MOTT MACDONALD

Agreement No. CE 30/2018 (EP) Environmental Team for Kai Tak Sports Park – Design and Construction

Monthly EM&A Report for January 2020

February 2020

Home Affairs Bureau

Home Affairs Bureau
1/F, Block A, Kai Tak Sports Park
Site Office, Muk Tai Street,
Kai Tak, Kowloon

Agreement No. CE 30/2018 (EP) Environmental Team for Kai Tak Sports Park – Design and Construction

Monthly EM&A Report for January 2020

February 2020

Mott MacDonald Hong Kong Limited
registered in Hong Kong no. 236497

Home Affairs Bureau

Home Affairs Bureau
The Government of the Hong Kong Special Administrative Region

ERM

Environmental Permit No. EP-544/2017

Kai Tak Sports Park - Investigation

Independent Environmental Checker Verification

Reference Document/Plan

Document/~~Plan~~ to be ~~Certified~~/ Verified:	Monthly EM&A Report No. 10 (January 2020)
Date of Report:	February 2020
Date received by IEC:	11 February 2020

Reference EP Condition

Environmental Permit Condition:	3.4

Three hard copies and one electronic copy of the monthly EM&A Report shall be submitted to the Director within 10 working days after the end of each reporting month. The monthly EM&A Reports shall include a summary of all non-compliance with the recommendations in the approved EIA Report (Register No. AEIAR–204/2017) or this Permit. 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 submission shall be provided upon request by the Director.

IEC Verification

I hereby verify that the above referenced document/~~plan~~ complies with the above referenced condition of EP-544/2017.

Ms Mandy To

Independent Environmental Checker

Date: 11 February 2020

Our ref: 0500384_IEC Verification Cert_KTSP_Monthly EM&A Rpt No.10.docx

Home Affairs Bureau
The Government of the Hong Kong Special Administrative Region

MOTT MACDONALD

Environmental Permit No. EP- 544/2017

Kai Tak Sports Park – Investigation

Environmental Team Leader Certification

Reference Document /Plan

Document/~~Plan~~ to be Certified:	Monthly EM&A Report for Jan 2020
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ETL Certification

I hereby certify that the above reference document complies with the above referenced condition of EP-544/2017.

Mr Sunny Chan
Environmental Team Leader Date: 11 February 2020

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Executive summary

The Project – hereby meaning the Designated Project (Items O.6 and O.7 Part I, Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO)), comprising the "Kai Tak Sports Park" (KTSP) project and the Hotel and Office (H/O) Development of NKIL 6607 adjoining the KTSP – is located in the Kai Tak Development (KTD) area in Kowloon.

An EIA Report for the Project (Register No. AEIAR-204/2017) was approved by the Environmental Protection Department (EPD) on 6 January 2017. The current Environmental Permit (EP) for the Project, namely No. EP-544/2017, was issued on 8 September 2017. These documents are available through the EIA Ordinance Register. The Project construction works commenced on 8 April 2019.

In February 2019, Mott MacDonald Hong Kong Limited was appointed by the Home Affairs Bureau (HAB) as the Environmental Team (ET) to implement the Environmental Monitoring & Audit (EM&A) programme for the construction phase and first year of operation of the Project in accordance with the approved EM&A Manual.

This is the 10th Monthly EM&A Report for the construction phase of the Project which summaries findings of the EM&A programme during the reporting period from 1 to 31 January 2020.

Key Construction Works in the Reporting Period

A summary of construction activities undertaken during the reporting period is presented below:

- Ground investigation works;
- Piling works (Percussive piling, Socket H piling and Bored piling);
- Setting up of temporary site canteen;
- Mobilization; and
- Concreting and excavation

Environmental Monitoring and Audit Progress

The monthly EM&A programme was undertaken by ET in accordance with the approved EM&A Manual. A summary of the monitoring activities during the reporting period is presented below:

Activity	Monitoring Locations	Date
Air Quality Monitoring (1-hour TSP)	AMS1, AMS2	2, 8, 14, 20, 24, 30 January 2020
Noise Monitoring ($L_{eq\ (30\ min)}$)	NMS1, NMS2	2, 8, 14, 20, 30 January 2020
Weekly environmental site inspections	-	8, 15, 22 January 2020
Landscape and visual site inspections	-	8, 22 January 2020

Breaches of Action and Limit Levels

Air Quality

There was no breach of Action or Limit Levels for Air Quality (1-hr TSP) during the reporting month.

Noise

One noise related complaint was received during the reporting month. One Action Level for noise was triggered during the reporting month.

No exceedance of Limit Level for noise at NMS1 and NMS2 was recorded during the reporting month.

Complaint Log

There was one complaint received during the reporting month.

Table 1.1: Summary of Complaints in the reporting month

Date of Notification from EPD	Date of Complaint	Description of Complaint	Recommendations / Actions	Close-Out Date / Status
16 Jan 2020	20 Dec 2019	- Complaint of percussive piling noise from the construction site of Kai Tak Sports Park before 8:30 a.m. and after 6:00 p.m. from Monday to Saturday. - Please ensure the work comply with the relevant environmental legislation and conditions stipulated in the valid Construction Noise Permit. Please adopt necessary measures to minimize the construction noise arising from percussive piling.	1. Conduct regular checking to ensure the implementation of noise mitigation measures for the percussive pilling works. 2. Arrange those sensitive percussive piling works (i.e. close to nearby sensitive receivers) in a later piling hour session if possible. 3. Review on existing site operation to minimise other potential noisy site activities carried out before 8:30 a.m.	22 Jan 2020

Notifications of Summons and Successful Prosecutions

There were no notifications of summons or prosecutions received during this reporting period.

Reporting Changes

There was no reporting change during the reporting period.

Future Key Issues

The future key issues to be undertaken in the upcoming month are:

- Ground investigation works;
- Piling works (Percussive piling, Socket H piling and Bored piling);
- Setting up of temporary site canteen;
- Mobilization; and
- Concreting and excavation.

1 Introduction

1.1 Background

The Project – hereby meaning the Designated Project (Items O.6 and O.7 Part I, Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO)), comprising the "Kai Tak Sports Park" (KTSP) project and the Hotel and Office (H/O) Development of NKIL 6607 adjoining the KTSP – is located in the Kai Tak Development (KTD) area in Kowloon.

The key construction works of the Project include:

(i) KTSP project

a. a multi-purpose Main Stadium with a spectator capacity of around 50,000;
b. a Public Sports Ground, with a spectator capacity of around 5,000;
c. an Indoor Sports Centre with a multi-purpose main arena with a seating capacity of up to 10,000 and an ancillary sports hall with a seating capacity of 500;
d. retail and dining outlets with a gross floor area (GFA) of about 57,000 square metres (m^2), a bowling centre with 40 lanes and a health and wellness centre with about 2,500 m^2 GFA;
e. more than 8 hectares of public open space including landscaped deck structures across Shing Kai Road, passive amenities and park features, outdoor ball courts; and
f. ancillary facilities such as car parks, toilets, changing rooms, etc.

(ii) H/O Development

g. an office development;
h. a 300-room hotel with a GFA of about 16,000 m^2; and
i. ancillary facilities such as retails, car parks, etc.

In February 2019, Mott MacDonald Hong Kong Limited (MMHK) was commissioned by the Home Affairs Bureau (HAB) under Agreement No. CE 30/2018 (EP) to undertake the Environmental Team (ET) services for carrying out the Environmental Monitoring & Audit (EM&A) programme during the construction phase and first year of operation of the Project in accordance with the approved Environmental Impact Assessment (EIA) Report (Register No.: AEIAR-204/2017), EM&A Manual (including any subsequent amendments) and EP (including any subsequent variations of it and/or any further environmental permit issued under the EIAO). The current EP (No. EP-544/2017) was issued by EPD on 8 September 2017.

This is the 10th Monthly EM&A Report summarising the key findings of the construction phase EM&A programme from 1 to 31 January 2020 (the "reporting period") and is submitted to fulfil Condition 3.4 of the EP.

1.2 Project Organisation

The organisation chart and lines of communication with respect to the on-site environmental management structure of the key personnel are shown in **Appendix A**. The key personnel contact names and numbers are summarized in **Table 1.2**.

Table 1.2: Contact Information of Key Personnel

Party	Position	Name	Telephone	Fax
Project Proponent (Home Affairs Bureau)	Project Director (Sports Park)	Victor Tai	3586 3403	3586 0591
Supervising Officer's Representative (Home Affairs Bureau)	Senior Engineer	Keith Man	3586 3149	3586 0591
Environmental Team (Mott MacDonald Hong Kong Limited)	Environmental Team Leader	Sunny Chan	2828 5962	2827 1823
	Deputy Environmental Team Leader	Arthur Lo	2828 5994	2827 1823
Independent Environmental Checker (ERM Hong Kong Limited)	Independent Environmental Checker	Mandy To	2271 3000	2723 5660
Contracted Party (Kai Tak Sports Park Limited)	Senior Project Manager	Michael Wong	3552 5003	2845 9295
	Senior Environmental Engineer	Hiko Law	3552 5013	3552 5099
24-hour Community Liaison Hotline	-	-	5587 6112	-

1.3 Works Area and Construction Programme

The construction works commenced on 8 April 2019. The works area of the Project is shown in **Appendix B**. The Construction Works Programme of the Project is provided in **Appendix C**.

1.4 Construction Works undertaken during the Reporting Period

A summary of construction activities undertaken during this reporting period is presented below:

- Ground investigation works;
- Piling works (Percussive piling, Socket H piling and Bored piling);
- Setting up of temporary site canteen;
- Mobilization; and
- Concreting and excavation

2 Air Quality Monitoring

2.1 Introduction

In accordance with the EM&A Manual of the Project, baseline 1-hour Total Suspended Particulates (TSP) levels at air quality monitoring stations AMS1 and AMS2 were established. Impact 1-hour TSP monitoring was conducted for at least three times every 6 days.

2.2 Monitoring Parameters, Frequency and Duration

Table 2.1 summarises the monitoring parameters, frequency and duration of impact noise monitoring.

Table 2.1: Air Quality Monitoring Parameters, Frequency and Duration

Parameter	Frequency and Duration
1-hour TSP	3 times every six-days

2.3 Monitoring Locations

According to the EM&A Manual, a total of five air quality monitoring stations are identified for impact monitoring. Of these, three air sensitive receivers are planned residential use and were not available for baseline monitoring; the same three are also currently not available for impact monitoring.

Table 2.2 describes the impact air quality monitoring stations and **Figure 2.1** shows their locations.

Table 2.2: Construction Dust Monitoring Locations

Monitoring Station	Location	Status
AMS1	Hong Kong Society for the Blind Workshop, Roof Floor	Existing Air Sensitive Receiver
AMS2	Sky Tower, Podium of Tower 7	Existing Air Sensitive Receiver
AMS3	Kai Tak Area 2B Site 4 (2B4) (residential use)	Planned Air Sensitive Receiver
AMS4	Kai Tak Area 1K Site 3 (1K3) (residential use)	Planned Air Sensitive Receiver
AMS5	Kai Tak Area 1L Site 3 (1L3) (residential use)	Planned Air Sensitive Receiver

During the reporting period, monitoring locations AMS1 and AMS2 were set up at the proposed locations for impact monitoring.

Permission on setting up and carrying out impact monitoring works at AMS3, AMS4 and AMS5 will be sought once each respective development is completed and occupied.

2.4 Monitoring Action and Limit Levels

The Action and Limit Levels for 1-hr TSP are provided in **Table 2.3**.

Table 2.3: Action and Limit Levels for 1-hour TSP

Monitoring Station	Action Level, µg/m^3	Limit Level, µg/m^3
AMS1 – Hong Kong Society for the Blind Workshop, Roof Floor	283	500
AMS2 – Sky Tower, Podium of Tower 7	280	500
AMS3 - Kai Tak Area 2B Site 4 (2B4) (residential use)	287*	500
AMS4 - Kai Tak Area 1K Site 3 (1K3) (residential use)	287*	500
AMS5 - Kai Tak Area 1L Site 3 (1L3) (residential use)	287*	500

*Remarks: the Action Level for AMS3, AMS4 and AMS5 were derived from an alternative monitoring station AMS3-4-5 during the baseline monitoring.

The event and action plan is provided in **Appendix D**.

If exceedance(s) at these stations is/are recorded by the ET of the Project, it will carry out an investigation and findings will be reported in the monthly EM&A Report.

2.5 Monitoring Schedule for the Reporting Period

The schedule for air quality monitoring at AMS1 and AMS2 in the reporting period is presented in **Appendix E**.

2.6 Monitoring Equipment

Portable direct reading dust meters were used to carry out the 1-hour TSP monitoring. The brand(s) and model(s) of the equipment used for air quality monitoring stations AMS1 and AMS2 under this Project are given in **Table 2.4**.

Table 2.4: 1-hour TSP Monitoring Equipment

Equipment	Brand	Model No.
Portable direct reading dust meter	Sibata Digital Dust Monitor	LD-3B (S/N: 276019 & 456668)

2.7 Monitoring Methodology

Field Monitoring

The measuring procedures of the 1-hour TSP dust meter are in accordance with the Manufacturer's Instruction Manual as follows:

- Turn the power on.
- Close the air collecting opening cover.
- Push the "TIME SETTING" switch to [BG].
- Push "START/STOP" switch to perform background measurement for 6 seconds.
- Turn the knob at SENSI ADJ position to insert the light scattering plate.
- Leave the equipment for 1 minute upon "SPAN CHECK" is indicated in the display.
- Push "START/STOP" switch to perform automatic sensitivity adjustment. This measurement takes 1 minute.
- Pull out the knob and return it to MEASURE position.
- Setting time period of 1 hour for the 1-hour TSP measurement.

- Push “START/STOP” to start the 1-hour TSP measurement.
- Regular checking of the time period setting to ensure monitoring time of 1 hour.

Maintenance and Calibration

- The 1-hour dust meter would be checked at 3-month intervals and calibrated at 1-year intervals throughout all stages of the air quality monitoring.
- Calibration records for direct dust meters are given in **Appendix F**.

2.8 Monitoring Results

The monitoring results for 1-hour TSP at AMS1 and AMS2 are summarized in **Table 2.5**. Detailed impact air quality monitoring results are presented in **Appendix G**.

Table 2.5: Summary of 1-hour TSP Monitoring Results During the Reporting Period

Monitoring Station	Average, µg/m^3	Min, µg/m^3	Max, µg/m^3	Action Level, µg/m^3	Limit Level, µg/m^3
AMS1	51	30	87	283	500
AMS2	55	34	84	280	500

There was no Action and Limit Level exceedance of 1-hr TSP level recorded at station AMS1 and AMS2 by the ET during the reporting period.

2.9 Wind Data

Wind data at Kai Tak automatic weather station collected from the Hong Kong Observatory (HKO) were used for the air quality monitoring and they are shown in **Appendix H**. It is considered that the wind data obtained at the existing Kai Tak wind station are representative of the Project area and could be used for undertaking the construction phase baseline and impact air quality monitoring programme for the Project.

The proposed use of the existing wind data from Kai Tak automatic weather station collected from HKO for wind data collection instead of setting up wind monitoring equipment near the monitoring stations was proposed by ET and agreed by IEC in accordance with the requirements as stated in Section 3.4.7 of the EM&A Manual of the Project.

3 Noise Monitoring

3.1 Introduction

In accordance with the EM&A Manual, impact noise monitoring was conducted at least once per week for each noise monitoring location during the construction phase of the Project.

3.2 Monitoring Parameters, Frequency and Duration

Table 3.1 summarises the monitoring parameters, frequency and duration of impact noise monitoring.

Table 3.1: Noise Monitoring Parameters, Frequency and Duration

Parameter	Frequency and Duration
30-minutes measurement at each monitoring station between 0700 and 1900 on normal weekdays (Monday to Saturday). L_{eq}, L_{10} and L_{90} would be recorded.	At least once per week

3.3 Monitoring Locations

According to the approved EM&A Manual, a total of seven noise monitoring stations were identified for the impact monitoring locations. Of these, five noise sensitive receivers are planned residential use (NMS1A, NMS2A, NMS3, NMS4 and NMS5) and were not available for baseline monitoring; the same five are also currently not available for impact monitoring.

Table 3.2 describes the details of the monitoring stations and **Figure 3.1** shows the locations of noise monitoring stations.

Table 3.2: Construction Noise Monitoring Locations

Monitoring Station	Location Description	Status
NMS1	Hong Kong Society for the Blind Workshop, Roof Floor	Existing Noise Sensitive Receiver
NMS2	Sky Tower, Podium of Tower 7	Existing Noise Sensitive Receiver
NMS1A	Sung Wong Toi Road Public Housing Site	Planned Noise Sensitive Receiver
NMS2A	Sung Wong Toi Road CDA Site (mixed use)	Planned Noise Sensitive Receiver
NMS3	Kai Tak Area 2B Site 4 (2B4) (residential use)	Planned Noise Sensitive Receiver
NMS4	Kai Tak Area 1K Site 3 (1K3) (residential use)	Planned Noise Sensitive Receiver
NMS5	Kai Tak Area 1L Site 3 (1L3) (residential use)	Planned Noise Sensitive Receiver

During the reporting period, monitoring locations NMS1 and NMS2 were set up at the proposed locations for impact monitoring.

Since NMS1A & NMS2A are planned (i.e. not existing) noise sensitive receivers, noise monitoring should be carried out initially at NMS1 and NMS2 respectively before the population intake of the planned developments. Once the planned developments are completed and occupied, NMS1A shall replace NMS1, while NMS2A shall replace NMS2. It is proposed that

the baseline noise level and Limit Level at NMS1A and NMS2A will be the same as those derived from the baseline monitoring data recorded at NMS1 and NMS2 respectively.

Permission on setting up and carrying out impact monitoring works at NMS3, NMS4 and NMS5 will be sought once each respective development is completed and occupied.

3.4 Action and Limit Levels

The Action and Limit Levels for construction noise are defined in **Table 3.3**.

Table 3.3: Action and Limit Level for Construction Noise

Monitoring Station	Time Period	Action Level	Limit Level
NMS1 NMS2	0700 – 1900 hours on normal weekdays	When one documented complaint is received	75 dB(A)

The event and action plan is provided in **Appendix D**.

If exceedance(s) at these stations is/are recorded by the ET of the Project, it will carry out an investigation and findings will be reported in the monthly EM&A Report.

3.5 Monitoring Schedule for the Reporting Period

The schedule for noise monitoring in the reporting period is presented in **Appendix E**.

3.6 Monitoring Equipment

Noise monitoring was performed using sound level meters at each designed monitoring station. The sound level meters deployed comply with the International Electrotechnical Commission Publications (IEC) 651:1979 (Type 1) and 804:1985 (Type 1) specifications. Acoustic calibrator was deployed to check the sound level meters at a known sound pressure level. Brand and model of the equipment used for noise monitoring under this Project is given in **Table 3.4**.

Table 3.4: Noise Monitoring Equipment

Equipment	Brand	Model No.
Integrated Sound Level Meter	Rion	NL-52 (serial no. 00175561)
Acoustic Calibrator	LARSON DAVIS	CAL200 (S/N 11333)

3.7 Monitoring Methodology

- Façade and Free Field measurements were made at the monitoring locations.
- For Façade measurement, the microphone hear of the head level meter was positioned 1m exterior of the noise sensitive façade and lowered sufficiently so that the building's external wall acts as a reflecting surface.
- For free field, the microphone of the Sound Level Meter was set at least 1.2 m above the ground.
- A correction of +3dB(A) was made for free field measurement.
- The battery condition was checked to ensure the correct functioning of the meter.
- Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:
  - frequency weighting: A
  - time weighting: Fast

  - time measurement: 30-minute intervals (between 0700-1900 on normal weekdays)
- Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94 dB at 1 kHz. If the difference in the calibration level before and after measurement was more than 1 dB, the measurement would be considered invalid and repeated after the re-calibration or repair of the equipment.
- During the monitoring period, the L_{eq}, L_{10} and L_{90} were recorded. In addition, any site observations and noise sources were recorded on a standard record sheet.
- Noise measurements were not made in presence of fog, rain, wind with a steady speed exceeding 5m/s or wind with gusts exceeding 10m/s.

Maintenance and Calibration

- The microphone head of the sound level meter and calibrator is cleaned with soft cloth at quarterly intervals.
- The sound level meter and calibrator are sent to the supplier or HOKLAS laboratory to check and calibrate at yearly intervals.
- Calibration records are shown in **Appendix F**.

3.8 Monitoring Results

The monitoring results for construction noise are summarized in **Table 3.5**. Detailed impact noise monitoring results and relevant graphical plots are presented in **Appendix G**.

Table 3.5: Summary of Construction Noise Monitoring Results During the Reporting Period

	Measured Noise Level $L_{eq\ (30\ mins)}$, dB(A)			
Monitoring Station	Average	Min	Max	Limit Level
NMS1	69	66	71	75
NMS2	68	68	68	75

No noise exceedances were recorded at stations NMS1 and NMS2 by ET during the reporting period.

4 Environmental Site and Audit

4.1 Site Inspection

Site inspections were carried out by ET on a weekly basis to monitor the implementation of proper environmental pollution control mitigation measures for the Project. Key observations were recorded in the site inspection checklist and passed to the Contracted Party together with the appropriate recommended mitigation measures where necessary. During the reporting period, site inspections were carried out on 8, 15, 22 January 2020. Joint IEC site inspections were carried out on 15 and 22 January 2020. No site inspection was carried out on the last week of January 2020 as no construction work during Lunar New Year Holiday.

Bi-weekly landscape and visual site audit was carried out on 8 and 22 January 2020. The landscape and visual audit have been audited by Registered Landscape Architect (RLA). No major observations of landscape and visual impact were identified. The result findings were summarised in **Appendix K.**

Key observations during the site inspections are described in **Table 4.1**.

Table 4.1: Summary of Site Inspections and Recommendations

Inspection Date	Key Observations	Recommendations / Actions	Close-Out Date / Status
8 January 2020	Chemical container without chemical label and without drip tray were observed at northern site area.	The contractor was reminded to provide chemical label and drip tray for the chemical containers on site.	15 January 2020
8 January 2020	Accumulation of site runoff was observed at the drainage channel at southern gate No.2	The contractor was reminded to clear the drainage channel at southern gate No. 2.	15 January 2020
8 January 2020	No environmental permit was displayed at the site entrance near southern gate No.1 area.	The contractor was reminded to display environmental permit at all site entrance on site.	15 January 2020
15 January 2020	Dark smoke emission was observed from socket H piling plant at northern site area.	The contractor was reminded to maintain good condition of the equipment plant on site to ensure no dark smoke emission.	22 January 2020
15 January 2020	Dust emission was observed at northern site and southern site piling area.	The contractor was reminded to provide regular water spraying to ensure wet surface.	22 January 2020
15 January 2020	Accumulation of stock piles were observed at southern site. area.	The contractor was reminded to provide covering for stock pile on site.	22 January 2020
22 January 2020	Leakage of site runoff was observed near site boundary hoarding at northern site area.	The contractor was reminded to fix the hoarding gaps to prevent site runoff leakage.	5 February 2020
22 January 2020	Dry surface was observed at the southern site haul road area.	The contractor was reminded to strengthen the dust mitigation measure to ensure wet	5 February 2020

Inspection Date	Key Observations	Recommendations / Actions	Close-Out Date / Status
		surface for the site to minimise dust emission.	
22 January 2020	A generator with faded colour NRMM label was observed at southern site area.	The contractor was reminded to provide new NRMM label for the generator.	5 February 2020

4.2 Advice on the Solid and Liquid Waste Management Status

The Contracted Party was registered as a chemical waste producer for the Project. Sufficient numbers of receptacles were available for general refuse collection and sorting.

The monthly summary of waste flow table is detailed in **Appendix I**.

The Contracted Party was reminded that chemical waste containers should be properly treated and stored temporarily in designated chemical waste storage area on site in accordance with the Code of Practice on the Packing, Labelling and Storage of Chemical Waste.

4.3 Environmental Licenses and Permits

The valid environmental licenses and permits for the Project during the reporting period are summarized in **Appendix J**.

4.4 Implementation Status of Environmental Mitigation Measures

In response to the site audit findings, the Contracted Party carried out corrective actions.

A summary of the environmental mitigation measures implementation status is presented in **Appendix K**. Most of the necessary mitigation measures were implemented properly.

4.5 Summary of Exceedance of the Environmental Quality Performance Limit

Air Quality

No Action and Limit Level exceedances of 1-hour TSP level was recorded at AMS1 and AMS2 during the reporting period.

Noise

One noise related complaint was received during the reporting month. One Action Level for noise was triggered during the reporting month.

No exceedance of Limit Level of noise at NMS1 and NMS2 was during the reporting period.

4.6 Summary of Complaints, Notification of Summons and Successful Prosecution

Complaints

There was one complaint received during the reporting month:

Table 4.2: Summary of Complaints in the reporting month

Date of Notification from EPD	Date of Complaint	Description of Complaint	Recommendations / Actions	Close-Out Date / Status
16 Jan 2020	20 Dec 2019	- Complaint of percussive piling noise from the construction site of Kai Tak Sports Park before 8:30 a.m. and after 6:00 p.m. from Monday to Saturday. - Please ensure the work comply with the relevant environmental legislation and conditions stipulated in the valid Construction Noise Permit. Please adopt necessary measures to minimize the construction noise arising from percussive piling.	1. Conduct regular checking to ensure the implementation of noise mitigation measures for the percussive pilling works. 2. Arrange those sensitive percussive piling works (i.e. close to nearby sensitive receivers) in a later piling hour session if possible. 3. Review on existing site operation to minimise other potential noisy site activities carried out before 8:30 a.m.	22 Jan 2020

Notification of Summons and Successful Prosecution

No notification of summons or prosecutions was received during the reporting period.

Statistics on notifications of summons and successful prosecutions are summarized in **Appendix L**.

5 Future Key Issues

5.1 Construction Programme for the Coming Months

As informed by the Contracted Party, the major construction activities for the next reporting period (February 2020) are summarized in **Table 5.1**.

Table 5.1: Construction Activities for the Next Reporting Period

Site Area	Description of Activities
• Kai Tak Sports Park	• Ground investigation works; • Piling works (Percussive piling, Socket H piling and Bored piling); • Setting up of temporary site canteen; • Mobilization; and • Concreting and excavation.

5.2 Environmental Site Inspection and Monitoring Schedule for the Next Reporting Period

The tentative schedule for weekly site inspection and monitoring for air quality and noise for the next reporting period is provided in **Appendix E**.

6 Conclusions

6.1 Conclusions

General

The construction works for the Project commenced on 8 April 2019.

The ET of the Project has implemented the air quality and noise environmental impact monitoring under the construction phase EM&A programme during the reporting period.

Breaches of Action and Limit Levels

Air Quality

No Action and Limit Level exceedances of 1-hour TSP level was recorded at AMS1 and AMS2 during the reporting period.

Noise

One noise related complaint was received during the reporting month. One Action Level for noise was triggered during the reporting period.

No exceedance of Limit Level of noise at NMS1 and NMS2 was recorded during the reporting month.

Environmental Site Inspections

Environmental site inspections were carried out three times during the reporting period. Recommendations on remedial actions were given to the Contracted Party for the deficiencies identified during the site inspections.

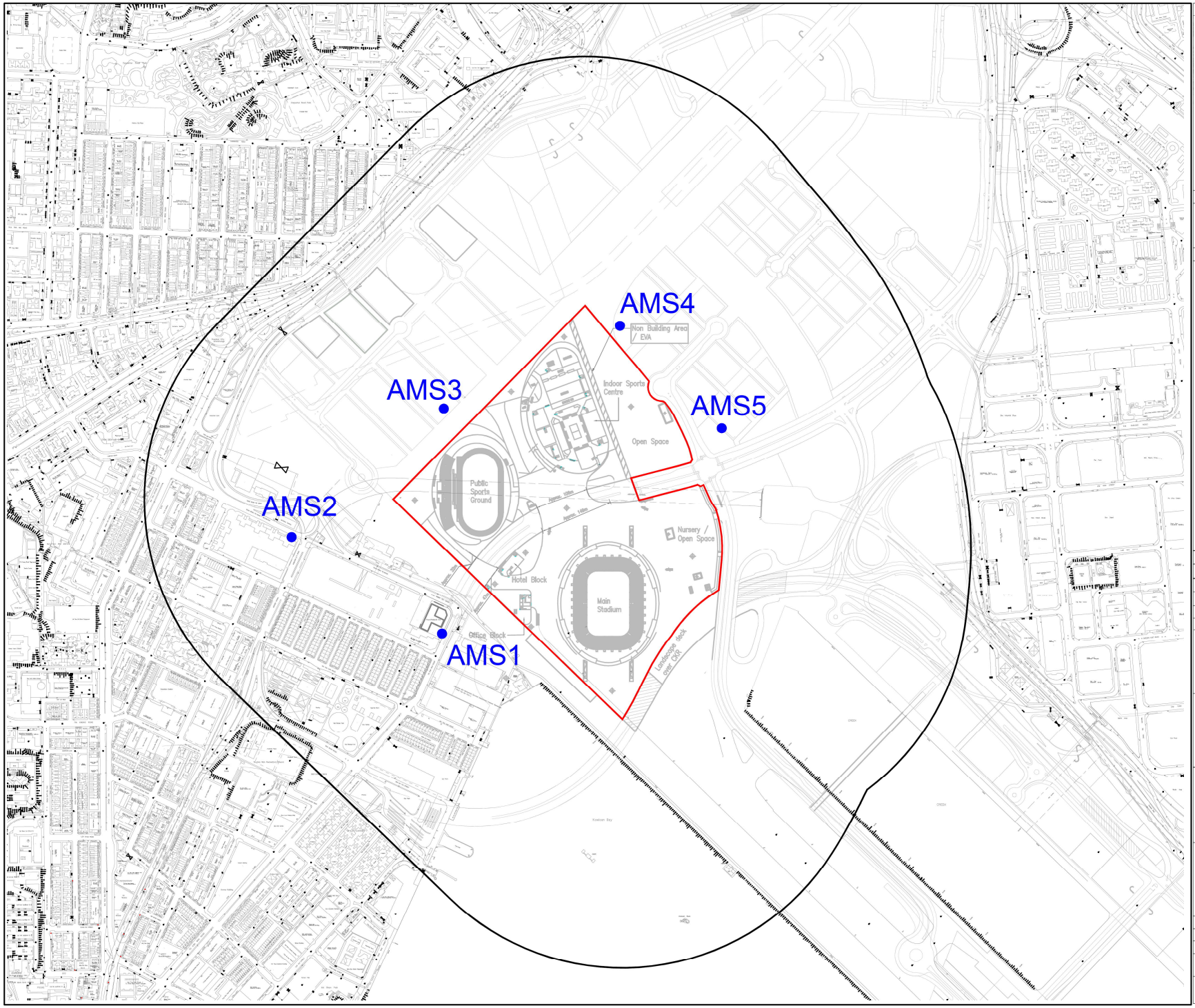
Complaints

There was one complaint received in relation to the environmental impact during the reporting period.

Notifications of Summons and Successful Prosecutions

There were no notifications of summons or prosecutions received during the reporting period.

Figures



Key Plan:

Notes:

1. ALL LEVELS ARE METRES TO PRINCIPAL DATUM (PD) UNLESS NOTED OTHERWISE.
2. ALL CO-ORDINATES REFER TO HONG KONG (1980) METRIC GRID CO-ORDINATES SYSTEM.
3. PIPE AND BOX CULVERT SIZES ARE SHOWN IN MILLIMETERS

Key to symbols:

LEGEND:

- Project Site
- 500m from Site Boundary
- AMS1 Air Monitoring Station 1

Rev	Date	Drawn	Description	Ch'k'd	App'd

MOTT MACDONALD
3/F Mapletree Bay Point
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W mottmac.com

Client

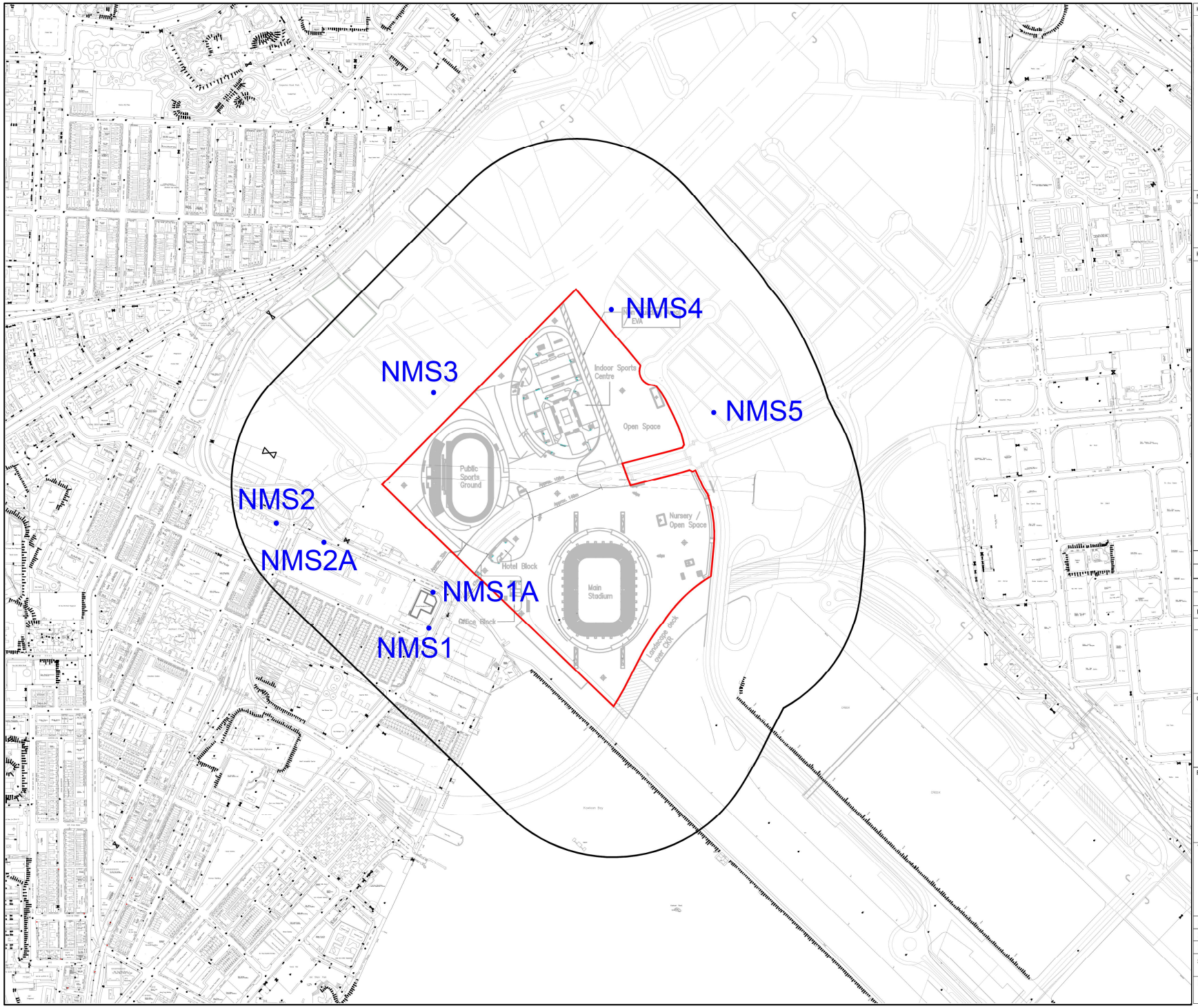
Project

Title

Figure 2.1
Location of Air Quality Monitoring Stations

Designed			Eng check		
Drawn			Coordination		
Dwg check			Approved		
Scale at A3		Status		Rev	

Drawing Number



Key Plan:

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1. ALL LEVELS ARE METRES TO PRINCIPAL DATUM (PD) UNLESS NOTED OTHERWISE.
2. ALL CO-ORDINATES REFER TO HONG KONG (1980) METRIC GRID CO-ORDINATES SYSTEM.
3. PIPE AND BOX CULVERT SIZES ARE SHOWN IN MILLIMETERS

Key to symbols:

LEGEND:

- Project Site
- 300m from Site Boundary
- NMS1 • Construction Noise Monitoring Station 1

Rev	Date	Drawn	Description	Ch'k'd	App'd

MOTT MACDONALD
3/F Mapletree Bay Point
348 Kwun Tong Road
Kwun Tong, Kowloon
Hong Kong
T +852 2828 5757
F +852 2827 1823
W mottmac.com

Client

Project

Title

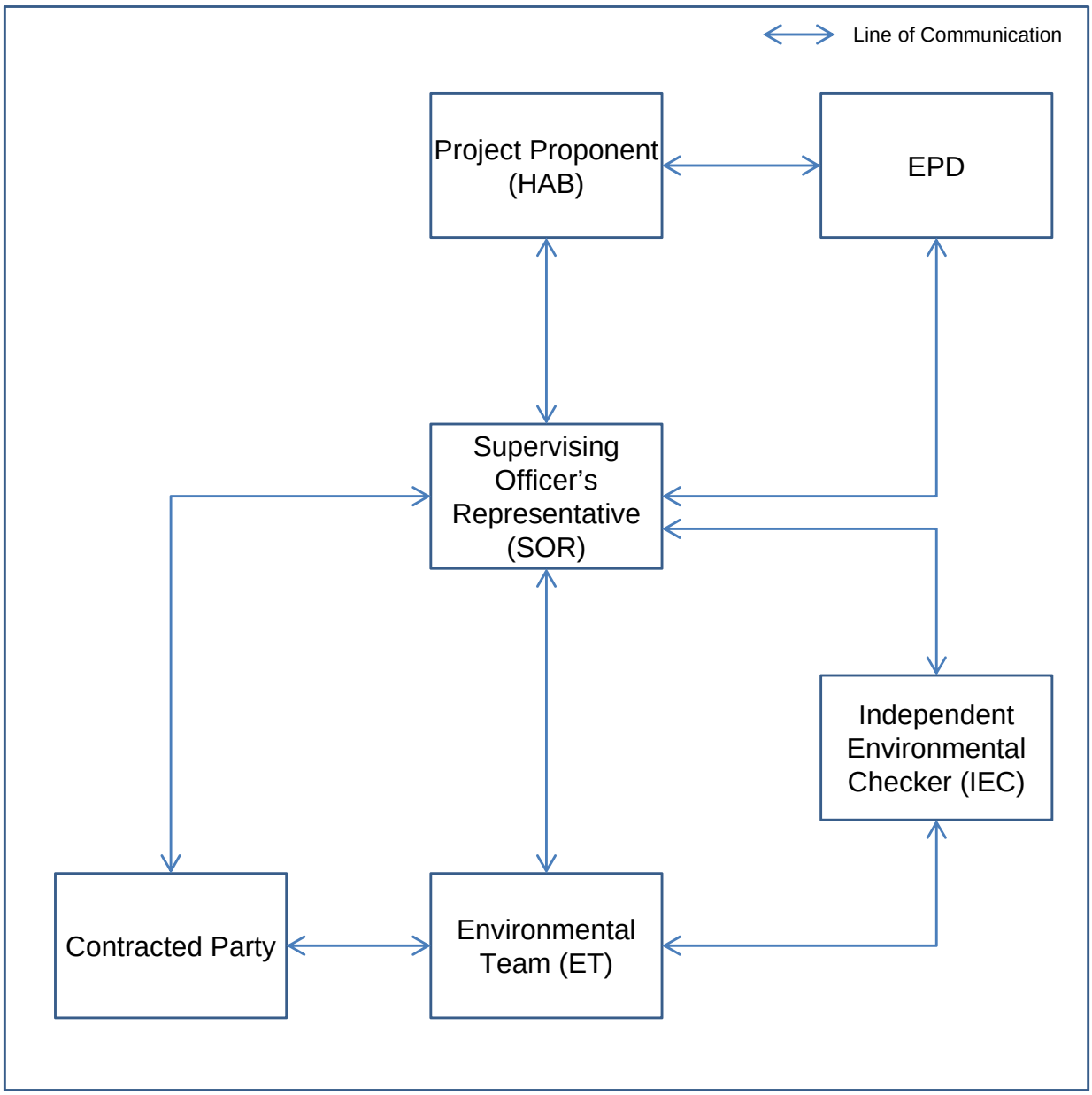
Figure 3.1
Location of Noise Monitoring Stations

Designed			Eng check		
Drawn			Coordination		
Dwg check			Approved		
Scale at A3		Status		Rev	

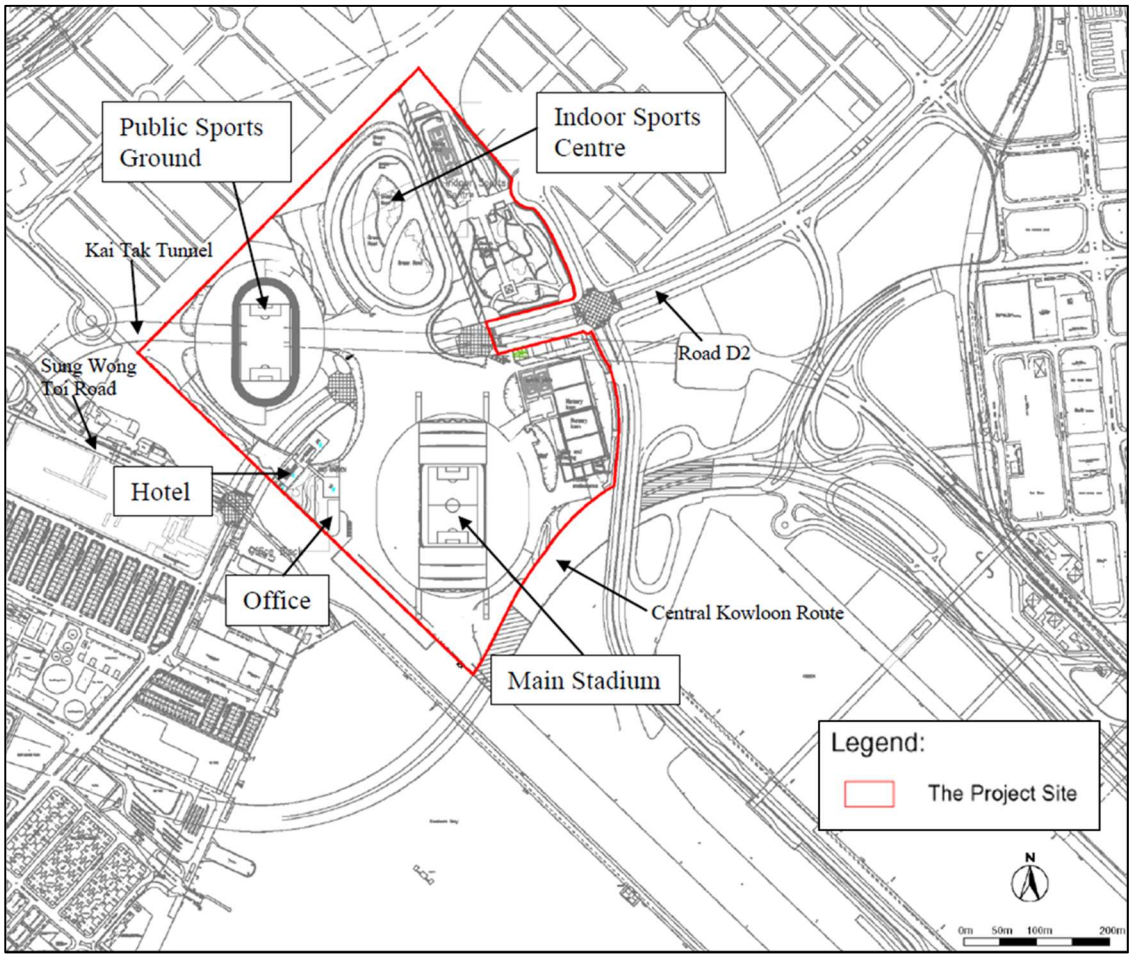
Drawing Number

Appendix A. Project Organization for Environmental Works

Project Organisation for Environmental Works



Appendix B. Location of Works Areas



Appendix C. Construction Programme

Construction Programme (Jan 2020 to Apr 2020)

	2019						2020					
Construction Activities	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Plants Mobilization												
C&D Waste Disposal (By vessel)												
Loading/ Unloading of Materials												
Excavation												
Ground Investigation												
C&D Waste Disposal												
Setting up of Temporary Site Canteen												
Piling (Percussive Piling)												
Piling (Socket H Piling)												
Piling (Bored Piling)												
Concreting												
Lifting												
C&D Materials Internal Transportation												

Appendix D. Event and Action Plan

Should non-compliance of the air quality criteria occur, actions in accordance with the Event and Action Plan in **Table D.1** and **Table D.2** shall be carried out.

Table D.1: Event and Action Plan for Construction Air Quality (Action Level)

Event	Action			
	ET	IEC	SOR	Contracted Party
Action Level				
Exceedance for one sample	1. Inform IEC, SOR and Contracted Party; 2. Identify source, investigate the causes of exceedance and propose remedial measures; 3. Repeat measurement to confirm finding.	1. Check monitoring data submitted by ET; 2. Check Contracted Party's working method.	1. Notify Contracted Party.	1. Rectify any unacceptable practice; 2. Amend working methods if appropriate.
Exceedance for two or more consecutive samples	1. Inform IEC, SOR and Contracted Party; 2. Identify source; 3. Advise the SOR on the effectiveness of the proposed remedial measures; 4. Repeat measurements to confirm findings; 5. Increase monitoring frequency to daily; 6. Discuss with IEC, SOR and Contracted Party on remedial actions required; 7. If exceedance continues, arrange meeting with IEC and SOR; 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contracted Party's working method; 3. Discuss with ET and Contracted Party on possible remedial measures; 4. Advise the ET/SOR on the effectiveness of the proposed remedial measures; 5. Supervise Implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contracted Party; 3. Ensure remedial measures properly implemented.	1. Submit proposals for remedial to SOR and IEC within 3 working days of notification; 2. Implement the agreed proposals; 3. Amend proposal if appropriate.

Table D.2: Event and Action Plan for Construction Air Quality (Limit Level)

Event	Action			
	ET	IEC	ET	Contracted Party
Limit Level				
Exceedance for one sample	1. Inform IEC, SOR, Contracted Party and EPD; 2. Identify source, investigate the causes of exceedance and propose remedial measures; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; 5. Assess effectiveness of Contracted Party's remedial actions and keep IEC, EPD and SOR informed of the results.	1. Check monitoring data submitted by ET; 2. Check Contracted Party's working method; 3. Discuss with ET and Contracted Party on possible remedial measures; 4. Advise the SOR on the effectiveness of the proposed remedial measures; 5. Supervise implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contracted Party; 3. Ensure remedial measures properly implemented.	1. Take immediate action to avoid further exceedance; 2. Discuss with ET and IEC on remedial actions; 3. Submit proposals for remedial actions to IEC within 3 working days of notification; 4. Implement the agreed proposals; 5. Amend proposal if appropriate.
Exceedance for two or more consecutive samples	1. Notify IEC, SOR, Contracted Party and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contracted Party's working procedures to determine possible mitigation to be implemented; 6. Arrange meeting with IEC and SOR and Contracted Party to discuss the remedial actions to be taken; 7. Assess effectiveness of Contracted Party's remedial actions and keep IEC, EPD and SOR informed of the results; 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contracted Party's working method; 3. Discuss amongst SOR, ET, and Contracted Party on the potential remedial actions; 4. Review Contracted Party's remedial actions whenever necessary to assure their effectiveness and advise the SOR accordingly; 5. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contracted Party; 3. In consultation with the IEC, agree with the Contracted Party on the remedial measures to be implemented; 4. Ensure remedial measures properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contracted Party to terminate that portion of work until the exceedance ceases.	1. Take immediate action to avoid further exceedance; 2. Discuss with ET and IEC on remedial actions; 3. Submit proposals for remedial actions to SOR and IEC within 3 working days of notification; 4. Implement the agreed proposals; 5. Resubmit proposals if problem still not under control; 6. Stop the relevant portion of works as determined by the SOR until the exceedance ceases.

Should non-compliance of the noise criteria occur, actions in accordance with the Event and Action Plan in **Table D.3** shall be carried out.

Table D.3: Event and Action Plan for Construction Noise

Event	Action			
	ET	IEC	ET	Contracted Party
Action Level	1. Notify IEC, SOR and Contracted Party of exceedance; 2. Identify source; 3. Investigate the causes of exceedance and propose remedial measures; 4. Report the results of investigation to the IEC, SOR and Contracted Party; 5. Discuss with the IEC, SOR and Contracted Party and formulate remedial measures; 6. Increase monitoring frequency to check mitigation effectiveness.	1. Review the analysed results submitted by the ET; 2. Review the proposed remedial measures by the Contracted Party and advise the SOR accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contracted Party; 3. Require Contracted Party to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures are properly implemented	1. Submit noise mitigation proposals to SOR with copy to ET and IEC; 2. Implement noise mitigation proposals.
Limit Level	1. Inform IEC, SOR, EPD and Contracted Party; 2. Identify source; 3. Repeat measurements to confirm findings; 4. Increase monitoring frequency; 5. Carry out analysis of Contracted Party's working procedures to determine possible mitigation to be implemented; 6. Inform IEC, SOR and EPD the causes and actions taken for the exceedances; 7. Assess effectiveness of Contracted Party's remedial actions and keep IEC, EPD and SOR informed of the results; 8. If exceedance stops, cease additional monitoring.	1. Discuss amongst SOR, ET, and Contracted Party on the potential remedial actions; 2. Review Contracted Party's remedial actions whenever necessary to assure their effectiveness and advise the SOR accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contracted Party; 3. Require Contracted Party to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures are properly implemented; 5. If exceedance continues, investigate what portion of the work is responsible and instruct the Contracted Party to terminate that portion of work until the exceedance ceases.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to SOR with copy to ET and IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; 5. Terminate the relevant portion of works as determined by the SOR until the exceedance ceases.

Appendix E. Environmental Site Inspection and Monitoring Schedule

Table E.1: Site Inspection and Monitoring Schedule for January 2020

Impact Environmental Monitoring Schedule for January 2020

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1 The first day of January	2 AMS1, NMS1 AMS2, NMS2	3	4
5	6	7	8 AMS1, NMS1 AMS2, NMS2 site inspection landscape and visual audit	9	10	11
12	13	14 AMS1, NMS1 AMS2, NMS2	15 site inspection	16	17	18
19	20 AMS1, NMS1 AMS2, NMS2	21	22 site inspection landscape and visual audit	23	24 AMS1 AMS2	25 Lunar New Year's Day
26	27 The third day of Lunar New Year	28 The fourth day of Lunar New Year	29	30 AMS1, NMS1 AMS2, NMS2	31	

Air Quality/Noise Monitoring

Remark: Joint site walk with IEC on 15 and 22 January 2020

Note: No site inspection on the last week of January 2020 as no construction work carried out during Lunar New Year Holiday.

Table E.2: Tentative Site Inspection and Monitoring Schedule for February 2020

Tentative Impact Environmental Monitoring Schedule for February 2020

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3 AMS1, NMS1 AMS2, NMS2	4	5 site inspection landscape and visual audit	6	7	8 AMS1, AMS2
9	10	11	12 site inspection	13	14 AMS1, NMS1 AMS2, NMS2	15
16	17	18	19 site inspection landscape and visual audit	20 AMS1, NMS1 AMS2, NMS2	21	22
23	24	25	26 AMS1, NMS1 AMS2, NMS2 site inspection	27	28	29

Air Quality/Noise Monitoring

Remark: The schedule is subject to change due to unforeseeable circumstances (e.g. adverse weather, etc)

Appendix F. Calibration Certificates

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

SUB-CONTRACTING REPORT

CONTACT	:	MR K.W. FAN	WORK ORDER	:	**HK1907875**
CLIENT	:	**ENVIROTECH SERVICES CO.**			
ADDRESS	:	RM113, 1/F, MY LOFT, 9 HOI WING ROAD, TUEN MUN, N.T. HONG KONG	SUB-BATCH	:	1
			DATE RECEIVED	:	22-FEB-2019
			DATE OF ISSUE	:	7-MAR-2019
PROJECT	:	----	NO. OF SAMPLES	:	1
			CLIENT ORDER	:	----

General Comments

- **Sample(s) were received in ambient condition.**
- **Sample(s) analysed and reported on as received basis.**
- **Calibration was subcontracted to and analysed by Action United Enviro Services.**

Signatories

This document has been signed by those names that appear on this report and are the authorised signatories

Signatories	*Position*
Richard Fung	General Manager

This is the Final Report and supersedes any preliminary report with this batch number.

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

ALS Technichem (HK) Pty Ltd
Part of the ALS Laboratory Group
11/F. Chung Shun Knitting Centre 1 - 3 Wing Yip Street Kwai Chung N.T. Hong Kong
Tel. +852 2610 1044 Fax. +852 2610 2021 **www.alsglobal.com**

WORK ORDER : HK1907875
SUB-BATCH : 1
CLIENT : ENVIROTECH SERVICES CO.
PROJECT : ----

ALS Lab ID	Client's Sample ID	Sample Type	Sample Date	External Lab Report No.
HK1907875-001	S/N: 276019	Equipments	22-Feb-2019	S/N: 276019

TISCH Environmental

RECALIBRATION DUE DATE:
February 13, 2019

Certificate of Calibration

Calibration Certification Information				
Cal. Date:	February 13, 2018	**Rootsmeter S/N:** 438320	**Ta:** 293	°K
Operator:	Jim Tisch		**Pa:** 763.3	mm Hg
Calibration Model #:	TE-5025A	**Calibrator S/N:** **1612**		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.3970	3.2	2.00
2	3	4	1	1.0000	6.3	4.00
3	5	6	1	0.8900	7.9	5.00
4	7	8	1	0.8440	8.7	5.50
5	9	10	1	0.7010	12.6	8.00

Data Tabulation

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H\left(Ta/Pa\right)}$ (y-axis)
1.0172	0.7281	1.4293	0.9958	0.7128	0.8762
1.0130	1.0130	2.0213	0.9917	0.9917	1.2392
1.0109	1.1358	2.2599	0.9896	1.1120	1.3854
1.0098	1.1964	2.3702	0.9886	1.1713	1.4530
1.0046	1.4331	2.8586	0.9835	1.4030	1.7524
QSTD	**m=**	**2.02017**	**QA**	**m=**	**1.26500**
	b=	**-0.03691**		**b=**	**-0.02263**
	r=	**0.99988**		**r=**	**0.99988**

Calculations

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

For subsequent flow rate calculations:

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

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

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

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

RECALIBRATION

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

Tisch Environmental, Inc.
145 South Miami Avenue
Village of Cleves, OH 45002

www.tisch-env.cor
TOLL FREE: (877)263-761(
FAX: (513)467-900

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

SUB-CONTRACTING REPORT

CONTACT	:	MR K.W. FAN	WORK ORDER	:	**HK1907876**
CLIENT	:	**ENVIROTECH SERVICES CO.**			
ADDRESS	:	RM113, 1/F, MY LOFT, 9 HOI WING ROAD, TUEN MUN, N.T. HONG KONG	SUB-BATCH	:	1
			DATE RECEIVED	:	22-FEB-2019
			DATE OF ISSUE	:	7-MAR-2019
PROJECT	:	----	NO. OF SAMPLES	:	1
			CLIENT ORDER	:	----

General Comments

- **Sample(s) were received in ambient condition.**
- **Sample(s) analysed and reported on as received basis.**
- **Calibration was subcontracted to and analysed by Action United Enviro Services.**

Signatories

This document has been signed by those names that appear on this report and are the authorised signatories

Signatories	*Position*
Richard Fung	General Manager

This is the Final Report and supersedes any preliminary report with this batch number.

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

ALS Technichem (HK) Pty Ltd
Part of the ALS Laboratory Group
11/F. Chung Shun Knitting Centre 1 - 3 Wing Yip Street Kwai Chung N.T. Hong Kong
Tel. +852 2610 1044 Fax. +852 2610 2021 www.alsglobal.com

WORK ORDER : HK1907876
SUB-BATCH : 1
CLIENT : ENVIROTECH SERVICES CO.
PROJECT : ----

ALS Lab ID	Client's Sample ID	Sample Type	Sample Date	External Lab Report No.
HK1907876-001	S/N: 456668	Equipments	22-Feb-2019	S/N: 456668

TISCH Environmental

RECALIBRATION DUE DATE:
February 13, 2019

Certificate of Calibration

Calibration Certification Information				
Cal. Date:	February 13, 2018	**Rootsmeter S/N:** 438320	**Ta:** 293	°K
Operator:	Jim Tisch		**Pa:** 763.3	mm Hg
Calibration Model #:	TE-5025A	**Calibrator S/N:** **1612**		

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5	9	10	1	0.7010	12.6	8.00

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1.0172	0.7281	1.4293	0.9958	0.7128	0.8762
1.0130	1.0130	2.0213	0.9917	0.9917	1.2392
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1.0098	1.1964	2.3702	0.9886	1.1713	1.4530
1.0046	1.4331	2.8586	0.9835	1.4030	1.7524
QSTD	**m=**	**2.02017**	**QA**	**m=**	**1.26500**
	b=	**-0.03691**		**b=**	**-0.02263**
	r=	**0.99988**		**r=**	**0.99988**

Calculations

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

For subsequent flow rate calculations:

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

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

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

Key
ΔH: calibrator manometer reading (in H2O)
ΔP: rootsmeter manometer reading (mm Hg)
Ta: actual absolute temperature (°K)
Pa: actual barometric pressure (mm Hg)
b: intercept
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Tisch Environmental, Inc.
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www.tisch-env.cor
TOLL FREE: (877)263-761(
FAX: (513)467-900

輝創工程有限公司
Sun Creation Engineering Limited
Calibration & Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C192695
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC19-0995) Date of Receipt / 收件日期 : 17 May 2019

Description / 儀器名稱 : Precision Acoustic Calibrator
Manufacturer / 製造商 : LARSON DAVIS
Model No. / 型號 : CAL200
Serial No. / 編號 : 11333
Supplied By / 委託者 : Envirotech Services Co.
Room 113, 1/F, My Loft, 9 Hoi Wing Road, Tuen Mun,
New Territories, Hong Kong

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C Relative Humidity / 相對濕度 : (50 ± 25)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 26 May 2019

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
The results do not exceed manufacturer's specification.
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- The Bruel & Kjaer Calibration Laboratory, Denmark
- Agilent Technologies / Keysight Technologies
- Fluke Everett Service Center, USA

Tested By 測試 : H T Wong, Technical Officer

Certified By 核證 : K C Lee, Engineer

Date of Issue 簽發日期 : 29 May 2019

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 — 校正及檢測實驗所
c/o 香港新界屯門興安里 1號四樓
Tel/電話: (852) 2927 2606 Fax/傳真: (852) 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

輝創工程有限公司
Sun Creation Engineering Limited
Calibration & Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C192695
證書編號

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.

2. The results presented are the mean of 3 measurements at each calibration point.

3. Test equipment :

Equipment ID	Description	Certificate No.
CL130	Universal Counter	C183775
CL281	Multifunction Acoustic Calibrator	CDK1806821
TST150A	Measuring Amplifier	C181288

4. Test procedure : MA100N.

5. Results :

5.1 Sound Level Accuracy

UUT Nominal Value	Measured Value (dB)	Mfr's Spec. (dB)	Uncertainty of Measured Value (dB)
94 dB, 1 kHz	93.8	± 0.2	± 0.2
114 dB, 1 kHz	113.8		

5.2 Frequency Accuracy

UUT Nominal Value (kHz)	Measured Value (kHz)	Mfr's Spec.	Uncertainty of Measured Value (Hz)
1	1.000	1 kHz ± 1 %	± 1

Remark : The uncertainties are for a confidence probability of not less than 95 %.

Note :
Only the original copy or the laboratory's certified true copy is valid.

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 — 校正及檢測實驗所
c/o 香港新界屯門興安里一號四樓
Tel/電話: (852) 2927 2606 Fax/傳真: (852) 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

Certificate of Calibration

for

Description:	*Sound Level Meter*
Manufacturer:	*RION*
Type No.:	*NL-52 (Serial No.: 00175561)*
Microphone:	*UC-53A (Serial No.: 99995)*
Preamplifier:	*NH-25 (Serial No.:65663)*

Submitted by:

Customer:	***Envirotech Services Co.***
Address:	***Rm.113, 1/F., My Loft, 9 Hoi Wing Road, Tuen Mun, N.T., Hong Kong.***

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

☑ **Within**
☐ **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: 24 September 2019

Date of calibration: 26 September 2019

Calibrated by: _____
Calibration Technician

Certified by: _____
Mr. Ng Yan Wa
Laboratory Manager

Date of issue: **26 September 2019**

(A+A) *L

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

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:	24.1 °C
Air Pressure:	1006 hPa
Relative Humidity:	54.2 %

3. *Calibration Equipment:*

	Type	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV180064	HOKLAS

4. *Calibration Results*

Sound Pressure Level

Reference Sound Pressure Level

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
30-130	dBA SPL	Fast	94	1000	94.0	±0.4

Linearity

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
30-130	dBA SPL	Fast	94	1000	94.0	Ref
			104		104.0	±0.3
			114		114.1	±0.3

Time Weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
30-130	dBA SPL	Fast	94	1000	94.0	Ref
		Slow			94.0	±0.3

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

Frequency Response

Linear Response

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
30-130	dB SPL	Fast	94	31.5	94.3	±2.0
				63	94.2	±1.5
				125	94.1	±1.5
				250	94.0	±1.4
				500	94.0	±1.4
				1000	94.0	Ref
				2000	93.9	±1.6
				4000	93.7	±1.6
				8000	91.9	+2.1; -3.1

A-weighting

Setting of Unit-under-test (UUT)			Applied 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	31.5	55.2	-39.4±2.0
				63	68.0	-26.2±1.5
				125	78.0	-16.1±1.5
				250	85.4	-8.6±1.4
				500	90.8	-3.2±1.4
				1000	94.0	Ref
				2000	95.1	+1.2±1.6
				4000	94.7	+1.0±1.6
				8000	90.9	-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. Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
30-130	dBC SPL	Fast	94	31.5	91.3	-3.0±2.0
				63	93.4	-0.8±1.5
				125	93.9	-0.2±1.5
				250	94.0	-0.0±1.4
				500	94.0	-0.0±1.4
				1000	94.0	Ref
				2000	93.8	-0.2±1.6
				4000	92.9	-0.8±1.6
				8000	89.0	–3.0 +2.1: –3.1

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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	± 0.15
	63 Hz	± 0.10
	125 Hz	± 0.10
	250 Hz	± 0.05
	500 Hz	± 0.10
	1000 Hz	± 0.05
	2000 Hz	± 0.05
	4000 Hz	± 0.10
	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.

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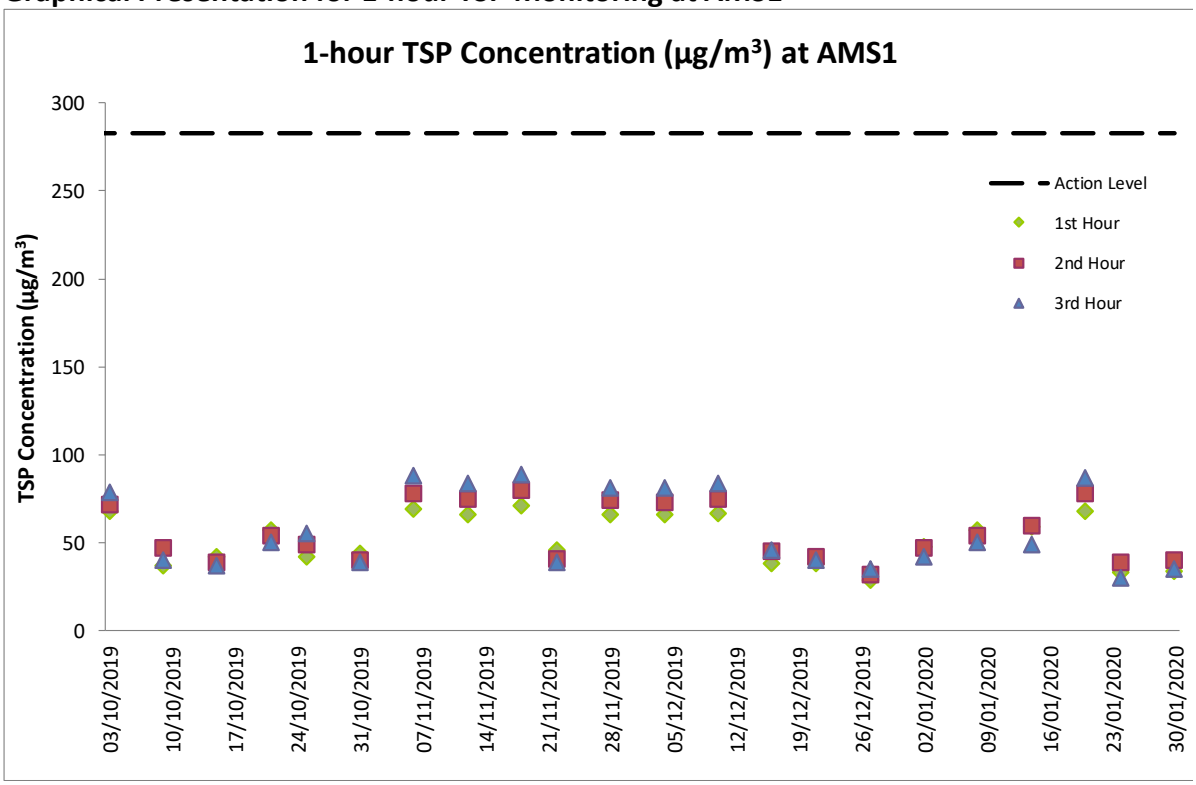
Appendix G. Monitoring Data and Graphical Plots (Air Quality and Noise)

Data for 1-hour TSP Monitoring at Station AMS1

Date	Start Time	Finish Time	Weather	Wind Speed (m/s)	Wind Direction (deg)	1-hour TSP ($\mu g/m^3$)
02-Jan-20	13:15	14:15	Fine	1.7	347	48
02-Jan-20	14:15	15:15	Fine	1.4	291	47
02-Jan-20	15:15	16:15	Fine	1.7	257	42
08-Jan-20	9:07	10:07	Fine	1.7	29	57
08-Jan-20	10:07	11:07	Fine	3.3	284	54
08-Jan-20	11:07	12:07	Fine	3.6	293	50
14-Jan-20	9:04	10:04	Fine	5.3	97	59
14-Jan-20	10:04	11:04	Fine	5.0	102	60
14-Jan-20	11:04	12:04	Fine	4.7	85	49
20-Jan-20	8:56	9:56	Cloudy	0.8	50	68
20-Jan-20	9:56	10:56	Cloudy	1.4	112	78
20-Jan-20	10:56	11:56	Cloudy	3.6	90	87
24-Jan-20	9:22	10:22	Cloudy	2.5	125	33
24-Jan-20	10:22	11:22	Cloudy	2.8	117	39
24-Jan-20	11:22	12:22	Cloudy	4.2	114	30
30-Jan-20	9:02	10:02	Sunny	1.7	331	34
30-Jan-20	10:02	11:02	Sunny	3.3	296	40
30-Jan-20	11:02	12:02	Sunny	2.5	310	35

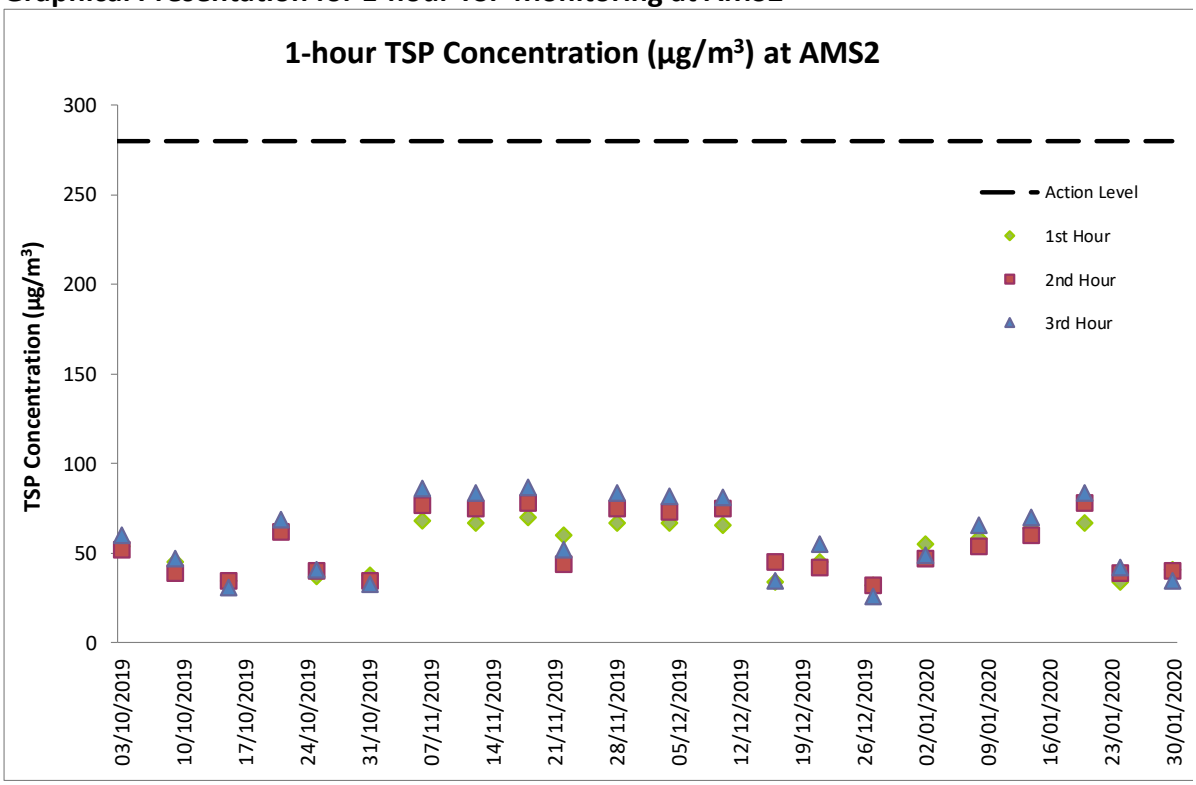
Graphical Presentation for 1-hour TSP Monitoring at AMS1



Data for 1-hour TSP Monitoring at Station AMS2

Date	Start Time	Finish Time	Weather	Wind Speed (m/s)	Wind Direction (deg)	1-hour TSP ($\mu g/m^3$)
02-Jan-20	13:02	14:02	Fine	1.7	347	55
02-Jan-20	14:02	15:02	Fine	1.4	291	50
02-Jan-20	15:02	16:02	Fine	1.7	257	49
08-Jan-20	8:20	9:20	Fine	1.7	29	58
08-Jan-20	9:20	10:20	Fine	3.3	284	62
08-Jan-20	10:20	11:20	Fine	3.6	293	66
14-Jan-20	8:15	9:15	Fine	5.3	97	64
14-Jan-20	9:15	10:15	Fine	5.0	102	72
14-Jan-20	10:15	11:15	Fine	4.7	85	70
20-Jan-20	8:15	9:15	Cloudy	0.8	50	67
20-Jan-20	9:15	10:15	Cloudy	1.4	112	75
20-Jan-20	10:15	11:15	Cloudy	3.6	90	84
24-Jan-20	9:05	10:05	Cloudy	2.5	125	34
24-Jan-20	10:05	11:05	Cloudy	2.8	117	36
24-Jan-20	11:05	12:05	Cloudy	4.2	114	42
30-Jan-20	8:15	9:15	Sunny	1.7	331	41
30-Jan-20	9:15	10:15	Sunny	3.3	296	37
30-Jan-20	10:15	11:15	Sunny	2.5	310	35

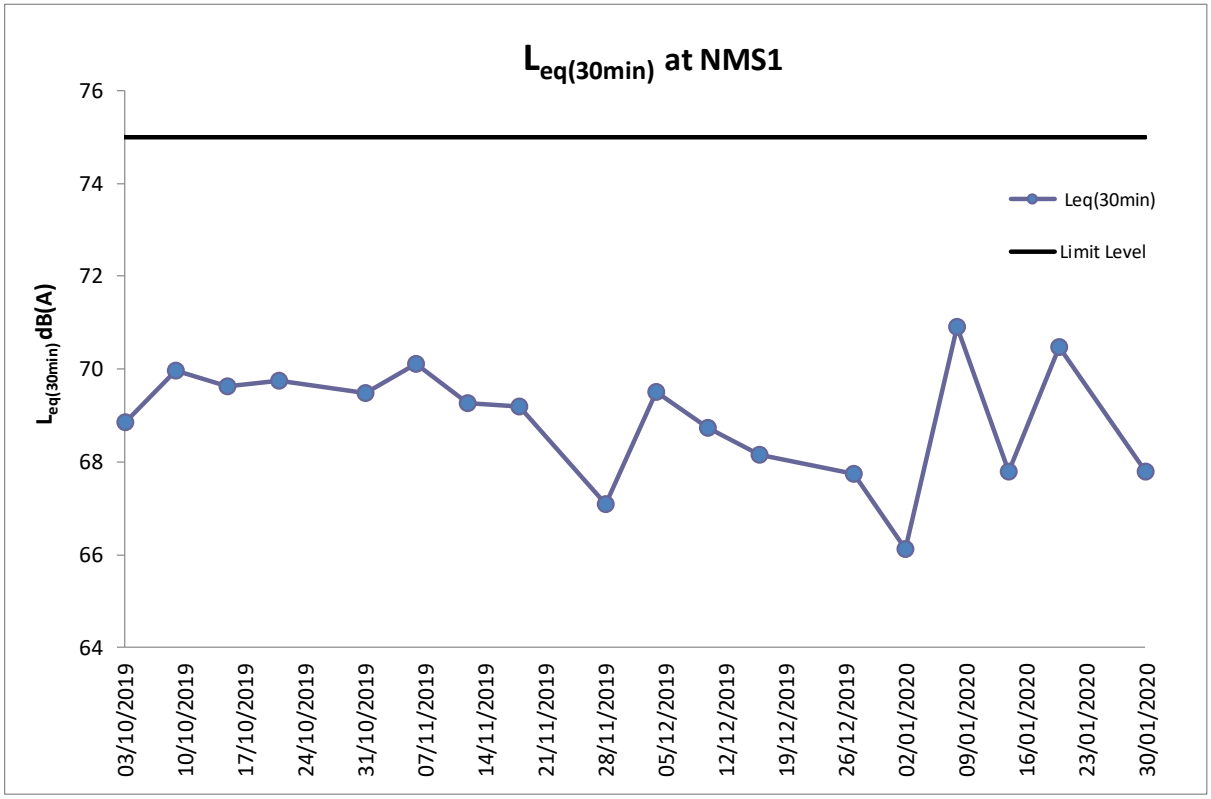
Graphical Presentation for 1-hour TSP Monitoring at AMS2



Data for Noise Monitoring at Station NMS1

Date	Time	Weather	$L_{eq(5min)}$	L_{10}	L_{90}	Measured $L_{eq(30min)}$
02-Jan-20	13:20	Fine	67.2	69.2	63.7	66.1
02-Jan-20	13:25	Fine	66.8	68.6	64.0	
02-Jan-20	13:30	Fine	67.0	68.6	64.5	
02-Jan-20	13:35	Fine	65.9	67.1	63.9	
02-Jan-20	13:40	Fine	64.7	66.8	63.7	
02-Jan-20	13:45	Fine	64.4	66.9	63.5	
08-Jan-20	09:10	Fine	69.2	72.7	65.7	70.9
08-Jan-20	09:15	Fine	70.7	73.0	67.1	
08-Jan-20	09:20	Fine	71.1	73.9	67.9	
08-Jan-20	09:25	Fine	71.2	73.7	68.0	
08-Jan-20	09:30	Fine	70.9	72.9	67.9	
08-Jan-20	09:35	Fine	71.9	73.8	68.1	
14-Jan-20	09:06	Fine	67.1	69.4	62.7	67.8
14-Jan-20	09:11	Fine	68.4	70.1	63.4	
14-Jan-20	09:16	Fine	67.9	69.5	62.2	
14-Jan-20	09:21	Fine	68.2	70.6	63.4	
14-Jan-20	09:26	Fine	67.1	69.2	62.7	
14-Jan-20	09:31	Fine	67.9	69.7	62.9	
20-Jan-20	08:58	Cloudy	70.1	72.4	65.9	70.5
20-Jan-20	09:03	Cloudy	69.2	71.6	65.7	
20-Jan-20	09:08	Cloudy	70.7	72.5	66.4	
20-Jan-20	09:13	Cloudy	70.9	72.8	66.8	
20-Jan-20	09:18	Cloudy	70.7	72.6	66.6	
20-Jan-20	09:23	Cloudy	71.0	73.4	66.9	
30-Jan-20	09:04	Sunny	67.2	69.4	62.1	67.8
30-Jan-20	09:09	Sunny	68.2	70.4	63.1	
30-Jan-20	09:14	Sunny	67.9	69.5	62.4	
30-Jan-20	09:19	Sunny	67.2	69.2	62.0	
30-Jan-20	09:24	Sunny	68.2	70.1	63.4	
30-Jan-20	09:29	Sunny	67.9	69.6	62.9	

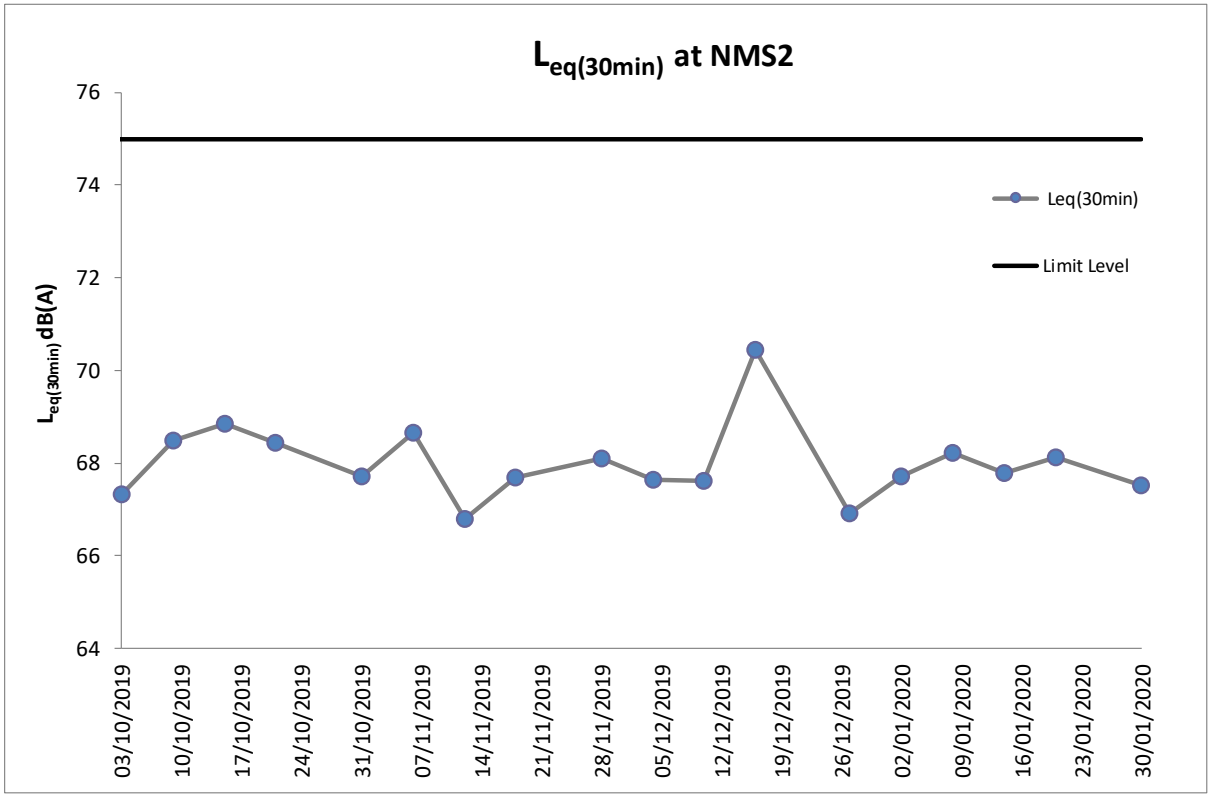
Graphical Presentation for Noise Monitoring at NMS1



Data for Noise Monitoring at Station NMS2

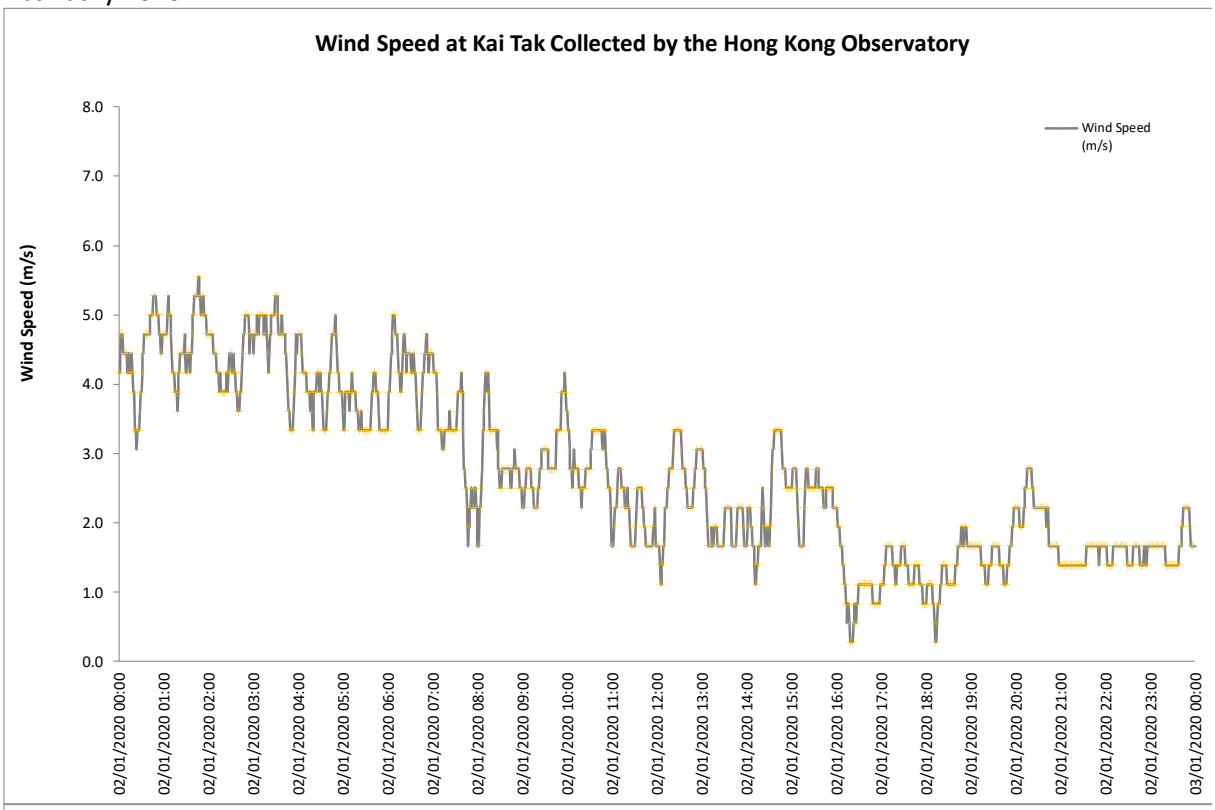
Date	Time	Weather	$L_{eq(5min)}$	L_{10}	L_{90}	Measured $L_{eq(30min)}$
02-Jan-20	14:10	Fine	66.5	68.8	62.9	67.7
02-Jan-20	14:15	Fine	68.7	68.5	63.2	
02-Jan-20	14:20	Fine	68.3	69.0	63.5	
02-Jan-20	14:25	Fine	67.7	69.2	64.0	
02-Jan-20	14:30	Fine	67.5	68..6	63.8	
02-Jan-20	14:35	Fine	67.2	68.3	63.2	
08-Jan-20	08:25	Fine	68.2	71.2	63.7	68.2
08-Jan-20	08:30	Fine	70.1	73.7	65.2	
08-Jan-20	08:35	Fine	67.1	70.9	64.9	
08-Jan-20	08:40	Fine	68.1	71.4	65.7	
08-Jan-20	08:45	Fine	67.9	70.2	66.1	
08-Jan-20	08:50	Fine	67.2	70.0	66.2	
14-Jan-20	08:19	Fine	67.2	69.5	63.4	67.8
14-Jan-20	08:24	Fine	68.6	70.1	64.1	
14-Jan-20	08:29	Fine	67.1	69.5	63.2	
14-Jan-20	08:34	Fine	67.9	69.7	63.7	
14-Jan-20	08:39	Fine	68.4	70.1	64.0	
14-Jan-20	08:44	Fine	67.2	69.4	63.1	
20-Jan-20	08:14	Cloudy	67.1	69.7	65.1	68.1
20-Jan-20	08:19	Cloudy	68.4	70.1	66.1	
20-Jan-20	08:24	Cloudy	68.2	70.0	66.4	
20-Jan-20	08:29	Cloudy	68.7	70.5	66.5	
20-Jan-20	08:34	Cloudy	67.9	69.9	65.9	
20-Jan-20	08:39	Cloudy	68.2	70.2	66.4	
30-Jan-20	08:20	Sunny	68.2	71.1	63.1	67.5
30-Jan-20	08:25	Sunny	67.1	69.2	61.7	
30-Jan-20	08:30	Sunny	66.9	69.9	61.2	
30-Jan-20	08:35	Sunny	67.4	70.1	62.0	
30-Jan-20	08:40	Sunny	67.9	70.4	62.2	
30-Jan-20	08:45	Sunny	67.5	70.2	62.1	

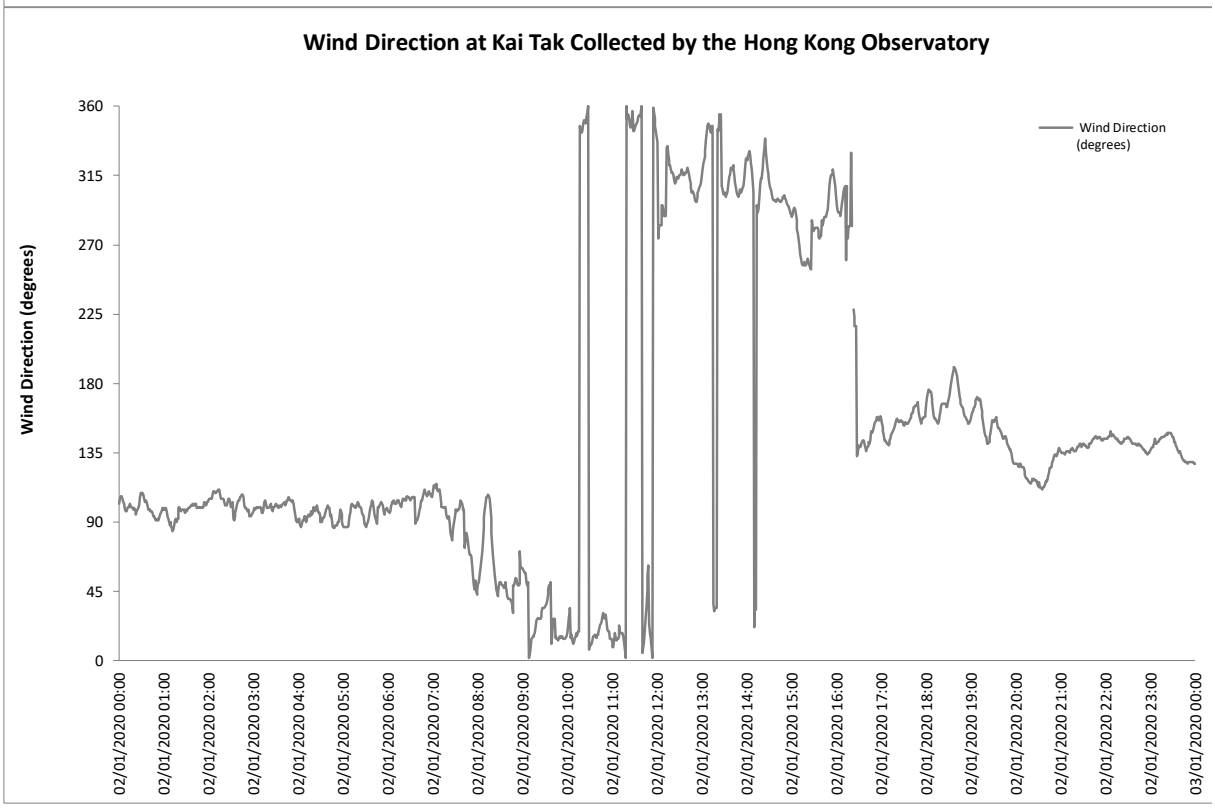
Graphical Presentation for Noise Monitoring at NMS2



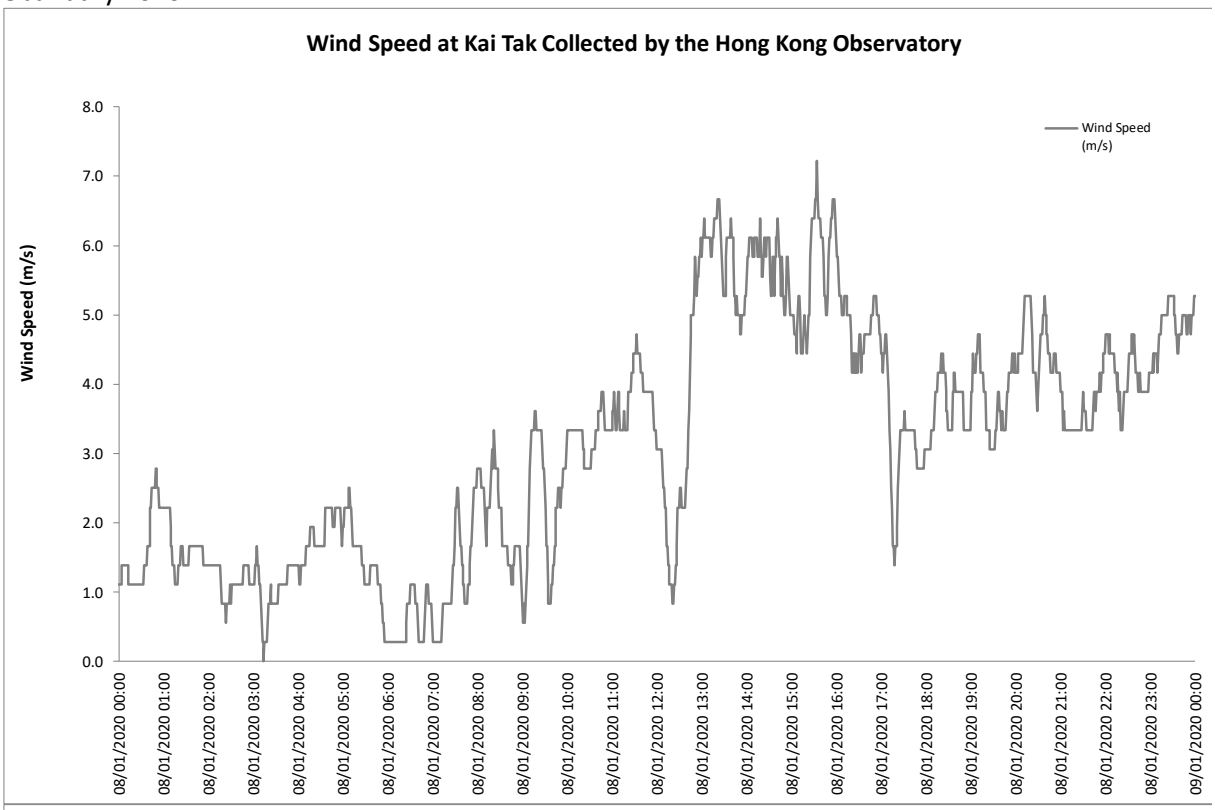
Appendix H. Wind Data

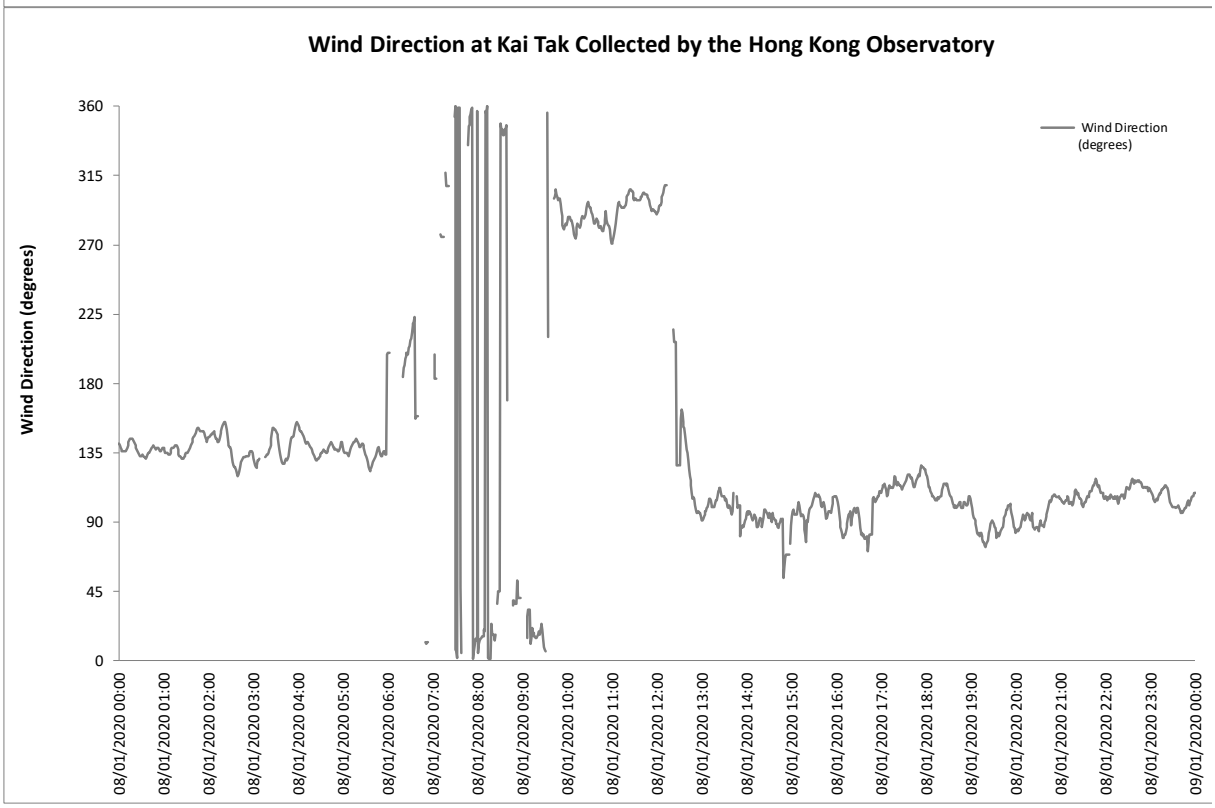
2 January 2020



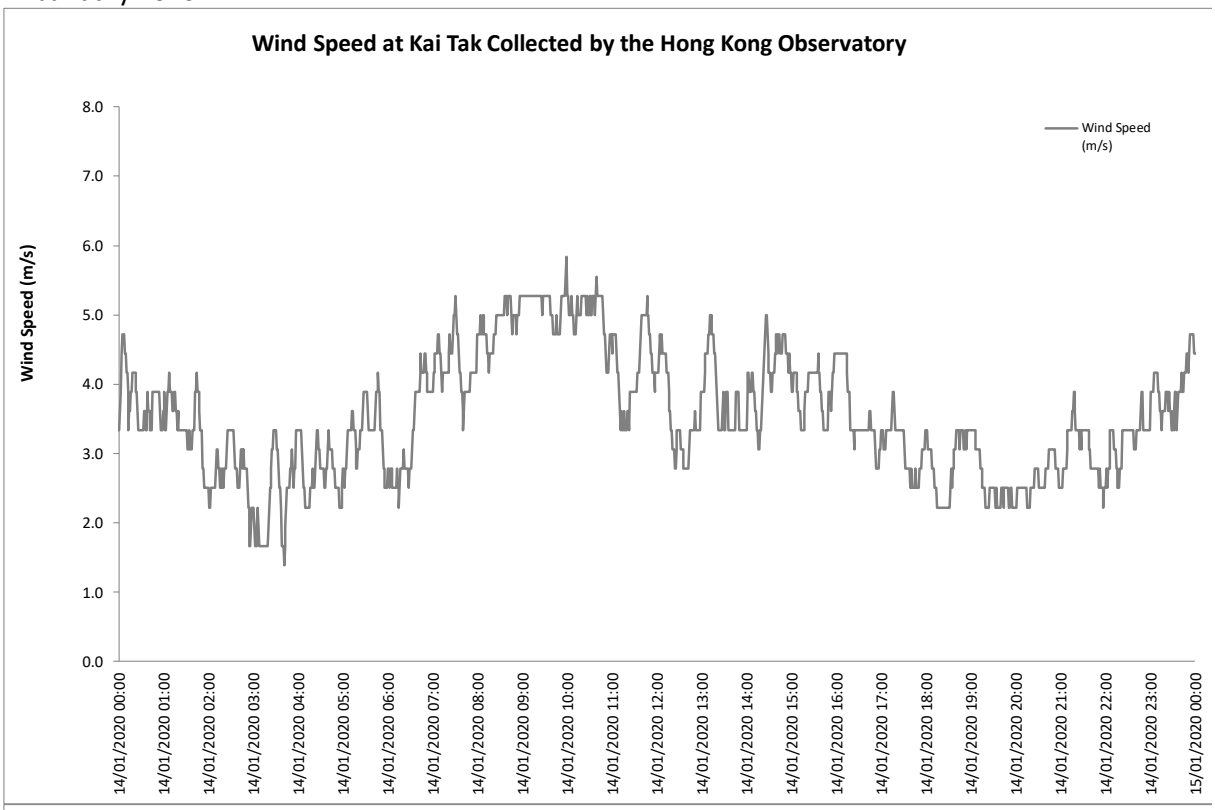


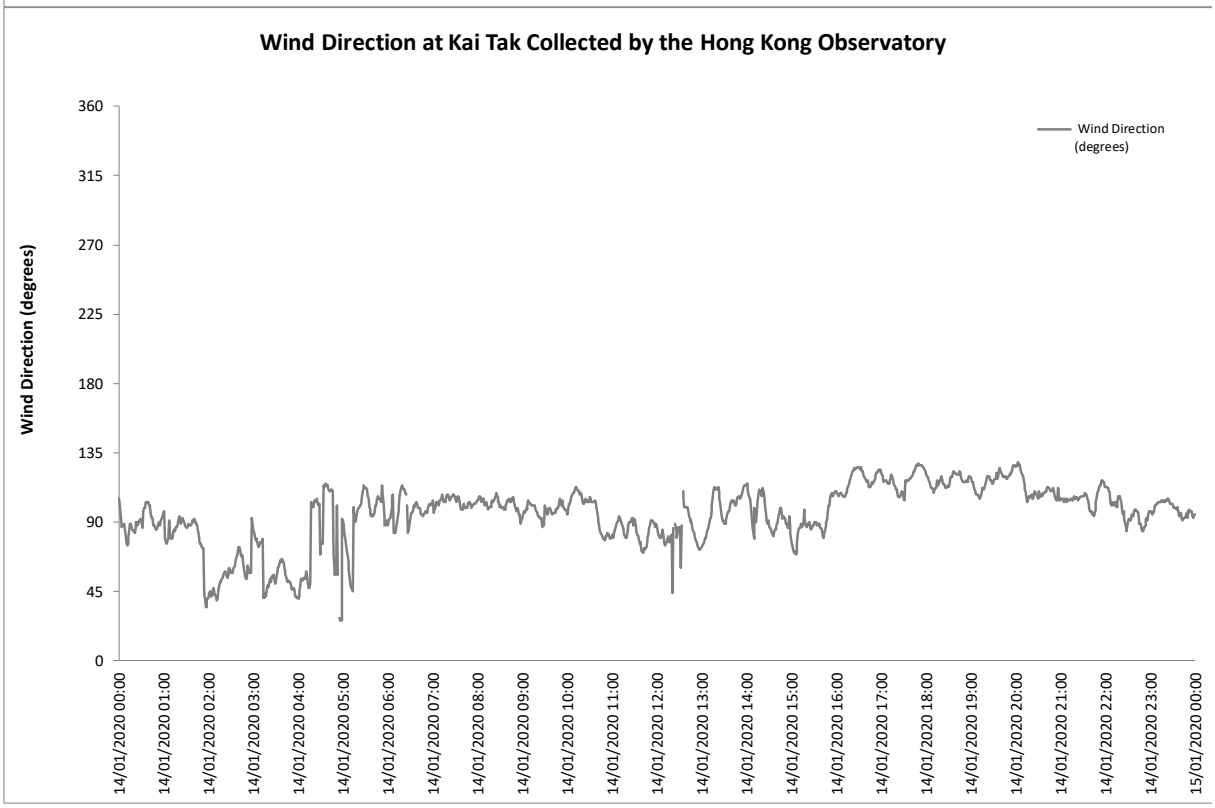
8 January 2020



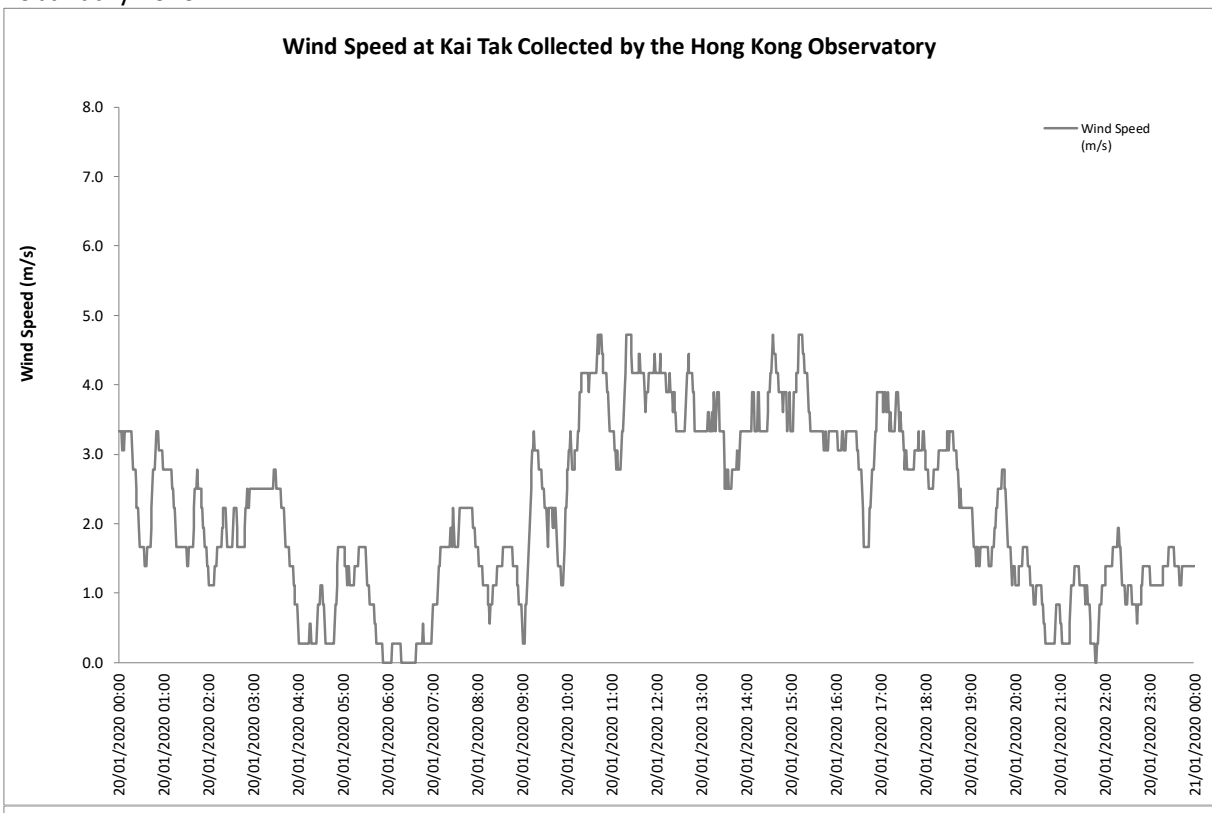


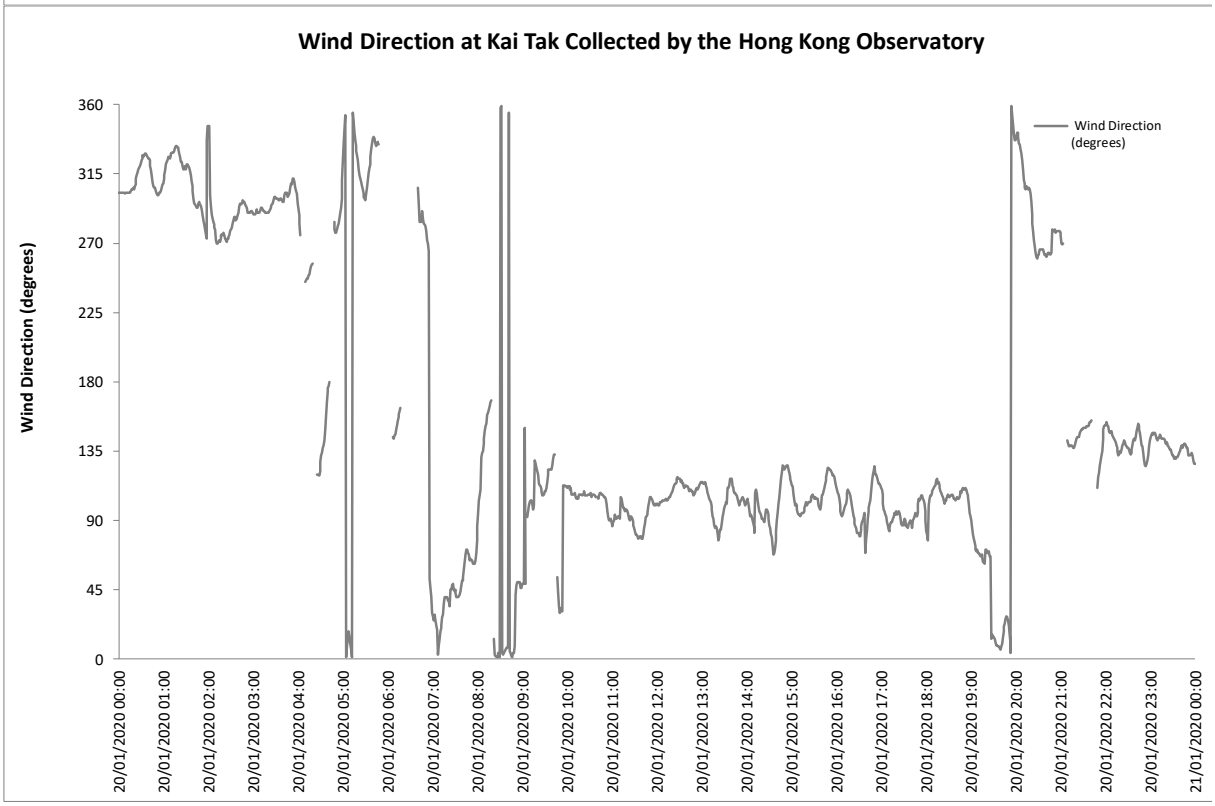
14 January 2020



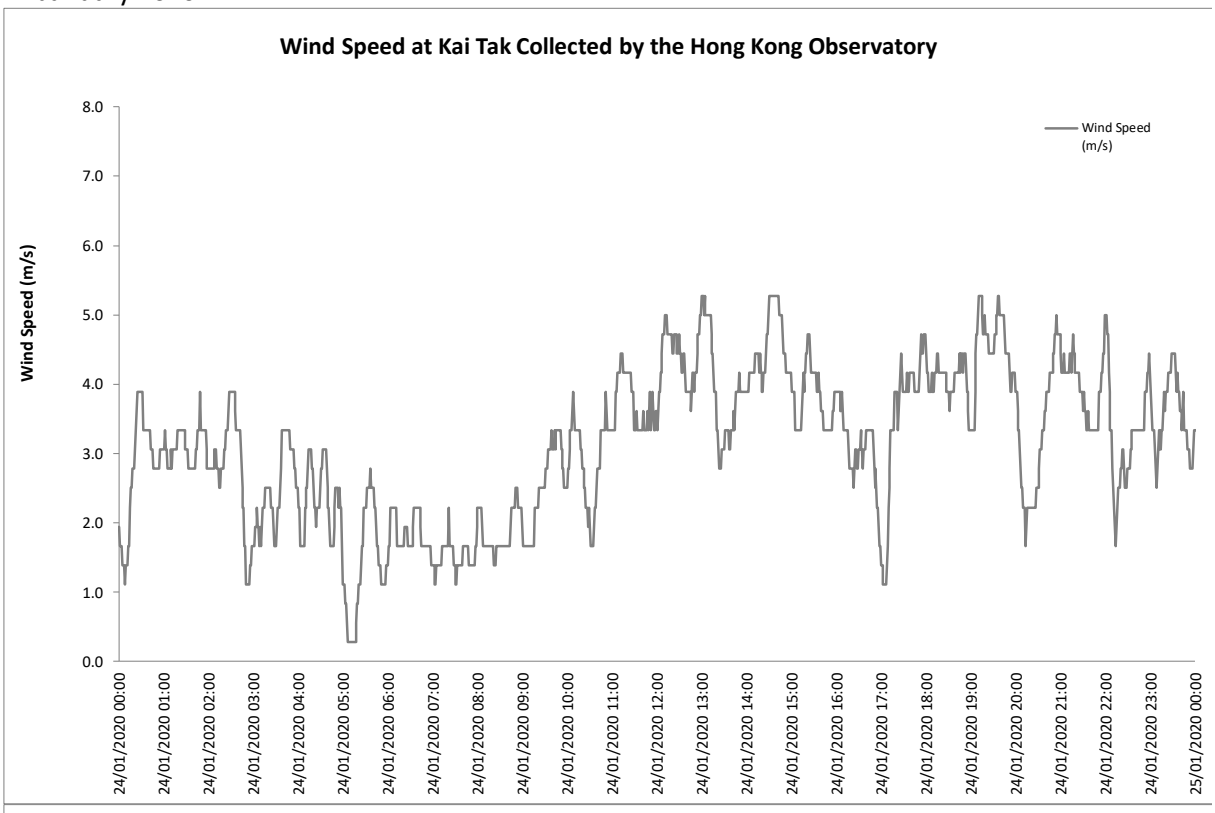


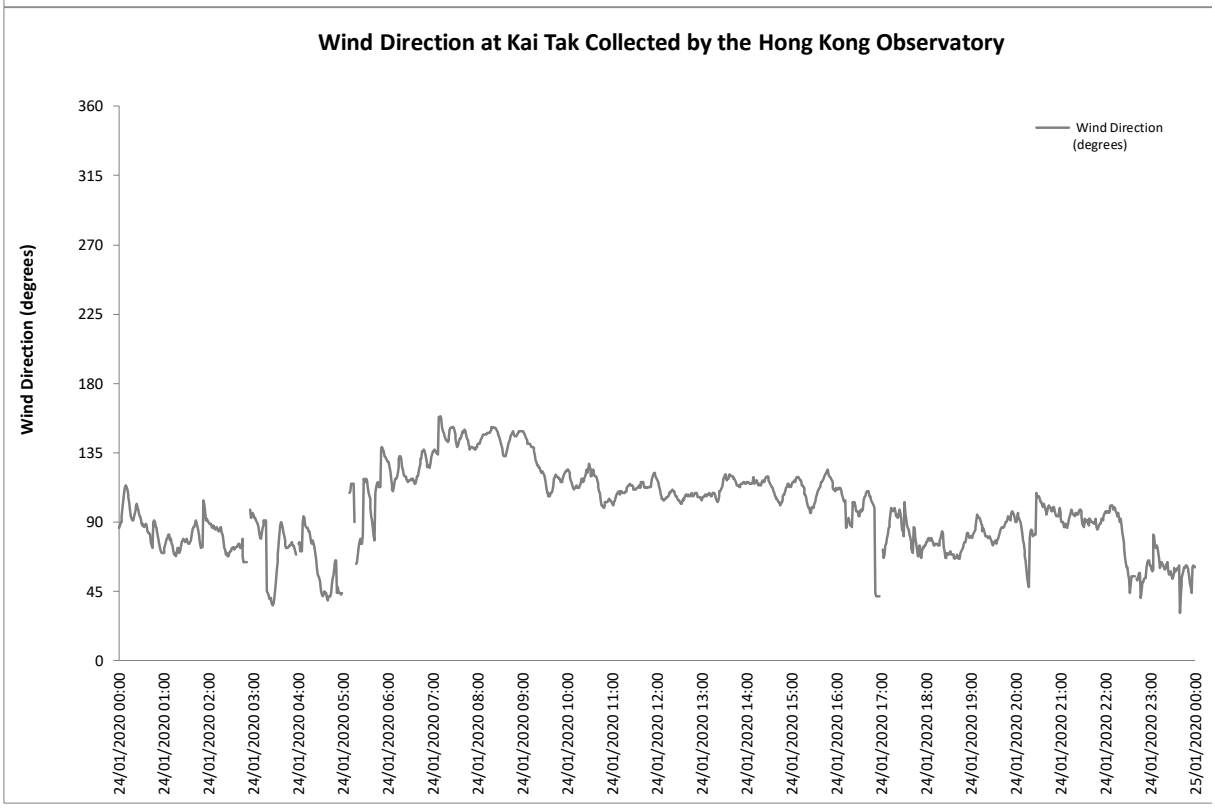
20 January 2020



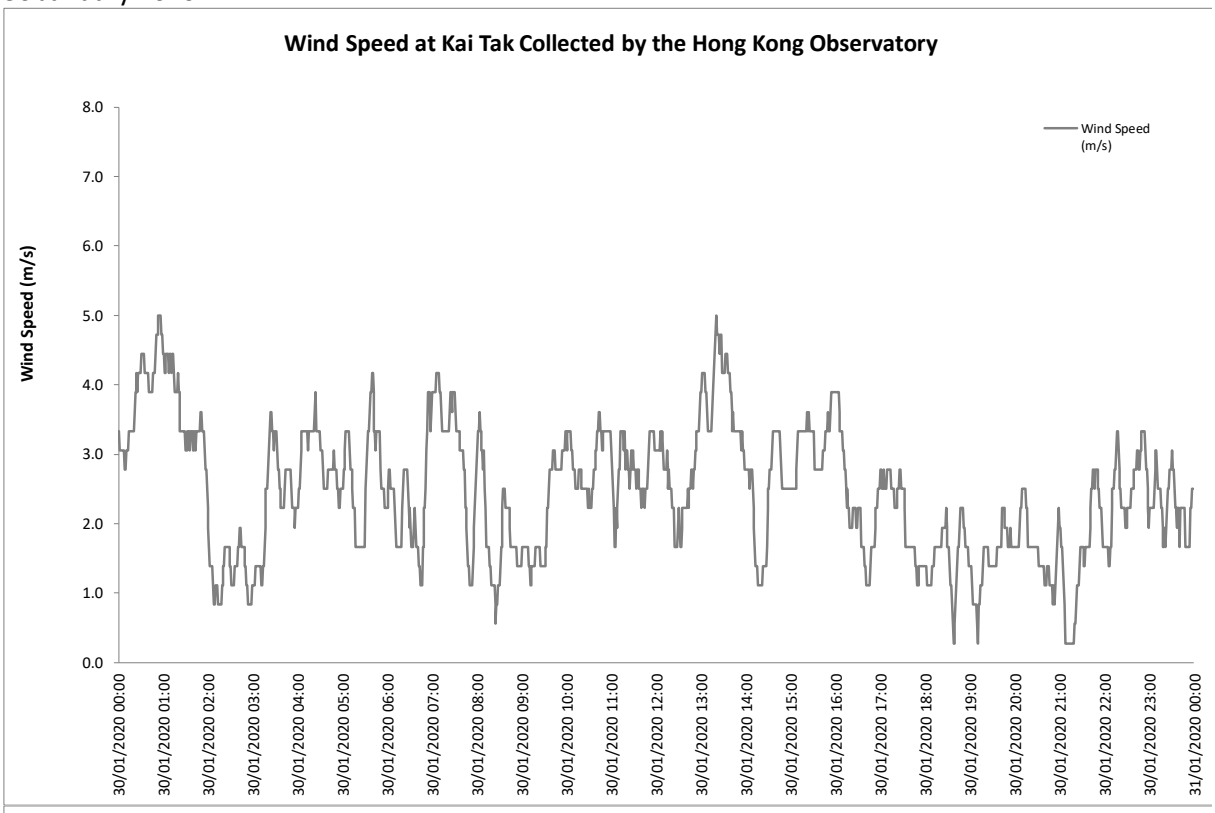


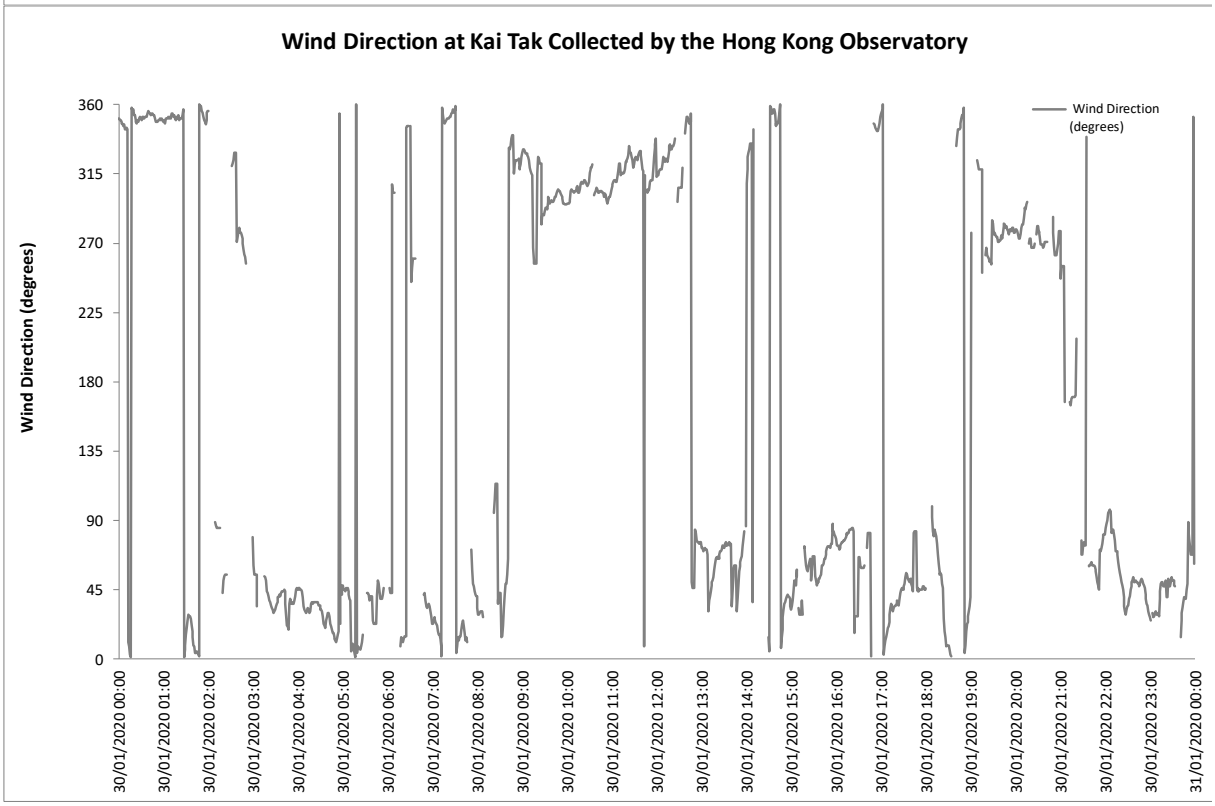
24 January 2020





30 January 2020





Appendix I. Waste Flow Table

Project: Kai Tak Sport Park
Contract No.: HAB/ KTSP/ 01
Contract Title: Design, Construction and Operation of the Kai Tak Sports Park at Kai Tak, Kowloon City District, Hong Kong
Year of Record: 2019-2020

協興工程有限公司
HIP HING ENGINEERING CO LTD
新創建集團成員 Member of NWS Holdings

Monthly Waste Flow Table

Month	Total Quantity Generated	Total Quantity Generated (Excluded Excavated Material)	Actual Quantities of Inert C&D Materials Generated Monthly								Actual Quantities of C&D Materials Generated Monthly						Remarks
			Excavated Materials			Non-excavated Materials											
			Disposed in Public Fill	Disposed in Sorting Facilities	Others (e.g Reused in the Contract / Other Projects)	Broken Concrete or Construction Waste Collected by Recycled Company	Reused in the Contract	Reused in other Projects	Disposed in Public Fill	Disposed in Sorting Facilities	Metals (steel bar / metal strip)(1)	Metals (aluminum can)(1)	Paper / cardboard packaging (1)	Plastics (1) & (4)	Chemical waste (wasted lubricant oil/ oil container)	Other, e.g. general refuse	
	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	
	a1	a2	b	b	b	c	d	e	f	g	h	i	j	k	l	m	
Jan-19																	
Feb-19	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	
Mar-19	4960.89	4741.39	219.50	0	0	0	0	0	0	0	11.84	0	0	0	0	4729.55	
Apr-19	1218.47	1211.81	6.66	0	0	0	0	0	0	0	0	0	0	0.06	0	1211.75	
May-19	87.29	87.29	0	0	0	0	0	0	0	0	0	0	0	0.01	0	87.28	
Jun-19	80.77	80.77	0	0	0	0	0	0	0	0	0.67	0	0.08	0.42	0	79.61	
Jul-19	2302.12	614.75	1687.37	0	0	0	0	0	0	0	0	0	0.26	0.95	0	613.54	
Aug-19	3619.81	280.59	3339.22	0	0	0	0	0	0	0	1.77	0	0	1.29	0.6	276.93	
Sep-19	9840.53	350.02	9490.51	0	0	0	0	0	0	0	0	0	0	1.41	0.6	348.01	
Oct-19	11504.49	543.12	10961.37	0	0	0	0	0	0	0	81.95	0	1.43	0.58	0	459.16	
Nov-19	4717.41	313.12	4404.29	0	0	0	0	0	0	0	69.84	0	0	0.89	0	242.39	
Dec-19	5185.036	102.38	5082.66	0	0	0	0	0	0	0	0	0	0	1.53	0.8	100.05	
Jan-20	12088.86	108.83	11980.03	0	0	0	0	0	0	0	0	0	0	0.03	0	108.8	
Total	55605.68	8434.07	47171.61	0	0	0	0	0	0	0	166.07	0	1.77	7.16	2.0	8257.07	

Total C&D waste generated	55605.68	tonne	a1=b+c+d+e+f+g+h+i+j+k+l+m
Total C&D waste generated (excluding excavated materials)	8434.07	tonne	a2=c+d+e+f+g+h+i+j+k+l+m
Total recycled C&D waste	175.00	tonne	a3=c+d+e+h+i+j+k
% of recycled C&D waste for BEAM Plus MA10 or MA11	2.07	%	a4=a3/a2 x 100%

Notes:
(1) Metal, paper & plastic were collected by recycler.
(2) The performance target of waste recycling are specified in the Contract.
(3) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
(4) Plastics refer to plastic bottles/ containers, plastic/ foam from packaging material.
(5) Broken concrete for recycling into aggregates.
(6) Excavated materials/waste will NOT be considered as part of construction waste. It should be excluded in the calculation.
(7) Disposal of inert waste to public fill or sorting facilities will NOT be considered as recycled waste.
(8)Disposal record for Jan 2020 has been updated according to the latest information from contractor.

Appendix J. Environmental Licences and Permits

Table J.1: Summary of Environmental Licences and Permits Status

Item No.	Type of Permit / Licence	Reference No.	Application Date	Valid from	Valid until	Remark
1	Environmental Permit under EIAO	EP-544/2017	21 Aug 2017	8 Sep 2017	N/A	Issued
2	Construction Dust Notification under APCO	441733	25 Jan 2019	29 Jan 2019	N/A	N/A
3	Construction Waste Disposal Account (Main)	7033182	12 Feb 2019	12 Feb 2019	N/A	N/A
4	Construction Waste Disposal Account (Vessel)	7033555	8 Oct 2019	7 Nov 2019	7 Feb 2020	N/A
5	Registration as a Chemical Waste Producer	WPN5213-286-H3906-02	29 Jan 2019	12 Feb 2019	N/A	N/A
6	Discharge Licence under WPCO	WT00034082-2019	15 Feb 2019	26 Jun 2019	30 Jun 2024	Issued
7	Construction Noise Permit (Percussive Piling)	PP-RE0055-19	2 Dec 2019	18 Dec 2019	15 Jun 2020	Issued
8	Construction Noise Permit (Construction Works)	GW-RE0654-19	1 Aug 2019	19 Aug 2019	10 Feb 2020	Issued

Appendix K. Environmental Mitigation Measures Implementation Status

Air Quality – Recommended Mitigation Measures

Air Quality Mitigation Measures during construction	Implementation Status
• Good housekeeping to minimize dust generation, e.g. by properly handling and storing dusty materials	✓
• Store cement in shelter with 3 sides and the top covered by impervious materials if the stack exceeds 20 bags	✓
• Cement delivered in bulk should be stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed	✓
• Loading, unloading, transfer, handling or storage of bulk cement 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	✓
• Dusty materials (e.g. debris) should be wetted by misting / water-spraying before any loading, unloading, transfer or transport operation	✓
• Any skip hoist for material transport should be fully enclosed by impervious sheeting	✓
• 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 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 to maintain the entire surface wet	✓
• Excavation area should be minimized as far as possible	✓
• Stockpile of dusty materials should not be extended beyond the pedestrian barriers, fencing or traffic cones	✓
• 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, backfilled or reinstated where practicable within 24 hours of the excavation or unloading	P
• Dusty materials remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads	✓
• Properly fitted side and tail boards are necessary for any vehicle with open load area	✓
• While transporting materials that potentially create dust (e.g. debris), materials should not be loaded higher than side and tail boards, and should be fully covered by tarpaulin or similar materials which extent at least 300 mm over the edges of the side and tail boards to prevent leakage.	✓
• Limit the maximum vehicle speed within the site to 10km/hr	✓
• Haulage and delivery vehicles should be confined to designated roads	✓
• Every main haul road should either be 1.) paved with concrete and kept clear of dusty materials, or 2.) sprayed or watered to maintain the entire road surface wet	P
• All on-site unpaved roads should be compacted and kept free of lose materials as possible	✓
• Provide vehicle washing (e.g. wheel washing bay & high pressure water jet where practicable) at every vehicle exit point for cleaning vehicle body and wheels	✓
• The vehicle washing area and the road between washing area and site exit should be paved with concrete, bituminous or other hardcores	✓
• 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.	✓
• Dusty materials on every vehicle's body and wheels should be removed in washing area before leaving the site	✓

Air Quality Mitigation Measures during construction	Implementation Status
• Regular maintenance of all plant equipment	P
• Throttle down or switch off unused machines or machine in intermittent use	✓
• If the site is adjacent to area where accessible to the public (e.g. road and service lane etc.), hoarding of not less than 2.4 m high from ground level should be erected along the adjoining the entire length of that portion of the site boundary, except for a site entrance or exit. The hoarding should be well maintained throughout the construction period.	✓
• Where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting should be provided to enclose the scaffolding from the ground floor level of the building, or a canopy should be provided from the first floor level up to the highest level of the scaffolding	N/A
• Exposed earth should be properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shortcrete or other suitable surface stabiliser within six months after the last construction activity on the construction site or part of the construction site where the exposed earth lies	✓
• Carry out air quality monitoring throughout the construction period	✓
• Carry out weekly site inspection to audit the implementation of mitigation measures	✓
• Regular watering once per hour on exposed worksites and haul road with an equivalent intensity of not less than 1.3L/m3 to achieve 91.7% dust removal efficiency.	P
• Provision of electrical vehicle (EV) charging facilities in at least one-third of the car parking spaces for private cars. Provision of EV charging enabling facilities in all car parking spaces provided for private cars.	✓
Non-Road Mobile Machinery (NRMMs)	
• All NRMMs operated on-site are approved or exempted (as the case may be) and affixed with the requisite approval/exemption labels under the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation or are in the process of application for such approval/exemption during the relevant grace period.	P

Noise – Recommended Mitigation Measures

Noise Mitigation Measures during construction	Implementation Status
• Adopt good site practice, such as throttle down or switch off equipment unused or intermittently used between works	✓
• Regular maintenance of equipment to prevent noise emission due to impair	✓
• Position mobile noisy equipment in locations away from NSRs and point the noise sources to directions away from NSRs	✓
• Use silencer or muffler for equipment	✓
• Make good use structures for noise screening	✓
• Use Quality Powered Mechanical Equipment (QPME) and quiet equipment which produces lower noise level.	✓
• Erect movable noise barrier of 3m height to shed large plant equipment (e.g. breaker, backhoe & mobile crane) or hand-held items (e.g. poker, wood saw, power rammer & compactor) near low-rise NSR. Where necessary, special design (e.g. with noise absorbing material or bend top) should be adopted. The barrier's length should be at least five times greater than its height, and the minimum surface density is 10 kg/m2. Alternatively, acoustic shed, enclosure or silencer (for generator, air compressor and concrete pump) or acoustic mat (for piling) can be adopted.	✓
• Carry out regular site inspection to audit the implementation of mitigation measures	✓
• Carry out noise monitoring throughout the construction period	✓

Water Quality – Recommended Mitigation Measures

Water Quality Mitigation Measures during construction	Implementation Status
• Practices outlined in ProPECC PN 1/94 Construction Site Drainage should be adopted.	✓
• Install perimeter channels in the works areas to intercept runoff from boundary prior to the commencement of any earthwork	P
• To prevent storm runoff from washing across exposed soil surfaces, intercepting channels should be provided.	✓
• Drainage channels are required to convey site runoff to sand/silt traps and oil interceptors. Provision of regular cleaning and maintenance to ensure the normal operation of these facilities throughout the construction period.	P
• Any practical options for the diversion and realignment of drainage should comply with both engineering and environmental requirements	✓
• Minimum distances of 100 m should be maintained between the discharge points of construction site runoff and the existing WSD saltwater intake and EMSD cooling water intake.	✓
• The following good site measures should be adopted for the use of the existing barging facilities being operated by the MTR SCL Project: - All vessels should be sized so that adequate clearance is maintained between vessels and the seabed in all tide conditions, to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash. - All hopper barges should be fitted with tight fitting seals to their bottom openings to prevent leakage of material. - Construction activities should not cause foam, oil, grease, scum, litter or other objectionable matter to be present on the water within the site. - Loading of barges and hoppers should be controlled to prevent splashing of material into the surrounding water. - Barges or hoppers should not be filled to a level that will cause the overflow of materials or polluted water during loading or transportation. Whole construction site Contractor P WPCO, EIAO-TM Page	N/A
• The runoff and wastewater generated from the works areas should be treated so that it satisfies all the standards listed in the TM-DSS.	P
• Reuse and recycling of the treated effluent from construction site runoff.	✓
• Weekly site audit should be carried out to check the implementation status of the recommended water quality impact mitigation measures throughout construction period.	✓
• The construction programme should be properly planned to minimise soil excavation, if any, in rainy seasons.	✓
• Any exposed soil surfaces should be properly protected to minimise dust emission.	✓
• In areas where a large amount of exposed soils exist, earth bunds or sand bags should be provided.	✓
• Exposed stockpiles should be covered with tarpaulin or impervious sheets at all times.	✓
• The stockpiles of materials should be placed at locations away from any stream courses so as to avoid releasing materials into the water bodies.	✓
• Final surfaces of earthworks should be compacted and protected by permanent work.	✓
• Haul roads should be paved with concrete and the temporary access roads protected using crushed stone or gravel, wherever practicable.	✓
• Wheel washing facilities should be provided at all site exits to ensure that earth, mud and debris would not be carried out of the works areas by vehicles.	✓
• Good site practices should be adopted to keep the site dry and tidy, such as clean the rubbish and litter on the construction sites.	✓
• Adequate temporary site drainage and pumping should be provided, if necessary.	P
• Provide sufficient temporary toilets in the works areas. The toilet facilities should be more than 30 m from any watercourse. A licensed waste collector should be deployed to clean the temporary toilets on a regular basis.	✓
• Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment during the construction phase of the Project.	✓

Water Quality Mitigation Measures during construction	Implementation Status
• Contractor must register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation should be observed and complied with for control of chemical wastes.	✓
• Any service shop and maintenance facilities should be located on hard standings within a bunded area, and sumps and oil interceptors should be provided. Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should only be undertaken within the areas appropriately equipped to control these discharges.	✓
• Clean the construction sites on a regular basis.	✓
• Oil interceptor in car parking area shall be designed and constructed according to Practice Note for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers, APP-46 (PNAP 124)	N/A
• Provide two sequential storage tanks to contain surface water with residual fertilizers and pesticides and third holding tank for incidental rainstorm	N/A
Sewerage and Sewage Treatment Implications	
• Implementation of Sewer No. 1 and Sewer No.2 as proposed in Sections 7.2.2 - 7.2.3 of the EIA Report	✓

Waste Management – Recommended Mitigation Measures

Waste Management Mitigation Measures during construction	Implementation Status
• Inert C&D materials (or public fills) will be used to form the ramps and other filling area as far as civil engineering design permits.	✓
• The contractor should formulate waste management measures on waste minimization, storage, handling and disposal in a Waste Management Plan as part of Environmental Management Plan.	✓
• Adopt good site practice as follows: - Provide training to workers on site cleanliness, waste management (waste reduction, reuse and recycle) and chemical handling procedures - Provide sufficient waste collection points and regular removal - Cover waste materials with tarpaulin or in enclosure during transportation - Maintain drainage systems, sumps and oil interceptors - Sort out chemical waste for proper handling and treatment onsite or offsite	✓
• Adopt waste reduction measures as follows: - Allocate area/containers for sorting, recovering and storing waste for reuse, recycle or disposal (e.g. demolition debris and excavated materials, general refuse like aluminium cans.) Remove waste from the Site for sorting once generated if no suitable space can be identified. - Allocate area for proper storage of construction materials to prevent contamination - Minimize wastage through careful planning and avoiding over-purchase of construction materials	✓
• Store waste materials properly as follows: - Avoid contamination by proper handling and storing waste - Prevent erosion by covering waste - Apply water spray on excavated materials - Maintain and clean storage area regularly - Sort and stockpile different materials at designated location to enhance reuse	✓
• Apply for relevant waste disposal permits in accordance with the Waste Disposal Ordinance (Cap. 354), Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 345) and the Land (Miscellaneous Provisions) Ordinance (Cap. 28), Dumping at Sea Ordinance (Cap. 466).	✓
• Hire licensed waste disposal contractors for waste collection and removal. Dispose waste at licensed waste disposal facilities.	✓
• Implement trip-ticket system for recording the amount of waste generated, recycled and disposed, including chemical wastes	✓

Waste Management Mitigation Measures during construction	Implementation Status
• Reduce water content in wet spoil generated from piling work by mixing with dry materials. Only dispose treated spoil with less than 25% dry density to Public Fill Reception Facilities	✓
• Dispose dry waste or waste with less than 70% water content by weight to landfill	✓
• Follow the Code of Practice on the Packaging, Labelling and Storage of Chemical Waste as follows: - Store chemical wastes with suitable containers. Seal and maintain the container to avoid leakage or spillage during storage, handling and transport - Label chemical waste containers in both English and Chinese with instructions in accordance to Schedule 2 of the Waste Disposal (Chemical Waste) (General) Regulation - The container capacity should be smaller than 450 litres unless agreed by the EPD	P
• Comply with the requirement of the chemical storage area: - Store only chemical waste and label clearly the chemical characters of the waste - Have at least 3 sides enclosed and protected from rainfall with cover - Provide sufficient ventilation - Have impermeable floor and has bunds to contain 110% of the capacity of the largest container or 20% of the total volume of the stored waste in the area, whichever is larger - Adequately spaced incompatible materials	✓
• Transfer used lubricants, waste oils and other chemicals to oil recycling companies, if possible, and empty oil drums for reuse or refill. No direct or indirect discharge is permitted	✓
• Hire licensed chemical waste disposal contractors for waste collection and removal. Dispose chemical waste at the approved Chemical Waste Treatment Centre at Tsing Yi or other licensed facility	✓
• Hire reputable waste collector to separately collect and dispose general refuse from other wastes. Cover the waste to prevent being blown away	✓
• The hauling of C&D materials shall follow established environmental mitigation measures as stated in Practice Note for Registered Contractors No. 17 “Control of Environmental Nuisance from Construction Sites” issued by the Buildings Department	✓
• Provide recycling bins for sorting out recyclables for collection by recycling companies. Non-recyclables should be removed to designated landfills every day by licensed collectors to prevent environmental and health nuisance.	✓
• Organize training and reminders to site staff on waste minimization through avoidance and reduction, reusing and recycling	✓
• Bentonite slurry which will not be reused shall be disposed of from the Site as soon as possible. Residual used dewatered bentonite slurry should be disposed to a public filling area and liquid bentonite slurry if mixed with inert fill material should be disposed to a public filling area.	N/A
• If chemical wastes were to be produced at the construction site, the Contractor would be required to register with the EPD as a Chemical Waste Producer, and to follow the guidelines stated in the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the waste such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc. The Contractor shall use a licensed collector to transport the chemical wastes. • The licensed collector shall deliver the waste to the Chemical Waste Treatment Centre at Tsing Yi, or other licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation	✓
• Carry out weekly site inspection to check the implementation status of the recommended waste management measures.	✓
• The barging of C&DM for this Project shall use the existing Kai Tak Barging Facility (KTBF), or otherwise approved by the Director.	N/A

Ecology – Recommended Mitigation Measures

Ecology Mitigation Measures during construction	Implementation Status
• Erection of hoarding, fencing or provision of clear demarcation of work zone	✓

Ecology Mitigation Measures during construction	Implementation Status
• Designate areas for placement of equipment, building materials and wastes away from drainage channels	✓
• Carry out weekly site inspection to check the implementation status and the effectiveness of the proposed mitigation measures	✓

Landscape and Visual – Recommended Mitigation Measures

Landscape and Visual Mitigation Measures during construction	Implementation Status
• Construction Lighting Control - All security floodlights for construction sites should be equipped with adjustable shields, frosted diffusers and reflective covers, and be controlled to minimize light pollution and night-time glare to the visual sensitive receivers (VSRs).	✓
• Temporary Landscape Treatments - Including vertical greening, pot planting and application of green roofing to site offices, Hydroseeding of site formation areas and short term greening of site boundaries and land not immediately developed.	✓
• Decoration of Hoarding - Erection of screen hoardings should be designed appropriately to be compatible with the existing urban context, either brightly and imaginatively or with visually unobtrusive design and colours where more appropriate.	✓
• All security floodlights for construction sites shall be equipped with adjustable shield, frosted diffusers and reflective covers, and be carefully controlled to minimize light pollution and night-time glare to nearby receivers	✓
• Site inspection should be undertaken once every two weeks.	✓
• Compensatory Tree Planting - A new parkland area is created in the project development to be used for the implementation of compensatory tree planting to offset the net loss of key landscape resources. It is recommended that 340 trees be planted in this regard and a compensatory tree planting proposal outlining the locations of tree compensation will be submitted separately in seeking relevant government department's approval in accordance with DEVB TC No.7/2015.	N/A

Other – Recommended Mitigation Measures

• Relevant environmental permits/licences should be posted at all vehicle entrances/exits.	P

Legend:
✓ Implemented
× Not implemented
P Partially implemented
N/A Not applicable

Appendix L. Statistics on Environmental Complaints, Notification of Summons and Successful Prosecutions

Table L.1: Statistics on Environmental Complaints, Notifications of Summons and Successful Prosecutions

Reporting Period	Complaints	Notifications of Summons	Successful Prosecutions
This reporting period (January 2020)	1	0	0
From commencement data of construction to end of reporting month	5	0	0

Appendix M. Complaint Investigation Report

Interim Report on Complaint Investigation

RECEIPT OF COMPLAINT			**Ref: COM_0005**
Date:	16 January 2020		
Time:	15:13		
From:	Jacky Chan (Hip Hing Construction Limited)		
Via:	Email		
Contact no.:	-		
COMPLAINANT			
Name:	Ms. Viviana T.S. Tong	Address:	-
Contact no.:	2117 7572		
DETAILS OF COMPLAINT			
Date:	20 December 2019		
Time:	-		
Parameter:*	~~Dust~~ Noise ~~Water~~ ~~Other (specify):~~		
Description:	- Complaint of percussive piling noise from the construction site of Kai Tak Sports Park before 8:30 a.m. and after 6:00 p.m. from Monday to Saturday. - Please ensure the work comply with the relevant environmental legislation and conditions stipulated in the valid Construction Noise Permit. Please adopt necessary measures to minimize the construction noise arising from percussive piling.		
INVESTIGATION RESULT & RESPONSE			
ET, IEC and SOR notified on:	16 January 2020		
Investigation conducted on:	17 January 2020		
Result of investigation:	1. No percussive piling activities were carried out outside permitted hours specified in the CNP (**PP-RE0055-19**) on 20 Dec 2019. Noise barrier for percussive piling works had been implemented to reduce the noise nuisance to sensitive receivers. (see attached record for piling work on 20 December 2019) 2. All noise monitoring data ($L_{eq\ (30\ min)}$) recorded at the monitoring stations in December 2019 ranged between 67 dB(A) and 70 dB (A), complied with the relevant environmental legislation requirement. 3. Renewal of Construction Noise Permit was observed on 18 December 2019 (from **PP-RE0050-19** to **PP-RE0055-19)**, the update on the approved piling sessions summarised as follow: **PP-RE0050-19**: (Valid period 2 Dec 2019 – 27 May 2020, superseded on 18 Dec 2019) Any day not being a general holiday**: i) 0830 - 0930; ii). 1230 - 1330, and iii) 1700 - 1800.** **PP-RE0055-19**: (Valid period 18 Dec 2019 – 15 Jun 2020) Any day not being a general holiday: **i) 0830 – 0930; ii). 1200 - 1400, and iii) 1630 – 1830.** The piling works after 6:00 p.m. till 6:30 p.m. occurred starting from 18 Dec 2019. No percussive piling activities were carried out outside the permitted hours specified in the CNPs (**PP-RE0050-19** and **PP-RE0055-19**), which compiled with the valid CNP requirement.		
RECOMMENDATIONS / MITIGATION MEASURES / ACTIONS			
	1. Conduct regular checking to ensure the implementation of noise mitigation measures for the percussive pilling works. 2. Arrange those sensitive percussive piling works (i.e. close to nearby sensitive receivers) in a later piling hour session if possible. 3. Review on existing site operation to minimise other potential noisy site activities carried out before 8:30 a.m.		
Prepared by:	Sunny Chan	Title:	Environmental Team Leader
Signature:		Date:	22 January 2020

ATTACHMENTS

Date of Investigation: 17 January 2020

1. Record of Construction Noise Permit - PP-RE0050-19
2. Record of Construction Noise Permit - PP-RE0055-19
3. Permit to Work – Drive H Pile Work (Noise Mitigation Measure) (20 December 2019)

本署檔案
OUR REF : (4) in EP632/K19/RE450959-19
來函檔案
YOUR REF :
電　話
TEL NO : 2150 8081
圖文傳真
FAX NO : 2402 8275
網　址
HOMEPAGE : http://www.epd.gov.hk/

Environmental Protection Department
Environmental Compliance Division
Regional Office (East)
8/F., Cheung Sha Wan Government Offices,
303 Cheung Sha Wan Road,
Kowloon

環境保護署
環保法規管理科
區域辦事處(東)
九龍長沙灣道 303 號
長沙灣政府合署 8 樓

Registered Post

28 November 2019

To: HIP HING ENGINEERING COMPANY LIMITED
11/F., Chevalier Commercial Centre,
8 Wang Hoi Road,
Kowloon Bay,
Kowloon

Dear Sir,

Notice of Issue of Construction Noise Permit pursuant to Section 8(6) of the Noise Control Ordinance (Cap.400)

I write to inform you that, under section 8(6) of the Noise Control Ordinance, the Authority has decided to issue a construction noise permit in respect of your application, which was received by the Authority on 14 November 2019, for carrying out percussive piling at **Construction Site of Kai Tak Sports Park at Kai Tak Development Area, Kai Tak, Kowloon.**

The construction noise permit No. PP-RE0050-19 is enclosed.

The reasons for the imposition of the conditions contained in the above construction noise permit are that such conditions are the direct result of an assessment made in accordance with the Technical Memorandum on Noise from Percussive Piling.

If you are aggrieved by the decision of the Authority in respect of your application, you may, pursuant to section 18 of the Noise Control Ordinance, appeal to the Appeal Board within 21 days after the service of this notice in such manner and form prescribed under the Noise Control (Appeal Board) Regulations.

Yours faithfully,

(TANG Wai-man, Lisa)
for Authority

Note:

Electronic submission of application for construction noise permit is available at Environmental Protection Department's website. File attachments with total size not exceeding 20 MB in acceptable format are allowed for electronic submission. Electronic application form can be downloaded from our website (https://epic.epd.gov.hk/eForm/ChangeLanguage.do?language=eng&url=/pages/datadownload/downloadMain.jsp) and an overview of application submission (https://epic.epd.gov.hk/eForm/introduce.html) is provided for more information.

(4) in EP632/K19/RE450959-19

2150 8081
2402 8275

掛號函件

致 ： 九龍 九龍灣
宏開道 8 號
其士商業中心 11 樓
協興工程有限公司

執事先生：

根據《噪音管制條例(第 400 章)》第 8(6)條
發出的通知書 — 簽發「建築噪音許可證」

本監督於二零一九年十一月十四日，收到你擬於九龍啟德啟德發展區啟德體育園的建築地盤，進行撞擊式打樁工程而提出的「建築噪音許可證」申請，現根據《噪音管制條例》第 8(6)條的規定通知你，上述的申請已被批准。

隨函附上「第 PP-RE0050-19 號建築噪音許可證」。

因應按照《管制撞擊式打樁工程噪音技術備忘錄》進行評估所得的結果，上述建築噪音許可證內已加入一些附加條件。

對於本監督就是項申請的決定，如果你感到不滿，可於收到本通知書日起計的 21 天內，按照《噪音管制條例》第 18 條的規定，向上訴委員會上訴。上訴的方法及表格，須根據噪音管制（上訴委員會）規例辦理。

監 督
(鄧慧敏 代行)

二零一九年十一月二十八日

注意:
環境保護署提供網上申請「建築噪音許可證」服務。網上申請容許上傳檔案總容量不大於 20 MB 的有關文件。可於本署網頁下載電子表格 (https://epic.epd.gov.hk/eForm/ChangeLanguage.do?language=eng&url=/pages/datadownload/downloadMain.jsp) 及參閱電子表格提交服務概覽(https://epic.epd.gov.hk/eForm/introduce.html)，了解更多資料。

FORM 4 [reg.5(b)]

NOISE CONTROL ORDINANCE

(Chapter 400)

SECTION 8(9)

CONSTRUCTION NOISE PERMIT FOR THE CARRYING OUT OF PERCUSSIVE PILING

CONSTRUCTION NOISE PERMIT NO. PP-RE0050-19

To: HIP HING ENGINEERING COMPANY LIMITED

This construction noise permit is issued in accordance with section 8 of the Noise Control Ordinance. Permission is granted for the carrying out of percussive piling, subject to the conditions set out below. The carrying out of percussive piling otherwise than in accordance with the conditions may result in the permit being cancelled and in a prosecution for an offence.

CONDITIONS

1. Construction site where percussive piling may be carried out:

   Full street address: Construction Site of Kai Tak Sports Park at Kai Tak Development Area, Kai Tak, Kowloon.

   Lot No.: ---

   The piling zone, that is, the area within which percussive piling may take place is delineated on the attached plan which forms part of this construction noise permit.

2. Percussive piling method and pile type which may be used in the piling zone:

Piling method and pile type	*No. of units*
Hydraulic Hammer (double acting) driving steel pile	Nineteen

3. Validity of the construction noise permit:

   Date of commencement: 02 December 2019

   Days and hours: 0700-1900 hours on all days except general holidays (including Sundays) [but note "Other Conditions" below for the operating hours within which the carrying out of the above listed percussive piling is allowed].

   This permit expires on: 27 May 2020

4. This construction noise permit or a copy thereof must be displayed on the construction site at all vehicular entrances for public information at all times when percussive piling covered by this permit is being carried out.

Other Conditions

5. The above listed percussive piling method and pile type shall only be used during the hours shown below:

Any day not being a general holiday	0830 hours to 0930 hours And 1230 hours to 1330 hours And 1700 hours to 1800 hours

Dated this 28th day of November 2019

Signed: (TANG Wai-man, Lisa)

for Authority

EPD 77(s)

表格 4 [第 5(b)條]

噪音管制條例
(第 400 章)
本條例第 8(9)條
建築噪音許可證
撞擊式打樁工程

建築噪音許可證編號： PP-RE0050-19

致：協興工程有限公司

本建築噪音許可證是按照《噪音管制條例》第 8 條的規定而發出的。現准予進行撞擊式打樁工程，但須受以下條件規限。若不按照該等條件進行撞擊式打樁工程，可致使許可證被撤銷，而且會受到檢控。

條件

1. 可進行撞擊式打樁工程的建築地盤 ：

詳細街道地址：九龍啟德啟德發展區啟德體育園的建築地盤。

地段編號： ---

打樁區(即可進行撞擊式打樁工程的地方)已描劃於夾附的圖則上，而該圖則是本建築噪音許可證的一部分。

2. 在打樁區內可採用的撞擊式打樁方法及樁類：

打樁方法及樁類	*打樁機數目*
油壓錘(雙動) 打鋼樁	拾玖

3. 建築噪音許可證的有效期：

生效日期： 二零一九年十二月二日

日期及時間： 公眾假日(包括星期日)以外的任何一日上午七時至下午七時【但須注意以下『其他條件』有關可以進行上列撞擊式打樁工程的時間】。

本許可證屆滿日期：二零二零年五月二十七日

4. 本建築噪音許可證或其副本須展示於建築地盤的所有車輛入口處，以便在進行此證內所載列的打樁工程的任何時候，給予公眾人士參閱。

其他條件

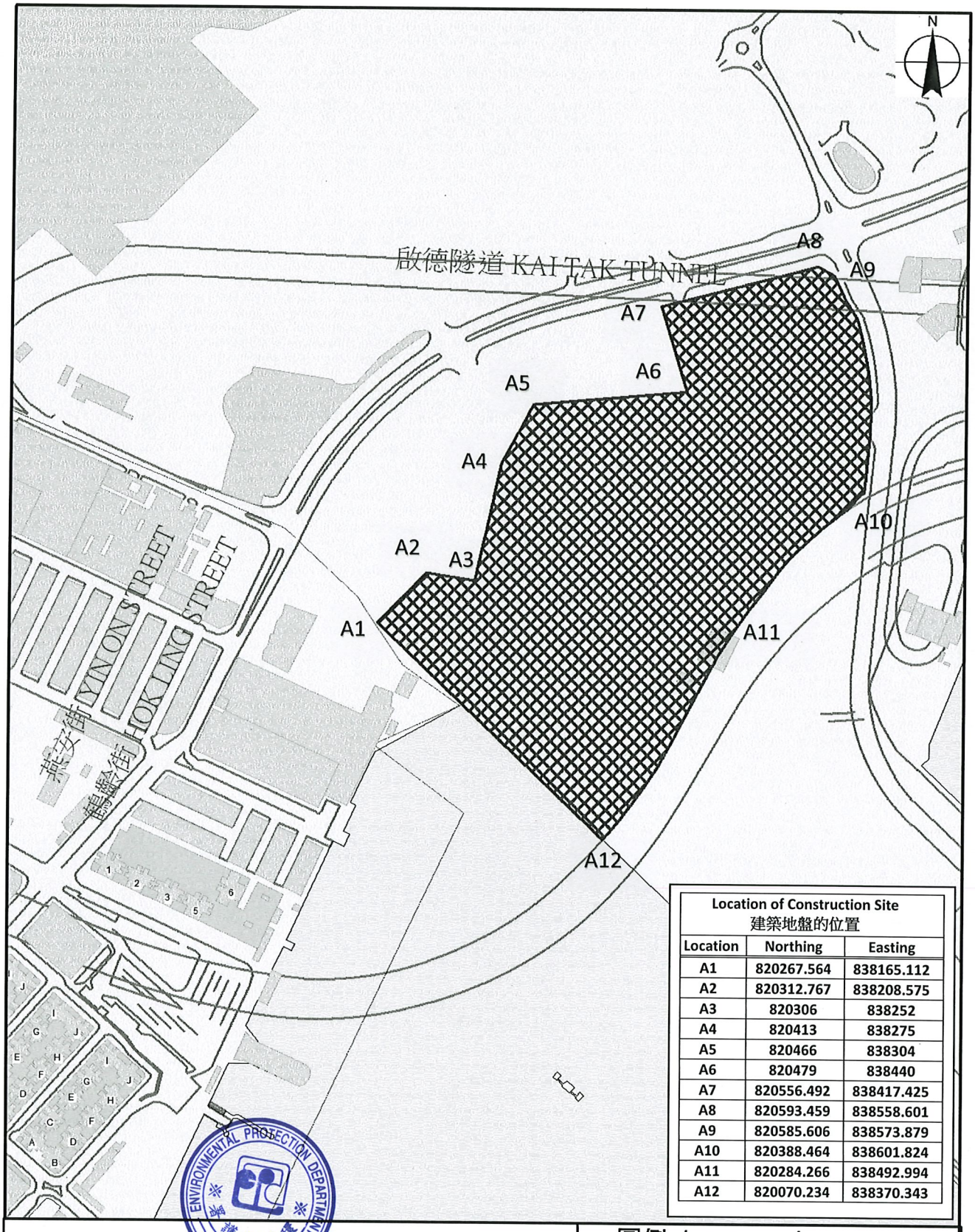
5. 祇可於以下時間內採用上列的撞擊式打樁方法及樁類：

公眾假日以外的任何一日	上午八時三十分至上午九時三十分 及 下午十二時三十分至下午一時三十分 及 下午五時正至下午六時正

日期：20 19 年 11 月 28 日

簽署：

監督
(鄧慧敏 代行)



Location of Construction Site 建築地盤的位置		
Location	Northing	Easting
A1	820267.564	838165.112
A2	820312.767	838208.575
A3	820306	838252
A4	820413	838275
A5	820466	838304
A6	820479	838440
A7	820556.492	838417.425
A8	820593.459	838558.601
A9	820585.606	838573.879
A10	820388.464	838601.824
A11	820284.266	838492.994
A12	820070.234	838370.343

環境保護署 噪音管制監督

Environmental Protection Department Noise Control Authority

圖例 Legend

打樁區 Piling Zone

建築噪音許可證編號 PP-RE0050-19 的附圖

Plan attached to Construction Noise Permit No. PP-RE0050-19

比例 Scale 1:5,000

米Meters

0 25 50 100 150

本署檔案
OUR REF : (4) in EP632/K19/RE451496-19
來函檔案
YOUR REF :
電　話
TEL NO : 2150 8081
圖文傳真
FAX NO : 2402 8275
網　址
HOMEPAGE : http://www.epd.gov.hk/

Environmental Protection Department
Environmental Compliance Division
Regional Office (East)
8/F., Cheung Sha Wan Government Offices,
303 Cheung Sha Wan Road,
Kowloon

環境保護署
環保法規管理科
區域辦事處(東)
九龍長沙灣道 303 號
長沙灣政府合署 8 樓

Registered Post

16 December 2019

To: HIP HING ENGINEERING COMPANY LIMITED
11/F., Chevalier Commercial Centre,
8 Wang Hoi Road,
Kowloon Bay,
Kowloon

Dear Sir,

Notice of Issue of Construction Noise Permit pursuant to Section 8(6) of the Noise Control Ordinance (Cap.400)

I write to inform you that, under section 8(6) of the Noise Control Ordinance, the Authority has decided to issue a construction noise permit in respect of your application, which was received by the Authority on 2 December 2019, for carrying out percussive piling at **Construction Site of Kai Tak Sports Park at Kai Tak Development Area, Kai Tak, Kowloon.**

The construction noise permit No. PP-RE0055-19 is enclosed.

The reasons for the imposition of the conditions contained in the above construction noise permit are that such conditions are the direct result of an assessment made in accordance with the Technical Memorandum on Noise from Percussive Piling.

If you are aggrieved by the decision of the Authority in respect of your application, you may, pursuant to section 18 of the Noise Control Ordinance, appeal to the Appeal Board within 21 days after the service of this notice in such manner and form prescribed under the Noise Control (Appeal Board) Regulations.

Yours faithfully,

(TANG Wai-man, Lisa)
for Authority

Note:

Electronic submission of application for construction noise permit is available at Environmental Protection Department's website. File attachments with total size not exceeding 20 MB in acceptable format are allowed for electronic submission. Electronic application form can be downloaded from our website (https://epic.epd.gov.hk/eForm/ChangeLanguage.do?language=eng&url=/pages/datadownload/downloadMain.jsp) and an overview of application submission (https://epic.epd.gov.hk/eForm/introduce.html) is provided for more information.

(4) in EP632/K19/RE451496-19

2150 8081
2402 8275

掛號函件

致 ： 九龍 九龍灣
宏開道 8 號
其士商業中心 11 樓
協興工程有限公司

執事先生：

根據《噪音管制條例(第 400 章)》第 8(6)條
發出的通知書 — 簽發「建築噪音許可證」

本監督於二零一九年十二月二日，收到你擬於九龍啟德啟德發展區啟德體育園的建築地盤，進行撞擊式打樁工程而提出的「建築噪音許可證」申請，現根據《噪音管制條例》第 8(6)條的規定通知你，上述的申請已被批准。

隨函附上「第 PP-RE0055-19 號建築噪音許可證」。

因應按照《管制撞擊式打樁工程噪音技術備忘錄》進行評估所得的結果，上述建築噪音許可證內已加入一些附加條件。

對於本監督就是項申請的決定，如果你感到不滿，可於收到本通知書日起計的 21 天內，按照《噪音管制條例》第 18 條的規定，向上訴委員會上訴。上訴的方法及表格，須根據噪音管制（上訴委員會）規例辦理。

監 督

(鄧慧敏 代行)

二零一九年十二月十六日

注意:
環境保護署提供網上申請「建築噪音許可證」服務。網上申請容許上傳檔案總容量不大於 20 MB 的有關文件。可於本署網頁下載電子表格 (https://epic.epd.gov.hk/eForm/ChangeLanguage.do?language=eng&url=/pages/datadownload/downloadMain.jsp) 及參閱電子表格提交服務概覽(https://epic.epd.gov.hk/eForm/introduce.html)，了解更多資料。

FORM 4 [reg.5(b)]

NOISE CONTROL ORDINANCE

(Chapter 400)

SECTION 8(9)

CONSTRUCTION NOISE PERMIT FOR THE CARRYING OUT OF PERCUSSIVE PILING

CONSTRUCTION NOISE PERMIT NO. PP-RE0055-19

To: HIP HING ENGINEERING COMPANY LIMITED

This construction noise permit is issued in accordance with section 8 of the Noise Control Ordinance. Permission is granted for the carrying out of percussive piling, subject to the conditions set out below. The carrying out of percussive piling otherwise than in accordance with the conditions may result in the permit being cancelled and in a prosecution for an offence.

CONDITIONS

1. Construction site where percussive piling may be carried out:

   Full street address: Construction Site of Kai Tak Sports Park at Kai Tak Development Area, Kai Tak, Kowloon.

   Lot No.: ---

   The piling zone, that is, the area within which percussive piling may take place is delineated on the attached plan which forms part of this construction noise permit.

2. Percussive piling method and pile type which may be used in the piling zone:

Piling method and pile type	*No. of units*
Hydraulic Hammer (double acting) driving steel pile	Fifteen

3. Validity of the construction noise permit:

   Date of commencement: 18 December 2019

   Days and hours: 0700-1900 hours on all days except general holidays (including Sundays) [but note "Other Conditions" below for the operating hours within which the carrying out of the above listed percussive piling is allowed].

   This permit expires on: 15 June 2020

4. This construction noise permit or a copy thereof must be displayed on the construction site at all vehicular entrances for public information at all times when percussive piling covered by this permit is being carried out.

Other Conditions

5. The above listed percussive piling method and pile type shall only be used during the hours shown below:

Any day not being a general holiday	0830 hours to 0930 hours And 1200 hours to 1400 hours And 1630 hours to 1830 hours

Dated this 16th day of December 2019

Signed: (TANG Wai-man, Lisa)

for Authority

EPD 77(s)

表格 4 [第 5(b)條]

噪音管制條例
(第 400 章)
本條例第 8(9)條
建築噪音許可證
撞擊式打樁工程

建築噪音許可證編號： PP-RE0055-19

致：協興工程有限公司

本建築噪音許可證是按照《噪音管制條例》第 8 條的規定而發出的。現准予進行撞擊式打樁工程，但須受以下條件規限。若不按照該等條件進行撞擊式打樁工程，可致使許可證被撤銷，而且會受到檢控。

條件

1. 可進行撞擊式打樁工程的建築地盤：

詳細街道地址：九龍啟德啟德發展區啟德體育園的建築地盤。

地段編號：---

打樁區(即可進行撞擊式打樁工程的地方)已描劃於夾附的圖則上，而該圖則是本建築噪音許可證的一部分。

2. 在打樁區內可採用的撞擊式打樁方法及樁類：

打樁方法及樁類	*打樁機數目*
油壓錘(雙動) 打鋼樁	拾伍

3. 建築噪音許可證的有效期：

生效日期： 二零一九年十二月十八日

日期及時間： 公眾假日(包括星期日)以外的任何一日上午七時至下午七時【但須注意以下『其他條件』有關可以進行上列撞擊式打樁工程的時間】。

本許可證屆滿日期：二零二零年六月十五日

4. 本建築噪音許可證或其副本須展示於建築地盤的所有車輛入口處，以便在進行此證內所載列的打樁工程的任何時候，給予公眾人士參閱。

其他條件

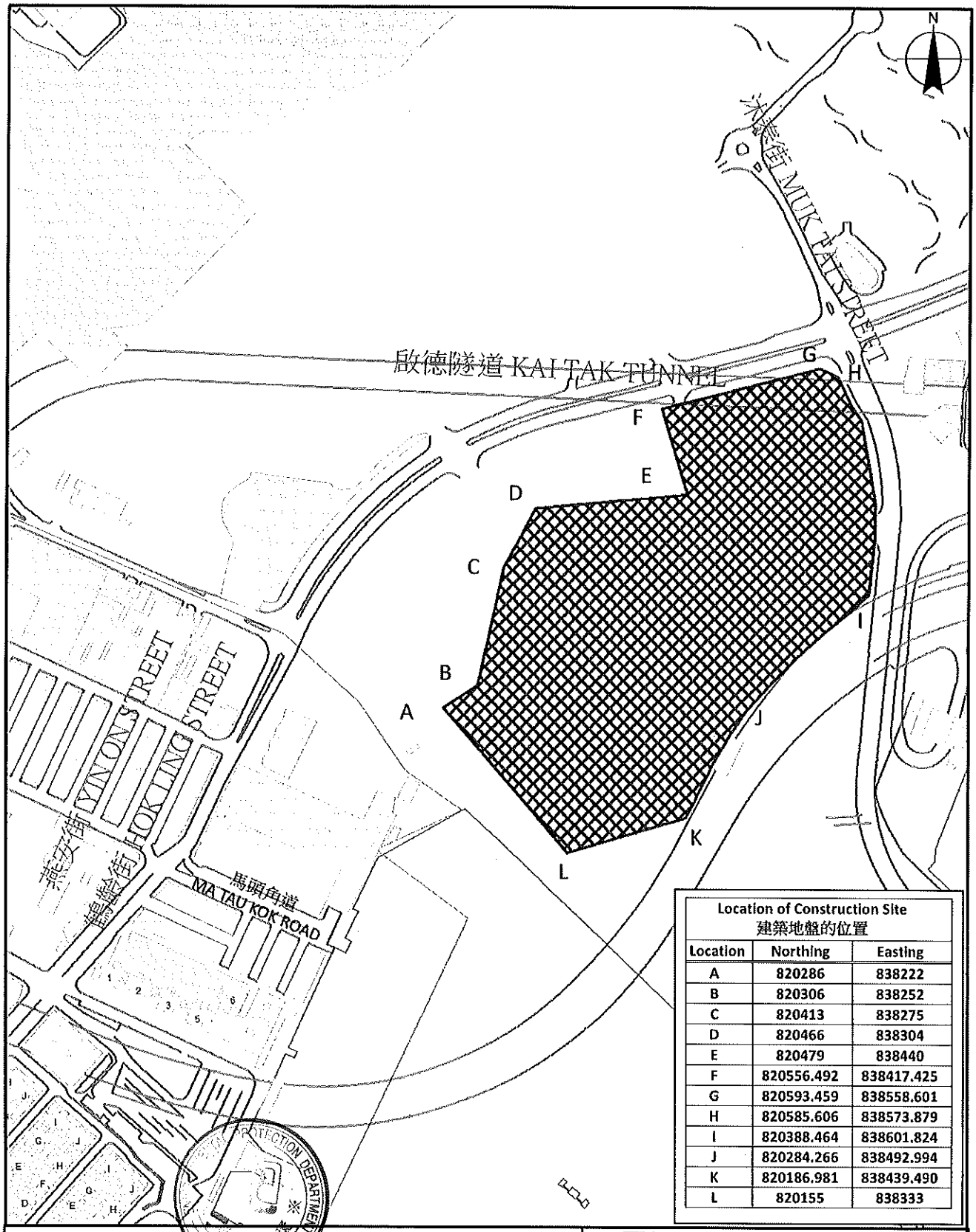
5. 祇可於以下時間內採用上列的撞擊式打樁方法及樁類：

公眾假日以外的任何一日	上午八時三十分至上午九時三十分 及 中午十二時至下午二時 及 下午四時三十分至下午六時三十分

日期：20 19 年 12 月 16 日

簽署：

監督
(鄧慧敏 代行)



Location of Construction Site 建築地盤的位置		
Location	Northing	Easting
A	820286	838222
B	820306	838252
C	820413	838275
D	820466	838304
E	820479	838440
F	820556.492	838417.425
G	820593.459	838558.601
H	820585.606	838573.879
I	820388.464	838601.824
J	820284.266	838492.994
K	820186.981	838439.490
L	820155	838333

環境保護署 噪音管制監督

Environmental Protection Department Noise Control Authority

圖例 Legend

打樁區 Piling Zone

建築噪音許可證編號 PP-RE0055-19 的附圖

Plan attached to Construction Noise Permit No. PP-RE0055-19

比例 Scale 1:5,000

米Meters

0 25 50 100 150

KAI TAK
SPORTS PARK
啟德體育園

Permit to Work – Driven H Pile Work
(Noise Mitigation Measure)
工作許可證 - 撞擊式打樁（噪音消減措施）

許可証號碼 Permit No. : NMM/ 20191220/ LA

A) Permit Application 申請許可證

Date 日期: 20 / 12 / 2019, Time 時間: 08 : 30 時 To 至 09 : 30 時,

Company 分判: Likay Location 位置: Zone 3, 5 & 11a

DRG 附圖: KTSPL-ST-M-01-FN-0008C0 KTSPL-ST-S-01-FN-0004&0005A0 KTSPL-ST-M-01-FN-0012A0

Area Person-in-Charge 工作區負責人: Ben Man, Position 職位: Engineer

Remarks 備註:

在進行撞擊式打樁前已符合下列噪音管制規範及執行相關噪音消減措施。
The following requirements have been compiled with and the relevant noise mitigation measures have been executed before pile driving.

1.	Work shall be carried out during the hours: 0830 hours to 0930 hours And 1200 hours to 1400 hours And 1630 hours to 1830 hours. 工程只可於 上午八時三十分至上午九時三十分 及 中午十二時至下午二時 及 下午四時三十分至下午六時三十分內進行。	Yes / No 是 / 否
2.	From 2nd section of pile, movable noise barrier has been provided and placed as close as possible to the pile driving plant. The noise barrier should be probably placed at a location that can efficiently reduce the noise impact to the noise sensitive receiver. 由第二段工字樁開始，已提供可移動式隔音罩，並將隔音罩盡量移近打樁機械。隔音罩放置位置需有效減少噪音對易受噪音影響區域之影響。	Yes / No 是 / 否
3.	The portion of hammer where it hits the helmet have been enclosed with noise shield and acoustic material. 已用隔音物料將油壓錘之撞擊部件包裹好。	Yes / No 是 / 否

I confirm that the above requirements have been compiled with and the relevant noise mitigation measures have been executed before pile driving.
我確定已遵從噪音管制規定及已執行上述噪音消減措施

Name: Ben Man **Sign:** [signature] **Date:** 20/ 12 / 2019 **Time:** 08 : 30
姓名 簽署 日期 時間

B) ISSUE 簽發許可證

I certify that the control measures are satisfactory according to the permit.
本人確定申請工作許可證的安全控制措施表示滿意。

Name: Terence Yik **Sign:** [signature] **Date:** 20 / 12 / 2019 **Time:** 08:30
姓名 (地盤管工或工程師) 簽署 日期 時間

C) Cancellation of Permit 取消許可證: 已完成或因任何原因而需要取消許可證

I certify that the work under this permit is completed. All workers, tools and equipment are cleared from the working area. Permit will return to the permit issuer for record. 我在此確認上述工程完工，而所使用的工具、機械及物料已搬離現場。工作許可證交回發證人存檔。

Name: Ben Man **Sign:** [signature] **Date:** 20 / 12 / 2019 **Time:** 09: 30
姓名 簽署 日期 時間

KAI TAK
SPORTS PARK
啟德體育園

Permit to Work – Driven H Pile Work
(Noise Mitigation Measure)
工作許可證 - 撞擊式打樁（噪音消減措施）

許可証號碼 Permit No. : NMM/ 201912201/SA

A) Permit Application 申請許可證

Date 日期: 20 / 12 / 2019, Time 時間: 08 : 30 時 To 至 09 : 30 時,

Company 分判: Simon & Sons Location 位置: Zone 3, 5, 11a, 11c, 12a & 12b

DRG 附圖: KTSPL-ST-M-01-FN-0011C0 KTSPL-ST-S-01-FN0002,0003&0005A0 KTSPL-ST-M-01-FN-0003,0006,0010,0018,0019,0020,0021&0022A0

Area Person-in-Charge 工作區負責人: Ben Man, Position 職位: Engineer

Remarks 備註:

在進行撞擊式打樁前已符合下列噪音管制規範及執行相關噪音消減措施。
The following requirements have been compiled with and the relevant noise mitigation measures have been executed before pile driving.

1.	Work shall be carried out during the hours: 0830 hours to 0930 hours And 1200 hours to 1400 hours And 1630 hours to 1830 hours. 工程只可於 上午八時三十分至上午九時三十分 及 中午十二時至下午二時 及 下午四時三十分至下午六時三十分內進行。	Yes / ~~No~~ 是 / ~~否~~
2.	From 2nd section of pile, movable noise barrier has been provided and placed as close as possible to the pile driving plant. The noise barrier should be probably placed at a location that can efficiently reduce the noise impact to the noise sensitive receiver. 由第二段工字樁開始，已提供可移動式隔音罩，並將隔音罩盡量移近打樁機械。隔音罩放置位置需有效減少噪音對易受噪音影響區域之影響。	Yes / ~~No~~ 是 / ~~否~~
3.	The portion of hammer where it hits the helmet have been enclosed with noise shield and acoustic material. 已用隔音物料將油壓錘之撞擊部件包裹好。	Yes / ~~No~~ 是 / ~~否~~

I confirm that the above requirements have been compiled with and the relevant noise mitigation measures have been executed before pile driving.
我確定已遵從噪音管制規定及已執行上述噪音消減措施

Name: Ben Man	Sign:	Date: 20 / 12 / 2019	Time: 08:30
姓名	簽署	日期	時間

B) ISSUE 簽發許可證

I certify that the control measures are satisfactory according to the permit.
本人確定申請工作許可證的安全控制措施表示滿意。

Name: Terence Yik	Sign:	Date: 20 / 12 / 2019	Time: 08 : 30
姓名 (地盤管工或工程師)	簽署	日期	時間

C) Cancellation of Permit 取消許可證: 已完成或因任何原因而需要取消許可證

I certify that the work under this permit is completed. All workers, tools and equipment are cleared from the working area. Permit will return to the permit issuer for record. 我在此確認上述工程完工，而所使用的工具、機械及物料已搬離現場。工作許可證交回發證人存檔。

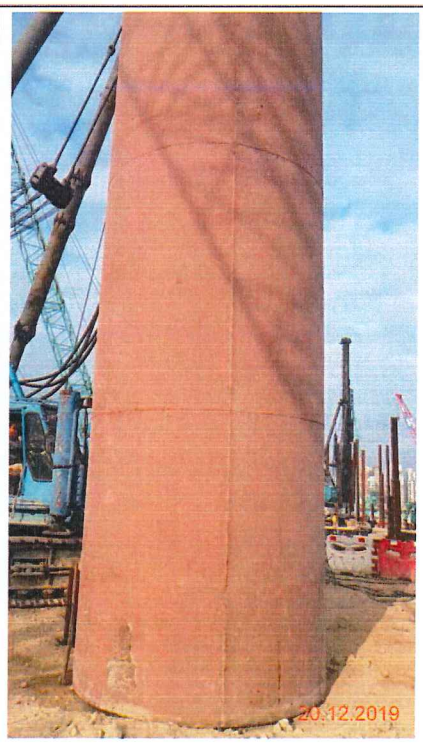
Name: Ben Man	Sign:	Date: 20 / 12 / 2019	Time: 09:30
姓名	簽署	日期	時間

Noise Barrier Check Record

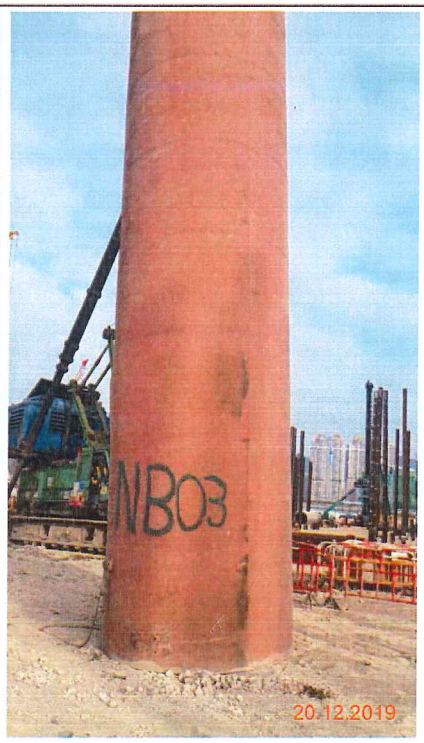
Date: 20 December 2019 Time Slot: AM

Likay

Noise Barrier: NB01
Hammer: HH-05

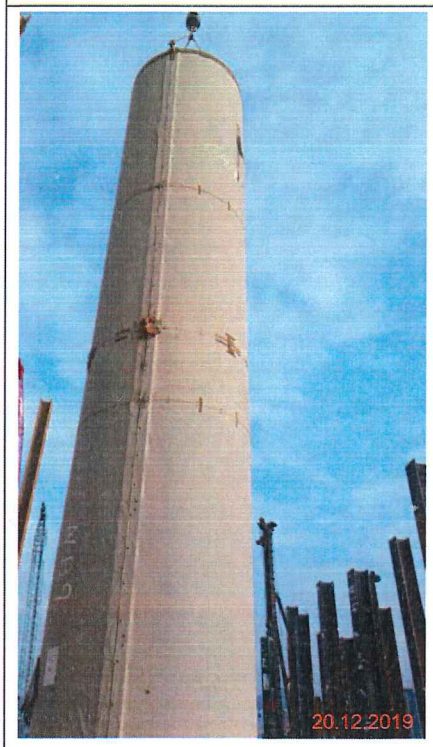


Noise Barrier: NB02
Hammer: HH-04



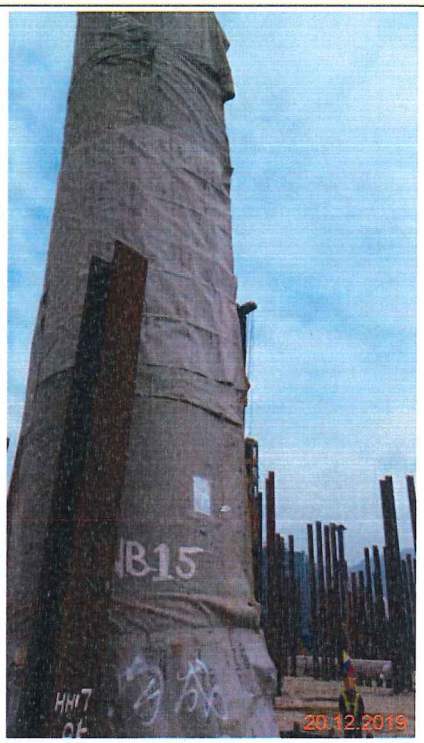
Noise Barrier: NB03
Hammer: HH-21

Simon & Sons



Noise Barrier: NB09
Hammer: HH-12

Noise Barrier: NB11
Hammer: HH-1+



Noise Barrier: NB15
Hammer: HH-07

KAI TAK
SPORTS PARK
啟德體育園

Permit to Work – Driven H Pile Work
(Noise Mitigation Measure)
工作許可證 - 撞擊式打樁（噪音消減措施）

許可証號碼 Permit No. : NMM/ 201912201/LN

A) Permit Application 申請許可證

Date 日期: 20 / 12 / 2019, Time 時間: 12 : 00 時 To 至 14 :00 時,

Company 分判: Likay Location 位置: Zone 3, 5 & 11a

DRG 附圖: KTSPL-ST-M-01-FN-0008C0 KTSPL-ST-S-01-FN-0004&0005A0 KTSPL-ST-M-01-FN-0012A0

Area Person-in-Charge 工作區負責人: Ben Man, Position 職位: Engineer

Remarks 備註:

在進行撞擊式打樁前已符合下列噪音管制規範及執行相關噪音消減措施。
The following requirements have been compiled with and the relevant noise mitigation measures have been executed before pile driving.

1. Work shall be carried out during the hours: 0830 hours to 0930 hours And 1200 hours to 1400 hours And 1630 hours to 1830 hours. 工程只可於 上午八時三十分至上午九時三十分 及 中午十二時至下午二時 及 下午四時三十分至下午六時三十分內進行。	Yes / No 是 / 否
2. From 2nd section of pile, movable noise barrier has been provided and placed as close as possible to the pile driving plant. The noise barrier should be probably placed at a location that can efficiently reduce the noise impact to the noise sensitive receiver. 由第二段工字樁開始，已提供可移動式隔音罩，並將隔音罩盡量移近打樁機械。隔音罩放置位置需有效減少噪音對易受噪音影響區域之影響。	Yes / No 是 / 否
3. The portion of hammer where it hits the helmet have been enclosed with noise shield and acoustic material. 已用隔音物料將油壓錘之撞擊部件包裹好。	Yes / No 是 / 否

I confirm that the above requirements have been compiled with and the relevant noise mitigation measures have been executed before pile driving.
我確定已遵從噪音管制規定及已執行上述噪音消減措施

Name: Ben Man Sign: Ben Date: 20 / 12 / 2019 Time: 12: 00
姓名 簽署 日期 時間

B) ISSUE 簽發許可證

I certify that the control measures are satisfactory according to the permit.
本人確定申請工作許可證的安全控制措施表示滿意。

Name: Terence Yik Sign: T Date: 20 / 12 / 2019 Time: 12: 00
姓名 (地盤管工或工程師) 簽署 日期 時間

C) Cancellation of Permit 取消許可證: 已完成或因任何原因而需要取消許可證

I certify that the work under this permit is completed. All workers, tools and equipment are cleared from the working area. Permit will return to the permit issuer for record. 我在此確認上述工程完工，而所使用的工具、機械及物料已搬離現場。工作許可證交回發證人存檔。

Name: Ben Man Sign: Ben Date: 20 / 12 / 2019 Time: 14: 00
姓名 簽署 日期 時間

KAI TAK
SPORTS PARK
啟德體育園

Permit to Work – Driven H Pile Work
(Noise Mitigation Measure)
工作許可證 - 撞擊式打樁（噪音消減措施）

許可証號碼 Permit No. : NMM/ 201912201 SN

A) Permit Application 申請許可證

Date 日期: 20 / 12 / 2019, Time 時間: 12 :00 時 To 至 14 : 00 時,

Company 分判: Simon & Sons Location 位置: Zone 3, 5, 11a, 11c, 12a & 12b

DRG 附圖: KTSPL-ST-M-01-FN-0011C0 KTSPL-ST-S-01-FN0002,0003&0005A0 KTSPL-ST-M-01-FN-0003,0006,0010,0018,0019,0020,0021&0022A0

Area Person-in-Charge 工作區負責人: Ben Man, Position 職位: Engineer

Remarks 備註:

在進行撞擊式打樁前已符合下列噪音管制規範及執行相關噪音消減措施。
The following requirements have been compiled with and the relevant noise mitigation measures have been executed before pile driving.

1. Work shall be carried out during the hours: 0830 hours to 0930 hours And 1200 hours to 1400 hours And 1630 hours to 1830 hours. 工程只可於 上午八時三十分至上午九時三十分 及 中午十二時至下午二時 及 下午四時三十分至下午六時三十分內進行。	Yes / No 是 / 否
2. From 2nd section of pile, movable noise barrier has been provided and placed as close as possible to the pile driving plant. The noise barrier should be probably placed at a location that can efficiently reduce the noise impact to the noise sensitive receiver. 由第二段工字樁開始，已提供可移動式隔音罩，並將隔音罩盡量移近打樁機械。隔音罩放置位置需有效減少噪音對易受噪音影響區域之影響。	Yes / No 是 / 否
3. The portion of hammer where it hits the helmet have been enclosed with noise shield and acoustic material. 已用隔音物料將油壓錘之撞擊部件包裹好。	Yes / No 是 / 否

I confirm that the above requirements have been compiled with and the relevant noise mitigation measures have been executed before pile driving.
我確定已遵從噪音管制規定及已執行上述噪音消減措施

Name: 姓名	Sign: 簽署	Date: 日期	Time: 時間
Ben Man	Ben	20 / 12 / 2019	12 : 00

B) ISSUE 簽發許可證

I certify that the control measures are satisfactory according to the permit.
本人確定申請工作許可證的安全控制措施表示滿意。

Name: 姓名 (地盤管工或工程師)	Sign: 簽署	Date: 日期	Time: 時間
Terence Yik	T	20 / 12 / 2019	12 : 00

C) Cancellation of Permit 取消許可證: 已完成或因任何原因而需要取消許可證

I certify that the work under this permit is completed. All workers, tools and equipment are cleared from the working area. Permit will return to the permit issuer for record. 我在此確認上述工程完工，而所使用的工具、機械及物料已搬離現場。工作許可證交回發證人存檔。

Name: 姓名	Sign: 簽署	Date: 日期	Time: 時間
Ben Man	Ben	20 / 12 / 2019	14 : 00

Noise Barrier Check Record

Date: 20 December 2019 Time Slot: NOON

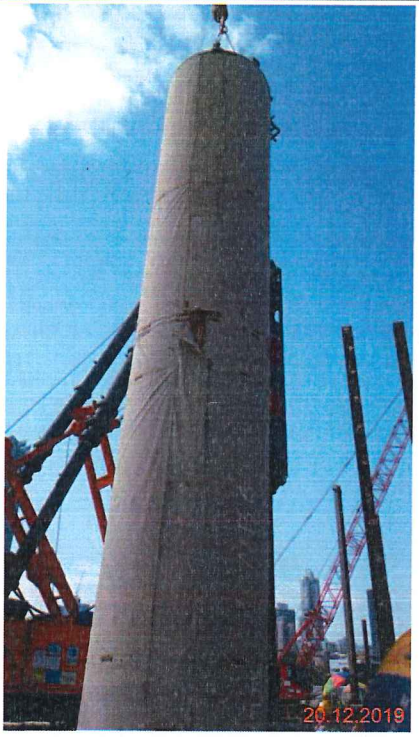
Likay

Noise Barrier: NB01
Hammer: HH-05

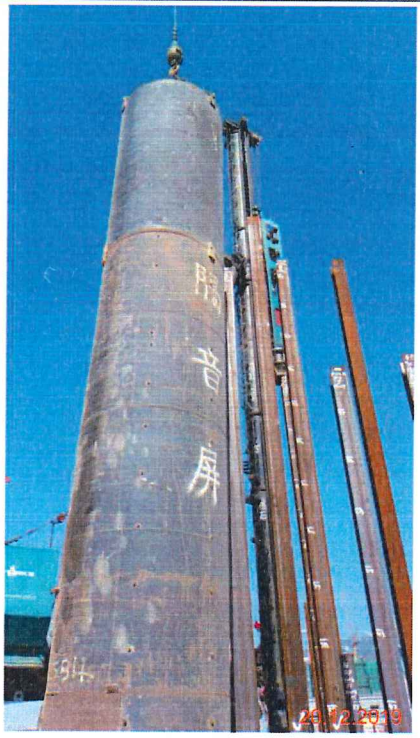
Noise Barrier: NB02
Hammer: HH-04

Noise Barrier: NB03
Hammer: HH-21

Simon & Sons



Noise Barrier: NB06
Hammer: HH-12



Noise Barrier: NB11
Hammer: HH-19

Noise Barrier: NB12
Hammer: HH-11

KAI TAK
SPORTS PARK
啟德體育園

Permit to Work – Driven H Pile Work
(Noise Mitigation Measure)
工作許可證 - 撞擊式打樁（噪音消減措施）

許可証號碼 Permit No. : NMM/ 201912**20** / LP

A) Permit Application 申請許可證

Date 日期: 20 / 12 / 2019, Time 時間: 16 : 30 時 To 至 18 : 30 時,

Company 分判: Likay Location 位置: Zone 3, 5 & 11a

DRG 附圖: KTSPL-ST-M-01-FN-0008C0 KTSPL-ST-S-01-FN-0004&0005A0 KTSPL-ST-M-01-FN-0012A0

Area Person-in-Charge 工作區負責人: Ben Man, Position 職位: Engineer

Remarks 備註:

在進行撞擊式打樁前已符合下列噪音管制規範及執行相關噪音消減措施。
The following requirements have been compiled with and the relevant noise mitigation measures have been executed before pile driving.

1.	Work shall be carried out during the hours: 0830 hours to 0930 hours And 1200 hours to 1400 hours And 1630 hours to 1830 hours. 工程只可於 上午八時三十分至上午九時三十分 及 中午十二時至下午二時 及 下午四時三十分至下午六時三十分內進行。	Yes / ~~No~~ 是 / 否
2.	From 2nd section of pile, movable noise barrier has been provided and placed as close as possible to the pile driving plant. The noise barrier should be probably placed at a location that can efficiently reduce the noise impact to the noise sensitive receiver. 由第二段工字樁開始，已提供可移動式隔音罩，並將隔音罩盡量移近打樁機械。隔音罩放置位置需有效減少噪音對易受噪音影響區域之影響。	Yes / ~~No~~ 是 / 否
3.	The portion of hammer where it hits the helmet have been enclosed with noise shield and acoustic material. 已用隔音物料將油壓錘之撞擊部件包裹好。	Yes / ~~No~~ 是 / 否

I confirm that the above requirements have been compiled with and the relevant noise mitigation measures have been executed before pile driving.
我確定已遵從噪音管制規定及已執行上述噪音消減措施

Name: Ben Man 姓名 **Sign:** 簽署 **Date:** 20 / 12 / 2019 日期 **Time:** 16 : 30 時間

B) ISSUE 簽發許可證

I certify that the control measures are satisfactory according to the permit.
本人確定申請工作許可證的安全控制措施表示滿意。

Name: Terence Yik 姓名 (地盤管工或工程師) **Sign:** 簽署 **Date:** 20 / 12 / 2019 日期 **Time:** 16 : 30 時間

C) Cancellation of Permit 取消許可證: 已完成或因任何原因而需要取消許可證

I certify that the work under this permit is completed. All workers, tools and equipment are cleared from the working area. Permit will return to the permit issuer for record. 我在此確認上述工程完工，而所使用的工具、機械及物料已搬離現場。工作許可證交回發證人存檔。

Name: Ben Man 姓名 **Sign:** 簽署 **Date:** 20 / 12 / 2019 日期 **Time:** 18 : 30 時間

KAI TAK
SPORTS PARK
啟德體育園

Permit to Work – Driven H Pile Work
(Noise Mitigation Measure)
工作許可證 - 撞擊式打樁（噪音消減措施）

許可証號碼 Permit No. : NMM/ 20191220/SP

A) Permit Application 申請許可證

Date 日期: 20 / 12 / 2019, Time 時間: 16 : 30 時 To 至 18 : 30 時,

Company 分判: Simon & Sons Location 位置: Zone 3, 5, 11a, 11c, 12a & 12b

DRG 附圖: KTSPL-ST-M-01-FN-0011C0 KTSPL-ST-S-01-FN0002,0003&0005A0 KTSPL-ST-M-01-FN-0003,0006,0010,0018,0019,0020,0021&0022A0

Area Person-in-Charge 工作區負責人: Ben Man, Position 職位: Engineer

Remarks 備註:

在進行撞擊式打樁前已符合下列噪音管制規範及執行相關噪音消減措施。
The following requirements have been compiled with and the relevant noise mitigation measures have been executed before pile driving.

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2. From 2nd section of pile, movable noise barrier has been provided and placed as close as possible to the pile driving plant. The noise barrier should be probably placed at a location that can efficiently reduce the noise impact to the noise sensitive receiver. 由第二段工字樁開始，已提供可移動式隔音罩，並將隔音罩盡量移近打樁機械。隔音罩放置位置需有效減少噪音對易受噪音影響區域之影響。	Yes / ~~No~~ 是 / 否
3. The portion of hammer where it hits the helmet have been enclosed with noise shield and acoustic material. 已用隔音物料將油壓錘之撞擊部件包裹好。	Yes / ~~No~~ 是 / 否

I confirm that the above requirements have been compiled with and the relevant noise mitigation measures have been executed before pile driving.
我確定已遵從噪音管制規定及已執行上述噪音消減措施

Name: Ben Man **Sign:** Ben **Date:** 20 / 12 / 2019 **Time:** 16 : 30
姓名 簽署 日期 時間

B) ISSUE 簽發許可證

I certify that the control measures are satisfactory according to the permit.
本人確定申請工作許可證的安全控制措施表示滿意。

Name: Terence Yik **Sign:** T **Date:** 20 / 12 / 2019 **Time:** 16 : 30
姓名 (地盤管工或工程師) 簽署 日期 時間

C) Cancellation of Permit 取消許可證: 已完成或因任何原因而需要取消許可證

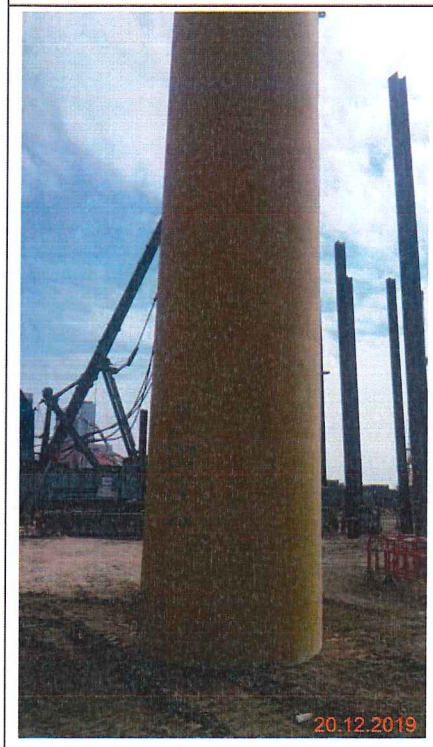
I certify that the work under this permit is completed. All workers, tools and equipment are cleared from the working area. Permit will return to the permit issuer for record. 我在此確認上述工程完工，而所使用的工具、機械及物料已搬離現場。工作許可證交回發證人存檔。

Name: Ben Man **Sign:** Ben **Date:** 20/ 12 / 2019 **Time:** 18 : 30
姓名 簽署 日期 時間

Noise Barrier Check Record

Date: 20 December 2019 Time Slot: PM

Likay



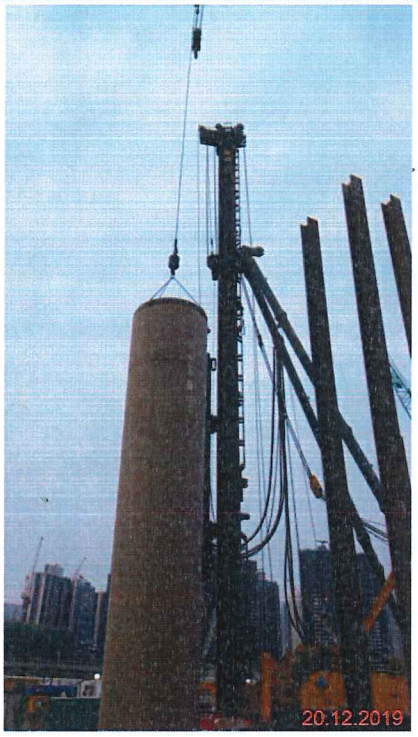
Noise Barrier: NB04
Hammer: HH-01

Noise Barrier: NB03
Hammer: HH-01

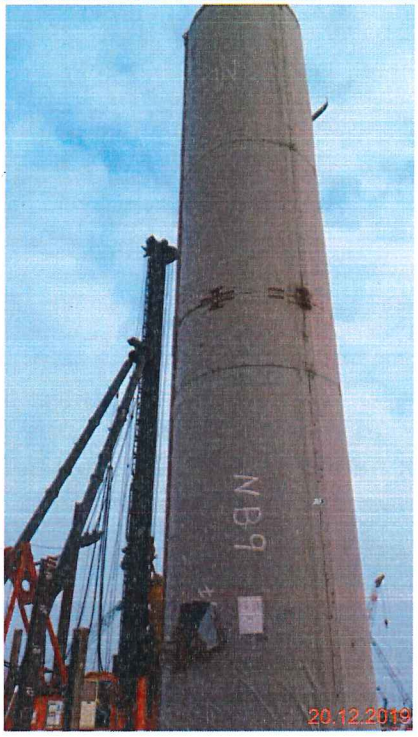
Noise Barrier: NB04
Hammer: HH-02

Simon & Sons

Noise Barrier: NB07
Hammer: HH-10



Noise Barrier: NB09
Hammer: HH-09



Noise Barrier: NB09
Hammer: HH-18