94	1000	94.1	Ref
30-130	dBA SPL	SPL	Slow	94	1000	94.1	±0.3

Certificate No.: APJ23-146-CC003

A+A)*L 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

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)				Applied value		IEC 61672 Class 1
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
					31.5	94.0	±2.0
	u				63	94.1	±1.5
					125	94.1	±1.5
					250	94.1	±1.4
30-130	dB	SPL	Fast	94	500	94.1	±1.4
					1000	94.1	Ref
					2000	94.4	±1.6
					4000	95.2	±1.6
					8000	94.5	+2.1; -3.1

A-weighting

Setti	ing of Uni	t-under-t	est (UUT)	Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
					31.5	54.6	-39.4 ±2.0
					63	67.9	-26.2 ±1.5
					125	78.0	-16.1 ±1.5
					250	85.4	-8.6 ±1.4
30-130	dBA	SPL	Fast	94	500	90.9	-3.2 ±1.4
					1000	94.1	Ref
					2000	95.6	+1.2 ±1.6
					4000	96.2	+1.0 ±1.6
					8000	93.4	-1.1+2.1; -3.1

C-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
					31.5	91.0	-3.0 ±2.0
					63	93.3	-0.8 ±1.5
					125	93.9	-0.2 ±1.5
			Fast	94	250	94.1	-0.0 ±1.4
30-130	dBC	SPL			500	94.2	-0.0 ±1.4
					1000	94.1	Ref
					2000	94.2	-0.2 ±1.6
					4000	94.4	-0.8 ±1.6
					8000	91.5	-3.0 +2.1: -3.1

Certificate No.: APJ23-146-CC003



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



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	± 0.10
	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.: APJ23-146-CC003



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



Certificate of Calibration

for

Description:	Sound Level	Calibrator
--------------	-------------	------------

Manufacturer: RION
Type No.: NC-75
Serial No.: 34724244

Submitted by:

Customer: Acuity Sustainability Consulting Limited

Address: Unit E, 12/F, Ford Glory Plaza,

Nos. 37-39 Wing Hong Street, Cheung Sha Wan, 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: 27 July 2023
Date of calibration: 3 August 2023
Date of NEXT calibration: 2 August 2024
Calibrated by: Calibration Technician Certified by: Mr. Ng Yan Wa Laboratory Manager Date of issue: 3 August 2023

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
Homepage: http://www.aa-lab.com E-mail: inquiry@aa-lab.com

Certificate No.: APJ23-049-CC004



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:	22.6 °C
Air Pressure:	1006 hP
Relative Humidity:	52.9 %

4. Calibration Equipment:

Test Equipment	Туре	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV220061	HOKLAS
Sound Level Meter	RION NA-28	30721812	AV220120	HOKLAS

5. Calibration Results

5.1 Sound Pressure Level

Nominal value dB	Accept lower level dB	Accept upper level dB	Measured value dB
94.0	93.6	94.4	94.0

Note:

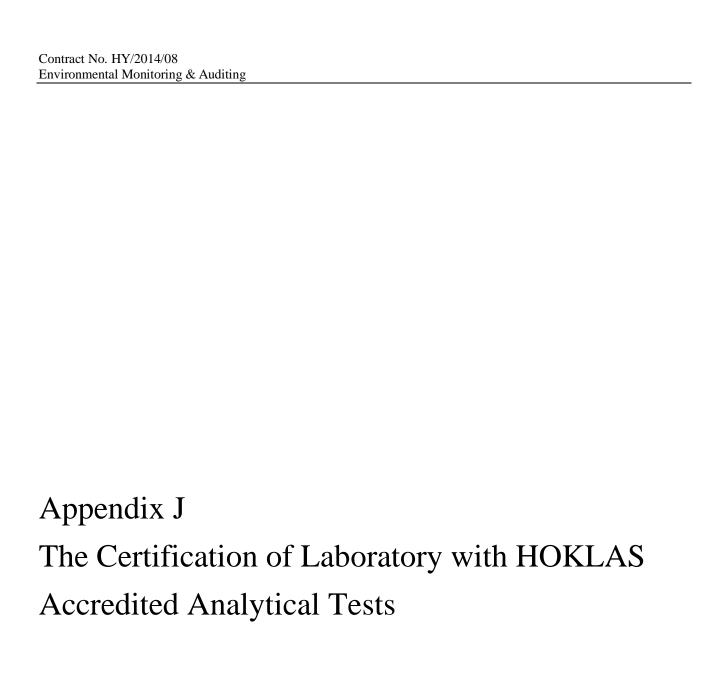
The values given in this certification only related to the values measured at the time of the calibration.



Page 2 of 2

Certificate No.: APJ23-049-CC004

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





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述測試類別中的指定實驗所活動

Environmental Testing

環境測試

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

此项 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慮的印章

SHUM Wai-leung, Executive Administrator

執行幹事 沈偉良

Issue Date: 15 November 2021

簽發日期:二零二一年十一月十五日

Registration Number : HOKLAS 241

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 本體書級照香港認可盡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 特此間明

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述測試類別中的指定實驗所活動

Environmental Testing

環境測試

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

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

SHUM Wai-leung, Executive Administrator

執行幹事 沈偉良

Issue Date : 28 February 2020

签發日期:二零二零年二月二十八日

註冊號碼:

Registration Number : HOKLAS 066



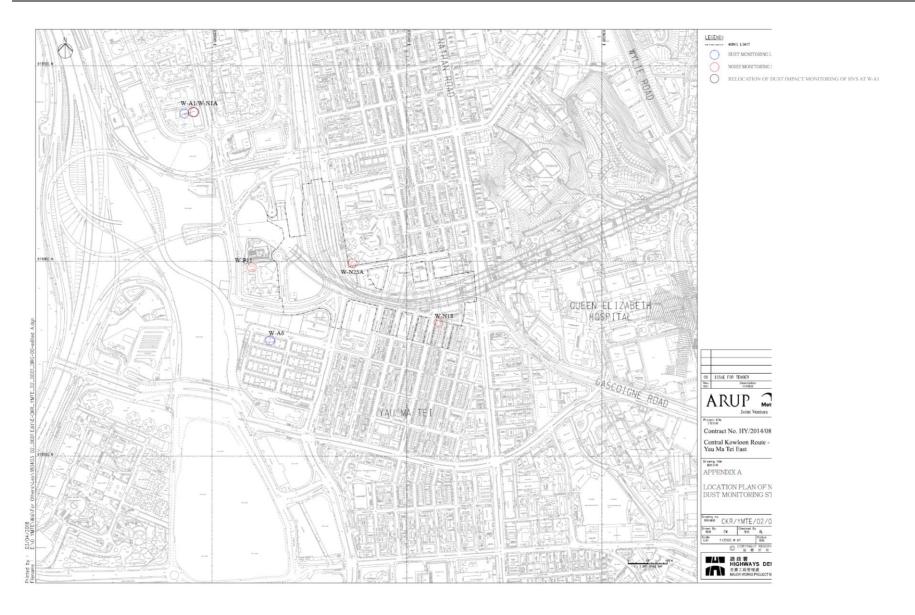
Date of First Registration: 15 September 1995 首次註冊日期:一九九五年九月十五日

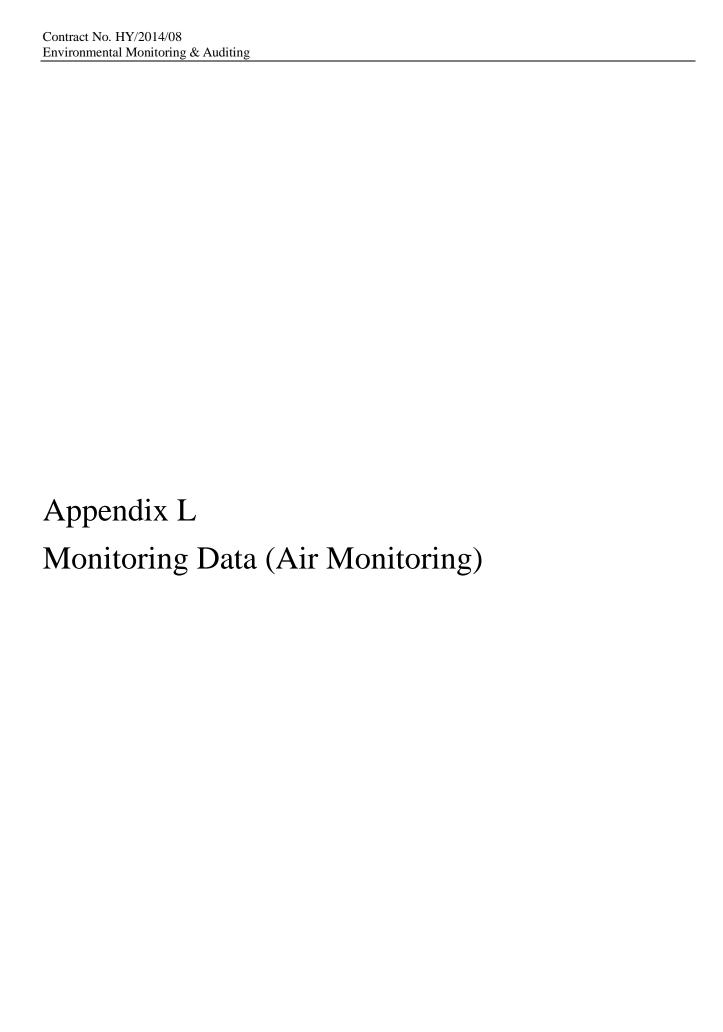
This certificate is issued subject to the terms and conditions laid down by HKAS. 本證書按照香港認可處訂立的條款及條件發出

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: 2, 8, 13, 19, 25 and 30 April 2024

Parameter: TSP 1-hour Other Factors Nearby traffic

	1-hour TSP (μg/m³)									
Date	Weather	Start Time	1 st Hour (μg/m ³)	2 nd Hour (μg/m ³)	3 rd Hour (μg/m³)					
02/04/2024	Fine	9:06	64	62	68					
08/04/2024	Fine	9:09	63	68	64					
13/04/2024	Fine	9:07	68	66	63					
19/04/2024	Fine	11:12	66	68	67					
25/04/2024	Fine	12:55	65	69	63					
30/04/2024 Fine		9:09	66	62	68					
Mini	mum: 62 μg/m ³	3		Maximum: 69 μg	$/\mathrm{m}^3$					

Location: Man Cheong Building (W-A6)
Monitoring date: 2, 8, 13, 19, 25 and 30 April 2024

Parameter: TSP 1-hour Other Factors Nearby traffic

		1-hour TSP (μg/m³)											
Date	Weather	Start Time		Hour ug/m³)	2 nd Hour (μg/m³)		3 rd Hour (μg/m³)						
02/04/2024	Fine	12:30		63	68		64						
08/04/2024	Fine	12:35		69	71	71							
13/04/2024	Fine	12:33		65	74		69						
19/04/2024	Fine	12:37		73	71		67						
25/04/2024	Fine	14:18		69	72		70						
30/04/2024	Fine	12:25		65	69		64						
	Minimum: 63	ug/m ³			Maximum: 7	/4 μg/	m^3						

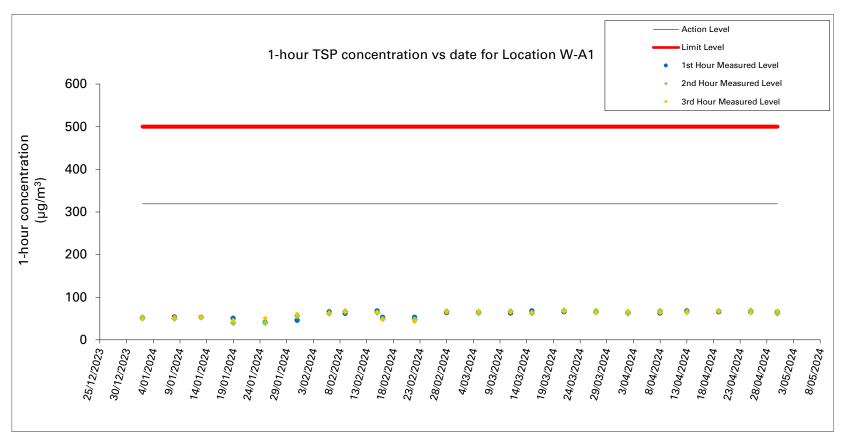


Figure 1: Graphical Illustration of Measured 1-hour TSP (μg/m³) Levels at W-A1

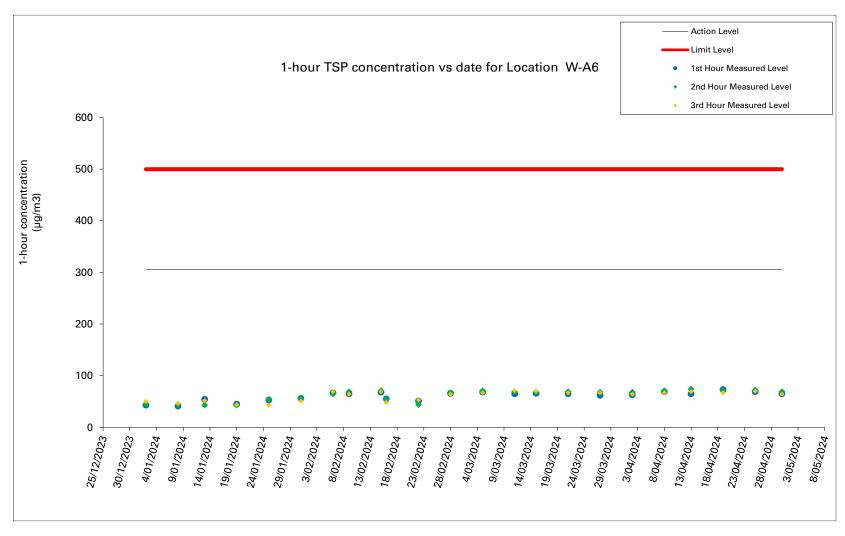


Figure 2: Graphical Illustration of Measured 1-hour TSP (μg/m³) Levels at W-A6

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

Monitoring date: 2, 8, 13, 19, 25 and 30 April 2024

Parameter: TSP 24-hour Other Factors Nearby traffic

Date of Calibration:	30-Mar-24	Slope =	29.7550
Calibration due date:	14-Apr-24	Intercept =	14.8979
Date of Calibration:	17-Apr-24	Slope =	26.8124
Calibration due date:	2-May-24	Intercept =	17.3064

Start Date Weather Condition		Elapse Time			Chart Reading			Avg Air Temp	Avg Atmospheric Pressure	Flow Rate	Standard Air Volume	Filter W	eight (g)	Particulate weight	Corr.
Condition	Initial	Final	Actual (min)	Min	Max	Avg	(°C)	(hPa)	(m³/min)	(m ³)	Initial	Final	(g)	$(\mu g/m^3)$	
2/04/2024	Fine	11118.4	11142.4	1440.0	41	41	41.0	27.2	1009.7	0.87	1249	2.6810	2.7438	0.0628	50
8/04/2024	Fine	11142.4	11166.4	1440.0	40	40	40.0	24.0	1014.1	0.85	1220	2.7258	2.8127	0.0869	71
13/04/2024	Fine	11166.4	11190.4	1440.0	40	40	40.0	27.3	1011.7	0.84	1204	2.6625	2.7357	0.0732	61
19/04/2024	Fine	11190.4	11214.4	1440.0	40	40	40.0	27.5	1008.1	0.83	1199	2.6644	2.7240	0.0596	50
25/04/2024	Fine	11214.4	11238.4	1440.0	40	40	40.0	27.0	1005.7	0.83	1196	2.7022	2.7652	0.0630	53
30/04/2024	Fine	11238.4	11262.4	1440.0	39	39	39.0	26.2	1009.3	0.80	1153	2.6461	2.7193	0.0732	63
								Maximum:	71	μg/m ³	Minimum:	50	μg/m ³		

Location: Man Cheong Building (W-A6)
Monitoring date: 2, 8, 13, 19, 25 and 30 April 2024

Parameter: TSP 24-hour Other Factors Nearby traffic

11191.0

11215.0

Fine

Fine

11215.0

11239.0

1440.00

1440.00

40

40

40

41

40.0

40.5

											on due date:	14-Apr-24		Intercept =	7.4543
									Date of	Calibration:	17-Apr-24		Slope =	26.8017	
										Calibrati	on due date:	2-May-24		Intercept =	17.6242
Start Date	Weather	Elapse Time		C	Chart Reading		Avg Air Temp Avg Atmospheric Pressure		Flow Rate	Standard Air Volume	Filter Weight (g)		Particulate weight	Conc.	
	Condition	Initial	Final	Actual (min)	Min	Max	Avg	(°C)	(hPa)	(m³/min)	(m ³)	Initial	Final	(g)	(μg/m ³)
2/04/2024	Fine	11095.0	11119.0	1440.00	41	41	41.0	23.6	1009.7	0.92	1327	2.7274	2.7995	0.0721	54
8/04/2024	Fine	11119.0	11143.0	1440.00	40	40	40.0	18.3	1018.9	0.91	1316	2.7124	2.7880	0.0756	57
13/04/2024	Fine	11143.0	11167.0	1440.00	40	40	40.0	20.5	1017.5	0.91	1308	2.6417	2.7141	0.0724	55
19/04/2024	Fine	11167.0	11191.0	1440.00	40	40	40.0	21.6	1015.6	0.85	1220	2.6706	2.7250	0.0544	45

23.6

18.5

1016.2

1017.8

0.84

0.88

Maximum:

Date of Calibration:

1214

1263

30-Mar-24

2.6926

2.6654

 $57 \mu g/m^3$

2.7551

2.711

Minimum:

0.0625

0.0456

Slope = 36.3552

51

36

36 $\mu g/m^3$

25/04/2024

30/04/2024

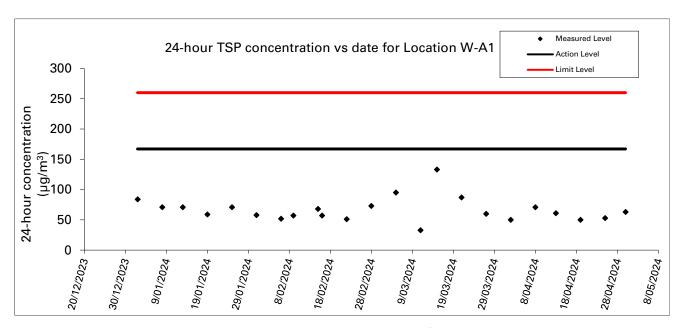


Figure 3: Graphical Illustration of Measured 24-hour TSP (μg/m³) Levels at W-A1

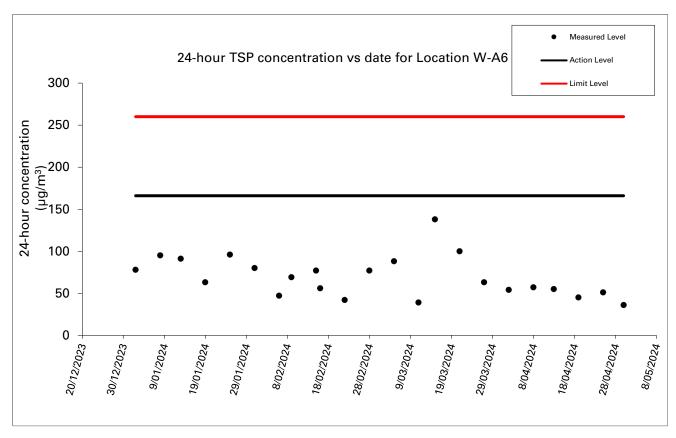
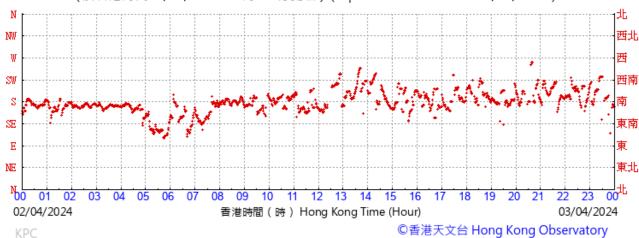


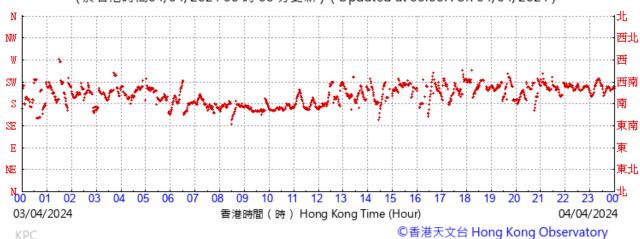
Figure 4: Graphical Illustration of Measured 24-hour TSP (µg/m³) Levels at W-A6

Wind direction data for 2, 3, 8, 9, 13, 14, 19, 20, 25, 26 and 30 April 2024 and 1 May 2024

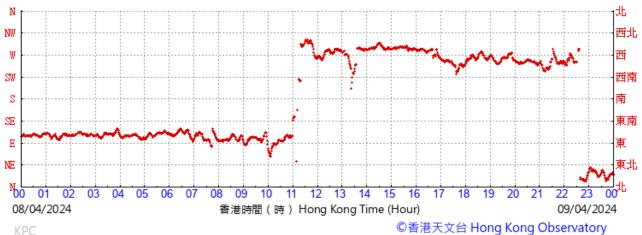


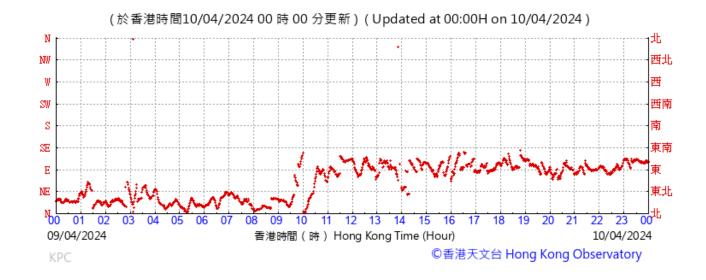


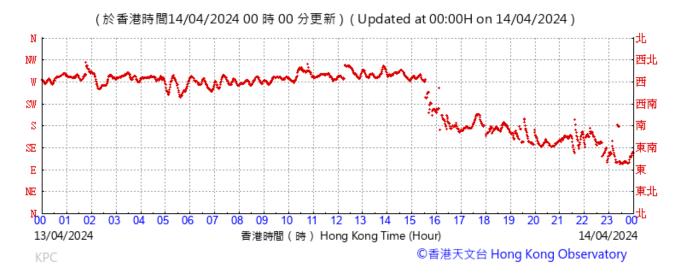
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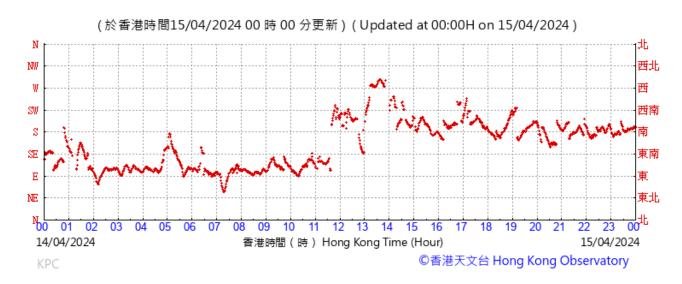


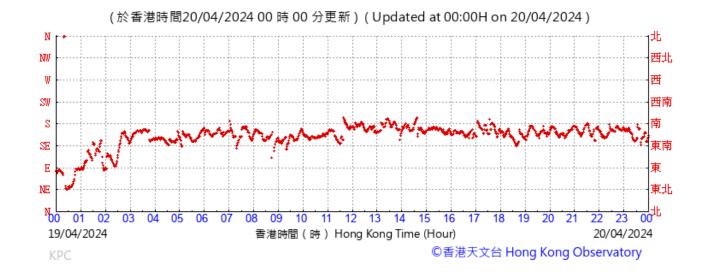


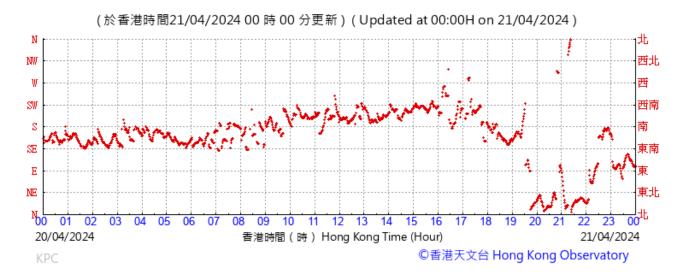




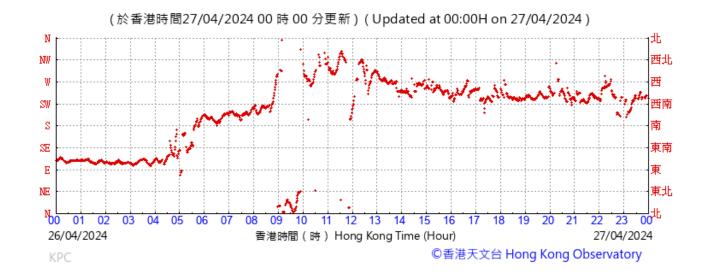


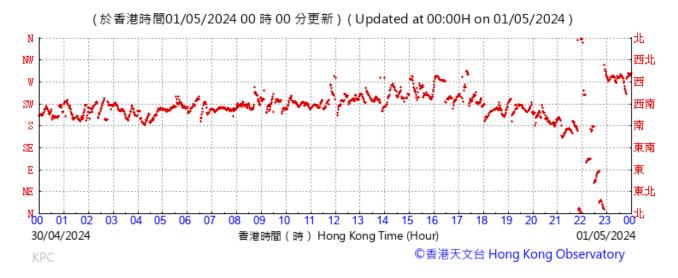


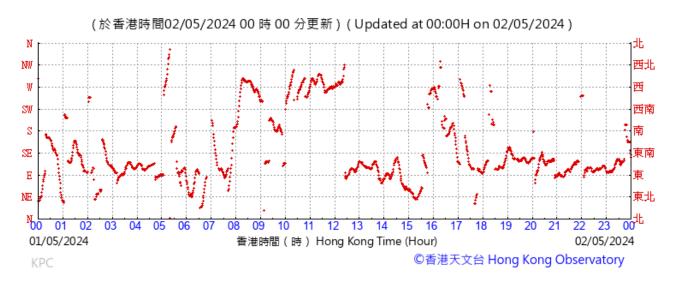




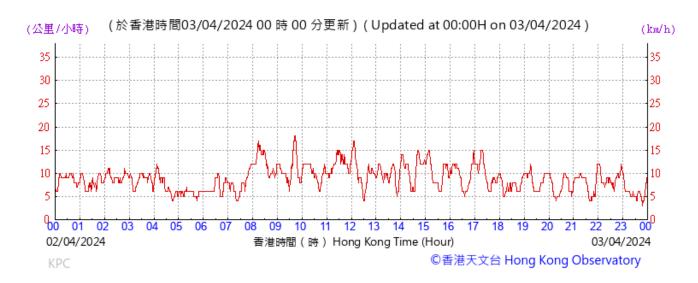


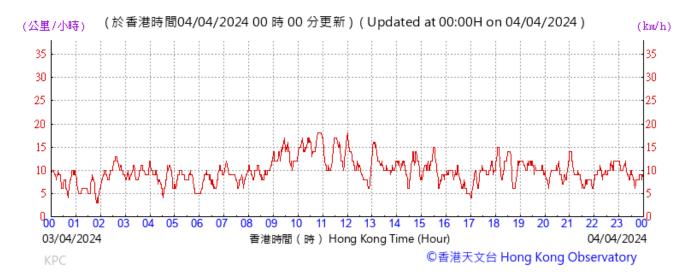






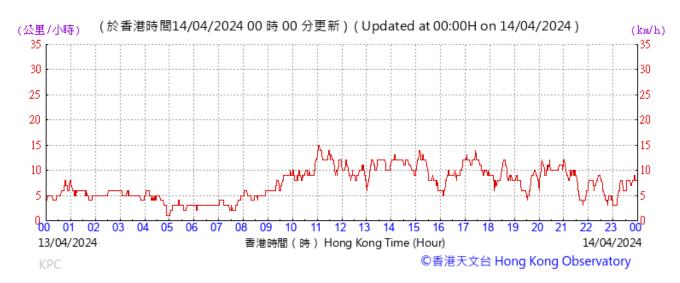
Wind speed data for 2, 3, 8, 9, 13, 14, 19, 20, 25, 26 and 30 April 2024 and 1 May 2024

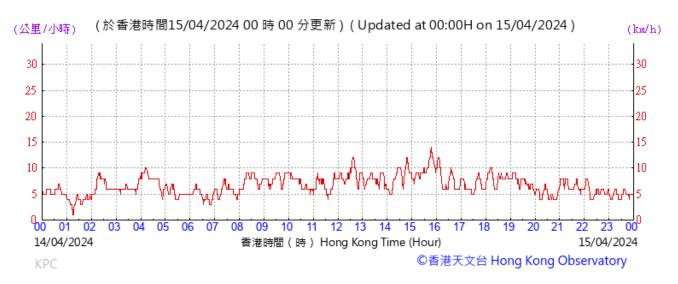








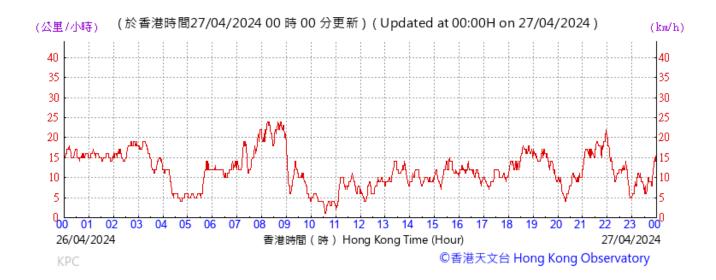


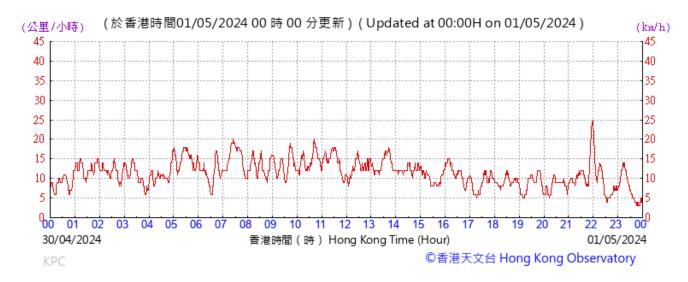


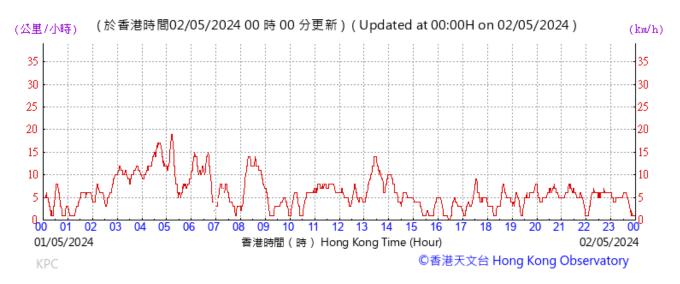












Contract No. HY/2014/08
Environmental Monitoring & Auditing

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

Monitoring date: 2, 8, 13, 19, 25 and 30 April 2024

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

Date	Weather	Start Time	-	End Time	$L_{\rm eq}$	L_{10}	L ₉₀	Wind speed (m/s)
02/04/2024	Fine	9:06	-	9:36	65.9	68.5	62.4	2.5
08/04/2024	Fine	9:09	-	9:39	65.1	68.9	62.1	3.3
13/04/2024	Fine	9:08	-	9:38	64.9	68.4	62.5	1.9
19/04/2024	Fine	11:14	-	11:44	61.9	64.5	57.6	4.2
25/04/2024	Fine	12:57	-	13:27	64.0	65.2	61.2	4.4
30/04/2024	Fine	9:10	-	9:40	64.7	68.4	59.7	3.6

Remark: 1. No examination was scheduled at Yau Ma Tei Catholic Primary School in the reporting month. The limit level of W-N1A would be 70 dB(A).

Location: Hydan Place (W-N18)

Monitoring date: 2, 8, 13, 19, 25 and 30 April 2024

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

Date	Weather	Start Time	-	End Time	$L_{\rm eq}$	L_{10}	L ₉₀	Wind speed (m/s)
02/04/2024	Fine	11:19	-	11:49	67.7	70.2	60.9	3.5
08/04/2024	Fine	11:24	-	11:54	67.6	70.4	60.6	1.7
13/04/2024	Fine	11:22	-	11:52	67.9	70.2	60.3	3.1
19/04/2024	Fine	9:10	-	9:40	68.4	70.1	64.7	3.3
25/04/2024	Fine	9:40	-	10:10	68.9	69.8	63.8	1.9
30/04/2024	Fine	11:25	-	11:55	66.6	68.0	62.1	3.6

Location: Prosperous Garden Block 1 (W-N25A)

Monitoring date: 2, 8, 13, 19, 25 and 30 April 2024

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

Date	Weather	Start Time	-	End Time	L_{eq}	L_{10}	L_{90}	Wind speed (m/s)
02/04/2024	Fine	10:42	-	11:12	64.3	72.7	59.5	3.6
08/04/2024	Fine	10:46	-	11:16	69.4	73.0	64.2	0.8
13/04/2024	Fine	10:43	-	11:13	70.3	75.6	65.7	3.3
19/04/2024	Fine	10:10	-	10:40	68.4	71.0	65.8	3.9
25/04/2024	Fine	10:40	-	11:10	69.0	71.8	61.6	4.2
30/04/2024	Fine	10:48	-	11:18	68.1	70.3	60.3	4.4

Location: The Coronation Tower 1 (W-P11)

Monitoring date: 2, 8, 13, 19, 25 and 30 April 2024

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

Date	Weather	Start Time	-	End Time	L_{eq}	L_{10}	L ₉₀	Wind speed (m/s)
02/04/2024	Fine	9:50	-	10:20	63.7	69.0	60.5	3.9
08/04/2024	Fine	9:53	-	10:23	64.5	68.6	59.7	1.7
13/04/2024	Fine	9:51	-	10:21	65.6	72.2	60.2	2.2
19/04/2024	Fine	13:10	-	13:40	66.4	67.5	64.8	4.4
25/04/2024	Fine	13:40	-	14:10	66.5	70.9	62.0	3.6
30/04/2024	Fine	13:46	-	14:16	64.2	70.8	59.7	3.3

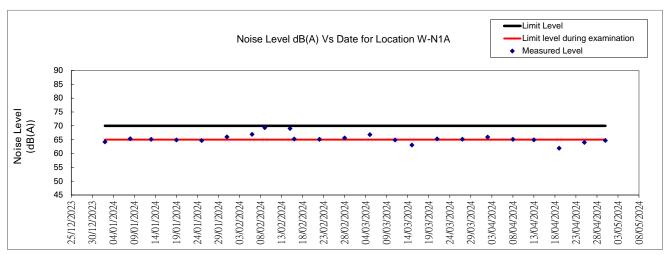


Figure 1: Graphical Illustration of Measured Noise Levels at W-N1A

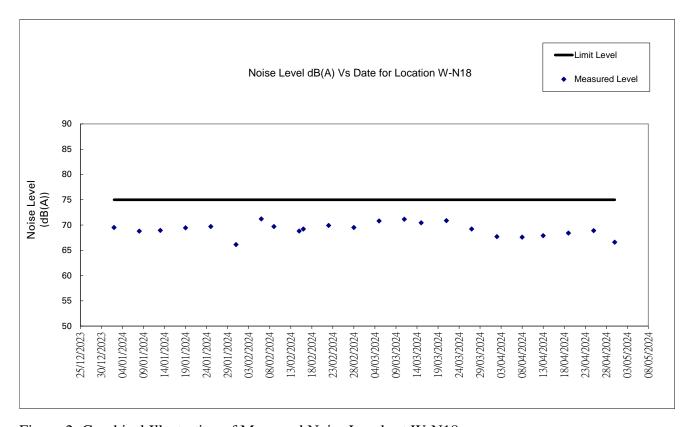


Figure 2: Graphical Illustration of Measured Noise Levels at W-N18

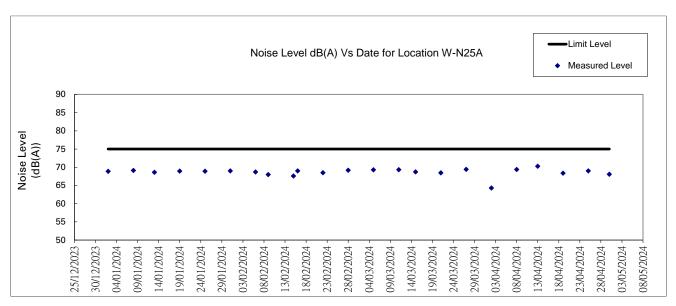


Figure 3: Graphical Illustration of Measured Noise Levels at W-N25A

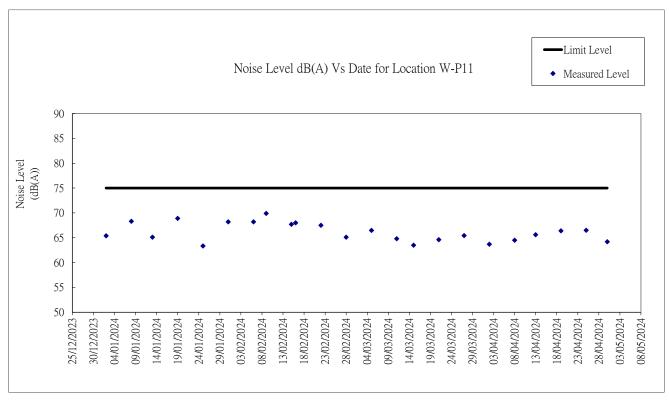


Figure 4: Graphical Illustration of Measured Noise Levels at W-P11

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.: <u>HY/2014/08</u>

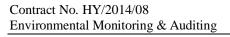
Monthly Summary Waste Flow Table for April 2024

[to be submitted not later than the 15th day of each month following reporting month] (All quantities shall be rounded off to 1 decimal place.)

		Actı	ıal Quantities of <u>Inc</u>	ert Construction Wa	ste Generated Mon	thly
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-24	17572.02	4339.70	0.00	0.00	13111.20	0.00
Feb-24	18937.70	4020.70	0.00	0.00	14832.80	0.00
Mar-24	16598.80	3144.90	0.00	0.00	13330.40	0.00
Apr-24	17195.90	2874.40	0.00	0.00	14050.90	0.00
May-24	0.00					
Jun-24	0.00					
Sub-total	70304.42	14379.70	0.00	0.00	55325.30	0.00
Jul-24	0.00					
Aug-24	0.00					
Sep-24	0.00					
Oct-24	0.00					
Nov-24	0.00					
Dec-24	0.00					
Total	70304.42	14379.70	0.00	0.00	55325.30	0.00
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
Accumulated Total	839627.25	156980.20	7597.60	72258.10	588875.00	7575.90

	Actual Quantities of Non-inert Construction Waste Generated Monthly								nly
Month	(g) Month Metal		(h) Paper/ cardboard packaging		(i Plas		(j) Chemical Waste		(k) Others, e.g. General Refuse disposed at Landfill
	(in '0	00kg)	(in '00	00kg)	(in '0()0kg)	(in '0	00kg)	(in 'tonnes)
	generated	recycled	generated	recycled	generated	recycled	generated	recycled	generated
Jan-24	0.00	0.00	0.00	0.70	0.00	0.02	0.00	0.00	120.40
Feb-24	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	83.20
Mar-24	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	122.90
Apr-24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	270.60
May-24									
Jun-24									
Sub-total	0.00	0.00	0.00	2.30	0.00	0.02	0.00	0.00	597.10
Jul-24									
Aug-24									
Sep-24									
Oct-24									
Nov-24									
Dec-24									
Total	0.00	0.00	0.00	2.30	0.00	0.020	0.00	0.00	597.10
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
Accumulated Total	236.40	74.80	14.80	12.21	0.06	0.08	59.20	0.00	5942.90

Remark: Construction waste records for March 2024 had been updated



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

Statistical Summary of Exceedances

	Air Quality						
Reporting Period	Action Level	Limit Level					
1 – 30 April 2024	0	0					
Noise							
Reporting Period	Action Level	Limit Level					
1 – 30 April 2024	6	0					

Statistical Summary of Environmental Complaints

Donauting David		Environmental Complaint Sta	atistics
Reporting Period	Frequency	Cumulative	Complaint Nature
1 – 30 April 2024	6	130	Noise nuisance

Statistical Summary of Environmental Non-compliance

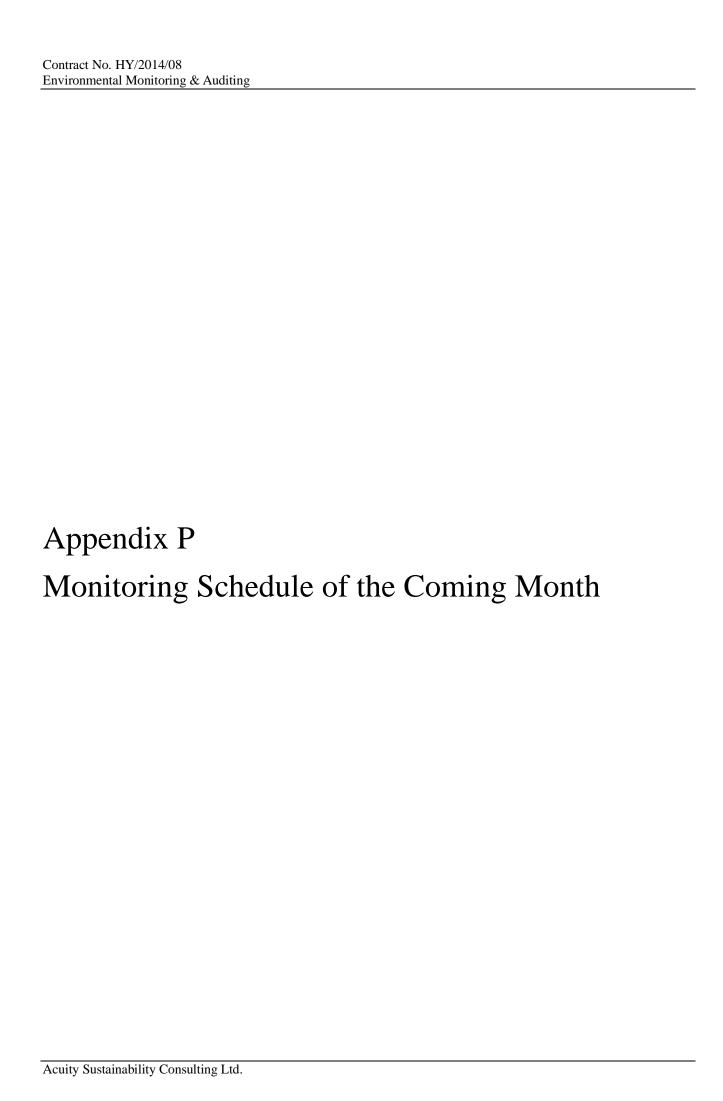
Donauting Davied	En	Environmental Non-compliance Statistics					
Reporting Period	Frequency	Cumulative	Details				
1 – 30 April 2024	0	2	N/A				

Statistical Summary of Environmental Summons

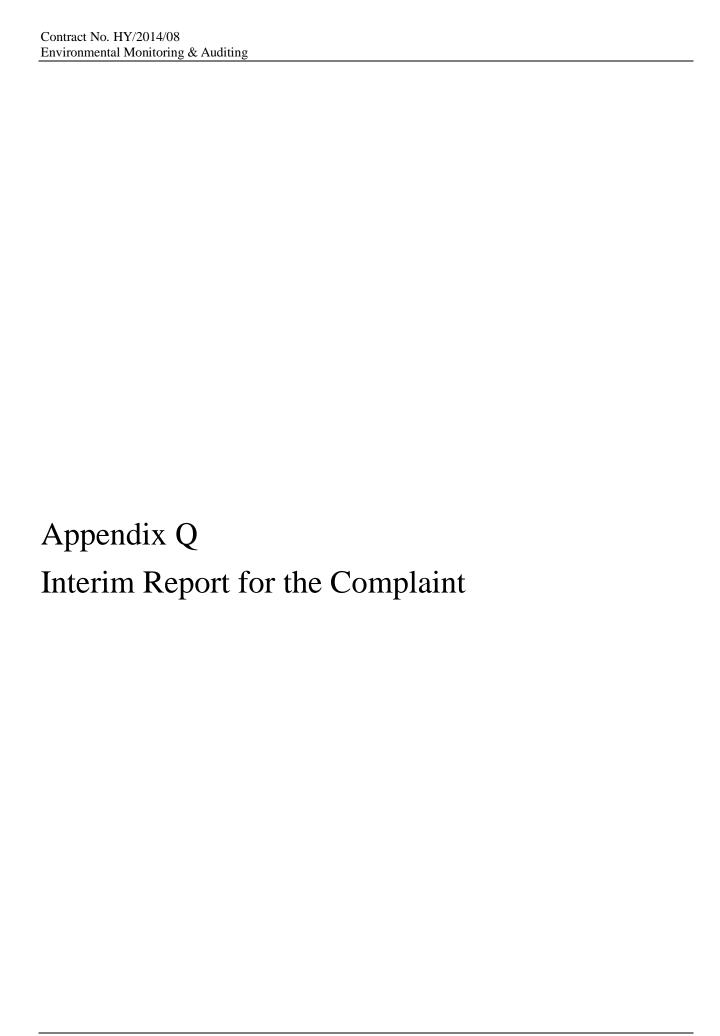
Donarting Daried	Environmental Summons Statistics					
Reporting Period	Frequency	Cumulative	Details			
1 – 30 April 2024	0	1	N/A			

Statistical Summary of Environmental Prosecution

Donouting Donied	Environmental Prosecution Statistics				
Reporting Period	Frequency Cumulative Details				
1 – 30 April 2024	0	0	N/A		

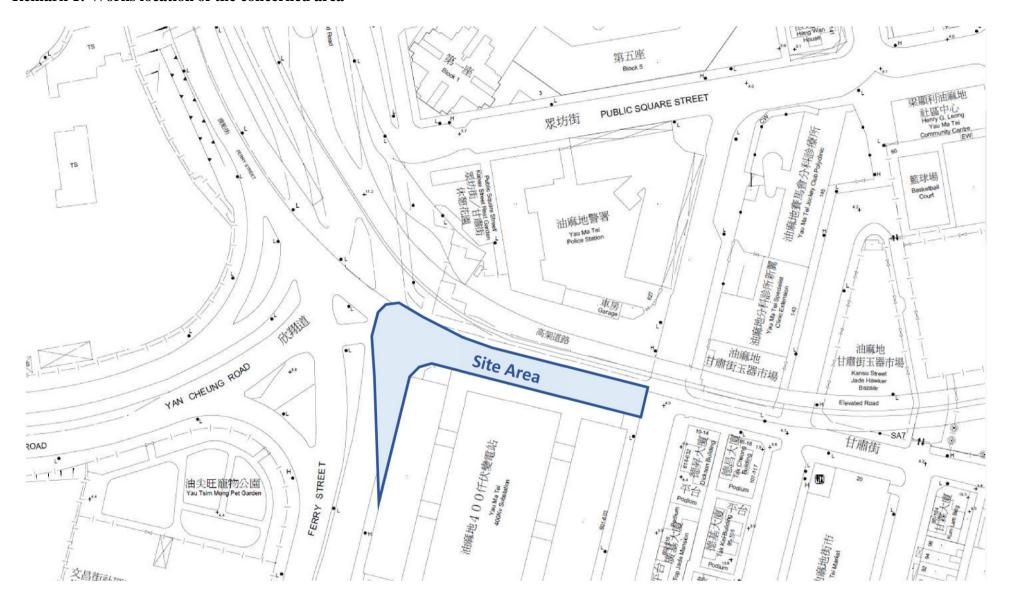


		Impa	ct Monitoring Schedule for	УМТЕ		
			May-24			
Sun	Mon	Tue	Wed	Thu 2	Fri 3	Sat
			•			
5	6 Impact	7	8	9	10	11 Impact
	Air monitoring for W-A6 &W-A1 Noise monitoring for W-N1A, W-P11,W-N18 & W-N25A					Air monitoring for W-A6 &W-A1 Noise monitoring for W-N1A, W-P11,W-N18 & W-N25A
12	13	14	15	16		18
					Impact Air monitoring for W-A6 &W-A1 Noise monitoring for W-N1A, W-P11,W-N18 & W-N25A	
19	20	21	22	23	24	25
				Impact Air monitoring for W-A6 &W-A1 Noise monitoring for W-N1A, W-P11,W-N18 & W-N25A		
26	27	28	29	30	31	
			Impact Air monitoring for W-A6 &W-A1 Noise monitoring for W-N1A, W-P11,W-N18 & W-N25A			

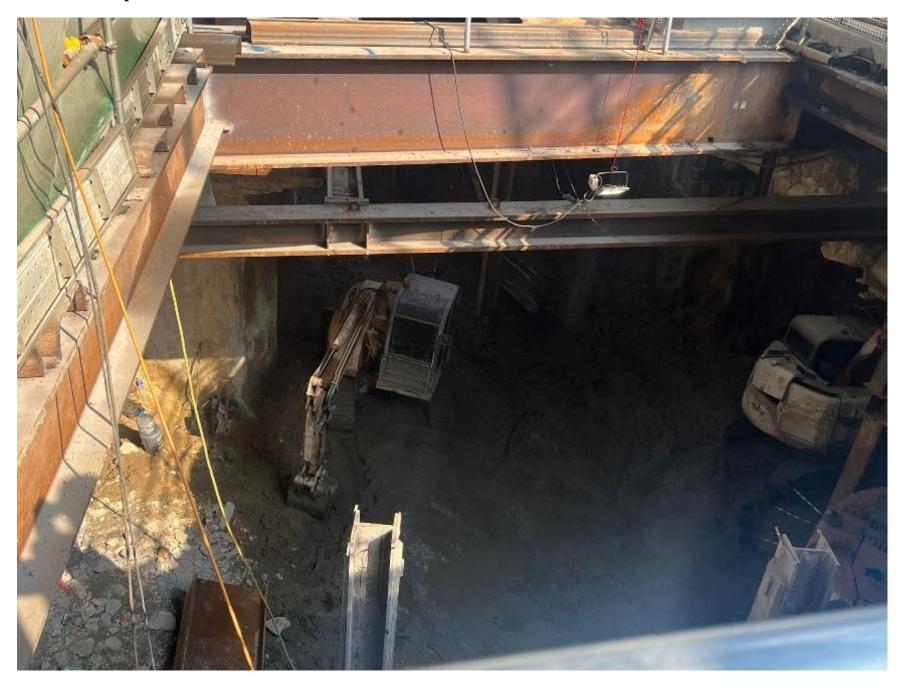


Project	Central Kowloon I	Route, Yau Ma Tei	East Section		
Complaint Code	EC125-CKRYMT				
Complaint description	The complainant made the complaint on 11 Apr 2024, about construction noise				
	starting from 0715 at the site area near Prosperous Garden on 11 Apr 2024.				
Parameter	Construction Noise	e			
Investigation finding		s concerned about ous Garden ¹ on 11	construction noise starting at 0715 from the site Apr 2024.		
	According to Contractor information, only excavation and lateral support works was conducted at Zone F underground ² starting from 0715 on 11 Apr 2024. PME used included 2 excavators and 1 welding machine. The weekly environmental inspection site walk was conducted on 11 Apr 2024, no environmental deficiency regarding construction noise was found in the concerned area.				
	manual and the CN	•	lated requirements by the Contractor for EM&A ded that there was no non-compliance of the Project onstruction site.		
Actions taken / to be taken			A Manual and the CNMMP strictly to implement nize nuisance to the public.		
	 In view of public concerns, the following additional remedial measures are taken: Carry out site inspection to ensure all PMEs are well-maintained and in proper function to avoid excessive noise; Provide training to workers of using PME carefully to minimize noise; Reschedule the operation time of the noisy equipment to less sensitive hours if possible; and The Contractor is reminded to consider the use of temporary movable noise barrier when feasible and applicable. 				
Remarks	1. Works loc	ation of the concerr	ned area		
(Shown in next page)	2. Site photo				
Prepared by ET (Acuity Sustainability Consulting Limited)	Kako Ho	Ho			
Reviewed by ETL (Acuity Sustainability Consulting Limited)	Kevin Li	K.			
Verified by IEC (ERM-Hong Kong, Limited)	Mandy To	Mandy 2.			
Date	11 April 2	024			

Remark 1: Works location of the concerned area

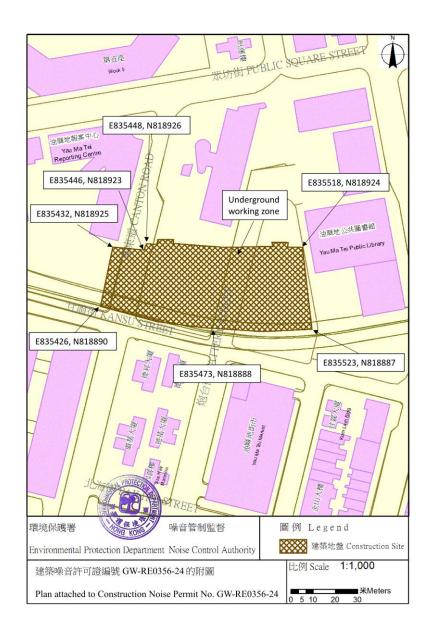


Remark 2: Site photo

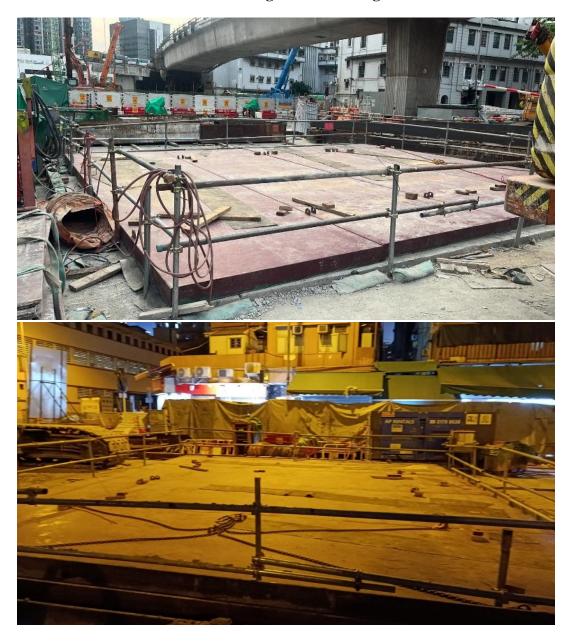


Project		Route, Yau Ma Tei				
Complaint Code		E20240415_001, H				
Complaint description	_		Apr 2024, about construction noise from the site			
		ous Garden at 2200	0 on 13 Apr 2024, 1200 on 14 Apr 2024 and 0028			
	on 15 Apr 2024.					
Parameter	Construction Noise					
Investigation finding	The complaint was received on 15 Apr 2024, about construction noise from the site area near Prosperous Garden at restricted hours from 13 Apr 2024 to 15 Apr 2024.					
	For construction works undertaken within restricted hours, the Contractor applied for valid Construction Noise Permits (CNP) (Permit No: GW-RE0356-24) which was granted from EPD, effective from 28 Mar 2024 to 27 Jun 2024, with coverage of the construction site at the concerned area ¹ . According to contractor's information, excavation and lateral support works was performed from 1900 13 Apr 2024 to 0700 15 Apr 2024 at the Underground Working Zone. No works were performed at ground level. PME used included 1 excavator and 2 electric welding machines. The aforementioned PMEs are classified as Group B in the CNP and were allowed to be operated in Working Zone during 0700-0700 on the next day for general holidays including Sundays and during 2300-0700 for any day not being a general holiday. All PMEs were only operated inside the noise enclosure ² at Underground Working Zone. Noise emanating from the construction work has been monitored as per requirement in CNP ³ . No violation and non-compliance of CNP was observed or recorded. The Contractor had followed the requirements as stipulated in CNP.					
	manual, and the g Project regarding r	ranted CNP, it is c noise quality impac	lated requirements by the Contractor for EM&A oncluded that there was no non-compliance of the t from construction site.			
Actions taken / to be taken			Manual and the granted CNP strictly to implement nize nuisance to the public.			
	 In view of public concerns, the following additional remedial measures are taken: Carry out site inspection to ensure all PMEs are well-maintained and in proper function to avoid excessive noise; Provide training to workers of using PME carefully to minimize noise; Reschedule the operation time of the noisy equipment to less sensitive hours if possible; and The Contractor is reminded to consider the use of temporary movable noise barrier when feasible and applicable. 					
Remarks		Zone of CNP GW-R				
(Shown in next page)		losure at Undergrou				
1 8 /		oliance checklist				
Prepared by ET (Acuity Sustainability Consulting Limited)	Kako Ho	16				
Reviewed by ETL (Acuity Sustainability Consulting Limited)	Kevin Li	K				
Verified by IEC (ERM-Hong Kong, Limited)	Mandy To	Mandy 2.				
Date	19 April 2	024				
-						

Remark 1: Working Zone of CNP GW-RE0356-24



Remark 2: Noise enclosure at Underground Working Zone

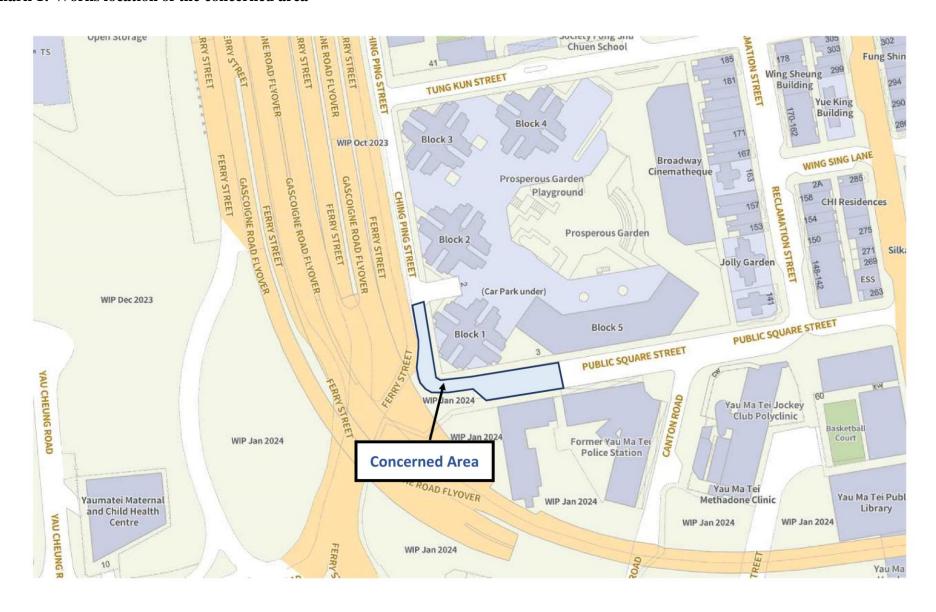


Remark 3: CNP compliance checklist

Highways I	– SKEC Joint Venture Department - Contract No. HY/2014/08 Whom Route – Yau Ma Tei East	Build King S		Highway:	g – SKEC Joint Venture Department - Contract No. HY/2014/08 owloon Route - Yan Ma Tei East	Build King	SK ecoplant	Highway	ng — SKEC Joint Venture s Department - Contract No. HY/2014/0 Lowloon Route — Yau Ma Tei East	8	Build King S	
	噪音許可證檢查表				噪音許可證檢查表				噪	音許可證檢查表		
	パーキ - 2024 時間: Zase D. & G	19:30 6w-RE0356	- 2/+		4-4-2024	7=30 GW-REOSS	6-24		15-4-2024 Zone D&h	時間: 噪音許可證編號:	19-30 BW-RE035	6-24
	機動設備	許可數目	實際數目		機動設備	許可數目	實際數目		機動設備		許可數目	實際數目
, t	到土機	3	ı		投上機	3	1 :		按1 土機		3	. 1
	焊機	5	2		犀機	5	2		异. 機		5	2
				ć .								
辨認代碼 PCW 001	訂明建築工程 課板或想架的構築或折削	規定 (十五計可	實際 有 / 沒有	辨認代碼 PCW 001	訂明建築工程 模板或研集的傳義或形部	規定	實際 有 / 淀物	辨認代碼 PCW 001	訂明建築 學板或棚架的構築或折卸		規定 (日) / 不許可	實際 有 / 没有
PCW 002 PCW 003	裝卸或處理瓦礫、木板、鋼條、木料或個架材料 敲擊	新列 / 不許可 新列 / 不許可	有/沒有	PCW 002 PCW 003	装卸或處理瓦礫、木板、網條、木料或棚架材料	能列 / 不許可 許列 / 不許可	有/後有	PCW 002 PCW 003	装卸或處理瓦礫、木板、鋼條	、木料或伽架材料	第97 / 不許可 第97 / 不許可	有/波有 有/波有
10,005	RX-P	11007 141 3	74 1 (3,74	PCW GD	RX 198	8 (-9) 7 1181 19	78 7 78/98	10,005	16X 40-		21111111	H / IGH
	其他規定				其他規定					其他規定		
(是否所有機動	没備在正確工作區域運作?		優/查	是否所有機種	前設備在正確工作區域運作?		@1 否	(是否所有機)	助設備在正確工作區域運作?			@ <i>1 ≥</i>
	投備正常運作?		妈 / 否	是否所有機動	的設備正常運作?		#/≊ #/™	是否所有機	助設備正常運作?			1000/18
	軍於指定機動役備?		② / 否	是否提供隔离	『 翠於指定機動設備?			是否提供隔	音單於指定機動設備?			€ / 否
提供的陳音單	是否妥善先整並完全覆蓋? 檢查人員簽名:		老	提供的隔音電	是否妥 答完整业完全覆盖 ? 检查人員簽名		(<u>多</u>) 香	提供的陪音	單是否妥善完整並完全覆蓋?	檢查人員簽名:	丰	為/否
	姓名	Chan_R	stlesse .		姓 名	: Chan H	I leng			姓名:	Open Bruter	y.

Project	Central Kowloon I	Route, Yau Ma Tei	Fact Section		
Complaint Code	EC127-CKRYMT		Last Section		
Complaint description			at on 16 Apr 2024, about construction noise from		
	the site area near Ching Ping Street.				
Parameter	Construction Noise				
Investigation finding	The complaint was received on 16 Apr 2024, about construction noise from the site area near Ching Ping Street ¹ . The investigation period would be from 9 Apr 2024 to 16 Apr 2024.				
	According to contractor information, no works was performed at daytime during the investigation period in Ching Ping Street. Weekly noise impact monitoring was conducted, and the results were below limit level ² . No exceedance of limit level in noise impact monitoring was observed in the investigation period.				
	Emergency road repairing work was performed at the junction of Ching Ping Street and Public Square Street from 2200 on 13 Apr 2024 to 0600 on 14 Apr 2024. PME used for the emergency work included hand-held breaker, portable generator, road miller, road sweeper, asphalt paver, pneumatic tyred roller, vibratory roller, road-marking material boiler, road-marking removal machine, lorry mounted shadow vehicle, lorry with crane, dump truck with grab. The work had been reported to EPD via the online system ³ . Acoustic enclosure made of minimum 10 mm thick plywood and minimum 50 mm thick sound absorbing internal lining was used for hand-held breaker as noise mitigation measure ⁴ .				
		road surface may enducted immediatel	endanger road users, the emergency road repairing y.		
			orks had been reported to EPD under "Record of Jour" system at 0835 on 13 Apr 2024.		
Actions taken / to be taken			oncerns, the following preventative measures were		
	taken / to be taken				
		PD reporting syste	ency works required to address safety concern, make em for emergency works and report the works		
	• In case of	f emergency repair	ring required, make use of any noise mitigation ools use to avoid excessive noise emissions;		
	Provide tra	aining to frontline s	taff to ensure their understanding and awareness of		
		orting system for en			
Remarks (Shown in payt page)		ation of the concerr			
(Shown in next page)			ne concerned period orks		
	3. Notification of Emergency Works4. Noise mitigation measures				
Prepared by ET (Acuity Sustainability Consulting Limited)	Kako Ho	Ho			
Reviewed by ETL (Acuity Sustainability Consulting Limited)	Kevin Li	K			
Verified by IEC (ERM-Hong Kong, Limited)	Mandy To	Mandy2.			
Date	19 Apr 20	24			

Remark 1: Works location of the concerned area



Remark 2: Noise monitoring results of the concerned period

Noise monitoring Location: Prosperous Garden Block 1 (W-N25A)

Monitoring date: 13 April 2024

Parameter: L_{eq}, L_{10}, L_{90}

Other Factors Nearby traffic

Date	Weather	Start Time	- End Time	L _{eq} dB(A)	$L_{10} dB(A)$	L ₉₀ dB(A)	Limit level dB(A)
13/04/2024	Fine	10:43	- 11:13	70.3	75.6	69.1	75.0

Remark 3: Notification of Emergency Works

2024/4/17 上午10:56

Mail - Lee Wan Chung, Leo - Outlook

[Acknowledgement] Record for Emergency Construction Work: 2024-04-13 22:00

Record of Emergency Work During Restricted Hours <admin@nco-emergencywork.hk> Sat 4/13/2024 8:35 AM

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

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This email acknowledges your Record for Emergency Construction Work submitted at 00:35 on 13/04/2024. Information appended below:

Date and time of receiving notification :	13/04/2024 08:35:00
Record Reference :	20240413-001
From :	Build King - SK ecoplant Joint Venture
Name & Post of PIC/Contact Person :	Bosco Lee/ Construction Manger
Telephone :	98363402
Fax :	
Email :	leo.lee@buildking.hk
Date of work :	2024-04-13 22:00
HyD Emergency Serial Number :	HYD/KL/E016868 (M937518)
Police ref :	
Name of Contractor :	Build King - SK ecoplant Joint Venture
Description and justification of Emergency Work :	Uneven pavement was spotted that may impose safety hazards
Location of work :	
district:	Yau Tsim Mong
- Affected TPUs:	225

Works Details

Details Location of Work	Date & Time	Details of work program
Ching Ping Street & Discourse Ching Ping Street & Discourse Street		TTA implementation 2. Construciton Activities 3. Road Reinstatement

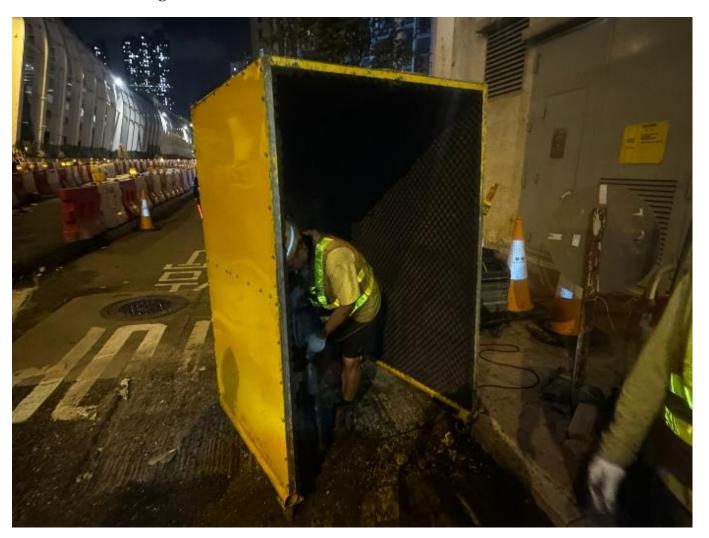
List of PME used and/or PCW carried out :	Excavator mounted breaker , Hand-held breaker , Portable generator, Road miller, Road sweeper, Asphalt paver, Pneumatic tyred roller, Vibratory roller, Road-marking material boiler, Road-marking removal machine, lorry mounted Shadow vehicle, Lorry with crane, Dump truck with grab
Noise control measure implemented :	

2024/4/17 上午10:56

Mail - Lee Wan Chung, Leo - Outlook

⊤10.56	Mail - Lee Wall Chang, Leo - Gallook
Noise barrier provided? :	NO
Noise barrier details :	
If no, why?:	acoustic enclosure made of minimum 10 mm thick plywood andminimum 50 mm thick sound absorbing internal lining
Is hand-held breaker used??	YES
If yes, what type?:	Breaker, hand-held, mass > 10kg and < 20kg
Is Noise barrier provided for hand-held breaker? :	YES
If no, why?:	acoustic enclosure made of minimum 10 mm thick plywood andminimum 50 mm thick sound absorbing internal lining

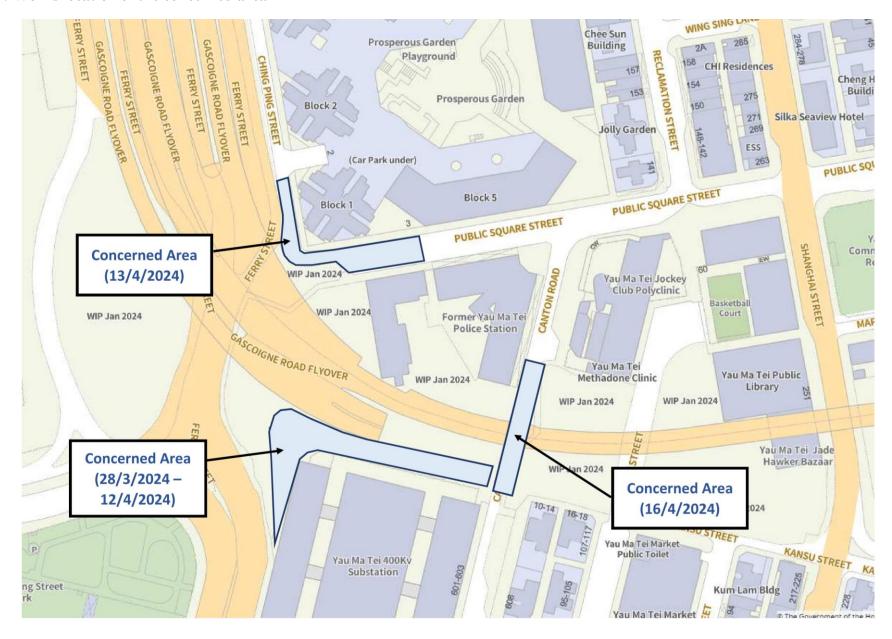
Remark 4: Noise mitigation measures



Project	Central Kowloon Route, Yau Ma Tei East Section
Complaint Code	EC128-CKRYMTE20240417_001, HYD_OTH_051.r1
Complaint description	The complainant made the complaint on 17 Apr 2024, about construction noise from the emergency works at 0900 on 29 Mar 2024 at Reclamation Street, near Yau Ma Tei Public Library; at 2200 on 13 Apr 2024 at Ferry Street, near Prosperous Garden Block 1; at 0000 on 17 Apr 2024 at Canton Road, near Yau Ma Tei Police Station.
Parameter	Construction Noise
Investigation finding	The complaint was received on 17 Apr 2024, about construction noise from the emergency works at 0900 on 29 Mar 2024 at Reclamation Street, near Yau Ma Tei Public Library; at 2200 on 13 Apr 2024 at Ferry Street, near Prosperous Garden Block 1; at 0000 on 17 Apr 2024 at Canton Road, near Yau Ma Tei Police Station ¹ .
	For emergency works on 29 Mar 2024, overflow of manhole was spotted at around 2200 on 28 Mar 2024 within site area of Zone F. The necessary emergency works had been reported to EPD via the online system ² and only the PMEs listed in the report were used. Emergency repairing works were performed from 2200 on 28 Mar 2024 to 0700 on 8 Apr 2024, and from 1900 on 9 Apr 2024 to 0700 on 12 Apr 2024. Noise barrier was not provided as the repairing works were mainly conducted inside cofferdam ³ . Since the continuous water intrusion may cause flooding to nearby areas, the emergency repairing work had to be conducted immediately.
	For emergency works on 13 Apr 2024, due to uneven road pavement, emergency road repairing work was performed at Canton Road from Kansu Street to Public Square Street from 2200 on 13 Apr 2024 to 0600 on 14 Apr 2024. The work had been reported to EPD via the online system ² and only the PMEs listed in the report were used ² . Acoustic enclosure made of minimum 10 mm thick plywood and minimum 50 mm thick sound absorbing internal lining was used for hand-held breaker as noise mitigation measure ⁴ . Since uneven road surface may endanger road users, emergency road repairing work had to be conducted immediately.
	For emergency works on 17 Apr 2024, due to rocking of steel deck, emergency road repairing work was performed at the junction of Ching Ping Street and Public Square Street from 2200 on 16 Apr 2024 to 0600 on 17 Apr 2024. The work had been reported to EPD via the online system ² and only the PMEs listed in the report were used ² . Acoustic enclosure made of minimum 10 mm thick plywood and minimum 50 mm thick sound absorbing internal lining was used for hand-held breaker as noise mitigation measure ⁴ . Since the rocking of steel deck may endanger road users, the emergency road repairing work had to be conducted immediately.
	All the above-mentioned emergency works had been reported to EPD under "Record of Emergency Work During Restricted Hour" system ² .
Actions taken / to be taken	 In view of compliance and public concerns, the following preventative measures were taken / to be taken: In case of unscheduled emergency works required to address safety concern, make use of EPD reporting system for emergency works and report the works immediately; In case of emergency repairing required, make use of any noise mitigation measures and control of the tools use to avoid excessive noise emissions; Provide training to frontline staff to ensure their understanding and awareness of EPD's reporting system for emergency works.
Remarks (Shown in next page)	 Works location of the concerned area Notification of Emergency Works On-site photo Noise mitigation measures

Prepared by ET (Acuity Sustainability Consulting Limited)	Kako Ho	46
Reviewed by ETL (Acuity Sustainability Consulting Limited)	Kevin Li	K
Verified by IEC (ERM-Hong Kong, Limited)	Mandy To	Manoly2.
Date	25 Apr 20	24

Remark 1: Works location of the concerned area



Remark 2: Notification of Emergency Works

2024/4/16 上午11:54 Mail - Lee Wan Chung, Leo - Outlook

[Acknowledgement] Record for Emergency Construction Work: 2024-03-28 22:00

Record of Emergency Work During Restricted Hours <admin@nco-emergencywork.hk>
Thu 3/28/2024 10:34 PM

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

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This email acknowledges your Record for Emergency Construction Work submitted at 14:34 on 28/03/2024. Information appended below:

Date and time of receiving notification :	28/03/2024 22:34:25	
Record Reference :	20240328-009	
From :	Build King - SK ecoplant Joint Venture	
Name & Post of PIC/Contact Person :	Allen Lam/ Construction Manger	
Telephone :	98685883	
Fax :		
Email :	leo.lee@buildking.hk	
Date of work :	2024-03-28 22:00	
HyD Emergency Serial Number :		
Police ref :		
Name of Contractor :	Build King - SK ecoplant Joint Venture	
Description and justification of Emergency Work :	Water intrusion was observed from manhole which may cause flooding to surrounding area	
Location of work :		
district:	Yau Tsim Mong	
- Affected TPUs:	225	

Works Details :

Details Location of Work	Date & Time	Details of work program
Kansu Street near CLP Electric Substation	II I	preparation work 2. repairing works reinstatement works

List of PME used and/or PCW carried out :	excavator, lorry with crane, welding machine, air blower, water pump, generator
Noise control measure implemented :	
Noise barrier provided? :	NO
Noise barrier details :	

2024/4/16 上午11:54

Mail - Lee Wan Chung, Leo - Outlook

If no, why?:	works mainly to be conducted inside cofferdam
Is hand-held breaker used??	NO
If yes, what type?:	
Is Noise barrier provided for hand-held breaker? :	NO
If no, why?:	

[Acknowledgement] Record for Emergency Construction Work: 2024-03-29 23:00

Record of Emergency Work During Restricted Hours <admin@nco-emergencywork.hk>
Fri 3/29/2024 8:41 PM

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

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Block sender

This email acknowledges your Record for Emergency Construction Work submitted at 12:41 on 29/03/2024. Information appended below:

Date and time of receiving notification :	29/03/2024 20:41:27	
Record Reference :	20240329-006	
From :	Build King - SK ecoplant Joint Venture	
Name & Post of PIC/Contact Person :	Allen Lam/ Construction Manager	
Telephone :	98685883	
Fax:		
Email :	leo.lee@buildking.hk	
Date of work :	2024-03-29 23:00	
HyD Emergency Serial Number :		
Police ref :		
Name of Contractor :	Build King - SK ecoplant Joint Venture	
Description and justification of Emergency Work :	Water intrusion was observed from manhole which may cause flooding to surrounding area	
Location of work :		
district:	Yau Tsim Mong	
- Affected TPUs:	225	

Works Details :

Details Location of Work	Date & Time	Details of work program
Kansu Street near CLP Electric Substation	Start:: 29/03/2024 23:00 End:: 02/04/2024 07:00	preparation work 2. repairing works reinstatement works

List of PME used and/or PCW carried out :	excavator, lorry with crane, welding machine, air blower, water pump, generator
Noise control measure implemented :	
Noise barrier provided? :	NO
Noise barrier details :	

f no, why? :	works mainly to be conducted inside cofferdam
s hand-held breaker used??	NO
f yes, what type? :	
s Noise barrier provided for nand-held breaker? :	NO
f no, why? :	

Record of Emergency Work During Restricted Hours <admin@nco-emergencywork.hk>
Wed 4/3/2024 8:38 AM

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

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Block sender

This email acknowledges your Record for Emergency Construction Work submitted at 00:38 on 03/04/2024. Information appended below:

03/04/2024 08:38:27
20240403-001
Build King - SK ecoplant Joint Venture
Allen Lam/ Construction Manager
98685883
leo.lee@buildking.hk
2024-04-02 19:00
Overflow of manhole may cause flooding to nearby areas
Yau Tsim Mong
225

Works Details :

Details Location of Work	Date & Time	Details of work program
Kansu Street near CLP Electric Substation	Start:: 02/04/2024 19:00 End:: 03/04/2024 07:00	preparation work 2.repairing works 3. reinstatement works

List of PME used and/or PCW carried out :	High pressure water jet, vaccum truck, water pump, generator
Noise control measure implemented :	
Noise barrier provided? :	NO
Noise barrier details :	
If no, why?:	not applicable
Is hand-held breaker used??	NO
If yes, what type?:	

Is Noise barrier provided for hand- held breaker? :	NO
If no, why?:	

Fw: [Acknowledgement] Record for Emergency Construction Work: 2024-04-03 19:00

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

Wed 4/3/2024 8:03 PM

To:Lau Wai Siu, Wilson <wilson.lau@buildking.hk>

Should you have any queries, please feel free to call me at 9836 7713.

Best Regards, Leo Lee

Environmental Officer

Build King - SK ecoplant Joint Venture

From: Record of Emergency Work During Restricted Hours <admin@nco-emergencywork.hk>

Sent: Wednesday, April 3, 2024 8:03 PM

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

Subject: [Acknowledgement] Record for Emergency Construction Work: 2024-04-03 19:00

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

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This email acknowledges your Record for Emergency Construction Work submitted at 12:03 on 03/04/2024. Information appended below:

Date and time of receiving notification :	03/04/2024 20:03:10
Record Reference :	20240403-004
From :	Build King - SK ecoplant Joint Venture
Name & Post of PIC/Contact Person :	Allen Lam/ Construction Manager
Telephone :	98685883
Fax :	
Email :	leo.lee@buildking.hk
Date of work :	2024-04-03 19:00
HyD Emergency Serial Number :	
Police ref :	
Name of Contractor :	
Description and justification of Emergency Work :	Overflow of manhole may cause flooding to nearby area
Location of work :	
district:	Yau Tsim Mong
- Affected TPUs:	225

Works Details:

Details Location of Work	Date & Time	Details of work program
		preparation work 2.repairing works 3. reinstatement works
Electric Substation	03/04/2024	remstatement works

List of PME used and/or PCW carried out :	High pressure water jet, vaccum truck, water pump, generator, mobile crane, excavator, welding machine, lorry with crane, cherry picker
Noise control measure implemented :	
Noise barrier provided? :	NO
Noise barrier details :	
If no, why?:	Not applicable
Is hand-held breaker used? ?	NO
If yes, what type?:	
Is Noise barrier provided for hand-held breaker? :	NO
If no, why?:	

[Acknowledgement] Record for Emergency Construction Work: 2024-04-05 19:00

Record of Emergency Work During Restricted Hours <admin@nco-emergencywork.hk>
Sat 4/6/2024 12:07 AM

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

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This email acknowledges your Record for Emergency Construction Work submitted at 16:05 on 05/04/2024. Information appended below:

06/04/2024 00:05:52
20240406-001
Build King - SK ecoplant Joint Venture
Allen Lam/ Construction Manager
98685883
leo.lee@buildking.hk
2024-04-05 19:00
Overflow of manhole may cause flooding to nearby area
Yau Tsim Mong
225

Works Details :

Details Location of Work	Date & Time	Details of work program
Kansu Street near CLP Electric Substation	Start:: 05/04/2024 19:00 End:: 06/04/2024 07:00	preparation work 2.repairing works 3. reinstatement works

List of PME used and/or PCW carried out :	High pressure water jet, vaccum truck, water pump, generator, mobile crane, excavator, welding machine, lorry with crane, cherry picker
Noise control measure implemented :	
Noise barrier provided? :	NO
Noise barrier details :	
If no, why?:	Not applicable

Is hand-held breaker used??	NO
If yes, what type?:	
Is Noise barrier provided for hand-held breaker? :	NO
If no, why?:	

[Acknowledgement] Record for Emergency Construction Work: 2024-04-06 19:00

Record of Emergency Work During Restricted Hours <admin@nco-emergencywork.hk>

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

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This email acknowledges your Record for Emergency Construction Work submitted at 05:52 on 07/04/2024. Information appended below:

Date and time of receiving notification :	07/04/2024 13:52:46
Record Reference :	20240407-001
From :	Build King - SK ecoplant Joint Venture
Name & Post of PIC/Contact Person :	Allen Lam/ Construction Manager
Telephone :	98685883
Fax :	
Email :	leo.lee@buildking.hk
Date of work :	2024-04-06 19:00
HyD Emergency Serial Number :	
Police ref :	
Name of Contractor :	
Description and justification of Emergency Work :	Overflow of manhole may cause flooding to nearby area and blockage of manhole is affecting the upstream public service
Location of work :	
district:	Yau Tsim Mong
- Affected TPUs:	225

Works Details :

Details Location of Work	Date & Time	Details of work program
Kansu Street near CLP Electric Substation	Start:: 06/04/2024 19:00 End:: 08/04/2024 07:00	preparation work 2. repairing works reinstatement works

PCW carried out	High pressure water jet, vaccum truck, water pump, generator, mobile crane, excavator, welding machine, lorry with crane, cherry picker, lorry
Noise barrier provided? :	NO

Noise barrier details :	
If no, why?:	the works mainly to be carried out inside cofferdam
Is hand-held breaker used??	NO
If yes, what type?:	
Is Noise barrier provided for hand-held breaker? :	NO
If no, why?:	

[Acknowledgement] Record for Emergency Construction Work: 2024-04-09 19:00

Record of Emergency Work During Restricted Hours <admin@nco-emergencywork.hk> Tue 4/9/2024 6:27 PM

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

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This email acknowledges your Record for Emergency Construction Work submitted at 10:26 on 09/04/2024. Information appended below:

Date and time of receiving notification :	09/04/2024 18:26:33
Record Reference :	20240409-003
From :	Build King - SK ecoplant Joint Venture
Name & Post of PIC/Contact Person :	Allen Lam/ Construction Manager
Telephone :	98685883
Fax :	
Email :	leo.lee@buildking.hk
Date of work :	2024-04-09 19:00
HyD Emergency Serial Number :	
Police ref :	
Name of Contractor :	
Description and justification of Emergency Work :	Overflow of manhole may cause flooding to nearby area and blockage of manhole is affecting the upstream public service
Location of work :	
district:	Yau Tsim Mong
- Affected TPUs:	225

Works Details :

Details Location of Work	Date & Time	Details of work program
Kansu Street near CLP Electric Substation	Start:: 09/04/2024 19:00 End:: 10/04/2024 07:00	preparation work 2. repairing works reinstatement works

PCW carried out : Noise control measure	High pressure water jet, vaccum truck, water pump, generator, mobile crane, excavator, welding machine, lorry with crane, cherry picker, lorry
implemented :	
Noise barrier provided? :	NO

Noise barrier details :	
If no, why?:	the works mainly to be carried out inside cofferdam
Is hand-held breaker used??	NO
If yes, what type?:	
Is Noise barrier provided for hand-held breaker? :	NO
If no, why?:	

[Acknowledgement] Record for Emergency Construction Work: 2024-04-10 19:00

Record of Emergency Work During Restricted Hours <admin@nco-emergencywork.hk>
Wed 4/10/2024 6:07 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

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This email acknowledges your Record for Emergency Construction Work submitted at 10:07 on 10/04/2024. Information appended below:

Date and time of receiving notification :	10/04/2024 18:07:02
Record Reference :	20240410-002
From :	Build King - SK ecoplant Joint Venture
Name & Post of PIC/Contact Person :	Allen Lam/ Construction Manager
Telephone :	98685883
Fax :	
Email :	leo.lee@buildking.hk
Date of work :	2024-04-10 19:00
HyD Emergency Serial Number :	
Police ref :	
Name of Contractor :	
Description and justification of Emergency Work:	Overflow of manhole may cause flooding to nearby area and blockage of manhole is affecting the upstream public service
Location of work :	
district:	Yau Tsim Mong
- Affected TPUs:	225

Works Details :

Details Location of Work	Date & Time	Details of work program
Kansu Street near CLP Electric Substation	Start:: 10/04/2024 19:00 End:: 11/04/2024 07:00	preparation work 2. repairing works reinstatement works

PCW carried out	High pressure water jet, vaccum truck, water pump, generator, mobile crane, excavator, welding machine, lorry with crane, cherry picker, lorry
Noise barrier provided? :	NO

Noise barrier details :	
If no, why?:	the works mainly to be carried out inside cofferdam
Is hand-held breaker used? ?	NO
If yes, what type?:	
Is Noise barrier provided for hand-held breaker? :	NO
If no, why?:	

[Acknowledgement] Record for Emergency Construction Work: 2024-04-11 19:00

Record of Emergency Work During Restricted Hours <admin@nco-emergencywork.hk> Thu 4/11/2024 4:43 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

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This email acknowledges your Record for Emergency Construction Work submitted at 08:42 on 11/04/2024. Information appended below:

Date and time of receiving notification :	11/04/2024 16:42:34
Record Reference :	20240411-001
From :	Build King - SK ecoplant Joint Venture
Name & Post of PIC/Contact Person :	Allen Lam/ Construction Manager
Telephone :	98685883
Fax :	
Email :	leo.lee@buildking.hk
Date of work :	2024-04-11 19:00
HyD Emergency Serial Number :	
Police ref :	
Name of Contractor :	
Description and justification of Emergency Work:	Overflow of manhole may cause flooding to nearby area and blockage of manhole is affecting the upstream public service
Location of work :	
district:	Yau Tsim Mong
- Affected TPUs:	225

Works Details:

Details Location of Work	Date & Time	Details of work program
Kansu Street near CLP Electric Substation		preparation work 2. repairing works reinstatement works

PCW carried out	High pressure water jet, vaccum truck, water pump, generator, mobile crane, excavator, welding machine, lorry with crane, cherry picker, lorry
Noise barrier provided? :	NO

Noise barrier details :	
If no, why?:	the works mainly to be carried out inside cofferdam
Is hand-held breaker used? ?	NO
If yes, what type?:	
Is Noise barrier provided for hand-held breaker? :	NO
If no, why?:	

[Acknowledgement] Record for Emergency Construction Work: 2024-04-13 22:00

Record of Emergency Work During Restricted Hours <admin@nco-emergencywork.hk> Sat 4/13/2024 8:35 AM

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

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This email acknowledges your Record for Emergency Construction Work submitted at 00:35 on 13/04/2024. Information appended below:

Date and time of receiving notification :	13/04/2024 08:35:00
Record Reference :	20240413-001
From :	Build King - SK ecoplant Joint Venture
Name & Post of PIC/Contact Person :	Bosco Lee/ Construction Manger
Telephone :	98363402
Fax:	
Email :	leo.lee@buildking.hk
Date of work :	2024-04-13 22:00
HyD Emergency Serial Number :	HYD/KL/E016868 (M937518)
Police ref :	
Name of Contractor :	Build King - SK ecoplant Joint Venture
Description and justification of Emergency Work :	Uneven pavement was spotted that may impose safety hazards
Location of work :	
district:	Yau Tsim Mong
- Affected TPUs:	225

Works Details :

Details Location of Work	Date & Time	Details of work program
Ching Ping Street & Discourse Street	Start:: 13/04/2024 22:00 End:: 14/04/2024 06:00	TTA implementation 2. Construciton Activities 3. Road Reinstatement

List of PME used and/or PCW carried out :	Excavator mounted breaker , Hand-held breaker , Portable generator, Road miller, Road sweeper, Asphalt paver, Pneumatic tyred roller, Vibratory roller, Road-marking material boiler, Road-marking removal machine, lorry mounted Shadow vehicle, Lorry with crane, Dump truck with grab
Noise control measure implemented :	

2024/4/13 上午9:00	Mail - Lee Wan Chung, Leo - Outlook
Noise barrier provided? :	NO
Noise barrier details :	
If no, why? :	acoustic enclosure made of minimum 10 mm thick plywood andminimum 50 mm thick sound absorbing internal lining
Is hand-held breaker used??	YES
If yes, what type?:	Breaker, hand-held, mass & Dyg; 10kg and & Dyg; 20kg
Is Noise barrier provided for hand-held breaker? :	YES
If no, why? :	acoustic enclosure made of minimum 10 mm thick plywood andminimum 50 mm thick sound absorbing internal lining

[Acknowledgement] Record for Emergency Construction Work: 2024-04-16 22:00

Record of Emergency Work During Restricted Hours <admin@nco-emergencywork.hk> Tue 4/16/2024 4:17 PM

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

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This email acknowledges your Record for Emergency Construction Work submitted at 08:17 on 16/04/2024. Information appended below:

Date and time of receiving notification :	16/04/2024 16:17:23
Record Reference :	20240416-003
From :	Build King - SK ecoplant Joint Venture
Name & Post of PIC/Contact Person :	Allen Lam/ Construction Manager
Telephone :	98685883
Fax:	
Email :	leo.lee@buildking.hk
Date of work :	2024-04-16 22:00
HyD Emergency Serial Number :	HYD/ KL/E016868 (M937629)
Police ref :	
Name of Contractor :	Build King - SK ecoplant Joint Venture
Description and justification of Emergency Work :	Rocking of steel deck at Canton Road may impose safety hazards
Location of work :	
district:	Yau Tsim Mong
- Affected TPUs:	225

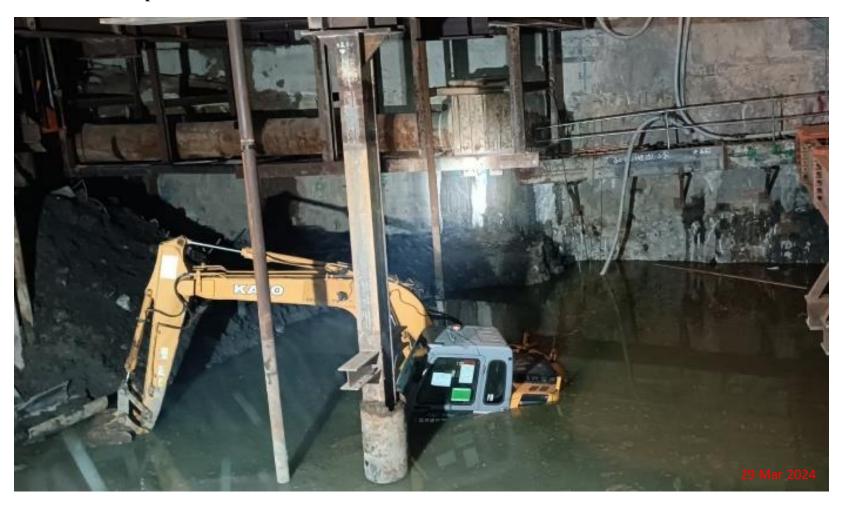
Works Details :

Details Location of Work	Date & Time	Details of work program
Canton Road (from Kansu Street to Public Square Street)		TTA Implementation 2. Construction Activities 3. Road Reinstatement

List of PME used and/or PCW carried out :	Hand-held breaker, Portable generator, Road miller, Road sweeper, Asphalt paver, Pneumatic tyred roller, Vibratory roller, Road-marking material boiler, Road-marking removal machine, lorry mounted Shadow vehicle, Lorry with crane, Dump truck with grab, electric agitator, hand-held blower
Noise control measure implemented :	

2024/4/16 下午4:18	Mail - Lee Wan Chung, Leo - Outlook
Noise barrier provided?:	YES
Noise barrier details :	acoustic enclosure made of minimum 10 mm thick plywood andminimum 50 mm thick sound absorbing internal lining
If no, why?:	
Is hand-held breaker used? ?	YES
If yes, what type?:	breaker, hand-held, mass > 10kg and < 20kg
Is Noise barrier provided for hand-held breaker? :	YES
If no, why?:	

Remark 3: On-site photo



Remark 4: Noise mitigation measures

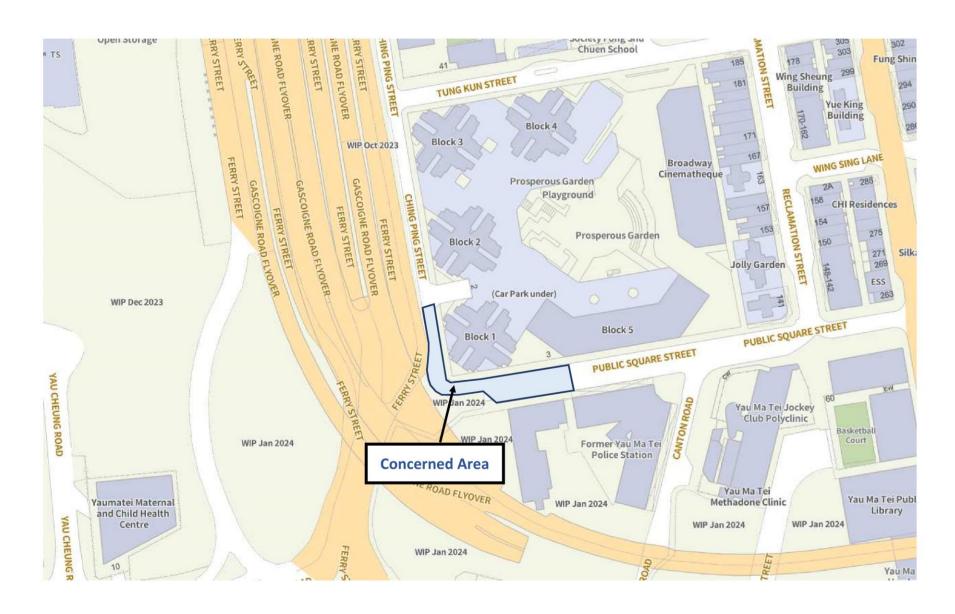




Interim Report on Environmental Complaint

Project	Central Kowloon I	Route, Yau Ma Tei	East Section	
Complaint Code	EC129-CKRYMTE20240419_001			
Complaint description	The complaint was received on 19 Apr 2024, about construction noise from the site area near Ferry Street at 2200 on 13 Apr 2024.			
Parameter	Construction Noise			
Investigation finding	The complaint was received on 19 Apr 2024, about construction noise from the site area near Ferry Street ¹ at 2200 on 13 Apr 2024.			
	Emergency road repairing work was performed at the junction of Ching Ping Street and Public Square Street from 2200 on 13 Apr 2024 to 0600 on 14 Apr 2024. PME used for the emergency work included hand-held breaker, portable generator, road miller, road sweeper, asphalt paver, pneumatic tyred roller, vibratory roller, road-marking material boiler, road-marking removal machine, lorry mounted shadow vehicle, lorry with crane, dump truck with grab. The work had been reported to EPD via the online system ³ . Acoustic enclosure made of minimum 10 mm thick plywood and minimum 50 mm thick sound absorbing internal lining was used for hand-held breaker as noise mitigation measure ⁴ .			
	Since the uneven road surface may endanger road users, the emergency road repairing work had to be conducted immediately.			
	The above-mentioned emergency works had been reported to EPD under "Record of Emergency Work During Restricted Hour" system at 0835 on 13 Apr 2024.			
Actions taken / to be taken	 In view of compliance and public concerns, the following preventative measures were taken / to be taken: In case of unscheduled emergency works required to address safety concern, make use of EPD reporting system for emergency works and report the works immediately; In case of emergency repairing required, make use of any noise mitigation measures and control of the tools use to avoid excessive noise emissions; Provide training to frontline staff to ensure their understanding and awareness of EPD's reporting system for emergency works. 			
Remarks (Shown in next page)	 Works location of the concerned area Notification of Emergency Works Noise mitigation measures 			
Prepared by ET (Acuity Sustainability Consulting Limited)	Kako Ho	Ho		
Reviewed by ETL (Acuity Sustainability Consulting Limited)	Kevin Li	K		
Verified by IEC (ERM-Hong Kong, Limited)	Mandy To	Mandy 2.		
Date	24 Apr 20	24		

Remark 1: Works location of the concerned area



Remark 2: Notification of Emergency Works

2024/4/17 上午10:56 Mail - Lee Wan Chung, Leo - Outlook

[Acknowledgement] Record for Emergency Construction Work: 2024-04-13 22:00

Record of Emergency Work During Restricted Hours <admin@nco-emergencywork.hk> Sat 4/13/2024 8:35 AM

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

Block sender

This email acknowledges your Record for Emergency Construction Work submitted at 00:35 on 13/04/2024. Information appended below:

Date and time of receiving	13/04/2024 08:35:00		
notification :			
Record Reference :	20240413-001		
From :	Build King - SK ecoplant Joint Venture		
Name & Post of PIC/Contact Person :	Bosco Lee/ Construction Manger		
Telephone :	98363402		
Fax :			
Email :	leo.lee@buildking.hk		
Date of work :	2024-04-13 22:00		
HyD Emergency Serial Number :	HYD/KL/E016868 (M937518)		
Police ref :			
Name of Contractor :	Build King - SK ecoplant Joint Venture		
Description and justification of	Uneven pavement was spotted that may		
Emergency Work :	impose safety hazards		
Location of work :			
district:	Yau Tsim Mong		
- Affected TPUs:	225		

Works Details

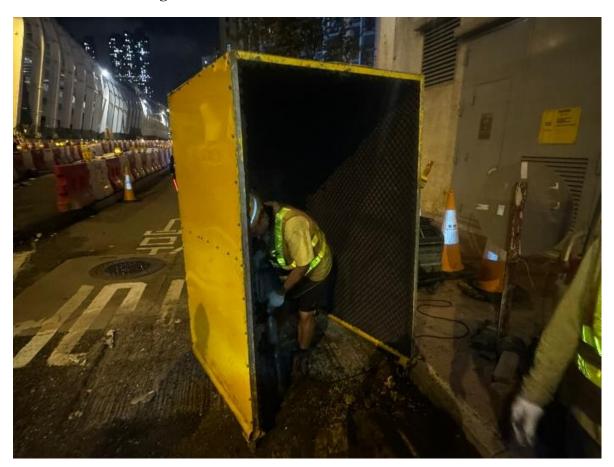
Details Location of Work	Date & Time	Details of work program
Ching Ping Street & Discourse Public Square Street	Start:: 13/04/2024 22:00 End:: 14/04/2024 06:00	TTA implementation 2. Construciton Activities 3. Road Reinstatement

List of PME used and/or PCW carried out :	Excavator mounted breaker , Hand-held breaker , Portable generator, Road miller, Road sweeper, Asphalt paver, Pneumatic tyred roller, Vibratory roller, Road-marking material boiler, Road-marking removal machine, lorry mounted Shadow vehicle, Lorry with crane, Dump truck with grab
Noise control measure implemented :	

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10.00	
Noise barrier provided? :	NO
Noise barrier details :	
If no, why?:	acoustic enclosure made of minimum 10 mm thick plywood andminimum 50 mm thick sound absorbing internal lining
Is hand-held breaker used? ?	YES
If yes, what type?:	Breaker, hand-held, mass > 10kg and < 20kg
Is Noise barrier provided for hand-held breaker? :	YES
If no, why?:	acoustic enclosure made of minimum 10 mm thick plywood andminimum 50 mm thick sound absorbing internal lining

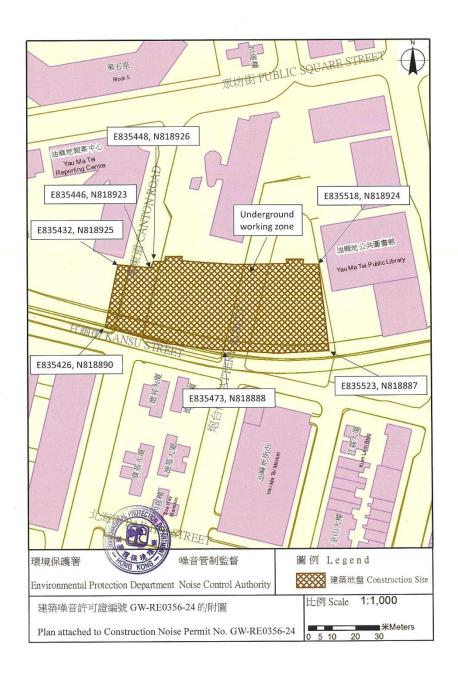
Remark 3: Noise mitigation measures



Interim Report on Environmental Complaint

Project	Central Kowloon I	Route, Yau Ma Tei	East Section	
Complaint Code	EC130-CKRYMT			
Complaint description	The complainant was received on 29 Apr 2024, about construction noise from the site			
	area near Prosperous Garden at 2000 on 26 Apr 2024.			
Parameter	Construction Noise			
Investigation finding	The complaint was received on 29 Apr 2024, about construction noise from the site area near Prosperous Garden at 2000 on 26 Apr 2024.			
	valid Construction from EPD, effective site at the concerns support works was Zone. No works we electric welding material control of the cont	Noise Permits (CN) we from 28 Mar 202 ed area ¹ . According a performed at the overe performed at grachines. The afore owed to be operated Sundays and during ly operated inside the from the construction and non-comp	within restricted hours, the Contractor applied for P) (Permit No: GW-RE0356-24) which was granted 4 to 27 Jun 2024, with coverage of the construction 5 to contractor's information, excavation and lateral concerned time period at the Underground Working round level. PME used included 1 excavator and 2 mentioned PMEs are classified as Group A in the ed in Working Zone during 0700-2300 for general g 1900-2300 for any day not being a general holiday. The noise enclosure ² at Underground Working Zone. On work has been monitored as per requirement in cliance of CNP was observed or recorded. The ents as stipulated in CNP.	
	Considering the fulfillment of stipulated requirements by the Contractor for EM&A manual, and the granted CNP, it is concluded that there was no non-compliance of the Project regarding noise quality impact from construction site.			
Actions taken / to be taken	The Contractor had followed EM&A Manual and the granted CNP strictly to implement mitigation measures in order to minimize nuisance to the public.			
	 Carry out function to Provide training Reschedul possible; a The Contraling 	site inspection to e o avoid excessive no aining to workers o e the operation time and	f using PME carefully to minimize noise; ne of the noisy equipment to less sensitive hours if to consider the use of temporary movable noise	
Remarks		Zone of CNP GW-F		
(Shown in next page)		losure at Undergrou	and Working Zone	
	3. CNP comp	pliance checklist		
Prepared by ET (Acuity Sustainability Consulting Limited)	Kako Ho	Ho		
Reviewed by ETL (Acuity Sustainability Consulting Limited)	Kevin Li	K		
Verified by IEC (ERM-Hong Kong, Limited)	Mandy To	Mandy2.		
Date	3 May 202	24		

Remark 1: Working Zone of CNP GW-RE0356-24



Remark 2: Noise enclosure at Underground Working Zone



Remark 3: CNP compliance checklist

Build King – SKEC Joint Venture Highways Department - Contract No. HY/2014/08 Central Kowloon Route – Yau Ma Tei East

是否提供隔音單於指定機動設備?



Central Ko	wloon Route – Yau Ma Tei East		
	<u>噪音許可證檢查表</u>		
日期: _	26 - 4 - 2024 時間:	19:30	
地點: _	Zone D & G ₇ 噪音許可證編號: _		
	機動設備	許可數目	實際數目
	挖土機	.3	ļ
	焊機	5	2
			- 101
辨認代碼	訂明建築工程	規定	實際
PCW 001	模板或棚架的構築或拆卸	許可 / 不許可	有 / 沒有
PCW 002	裝卸或處理瓦礫、木板、鋼條、木料或棚架材料	記刻 / 不許可	有/没有
PCW 003	敲擊	護可 / 不許可	有 / 液
			-
	其他規定		(P) I F
マスティス マス マスティス マス		<u></u> (是) (否	

是供的隔音罩是否妥善完整並完全覆蓋?		是/否	
	檢查人員簽名:	1	
	姓名:	Chana Rutena	