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Report No.: 0064/18/ED/0522A

MONTHLY EM&A REPORT

October 2020

Client : Civil Engineering and Development
Department, HKSAR

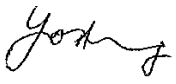
Contract No. : NDO 03/2018

Contract Name : Road Widening and Retrofitting Noise Barriers
on Tai Po Road (Sha Tin Section)

Report No. : 0064/18/ED/0522A

Prepared by : Rex Chow

Reviewed by : Cyrus Lai

Certified by : 

David Hung
Environmental Team Leader
Fugro Technical Services Limited



Our ref: PL-202011010

Unit 1501, Level 15,
Tower I, Metroplaza,
223 Hing Fong Road, Kwai Fong,
N.T., Hong Kong.

Attention: Miss FUNG Cannifer

9 November 2020

Dear Miss Fung,

NE/2017/05

**Road Widening and Retrofitting Noise Barriers on Tai Po Road (Sha Tin Section)
Monthly EM&A Report for October 2020**

I refer to the email of the ET dated 9 November 2020 regarding to the captioned Monthly EM&A Report with report No. 0064/18/ED/0522A, we have no adverse comment on it and verify this monthly report according to section 1.9 of the Environmental Permit with Permit No. EP- 463/2013/B

Yours faithfully,



Li Wai Ming Kevin
Independent Environmental Checker

cc. CRE – Mr. YU Albert (by email only: albert.yu@aecom.com)
CEDD – Mr. YAN Joseph (by email only: jkcyang@cedd.gov.hk)



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Date 11 November 2020
Our Ref. MCL/ED/0592/2020/C

The EIA Ordinance Register Office
Environmental Protection Department
27/F, Southorn Centre,
130 Hennessy Road, Wan Chai, Hong Kong
Attn: Ms. LAU Yee Ching, Eva

BY HAND & E-MAIL

Dear Ms. Lau,

Contract No. NE/2017/05
Road Widening and Retrofitting Noise Barriers on Tai Po Road (Sha Tin Section)

Environmental Permit: EP-463/2013B
Submission of Monthly EM&A Report (0064/18/ED/0522A)

Pursuant to EP-463/2013/B Condition 3.4, we hereby submit three hardcopies and two e-copy of the monthly EM&A Report (0064/18/ED/0522A) for your retention. This monthly EM&A Report has been certified by ETL and verified by IEC accordingly.

Thank you for your attention, should there be any comments or queries, please contact our Environmental Team Leader David Hung at 3565-4371.

Yours faithfully,
for and on behalf of
FUGRO TECHNICAL SERVICES LIMITED

David Hung
Environmental Team Leader

c.c. CEDD Attn: Mr. Joseph Yan / Ms. Cannifer Fung (by E-mail)
AECOM Attn: Mr. Albert Yu / Mr. Jacky Tse / Mr. Andrew Cheng /
Mr. Matthew Ma (by E-mail)
IEC Attn: Mr. Kevin Li / Mr. Tandy Tse (by E-mail)
CCZJV Attn: Mr. Chung Sing Chu / Ms. Kimberly Wong / Mr. Aaron Au (by E-mail)

Encl.



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EXECUTIVE SUMMARY

- i. The Civil Engineering and Development Department HKSAR has appointed Fugro Technical Services Limited (FTS) to undertake the Environmental Team services for the Project and implement the EM&A works.
- ii. This Monthly EM&A report presents the environmental monitoring and audit works for the period between 1 October 2020 and 31 October 2020. As informed by the Contractor, major activities in the reporting month were summarized as below table:

Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
<ul style="list-style-type: none"> • Tree Works (including Preservation / Felling / Pruning / Transplantation) • Underground utilities diversion • Mini pile works • Per-drilling works • Noise barrier foundation works/ Pile Cap Works 	<ul style="list-style-type: none"> • Tree Works (including Preservation / Felling / Pruning / Transplantation) • Underground utilities diversion • Mini pile works • Per-drilling works • Noise barrier foundation works/ Pile Cap Works 	<ul style="list-style-type: none"> • Trial pits excavation • Tree Works (including Preservation / Felling / Pruning / Transplantation) • Underground utilities detections • Underground utilities diversion • Pre-drilling works • Pre bored H-pile works • Soldier pile works • Mini pile works • Pier construction works • Bored pile works • Noise barrier foundation works/ Pile Cap Works • Construction of Lagging wall and retaining wall • Construction of temporary road for bus terminal • Installation of FRP platform at STRCR 	<ul style="list-style-type: none"> • Trial pits excavation • Tree Works (including Preservation / Felling / Pruning / Transplantation) • Underground utilities detections • Underground utilities diversion • Demolition works for Footbridge NF40 existing staircases • Foundation works for Footbridge NF66 • Mini Pile works 	<ul style="list-style-type: none"> • Trial pits excavation • Tree Works (including Preservation / Felling / Pruning / Transplantation) • Underground utilities detections • Underground utilities diversion • Pre-drilling works • Construction of Noise Barrier Foundation / Pile Cap Works • Soil replacement works on slopes • Mini Pile works

Breaches of the Action and Limit Levels

- iii. 24-hour and 1-hour TSP impact monitoring were carried out in the reporting month, no Action / Limit Level exceedance was recorded during the period.
- iv. Day time construction noise monitoring was carried out in the reporting month, no Action / Limit Level exceedance was recorded during the period.
- v. Regular night time noise monitoring was carried out on 8, 15, 22 and 29 October 2020 respectively and no exceedance case was recorded between 2300 and 0700 of the next day during the reporting month.

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Complaint, Notification of Summons and Successful Prosecution

- vi. No complaint cases were received during the reporting period.

Reporting Changes

- vii. There was no reporting change in the reporting month.

Future Key Issues

- viii. The key issues to be considered in the coming reporting month include:

Potential environmental impacts arising from the above construction activities are mainly associated with construction dust, construction noise, water quality, waste management and landscape and visual impact.



1. INTRODUCTION

1.1 Background

1.1.1 Contract No. NE/2017/05 – Road Widening and Retrofitting Noise Barriers on Tai Po Road (Sha Tin Section) (TPR-ST) (hereafter referred as “the Contract”), is the Works Contract involved the construction of road widening and retrofitting noise barriers on TPR-ST.

1.1.2 The Works of road widening on TPR-ST is classified as a designated project (DP) under the Part I of Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO) (Cap. 499). The scale and scope of DP is classified as below:

- Widening and reconstruction of an approximate 1.2 km long of the existing Tai Po Road (Sha Tin Section) from dual 2-lane to dual 3-lane carriageway; and improvement of the existing Sha Tin Rural Committee Road and its junctions.

1.1.3 The Environmental Monitoring and Audit (EM&A) programme under this Contract is governed by the Environmental Permit (EP) (EP No: EP-463/2013/B) and the updated EM&A Manual (Reference No.: 0064/18/ED/0122D). The Works to be executed under this Contract and corresponding EPs include but not be limited to the following main items:

(i) Road widening works of TPR-ST:

- a. widening of TPR-ST of about 1.1 kilometres between Sha Tin Rural Committee Road (STRCR) and Fo Tan Road from dual two-lane to dual three-lane;
- b. modification to the existing diamond interchange at TPR-ST / STRCR (STRCR Interchange);
- c. provision of two pedestrian lifts, re-provision of staircase and cycle track ramp at the modified STRCR Interchange;
- d. modification of existing cycle track subway no. NS30 near Sha Tin Plaza;
- e. modification of the existing footbridge no. NF40 across TPR-ST near Wo Che Street;
- f. modification of the existing footbridge no. NF66 near Fung Wo Lane;
- g. installation of noise mitigation measures between Citylink Plaza and Mei Wo House of Wo Che Estate;
- h. associated drainage works, waterworks, street lighting works and traffic control and surveillance system (TCSS).

(ii) Retrofitting of noise barriers along TPR-ST:

- (a) western section between Citylink Plaza and Scenery Court;
- (b) eastern section between Mei Wo House of Wo Che Estate and Fo Tan Road; and
- (c) associated drainage works, waterworks and street lighting works.

(iii) Associated street furniture, road marking, traffic signs, directional signs, services and utilities, and

(iv) Associated landscaping works.

1.1.4 The location and boundary of the site is shown in **Figure 1**.



1.1.5 This Monthly EM&A report is required under EP-463/2013/B Condition 3.4. It is to report the results and findings of the EM&A programme required in the updated EM&A Manual.

1.1.6 This is the 23rd monthly EM&A Report which summarized the impact monitoring results and audit findings for the construction of the road widening and retrofitting noise barriers on Tai Po Road (Sha Tin Section) (TPR-ST) (hereafter referred as “the Project”) within the period between 1st October 2020 and 31st October 2020.

1.2 Project Organization

1.2.1 The project proponent was the Civil Engineering and Development Department, HKSAR (CEDD). AECOM Asia Co. Ltd. (AECOM) was commissioned by CEDD as the Engineer for the Project. Acuity Sustainability Consulting Limited – Nature & Technologies (HK) Limited Joint Venture was commissioned as the Independent Environmental Checker (IEC). China railway – China Railway First Group – Zhen Hua Engineering Joint Venture (CCZJV) was appointed as the main contractor for the construction works under the contract NE/2017/05. Fugro Technical Services Limited (FTS) was appointed as the Environmental Team (ET) by CEDD to implement the EM&A programme for the Project.

1.2.2 The organization structure is shown in **Appendix B**. The key personnel contact names and numbers for the Project are summarized in **Table 1.1**.

1.2.3

Table 1.1 Contact Information of Key Personnel

Party	Position	Name	Telephone
Project Proponent (CEDD)	Senior Engineer	Ms. Cannifer Fung	3152 3446
Engineer’s Representative (AECOM)	Chief Resident Engineer	Mr. Albert Yu	2276 0618
IEC (Acuity Sustainability Consulting Limited – Nature & Technologies (HK) Limited Joint Venture)	Independent Environmental Checker	Mr. Kevin Li	9779 2247
Main Contractor (CCZJV)	Site Agent	Mr. Aaron Au	6345 0754
	Environmental Officer	Ms. Kimberly Wong	5542 1669
ET (FTS)	Environmental Team Leader	Mr. David Hung	3565 4371



1.3 Construction Programme and Activities

1.3.1 The construction of the Project commenced on 29 November 2018 and is expected to complete in 2023. The construction programme is shown in **Appendix A**.

1.3.2 A summary of the major construction activities undertaken in the reporting month were shown in below table:

Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
<ul style="list-style-type: none"> • Tree Works (including Preservation / Felling / Pruning / Transplantation) • Underground utilities diversion • Mini pile works • Per-drilling works • Noise barrier foundation works/ Pile Cap Works 	<ul style="list-style-type: none"> • Tree Works (including Preservation / Felling / Pruning / Transplantation) • Underground utilities diversion • Mini pile works • Per-drilling works • Noise barrier foundation works/ Pile Cap Works 	<ul style="list-style-type: none"> • Trial pits excavation • Tree Works (including Preservation / Felling / Pruning / Transplantation) • Underground utilities detections • Underground utilities diversion • Pre-drilling works • Pre bored H-pile works • Soldier pile works • Mini pile works • Pier construction works • Bored pile works • Noise barrier foundation works/ Pile Cap Works • Construction of Lagging wall and retaining wall • Construction of temporary road for bus terminal • Installation of FRP platform at STRCR 	<ul style="list-style-type: none"> • Trial pits excavation • Tree Works (including Preservation / Felling / Pruning / Transplantation) • Underground utilities detections • Underground utilities diversion • Demolition works for Footbridge NF40 existing staircases • Foundation works for Footbridge NF66 • Mini Pile works 	<ul style="list-style-type: none"> • Trial pits excavation • Tree Works (including Preservation / Felling / Pruning / Transplantation) • Underground utilities detections • Underground utilities diversion • Pre-drilling works • Construction of Noise Barrier Foundation / Pile Cap Works • Soil replacement works on slopes • Mini Pile works

1.4 Status of Environmental Licenses, Notifications and Permits

1.4.1 A summary of the relevant environmental licenses, permits and/or notifications on environmental protection for this Contract is presented in **Table 1.2**.

**Table 1.2 Relevant Environmental Licenses, Permits and/or Notifications**

Environmental License / Permit / Notification	Reference Number	Valid From	Valid Till
Environmental Permit for whole project	EP-463/2013/B	20/12/2016	Nil
Receipt of the notification of construction dust production	Form NA	27/7/2018	Nil
Construction Waste Disposal Account	7031619	17/8/2018	Nil
Chemical Waste Producer Registration	5318-758-C4314-01	06/11/2018	Nil
Effluent Discharge License (Zone 1 – Zone 5)	WT00032446-2018	09/11/2018	30/11/2023
Construction Noise Permit for Road Closure works at restricted hours	GW-RN0561-20	10/08/2020	09/11/2020
	GW-RN0636-20	14/09/2020	30/11/2020



2. AIR QUALITY

2.1 Monitoring Requirement

In accordance with the updated EM&A Manuals, 24-hour & 1-hour Total Suspended Particulates (TSP) level at the designated air quality monitoring station are required. Impact 24-hour and 1-hour TSP monitoring should be carried out at least once every 6 days. The Action and Limit Levels of the air quality monitoring are given in **Appendix C**.

2.2 Monitoring Equipment

The 24-hour and 1-hour TSP air quality monitoring was performed using High Volume Air Samplers (HVS) and portable TSP Monitors located at each of the designated monitoring station respectively.

Table 2.1 and 2.2 summarizes the equipment used in air quality monitoring.

Table 2.1 24-hour TSP Monitoring Equipment

Item	Location	Brand	Model	Equipment	Serial Number
1	AMS 5	*Sibata	Model LD-5R	Sibata Portable TSP Monitors	761106
2	AMS 8	*Sibata	Model LD-5R	Sibata Portable TSP Monitors	892187
3	AMS 10	*Sibata	Model LD-5R	Sibata Portable TSP Monitors	892189
4	AMS 11A	*Sibata	Model LD-5R	Sibata Portable TSP Monitors	761105

*Notes: As electricity supply is not available and accessible for the High Volume Samplers (HVS) at AMS 5, 8, 10 and 11A portable Laser Particle Photometer Monitors will be utilized for 24-hour TSP monitoring instead of High Volume samplers (HVS). The correlation between HVS and the portable Laser Particle Photometer Monitors are presented in Appendix D.

Table 2.2 1-hour TSP Monitoring Equipment

Item	Location	Brand	Model	Equipment	Serial Number
1	AMS 5	Sibata	Model LD-5R	Sibata Portable TSP Monitors	761106
2	AMS 8	Sibata	Model LD-5R	Sibata Portable TSP Monitors	892187
3	AMS 10	Sibata	Model LD-5R	Sibata Portable TSP Monitors	892189
4	AMS 11A	Sibata	Model LD-5R	Sibata Portable TSP Monitors	761105

2.3 Monitoring Methodology

2.3.1 24-hour TSP air quality monitoring by High Volume Air Samplers (HVS)

HVS Installation

The following guidelines were adopted during the installation of HVS:

- Sufficient support is provided to secure the samplers against gusty wind.
- No two samplers are placed less than 2 meters apart.
- The distance between the sampler and an obstacle, such as buildings, is at least twice the height that the obstacle protrudes above the sampler.
- A minimum of 2 meters of separation from walls, parapets and penthouses is required for rooftop samples.
- A minimum of 2 meters separation from any supporting structure, measured horizontally is required.
- No furnaces or incineration flues are nearby.



- Airflow around the samplers is unrestricted.
- The samplers are more than 20 meters from the drip line.
- Any wire fence and gate, to protect the sampler, should not cause any obstruction during monitoring.

Filters Preparation

Fiberglass filters (provided by the HOKLAS accredited laboratory) shall be used (Note: these filters have a collection efficiency of larger than 99% for particles of 0.3 μm diameter). A HOKLAS accredited laboratory (ALS Technichem (HK) Pty Ltd./Fugro Technical Services Limited) is responsible for the preparation of 24-hr conditioned and pre-weighed filter papers for monitoring team.

All filters are equilibrated in the conditioning environment for 24 hours before weighing. The conditioning environment temperature is around 25°C and not variable by more than $\pm 3^\circ\text{C}$; the relative humidity (RH) is < 50% and not variable by more than $\pm 5\%$. A convenient working RH is 40%.

Operating / Analytical Procedures

Operating / analytical procedures for the air quality monitoring are highlighted as follows:

- Prior to the commencement of the dust sampling, the flow rate of the HVS are properly set (between 0.6 m^3/min and 1.7 m^3/min) in accordance with the EM&A manual. The flow rate shall be indicated on the flow rate chart.
- The power supply shall be checked to ensure the samplers worked properly.
- On sampling, the samplers shall be operated for 5 minutes to establish thermal equilibrium before placing any filter media at the designated air quality monitoring station.
- The filter holding frame is then removed by loosening the four nuts and carefully a weighted and conditioned filter is centered with the stamped number upwards, on a supporting screen.
- The filter shall be aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter. Then the filter holding frame is tightened to the filter holder with swing bolts. The applied pressure should be sufficient to avoid air leakage at the edges.
- The shelter lid shall be closed and secured with the aluminum strip.
- The timer is then programmed. Information shall be recorded on the record sheet, which included the starting time, the weather condition and the filter number (the initial weight of the filter paper can be found out by using the filter number).
- After sampling, the filter shall be removed and sent to laboratory for weighing. The elapsed time is also recorded.
- Before weighing, all filters are equilibrated in a conditioning environment for 24 hours. The conditioning environment temperature should be between 25°C and 30°C and not vary by more than $\pm 3^\circ\text{C}$; the relative humidity (RH) should be < 50% and not vary by more than $\pm 5\%$. A convenient working RH is 40%. Weighing results are returned to MCL for further analysis of TSP concentrations collected by each filter.

2.3.2 24-hour TSP air quality monitoring by portable Laser Particle Photometer Monitors

Operating / Analytical Procedures

The measuring procedures of the 24-hr dust meter are in accordance with the Manufacturer's instruction Manual as follows:

- Pull up the air sampling inlet cover
- Change the Mode 0 to BG once
- Push Start/Stop switch once
- Turn the knob to SENSI.ADJ and press it
- Push Start/Stop switch once
- Return the knob to the position MEASURE slowly
- Push the timer set switch to set measuring time
- Remove the cap and make a measurement

Calculation of the value of 24-hr TSP concentration is given by the average of 24 calculated 1-hr TSP concentration, where the calculated 1-hr TSP concentration is given by the product of the direct reading and the K-factor based on the correlation results between the direct reading meter and high volume sampler.

2.3.3 1-hour TSP air quality monitoring

Operating / Analytical Procedures

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

- Pull up the air sampling inlet cover
- Change the Mode 0 to BG once
- Push Start/Stop switch once
- Turn the knob to SENSI.ADJ and press it
- Push Start/Stop switch once
- Return the knob to the position MEASURE slowly
- Push the timer set switch to set measuring time
- Remove the cap and make a measurement

2.4 Maintenance / Calibration

2.4.1 24-hour TSP air quality monitoring

The following maintenance / calibration are required for the HVS:

- The high volume motors and their accessories are properly maintained. Appropriate maintenance such as routine motor brushes replacement and electrical wiring checking are made to ensure that the equipment and necessary power supply are in good working condition.
- All HVS shall be calibrated (five point calibration) using Calibration Kit upon installation and thereafter in every 3 months.
- A copy of the calibration certificates for the HVS and calibrator are provided in **Appendix D**.



2.4.2 1-hour TSP air quality monitoring

The portable TSP monitor should be calibrated at 1 year intervals

2.5 Monitoring Locations

2.5.1 The Impact Air Monitoring Stations to be monitored should be selected based on the prevailing wind direction and their proximity to the active construction works. According to the Hong Kong Observatory, wind direction in October 2020 is north, south east, and east. The most updated locations are summarized in **Table 2.3** and shown in **Figure 2a**.

Table 2.3 Location of Air Quality Monitoring Station

Monitoring Station	Location	Land uses
AMS 5	Tin Liu	Residential
AMS 8	Lek Yuen Estate	Residential
AMS 10	Shatin Police Station	Residential
AMS 11A	Sheung Wo Che	Residential

2.6 Results and Observations

2.6.1 The schedule of air quality monitoring in reporting month is provided in **Appendix E**.

2.6.2 No Action / Limit Level exceedance was recorded for 24-hr and 1-hr TSP at AMS 5, 8, 10 and 11A in the reporting month.

2.6.3 During the reporting month, major dust sources including trial pits excavation, pre-drilling, mini pile works, soldier pile, sheet pile works and Pre Bored H-pile works were observed in the site. Other factors such as road traffic along Tai Po Road may affect the monitoring results.

2.6.4 The weather conditions during the monitoring are provided in **Appendix K**.

2.6.5 The monitoring data of 24-hr and 1-hr TSP are summarized in **Table 2.4** and **2.5**. Detailed monitoring data are presented in **Appendix F**.

Table 2.4 Summary of 24-hr TSP Monitoring Results

Parameter	Monitoring Station	Average ($\mu\text{g}/\text{m}^3$)	Range ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
24-hr TSP in $\mu\text{g}/\text{m}^3$	AMS 5	70	62 - 77	156	260
	AMS 8	71	67 - 73	161	
	AMS 10	76	72 - 82	155	
	AMS 11A	81	78 - 86	165	

Table 2.5 Summary of 1-hr TSP Monitoring Results

Parameter	Monitoring Station	Average ($\mu\text{g}/\text{m}^3$)	Range ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
1-hr TSP in $\mu\text{g}/\text{m}^3$	AMS 5	79	63-92	340	500
	AMS 8	74	63-82	336	
	AMS 10	79	67-96	330	
	AMS 11A	86	74-96	335	

2.6.6 The Event and Action Plan for air quality is given in **Appendix H**.



3. NOISE

3.1 Monitoring Requirement

3.1.1 In accordance with the updated EM&A Manuals, L_{eq} (30min) monitoring is conducted for at least once a week during the construction phase between 0700 and 1900 on normal weekdays at the designated monitoring locations.

3.2 Monitoring Equipment

3.2.1 The sound level meter used in noise monitoring will comply with the International Electrotechnical Commission Publication 651:1979 (Type 1) and 804:1985 (Type 1) specifications as referred to in the Technical Memorandum issued under the Noise Control Ordinance (NCO).

3.2.2 Sound level calibrator will be used for the on-site calibration of the meter. This calibrator complies with the IEC Publication 942 (1988) Class 1 and ANSI S1.40 - 1984. Noise measurements were only accepted to be valid if the calibration levels from before and after the measurement agree to within 1.0dB.

3.2.3 Measurements shall be recorded to the nearest 0.1dB. Sound level meters are programmed to measure A-weighted equivalent continuous sound pressure level at 30-minute intervals between 0700 and 1900 on normal weekdays at least once a week when construction activities are underway.

Table 3.1 summarizes the noise monitoring equipment model being used for this project.

Table 3.1 Noise Monitoring Equipment

Item	Brand	Model	Equipment	Serial Number
1	Casella	CEL-63X Series	Integrating Sound Level Meter	1488302
2	Casella	CEL-63X Series	Integrating Sound Level Meter	1488314
3	Casella	CEL-63X Series	Integrating Sound Level Meter	1488279
4	Casella	CEL-63X Series	Integrating Sound Level Meter	2451082
5	Casella	CEL-63X Series	Integrating Sound Level Meter	3756127
6	Casella	CEL-63X Series	Integrating Sound Level Meter	1488293
7	Casella	CEL-120 Series	Calibrator	5230758
8	Casella	CEL-120 Series	Calibrator	1677126
9	Casella	CEL-120 Series	Calibrator	4358251
10	Casella	CEL-120 Series	Calibrator	5230736

3.3 Monitoring Parameters and Frequency

Table 3.2 presents the noise monitoring parameters and frequencies.

Table 3.2 Monitoring Parameters and Frequencies of Noise Monitoring

Parameter	Frequency and Period
L_{Aeq} (30min) L_{10} and L_{90} will be recorded for reference	At each station at 0700-1900 hours on normal weekdays at a frequency of once a week

3.4 Monitoring Methodology

3.4.1 The monitoring procedures are as follows:

- The monitoring station is set at a point 1m from the exterior of the sensitive receivers building façade and set at a position 1.2m above the ground.
- The battery condition is checked to ensure good functioning of the meter.
- Parameters such as frequency weighting, the time weighting and the measurement time are set as follows:
 - frequency weighting : A
 - time weighting : Fast
 - measurement time : Weekly 30 minutes between 0700-1900 on normal weekdays
- Prior to and after noise measurement, the meter shall be calibrated using the calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement is more than 1.0 dB, the measurement will be considered invalid and repeat of noise measurement is required after re-calibration or repair of the equipment.
- Noise monitoring should be cancelled in the presence of fog, rain, and wind with a steady speed exceeding 5 m/s, or wind with gusts exceeding 10 m/s.
- Noise measurement should be paused during periods of high intrusive noise if possible and observation shall be recorded when intrusive noise is not avoided.
- At the end of the monitoring period, the Leq, L10 and L90 are recorded. In addition, site conditions and noise sources are recorded on a standard record sheet.

3.5 Maintenance / Calibration

3.5.1 Maintenance and Calibration procedures are as follows:

- The microphone head of the sound level meter and calibrator should be cleaned with a soft cloth at quarterly intervals.
- The sound level meter and calibrator should be calibrated annually by a HOKLAS laboratory.
- Relevant calibration certificates are provided in **Appendix D**.

3.6 Monitoring Locations

3.6.1 According to the updated EM&A Manual, 25 noise monitoring locations were included during the noise monitoring. The monitoring locations are summarized in **Table 3.3** and shown in **Figure 2**.



Table 3.3 Location of Noise Monitoring Station

Monitoring Station	Location	Land Uses	Type of Measurement
NMS1	Scenery Court	Residential	Façade
NMS2	Villa Le Parc	Residential	Façade
NMS3	Hilton Plaza	Residential	Façade
NMS4	Tin Liu	Residential Village	Façade
NMS5A	Wai Wah Centre	Residential	Façade
NMS6A	Wai Wah Centre	Residential	Façade
NMS7	Tin Liu	Residential Village	Façade
NMS8	Shatin Plaza	Residential	Façade
NMS9	Lek Yuen Estate	Residential	Façade
NMS10A	Shatin Tsung Tsin School	School	Façade
NMS11	Sheung Wo Che	Residential Village	Façade
NMS12	SKH Holy Spirit Primary School	School	Façade
NMS13	Lek Yuen Estate	Residential	Façade
NMS14	Sheung Wo Che	Residential Village	Façade
NMS15	Ha Wo Che	Residential Village	Façade
NMS16	Ha Wo Che	Residential Village	Façade
NMS17	Shatin Pui Ying College	School	Façade
NMS18	Ha Wo Che	Residential Village	Façade
NMS19	Wo Che Estate	Residential	Façade
NMS20	Wo Che Estate	Residential	Façade
NMS23	Pai Tau	Residential Village	Façade
NMS24	Shatin Plaza	Residential	Façade
NMS25A	Sheung Wo Che	Residential Village	Façade
NMS26	Wo Che Estate	Residential	Façade
NMS27	Jockey Club Ti-I College	School	Façade

3.7 Results and Observations

- 3.7.1 The schedule of noise monitoring in reporting month is provided in **Appendix E**.
- 3.7.2 The exam schedules of the schools and Arrangements on Deferral of Class Resumption for All Schools are provided in **Appendix E**.
- 3.7.3 During the monitoring month, road traffic along Tai Po Road was observed which may affect the monitoring results.
- 3.7.4 No raining and wind with speed over 5 m/s was observed during day time noise monitoring according to the onsite observation. The weather conditions during the monitoring month are provided in **Appendix K**.
- 3.7.5 The day time noise monitoring data are summarized in **Table 3.4**. Detailed monitoring data are presented in **Appendix G**.

Table 3.4 Summary of Day Time Noise Impact Monitoring Results

Monitoring Station	Leq (30min) Range, dB(A)	Leq (30min) Limit Level, dB(A)
	Construction Noise Level	
NMS1	64.7 – 67.2	75
NMS2	61.7 – 64.0	75
NMS3	67.8 – 68.7	75
NMS4	66.9 – 67.7	75
NMS5A	66.9 – 68.7	75
NMS6A	67.5 – 69.3	75
NMS7	66.3 – 68.1	75
NMS8	69.4 – 71.2	75
NMS9	69.4 – 71.1	75
NMS10A	65.6 – 67.3	70*
NMS11	66.3 – 68.0	75
NMS12	63.5 – 65.2	70*
NMS13	63.6 – 65.4	75
NMS14	65.1 – 66.9	75
NMS15	67.6 – 70.1	75
NMS16	66.1 – 67.9	75
NMS17	64.1 – 65.9	70*
NMS18	64.9 – 66.7	75
NMS19	65.6 – 67.4	75
NMS20	66.4 – 68.2	75
NMS23	66.1 – 67.9	75
NMS24	67.6 – 69.4	75
NMS25A	67.6 – 69.4	75
NMS26	69.9 – 71.7	75
NMS27	65.6 – 67.4	70*

Note: 1. Leq (30min) was measured at day-time (0700-1900) on normal weekdays.
2. 70 dB(A) for schools and 65 dB(A) for schools during examination period.
3. The examination schedule was provide in **Appendix E**.

3.7.6 Regular night time noise monitoring were conducted on 8, 15, 22, and 23 October 2020 and the results are summarized in **Table 3.5**. Detailed monitoring data are presented in **Appendix G**.

Table 3.5 Summary of Night Time Noise Impact Monitoring Results

Monitoring Station	Leq (15min) Range, dB(A)	Leq (15min) Limit Level, dB(A)	Leq (15min) Baseline, dB(A)
	Construction Noise Level		
NMS1	54.9 – 56.0	55	61.4
NMS2	49.2 – 52.8	55	49.7
NMS3	59.2 – 62.5	55	70.9
NMS4	55.5 – 57.8	55	62.6
NMS5A	60.7 – 61.4	55	67.9
NMS6A	67.2 – 68.0	55	71.5
NMS7	58.4 – 58.9	55	59.0
NMS8	57.2 – 58.1	55	64.4
NMS9	54.1 – 54.2 ^[2]	55	53.5
NMS11	51.3 – 54.6 ^[2]	55	53.2
NMS13	46.6 – 57.2 ^[2]	55	57.3
NMS14	52.5 – 55.0 ^[2]	55	54.1
NMS15	42.1 – 58.3 ^[2]	55	58.8
NMS16	46.9 – 59.7 ^[2]	55	60.1
NMS18	56.6 – 60.5	55	63.2
NMS19	57.6 – 59.2	55	61.7
NMS20	49.9 – 53.7 ^[2]	55	57.7
NMS23	52.4 – 59.4 ^[2]	55	59.9
NMS24	47.5 – 57.9 ^[2]	55	58.0
NMS25A	47.0 – 59.1 ^[2]	55	59.7
NMS26	58.2 – 60.2 ^[2]	55	61.2

- Note: 1) $L_{eq (15min)}$ was measured at night-time (2300-0700).
 2) When the Average Measured Noise Level is greater than Limit Level and baseline level, Average Construction Noise Level (CNL) will be applied, where
 Calculated CNL = Measured Noise Level during operation – Baseline
 3) Detailed analysis of each monitoring location is provided in **Appendix G**.

- 3.7.7 Day time construction noise monitoring was carried out in the reporting month, no Action / Limit Level exceedance was recorded during the period. For night time construction noise monitoring, no exceedance case was recorded between 2300 and 0700 of the next day during the reporting month.
- 3.7.8 The Action and Limit Levels for noise impact monitoring have been set and are presented in **Appendix C**.
- 3.7.9 The Event and Action Plan for noise is given in **Appendix H**.



4. LANDSCAPE AND VISUAL

4.1 Audit Requirements

4.1.1 In accordance with the EM&A Manual, the landscape and visual mitigation measures during the construction phase are primarily due to those associated temporary works for the construction of retrofitting noise barriers/enclosures. To ensure compliance with the intended aims of the measures, weekly site inspections are undertaken throughout the construction period.

4.1.2 According to the updated EM&A Manual, measures to mitigate landscape and visual impacts during construction should be checked to ensure compliance with the intended aims of the measures. The progress of the engineering works shall be regularly reviewed onsite to identify the earliest practical opportunities for the landscape works to be undertaken. The ET shall report on the Contractor's compliance on a weekly basis.

4.2 Results and Observations

4.2.1 Site audits were carried out to monitor and audit the implementation of landscape and visual mitigation measures. The summary of the site audits are given in **Appendix M**.

4.2.2 No non-compliance of the landscape and visual impact was recorded in the reporting month.



5. WASTE MANAGEMENT

5.1 Audit Requirements

5.1.1 The effective management of waste arising during the construction phase will be monitored through the site audit programme. Regular audits and site inspections should be carried out to ensure that the recommended good site practices and other mitigation measures are implemented by the Contractor.

5.1.2 The audit should look at all aspects of on-site waste management practices including the waste generation, storage, recycling, transport and disposal. The aims of waste audit are:

- to ensure the waste arising from the works are handled, stored, collected, transferred and disposed of in an environmentally acceptable manner;
- verify the implementation status and evaluate the effectiveness of the mitigation measures; and
- to encourage the reuse and recycling of material.

5.2 Results and Observations

5.2.1 C&D materials and wastes sorting were carried out on site. Receptacles were available for C&D wastes and general refuse collection.

5.2.2 The amount of wastes generated by the site activities in the reporting month is shown in **Appendix I**.



6. SITE INSPECTION

6.1 Site Inspection

- 6.1.1 Site inspections were carried out weekly to monitor the implementation of proper environmental pollution control and mitigation measures for the Project. A summary of the mitigation measures implementation schedule is provided in **Appendix J**.
- 6.1.2 In the reporting month, 4 site inspections were carried out on 8, 15, 22 and 29 October 2020. The site inspection held on 29 October 2020 was joint inspection with the IEC, ER, the Contractor and the ET during the reporting period.
- 6.1.3 All the follow-up actions requested by ET and IEC during the site inspections were completed and reported by the Contractor. All the rectifications during the reporting period were fulfilled with the requirement of Proposal of Site Inspection, Deficiency and Remedial Action. No outstanding issues were reported during the reporting month. Details of observations recorded during the site inspections are summarized in **Appendix M**.



7. ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE

7.1 Environmental Exceedance

7.1.1 24-hour and 1-hour TSP impact monitoring were carried out in the reporting month, no Action / Limit Level exceedance was recorded during the period.

7.1.2 Day time construction noise monitoring was carried out in the reporting month, no Action / Limit Level exceedance was recorded during the period. Regular night time noise monitoring was carried out on 8, 15, 22 and 29 October 2020 respectively and no exceedance case was recorded between 2300 and 0700 of the next day during the reporting month.

7.2 Complaints, Notification of Summons and Prosecution

7.2.1 No complaint cases was received during the reporting period.

7.2.2 Cumulative complaint log, summaries of complaints, notification of summons and successful prosecutions are presented in **Appendix L**.

8. IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURES

8.1 Implementation Status

8.1.1 The Contractor has implemented environmental mitigation measures and requirements as stated in the EIA Review Report, the EP and the updated EM&A Manuals. The implementation status of the mitigation measures during the reporting month is summarized in **Appendix J**.

8.1.2 According to the environmental audit performed in the reporting month, the following recommendations were made:

Air Quality Impact

- NRMM label should be shown on machine due to the requirement of APCR.
- To cover the stockpile of excavated materials. (Zone 2)

Construction Noise Impact

- No specific observation was identified in the reporting month.

Water Quality Impact

- To clean up the sedimentation tank regularly to avoid overflow. (Zone 3 S06)
- Sedimentation tank should be clear regularly at Zone 3.
- Desilt the u-channel regularly. (Zone 4)
- Waste water should be treated before discharge, prevent discharge of muddy water. (Zone 5)

Chemical and Waste Management

- Waste should be cleared regularly at Work Area B to maintain good site condition.
- Clear the stagnant water in the drip tray for power pack. (Zone 3 S06)
- General waste in drip tray should be clear at Zone 3 to maintain good site condition.
- Stagnant water and oil in drip tray should be clear regularly at Zone 3 to prevent spill over.
- Provide drip tray for chemical /fuel oil near the air compressor. (Zone 4)
- Replace/ repair the drip tray to provide proper mitigation for preventing chemical spillage. (Zone 5)

Land Contamination

- No specific observation was identified in the reporting month.

Landscape and Visual Impact

- No specific observation was identified in the reporting month.

General Condition

- No specific observation was identified in the reporting month.

Permit / Licenses

- To displace the complete set of CNP at site entrance. (Zone 3)

9. FUTURE KEY ISSUES

9.1 Construction Programme for the Next Month

During the coming reporting month, the principal work activities within the site include:

- (1) Tree preservation / felling/ pruning/ transplantation in Zone 1, 2, 3, 4 & 5.
- (2) Pre-drill works in Zone 1, 2 & 5.
- (3) Mini pile Works in Zone 1, 2, 4 & 5.
- (4) Backfilling for underground utilities trench in Zone 1 & 2.
- (5) Construction of Pile Cap in Zone 1 & 2.
- (6) Road Reinstatement Works in Zone 1 & 2.
- (7) Trial Pits Excavation in Zone 3, 4 & 5.
- (8) Underground utilities detections in Zone 3, 4 & 5.
- (9) Noise Barrier Foundation Works in Zone 3 & 5.
- (10) Construction of Temporary Road for bus terminal in Zone 3.
- (11) ELS works for gantry footing construction & sheet pile works in Zone 3.
- (12) Construction/ Diversion of underground utilities in Zone 3, 4 & 5.
- (13) Bored Pile Works, Cross Road Duct Construction Works, FRP Platform Installation, Pile cap construction, Soldier pile works, Socket H pile works and Pier Construction Works in Zone 3.
- (14) Lagging wall and retaining wall in Zone 3.
- (15) Construction works of Central median, demolition and install temporary median module in Zone 3 & 4.
- (16) Demolition of existing staircases and footbridge column foundation works in Zone 4.
- (17) Foundation works of footbridge NF66 in Zone 4.
- (18) Soil Replacement Works and Sheet pile works on Slope in Zone 5.

9.2 Key Issues for the Coming Month

- 9.2.1 Potential environmental impacts arising from the above construction activities are mainly associated with construction dust, construction noise, water quality, waste management and landscape and visual impact.

9.3 Monitoring Schedules for the Next Month

- 9.3.1 The tentative schedules for environmental monitoring in the coming month are provided in **Appendix E**.



10. CONCLUSIONS

- 10.1.1 24-hour and 1-hour TSP impact monitoring were carried out in the reporting month, no Action / Limit Level exceedance was recorded during the period.
- 10.1.2 Day time construction noise monitoring was carried out in the reporting month, no Action / Limit Level exceedance was recorded during the period.
- 10.1.3 Regular night time noise monitoring was carried out on 8, 15, 22 and 29 October 2020 respectively and no exceedance case was recorded between 2300 and 0700 of the next day during the reporting month.
- 10.1.4 4 site inspections were carried out on 8, 15, 22 and 29 October 2020. Recommendations on mitigation measures on air quality, chemical and waste management and landscape and visual impact were given to the Contractor for remediating the deficiencies identified during the site inspections.
- 10.1.5 No complaint case was received during the reporting period.

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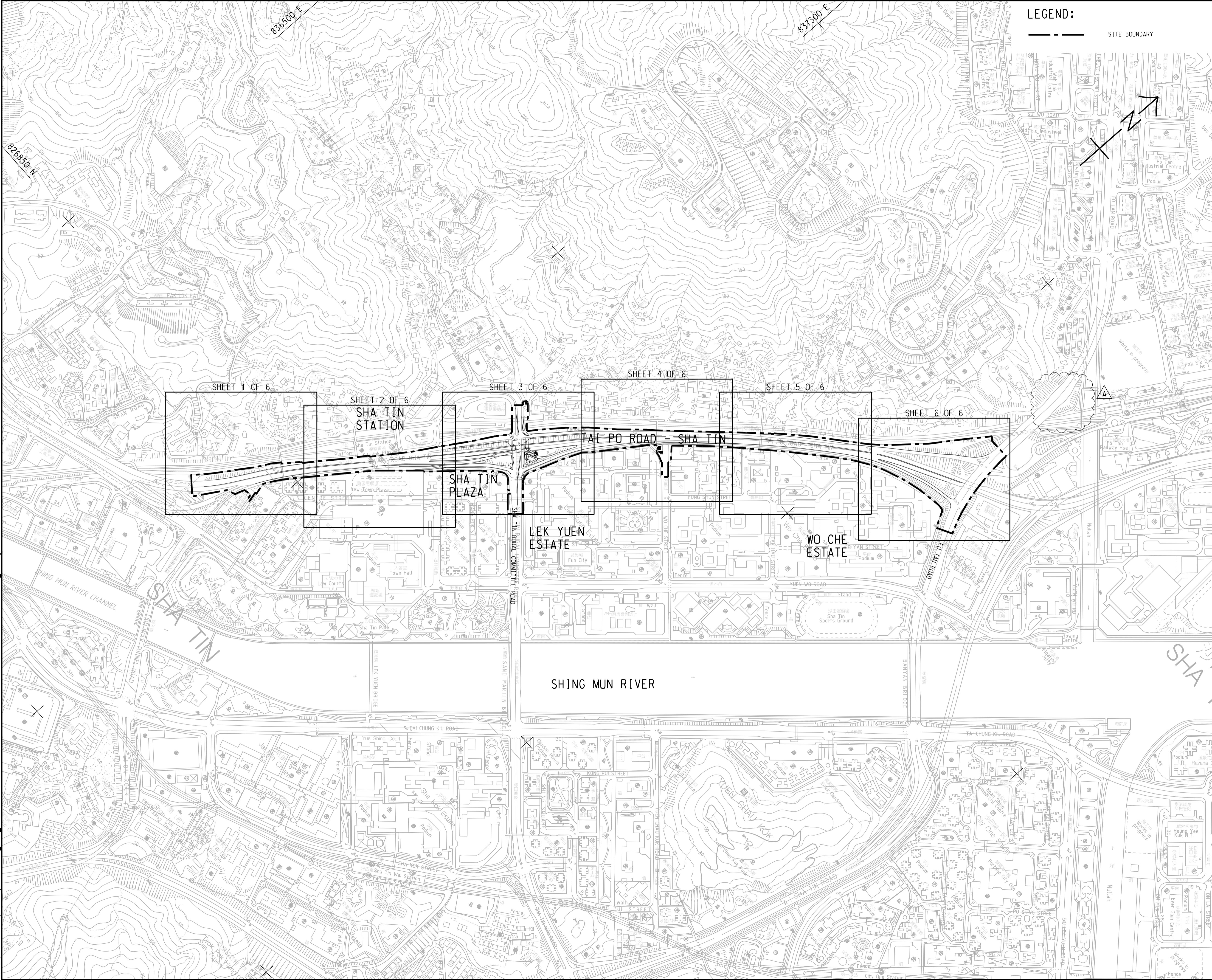
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Figure 1

Project General Layout

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LEGEND:
 --- SITE BOUNDARY

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PROJECT
 ROAD WIDENING AND RETROFITTING NOISE BARRIERS ON TAI PO ROAD (SHA TIN SECTION)

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FIGURE 1.1a

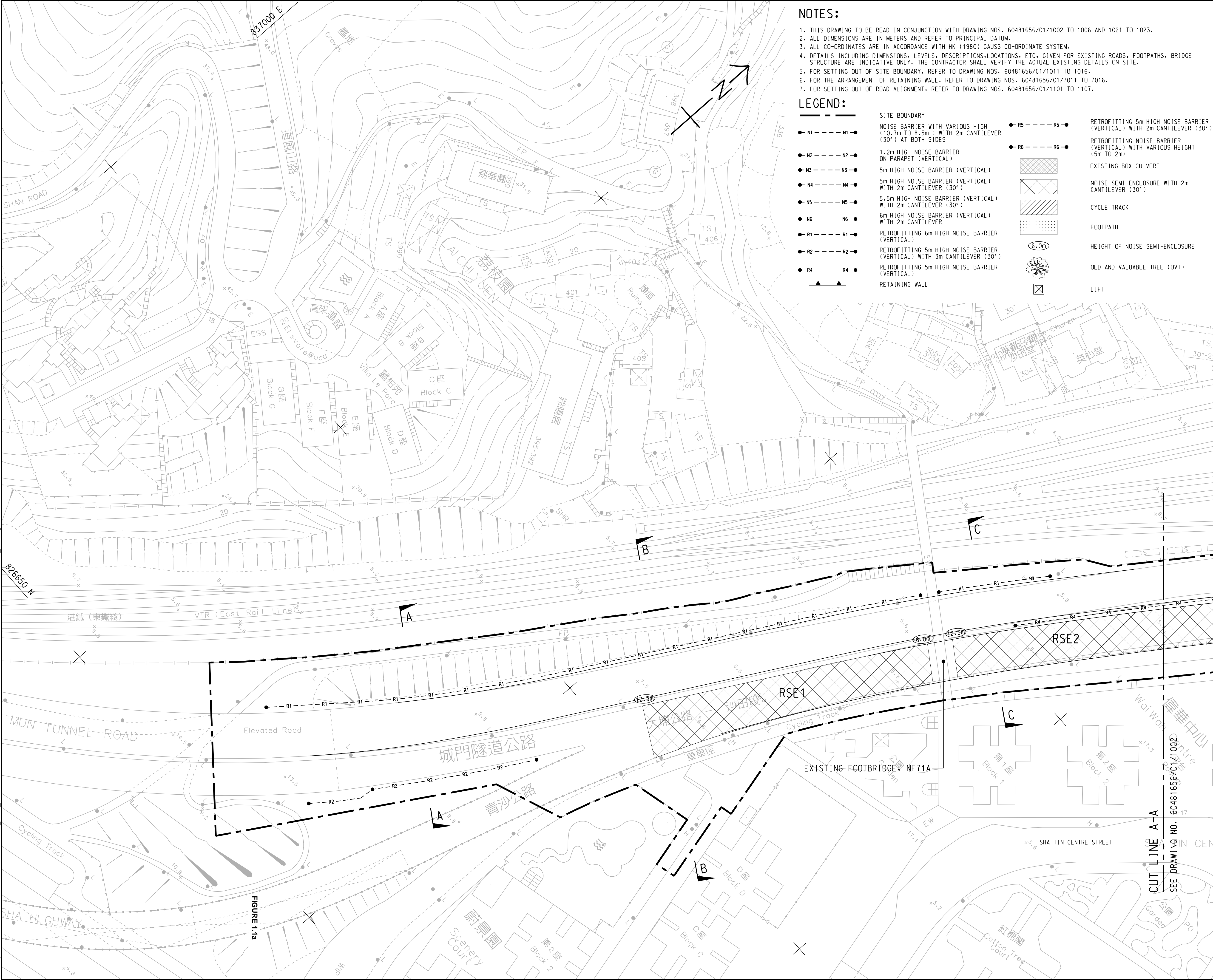
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KEY PLAN
FIGURE 1.1a

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NOTES:

- THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING NOS. 60481656/C1/1002 TO 1006 AND 1021 TO 1023.
- ALL DIMENSIONS ARE IN METERS AND REFER TO PRINCIPAL DATUM.
- ALL CO-ORDINATES ARE IN ACCORDANCE WITH HK (1980) GAUSS CO-ORDINATE SYSTEM.
- DETAILS INCLUDING DIMENSIONS, LEVELS, DESCRIPTIONS, LOCATIONS, ETC. GIVEN FOR EXISTING ROADS, FOOTPATHS, BRIDGE STRUCTURE ARE INDICATIVE ONLY. THE CONTRACTOR SHALL VERIFY THE ACTUAL EXISTING DETAILS ON SITE.
- FOR SETTING OUT OF SITE BOUNDARY, REFER TO DRAWING NOS. 60481656/C1/1011 TO 1016.
- FOR THE ARRANGEMENT OF RETAINING WALL, REFER TO DRAWING NOS. 60481656/C1/7011 TO 7016.
- FOR SETTING OUT OF ROAD ALIGNMENT, REFER TO DRAWING NOS. 60481656/C1/1101 TO 1107.

LEGEND:

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PROJECT
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ROAD WIDENING AND RETROFITTING NOISE BARRIERS ON TAI PO ROAD (SHA TIN SECTION)

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Civil Engineering and Development Department

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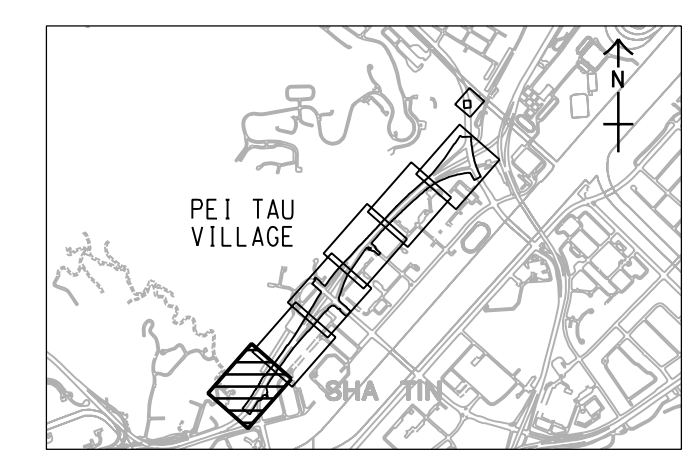
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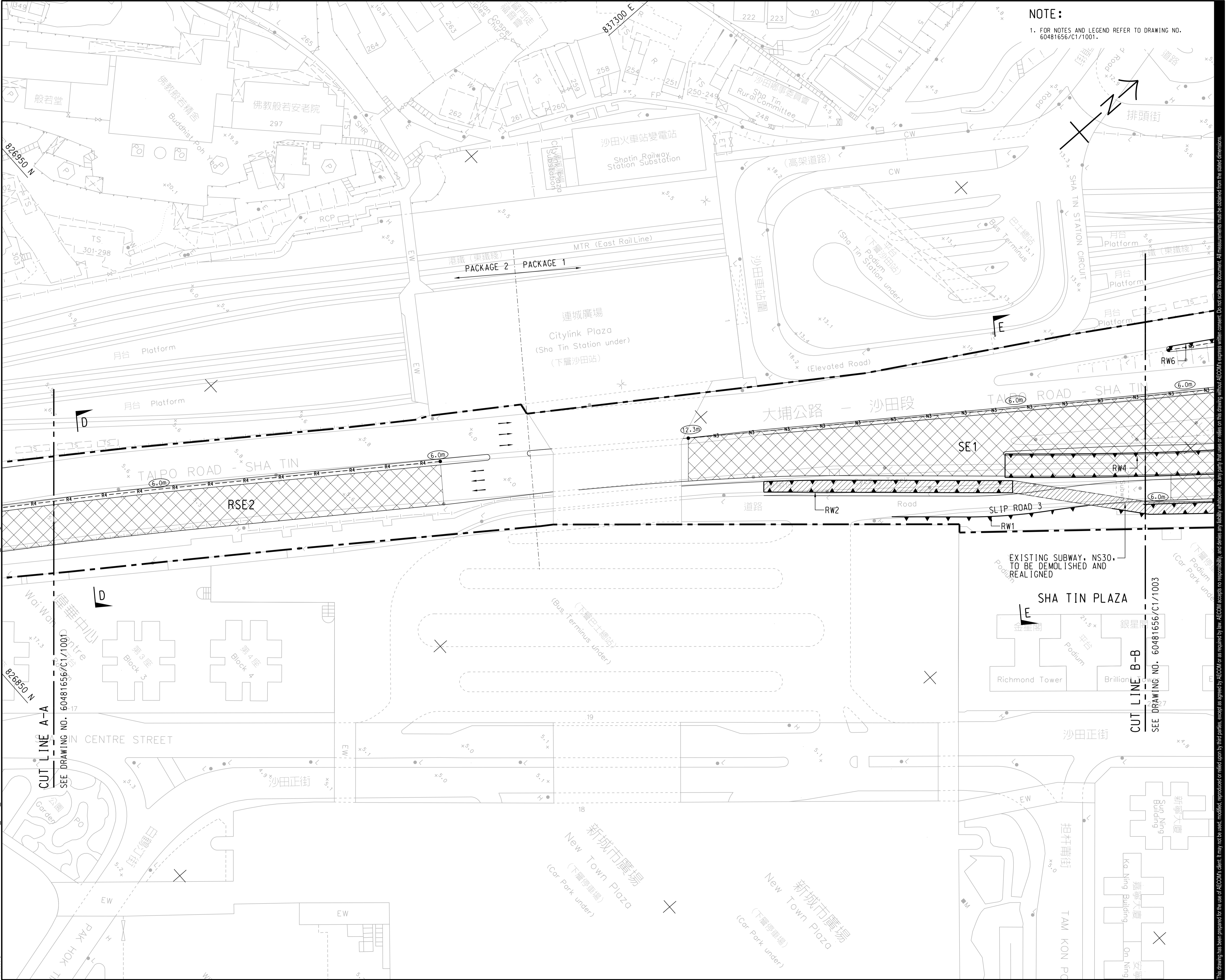
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FIGURE 1.1 b

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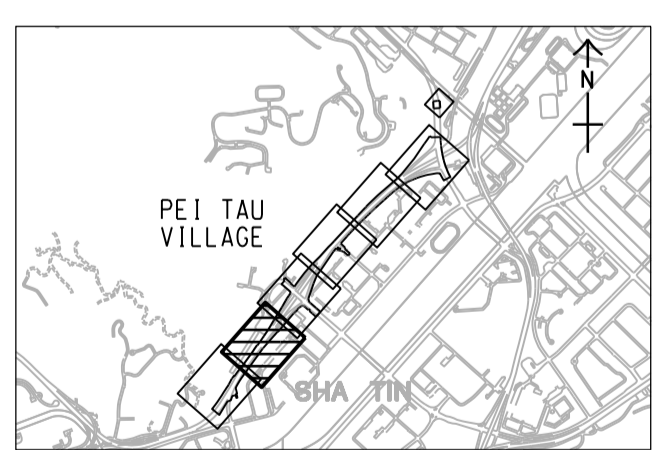
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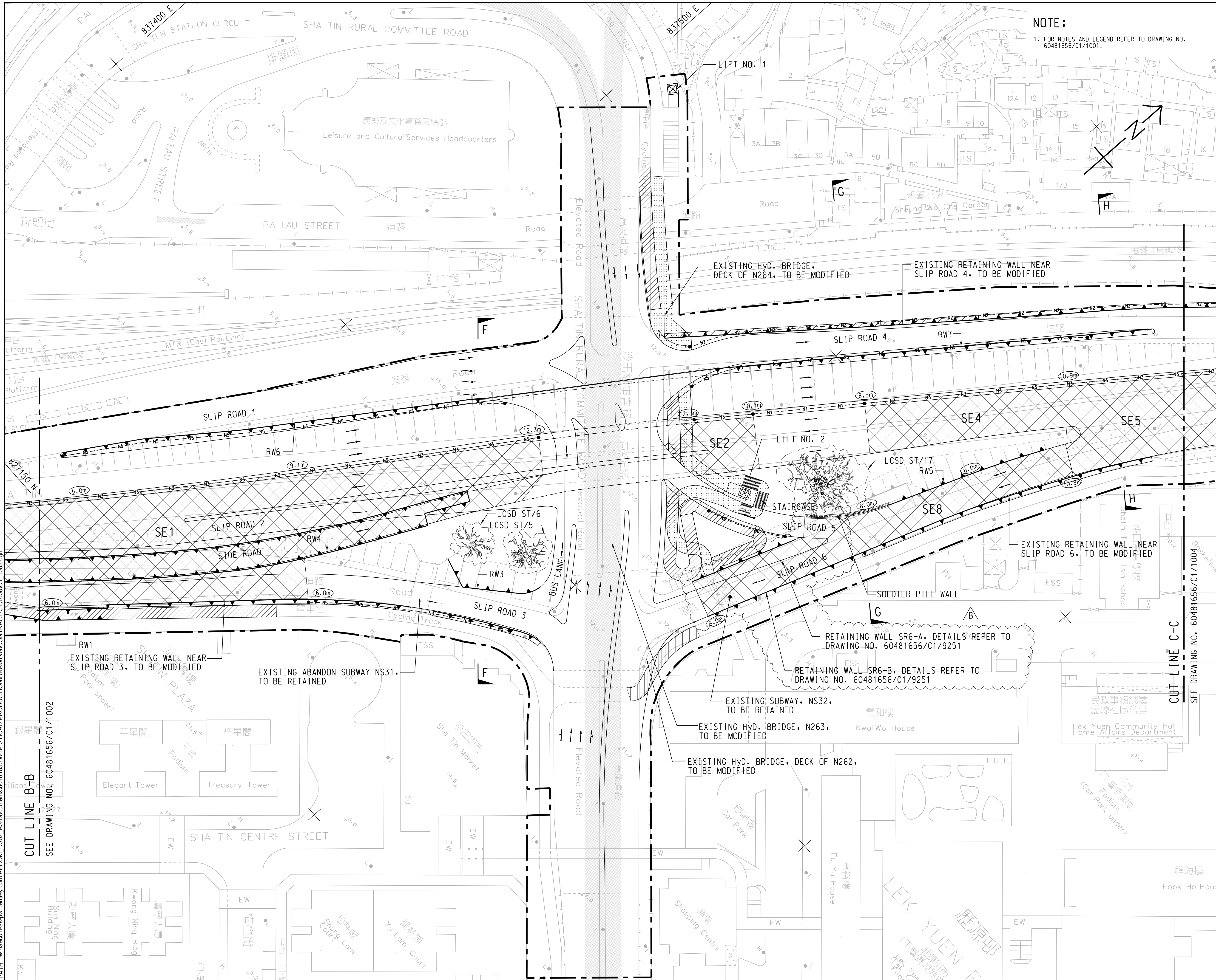
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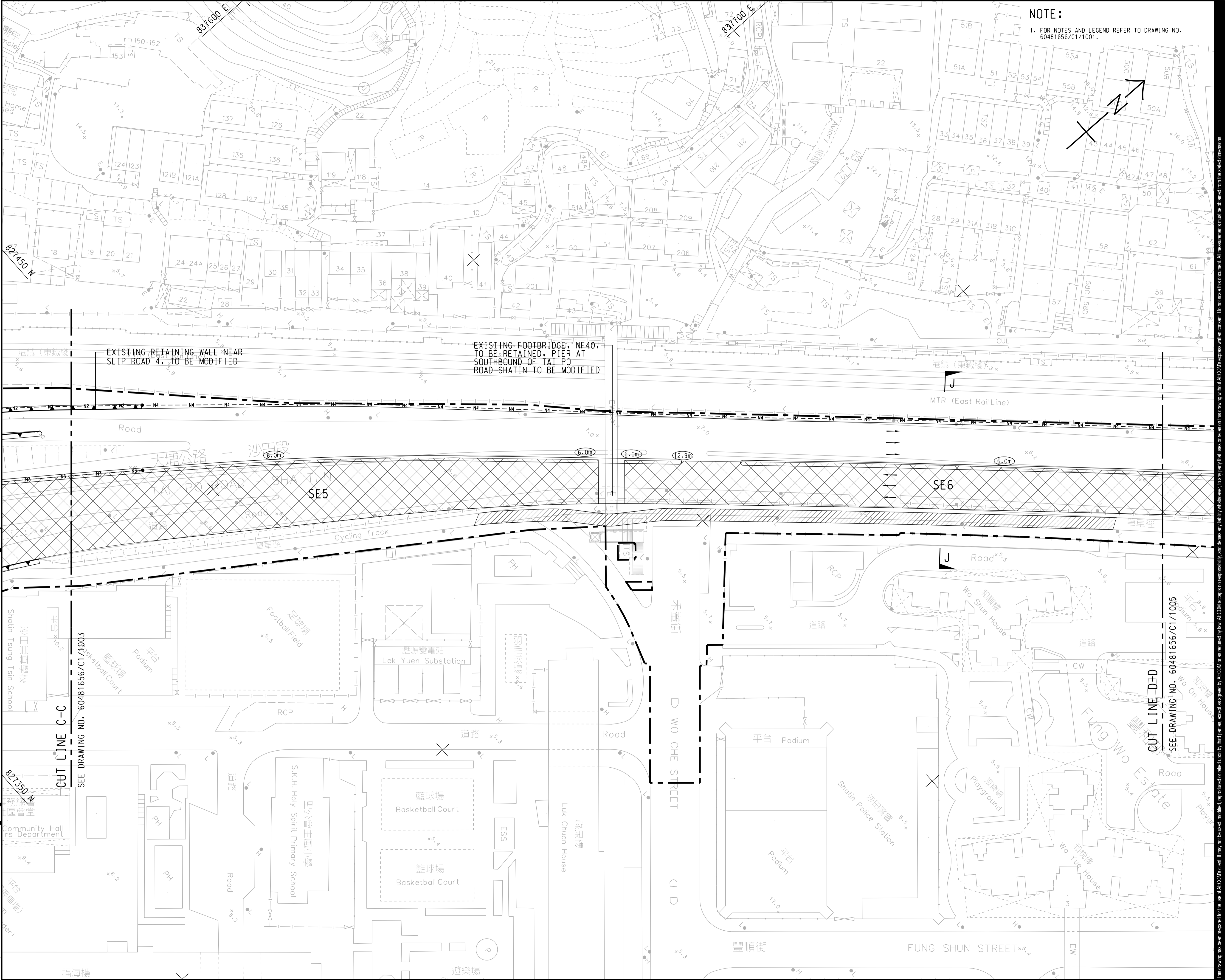
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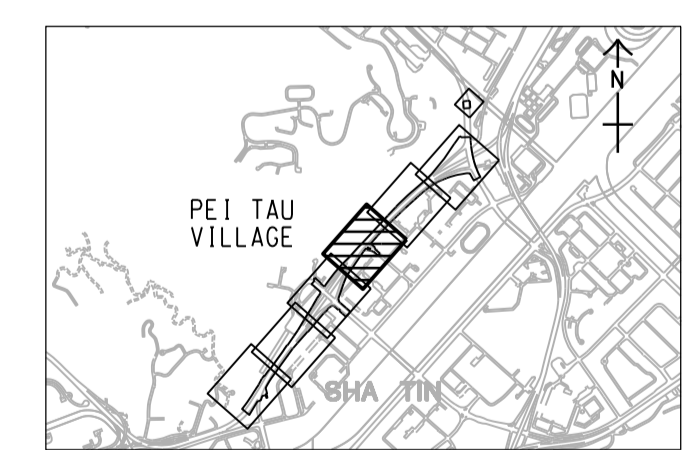
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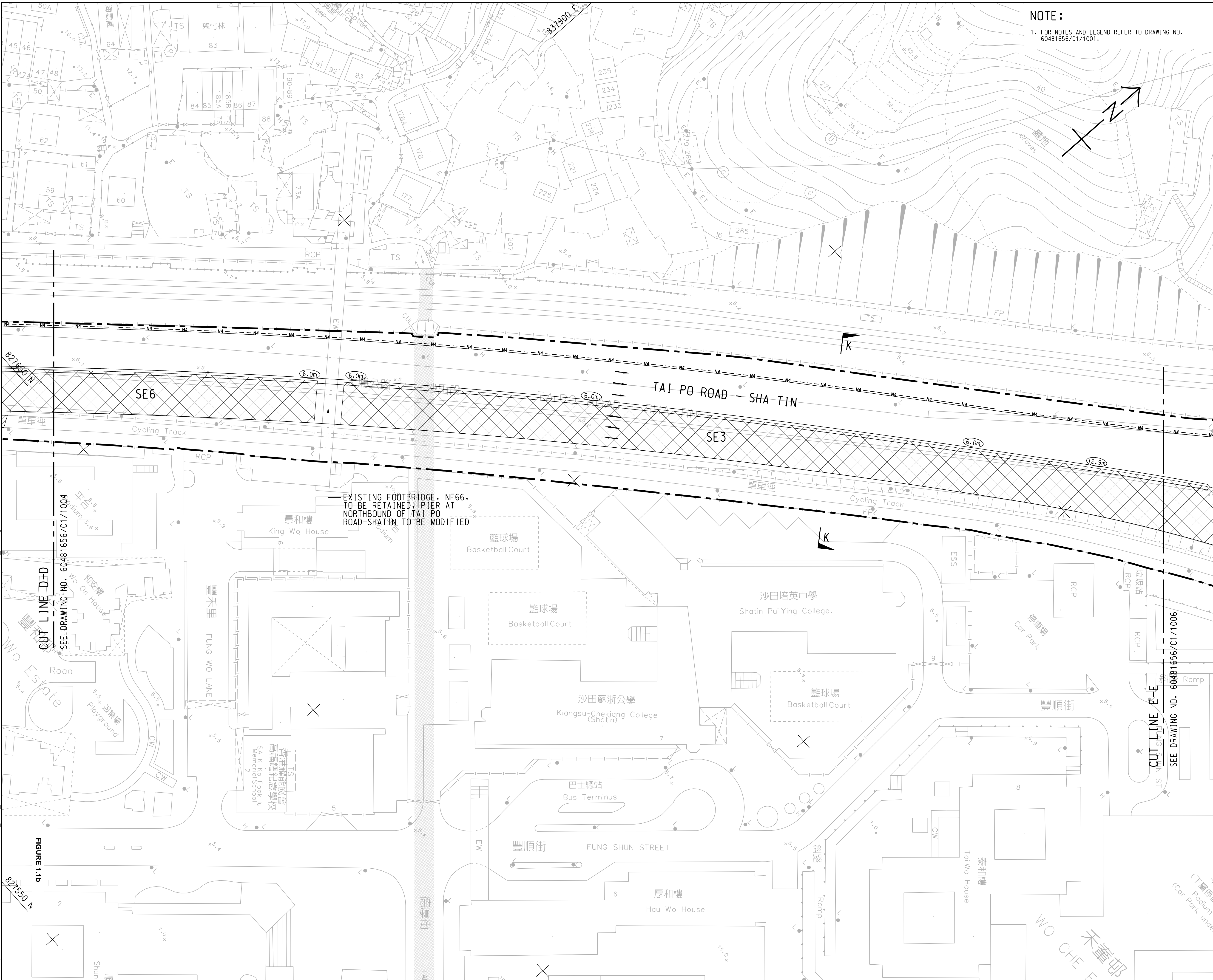
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 Project Management Initials: Designer: FMSC Checked: BCC Approved: CWN
 ISO A1 594mm x 841mm



NOTE:
 1. FOR NOTES AND LEGEND REFER TO DRAWING NO. 60481656/C1/1001.

AECOM

PROJECT
 項目

ROAD WIDENING AND RETROFITTING NOISE BARRIERS ON TAI PO ROAD (SHA TIN SECTION)

CLIENT
 業主

CEDD 土木工程拓展署
 Civil Engineering and Development Department

CONSULTANT
 工程顧問公司

AECOM Asia Company Ltd.
 www.aecom.com

SUB-CONSULTANTS
 分判工程顧問公司

ISSUE/REVISION

REV	DATE	DESCRIPTION	CHK.
-	JAN. 18	TENDER DRAWING	BCC
I/R	修改日期	內容摘要	核核

STATUS
 階段

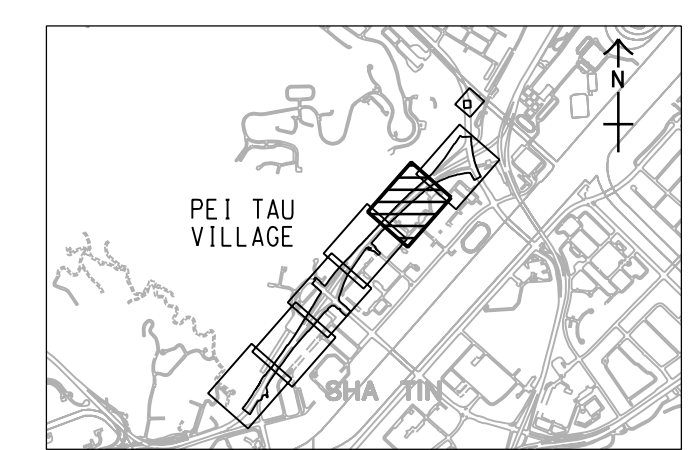
SCALE
 比例

A1 1:500

DIMENSION UNIT
 尺寸單位

METRES

KEY PLAN A1 1:40000
 索引圖



CONTRACT NO.
 合約編號

NE/2017/05

SHEET TITLE
 圖紙名稱

GENERAL LAYOUT PLAN
 FIGURE 1.1b

SHEET NUMBER
 圖紙編號

60481656/C1/1005

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FUGRO TECHNICAL SERVICES LIMITED

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Figure 2a

Air Monitoring Locations

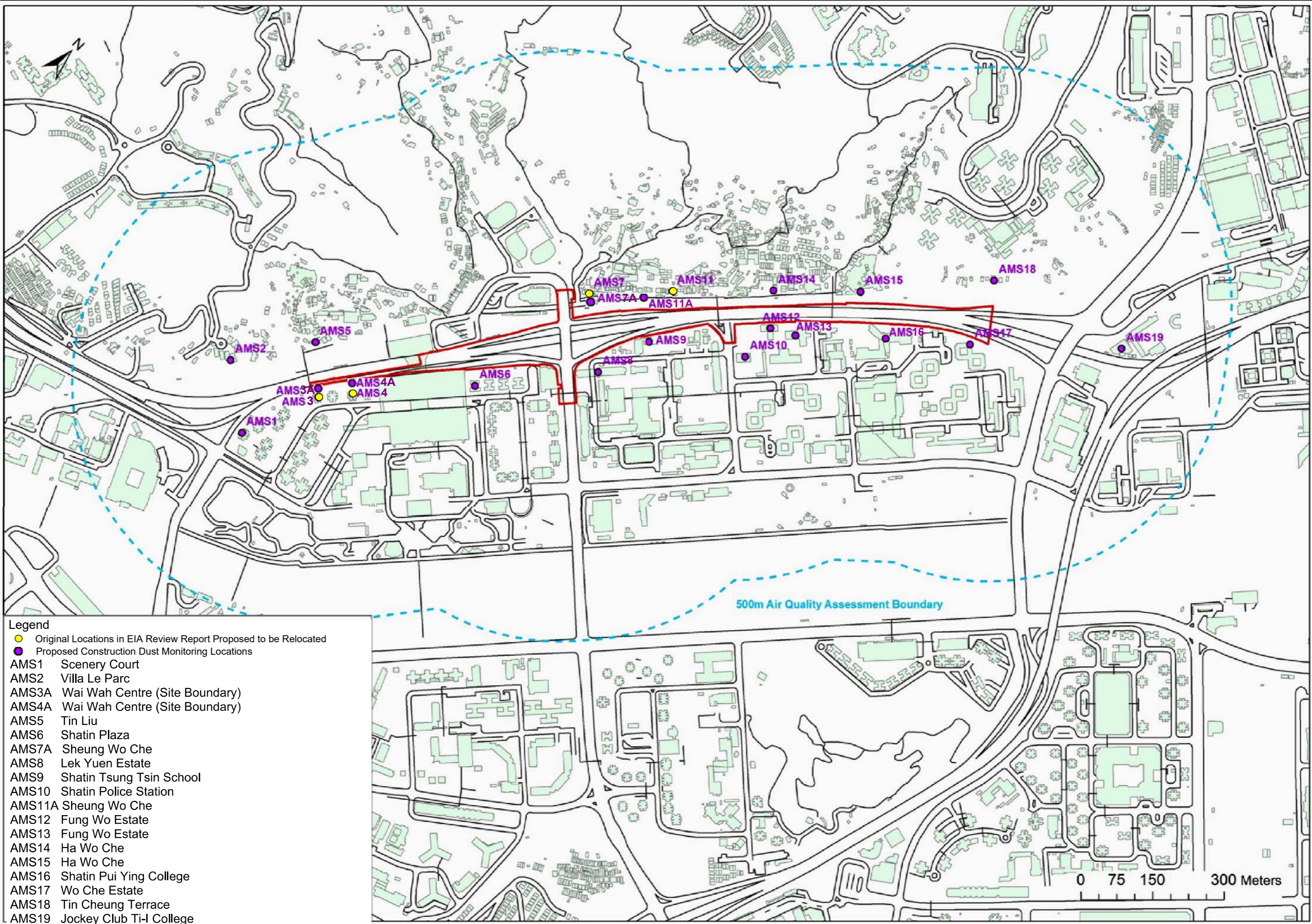


Figure 2a Air Quality Monitoring Locations

FUGRO TECHNICAL SERVICES LIMITED

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Figure 2b

Noise Monitoring Locations

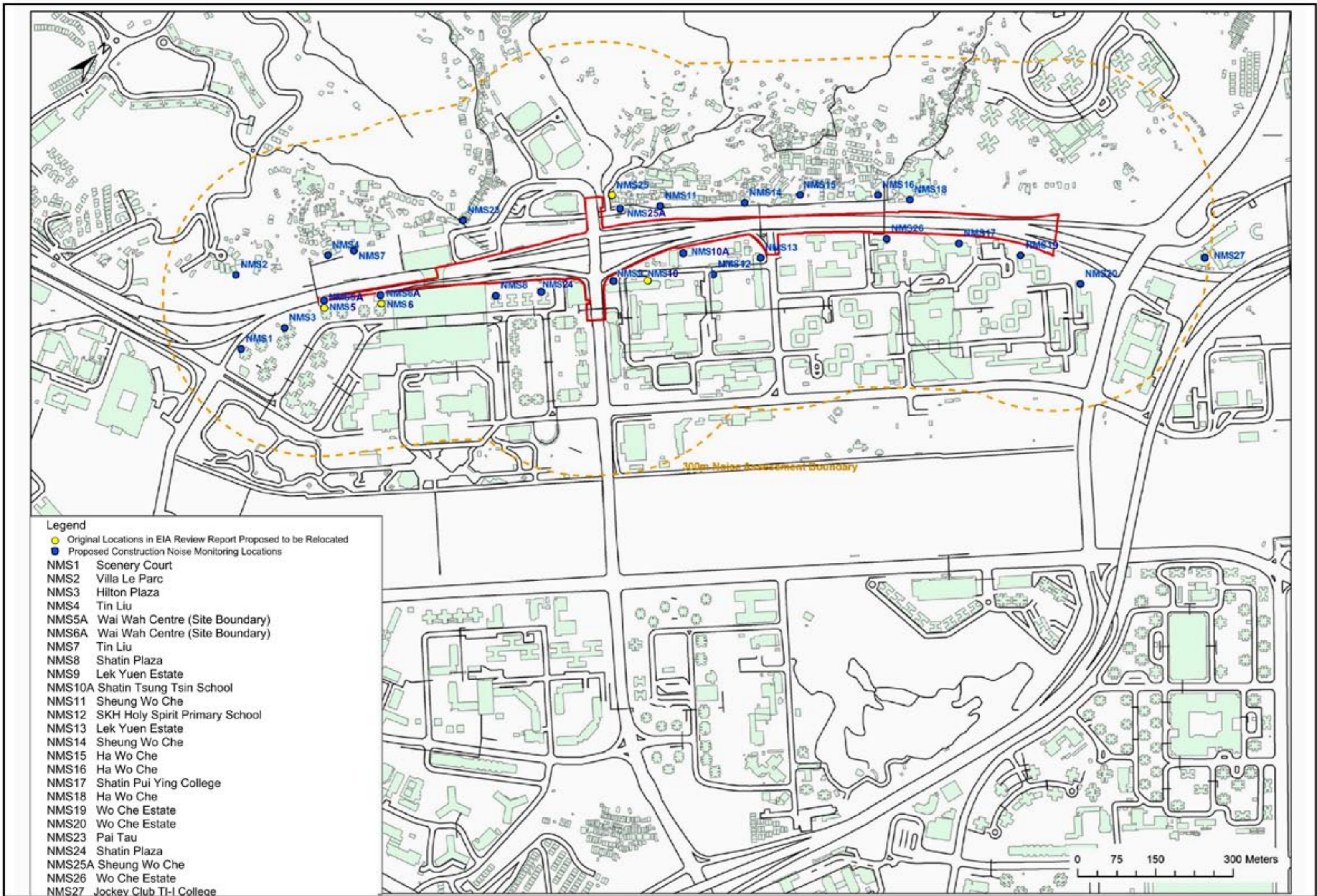


Figure 2b Noise Monitoring Locations

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Appendix A









Construction Programme

Activity ID	Activity Name	Original Duration	Remaining Duration	3MRP Start	3MRP Finish	AP9 Start	AP9 Finish	2020					2021
								Sep 27	Oct 28	Nov 29	Dec 30	Jan 31	
Contract NE/2017/05 Road Widening and Retrofitting Noise Barriers on Tai Po Road (Sha Tin Section)													
PRELIMINARIES & GENERAL REQUIREMENT													
GENERAL SUBMISSION													
SUB1343	TCSS Configuration Management	0	0	30-Sep-20*		31-Jul-20							
SUB1347	Lift Installation - Design Data	0	0	30-Sep-20*		31-Jul-20							
SUB1403	ITP's for Lighting Luminaires and System	0	0	30-Sep-20*		31-Jul-20							
SUB1405	All Lighting Designs	0	0	30-Sep-20*		31-Jul-20							
SUB1410	Combined Services Drawings (CSD)	0	0	30-Sep-20*		31-Jul-20							
DESIGN SUBMISSION													
STRCR INTERCHANGE MODIFICATION WORKS (Alternative Design)													
DES1150	PM Consent for Construction	28	17	03-May-19 A	16-Oct-20	31-Jul-19	27-Aug-19						
NOISE MITIGATION MEASURES													
DES1230	PM Consent for Construction	28	1	02-Jan-19 A	30-Sep-20	31-Jan-19	27-Feb-19						
DES1250	PM review & comment	28	14	12-Jul-19 A	13-Oct-20	01-Sep-19	29-Sep-19						
DES1260	Re-submit Foundation Design of Noise Mitigation Measures in Zone 3 w/Design Certific	23	23	15-Oct-20	06-Nov-20	15-Aug-20	06-Sep-20						
DES1270	PM Consent for Construction	28	28	07-Nov-20	04-Dec-20	07-Sep-20	04-Oct-20						
DES1290	PM review & comment	28	11	07-Aug-19 A	11-Oct-20	31-Aug-19	27-Sep-19						
DES1300	Re-submit Superstructure Design of Noise Mitigation Measures in Zone 1 & 2 w/Design	20	20	12-Oct-20	01-Nov-20	15-Aug-20	03-Sep-20						
DES1310	PM Consent for Construction	28	28	01-Nov-20	29-Nov-20	04-Sep-20	01-Oct-20						
DES1330	PM review & comment	28	20	07-Aug-19 A	19-Oct-20	31-Aug-19	27-Sep-19						
DES1340	Re-submit Superstructure Design of Noise Mitigation Measures in Zone 3 w/Design Cer	21	21	20-Oct-20	10-Nov-20	20-Aug-20	10-Sep-20						
DES1350	PM Consent for Construction	28	28	10-Nov-20	08-Dec-20	10-Sep-20	08-Oct-20						
DES1370	PM review & comment	28	20	07-Aug-19 A	19-Oct-20	31-Aug-19	27-Sep-19						
DES1380	Re-submit Superstructure Design of Noise Mitigation Measures in Zones 4 & 5 w/Desig	20	20	20-Oct-20	09-Nov-20	20-Aug-20	09-Sep-20						
DES1390	PM Consent for Construction	28	28	09-Nov-20	07-Dec-20	09-Sep-20	07-Oct-20						
REMAINING WORKS													
DES1470	PM Consent for Construction	28	3	11-Mar-19 A	02-Oct-20	31-Jul-19	27-Aug-19						
DES1480	Prepare & submit Foundation Design of Pedestrian Lift 1 & 2, Lift 2 Staircase, Cycle Ti	21	0	26-Nov-18 A	30-Sep-20	31-Dec-18	20-Jan-19						
DES1490	PM review & comment	28	1	25-Jan-19 A	30-Sep-20	04-Aug-19	01-Sep-19						
DES1500	Re-submit Foundation Design of Pedestrian Lift 1 & 2, Lift 2 Staircase, Cycle Track Ra	35	1	13-Apr-20 A	03-Oct-20	02-Jun-20	07-Jul-20						
DES1510	PM Consent for Construction	28	28	03-Oct-20	31-Oct-20	03-Aug-20	31-Aug-20						
DES1530	PM review & comment	28	1	02-Jan-19 A	30-Sep-20	31-Jan-19	27-Feb-19						
DES1540	Re-submit Design of Watermain & Irrigation System w/Design Certificate	32	1	02-Jan-19 A	30-Sep-20	02-Apr-19	03-May-19						
DES1560	Prepare & submit Design of E&M System (E&M & Road Lighting) w/Design Certificate	35	35	30-Sep-20	03-Nov-20	31-Jul-20	03-Sep-20						
DES1570	PM review & comment	28	28	04-Nov-20	01-Dec-20	04-Sep-20	01-Oct-20						
DES1580	Re-submit Design of E&M System (E&M & Road Lighting) w/Design Certificate	32	32	03-Dec-20	03-Jan-21	03-Oct-20	03-Nov-20						
DES1590	PM Consent for Construction	28	28	04-Jan-21	31-Jan-21	04-Nov-20	01-Dec-20						
SUBLETTING & PROCUREMENT SCHEDULE													
SUBLETTING													
SPS1000	Maintenance of Traffic Flow	30	30	30-Sep-20	29-Oct-20	01-Aug-20	30-Aug-20						
SPS1210	Drainage (PC pipe, manhole & gully) and Duct	30	30	30-Sep-20	29-Oct-20	31-Jul-20	29-Aug-20						
SPS1220	CCTV for Drainage Pipe	30	6	31-Mar-20 A	07-Oct-20	01-Jun-20	30-Jun-20						
SPS1290	Steelwork for NB and Lift Tower	30	6	31-Mar-20 A	05-Oct-20	31-May-20	29-Jun-20						
SPS1320	Tendon Works	30	3	25-Mar-20 A	03-Oct-20	31-May-20	29-Jun-20						
SPS1370	Integration of TCSS System into existing system	30	12	29-May-20 A	31-Jan-21	02-Oct-20	31-Oct-20						
SPS1390	E&M Works	30	30	02-Jan-21	31-Jan-21	02-Nov-20	01-Dec-20						
SPS1420	Lighting System for Noise Mitigation Measures	30	30	30-Sep-20	29-Oct-20	31-Jul-20	29-Aug-20						
SPS1430	Panels for Noise Mitigation Measures	30	7	31-Mar-20 A	29-Oct-20	02-Aug-20	31-Aug-20						
SPS1440	Drainage for Noise Mitigation Measures	30	30	30-Sep-20	29-Oct-20	31-Jul-20	29-Aug-20						
SPS1460	Waterproofing (Bitumen Paint)	30	30	30-Sep-20	29-Oct-20	31-Jul-20	29-Aug-20						
WORK BETWEEN SHING MUN TUNNELS ROAD AND FOOT BRIDGE NF71A (ZONE 1)													
PRELIMINARIES WORKS													
SUMMARY PROGRAMME													
Z1SU1030	Zone 1 Stage 1 RSE1 CM foundation	328	199	28-Dec-19 A	07-Jun-21	31-Dec-19	05-Feb-21						
Z1SU1032	Zone 1 Stage 1 R1 structure R1-01 to 08	268	265	19-Aug-19 A	24-Aug-21	31-Jul-20	26-Jun-21						
Z1SU1034	Zone 1 Stage 1 R1 structure R2	435	328	20-Feb-20 A	09-Nov-21	20-Mar-20	07-Sep-21						

Remaining Level of Effort
 Actual Work
◆ Milestone
◆ Baseline Milestone
 Actual Level of Effort
 Remaining Work
◆ Critical Remaining Work
 Primary Baseline

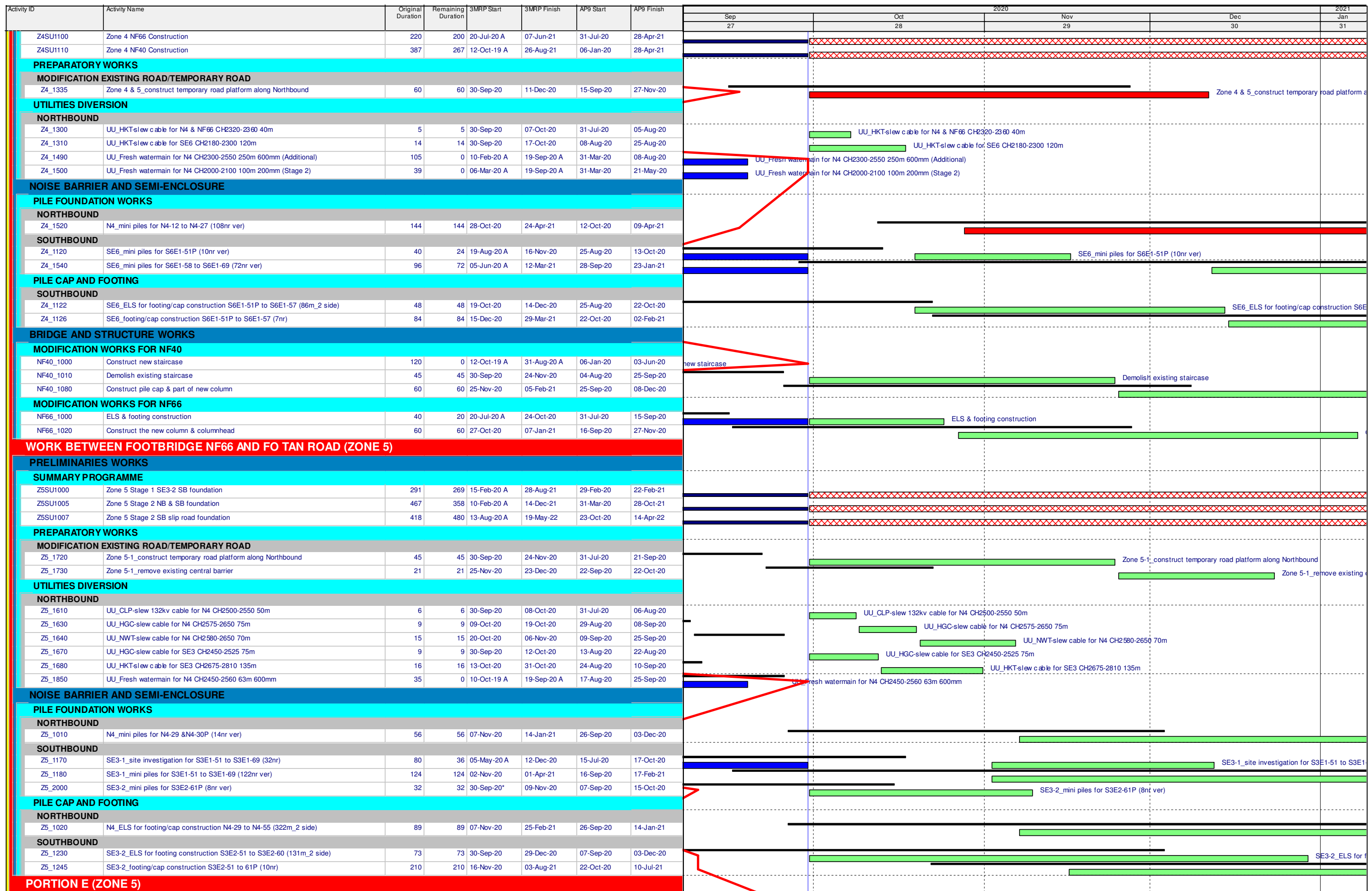
Date	Revision	Checked	Approved
08-Oct-20	3MRP DWP 2009	Tim	

Activity ID	Activity Name	Original Duration	Remaining Duration	3MRP Start	3MRP Finish	AP9 Start	AP9 Finish	2020					2021
								Sep 27	Oct 28	Nov 29	Dec 30	Jan 31	
NOISE BARRIER AND SEMI-ENCLOSURE													
PILE FOUNDATION WORKS													
NORTHBOUND													
Z1_1520	R1_mini piles for R1-02P (5nr raking, 3nr ver)	40	24	03-Sep-20 A	30-Oct-20	31-Jul-20	15-Sep-20						
SOUTHBOUND													
Z1_1060	R2_mini piles for R2-02P to 06P (19nr raking, 16nr ver)	175	115	01-Jun-20 A	20-Mar-21	19-Oct-20	25-May-21						
PILE CAP AND FOOTING													
NORTHBOUND													
Z1_1000	R1_ELS for footing/cap construction R1-01 to R1-08 (110m_1 side)	30	30	31-Oct-20	04-Dec-20	16-Sep-20	22-Oct-20						
CENTRAL BARRIER													
Z1_1130	RSE1_ELS for footing construction RSE1-01 to RSE1-07 (83m_2 side)	46	35	02-Sep-20 A	09-Dec-20	31-Aug-20	24-Oct-20						
Z1_1147	RSE1_footing/cap construction RSE1-01P to RSE1-05 (5nr)	105	105	29-Oct-20	08-Mar-21	26-Sep-20	02-Feb-21						
SOUTHBOUND													
Z1_1070	R2_ELS for footing/cap construction R2-01 to R2-06P (68m_2 side)	38	30	04-Sep-20 A	30-Apr-21	22-Mar-21	11-May-21						
WORK BETWEEN FOOT BRIDGE NF71A AND CITYLINE PLAZA (ZONE 2)													
PRELIMINARIES WORKS													
SUMMARY PROGRAMME													
Z2SU1000	Construction Zone 2_Stage 1 RSE2 CM foundation	594	335	10-Jul-19 A	17-Nov-21	08-Aug-19	10-Aug-21						
Z2SU1010	Construction Zone 2_Stage 2 RSE2 SB foundation	254	583	24-Sep-20 A	19-Sep-22	28-Sep-21	09-Aug-22						
NOISE BARRIER AND SEMI-ENCLOSURE													
PILE FOUNDATION WORKS													
CENTRAL BARRIER													
Z2_1010	RSE2_mini piles for RSE2-01P, 03P to 15P (57nr raking, 59nr ver)	195	49	17-Jan-20 A	28-Nov-20	26-Mar-20	20-Nov-20						
SOUTHBOUND													
Z2_1020	RSE2_site investigation for RSE2-51P (1nr)	5	0	24-Sep-20 A	28-Sep-20 A	28-Sep-21	05-Oct-21						
PILE CAP AND FOOTING													
CENTRAL BARRIER													
Z2_1060	RSE2_footing/cap construction RSE2-01P to 15P (14nr)	147	140	01-Sep-20 A	22-Jul-21	27-Nov-20	01-Jun-21						
WORK BETWEEN CITYLINE PLAZA AND FOOTBRIDGE NF40 (ZONE 3)													
PRELIMINARIES WORKS													
SUMMARY PROGRAMME													
Z3SU5000	Zone 3a (TPR area) Stage 1 RW6, RW7 & SR4	354	257	20-Nov-19 A	14-Aug-21	02-Sep-19	10-Nov-20						
Z3SU5030	Zone 3b (near SR6) Stage 1 Construct N263 & N264 foundation	393	247	20-May-19 A	03-Aug-21	31-Jul-19	23-Nov-20						
Z3SU5040	Zone 3b (SB near SR6) Stage 1 Construct Lift Tower 2	256	220	31-Mar-20 A	02-Jul-21	29-Jun-20	11-May-21						
Z3SU5050	Zone 3b (near SR6) Stage 1 SE5, SE8, SR6 foundation and N262 bridge	323	421	21-Feb-20 A	04-Mar-22	29-Feb-20	31-Mar-21						
Z3SU5070	Zone 3b (near SR6) Stage 3 Construct SR5 & remaining staircase & cycle track ramp	684	684	31-Oct-20	21-Feb-23	04-Sep-20	31-Dec-22						
Z3SU5100	Zone 3c (near SR3) Stage 1a	92	92	03-Nov-20	25-Feb-21	16-Sep-20	21-Dec-20						
NOISE BARRIER AND SEMI-ENCLOSURE													
PILE FOUNDATION WORKS													
SOUTHBOUND													
Z3_1522	SE1-5_site investigation for S1E5-51 (1nr)	5	3	02-Jul-20 A	05-Oct-20	31-Jul-20	05-Aug-20						
Z3_1524	SE1-5_mini piles for S1E5-51 (10nr ver)	40	40	18-Dec-20	06-Feb-21	17-Nov-20	05-Jan-21						
Z3_5640	SE2_mini piles for S2E1-52P (12nr raking, 11nr ver)	58	0	23-Mar-20 A	08-Sep-20 A	15-Apr-20	24-Jun-20						
SOUTHBOUND SLIP ROAD													
Z3_1765	SE8-1_mini piles for SR6 1-B & 2-B (6nr)	64	64	04-Dec-20	24-Feb-21	03-Nov-20	19-Jan-21						
PILE CAP AND FOOTING													
SOUTHBOUND													
Z3_5650	SE2_ELS for cap construction S2E1-52P (10m_2 side)	6	6	23-Dec-20	02-Jan-21	30-Oct-20	05-Nov-20						
Z3_5660	SE2_pile cap construction S2E1-52P (2nr)	21	21	02-Jan-21	27-Jan-21	06-Nov-20	30-Nov-20						
BRIDGE AND STRUCTURE WORKS													
PRELIMINARIES WORKS													
UTILITIES DIVERSION													
SOUTHBOUND													
Z3_2940	UU_CLP-slew 11kv cable for RW1 & 2 CH1500-1580 80m	9	9	15-Dec-20	28-Dec-20	31-Oct-20	10-Nov-20						
Z3_2950	UU_CATV-slew cable for RW1 & 2 CH1500-1590 90m	11	11	02-Dec-20	15-Dec-20	17-Oct-20	30-Oct-20						
Z3_2960	UU_HKBN-slew cable for RW1 & 2 CH1500-1580 80m	9	9	15-Dec-20	28-Dec-20	31-Oct-20	10-Nov-20						
Z3_3100	UU_HKBN-slew cable for N262 CH1800-1810 10m	1	1	30-Sep-20	30-Sep-20	12-Sep-20	12-Sep-20						
Z3_4541	UU_Construct combine UU trough between RW1 to SR3 Stage 2	60	60	03-Nov-20*	15-Jan-21	16-Sep-20	27-Nov-20						
Z3_5680	UU_Construct combine UU trough between cycle track and RW1 Stage 1	75	26	08-Jun-20 A	03-Nov-20	31-Jul-20	29-Oct-20						
MODIFICATION OF BRIDGE N263													
RECONSTRUCTION ABUTMENT WALL AT NHA													
Z3_4120	NAW-1_piling works for new NHA wall (23nr socket H-pile)	92	0	02-Jun-20 A	14-Sep-20 A	30-Jun-20	17-Oct-20						
Z3_4130	NAW-1_pile testing	14	14	30-Sep-20	13-Oct-20	19-Sep-20	03-Oct-20						

-  Remaining Level of Effort
-  Actual Work
-  Milestone
-  Baseline Milestone
-  Actual Level of Effort
-  Remaining Work
-  Critical Remaining Work
-  Primary Baseline

ROAD WIDENING & RETROFITTING NOISE BARRIERS ON TAI PO ROAD (SHA TIN SECTION)
3 Months Rolling Programme (30/09/20)
Page 2 of 5

Date	Revision	Checked	Approved
08-Oct-20	3MRP DWP 2009	Tim	









	Remaining Level of Effort		Actual Work		Milestone
	Actual Level of Effort		Remaining Work		Baseline Milestone
	Critical Remaining Work				

ROAD WIDENING & RETROFITTING NOISE BARRIERS ON TAI PO ROAD (SHA TIN SECTION)
3 Months Rolling Programme (30/09/20)
 Page 4 of 5

Date	Revision	Checked	Approved
08-Oct-20	3MRP DWP 2009	Tim	

Activity ID	Activity Name	Original Duration	Remaining Duration	3MRP Start	3MRP Finish	AP9 Start	AP9 Finish	2020				2021
								Sep 27	Oct 28	Nov 29	Dec 30	Jan 31
PRELIMINARIES WORKS												
SUMMARY PROGRAMME												
TPR NORTHBOUND												
PESU1000	Construction Zone 5 Portion E_Northbound structure	336	272	11-May-20 A	01-Sep-21	31-Jul-20	16-Sep-21					
UTILITIES DIVERSION												
NORTHBOUND												
Z5E_1180	UU_Fresh watermain for R5 & R6 CH2750-2845 115m 150mm	45	0	17-Aug-20 A	19-Sep-20 A	31-Jul-20	22-Sep-20					
NOISE BARRIER AND SEMI-ENCLOSURE												
PILE FOUNDATION WORKS												
NORTHBOUND SLIP ROAD												
Z5E_1000	R6_site investigation for R6-02P (6nr)	30	0	11-May-20 A	09-Sep-20 A	01-Jun-20	07-Jul-20					
Z5E_1010	R6_mini piles for R6-02P & R6-05P (9nr raking, 15nr ver)	96	96	14-Nov-20	13-Mar-21	17-Sep-20	14-Jan-21					
PILE CAP AND FOOTING												
NORTHBOUND SLIP ROAD												
Z5E_1020	R5_ELS for footing construction R5-01 to R5-09 (120m_1 side)	30	30	29-Oct-20	03-Dec-20	08-Oct-20	12-Nov-20					
ROADWORKS AND REMAINING WORKS												
GEOTECHNICAL WORKS												
NORTHBOUND SLIP ROAD												
Z5E_1150	Zone 5 Portion E_fill replacement by no-fines concrete 7SE-A/F163 (open excavation)	50	45	10-Sep-20 A	03-Feb-21	08-Oct-20	07-Dec-20					
Z5E_1160	Zone 5 Portion E_fill replacement by no-fines concrete 7SE-A/FR136 (open excavation)	50	50	10-Oct-20*	09-Dec-20	08-Aug-20	08-Oct-20					
Z5E_1170	Zone 5 Portion E_fill replacement by no-fines concrete 7SE-A/F133 (open excavation)	38	8	10-Feb-20 A	10-Oct-20	11-Sep-20	28-Oct-20					

-  Remaining Level of Effort
-  Actual Work
-  Milestone
-  Actual Level of Effort
-  Remaining Work
-  Baseline Milestone
-  Primary Baseline
-  Critical Remaining Work

ROAD WIDENING & RETROFITTING NOISE BARRIERS ON TAI PO ROAD (SHA TIN SECTION)
3 Months Rolling Programme (30/09/20)
Page 5 of 5

Date	Revision	Checked	Approved
08-Oct-20	3MRP DWP 2009	Tim	

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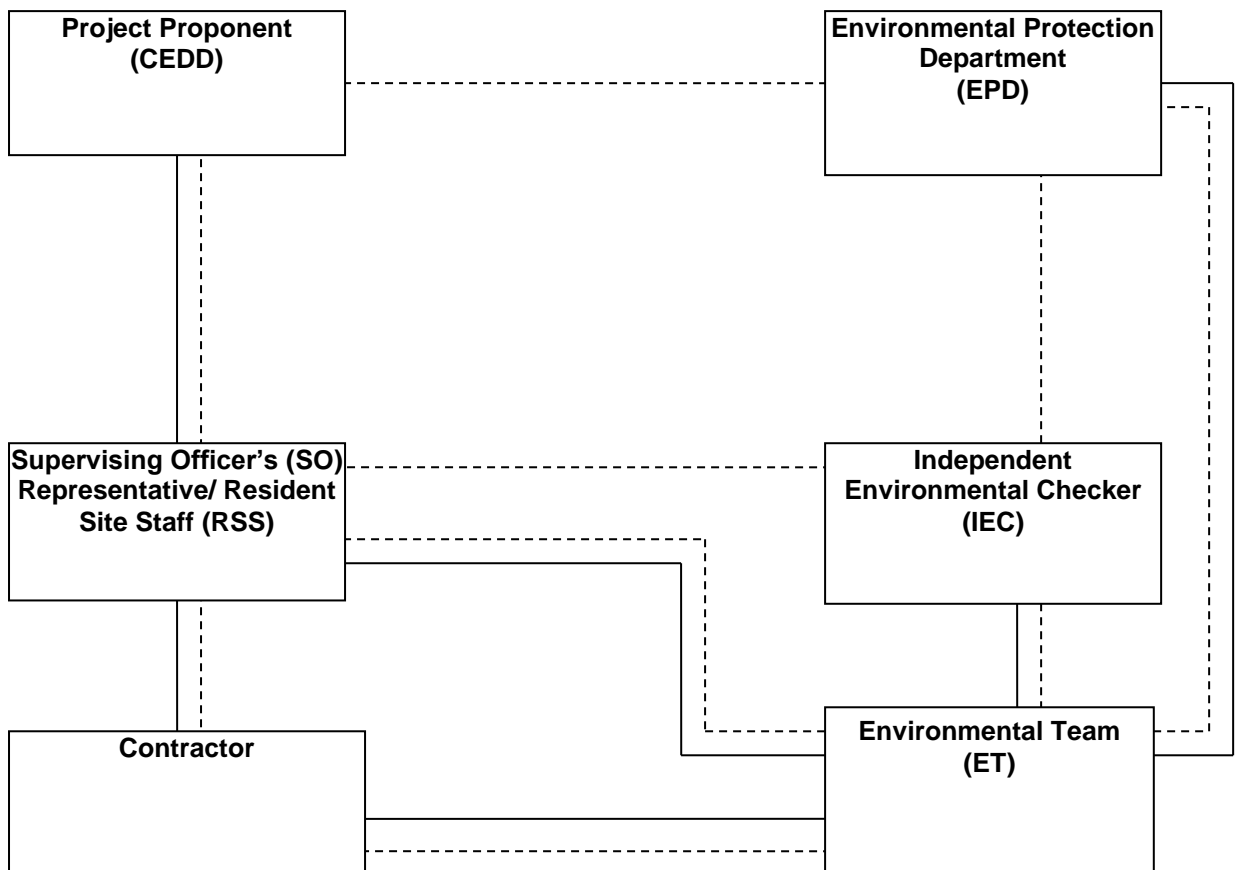
Appendix B

Project Organization Chart

FUGRO TECHNICAL SERVICES LIMITED

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Legend:

- Line of Reporting
- - - Line of Communication

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Appendix C

Action and Limit Levels for Air Quality and Noise

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Action and Limit Levels for 24-hr TSP and 1-hr TSP

Parameter	Monitoring Station	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
24-hr TSP ($\mu\text{g}/\text{m}^3$)	AMS 5	156	260
	AMS 8	161	
	AMS 10	155	
	AMS 11A	165	
1-hr TSP ($\mu\text{g}/\text{m}^3$)	AMS 5	340	500
	AMS 8	336	
	AMS 10	330	
	AMS 11A	335	

Action and Limit Levels for Construction Noise, Leq (30min), dB(A)

Time Period	Location	Action	Limit
0700-1900 hrs on normal weekdays	NMS1	When one documented complaint is received	75 dB(A)
	NMS2		
	NMS3		
	NMS4		
	NMS5A		
	NMS6A		
	NMS7		
	NMS8		
	NMS9		
	NMS10A*		
	NMS11		
	NMS12*		
	NMS13		
	NMS14		
	NMS15		
	NMS16		
	NMS17*		
	NMS18		
	NMS19		
	NMS20		
NMS23			
NMS24			
NMS25A			
NMS26			
NMS27*			

* For NMS 10A, 12, 17 and 27, the Limit Level is reduced to 70 dB(A) for schools and 65 dB(A) during school examination periods.

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Appendix D

Calibration Certificates of Monitoring Equipment

CALIBRATION CERTIFICATE OF DUST METER

Client : Fugro Technical Services Limited

Project : Calibration Services

Client Supplied Information

Details of Unit Under Test, UUT

Description : Laser dust monitor
 Manufacturer : SIBATA
 Model No. : LD-5R
 Serial No. : 761106
 Specification Limit : NA
 Next Calibration Date : 13-Aug-2021

Laboratory Information

Description : Reference balance
 Equipment ID. : R-039-12
 Date of Calibration : 14-Aug-2020 Ambient Temperature : 33 °C
 Calibration Location : Calibration Laboratory of FTS
 Method Used : By direct comparison the weight of dust particle trapped in a filter paper using high volume sampler (TSP method) for a certain period, with the reading of the UUT. They should be placed at the same location and powered on and off at the same time.

Calibration Results :

Reference concentration (mg/m ³)	Total count for 1 hour	CPM (Count per minute)
0.0632	1555	25.92
0.0687	1627	27.12
0.0543	1456	24.27

Remarks:

1. The equipment being used in this calibration is traceable to recognized National Standards.
2. The interpolation equation : Concentration (mg/m³) = K x [UUT reading (CPM)], where K = 0.002409
3. Correlation coefficient (r) : 0.9990

Checked by : Cherry Date : 16-9-2020 Certified by : C.T. Leung Date : 21-9-2020
 CA-R-297 (22/07/2009) Leung Kwok Tai (Assistant Manager)

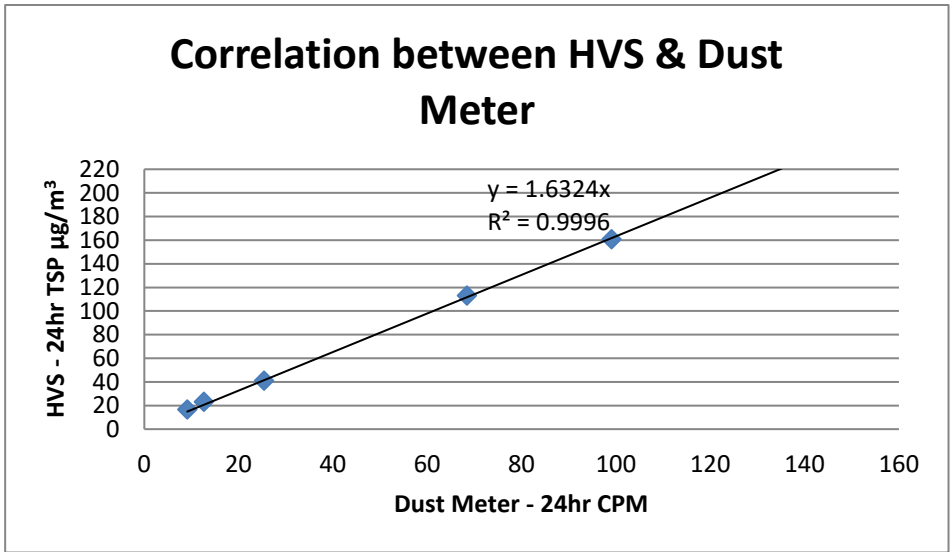
** End of Report **

Correlation between HVS & Dust Meter

Model: Sibata LD-5R

Serial No: 761106

HVS - 24hr TSP $\mu\text{g}/\text{m}^3$	16.56	23.11	41.02	112.97	160.87	220.44
Dust Meter - 24hr CPM	9.1	12.6	25.4	68.4	99.1	135.2



K factor = 1.6324

Report no. : 940891CA201915

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CALIBRATION CERTIFICATE OF DUST METER

Client : Fugro Technical Services Limited

Project : Calibration Services

Client Supplied Information

Details of Unit Under Test, UUT

Description : Laser dust monitor
 Manufacturer : SIBATA
 Model No. : LD-5R
 Serial No. : 892187
 Specification Limit : NA
 Next Calibration Date : 13-Aug-2021

Laboratory Information

Description : TSP high volume air sampler
 Serial no. : 4350
 Date of Calibration : 14-Aug-2020 Ambient Temperature : 33 °C
 Calibration Location : Ma Wan A1 Site Boundary
 Method Used : By direct comparison the weight of dust particle trapped in a filter paper using high volume sampler (TSP method) for a certain period, with the reading of the UUT. They should be placed at the same location and powered on and off at the same time.

Calibration Results :

Reference concentration (mg/m ³)	Total count for 1 hour	CPM (Count per minute)
0.0632	1573	26.22
0.0687	1608	26.80
0.0543	1473	24.55

Remarks:

1. The equipment being used in this calibration is traceable to recognized National Standards.
2. The interpolation equation : Concentration (mg/m³) = K x [UUT reading (CPM)], where K = 0.002401
3. Correlation coefficient (r) : 0.9908

Checked by : Chunmy Date : 16-9-2020 Certified by : K.T. Leung Date : 21-9-2020
 CA-R-297 (22/07/2009) Leung Kwok Tai (Assistant Manager)

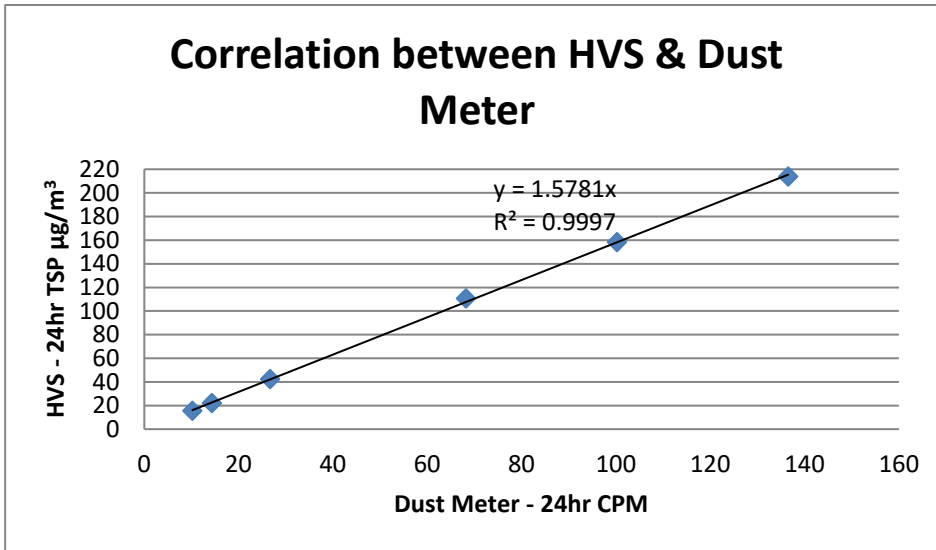
** End of Report **

Correlation between HVS & Dust Meter

Model: Sibata LD-5R

Serial No: 892187

HVS - 24hr TSP $\mu\text{g}/\text{m}^3$	15.66	22.08	42.33	110.54	158.23	213.93
Dust Meter - 24hr CPM	10.2	14.3	26.7	68.2	100.2	136.5



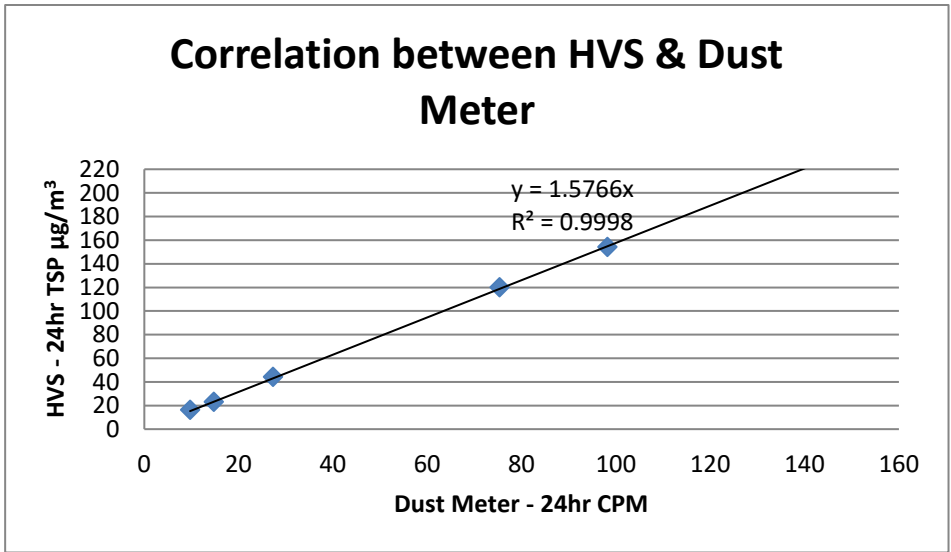
K factor = 1.5781

Correlation between HVS & Dust Meter

Model: Sibata LD-5R

Serial No: 892189

HVS - 24hr TSP $\mu\text{g}/\text{m}^3$	16.45	23.11	44.23	120.03	154.34	220.37
Dust Meter - 24hr CPM	9.7	14.7	27.3	75.3	98.2	140.2



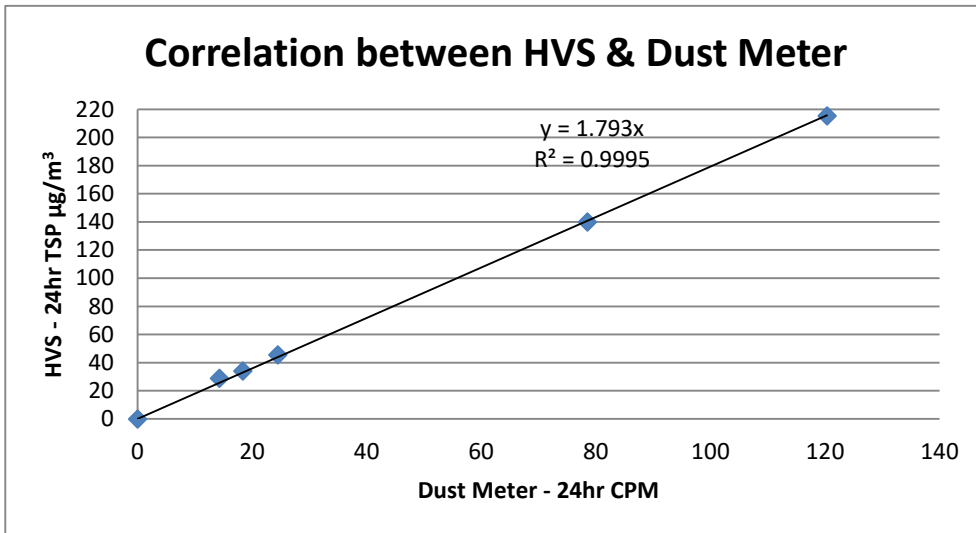
K factor = 1.5766

Correlation between HVS & Dust Meter

Model: Sibata LD-5R

Serial No: 761105

HVS - 24hr TSP $\mu\text{g}/\text{m}^3$	28.99	34.06	45.57	139.89	215.48
Dust Meter - 24hr CPM	14.3	18.4	24.5	78.51	120.36



K factor = 1.793

Report no.: 203258CA201298(3)

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CALIBRATION CERTIFICATE OF SOUND CALIBRATOR

Client Supplied Information

Client : Fugro Technical Services Ltd.

Project : Calibration Services

Details of Unit Under Test, UUT

Description : Sound Calibrator
 Manufacturer : Casella (Model CEL-120/1)
 Serial No. : 5230758
 Equipment ID : N/A
 Next Calibration Date : 13-Jul-2021
 Specification Limit : EN 60942: 2003 Type 1

Laboratory Information

Description : Reference Sound level meter
 Equipment ID. : R-119-1
 Date of Calibration : 14-Jul-2020 Ambient Temperature : 20±2 °C
 Calibration Location : Calibration Laboratory of FTS
 Method Used : By direct comparison

Calibration Results :

Parameters (Setting of UUT)	Mean Value (error of measurement)	Specification Limit(dB)
94dB	-0.3 dB	±0.4dB
114dB	-0.3 dB	

Remarks :

1. The equipment used in this calibration is traceable to recognized National Standards.
2. The mean value is the average of four measurements.
3. The equipment does comply with the specification limit.
4. The values given in this Calibration Certificate only relate to the values at the time of the test and any uncertainties 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.

Checked by : William Date : 21-7-2020 Certified by : E. J. Leung Date : 21-7-2020
 CA-R-297 (22/07/2009) Leung Kwok Tai (Assistant Manager)

** End of Report **

Report no.: 203258CA201368(1)

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CALIBRATION CERTIFICATE OF SOUND CALIBRATOR

Client : Fugro Technical Services Ltd.

Project : Calibration Services

Client Supplied Information

Details of Unit Under Test, UUT

Description : Sound Calibrator
 Manufacturer : Casella (Model CEL-120/1)
 Serial No. : 1677126
 Equipment ID : N/A
 Next Calibration Date : 12-Aug-2021
 Specification Limit : EN 60942: 2003 Class 1

Laboratory Information

Details of Calibration Equipment

Description : Reference Sound level meter
 Equipment ID. : R-119-1
 Date of Calibration : 13-Aug-2020
 Calibration Location : Calibration Laboratory of FTS Ambient Temperature : 20±2 °C
 Method Used : By direct comparison

Calibration Results :

Parameters (Setting of UUT)	Mean Value (error of measurement)	Specification Limit(dB)
94dB	0.2 dB	±0.4dB
114dB	0.1 dB	

Remarks :

1. The equipment used in this calibration is traceable to recognized National Standards.
2. The mean value is the average of four measurements.
3. The equipment does comply with the specification limit.
4. The values given in this Calibration Certificate only relate to the unit-under-test and the values measured at the time of the test. Any uncertainties quoted will not include allowances for the environmental changes, variation and shock during transportation, or the capability of any other laboratory to repeat the measurement.

Checked by : William Date : 18-8-2020 Certified by : K.T. Leung Date : 20-8-2020
 CA-R-297 (22/07/2009) Leung Kwok Tai (Assistant Manager)

** End of Report **

Report no.: 203258CA201566(2)

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CALIBRATION CERTIFICATE OF SOUND CALIBRATOR

Client : Fugro Technical Services Ltd.

Project : Calibration Services

Client Supplied Information

Details of Unit Under Test, UUT

Description : Sound Calibrator
 Manufacturer : Casella (Model CEL-120/1)
 Serial No. : 4358251
 Equipment ID : N/A
 Next Calibration Date : 12-Aug-2021
 Specification Limit : EN 60942: 2003 Class 1

Laboratory Information

Details of Calibration Equipment

Description : Reference Sound level meter
 Equipment ID. : R-119-1
 Date of Calibration : 13-Aug-2020
 Calibration Location : Calibration Laboratory of FTS Ambient Temperature : 20±2 °C
 Method Used : By direct comparison

Calibration Results :

Parameters (Setting of UUT)	Mean Value (error of measurement)	Specification Limit(dB)
94dB	0.0 dB	±0.4dB
114dB	-0.2 dB	

Remarks :

1. The equipment used in this calibration is traceable to recognized National Standards.
2. The mean value is the average of four measurements.
3. The equipment does comply with the specification limit.
4. The values given in this Calibration Certificate only relate to the unit-under-test and the values measured at the time of the test. Any uncertainties quoted will not include allowances for the environmental changes, variation and shock during transportation, or the capability of any other laboratory to repeat the measurement.

Checked by : William Date : 18-8-2020 Certified by : K. T. Leung Date : 20-8-2020
 CA-R-297 (22/07/2009) Leung Kwok Tai (Assistant Manager)

** End of Report **

Report no.: 203258CA201871(1)

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CALIBRATION CERTIFICATE OF SOUND CALIBRATOR

Client : Fugro Technical Services Ltd.

Project : Calibration Services

Client Supplied Information

Details of Unit Under Test, UUT

Description : Sound Calibrator
 Manufacturer : Casella (Model CEL-120/1)
 Serial No. : 5230736
 Equipment ID : N-18

Next Calibration Date : 07-Sep-2021

Specification Limit : EN 60942: 2003 Class 1

Laboratory Information

Details of Calibration Equipment

Description : Reference Sound level meter
 Equipment ID. : R-119-1

Calibration Date : 08-Sep-2020

Calibration Location : Calibration Laboratory of FTS Ambient Temperature : 20±2 °C

Method Used : By direct comparison Relative Humidity : <80% R.H.

Calibration Results :

Parameters (Setting of UUT)	Mean Value (error of measurement)	Specification Limit(dB)
94dB	0.1 dB	±0.4dB
114dB	0.2 dB	

Remarks :

1. The equipment used in this calibration is traceable to recognized National Standards.
2. The mean value is the average of four measurements.
3. The unit under test complies with the specification limit.
4. The values given in this Calibration Certificate only relate to the unit-under-test and the values measured at the time of the test. Any uncertainties quoted will not include allowances for the environmental changes, variation and shock during transportation, or the capability of any other laboratory to repeat the measurement.

 Checked by : William Date : 10-9-2020 Certified by : K. T. Leung Date : 12-9-2020

CA-R-297 (22/07/2009)

Leung Kwok Tai (Assistant Manager)

**** End of Report ****

Report no.: 203258CA201298(6)

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CALIBRATION CERTIFICATE OF SOUND LEVEL METER

Client Supplied Information

Client : Fugro Technical Services Ltd.

Project : Calibration Services

Details of Unit Under Test, UUT

Description	: Sound Level Meter									
Manufacturer	: Casella									
Model No.	: <table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td>Meter</td> <td>Microphone</td> <td>Preamplifier</td> </tr> <tr> <td>CEL-63X</td> <td>CE-251</td> <td>CEL-495</td> </tr> <tr> <td>1488302</td> <td>03348</td> <td>003036</td> </tr> </table>	Meter	Microphone	Preamplifier	CEL-63X	CE-251	CEL-495	1488302	03348	003036
Meter	Microphone	Preamplifier								
CEL-63X	CE-251	CEL-495								
1488302	03348	003036								
Serial No.	: <table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td>Meter</td> <td>Microphone</td> <td>Preamplifier</td> </tr> <tr> <td>CEL-63X</td> <td>CE-251</td> <td>CEL-495</td> </tr> <tr> <td>1488302</td> <td>03348</td> <td>003036</td> </tr> </table>	Meter	Microphone	Preamplifier	CEL-63X	CE-251	CEL-495	1488302	03348	003036
Meter	Microphone	Preamplifier								
CEL-63X	CE-251	CEL-495								
1488302	03348	003036								
Equipment ID	: N/A									
Next Calibration Date	: 13-Jul-2021									
Specification Limit	: EN 61672-1: 2003 Class 1									

Laboratory Information

Details of Reference Equipment -

Description	: B & K Acoustic Multifunction Calibrator 4226 (Traditional free field setting)
Equipment ID.	: R-108-1
Date of Calibration	: 14-Jul-2020
Calibration Location	: Calibration Laboratory of FTS Ambient Temperature : 20±2 °C
Method Used	: By direct comparison

Calibration Results :

Parameters		Mean Value (dB)	Specification Limit(dB)
A-weighting frequency response	4000Hz	0.9	2.6 to -0.6
	2000Hz	1.1	2.8 to -0.4
	1000Hz	0.0	1.1 to -1.1
	500Hz	-3.3	-1.8 to -4.6
	250Hz	-8.8	-7.2 to -10.0
	125Hz	-16.3	-14.6 to -17.6
	63Hz	-26.3	-24.7 to -27.7
	31.5Hz	-39.4	-37.4 to -41.4
Differential level linearity	94dB-104dB	0.0	± 0.6
	104dB-114dB	0.0	± 0.6

Remarks :

1. The equipment used in this calibration is traceable to recognized National Standards.
2. The mean value is the average of four measurements.
3. For calibration: Reference SPL are 94, 104 & 114dB, range setting is 20-140dB & time weighting is fast
4. The UUT complies with EN 61672-1: 2003 Class 1 sound level meter for the above measurement.
5. The values given in this Calibration Certificate only relate to the values at the time of the test and any uncertainties 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.

Checked by : William Date : 21-7-2020 Certified by : K.T. Leung Date : 21-7-2020
 CA-R-297 (22/07/2009) Leung Kwok Tai (Assistant Manager)

** End of Report **

Report no.: 203258CA201298(2)

Page 1 of 1

CALIBRATION CERTIFICATE OF SOUND LEVEL METER

Client Supplied Information

Client : Fugro Technical Services Ltd.

Project : Calibration Services

Details of Unit Under Test, UUT

 Description : Sound Level Meter
 Manufacturer : Casella

	Meter	Microphone	Preamplifier
Model No.	CEL-63X	CE-251	CEL-495
Serial No.	1488314	03437	003046

 Equipment ID : N/A
 Next Calibration Date : 13-Jul-2021
 Specification Limit : EN 61672-1: 2003 Class 1

Laboratory Information

Details of Reference Equipment -

 Description : B & K Acoustic Multifunction Calibrator 4226 (Traditional free field setting)
 Equipment ID. : R-108-1
 Date of Calibration : 14-Jul-2020
 Calibration Location : Calibration Laboratory of FTS Ambient Temperature : 20±2 °C
 Method Used : By direct comparison

Calibration Results :

Parameters		Mean Value (dB)	Specification Limit(dB)
A-weighting frequency response	4000Hz	0.9	2.6 to -0.6
	2000Hz	1.1	2.8 to -0.4
	1000Hz	0.0	1.1 to -1.1
	500Hz	-3.3	-1.8 to -4.6
	250Hz	-8.8	-7.2 to -10.0
	125Hz	-16.3	-14.6 to -17.6
	63Hz	-26.3	-24.7 to -27.7
	31.5Hz	-39.4	-37.4 to -41.4
Differential level linearity	94dB-104dB	0.0	± 0.6
	104dB-114dB	0.0	± 0.6

Remarks :

- The equipment used in this calibration is traceable to recognized National Standards.
- The mean value is the average of four measurements.
- For calibration: Reference SPL are 94, 104 & 114dB, range setting is 20-140dB & time weighting is fast
- The UUT complies with EN 61672-1: 2003 Class 1 sound level meter for the above measurement.
- The values given in this Calibration Certificate only relate to the values at the time of the test and any uncertainties 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.

 Checked by : William Date : 21-7-2020 Certified by : F.T. Leung Date : 21-7-2020
 CA-R-297 (22/07/2009) Leung Kwok Tai (Assistant Manager)

**** End of Report ****

Report no.: 183057CA200018

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CALIBRATION CERTIFICATE OF SOUND LEVEL METER

Client Supplied Information

Client : Fugro Technical Services Ltd.

Project : Calibration Services

Details of Unit Under Test, UUT

Description : Sound Level Meter

Manufacturer : Casella

Model No. :

Serial No. :

Equipment ID :

Next Calibration Date :

Specification Limit :

Meter	Microphone	Preamplifier
CEL-63X	CE-251	CEL-495
1488279	03876	002752

N-52

12-Jan-2021

EN 61672: 2003 Type 1

Laboratory Information

Details of Reference Equipment -

Description : B & K Acoustic Multifunction Calibrator 4226 (Traditional free field setting)

Equipment ID. : R-108-1

Date of Calibration : 13-Jan-2020

Calibration Location : Calibration Laboratory of FTS Ambient Temperature : 22 °C

Method Used : By direct comparison

Calibration Results :

Parameters		Mean Value (dB)	Specification Limit(dB)
A-weighting frequency response	4000Hz	1.4	2.6 to -0.6
	2000Hz	1.3	2.8 to -0.4
	1000Hz	0.0	1.1 to -1.1
	500Hz	-3.4	-1.8 to -4.6
	250Hz	-8.8	-7.2 to -10.0
	125Hz	-16.3	-14.6 to -17.6
	63Hz	-26.3	-24.7 to -27.7
	31.5Hz	-39.0	-37.4 to -41.4
Differential level linearity	94dB-104dB	0.0	± 0.6
	104dB-114dB	0.0	± 0.6

Remarks :

- The equipment used in this calibration is traceable to recognized National Standards.
- The mean value is the average of four measurements.
- For calibration: Reference SPL are 94, 104 & 114dB, range setting is 20-140dB & time weighting is fast
- The UUT complies with EN 61672: 2003 Type 1 sound level meter for the above measurement.
- The values given in this Calibration Certificate only relate to the values at the time of the test and any uncertainties 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.

 Checked by : William Date : 20-1-2020 Certified by : K.T. Leung Date : 21-1-2020

CA-R-297 (22/07/2009)

Leung Kwok Tai (Assistant Manager)

**** End of Report ****

Report no.: 203258CA201700

Page 1 of 1

CALIBRATION CERTIFICATE OF SOUND LEVEL METER

Client Supplied Information

Client : Fugro Technical Services Ltd.

Project : Calibration Services

Details of Unit Under Test, UUT

Description	: Sound Level Meter									
Manufacturer	: Casella									
Model No.	: <table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="text-align: center;">Meter</td> <td style="text-align: center;">Microphone</td> <td style="text-align: center;">Preamplifier</td> </tr> <tr> <td style="text-align: center;">CEL-63X</td> <td style="text-align: center;">CE-251</td> <td style="text-align: center;">CEL-495</td> </tr> <tr> <td style="text-align: center;">2451082</td> <td style="text-align: center;">02790</td> <td style="text-align: center;">003538</td> </tr> </table>	Meter	Microphone	Preamplifier	CEL-63X	CE-251	CEL-495	2451082	02790	003538
Meter	Microphone	Preamplifier								
CEL-63X	CE-251	CEL-495								
2451082	02790	003538								
Serial No.	: <table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="text-align: center;">Meter</td> <td style="text-align: center;">Microphone</td> <td style="text-align: center;">Preamplifier</td> </tr> <tr> <td style="text-align: center;">CEL-63X</td> <td style="text-align: center;">CE-251</td> <td style="text-align: center;">CEL-495</td> </tr> <tr> <td style="text-align: center;">2451082</td> <td style="text-align: center;">02790</td> <td style="text-align: center;">003538</td> </tr> </table>	Meter	Microphone	Preamplifier	CEL-63X	CE-251	CEL-495	2451082	02790	003538
Meter	Microphone	Preamplifier								
CEL-63X	CE-251	CEL-495								
2451082	02790	003538								
Equipment ID	: N/A									
Next Calibration Date	: 26-Aug-2021									
Specification Limit	: EN 61672-1: 2003 Class 1									

Laboratory Information
Details of Reference Equipment -

Description	: B & K Acoustic Multifunction Calibrator 4226 (Traditional free field setting)
Equipment ID.	: R-108-1
Date of Calibration	: 27-Aug-2020
Calibration Location	: Calibration Laboratory of FTS
Method Used	: By direct comparison
Ambient Temperature	: 20±2 °C
Relative Humidity	: <80% R.H.

Calibration Results :

Parameters	Mean Value (dB)	Specification Limit(dB)
A-weighting frequency response	4000Hz	0.8
	2000Hz	1.1
	1000Hz	-0.1
	500Hz	-3.5
	250Hz	-8.8
	125Hz	-16.2
	63Hz	-26.2
	31.5Hz	-38.9
Differential level linearity	94dB-104dB	± 0.6
	104dB-114dB	± 0.6

Remarks :

1. The equipment used in this calibration is traceable to recognized National Standards.
2. The mean value is the average of four measurements.
3. For calibration: Reference SPL are 94, 104 & 114dB, range setting is 20-140dB & time weighting is fast
4. The UUT complies with EN 61672-1: 2003 Class 1 sound level meter for the above measurement.
5. The values given in this Calibration Certificate only relate to the values at the time of the test and any uncertainties 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.

Checked by : William Date : 3-9-2020 Certified by : E.T. Leung Date : 3-9-2020
 CA-R-297 (22/07/2009) Leung Kwok Tai (Assistant Manager)

** End of Report **

Report no.: 203258CA201566(1)

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CALIBRATION CERTIFICATE OF SOUND LEVEL METER

Client Supplied Information

Client : Fugro Technical Services Ltd.

Project : Calibration Services

Details of Unit Under Test, UUT

 Description : Sound Level Meter
 Manufacturer : Casella

	Meter	Microphone	Preamplifier
Model No.	CEL-63X	CE-251	CEL-495
Serial No.	3756127	04228	004030
Equipment ID	N/A		

Next Calibration Due Date : 12-Aug-2021

Specification Limit : EN 61672-1: 2003 Class 1

Laboratory Information

Details of Reference Equipment -

 Description : B & K Acoustic Multifunction Calibrator 4226 (Traditional free field setting)
 Equipment ID. : R-108-1

Date of Calibration : 13-Aug-2020

Calibration Location : Calibration Laboratory of FTS Ambient Temperature : 20±2 °C

Method Used : By direct comparison

Calibration Results :

Parameters		Mean Value (dB)	Specification Limit(dB)
A-weighting frequency response	4000Hz	1.2	2.6 to -0.6
	2000Hz	1.3	2.8 to -0.4
	1000Hz	0.0	1.1 to -1.1
	500Hz	-3.4	-1.8 to -4.6
	250Hz	-8.7	-7.2 to -10.0
	125Hz	-16.1	-14.6 to -17.6
	63Hz	-26.1	-24.7 to -27.7
	31.5Hz	-38.8	-37.4 to -41.4
Differential level linearity	94dB-104dB	0.0	± 0.6
	104dB-114dB	0.0	± 0.6

Remarks :

1. The equipment used in this calibration is traceable to recognized National Standards.
2. The mean value is the average of four measurements.
3. For calibration: Reference SPL are 94, 104 & 114dB, range setting is 20-140dB & time weighting is fast
4. The UUT does comply with EN 61672-1: 2003 Class 1 sound level meter for the above measurement.
5. The values given in this Calibration Certificate only relate to the values at the time of the test and any uncertainties 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.

 Checked by : William Date : 18-8-2020 Certified by : K.T. Leung Date : 20-8-2020
 CA-R-297 (22/07/2009) Leung Kwok Tai (Assistant Manager)

**** End of Report ****

Report no.: 203258CA201298(4)

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CALIBRATION CERTIFICATE OF SOUND LEVEL METER

Client Supplied Information

Client : Fugro Technical Services Ltd.

Project : Calibration Services

Details of Unit Under Test, UUT

 Description : Sound Level Meter
 Manufacturer : Casella

	Meter	Microphone	Preamplifier
Model No.	CEL-63X	CE-251	CEL-495
Serial No.	1488293	04064	004061

Equipment ID : N/A

Next Calibration Date : 14-Jul-2021

Specification Limit : EN 61672-1: 2003 Class 1

Laboratory Information

Details of Reference Equipment -

Description : B & K Acoustic Multifunction Calibrator 4226 (Traditional free field setting)

Equipment ID. : R-108-1

Date of Calibration : 15-Jul-2020

Calibration Location : Calibration Laboratory of FTS Ambient Temperature : 20±2 °C

Method Used : By direct comparison

Calibration Results :

Parameters		Mean Value (dB)	Specification Limit(dB)
A-weighting frequency response	4000Hz	0.9	2.6 to -0.6
	2000Hz	1.1	2.8 to -0.4
	1000Hz	0.0	1.1 to -1.1
	500Hz	-3.4	-1.8 to -4.6
	250Hz	-8.7	-7.2 to -10.0
	125Hz	-16.1	-14.6 to -17.6
	63Hz	-26.1	-24.7 to -27.7
	31.5Hz	-39.0	-37.4 to -41.4
Differential level linearity	94dB-104dB	0.0	± 0.6
	104dB-114dB	0.0	± 0.6

Remarks :

- The equipment used in this calibration is traceable to recognized National Standards.
- The mean value is the average of four measurements.
- For calibration: Reference SPL are 94, 104 & 114dB, range setting is 20-140dB & time weighting is fast
- The UUT complies with EN 61672-1: 2003 Class 1 sound level meter for the above measurement.
- The values given in this Calibration Certificate only relate to the values at the time of the test and any uncertainties 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.

 Checked by : William Date : 21-7-2020 Certified by : K.T. Young Date : 21-7-2020
 CA-R-297 (22/07/2009) Leung Kwok Tai (Assistant Manager)

**** End of Report ****

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Appendix E

Environmental Monitoring Schedules, Examination Schedules and Arrangements on Deferral of Class Resumption for All Schools

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Oct-20						1	2
							3
	4		5	6	7	8	9
			AMS5 Tin Liu AMS8 Lek Yuen Estate AMS10 Shatin Police Station AMS11A Sheung Wo Che				
			NMS 1, NMS 2, NMS 3, NMS 4, NMS 5A, NMS 6A, NMS 7, NMS 15, NMS 16, NMS 18, NMS 23, NMS 27	NMS 8, NMS9, NMS 10A, NMS 11, NMS 12, NMS 13, NMS 14, NMS17, NMS 19, NMS 20, NMS 24, NMS 25A, NMS 26			
	11		12	13	14	15	16
		AMS5 Tin Liu AMS8 Lek Yuen Estate AMS10 Shatin Police Station AMS11A Sheung Wo Che	Signals No. 8 NE				AMS5 Tin Liu AMS8 Lek Yuen Estate AMS10 Shatin Police Station AMS11A Sheung Wo Che
		NMS 1, NMS 2, NMS 3, NMS 4, NMS 5A, NMS 6A, NMS 7, NMS 15, NMS 16, NMS 18, NMS 23, NMS 27		NMS 8, NMS9, NMS 10A, NMS 11, NMS 12, NMS 13, NMS 14, NMS17, NMS 19, NMS 20, NMS 24, NMS 25A, NMS 26			
	18		19	20	21	22	23
						AMS5 Tin Liu AMS8 Lek Yuen Estate AMS10 Shatin Police Station AMS11A Sheung Wo Che	
					NMS 8, NMS9, NMS 10A, NMS 11, NMS 12, NMS 13, NMS 14, NMS17, NMS 19, NMS 20, NMS 24, NMS 25A, NMS 26	NMS 1, NMS 2, NMS 3, NMS 4, NMS 5A, NMS 6A, NMS 7, NMS 15, NMS 16, NMS 18, NMS 23, NMS 27	
25		26	27	28	29	30	
				AMS5 Tin Liu AMS8 Lek Yuen Estate AMS10 Shatin Police Station AMS11A Sheung Wo Che			
			NMS 8, NMS9, NMS 10A, NMS 11, NMS 12, NMS 13, NMS 14, NMS17, NMS 19, NMS 20, NMS 24, NMS 25A, NMS 26	NMS 1, NMS 2, NMS 3, NMS 4, NMS 5A, NMS 6A, NMS 7, NMS 15, NMS 16, NMS 18, NMS 23, NMS 27			

- Remark
1. Actual monitoring may be subjected to change due to any safety concern or adverse weather condition.
 2. The Impact Air Monitoring Stations to be monitored should be selected based on the prevailing wind direction and their proximity to the active construction works.
 3. According to the Hong Kong Observatory, anticipated wind directions in October 2020 are north, north east and east.
 4. According to the Contractor, the anticipated major construction activities in the reporting month includes:
 - (1) Tree preservation / felling/ pruning/ transplantation in Zone 1, 2, 3, 4 & 5.
 - (2) Pre-drill works in Zone 1, 2 & 5.
 - (3) Mini pile Works in Zone 1, 2, 4 & 5.
 - (4) Backfilling for underground utilities trench in Zone 1 & 2.
 - (5) Construction of Pile Cap in Zone 1 & 2.
 - (6) Road Reinstatement Works in Zone 1 & 2.
 - (7) Trial Pits Excavation in Zone 3, 4 & 5.
 - (8) Underground utilities detections in Zone 3, 4 & 5.
 - (9) Noise Barrier Foundation Works in Zone 3 & 5.
 - (10) Construction of Temporary Road for bus terminal in Zone 3.
 - (11) ELS works for gantry footing construction & sheet pile works in Zone 3.
 - (12) Construction/ Diversion of underground utilities in Zone 3, 4 & 5.
 - (13) Bored Pile Works, Cross Road Duct Construction Works, FRP Platform Installation, Pile cap construction , Soldier pile works, Socket H pile works and Pier Construction Works in Zone 3.
 - (14) Lagging wall and retaining wall in Zone 3.
 - (15) Construction works of Central median, demolition and install temporary median module in Zone 3 & 4.
 - (16) Demolition of existing staircases and footbridge column foundation works in Zone 4.
 - (17) Foundation works of footbridge NF66 in Zone 4.
 - (18) Soil Replacement Works and Sheet pile works on Slope in Zone 5.

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Nov-20	1		2	3	4	5	6
				AMS6 Shatin Plaza AMS8 Lek Yuen Estate AMS11A Sheung Wo Che AMS13 Fung Wo Estate			
			NMS 8, NMS9, NMS 10A, NMS 11, NMS 12, NMS 13, NMS 14, NMS17, NMS 19, NMS 20, NMS 24, NMS 25A, NMS 26	NMS 1, NMS 2, NMS 3, NMS 4, NMS 5A, NMS 6A, NMS 7, NMS 15, NMS 16, NMS 18, NMS 23, NMS 27			
	8		9	10	11	12	13
			AMS6 Shatin Plaza AMS8 Lek Yuen Estate AMS11A Sheung Wo Che AMS13 Fung Wo Estate				
		NMS 8, NMS9, NMS 10A, NMS 11, NMS 12, NMS 13, NMS 14, NMS17, NMS 19, NMS 20, NMS 24, NMS 25A, NMS 26	NMS 1, NMS 2, NMS 3, NMS 4, NMS 5A, NMS 6A, NMS 7, NMS 15, NMS 16, NMS 18, NMS 23, NMS 27				
	15		16	17	18	19	20
		AMS6 Shatin Plaza AMS8 Lek Yuen Estate AMS11A Sheung Wo Che AMS13 Fung Wo Estate					AMS6 Shatin Plaza AMS8 Lek Yuen Estate AMS11A Sheung Wo Che AMS13 Fung Wo Estate
		NMS 1, NMS 2, NMS 3, NMS 4, NMS 5A, NMS 6A, NMS 7, NMS 15, NMS 16, NMS 18, NMS 23, NMS 27	NMS 8, NMS9, NMS 10A, NMS 11, NMS 12, NMS 13, NMS 14, NMS17, NMS 19, NMS 20, NMS 24, NMS 25A, NMS 26				
	22		23	24	25	26	27
						AMS6 Shatin Plaza AMS8 Lek Yuen Estate AMS11A Sheung Wo Che AMS13 Fung Wo Estate	
					NMS 8, NMS9, NMS 10A, NMS 11, NMS 12, NMS 13, NMS 14, NMS17, NMS 19, NMS 20, NMS 24, NMS 25A, NMS 26	NMS 1, NMS 2, NMS 3, NMS 4, NMS 5A, NMS 6A, NMS 7, NMS 15, NMS 16, NMS 18, NMS 23, NMS 27	
29		30					

- Remark
- Actual monitoring may be subjected to change due to any safety concern or adverse weather condition.
 - The Impact Air Monitoring Stations to be monitored should be selected based on the prevailing wind direction and their proximity to the active construction works.
 - According to the Hong Kong Observatory, anticipated wind directions in Nov 2020 are north, north east and east.
 - According to the Contractor, the anticipated major construction activities in the reporting month includes:
 - Tree preservation / felling/ pruning/ transplantation in Zone 1, 2, 3, 4 & 5.
 - Pre-drill works in Zone 1 & 2.
 - Mini pile Works in Zone 1, 4 & 5.
 - Backfilling for underground utilities trench in Zone 1 & 2.
 - Pile Cap Construction Works in Zone 1, 2 & 3.
 - Trial Pits Excavation in Zone 3, 4 & 5.
 - Underground utilities detections in Zone 3, 4 & 5.
 - Noise Barrier Foundation Works in Zone 3 & 5.
 - Lagging wall and Retaining wall in Zone 3.
 - Construction/ Diversion of underground utilities in Zone 3.
 - Relocation of Traffic Light in Zone 3.
 - Soldier Pile Construction Works in Zone 3.
 - Pre Bored H Pile Construction Works in Zone 3.
 - Pier Construction Works in Zone 3.
 - Demolition of Central Median, and Temporary Median Module Installation Works in Zone 3 & 4.
 - Demolition of NF40 Footbridge Existing Staircases in Zone 4.
 - NF66 Footbridge Footing Construction Works in Zone 4.
 - Soil Replacement Works on Slope in Zone 5.

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Project: Road Widening and Retrofitting Noise Barriers on Tai Po Road (Sha Tin Section)

Regular Night Time Noise Monitoring Schedule (October 2020)

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8 Regular night time noise monitoring	9	10
11	12	13	14	15 Regular night time noise monitoring	16	17
18	19	20	21	22 Regular night time noise monitoring	23	24
25	26	27	28	29 Regular night time noise monitoring	30	31

Remarks

1. Due to safety concern, 2 staffs will carry out the night time noise monitoring together at all 21 monitoring stations on the same monitoring night of each week.
2. Actual monitoring schedule may be subjected to change due to any safety concern or adverse weather condition.

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Project: Road Widening and Retrofitting Noise Barriers on Tai Po Road (Sha Tin Section)

Tentative Regular Night Time Noise Monitoring Schedule (November 2020)

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5 Regular night time noise monitoring	6	7
8	9	10	11	12 Regular night time noise monitoring	13	14
15	16	17	18	19 Regular night time noise monitoring	20	21
22	23	24	25	26 Regular night time noise monitoring	27	28
29	30					

Remarks

1. Due to safety concern, 2 staffs will carry out the night time noise monitoring together at all 21 monitoring stations on the same monitoring night of each week.
2. Actual monitoring schedule may be subjected to change due to any safety concern or adverse weather condition.

聖公會主風小學 2020-2021 年度上學期校曆表

週次	月份	星期							行事要項	假期日數
		日	一	二	三	四	五	六		
①	2020 九月			1*	2	3	4	5	1/9 上學期開學日	
②		6	7	8	9	10	11	12		
③		13	14	15	16	17	18	19		
④		20	21	22	23	24	25	26		
⑤		27	28	29	30					
⑥	十月					1	2	3	1/10 國慶日 2/10 中秋節翌日	2
⑦		4	5	6	7	8	9	10		
⑧		11	12	13	14	15	16	17		
⑨		18	19	20	21	22	23	24		
⑩	十一月	25	26	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	31	26/10 重陽節翌日 27/10-30/10 進展性評估	1
⑪		1	2	3	4	5	6	7		
⑫		8	9	10	11	12	13	14*		
⑬		15	16	17	18	19	20	21		
⑭		22	23	24	25	26	27	28		
⑮	十二月			1*	2	3	4	5	1/12 第十四屆陸運會 2/12 陸運會翌日假期 9/12 教師專業發展日 10/12-15/12 上學期學期試 (J.6 呈分試)	1
⑯		6	7	8	9*	<u>10</u>	<u>11</u>	12		
⑰		13	<u>14</u>	<u>15</u>	16	17	18	19		
⑱		20	21	22	23	24	25	26		
⑲	2021 一月	27	28	29	30	31			22/12/2020-2/1/2021 聖誕及新年假期	5 5
⑳							1	2		
㉑		3	4	5	6	7	8	9		
㉒		10	11	12	13	14	15	16*		
㉓		17	18	19	20	21	22	23		
㉔	24	25	26	27	28	29	30		16/1 四十五周年校慶開放日暨文娛匯演 18/1 校慶開放日後假期	1
	31									
	二月		1*	2	3*	4*	5*	6	1/2 下學期開始 3/2-5/2 教育營(J.6) 5/2 旅行日(J.1-J.5) 8/2-17/2 農曆新年假期	6 4
		7	8	9	10	11	12	13		
		14	15	16	17	18	19	20		


附註： □代表假期 *代表特別事宜


本年度關注事項


- 1 完善校本課程規劃，促進學與教效能。
- 2 透過多元化策略，培養學生自律精神。
- 3 深化生命教育，培育學生正向人生觀。

2020-2021 年度校曆表

	周次	日	一	二	三	四	五	六	假期 / 事項
二零二零年九月	一			1	2	3	4	5	上學期開始(1/9)
	二	6	7	8	9	10	11	12	
	三	13	14	15	16	17	18	19	
	四	20	21	22	23	24	25	26	
	五	27	28	29	30				
十月						1	2	3	國慶日(1/10) 中秋節翌日(2/10) 零功課日(13/10) 重陽節補假(26/10)
	六	4	5	6	7	8	9	10	
	七	11	12	13	14	15	16	17	
	八	18	19	20	21	22	23	24	
	九	25	26	27	28	29	30	31	
十一月	十	1	2	3	4	5	6	7	一至六年級考試(18-20, 23, 24/11)
	十一	8	9	10	11	12	13	14	
	十二	15	16	17	18	19	20	21	
	十三	22	23	24	25	26	27	28	
	十四	29	30						
十二月				1	2	3	4	5	全方位學習日(18/12) 聖誕崇拜(21/12) 聖誕及新年假期(22/12-3/1)
	十五	6	7	8	9	10	11	12	
	十六	13	14	15	16	17	18	19	
	十七	20	21	22	23	24	25	26	
	十八	27	28	29	30	31			
二零二一年一月							1	2	教師專業發展日(4/1) P.6 家長日(9/1) P.1-5 家長日(16/1) 零功課日(20/1) 學校籌款日(24/1) 學校假期(25/1)
	十九	3	4	5	6	7	8	9	
	二十	10	11	12	13	14	15	16	
	二十一	17	18	19	20	21	22	23	
	二十二	24	25	26	27	28	29	30	

 學校假期

 教師專業發展日，學生不用上課

 半天上課

星期六不用上課

	周次	日	一	二	三	四	五	六	假期 / 事項
二 月	二十三	31	1	2	3	4	5	6	跨學科活動日(4/2) 陸運會(5/2) 農曆新年假期(8/2-17/2) 下學期開始(18/2)
	二十四	7	8	9	10	11	12	13	
	二十五	14	15	16	17	18	19	20	
	二十六	21	22	23	24	25	26	27	
	二十七	28							
三 月			1	2	③	④	⑤	6	六年級報分試(3-5,8,9/3) 一至五年級主科考試(8-9/3) 學校旅行(25/3)學校假期(26/3) 福音周及復活節崇拜(29-30/3)
	二十八	7	⑧	⑨	10	11	12	13	
	二十九	14	15	16	17	18	19	20	
	三十	21	22	23	24	25	26	27	
	三十一	28	29	30	31				
四 月						1	2	3	復活節及清明節假期(31/3-6/4) 六年級教育營(7/4-9/4) 一至五年級專題研習周(7-12/4) 家長日(17/4) 綵排日(29/4) 綜藝晚會(30/4)
	三十二	4	5	6	7	8	9	10	
	三十三	11	⑫	13	14	15	16	17	
	三十四	18	19	20	21	22	23	24	
	三十五	25	26	27	28	⑲	30		
五 月								1	勞動節(1/5) 零功課日(7/5) 佛誕(19/5) 教師專業發展日(28/5)
	三十六	2	3	4	5	6	7	8	
	三十七	9	10	11	12	13	14	15	
	三十八	16	17	18	19	20	21	22	
	三十九	23	24	25	26	27	28	29	
四十	30	31							
六 月			1	②	③	④	5		一至六年級考試(2-4,7,8/6) 全港性系統評估(10-11/6) 端午節(14/6) 畢業禮(30/6)
	四十一	6	⑦	⑧	⑨	⑩	⑪	12	
	四十二	13	14	⑮	⑯	17	18	19	
	四十三	20	21	22	23	24	25	26	
四十四	27	⑳	㉑	30					
七 月						1	2	3	香港特區成立紀念日(1/7) 學校假期(2/7) 教師專業發展(12/7) 暑假(13/7-31/8)
	四十五	4	⑤	⑥	⑦	⑧	⑨	10	
	四十六	11	12	13	14	15	16	17	
	四十七	18	19	20	21	22	23	24	
	四十八	25	26	27	28	29	30	31	
八 月	四十九	1	2	3	4	5	6	7	
	五十	8	9	10	11	12	13	14	
	五十一	15	16	17	18	19	20	21	
	五十二	22	23	24	25	26	27	28	
	五十三	29	30	31					

培英中學2020至2021年度校曆表

		日	一	二	三	四	五	六	假期及注意事項	
週次	八月	(16)	(17)	(18)	(19)	(20)	(21)	(22)		
		(23)	(24)	(25)	(26)	(27)	(28)	(29)		
1	九月			Sept					(1/9)開學禮 (2/9)正式上課	
		(30)	(31)	1	2	3	4	5		
		6	7	8	9	10	11	12	(9/9)各班拍攝學生相片	
		13	14	15	16	17	18	19	(14/9)中一至中四學生開始繳交周記	
2	3月	20	21	22	23	24	25	26	(21-25/9)國慶活動暨中國周	
5		十月	27	28	29	30	Oct (1)	(2)	3	(28-30/9)體育推廣 (1/10)國慶日假期 (2/10)中秋節翌日假期
6			4	5	6	7	8	9	10	
7			11	12	13	14	15	16	17	(12-16/10)科學周 (16/10)學生領袖就職典禮
8	18		19	20	21	22	23	24		
9	9月	25	(26)	(27)	28 ^T	29 ^T	30 ^T	31	(26/10)重陽節翌日假期 (27/10)教師專業發展日(1) (28/10-3/11)中一至中六級統一測驗	
10		十一月	Nov 1	2 ^T	3 ^T	4	5	6	7	
11			8	9	10	11	12	13	14	(9-13/11)數學周
12			15 [△]	16	17	18	19	20 [△]	21	(15/11)南區中學巡禮 (20/11)全方位學習日 (21/11下午)家長教師會第二十三屆會員大會
13	22		23	24	25	26	27	28	(25-26/11)中一、二級護苗課程 (27/11)師生聯誼日	
14	十二月	29	30	Dec 1	2	3 [△]	(4)	5	(30/11-1/12)中一、二級護苗跟進課程 (3/12)第六十二屆陸運會 (4/12)陸運會翌日假期	
15		6	7	8	9	10	11	12	(7-11/12)科技周 (8/12)拍攝畢業照及班相 (12/12)中西南區小學數學比賽	
16		13	14	15	16	17	18	19	(17-21/12)中六級校外模擬考試 (14-18/12)福音周 (18/12)佈道會 (18/12晚上)家長教師會聖誕聯歡會	
17		20	21	22	(23)	(24)	(25)	(26)	(22/12)聖誕崇拜及慶祝會 (23/12-2/1)聖誕及新年假期共11天	
18	一月	(27)	(28)	(29)	(30)	(31)	Jan (1)	(2)	(23,24,28,29,30/12)中六級補課	
19		3	4	5	6 ^E	7 ^E	8 ^E	9	(6-15/1)中一至中五級上學期期考共8天 (6-19/1)中六級畢業試	
20		10	11 ^E	12 ^E	13 ^E	14 ^E	15 ^E	16		
21		17	18 ^E	19 ^E	20	21	22	23	(18-20/1)中一至中五級試後回饋日 (20/1下午)中五級學習概覽講座 (20/1-5/3)中六級試後上課日	
22	二月	24	25	26	27	28	29	30	(22-29/1)中一至中五級上學期溫習及補考	
23			FEB 31	1	2	3	4	5	6	(1/2)下學期開始 (1-5/2)英語周 (3/2)中六級進行APASO問卷
24		7	(8)	(9)	(10)	(11)	(12)	(13)	(8/2-20/2)農曆新年假期共13天	
25		(14)	(15)	(16)	(17)	(18)	(19)	(20)		
26	2月	21	22	23	24	25	(26)	27	(26/2)教師專業發展日(2) (22/2)中一至中四級學生開始繳交周記 (24/2)中六級進行學生持份者問卷及教學評鑑	

() - 假期 ^E - 考試 △ 特別活動 ● 教師發展日，學生不用上課

培英中學2020至2021年度校曆表

		日	一	二	三	四	五	六	假期及注意事項
27	三	28	Mar 1	2	3	4	5	6	(5/3)中六級習禮及感恩惜別會 (6/3)家長日暨中三升中四選科講座 (8/3)中六級開始溫習應付公開試
28		7	8	9	10	11	12	13	(8-12/3)中華文化周 (12/3)頒獎禮
29		14	15	16	17	18	19	20	(19-21/3)趁墟做老闆
30	月	21	22 ^T	23 ^T	24 ^T	25 ^T	26 ^T	27	(22-26/3)中一至中五級統一測驗 (23/3-18/5)香港中學文憑考試
31		28	29	30	31	Apr (1)	(2)	(3)	(31/3)復活節崇拜會 (1-10/4)清明節及復活節假期共10天
32		(4)	(5)	(6)	(7)	(8)	(9)	(10)	
33	四	11	12	13	14	15	16	17	(12/4)教師專業發展日(3) (13-16/4)藝術周
34		18	19	20	21	22	23 [△]	24	(23/4)校祖日感恩崇拜暨慶祝活動 (24/4)區會模範生頒獎禮
35		25	26	27	28	29 [△]	(30)	(1)	May (27/4或28/4)中三全港性系統評估口試 (30/4)TSA口試後備日 (29/4)全方位學習日 (30/4)全方位學習日翌日假期 (1/5)勞動節假期
36	五	2	3	4	5	6	7	8	(3-7/5)個人社會及人文領域周
37		9	10	11	12	13	14	15	
38		16	17	18 [△]	(19)	20	21 [△]	22	(18/5)水運同樂日 (19/5)佛誕假期 (21/5下午)畢業典禮 (21/5晚上)歡送畢業生暨校友會迎新晚會
39	月	23	24	25	26	27	28	29	(28/5)畢業禮後備日
40		30	31	Jun 1	2	3	4 ^E	5	(4-15/6)中三級下學期考試共7天
41		6	7 ^E	8 ^E	9 ^E	10 ^E	11 ^E	12	(4-18/6)中五級下學期考試共10天 (7-17/6)中一、二、四級下學期考試共8天
42	六	13	(14)	15 ^E	16 ^E	17 ^E	18 ^E	19	(14/6)端午節假期 (16-17/6)中三級全港性系統評估(中英數) (18-22/6)中一至中四級試後回饋日
43		20	21	22	23	24	25	26	(21/6)中三級全港性系統評估(後備日) (21/6-2/7)中五級試後上課周 (21/6下午)中五級學習概覽寫作工作坊 (23-25/6)中一至中五級溫習及補考
44		27	28	29	30	Jul (1)	2	3	(1/7)香港特別行政區成立紀念日假期 (28/6-9/7)暑期英語營
45	七	4	5	6	7	8	9	10	(7/7)中六級中學文憑考試放榜輔導講座
46		11	12	13	14 [△]	15	(16)	(17)	(14/7)香港中學文憑考試放榜 (15/7)結業禮 (15/7)接見家長及學生 (16/7-31/8)暑假共47天
47		(18)	(19)	(20)	(21)	(22)	(23)	(24)	
48	月	(25)	(26)	(27)	(28)	(29)	(30)	(31)	
49		Aug (1)	(2)	(3)	(4)	(5)	(6)	(7)	
50		(8)	(9)	(10)	(11)	(12)	(13)	(14)	(9/8)學生註冊及領取書籍校服 (9-20/8)升中導向課程 (9-20/8)中六級香港中學文憑考試備試課程
51	月	(15)	(16)	(17)	(18)	(19)	(20)	(21)	
52		(22)	(23)	(24)	(25)	(26)	(27)	(28)	
53	九 月	(29)	(30)	(31)	Sept 1	2	3	4	(1/9)下學年開學禮 (2/9)正式上課

() - 假期 ^E - 考試 △ 特別活動 ○ 教師發展日，學生不用上課

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Appendix F

Air Quality Monitoring Data

1-hour TSP Impact Monitoring Result for NOD 03-2018 Road Widening and Retrofitting Noise Barriers on Tai Po Road (Sha Tin Section)

AMS5 - Tin Liu

1-hour TSP ($\mu\text{g}/\text{m}^3$)								
Date	Start Time	1st hr	2nd hr	3rd hr	Average	Action Level	Limit Level	Weather
6-Oct-20	17:41	84	63	74	74	340	500	Sunny
12-Oct-20	16:40	91	81	73	82			Sunny
17-Oct-20	15:30	88	71	73	77			Sunny
23-Oct-20	16:35	92	70	73	78			Sunny
29-Oct-20	14:46	91	76	87	85			Sunny
Average		79						
Max		92						
Min		63						

AMS 8 - Lek Yuen Estate

1-hour TSP ($\mu\text{g}/\text{m}^3$)								
Date	Start Time	1st hr	2nd hr	3rd hr	Average	Action Level	Limit Level	Weather
6-Oct-20	15:13	75	72	63	70	336	500	Sunny
12-Oct-20	13:08	82	70	81	78			Sunny
17-Oct-20	18:12	79	76	69	75			Sunny
23-Oct-20	15:15	81	75	67	74			Sunny
29-Oct-20	16:10	78	69	76	74			Sunny
Average		74						
Max		82						
Min		63						

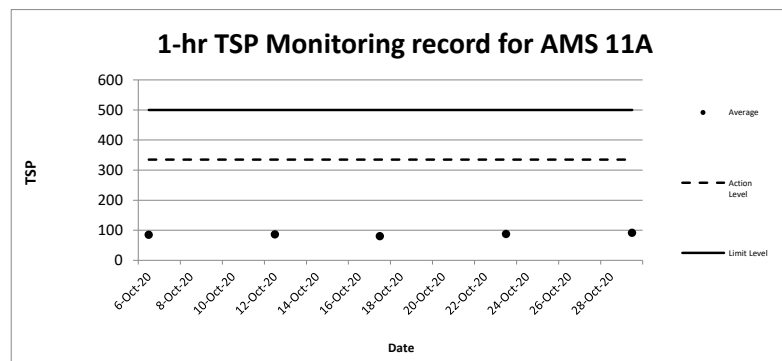
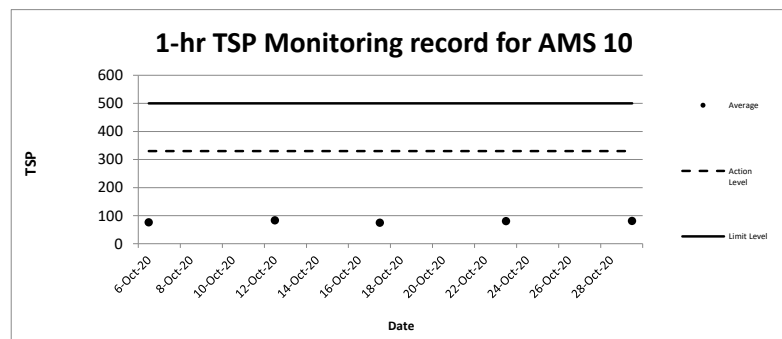
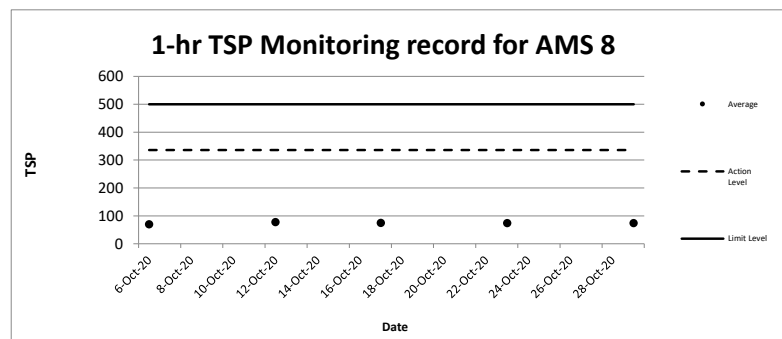
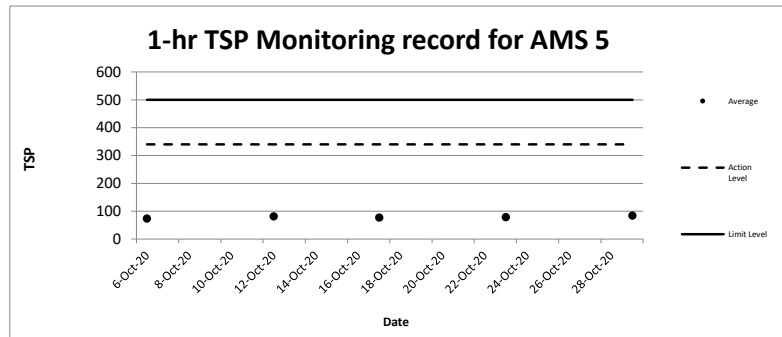
AMS 10 - Shatin Police Station

1-hour TSP ($\mu\text{g}/\text{m}^3$)								
Date	Start Time	1st hr	2nd hr	3rd hr	Average	Action Level	Limit Level	Weather
6-Oct-20	22:00	86	67	75	76	330	500	Sunny
12-Oct-20	13:27	90	78	82	83			Sunny
17-Oct-20	11:11	82	69	72	74			Sunny
23-Oct-20	21:50	91	70	79	80			Sunny
29-Oct-20	22:40	96	73	73	81			Sunny
Average		79						
Max		96						
Min		67						

AMS 11A - Sheung Wo Che

1-hour TSP ($\mu\text{g}/\text{m}^3$)								
Date	Start Time	1st hr	2nd hr	3rd hr	Average	Action Level	Limit Level	Weather
6-Oct-20	15:00	86	82	86	85	335	500	Sunny
12-Oct-20	16:27	90	86	82	86			Sunny
17-Oct-20	15:11	90	76	74	80			Sunny
23-Oct-20	14:50	96	82	85	88			Sunny
29-Oct-20	12:40	94	90	90	91			Sunny
Average		86						
Max		96						
Min		74						

- Remark
1. Actual monitoring may be subjected to change due to any safety concern or adverse weather condition.
 2. The Impact Air Monitoring Stations to be monitored should be selected based on the prevailing wind direction and their proximity to the active construction works.



24-hour TSP Impact Monitoring Result for
 NOD 03-2018 Road Widening and Retrofitting Noise Barriers on Tai Po Road (Sha Tin Section)

AMS5 - Tin Liu

Date and Time	TSP Concentration (µg/m ³)
6/10/2020 8:41	52
6/10/2020 9:41	57
6/10/2020 10:41	42
6/10/2020 11:41	61
6/10/2020 12:41	72
6/10/2020 13:41	64
6/10/2020 14:41	72
6/10/2020 15:41	58
6/10/2020 16:41	83
6/10/2020 17:41	84
6/10/2020 18:41	63
6/10/2020 19:41	74
6/10/2020 20:41	57
6/10/2020 21:41	68
6/10/2020 22:41	53
6/10/2020 23:41	58
7/10/2020 0:41	70
7/10/2020 1:41	49
7/10/2020 2:41	59
7/10/2020 3:41	80
7/10/2020 4:41	61
7/10/2020 5:41	48
7/10/2020 6:41	52
7/10/2020 7:41	64
Average	62
Action Level	156
Limit Level	260

Date and Time	TSP Concentration (µg/m ³)
12/10/2020 8:40	63
12/10/2020 9:40	67
12/10/2020 10:40	50
12/10/2020 11:40	69
12/10/2020 12:40	79
12/10/2020 13:40	72
12/10/2020 14:40	82
12/10/2020 15:40	64
12/10/2020 16:40	91
12/10/2020 17:40	81
12/10/2020 18:40	73
12/10/2020 19:40	80
12/10/2020 20:40	67
12/10/2020 21:40	78
12/10/2020 22:40	61
12/10/2020 23:40	69
13/10/2020 0:40	77
13/10/2020 1:40	56
13/10/2020 2:40	66
13/10/2020 3:40	86
13/10/2020 4:40	70
13/10/2020 5:40	58
13/10/2020 6:40	60
13/10/2020 7:40	73
Average	71
Action Level	156
Limit Level	260

Date and Time	TSP Concentration (µg/m ³)
17/10/2020 8:30	60
17/10/2020 9:30	65
17/10/2020 10:30	54
17/10/2020 11:30	71
17/10/2020 12:30	81
17/10/2020 13:30	73
17/10/2020 14:30	83
17/10/2020 15:30	88
17/10/2020 16:30	71
17/10/2020 17:30	73
17/10/2020 18:30	71
17/10/2020 19:30	82
17/10/2020 20:30	68
17/10/2020 21:30	77
17/10/2020 22:30	61
17/10/2020 23:30	69
18/10/2020 0:30	78
18/10/2020 1:30	60
18/10/2020 2:30	70
18/10/2020 3:30	70
18/10/2020 4:30	69
18/10/2020 5:30	56
18/10/2020 6:30	60
18/10/2020 7:30	71
Average	70
Action Level	156
Limit Level	260

Date and Time	TSP Concentration (µg/m ³)
23/10/2020 8:35	62
23/10/2020 9:35	66
23/10/2020 10:35	48
23/10/2020 11:35	69
23/10/2020 12:35	63
23/10/2020 13:35	69
23/10/2020 14:35	68
23/10/2020 15:35	61
23/10/2020 16:35	92
23/10/2020 17:35	70
23/10/2020 18:35	73
23/10/2020 19:35	73
23/10/2020 20:35	63
23/10/2020 21:35	75
23/10/2020 22:35	60
23/10/2020 23:35	64
24/10/2020 0:35	78
24/10/2020 1:35	56
24/10/2020 2:35	70
24/10/2020 3:35	89
24/10/2020 4:35	72
24/10/2020 5:35	56
24/10/2020 6:35	56
24/10/2020 7:35	73
Average	68
Action Level	156
Limit Level	260

Date and Time	TSP Concentration (µg/m ³)
29/10/2020 8:46	71
29/10/2020 9:46	73
29/10/2020 10:46	60
29/10/2020 11:46	79
29/10/2020 12:46	83
29/10/2020 13:46	76
29/10/2020 14:46	91
29/10/2020 15:46	76
29/10/2020 16:46	87
29/10/2020 17:46	85
29/10/2020 18:46	76
29/10/2020 19:46	90
29/10/2020 20:46	75
29/10/2020 21:46	87
29/10/2020 22:46	69
29/10/2020 23:46	77
30/10/2020 0:46	86
30/10/2020 1:46	61
30/10/2020 2:46	74
30/10/2020 3:46	75
30/10/2020 4:46	76
30/10/2020 5:46	68
30/10/2020 6:46	72
30/10/2020 7:46	79
Average	77
Action Level	156
Limit Level	260

- Remark
- Actual monitoring may be subjected to change due to any safety concern or adverse weather condition.
 - The Impact Air Monitoring Stations to be monitored should be selected based on the prevailing wind direction and their proximity to the active construction works.

**24-hour TSP Impact Monitoring Result for
NOD 03-2018 Road Widening and Retrofitting Noise Barriers on Tai Po Road (Sha Tin Section)**

AMS 8 - Lek Yuen Estate

Date and Time	TSP Concentration ($\mu\text{g}/\text{m}^3$)
6/10/2020 9:13	60
6/10/2020 10:13	58
6/10/2020 11:13	68
6/10/2020 12:13	69
6/10/2020 13:13	64
6/10/2020 14:13	67
6/10/2020 15:13	75
6/10/2020 16:13	72
6/10/2020 17:13	63
6/10/2020 18:13	70
6/10/2020 19:13	66
6/10/2020 20:13	67
6/10/2020 21:13	67
6/10/2020 22:13	63
6/10/2020 23:13	67
7/10/2020 0:13	70
7/10/2020 1:13	69
7/10/2020 2:13	69
7/10/2020 3:13	73
7/10/2020 4:13	66
7/10/2020 5:13	72
7/10/2020 6:13	67
7/10/2020 7:13	64
7/10/2020 8:13	61
Average	67
Action Level	161
Limit Level	260

Date and Time	TSP Concentration ($\mu\text{g}/\text{m}^3$)
12/10/2020 9:08	64
12/10/2020 10:08	73
12/10/2020 11:08	73
12/10/2020 12:08	73
12/10/2020 13:08	82
12/10/2020 14:08	70
12/10/2020 15:08	81
12/10/2020 16:08	78
12/10/2020 17:08	67
12/10/2020 18:08	74
12/10/2020 19:08	73
12/10/2020 20:08	73
12/10/2020 21:08	71
12/10/2020 22:08	69
12/10/2020 23:08	72
13/10/2020 0:08	77
13/10/2020 1:08	75
13/10/2020 2:08	76
13/10/2020 3:08	78
13/10/2020 4:08	73
13/10/2020 5:08	75
13/10/2020 6:08	71
13/10/2020 7:08	71
13/10/2020 8:08	68
Average	73
Action Level	161
Limit Level	260

Date and Time	TSP Concentration ($\mu\text{g}/\text{m}^3$)
17/10/2020 9:12	69
17/10/2020 10:12	70
17/10/2020 11:12	77
17/10/2020 12:12	77
17/10/2020 13:12	66
17/10/2020 14:12	65
17/10/2020 15:12	67
17/10/2020 16:12	75
17/10/2020 17:12	70
17/10/2020 18:12	79
17/10/2020 19:12	76
17/10/2020 20:12	69
17/10/2020 21:12	69
17/10/2020 22:12	76
17/10/2020 23:12	76
18/10/2020 0:12	73
18/10/2020 1:12	77
18/10/2020 2:12	79
18/10/2020 3:12	74
18/10/2020 4:12	68
18/10/2020 5:12	72
18/10/2020 6:12	77
18/10/2020 7:12	78
18/10/2020 8:12	64
Average	73
Action Level	161
Limit Level	260

Date and Time	TSP Concentration ($\mu\text{g}/\text{m}^3$)
23/10/2020 9:15	66
23/10/2020 10:15	63
23/10/2020 11:15	74
23/10/2020 12:15	75
23/10/2020 13:15	71
23/10/2020 14:15	71
23/10/2020 15:15	81
23/10/2020 16:15	75
23/10/2020 17:15	67
23/10/2020 18:15	73
23/10/2020 19:15	72
23/10/2020 20:15	72
23/10/2020 21:15	75
23/10/2020 22:15	68
23/10/2020 23:15	71
24/10/2020 0:15	78
24/10/2020 1:15	76
24/10/2020 2:15	73
24/10/2020 3:15	75
24/10/2020 4:15	62
24/10/2020 5:15	67
24/10/2020 6:15	70
24/10/2020 7:15	68
24/10/2020 8:15	64
Average	71
Action Level	161
Limit Level	260

Date and Time	TSP Concentration ($\mu\text{g}/\text{m}^3$)
29/10/2020 9:10	65
29/10/2020 10:10	64
29/10/2020 11:10	73
29/10/2020 12:10	74
29/10/2020 13:10	71
29/10/2020 14:10	70
29/10/2020 15:10	77
29/10/2020 16:10	78
29/10/2020 17:10	69
29/10/2020 18:10	76
29/10/2020 19:10	71
29/10/2020 20:10	72
29/10/2020 21:10	71
29/10/2020 22:10	66
29/10/2020 23:10	74
30/10/2020 0:10	74
30/10/2020 1:10	74
30/10/2020 2:10	72
30/10/2020 3:10	70
30/10/2020 4:10	70
30/10/2020 5:10	69
30/10/2020 6:10	72
30/10/2020 7:10	71
30/10/2020 8:10	68
Average	71
Action Level	161
Limit Level	260

- Remark
1. Actual monitoring may be subjected to change due to any safety concern or adverse weather condition.
 2. The Impact Air Monitoring Stations to be monitored should be selected based on the prevailing wind direction and their proximity to the active construction works.

**24-hour TSP Impact Monitoring Result for
NOD 03-2018 Road Widening and Retrofitting Noise Barriers on Tai Po Road (Sha Tin Section)**

AMS 10 - Shatin Police Station

Date and Time	TSP Concentration ($\mu\text{g}/\text{m}^3$)
6/10/2020 9:35	69
4/3/2020 10:00	74
4/3/2020 11:00	82
4/3/2020 12:00	69
4/3/2020 13:00	72
4/3/2020 14:00	76
4/3/2020 15:00	77
4/3/2020 16:00	71
4/3/2020 17:00	73
4/3/2020 18:00	80
4/3/2020 19:00	77
4/3/2020 20:00	78
4/3/2020 21:00	69
4/3/2020 22:00	86
4/3/2020 23:00	67
5/3/2020 0:00	75
5/3/2020 1:00	70
5/3/2020 2:00	69
5/3/2020 3:00	74
5/3/2020 4:00	72
5/3/2020 5:00	69
5/3/2020 6:00	62
5/3/2020 7:00	63
5/3/2020 8:00	70
Average	73
Action Level	165
Limit Level	260

Date and Time	TSP Concentration ($\mu\text{g}/\text{m}^3$)
12/10/2020 9:41	75
10/3/2020 10:27	79
10/3/2020 11:27	87
10/3/2020 12:27	71
10/3/2020 13:27	90
10/3/2020 14:27	78
10/3/2020 15:27	82
10/3/2020 16:27	77
10/3/2020 17:27	77
10/3/2020 18:27	85
10/3/2020 19:27	80
10/3/2020 20:27	84
10/3/2020 21:27	76
10/3/2020 22:27	75
10/3/2020 23:27	70
11/3/2020 0:27	79
11/3/2020 1:27	73
11/3/2020 2:27	74
11/3/2020 3:27	80
11/3/2020 4:27	77
11/3/2020 5:27	73
11/3/2020 6:27	68
11/3/2020 7:27	67
11/3/2020 8:27	76
Average	77
Action Level	165
Limit Level	260

Date and Time	TSP Concentration ($\mu\text{g}/\text{m}^3$)
17/10/2020 9:37	69
16/3/2020 10:11	74
16/3/2020 11:11	82
16/3/2020 12:11	69
16/3/2020 13:11	72
16/3/2020 14:11	76
16/3/2020 15:11	77
16/3/2020 16:11	71
16/3/2020 17:11	73
16/3/2020 18:11	80
16/3/2020 19:11	77
16/3/2020 20:11	78
16/3/2020 21:11	69
16/3/2020 22:11	76
16/3/2020 23:11	67
17/3/2020 0:11	75
17/3/2020 1:11	70
17/3/2020 2:11	69
17/3/2020 3:11	74
17/3/2020 4:11	72
17/3/2020 5:11	69
17/3/2020 6:11	62
17/3/2020 7:11	63
17/3/2020 8:11	70
Average	72
Action Level	165
Limit Level	260

Date and Time	TSP Concentration ($\mu\text{g}/\text{m}^3$)
23/10/2020 9:39	73
20/3/2020 9:50	76
20/3/2020 10:50	86
20/3/2020 11:50	73
20/3/2020 12:50	74
20/3/2020 13:50	81
20/3/2020 14:50	83
20/3/2020 15:50	75
20/3/2020 16:50	76
20/3/2020 17:50	83
20/3/2020 18:50	80
20/3/2020 19:50	83
20/3/2020 20:50	74
20/3/2020 21:50	91
20/3/2020 22:50	70
20/3/2020 23:50	79
21/3/2020 0:50	74
21/3/2020 1:50	74
21/3/2020 2:50	78
21/3/2020 3:50	75
21/3/2020 4:50	72
21/3/2020 5:50	65
21/3/2020 6:50	68
21/3/2020 7:50	74
Average	77
Action Level	165
Limit Level	260

Date and Time	TSP Concentration ($\mu\text{g}/\text{m}^3$)
29/10/2020 9:46	80
26/3/2020 10:40	83
26/3/2020 11:40	92
26/3/2020 12:40	77
26/3/2020 13:40	81
26/3/2020 14:40	82
26/3/2020 15:40	86
26/3/2020 16:40	81
26/3/2020 17:40	81
26/3/2020 18:40	89
26/3/2020 19:40	86
26/3/2020 20:40	86
26/3/2020 21:40	79
26/3/2020 22:40	96
26/3/2020 23:40	73
27/3/2020 0:40	83
27/3/2020 1:40	78
27/3/2020 2:40	77
27/3/2020 3:40	85
27/3/2020 4:40	82
27/3/2020 5:40	78
27/3/2020 6:40	72
27/3/2020 7:40	72
27/3/2020 8:40	80
Average	82
Action Level	165
Limit Level	260

- Remark
1. Actual monitoring may be subjected to change due to any safety concern or adverse weather condition.
 2. The Impact Air Monitoring Stations to be monitored should be selected based on the prevailing wind direction and their proximity to the active construction works.

**24-hour TSP Impact Monitoring Result for
NOD 03-2018 Road Widening and Retrofitting Noise Barriers on Tai Po Road (Sha Tin Section)**

AMS 11A - Sheung Wo Che

Date and Time	TSP Concentration ($\mu\text{g}/\text{m}^3$)
6/10/2020 9:58	72
4/3/2020 10:00	86
4/3/2020 11:00	69
4/3/2020 12:00	84
4/3/2020 13:00	86
4/3/2020 14:00	82
4/3/2020 15:00	86
4/3/2020 16:00	81
4/3/2020 17:00	77
4/3/2020 18:00	78
4/3/2020 19:00	71
4/3/2020 20:00	76
4/3/2020 21:00	69
4/3/2020 22:00	74
4/3/2020 23:00	77
5/3/2020 0:00	76
5/3/2020 1:00	80
5/3/2020 2:00	79
5/3/2020 3:00	82
5/3/2020 4:00	82
5/3/2020 5:00	75
5/3/2020 6:00	84
5/3/2020 7:00	77
5/3/2020 8:00	70
Average	78
Action Level	165
Limit Level	260

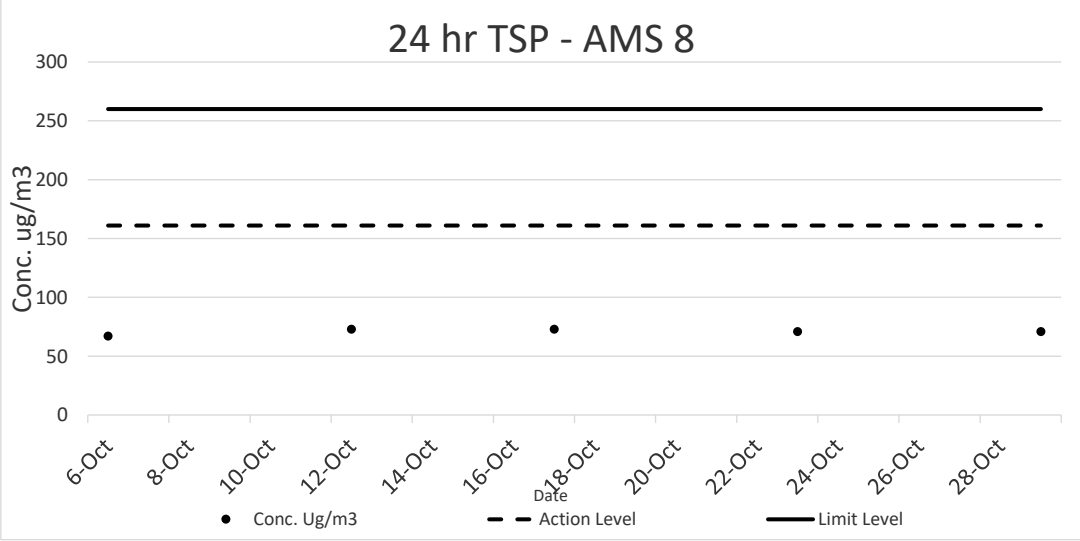
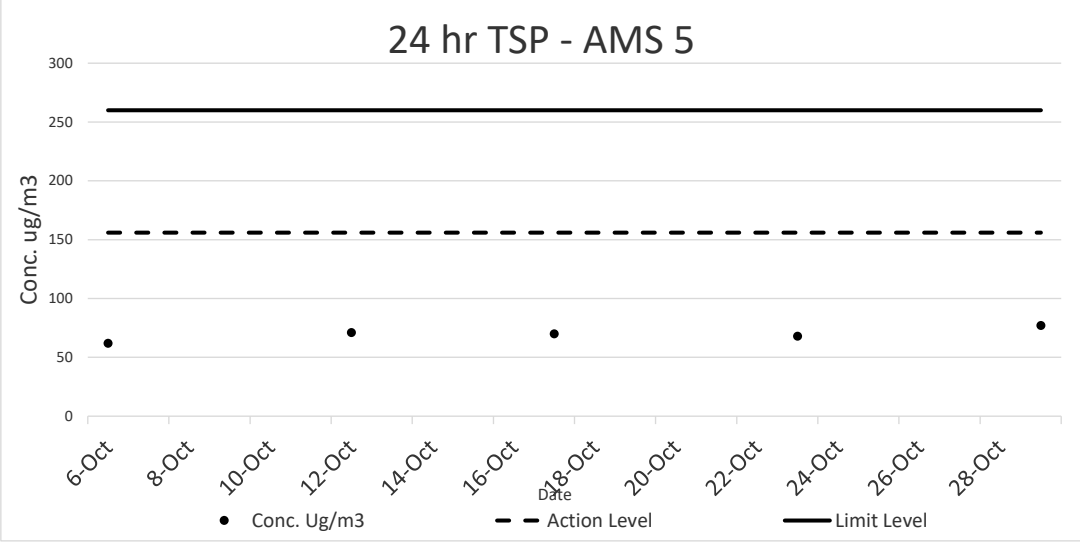
Date and Time	TSP Concentration ($\mu\text{g}/\text{m}^3$)
12/10/2020 10:02	81
10/3/2020 10:27	82
10/3/2020 11:27	76
10/3/2020 12:27	87
10/3/2020 13:27	74
10/3/2020 14:27	72
10/3/2020 15:27	82
10/3/2020 16:27	90
10/3/2020 17:27	86
10/3/2020 18:27	82
10/3/2020 19:27	76
10/3/2020 20:27	80
10/3/2020 21:27	76
10/3/2020 22:27	82
10/3/2020 23:27	81
11/3/2020 0:27	84
11/3/2020 1:27	88
11/3/2020 2:27	87
11/3/2020 3:27	69
11/3/2020 4:27	71
11/3/2020 5:27	82
11/3/2020 6:27	72
11/3/2020 7:27	87
11/3/2020 8:27	75
Average	80
Action Level	165
Limit Level	260

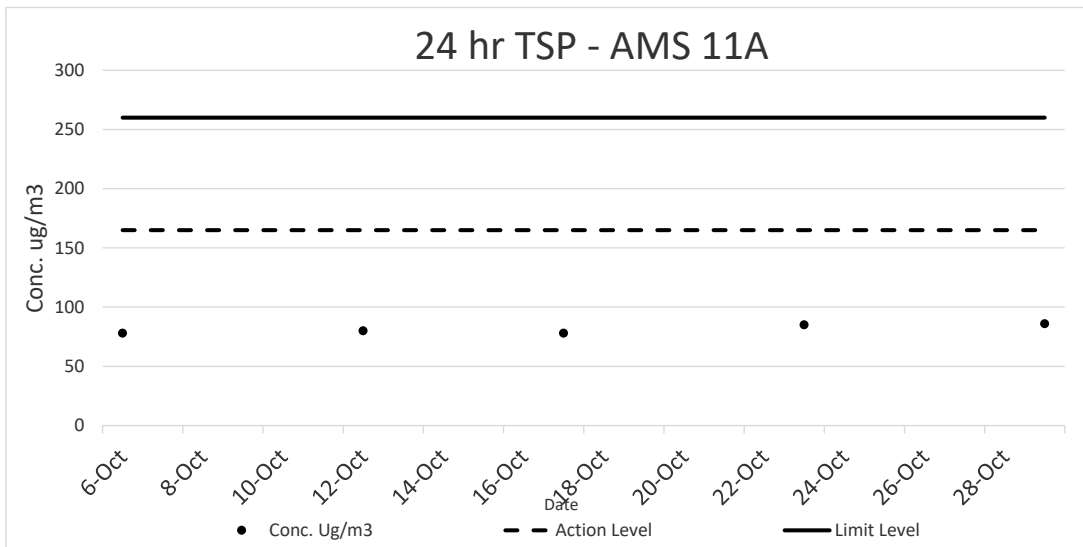
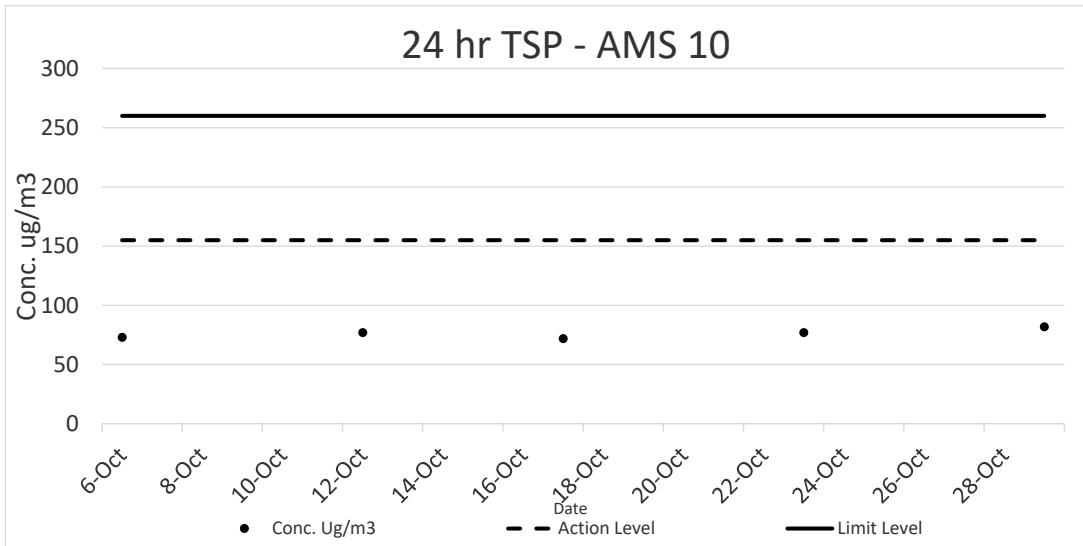
Date and Time	TSP Concentration ($\mu\text{g}/\text{m}^3$)
17/10/2020 10:05	75
16/3/2020 10:11	89
16/3/2020 11:11	80
16/3/2020 12:11	83
16/3/2020 13:11	86
16/3/2020 14:11	84
16/3/2020 15:11	90
16/3/2020 16:11	76
16/3/2020 17:11	74
16/3/2020 18:11	78
16/3/2020 19:11	76
16/3/2020 20:11	75
16/3/2020 21:11	71
16/3/2020 22:11	77
16/3/2020 23:11	79
17/3/2020 0:11	73
17/3/2020 1:11	79
17/3/2020 2:11	85
17/3/2020 3:11	78
17/3/2020 4:11	85
17/3/2020 5:11	79
17/3/2020 6:11	82
17/3/2020 7:11	68
17/3/2020 8:11	58
Average	78
Action Level	165
Limit Level	260

Date and Time	TSP Concentration ($\mu\text{g}/\text{m}^3$)
23/10/2020 9:57	83
20/3/2020 9:50	93
20/3/2020 10:50	91
20/3/2020 11:50	89
20/3/2020 12:50	91
20/3/2020 13:50	94
20/3/2020 14:50	96
20/3/2020 15:50	82
20/3/2020 16:50	85
20/3/2020 17:50	86
20/3/2020 18:50	80
20/3/2020 19:50	80
20/3/2020 20:50	74
20/3/2020 21:50	87
20/3/2020 22:50	85
20/3/2020 23:50	77
21/3/2020 0:50	84
21/3/2020 1:50	90
21/3/2020 2:50	86
21/3/2020 3:50	89
21/3/2020 4:50	89
21/3/2020 5:50	88
21/3/2020 6:50	76
21/3/2020 7:50	68
Average	85
Action Level	165
Limit Level	260

Date and Time	TSP Concentration ($\mu\text{g}/\text{m}^3$)
29/10/2020 10:07	82
26/3/2020 10:40	92
26/3/2020 11:40	75
26/3/2020 12:40	94
26/3/2020 13:40	90
26/3/2020 14:40	90
26/3/2020 15:40	94
26/3/2020 16:40	90
26/3/2020 17:40	86
26/3/2020 18:40	88
26/3/2020 19:40	81
26/3/2020 20:40	82
26/3/2020 21:40	76
26/3/2020 22:40	78
26/3/2020 23:40	83
27/3/2020 0:40	81
27/3/2020 1:40	87
27/3/2020 2:40	89
27/3/2020 3:40	89
27/3/2020 4:40	89
27/3/2020 5:40	82
27/3/2020 6:40	93
27/3/2020 7:40	86
27/3/2020 8:40	80
Average	86
Action Level	165
Limit Level	260

- Remark
1. Actual monitoring may be subjected to change due to any safety concern or adverse weather condition.
 2. The Impact Air Monitoring Stations to be monitored should be selected based on the prevailing wind direction and their proximity to the active construction works.





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Appendix G

Noise Monitoring Data

Impact Noise Monitoring Result for NOD 03-2018 Road Widening and Retrofitting Noise Barriers on Tai Po Road (Sha

NMS 1 Scenery Court

Date	Start Time	Measured Noise Level			Limit Level	Construction Noise Level	Weather	Wind Speed (m/s)
		L _{eq}	L ₉₀	L ₁₀				
		Unit: dB(A) 30 Mins						
6-Oct-20	8:32	64.7	61.7	68.7	75	64.7	Sunny	0.8
12-Oct-20	8:47	67.2	65.2	71.2		67.2	Sunny	0.6
23-Oct-20	8:43	66.7	63.8	70.7		66.7	Sunny	0.6
29-Oct-20	8:37	65.5	62.6	69.5		65.5	Sunny	0.7

NMS 2 Villa Le Parc

Date	Start Time	Measured Noise Level			Limit Level	Construction Noise Level	Weather	Wind Speed (m/s)
		L _{eq}	L ₉₀	L ₁₀				
		Unit: dB(A) 30 Mins						
6-Oct-20	9:34	61.7	58.6	66.9	75	61.7	Sunny	0.8
12-Oct-20	9:58	64.0	62.1	69.4		64.0	Sunny	0.6
23-Oct-20	9:50	63.6	60.7	68.9		63.6	Sunny	0.6
29-Oct-20	9:40	62.6	59.5	67.7		62.6	Sunny	0.7

NMS 3 Hilton Plaza

Date	Start Time	Measured Noise Level			Limit Level	Construction Noise Level	Weather	Wind Speed (m/s)
		L _{eq}	L ₉₀	L ₁₀				
		Unit: dB(A) 30 Mins						
6-Oct-20	9:03	67.8	64.7	69.5	75	67.8	Sunny	0.8
12-Oct-20	9:27	68.3	67.5	72.0		68.3	Sunny	0.6
23-Oct-20	9:19	67.9	66.5	71.5		67.9	Sunny	0.6
29-Oct-20	9:09	68.7	65.4	70.3		68.7	Sunny	0.7

NMS 4 Tin Liu

Date	Start Time	Measured Noise Level			Limit Level	Construction Noise Level	Weather	Wind Speed (m/s)
		L _{eq}	L ₉₀	L ₁₀				
		Unit: dB(A) 30 Mins						
6-Oct-20	10:09	67.0	64.3	71.1	75	67.0	Sunny	0.8
12-Oct-20	10:33	67.3	66.2	70.2		67.3	Sunny	0.6
23-Oct-20	10:25	66.9	65.5	70.7		66.9	Sunny	0.6
29-Oct-20	10:15	67.7	65.0	71.9		67.7	Sunny	0.7

NMS 5A Wai Wah Centre

Date	Start Time	Measured Noise Level			Limit Level	Construction Noise Level	Weather	Wind Speed (m/s)
		L _{eq}	L ₉₀	L ₁₀				
		Unit: dB(A) 30 Mins						
6-Oct-20	16:31	68.0	66.9	70.4	75	68.0	Sunny	0.8
12-Oct-20	16:20	67.3	64.6	69.5		67.3	Sunny	0.6
23-Oct-20	16:27	66.9	63.4	70.0		66.9	Sunny	0.6
29-Oct-20	16:37	68.7	67.6	71.2		68.7	Sunny	0.7

NMS 6A Wai Wah Centre

Date	Start Time	Measured Noise Level			Limit Level	Construction Noise Level	Weather	Wind Speed (m/s)
		L _{eq}	L ₉₀	L ₁₀				
		Unit: dB(A) 30 Mins						
6-Oct-20	15:41	68.6	66.3	69.8	75	68.6	Sunny	0.8
12-Oct-20	15:30	67.9	65.2	68.9		67.9	Sunny	0.6
23-Oct-20	15:37	67.5	64.0	69.4		67.5	Sunny	0.6
29-Oct-20	15:47	69.3	67.0	70.6		69.3	Sunny	0.7

NMS 7 Tin Liu

Date	Start Time	Measured Noise Level			Limit Level	Construction Noise Level	Weather	Wind Speed (m/s)
		L _{eq}	L ₉₀	L ₁₀				
		Unit: dB(A) 30 Mins						
6-Oct-20	13:23	67.4	64.3	69.7	75	67.4	Sunny	0.8
12-Oct-20	13:12	66.7	64.0	68.8		66.7	Sunny	0.6
23-Oct-20	13:19	66.3	62.8	69.3		66.3	Sunny	0.6
29-Oct-20	13:29	68.1	65.0	70.5		68.1	Sunny	0.7

NMS 8 Shatin Plaza

Date	Start Time	Measured Noise Level			Limit Level	Construction Noise Level	Weather	Wind Speed (m/s)
		L _{eq}	L ₉₀	L ₁₀				
		Unit: dB(A) 30 Mins						
7-Oct-20	8:46	70.5	67.8	73.1	75	70.5	Sunny	0.9
14-Oct-20	8:50	69.8	67.1	72.2		69.8	Fine	1.5
22-Oct-20	8:42	69.4	65.9	72.7		69.4	Sunny	0.7
28-Oct-20	8:52	71.2	68.5	73.9		71.2	Fine	0.8

NMS 9 Lek Yuen Estate

Date	Start Time	Measured Noise Level			Limit Level	Construction Noise Level	Weather	Wind Speed (m/s)
		L _{eq}	L ₉₀	L ₁₀				
		Unit: dB(A) 30 Mins						
7-Oct-20	11:08	69.4	65.7	72.6	75	69.4	Sunny	0.9
14-Oct-20	11:12	71.1	68.4	72.7		71.1	Fine	1.5
22-Oct-20	11:04	70.7	67.2	72.2		70.7	Sunny	0.7
28-Oct-20	11:14	70.1	66.4	73.4		70.1	Fine	0.8

NMS 10A Shatin Tsung Tsin School

Date	Start Time	Measured Noise Level			Limit Level	Construction Noise Level	Weather	Wind Speed (m/s)
		L _{eq}	L ₉₀	L ₁₀				
		Unit: dB(A) 30 Mins						
7-Oct-20	13:37	65.6	63.1	68.7	70	65.6	Sunny	0.9
14-Oct-20	13:41	67.3	64.6	68.8		67.3	Fine	1.5
22-Oct-20	13:33	66.9	63.4	68.3		66.9	Sunny	0.7
28-Oct-20	13:43	66.3	63.8	69.5		66.3	Fine	0.8

*Note: The examination schedule was provide in Appendix E.

NMS 11 Sheung Wo Che

Date	Start Time	Measured Noise Level			Limit Level	Construction Noise Level	Weather	Wind Speed (m/s)
		L _{eq}	L ₉₀	L ₁₀				
		Unit: dB(A) 30 Mins						
7-Oct-20	10:21	66.3	63.1	68.4	75	66.3	Sunny	0.9
14-Oct-20	10:25	68.0	65.3	68.5		68.0	Fine	1.5
22-Oct-20	10:17	67.6	64.1	68.0		67.6	Sunny	0.7
28-Oct-20	10:27	67.0	63.8	69.2		67.0	Fine	0.8

NMS 12 SKH Holy Spirit Primary School

Date	Start Time	Measured Noise Level			Limit Level	Construction Noise Level	Weather	Wind Speed (m/s)
		L _{eq}	L ₉₀	L ₁₀				
		Unit: dB(A) 30 Mins						
7-Oct-20	14:35	63.5	61.5	68.7	70	63.5	Sunny	0.9
14-Oct-20	14:39	65.2	62.5	68.8		65.2	Fine	1.5
22-Oct-20	14:31	64.8	61.3	68.3		64.8	Sunny	0.7
28-Oct-20	14:41	64.2	62.2	69.5	65	64.2	Fine	0.8

*Note: The examination period was 27 - 30 Oct 2020 for NMS 12. The examination schedule was provide in Appendix E.

Calculated CNL = Measured Noise Level during operation – Baseline (dB(A)).

NMS 13 Lek Yuen Estate

Date	Start Time	Measured Noise Level			Limit Level	Construction Noise Level	Weather	Wind Speed (m/s)
		L _{eq}	L ₉₀	L ₁₀				
Unit: dB(A) 30 Mins								
7-Oct-20	14:36	64.7	62.1	68.9	75	64.7	Sunny	0.9
14-Oct-20	14:40	64.0	61.3	68.0		64.0	Fine	1.5
22-Oct-20	14:32	63.6	60.1	68.5		63.6	Sunny	0.7
28-Oct-20	14:42	65.4	62.8	69.7		65.4	Fine	0.8

NMS 14 Sheung Wo Che

Date	Start Time	Measured Noise Level			Limit Level	Construction Noise Level	Weather	Wind Speed (m/s)
		L _{eq}	L ₉₀	L ₁₀				
Unit: dB(A) 30 Mins								
7-Oct-20	10:49	66.2	62.7	68.6	75	66.2	Sunny	0.9
14-Oct-20	10:53	65.5	62.8	67.7		65.5	Fine	1.5
22-Oct-20	10:45	65.1	61.6	68.2		65.1	Sunny	0.7
28-Oct-20	10:55	66.9	63.4	69.4		66.9	Fine	0.8

NMS 15 Ha Wo Che

Date	Start Time	Measured Noise Level			Limit Level	Construction Noise Level	Weather	Wind Speed (m/s)
		L _{eq}	L ₉₀	L ₁₀				
Unit: dB(A) 30 Mins								
6-Oct-20	15:12	67.6	63.8	69.2	75	67.6	Sunny	0.8
12-Oct-20	15:27	70.1	67.3	71.7		70.1	Sunny	0.6
23-Oct-20	15:23	69.6	65.9	71.2		69.6	Sunny	0.6
29-Oct-20	15:17	68.4	64.7	70.0		68.4	Sunny	0.7

NMS 16 Ha Wo Che

Date	Start Time	Measured Noise Level			Limit Level	Construction Noise Level	Weather	Wind Speed (m/s)
		L _{eq}	L ₉₀	L ₁₀				
Unit: dB(A) 30 Mins								
6-Oct-20	14:33	67.2	65.2	70.1	75	67.2	Sunny	0.8
12-Oct-20	14:37	66.5	63.8	69.2		66.5	Sunny	1.0
23-Oct-20	14:29	66.1	62.6	69.7		66.1	Sunny	0.6
29-Oct-20	14:39	67.9	65.9	70.9		67.9	Sunny	0.6

NMS 17 Shatin Pui Ying College

Date	Start Time	Measured Noise Level			Limit Level	Construction Noise Level	Weather	Wind Speed (m/s)
		L _{eq}	L ₉₀	L ₁₀				
Unit: dB(A) 30 Mins								
7-Oct-20	15:38	65.2	63.1	68.5	70	65.2	Sunny	0.9
14-Oct-20	15:42	64.5	61.8	67.6		64.5	Fine	1.5
22-Oct-20	15:34	64.1	60.6	68.1		64.1	Sunny	0.7
28-Oct-20	15:44	65.9	63.8	69.3		65.9	Fine	0.8

*Note: The examination schedule was provide in Appendix E.

NMS 18 Ha Wo Che

Date	Start Time	Measured Noise Level			Limit Level	Construction Noise Level	Weather	Wind Speed (m/s)
		L _{eq}	L ₉₀	L ₁₀				
Unit: dB(A) 30 Mins								
6-Oct-20	14:12	66.0	63.7	69.1	75	66.0	Sunny	0.8
12-Oct-20	14:16	65.3	62.6	68.2		65.3	Sunny	1.0
23-Oct-20	14:08	64.9	61.4	68.7		64.9	Sunny	0.6
29-Oct-20	14:18	66.7	64.4	69.9		66.7	Sunny	0.6

Calculated CNL = Measured Noise Level during operation – Baseline (dB(A)).

NMS 19 Wo Che Estate

Date	Start Time	Measured Noise Level			Limit Level	Construction Noise Level	Weather	Wind Speed (m/s)
		L _{eq}	L ₉₀	L ₁₀				
Unit: dB(A) 30 Mins								
7-Oct-20	16:00	66.7	63.5	69.3	75	66.7	Sunny	0.9
14-Oct-20	16:04	66.0	63.3	68.4		66.0	Fine	1.5
22-Oct-20	15:56	65.6	62.1	68.9		65.6	Sunny	0.7
28-Oct-20	16:06	67.4	64.2	70.1		67.4	Fine	0.8

NMS 20 Wo Che Estate

Date	Start Time	Measured Noise Level			Limit Level	Construction Noise Level	Weather	Wind Speed (m/s)
		L _{eq}	L ₉₀	L ₁₀				
Unit: dB(A) 30 Mins								
7-Oct-20	16:36	67.5	64.1	70.2	75	67.5	Sunny	0.9
14-Oct-20	16:40	66.8	64.1	69.3		66.8	Fine	1.5
22-Oct-20	16:32	66.4	62.9	69.8		66.4	Sunny	0.7
28-Oct-20	16:42	68.2	64.8	71.0		68.2	Fine	0.8

NMS 23 Pai Tau

Date	Start Time	Measured Noise Level			Limit Level	Construction Noise Level	Weather	Wind Speed (m/s)
		L _{eq}	L ₉₀	L ₁₀				
Unit: dB(A) 30 Mins								
6-Oct-20	11:44	67.2	66.1	71.4	75	67.2	Sunny	0.8
12-Oct-20	11:48	66.5	63.8	70.5		66.5	Sunny	0.6
23-Oct-20	11:40	66.1	62.6	71.0		66.1	Sunny	0.6
29-Oct-20	11:50	67.9	66.8	72.2		67.9	Sunny	0.7

NMS 24 Shatin Plaza

Date	Start Time	Measured Noise Level			Limit Level	Construction Noise Level	Weather	Wind Speed (m/s)
		L _{eq}	L ₉₀	L ₁₀				
Unit: dB(A) 30 Mins								
7-Oct-20	9:31	68.7	64.7	70.5	75	68.7	Sunny	0.9
14-Oct-20	9:35	68.0	65.3	69.6		68.0	Fine	1.5
22-Oct-20	9:27	67.6	64.1	70.1		67.6	Sunny	0.7
28-Oct-20	9:37	69.4	65.4	71.3		69.4	Fine	0.8

NMS 25A Sheung Wo Che

Date	Start Time	Measured Noise Level			Limit Level	Construction Noise Level	Weather	Wind Speed (m/s)
		L _{eq}	L ₉₀	L ₁₀				
Unit: dB(A) 30 Mins								
7-Oct-20	9:46	68.7	63.1	71.1	75	68.7	Sunny	0.9
14-Oct-20	9:50	68.0	65.3	70.2		68.0	Fine	1.5
22-Oct-20	9:42	67.6	64.1	70.7		67.6	Sunny	0.7
28-Oct-20	9:52	69.4	63.8	71.9		69.4	Fine	0.8

NMS 26 Wo Che Estate

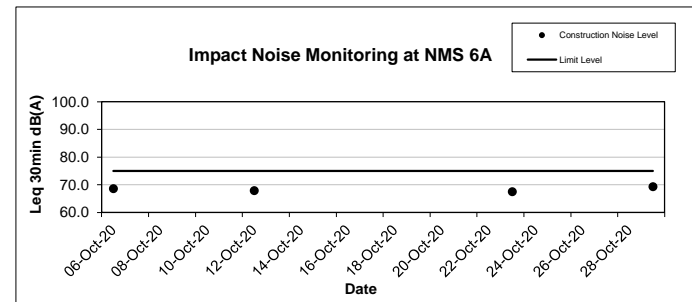
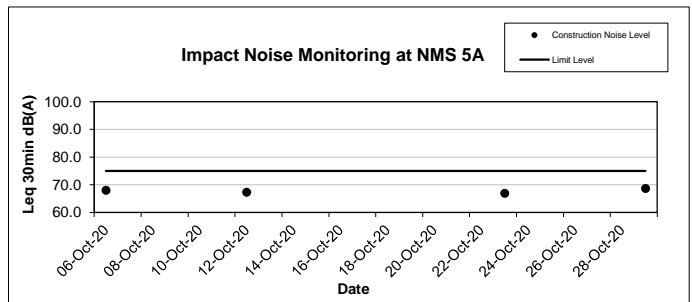
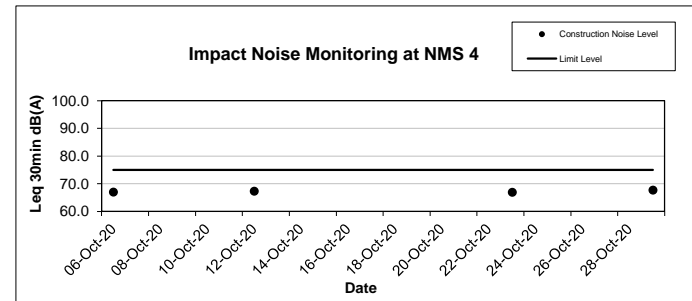
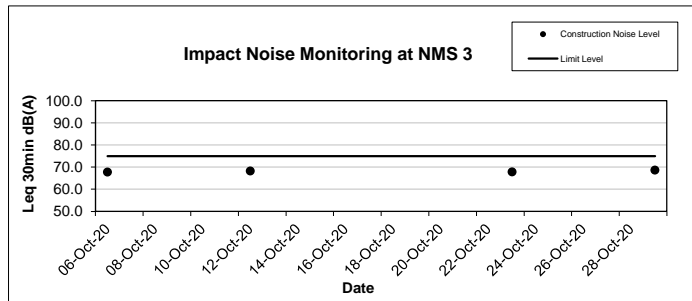
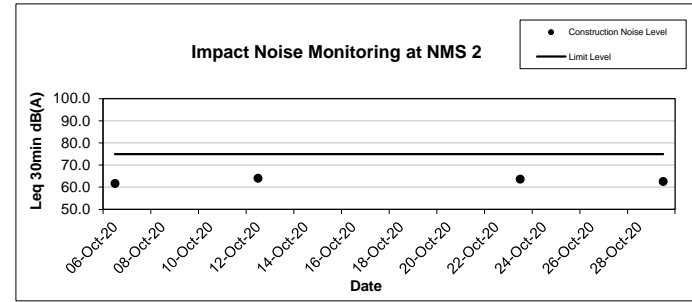
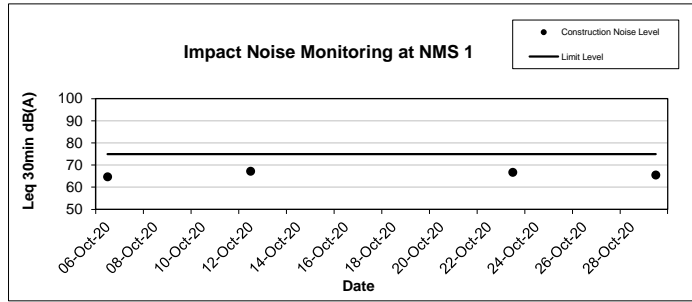
Date	Start Time	Measured Noise Level			Limit Level	Construction Noise Level	Weather	Wind Speed (m/s)
		L _{eq}	L ₉₀	L ₁₀				
Unit: dB(A) 30 Mins								
7-Oct-20	10:22	71.0	67.5	73.8	75	71.0	Sunny	0.9
14-Oct-20	10:26	70.3	67.6	72.9		70.3	Fine	1.5
22-Oct-20	10:18	69.9	66.4	73.4		69.9	Sunny	0.7
28-Oct-20	10:28	71.7	68.2	74.6		71.7	Fine	0.8

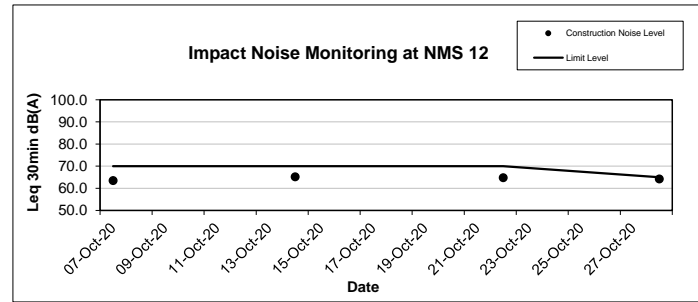
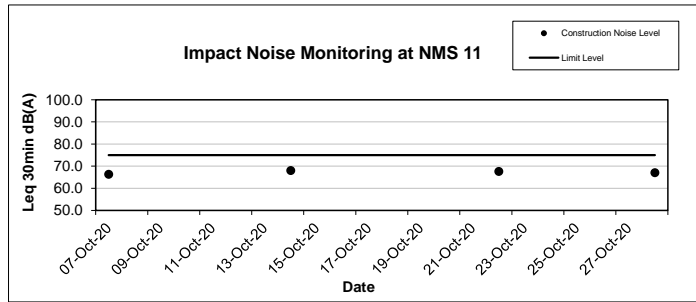
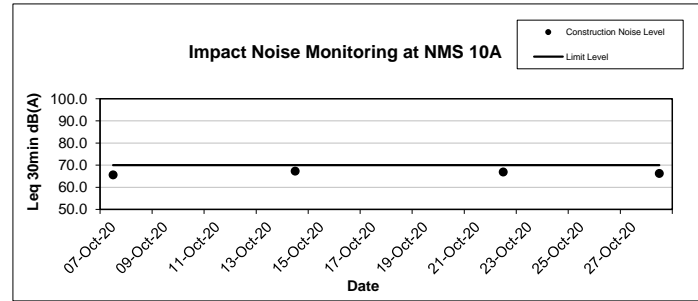
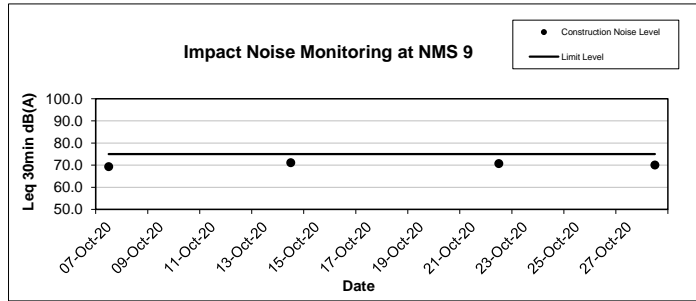
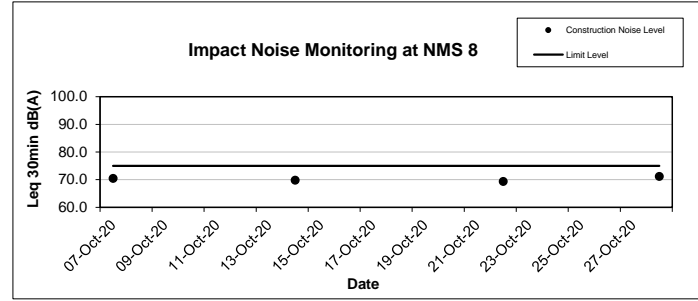
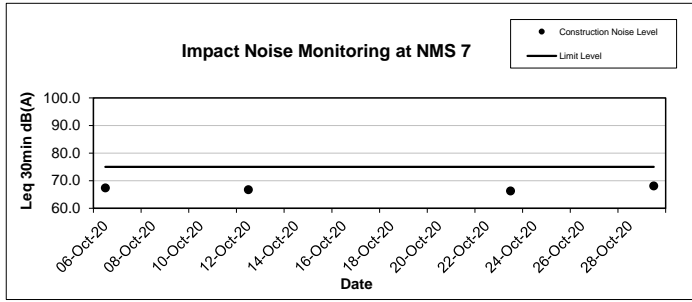
NMS 27 Jockey Club Ti-I College

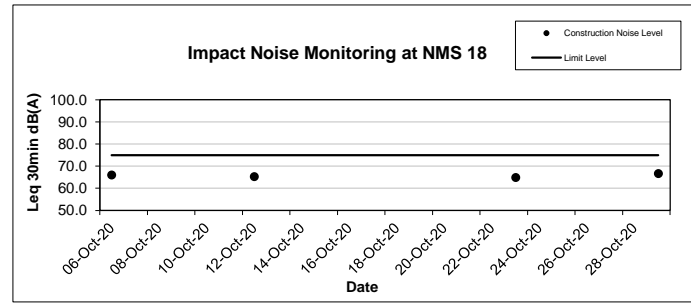
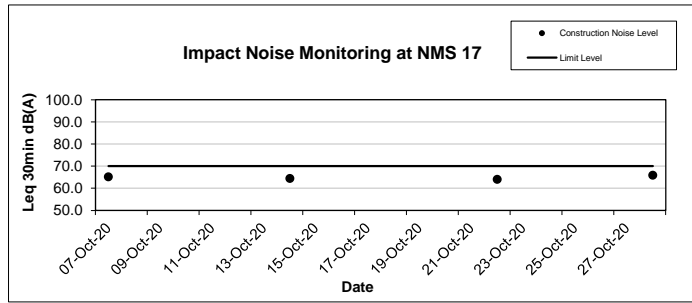
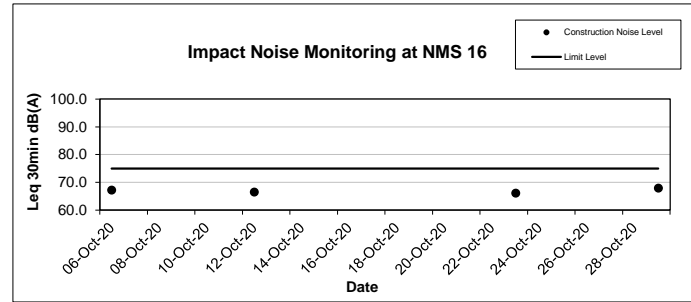
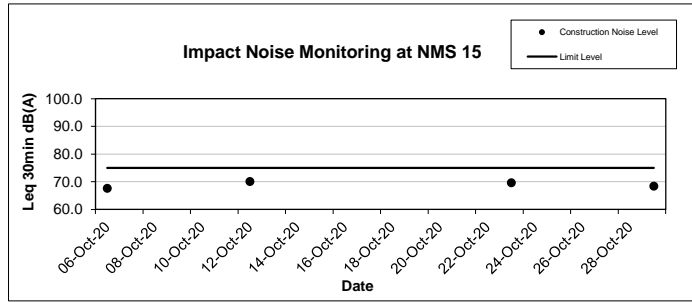
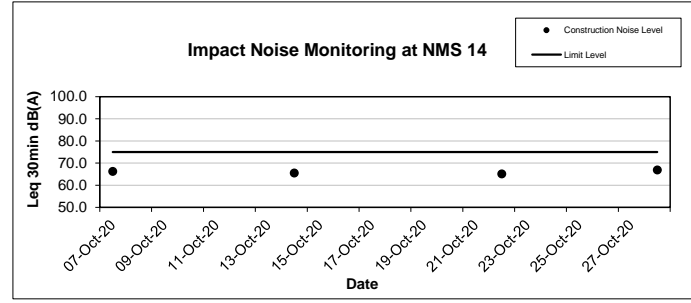
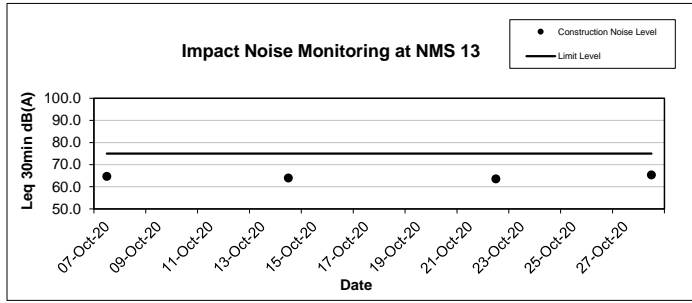
Date	Start Time	Measured Noise Level			Limit Level	Construction Noise Level	Weather	Wind Speed (m/s)
		L _{eq}	L ₉₀	L ₁₀				
Unit: dB(A) 30 Mins								
6-Oct-20	13:16	66.7	63.6	68.8	70	66.7	Sunny	0.8
12-Oct-20	13:20	66.0	63.3	67.9		66.0	Sunny	0.6
23-Oct-20	13:12	65.6	62.1	68.4		65.6	Sunny	0.6
29-Oct-20	13:22	67.4	64.3	69.6		67.4	Sunny	0.7

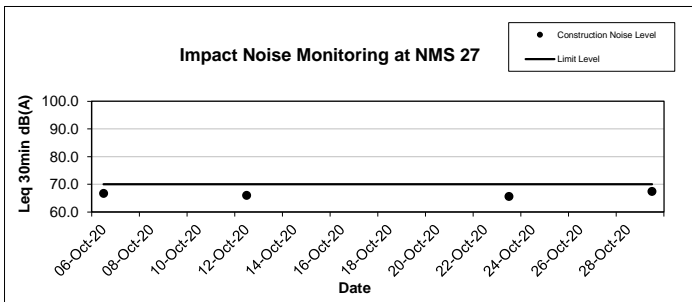
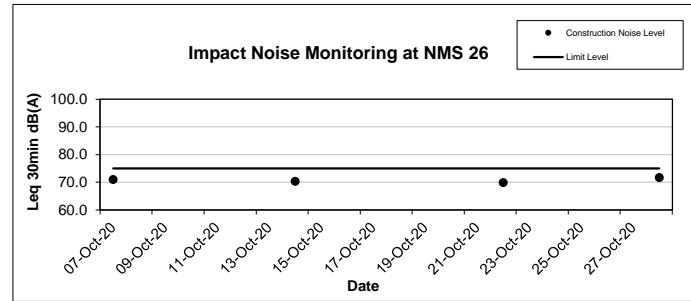
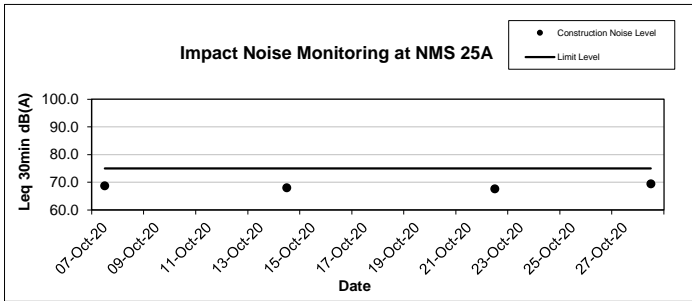
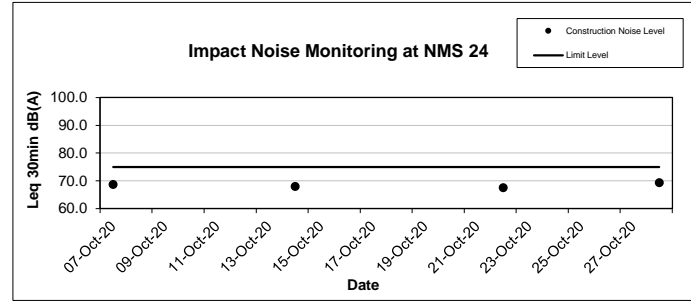
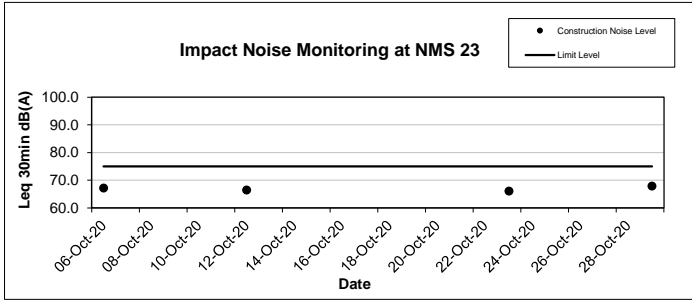
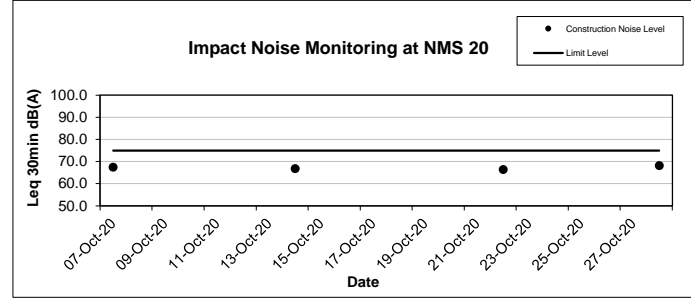
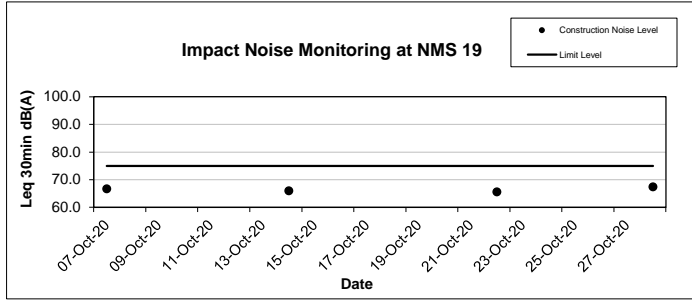
*Note: The examination schedule was provide in Appendix E.

Calculated CNL = Measured Noise Level during operation – Baseline (dB(A)).









Night Time Noise Monitoring Result for NOD 03-2018 Road Widening and Retrofitting Noise Barriers on Tai Po Road (Sha Tin Section)

NMS 1 Scenery Court

Date	Start Time	Average Leq (15 min) (dB(A))	Baseline (dB(A))	Baseline Range (dB(A))	Limit Level (dB(A))	Corrected Noise Level (dB(A))	Weather	Wind Speed (m/s)
8-Oct-20	23:02	54.9	61.4	52.8 - 66.3	55	Measured Noise Level<Limit Level	Fine	0.4
15-Oct-20	23:01	55.1			55	Measured Noise Level<Baseline	Fine	0.6
22-Oct-20	23:00	55.2			55	Measured Noise Level<Baseline	Fine	0.4
29-Oct-20	23:06	56.0			55	Measured Noise Level<Baseline	Fine	0.8

NMS 2 Villa Le Parc

Date	Start Time	Average Leq (15 min) (dB(A))	Baseline (dB(A))	Baseline Range (dB(A))	Limit Level (dB(A))	Corrected Noise Level (dB(A))	Weather	Wind Speed (m/s)
9-Oct-20	2:40	49.2	49.7	40.1 - 58.2	55	Measured Noise Level<Limit Level	Fine	0.5
16-Oct-20	2:39	49.9			55	Measured Noise Level<Limit Level	Fine	0.7
23-Oct-20	2:37	50.8			55	Measured Noise Level<Limit Level	Fine	0.6
30-Oct-20	2:42	52.8			55	Measured Noise Level<Limit Level	Fine	0.8

NMS 3 Hilton Plaza

Date	Start Time	Average Leq (15 min) (dB(A))	Baseline (dB(A))	Baseline Range (dB(A))	Limit Level (dB(A))	Corrected Noise Level (dB(A))	Weather	Wind Speed (m/s)
8-Oct-20	23:00	62.4	70.9	60.2 - 78.9	55	Measured Noise Level<Baseline	Fine	0.5
15-Oct-20	23:00	62.5			55	Measured Noise Level<Baseline	Fine	0.6
22-Oct-20	23:00	61.5			55	Measured Noise Level<Baseline	Fine	0.4
29-Oct-20	23:02	59.2			55	Measured Noise Level<Baseline	Fine	0.7

NMS 4 Tin Liu

Date	Start Time	Average Leq (15 min) (dB(A))	Baseline (dB(A))	Baseline Range (dB(A))	Limit Level (dB(A))	Corrected Noise Level (dB(A))	Weather	Wind Speed (m/s)
9-Oct-20	2:20	56.3	62.6	53.1 - 68.1	55	Measured Noise Level<Baseline	Fine	0.5
16-Oct-20	2:20	55.5			55	Measured Noise Level<Baseline	Fine	0.6
23-Oct-20	2:22	56.9			55	Measured Noise Level<Baseline	Fine	0.4
30-Oct-20	2:26	57.8			55	Measured Noise Level<Baseline	Fine	0.7

NMS 5A Wai Wah Centre

Date	Start Time	Average Leq (15 min) (dB(A))	Baseline (dB(A))	Baseline Range (dB(A))	Limit Level (dB(A))	Corrected Noise Level (dB(A))	Weather	Wind Speed (m/s)
8-Oct-20	23:33	61.4	67.9	62.0 - 75.2	55	Measured Noise Level<Baseline	Fine	0.5
15-Oct-20	23:30	60.7			55	Measured Noise Level<Baseline	Fine	0.6
22-Oct-20	23:35	61.3			55	Measured Noise Level<Baseline	Fine	0.4
29-Oct-20	23:34	61.1			55	Measured Noise Level<Baseline	Fine	0.8

NMS 6A Wai Wah Centre

Date	Start Time	Average Leq (15 min) (dB(A))	Baseline (dB(A))	Baseline Range (dB(A))	Limit Level (dB(A))	Corrected Noise Level (dB(A))	Weather	Wind Speed (m/s)
8-Oct-20	23:27	68.0	71.5	65.0 - 85.9	55	Measured Noise Level<Baseline	Fine	0.5
15-Oct-20	23:25	67.9			55	Measured Noise Level<Baseline	Fine	0.6
22-Oct-20	23:28	67.2			55	Measured Noise Level<Baseline	Fine	0.4
29-Oct-20	23:37	67.6			55	Measured Noise Level<Baseline	Fine	0.8

NMS 7 Tin Liu

Date	Start Time	Average Leq (15 min) (dB(A))	Baseline (dB(A))	Baseline Range (dB(A))	Limit Level (dB(A))	Corrected Noise Level (dB(A))	Weather	Wind Speed (m/s)
9-Oct-20	2:20	58.4	59.0	51.4 - 65.5	55	Measured Noise Level<Baseline	Fine	0.5
16-Oct-20	2:25	58.5		51.4 - 65.5	55	Measured Noise Level<Baseline	Fine	0.6
23-Oct-20	2:27	58.9		51.4 - 65.5	55	Measured Noise Level<Baseline	Fine	0.4
30-Oct-20	2:31	58.7		51.4 - 65.5	55	Measured Noise Level<Baseline	Fine	0.8

NMS 8 Shatin Plaza

Date	Start Time	Average Leq (15 min) (dB(A))	Baseline (dB(A))	Baseline Range (dB(A))	Limit Level (dB(A))	Corrected Noise Level (dB(A))	Weather	Wind Speed (m/s)
8-Oct-20	23:51	58.1	64.4	55.6 - 72.8	55	Measured Noise Level<Baseline	Fine	0.5
15-Oct-20	23:49	58.0		55.6 - 72.8	55	Measured Noise Level<Baseline	Fine	0.6
22-Oct-20	23:51	57.2		55.6 - 72.8	55	Measured Noise Level<Baseline	Fine	0.4
29-Oct-20	23:49	57.6		55.6 - 72.8	55	Measured Noise Level<Baseline	Fine	0.8

NMS 9 Lek Yuen Estate

Date	Start Time	Average Leq (15 min) (dB(A))	Baseline (dB(A))	Baseline Range (dB(A))	Limit Level (dB(A))	Corrected Noise Level (dB(A))	Weather	Wind Speed (m/s)
9-Oct-20	0:24	54.2	53.5	39.5 - 63.1	55	Measured Noise Level<Limit Level	Fine	0.5
16-Oct-20	0:22	56.8		39.5 - 63.1	55	54.1*	Fine	0.6
23-Oct-20	0:22	56.8		39.5 - 63.1	55	54.1*	Fine	0.6
30-Oct-20	0:25	56.9		39.5 - 63.1	55	54.2*	Fine	0.8

Note: *Corrected Noise Level in Leq (15min) dB(A) was/were lower than Limit level: 55 dB(A).

NMS 11 Sheung Wo Che

Date	Start Time	Average Leq (15 min) (dB(A))	Baseline (dB(A))	Baseline Range (dB(A))	Limit Level (dB(A))	Corrected Noise Level (dB(A))	Weather	Wind Speed (m/s)
9-Oct-20	1:57	55.4	53.2	46.1 - 62.8	55	51.3*	Fine	0.6
16-Oct-20	1:55	55.8		46.1 - 62.8	55	52.3*	Fine	0.6
23-Oct-20	1:54	54.5		46.1 - 62.8	55	Measured Noise Level<Limit Level	Fine	0.6
30-Oct-20	1:53	57.0		46.1 - 62.8	55	54.6*	Fine	0.3

Note: *Corrected Noise Level in Leq (15min) dB(A) was/were lower than Limit level: 55 dB(A).

NMS 13 Lek Yuen Estate

Date	Start Time	Average Leq (15 min) (dB(A))	Baseline (dB(A))	Baseline Range (dB(A))	Limit Level (dB(A))	Corrected Noise Level (dB(A))	Weather	Wind Speed (m/s)
9-Oct-20	0:27	58.2	57.3	45.4 - 72.5	55	51.1*	Fine	0.6
16-Oct-20	0:29	57.7		45.4 - 72.5	55	46.6*	Fine	0.6
23-Oct-20	0:27	56.9		45.4 - 72.5	55	Measured Noise Level<Baseline	Fine	0.4
30-Oct-20	0:29	57.2		45.4 - 72.5	55	Measured Noise Level<Baseline	Fine	0.8

Note: *Corrected Noise Level in Leq (15min) dB(A) was/were lower than Limit level: 55 dB(A).

NMS 14 Sheung Wo Che

Date	Start Time	Average Leq (15 min) (dB(A))	Baseline (dB(A))	Baseline Range (dB(A))	Limit Level (dB(A))	Corrected Noise Level (dB(A))	Weather	Wind Speed (m/s)
9-Oct-20	1:51	56.4	54.1	46.1 - 62.8	55	52.5*	Fine	0.5
16-Oct-20	1:50	56.5		46.1 - 62.8	55	52.8*	Fine	0.5
23-Oct-20	1:53	57.1		46.1 - 62.8	55	54.2*	Fine	0.6
30-Oct-20	1:52	57.6		46.1 - 62.8	55	55.0*	Fine	0.8

Note: *Corrected Noise Level in Leq (15min) dB(A) was/were lower than Limit level: 55 dB(A).

NMS 15 Ha Wo Che

Date	Start Time	Average Leq (15 min) (dB(A))	Baseline (dB(A))	Baseline Range (dB(A))	Limit Level (dB(A))	Corrected Noise Level (dB(A))	Weather	Wind Speed (m/s)
9-Oct-20	1:37	58.3	58.8	48.4 - 69.7	55	Measured Noise Level<Baseline	Fine	0.4
16-Oct-20	1:39	58.9		48.4 - 69.7	55	42.1*	Fine	0.8
23-Oct-20	1:37	59.9		48.4 - 69.7	55	53.5*	Fine	0.6
30-Oct-20	1:41	59.4		48.4 - 69.7	55	50.2*	Fine	0.9

Note: *Corrected Noise Level in Leq (15min) dB(A) was/were lower than Limit level: 55 dB(A).

NMS 16 Ha Wo Che

Date	Start Time	Average Leq (15 min) (dB(A))	Baseline (dB(A))	Baseline Range (dB(A))	Limit Level (dB(A))	Corrected Noise Level (dB(A))	Weather	Wind Speed (m/s)
9-Oct-20	1:25	58.1	60.1	51.4 - 69.5	55	Measured Noise Level<Baseline	Fine	0.5
16-Oct-20	1:23	59.7		51.4 - 69.5	55	Measured Noise Level<Baseline	Fine	0.6
23-Oct-20	1:21	60.3		51.4 - 69.5	55	46.9*	Fine	0.4
30-Oct-20	1:23	61.1		51.4 - 69.5	55	54.0*	Fine	0.6

Note: *Corrected Noise Level in Leq (15min) dB(A) was/were lower than Limit level: 55 dB(A).

NMS 18 Ha Wo Che

Date	Start Time	Average Leq (15 min) (dB(A))	Baseline (dB(A))	Baseline Range (dB(A))	Limit Level (dB(A))	Corrected Noise Level (dB(A))	Weather	Wind Speed (m/s)
9-Oct-20	1:07	60.5	63.2	56.0 - 72.1	55	Measured Noise Level<Baseline	Fine	0.4
16-Oct-20	1:05	57.1		56.0 - 72.1	55	Measured Noise Level<Baseline	Fine	0.6
23-Oct-20	1:09	56.6		56.0 - 72.1	55	Measured Noise Level<Baseline	Fine	0.4
30-Oct-20	1:12	59.0		56.0 - 72.1	55	Measured Noise Level<Baseline	Fine	0.6

NMS 19 Wo Che Estate

Date	Start Time	Average Leq (15 min) (dB(A))	Baseline (dB(A))	Baseline Range (dB(A))	Limit Level (dB(A))	Corrected Noise Level (dB(A))	Weather	Wind Speed (m/s)
9-Oct-20	1:10	59.2	61.7	53.8 - 72.8	55	Measured Noise Level<Baseline	Fine	0.5
16-Oct-20	1:13	57.6		53.8 - 72.8	55	Measured Noise Level<Baseline	Fine	0.0
23-Oct-20	1:17	58.1		53.8 - 72.8	55	Measured Noise Level<Baseline	Fine	0.4
30-Oct-20	1:23	58.7		53.8 - 72.8	55	Measured Noise Level<Baseline	Fine	0.8

NMS 20 Wo Che Estate

Date	Start Time	Average Leq (15 min) (dB(A))	Baseline (dB(A))	Baseline Range (dB(A))	Limit Level (dB(A))	Corrected Noise Level (dB(A))	Weather	Wind Speed (m/s)
9-Oct-20	1:20	58.4	57.7	48.6 - 71.7	55	49.9*	Fine	0.4
16-Oct-20	1:20	59.2		48.6 - 71.7	55	53.7*	Fine	0.0
23-Oct-20	1:23	59.1		48.6 - 71.7	55	53.3*	Fine	0.4
30-Oct-20	1:25	58.6		48.6 - 71.7	55	51.5*	Fine	0.8

Note: *Corrected Noise Level in Leq (15min) dB(A) was/were lower than Limit level: 55 dB(A).

NMS 23 Pai Tau

Date	Start Time	Average Leq (15 min) (dB(A))	Baseline (dB(A))	Baseline Range (dB(A))	Limit Level (dB(A))	Corrected Noise Level (dB(A))	Weather	Wind Speed (m/s)
9-Oct-20	2:17	59.4	59.9	47.8 - 69.8	55	Measured Noise Level<Baseline	Fine	0.5
16-Oct-20	2:16	60.6		47.8 - 69.8	55	52.4*	Fine	0.6
23-Oct-20	2:17	59.1		47.8 - 69.8	55	Measured Noise Level<Baseline	Fine	0.4
30-Oct-20	2:18	58.7		47.8 - 69.8	55	Measured Noise Level<Baseline	Fine	1.1

Note: *Corrected Noise Level in Leq (15min) dB(A) was/were lower than Limit level: 55 dB(A).

NMS 24 Shatin Plaza

Date	Start Time	Average Leq (15 min) (dB(A))	Baseline (dB(A))	Baseline Range (dB(A))	Limit Level (dB(A))	Corrected Noise Level (dB(A))	Weather	Wind Speed (m/s)
9-Oct-20	0:41	57.2	58.0	50.2 - 66.7	55	Measured Noise Level<Baseline	Fine	0.4
16-Oct-20	0:44	57.9		50.2 - 66.7	55	Measured Noise Level<Baseline	Fine	0.6
23-Oct-20	0:46	57.9		50.2 - 66.7	55	Measured Noise Level<Baseline	Fine	0.4
30-Oct-20	0:48	58.4		50.2 - 66.7	55	47.5*	Fine	0.8

Note: *Corrected Noise Level in Leq (15min) dB(A) was/were lower than Limit level: 55 dB(A).

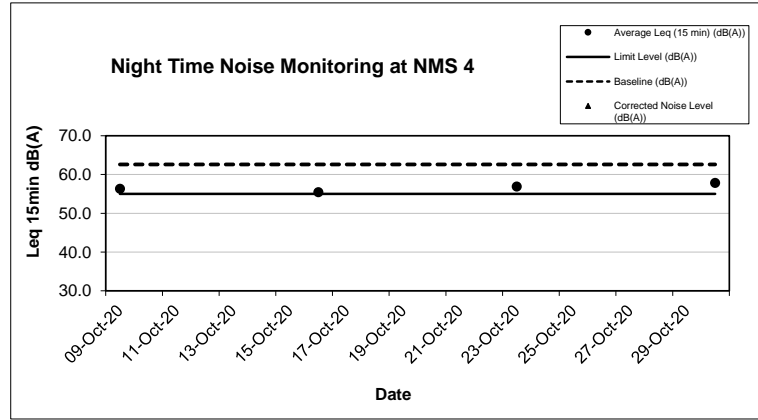
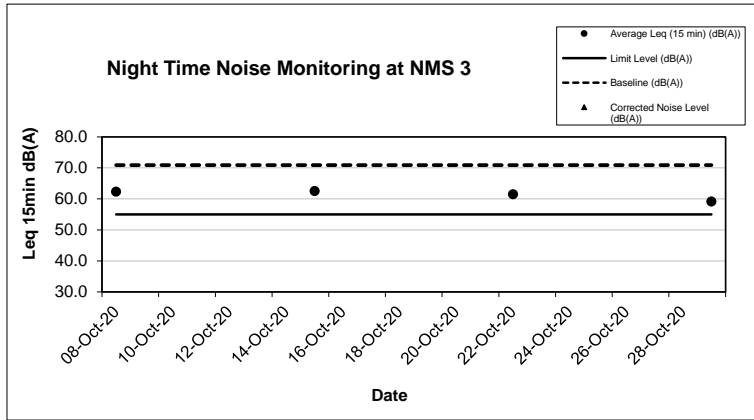
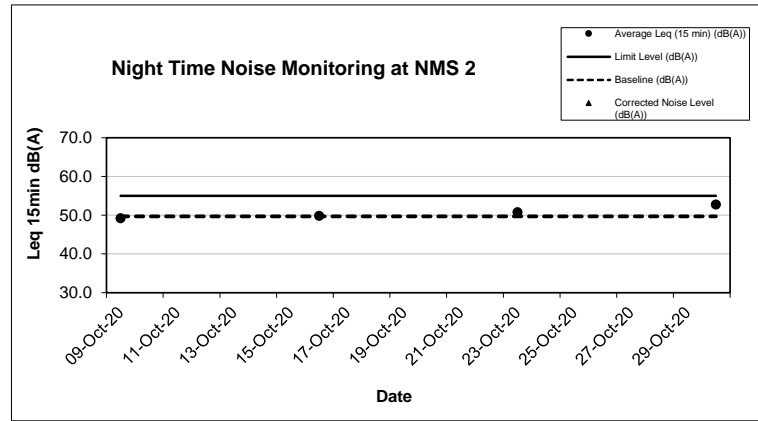
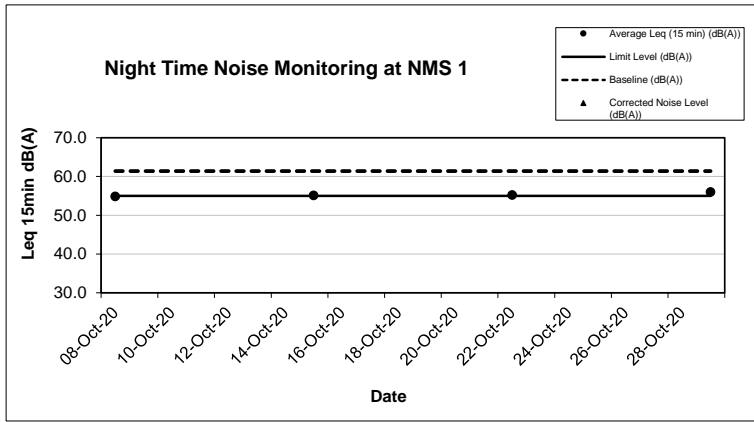
NMS 25A Sheung Wo Che

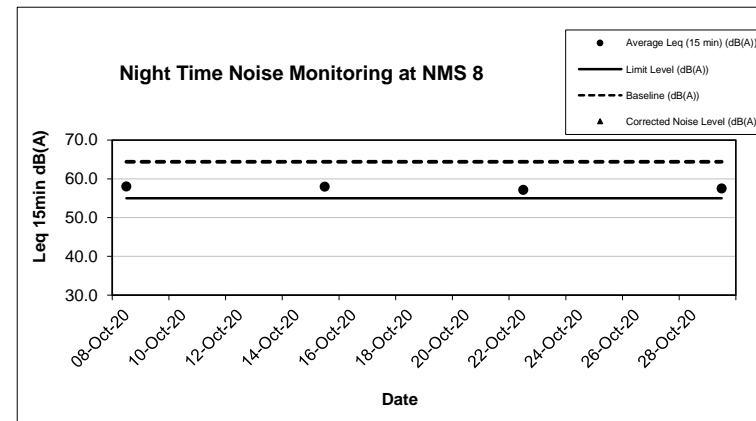
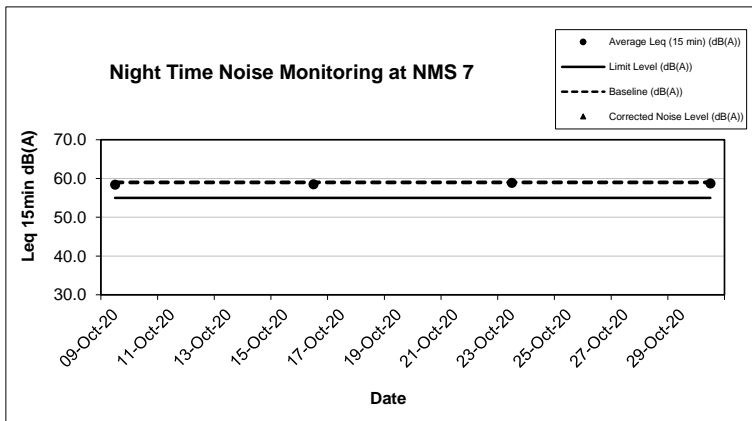
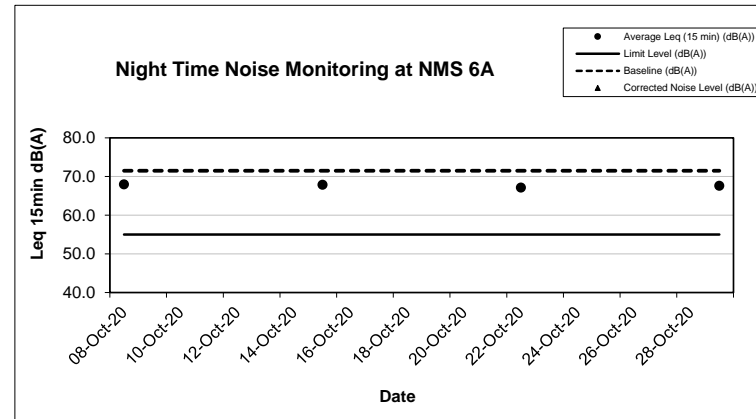
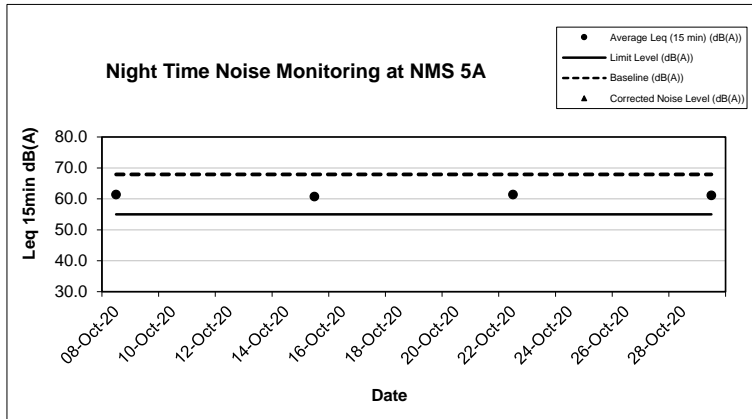
Date	Start Time	Average Leq (15 min) (dB(A))	Baseline (dB(A))	Baseline Range (dB(A))	Limit Level (dB(A))	Corrected Noise Level (dB(A))	Weather	Wind Speed (m/s)
9-Oct-20	2:01	57.1	59.7	50.3 - 68.4	55	Measured Noise Level<Baseline	Fine	0.5
16-Oct-20	2:02	58.9		50.3 - 68.4	55	Measured Noise Level<Baseline	Fine	0.6
23-Oct-20	2:05	59.9		50.3 - 68.4	55	47.0*	Fine	0.4
30-Oct-20	2:06	59.1		50.3 - 68.4	55	Measured Noise Level<Baseline	Fine	0.4

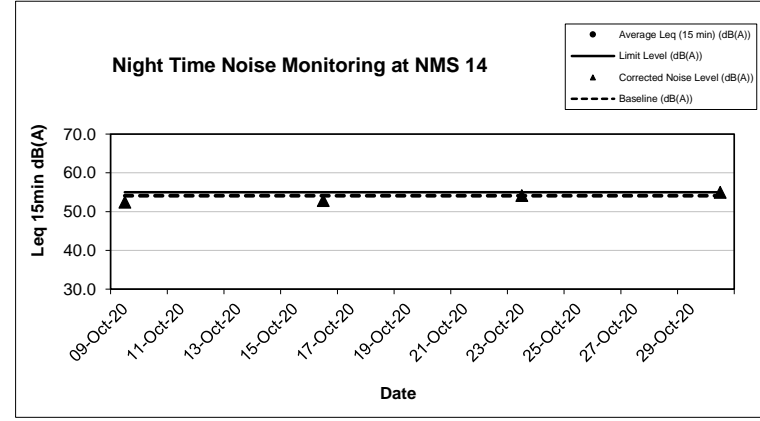
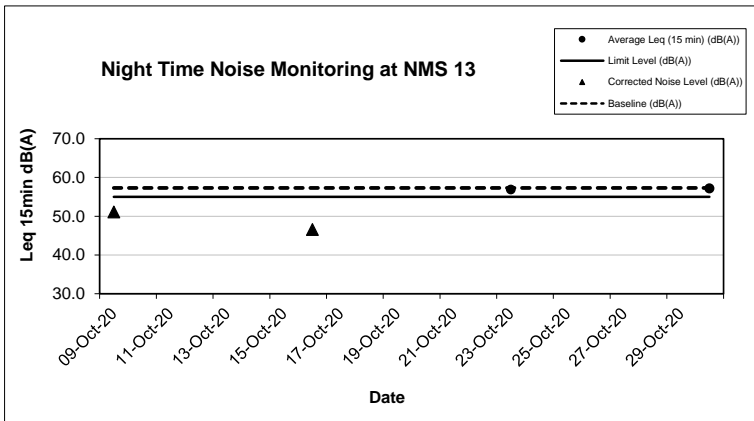
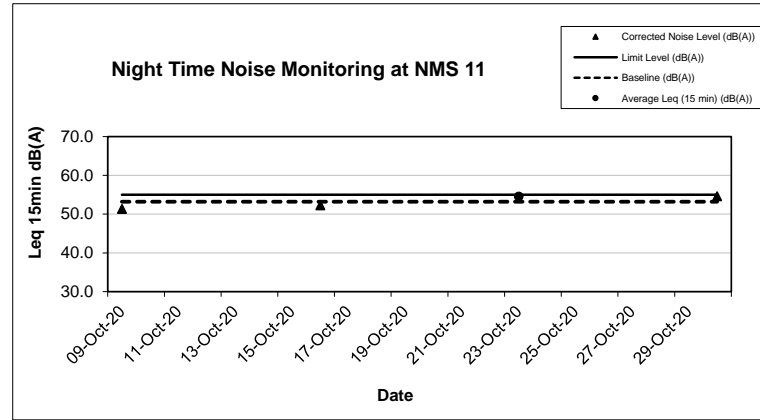
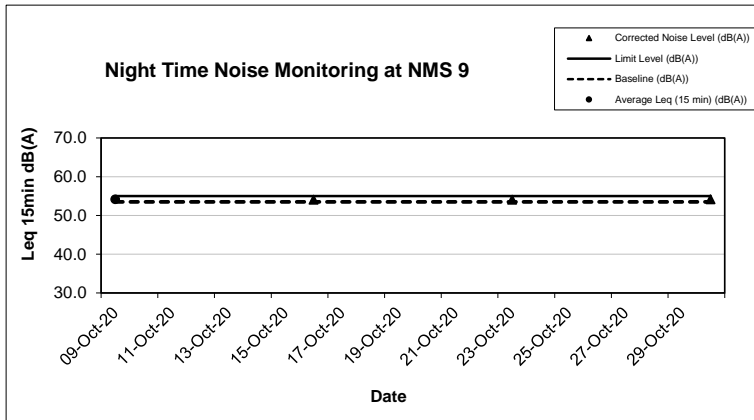
Note: *Corrected Noise Level in Leq (15min) dB(A) was/were lower than Limit level: 55 dB(A).

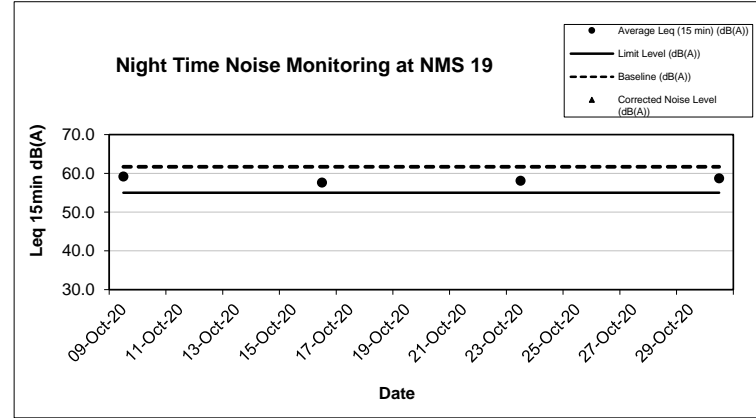
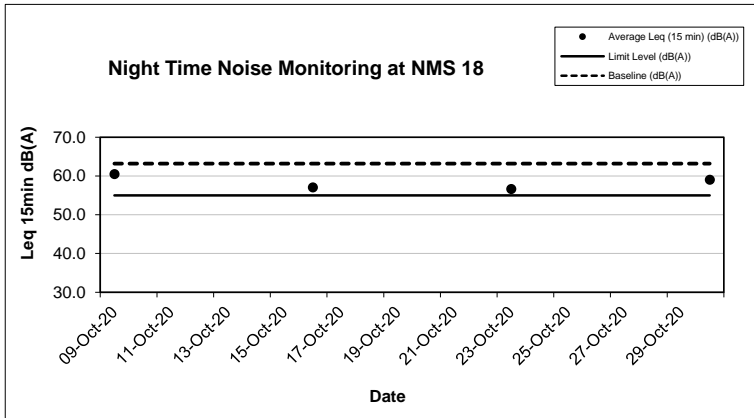
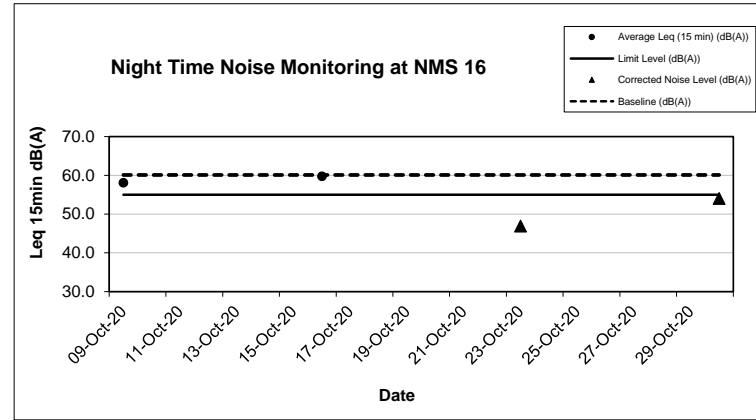
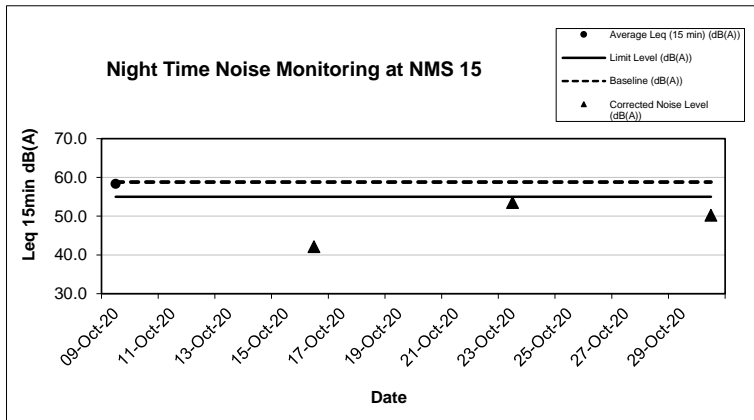
NMS 26 Wo Che Estate

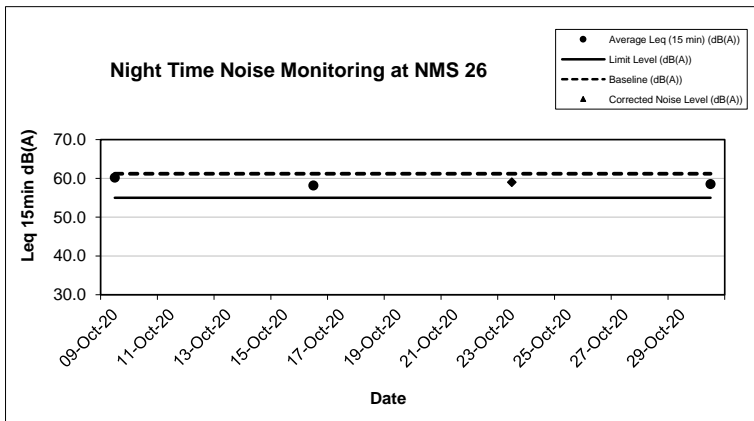
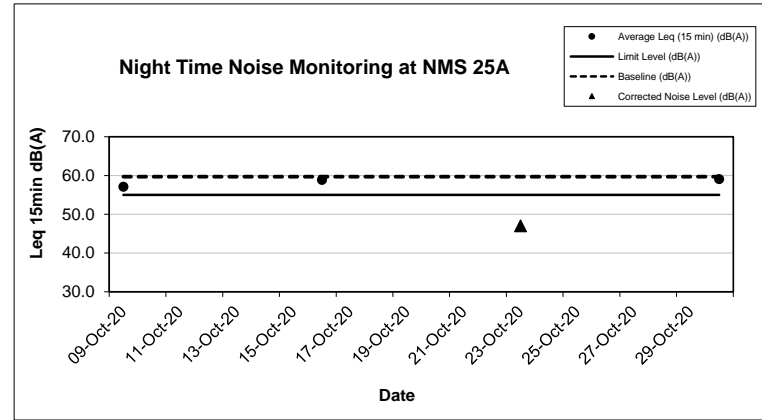
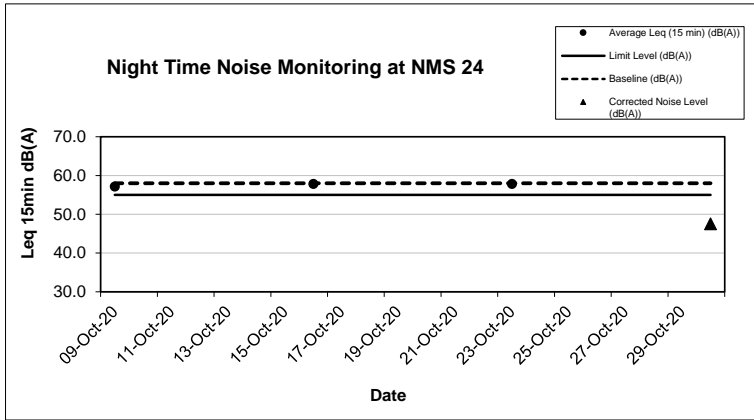
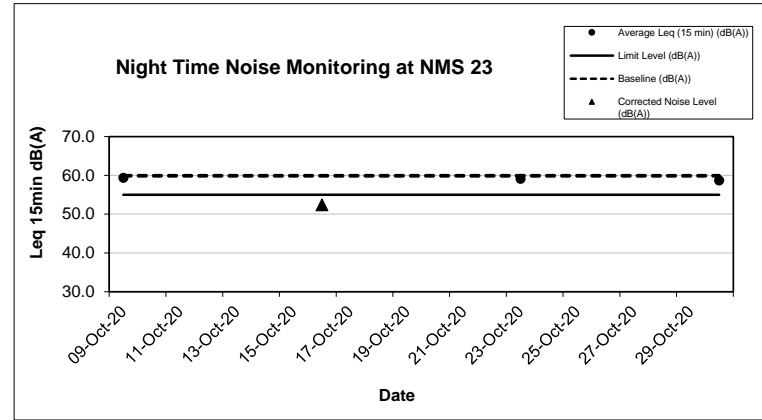
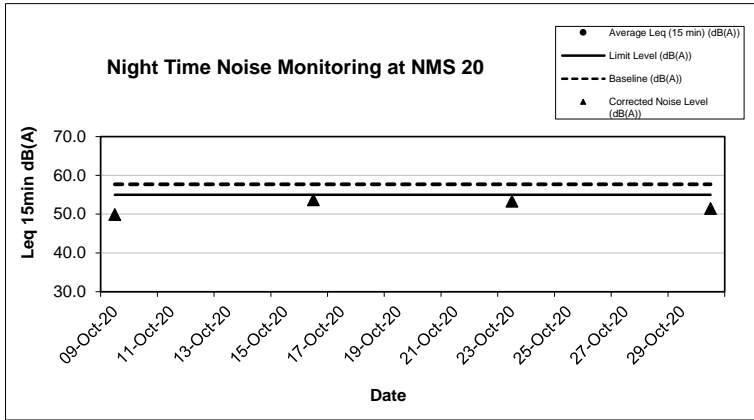
Date	Start Time	Average Leq (15 min) (dB(A))	Baseline (dB(A))	Baseline Range (dB(A))	Limit Level (dB(A))	Corrected Noise Level (dB(A))	Weather	Wind Speed (m/s)
9-Oct-20	0:48	60.2	61.2	45.7 - 70.1	55	Measured Noise Level<Baseline	Fine	0.5
16-Oct-20	0:47	58.2		45.7 - 70.1	55	Measured Noise Level<Baseline	Fine	0.6
23-Oct-20	0:44	59.0		45.7 - 70.1	55	Measured Noise Level<Baseline	Fine	0.4
30-Oct-20	0:48	58.5		45.7 - 70.1	55	Measured Noise Level<Baseline	Fine	0.8











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Appendix H

Events and Action Plan

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Event and Action Plan for Construction Dust Monitoring

EVENT	ACTION			
	ET Leader	IEC	SO	Contractor
Action Level				
1. Exceedance for one sample	<ol style="list-style-type: none"> Identify the source. Inform the IEC and the SO. Repeat measurement to confirm findings. Increase monitoring frequency to daily. 	<ol style="list-style-type: none"> Check monitoring data submitted by the ET Leader. Check Contractor's working method. 	<ol style="list-style-type: none"> Notify Contractor. 	<ol style="list-style-type: none"> Rectify any unacceptable practice. Amend working methods if appropriate.
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> Identify the source. Inform the IEC and the SO. Repeat measurement to confirm findings. Increase monitoring frequency to daily. Discuss with the IEC and the Contractor on remedial actions required. If exceedance continues, arrange meeting with the IEC and the SO. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> Check monitoring data submitted by the ET Leader. Check the Contractor's working method. Discuss with the ET Leader and the Contractor on possible remedial measures. Advise the SO on the effectiveness of the proposed remedial measures. Supervisor implementation of remedial measures. 	<ol style="list-style-type: none"> Confirm receipt of notification of failure in writing. Notify the Contractor. Ensure remedial measures properly implemented. 	<ol style="list-style-type: none"> Submit proposals for remedial actions to IEC within 3 working days of notification. Implement the agreed proposals. Amend proposal if appropriate.
Limit Level				
1. Exceedance for one sample	<ol style="list-style-type: none"> Identify the source. Inform the SO and the EPD. Repeat measurement to confirm findings. Increase monitoring frequency to daily. Assess effectiveness of Contractor's remedial actions and keep the IEC, the EPD and the SO informed of the results. 	<ol style="list-style-type: none"> Check monitoring data submitted by the ET Leader. Check Contractor's working method. Discuss with the ET Leader and the Contractor on possible remedial measures. Advise the SO on the effectiveness of the proposed remedial measures. Supervisor implementation of remedial measures. 	<ol style="list-style-type: none"> Confirm receipt of notification of failure in writing. Notify the Contractor. Ensure remedial measures are properly implemented. 	<ol style="list-style-type: none"> Take immediate action to avoid further exceedance. Submit proposals for remedial actions to IEC within 3 working days of notification. Implement the agreed proposals. Amend proposal if appropriate.
2. Exceedance	<ol style="list-style-type: none"> Notify the IEC, the SO and the EPD and the 	<ol style="list-style-type: none"> Discuss amongst the SO, ET 	<ol style="list-style-type: none"> Confirm receipt of 	<ol style="list-style-type: none"> Take immediate action to avoid

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EVENT	ACTION			
	ET Leader	IEC	SO	Contractor
for two or more consecutive samples	<p>Contractor.</p> <ol style="list-style-type: none"> 2. Identify the source. 3. Repeat measurement to confirm findings. 4. Increase monitoring frequency to daily. 5. Carry out analysis of the Contractor's working procedures to determine possible mitigation to be implemented. 6. Arrange meeting with the IEC and the SO to discuss the remedial actions to be taken. 7. Assess effectiveness of Contractor's remedial actions and keep the IEC, the EPD and the SO informed of the results. 8. If exceedance stops, cease additional monitoring. 	<p>Leader and the Contractor on the potential remedial actions.</p> <ol style="list-style-type: none"> 2. Review the Contractor's remedial actions whenever necessary to assure their effectiveness and advise the SO accordingly. 3. Supervisor implementation of remedial measures. 	<p>notification of failure in writing.</p> <ol style="list-style-type: none"> 2. Notify the Contractor. 3. In consultation with the Contractor on the remedial measures to be implemented. 4. Ensure remedial measures are properly implemented. 5. If exceedance continues, consider what activity of the work is responsible and instruct the Contractor to stop that activity of work until the exceedance is abated. 	<p>further exceedance.</p> <ol style="list-style-type: none"> 2. Submit proposals for remedial actions to IEC within 3 working days of notification. 3. Implement the agreed proposals. 4. Resubmit proposals if problem still not under control. 5. Stop the relevant activity of works as determined by the SO until the exceedance is abated.

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Event and Action Plan for Noise Impact

EVENT	ACTION			
	ET Leader	IEC	SO	Contractor
Action Level	<ol style="list-style-type: none"> 1. Notify the IEC and the Contractor. 2. Carry out investigation. 3. Report the results of investigation to the IEC. 4. Discuss with the Contractor and formulate remedial measures. 5. Increase monitoring frequency to check mitigation effectiveness. 	<ol style="list-style-type: none"> 1. Review the analysed results submitted by the ET. 2. Review the proposed remedial measures by the Contractor and advise the SO accordingly. 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing. 2. Notify the Contractor. 3. Require the Contractor to propose remedial measures for the analysed noise problem. 4. Ensure remedial measures are properly implemented. 	<ol style="list-style-type: none"> 1. Submit noise mitigation proposals to IEC. 2. Implement noise mitigation proposals.
Limit Level	<ol style="list-style-type: none"> 1. Notify the IEC, the SO and the Contractor. 2. Identify the source. 3. Repeat measurement to confirm findings. 4. Increase monitoring frequency. 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented. 6. Inform the IEC, the SO and the EPD the causes & actions taken for the exceedance. 7. Assess effectiveness if the Contractor's remedial actions and keep the IEC and the SO informed of the results. 8. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> 1. Discuss amongst the SO, the ET Leader and the Contractor on the potential remedial actions. 2. Review the Contractor's remedial actions whenever necessary to assure their effectiveness and advise the SO accordingly. 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing. 2. Notify the Contractor. 3. Require the Contractor to propose remedial measures for the analysed noise problem. 4. Ensure remedial measures are properly implemented. 5. If exceedance continues, consider what activities of the work is responsible and instruct the Contractor to stop that activity of work until the exceedance is abated. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance, 2. Submit proposals for remedial actions to IEC within 3 working days of notification. 3. Implement the agreed proposals 4. Resubmit proposals if problem still not under control 5. Stop the relevant activity of works as determined by the SO until the exceedance is abated.

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Event and Action Plan for Landscape and Visual Impact

Event	Action		
	ET	SO	Contractor
Non-conformity on one occasion	<ol style="list-style-type: none"> 1. Identify Source; 2. Inform the Contractor and the SO; 3. Discuss remedial actions with the SO and the Contractor; and 4. Monitor remedial actions until rectification has been completed 	<ol style="list-style-type: none"> 1. Notify Contractor; and 2. Ensure remedial measures are properly implemented. 	<ol style="list-style-type: none"> 1. Amend working methods; 2. Rectify damage and undertake any necessary replacement.
Repeated conformity Non-	<ol style="list-style-type: none"> 1. Identify Source; 2. Inform the Contractor and the SO; 3. Increase monitoring frequency; 4. Discuss remedial actions with the SO and the Contractor; 5. Monitor remedial actions until rectification has been completed; and 6. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> 1. Notify Contractor; and 2. Ensure remedial measures are properly implemented. 	<ol style="list-style-type: none"> 1. Amend working methods; 2. Rectify damage and undertake any necessary replacement.

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Appendix I

Waste Flow Table

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Waste Flow Table for Year 2018											
Monthly Ending	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of Non-inert C&D Wastes Generated Monthly				
	Total Quantity Generated (Inert C&D)	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse
	(in '000Ton)	(in '000kg)	(in '000Ton)	(in '000Ton)	(in '000Ton)	(in '000Ton)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000Ton)
2018 Jan	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2018 Feb	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2018 Mar	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2018 Apr	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2018 May	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2018 Jun	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sub-Total	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2018 Jul	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2018 Aug	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2018 Sep	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2018 Oct	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.013
2018 Nov	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004
2018 Dec	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.001
Total	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.018

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Waste Flow Table for Year 2019

Monthly Ending	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of Non-inert C&D Wastes Generated Monthly				
	Total Quantity Generated (Inert C&D)	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse
	(in '000Ton)	(in '000kg)	(in '000Ton)	(in '000Ton)	(in '000Ton)	(in '000Ton)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000Ton)
2019 Jan	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.021
2019 Feb	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.049
2019 Mar	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.048
2019 Apr	0.100	0.000	0.000	0.000	0.100	0.000	0.000	0.000	0.000	0.000	0.089
2019 May	0.150	0.000	0.000	0.000	0.150	0.000	0.000	0.000	0.000	0.000	0.175
2019 Jun	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.082
Sub-Total	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.464
2019 Jul	0.141	0.000	0.000	0.000	0.141	0.000	0.000	0.000	0.000	0.000	0.069
2019 Aug	0.431	0.000	0.221	0.000	0.210	0.000	0.000	0.000	0.000	0.000	0.154
2019 Sep	0.712	0.000	0.223	0.000	0.489	0.297	0.000	0.000	0.000	0.000	0.046
2019 Oct	0.663	0.000	0.306	0.000	0.357	1.085	0.001	0.027	0.009	0.000	0.027
2019 Nov	1.154	0.000	0.143	0.000	1.011	0.428	0.000	0.019	0.000	0.000	0.095
2019 Dec	0.849	0.000	0.023	0.000	0.826	0.074	0.000	0.014	0.001	0.000	0.034
Total	4.200	0.000	0.916	0.000	3.284	1.884	0.001	0.060	0.010	0.000	0.889

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Waste Flow Table for Year 2020

Monthly Ending	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of Non-inert C&D Wastes Generated Monthly				
	Total Quantity Generated (Inert C&D)	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse
	(in '000Ton)	(in '000kg)	(in '000Ton)	(in '000Ton)	(in '000Ton)	(in '000Ton)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000Ton)
2020 Jan	0.584	0.000	0.027	0.000	0.557	0.040	0.001	0.030	0.001	0.000	0.039
2020 Feb	1.072	0.000	0.042	0.000	1.030	0.000	0.001	0.026	0.003	0.000	0.013
2020 Mar	0.422	0.000	0.006	0.000	0.416	0.062	0.000	0.000	0.000	0.000	0.054
2020 Apr	0.450	0.000	0.000	0.000	0.450	0.000	0.002	0.085	0.003	0.000	0.025
2020 May	1.144	0.000	0.000	0.000	1.144	0.319	0.001	0.021	0.005	0.000	0.027
2020 Jun	3.660	0.000	0.000	0.000	3.660	0.077	0.001	0.027	0.004	0.000	0.048
Sub-Total	7.332	0.000	0.075	0.000	7.257	0.498	0.006	0.189	0.016	0.000	0.206
2020 Jul	2.008	0.000	0.014	0.000	1.994	0.000	0.002	0.047	0.006	0.000	0.067
2020 Aug	2.215	0.000	0.018	0.000	2.197	0.000	0.001	0.040	0.006	0.000	0.014
2020 Sep	4.305	0.000	0.000	0.000	4.305 ^[4]	0.000	0.002	0.042	0.009	0.000	0.044 ^[4]
2020 Oct	3.073	0.000	0.002	0.000	3.071	0.000	0.001	0.019	0.005	0.000	0.029
2020 Nov											
2020 Dec											
Total	18.933	0.000	0.109	0.000	18.824	0.498	0.012	0.337	0.042	0.000	0.360

Note:

- 1) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- 2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging materials.
- 3) The Contractor shall also submit the latest forecast of the total amount of C&D materials expected to be generated from the Works, together with a breakdown of the nature where the total amount of C&D materials expected to be generated from the Works is equal to or exceeding 50,000 m³.
- 4) Updated data for previous month.

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Appendix J

Environmental Mitigation Implementation Schedule (EMIS)

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EIA Review Ref	Location	Environmental Protection Measures/	Implementation Agent	Implementation Status in Construction Phase
<u>Noise Measures</u>				
3.10.2, 3.10.3, 3.10.14, 3.10.15 and Table 3.10	Within the boundaries of all construction sites.	• Scheduling the construction activities carefully according to the actual site work situation, avoid of concurrent activities and construction works fronting the affected schools, to minimize the total noise generated (max as 102dB (A)).	Contractor	Implemented
		• PME is recommended to operate in sub-grouping, and different sub-groups shall not be operated concurrently within any half hour period	Contractor	Implemented
		• The construction activities should be carried out in the daytime hours (0700 – 1900). Construction Noise Permit (CNP) for construction activities is required during evening or night time hours.	Contractor	Implemented
		• Construction work programme should be considered before actual construction work is undertaken, and noise mitigation measures should be implemented to minimize the potential construction noise impact. Selection and optimization of construction programmes, avoidance and reduction of parallel operation of noisy PME during noise sensitive periods.	Contractor	Implemented
		• Use of well-maintained and regularly-serviced plant during the works.	Contractor	Implemented
		• Plant operating on intermittent basis should be turned off or throttled down when not in active use.	Contractor	Implemented
		• Plant that is known to emit noise strongly in one direction should be orientated to face away from the NSRs.	Contractor	Implemented
		• Silencers, mufflers and enclosures for plant should be used where possible and maintained adequately throughout the works.	Contractor	Not Applicable
		• Fixed plants should be sited away from NSRs where possible.	Contractor	Not Applicable
		• Stockpiles of excavated materials and other structures such as site buildings should be used effectively to screen noise from the works.	Contractor	Not Applicable
3.10.4, 3.10.5 and Table 3.3		• The use of particular plant with equipment quieter than those specified in the GW-TM are recommended to reduce the noise levels generated by the plant.	Contractor	Not Applicable
		• Other type of quiet PME are allowed to use for their needs based on the actual construction conditions and programmes	Contractor	Not Applicable
3.10.6 to 3.10.9		• Temporary noise barriers provide noise attenuation by screening NSRs from stationary and mobile plants from direct line-of-sight in shadow zone.	Contractor	Implemented
		• The use of 3m high moveable barriers with skid footing and a small cantilevered upper portion should be adopted. The barrier material shall have a surface mass of not less than 14kg/m ² on skid footing with 25mm thick internal sound absorptive lining to achieve the maximum screening effect.	Contractor	Not Applicable
		• These temporary noise barriers should be located immediately adjacent to working area.	Contractor	Not Applicable

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EIA Review Ref	Location	Environmental Protection Measures/	Implementation Agent	Implementation Status in Construction Phase
		• The temporary noise barriers should be located along the working area to make sure the construction plant could be screened during all kinds of construction activities as far as practicable.	Contractor	Not Applicable
		• Noise jacket/muffler shall be used to cover the noisy part of the engine or at the engine exhaust of particular mobile plants respectively when temporary noise barriers are not practicable or noise reduction achieved is insufficient.	Contractor	Not Applicable
		• For the stationary plant bored pile oscillator, temporary noise barriers of sufficient height with skid footing and small cantilevered upper portion should be provided.	Contractor	Not Applicable
		• Barrier material of surface density of at least 14 kg/m ² is recommended in order to achieve the necessary screening effect.	Contractor	Not Applicable
3.10.10		• Full noise enclosures should cover the PME or fixed plants such as air compressor.	Contractor	Not Applicable
3.10.3		• Silencers, mufflers and enclosures for plant should be used where possible and maintained adequately throughout the works;	Contractor	Not Applicable
		• Where possible fixed plants should be sited away from NSRs; and	Contractor	Not Applicable
		• Stockpiles of excavated materials and other structures such as site buildings should be used effectively to screen noise from the works.	Contractor	Not Applicable
Air Quality Measures				
4.12.1 and 4.12.2	Within the boundaries of all construction sites.	• The Contractor shall notify any specific construction works as stated in the Air Pollution Control (Construction Dust) Regulation to the Authority before the commencement of such work. Dust mitigation measures stipulated in the Air Pollution Control (Construction Dust) Regulation should be implemented to control dust emissions from all construction work sites.	Contractor	Implemented
		• The Contractor shall undertake at all times to prevent dust nuisance as a result of his activities. Dust suppression measures such as the water spraying are necessary and should be installed to ensure that the air quality at the boundary of the site and at any sensitive receivers complies with the Hong Kong Air Quality Objectives.	Contractor	Implemented
		• The Contractor shall apply for a license or permit under the requirements of the relevant legislation (e.g. Air Pollution Control Ordinance and its subsidiary regulations) wherever applicable.	Contractor	Implemented
		• Watering of unpaved areas, access roads, construction areas and dusty stockpiles shall be undertaken at least eight times daily during dry and windy weather. Watering of the haul road shall be undertaken four to eight times daily during dry or windy weather. Water sprays may be either fixed or mobile to follow individual areas to be wetted as and when required. Application of suitable wetting agents, such as dust suppression chemicals, shall be used in addition to water, especially during the dry season (October to December). It is also suggested that watering with	Contractor	Implemented

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EIA Review Ref	Location	Environmental Protection Measures/	Implementation Agent	Implementation Status in Construction Phase
		complete coverage of active construction area eight times a day.		
		• Effective water sprays shall be used during the delivery and handling of all raw sand and aggregate, and other similar materials, wet dust is likely to be created and to dampen all stored materials during dry and windy weather.	Contractor	Partially Implemented
4.12.1		• Stockpiles of sand, aggregate or any other dusty materials greater than 20m ³ shall be enclosed on three sides, with walls extending above the pile and 1 meter beyond the front of the pile.	Contractor	Partially Implemented
		• Suitable chemical wetting agent such as dust suppression chemical shall be used on completed cuts and fills to reduce wind erosion.	Contractor	Not Observed
		• Areas within the construction site where there is a regular movement of vehicles shall have a paved surface and be kept clear of loose surface material.	Contractor	Implemented
		• The Contractor shall restrict all motorized vehicles within the construction site, excluding those on public roads, to maximum speed of 20 km per hour and confine haulage and delivery vehicles to designated roadways inside the Site.	Contractor	Implemented
		• Construction working areas should be restricted to a minimum practicable size.	Contractor	Implemented
		• The Contractor shall ensure that no earth, rock or debris is deposited on public or private rights of way as result of his activities, including any deposits arising from the movement of plant or vehicles.	Contractor	Implemented
		• The Contractor shall provide a wheel washing facility at the exits from work areas to the satisfaction of the Engineer and to the requirements of the Commissioner of Police. Water in wheel washing facilities and sediment shall be changed and removed respectively at least once a month.	Contractor	Not Applicable
		• The Contractor shall submit details of the wheel washing facilities, which shall be usable prior to any earthworks excavation activity on the construction site. The Contractor shall also provide a hard-surfaced road between any washing facility and the public road.	Contractor	Not Applicable
		• In the event of any spoil or debris from construction works being deposited on adjacent land, or steams, or any slit being washed down to any area, then all such spoil, debris or material and silt shall be immediately removed and the affected land and areas restored to their natural state by the Contractor to the satisfaction of the Engineer.	Contractor	Not Applicable
		• If spoil cannot be immediately transported out of the Site, stockpiles should be stored in sheltered areas.	Contractor	Implemented
• Plant and vehicles shall be inspected annually to ensure that they are operating efficiently and that exhaust emissions are not causing a nuisance. All site vehicle exhausts should be directed vertically upwards or directed away from ground.	Contractor	Implemented		

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EIA Review Ref	Location	Environmental Protection Measures/	Implementation Agent	Implementation Status in Construction Phase
4.12.1, 4.13.1 and Table 8.2		• Construction dust monitoring shall be carried out at representative monitoring locations during the construction period.	Contractor	Implemented
		• Path for complaints and handling procedures should be set up and implement.	Contractor	Implemented
NA		• Dark smoke emission shall be control in accordance with the Air Pollution Control (Smoke) Regulation and ETWB TCW 19/2005.	Contractor	Implemented
		• Plant and equipment should be well maintained to prevent dark smoke emission.	Contractor	Implemented
		• Only approved or exempted Non-road Mobile Machineries (NRMMS) including regulated machines and non-road vehicles with proper labels are allowed to be used in specified activities on-site.	Contractor	Implemented
<u>Water Quality Measures</u>				
5.7	Within the boundaries of all construction sites.	• Silt-laden surface run-off should be prevented from directly entering the sensitive receivers during the construction works. The mitigation measures described below for the construction phase are in accordance with ProPECC PN 1/94:	Contractor	Partially Implemented
		• Construction works should be programmed so as to minimise excavation during the wet season (April to September). If this is not possible then measures should be taken to minimise the areas exposed by covering temporary exposed slopes with tarpaulins or similar material, the protection of temporary road surfaces with gravel or crushed stone and the early reinstatement of final surfaces with hydro seed grass/shrub mixture. This latter measure would have the added benefit of reducing the windblown dust during the dry season. Where temporary covering of slopes is required this should be carried out before the onset of the rainfall or storm.	Contractor	Implemented
		• Existing and newly constructed open manholes should be covered and sealed to prevent run off and water borne debris entering the drainage network without having previously passed through a sediment trap.	Contractor	Implemented
		• Stock piles of construction materials, sand and gravel or excavated material should be covered with tarpaulins prior to rainstorms. The washing of material from the stockpiles directly into the storm drains should be prevented by passing the run off through a sediment trap.	Contractor	Implemented
		• The surface water from the site should be discharged into storm water drain after passing through sand and silt traps designed to accommodate the maximum discharge from the site. Within the site channels, bunds or sandbags should be used to direct run off into the traps. Storm water from outwit the site should be prevented from washing over the site by the construction of interceptor channels at the site boundary. Both perimeter channels and the sedimentation traps should be constructed prior to the commencement of site formation and earthworks.	Contractor	Partially Implemented
		• The efficiency of the interceptor channels, traps and sedimentation chambers should be maintained	Contractor	Partially Implemented

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EIA Review Ref	Location	Environmental Protection Measures/	Implementation Agent	Implementation Status in Construction Phase
		by regular cleaning of accumulated silt and sand. Particular attention should be paid to maintenance following heavy rainfall and immediately after the issue of heavy rainfall warning by the Hong Kong Observatory.		
		<ul style="list-style-type: none"> The ingress of rainwater into trenches should be minimised by the construction of bunds to prevent water flowing into the trench and covering by tarpaulins to prevent direct entry. The lengths of excavated trenches should be minimised and backfilled at the earliest opportunity. Water pumped from the trenches should be discharged to the storm water drains following passage through a suitable silt trap. 	Contractor	Implemented
		<ul style="list-style-type: none"> Any ground water seeping into any trenches or foundation works should be passed through a silt trap prior to discharge to the storm water drains. 	Contractor	Implemented
		<ul style="list-style-type: none"> The water used for the washing down of mixing drums used for onsite batching of concrete and delivery lorries for off-site batched concrete should be recycled whenever possible. Wastewater generated from the washing which is discharged should be passed through a silt trap before discharge to the storm water system. 	Contractor	Not Applicable
		<ul style="list-style-type: none"> The wastewater from the washing of the wheels and subframe of vehicles returning from the site onto public roads will contain suspended solids and debris. A washing bay should be provided at the exit from the site and should, where practicable, incorporate water recirculation. Water from the washing bay which is discharged to the storm water system should first be passed through a silt trap which also includes an oil/grease removal weir. 	Contractor	Not Applicable
		<ul style="list-style-type: none"> Plant maintenance areas should be paved to prevent waste oils soaking into the ground. Where possible the area should be undercover to minimise the formation of runoff and any runoff from the paved area passed through an oil trap before being discharged to the storm drains. Fuel storage tanks should be surrounded by bunds with a capacity of at least 150% of the storage capacity. The bunded areas should be able to be drained of rain water through the petrol interceptor and accumulated rain removed at regular intervals. 	Contractor	Not Applicable
		<ul style="list-style-type: none"> Waste oils from the site should be collected and stored for recycling or disposal in accordance with the Waste Disposal Ordinance and absorbent cloths and granules should be available for the cleanup of spillages. 	Contractor	Not Applicable
		<ul style="list-style-type: none"> Sewage from toilets and kitchens should be discharged directly into a foul sewer. If it is not possible to locate the site offices within easy access of a foul sewer a septic tank and soakaway should be constructed before the offices are occupied. Chemical toilets should be emptied on a daily basis and the contents taken to a foul sewer or the Sha Tin Sewage Treatment Works for disposal. 	Contractor	Partially Implemented

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EIA Review Ref	Location	Environmental Protection Measures/	Implementation Agent	Implementation Status in Construction Phase
		Wastewater collected from canteen kitchens should be discharged to the foul sewers via grease traps which provide a minimum of 20 minutes retention during peak flow. All discharges into foul sewers and storm sewers should have to be complied with TM standards under WPCO.		
		• Run off from roofed surfaces of site facilities should be collected and diverted to a storm water drain. Passage through a silt trap is only required if the water is diverted via open channels which might accumulate solids during non-rainy periods or which intercept surface run off from unpaved areas.	Contractor	Implemented
		• Discharges from the site shall be required to meet the terms and conditions of a valid WPCO Water Pollution Control Ordinance (WPCO).	Contractor	Implemented
Section 12.6 of the Approved EIA Report		• Regular site inspection of the construction works shall be carried out to determine compliance with the recommended mitigation measures. Inspection should be included:		
		(i) The functioning of onsite surface water collection channels and sediment traps.	Contractor	Implemented
		(ii) The functioning of interception channels at the boundary of the works areas	Contractor	Implemented
		(iii) The covering of stockpiles of fill and construction materials and the routing of any run off through the sediment traps.	Contractor	Implemented
		(iv) The pumping procedures for emptying trenches and other excavations and the use of silt traps prior to the discharge of the water to the storm water system.	Contractor	Implemented
		(v) The use of washwater for hosing down concrete mixing and delivery vehicles and other vehicles leaving the site and the routine of excess water from the facility through sediment traps.	Contractor	Not Applicable
		(vi) The operation of the plant maintenance areas to control small spillages and the correct management of the fuel storage bunded area.	Contractor	Not Applicable
		(vii) The connection of the site office wastewater discharge to an existing foul sewer if appropriate or the operation of the kitchen wastewater grease trap and the regular emptying of the chemical toilets	Contractor	Not Applicable
		(viii) The operation of the roof rain water collection and drainage system.	Contractor	Not Applicable
<i>Landscape and Visual Mitigation Measures</i>				
Construction Phase				
Table 6.5	During construction within the Project Boundary.	• Existing trees shall be preserved as much as possible. Detailed tree preservation and transplanting proposals shall be submitted to relevant government departments for approval in accordance with DEVB TC (W) No. 7/2015.	Contractor	Implemented
		• Topsoil will be conserved as far as possible during the road improvement works and utilized during the replanting operations. The stock piling height of the topsoil will not be more than 2m.	Contractor	Implemented

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		• Old and valuable trees (OVTs) identified in the Project Boundary shall be protected in accordance with ETWB TCW no. 29/2004.	Contractor	Implemented	
		• Night-time lighting glare shall be properly managed and control during construction so as to minimize any adverse visual impact on adjacent VSRs.	Contractor	Not Applicable	
		• Decorative screen hoarding with design compatible with the surrounding landscape setting shall be erected along the southern boundary of Tai Po Road to mitigate any potential adverse impact on adjacent Pedestrian and Cyclists on Footpath/Bicycle Track.	Contractor	Not Applicable	
	Operation Phase				
	During construction within the Project Boundary.	• Compensatory planting shall be provided within and outside the project boundary where possible. Detailed compensatory planting proposal will be prepared in accordance with DEVB TC (W) No. 7/2015.	Contractor	Not Applicable	
		• Planting shall be undertaken at the earliest practical time in the construction period. The planting proposal shall aim to strengthen the existing tree species and supplement the existing tree planting to provide an effective screen to ameliorate any potential landscape and visual impacts. The proposed species to be utilized for road improvement works shall be agreed with LCSD and future maintenance authorities. All the proposed species for compensatory planting shall be suitable for roadside streetscape planting.	Contractor	Not Applicable	
		• Provision of visually pleasing noise barriers and enclosures design shall be proposed. The design of these structures aims to minimize any potential visual impact and visually integrate the proposed structures into the adjacent landscape context. This should be achieved through the use of form, color, tones, materials and planting materials.	Contractor	Not Applicable	
		• Aesthetically pleasing hard landscape treatment of the carriageway and roadside furniture shall be proposed, including development of chromatic themes in the architectural treatment of engineering structures, and the consideration of landscape lighting and special landscape features.	Contractor	Not Applicable	
		• Shrubs and climbers planting are proposed on the facade of Noise Enclosures and Barriers to mitigate any adverse impact on adjacent VSRs in area where space for tree planting is not feasible.	Contractor	Not Applicable	
	Waste Management Measures				
7.6.2 to 7.6.4	Within the boundaries of all construction	• In accordance with ETWB TC (W) No. 19/2005 - Environmental Management on Construction Sites", the Contractor shall prepare and implement a Waste Management Plan (WMP) as part of the Environmental Management Plan (EMP). The EMP shall describes the arrangements for avoidance, reuse, recovery, recycling, storage, collection, treatment and disposal of different	Contractor	Implemented	

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EIA Review Ref	Location	Environmental Protection Measures/	Implementation Agent	Implementation Status in Construction Phase
7.6.5 to 7.6.6	sites.	categories of waste to be generated from the construction activities. Such a management plan should incorporate site specific factors, such as the designation of areas for segregation and temporary storage of reusable and recyclable materials. The EMP should be submitted to the Engineer for approval.		
		• The Contractor should implement the waste management practices in the EMP throughout the construction stage of the Project. The EMP should be reviewed regularly and updated by the Contractor.	Contractor	Implemented
		• Recommendations of good site practices and waste reduction measures should be stated in order to achieve avoidance and minimization of waste generation in the hierarchy.	Contractor	Implemented
		• Environmental Management Plan (EMP) and trip-ticket system shall be implemented for monitoring management of waste.	Contractor	Implemented
7.6.7	Within the boundaries of all construction sites as well as transportation routes to designed areas for off-site disposal of materials/Prior to and during construction activities.	• Specific measures targeting the mitigation of impacts in works areas and the transportation of spoil off-site should be provided to minimize the potential impacts to the surrounding environment.	Contractor	Implemented
		• To facilitate adoption of the best-practice philosophy, training shall be provided to all personnel working on site. The training shall promote the concept of general site cleanliness and clearly explain the appropriate waste management procedures defined in the EMP. Overall, the training should encourage all workers to reduce, reuse and recycle wastes.	Contractor	Implemented
7.6.8 to 7.6.9		• The contractor's environmental performance shall be monitored and controlled through the weekly environmental walks. The items after the environmental walks shall include:		
		• A review of the EMP in particular the suitability of the environmental measures on nuisance abatement and waste management adopted by the contractor;	Contractor	Implemented
		• The environmental performance of the contractor and his sub-contractors;	Contractor	Implemented
		• The effectiveness of the environmental measures on nuisance abatement and waste management implemented on the site, and any complaints received; and	Contractor	Implemented
		• The promptness of rectification or improvement actions of the Contractor on the defects and deficiencies identified during inspections of the site.	Contractor	Implemented
	• Waste shall only be disposed of at licensed sites and the WMP should include procedures to ensure that illegal disposal of wastes does not occur. Only waste haulers authorized to collect the specific category of waste concerned should be employed and a trip ticket system shall be implemented for offsite disposal of inert C&D materials and non-inert C&D materials at public fill reception facilities and landfills, respectively. Appropriate measures should be employed to minimize windblown litter and dust during transportation by either covering trucks or transporting wastes in	Contractor	Implemented	

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EIA Review Ref	Location	Environmental Protection Measures/	Implementation Agent	Implementation Status in Construction Phase
		enclosed containers.		
7.6.10		<ul style="list-style-type: none"> Work site(s) shall be arranged and managed to facilitate the proper management of wastes and materials. The WMP shall include plans indicating specific areas designated for the storage of particular types of waste, reusable and recyclable materials as well as areas and management proposals for any stockpiling areas. Waste storage areas should be well maintained and cleaned regularly. Specific provisions for different types of material are outlined below. In general, these areas should be designed to avoid cross contamination of materials as well as pollution of the surrounding environment. 	Contractor	Implemented
7.6.11 to 7.6.14		<ul style="list-style-type: none"> In order to minimize the impact resulting from collection and transportation of C&D material for off-site disposal, the excavated fill materials should be reused on site as backfill material as far as possible. 	Contractor	Implemented
		<ul style="list-style-type: none"> Careful design, planning and good site management should be maintained in order to minimise over ordering and generation of surplus materials such as concrete, mortars and cement grouts. The design of formwork should maximise the use of standard wooden panels so that high reuse levels can be achieved. Alternatives such as steel formwork or plastic facing should be considered to increase the potential for reuse. 	Contractor	Implemented
		<ul style="list-style-type: none"> C&D materials should be segregated on site into different waste and material types. The Contractor should clearly demonstrate in the EMP how he intends to maximise the reuse of C&D material on-site. Where reuse of materials on site is not feasible, the Contractor should explore opportunities for recycling materials off-site, and inert C&D materials shall be reused on site as much as possible. 	Contractor	Implemented
		<ul style="list-style-type: none"> Paving bricks arising from existing pavement should be recycled on site as much as possible. 	Contractor	Not Applicable
		<ul style="list-style-type: none"> Existing marginal roadside barriers comprise pre-cast units should be reused in the following widening works as much as possible, 	Contractor	Not Applicable
		<ul style="list-style-type: none"> Existing bridge parapets comprise aluminum post and railings, which have a recyclable value and should be sold for reconditioning or reused for scrap metal as much as possible 	Contractor	Not Applicable
		<ul style="list-style-type: none"> Any stockpile should be sited away from existing watercourses and suitably covered to prevent wind erosion and impacts on air and water quality. 	Contractor	Implemented
7.6.15 to 7.6.17		<ul style="list-style-type: none"> Chemical waste shall be handled in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Wastes as follows. Containers used for the storage of chemical wastes should: <ul style="list-style-type: none"> be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed; 	Contractor	Partially Implemented

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EIA Review Ref	Location	Environmental Protection Measures/	Implementation Agent	Implementation Status in Construction Phase
		• have a capacity of less than 450L unless the specifications have been approved by the EPD; and	Contractor	Implemented
		• display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C).	Contractor	Implemented
		The storage area for chemical wastes should:		
		• be clearly labelled and used solely for the storage of chemical waste;	Contractor	Implemented
		• be enclosed on at least 3 sides;	Contractor	Implemented
		• have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest;	Contractor	Implemented
		• have adequate ventilation;	Contractor	Implemented
		• be covered to prevent rainfall entering (water collected within the bund must be tested and disposed as chemical waste if necessary); and	Contractor	Partially Implemented
		• be arranged so that incompatible materials are adequately separated.	Contractor	Implemented
		The Contractor shall register with EPD as a Chemical Waste Producer. Waste oils and other chemical wastes as defined in the Waste Disposal (Chemical Waste) (General) Regulation will require disposal by appropriate means and could require pre-notification to EPD prior to disposal. Appropriate means include disposal:		
		• via a licensed waste collector; and	Contractor	Implemented
		• to a facility licensed to receive chemical waste, such as the Chemical Waste Treatment Facility which also offers a chemical waste collection service and can supply the necessary storage containers; or	Contractor	Implemented
		• to a reuser of the waste, under approval from EPD.	Contractor	Not Applicable
7.6.18 to 7.6.20		• General refuse generated on-site should be stored in enclosed bins or compaction units separate from construction and chemical wastes. A reputable waste collector should be employed by the Contractor to remove general refuse from the site, separately from construction and chemical wastes, on a daily or every second day basis to minimize odour, pest and litter impacts. The burning of refuse on construction sites is prohibited by law.	Contractor	Partially Implemented
		• Separate labelled bins should be provided if feasible.	Contractor	Not Observed
		• Office waste can be reduced through recycling of paper if volume is large enough to warrant collection. Participation in a local collection scheme should be considered if one is available.	Contractor	Implemented
7.7.1		• All wastes produced during the construction of the Project shall be handled, stored, and disposed of in accordance with good waste management practices and relevant regulations and requirements.	Contractor	Implemented

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EIA Review Ref	Location	Environmental Protection Measures/	Implementation Agent	Implementation Status in Construction Phase
		<ul style="list-style-type: none"> The mitigation measures recommended in the EIA/EIA review report should form a basis of the WMP to be developed by the Contractor in the construction phase of the Project. 	Contractor	Implemented
EP 1.5	<u>General Condition</u>			
N.A	During construction within the Project Boundary.	<ul style="list-style-type: none"> The Permit Holder shall display conspicuously a copy of this Permit on the Project site(s) at all vehicular site entrance/exits or at a convenient location for public information at all times. The Permit Holder shall ensure that the most updated information about the Permit, including any amended Permit, is displayed at such locations. If the Permit Holder surrenders a part or the whole of the Permit, the notice he sends to the Director shall also be displayed at the same locations as the original Permit. The suspended, varied or cancelled Permit shall be removed from display at the Project site(s). 	Contractor	Implemented

Implementation status: Implemented / Implemented / Not Implemented / Not Observed / Not Applicable

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Appendix K

Weather and Meteorological Conditions during Reporting Month

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Date	Mean Pressure (hPa)	Air Temperature			Mean Relative Humidity (%)	Total Rainfall (mm)
		Maximum (deg. C)	Mean (deg. C)	Minimum (deg. C)		
October 2020						
1	1009.5	28.8	26.7	25.3	77	0.1
2	1010.8	30.4	27.6	26.2	75	-
3	1011.3	31.9	28.3	26.7	75	-
4	1009.9	31.4	28.4	26.8	78	-
5	1011.2	30.6	28.0	25.0	79	106.1
6	1013.8	27.4	25.9	24.9	78	2.7
7	1014.8	26.3	24.9	24.1	70	-
8	1015.2	28.8	25.2	23.1	67	-
9	1014.7	30.0	26.0	23.3	64	Trace
10	1012.8	29.7	26.1	23.3	69	Trace
11	1010.3	30.4	27.0	24.7	73	-
12	1008.7	30.9	28.0	25.6	72	0.6
13	1009.6	26.5	24.9	23.8	86	26.0
14	1012.5	26.4	25.5	24.3	80	1.2
15	1013.8	29.4	26.5	24.8	73	-
16	1013.6	31.4	27.0	25.1	71	Trace
17	1014.9	28.9	25.6	23.8	72	0.2
18	1015.7	28.5	24.9	22.2	73	0.7
19	1015.9	27.9	24.6	22.3	70	-
20	1015.0	29.0	25.0	22.1	68	-
21	1011.8	28.4	24.5	21.7	63	-
22	1009.4	28.3	24.7	22.8	60	-
23	1011.4	24.8	23.5	21.9	51	-
24	1013.9	26.3	23.8	22.3	55	Trace
25	1014.8	28.1	24.2	23.0	69	-
26	1013.5	28.1	24.6	22.8	76	-
27	1012.9	28.6	25.1	22.9	73	-
28	1014.9	26.7	24.4	22.6	78	4.7
29	1017.3	26.7	24.7	22.6	74	0.1
30	1018.3	27.0	24.4	23.2	78	Trace
31	1017.7	26.0	23.4	22.0	71	-

Source: Hong Kong Observatory

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Appendix L

Cumulative statistics on Environmental Complaints, Notifications of Summons and Successful Prosecutions

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**Environmental Complaints Log**

Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2019-005	2/2/2019	EPD	CCZJV	Noise	13/2/2019	According to the photo taken from the complainant, the complaint was related to the project. Although the tree felling works were covered by the valid CNP (GW-RN0783-18), Contractor was reminded to strictly follow and fully comply with the CNP conditions and the mitigation measures stipulated in the EM&A Manual when construction activities are operating during restricted hour. Contractor was recommended to increase the frequency of using the electrical chain saw instead of the diesel chain saw for reducing the noise impact. Environmental Team conducted additional ad-hoc noise monitoring on 19:00 14th February 2019 to 07:00 15 th February 2019 for evaluate the effectiveness on the proposed mitigation measures. No project-related noise exceedance case on 14-15 Feb 2019 Contractor's night tree-felling and removal works. The proposed mitigation measures were effective for noise impact.	20/2/2019
COM-2019-006	22/2/2019	Project Hotline of NE/2017/05	CCZJV	Noise	26/2/2019	According to the location of complainant from Kwai Wo House, the complaint was related to the project. Although the tree felling works were covered by the valid CNP (GW-RN0783-18), Contractor was reminded to strictly follow and fully comply with the CNP conditions and the mitigation measures stipulated in the EM&A Manual when construction activities are operating during restricted hour. An extended barrier at the top acts as a cantilever shape was recommended to	4/3/2019

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						modify the existing semi-enclosure installed in the cherry picker Also, three sides with top as a semi-enclosure to be used and those tree felling activities should be inside the semi-enclosure in the ground slope. The main contractor had been recommended to review their works program and methods of tree felling as to minimize the night time tree felling activities.	
COM-2019-0010	28/3/2019	Project Hotline of NE/2017/05	CCZJV	Noise	28/3/2019	The complaint case should be related to the MTR night time maintenance works. Main Contractor used portable phones and head-set only for communication, and none of loudspeakers were allowed to be used. Main Contractor handled of tree debris into the lorry skip in care when loading. Besides, a layer of soft material (soil/tree debris) was observed leaving inside the skip of the grab lorry to reduce the loading noise. Contractor was reminded to strictly follow and fully comply with the CNP (GW-RN0132-19) conditions and the mitigation measures stipulated in the EM&A Manual when construction activities are operating during restricted hour.	4/4/2019
COM-2019-0033	26/7/2019	Police visit on-site	CCZJV	Noise	26/7/2019	The complaint is related to the project. The Main Contractor comply with CNP No.: GW-RN0443-19 allowable construction site and within the site boundary to carry out night work on tree felling and the clearance of felled tree debris during the restricted hour. Contractor was reminded to strictly follow and fully comply with the CNP (GW-RN0443-19) conditions and the mitigation measures stipulated in the EM&A Manual when	30/7/2019

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						construction activities are operating during restricted hour. Contractor was recommended to increase the frequency of using the electrical chain saw instead of the diesel chain saw for reducing the noise impact. Contractor was reminded to reschedule of tree felling arrangement that most of the fell branches and trunks were temporary laid on slope and arranged to cut smaller on Day Time to minimize the noise nuisance to the nearby NSRs.	
COM-2019-0045	30/8/2019	1823	CCZJV	Noise	30/8/2019	The complaint is related to the project. Contractor was reminded to strictly follow and fully comply with the CNP (GW-RN0443-19) conditions and the mitigation measures stipulated in the EM&A Manual when construction activities are operating during restricted hour. Contractor should strictly follow the use of acoustic enclosure as in condition 3.d.5. of the CNP during the operation of breaker, hand-held, mass $\leq 10\text{kg}$ (CNP023) shall only be operated inside the acoustic enclosure composed of four side-panels and one top-panel, so that no part of such equipment is visible from any nearby noise sensitive receiver. The panels shall be made of minimum 10mm thick plywood or 1mm thick steel outer skin and minimum 50mm thick sound absorbing lining, or equivalent construction. Contractor was reminded to use portable phones and head-set only for communication, and none of loudspeakers is allowed for night work activities.	19/9/2019

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COM-2019-0056	9/10/2019	Project Hotline of NE/2017/05 and EPD	CCZJV	Noise	19/10/2019	The complaint of the construction noise especially the breaker noise is project related. Due to the concern of road safety, the Contractor conducted the emergency road repair works under an Emergency Excavation Permit (EXP) of Plan ID: EO13123 issued by Highways Department (HyD). The main contractor's PR / hotline staff was reminded to enhance communication with sufficient information provided for replying any enquiry / complaint in the future. The main contractor was also reminded that noise mitigation measures should be provided as far as practicable subject to the emergency situation. For construction works covered by the CNP issued by EPD, the main contractor should fully complied with the conditions as stipulated and provided all noise mitigation measures as required under the conditions of the CNP. For works subject to the emergency situation, noise mitigation measures such as noise barrier, enclosure etc. should be provided as far as practicable to minimise the noise nuisance to the NSRs.	4/11/2019
COM-2019-0057	9/10/2019	EPD	CCZJV	Noise	18/10/2019	The complaint of the generator noise nuisance is related to the project. The concerned portable generator is supplying electric power for the Variable Message Sign (VMS) showing the speed limit in 50 km/hr. It is switched on and off manually by manpower, and would only be operated between daytime 07:00-19:00. No construction noise permit (CNP) should be	21/10/2019

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						required as the portable generator is not operating in restricted hours. The main contractor was reminded to strictly follow the use of their proposed semi-enclosure as the mitigation measures for the portable generator and the generator operates in daytime 07:00-19:00 only.	
COM-2019-0066	6/11/2019	EPD	CCZJV	Noise	7/11/2019	The complaint of the emergency road repair work is related to the project. The works on on 5 th November 2019 between 22:00 and 06:00 the next day at southbound slow lane of Tai Po Road outside Wai Wah Centre, including breaking operation. The main contractor should inform the EPD in advance of any emergency opening works of the Project in future to facilitate the effective handling of noise complaint that may arise.	12/11/2019
COM-2020-0083	29/02/2020	Project email of NE/2017/05	CCZJV	Noise and Dust	29/02/2020	The complaint of the dust and noise nuisance near Wai Wah Centre during both the day and night works was at zone 2. The construction works at zone 2 was the mini-piling operation during the day time was same as the complaint. Thus, the complaint in daytime is related to the project. Furthermore, loading and unloading works was carried in night time. Contractor was reminded to enhance the water spray frequency on the construction site for mitigation measures on dust control. Also, Contractor should provide green tarpaulin curtain and additional acoustic Sound Proof Canvas as a secondary layer at the bottom of the mini-pile drilling machine to secure the total enclose condition to minimize the visual and noise impacts	19/03/2020

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						<p>to nearby NSRs.</p> <p>ET checked the regular impact air and noise monitoring data between day time and night-time regular noise monitoring data, no exceedance case was found on both regular impact air and noise monitoring measurement.</p> <p>The main contractor should carry out further review the effectiveness of the enclosure or noise barrier with their mitigation measure and propose alternative noise mitigation measures to enhance the noise reduction on similar day works or night works in restricted hours.</p>	
COM-2020-0089	24/03/2020	Project hotline	CCZJV	Noise	24/03/2020	<p>A resident of Wai Wah Centre complained that noise generated from construction activities at night disturbing the nearby resident. According to the Contractor's information, loading/unloading, steel bar cutting, steel plate grinding and asphalt compaction were carried out in the early hours of 24th Mar 2020. The night work activities were within the site boundary. Also, 4 sides with top cover acoustic enclosure for the portable generator was used during the night work. Furthermore, mitigation measures listed in the CNP were implemented for PME and works activities. Three sides with top cover enclosure and additional acoustic comprised with 50 mm sound absorbing lining were used for night works activities. ET analysed that the complaint noise source should not be project-related construction noise.</p>	07/04/2020

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COM-2020-0090	27/03/2020	Project hotline	CCZJV	Noise	27/03/2020	Both complaint cases were concerning about the noise nuisance generated from the construction work activities at night time disturbing the nearby Wai Wah Centre residence. According to the Main Contractor, similar nature of major construction works carried out between 03:00 a.m. and 04:00 a.m. on 27th & 28th March 2020 was the asphalt compaction for the road surface remedial works at zone 2 south lane adjacent to Wai Wah Centre. The Main Contractor complied with CNP No.: GW-RN0002-20 that is within the allowable construction site location and within the site boundary to carry out night work on loading and unloading works. ET conduct regular night-time noise monitoring at all monitoring stations between 23:00 26 th March 2020 to 04:00 27 th March 2020, and between 23:00 2 nd April 2020 to 04:00 3 rd April respectively. No exceedance cases were found on both ET regular night-time noise monitoring measurement. ET did not remark on-site any noise related to construction works at above noise monitoring nights for which the results were lower than baseline noise level. Hence, ET analysed that the dominant noise source should be road traffic noise but not the project-related construction noise.	04/05/2020
COM-2020-0091	28/03/2020	Project hotline	CCZJV	Noise	28/03/2020		
COM-2020-0093	06/04/2020	Project hotline	CCZJV	Noise	06/04/2020	The complaint case on 6 th Apr was received by project hotline. The major construction works between (10:00pm – 11:00pm) on 6 th April 2020 was TTA implementation works and asphalt removal works for the road surface remedial work	28/04/2020

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						at zone 2 adjacent to Wai Wah Centre. The Main Contractor complied with CNP No.: GW-RN0152-20 that is within the allowable construction site location and within the site boundary to carry out night work on loading and unloading works. The five noise monitoring stations close to the concerned works area are NMS3, NMS4, NMS5A, NMS6A & NMS7, and NMS5A & NMS6A locate nearest to Wai Wah Centre. The night time noise monitoring results measured at NMS3, 4 & 6A were all lower than that of measured in the baseline, two exceedance case were found at NMS 5A especially NMS 5A & NMS 6A monitoring stations where locate at the Wai Wah Centre. The corrected noise level measured at NMS 7 is lower than the night time limit 55dB (A). Therefore, there was no exceedance cases were found on ET regular night-time noise monitoring measurement. ET analyzed that the dominant noise source should be road traffic noise but not the project-related construction noise.	
COM-2020-0096	20/04/2020	Project hotline	CCZJV	Noise	20/04/2020	A continues complaint were received on 20 Apr and 21 Apr 2020. A resident of Wai Wah Centre filed three complaints about the noise nuisance generated by the nearby construction activities during daytime. Two complaints were made through project hotline on 20 th Apr 2020 at 10:57 a.m. and 21 st Apr 2020 at 9:03 a.m., while the other one was through project email on 20 th Apr 2020 at 12:43 p.m. The noise source(s) of the concerned nuisance during complaint period	19/05/2020
COM-2020-0097	20/04/2020	Project Email	CCZJV	Noise	20/04/2020		
COM-2020-0098	21/04/2020	Project hotline	CCZJV	Noise	21/04/2020		

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						<p>should be mini piling works, which is opposite to Wai Wah Centre. According to the contractor's work schedule, major day work activity was mini-piling operation since early Feb 2020 at zone 2 in central median at non-restricted hours, from Mondays to Saturdays between 0800 and 1800 not including General Holidays. The mini piling operation on 20th & 21st Apr 2020 was carried out at non restricted hours. The limited level of noise generated by the construction of the Project during the non-restricted daytime hours will be 75 dB (A) for dwelling. The mini piling operation on 20th and 21st Apr 2020 was carried out at non restricted hours with green tarpaulin curtain and sound proof canvas. The noise level of NMS 5A and NMS 6A on 22nd Apr 2020 were 73.5 dB (A) and 72.6 dB (A) respectively. No noise exceedance was occurred at NMS 5A and NMS 6A. The construction activity on 22nd Apr 2020 was similar to 20th and 21st Apr 2020. Therefore, ET's day-time monitoring result on 22nd April 2020 at NMS5A and NMS6A can act as a reference for impact noise from the similar mini-piling operation on 20th and 21st April 2020. ET analyzed that the dominant noise source should be road traffic noise but not the project-related construction noise.</p>	
COM-2020-0099	21/04/2020	Project hotline	CCZJV	Noise	21/04/2020	<p>The complaint cases on 21st Apr 2020 was received by project hotline from Police. According to the complainant who is the local resident at Wai Wah Centre, the noise source(s) of the concerned</p>	05/05/2020

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						nuisance during night works was at zone 2 is opposite to Wai Wah Centre. The major construction works was road surface remedial work since 15 th April 2020 conducted at restricted hours along zone 2 south boundary adjacent to Wai Wah Centre. The Main Contractor complied with CNP No.: GW-RN0152-20 that is within the allowable construction site location and within the site boundary to carry out night work on road surface remedial works. Environmental Team (ET) conduct a regular night-time noise monitoring at all monitoring stations between 23:00 23 rd April 2020 to 04:00 24 th April 2020. The five noise monitoring stations close to the concerned works area are NMS3, NMS4, NMS5A, NMS6A & NMS7, and NMS5A & NMS6A locate nearest to Wai Wah Centre. There were no exceedance on the night time noise monitoring, especially measured at NMS 5A & NMS 6A where locate at the Wai Wah Centre, the measured result at NMS 5A & 6A were all lower than that of measured in the baseline. Therefore, no exceedance cases were found on ET regular night-time noise monitoring measurement. ET analyzed that the dominant noise source should be road traffic noise but not the project-related construction noise.	
COM-2020-0100	23/04/2020	Project hotline	CCZJV	Noise	23/04/2020	The complaint was received via project hotline on 23 rd April 2020 at 10:45 a.m. A resident of Wai Wah Centre complained that noise generated from operation of the two piling machines	11/05/2020

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						<p>disturbing her daughter's study for DSE examination, and demanding limitation on operation hours of the machines only at two separate periods between 12 noon and 1p.m and 3 p.m. to 6 p.m. According to the Main Contractor, the major construction works at day time (08:00-18:00) on 23rd April 2020 was mini-piling operation at Zone 2 Central Median of Tai Po Road near Wai Wah Centre. According to the photo records of day-time site condition on 23rd April 2020 provided by Main Contractor, the green tarpaulin curtain was provided for the mini-pile drilling machines so that the bottom part of the mini-pile drilling machine was blocked from view of nearby NSR (e.g. residents at Wai Wah Centre) and an additional layer of sound proof canvas was installed at lower level to mitigate the noise from mini-pile drilling operation. The day-time noise monitoring results measured at NMS3, 4, 5A, 6A and 7 were all lower than the limit level, especially NMS 5A & NMS 6A monitoring stations where locate at the Wai Wah Centre. The monitoring results show no noise exceedance occurred at both locations. Thus, ET day-time monitoring result on 22nd April 2020 at NMS5 & NMS6 can be act as a reference for impact noise from the similar mini-piling operation activities on 23rd April 2020. Therefore, there was no exceedance cases were found in ET regular day-time noise monitoring measurement. ET analyzed that the dominant noise source should be road</p>	

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						traffic noise but not the project-related construction noise.	
COM-2020-0101	28/04/2020	1823	CCZJV	Noise	28/04/2020	The complainant on via ICC1823 on 28 th April 2020 complained about the noise and odor nuisance generated from the night-time asphalt laying construction works at Shatin Rural Committee Road (Zone 3) area. Although the main contractor no work at zone 3, but the major night-time construction works was road surface remedial work which was related to the complainant concerned. The major construction works was road surface remedial work since 15 th April 2020 at approved restricted hours along zone 2 south boundary adjacent to Wai Wah Centre. Also, Tai Po Road is the main strategic route, implementation of temporary traffic diversion at day time due to loading and unloading material or plant work or road surface remedial work is not feasible. The lorry had been used in TTA implementation & road opening, portable generator and electric handheld breaker had been used in asphalt removal work, dump truck with grab had been used for loading and unloading of asphalt or rubble, vibratory compactor had been used in asphalt compaction for road surface remedial works on 27 th ^28 April 2020. The Main Contractor complied with CNP No.: GW-RN0152-20 that allowed PME used in Group C or Group F. According to the Main Contractor, advance "Notice to Affected Residents" had been issued and distributed on	15/05/2020

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						<p>26th March 2020 in accordance with the CNP advice that prior notification should be given to nearby residents. Besides, the road re-surfacing work would be carried out at approximately 14 night-time works between 2nd and 28th April 2020 listed in the distributed notices. No exceedance cases were found on ET regular night-time noise monitoring measurement at all noise monitoring stations, especially measured at NMS 5A & NMS 6A where locate close to the works area (Wai Wah Centre in Zone 2), the measured result at NMS 5A & 6A were all lower than that of measured in the baseline. ET analyzed that the dominant noise source should be road traffic noise but not the project-related construction noise.</p>	

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Cumulative Statistics on Complaints

Environmental Parameters	Cumulative No. Brought Forward	No. of Complaints This Month	Cumulative Project-to-Date
Air	0	0	0
Noise	19	0	19
Water	0	0	0
Waste	0	0	0
Total	19	0	19

Cumulative Statistics on Notification of Summons and Successful Prosecutions

Environmental Parameters	Cumulative No. Brought Forward	No. of Notification of Summons and Prosecutions This Month	Cumulative Project-to-Date
Air	0	0	0
Noise	0	0	0
Water	0	0	0
Waste	0	0	0
Total	0	0	0

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Appendix M

Summary of Site Audit in the Reporting Month



Summary of Site Audit in the Reporting Month

Parameters	Date	Observations and Recommendations	Follow-up
Air Quality	8 Oct 2020	Observation: 1. NRMM label should be shown on machine due to the requirement of APAR. Reminder: 1. Waste should be cleared regularly at Work Area B to maintain good site condition.	1. NRMM label should be shown on machine due to the requirement of APCR.
	15 Oct 2020	Observation: 1. To cover the stockpile of excavated materials. (Zone 2)	1. (Zone 2) Stockpile have been cover properly.
Noise	No specific observation was identified in the reporting month.		
Water Quality	15 Oct 2020	Reminder: 1. To clean up the sedimentation tank regularly to avoid overflow. (Zone 3 S06)	-
	22 Oct 2020	Reminder: 1. Sedimentation tank should be clear regularly at Zone 3.	-
	29 Oct 2020	Observation: 1. Waste water should be treated before discharge, prevent discharge of muddy water. (Zone 5) Reminder: 1. Desilt the u-channel regularly. (Zone 4)	1. (Zone 5) Wastewater (pipe) has been connected to sedimentation tank properly before discharge.
Chemical and Waste Management	15 Oct 2020	Observation: 1. Clear the stagnant water in the drip tray for power pack. (Zone 3 S06)	1. (Zone 3) Stagnant water was cleared.
	22 Oct 2020	Observation: 1. General waste in drip tray should be clear at Zone 3 to maintain good site condition. 2. Stagnant water and oil in drip tray should be clear regularly at Zone 3 to prevent spill over.	1. (Zone 3) Stagnant water with oil in drip tray was cleared. 2. (Zone 3) General Waste in drip tray have been removed.
	29 Oct 2020	Observation: 1. Provide trip tray for chemical /fuel oil near the air compressor. (Zone 4) 2. Replace/ repair the drip tray to provide proper mitigation for preventing chemical spillage. (Zone 5)	1. (Zone 5) Chemical drums have been removed. 2. (Zone 5) Drip tray has been repaired.
Land Contamination	No deficiency was found during the reporting month.		
Landscape and Visual Impact	No specific observation was identified in the reporting month.		
General Condition	No specific observation was identified in the reporting month.		
<u>Permit / Licenses</u>	15 Oct 2020	Observation: 1. To displace the complete set of CNP at site entrance. (Zone 3)	1. (Zone 3) Complete set of CNP have been displayed at site entrance