

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Report No.: 0064/18/ED/0769A

MONTHLY EM&A REPORT

June 2023

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/0769A

Prepared by : Toby Wan

Reviewed by : Calvin Leung

Certified by : 
Calvin Leung
Environmental Team Leader
Fugro Technical Services Limited



Our ref: PL-202307020

Unit 2320, Level 23,
Tower I, Metroplaza,
223 Hing Fong Road, Kwai Fong,
N.T., Hong Kong.

Attention: Mr. Joseph YAN

13 July 2023

Dear Joseph,

NE/2017/05

**Road Widening and Retrofitting Noise Barriers on Tai Po Road (Sha Tin Section)
Monthly EM&A Report for June 2023**

I refer to the email of the ET regarding to the captioned Monthly EM&A Report with report No. 0064/18/ED/0769A, I 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)

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



TABLE OF CONTENTS

EXECUTIVE SUMMARY	I
1. INTRODUCTION	1
2. AIR QUALITY	5
3. NOISE	9
4. LANDSCAPE AND VISUAL	14
5. WASTE MANAGEMENT	15
6. SITE INSPECTION	16
7. ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE	17
8. IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURES	19
9. FUTURE KEY ISSUES	21
10. CONCLUSIONS	22

FIGURES

Figure 1	Project General Layout
Figure 2a	Air Monitoring Locations
Figure 2b	Noise Monitoring Locations

LIST OF APPENDICES

Appendix A	Construction Programme
Appendix B	Project Organization Chart
Appendix C	Action and Limit Levels for Air Quality and Noise
Appendix D	Calibration Certificates of Monitoring Equipment
Appendix E	Environmental Monitoring Schedules, Examination Schedules and Arrangements on Deferral of Class Resumption for All Schools
Appendix F	Air Quality Monitoring Data
Appendix G	Noise Monitoring Data
Appendix H	Event Action Plans
Appendix I	Waste Flow Table
Appendix J	Environmental Mitigation Implementation Schedule (EMIS)
Appendix K	Weather and Meteorological Conditions during Reporting Month
Appendix L	Cumulative statistics on Environmental Complaints, Notifications of Summons and Successful Prosecutions
Appendix M	Summary of Site Audit in the Reporting Month
Appendix N	Detailed Report for Blockage of Sewer Manhole at Zone 3
Appendix O	Non-Compliance Photo Records



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 June 2023 and 30 June 2023. 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"> • Trial pits excavation • Road surface Maintenance • Noise Barrier Foundation Works • Slope Reinstatement and Drainage Works • Noise Barrier Erection Works • Relocation of Existing Fire Hydrants and relating Watermains • Reinstatement of cycling track 	<ul style="list-style-type: none"> • Trial pits excavation • Road surface Maintenance • Noise Barrier Erection Works • Noise Barrier Foundation Works • Relocation of Existing Fire Hydrants and relating Watermains 	<ul style="list-style-type: none"> • Tree Works (preservation / felling/ pruning/ transplantation) • Road surface Maintenance • Reinstatement of footpath and cycle track • Construction of Retaining Wall and Erection of Parapet • Lift no.2 Installation + SR5 Foundation Works + Construction of [former staircase] Abutment Wall • Construction Works for N263 & N264 Bridge Deck Widening + Construction of New Abutment Wall + Demolition of Existing Beam/ Slab + Road Diversion + Asphalt Works • Construction Works for Lift no.1 • Construction Works N262 Bridge Deck Widening • Relocation of Existing Fire Hydrants and relating Watermains • Noise Barrier Foundation Works + Drainage Works 	<ul style="list-style-type: none"> • Road surface Maintenance • Piling Construction Works + Road Drainage Works • Noise Barrier Foundation Works • Relocation of Existing Fire Hydrants and relating Watermains • Reinstatement of cycling track 	<ul style="list-style-type: none"> • Road surface Maintenance • Piling Construction Works + Road Drainage Works • Noise Barrier Foundation Works • Slope Landscaping Works + Irrigation System for Landscaping + Drainage Works on Slope • Reinstatement Works for Traffic Island • Noise Barrier Erection Works • Relocation of Existing Fire Hydrants and relating Watermains

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 1, 6, 15, 20 and 29 June 2023 respectively and no exceedance case was recorded between 2300 and 0700 of the next day during the reporting month.



Complaint, Notification of Summons and Successful Prosecution

- vi. One complaint was received in the report month. The summaries are listed below:
- A complaint was received by 1823 (CASE#3-7780620261) on 30th June 2023. The complainant is concerned about the noise nuisance generated by the night-time construction works activities near Wai Wah Centre.
- vii. According to DSD's information, blockage of existing sewage occurred at Pai Tau Village on 12 June 2023. DSD carried out investigation and found that an existing manhole no. FMH4089640 near Tai Po Road within the site of CEDD contract no. NE/2017/05 was blocked by hard materials. This leads to sewerage overflow at Pau Tak Village. Details report for blockage of sewer manhole was shown in **Appendix N**.

Environmental Non-Compliance

- viii. Two non-compliance were found in the report month. The summaries are listed below:
1. A non-compliance was found by ET on 8th June 2023 (Photos are shown in **Appendix O**). Three untreated muddy water discharge were found during the site inspection. At Zone 3, a blue pipe was found and connected with the drainage system, no treatment facility was found near by the pump and blue pipe. At Zone 4, N4, untreated muddy water surface run-off was observed, the water directly discharges into a guile without any treatment. At Zone 4, N4, untreated muddy water discharge was found through the blue pipe to the MTR area, no treatment facility was found near by the pump and blue pipe.
 2. A non-compliance was found by ET on 29th June 2023 (Photos are shown in **Appendix O**). An untreated muddy water discharge was found during the site inspection. At Zone 4, N4, the pump and blue pipe were found not connected to the sedimentation tank nearby. Untreated muddy water discharge was found through the blue pipe to the MTR area. The illegal discharge was stop by RE and ET immediately.

Reporting Changes

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

Future Key Issues

- x. 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 55th 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 1 June 2023 and 30 June 2023.

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**.

Table 1.1 Contact Information of Key Personnel

Party	Position	Name	Telephone
Project Proponent (CEDD)	Senior Engineer	Mr. Joseph Yan	3152 3551
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. S.Y. Wong	9257 8521
	Environmental Officer	Ms. Ymen Wong	5267 6087
ET (FTS)	Environmental Team Leader	Mr. Calvin Leung	3565 4441
	Environmental Team Member	Mr. Toby Wan	3656 4450



1.3 Construction Programme and Activities

1.3.1 This project was commenced on 29 November 2018 and the construction works is expected to be completed in year 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"> • Trial pits excavation • Road surface Maintenance • Noise Barrier Foundation Works • Slope Reinstatement and Drainage Works • Noise Barrier Erection Works • Relocation of Existing Fire Hydrants and relating Watermains • Reinstatement of cycling track 	<ul style="list-style-type: none"> • Trial pits excavation • Road surface Maintenance • Noise Barrier Erection Works • Noise Barrier Foundation Works • Relocation of Existing Fire Hydrants and relating Watermains 	<ul style="list-style-type: none"> • Tree Works (preservation / felling/ pruning/ transplantation) • Road surface Maintenance • Reinstatement of footpath and cycle track • Construction of Retaining Wall and Erection of Parapet • Lift no.2 Installation + SR5 Foundation Works + Construction of [former staircase] Abutment Wall • Construction Works for N263 & N264 Bridge Deck Widening + Construction of New Abutment Wall + Demolition of Existing Beam/ Slab + Road Diversion + Asphalt Works • Construction Works for Lift no.1 • Construction Works N262 Bridge Deck Widening • Relocation of Existing Fire Hydrants and relating Watermains • Noise Barrier Foundation Works + Drainage Works 	<ul style="list-style-type: none"> • Road surface Maintenance • Piling Construction Works + Road Drainage Works • Noise Barrier Foundation Works • Relocation of Existing Fire Hydrants and relating Watermains • Reinstatement of cycling track 	<ul style="list-style-type: none"> • Road surface Maintenance • Piling Construction Works + Road Drainage Works • Noise Barrier Foundation Works • Slope Landscaping Works + Irrigation System for Landscaping + Drainage Works on Slope • Reinstatement Works for Traffic Island • Noise Barrier Erection Works • Relocation of Existing Fire Hydrants and relating Watermains



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 – 5)	WT00032446-2018	09/11/2018	30/11/2023
Effluent Discharge License (Shui Chong Street)	WT00033829-2019	25/06/2019	30/06/2024
Construction Noise Permit for Road Closure, General Night Works (Zone 1 – 5)	GW-RN0292-23	27/03/2023	26/06/2023
Construction Noise Permit for Road Closure, General Night Works (Zone 1 – 5)	GW-RN0627-23	27/06/2023	26/09/2023
Construction Noise Permit for Road Closure, General Night Works (Zone 1 – 5)	GW-RN0514-23	16/05/2023	15/07/2023
Construction Noise Permit for 24 hours Water Pump (Zone 1 – 5)	GW-RN0287-23	01/04/2023	30/09/2023



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	AMS4	*Sibata	Model LD-5R	Sibata Portable TSP Monitors	114892
2	AMS7A	*Sibata	Model LD-5R	Sibata Portable TSP Monitors	114893
3	AMS12	*Sibata	Model LD-5R	Sibata Portable TSP Monitors	114894
4	AMS17	*Sibata	Model LD-5R	Sibata Portable TSP Monitors	114895

*Notes: As electricity supply is not available and accessible for the High Volume Samplers (HVS) at AMS 5A, 7A, 14 and 15 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	AMS4	Sibata	Model LD-5R	Sibata Portable TSP Monitors	114892
2	AMS7A	Sibata	Model LD-5R	Sibata Portable TSP Monitors	114893
3	AMS12	Sibata	Model LD-5R	Sibata Portable TSP Monitors	114894
4	AMS17	Sibata	Model LD-5R	Sibata Portable TSP Monitors	114895

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 (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 June 2023 was southwest. 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
AMS4	Wai Wah Centre (Site Boundary)	Residential Village
AMS7A	Sheung Wo Che	Residential Village
AMS12	Fung Wo Estate	Residential Village
AMS17	Wo Che Estate	Residential Village

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 4, 7A, 12 and 17 in the reporting month.

2.6.3 During the reporting month, major dust sources included trial pits excavation, piling works, demolition of existing parapet, removal of existing staircase, road surface maintenance and ELS 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 $\mu\text{g}/\text{m}^3$	AMS4	46	34-62	200	260
	AMS7A	48	38-62	171	
	AMS12	51	42-66	168	
	AMS17	49	41-59	171	

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 $\mu\text{g}/\text{m}^3$	AMS4	53	37-73	348	500
	AMS7A	53	40-76	344	
	AMS12	56	41-76	296	
	AMS17	54	43-69	338	

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	0873599
2	Casella	CEL-63X Series	Integrating Sound Level Meter	1488303
3	Casella	CEL-63X Series	Integrating Sound Level Meter	1488293
4	Casella	CEL-63X Series	Integrating Sound Level Meter	4181587
5	Casella	CEL-120 Series	Calibrator	2525896
6	Casella	CEL-120 Series	Calibrator	2525984
7	Casella	CEL-120 Series	Calibrator	4358250
8	Casella	CEL-120 Series	Calibrator	5230758

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 2b**.



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 (Site Boundary)	Residential	Façade
NMS6A	Wai Wah Centre (Site Boundary)	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 According to the onsite observation, no raining was observed and no wind speed over 5 m/s was measured during the noise monitoring. 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	61.4 – 67.0	75
NMS2	51.2 – 61.4	75
NMS3	61.8 – 67.4	75
NMS4	62.3 – 64.6	75
NMS5A	68.5 – 70.3	75
NMS6A	68.0 – 74.1	75
NMS7	60.8 – 64.3	75
NMS8	61.8 – 65.1	75
NMS9	61.7 – 68.4	75
NMS10A	63.2 – 64.9	65/70 ^[2]
NMS11	60.1 – 62.5	75
NMS12	62.3 – 63.9	65/70 ^[2]
NMS13	60.0 – 65.7	75
NMS14	61.4 – 67.2	75
NMS15	53.2 – 62.5	75
NMS16	55.3 – 62.9	75
NMS17	62.8 – 66.1	65/70 ^[2]
NMS18	54.4 – 62.7	75
NMS19	62.7 – 64.7	75
NMS20	62.7 – 64.7	75
NMS23	61.5 – 65.0	75
NMS24	61.4 – 63.4	75
NMS25A	63.1 – 68.3	75
NMS26	62.8 – 70.6	75
NMS27	61.7 – 66.4	65/70 ^[2]

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. The school calendar are provided in **Appendix E**.

3.7.6 Regular night time noise monitoring were conducted on 1, 6, 15, 20 and 29 June 2023 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	58.2 – 59.5	55	61.4
NMS2	52.0 – 53.6	55	49.7
NMS3	59.0 – 63.0	55	70.9
NMS4	56.3 – 61.0	55	62.6
NMS5A	65.9 – 66.6	55	67.9
NMS6A	69.3 – 70.1	55	71.5
NMS7	42.7 – 56.5 ^[2]	55	59.0
NMS8	61.8 – 62.1	55	64.4
NMS9	50.9 – 53.5 ^[2]	55	53.5
NMS11	52.5 – 54.3	55	53.2
NMS13	52.6 – 53.8	55	57.3
NMS14	52.3 – 54.4 ^[2]	55	54.1
NMS15	45.5 – 57.3 ^[2]	55	58.8
NMS16	52.8 – 58.1	55	60.1
NMS18	52.1 – 54.5	55	63.2
NMS19	53.8 – 54.8	55	61.7
NMS20	49.4 – 50.9	55	57.7
NMS23	43.6 – 58.8	55	59.9
NMS24	51.1 – 52.1 ^[2]	55	58.0
NMS25A	54.3 – 57.6	55	59.7
NMS26	57.1 – 60.8	55	61.2

Note: 1. Leq (15min) was measured at night-time (2300-0700).
2. If measured noise level (Leq) > limit level, Corrected noise level (CNL) is calculated as:

$$10 \times \log \left[\left(10^{\frac{\text{Measured noise level, Leq}}{10}} \right) - \left(10^{\frac{\text{Baseline noise level}}{10}} \right) \right]$$

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 noise monitoring, no exceedance case due to construction activity 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 is 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, 5 site inspections were carried out on 1, 8, 15, 19 and 29 June 2023. The site inspection held on 19 June 2023 were joint inspection with the IEC, ER, the Contractor and the ET during the reporting period.
- 6.1.3 The follow-up actions requested by ET and IEC during the site inspections were completed as 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**.
- 6.1.4 According to DSD's information, blockage of existing sewage occurred at Pai Tau Village on 12 June 2023. DSD carried out investigation and found that an existing manhole no. FMH4089640 near Tai Po Road within the site of CEDD contract no. NE/2017/05 was blocked by hard materials. This leads to sewerage overflow at Pau Tak Village. Details report for blockage of sewer manhole was shown in **Appendix N**.

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 1, 6, 15, 20 and 29 June 2023 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 One complaint was received in the report month. The details are listed below:

- A complaint was received by 1823 (CASE#3-7780620261) on 30th June 2023. The complainant is concerned about the noise nuisance generated by the night-time construction works activities near Wai Wah Centre.

According to the Main Contractor, all crane lorry and dump truck drivers were briefed to load all material at the lower level to minimize noise generation.

ET carried out regular night-time noise monitoring on 29th ^ 30th June 2023 at NMS5A, NMS6A and NMS8, no exceedance case was found. All the noise monitoring results at the above-mentioned station were lower than the limit level (55 dB(A)).

ET checked that the Main Contractor had complied with the conditions listed in CNP No.: GW-RN0627-23. The Main Contractor was reminded to strictly follow and fully comply with the requirement listed in the CNP and the mitigation measures stipulated in the EM&A Manual when carrying out construction activities during the restricted hour. All construction works should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers.

The Main Contractor was reminded to use the allowable PMEs listed in CNP condition 3.d for performing night-time construction works. Mitigation measures need to be applied according to the requirement in conditions 3.d and 4.d.

The Main Contractor was also be reminded to pay attention to CNP conditions 3a, 3.d.1, 3.d.5, 3.d.6, 3.d.7 and 3.d.14 for using PMEs and need to provide related noise mitigation measures when carrying out similar night-time construction work activities in the future.

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

7.2.3 Two non-compliance were found in the report month. The details are listed below:

- A non-compliance was found by ET on 8th June 2023. Three untreated muddy water discharge were found during the site inspection (Photos are shown in **Appendix O**). At Zone 3, a blue pipe was found and connected with the drainage system, no treatment facility was found near by the pump and blue pipe. At Zone 4, N4, untreated muddy



water surface run-off was observed, the water directly discharges into a guile without any treatment. At Zone 4, N4, untreated muddy water discharge was found through the blue pipe to the MTR area, no treatment facility was found near by the pump and blue pipe.

ET checked that the Main Contractor did not comply with the water discharge licence (WT00032446-2018).

According to the Main Contractor, all the illegal discharge point were stop immediately on 8th June 2023. A prevention plan of direct discharge of wastewater was provided by the Main Contractor on 21st June 2023.

The Main Contractor was reminded to wastewater generated from construction site should be treated before any discharge to meet the requirement on the water discharge licence (WT00032446-2018).

The Main Contractor was reminded to review all the temporary drainage system and provided sufficient wastewater treatment facilities before discharge.

- A non-compliance was found by ET on 29th June 2023. An untreated muddy water discharge was found during the site inspection (Photos are shown in **Appendix O**). At Zone 4, N4, the pump and blue pipe were found not connected to the sedimentation tank nearby. Untreated muddy water discharge was found through the blue pipe to the MTR area. The illegal discharge was stop by RE and ET immediately.

ET checked that the Main Contractor did not comply with the water discharge licence (WT00032446-2018).

The Main Contractor was reminded to review the prevention plan that they were provided on 21st June 2023 and submit the temporary drainage system management plan immediately.

The Main Contractor was reminded that all wastewaters should be treated before any discharge to meet the requirements under the water discharge licence.

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

- A washing facility should be provided at the entrance. (Zone 4, NB, N08)

Construction Noise Impact

- No specific observation was identified in the reporting month.

Water Quality Impact

- Sandbags and tarpaulin sheets should be provided around the gullies. (Zone 3, CM & Zone 5, CM)
- Tarpaulin sheets along the water barriers should be replaced. (Zone 4, CM)
- Blue pipe was observed and connected with the drainage system (Zone 3, SB) and Blue pipe was observed and connected to the MTR area (Zone 5, NB), no treatment facility was found around the pump and blue pipe. The blue pipe should be removed immediately.
- The soil along the water barriers should be cleared. (Zone 3, N4)
- Untreated Muddy water discharge was observed. The illegal discharge should be stopped immediately. (Zone 4, NB)
- Cut-off drain should be provided at the entrance.
- Sandbags should be provided around the gullies. (Zone 3, CM)
- Cut-off drain should be provided. Also, a washing facility should be provided for wheel washing. (N18)
- Sedimentation tank should be accessible for inspection (at Zone 3)

Chemical and Waste Management

- Drip trays should be provided for chemical containers. (Zone 4, CM & Zone 5, CM)
- Drip trays should be provided for the oil drums. (Zone 3, SB)
- The stagnant water and rocks inside the drip tray should be cleared. (Zone 3, N4)
- The stagnant water inside the drip tray should be cleared to prevent land- contamination. (Zone 3, CM)
- Waste should be cleared and an enclosed bin should be provided for good housekeeping. (Zone 4, CM)
- Drips tray should be provided for chemical containers and oil drums. (Zone 5, CM)
- Drip tray should be provided for Chemical containers. (at Zone 3).
- Stagnant water inside the drip tray should be cleared to prevent land- contamination. (at Zone 3).

Land Contamination

- Oil should be cleared as soon as possible. (Zone 4, CM)
- The oil and stagnant water should be cleared. (Zone 5, CM)
- Rock breakers should be placed on tarpaulin sheets. (Zone 3, N4)
- Tarpaulin sheet should be provided underneath of hydraulic breaker to prevent oil leakage (at zone 3).

Landscape and Visual Impact

- No specific observation was identified in the reporting month.

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



General Condition

- No specific observation was identified in the reporting month.

Permit / Licenses

- No specific observation was identified in the reporting month.



9. FUTURE KEY ISSUES

9.1 Construction Programme for the Next Month

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

- (1) Trial pits excavation at Zone 1 and 2
- (2) Road surface Maintenance at 1, 2, 3, 4 and 5
- (3) Noise Barrier Foundation Works at Zone 1, 2, 3, 4 and 5
- (4) Slope Reinstatement and Drainage Works at Zone 1
- (5) Noise Barrier Erection Works at Zone 1, 2 and 5
- (6) Relocation of Existing Fire Hydrants and relating Watermains at Zone 1, 2, 3, 4 and 5
- (7) Reinstatement of cycling track at Zone 1 and 4
- (8) Tree Works (including preservation / felling/ pruning/ transplantation) at Zone 3
- (9) Reinstatement of footpath at Zone 3
- (10) Reinstatement cycle track at Zone 3 and 4
- (11) Construction of Retaining Wall and Erection of Parapet at Zone 3
- (12) Lift no.2 Installation + SR5 Foundation Works + Construction of [former staircase] Abutment Wall at Zone 3
- (13) Construction Works for N263 & N264 Bridge Deck Widening + Construction of New Abutment Wall + Demolition of Existing Beam/ Slab + Road Diversion + Asphalt Works at Zone 3
- (14) Construction Works for Lift no.1 at Zone 3
- (15) Construction Works N262 Bridge Deck Widening at Zone 3
- (16) Drainage Works at Zone 3
- (17) Pilling Construction Works at Zone 3, 4 and 5
- (18) Road Drainage Works at Zone 4 and 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 1, 6, 15, 20 and 29 June 2023, respectively and no exceedance case was recorded between 2300 and 0700 of the next day during the reporting month.

10.1.4 5 site inspections were carried out on 1, 8, 15, 19 and 29 June 2023. Recommendations on mitigation measures on air quality, water quality, chemical and waste management and land contamination were given to the Contractor for remediating the deficiencies identified during the site inspections.

10.1.5 One complaint was received in the report month. The summaries are listed below:

- A complaint was received by 1823 (CASE#3-7780620261) on 30th June 2023. The complainant is concerned about the noise nuisance generated by the night-time construction works activities near Wai Wah Centre.

10.1.6 According to DSD's information, blockage of existing sewage occurred at Pai Tau Village on 12 June 2023. DSD carried out investigation and found that an existing manhole no. FMH4089640 near Tai Po Road within the site of CEDD contract no. NE/2017/05 was blocked by hard materials. This leads to sewerage overflow at Pau Tak Village.

10.1.7 Two non-compliance were found in the report month. The summaries are listed below:

- A non-compliance was found by ET on 8th June 2023. Three untreated muddy water discharge were found during the site inspection. At Zone 3, a blue pipe was found and connected with the drainage system, no treatment facility was found near by the pump and blue pipe. At Zone 4, N4, untreated muddy water surface run-off was observed, the water directly discharges into a guile without any treatment. At Zone 4, N4, untreated muddy water discharge was found through the blue pipe to the MTR area, no treatment facility was found near by the pump and blue pipe.
- A non-compliance was found by ET on 29th June 2023. An untreated muddy water discharge was found during the site inspection. At Zone 4, N4, the pump and blue pipe were found not connected to the sedimentation tank nearby. Untreated muddy water discharge was found through the blue pipe to the MTR area. The illegal discharge was stop by RE and ET immediately.

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

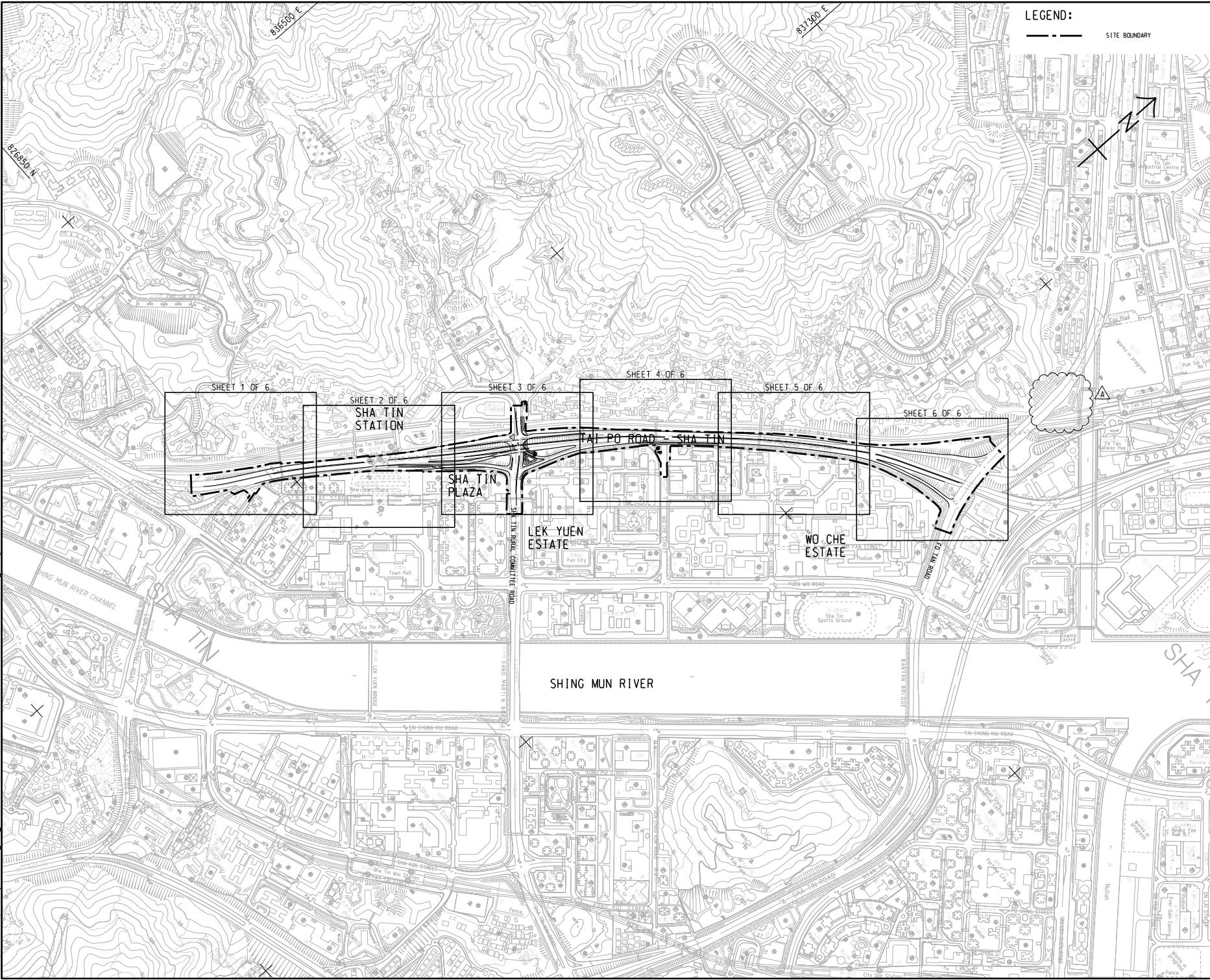
Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Figure 1

Project General Layout

Project Management: H.H. Ho, Design: F.H.S.C., Client: CEDD, Consultant: AECOM, Sub-consultants: AECOM Asia Company Ltd., Scale: A1 (841mm x 594mm), Date: 2/22/2018, File: D:\aecom\60481656\WTP SIT\CAD\PRODUCTION\DRAWING\CONTRACT\11000\G1_1000.dwg



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

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

CONSULTANT
 AECOM Asia Company Ltd.
 www.aecom.com

SUB-CONSULTANTS
 沙利工程有限公司

ISSUE/REVISION

NO.	DATE	DESCRIPTION	CHK.
A	FEB. 18	TENDER ADDENDUM NO.2	BBC
B	JAN. 18	TENDER DRAWING	BCC
IR	DATE	DESCRIPTION	CHK.
	日期	内容摘要	核准

STATUS

SCALE: A1 1:4000 DIMENSION UNIT: METRES

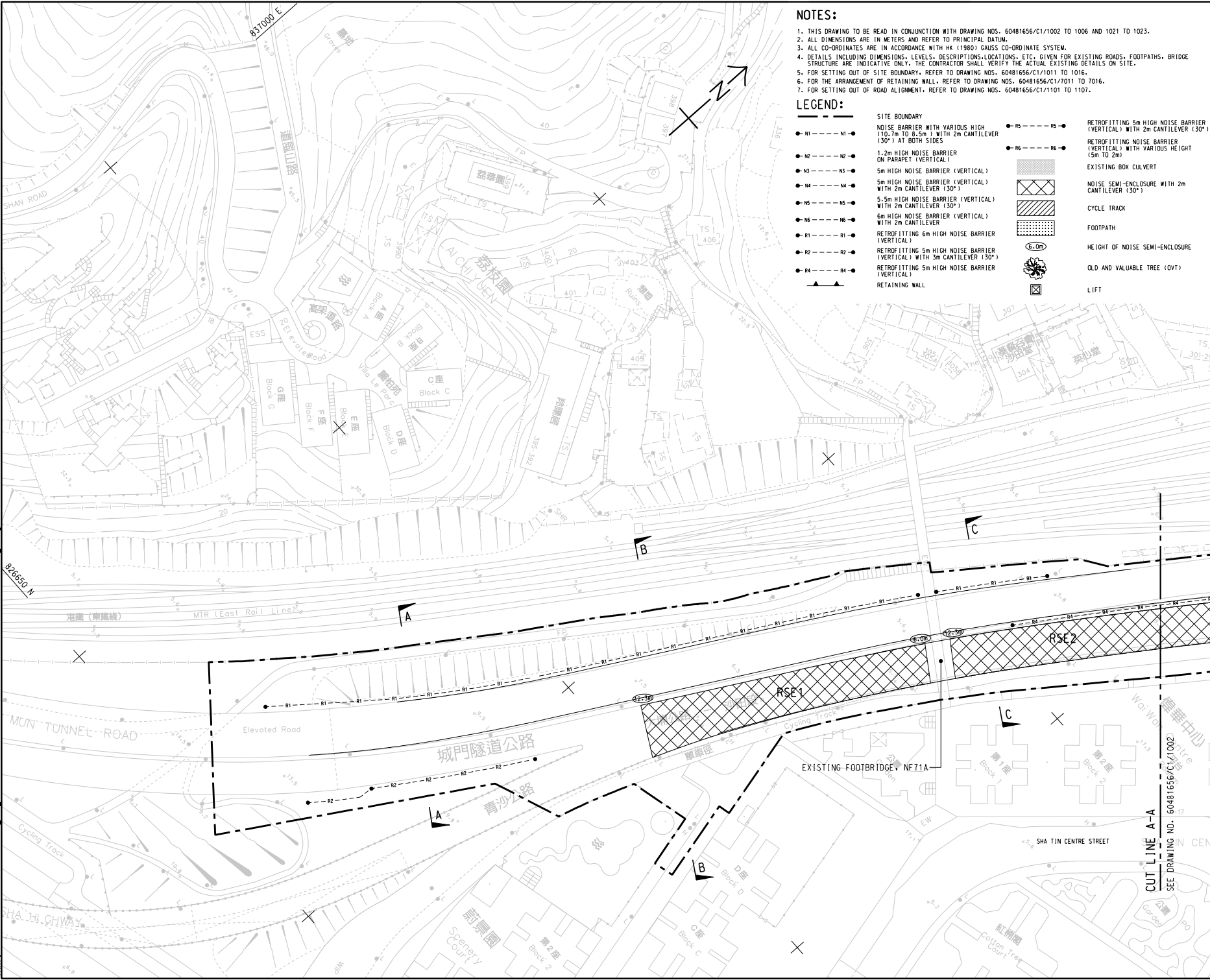
KEY PLAN: FIGURE 1.1a

CONTRACT NO.
 NE/2017/05

SHEET TITLE
 圖則名稱
KEY PLAN
 圖則編號
 FIGURE 1.1a

SHEET NUMBER
 圖則編號
 60481656/C1/1000A

Project Management In-charge: **Design: FMSD** Checked: **BCC** Approved: **CNN**
 4/1/2018
 PLOT FILE BY: **MEB**
 DATE: **2017/11/27**



NOTES:

1. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING NOS. 60481656/C1/1002 TO 1006 AND 1021 TO 1023.
2. ALL DIMENSIONS ARE IN METERS AND REFER TO PRINCIPAL DATUM.
3. ALL CO-ORDINATES ARE IN ACCORDANCE WITH HK (1980) GAUSS CO-ORDINATE SYSTEM.
4. 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.
5. FOR SETTING OUT OF SITE BOUNDARY, REFER TO DRAWING NOS. 60481656/C1/1011 TO 1016.
6. FOR THE ARRANGEMENT OF RETAINING WALL, REFER TO DRAWING NOS. 60481656/C1/1011 TO 1016.
7. FOR SETTING OUT OF ROAD ALIGNMENT, REFER TO DRAWING NOS. 60481656/C1/1101 TO 1107.

LEGEND:

<ul style="list-style-type: none"> ● N1 --- N1 ● ● N2 --- N2 ● ● N3 --- N3 ● ● N4 --- N4 ● ● N5 --- N5 ● ● N6 --- N6 ● ● R1 --- R1 ● ● R2 --- R2 ● ● R4 --- R4 ● ▲▲▲ 	<ul style="list-style-type: none"> ● R5 --- R5 ● ● R6 --- R6 ● 	<ul style="list-style-type: none"> RETROFITTING 5m HIGH NOISE BARRIER (VERTICAL) WITH 2m CANTILEVER (130°) AT BOTH SIDES 1.2m HIGH NOISE BARRIER ON PARAMET (VERTICAL) 5m HIGH NOISE BARRIER (VERTICAL) 5m HIGH NOISE BARRIER (VERTICAL) WITH 2m CANTILEVER (30°) 5.5m HIGH NOISE BARRIER (VERTICAL) WITH 2m CANTILEVER (30°) 6m HIGH NOISE BARRIER (VERTICAL) WITH 2m CANTILEVER RETROFITTING 6m HIGH NOISE BARRIER (VERTICAL) RETROFITTING 5m HIGH NOISE BARRIER (VERTICAL) WITH 3m CANTILEVER (130°) RETROFITTING 5m HIGH NOISE BARRIER (VERTICAL) RETAINING WALL 	<ul style="list-style-type: none"> RETROFITTING 5m HIGH NOISE BARRIER (VERTICAL) WITH 2m CANTILEVER (130°) RETROFITTING NOISE BARRIER (VERTICAL) WITH VARIOUS HEIGHT (5m TO 2m) EXISTING BOX CULVERT NOISE SEMI-ENCLOSURE WITH 2m CANTILEVER (130°) CYCLE TRACK FOOTPATH HEIGHT OF NOISE SEMI-ENCLOSURE OLD AND VALUABLE TREE (OVT) LIFT
--	--	--	---

AECOM

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

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

CONSULTANT
 AECOM Asia Company Ltd.
 www.aecom.com

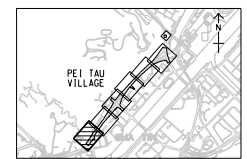
SUB-CONSULTANTS

ISSUE/REVISION

NO.	DATE	DESCRIPTION	CHK.
-	JAN 18	TENDER DRAWING	BCC

SCALE
 A1:1:500 DIMENSION UNIT: METRES

KEY PLAN A1:1:4000

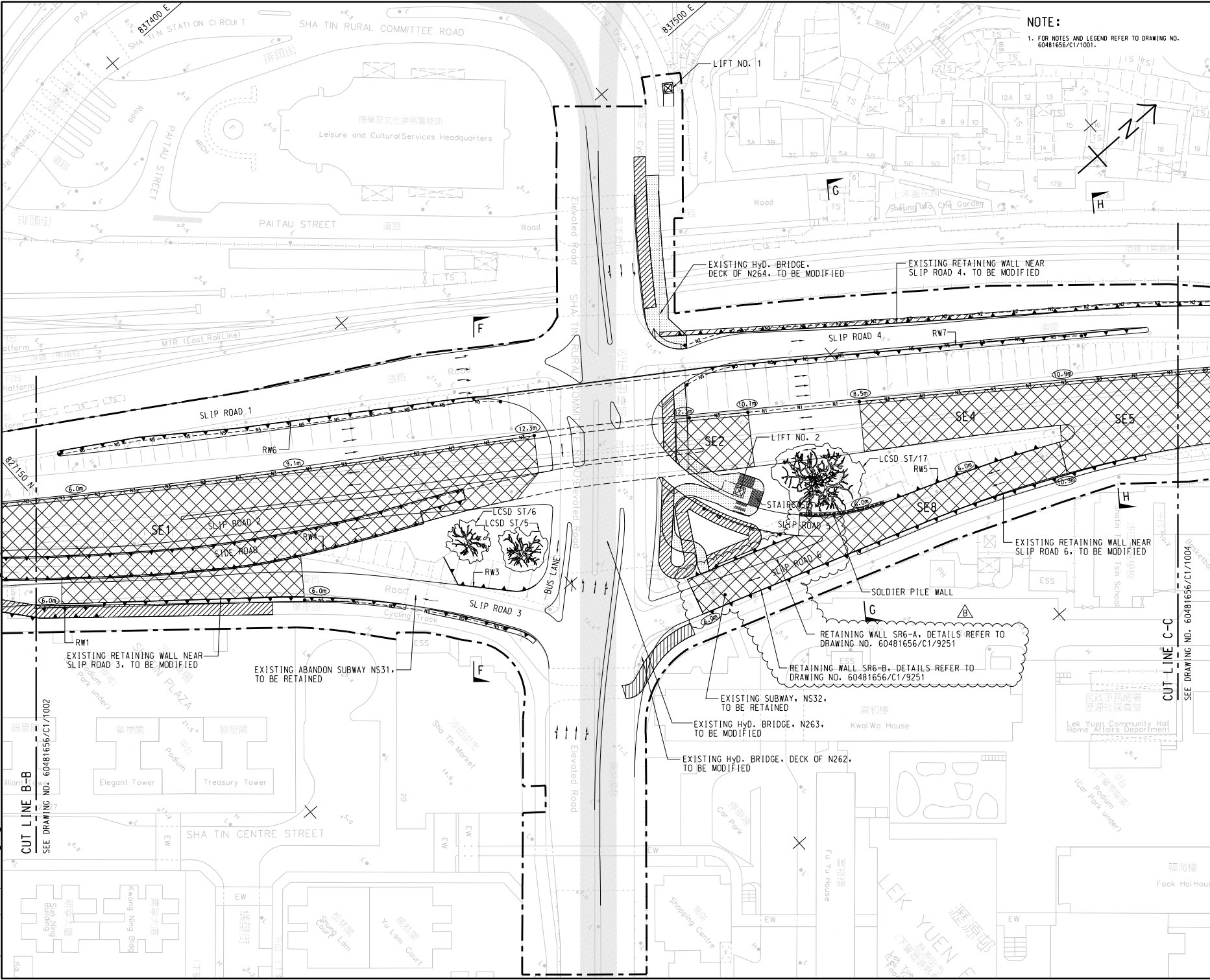


CONTRACT NO.
 NE/2017/05

SHEET TITLE
 GENERAL LAYOUT PLAN
 FIGURE 1.1 b

SHEET NUMBER
 60481656/C1/1001

Project Management: Hubler; Design: FMSC; Checker: BSC; Approved: CWN; ISO A1 84mm x 84mm



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

AECOM

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

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

CONSULTANT
AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS

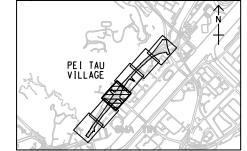
ISSUE/REVISION

NO.	DATE	DESCRIPTION	CHK
B	FEB. 18	TENDER ADDENDUM NO.2	BCC
A	FEB. 18	TENDER ADDENDUM NO.1	BCC
-	JAN. 18	TENDER DRAWING	BCC

STATUS

SCALE
A1: 1:500
DIMENSION UNIT
METRES

KEY PLAN
A1: 1:40000



CONTRACT NO.
NE/2017/05

SHEET TITLE
GENERAL LAYOUT PLAN
FIGURE 1,1 b

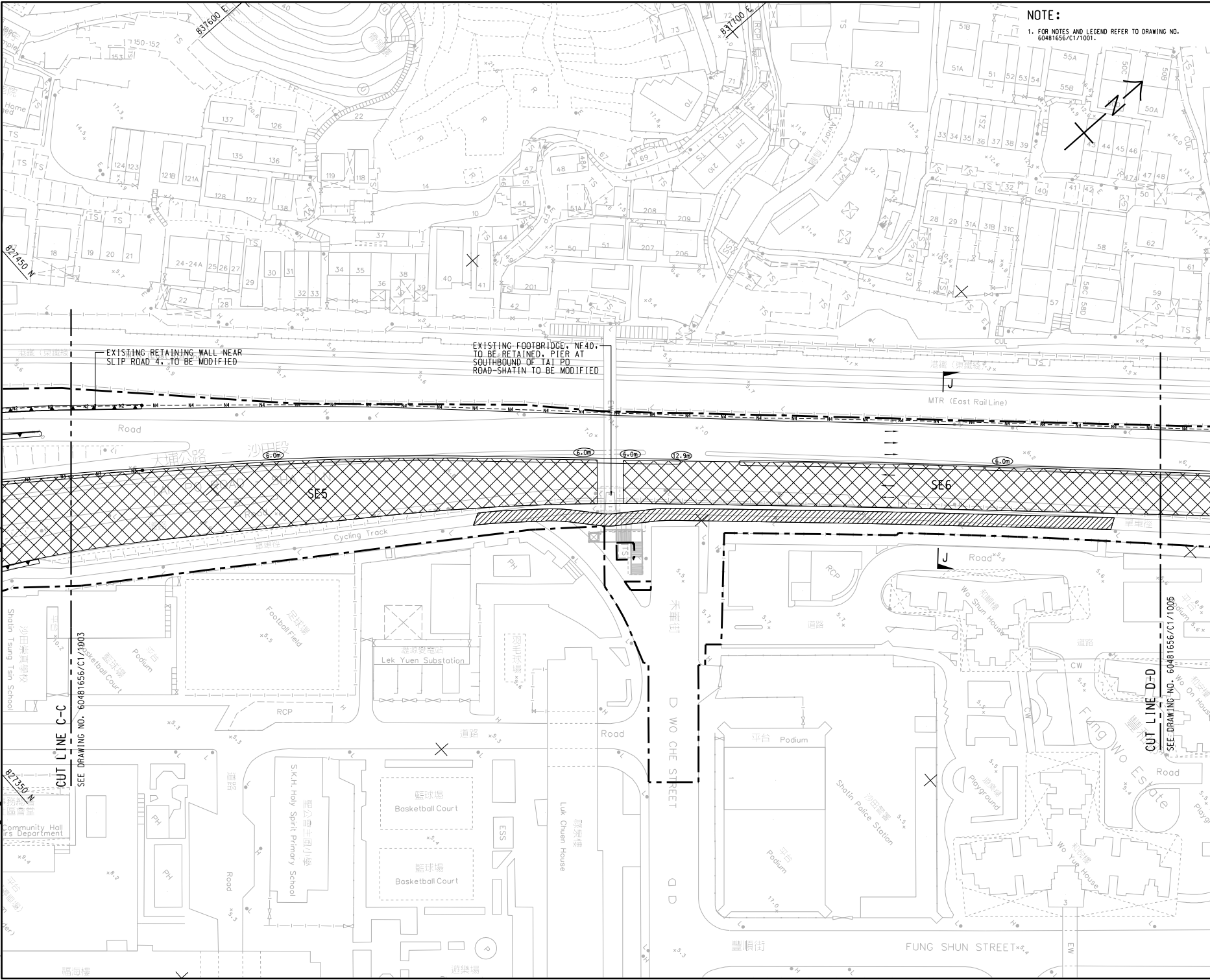
SHEET NUMBER
60481656/C1/1003B

CUT LINE C-C
SEE DRAWING NO. 60481656/C1/1004

CUT LINE B-B
SEE DRAWING NO. 60481656/C1/1002

2018/2/27
PE1 File: PE1_VUMIT
C:\ATL\PE1\ascom\spw\best\Rev\com\AECOM_D892\AS\Documents\60481656\WTF_SITCAD_PRODUCT\DRAWING\CONTRACT\11000\C1_1002.dwg

15/01/2018 11:15:10
 P:\1\151218\AS\W\MT\DWG\KST\TAIPO\66-AS\COMMON\AECOM\DS02_ASD\Documents\60481656\WTP-STC\CAD\PRODUCTION\DRAWING\CONTRACT\11000\11000\1004.dgn
 Project Management: Helmut
 Designer: F.H.S.C. Cheuk-wai BCC
 Approved: C.W.N.
 C.W.N.
 ISO A1 842mm x 841mm



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

AECOM

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

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

CONSULTANT
 AECOM Asia Company Ltd.
 www.aecom.com

SUB-CONSULTANTS
 沙田工程顧問公司

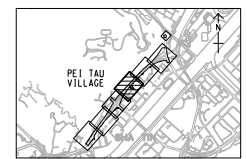
ISSUE/REVISION

NO.	DATE	DESCRIPTION	CHK.
1	JAN. 18	TENDER DRAWING	BCC
IR	DATE	DESCRIPTION	CHK.
IR	DATE	DESCRIPTION	CHK.

STATUS
 此圖紙現正處於：() 預備階段 () 設計階段 () 招標階段 () 合約階段 () 施工階段 () 竣工階段

SCALE
 A1: 1:500
 DIMENSION UNIT
 METRES

KEY PLAN
 A1: 1:40000



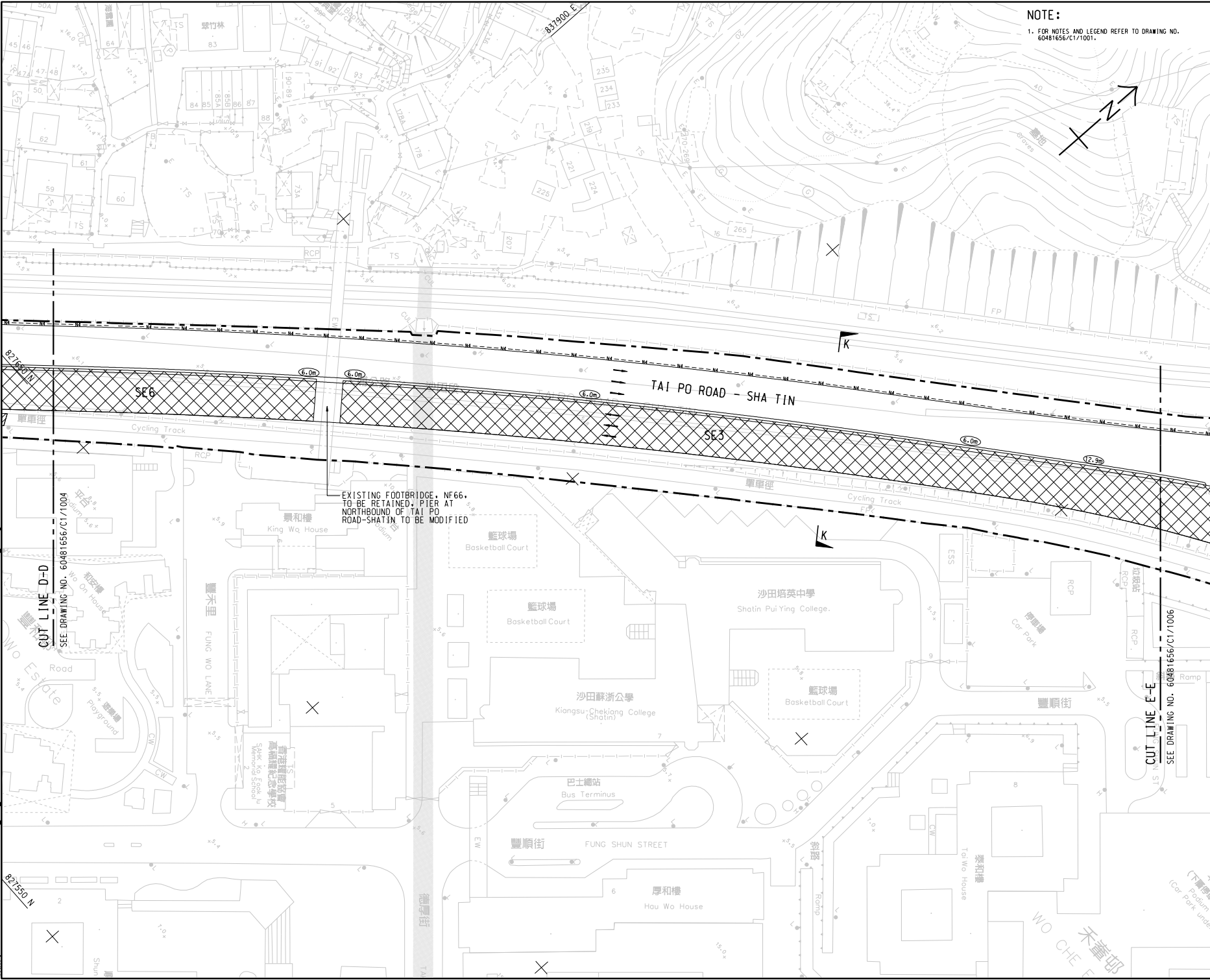
CONTRACT NO.
 NE/2017/05

SHEET TITLE
 GENERAL LAYOUT PLAN
 FIGURE 1.1b

SHEET NUMBER
 60481656/C1/1004

This drawing has been prepared for the use of AECOM and its consultants. It is not to be used, modified, reproduced or distributed by any third party without the prior written consent of AECOM. AECOM accepts no responsibility for any errors or omissions in this drawing. All measurements shall be taken from the master drawings.

19/12/2018
 PLOT FILE BY: XE/IB
 DATL: jerry.koh@hstt.com.hk
 Project Management In-charge: Designer: FMS/C Checked: BCC Approved: CWN
 IBO A1 564mm x 841mm
 Project Management In-charge: Designer: FMS/C Checked: BCC Approved: CWN
 14/12/2018
 PLOT FILE BY: XE/IB
 DATL: jerry.koh@hstt.com.hk
 Project Management In-charge: Designer: FMS/C Checked: BCC Approved: CWN



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

AECOM

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

CLIENT
土木工務拓展署
Civil Engineering and Development Department

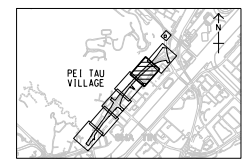
CONSULTANT
AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS

ISSUE/REVISION

NO.	DATE	DESCRIPTION	CHK
1	JAN 18	TENDER DRAWING	BCC

SCALE
A1: 1:500
DIMENSION UNIT
METRES



CONTRACT NO.
NE/2017/05

SHEET TITLE
GENERAL LAYOUT PLAN
FIGURE 1.1b

SHEET NUMBER
60481656/C1/1005

This drawing has been prepared for the use of AECOM only. It may not be used, modified, reproduced or made open to the public, except as may be permitted by AECOM. AECOM does not accept any responsibility or liability for any errors or omissions in this drawing.

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Figure 2a

Air Monitoring Locations

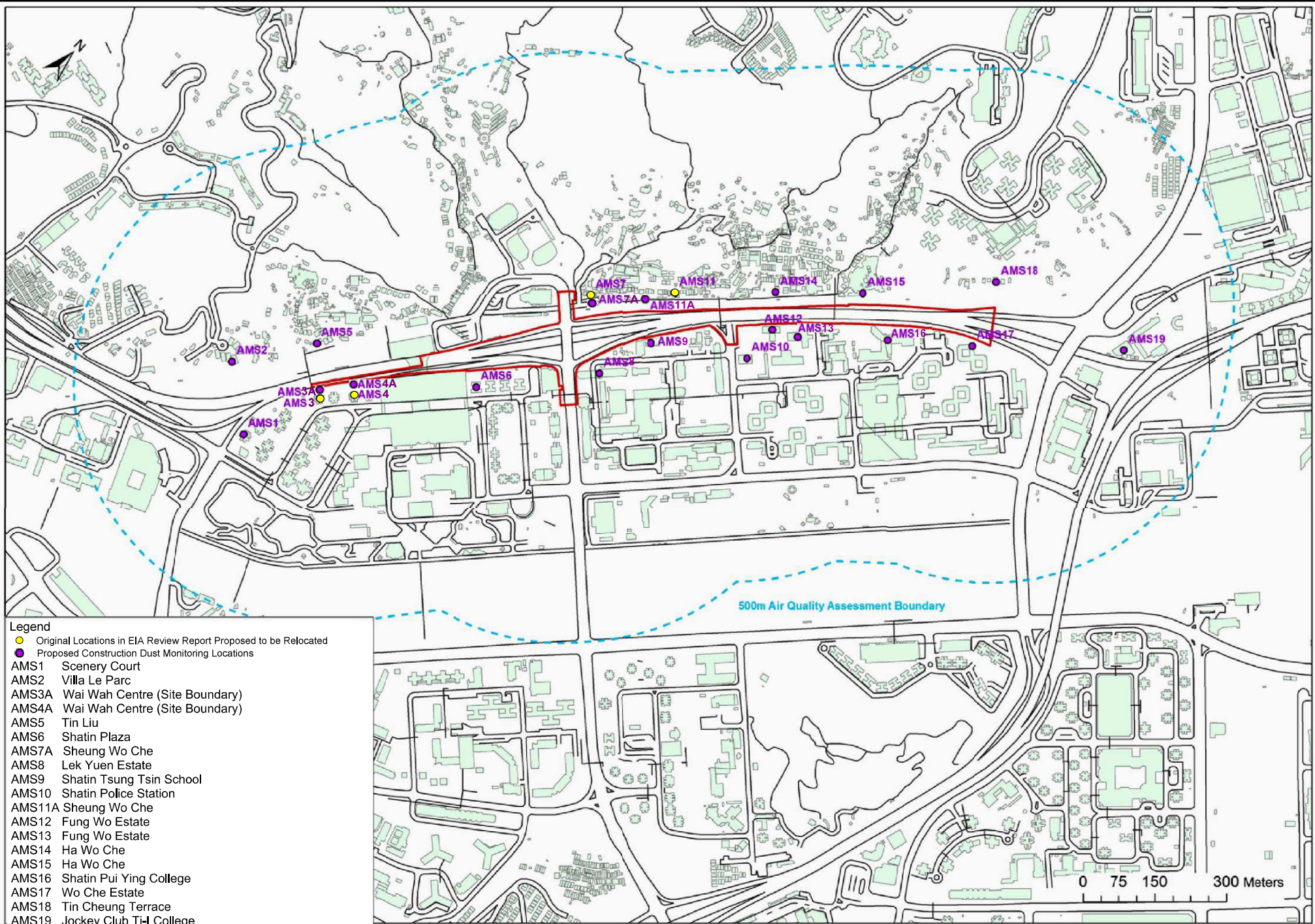


Figure 2a Air Quality Monitoring Locations

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Figure 2b

Noise Monitoring Locations

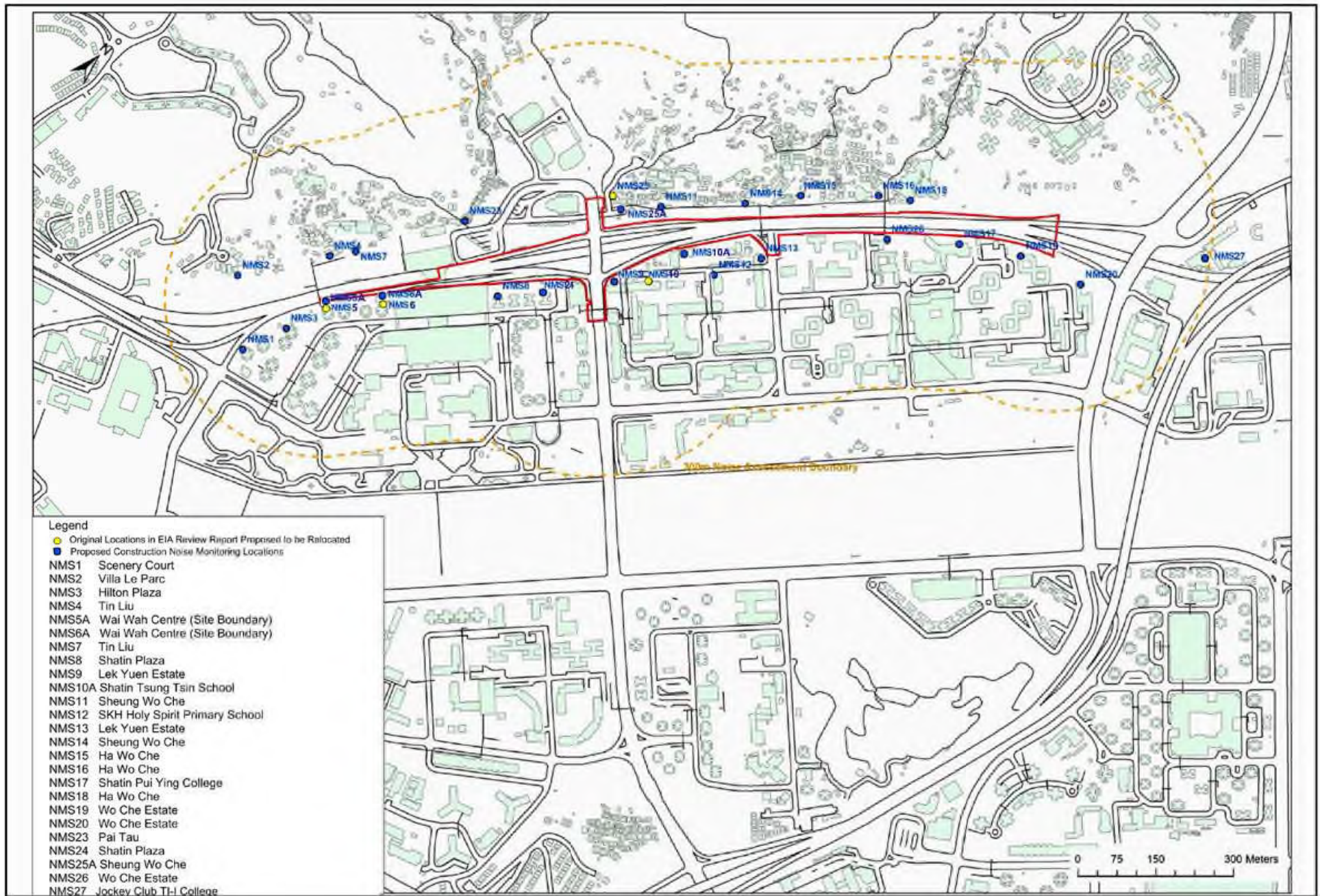


Figure 2b Noise Monitoring Locations

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Appendix A

Construction Programme

Activity ID	Activity Name	Original Duration	Remaining Duration	3MRP Start	3MRP Finish	AP13 Start	AP13 Finish	2023						
								Jun 60	Jul 61	Aug 62	Sep 63	Oct 64		
Z3SU5100	Zone 3c (near SR3) Stage 1 construct RW1, SR3 & subway NS30	162	0	02-Dec-20 A	25-Apr-22 A	01-Dec-20	22-Jun-21							
Z3SU5110	Zone 3c (near SR3) Stage 1 SR2 foundation & RW4 410 to 414	106	246	07-Sep-20 A	27-Apr-24	30-Jan-21	15-Jun-21							
UTILITIES DIVERSION														
CENTRAL BARRIER														
Z3_2890	UU_CLP-abandoned 11kv cable for SE5 CH1950-2100 150m	25	25	30-Jun-23	29-Jul-23	05-Sep-22	07-Oct-22							UU_CLP-abandoned 11kv cable for SE5 CH1950-2100 150m
NOISE BARRIER AND SEMI-ENCLOSURE														
PILE FOUNDATION WORKS														
CENTRAL BARRIER														
Z3_1040	SE1-1_mini piles for S1E1-01P & S1E1-02P (12nr ver) (N/B Stag1b + S/B Stage 3)	48	0	01-Apr-23 A	12-Jun-23 A	29-Oct-22	23-Dec-22							SE1-1_mini piles for S1E1-01P & S1E1-02P (12nr ver) (N/B Stag1b + S/B Stage 3)
SOUTHBOUND														
Z3_1514	SE1-1_mini piles for S1E1-51P (6nr ver) (N/B Stag1b + S/B Stage 4)	24	22	24-Jun-23 A	12-Oct-23	28-Nov-22	24-Dec-22							
PILE CAP AND FOOTING														
NORTHBOUND														
Z3_1000	N4_ELS for footing construction N4-01 to N4-11 (130m_2 side)	72	33	17-Feb-23 A	09-Aug-23	09-Jul-22	03-Oct-22							N4_ELS for footing construction N4-01 to N4-11 (130m_2 side)
CENTRAL BARRIER														
Z3_1110	SE1-1_ELS for cap construction S1E1-01P & S1E1-02P (18m_2 side) (N/B Stag1b + S/B Stage 3)	5	5	24-Jun-23 A	04-Aug-23	24-Dec-22	31-Dec-22							SE1-1_ELS for cap construction S1E1-01P & S1E1-02P (18m_2 side) (N/B Stag1b + S/B Stage 3)
Z3_1120	SE1-1_pile cap construction S1E1-01P & S1E1-02P (2nr) (N/B Stag1b + S/B Stage 3)	18	18	04-Aug-23	25-Aug-23	03-Jan-23	26-Jan-23							SE1-1_pile cap construction S1E1-01P & S1E1-02P (2nr) (N/B Stag1b + S/B Stage 3)
Z3_1130	SE1-1_backfill & remove ELS (N/B Stag1b + S/B Stage 3)	3	3	25-Aug-23	29-Aug-23	27-Jan-23	30-Jan-23							SE1-1_backfill & remove ELS (N/B Stag1b + S/B Stage 3)
Z3_1140	SE1-2_ELS for footing/cap construction S1E2-01P to S1E2-07 (48m_2 side) (N/B Stag1b + S/B Stage 3)	14	6	31-Jan-23 A	17-Jul-23	18-Oct-22	02-Nov-22							SE1-2_ELS for footing/cap construction S1E2-01P to S1E2-07 (48m_2 side) (N/B Stag1b + S/B Stage 3)
Z3_1150	SE1-2_cap/footing construction S1E2-01P to S1E2-07 (7nr) (N/B Stag1b + S/B Stage 3)	72	31	04-Feb-23 A	22-Aug-23	23-Nov-22	21-Feb-23							SE1-2_cap/footing construction S1E2-01P to S1E2-07 (7nr) (N/B Stag1b + S/B Stage 3)
Z3_1170	SE1-2_backfill & remove ELS (N/B Stag1b + S/B Stage 3)	8	6	15-Mar-23 A	29-Aug-23	22-Feb-23	02-Mar-23							SE1-2_backfill & remove ELS (N/B Stag1b + S/B Stage 3)
Z3_1200	SE1-3_backfill & remove ELS (N/B Stag1b + S/B Stage 3)	7	4	14-Mar-23 A	21-Jul-23	30-Dec-22	07-Jan-23							SE1-3_backfill & remove ELS (N/B Stag1b + S/B Stage 3)
Z3_1220	SE1-4_footing construction S1E4-01 to S1E4-05 (5nr) (N/B Stag1b + S/B Stage 3)	54	5	07-Mar-23 A	22-Jul-23	30-Dec-22	07-Mar-23							SE1-4_footing construction S1E4-01 to S1E4-05 (5nr) (N/B Stag1b + S/B Stage 3)
Z3_1230	SE1-4_backfill & remove ELS (N/B Stag1b + S/B Stage 3)	12	11	22-Mar-23 A	29-Jul-23	01-Mar-23	14-Mar-23							SE1-4_backfill & remove ELS (N/B Stag1b + S/B Stage 3)
Z3_1240	SE1-5_ELS for footing construction S1E5-01 to S1E5-05 (51m_2 side) (N/B Stag1a + S/B Stage 0)	15	6	16-May-23 A	07-Jul-23	11-Aug-22	27-Aug-22							SE1-5_ELS for footing construction S1E5-01 to S1E5-05 (51m_2 side) (N/B Stag1a + S/B Stage 0)
Z3_1250	SE1-5_footing construction S1E5-01 to S1E5-05 (5nr) (N/B Stag1a + S/B Stage 0)	54	38	02-Jun-23 A	21-Aug-23	29-Aug-22	02-Nov-22							SE1-5_footing construction S1E5-01 to S1E5-05 (5nr) (N/B Stag1a + S/B Stage 0)
Z3_1260	SE1-5_backfill & remove ELS (N/B Stag1a + S/B Stage 0)	9	9	21-Aug-23	31-Aug-23	03-Nov-22	12-Nov-22							SE1-5_backfill & remove ELS (N/B Stag1a + S/B Stage 0)
Z3_1270	SE1-6_ELS for cap construction S1E6-01P (16m_2 side) (N/B Stag1a + S/B Stage 0)	5	5	08-Jul-23	13-Jul-23	29-Aug-22	02-Sep-22							SE1-6_ELS for cap construction S1E6-01P (16m_2 side) (N/B Stag1a + S/B Stage 0)
Z3_1280	SE1-6_pile cap construction S1E6-01P (1nr) (N/B Stag1a + S/B Stage 0)	18	18	21-Aug-23	11-Sep-23	03-Nov-22	23-Nov-22							SE1-6_pile cap construction S1E6-01P (1nr) (N/B Stag1a + S/B Stage 0)
Z3_1290	SE1-6_backfill & remove ELS (N/B Stag1a + S/B Stage 0)	3	3	11-Sep-23	14-Sep-23	24-Nov-22	26-Nov-22							SE1-6_backfill & remove ELS (N/B Stag1a + S/B Stage 0)
Z3_1310	SE2_footing construction S2E1-01 (1nr) (N/B Stag1a + S/B Stage 0)	18	0	25-May-23 A	09-Jun-23 A	17-Aug-22	06-Sep-22							SE2_footing construction S2E1-01 (1nr) (N/B Stag1a + S/B Stage 0)
Z3_1320	SE2_backfill & remove ELS (N/B Stag1a + S/B Stage 0)	3	0	12-Jun-23 A	12-Jun-23 A	07-Sep-22	09-Sep-22							SE2_backfill & remove ELS (N/B Stag1a + S/B Stage 0)
Z3_1390	SE5-1_ELS for cap/footing construction S5E1-01P to S5E1-04 (56m_2 side) (N/B Stag1b + S/B Stage 3)	16	8	11-Apr-23 A	20-Sep-23	19-Nov-22	08-Dec-22							SE5-1_ELS for cap/footing construction S5E1-01P to S5E1-04 (56m_2 side) (N/B Stag1b + S/B Stage 3)
Z3_1420	SE5-2_ELS for footing/cap construction S5E2-01 to S5E2-12 (132m_2 side) (N/B Stag1b + S/B Stage 3)	37	37	31-Jul-23	11-Sep-23	07-Oct-22	19-Nov-22							SE5-2_ELS for footing/cap construction S5E2-01 to S5E2-12 (132m_2 side) (N/B Stag1b + S/B Stage 3)
Z3_1430	SE5-2_cap/footing construction S5E2-01 to S5E2-12 (12nr) (N/B Stag1b + S/B Stage 0)	108	108	07-Aug-23	13-Dec-23	14-Oct-22	24-Feb-23							SE5-2_cap/footing construction S5E2-01 to S5E2-12 (12nr) (N/B Stag1b + S/B Stage 0)
SOUTHBOUND														
Z3_1680	SE5-1_backfill & remove ELS	6	6	24-Jul-23	29-Jul-23	04-Jan-23	10-Jan-23							SE5-1_backfill & remove ELS
Z3_1710	SE5-2_backfill & remove ELS	22	22	24-Jul-23	17-Aug-23	19-May-23	14-Jun-23							SE5-2_backfill & remove ELS
SOUTHBOUND SLIP ROAD														
Z3_1800	SE8-1B_backfill & remove ELS	3	3	03-Jul-23	05-Jul-23	01-Aug-22	03-Aug-22							SE8-1B_backfill & remove ELS
Z3_1830	SE8-2_backfill & remove ELS	1	1	03-Jul-23	03-Jul-23	05-Sep-22	05-Sep-22							SE8-2_backfill & remove ELS
STRUCTURE STEEL FRAME														
NORTHBOUND SLIP ROAD														
Z3_1860	N2_SR4_erect steel posts PK1 to PK41 (41nr)	11	1	11-Jul-22 A	30-Aug-23	06-Sep-22	21-Sep-22							N2_SR4_erect steel posts PK1 to PK41
Z3_1880	N5_RW7_erect steel posts PL1 to PL32 (32nr)	8	8	30-Aug-23	11-Sep-23	21-Sep-22	03-Oct-22							N5_RW7_erect steel posts
ROADWORKS AND REMAINING WORKS														
ROADWORKS														
NORTHBOUND SLIP ROAD														
Z3_2700	Drainage construction MA06 to MA01 222m	139	139	30-Jun-23	13-Dec-23	21-Jul-22	05-Jan-23							Drainage construction MA06 to MA01 222m
CENTRAL BARRIER														
Z3_2780	Drainage construction MN60 to MN97 220m	69	69	24-Jul-23	13-Oct-23	19-Nov-22	15-Feb-23							Drainage construction MN60 to MN97 220m
SOUTHBOUND														
Z3_3200	Drainage construction MS72 to MS73 93m	59	59	24-Jul-23	30-Sep-23	19-May-23	29-Jul-23							Drainage construction MS72 to MS73 93m
Z3_3210	Sewerage diversion FM1 to FM2 88m 825mm	55	2	31-Dec-22 A	04-Jul-23	11-Aug-22	17-Oct-22							Sewerage diversion FM1 to FM2 88m 825mm










■ Remaining Level of Effort
 ■ Remaining Work
 ■ Actual Level of Effort
 ■ Critical Remaining Work
 ■ Actual Work
 ■ Primary Baseline
 ◆ Milestone
 ◆ Baseline Milesto...

Contract No. NE/2017/05
Road Widening and Retrofitting Noise Barriers on Tai Po Road (Sha Tin)
3 Months Rolling Programme (30/06/23)

Date	Revision	Checked	Approved
08-Jul-23	3MRP DWP 2306	EGA	

3 of 6

Activity ID	Activity Name	Original Duration	Remaining Duration	3MRP Start	3MRP Finish	AP13 Start	AP13 Finish	2023					
								Jun 60	Jul 61	Aug 62	Sep 63	Oct 64	
Z4SU1100	Zone 4 NF66 Construction	220	0	20-Jul-20 A	14-Mar-23 A	31-Aug-20	31-May-21						
UTILITIES DIVERSION													
NORTHBOUND													
Z4_1280	UU_CATV-slew cable for N4 CH2190-2400 210m	25	25	30-Jun-23	29-Jul-23	05-Aug-22	02-Sep-22						UU_CATV-slew cable for N4 CH2190-2400 210m
SOUTHBOUND													
Z4_1380	UU_Salt watermain for SE6 CH2275-2345 56m 700mm	20	20	30-Jun-23	25-Jul-23	11-Apr-22	09-May-22						UU_Salt watermain for SE6 CH2275-2345 56m 700mm
NOISE BARRIER AND SEMI-ENCLOSURE													
PILE FOUNDATION WORKS													
CENTRAL BARRIER													
Z4_1060	SE6_mini piles for S6E1-01A & 01B (10nr ver)	30	0	09-Jan-23 A	21-Jun-23 A	03-Nov-22	07-Dec-22						SE6_mini piles for S6E1-01A & 01B (10nr ver)
PILE CAP AND FOOTING													
NORTHBOUND													
Z4_1000	N4_ELS for pile cap construction N4-12P to N4-27P (231m_2 side)	64	43	20-May-23 A	18-Sep-23	03-Sep-22	19-Nov-22						N4_ELS for pile cap
Z4_1010	N4_pile cap/stem wall construction N4-12P to N4-27P (15nr)	90	86	29-Jun-23 A	10-Nov-23	14-Oct-22	02-Feb-23						
CENTRAL BARRIER													
Z4_1081	SE6_Re-align TTA for central median footing S6E1-11 to S6E1-16	24	24	12-Jul-23	09-Aug-23	06-Sep-22	06-Oct-22						SE6_Re-align TTA for central median footing S6E1-11 to S6E1-16
Z4_1082	SE6_ELS for footing/cap construction S6E1-11 to S6E1-16 (67m_2 side)	34	34	09-Aug-23	18-Sep-23	07-Oct-22	15-Nov-22						SE6_ELS for footing
Z4_1084	SE6_cap/footing/stem wall construction S6E1-11 to S6E1-16 (6nr)	108	108	29-Aug-23	09-Jan-24	27-Oct-22	08-Mar-23						
STRUCTURE STEEL FRAME													
SOUTHBOUND													
Z4_1180	SE6_erect steel posts PV1 to PV59 (59nr)	15	2	31-Aug-22 A	04-Jul-23	09-Jun-22	27-Jun-22						SE6_erect steel posts PV1 to PV59 (59nr)
ROADWORKS AND REMAINING WORKS													
ROADWORKS													
SOUTHBOUND													
Z4_1250	Drainage construction MS83 to MS87 279m	47	9	15-Jun-22 A	12-Jul-23	05-May-22	30-Jun-22						Drainage construction MS83 to MS87 279m
WORK BETWEEN FOOTBRIDGE NF66 AND FO TAN ROAD (ZONE 5)													
PRELIMINARIES WORKS													
SUMMARY PROGRAMME													
Z5SU1005	Zone 5 Stage 1 NB & SB foundation/stem wall	467	93	10-Feb-20 A	19-Oct-23	31-Mar-20	28-Oct-21						
UTILITIES DIVERSION													
SOUTHBOUND													
Z5_1860	UU_Salt watermain for SE3 CH2360-2530 179m 700mm	60	60	25-Jul-23	05-Oct-23	09-May-22	20-Jul-22						UU_Salt watermain for SE3 CH2360-2530 179m 700mm
NOISE BARRIER AND SEMI-ENCLOSURE													
PILE FOUNDATION WORKS													
CENTRAL BARRIER													
Z5_1090	SE3-1_mini piles for S3E1-02P, 14P, S3E1-20P to 22P (36nr ver)	36	14	17-May-23 A	21-Aug-23	22-Oct-22	02-Dec-22						SE3-1_mini piles for S3E1-02P, 14P, S3E1-20P to 22P (36nr ver)
Z5_1980	SE3-2_mini piles for S3E2-11P (6nr ver)	12	0	15-May-23 A	03-Jun-23 A	03-Dec-22	16-Dec-22						SE3-2_mini piles for S3E2-11P (6nr ver)
PILE CAP AND FOOTING													
NORTHBOUND													
Z5_1020	N4_ELS for footing/cap construction N4-29P to N4-51 (322m_2 side)	161	45	01-Feb-21 A	22-Aug-23	11-May-21	20-Nov-21						N4_ELS for footing/cap construction N4-29P to N4-51 (322m_2 side)
Z5_1030	N4_cap/footing/stem wall construction N4-29 to N4-51 (23nr)	216	50	27-Mar-21 A	15-Sep-23	25-May-21	12-Feb-22						N4_cap/footing/stem wall construction N4-29 to N4-51 (23nr)
Z5_1050	N4_backfill & remove ELS	54	12	14-Apr-21 A	19-Oct-23	28-Oct-22	03-Jan-23						N4_backfill & remove ELS
CENTRAL BARRIER													
Z5_1100	SE3-1_ELS for footing/cap construction S3E1-01 to S3E1-22p (305m_2 side)	84	72	18-May-23 A	31-Oct-23	24-Aug-22	02-Dec-22						SE3-1_ELS for footing/cap construction S3E1-01 to S3E1-22p (305m_2 side)
SOUTHBOUND													
Z5_1190	SE3-1_ELS for footing/cap construction S3E1-51P to S3E1-74P (313m_2 side)	58	3	03-Jan-22 A	04-Jul-23	29-Apr-22	09-Jul-22						SE3-1_ELS for footing/cap construction S3E1-51P to S3E1-74P (313m_2 side)
Z5_1200	SE3-1_footing/stem wall construction S3E1-51P to S3E1-74P & N3-01 (21nr)	198	10	21-Jan-22 A	12-Jul-23	26-Mar-22	24-Nov-22						SE3-1_footing/stem wall construction S3E1-51P to S3E1-74P & N3-01 (21nr)
Z5_1220	SE3-1_backfill & remove ELS	52	47	15-Sep-22 A	24-Aug-23	23-Sep-22	25-Nov-22						SE3-1_backfill & remove ELS
Z5_1222	SE3-2_ELS for footing construction S3E2-51 to S3E2-53 (32m_2 side)	16	16	30-Jun-23	19-Jul-23	10-Jun-22	29-Jun-22						SE3-2_ELS for footing construction S3E2-51 to S3E2-53 (32m_2 side)
Z5_1224	SE3-2_footing/cap/stem wall construction S3E2-51 to 53 (2nr)	36	36	20-Jul-23	30-Aug-23	29-Jun-22	11-Aug-22						SE3-2_footing/cap/stem wall construction S3E2-51 to 53 (2nr)
Z5_1226	SE3-2_backfill & remove ELS	22	22	31-Aug-23	25-Sep-23	11-Aug-22	06-Sep-22						SE3-2_backfill & remove ELS
STRUCTURE STEEL FRAME													
SOUTHBOUND													
Z5_1430	SE3-2_erect steel posts PY79 to PY112 (34nr)	9	9	04-Aug-23	17-Aug-23	07-Jun-22	17-Jun-22						SE3-2_erect steel posts PY79 to PY112 (34nr)









 Remaining Level of Effort	 Remaining Work	 Milestone	 Baseline Milesto...
 Actual Level of Effort	 Critical Remaining Work	 Baseline Milesto...	
 Actual Work	 Primary Baseline		

Contract No. NE/2017/05
Road Widening and Retrofitting Noise Barriers on Tai Po Road (Sha Tin)
3 Months Rolling Programme (30/06/23)

Date	Revision	Checked	Approved
08-Jul-23	3MRP DWP 2306	EGA	

5 of 6

Activity ID	Activity Name	Original Duration	Remaining Duration	3MRP Start	3MRP Finish	AP13 Start	AP13 Finish	2023						
								Jun 60	Jul 61	Aug 62	Sep 63	Oct 64		
SOUTHBOUND SLIP ROAD														
Z5_1450	N3_erec steel posts PW1 to PW7 (7nr)	2	1	07-Jul-22 A	03-Jul-23	10-Jun-22	14-Jun-22							
NOISE BARRIER PANEL														
SOUTHBOUND SLIP ROAD														
Z5_1470	N3_install noise barrier wall panel PW1 to PW7 (96 sq.m)	1	1	07-Oct-22 A	04-Jul-23	29-Jun-22	30-Jun-22							
Z5_1480	R4_install noise barrier wall panel PW8 to PW48 (651 sq.m)	4	1	07-Oct-22 A	05-Jul-23	17-Aug-22	23-Aug-22							
ROADWORKS AND REMAINING WORKS														
ROADWORKS														
NORTHBOUND														
Z5_1490	Drainage construction MN170 to MN172 129m	40	40	23-Aug-23	11-Oct-23	05-Nov-22	22-Dec-22							
SOUTHBOUND														
Z5_1550	Drainage construction MS109 to MS112 & MS123 to MS124 246m	77	15	01-Sep-22 A	16-Aug-23	16-Aug-22	17-Nov-22							
Z5_1560	Drainage construction MS126 to MS128 144m	45	23	04-Jul-22 A	27-Jul-23	31-Mar-22	27-May-22							
SOUTHBOUND SLIP ROAD														
Z5_1600	Zone 5_road surfacing with flexible pavement Type 2 1257m2	9	9	05-Jul-23	18-Jul-23	23-Aug-22	05-Sep-22							
GEOTECHNICAL WORKS														
NORTHBOUND SLIP ROAD														
Z5_1820	Zone 5_fill replacement 7SE-A/F164 (compacted fill)	53	50	20-Mar-23 A	08-Sep-23	27-Sep-22	30-Nov-22							
SOUTHBOUND SLIP ROAD														
Z5_1740	Zone 5_fill replacement by no-fines concrete 7SE-A/F166 (open excavation)	29	3	12-Mar-21 A	04-Jul-23	07-Apr-22	14-May-22							
Z5_1810	Zone 5_fill replacement 7SE-A/F165 (compacted fill)	20	6	02-Mar-23 A	11-Jul-23	06-Aug-22	30-Aug-22							

 Remaining Level of Effort
  Remaining Work
  Milestone
 Actual Level of Effort
  Critical Remaining Work
  Baseline Milesto...
 Actual Work
  Primary Baseline

Contract No. NE/2017/05
Road Widening and Retrofitting Noise Barriers on Tai Po Road (Sha Tin)
3 Months Rolling Programme (30/06/23)

Date	Revision	Checked	Approved
08-Jul-23	3MRP DWP 2306	EGA	

6 of 6

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



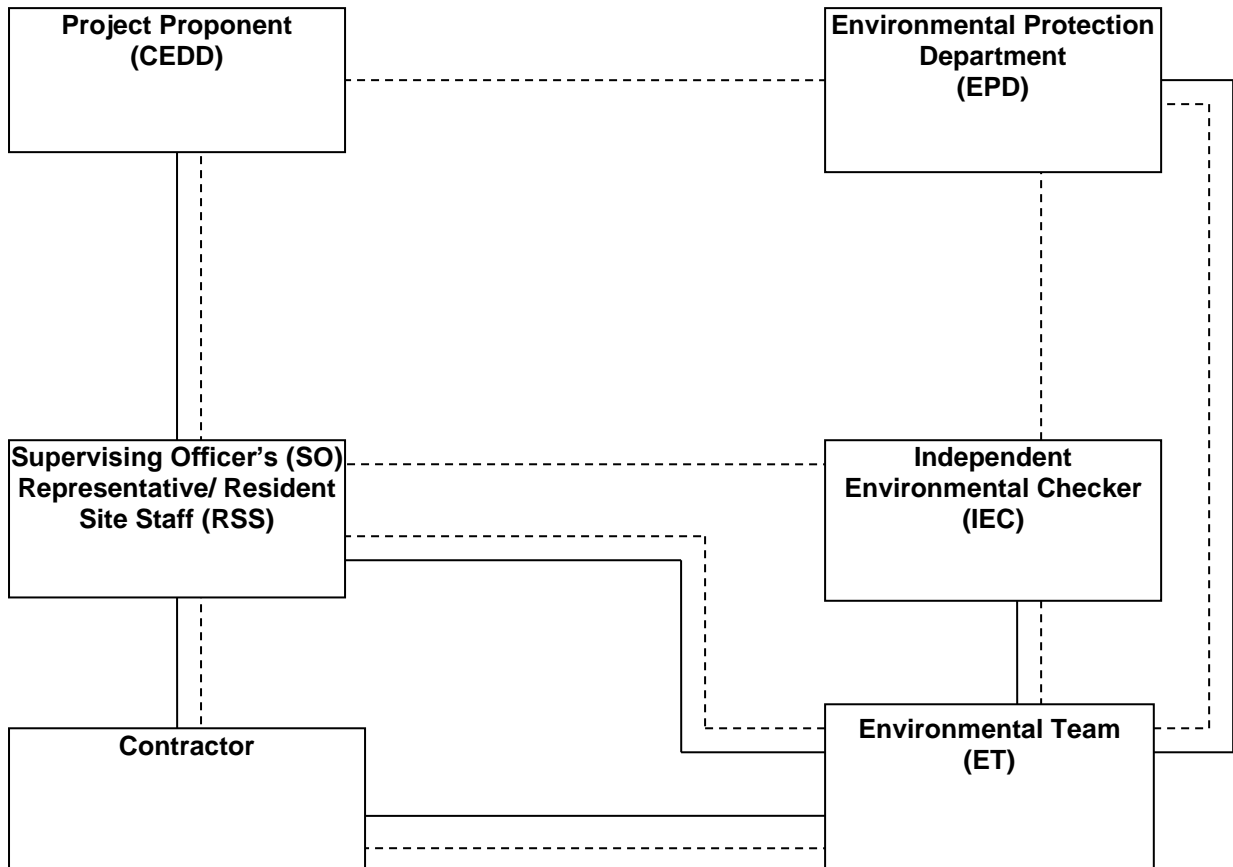
Appendix B

Project Organization Chart

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Legend:

- Line of Reporting
- - - Line of Communication

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Appendix C

Action and Limit Levels for Air Quality and Noise

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



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 ($\mu\text{g}/\text{m}^3$)	AMS4	200	260
	AMS7A	171	
	AMS12	168	
	AMS17	171	
1-hr TSP ($\mu\text{g}/\text{m}^3$)	AMS4	348	500
	AMS7A	344	
	AMS12	296	
	AMS17	338	

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.

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



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. : 114892
 Specification Limit : NA

Next Calibration Date : 25-Aug-2023

Laboratory Information

Details of Reference Equipment -

Description : 1.Reference balance 2. TSP high Volume air sampler
 Equipment ID / Serial no. : 1.C-065-5 2. 4350
 Date of Calibration : 26-Aug-2022 Ambient Temperature : 33 °C

Calibration Location : Calibration Lab. 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)
0.0501	1531	25.52
0.0366	1075	17.92
0.0443	1290	21.50

Remarks:

- The equipment being used in this calibration is traceable to recognized National Standards.
- The interpolation equation : Concentration (mg/m³) = K x UUT reading (CPM) where K = 0.002014
- Correlation coefficient (r) : 0.9936

 Checked by : Alloy Date : 18/10-2022 Certified by : P.T. Leung Date : 19-10-2022

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

Leung Kwok Tai (Assistant Manager)

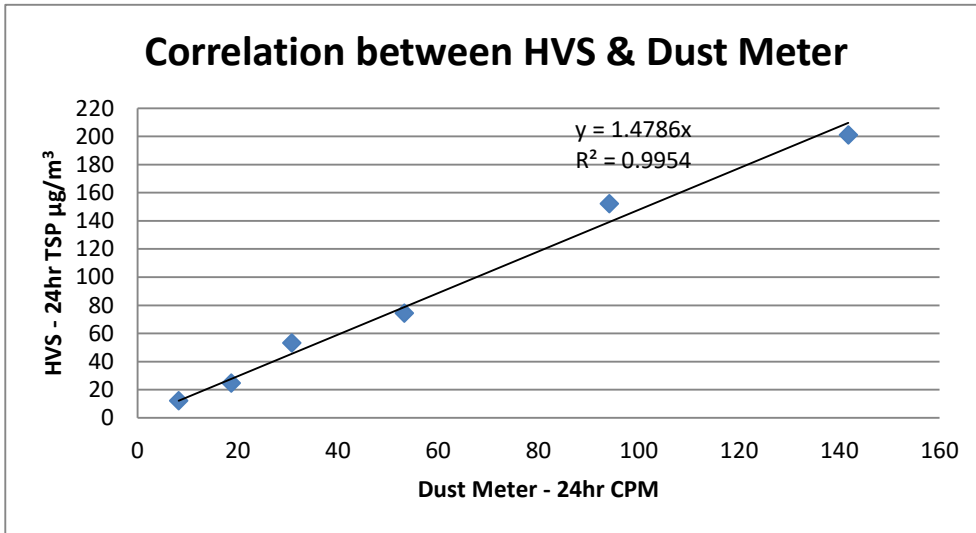
** End of Report **

Correlation between HVS & Dust Meter

Model: Sibata LD-5R

Serial No: 114892

HVS - 24hr TSP $\mu\text{g}/\text{m}^3$	12.26	24.82	53.28	74.4	152.38	201.17
Dust Meter - 24hr CPM	8.2	18.7	30.8	53.2	94.1	141.8



K factor = 1.479

Report no. : 940891CA222379(4)

Page 1 of 1

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. : 114893

Specification Limit : NA

Next Calibration Date : 25-Aug-2023

Laboratory Information

Details of Reference Equipment -

Description : 1.Reference balance 2. TSP high Volume air sampler

Equipment ID / Serial no. : 1.C-065-5 2. 4350

Date of Calibration : 26-Aug-2022 Ambient Temperature : 33 °C

Calibration Location : Calibration Lab. 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)
0.0501	1452	24.20
0.0366	1089	18.15
0.0443	1287	21.45

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 = 0.002057
3. Correlation coefficient (r) : 0.9996

 Checked by : slk Date : 18-10-2022 Certified by : Leung Kwok Tai Date : 19-10-2022

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

Leung Kwok Tai (Assistant Manager)

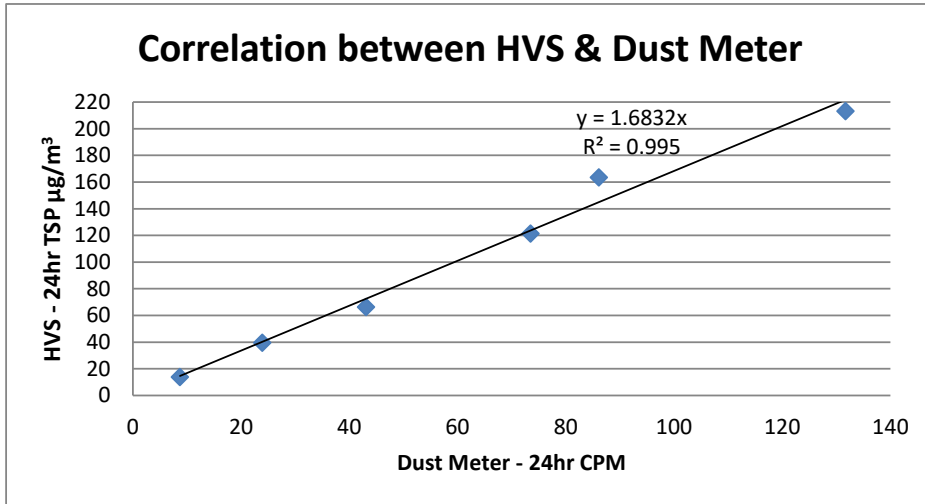
** End of Report **

Correlation between HVS & Dust Meter

Model: Sibata LD-5R

Serial No: 114893

HVS - 24hr TSP $\mu\text{g}/\text{m}^3$	13.73	39.43	66.32	121.41	163.43	213.11
Dust Meter - 24hr CPM	8.7	23.9	43.1	94.0	117.5	161.0



K factor = 1.683

Report no. : 940891CA222379(5)

Page 1 of 1

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. : 114894

Specification Limit : NA

Next Calibration Date : 25-Aug-2023

Laboratory Information

Details of Reference Equipment -

Description : 1.Reference balance 2. TSP high Volume air sampler

Equipment ID / Serial no. : 1.C-065-5 2. 4350

Date of Calibration : 26-Aug-2022 Ambient Temperature : 33 °C

Calibration Location : Calibration Lab. 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)
0.0501	1386	23.10
0.0366	998	16.63
0.0443	1247	20.78

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 = 0.002164
3. Correlation coefficient (r) : 0.9967

Checked by : *Alan* Date : 18-10-2022 Certified by : *BT Leung* Date : 19-10-2022
CA-R-297 (22/07/2009) Leung Kwok Tai (Assistant Manager)

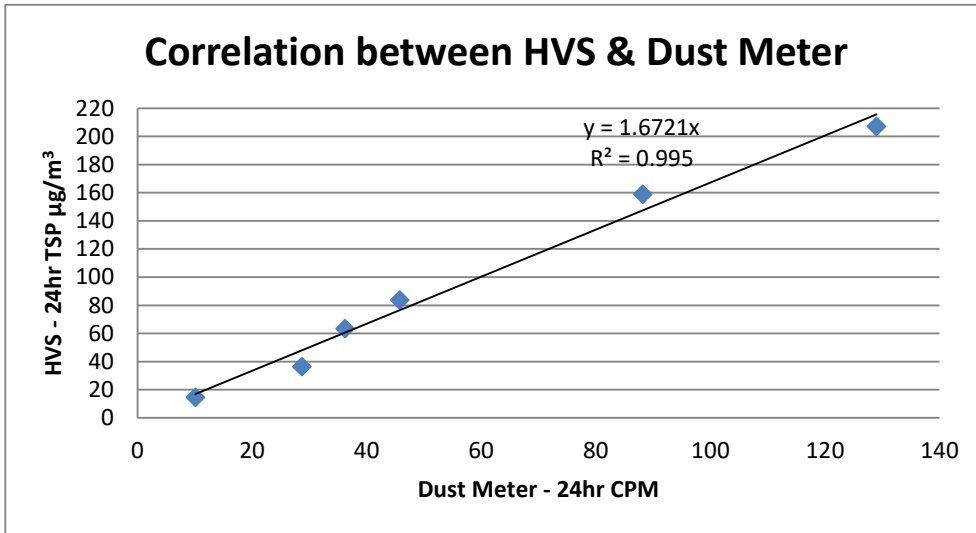
** End of Report **

Correlation between HVS & Dust Meter

Model: Sibata LD-5R

Serial No: 114894

HVS - 24hr TSP $\mu\text{g}/\text{m}^3$	14.58	36.38	63.37	83.74	158.91	207.3
Dust Meter - 24hr CPM	10.1	28.7	36.2	45.8	88.2	129.0



K factor = 1.672

Report no. : 940891CA222379(6)

Page 1 of 1

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. : 114895

Specification Limit : NA

Next Calibration Date : 25-Aug-2023

Laboratory Information

Details of Reference Equipment -

Description : 1.Reference balance 2. TSP high Volume air sampler

Equipment ID / Serial no. : 1.C-065-5 2. 4350

Date of Calibration : 26-Aug-2022 Ambient Temperature : 33 °C

Calibration Location : Calibration Lab. 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)
0.0501	1421	23.68
0.0366	963	16.05
0.0443	1233	20.55

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 = 0.002165
3. Correlation coefficient (r) : 0.9997

 Checked by : AKS Date : 18/10-2022 Certified by : P.T. Leung Date : 19-10-2022
 CA-R-297 (22/07/2009) Leung Kwok Tai (Assistant Manager)

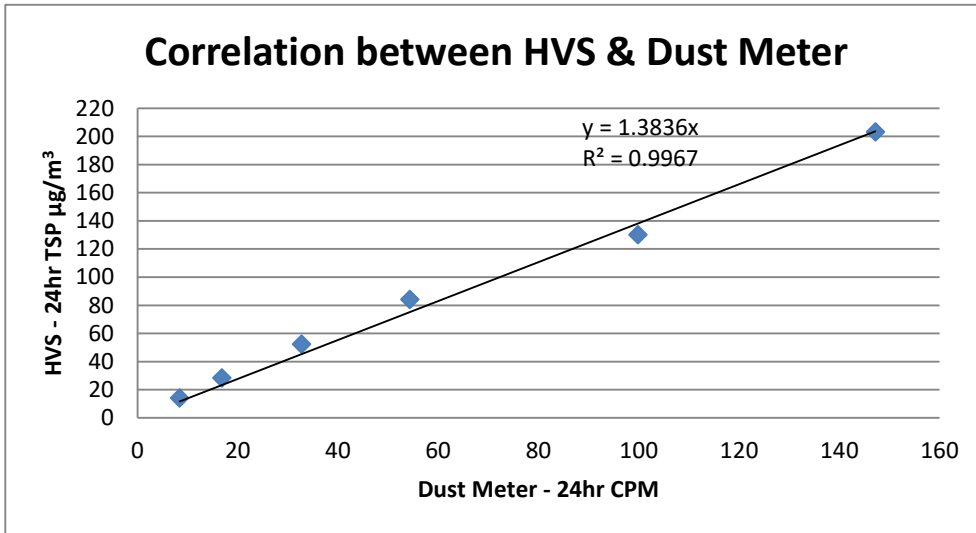
** End of Report **

Correlation between HVS & Dust Meter

Model: Sibata LD-5R

Serial No: 114895

HVS - 24hr TSP $\mu\text{g}/\text{m}^3$	14.28	28.39	52.43	84.17	130.22	203.37
Dust Meter - 24hr CPM	8.4	16.8	32.7	54.3	99.84	147.2



K factor = 1.384

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.	0873599	02374	003916

Equipment ID : N/A
 Next Calibration Date : 13-Jul-2023
 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 Receipt of UUT : 13-Jul-2022
 Date of Calibration : 14-Jul-2022
 Calibration Location : Calibration Laboratory of FTS Ambient Temperature : 20±2 °C
 Method Used : By direct comparison Relative Humidity : <80% R.H.
 As Received : Functional / Within specs
 As Returned : Complies with the specification limits (EN61672-1:2003 Class 1)

Calibration Results :

Parameters	Mean Value (dB)	Specification Limit(dB)
A-weighting frequency response	4000Hz	1.6 2.6 to -0.6
	2000Hz	1.3 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	-16.2 -14.6 to -17.6
	63Hz	-26.2 -24.7 to -27.7
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.
- For calibration: Reference SPL are 94, 104 & 114dB, range setting is 20-140dB & time weighting is fast
- The mean value is the average of four measurements.
- A general inspection of the item has been carried out and found the item is in good working conditions.
- The result reported on this certificate apply only to the unit under test as received. Fugro has not been responsible for the sampling stage

Checked by : SLA Date : 14-7-2022 Certified by : R.J. Leung Date : 15-7-2022
 CA-R-297 (22/07/2009) Leung Kwok Tai (Assistant Manager)

**** End of Report ****

Report no.: 212769CA222278(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.	1488303	05248	004910
Equipment ID	N/A		
Next Calibration Date	26-Sep-2023		
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 Receipt UUT : 23-Sep-2022

Date of Calibration : 27-Sep-2022

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

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

Calibration Results :

Parameters	Mean Value (dB)	Specification Limit(dB)
A-weighting frequency response	4000Hz	1.3 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	-16.2 -14.6 to -17.6
	63Hz	-26.3 -24.7 to -27.7
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 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 unit under test and the values measured at the time of the test. 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.
6. The decision rule is based on binary statement for simple acceptance rule (w = 0).

Checked by : Date : 29-9-2022 Certified by : K.T. Young Date : 29-9-2022
CA-R-297 (22/07/2009) Leung Kwok Tai (Assistant Manager)**** End of Report ****

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	02772	004020

Equipment ID : N/A

Next Calibration Date : 27-Jul-2023

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 Receipt of UUT : 27-Jul-2022

Date of Calibration : 28-Jul-2022

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

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

Calibration Results :

Parameters	Mean Value (dB)	Specification Limit(dB)
A-weighting frequency response	4000Hz	0.6 2.6 to -0.6
	2000Hz	1.0 2.8 to -0.4
	1000Hz	0.0 1.1 to -1.1
	500Hz	-3.3 -1.8 to -4.6
	250Hz	-8.6 -7.2 to -10.0
	125Hz	-16.1 -14.6 to -17.6
	63Hz	-26.1 -24.7 to -27.7
Differential level linearity	94dB-104dB	± 0.6
	104dB-114dB	± 0.6

Remarks :

- The equipment used in this calibration is traceable to recognized National Standards.
- For calibration: Reference SPL are 94, 104 & 114dB, range setting is 20-140dB & time weighting is fast
- The mean value is the average of four measurements.
- The values given in this Calibration Certificate only relate to unit under test and the values measured at the time of the test. 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 : Ally Date : 1-8-2022 Certified by : C. K. Leung Date : 2-8-2022

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

Leung Kwok Tai (Assistant Manager)

**** End of Report ****

Report no.: 212769CA222517

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. :
 Serial No. :
 Equipment ID : N/A
 Next Calibration Date : 25-Oct-2023
 Specification Limit : EN 61672-1: 2003 Class 1

	Meter	Microphone	Preamplifier
Model No.	CEL-63X	CE-251	CEL-495
Serial No.	4181587	05175	003975

Laboratory Information

Details of Reference Equipment -

 Description : Acoustic Multifunction Calibrator
 Equipment ID. : R-108-1
 Date of Receipt : 25-Oct-2022
 Date of Calibration : 26-Oct-2022
 Calibration Location : Calibration Laboratory of FTS Ambient Temperature : 20±2 °C
 Method Used : By direct comparison Relative Humidity : <80% R.H.

Calibration Results :

Parameters		Mean Value (dB)	Specification Limit(dB)
A-weighting frequency response	4000Hz	-0.4	2.6 to -0.6
	2000Hz	0.3	2.8 to -0.4
	1000Hz	0.0	1.1 to -1.1
	500Hz	-2.9	-1.8 to -4.6
	250Hz	-8.1	-7.2 to -10.0
	125Hz	-15.5	-14.6 to -17.6
	63Hz	-25.6	-24.7 to -27.7
Differential level linearity	94dB-104dB	0.1	± 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 does comply with EN 61672-1: 2003 Class 1 sound level meter for the above measurement.
- The values given in this Calibration Certificate only relate to unit under test and the values measured at the time of the test. 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 :  Date : 31-10-2022 Certified by :  Date : 31-10-2022
 CA-R-297 (22/07/2009) Leung Kwok Tai (Assistant Manager)

**** End of Report ****

10-50



Certificate of Conformance and Calibration for

CEL-120 Acoustic Calibrator

Applicable Standards :-IEC 60942: 2003 & ANSI S1.40: 2006

CEL-120/1 Class 1

CEL-120/2 Class 2

Serial No: 2525896

Firmware: 04

Temperature: 22.9 °C Pressure: 1017 mb %RH 56

Frequency = 1.00kHz ± 2Hz T.H.D. = < 1%	Calibration Level
SPL @ 114.0dB Setting	114.01 dB
SPL @ 94.0dB Setting (CEL-120/1 only)	93.99 dB/N.A

Engineer: [Signature] Date: 03 NOV 2022

Company test equipment and acoustic working standards, used for conformance testing, are subject to periodic calibration, traceable to UK national standards, in accordance with the company's ISO9001 Quality System.

DECLARATION OF CONFORMITY

This certificate confirms that the instrument specified above has been produced and tested to comply with the manufacturer's published specifications and the relevant European Community CE directives.

Casella
Regent House, Wolsley Road, Kempston, Bedford, MK42 7JY
Phone: +44 (0) 1234 844100 Fax: +44 (0) 1234 841490
E-mail: info@casellasolutions.com
Web: www.casellasolutions.com

198032A-02



Certificate of
Conformance and Calibration for

CEL-120 Acoustic Calibrator

Applicable Standards :- IEC 60942: 2003 & ANSI S1.40: 2006

CEL-120/1 Class 1

CEL-120/2 Class 2

Serial No: 2525984

Firmware: 04

Temperature: 23.9 °C Pressure: 1016 mb %RH 55

Frequency = 1.00kHz ± 2Hz T.H.D. = < 1%	Calibration Level
SPL @ 114.0dB Setting	<u>114.00</u> dB
SPL @ 94.0dB Setting (CEL-120/1 only)	<u>93.96</u> dB/N.A

Engineer: [Signature] Date :- 03 NOV 2022

Company test equipment and acoustic working standards, used for conformance testing, are subject to periodic calibration, traceable to UK national standards, in accordance with the company's ISO9001 Quality System.

DECLARATION OF CONFORMITY

This certificate confirms that the instrument specified above has been produced and tested to comply with the manufacturer's published specifications and the relevant European Community CE directives.

Casella
Regent House, Wolsley Road, Kempston, Bedford, MK42 7JY
Phone: +44 (0) 1234 844100 Fax: +44 (0) 1234 841490
E-mail: info@casellasolutions.com
Web: www.casellasolutions.com

198032A.02

Report no.: 212769CA223056(2)

Page 1 of 1

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. : 4358250
 Equipment ID : N/A

Next Calibration Date : ---

Specification Limit : EN 60942: 2003 Class 1

Laboratory Information

Details of Calibration Equipment

Description : Reference Sound level meter
 Equipment ID. : R-119-2

Date of Receipt UUT : 30-Dec-2022

Date of Calibration : 04-Jan-2023

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	5.4 dB	±0.4dB
114dB	5.5 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 under test does not 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 : NS Date : 12-1-2023 Certified by : KL Leung Date : 12-1-2023

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

Leung Kwok Tai (Assistant Manager)

** End of Report **

CALIBRATION CERTIFICATE OF SOUND CALIBRATOR

Client : Fugro Technical Services Ltd.

Project : Calibration Services

Client Supplied Information

Details of Unit Under Test, UUT

Description : Acoustic Calibrator
 Manufacturer : Casella (Model CEL-120/1)
 Serial No. : 5230758
 Equipment ID : N/A
 Next Calibration Date : 27-Jul-2023
 Specification Limit : EN 60942: 2003 Class 1

Laboratory Information

Details of Calibration Equipment

Description : Reference Sound level meter
 Equipment ID. : R-119-2
 Date of UUT receipt : 25-Jul-2022
 Date of Calibration : 28-Jul-2022
 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	-0.2 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. A general inspection of the item has been carried out and found the item is in good working conditions.
 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 will not include allowances for the environmental changes, variation and shock during transportation, or the capability of any other laboratory to repeat the

Checked by : SLA Date : 1-8-2022 Certified by : Leung Kwok Tai Date : 2-8-2022
 CA-R-297 (22/07/2009) Leung Kwok Tai (Assistant Manager)

** End of Report **

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Appendix E

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

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Jun-23						1	2
					AMS4A Wai Wah Centre AMS7A Sheung Wo Che AMS12 Fung Wo Estate AMS17 Wo Che 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, NMS 9, NMS 10A, NMS 11, NMS 12, NMS 13, NMS 14, NMS17, NMS 19, NMS 20, NMS 24, NMS 25A, NMS 26	
	4		5	6	7	8	9
				AMS4A Wai Wah Centre AMS7A Sheung Wo Che AMS12 Fung Wo Estate AMS17 Wo Che 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, NMS 9, 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
			AMS4A Wai Wah Centre AMS7A Sheung Wo Che AMS12 Fung Wo Estate AMS17 Wo Che 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, NMS 9, 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
		AMS4A Wai Wah Centre AMS7A Sheung Wo Che AMS12 Fung Wo Estate AMS17 Wo Che Estate					AMS4A Wai Wah Centre AMS7A Sheung Wo Che AMS12 Fung Wo Estate AMS17 Wo Che 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, NMS 9, NMS 10A, NMS 11, NMS 12, NMS 13, NMS 14, NMS17, NMS 19, NMS 20, NMS 24, NMS 25A, NMS 26				
	25		26	27	28	29	30
					AMS4A Wai Wah Centre AMS7A Sheung Wo Che AMS12 Fung Wo Estate AMS17 Wo Che 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, NMS 9, NMS 10A, NMS 11, NMS 12, NMS 13, NMS 14, NMS17, NMS 19, NMS 20, NMS 24, NMS 25A, NMS 26		

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 June 2023 is southwest.
4. According to the Contractor, the anticipated major construction activities in the reporting month includes:
 - 1 Trial pits excavation at Zone 1 and 2
 - 2 Road surface Maintenance at Zone 1, 2, 3, 4 and 5
 - 3 Noise Barrier Foundation Works at Zone 1, 2, 3, 4 and 5
 - 4 Slope Reinstatement and Drainage Works at Zone 1
 - 5 Noise Barrier Erection Works at Zone 1, 2 and 5
 - 6 Relocation of Existing Fire Hydrants and relating Watermains at Zone 1, 2, 3, 4 and 5
 - 7 Reinstatement of cycling track at Zone 1 and 4
 - 8 Tree Works (preservation / felling/ pruning/ transplantation) at Zone 3
 - 9 Reinstatement of footpath and cycle track at Zone 3
 - 10 Construction of Retaining Wall and Erection of Parapet at Zone 3
 - 11 Lift no.2 Installation + SR5 Foundation Works + Construction of [former staircase] Abutment Wall at Zone 3
 - 12 Construction Works for N263 & N264 Bridge Deck Widening + Construction of New Abutment Wall + Demolition of Existing Beam/ Slab + Road Diversion + Asphalt Works at Zone 3
 - 13 Construction Works for Lift no.1 at Zone 3
 - 14 Construction Works N262 Bridge Deck Widening at Zone 3
 - 15 Drainage Works at Zone 3
 - 16 Piling Construction Works + Road Drainage Works at Zone 4 and 5
 - 17 Slope Landscaping Works + Irrigation System for Landscaping + Drainage Works on Slope at Zone 5
 - 18 Reinstatement Works for Traffic Island at Zone 5

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
Jul-23							1	
	2		3	4	5	6	7	
				AMS4A Wai Wah Centre AMS7A Sheung Wo Che AMS12 Fung Wo Estate AMS17 Wo Che 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, NMS 9, NMS 10A, NMS 11, NMS 12, NMS 13, NMS 14, NMS17, NMS 19, NMS 20, NMS 24, NMS 25A, NMS 26			
	9		10		11	12	13	14
			AMS4A Wai Wah Centre AMS7A Sheung Wo Che AMS12 Fung Wo Estate AMS17 Wo Che 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, NMS 9, NMS 10A, NMS 11, NMS 12, NMS 13, NMS 14, NMS17, NMS 19, NMS 20, NMS 24, NMS 25A, NMS 26				
	16		17	18	19	20	21	22
		AMS4A Wai Wah Centre AMS7A Sheung Wo Che AMS12 Fung Wo Estate AMS17 Wo Che Estate						AMS4A Wai Wah Centre AMS7A Sheung Wo Che AMS12 Fung Wo Estate AMS17 Wo Che 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, NMS 9, NMS 10A, NMS 11, NMS 12, NMS 13, NMS 14, NMS17, NMS 19, NMS 20, NMS 24, NMS 25A, NMS 26					
	23		24	25	26	27	28	29
						AMS4A Wai Wah Centre AMS7A Sheung Wo Che AMS12 Fung Wo Estate AMS17 Wo Che 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, NMS 9, NMS 10A, NMS 11, NMS 12, NMS 13, NMS 14, NMS17, NMS 19, NMS 20, NMS 24, NMS 25A, NMS 26	
	30		31					

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 July 2023 is southwest.
4. According to the Contractor, the anticipated major construction activities in the reporting month includes:
 - 1 Trial pits excavation at Zone 1 and 2
 - 2 Road surface Maintenance at 1, 2, 3, 4 and 5
 - 3 Noise Barrier Foundation Works at Zone 1, 2, 3, 4 and 5
 - 4 Slope Reinstatement and Drainage Works at Zone 1
 - 5 Noise Barrier Erection Works at Zone 1, 2 and 5
 - 6 Relocation of Existing Fire Hydrants and relating Watermains at Zone 1, 2, 3, 4 and 5
 - 7 Reinstatement of cycling track at Zone 1 and 4
 - 8 Tree Works (including preservation / felling/ pruning/ transplation) at Zone 3
 - 9 Reinstatement of footpath at Zone 3
 - 10 Reinstatement cycle track at Zone 3 and 4
 - 11 Construction of Retaining Wall and Erection of Parapet at Zone 3
 - 12 Lift no.2 Installation + SR5 Foundation Works + Construction of [former staircase] Abutment Wall at Zone 3
 - 13 Construction Works for N263 & N264 Bridge Deck Widening + Construction of New Abutment Wall + Demolition of Existing Beam/ Slab + Road Diversion + Asphalt Works at Zone 3
 - 14 Construction Works for Lift no.1 at Zone 3
 - 15 Construction Works N262 Bridge Deck Widening at Zone 3
 - 16 Drainage Works at Zone 3
 - 17 Pilling Construction Works at Zone 3, 4 and 5
 - 18 Road Drainage Works at Zone 4 and 5

FUGRO TECHNICAL SERVICES LIMITED

Room 723 & 725, 7/F, Block B,
Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Fong,
Hong Kong

Tel : (852)-24508238
Fax : (852)-24508032
Email : mcl@fugro.com



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

Tentative Regular Night Time Noise Monitoring Schedule (June 2023)

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

FUGRO TECHNICAL SERVICES LIMITED

Room 723 & 725, 7/F, Block B,
Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Fong,
Hong Kong

Tel : (852)-24508238
Fax : (852)-24508032
Email : mcl@fugro.com



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

Tentative Regular Night Time Noise Monitoring Schedule (July 2023)

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

	周次	日	一	二	三	四	五	六	假期 / 事項
二 月					1	2	3	4	下學期開始(6/2)
	二十四	5	6	7	8	9	10	11	
	二十五	12	13	14	15	16	17	18	
	二十六	19	20	21	22	23	24	25	
	二十七	26	27	28					預考周(27/2-3/3)
三 月					1	2	3	4	六年級報分試(6/3-10/3) 一至五年級主科考試(9-10/3)
	二十八	5	6	7	8	9	10	11	
	二十九	12	13	14	15	16	17	18	
	三十	19	20	21	22	23	24	25	
	三十一	26	27	28	29	30	31		零功課日(21/3) 學校籌款(26/3) 補假(27/3)
四 月								1	福音周及復活節崇拜(3/4-4/4) 清明節(5/4) 復活節假期(6/4-15/4) 零功課日(26/4) 綜藝晚會 (28/4)
	三十二	2	3	4	5	6	7	8	
	三十三	9	10	11	12	13	14	15	
	三十四	16	17	18	19	20	21	22	
	三十五	23	24	25	26	27	28	29	
	三十六	30							
五 月			1	2	3	4	5	6	勞動節(1/5) 拍住上辯論賽(6/5) 預考周(22/5-30/5) 佛誕(26/5) 一至六年級考試(31/5-6/6)
	三十七	7	8	9	10	11	12	13	
	三十八	14	15	16	17	18	19	20	
	三十九	21	22	23	24	25	26	27	
	四十	28	29	30	31				
六 月						1	2	3	端午節(22/6) 畢業禮(30/6)
	四十一	4	5	6	7	8	9	10	
	四十二	11	12	13	14	15	16	17	
	四十三	18	19	20	21	22	23	24	
	四十四	25	26	27	28	29	30		
七 月								1	香港特區成立紀念日(1/7) 畢業禮補假(3/7) 結業禮(11/7) 教師專業發展日(12/7) 暑假(13/7-31/8)
	四十五	2	3	4	5	6	7	8	
	四十六	9	10	11	12	13	14	15	
	四十七	16	17	18	19	20	21	22	
	四十八	23	24	25	26	27	28	29	
	四十九	30	31						
八 月				1	2	3	4	5	
	五十	6	7	8	9	10	11	12	
	五十一	13	14	15	16	17	18	19	
	五十二	20	21	22	23	24	25	26	
	五十三	27	28	29	30	31			

聖公會主風小學 2022-2023 年度下學期校曆表

週次	月份 2023	星期							行事要項	假期日數
		日	一	二	三	四	五	六		
	一月	22	23	24	25	26	27	28	23/1-2/2 農曆新年假期	6
		29	30	31						3
					1	2	3	4		2
①	二月	5	6*	7	8	9	10	11	6/2 下學期開始	
②		12	13	14	15	16	17	18		
③		19	20	21	22	23	24	25		
④		26	27	28						
⑤	三月				1*	<u>2</u>	<u>3</u>	4	1/3 評估前一天學生 11 時 20 分放學 2/3-7/3 第二次評估/呈分試(P.6)	
⑥		5	<u>6</u>	<u>7</u>	8	9	10	11		
⑦		12	13	14	15	16	17	18		
⑧		19	20	21	22	23*	24	25		
		26	27	28	29	30	31*		23/3 第廿八屆水運會 31/3 下學期家長日	
⑨	四月							1	3/4-13/4 復活節假期 5/4 清明節	6
⑩		2	3	4	5	6	7	8		
⑪		9	10	11	12	13	14	15		
⑫		16	17	18	19	20	21	22		
⑬		23	24	25	26	27	28	29		
		30								
⑭	五月		1	2	3	4	5	6	1/5 勞動節	1
⑮		7	8	9	10	11	12	13		
⑯		14	15	16	17	18	19	20		
⑰		21	22	23	24	25	26	27		
		28	29	30*	31*				26/5 佛誕 30/5 香港聖公會堂校社服發展日 31/5 評估前一天學生 11 時 20 分放學	1
⑱	六月					<u>1</u>	<u>2</u>	3	1/6-6/6 第三次評估/呈分試(P.5)	
⑲		4	<u>5</u>	<u>6</u>	7	8	9	10		
⑳		11	12	13	14	15	16	17		
㉑		18	19	20	21	22	23	24		
		25	26	27	28	29	30		22/6 端午節	1
㉒	七月							1	1/7 香港特別行政區成立紀念日	1
㉓		2	3	4	5	6	7	8		
		9	10	11	12	13	14	15		
		16	17	18	19	20	21	22	13/7-31/8 暑假	50

附註： □代表假期 *代表特別事宜

培英中學2022至2023年度校曆表

		日	一	二	三	四	五	六	假期及注意事項
27	三	26	27 [△]	(28)	Mar 1	2	3	4	(27/2)第六十二屆陸運會 (28/2)陸運會翌日假期 (3/3)「學校起動」聯校教師專業發展日 (4/3)家長日暨中五多元出路資訊家長講座
		5	6	7	8	9	10	11	(6-9/3)英語周 (10/3)中六級習禮及感恩惜別會
		12	13	14	15	16	17	18	(13/3)中六級開始溫習應付公開試 (13-17/3)科學周 (17/3)頒獎禮
		19	20	21	22	23 ^T	24 ^T	25	(23-28/3)中一至中五級統一測驗
31	四	26	27 ^T	28 ^T	29	30	31	Apr 1	
		2	3	4	(5)	(6)	(7)	(8)	(4/4)復活節崇拜會 (5/4)清明節假期 (6-15/4)復活節假期共10天
		(9)	(10)	(11)	(12)	(13)	(14)	(15)	
		16	17	18	19	20	21	22	(18/4或19/4)中三級全港性系統評估口試 (21/4-16/5)香港中學文憑考試
35	月	23	24	25	26	27	28	29	(28/4)校祖日感恩崇拜暨慶祝活動 (28/4)TSA口試後備日
		30	31	May (1)	2	3	4	5	6
37		7	8	9	10	11	12	13	
38		14	15	16	17	18	19 [△]	20	(19/5下午)畢業典禮 (15-18/5)體育周 (19/5晚上)歡送畢業生暨校友會迎新晚會
39	月	21	22	23	24	25 [△]	(26)	27	(25/5)全方位學習日(3) (26/5)佛誕日翌日假期
40	六	28	29	30	31	Jun 1	2	3	(2/6)畢業禮後備日
41		4	5 ^E	6 ^E	7 ^E	8 ^E	9 ^E	10	(5-13/6)中一至中五級下學期考試共7天
42		11	12 ^E	13 ^E	14	15	16	17	(14-20/6)中一至中四級試後回饋日 (14-30/6)中五級試後上課周 (14-15/6)中三級全港性系統評估(中英數) (16/6下午)中五級學習概覽寫作工作坊
43		18	19	20	21	(22)	23	24	(19/6)中三級全港性系統評估(後備日) (21-26/6)中一至中五級溫習及補考 (22/6)端午節假期
44	七	25	26	27	28	29	30	Jul (1)	(28/6)全方位學習日(4) (1/7)香港特別行政區成立紀念日假期
45		2	3	4	5	6	7	8	
46		9	10	11	12	(13)	(14)	(15)	(10/7)年終感恩慶典 (10/7)中六級中學文憑考試放榜輔導講座 (11-12/7)升中六備試課程(一) (12/7)學生註冊 (13/7-31/8)暑假共50天
47	月	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(19/7)香港中學文憑考試放榜
48		(23)	(24)	(25)	(26)	(27)	(28)	(29)	
49	八	(30)	(31)	(1)	(2)	(3)	(4)	(5)	
50		(6)	(7)	(8)	(9)	(10)	(11)	(12)	(8-17/8)升中六備試課程(二)
51		(13)	(14)	(15)	(16)	(17)	(18)	(19)	
52		(20)	(21)	(22)	(23)	(24)	(25)	(26)	
53	九月	(27)	(28)	(29)	(30)	(31)	Sept 1	2	(28/8)領取書籍校服 (1/9)下學年開學禮 (28-30/8)升中導向課程 (4/9)正式上課

() - 假期 ^E - 考試 [△] 特別活動 ○ 教師發展日，學生不用上課

週日	週一	週二	週三	週四	週五	週六
28	29	30	31	1	2	3
Activities Suspension						
Week 36						
4	5	6	7	8	9	10
Activities Suspension						
Week 37						
Friday Timetable						
Staff Development Day 3						
11	12	13	14	15	16	17
Activities Suspension						
Second Term Exam						
Week 38						
F.3 TSA (Written Assessments)						
18	19	20	21	22	23	24
Activities Suspension						
Second Term Exam						
Fallback Day for F.3 TSA						
Week 39						
Tuen Ng Festival						
25	26	27	28	29	30	1
Activities Suspension						
Second Term Exam Script Review with Special Timetable						
The HKSAR						
Second Term Exam						
Week 40						
Appreciation Night Dinner						

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



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)

AMS 4A - Wai Wah Centre (Site Boundary)

1-hour TSP ($\mu\text{g}/\text{m}^3$)								
Date	Start Time	1st hr	2nd hr	3rd hr	Average	Action Level	Limit Level	Weather
01-Jun-23	10:40	44	44	44	44	348	500	Fine
07-Jun-23	10:26	68	73	66	69			Overcast
13-Jun-23	08:00	68	66	66	67			Fine
19-Jun-23	13:56	41	47	43	44			Fine
29-Jun-23	08:52	41	37	45	41			Overcast
Average		53						
Max		73						
Min		37						

AMS7A - 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
01-Jun-23	14:18	48	46	50	48	344	500	Fine
07-Jun-23	14:44	70	76	66	71			Fine
13-Jun-23	13:49	58	56	60	58			Fine
19-Jun-23	09:05	48	46	48	47			Fine
29-Jun-23	17:01	40	44	44	43			Fine
Average		53						
Max		76						
Min		40						

AMS 12 - Fung Wo Estate

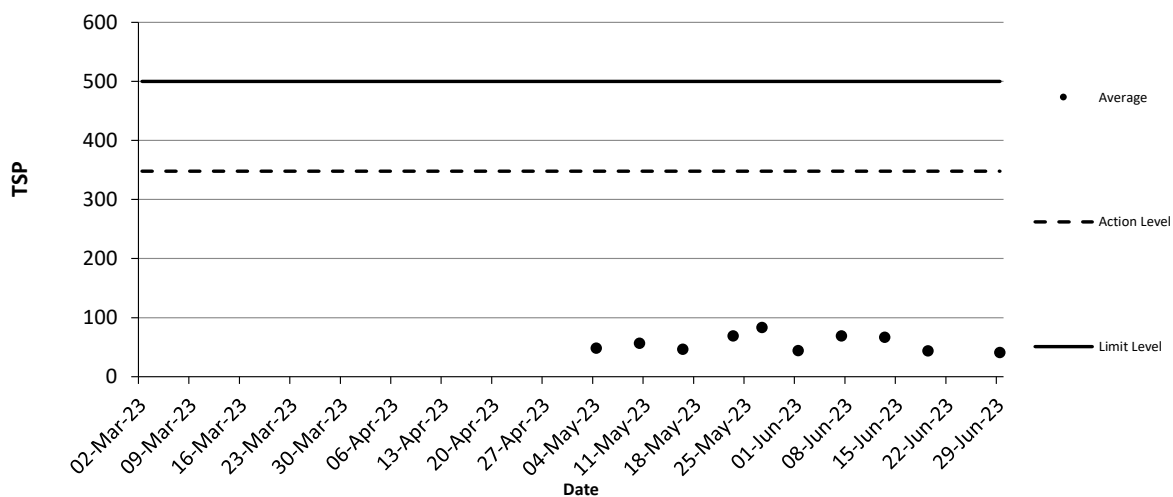
1-hour TSP ($\mu\text{g}/\text{m}^3$)								
Date	Start Time	1st hr	2nd hr	3rd hr	Average	Action Level	Limit Level	Weather
01-Jun-23	09:04	45	41	49	45	296	500	Fine
07-Jun-23	09:12	76	69	74	73			Overcast
13-Jun-23	12:40	59	63	63	62			Fine
19-Jun-23	10:14	45	49	51	48			Fine
29-Jun-23	8:10	59	49	47	52			Overcast
Average		56						
Max		76						
Min		41						

AMS 17 - Wo Che Estate

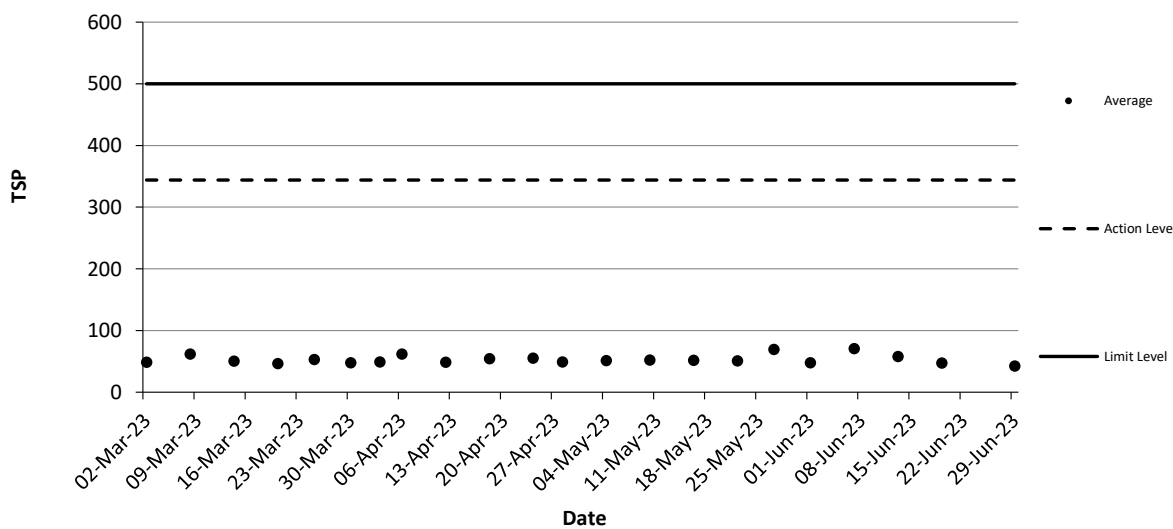
1-hour TSP ($\mu\text{g}/\text{m}^3$)								
Date	Start Time	1st hr	2nd hr	3rd hr	Average	Action Level	Limit Level	Weather
01-Jun-23	11:52	49	49	47	48	338	500	Fine
08-Jun-23	01:23	61	69	63	64			Fine
13-Jun-23	09:30	63	61	59	61			Fine
19-Jun-23	11:22	51	49	47	49			Fine
29-Jun-23	13:18	51	43	47	47			Fine
Average		54						
Max		69						
Min		43						

- 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.

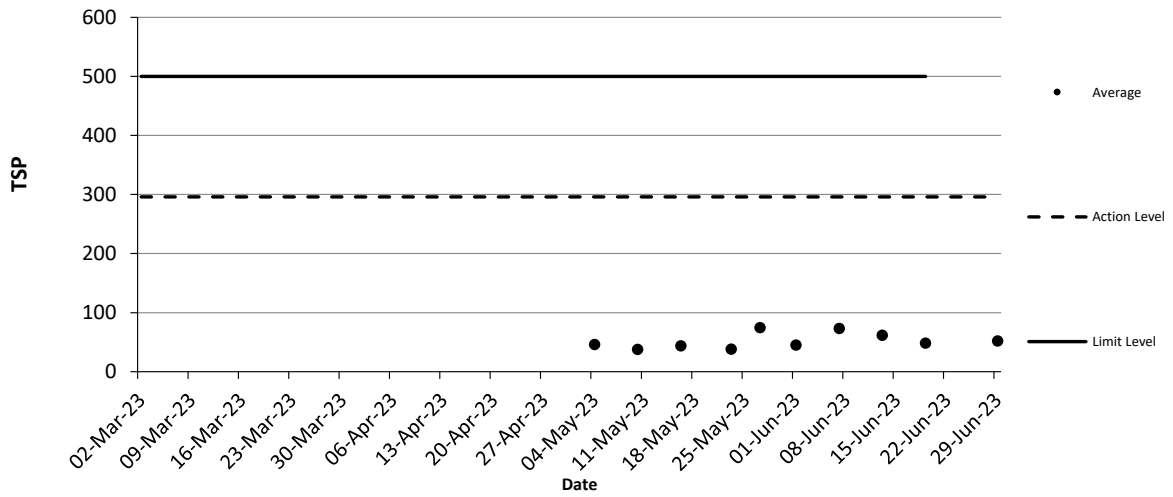
1-hr TSP Monitoring record for AMS4



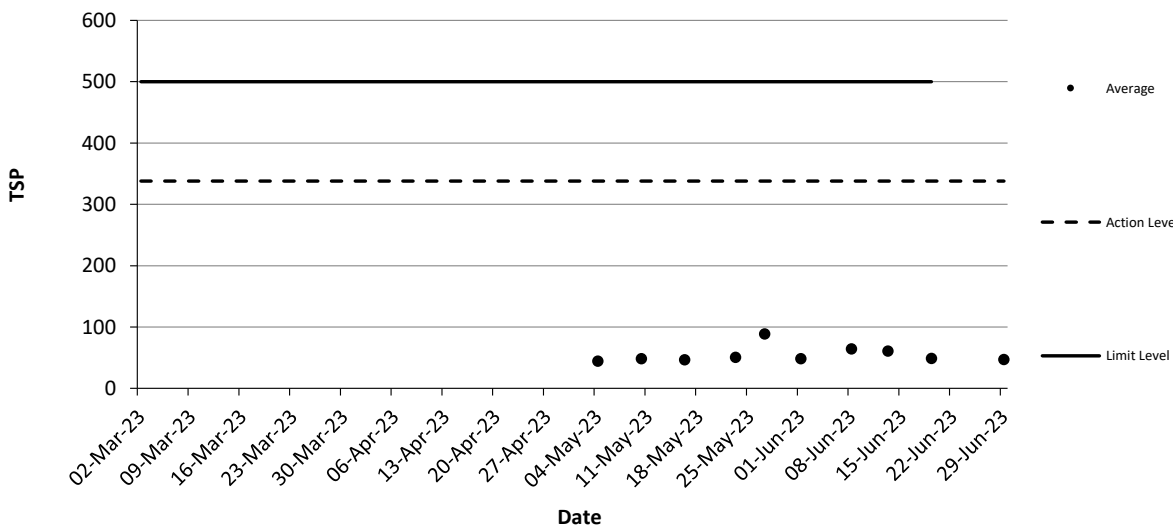
1-hr TSP Monitoring record for AMS7A



1-hr TSP Monitoring record for AMS12



1-hr TSP Monitoring record for AMS17



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

AMS 4A - Wai Wah Centre (Site Boundary)

Date and Time	TSP Concentration ($\mu\text{g}/\text{m}^3$)
01-06-23 07:40	44
01-06-23 08:40	42
01-06-23 09:40	38
01-06-23 10:40	44
01-06-23 11:40	44
01-06-23 12:40	44
01-06-23 13:40	40
01-06-23 14:40	42
01-06-23 15:40	42
01-06-23 16:40	45
01-06-23 17:40	42
01-06-23 18:40	40
01-06-23 19:40	36
01-06-23 20:40	36
01-06-23 21:40	38
01-06-23 22:40	34
01-06-23 23:40	38
02-06-23 00:40	40
02-06-23 01:40	36
02-06-23 02:40	40
02-06-23 03:40	44
02-06-23 04:40	44
02-06-23 05:40	40
02-06-23 06:40	42
Average	41
Action Level	200
Limit Level	260

Date and Time	TSP Concentration ($\mu\text{g}/\text{m}^3$)
07-06-23 07:26	56
07-06-23 08:26	60
07-06-23 09:26	62
07-06-23 10:26	68
07-06-23 11:26	73
07-06-23 12:26	66
07-06-23 13:26	58
07-06-23 14:26	60
07-06-23 15:26	56
07-06-23 16:26	58
07-06-23 17:26	54
07-06-23 18:26	51
07-06-23 19:26	49
07-06-23 20:26	53
07-06-23 21:26	66
07-06-23 22:26	45
07-06-23 23:26	51
08-06-23 00:26	54
08-06-23 01:26	43
08-06-23 02:26	64
08-06-23 03:26	66
08-06-23 04:26	71
08-06-23 05:26	43
08-06-23 06:26	54
Average	58
Action Level	200
Limit Level	260

Date and Time	TSP Concentration ($\mu\text{g}/\text{m}^3$)
13-06-23 08:00	68
13-06-23 09:00	66
13-06-23 10:00	66
13-06-23 11:00	62
13-06-23 12:00	64
13-06-23 13:00	66
13-06-23 14:00	60
13-06-23 15:00	60
13-06-23 16:00	62
13-06-23 17:00	64
13-06-23 18:00	66
13-06-23 19:00	62
13-06-23 20:00	56
13-06-23 21:00	58
13-06-23 22:00	60
13-06-23 23:00	60
14-06-23 00:00	56
14-06-23 01:00	60
14-06-23 02:00	60
14-06-23 03:00	58
14-06-23 04:00	62
14-06-23 05:00	64
14-06-23 06:00	68
14-06-23 07:00	66
Average	62
Action Level	200
Limit Level	260

Date and Time	TSP Concentration ($\mu\text{g}/\text{m}^3$)
19-06-23 07:56	34
19-06-23 08:56	35
19-06-23 09:56	41
19-06-23 10:56	37
19-06-23 11:56	32
19-06-23 12:56	39
19-06-23 13:56	41
19-06-23 14:56	47
19-06-23 15:56	43
19-06-23 16:56	37
19-06-23 17:56	39
19-06-23 18:56	41
19-06-23 19:56	37
19-06-23 20:56	34
19-06-23 21:56	32
19-06-23 22:56	32
19-06-23 23:56	35
20-06-23 00:56	32
20-06-23 01:56	30
20-06-23 02:56	35
20-06-23 03:56	37
20-06-23 04:56	39
20-06-23 05:56	34
20-06-23 06:56	34
Average	37
Action Level	200
Limit Level	260

Date and Time	TSP Concentration ($\mu\text{g}/\text{m}^3$)
29-06-23 07:52	35
29-06-23 08:52	41
29-06-23 09:52	37
29-06-23 10:52	45
29-06-23 11:52	34
29-06-23 12:52	28
29-06-23 13:52	30
29-06-23 14:52	30
29-06-23 15:52	35
29-06-23 16:52	39
29-06-23 17:52	32
29-06-23 18:52	41
29-06-23 19:52	34
29-06-23 20:52	30
29-06-23 21:52	30
29-06-23 22:52	28
29-06-23 23:52	35
30-06-23 00:52	37
30-06-23 01:52	28
30-06-23 02:52	28
30-06-23 03:52	34
30-06-23 04:52	30
30-06-23 05:52	32
30-06-23 06:52	35
Average	34
Action Level	200
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)**

AMS7A - Sheung Wo Che

Date and Time	TSP Concentration (µg/m³)
01-06-23 08:18	42
01-06-23 09:18	40
01-06-23 10:18	40
01-06-23 11:18	42
01-06-23 12:18	38
01-06-23 13:18	40
01-06-23 14:18	48
01-06-23 15:18	46
01-06-23 16:18	50
01-06-23 17:18	40
01-06-23 18:18	44
01-06-23 19:18	40
01-06-23 20:18	38
01-06-23 21:18	34
01-06-23 22:18	40
01-06-23 23:18	40
02-06-23 00:18	36
02-06-23 01:18	34
02-06-23 02:18	38
02-06-23 03:18	38
02-06-23 04:18	40
02-06-23 05:18	46
02-06-23 06:18	40
02-06-23 07:18	46
Average	41
Action Level	171
Limit Level	260

Date and Time	TSP Concentration (µg/m³)
07-06-23 07:44	50
07-06-23 08:44	54
07-06-23 09:44	64
07-06-23 10:44	68
07-06-23 11:44	74
07-06-23 12:44	58
07-06-23 13:44	60
07-06-23 14:44	70
07-06-23 15:44	76
07-06-23 16:44	66
07-06-23 17:44	64
07-06-23 18:44	60
07-06-23 19:44	62
07-06-23 20:44	68
07-06-23 21:44	78
07-06-23 22:44	64
07-06-23 23:44	54
08-06-23 00:44	52
08-06-23 01:44	58
08-06-23 02:44	56
08-06-23 03:44	60
08-06-23 04:44	48
08-06-23 05:44	52
08-06-23 06:44	62
Average	62
Action Level	171
Limit Level	260

Date and Time	TSP Concentration (µg/m³)
13-06-23 07:49	60
13-06-23 08:49	60
13-06-23 09:49	54
13-06-23 10:49	54
13-06-23 11:49	58
13-06-23 12:49	58
13-06-23 13:49	56
13-06-23 14:49	60
13-06-23 15:49	58
13-06-23 16:49	60
13-06-23 17:49	54
13-06-23 18:49	56
13-06-23 19:49	58
13-06-23 20:49	60
13-06-23 21:49	58
13-06-23 22:49	56
13-06-23 23:49	54
14-06-23 00:49	58
14-06-23 01:49	52
14-06-23 02:49	54
14-06-23 03:49	54
14-06-23 04:49	54
14-06-23 05:49	60
14-06-23 06:49	58
Average	57
Action Level	171
Limit Level	260

Date and Time	TSP Concentration (µg/m³)
19-06-23 8:05	44
19-06-23 9:05	48
19-06-23 10:05	46
19-06-23 11:05	48
19-06-23 12:05	42
19-06-23 13:05	40
19-06-23 14:05	40
19-06-23 15:05	50
19-06-23 16:05	48
19-06-23 17:05	44
19-06-23 18:05	40
19-06-23 19:05	40
19-06-23 20:05	36
19-06-23 21:05	40
19-06-23 22:05	36
19-06-23 23:05	36
20-06-23 0:05	44
20-06-23 1:05	38
20-06-23 2:05	34
20-06-23 3:05	36
20-06-23 4:05	42
20-06-23 5:05	46
20-06-23 6:05	44
20-06-23 7:05	50
Average	42
Action Level	171
Limit Level	260

Date and Time	TSP Concentration (µg/m³)
29-06-23 08:01	46
29-06-23 09:01	40
29-06-23 10:01	40
29-06-23 11:01	42
29-06-23 12:01	36
29-06-23 13:01	44
29-06-23 14:01	38
29-06-23 15:01	38
29-06-23 16:01	46
29-06-23 17:01	40
29-06-23 18:01	44
29-06-23 19:01	44
29-06-23 20:01	34
29-06-23 21:01	34
29-06-23 22:01	32
29-06-23 23:01	36
30-06-23 00:01	38
30-06-23 01:01	36
30-06-23 02:01	34
30-06-23 03:01	32
30-06-23 04:01	30
30-06-23 05:01	36
30-06-23 06:01	38
30-06-23 07:01	38
Average	38
Action Level	171
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 12 - Fung Wo Estate

Date and Time	TSP Concentration (µg/m³)
01-06-23 08:04	43
01-06-23 09:04	45
01-06-23 10:04	41
01-06-23 11:04	49
01-06-23 12:04	41
01-06-23 13:04	37
01-06-23 14:04	39
01-06-23 15:04	41
01-06-23 16:04	43
01-06-23 17:04	39
01-06-23 18:04	37
01-06-23 19:04	39
01-06-23 20:04	39
01-06-23 21:04	41
01-06-23 22:04	41
01-06-23 23:04	43
02-06-23 00:04	41
02-06-23 01:04	43
02-06-23 02:04	45
02-06-23 03:04	41
02-06-23 04:04	45
02-06-23 05:04	41
02-06-23 06:04	45
02-06-23 07:04	45
Average	42
Action Level	168
Limit Level	260

Date and Time	TSP Concentration (µg/m³)
07-06-23 08:12	59
07-06-23 09:12	76
07-06-23 10:12	69
07-06-23 11:12	74
07-06-23 12:12	69
07-06-23 13:12	61
07-06-23 14:12	78
07-06-23 15:12	69
07-06-23 16:12	63
07-06-23 17:12	67
07-06-23 18:12	65
07-06-23 19:12	61
07-06-23 20:12	57
07-06-23 21:12	84
07-06-23 22:12	59
07-06-23 23:12	67
08-06-23 00:12	65
08-06-23 01:12	69
08-06-23 02:12	71
08-06-23 03:12	63
08-06-23 04:12	67
08-06-23 05:12	51
08-06-23 06:12	55
08-06-23 07:12	65
Average	66
Action Level	168
Limit Level	260

Date and Time	TSP Concentration (µg/m³)
13-06-23 07:40	55
13-06-23 08:40	53
13-06-23 09:40	57
13-06-23 10:40	59
13-06-23 11:40	61
13-06-23 12:40	59
13-06-23 13:40	63
13-06-23 14:40	63
13-06-23 15:40	59
13-06-23 16:40	61
13-06-23 17:40	63
13-06-23 18:40	57
13-06-23 19:40	59
13-06-23 20:40	59
13-06-23 21:40	61
13-06-23 22:40	63
13-06-23 23:40	63
14-06-23 00:40	57
14-06-23 01:40	59
14-06-23 02:40	55
14-06-23 03:40	59
14-06-23 04:40	59
14-06-23 05:40	63
14-06-23 06:40	61
Average	60
Action Level	168
Limit Level	260

Date and Time	TSP Concentration (µg/m³)
19-06-23 08:14	47
19-06-23 09:14	45
19-06-23 10:14	45
19-06-23 11:14	49
19-06-23 12:14	51
19-06-23 13:14	43
19-06-23 14:14	41
19-06-23 15:14	47
19-06-23 16:14	43
19-06-23 17:14	45
19-06-23 18:14	45
19-06-23 19:14	47
19-06-23 20:14	41
19-06-23 21:14	43
19-06-23 22:14	37
19-06-23 23:14	39
20-06-23 00:14	39
20-06-23 01:14	43
20-06-23 02:14	41
20-06-23 03:14	37
20-06-23 04:14	37
20-06-23 05:14	43
20-06-23 06:14	41
20-06-23 7:14	39
Average	43
Action Level	168
Limit Level	260

Date and Time	TSP Concentration (µg/m³)
29-06-23 08:10	59
29-06-23 09:10	49
29-06-23 10:10	47
29-06-23 11:10	43
29-06-23 12:10	43
29-06-23 13:10	47
29-06-23 14:10	41
29-06-23 15:10	43
29-06-23 16:10	49
29-06-23 17:10	41
29-06-23 18:10	41
29-06-23 19:10	43
29-06-23 20:10	43
29-06-23 21:10	37
29-06-23 22:10	39
29-06-23 23:10	45
30-06-23 00:10	37
30-06-23 01:10	32
30-06-23 02:10	32
30-06-23 03:10	41
30-06-23 04:10	43
30-06-23 05:10	39
30-06-23 06:10	34
30-06-23 07:10	45
Average	42
Action Level	168
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 17 - Wo Che Estate

Date and Time	TSP Concentration ($\mu\text{g}/\text{m}^3$)
01-06-23 07:52	45
01-06-23 08:52	47
01-06-23 09:52	47
01-06-23 10:52	43
01-06-23 11:52	49
01-06-23 12:52	49
01-06-23 13:52	47
01-06-23 14:52	43
01-06-23 15:52	47
01-06-23 16:52	47
01-06-23 17:52	45
01-06-23 18:52	41
01-06-23 19:52	41
01-06-23 20:52	41
01-06-23 21:52	39
01-06-23 22:52	43
01-06-23 23:52	41
02-06-23 00:52	43
02-06-23 01:52	49
02-06-23 02:52	47
02-06-23 03:52	47
02-06-23 04:52	45
02-06-23 05:52	49
02-06-23 06:52	47
Average	45
Action Level	171
Limit Level	260

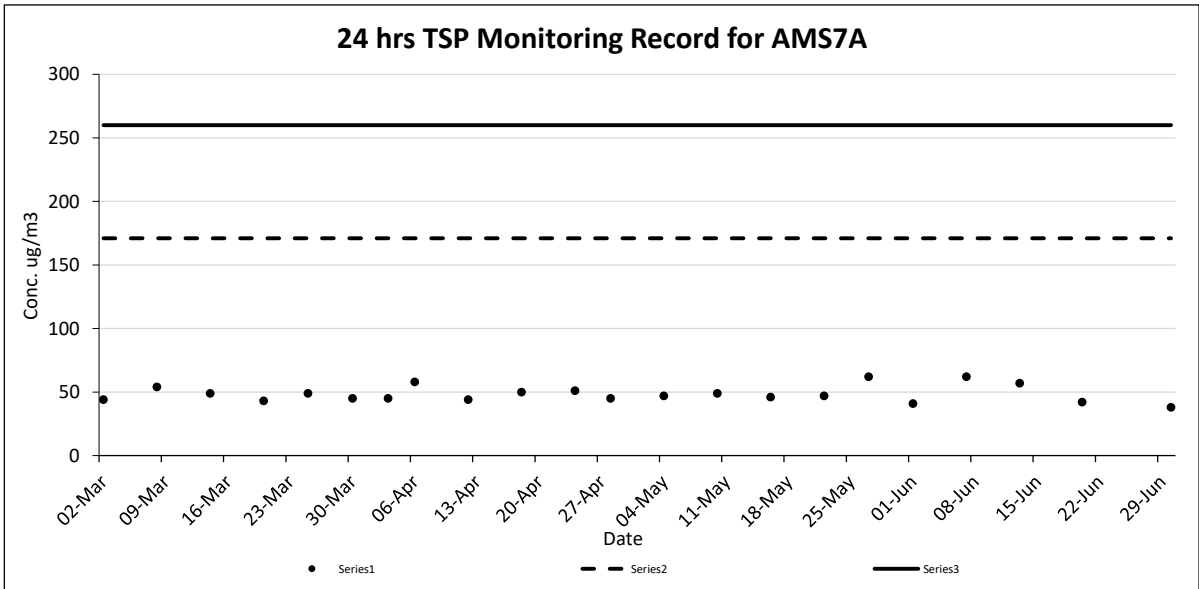
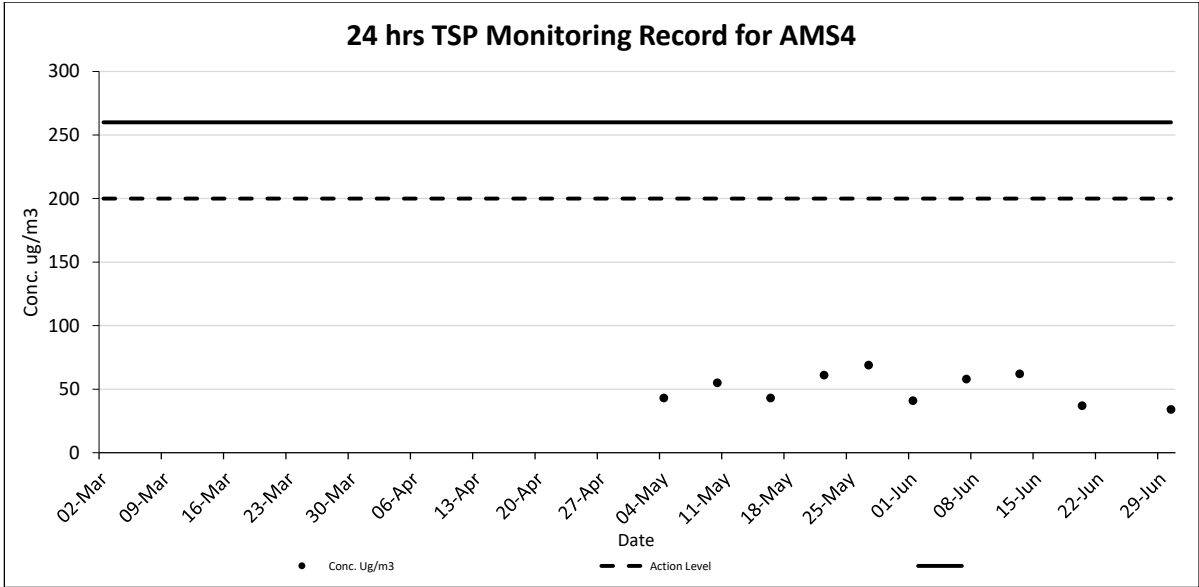
Date and Time	TSP Concentration ($\mu\text{g}/\text{m}^3$)
07-06-23 08:23	65
07-06-23 09:23	57
07-06-23 10:23	61
07-06-23 11:23	63
07-06-23 12:23	55
07-06-23 13:23	47
07-06-23 14:23	59
07-06-23 15:23	63
07-06-23 16:23	55
07-06-23 17:23	57
07-06-23 18:23	67
07-06-23 19:23	51
07-06-23 20:23	57
07-06-23 21:23	47
07-06-23 22:23	55
07-06-23 23:23	41
08-06-23 00:23	59
08-06-23 01:23	61
08-06-23 02:23	69
08-06-23 03:23	63
08-06-23 04:23	71
08-06-23 05:23	61
08-06-23 06:23	59
08-06-23 07:23	53
Average	58
Action Level	171
Limit Level	260

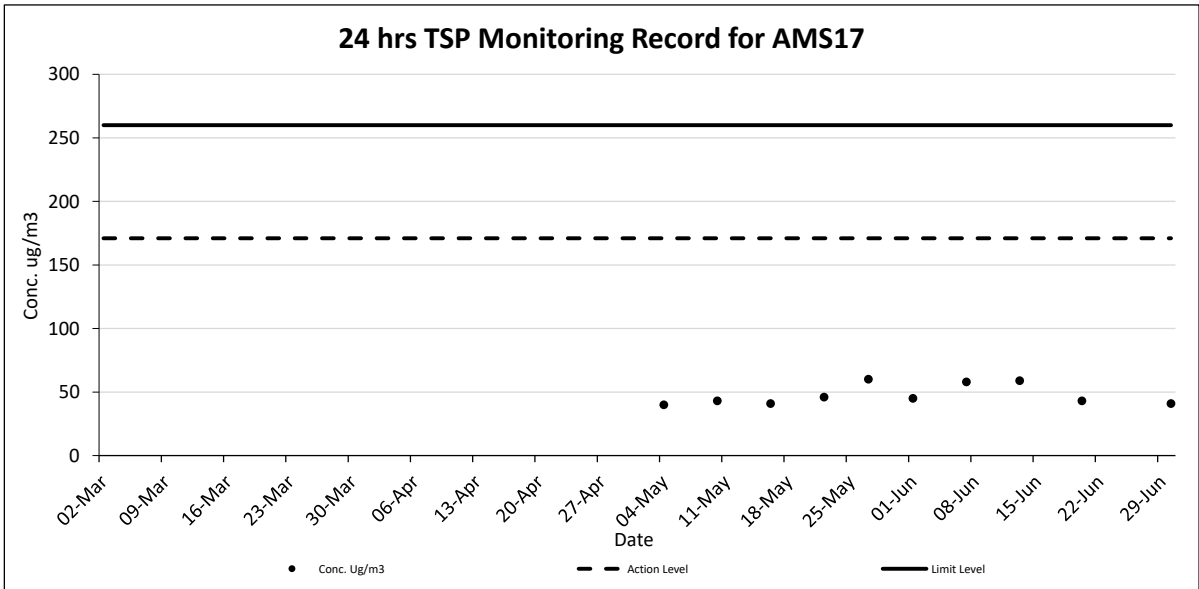
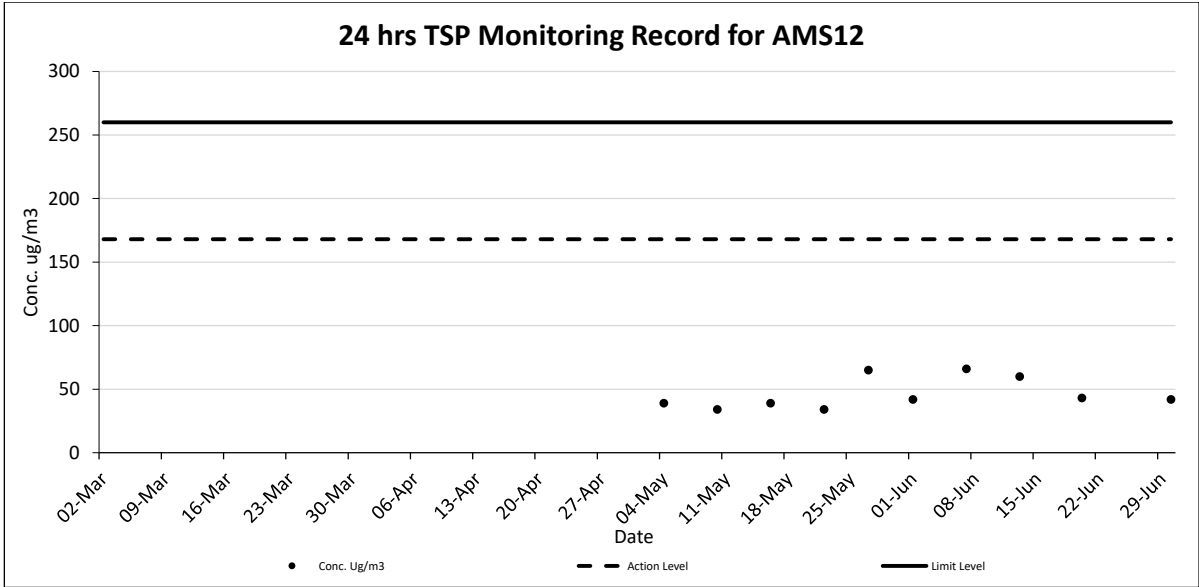
Date and Time	TSP Concentration ($\mu\text{g}/\text{m}^3$)
13-06-23 07:30	59
13-06-23 08:30	59
13-06-23 09:30	63
13-06-23 10:30	61
13-06-23 11:30	59
13-06-23 12:30	57
13-06-23 13:30	61
13-06-23 14:30	63
13-06-23 15:30	59
13-06-23 16:30	61
13-06-23 17:30	61
13-06-23 18:30	57
13-06-23 19:30	57
13-06-23 20:30	59
13-06-23 21:30	61
13-06-23 22:30	53
13-06-23 23:30	59
14-06-23 00:30	59
14-06-23 01:30	55
14-06-23 02:30	57
14-06-23 03:30	59
14-06-23 04:30	61
14-06-23 05:30	61
14-06-23 06:30	59
Average	59
Action Level	171
Limit Level	260

Date and Time	TSP Concentration ($\mu\text{g}/\text{m}^3$)
19-06-23 08:22	49
19-06-23 09:22	43
19-06-23 10:22	39
19-06-23 11:22	51
19-06-23 12:22	49
19-06-23 13:22	47
19-06-23 14:22	39
19-06-23 15:22	41
19-06-23 16:22	41
19-06-23 17:22	49
19-06-23 18:22	43
19-06-23 19:22	39
19-06-23 20:22	43
19-06-23 21:22	45
19-06-23 22:22	45
19-06-23 23:22	39
20-06-23 00:22	35
20-06-23 01:22	45
20-06-23 02:22	43
20-06-23 03:22	43
20-06-23 04:22	41
20-06-23 05:22	39
20-06-23 06:22	39
20-06-23 07:22	45
Average	43
Action Level	171
Limit Level	260

Date and Time	TSP Concentration ($\mu\text{g}/\text{m}^3$)
29-06-23 08:18	43
29-06-23 09:18	43
29-06-23 10:18	39
29-06-23 11:18	45
29-06-23 12:18	39
29-06-23 13:18	51
29-06-23 14:18	43
29-06-23 15:18	47
29-06-23 16:18	45
29-06-23 17:18	39
29-06-23 18:18	39
29-06-23 19:18	41
29-06-23 20:18	41
29-06-23 21:18	43
29-06-23 22:18	37
29-06-23 23:18	37
30-06-23 00:18	39
30-06-23 01:18	35
30-06-23 02:18	37
30-06-23 03:18	45
30-06-23 04:18	41
30-06-23 05:18	39
30-06-23 06:18	39
30-06-23 07:18	35
Average	41
Action Level	171
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.





FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Appendix G

Noise Monitoring Data

**Impact 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	Measured Noise Level			Limit Level	Construction Noise Level	Weather	Wind Speed (m/s)
		L _{eq}	L ₉₀	L ₁₀				
Unit: dB(A) 30 Mins								
01-Jun-23	9:44	61.4	58.0	64.5	75	61.4	Fine	0.7
07-Jun-23	8:20	63.7	60.5	65.5	75	63.7	Overcast	0.3
13-Jun-23	8:26	66.4	62.5	69.0	75	66.4	Fine	0.7
19-Jun-23	8:00	67.0	65.0	69.0	75	67.0	Fine	0.6
29-Jun-23	17:55	62.4	60.0	64.5	75	62.4	Overcast	0.3

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								
01-Jun-23	11:04	57.9	54.0	59.5	75	57.9	Fine	0.6
07-Jun-23	9:54	51.2	49.5	52.3	75	51.2	Overcast	0.5
13-Jun-23	8:54	61.4	58.0	64.0	75	61.4	Fine	0.3
19-Jun-23	11:04	58.0	56.0	60.0	75	58.0	Fine	0.0
29-Jun-23	8:37	54.0	52.5	55.5	75	54.0	Overcast	0.5

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								
01-Jun-23	10:23	61.8	58.5	63.5	75	61.8	Fine	0.9
07-Jun-23	9:10	65.5	62.0	68.0	75	65.5	Overcast	0.4
13-Jun-23	10:38	67.4	64.5	69.5	75	67.4	Fine	0.6
19-Jun-23	8:35	66.0	63.0	68.0	75	66.0	Fine	0.0
29-Jun-23	17:07	66.4	63.5	68.5	75	66.4	Overcast	0.4

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								
01-Jun-23	11:40	64.6	60.5	66.0	75	64.6	Fine	0.3
07-Jun-23	10:33	63.0	61.0	65.0	75	63.0	Overcast	0.5
13-Jun-23	10:02	62.3	60.5	64.0	75	62.3	Fine	0.4
19-Jun-23	10:46	62.6	61.0	64.0	75	62.6	Fine	0.0
29-Jun-23	9:16	63.1	60.5	65.5	75	63.1	Overcast	0.2

NMS 5A Wai Wah Centre (Site Boundary)

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								
01-Jun-23	9:06	69.2	64.0	72.5	75	69.2	Fine	0.5
07-Jun-23	10:39	69.1	66.5	71.5	75	69.1	Overcast	0.4
13-Jun-23	11:16	70.3	68.5	73.5	75	70.3	Fine	0.4
19-Jun-23	9:09	68.5	66.0	70.0	75	68.5	Fine	0.0
29-Jun-23	16:25	68.8	65.5	70.0	75	68.8	Overcast	0.6

NMS 6A Wai Wah Centre (Site Boundary)

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								
01-Jun-23	8:33	69.3	63.5	73.0	75	69.3	Fine	0.4
07-Jun-23	16:02	72.1	68.0	75.0	75	72.1	Overcast	0.3
13-Jun-23	13:03	69.7	67.5	72.0	75	69.7	Fine	0.7
19-Jun-23	9:41	68.0	65.0	70.0	75	68.0	Fine	0.0
29-Jun-23	15:47	74.1	71.5	76.0	75	74.1	Overcast	0.6

If measured noise level (L_{eq}) > limit level, Corrected noise level (CNL) is calculated as:

$$10 \times \log \left[\left(10^{\frac{\text{Measured noise level, } L_{eq}}{10}} \right) - \left(10^{\frac{\text{Baseline noise level}}{10}} \right) \right]$$

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								
01-Jun-23	13:04	64.3	60.0	65.5	75	64.3	Fine	0.4
07-Jun-23	11:10	64.3	62.0	66.0	75	64.3	Overcast	0.4
13-Jun-23	13:46	60.8	58.0	61.5	75	60.8	Fine	0.3
19-Jun-23	10:15	62.7	61.0	64.0	75	62.7	Fine	0.0
29-Jun-23	9:50	63.8	61.5	66.0	75	63.8	Overcast	0.4

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								
02-Jun-23	17:38	63.6	61.5	65.0	75	63.6	Fine	0.6
08-Jun-23	8:17	63.9	60.5	69.0	75	63.9	Overcast	0.2
14-Jun-23	8:30	65.1	61.5	66.0	75	65.1	Fine	0.0
20-Jun-23	8:49	61.8	58.5	65.0	75	61.8	Fine	0.7
30-Jun-23	8:44	63.7	57.5	66.0	75	63.7	Fine	0.4

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								
02-Jun-23	8:52	64.1	60.5	66.5	75	64.1	Fine	0.2
08-Jun-23	9:30	61.7	60.5	67.5	75	61.7	Overcast	0.4
14-Jun-23	9:49	64.8	59.5	66.0	75	64.8	Fine	0.0
20-Jun-23	9:56	68.4	62.5	71.0	75	68.4	Fine	0.7
30-Jun-23	9:51	68.4	65.0	71.5	75	68.4	Fine	0.2

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								
02-Jun-23	9:28	64.0	61.0	65.5	70	64.0	Fine	0.3
08-Jun-23	10:11	63.2	59.5	66.0	65	63.2	Overcast	0.2
14-Jun-23	10:27	64.7	61.0	66.5	70	64.7	Fine	0.0
20-Jun-23	10:34	64.9	62.5	68.0	70	64.9	Fine	0.8
30-Jun-23	10:29	63.9	60.5	66.0	70	63.9	Fine	1.2

*Note: The school calendar was provided 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								
02-Jun-23	15:38	61.9	58.0	63.0	75	61.9	Fine	0.3
08-Jun-23	16:37	60.7	57.5	64.0	75	60.7	Overcast	0.4
14-Jun-23	16:07	60.1	59.0	61.0	75	60.1	Fine	0.3
20-Jun-23	16:00	62.5	58.5	65.5	75	62.5	Fine	0.7
30-Jun-23	15:57	62.5	61.5	66.5	75	62.5	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								
02-Jun-23	10:10	62.3	61.0	63.5	65	62.3	Fine	0.2
08-Jun-23	10:55	62.9	60.0	64.0	70	62.9	Overcast	0.3
14-Jun-23	11:07	63.9	60.5	66.0	70	63.9	Fine	0.5
20-Jun-23	11:08	62.4	59.5	65.5	70	62.4	Fine	0.9
30-Jun-23	11:03	63.1	59.5	65.5	70	63.1	Fine	0.7

*Note: For SKH Holy Spirit Primary School, 70 dB(A) noise level is set for school on normal days. The examination was scheduled on 2 June 2023. Hence, the daytime noise level changed from 70 to 65 dB(A).

If measured noise level (L_{eq}) > limit level, Corrected noise level (CNL) is calculated as:

$$10 \times \log \left[\left(10^{\frac{\text{Measured noise level, } L_{eq}}{10}} \right) - \left(10^{\frac{\text{Baseline noise level}}{10}} \right) \right]$$

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								
02-Jun-23	10:48	60.0	56.5	61.5	75	60.0	Fine	0.2
08-Jun-23	11:34	61.2	59.0	64.0	75	61.2	Overcast	0.2
14-Jun-23	13:00	60.8	57.0	62.5	75	60.8	Fine	0.2
20-Jun-23	11:41	65.7	59.5	68.5	75	65.7	Fine	0.6
30-Jun-23	11:36	64.4	61.5	66.5	75	64.4	Fine	0.9

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								
02-Jun-23	14:59	62.3	58.5	64.5	75	62.3	Fine	0.2
08-Jun-23	15:53	61.4	58.5	63.0	75	61.4	Overcast	0.0
14-Jun-23	15:30	62.3	58.5	64.0	75	62.3	Fine	0.3
20-Jun-23	15:25	66.8	64.0	67.5	75	66.8	Fine	0.8
30-Jun-23	15:23	67.2	60.5	69.0	75	67.2	Fine	0.5

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								
01-Jun-23	14:15	60.1	59.0	63.5	75	60.1	Fine	0.6
07-Jun-23	14:00	60.1	57.0	61.5	75	60.1	Overcast	0.4
13-Jun-23	14:59	53.2	51.5	55.5	75	53.2	Fine	0.6
19-Jun-23	13:37	62.3	59.5	63.5	75	62.3	Fine	0.0
29-Jun-23	13:48	62.5	60.0	63.5	75	62.5	Overcast	0.5

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								
01-Jun-23	15:21	62.4	58.0	64.0	75	62.4	Fine	0.7
07-Jun-23	14:38	61.7	58.0	63.5	75	61.7	Overcast	0.4
13-Jun-23	15:38	55.3	52.5	57.5	75	55.3	Fine	0.6
19-Jun-23	14:08	61.4	59.0	63.5	75	61.4	Fine	0.0
29-Jun-23	14:24	62.9	59.5	64.0	75	62.9	Overcast	0.4

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								
02-Jun-23	11:28	63.1	60.5	65.0	70	63.1	Fine	0.4
08-Jun-23	13:12	62.8	60.5	66.0	65	62.8	Overcast	0.2
14-Jun-23	13:00	63.3	60.5	65.5	65	63.3	Fine	0.1
20-Jun-23	13:00	66.1	62.5	68.5	70	66.1	Fine	0.8
30-Jun-23	13:00	64.9	61.5	67.0	70	64.9	Fine	0.5

*Note: For Shatin Pui Ying College, 70 dB(A) noise level is set for school on normal days. The examination was scheduled on 8 and 14 June 2023. Hence, the daytime noise level changed from 70 to 65 dB(A).

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								
01-Jun-23	14:49	62.7	59.0	64.5	75	62.7	Fine	0.8
07-Jun-23	15:16	61.5	60.0	63.5	75	61.5	Overcast	0.4
13-Jun-23	16:14	54.4	51.5	56.5	75	54.4	Fine	0.5
19-Jun-23	14:39	61.0	59.0	63.0	75	61.0	Fine	0.0
29-Jun-23	14:58	62.3	60.0	64.0	75	62.3	Overcast	0.2

If measured noise level (L_{eq}) > limit level, Corrected noise level (CNL) is calculated as:

$$10 \times \log \left[\left(10^{\frac{\text{Measured noise level, } L_{eq}}{10}} \right) - \left(10^{\frac{\text{Baseline noise level}}{10}} \right) \right]$$

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								
02-Jun-23	13:06	64.5	60.5	66.5	75	64.5	Fine	0.5
08-Jun-23	13:51	64.7	62.0	66.5	75	64.7	Overcast	0.2
14-Jun-23	13:36	63.3	61.0	65.0	75	63.3	Fine	0.3
20-Jun-23	13:36	64.3	60.0	66.5	75	64.3	Fine	0.7
30-Jun-23	13:35	62.7	59.5	65.0	75	62.7	Fine	0.6

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								
02-Jun-23	13:41	62.7	59.0	64.0	75	62.7	Fine	0.4
08-Jun-23	14:29	63.1	60.5	67.0	75	63.1	Overcast	0.3
14-Jun-23	14:12	64.0	61.5	66.0	75	64.0	Fine	0.4
20-Jun-23	14:09	64.7	61.0	67.5	75	64.7	Fine	0.8
30-Jun-23	14:08	63.9	60.5	67.5	75	63.9	Fine	0.6

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								
01-Jun-23	13:39	63.8	59.5	65.0	75	63.8	Fine	0.5
07-Jun-23	11:45	63.2	60.5	65.0	75	63.2	Overcast	0.4
13-Jun-23	14:21	63.1	60.5	65.0	75	63.1	Fine	0.6
19-Jun-23	13:00	65.0	62.0	67.0	75	65.0	Fine	0.0
29-Jun-23	13:04	61.5	58.5	63.5	75	61.5	Overcast	0.4

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								
02-Jun-23	17:02	62.7	60.0	64.5	75	62.7	Fine	0.6
08-Jun-23	8:54	61.4	58.0	64.0	75	61.4	Overcast	0.3
14-Jun-23	9:04	63.4	60.0	65.5	75	63.4	Fine	0.0
20-Jun-23	9:21	63.2	60.0	65.5	75	63.2	Fine	0.8
30-Jun-23	9:16	62.4	58.0	65.5	75	62.4	Fine	1.2

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								
02-Jun-23	16:14	63.1	60.0	65.5	75	63.1	Fine	0.2
08-Jun-23	17:21	64.1	61.5	67.5	75	64.1	Overcast	0.4
14-Jun-23	10:43	65.4	61.0	67.5	75	65.4	Fine	0.4
20-Jun-23	16:36	67.4	63.0	69.5	75	67.4	Fine	0.8
30-Jun-23	16:33	68.3	63.5	69.5	75	68.3	Fine	0.5

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								
02-Jun-23	14:20	70.6	67.0	71.5	75	70.6	Fine	0.5
08-Jun-23	15:10	70.4	64.5	72.0	75	70.4	Overcast	0.2
14-Jun-23	14:49	70.2	67.5	72.0	75	70.2	Fine	0.0
20-Jun-23	14:47	65.2	63.5	68.5	75	65.2	Fine	0.9
30-Jun-23	14:45	62.8	62.0	65.5	75	62.8	Fine	0.8

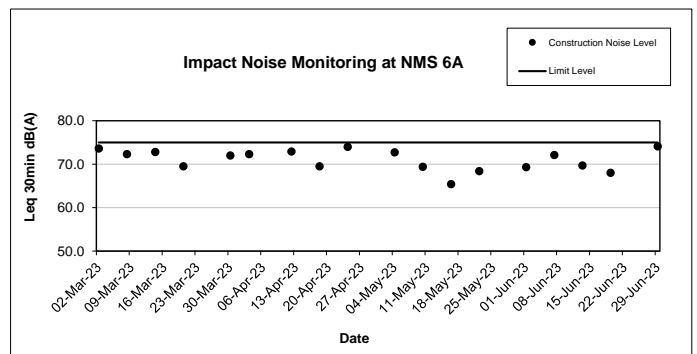
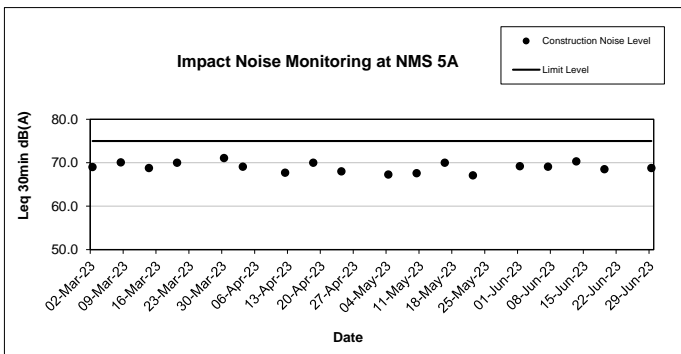
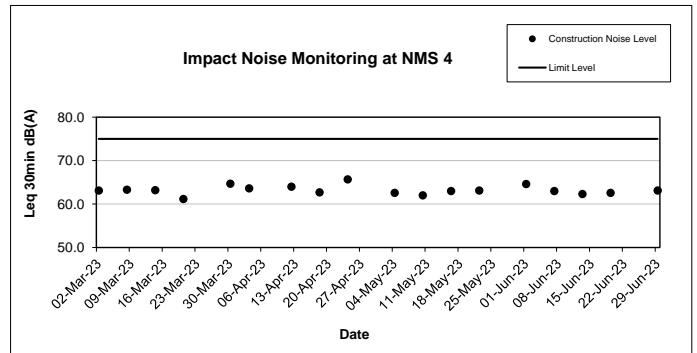
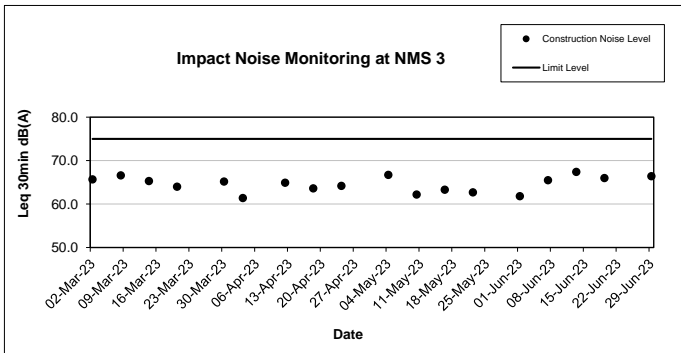
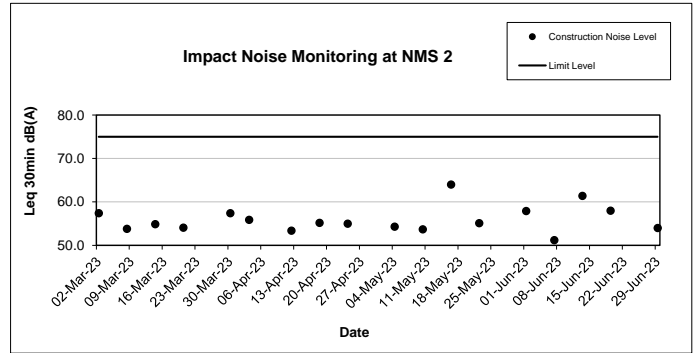
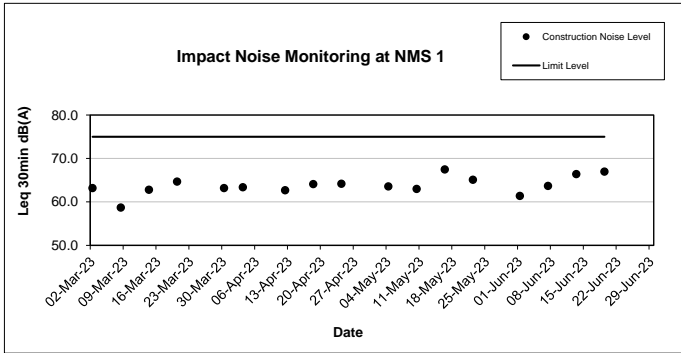
NMS 27 Jockey Club Ti-I College

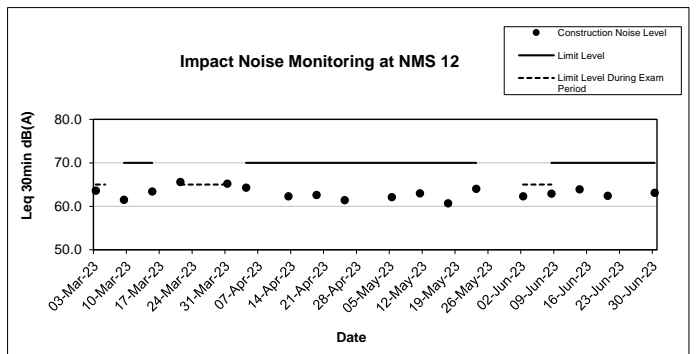
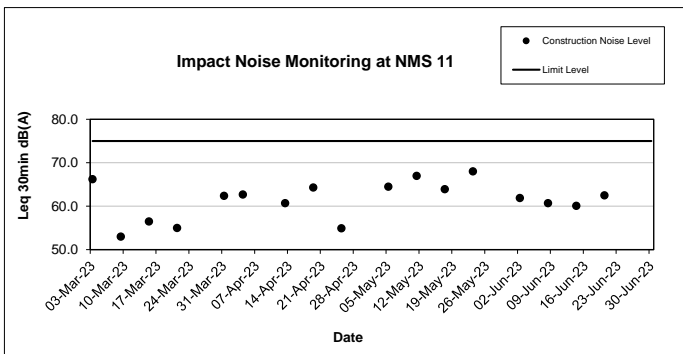
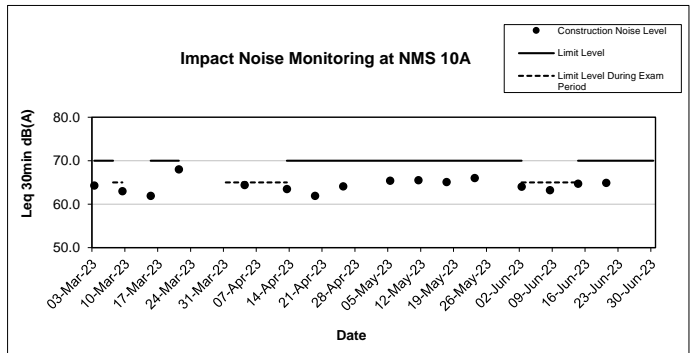
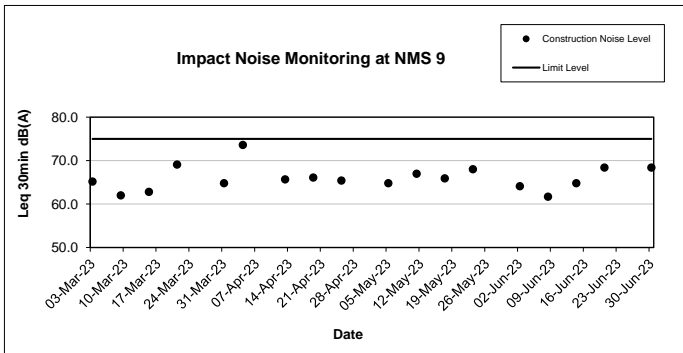
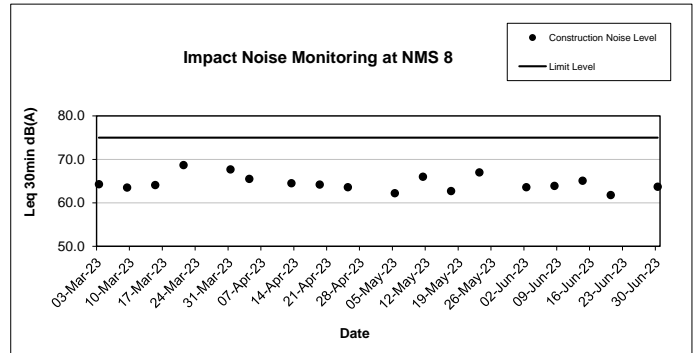
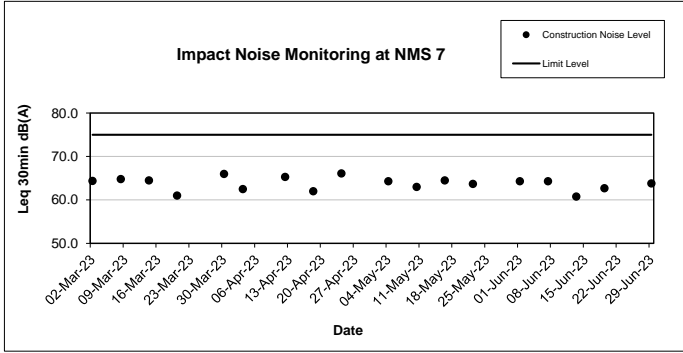
Date	Start Time	Measured Noise Level			Limit Level	Construction Noise Level	Weather	Wind Speed (m/s)
		L _{eq}	L ₉₀	L ₁₀				
Unit: dB(A) 30 Mins								
01-Jun-23	16:25	66.4	63.5	69.5	70	66.4	Fine	0.4
07-Jun-23	13:00	63.9	61.0	66.5	70	63.9	Overcast	0.3
13-Jun-23	16:58	63.6	62.0	66.5	70	63.6	Fine	0.6
19-Jun-23	15:05	63.0	60.0	65.0	70	63.0	Fine	0.0
29-Jun-23	10:48	61.7	59.0	63.5	70	61.7	Overcast	0.2

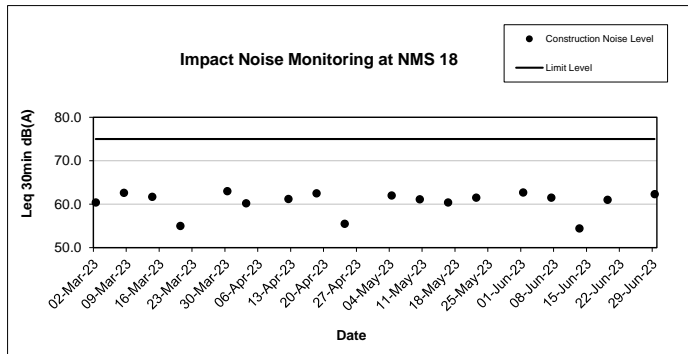
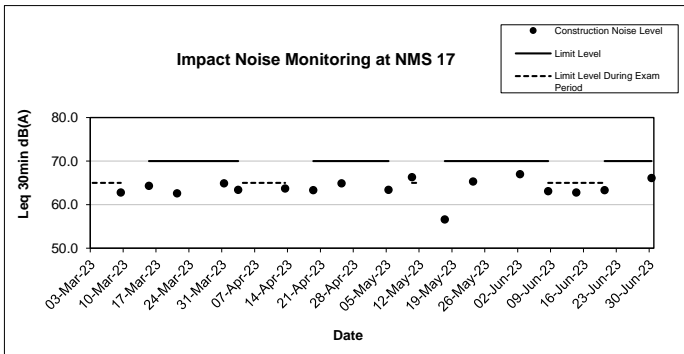
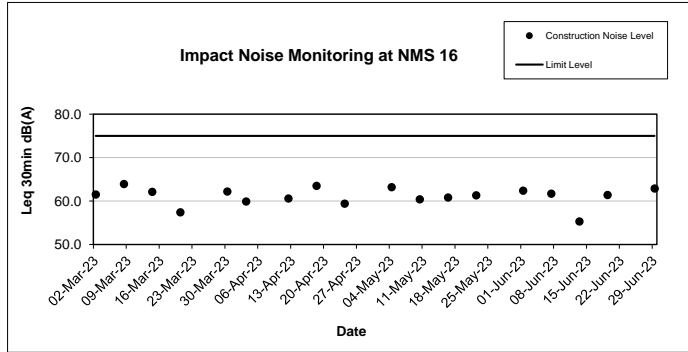
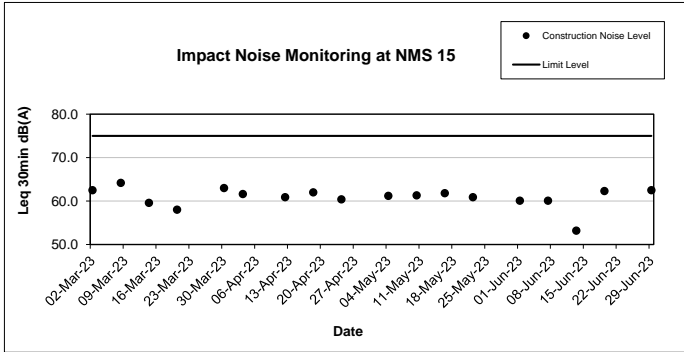
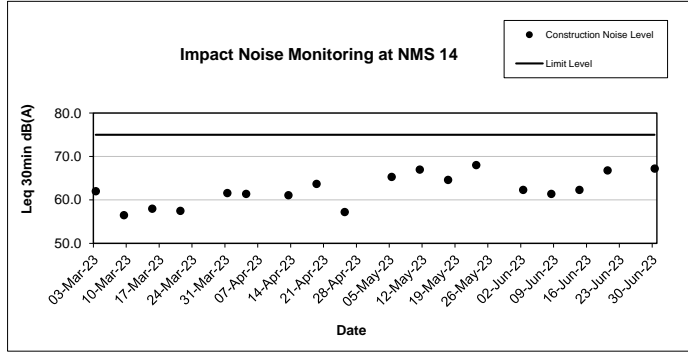
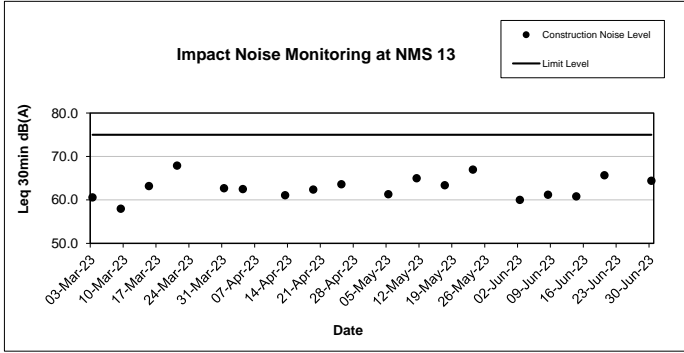
*Note: The school calender was provide in Appendix E.

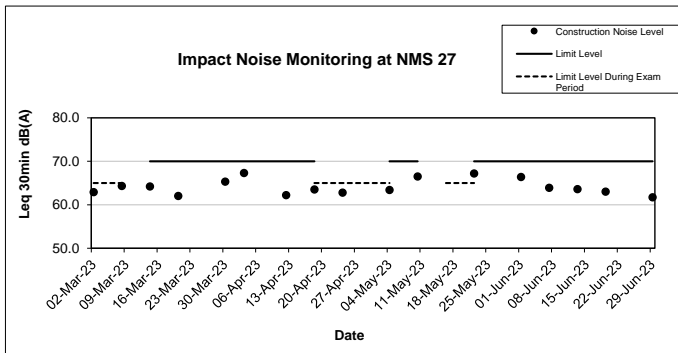
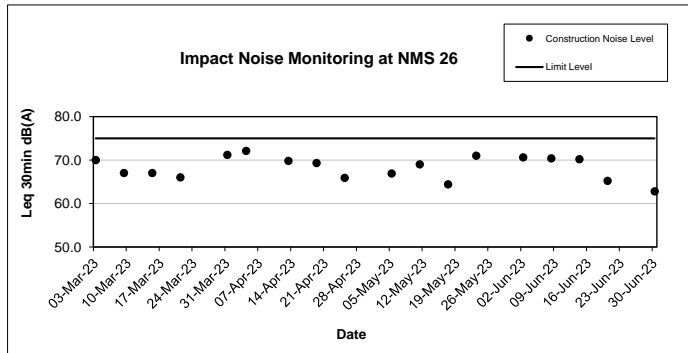
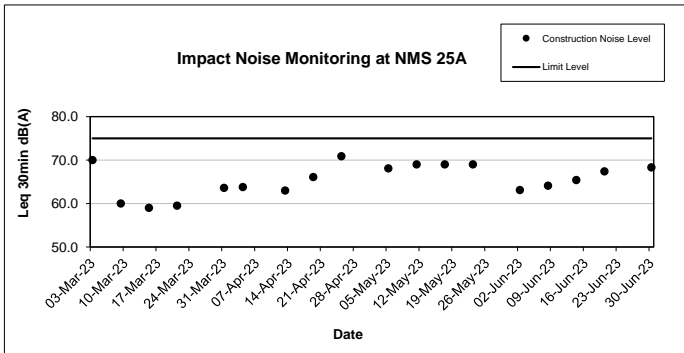
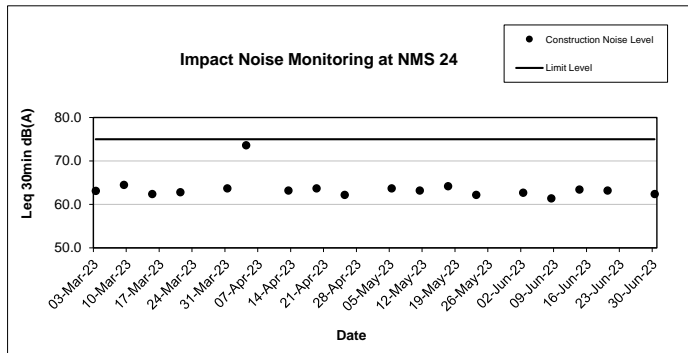
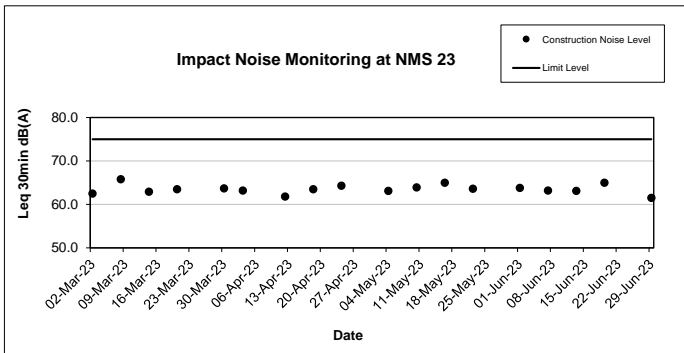
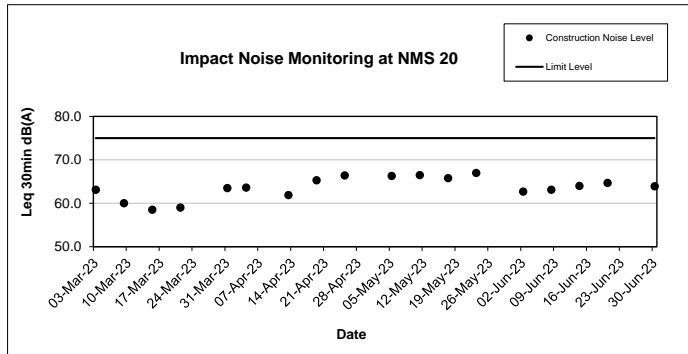
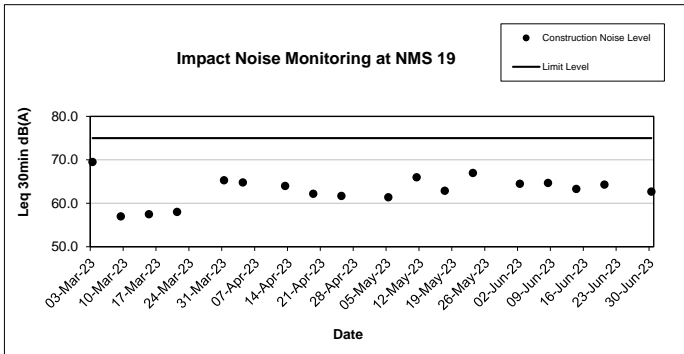
If measured noise level (L_{eq}) > limit level, Corrected noise level (CNL) is calculated as:

$$10 \times \log \left[\left(10^{\frac{\text{Measured noise level, Leq}}{10}} \right) - \left(10^{\frac{\text{Baseline noise level}}{10}} \right) \right]$$









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)
02-Jun-23	1:00	58.4	61.4	52.8 - 66.3	55	Measured Noise Level<Baseline	Fine	0.2
06-Jun-23	23:02	58.9			55	Measured Noise Level<Baseline	Fine	0.3
16-Jun-23	0:42	58.2			55	Measured Noise Level<Baseline	Fine	0.0
20-Jun-23	23:11	59.5			55	Measured Noise Level<Baseline	Fine	0.5
29-Jun-23	23:46	58.3			55	Measured Noise Level<Baseline	Overcast	0.5

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)
01-Jun-23	23:00	53.3	49.7	40.1 - 58.2	55	Measured Noise Level<Limit Level	Fine	0.8
06-Jun-23	23:04	52.7			55	Measured Noise Level<Limit Level	Fine	0.4
15-Jun-23	23:00	53.3			55	Measured Noise Level<Limit Level	Fine	0.6
20-Jun-23	23:06	53.6			55	Measured Noise Level<Limit Level	Fine	0.3
29-Jun-23	23:14	52.0			55	Measured Noise Level<Limit Level	Overcast	0.4

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)
02-Jun-23	0:32	63.0	70.9	60.2 - 78.9	55	Measured Noise Level<Baseline	Fine	0.4
06-Jun-23	23:22	60.3			55	Measured Noise Level<Baseline	Fine	0.3
16-Jun-23	0:13	62.9			55	Measured Noise Level<Baseline	Fine	0.2
20-Jun-23	23:33	59.0			55	Measured Noise Level<Baseline	Fine	0.6
30-Jun-23	0:10	62.9			55	Measured Noise Level<Baseline	Overcast	0.2

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)
01-Jun-23	23:23	58.6	62.6	53.1 - 68.1	55	Measured Noise Level<Baseline	Fine	0.7
06-Jun-23	23:28	60.5			55	Measured Noise Level<Baseline	Fine	0.7
15-Jun-23	23:21	56.3			55	Measured Noise Level<Baseline	Fine	1.2
20-Jun-23	23:36	57.0			55	Measured Noise Level<Baseline	Fine	0.7
29-Jun-23	23:39	61.0			55	Measured Noise Level<Baseline	Overcast	0.2

NMS 5A Wai Wah Centre (Site Boundary)

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)
02-Jun-23	0:08	65.9	67.9	62.0 - 75.2	55	Measured Noise Level<Baseline	Fine	0.5
06-Jun-23	23:43	66.5			55	Measured Noise Level<Baseline	Fine	0.5
16-Jun-23	1:03	66.1			55	Measured Noise Level<Baseline	Fine	0.2
20-Jun-23	23:55	66.6			55	Measured Noise Level<Baseline	Fine	0.5
30-Jun-23	0:34	66.6			55	Measured Noise Level<Baseline	Overcast	0.4

NMS 6A Wai Wah Centre (Site Boundary)

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)
01-Jun-23	23:46	70.1	71.5	65.0 - 85.9	55	Measured Noise Level<Baseline	Fine	0.6
07-Jun-23	0:01	69.8			55	Measured Noise Level<Baseline	Fine	0.5
16-Jun-23	1:22	70.0			55	Measured Noise Level<Baseline	Fine	0.4
21-Jun-23	0:14	69.5			55	Measured Noise Level<Baseline	Fine	0.6
30-Jun-23	0:57	69.3			55	Measured Noise Level<Baseline	Overcast	0.6

If measured noise level (L_{eq}) > limit level, Corrected noise level (CNL) is calculated as:

$$10 \times \log \left[\left(10^{\frac{\text{Measured noise level, Leq}}{10}} \right) - \left(10^{\frac{\text{Baseline noise level}}{10}} \right) \right]$$

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)
01-Jun-23	23:43	56.5	59.0	51.4 - 65.5	55	Measured Noise Level<Baseline	Fine	1.3
06-Jun-23	23:51	56.5			55	Measured Noise Level<Baseline	Fine	0.6
15-Jun-23	23:41	59.1			55	42.7*	Fine	0.5
20-Jun-23	23:58	55.7			55	Measured Noise Level<Baseline	Fine	0.6
29-Jun-23	23:58	59.7			55	51.4*	Overcast	0.2

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

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)
01-Jun-23	23:06	62.1	64.4	55.6 - 72.8	55	Measured Noise Level<Baseline	Fine	0.7
07-Jun-23	0:28	62.0			55	Measured Noise Level<Baseline	Fine	0.3
15-Jun-23	23:21	61.9			55	Measured Noise Level<Baseline	Fine	0.2
21-Jun-23	0:38	61.8			55	Measured Noise Level<Baseline	Fine	0.4
29-Jun-23	23:00	62.1			55	Measured Noise Level<Baseline	Overcast	0.4

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)
02-Jun-23	1:29	56.0	53.5	39.5 - 63.1	55	52.4*	Fine	0.4
07-Jun-23	1:14	55.4			55	50.9*	Fine	0.3
16-Jun-23	1:48	55.9			55	52.2*	Fine	0.4
21-Jun-23	1:21	56.5			55	53.5*	Fine	0.2
30-Jun-23	1:22	56.0			55	52.4*	Overcast	0.4

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)
02-Jun-23	0:45	54.3	53.2	46.1 - 62.8	55	Measured Noise Level<Limit Level	Fine	0.8
07-Jun-23	0:57	52.5			55	Measured Noise Level<Limit Level	Fine	0.5
16-Jun-23	0:42	53.9			55	Measured Noise Level<Limit Level	Fine	0.7
21-Jun-23	1:02	53.5			55	Measured Noise Level<Limit Level	Fine	0.7
30-Jun-23	0:58	54.1			55	Measured Noise Level<Limit Level	Overcast	0.2

If measured noise level (L_{eq}) > limit level, Corrected noise level (CNL) is calculated as:

$$10 \times \log \left[\left(10^{\frac{\text{Measured noise level, Leq}}{10}} \right) - \left(10^{\frac{\text{Baseline noise level}}{10}} \right) \right]$$

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)
02-Jun-23	1:52	53.0	57.3	45.4 - 72.5	55	Measured Noise Level<Limit Level	Fine	0.4
07-Jun-23	1:35	53.8			55	Measured Noise Level<Limit Level	Fine	0.4
16-Jun-23	2:08	52.8			55	Measured Noise Level<Limit Level	Fine	0.2
21-Jun-23	1:50	53.5			55	Measured Noise Level<Limit Level	Fine	0.5
30-Jun-23	1:44	52.6			55	Measured Noise Level<Limit Level	Overcast	0.3

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)
01-Jun-23	1:05	54.0	54.1	46.1 - 62.8	55	Measured Noise Level<Limit Level	Fine	0.8
07-Jun-23	1:18	54.4			55	Measured Noise Level<Limit Level	Fine	0.6
15-Jun-23	1:01	53.9			55	Measured Noise Level<Limit Level	Fine	0.8
20-Jun-23	1:24	56.3			55	52.3*	Fine	0.6
29-Jun-23	1:17	57.0			55	53.9*	Overcast	0.0

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)
02-Jun-23	1:26	54.0	58.8	48.4 - 69.7	55	Measured Noise Level<Limit Level	Fine	0.9
07-Jun-23	1:39	55.5			55	Measured Noise Level<Baseline	Fine	0.6
16-Jun-23	1:22	53.0			55	Measured Noise Level<Limit Level	Fine	1.1
21-Jun-23	1:46	57.3			55	Measured Noise Level<Baseline	Fine	0.3
30-Jun-23	1:40	59.0			55	45.5*	Overcast	0.4

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)
02-Jun-23	1:46	53.4	60.1	51.4 - 69.5	55	Measured Noise Level<Limit Level	Fine	0.7
07-Jun-23	2:03	57.2			55	Measured Noise Level<Baseline	Fine	0.6
16-Jun-23	1:45	52.8			55	Measured Noise Level<Limit Level	Fine	0.2
21-Jun-23	2:08	57.6			55	Measured Noise Level<Baseline	Fine	0.3
30-Jun-23	1:58	58.1			55	Measured Noise Level<Baseline	Overcast	0.4

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)
02-Jun-23	2:08	52.1	63.2	56.0 - 72.1	55	Measured Noise Level<Limit Level	Fine	0.6
07-Jun-23	2:23	52.1			55	Measured Noise Level<Limit Level	Fine	0.6
16-Jun-23	2:04	52.7			55	Measured Noise Level<Limit Level	Fine	1.1
21-Jun-23	2:28	53.8			55	Measured Noise Level<Limit Level	Fine	0.6
30-Jun-23	2:16	54.5			55	Measured Noise Level<Limit Level	Overcast	0.0

If measured noise level (L_{eq}) > limit level, Corrected noise level (CNL) is calculated as:

$$10 \times \log \left[\left(10^{\frac{\text{Measured noise level, Leq}}{10}} \right) - \left(10^{\frac{\text{Baseline noise level}}{10}} \right) \right]$$

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)
02-Jun-23	2:16	53.9	61.7	53.8 - 72.8	55	Measured Noise Level<Limit Level	Fine	0.4
07-Jun-23	1:53	54.8			55	Measured Noise Level<Limit Level	Fine	0.0
16-Jun-23	2:35	53.8			55	Measured Noise Level<Limit Level	Fine	0.3
21-Jun-23	2:18	54.6			55	Measured Noise Level<Limit Level	Fine	0.3
30-Jun-23	2:10	54.4			55	Measured Noise Level<Limit Level	Overcast	0.3

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)
02-Jun-23	2:35	49.5	57.7	48.6 - 71.7	55	Measured Noise Level<Limit Level	Fine	0.3
07-Jun-23	2:14	49.4			55	Measured Noise Level<Limit Level	Fine	0.0
16-Jun-23	2:54	49.9			55	Measured Noise Level<Limit Level	Fine	0.0
21-Jun-23	2:40	50.9			55	Measured Noise Level<Limit Level	Fine	0.4
30-Jun-23	2:28	50.2			55	Measured Noise Level<Limit Level	Overcast	0.4

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)
02-Jun-23	0:07	56.0	59.9	47.8 - 69.8	55	Measured Noise Level<Baseline	Fine	0.3
07-Jun-23	0:12	58.8			55	Measured Noise Level<Baseline	Fine	0.5
16-Jun-23	0:02	58.0			55	Measured Noise Level<Baseline	Fine	0.6
21-Jun-23	0:18	58.4			55	Measured Noise Level<Baseline	Fine	0.2
30-Jun-23	0:18	60.0			55	43.6*	Overcast	0.5

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)
01-Jun-23	23:24	59.0	58.0	50.2 - 66.7	55	52.1*	Fine	0.2
07-Jun-23	0:47	59.0			55	52.1*	Fine	0.2
15-Jun-23	23:40	58.8			55	51.1*	Fine	0.3
21-Jun-23	0:56	58.8			55	51.1*	Fine	0.5
29-Jun-23	23:19	58.9			55	51.6*	Overcast	0.2

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

NMS 25A Sheung Wo Che

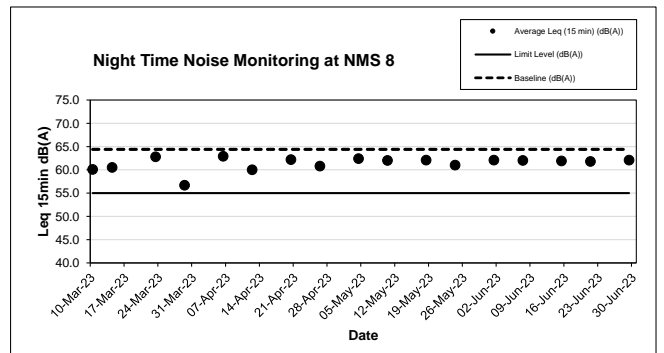
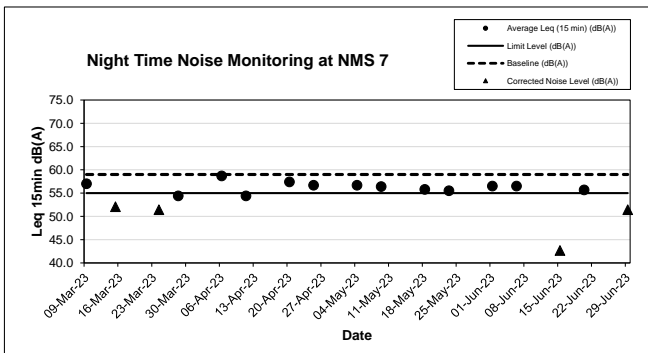
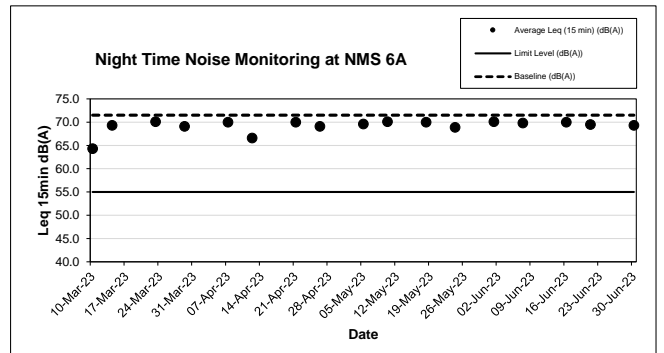
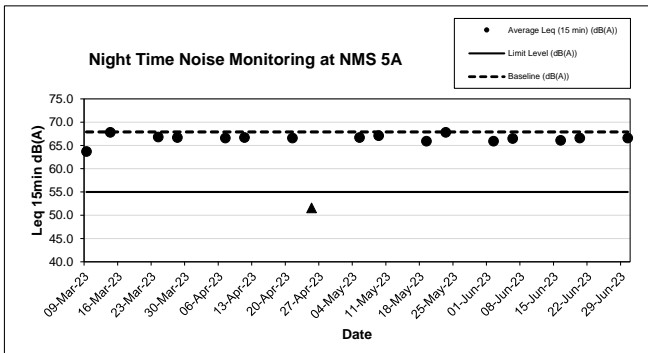
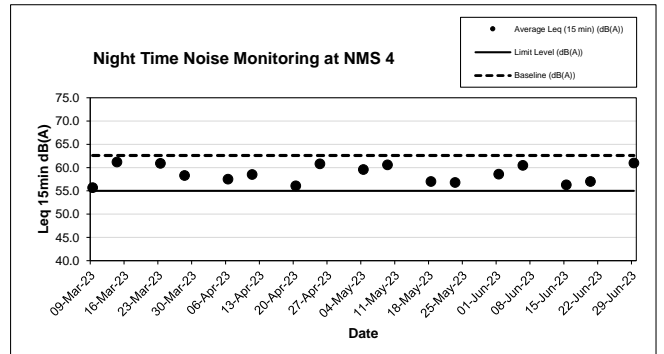
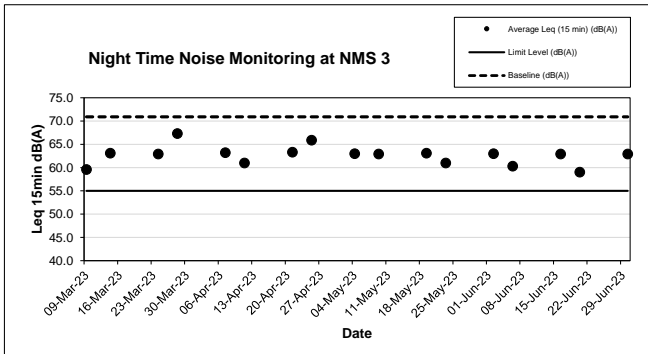
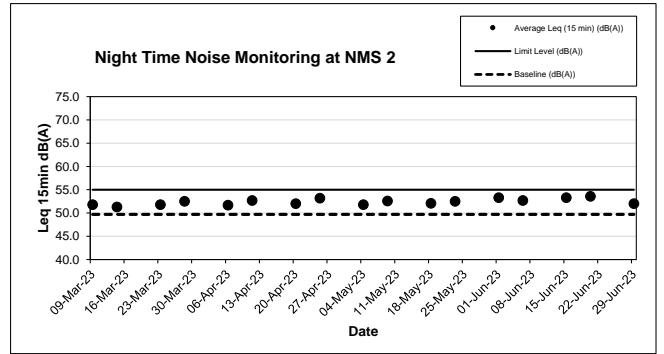
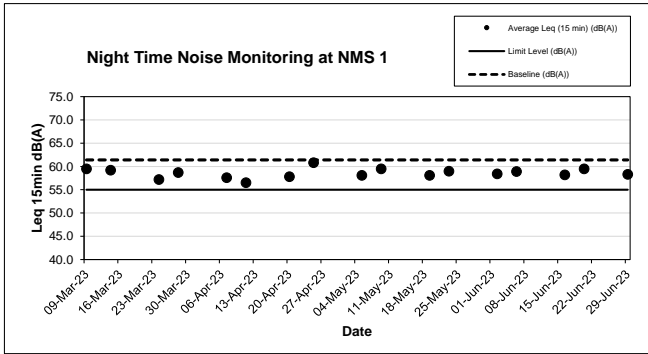
Date	Start Time	Average Leq (15 min) (dB(A))	Baseline (dB(A))	Baseline Range (dB(A))	Limit Level (dB(A))	Corrected Noise Level (dB(A))	Weather	Wind Speed (m/s)
02-Jun-23	0:26	56.9	59.7	50.3 - 68.4	55	Measured Noise Level<Baseline	Fine	0.6
07-Jun-23	0:34	56.3			55	Measured Noise Level<Baseline	Fine	0.6
16-Jun-23	0:21	57.6			55	Measured Noise Level<Baseline	Fine	1.0
21-Jun-23	0:39	57.2			55	Measured Noise Level<Baseline	Fine	0.6
30-Jun-23	0:37	54.3			55	Measured Noise Level<Limit Level	Overcast	0.4

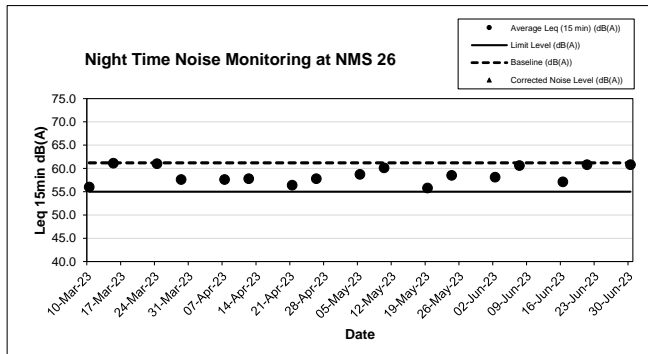
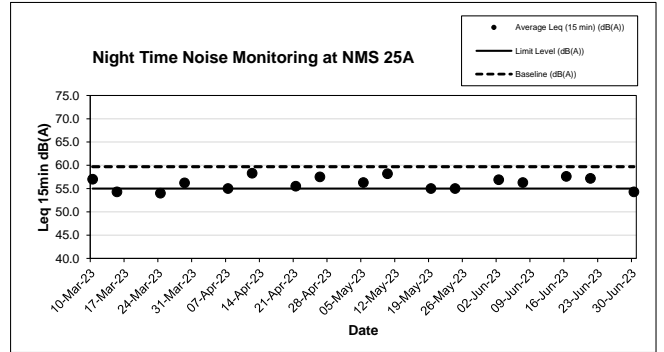
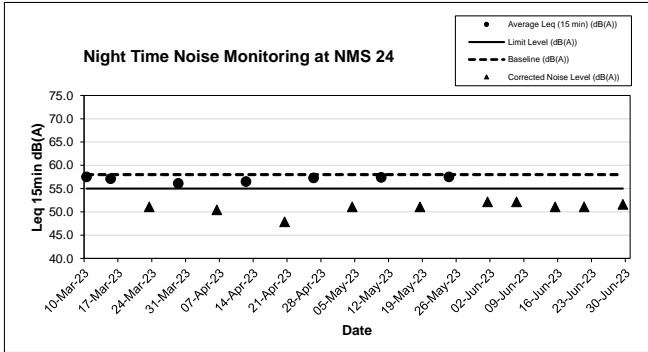
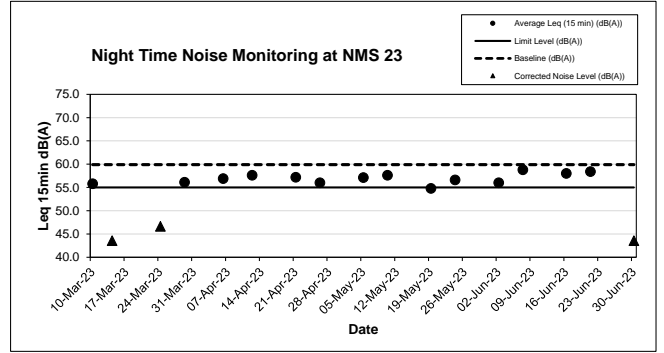
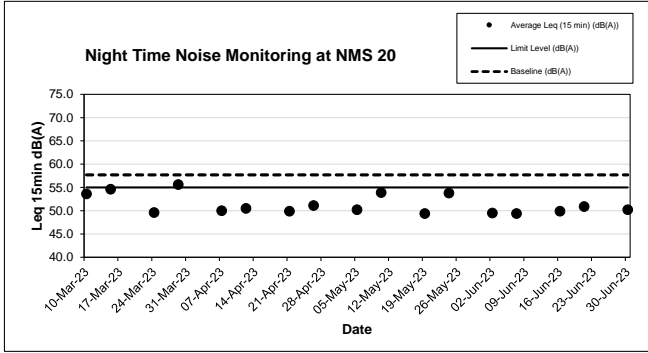
NMS 26 Wo Che Estate

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)
02-Jun-23	2:40	58.1	61.2	45.7 - 70.1	55	Measured Noise Level<Baseline	Fine	0.5
07-Jun-23	2:49	60.6			55	Measured Noise Level<Baseline	Fine	0.7
16-Jun-23	2:40	57.1			55	Measured Noise Level<Baseline	Fine	1.1
21-Jun-23	2:54	60.8			55	Measured Noise Level<Baseline	Fine	0.5
30-Jun-23	2:40	60.8			55	Measured Noise Level<Baseline	Overcast	0.3

If measured noise level (L_{eq}) > limit level, Corrected noise level (CNL) is calculated as:

$$10 \times \log \left[\left(10^{\frac{\text{Measured noise level, Leq}}{10}} \right) - \left(10^{\frac{\text{Baseline noise level}}{10}} \right) \right]$$





FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Appendix H

Events and Action Plan

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



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.	1. Notify the IEC, the SO	1. Discuss amongst	1. Confirm	1. Take immediate

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



EVENT	ACTION			
	ET Leader	IEC	SO	Contractor
Exceedance for two or more consecutive samples	<p>and the EPD and the 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>the SO, ET 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>receipt of 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>action to avoid 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.

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



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.



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.

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Appendix I

Waste Flow Table

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



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

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.

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



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

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.

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



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	0.000	0.002	0.042	0.009	0.000	0.044
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	1.670	0.000	0.000	0.000	1.670	0.000	0.001	0.030	0.006	0.000	0.036
2020 Dec	3.498	0.000	0.000	0.000	3.498	0.000	24.751	0.036	0.006	0.000	0.042
Total	24.101	0.000	0.109	0.000	23.992	0.498	24.764	0.403	0.054	0.000	0.438

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.

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Waste Flow Table for Year 2021											
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)
2021 Jan	3.196	0.000	0.000	0.000	3.196	0.000	0.001	0.048	0.855	0.000	0.053
2021 Feb	3.877	0.000	0.000	0.000	3.877	0.032	0.000	0.010	1.642	0.000	0.013
2021 Mar	7.348	0.000	0.000	0.000	7.348	0.000	0.001	0.215	0.004	0.000	0.050
2021 Apr	3.302	0.000	0.000	0.000	3.302	0.100	0.002	0.013	0.004	0.000	0.050
2021 May	2.315	0.000	0.150	0.000	2.165	0.024	0.001	0.008	0.005	0.000	0.106
2021 Jun	1.809	0.000	0.307	0.000	1.502	0.059	0.000	0.000	0.000	0.000	0.029
Sub-Total	21.847	0.000	0.457	0.000	21.390	0.215	0.005	0.294	2.510	0.000	0.301
2021 Jul	2.693	0.000	0.019	0.000	2.674	0.262	0.003	0.011	0.007	0.000	0.119
2021 Aug	3.088	0.000	0.000	0.000	3.088	0.095	0.002	0.007	0.011	0.000	0.071
2021 Sep	1.698	0.000	0.000	0.000	1.698	0.000	0.001	0.004	0.003	0.000	0.049
2021 Oct	1.500	0.000	0.000	0.000	1.500	0.279	0.002	0.003	0.005	0.000	0.021
2021 Nov	3.258	0.000	0.000	0.000	3.258	0.015	0.002	0.009	0.007	0.000	0.070
2021 Dec	1.935	0.000	0.000	0.000	1.935	0.000	0.002	0.003	0.002	0.000	0.035
Total	36.019	0.000	0.476	0.000	35.543	0.866	0.017	0.331	2.545	0.000	0.666

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.

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Waste Flow Table for Year 2022

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)
2022 Jan	1.815	0.000	0.064	0.000	1.751	0.097	20.640	0.000	0.000	0.000	0.410
2022 Feb	2.683	0.000	0.045	0.000	2.638	0.000	0.002	0.004	0.004	0.000	0.022
2022 Mar	3.039	0.000	0.000	0.000	3.039	0.037	0.000	0.000	0.000	0.000	0.026
2022 Apr	6.023	0.000	0.000	0.000	6.023	0.030	0.001	0.419	0.005	0.000	0.064
2022 May	10.291	0.000	0.000	0.000	10.291	0.159	0.001	0.011	0.003	0.000	0.042
2022 Jun	5.469	0.000	0.000	0.000	5.469	0.187	0.000	0.000	0.000	0.000	0.074
Sub-Total	29.320	0.000	0.109	0.000	29.211	0.510	20.644	0.434	0.012	0.000	0.638
2022 Jul	3.136	0.000	0.000	0.000	3.136	0.476	0.001	0.013	0.003	0.000	0.141
2022 Aug	4.111	0.000	0.000	0.000	4.111	0.431	6.871	0.373	0.010	0.000	0.088
2022 Sep	7.150	0.000	0.000	0.000	7.150	0.634	13.280	0.000	0.000	0.000	0.062
2022 Oct	8.330	0.000	0.000	0.000	8.330	1.896	0.001	0.008	0.003	0.000	0.070
2022 Nov	5.581	0.000	0.000	0.000	5.581	1.174	0.001	0.008	0.006	0.000	0.074
2022 Dec	6.787	0.000	0.000	0.000	6.787	1.134	0.001	0.003	0.001	0.000	0.080
Total	64.415	0.000	0.109	0.000	64.306	6.255	40.799	0.839	0.035	0.000	1.153

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.

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Waste Flow Table for Year 2023

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)
2023 Jan	4.592	0.000	0.000	0.000	4.592	0.322	0.000	0.220	0.002	0.000	0.067
2023 Feb	6.448	0.000	0.000	0.000	6.448	0.500	0.001	0.281	0.003	0.000	0.055
2023 Mar	8.344	0.000	0.000	0.000	8.344	0.579	0.001	0.338	0.050	0.000	1.390
2023 Apr	5.538	0.000	0.000	0.000	5.538	1.625	0.001	0.220	0.005	0.000	0.935
2023 May	6.803	0.000	0.000	0.000	6.803	1.544	0.001	0.000	0.002	0.000	0.073
2023 Jun	8.089	0.000	0.000	0.000	8.089	0.142	0.002	0.183	0.002	0.000	0.192
Sub-Total	39.814	0.000	0.000	0.000	39.814	4.712	0.006	1.242	0.064	0.000	2.712
2023 Jul											
2023 Aug											
2023 Sep											
2023 Oct											
2023 Nov											
2023 Dec											
Total	39.814	0.000	0.000	0.000	39.814	4.712	0.006	1.242	0.064	0.000	2.712

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.

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Appendix J

Environmental Mitigation Implementation Schedule (EMIS)

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



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	Not Applicable
		• Silencers, mufflers and enclosures for plant should be used where possible and maintained adequately throughout the works.	Contractor	Implemented
		• 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	Implemented
		• Other type of quiet PME are allowed to use for their needs based on the actual construction conditions and programmes	Contractor	Implemented
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	Implemented

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



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	Implemented
		• 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	Implemented
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
<u>Air Quality Measures</u>				
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

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



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	Implemented
		• 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	Implemented
		• Suitable chemical wetting agent such as dust suppression chemical shall be used on completed cuts and fills to reduce wind erosion.	Contractor	Not Applicable
		• 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	Implemented
		• 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	Implemented
		• 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	Implemented
		• 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
4.12.1				

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



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	Partially 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	Not 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	Implemented
		• The efficiency of the interceptor channels, traps and sedimentation chambers should be maintained	Contractor	Implemented

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



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	Partially 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	Implemented
		<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	Partially Implemented
		<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	Implemented
		<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	Implemented

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



EIA Review Ref	Location	Environmental Protection Measures/	Implementation Agent	Implementation Status in Construction Phase	
Section 12.6 of the Approved EIA Report		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	Not Applicable	
		• Discharges from the site shall be required to meet the terms and conditions of a valid WPCO Water Pollution Control Ordinance (WPCO).	Contractor	Not Implemented	
		• 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	Partially 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	Implemented	
(vi) The operation of the plant maintenance areas to control small spillages and the correct management of the fuel storage bunded area.	Contractor	Implemented			
(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	Implemented			
(viii) The operation of the roof rain water collection and drainage system.	Contractor	Implemented			
Landscape and Visual Mitigation Measures					
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	

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



EIA Review Ref	Location	Environmental Protection Measures/	Implementation Agent	Implementation Status in Construction Phase	
		• 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	Implemented	
		• 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	

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



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

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



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	Partially 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	Not Applicable
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	Implemented

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



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	Partially 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	Implemented
		• 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	Contractor	Partially Implemented

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



EIA Review Ref	Location	Environmental Protection Measures/	Implementation Agent	Implementation Status in Construction Phase
		requirements.		
		• 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.	• 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 ant 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	Partially Implemented

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

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Appendix K

Weather and Meteorological Conditions during Reporting Month

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Date	Mean Pressure (hPa)	Air Temperature			Mean Relative Humidity (%)	Total Rainfall (mm)
		Maximum (deg. C)	Mean (deg. C)	Minimum (deg. C)		
June 2023						
1	1002.8	31.6	29.2	26.2	79.0	6.0
2	1004.8	35.2	30.7	28.2	76.0	0.0
3	1007.6	34.9	30.8	28.9	76.0	0.6
4	1008.4	32.7	30.0	27.9	81.0	5.1
5	1007.9	32.9	29.7	27.7	79.0	4.8
6	1007.8	30.2	28.4	26.8	87.0	31.1
7	1008.7	31.5	28.5	27.0	88.0	27.1
8	1007.1	33.1	29.4	27.4	82.0	2.6
9	1004.2	32.0	29.0	26.7	83.0	16.8
10	1001.9	33.0	29.5	28.0	79.0	0.3
11	1001.6	32.5	29.2	27.3	83.0	25.4
12	1001.9	33.7	30.2	28.2	77.0	0.2
13	1002.6	32.7	29.8	25.8	81.0	31.8
14	1004.9	29.6	27.7	25.1	88.0	62.8
15	1005.1	28.7	27.4	26.1	91.0	41.5
16	1007.1	28.1	26.4	25.2	92.0	41.7
17	1009.3	28.0	26.2	25.3	94.0	89.9
18	1008.9	29.9	28.0	25.7	89.0	35.8
19	1007.5	31.4	29.1	26.9	83.0	10.2
20	1007.0	32.2	30.0	27.8	80.0	2.3
21	1007.4	32.2	30.2	28.7	79.0	1.9
22	1007.2	32.4	30.2	29.0	77.0	0.6
23	1006.5	31.2	30.0	28.0	80.0	2.3
24	1007.1	31.0	29.1	27.4	85.0	8.2
25	1008.2	32.9	29.4	26.1	83.0	13.0
26	1008.5	32.9	29.4	26.6	83.0	11.4
27	1009.5	33.9	30.1	28.1	80.0	Trace
28	1009.9	31.3	28.8	26.9	86.0	5.4
29	1006.9	33.3	29.5	27.1	84.0	0.9
30	1005.6	32.5	29.8	26.5	82.0	11.2

Remark: Trace means rainfall less than 0.05 mm

Source: Hong Kong Observatory

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Appendix L

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

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



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	02/02/2019	EPD	CCZJV	Noise	13/02/2019	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 14 th 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.	20/02/2019
COM-2019-006	22/02/2019	Project Hotline of NE/2017/05	CCZJV	Noise	26/02/2019	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 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.	04/03/2019
COM-2019-0010	28/03/2019	Project Hotline of NE/2017/05	CCZJV	Noise	28/03/2019	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	04/04/2019

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						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.	
COM-2019-0033	26/07/2019	Police visit on-site	CCZJV	Noise	26/07/2019	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 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.	30/07/2019
COM-2019-0045	30/08/2019	1823	CCZJV	Noise	30/08/2019	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 <=10kg (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	19/09/2019

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						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.	
COM-2019-0056	09/10/2019	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 comply 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.	04/11/2019
COM-2019-0057	09/10/2019	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 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.	21/10/2019

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2019-0066	06/11/2019	EPD	CCZJV	Noise	07/11/2019	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 to nearby NSRs. 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. 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.	19/03/2020
COM-2020-0089	24/03/2020	Project hotline	CCZJV	Noise	24/03/2020	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 24 th	07/04/2020

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						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 PMEs 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.	
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 27 th & 28 th 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 at zone 2 adjacent to Wai Wah Centre. The Main Contractor complied with	28/04/2020

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						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 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 20 th & 21 st 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 20 th and 21 st Apr 2020 was carried out at non restricted hours	19/05/2020
COM-2020-0097	20/04/2020	Project Email	CCZJV	Noise	20/04/2020		

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2020-0098	21/04/2020	Project hotline	CCZJV	Noise	21/04/2020	with green tarpaulin curtain and sound proof canvas. The noise level of NMS 5A and NMS 6A on 22 nd 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 22 nd Apr 2020 was similar to 20 th and 21 st Apr 2020. Therefore, ET's day-time monitoring result on 22 nd April 2020 at NMS5A and NMS6A can act as a reference for impact noise from the similar mini-piling operation on 20 th and 21 st April 2020. ET analyzed that the dominant noise source should be road traffic noise but not the project-related construction noise.	
COM-2020-0099	21/04/2020	Project hotline	CCZJV	Noise	21/04/2020	The complaint cases on 21 st 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 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.	05/05/2020

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
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 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 23 rd 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 23 rd 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 22 nd April 2020 at NMS5 & NMS6 can be act as a reference for impact noise from the similar mini-piling operation activities on 23 rd 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 traffic noise but not the project-related construction noise.	11/05/2020
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	15/05/2020

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						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 th 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 26 th 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 2 nd and 28 th 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.	
COM-2020-0151	10/11/2020	EPD	CCZJV	Water	10/11/2020	The complainant on 10 th November 2020 complained about water discharge onto the traffic lanes of Northbound towards Sha Tin Section of Tai Po Highway. According to the Main Contractor, there is one active site access located at Zone 1 (R1) near Pai Tau, site access no. is N02. Restricted opening hours of the site access Zone 1 (R1) is between 10:00 to 16:00.	27/11/2020

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						The operation which might be related to the complaint was water flow from water-filled barriers before the opening of site access and no water spilling onto the traffic lanes from the access area of Zone 1 (R1). The released water was directed towards the work areas facing Zone 1 (R1) and no water was flowed towards the high-speed road or traffic lanes. ET conducted ad-hoc site inspection on 17 th November 2020. ET had no particular findings related to the complaint and conducted trial to open the bottom of the water barrier valve for testing and checking on the water flow to the construction site at Zone 1. Contractor performed well on environmental preventive measures for soil or silt leakage protection as impervious sheet with sand bags had been provided at the site boundary of Zone 3. ET analyzed that released water was directed towards the work areas facing Zone 1 (R1) and no water was flowed towards the high-speed road or traffic lanes.	
COM-2020-0152	20/11/2020	1823	CCZJV	Noise	20/11/2020	<p>The complainant on via ICC1823 on 20th November 2020 complained about the noise generated from the night-time asphalt laying construction works between Sha Tin Station and nearby Wo Che Estate. Although the main contractor no work at zone 5, but the major night-time construction works was road surface remedial work which was related to the complainant concerned. According to the Main Contractor, the major construction works was road surface remedial work since 19th November 2020 conducted at restricted hours along zone 3 to zone 4 north bound of Tai Po Road Sha Tin section. 3.20</p> <p>No exceedance cases were found on ET regular night-time noise monitoring measurement (Appendix F) at all noise monitoring stations. Contractor placed acoustic enclosure "SilentCUBE" with four sides and a top cover at asphalt removal works to mitigate. The Main Contractor was reminded to pay attention to CNP other condition 3.d.3, the electric hand-held breaker shall only be used for carrying out construction work between 22:00 – 23:30 hours. It is prohibited to use the electric</p>	07/12/2020

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						hand-held breaker beyond the CNP condition 3.d.3 stated that the using limitation on 23:30. The Main Contractor was reminded to re-arrange their proposed night-time construction activities to fulfill the complainant expectation that noise emitting work should be paused during 00:00 to 06:00 sleeping time.	
COM-2020-153	26/11/2020	EPD	CCZJV	Water	24/11/2020	According to EPD Mr. Bryan Kwok, EPD carried out a site inspection on 24 November 2020, revealing that muddy effluent was discharged from an outfall at Fo Tan near Jockey Club Ti-I College while construction work of the abovementioned project site at Zone 5 opposite to Wo Che Estate was in progress. EPD team inspected the condition of waste water treatment facilities on site (slope F133) and observed that the water in the first and second sedimentation tanks was muddy; muddy water was observed at the outlet level of the WetSep (waste water treatment plant) though there was no discharge and piling works at the time. EPD team reminded the Main Contractor that effluent does not complied with the discharge license standard should NOT be allowed to discharge. The waste water treatment system should be improved and maintained to ensure the effluent discharge standard. EPD team requested in both works area of Slope F133 and Slope F163 the Main Contractor to locate the network of drainage, connecting manhole(s) and downstream manhole, check if any presence of muddy materials and clear-out. The main contractor was reminded to strictly follow and fully comply with the water discharge license (WT00032446-2018) conditions and the mitigation measures stipulated in the EM&A Manual for effluent discharge on the wastewater treatment system.	23/12/2020
COM-2020-154	27/11/2020	1823	CCZJV	Noise	30/11/2020	The complaint was received via ICC1823 on 27 th November 2020, the complainant expressed concern of construction noise nuisances near Wo Che Estate at around 01:14 am on 27 th November 2020. According to the Main Contractor, there were no construction works near Wo Che Estate (Zone 5) on 26 th 27 November 2020. The major construction works were works	14/12/2020

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						related to removal of central median (at night-time) under the approved road closure with CNP no.GW-RN0799-20. According to Main Contractor EO Kimberly, she sent prior notification to the EPD on 20 th November 2020 through logging in the webpage of EPD before the commencement of the construction work in relation to the CNP GW-RN0799-20 (conditions 3.d.11 and 4.d.8). The Main Contractor provided photo records showing that mitigation measures of the movable acoustic enclosure "SilentCUBE" with four sides and a top cover were implemented for night work on removal of existing central median: drill hole with percussive drill for temporary steel module spiral installation, drill hole at existing central median with concrete corer and asphalt compaction with portable roller. Main Contractor was reminded to strictly follow and fully comply with the CNP No.: GW-RN0799-20 conditions. 5.11 The Main Contractor was reminded to re-arrange their proposed night-time construction activities to fulfill the complainant expectation that noise emitting work should be paused during 00:00 to 06:00 sleeping time.	
COM-2020-155	26/11/2020	1823	CCZJV	Dust	30/11/2020	According to the complainant, the dust nuisance concerned at day time was at the slip road to Fo Tan Road near Lok King Street near Zone 5 works area. According to the Main Contractor, the major day time construction works at Zone 5 works area in November were mini-piling works and slope works of soil replacement. Regular movement of vehicle for transportation was also carried out on site. Thus, the complaint was considered to be related to the project. ET conducted regular day-time air quality monitoring in November 2020 and on the 3 rd December 2020 at selected air monitoring stations AMS6, 8, 11A & 13 and AMS5, 4A, 7A & 12 respectively. The two air quality monitoring stations closed to the works area at zone 5 (where the complainant concerned of dust nuisance) were AMS12 and AM13; and AMS13 locate nearest to Zone 5. The ET regular air quality results measured at AMS13 and AM12	05/01/2021

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						in November 2020 and on the 3 rd December 2020 show that there was no exceedance case found in air quality monitoring measurement and the results were all below the action level. The Main Contractor was reminded to enhance the mitigation measures in dust control such as increase the water spray frequency at the construction site to suppress dust emission. The Main Contractor proposed to properly maintain the coverings on exposed slopes and keep them in good condition for minimizing dust impact. The Main Contractor proposed to frequently spraying of haul road especially at area where active movement of vehicles and pave the haul road where necessary to reduce dust impact.	
COM-2020-157	07/12/2020	STDC	CCZJV	Dust	07/12/2020	According to the complainant, the dust nuisance concerned at day time was generated from the construction works area of the Tai Po Road Widening project at Zone 5. According to the Main Contractor, major day time construction works of mini-piling and soil replacement at slopes were carried out at Zone 5 works area in December 2020. There was also regular movement of vehicle for transportation within the works area. Thus, the complaint was considered to be related to the project. ET conducted regular day-time air quality monitoring (Appendix C) on the 3 rd , 9 th & 15 th December 2020 respectively which was close to the date of complaint, at selected air monitoring stations AMS5, AMS4A, AMS7A & AMS12. ET regular day-time air quality monitoring measurement results at air quality monitoring stations AMS12, closest to Zone 5. The ET regular air quality results measured at AM12 on 3 rd , 9 th & 15 th December 2020 show that there was no exceedance case was found in air quality monitoring measurement and the results were all below the action level. The Main Contractor was reminded to reduce the travelling speed of transportation vehicles on site and plan the schedule of delivery transport in order to reduce dust impact. The Main Contractor proposed to continue in maintaining the coverings on exposed slopes in good condition for minimizing dust impact.	29/12/2020

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						The Main Contractor proposed to increase water spraying at area where active movements of vehicle transportation occur.	
COM-2020-161	18/12/2020	EPD	CCZJV	Noise	18/12/2020	<p>The complaint was received via email notification by EPD on 18th December 2020, the complainant expressed concern of construction noise nuisances near Wo Che Estate during night-time on 7th & 8th December 2020. According to the Main Contractor, the major construction works was removal of central median works since 7th & 8th December 2020 conducted at restricted hours along Zone 4 central median of Tai Po Road Sha Tin section. Thus, the complaint is considered to be related to the project. 3.4 According to the Main Contractor, portable generator with hand-held breaker had been used for breaking of asphalt (on existing central median edge); lorry with crane, portable generator and concrete corer had been used for remove (lifting) the existing central median and coring of central median joint; dump truck with grab had been used for loading and unloading of rubble; portable roller had been used in asphalt compaction; lorry with crane, percussive and hand-held drill and portable generator had been used for installation of temporary steel module between 00:30 to 04:30 am on 7th December 2020. The Main Contractor complied with CNP No.: GW-RN0799-20 that allowed the usage of PMEs. The noise emanated from the concrete corer for drilling hole at existing central median and portable roller for asphalt compaction might cause a noise nuisance. To further alleviate the noise nuisance, the Contractor placed acoustic enclosure "SilentCUBE" with four sides and a top cover at removal of existing central median and asphalt compaction works to mitigate as shown in the site condition photo record. No exceedance cases were found on ET regular night-time noise monitoring measurement (Appendix F) at all noise monitoring stations, especially measured at six noise monitoring stations mentioned in above section 3.15 where locate close to the works area (Sha Tin station to nearby Fung Wo Estate in Zone 4), the measured result at NMS16, NMS18</p>	05/01/2021

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						and NMS26 were lower than that of measured in the baseline. Besides, the measured result after correction of baseline at NMS13, NMS14 and NMS15 were lower than that of the limit level. The Main Contractor was reminded to re-arrange their proposed night-time construction activities especially in quiet construction works to minimize the noise nuisance to nearby residences. The Main Contractor was reminded to re-arrange their proposed night-time construction activities to fulfill the complainant expectation that noise emitting work should be paused during night sleeping time.	
COM-2020-167	22/02/2021	1823	CCZJV	Dust	22/02/2021	A complainant who did not wish to disclose his identity called 1823 hotline on 22 nd February 2021 regarding the dust nuisance at slip road to Fo Tan Road. A repetitive case with reference no. 3-6566315922 was referred to the Main Contractor of the captioned Project and ET on 23 rd February 2021. According to the complainant, the dust nuisance concerned at day time was at the slip road to Fo Tan Road near Zone 5 works area. According to the Main Contractor, the major day time construction works at Zone 5 works area in February 2021 was mini-piling works. Regular movement of vehicle for transportation was also carried out on site. Thus, the complaint was considered to be related to the project. The Main Contractor was reminded to reduce the travelling speed of transportation vehicles on site and plan the schedule of delivery transport in order to minimize the dust impact. The Main Contractor proposed to reduce the exposed surface by providing covers or paving (e.g. with cement grout) to the newly excavated slope.	05/03/2021
COM-2020-168	20/02/2021	1823	CCZJV	Noise	23/02/2021	The complaint was received via 1823 on 20 th February 2021 01:00 am concerning about the night-time construction works near Sha Tin Police Station at 19 th 20 February 2021. According to the Main Contractor, there was night-time construction works near Sha Tin Police Station (Zone 3 & 4) on 19 th 20 February 2021. The major construction works were lane shifting works conducted on 19 th 20 February 2021 at night-time under	08/03/2021

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						approved road closure setup with in-force Construction Noise Permit (CNP) no.GW-RN0798-020. According to the Main Contractor, since 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 concerned night work could only be conducted during off-peak period at night time under temporary traffic diversion to avoid causing traffic congestion. According to the Main Contractor, no concurrent operation of Power Mechanical Equipment (PME) and idling were switched off during the loading and unloading of materials and rubble by manual handling of road surface remedial works. Environmental Team (ET) conduct a regular night-time noise monitoring at all monitoring stations between 23:00 25 th February to 03:00 26 th February 2021. 3.13 The five noise monitoring stations close to the complaint receiving area of Zone 3 & 4 are NMS13, NMS14, NMS15, NMS16 & NMS26. No exceedance cases were found on ET regular night-time noise monitoring measurement at all noise monitoring stations, especially measured at five noise monitoring stations where locate close to the works area (near Sha Tin Police Station in Zone 3&4), the measured result at NMS15, NMS16 and NMS26 were lower than that of measured in the baseline. Besides, the measured result after correction of baseline at NMS13 and NMS14 were lower than that of the limit level in 55 dB(A). The Main Contractor was reminded to strictly follow and fully comply with the CNP (GW-RN0798-20) conditions and the mitigation measures stipulated in the EM&A Manual when construction activities are operating during the restricted hour.	
COM-2021-0170	03/03/2021	1823	CCZJV	Dust and Noise	04/03/2021	The complaint on 3rd March 2021 at 1:25 pm complained about the noise, dust nuisance generated and insufficient dust mitigation works during the night-time construction works near King Wo House and Wo Che Estate area. A repetitive case with reference no. 3-6638500887 was referred to the Main Contractor	25/03/2021

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						and ET of the captioned project on 4th March 2021. According to the Main Contractor, there was night time road works at King Wo House and Wo Che Estate (Zone 4 & 5) on 3rd March 2021. Thus, the complaint considered to be related to the project. According to ET investigation, the Main Contractor complied with the CNP No.: GW-RN0798-020, with the permission of using Powered Mechanical Equipment (PMEs). No exceedance cases were found on ET regular night-time noise monitoring measurement (Appendix G). The Main Contractor was reminded to close all the doors of the acoustic enclosure, included the "SilentCUBE" for hand-held breaker and metallic enclosure. Consider the dust nuisance, no exceedance cases were found on ET regular air quality monitoring measurement (Appendix F). According to the Main Contractor, vapour was emitted from the bottom of the miller, when the milled asphalt falling from the drop point of the conveyor belt to the dump truck container, fugitive dust was generated. The Main Contractor was reminded to enhance the water spray frequency and keep the road surface wet before milling as the mitigation measures on fugitive dust control.	
COM-2021-0172	03/03/2021	1823	CCZJV	Noise	08/03/2021	The second complaint was received on 3rd March 2021 at 1:40 pm complained about the noise nuisance generated during the night-time construction works near Shatin Pui Ying College area. A repetitive case with reference no. 3-6638578830 was referred to the Main Contractor and ET on 8th March 2021. According to the main contractor, there was a night-construction activity near Shatin Pui Ying College and Wo Che Estate (Zone 4 & 5). Thus, the complaint considered to be related to the project. According to ET investigation, the Main Contractor complied with the CNP No.: GW-RN0798-020, with the allowed usage of PMEs. No exceedance cases were found on ET regular night-time noise monitoring measurement (Appendix G). The Main Contractor was reminded to strictly follow and fully comply with the CNP No.: GW-RN0798-20 conditions and the mitigation measures	25/03/2021

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						stipulated in the EM&A Manual when construction activities were operated during the restricted hour. The contractor was also reminded to use a movable noise barrier/blanket to block the line of sight from the engine or noise emission part to the nearby NSRs when using PMEs.	
COM-2021-0193	09/05/2021	1823	CCZJV	Noise	17/05/2021	<p>The complaint was first received on 6th May 2021 at 9:27 a.m. via FEHD email. The complaint was then referred to 1823 case: 3-6727963845 on 9th May 2021 at 2:52 p.m. A follow-up complaint was received on 11th May 2021 at 8:20 a.m. The two complaints were referred from 1823 to CEDD on 14th May 2021 at 6:26 p.m. The complaint cases was referred from AECOM to ET on 17th May 2021 at 11:46 a.m. According to the Main Contractor, the major construction works at daytime (08:00-18:00) between 6th to 11th May 2021 near Mei Wo House were soil replacement works (involved excavation, loading and unloading of materials and pour the no fine concrete) at the works area 1 (between Wo Che Estate King Wo House and Shatin Pui Ying school) and demolition of existing central divider works (involved breaking, loading and unloading of materials) at the work area 2 (opposite to Wo Che Estate Man Wo House). The ET regular daytime noise monitoring measurement results of NMS16, NMS17, NMS18, NMS19, NMS20 & NMS26 on 6th, 7th, 12th and 13th May 2021, no exceedance case found. The noise monitoring results were lower than the noise limit of 75 dB(A) L_{eq} (30 minutes) at the facade of dwellings and 70 dB(A) L_{eq} (30 minutes) at the facades of schools (65 dB (A) during examinations). The Main Contractor installed an acoustic blanket, enclosed at the breaker to minimize the noise impacts to nearby NSRs. The Main Contractor was reminded to maintain the newly implemented noise mitigation measure during breaking works. The Main Contractor was reminded to provide additional mitigation measures to minimize the noise nuisance to the NSRs (similar to night-time construction works) during the construction works, for example moveable noise barrier or blanket to block</p>	27/05/2021

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						the line of sight from the engine and noise emission parts to the nearby NSRs.	
COM-2021-0200 and COM-2021-0202	07/06/2021	1823	CCZJV	Noise	08/06/2021	<p>Ms. So, a resident of Wo Che Estate, Mei Wo House complained about the noise generated from the daytime construction work located outside Mei Wo House, the tunnel entrance (direction towards Fo Tan). Until 7th June 2021, total six complaints were received via 1823 (case: 3-6727963845) from the same complainant. According to the Main Contractor's daytime working schedule from 12th May to 7th June 2021 at zone 5 were soil replacement works (involved excavation, loading and unloading of materials, pour the no fine concrete and formation of haul road) and demolition of existing central divider works (involved loading and unloading of materials, minor breaking and corning operation). According to CEDD, a reply was sent to Ms. So on 27th May 2021. The Resident Site Staff (RSS) of AECOM contacted the complainant on 7th June 2021 night to explain the detail of upcoming construction work and associated noise mitigation measures to minimize the construction noise arising from the concerned construction work. The complainant was also informed that she could contact the RSS directly if she had any further enquiry in future. ET conducted regular daytime noise monitoring at NMS16-20 and NMS26 monitoring stations on 6th, 7th, 12th, 13th, 17th, 18th, 24th, 25th of May and 4th, 5th, 10th, 11th of June 2021. No exceedance case was found and the noise monitoring results were lower than the noise limit of 75 dB(A) L_{eq} (30 minutes) at the facade of dwellings and 70 dB(A) L_{eq} (30 minutes) at the facades of schools (65 dB (A) during examinations). ET reminded the Main Contractor to implement additional mitigation measures to minimize the noise nuisance generated from daytime construction works to the nearby Noise Sensitive Receivers (NSRs). The Main Contractor agreed to install an acoustic blanket, enclosed at the breaker to minimize the noise impact generated from the demolition of central divider works. The Main Contractor was reminded to maintain the noise</p>	22/06/2021

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						mitigation measure during the breaking works. The Main Contractor was reminded to provide additional mitigation measures during the construction works to minimize the noise nuisance to the NSRs (similar to nighttime construction works), for example, a temporary moveable noise barrier to lower the noise impact and an acoustic blanket to block the line of sight from the engine and noise emission parts to the nearby NSRs. The Main Contractor was also reminded to display the project hotline number 5613-3367 on-site for public enquiry.	
EN-2021-0094	26/07/2021	EPD	CCZJV	Air (Odour)	27/07/2021	<p>A resident of Paris Park Villa complained about the poor air quality around his living area between 19th and 26th July 2021. He suspected that the odour nuisance may be generated from the construction site's diesel machineries. The complaint was received by the EPD's Regional Office (North) on 26th July 2021 with reference no.: RN17367-21.</p> <p>According to the Main Contractor's daytime working schedule between 19th July and 26th July 2021 involved: (1) Zone 4 and 5 North boundary, the construction activities involved the formation of temporary access, backfilling works for noise barrier stem wall, loading and unloading works. Excavations were mainly performed in areas EX1 and EX2. (2) Zone 4 and 5 South boundaries, the construction activities involved the noise barrier foundation works and the formation of temporary access. Excavations were mainly performed in areas EX3 and EX4. While rebar fixing and formwork erection were also carried out in EX3 area. For area TW1 in Zone 5 South boundary, tree works were performed. There were no work activities carried out at night-time, Sunday and under the hosting of typhoon signals.</p> <p>According to AECOM's Resident Engineer and the Main Contractor, no particular malpractice was observed during the construction activities at Zone 4 and 5 between 19th and 26th July 2021. According to the Main Contractor, only machineries with valid NRMM labels and regular maintenance are being used on-site. The Main Contractor sent the Ultra-Low Sulphur Diesel</p>	13/08/2021

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						<p>(ULSD) sample for laboratory testing since Feb 2019. There is no exceedance of the Sulphur content of more than 0.005% by weight in the past and the latest sample collected on 7th July (Cap. 311I Air Pollution Control (Fuel Restriction) Regulations). No particular finding on odour nuisance was found by the ET's staff when performing air monitoring in AMS 14 Ha Wo Che (close to 73A Ha Wo Che) on 21st and 22nd July 2021. ET also inspected the construction site on 29th July 2021 (between 9:00 to 10:15 a.m., weekly environmental inspection). There was no particular observation on odour nuisance or diesel smell generated from the Non-Road Mobile Machineries (NRMMs) and construction activities in the North and South boundary at Zone 4 and 5. No dark smoke was observed from the excavator, power generator, piling and pre-drilling machines under operation. ET inspected the area around Paris Park Villa and Ha Wo Che on 29th July 2021 between 10:30 a.m. to 11:30 a.m. There was no particular finding on odour nuisance in AMS14 Ha Wo Che (close to 73A Ha Wo Che).</p> <p>ET reminded the Main Contractor to strictly implement the air pollution control measures and minimize the air pollution impact generated from the construction work activities. The Main Contractor also is reminded that only approved or exempted NRMMs include regulated machines and non-road vehicles with proper labels are allowed to be used in specific activities on-site. The NRMMs should be well maintained. The Main Contractor was also be reminded that odour emissions from construction sites need to be controlled. Potential emission includes particulate matter, diesel and hazardous chemicals need to be considered for their odour impact. Use of ULSD should be maintained and dark smoke emission should be prevented in accordance with the Air Pollution Control (Smoke) Regulation and ETWB TCW 19/2005. The Main Contractor was also be reminded to display the project hotline number 5613-3367 on-site for public enquiry.</p>	

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
DSD Ref: MS 8/0/CE2815 /0 pt.6	01/09/21	DSD	CCZJV	Water	02/09/21	<p>Drainage Services Department (DSD) issued a notice (Ref: MS 8/0/CE2815/0 pt.6) to the Engineer's Representative (AECOM) after their morning inspection on 1st September 2021 concerning the improperly treated water being discharged from the construction site near Fung Wo Estate of the Project to nearby public stormwater drainage system, and of the consequence of contaminating the watercourse at Shing Mun River. The letter of concern was referred to Environmental Team (ET) on 2nd September 2021 at 3:24 p.m. for investigation.</p> <p>According to the Main Contractor and AECOM, the major construction work at Zone 5 south boundary was mini-piling works (at the end of August). Two piling machines were operating either individually or simultaneously. There are approximate 130 nos. of pile planned to be installed, and mini-piling works are scheduled to be finished in January 2022. Originally, one WetSep (TW-WS1) and two sedimentation tanks (ST1 and ST2) were provided for handling the wastewater generated from the piling works and site surface runoff at the zone 5 south boundary. According to the information report and photo records provided by the Main Contractor, the sedimentation tanks (ST1 and ST2) were filled with muddy water and silt on 1st September 2021.</p> <p>ET inspected the area at Zone 5 south boundary on 2nd, 9th, 16th and 29th September 2021. Observation, reminders and follow-up action were proposed and monitored by the ET on handling the wastewater generated from piling works and site surface run-off. Moreover, EPIs from EPD conducted the site inspection on 9th and 29th September 2021. The two inspection conducted by the EPIs focused on reviewing the general site condition, wastewater treatment facilities set-up, mitigation measures for preventing muddy water formation, handling the wastewater and surface run-off. Observation, recommendations and reminders proposed by the EPIs and ET are grouped and shown in Appendix M.</p>	20/10/2021

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						<p>Rectification have been reported by the Main Contractor according to the observation and recommendation from ET and EPIs on 8th, 17th, 27th September and 6th October 2021. During the 2nd joint site inspection, EPIs agreed the pilling works can be restarted. However, EPIs reminded that the 2nd pilling machine can only be operated until the 2nd WetSep is functioned properly and the effluent quality is acceptable. EPIs mentioned that follow-up inspection expected to be conducted in early or mid-October, focus on inspecting the wastewater treatment efficiency for pilling works, paving of the soil surface, mitigation measures for handling the surface run-off. EPIs also mentioned that surprise inspection may be conducted in the future. According to the AECOM, the pilling work was restarted on 30th September 2021.</p> <p>According to this incident, the Main Contractor was reminded by ET to analyze and review the efficiency of the wastewater treatment system according to the construction activities regularly. The Contractor should provide regular maintenance, water quality testing and related checklist for ET and IEC review during the site inspection. The Main Contractor and related Sub-Contractor was reminded by ET and AECOM that the discharge of effluent needs to fulfil the requirement stated in the Water Discharge License (No. WT00032446 – 2018). AECOM and ET requested the Main Contractor to update the Temporary Drainage Management Plan according to the latest work activities. ET also requested the Main Contractor to update the description of the wastewater mitigation measures inside the Environmental Management Plan (EMP) and Environmental Management Report (EMR) and strictly implement to prevent similar case happen in the future.</p> <p>A follow-up site inspection was conducted by the EPIs at Zone 5 south boundary on 26th October 2021. The EPIs reviewed the site condition, treatment efficiency of the temporary wastewater treatment facilities, mitigation measures to prevent muddy water</p>	

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						generated from soil surface, discharge points and gullies condition. EPIs commented on the mitigation measure around the discharge point near WetSep TW-WS1. The bunding next to the manhole should be rectified to prevent the inflow of muddy water. EPIs reminded that mitigation measures (such as sandbags and bunding) should be provided for enclosing the area near the piling machine. It is for directing the muddy water into the temporary wastewater treatment system. EPIs also reminded regular maintenance of the temporary wastewater treatment system is needed to ensure the effluent's water quality fulfill the standard of the Water Discharge License.	
EPD ref.: RN25674- 21	28/10/21	EPD	CCZJV	Noise	05/11/21	<p>A complaint was received by the EPD Regional Office (North) on 28th October 2021. The complainant concerned about the night-time noise nuisance near Man Wo House, Wo Che Estate from 2:00 to 5:00 a.m. on 25th, 26th and 27th October 2021 (total 3 nights). The complaint was referred from EPD to (ET on 5th November 2021 at 3:35 p.m.</p> <p>The construction work activities were allowed under the in-force CNP no.: GW-RN0600-21 Road Enclosure for General Night Works that was issued by the EPD. According to Main Contractor, the construction work activities were carried out during the permitted hours (00:00-05:00) on 25th and 27th October 2021 near Man Wo House (at Zone 4 and 5, NB and SB) and there was no night works on the 26th October 2021. The construction activities were carried out within the allowable location and within the site boundary listed in the CNP. The night-time construction works included Temporary Traffic Arrangement (TTA) implementation, unloading of fill materials, loading and unloading of the lamppost, precast concrete blocks and generator and site clearance. The Main Contractor reported that no night-time construction work was carried out on 26th October 2021 at Zone 4 and 5.</p> <p>ET checked the Main Contractor has complied with CNP No.: GW-RN0600-21. The Main Contractor was reminded to strictly</p>	16/11/2021

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						follow and fully comply with the requirement listed in the CNP and the mitigation measures stipulated in the EM&A Manual when carrying out construction activities during the restricted hour. All construction works should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers. The Main Contractor was also be reminded to shut down the PMEs' engines when they are not in use. Moreover, only mobile phones and walkie talkies with headphones can be used for communication, and no whistles, horns and loudspeakers can be used during night work activities. The Main Contractor was reminded to pay attention to CNP conditions 3.d.1, 3.d.5, 3.d.13, 4.d.3 and 4.d.4 for using PMEs to carry out loading and unloading activities in the future.	
COM-2021-0257	05/11/21	1823	CCZJV	Noise	08/11/21	<p>This complaint was received by 1823 (ref: CASE#3-6960147702) on 5th November 2021 at 02:05 a.m. The complainant, Mr Sung concerned about the night-time noise nuisance from concreting near Scenery Court and Tsing Sha Highway. The complaint was referred from AECOM to ET on 8th November 2021 at 9:34 a.m.</p> <p>The construction work activities were allowed under the in-force Construction Noise Permit (CNP) no.: GW-RN0642-21 Road Closure for Sheet Piles Removal and Road Re-construction Works that issued by the EPD. According to Main Contractor, the construction work activities were carried out during the permitted hours (23:00-05:00) on 4th November 2021 near Scenery Court and Hilton Plaza (Zone 1). The construction activities were carried out within the allowable location and within the site boundary listed in the CNP. The night-time construction works included Temporary Traffic Arrangement (TTA) implementation, preparation works for concreting, concreting, cleaning works after concreting and site clearance.</p> <p>ET conducted a regular night-time noise monitoring at all the monitoring stations between 11:00 p.m. to 03:00 a.m. on 4th November 2021 and at NMS1, NMS2, NMS3, NMS4, NMS5A,</p>	23/11/2021

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						<p>NMS6A and NMS7 in Zone 1 and 2 which were close to Scenery Court near Tsing Sha Highway. No exceedance case was found during the regular night-time noise impact monitoring measurement.</p> <p>ET checked that the Main Contractor had complied with the conditions in CNP No.: GW-RN0642-21. The Main Contractor was reminded to strictly follow and fully comply with the requirement listed in the CNP and the mitigation measures stipulated in the EM&A Manual when carrying out construction activities during the restricted hour. All construction works should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers. The Main Contractor was reminded to shut down the PMEs' engines when they are not in use. Moreover, only mobile phones and walkie talkies with headphones can be used for communication, and no whistles, horns and loudspeakers can be used during night work activities. The Main Contractor was also be reminded to pay attention to CNP conditions 3.d.1, 3.d.3, 3.d.4 3.d.5, 3.d.7, 3.d.11, 3.d.13, 4.d.6 and 4.d.7 for using PMEs and carry out similar night-time construction work activities in the future.</p>	
EPD ref.: RN25674- 21	17/11/21	EPD	CCZJV	Noise	19/11/21	<p>This complaint was received by the EPD Regional Office (North) on 17th November 2021. The complainant concerned about the night-time noise nuisance near Wai Wah Centre from 2:30 to 3:30 a.m. on 17th November 2021. The complaint was referred from EPD to ET on 19th November 2021 at 5:56 p.m.</p> <p>The construction work activities were allowed under the in-force Construction Noise Permit (CNP) no.: GW-RN0600-21 Road Closure for General Night Works that issued by the EPD. According to the Main Contractor, the construction work activities were carried out during the permitted hours (22:00-05:00) on 16th17th November 2021 near Wai Wah Centre (Zone 2). The construction activities were carried out within the allowable location and within the site boundary listed in the CNP. The night-time construction works included Temporary Traffic</p>	08/12/2021

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						<p>Arrangement (TTA) implementation, unloading and handling of asphalt during pavement, asphalt compaction, loading and unloading of materials and site clearance. ET conducted a regular night-time noise monitoring at all the monitoring stations between 11:00 p.m. to 03:00 a.m. on 18th and 19th November 2021 and at NMS1, NMS2, NMS3, NMS4, NMS5A, NMS6A and NMS7 at Zone 1 and 2 which were close to Wai Wah Centre. No exceedance case was found during the regular night-time noise impact monitoring measurement.</p> <p>ET checked that the Main Contractor had complied with the conditions in CNP No.: GW-RN0600-21 about the allowable location, constriction time period, PMEs type and groups and mitigation measures. While prior notification was sent to EPD on 12th November 2021 and Notice to Affected Residents – PN162 have been issued to nearby NSRs on 27th October 2021. The Main Contractor was reminded to pay attention to CNP conditions and minimize the noise nuisance to the nearby NSRs when carry out similar night-time construction work activities in the future.</p>	
COM-2021-0262	20/11/21	1823	CCZJV	Noise	23/11/21	<p>This complaint was received by 1823 (ref: CASE#3-6981794553) on 20th November 2021 at 3:35 a.m. The complainant, Mr Sung concerned about the night-time noise nuisance from road surfacing works near Hilton Plaza. The complaint was referred from AECOM to ET on 23rd November 2021 at 1:56 p.m.</p> <p>The construction work activities were allowed under the in-force Construction Noise Permit (CNP) no.: GW-RN0600-21 Road Closure for General Night Works that issued by the EPD. According to the Main Contractor, the construction work activities were carried out during the permitted hours (22:00-05:00) on 19th and 20th November 2021 near Hilton Plaza (Zone 1 and 2). The construction activities were carried out within the allowable location and within the site boundary listed in the CNP. The night-time construction works included Temporary Traffic</p>	08/12/2021

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						Arrangement (TTA) implementation, asphalt removal, unloading and handling of asphalt during pavement, asphalt compaction, loading and unloading of materials and site clearance. ET checked that the Main Contractor had complied with the conditions in CNP No.: GW-RN0600-21 about the allowable location, constriction time period, PMEs type and groups and mitigation measures. While prior notification was sent to EPD on 12 th November 2021 and Notice to Affected Residents – PN162 have been issued to nearby NSRs on 27 th October 2021. The Main Contractor was reminded to pay attention to CNP conditions and minimize the noise nuisance to the nearby NSRs.	
COM-2021-0263	26/11/21	1823	CCZJV	Noise	30/11/21	This complaint was received by 1823 (ref: CASE#3-6991122920) on 26 th November 2021 at 11:31 a.m. The complainant, Mr Chan concerned about the night-time noise nuisance generated from road surfacing works at Tai Po Road and near Shing Mun Tunnel Road (Zone 1 and 2). The construction work activities were allowed under the in-force CNP no.: GW-RN0600-21 Road Closure for General Night Works that issued by the EPD. The night-time construction works included TTA implementation, asphalt milling, mobilization in and out of construction site, asphalt paving, compaction of asphalt pavement, loading and unloading of fill materials, and site clearance. ET checked that the Main Contractor had complied with the conditions in CNP No.: GW-RN0600-21 about the allowable location, constriction time period, PMEs type and groups and mitigation measures. While prior notification was sent to EPD on 19 th November 2021 and Notice to Affected Residents – PN162 have been issued to nearby NSRs on 27 th October 2021. The Main Contractor was reminded to pay attention to CNP conditions and minimize the noise nuisance to the nearby NSRs.	17/12/2021
COM-2021-0264	24/11/21	1823	CCZJV	Noise	30/11/21	This complaint was received by 1823 (ref: CASE#3-6989137345) on 25 th November 2021 at 30 th November 2021 at 9:28 a.m. The complainant, Ms Sun concerned about the recent	23/12/2021

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						<p>noise nuisance from the night-time construction work activities near Sha Tin Station.</p> <p>The construction work activities were allowed under the in-force CNP no.: GW-RN0600-21 Road Closure for General Night Works. According to the Main Contractor, the construction work activities were carried out during the permitted hours (22:00-05:00) on 23rd November 2021 near Sha Tin Station (at Zone 2). The construction activities were carried out within the allowable location and within the site boundary listed in the CNP. The night-time construction works included Temporary Traffic TTA implementation, asphalt milling, asphalt paving, compaction of asphalt pavement, loading and unloading of materials, and site clearance.</p> <p>ET checked that the Main Contractor had complied with the conditions in CNP No.: GW-RN0600-21 about the allowable location, constriction time period, PMEs type and groups and mitigation measures. While prior notification was sent to EPD on 19th November 2021 and Notice to Affected Residents – PN162 have been issued to nearby NSRs on 27th October 2021. The Main Contractor was reminded to pay attention to CNP conditions and minimize the noise nuisance to the nearby NSRs when carry out similar night-time construction work activities in the future.</p>	
COM-2021-0265	01/12/21	1823	CCZJV	Noise	01/12/21	<p>This complaint was received by 1823 (ref: CASE#3-6997727629) on 1st December 2021 at 11:50 a.m. The complainant concerned about the night-time noise nuisance generated near Sha Tin Station.</p> <p>The construction work activities were allowed under the in-force CNP no.: GW-RN0600-21 Road Closure for General Night Works. According to the Main Contractor, the construction work activities were carried out during the permitted hours (22:00-05:00) on 30th November ^ 1st December 2021 near Sha Tin Station (at Zone 2). The construction activities were carried out within the allowable location and within the site boundary listed</p>	30/12/2021

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						<p>in the CNP. The night-time construction works included TTA implementation, asphalt milling, asphalt paving, compaction of asphalt pavement, painting of road marking, loading and unloading of materials, and site clearance.</p> <p>ET checked that the Main Contractor had complied with the conditions in CNP No.: GW-RN0600-21 about the allowable location, constriction time period, PMEs type and groups and mitigation measures. While prior notification was sent to EPD on 19th November 2021 and Notice to Affected Residents – PN162 and 165 have been issued to nearby NSRs on 27th October and 29th November 2021. The Main Contractor was reminded to pay attention to CNP conditions and minimize the noise nuisance to the nearby NSRs when carry out similar night-time construction work activities in the future.</p>	
EPD ref.: RN29574- 21	07/12/21	EPD	CCZJV	Noise	07/12/21	<p>This complaint was received by the EPD Regional Office (North) on 7th December 2021. The complainant concerned about the night-time noise nuisance generated from the operation of PMEs near Lek Yuen Estate, Kwai Wo House on 7th December 2021 at 2:00-3:00 a.m.</p> <p>The construction work activities were allowed under the in-force CNP no.: GW-RN0600-21 Road Closure for General Night Works. According to the Main Contractor, the construction work activities were carried out during the permitted hours (22:00-05:00) on 6th7th December 2021 near Kwai Wo House (at Zone 3). The construction activities were carried out within the allowable location and within the site boundary listed in the CNP. The night-time construction works included TTA implementation, lifting of steel truss of overhead height restriction gantry, installation of overhead height restriction gantry, and site clearance.</p> <p>ET checked that the Main Contractor had complied with the conditions in CNP No.: GW-RN0600-21 about the allowable location, constriction time period, PMEs type and groups and mitigation measures. While prior notification was sent to EPD on</p>	24/12/2021

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						19 th November 2021 and Notice to Affected Residents – PN165 have been issued to nearby NSRs on 29 th November 2021. The Main Contractor was reminded to pay attention to CNP conditions and minimize the noise nuisance to the nearby NSRs when carry out similar night-time construction work activities in the future.	
COM-2021-0272	16/12/21	1823	CCZJV	Noise	16/12/21	<p>A complaint was received by 1823 (ref: CASE # 3-7020268390) on 16th December 2021 at 12:27 a.m. The complainant concerned about the night-time noise nuisance generated from the Tai Po Road (Sha Tin Section) construction site (near Wai Wah Centre, Block 3) in recent days.</p> <p>The construction work activities were allowed under the in-force CNP no.: GW-RN0600-21 Road Closure for General Night Works that issued by the EPD. According to the Main Contractor, the construction work activities were carried out during the permitted hours (22:00-05:00) between 13th and 16th December 2021 (at Zone 2). The night-time construction works included TTA implementation, asphalt removal and cutting works, loading and unloading of materials, lifting steel plate and site clearance.</p> <p>ET checked that the Main Contractor had complied with the conditions in CNP No.: GW-RN0600-21 about the allowable location, constriction time period, PMEs type and groups and mitigation measures. While prior notification was sent to EPD on 10th December 2021 and Notice to Affected Residents – PN165 have been issued to nearby NSRs on 29th November 2021. The Main Contractor was reminded to pay attention to CNP conditions and minimize the noise nuisance to the nearby NSRs when carry out similar night-time construction work activities in the future.</p>	16/01/2022

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2021-0193 and COM-2021-0202	21/12/21	1823	CCZJV	Noise	23/12/21	<p>Three complaints were received by 1823 from the same complainant (ref: CASE # 3-6727963845 via email) on 21st December 2021 at 8:35 a.m., 22nd December 2021 at 9:18 a.m. and 5:06 p.m. The complainant, Ms. So concerned about the recent day-time noise nuisance generated from day-time construction works from the Tai Po Road (Sha Tin Section) construction site (near Mei Wo House, Wo Che Estate).</p> <p>According to the Main Contractor, the construction works were carried out at day-time (08:00-18:00) between 15th and 22nd December 2021 near Mei Wo House (at Zone 5). The construction work activities included formwork erection, formwork removal, rebar fixing, and concreting works.</p> <p>ET carried out regular day-time noise monitoring on 20th and 21st December 2021 at NMS 16-20 and NMS 26, no exceedance case was found. All the noise monitoring results at the above-mentioned stations were lower than the noise limit of 75 dB(A) Leq (30 minutes) at the facade of dwellings and 70 dB(A) Leq (30 minutes) for school.</p> <p>To minimize the noise impact generated from day-time construction works, the Main Contractor reported that they have implemented an additional noise mitigation measure (with temporary noise barriers) for the Mei Wo House, NSR. During the ET weekly environmental inspection on 13th January 2022, the noise barriers were observed as properly installed. Most of the sight from the nearby NSRs for the noise works and PMEs were blocked by the implemented noise barrier. There is no particular observation about the noise impact generated from the construction activities during the site inspection. ET reminded the Main Contractor to ensure the additional noise barriers were applied properly next to the PMEs and noisy work. The contractor should minimize the noise impact generated from the daily construction works activities as much as possible.</p>	09/02/2022

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2021-0275	29/12/21	1823	CCZJV	Noise	30/12/21	<p>Two complaints were received by 1823 (ref: CASE # 3-7043757669 via voice mail) on 29th December 2021 at 12:07 a.m. and (ref: CASE # 3-7046572787 via email) on 29th December 2021 at 1:07 a.m. and 1:18 a.m. (repeat email). The complainant, Mr. Sung concerned about the night-time noise nuisance generated from the Tai Po Road (Sha Tin Section) construction site (near Hilton Plaza) on 23rd December 2021 at 12:30 a.m. and 29th December 2021 at 12:00 a.m.</p> <p>According to Main Contractor, there were night-time construction works carried out at Tai Po Road and near Hilton Plaza (Zone 1 and 2) on 22nd ^ 23rd and 28th ^ 29th December 2021. The works included TTA implementation, pavement breaking along existing profile barriers, excavation (handling of rubble), remove steel plate from the trench, pipe laying inside the trench, reinstate steel plate to cover trench, removal of rubble, plant demobilization, and site clearance on 22nd ^ 23rd December 2021. Moreover, TTA implementation, dismantling of access tower, noise barrier steel post delivery, plant mobilization, pavement breaking along existing profile barriers, erection of noise barrier steel post, removal of existing profile barriers, and site clearance were carried out on 28th ^ 29th December 2021.</p> <p>ET checked that the Main Contractor did not comply with the conditions listed in CNP No.: GW-RN0600-21 and GW-RN0916-21 during the construction work activities on 22nd ^ 23rd and 28th ^ 29th December 2021 with unauthorized PME being used on-site. Enhance measures and supervision was urged by ET to the Main Contractor to prevent similar incident from happening again. The Main Contractor reported that enhancement measures, included altering the works schedule, enhance supervision and control system are applied currently.</p> <p>The Main Contractor was reminded again by ET to strictly follow and fully comply with the requirement listed in the CNP. Only allowable PMEs listed in the CNP can be used to carry out construction works. Mitigation measures should also be applied</p>	26/01/2022

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						according to CNP condition 3.d., 4.d and EM&A Manual when carrying out construction activities during the restricted hour. All construction works should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers.	
EPD ref.: RN1596-22	17/01/22	EPD	CCZJV	Noise and Dust	18/01/22	<p>The complaint was received by EPD Regional Office (North) (ref: RN1596-22) on 17th January 2022. The complainant who lived near Mei Wo House, Wo Che Estate concerned about the night-time noise and dust nuisance generated from the nearby road.</p> <p>The construction work activities were allowed under the in-force CNP no.: GW-RN0916-21 Road Closure for General Night Works that issued by the EPD. According to the Main Contractor, the construction work activities were carried out during the permitted hours (23:00-05:00) on 13th and 14th January 2022 (at Zone 5), and these construction activities were carried out within the allowable location listed in the CNP (Zone I). The night-time construction works on 13th and 14th January 2022 included TTA implementation, Loading and Unloading of rubble, Lifting Operation, and Site Clearance. For 14th January 2022, night-time works included TTA implementation, Loading and Unloading of rubble, Lifting operation, Plant mobilization, and Site Clearance.</p> <p>ET checked that the Main Contractor had complied with the conditions in CNP No.: GW-RN0916-21 about the allowable location, construction time period, PMEs type and groups and mitigation measures. While prior notification was sent to EPD on 7th December 2021 and Notice to Affected Residents – PN162 and 165 have been issued to nearby NSRs on 28th December 2021. The Main Contractor was reminded to pay attention to CNP conditions and minimize the noise nuisance to the nearby NSRs when carry out similar night-time construction work activities in the future.</p>	26/01/2022

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2022-0313	08/06/22	1823	CCZJV	Noise	15/06/22	<p>A complaint was received via 1823 (ref: CASE#3-7246071575) on 8th June 2022. The complainant who is concerned about the noise nuisance generated from night-time construction works near Wo Che Estate.</p> <p>The construction work activities were allowed under the in-force Construction Noise Permit (CNP) no.: GW-RN0185-22 Road Closure for General Night Works that issued by the EPD. According to the Main Contractor, the construction works activities were carried out during the permitted hours (23:00-05:00) on 7th June 2022. (At Zone 5). The construction activities were carried out within the allowable location (Zone I) and within the site boundary listed in the CNP. The night-time construction works on 7th June 2022 included Temporary Traffic Arrangement (TTA) implementation, Erection of noise barrier panels and site clearance.</p> <p>ET checked that the Main Contractor had complied with the conditions listed in CNP No.: GW-RN0185-22. The Main Contractor was reminded to strictly follow and fully comply with the requirement listed in the CNP and the mitigation measures stipulated in the EM&A Manual when carrying out construction activities during the restricted hour. All construction works should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers.</p>	06/07/22
COM-2022-320	01/08/22	1823	CCZJV	Dust & Noise	02/08/22	<p>A complaint was received by 1823 (ref: CASE#3-7318357344) on 25th July 2022. The complainant who is concerned about the dust and noise nuisance generated from construction works near Shatin Plaza. According to the Main Contractor, there were construction activities near Shatin Plaza (Zone 3) on 25th July 2022. Thus, this complaint considered to be related to the project. According to ET investigation, no exceedance cases were found on ET regular day-time noise monitoring. The Main</p>	17/08/22

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						Contractor was reminded to provide noise mitigation measures for the PMEs and noisy works to ensure the noise impact generated from the site is minimized. Consider the dust nuisance, no exceedance cases were found on ET regular air quality monitoring. The Main Contractor was reminded to provided dust suppression mitigation measures for the exposed area.	
COM-2022-326	05/08/22	1823	CCZJV	Noise	15/08/22	<p>A complaint was received by 1823 (ref: CASE#3-7328538008) on 5th August 2022. The complainant who is concerned about the noise nuisance generated from night-time construction works along Tai Po Road between 3 to 4 a.m.</p> <p>The construction work activities were allowed under the in-force Construction Noise Permit (CNP) no.: GW-RN0476-22 Road Closure for General Night Works that issued by the EPD. According to the Main Contractor, the construction works activities were carried out during the permitted hours (23:00-04:45). The construction activities were carried out within the allowable location (Zone I, II & III) and within the site boundary listed in the CNP.</p> <p>ET checked that the Main Contractor had complied with the conditions listed in CNP No.: GW-RN0476-22. The Main Contractor was reminded to strictly follow and fully comply with the requirement listed in the CNP and the mitigation measures stipulated in the EM&A Manual when carrying out construction activities during the restricted hour. All construction works should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers.</p> <p>ET carried out regular night-time noise monitoring on 4th ^</p>	16/09/22

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2022-327	05/08/22	1823	CCZJV	Noise	16/08/22	<p>5th August 2022, no exceedance case was found.</p> <p>A complaint was received by 1823 (ref: CASE#3-7333891394) on 5th August 2022. The complainant who is concerned about the noise nuisance generated from night-time construction works near Lucky Plaza.</p> <p>The construction work activities were allowed under the in-force Construction Noise Permit (CNP) no.: GW-RN0476-22 Road Closure for General Night Works that issued by the EPD. According to the Main Contractor, the construction works activities were carried out during the permitted hours (23:00-04:45). The construction activities were carried out within the allowable location (Zone II) and within the site boundary listed in the CNP.</p> <p>ET checked that the Main Contractor had complied with the conditions listed in CNP No.: GW-RN0476-22. The Main Contractor was reminded to strictly follow and fully comply with the requirement listed in the CNP and the mitigation measures stipulated in the EM&A Manual when carrying out construction activities during the restricted hour. All construction works should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers.</p> <p>ET carried out regular night-time noise monitoring on 4th ^ 5th August 2022, no exceedance case was found.</p>	16/09/22

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2022-346	28/10/22	1823	CCZJV	Noise	31/10/22	<p>A complaint was received by the EPD (EPD ref.: RN23746-22) on 28th October 2022. The complainant who is concerned about the noise nuisance generated from night-time construction works near King Wo House.</p> <p>The construction work activities were allowed under the in-force Construction Noise Permit (CNP) no.: GW-RN0848-22 Road Closure for General Night Works that issued by the EPD. According to the Main Contractor, the construction works activities were carried out during the permitted hours. The construction activities were carried out within the allowable location (Zone I) and within the site boundary listed in the CNP.</p> <p>ET checked that the Main Contractor had complied with the conditions listed in CNP No.: GW-RN0848-22. The Main Contractor was reminded to strictly follow and fully comply with the requirement listed in the CNP and the mitigation measures stipulated in the EM&A Manual when carrying out construction activities during the restricted hour. All construction works should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers.</p> <p>ET carried out regular night-time noise monitoring on 27th ^ 28th October 2022 at NMS 26, no exceedance case was found. All the noise monitoring results at the above-mentioned station were lower than the limit level (55 dB(A)).</p>	20/11/22

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2022-348	4/11/22	1823	CCZJV	Noise	4/11/22	<p>A complaint was received by 1823 (CASE#3-7460684431) on 4th November 2022. The complainant who is concerned about the noise nuisance generated from night-time construction works near Sha Tin Plaza.</p> <p>The construction work activities were allowed under the in-force Construction Noise Permit (CNP) no.: GW-RN0848-22 Road Closure for General Night Works that issued by the EPD. According to the Main Contractor, the construction works activities were carried out during the permitted hours. The construction activities were carried out within the allowable location (Zone II) and within the site boundary listed in the CNP.</p> <p>ET checked that the Main Contractor had complied with the conditions listed in CNP No.: GW-RN0848-22. The Main Contractor was reminded to strictly follow and fully comply with the requirement listed in the CNP and the mitigation measures stipulated in the EM&A Manual when carrying out construction activities during the restricted hour. All construction works should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers.</p>	4/1/23
COM-2022-349	8/11/22	EPD	CCZJV	Noise	10/11/22	<p>A complaint was received by the EPD (EPD ref.: RN23746-22) on 8th November 2022. The complainant who is concerned about the noise nuisance generated from night-time construction works near King Wo House.</p> <p>The construction work activities were allowed under the in-force Construction Noise Permit (CNP) no.: GW-RN0848-22 Road Closure for General Night Works that issued by the EPD. According to the Main Contractor, the construction works activities were carried out during the</p>	20/11/22

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						permitted hours. The construction activities were carried out within the allowable location (Zone I) and within the site boundary listed in the CNP. ET checked that the Main Contractor had complied with the conditions listed in CNP No.: GW-RN0848-22. The Main Contractor was reminded to strictly follow and fully comply with the requirement listed in the CNP and the mitigation measures stipulated in the EM&A Manual when carrying out construction activities during the restricted hour. All construction works should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers.	
COM-2022-350	10/11/22	1823	CCZJV	Water	10/11/22	A complaint was received by the 1823 (CASE#3-7469563820) on 10th November 2022. The complainant who is concerned about muddy water discharged from the construction site to the carriageway near New Town Plaza. According to the Resident Engineer, site personnel discovered the freshwater hose pipe was burst at Site Access N09 at 1:30 p.m. Water spilt in the works area and overflow to the carriageway. The watermain valve was closed by the contractor at 1:45 p.m. and completed replaced the damaged hoses pipe at around 3:00 p.m. According to the Resident Engineer, no muddy water and mud were deposited on the carriageway around the site Access N09. ET checked that the case was a burst of freshwater hose and there was no untreated muddy water discharge was found from the construction site.	29/11/22

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2022-351, COM-2022-352	13/11/22	EPD	CCZJV	Noise	14/11/22	<p>Two complaint was received by the EPD (EPD ref.: RN25243-22, RN25259-22) on 13th November 2022. The complainants who are concerned about the noise nuisance generated from night-time construction works near Tai Po Road next to Sha Tin MTR Station.</p> <p>The construction work activities were allowed under the in-force Construction Noise Permit (CNP) no.: GW-RN0848-22 Road Closure for General Night Works that issued by the EPD. According to the Main Contractor, the construction works activities were carried out during the permitted hours. The construction activities were carried out within the allowable location (Zone II & III) and within the site boundary listed in the CNP.</p> <p>ET carried out regular night-time noise monitoring on 10th ^ 11th November 2022 at NMS5A, NMS6A, NMS8, NMS9 and NMS24, no exceedance case was found. All the noise monitoring results at the above-mentioned station were lower than the limit level (55 dB(A)).</p> <p>ET checked that the Main Contractor had complied with the conditions listed in CNP No.: GW-RN0848-22. The Main Contractor was reminded to strictly follow and fully comply with the requirement listed in the CNP and the mitigation measures stipulated in the EM&A Manual when carrying out construction activities during the restricted hour. All construction works should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers.</p>	6/12/22

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2022-353	17/11/22	1823	CCZJV	Noise	17/11/22	<p>A complaint was received by 1823 (CASE#3-7478880132) on 17th November 2022. The complainants who are concerned about the noise nuisance generated from night-time construction works near Sha Tin Rural Committee Road.</p> <p>The construction work activities were allowed under the in-force Construction Noise Permit (CNP) no.: GW-RN0848-22 Road Closure for General Night Works that issued by the EPD. According to the Main Contractor, the construction works activities were carried out during the permitted hours. The construction activities were carried out within the allowable location (Zone II) and within the site boundary listed in the CNP.</p> <p>ET carried out regular night-time noise monitoring on 15th ^ 16th November 2022 at NMS8, NMS9, NMS24 and NMS25A, no exceedance case was found. All the noise monitoring results at the above-mentioned station were lower than the limit level (55 dB(A)).</p> <p>ET checked that the Main Contractor had complied with the conditions listed in CNP No.: GW-RN0848-22. The Main Contractor was reminded to strictly follow and fully comply with the requirement listed in the CNP and the mitigation measures stipulated in the EM&A Manual when carrying out construction activities during the restricted hour. All construction works should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers.</p>	13/12/22

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2022-354	17/11/22	EPD	CCZJV	Noise	26/11/22	<p>A complaint was received from EPD (EPD ref: RN25860-22) on 17th November 2022. The complainants who are concerned about the noise nuisance generated from night-time construction works near Wo Che Estate (between Man Wo House and Mei Wo House).</p> <p>The construction work activities were allowed under the in-force Construction Noise Permit (CNP) no.: GW-RN0848-22 Road Closure for General Night Works that issued by the EPD. According to the Main Contractor, the construction works activities were carried out during the permitted hours. The construction activities were carried out within the allowable location (Zone I) and within the site boundary listed in the CNP.</p> <p>ET carried out regular night-time noise monitoring on 15th ^ 16th November 2022 at NMS19, and NMS20, no exceedance case was found. All the noise monitoring results at the above-mentioned station were lower than the limit level (55 dB(A)).</p> <p>ET checked that the Main Contractor had complied with the conditions listed in CNP No.: GW-RN0848-22. The Main Contractor was reminded to strictly follow and fully comply with the requirement listed in the CNP and the mitigation measures stipulated in the EM&A Manual when carrying out construction activities during the restricted hour. All construction works should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers.</p>	4/1/23

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2022-356, COM-2022-357, COM-2022-358	29/11/22	1823	CCZJV	Noise	29/11/22	<p>Three complaints were received by 1823 (CASE#3-7495426348, CASE#3-7495543588, CASE#3-7495866890) on 29th November 2022. The complainants who are concerned about the noise nuisance generated from night-time construction works near Tai Po Road.</p> <p>The construction work activities were allowed under the in-force Construction Noise Permit (CNP) no.: GW-RN0848-22 Road Closure for General Night Works that issued by the EPD. According to the Main Contractor, the construction works activities were carried out during the permitted hours. The construction activities were carried out within the allowable location (Zone I) and within the site boundary listed in the CNP.</p> <p>ET checked that the Main Contractor did not comply with the conditions 3.d.19 and 4.d.9 listed in CNP No.: GW-RN0848-22.</p> <p>To discuss the enhancement measures, enhance supervision and control system, an ad-hoc meeting was carried out on 13 December 2022 with the CEDD, ER, IEC, Contractor and ET.</p> <p>A presentation for enhancement measures and enhance supervision was carried out by the contractor on 16 December 2022 with the ER and ET.</p> <p>According to the Main Contractor, to prevent further submission delay, the notification will be notified to the EPD within two consecutive weeks on the Friday of previous working week.</p>	4/1/22

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2022-359	14/12/22	1823	CCZJV	Noise	14/12/22	<p>A complaint was received by 1823 (CASE#3-7516169709) on 14th December 2022. The complainant who is concerned about the noise nuisance generated from night-time construction works near Tai Po Road next to the Shatin Plaza.</p> <p>The construction work activities were allowed under the in-force Construction Noise Permit (CNP) no.: GW-RN0848-22 Road Closure for General Night Works that issued by the EPD. According to the Main Contractor, the construction works activities were carried out during the permitted hours. The construction activities were carried out within the allowable location (Zone II) and within the site boundary listed in the CNP.</p> <p>ET carried out regular night-time noise monitoring on 13th ^ 14th December 2022 at NMS8, and NMS24, no exceedance case was found. All the noise monitoring results at the above-mentioned station were lower than the limit level (55 dB(A)).</p> <p>ET checked that the Main Contractor had complied with the conditions listed in CNP No.: GW-RN0848-22. The Main Contractor was reminded to strictly follow and fully comply with the requirement listed in the CNP and the mitigation measures stipulated in the EM&A Manual when carrying out construction activities during the restricted hour. All construction works should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers.</p>	4/1/22

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2022-364	20/12/22	1823	CCZJV	Noise	20/12/22	<p>A complaint was received by 1823 (CASE#3-7523479466) on 20th December 2022. The complainant who is concerned about the noise nuisance generated from night-time construction works near Tai Po Road next to the Citylink Plaza on 2 December 2022 at 2:00 a.m.</p> <p>The construction work activities were allowed under the in-force Construction Noise Permit (CNP) no.: GW-RN0848-22 Road Closure for General Night Works that issued by the EPD. According to the Main Contractor, the construction works activities were carried out during the permitted hours. The construction activities were carried out within the allowable location (Zone II) and within the site boundary listed in the CNP.</p> <p>ET checked that the Main Contractor had complied with the conditions listed in CNP No.: GW-RN0848-22. The Main Contractor was reminded to strictly follow and fully comply with the requirement listed in the CNP and the mitigation measures stipulated in the EM&A Manual when carrying out construction activities during the restricted hour. All construction works should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers.</p>	16/02/23

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2023-376	18/01/23	1823	CCZJV	Noise	18/1/23	<p>A complaint was received by 1823 (CASE#3-7559583506) on 18th January 2023. The complainant who is concerned about the noise nuisance generated from day time construction works near Tai Po Road.</p> <p>The complainant is concerned about the noise nuisance generated from the day-time construction works activities near Tai Po Road at Zone 5 on 18th January 2023 at 7:00 a.m. to 8:00 a.m.</p> <p>According to Main Contractor and AECOM's information, there was no construction work undertaken near the concerned area from 7:00 a.m. to 8:00 a.m.</p> <p>ET checked that the complaint received on 18th January 2023 is non-project related.</p>	16/2/23

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2023-382	31/01/23	EPD	CCZJV	Noise	1/2/23	<p>A complaint was received from the EPD (EPD ref.: RN2643-23) on 2nd February 2023. The complainant is concerned about the noise nuisance generated by the night-time construction works activities near Tai Po Road near the Fo Tan Road from 1:00 a.m. to 3:00 a.m. on 31st January 2023.</p> <p>ET checked that the Main Contractor had complied with the conditions listed in CNP No.: GW-RN1176-22. The Main Contractor was reminded to strictly follow and fully comply with the requirement listed in the CNP and the mitigation measures stipulated in the EM&A Manual when carrying out construction activities during the restricted hour. All construction works should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers.</p> <p>The Main Contractor was reminded to unload the material at a lower level into the dump truck to ensure the noise generated is as low as possible.</p>	16/2/23

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2023-383	01/02/23	EPD	CCZJV	Noise	1/2/23	<p>A complaint was received from EPD (EPD ref.: RN2721-23) on 1st February 2023. The complainant is concerned about the noise nuisance generated by the night-time construction works activities near Tai Po Road next to Wo Shun House and Fung Wo Estate from 12:00 a.m. to 2:00 a.m. on 1st February 2023.</p> <p>According to Main Contractor, the night-time construction works included plant mobilization, loading and unloading construction material and loading and unloading C&D waste material were carried out between 31st January and 1st February 2023.</p> <p>ET checked that the Main Contractor had complied with the conditions listed in CNP No.: GW-RN1176-22. The Main Contractor was reminded to strictly follow and fully comply with the requirement listed in the CNP and the mitigation measures stipulated in the EM&A Manual when carrying out construction activities during the restricted hour. All construction works should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers.</p> <p>ET carried out regular night-time noise monitoring on 31st January ^ 1st February 2023 at NMS26, no exceedance case was found. All the noise monitoring results at the above-mentioned station were lower than the limit level (55 dB(A)).</p> <p>The Main Contractor was reminded to unload the material at a lower level into the dump truck to ensure the noise generated is as low as possible.</p>	16/2/23

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2023-384	6/2/23	1823	CCZJV	Wastewater	6/2/23	<p>A complaint was received by the 1823 (CASE#3-7578244130) on 6th February 2023. The complainant who is concerned about wastewater discharged from the construction site to the Tai Po Rad carriageway on 4th February 2023.</p> <p>According to the Main Contractor, the water was from emptying the water barriers and flowed outside the site without washing dirt and mud.</p> <p>ET checked that no untreated wastewater was discharge to the carriageway.</p> <p>The main contractor is reminded to provide more training to the frontline staff to ensure no more water will be direct discharge from the construction site.</p> <p>The main contractor is reminded that surface run-off should be prevented from directly entering the sensitive receivers during the construction works.</p> <p>The main contractor is reminded that the wastewater generated on-site should be collected and treated to meet the requirements of the discharge license before being discharged.</p>	27/2/23

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2023-385	14/2/23	1823	CCZJV	Noise	14/2/23	<p>A complaint was received by 1823 (CASE#3-7591662478) on 14th February 2023. The complainant is concerned about the noise nuisance generated by the night-time construction works activities near Tai Po Road next to Wo Che Estate.</p> <p>According to the Main Contractor, the night-time construction works included TTA implementation, loading and unloading, pouring non-fine concrete and asphalt paving were carried out between 13th and 14th February 2023.</p> <p>ET checked that the Main Contractor had complied with the conditions listed in CNP No.: GW-RN1176-22. The Main Contractor was reminded to strictly follow and fully comply with the requirement listed in the CNP and the mitigation measures stipulated in the EM&A Manual when carrying out construction activities during the restricted hour. All construction works should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers.</p> <p>According to AECOM, the acoustic barrier was not fully used during the whole process of road paving. The Main Contractor was reminded to use the acoustic barrier for blocking the power generating part of the PME to ensure the noise can be minimized.</p>	3/3/23

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2023-386	20/2/23	Contract Hotline Phone Call	CCZJV	Noise	21/2/23	<p>A complaint was received by Contract Hotline Phone Call (COM-2023-0386) on 20th February 2023. The complainant is concerned about the noise nuisance generated by the night-time construction works activities near Tai Po Road next to Wo Che Street between 17th and 18th February 2023 from 0:00 to 04:00 a.m.</p> <p>According to the Main Contractor, the night-time construction works included TTA implementation, loading and unloading and site clearance were carried out between 17th and 18th February 2023.</p> <p>ET checked that the Main Contractor had complied with the conditions listed in CNP No.: GW-RN1176-22. The Main Contractor was reminded to strictly follow and fully comply with the requirement listed in the CNP and the mitigation measures stipulated in the EM&A Manual when carrying out construction activities during the restricted hour. All construction works should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers.</p> <p>The Main Contractor was reminded to be slow and careful when carrying out loading and unloading to avoid remarkable noise nuisance.</p>	17/3/2023

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2023-387	24/2/23	1823	CCZJV	Noise	25/2/23	<p>A complaint was received by 1823 (CASE#3-7605775385) on 24th February 2023. The complainant is concerned about the noise nuisance generated by the night-time construction works activities near Tai Po Road next to Wo Che Estate.</p> <p>According to the Main Contractor, the night-time construction works included TTA implementation, loading and unloading, pouring non-fine concrete and asphalt paving were carried out between 20th and 24th February 2023.</p> <p>ET checked that the Main Contractor had complied with the conditions listed in CNP No.: GW-RN1176-22. The Main Contractor was reminded to strictly follow and fully comply with the requirement listed in the CNP and the mitigation measures stipulated in the EM&A Manual when carrying out construction activities during the restricted hour. All construction works should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers.</p> <p>ET carried out regular night-time noise monitoring on 23rd ^ 24th February 2023 at NMS19, and NMS20, no exceedance case was found. All the noise monitoring results at the above-mentioned station were lower than the limit level (55 dB(A)).</p>	17/3/2023

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2023-388	25/2/23	1823	CCZJV	Noise	25/2/23	<p>A complaint was received by 1823 (CASE#3-7608102288) on 25th February 2023. The complainant is concerned about the noise nuisance generated by the night-time construction works activities near Tai Po Road on 25th February 2023 from 4 a.m. to 5 a.m.</p> <p>According to the Main Contractor, the night-time construction works included plant mobilization and site clearance were carried out on 25th February 2023.</p> <p>ET checked that the Main Contractor had complied with the conditions listed in CNP No.: GW-RN1176-22. The Main Contractor was reminded to strictly follow and fully comply with the requirement listed in the CNP and the mitigation measures stipulated in the EM&A Manual when carrying out construction activities during the restricted hour. All construction works should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers.</p>	17/3/2023

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2023-392 and 393	2/3/2023	CEDD	CCZJV	Noise	3/3/2023	<p>Two complaints were received from CEDD (COM-2023-392 and 393) on 2nd March 2023. The complainants are concerned about the noise nuisance generated by the night-time construction works activities near Tai Po Road next to Man Wo House.</p> <p>According to the Main Contractor, the night-time construction works included TTA implementation, loading and unloading, noise barrier installation, asphalt milling, asphalt paving and site clearance were carried out on 2nd March 2023.</p> <p>According to the Main Contractor, the road miller, asphalt paver and road roller were used behind acoustic barriers when road paving works was carrying out. Also, the internal sound absorbing lining was installed for those engine compartments.</p> <p>According to the Main Contractor, the soft padding material was padded on the ground when loading and unloading the steel rebars.</p> <p>ET checked that the Main Contractor had complied with the conditions listed in CNP No.: GW-RN1176-22. The Main Contractor was reminded to strictly follow and fully comply with the requirement listed in the CNP and the mitigation measures stipulated in the EM&A Manual when carrying out construction activities during the restricted hour. All construction works should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers.</p> <p>The Main Contractor was reminded to use the allowable PMEs listed in CNP condition 3.d for performing night-time construction works. Mitigation measures need to be applied according to the requirement in conditions 3.d and</p>	17/3/2023

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						<p>4.d. The Main Contractor was also be reminded to pay attention to CNP conditions 3a, 3.d.1, 3.d.5, 3.d.6, 3.d.7 and 3.d.14 for using PME's and need to provide related noise mitigation measures when carrying out similar night-time construction work activities in the future.</p>	

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2023-394	9/3/2023	EPD	CCZJV	Noise	10/3/2023	<p>A complaint was received from EPD (EPD ref.: RN6366-23) on 9th March 2023. The complainant is concerned about the noise nuisance generated by the night-time construction works activities near Tai Po Road from 1 a.m. to 4 a.m.</p> <p>According to the Main Contractor, the night-time construction works included TTA implementation and loading and unloading were carried out on 9th March 2023.</p> <p>ET checked that the Main Contractor had complied with the conditions listed in CNP No.: GW-RN1176-22. The Main Contractor was reminded to strictly follow and fully comply with the requirement listed in the CNP and the mitigation measures stipulated in the EM&A Manual when carrying out construction activities during the restricted hour. All construction works should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers.</p> <p>The Main Contractor was reminded to be slow and careful when carrying out loading and unloading to avoid remarkable noise nuisance.</p> <p>The Main Contractor was reminded to use the allowable PMEs listed in CNP condition 3.d for performing night-time construction works. Mitigation measures need to be applied according to the requirement in conditions 3.d and 4.d.</p> <p>The Main Contractor was also be reminded to pay attention to CNP conditions 3a, 3.d.1, 3.d.5, 3.d.6, 3.d.7 and 3.d.14 for using PMEs and need to provide related noise mitigation measures when carrying out similar night-time construction work activities in the future.</p>	17/3/2023

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2023-395	14/3/2023	EPD	CCZJV	Noise	15/3/2023	<p>A complaint was received from EPD (EPD ref.: RN6778-23) on 14th March 2023. The complainant is concerned about the noise nuisance generated by the night-time construction works activities near Tai Po Road on 14th March 2023 from 2 a.m. to 3 a.m.</p> <p>According to the Main Contractor, the night-time construction works included loading and unloading were carried out on 14th March 2023 from 2 a.m. to 3 a.m.</p> <p>ET checked that the Main Contractor had complied with the conditions listed in CNP No.: GW-RN1176-22. The Main Contractor was reminded to strictly follow and fully comply with the requirement listed in the CNP and the mitigation measures stipulated in the EM&A Manual when carrying out construction activities during the restricted hour. All construction works should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers.</p> <p>The Main Contractor was reminded to be slow and careful when carrying out loading and unloading to avoid remarkable noise nuisance.</p> <p>The Main Contractor was reminded to use the allowable PMEs listed in CNP condition 3.d for performing night-time construction works. Mitigation measures need to be applied according to the requirement in conditions 3.d and 4.d.</p> <p>The Main Contractor was also be reminded to pay attention to CNP conditions 3a, 3.d.1, 3.d.5, 3.d.6, 3.d.7 and 3.d.14 for using PMEs and need to provide related noise mitigation measures when carrying out similar night-time construction work activities in the future.</p>	24/3/2023

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2023-402	18/3/2023	Contract Hotline	CCZJV	Noise	20/3/2023	<p>A complaint was received by contract hotline (COM-2023-402) on 18th March 2023. The complainant is concerned about the noise nuisance generated by placing traffic cones on Tai Po Road during night-time construction activities on 18th March 2023.</p> <p>According to the Main Contractor, all workers were briefed before the works started. The workers were reminded the traffic cones must be put on the ground, rather than throwing.</p> <p>ET checked that the Main Contractor had complied with the conditions listed in CNP No.: GW-RN1176-22. The Main Contractor was reminded to strictly follow and fully comply with the requirement listed in the CNP and the mitigation measures stipulated in the EM&A Manual when carrying out construction activities during the restricted hour. All construction works should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers.</p> <p>The Main Contractor was reminded to place the traffic cones slowly and carefully to minimize the noise nuisance generated.</p> <p>The Main Contractor was reminded to use the allowable PMEs listed in CNP condition 3.d for performing night-time construction works. Mitigation measures need to be applied according to the requirement in conditions 3.d and 4.d.</p> <p>The Main Contractor was also be reminded to pay attention to CNP conditions 3a, 3.d.1, 3.d.5, 3.d.6, 3.d.7 and 3.d.14 for using PMEs and need to provide related noise mitigation measures when carrying out similar night-time construction work activities in the future.</p>	

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2023-403	18/3/2023	1823	CCZJV	Noise	20/3/2023	<p>Two complaints were received by 1823 (CASE#3-7637259453 & #3-7637259880) on 18th March 2023. The complainant is concerned about the noise nuisance generated by the night-time construction works activities near Tai Po Road on 18th March 2023.</p> <p>According to the Main Contractor, no Power Mechanical Equipment was included in the relevant complainant cases on 18th March 2023.</p> <p>Referring to the complainant's video, the noise was generated when the frontline workers threw the materials from a height to the ground. In addition, the contractor's mitigation measure is not enough to minimize the noise generated. The Main Contractor was reminded to provide more training for frontline workers to ensure that they work with minimum noise.</p> <p>According to the Main Contractor, a night-work foreman was arranged to keep close monitoring the noisy work and ensure the compliance of CNP at night.</p> <p>The Main Contractor was reminded to unload all the construction materials slowly and carefully to minimize the noise generated.</p> <p>ET checked that the Main Contractor had complied with the conditions listed in CNP No.: GW-RN1176-22. The Main Contractor was reminded to strictly follow and fully comply with the requirement listed in the CNP and the mitigation measures stipulated in the EM&A Manual when carrying out construction activities during the restricted hour. All construction works should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers.</p>	18/4/2023

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						<p>The Main Contractor was reminded to use the allowable PME's listed in CNP condition 3.d for performing night-time construction works. Mitigation measures need to be applied according to the requirement in conditions 3.d and 4.d.</p> <p>The Main Contractor was also be reminded to pay attention to CNP conditions 3a, 3.d.1, 3.d.5, 3.d.6, 3.d.7 and 3.d.14 for using PME's and need to provide related noise mitigation measures when carrying out similar night-time construction work activities in the future.</p>	
COM-2023-404	18/3/2023	1823	CCZJV	Wastewater	20/3/2023	<p>A complaint was received by 1823 (CASE#3-7637522160) on 18th March 2023. The complainant is concerned about the wastewater leaking from the STRCR to the below carriageway.</p> <p>The complainant who is concerned about the wastewater leaking into the carriageway surface from STRCR on 18th March 2023.</p> <p>ET checked that the complaint was considered to be related to the project.</p> <p>According to the Main Contractor, the dripping was caused by the concrete curing work above the STRCR structure.</p> <p>According to the Main Contractor, the drip source reparation work was conducted on 20th March and completed on 26th March 2023. No more drip source was observed.</p> <p>During the site inspection, ET checked the main contractor had used the tarpaulin sheet as the mitigation measure of the concrete curing work.</p> <p>The Main Contractor was reminded to periodic inspection the site situation to ensure the mitigations are effective.</p> <p>The Main Contractor was reminded that the run-off should</p>	10/5/2023

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						<p>be prevented from directly entering the sensitive receivers during the construction works. The Main Contractor was reminded that all wastewater generated on-site should be collected and treated to meet the requirements of the discharge license before being discharged.</p>	

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2023-406	23/3/2023	1823	CCZJV	Wastewater	24/3/2023	<p>A complaint was received by 1823 (CASE#3-7616071795) on 23rd March 2023. The complainant is concerned about the wastewater leaking to the drainage system. The complainant who is concerned the wastewater discharged to the drainage system on the carriageway road.</p> <p>ET checked that the complaint was considered to be related to the project.</p> <p>According to the Main Contractor, the water was the result of the excessive curing water seeped underneath the STRCR flyover. The dripping ceased shortly. Due to the small quantity and short time, the dripping did not constitute a continuous flow.</p> <p>According to the Main Contractor, the drip source was repaired on 26 March 2023. No more drip source was observed.</p> <p>During the site inspection, ET checked the main contractor had used the tarpaulin sheet as the mitigation measure of the concrete curing work.</p> <p>ET checked no wastewater was discharged at the concerned area after the reparation work.</p> <p>The Main Contractor was reminded that the run-off should be prevented from directly entering the sensitive receivers during the construction works.</p> <p>The Main Contractor was reminded that all wastewater generated on-site should be collected and treated to meet the requirements of the discharge license before being discharged.</p>	10/5/2023

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2023-411	18/4/2023	1823	CCZJV	Noise	21/4/2023	<p>A complaint was received by 1823 (CASE#3-7677865059) on 18th April 2023. The complainant who is concerned about the noise nuisance generated from night-time construction works near Tai Po Road.</p> <p>ET checked that the Main Contractor had complied with the conditions listed in CNP No.: GW-RN0292-23. The Main Contractor was reminded to strictly follow and fully comply with the requirement listed in the CNP and the mitigation measures stipulated in the EM&A Manual when carrying out construction activities during the restricted hour. All construction work should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers.</p> <p>The Main Contractor was reminded to use the allowable PMEs listed in CNP condition 3.d for performing night-time construction works. Mitigation measures need to be applied according to the requirement in conditions 3.d and 4.d.</p> <p>The Main Contractor was also be reminded to pay attention to CNP conditions 3a, 3.d.1, 3.d.5, 3.d.6, 3.d.7 and 3.d.14 for using PMEs and need to provide related noise mitigation measures when carrying out similar night-time construction work activities in the future.</p>	

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2023-412	28/4/2023	EPD	CCZJV	Noise	28/4/2023	<p>The construction work activities were allowed under the in-force Construction Noise Permit (CNP) no.: GW-RN0292-23 Road Closure for General Night Works issued by the EPD. According to the Main Contractor, the construction works activities were carried out during the permitted hours. The construction activities were carried out within the allowable location (Zone I) and within the site boundary listed in the CNP.</p> <p>According to the Main Contractor, the night-time construction works included TTA implementation, Loading & unloading, Asphalt Milling, Asphalt Paving and Concreting were carried out between 20th and 25th April 2023.</p> <p>According to the Main Contractor, no construction works were carried out between 23rd and 24th April 2023.</p> <p>According to AECOM information, only housekeeping was carried out on 23rd ^ 24th April 2023. No major construction work was recorded on Sunday.</p> <p>The Environmental Officer reported that a prior notification was sent to EPD on 13th April 2023 at 02:08 p.m. and 20th April 2023 at 01:48 p.m. While “Notice to Affected Residents – PN240” was sent to the Sha Tin District Council, Local Residents, Private Development and Others on 29th March 2023.</p> <p>ET carried out regular night-time noise monitoring on 20th ^ 21st April 2023 at NMS16, NMS18, NMS19, NMS20 and NMS26, no exceedance case was found. All the noise monitoring results at the above-mentioned station were lower than the limit level (55 dB(A)).</p> <p>ET checked that the Main Contractor had complied with the conditions listed in CNP No.: GW-RN0292-23. The</p>	8/5/2023

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
						<p>Main Contractor was reminded to strictly follow and fully comply with the requirement listed in the CNP and the mitigation measures stipulated in the EM&A Manual when carrying out construction activities during the restricted hour. All construction work should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers.</p> <p>The Main Contractor was reminded to use the allowable PME's listed in CNP condition 3.d for performing night-time construction works. Mitigation measures need to be applied according to the requirement in conditions 3.d and 4.d.</p> <p>The Main Contractor was also be reminded to pay attention to CNP conditions 3a, 3.d.1, 3.d.5, 3.d.6, 3.d.7 and 3.d.14 for using PME's and need to provide related noise mitigation measures when carrying out similar night-time construction work activities in the future.</p>	

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2023-502	12/5/2023	1823	CCZJV	Noise	19/5/2023	<p>A complaint was received by 1823 (CASE#3-7709231017) on 12th May 2023. The complainant who is concerned about the noise nuisance generated from night-time construction works near Tai Po Road.</p> <p>ET carried out regular night-time noise monitoring on 9th ^ 10th May 2023 at NMS9 and NMS13, no exceedance case was found. All the noise monitoring results at the above-mentioned station were lower than the limit level (55 dB(A)).</p> <p>ET checked that the Main Contractor had complied with the conditions listed in CNP No.: GW-RN0292-23. The Main Contractor was reminded to strictly follow and fully comply with the requirement listed in the CNP and the mitigation measures stipulated in the EM&A Manual when carrying out construction activities during the restricted hour. All construction works should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers.</p> <p>The Main Contractor was reminded to use the allowable PMEs listed in CNP condition 3.d for performing night-time construction works. Mitigation measures need to be applied according to the requirement in conditions 3.d and 4.d.</p> <p>The Main Contractor was also be reminded to pay attention to CNP conditions 3a, 3.d.1, 3.d.5, 3.d.6, 3.d.7 and 3.d.14 for using PMEs and need to provide related noise mitigation measures when carrying out similar night-time construction work activities in the future.</p>	9/6/2023

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2023-503	19/5/2023	1823	CCZJV	Noise	22/5/2023	<p>A complaint was received by 1823 (CASE#3-7722776885) on 19th May 2023. The complainant who is concerned about the noise nuisance generated from night-time construction works near Tai Po Road.</p> <p>According to the Main Contractor, additional temporary noise barriers will be provided as an enhancement noise mitigation measure.</p> <p>ET checked that the Main Contractor had complied with the conditions listed in CNP No.: GW-RN0514-23. The Main Contractor was reminded to strictly follow and fully comply with the requirement listed in the CNP and the mitigation measures stipulated in the EM&A Manual when carrying out construction activities during the restricted hour. All construction works should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers.</p> <p>The Main Contractor was reminded to use the allowable PMEs listed in CNP condition 3.d for performing night-time construction works. Mitigation measures need to be applied according to the requirement in conditions 3.d and 4.d.</p> <p>The Main Contractor was also be reminded to pay attention to CNP conditions 3a, 3.d.1, 3.d.5, 3.d.6 and 3.d.7 for using PMEs and need to provide related noise mitigation measures when carrying out similar night-time construction work activities in the future.</p>	9/6/2023

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2023-504	14/5/2023	EPD	CCZJV	Noise	23/5/2023	<p>A complaint was received from EPD (EPD ref.: RN12170-23) on 14th May 2023. The complainant is concerned about the noise nuisance generated by the night-time construction works activities near Lek Yuen Estate after 7:00 p.m.</p> <p>According to the Main Contractor and AECOM information, no construction works were carried out between 19:00 and 22:00. Also, no construction works were carried out at Zone 3 on 12th ^13th May 2023.</p> <p>ET checked that the Main Contractor had complied with the conditions listed in CNP No.: GW-RN0292-23 and CNP no. GW-RN0227-23. The Main Contractor was reminded to strictly follow and fully comply with the requirement listed in the CNP and the mitigation measures stipulated in the EM&A Manual when carrying out construction activities during the restricted hour. All construction works should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers.</p> <p>The Main Contractor was reminded to use the allowable PMEs listed in CNP condition 3.d for performing night-time construction works. Mitigation measures need to be applied according to the requirement in conditions 3.d and 4.d.</p> <p>The Main Contractor was also be reminded to pay attention to CNP conditions 3a, 3.d.1, 3.d.5, 3.d.6, 3.d.7 and 3.d.14 for using PMEs and need to provide related noise mitigation measures when carrying out similar night-time construction work activities in the future.</p>	5/6/2023

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Reference No.	Date of Complaint Received	Received From	Received By	Nature of Complaint	Date of Investigation	Investigation summary & Conclusion	Date of Reply
COM-2023-510	30/6/2023	1823	CCZJV	Noise	23/5/2023	<p>A complaint was received by 1823 (CASE#3-7780620261) on 30th June 2023. The complainant is concerned about the noise nuisance generated by the night-time construction works activities near Wai Wah Centre. According to the Main Contractor, all crane lorry and dump truck drivers were briefed to load all material at the lower level to minimize noise generation.</p> <p>ET carried out regular night-time noise monitoring on 29th ^ 30th June 2023 at NMS5A, NMS6A and NMS8, no exceedance case was found. All the noise monitoring results at the above-mentioned station were lower than the limit level (55 dB(A)).</p> <p>ET checked that the Main Contractor had complied with the conditions listed in CNP No.: GW-RN0627-23. The Main Contractor was reminded to strictly follow and fully comply with the requirement listed in the CNP and the mitigation measures stipulated in the EM&A Manual when carrying out construction activities during the restricted hour. All construction works should be carried out as quickly as possible to minimize the noise nuisance to the sensitive receivers.</p> <p>The Main Contractor was reminded to use the allowable PMEs listed in CNP condition 3.d for performing night-time construction works. Mitigation measures need to be applied according to the requirement in conditions 3.d and 4.d.</p> <p>The Main Contractor was also be reminded to pay attention to CNP conditions 3a, 3.d.1, 3.d.5, 3.d.6, 3.d.7 and 3.d.14 for using PMEs and need to provide related noise mitigation measures when carrying out similar night-time construction work activities in the future.</p>	4/7/2023

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Cumulative Statistics on Complaints

Environmental Parameters	Cumulative No. Brought Forward	No. of Complaints This Month	Cumulative Project-to-Date
Air	7	0	7
Noise	75	1	76
Water	7	0	7
Waste	0	0	0
Total	89*	1	90*

*The 1st complaint in March 2021, Jan 2022 and July 2022 were included both the air and noise parameters, hence the total no. of complaints is deducted by 2.

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	1	0	1
Water	0	0	0
Waste	0	0	0
Total	1	0	1

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Appendix M

Summary of Site Audit in the Reporting Month



Summary of Site Audit in the Reporting Month

Parameter	Date	Observations and Reminders	Follow-up Action Taken
Air Quality	1/6/2023	Observation 6: A washing facility should be provided at the entrance. (Zone 4, NB, N08)	Washing facility was provided.
Noise	No specific observation was identified in the reporting month.		
Water Quality	1/6/2023	Observation 1: Sandbags and tarpaulin sheets should be provided around the gullies. (Zone 3, CM & Zone 5, CM)	Abandoned storm drains were filled. / Sandbags were provided.
	1/6/2023	Observation 4: Tarpaulin sheets along the water barriers should be replaced. (Zone 4, CM)	Sandbags and tarpaulin sheets were provided.
	8/6/2023	Observation 2: Blue pipe was observed and connected with the drainage system (Zone 3, SB) and Blue pipe was observed and connected to the MTR area (Zone 5, NB), no treatment facility was found around the pump and blue pipe. The blue pipe should be removed immediately.	Improper blue pipe was removed.
	8/6/2023	Observation 5: The soil along the water barriers should be cleared. (Zone 3, N4)	Soil was be cleared
	8/6/2023	Observation 6: Untreated Muddy water discharge was observed. The illegal discharge should be stopped immediately. (Zone 4, NB)	Illegal discharge was stopped immediately.
	8/6/2023	Reminder 1: Cut-off drain should be provided at the entrance.	N/A
	15/6/2023	Observation 1: Sandbags should be provided around the gullies. (Zone 3, CM)	Sandbags were provided.
	15/6/2023	Observation 4: Cut-off drain should be provided. Also, a washing facility should be provided for wheel washing. (N18)	Cut-off drain was provided.
	19/6/2023	Reminder 1: Stagnant water inside the drip tray should be cleared to prevent land-contamination. (Zone 3)	N/A
	19/6/2023	Reminder 3: Sedimentation tank should be accessible for inspection. (Zone 3)	N/A
	29/6/2023	Observation 1: Untreated muddy water discharged should be stopped. (Zone 4, N4)	Untreated muddy water discharge was stopped immediately.
	29/6/2023	Observation 2: The contractor is reminded to review the sedimentation tank's capacity to ensure enough time for sediment before any discharge. (Zone 4, N4)	Alum was added to the sedimentation tank to increase wastewater treatment ability.
	29/6/2023	Reminder 1: Blue pipes should be removed to prevent any misleading. (Zone 3, SB)	N/A

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Parameter	Date	Observations and Reminders	Follow-up Action Taken
	29/6/2023	Follow-up IEC observation: Muddy water surface run-off still has not stopped during the site inspection. No water pump and pipe were found around the observed location. Untreated muddy water surface run-off should be stopped. (Portion E)	Sandbags were provided to stop the surface run-off.
Chemical and Waste Management	1/6/2023	Observation 3: Drip trays should be provided for chemical containers. (Zone 4, CM & Zone 5, CM)	Drip tray was provided. / Oil container was removed.
	8/6/2023	Observation 1: Drip trays should be provided for the oil drums. (Zone 3, SB)	Oil drums were removed.
	8/6/2023	Observation 4: The stagnant water and rocks inside the drip tray should be cleared. (Zone 3, N4)	Stagnant water and rocks inside the drip tray were cleared.
	15/6/2023	Observation 2: The stagnant water inside the drip tray should be cleared to prevent land-contamination. (Zone 3, CM)	Stagnant water was cleared.
	15/6/2023	Observation 3: Waste should be cleared and an enclosed bin should be provided for good housekeeping. (Zone 4, CM)	Waste was cleared.
	15/6/2023	Observation 5: Drips tray should be provided for chemical containers and oil drums. (Zone 5, CM)	Oil drum was removed.
	19/6/2023	Observation 1: Drip tray should be provided for Chemical containers. (Zone 3)	Oil drum was removed in Zone 3, CM. Drip tray was provided in Zone 3, SB.
	29/6/2023	Observation 3: Drip trays should be provided for chemical containers. (Zone 4, N4 & Zone 5, NB)	Oil containers were removed.
Land Contamination	1/6/2023	Observation 2: Oil should be cleared as soon as possible. (Zone 4, CM)	The Oil and Stagnant water were cleared.
	1/6/2023	Observation 5: The oil and stagnant water should be cleared. (Zone 5, CM)	Oil and Stagnant water were cleared.
	8/6/2023	Observation 3: Rock breakers should be placed on tarpaulin sheets. (Zone 3, N4)	The breakers were removed.
	19/6/2023	Reminder 2: Tarpaulin sheet should be provided underneath of hydraulic breaker to prevent oil leakage. (Zone 3)	N/A
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	No specific observation was identified in the reporting month.		

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Appendix N

Detailed Report for Blockage of Sewer Manhole at Zone 3

Detailed Report for Blockage of Sewer Manhole at Zone 3

Table of Content

1. Brief Summary
2. Background of the Incident
3. Event Log of the Incident
4. Factual Findings
5. Possible Causes of Incident
6. Action Taken and Preventive Measures

Attachments

- Annex A – Location Plan
- Annex B – Photos of Blocked Sewerage Manhole
- Annex C – Photos of DSD emergency maintenance works
- Annex D – Photos of the Contractor Works (Removed rubbish and debris in blocked manhole FMH 4089640)
- Annex E – Contingency measures requested by DSD
- Annex F – Inspection of sewerage manholes within the site boundary
- Annex G - EPD's email sent on 21 June 2023
- Annex H - DSD's email sent on 28 June 2023 and AECOM's letter issued on 29 June 2023

1. Brief Summary

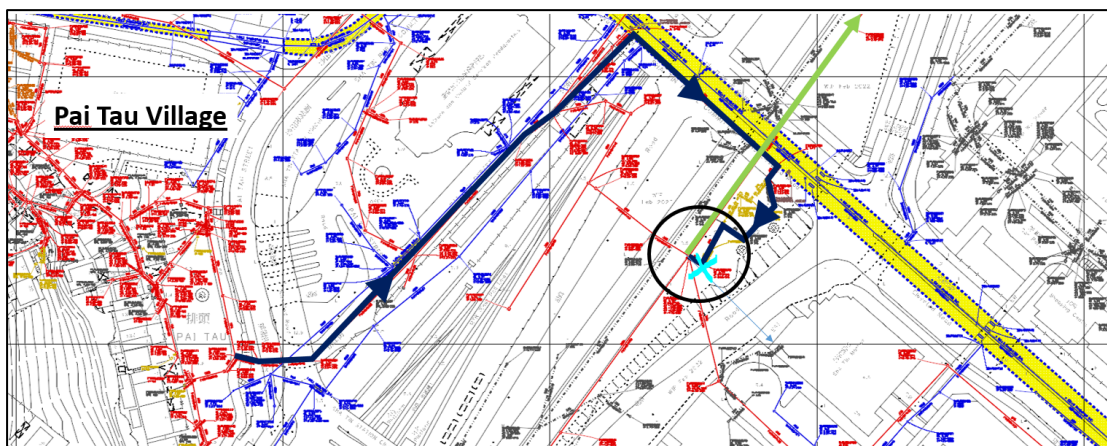
According to DSD's information, blockage of existing sewage occurred at Pai Tau Village on 12 June 2023. DSD carried out investigation and found that an existing manhole no. FMH4089640 near Tai Po Road (Sha Tin Section) within the site of CEDD contract no. NE/2017/05 "Widening of Tai Po Road (Sha Tin Section)" was blocked by hard materials. This leads to sewerage overflow at Pau Tak Village (see photos below provided by DSD)



2. Background of the Incident

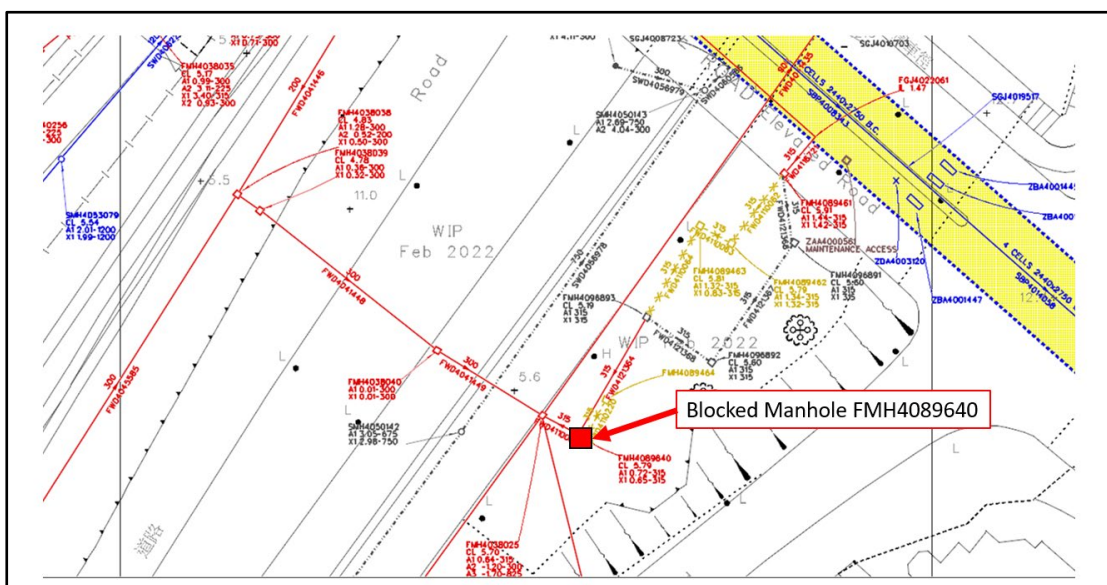
The sewerage system in Pai Tau Village was connected to the existing DN 900 sewer pipe at Tai Po Road (Sha Tin Section) southbound carriageway via some manholes in Zone 3 work front. The sewerage path is shown in **Figure 1**.

Figure 1 – Sewerage System of Pai Tau Village to downstream DN 825 sewer at Tai Po Road southbound carriageway.



On 12 June 23, DSD informed CEDD and AECOM that DSD would carry out inspection of sewerage manholes in Zone 3 works area. On 14 June 2023, DSD informed CEDD and AECOM via telephone call that sewerage overflow occurred at Pai Tau Village. On 15 June 2023, DSD initiated a video conference with CEDD and AECOM. DSD revealed that blockage was found at the existing manhole no. FMH4089640 inside Zone 3 works area (see location in **Figure 2**) and would continue to clear the blocked manhole. Besides, DSD would install a by-pass pipe between the blocked manhole and the downstream manhole FMH4038025.

Figure 2 – Location of Blocked Sewerage Manhole FMH4089640



During DSD's emergency maintenance works from 15 June 2023 to 18 June 2023, DSD mobilized sludge pump to by-pass the sewerage flow to the box culvert underneath STRCR.

On 19 June 2023, DSD initiated the second video conference with CEDD and AECOM. DSD stated that the installation of by-pass pipe by coring method was unsuccessful due to encounter of hard material. Therefore, DSD requested CEDD's assistance to deploy CCZJV to clear the blocked manhole and construct a temporary underground by-pass pipe between manhole FM8 and FMH4038025 as a contingency.

AECOM coordinated among DSD, CEDD and CCZJV to have CCZJV removed debris in blocked manhole on 19 and 20 June 2023. Sewerage flow resumed normal at night time of 20 June 2023 after the removal of the debris. As requested by DSD after the sewerage resumed normal, CCZJV continued to carry out the contingency to install the by-pass pipe during their lane closure at night time on 20 June 2023 and completed on 21 June 2023.

3. Event Log of The Incident

Date and Time	Events
12 June 2023	1:30 pm DSD/ AIOW requested access for inspection of sewerage manholes at Zone 3 southbound work front near STRCR with reference to sewage blockage reported at Pau Tau Village (see Figure 1 for location).
13 June 2023	DSD stated that public complaints of sewage overflow at Pau Tau Village were received (see photos in <i>Annex A</i>).
14 June 2023	DSD Engineer informed CEDD and AECOM for sewerage overflow at Pau Tau Street.
15 June 2023	The first video conference among DSD, CEDD and AECOM. DSD requested CEDD and AECOM's assistance for the updated sewerage record and utilities record.
16 June 2023	DSD mobilized sludge pump to Zone 3 work front and installed a by-pass pipe above ground to divert flow from FMH4096893 to box culvert under STRCR (see <i>Annex B</i> for photos)

17^18 June 2023	DSD removed rubbish and debris from blocked manhole. (see <i>Annex C</i> for photos)
18 June 2023	DSD commenced coring to form another underground by-pass pipe between blocked manhole and downstream manhole FMH4038025 and was unsuccessful due to conflict with hard material. (see <i>Annex C</i> for photos)
19 June 2023	<p>The second video conference among DSD, CEDD and AECOM. DSD informed that coring between blocked manhole and its downstream manhole FMH4038025 was not successful. DSD requested CEDD assistance to :</p> <ul style="list-style-type: none"> - Remove hard material at blocked manhole. - Uncover manhole FM8 which was constructed by this contract and temporarily covered up below the ground level. <p>At 1800, CCZJV removed debris and rubbish at blocked manhole and was incomplete (see <i>Annex D</i>).</p>
20 June 2023	<p>CCZJV continued recovered and removed hard material and rubbish from manhole FMH4089640 (see <i>Annex D</i>).</p> <p>At around 7pm, sewerage flow resumed normal.</p>
20 ^21 June 2023	Upon DSD's request for contingency measures, CCZJV constructed a by-pass trench to encase a DN 250 PE pipe between manhole FMH4038025 to FMH4089640 to temporarily divert sewage flow with DSD (see <i>Annex E</i>).
21 June 2023	CCZJV continued by-pass pipe construction within workfront and completed on 21 June 2023 (see <i>Annex E</i>)

4. Factual Findings

The factual findings related to the incident were listed below:

- a. The existing sewerage manhole FMH 4089640 was blocked by rubbish and cement debris which lead to sewerage overflow at upstream system i.e. Pau Tau Village.

5. Possible Causes of The Incident

The possible causes of the incident are listed below:

- a. The downstream sewerage manhole was trapped with debris and rubbish.

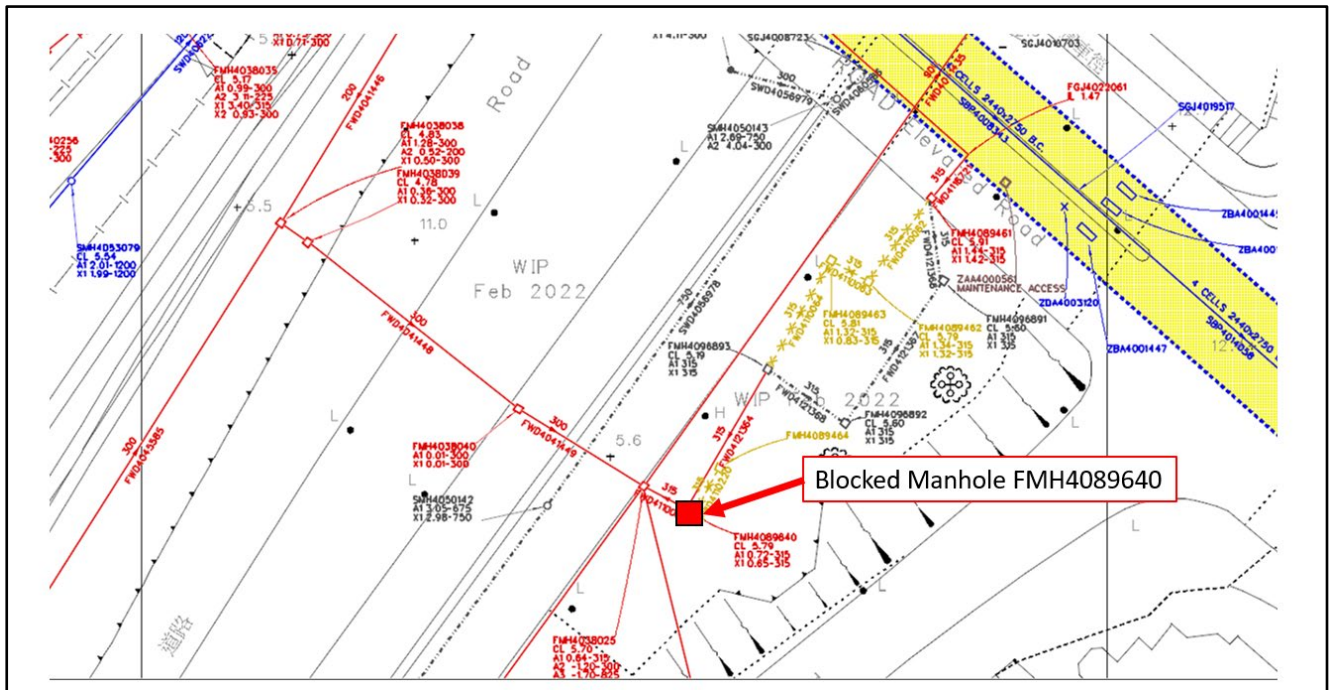
6. Action Taken and Preventive Measures

- a. Upon EPD's request on 21 June 2023 via email (**Annex G**) CCZJV performed checking of sewerage manholes of the system within the site boundary and the flow condition in these manholes were found in order. This was completed by 30 June 2023 (see findings on **Annex F**).

- b. Upon DSD's request on 28 June 2023 via email (**Annex H**), CCZJV was arranging CCTV survey for the conditions of sewerage pipeline within site boundary. CCZJV anticipated to commence in early July 2023 and complete in July 2023.

-- END --

Annex A – Location Plan



Annex B – Photos for Blocked Sewerage Manhole

Photo 1 – DSD mobilized sludge pump to by-pass sewerage flow (photo date: 16/6/2023)



Photo 2 – Sewage Manhole FM8 (photo date: 16/6/2023)



Annex C – Photos of DSD Emergency Maintenance Works

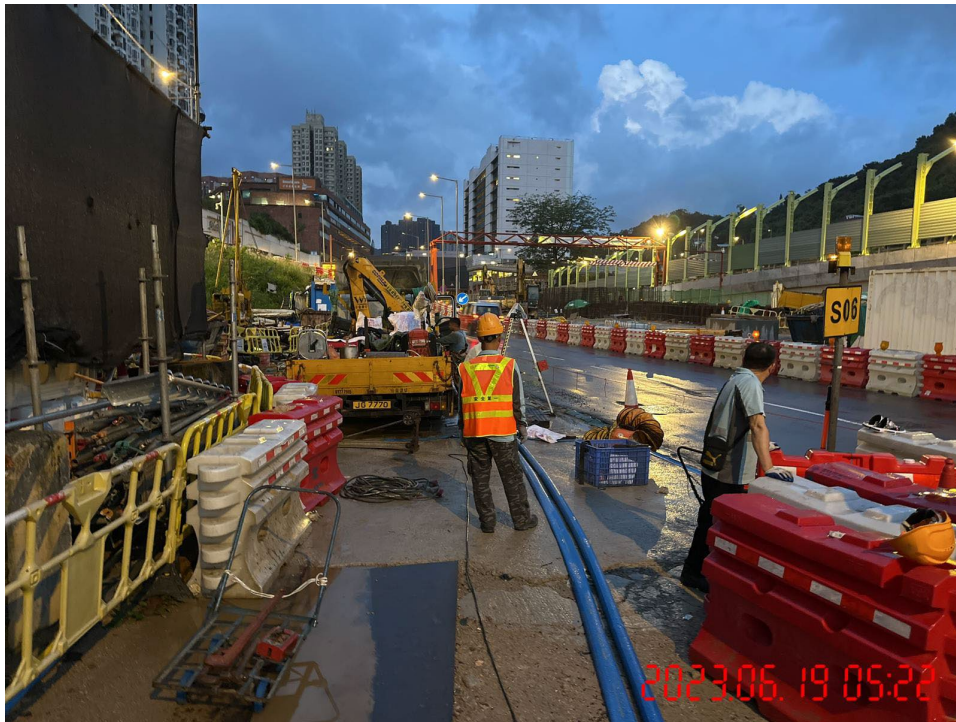
Photo 1 – DSD continued coring between existing sewage manholes at slow lane (photo date: 17^18/6/2023)



Photo 2 – DSD continued coring between existing sewage manholes at slow lane (photo date: 17^18/6/2023 and photo provided by DSD)



Photo 2 – DSD continued coring between existing sewage manholes at slow lane (photo date: 19/6/2023)



Annex D – Photos of the Contractor Works (Removed rubbish and debris in blocked manhole FMH 4089640)

Photo 1 – CCZJV set up confined space (photo date: 19 June 2023)



Photo 2 – CCZJV removed rubbish and debris from the blocked manhole (photo date: 19 June 2023)

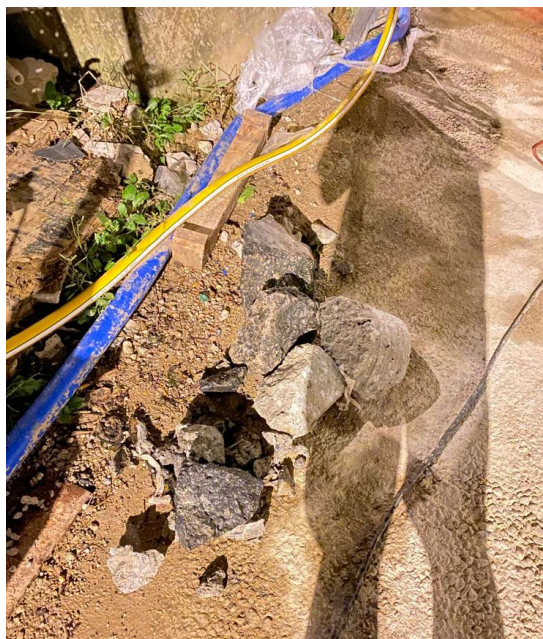


Photo 3 – CCZJV removed rubbish and debris from the blocked manhole (photo date: 20^21 June 2023)



Annex E – Contingency measures requested by DSD

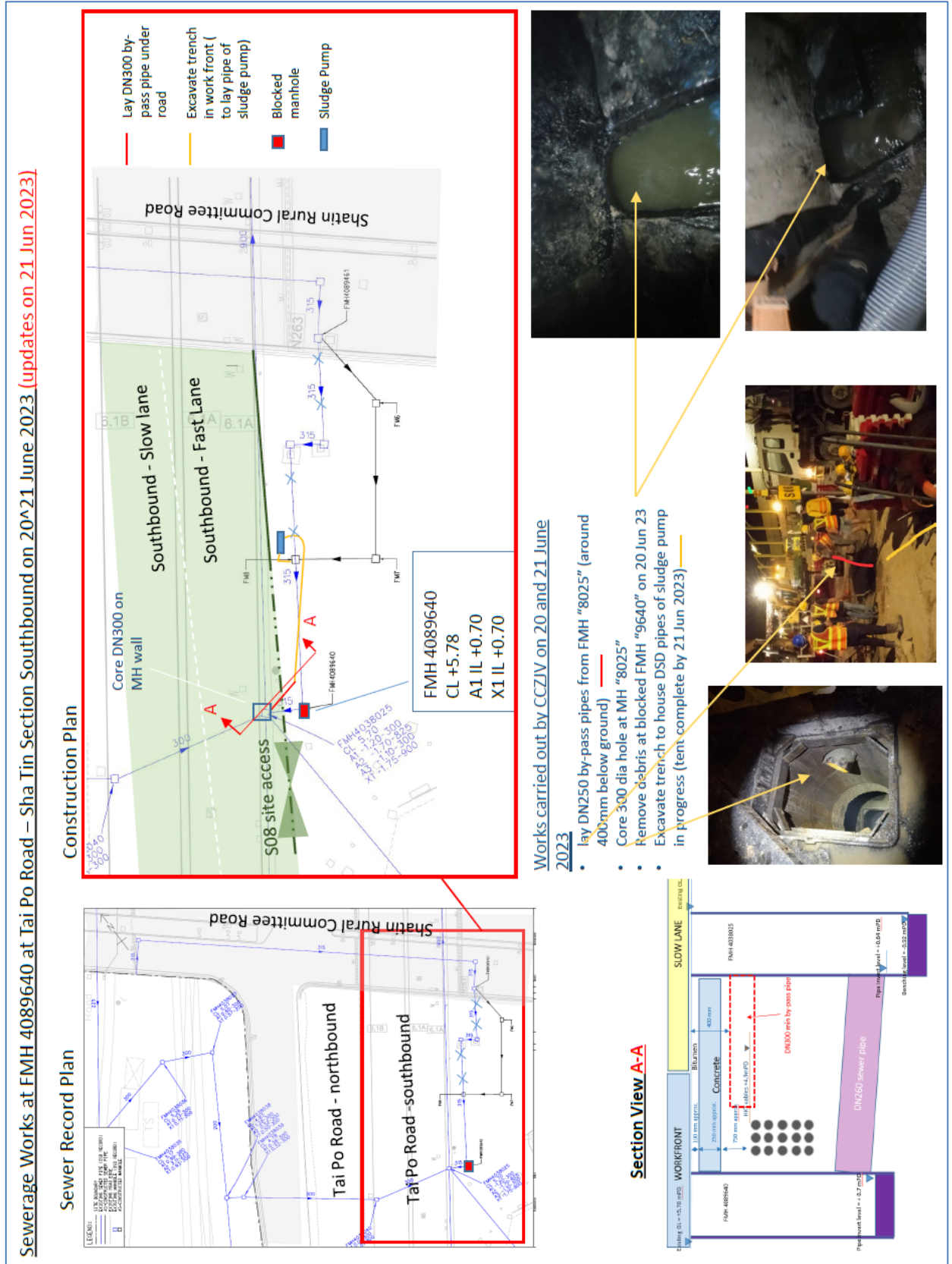


Photo 1 – Photo of Works Location



Photo 2 – Condition of Blocked Manhole after removal of rubbish and debris



Photo 3 – by pass pipe constructed by CCZJV at FMH4038025



**Annex F – Inspection of sewerage manholes within the
site boundary (refer to file Annex F –part 2)**



Manhole: FMH4038040
Inspection date: 24-Jun-2023



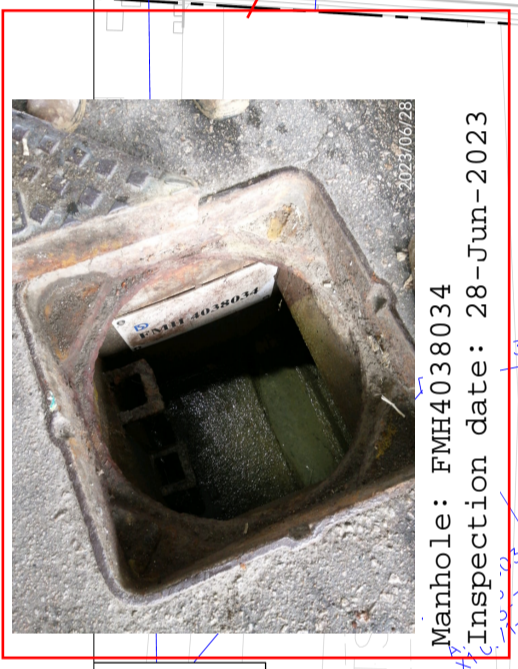
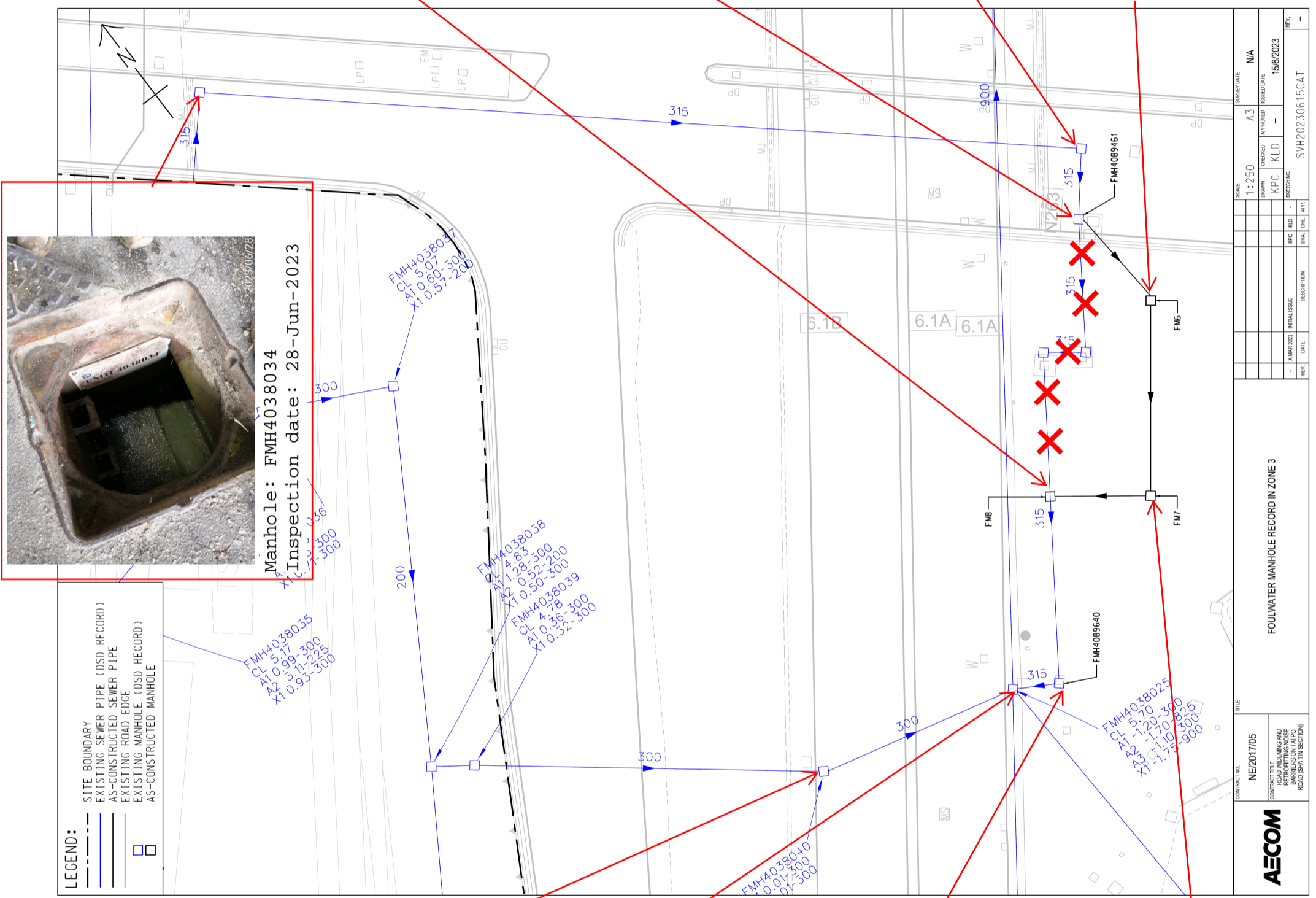
Manhole: FMH4038025
Inspection date: 23-Jun-2023
Remark: Inspection not available



Manhole: FMH4089640
Inspection date: 23-Jun-2023



Manhole: FM7
Inspection date: 23-Jun-2023
Remark: Inspection not available



Manhole: FMH4038034
Inspection date: 28-Jun-2023



Manhole: FM8
Inspection date: 23-Jun-2023



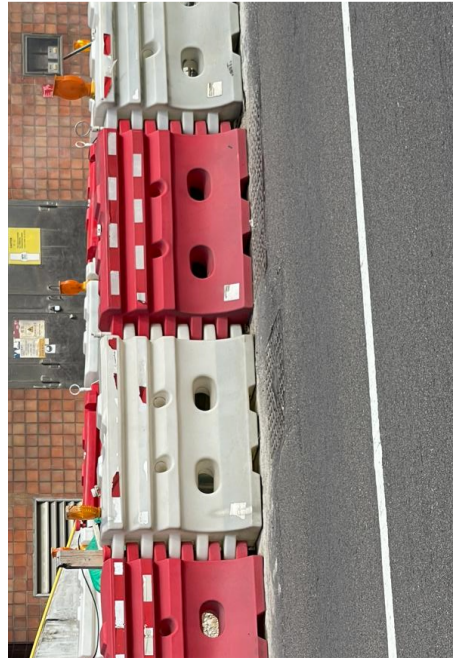
Manhole: FMH4089461
Inspection date: 23-Jun-2023



Manhole: N/A
Inspection date: 23-Jun-2023
Remark: Inspection not available



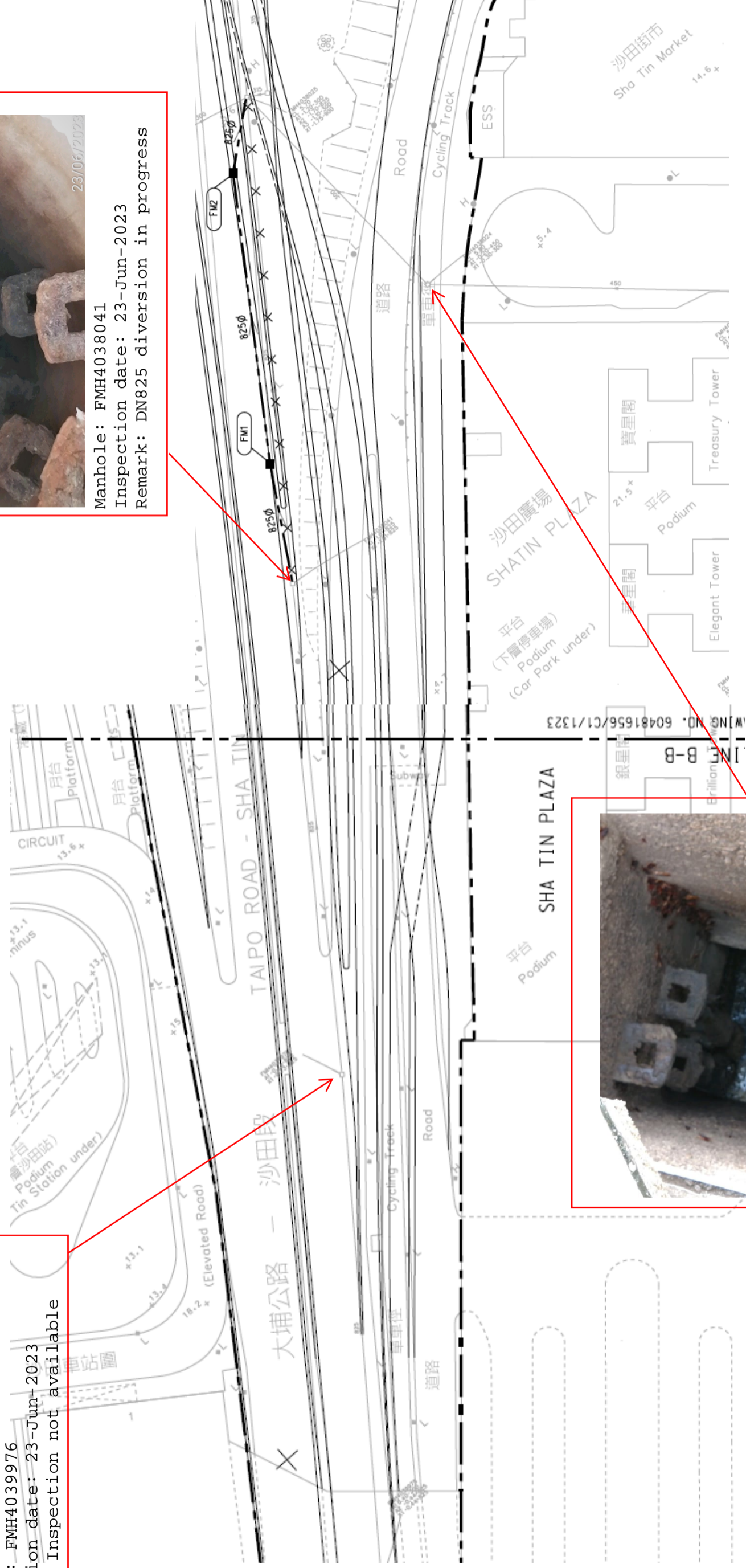
Manhole: FM6
Inspection date: 23-Jun-2023
Remark: Inspection not available



Manhole: FMH4039976
 Inspection date: 23-Jun-2023
 Remark: Inspection not available



Manhole: FMH4038041
 Inspection date: 23-Jun-2023
 Remark: DN825 diversion in progress



Manhole: FMH4038024
 Inspection date: 28-Jun-2023

Annex G – EPD’s email sent on 21 June 2023

From: kkmyip@cedd.gov.hk <kkmyip@cedd.gov.hk>
Sent: Wednesday, 21 June 2023 4:08 PM
To: Albert YU <albert.yu@wtpr-sts.com>
Cc: cheukholai@cedd.gov.hk; jkcyang@cedd.gov.hk; mhpang@cedd.gov.hk; SRE Group <Ne201705_SRE@wtpr-sts.com>
Subject: 轉寄: Blockage of sewer manhole FMH4089640 in the construction site of Road Widening at Tai Po Road – Sha Tin

Dear Albert,

I refer to email from EPD below.

Please provide the latest progress of the manhole clearance action and contingency works (i.e. by-pass pipe, trench and pump provisions) and corresponding site photos to me by **noon 23 June 2023** for my onward reporting to EPD. As suggested by EPD, please carry out inspection on all sewer manholes within our site and provide us the inspection schedule and findings. Furthermore, please carry investigation of the incident and provide a full investigation report to us by **4 July 2023**.

Please investigate and take necessary action regarding the suspected muddy discharge as mentioned in EPD's email. Please report your findings afterwards.

Thank you.

Regards,

Kevin Yip
E/11 (N), North Development Office, CEDD
Tel.: 3152 3576
Mobile: 9239 2357

----- Forwarded by KEVIN KAR MING YIP/CEDD/HKSARG on 2023/06/21 下午 03:54 -----

From: TK KWOK/EPD/HKSARG@EPD

To: kkmyip@cedd.gov.hk

Cc: S[RN]4, E[RN]41, E[RN]42, TK KWOK/EPD/HKSARG@EPD, CI[RN]4, JOSEPH KAY CHI
YAN/CEDD/HKSARG@CEDD

Date: 2023/06/21 下午 03:53

Subject: Blockage of sewer manhole FMH4089640 in the construction site of Road Widening at Tai Po Road – Sha Tin

Dear Kevin,

We spoke.

Re. the subject. Most grateful if you can advise the progress of the manhole clearance action and provide me the site photos by 23 June (Fri).

To prevent similar incident from happening again, please promptly inspect all sewer manholes in your site whether there is another blockage, and let me know the inspection schedule and your findings.

Besides, the location of outfall, which suspected muddy discharge was spotted recently, is appended below for your reference. Most grateful if you can urge your Contractor to maintain the wastewater treatment facilities properly to avoid the violation of the Water Pollution Control Ordinance.

Thanks.

Regards,
Bryan KWOK
E[RN]43, EPD
Tel: 2158 5821

**Annex H – DSD’s email sent on 28 June 2023 and
AECOM’s letter issued on 29 June 2023**



AECOM
12/F, Grand Central Plaza, Tower 2,
138 Shatin Rural Committee Road,
Shatin, N T, Hong Kong
香港新界沙田鄉事會路 138 號
新城市中央廣場第 2 座 12 樓
www.aecom.com

Chief Resident Engineer's Office
41 Lion Rock Tunnel Road,
Shatin, N T, Hong Kong
香港新界沙田獅子山隧道公路 41 號
+852 3959 9600 tel
+852 2276 0502 fax

Your Ref. :
Our Ref. : TPRW/(NE/2017/05)/C60/200/10856



O-10856

29 June 2023

China Railway – China Railway First Group – Zhen Hua Engineering Joint Venture
19/F, China Harbour Building
370-374 King's Road
North Point
Hong Kong

Attn.: Mr. WONG Sze Yiu

Dear Sir,

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

CCTV Inspection of Sewerage Pipes at Zone 3

You are instructed to carry out CCTV inspection of sewerage pipes from existing manhole FMH4089461 to FMH 4038025 (see attached location plan) and submit the CCTV survey report in accordance with GS clause 5.43 and GS and PS Appendix 5.1.

The CCTV inspection is required to be completed by July 2023.

Yours faithfully,
For and on behalf of
AECOM Asia Co. Ltd.

Albert Yu Hon Wing
Project Manager's Delegate

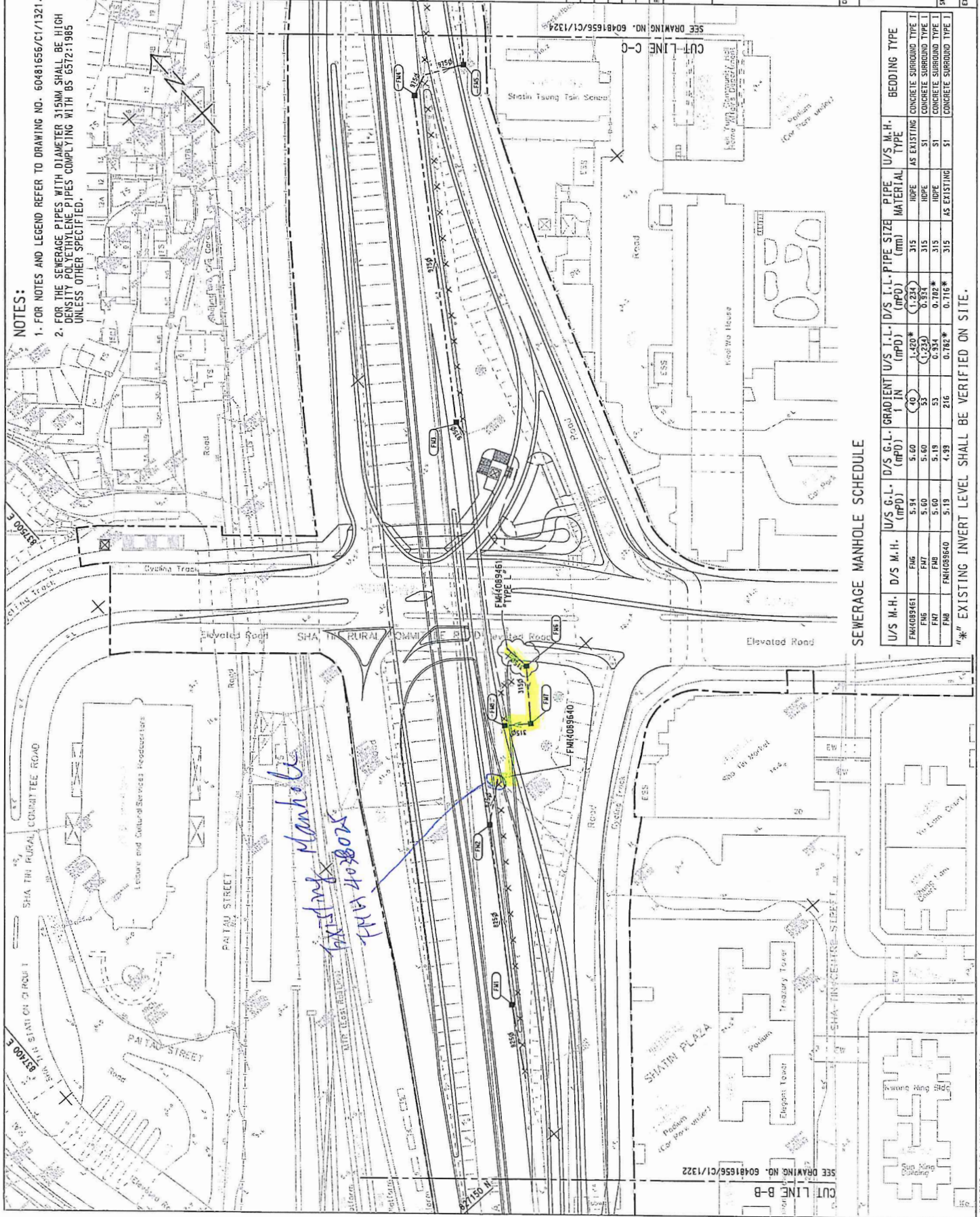
Encl.

cc The Project Manager for the contract (PPA(N), CEDD) - Attn.: Mr. LAI Cheuk Ho
The Project Manager's Delegate for the contract - Attn.: Mr. CHENG Bing Cheung, Kelvin

AY/TC/CAT/lyk

ATTACHMENT

- NOTES:**
- FOR NOTES AND LEGEND REFER TO DRAWING NO. 60481656/C1/1321.
 - FOR THE SEWERAGE PIPES WITH DIAMETER 315MM SHALL BE HIGH DENSITY POLYETHYLENE PIPES COMPLYING WITH BS 6572:1985 UNLESS OTHER SPECIFIED.



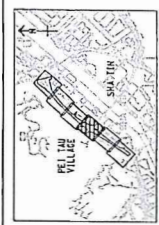
SEWERAGE MANHOLE SCHEDULE

U/S M.H.	D/S M.H.	U/S G.L. (mPD)	D/S G.L. (mPD)	GRADIENT 1 IN	U/S I.L. (mPD)	D/S I.L. (mPD)	D/S I.L. - (mPD)	PIPE SIZE (mm)	PIPE MATERIAL	U/S M.H. TYPE	U/S M.H. TYPE	BEDDING TYPE
FH40806461	FH40806461	5.94	5.00	0.00	1.420*	1.234	(1.234)	315	HDPE	AS EXISTING	AS EXISTING	CONCRETE SURROUND TYPE 1
FH40806461	FH40806461	5.60	5.60	0.00	1.230	0.914	(0.914)	315	HDPE	AS EXISTING	AS EXISTING	CONCRETE SURROUND TYPE 1
FH4080640	FH4080640	5.60	5.19	0.00	0.934	0.768*	(0.768)	315	HDPE	AS EXISTING	AS EXISTING	CONCRETE SURROUND TYPE 1
FH4080640	FH4080640	5.19	4.93	0.00	0.768*	0.716*	(0.716)	315	AS EXISTING	AS EXISTING	CONCRETE SURROUND TYPE 1	

*"m" EXISTING INVERT LEVEL SHALL BE VERIFIED ON SITE.

REV.	DATE	DESCRIPTION	BY	CHK	APP.
E	18/07/20	ISSUE FOR PERMIT	YAS	LP	YAS
D	18/07/20	ISSUE FOR PERMIT	YAS	LP	YAS
C	18/07/20	ISSUE FOR PERMIT	YAS	LP	YAS
B	18/07/20	ISSUE FOR PERMIT	YAS	LP	YAS
A	18/07/20	ISSUE FOR PERMIT	YAS	LP	YAS

AECOM



CONTRACT NO. NE/2017/05
 ROAD WIDENING AND RETROFITTING NOISE BARRIERS ON TAI PO ROAD (SHA TIN SECTION)
 SECTION NO. SEWERAGE LAYOUT PLAN
 DRAWING NO. NE/2017/05/SSK0091
 SCALE: 1:1000 (A3)

Blind Note

Catherine TAM

From: mhpang@cedd.gov.hk
Sent: Wednesday, 28 June 2023 3:04 pm
To: Catherine TAM
Cc: Albert YU; jkcyen@cedd.gov.hk; kkmyip@cedd.gov.hk; SRE Group
Subject: 轉寄: Re: Fw: Temporary emergency bypass near House No.27 Pai Tau Village
Attachments: CCTV Extent.pdf

Dear Catherine,

Please follow up. Thanks.

Regards,

Chris PANG
E/35 (N), North Development Office, CEDD
Tel.: 3152 3592

----- Forwarded by MAN HIM PANG/CEDD/HKSARG on 28/06/2023 15:03 -----

From: Yat Hang LAM/MSD/DSD/HKSARG@DSD
To: MAN HIM PANG/CEDD/HKSARG@CEDD
Cc: Catherine TAM <catherine.tam@wtpr-sts.com>, JOSEPH KAY CHI YAN/CEDD/HKSARG@CEDD, KEVIN KAR MING YIP/CEDD/HKSARG@CEDD, Leon Kam Yuen LO/MSD/DSD/HKSARG@DSD, Shing Hin HO/MSD/DSD/HKSARG@DSD, Siu Long KOO/DSD/HKSARG@DSD, Timothy CHAN <timothy.chan@wtpr-sts.com>
Date: 28/06/2023 10:41
Subject: Re: Fw: Temporary emergency bypass near House No.27 Pai Tau Village

Dear Chris,

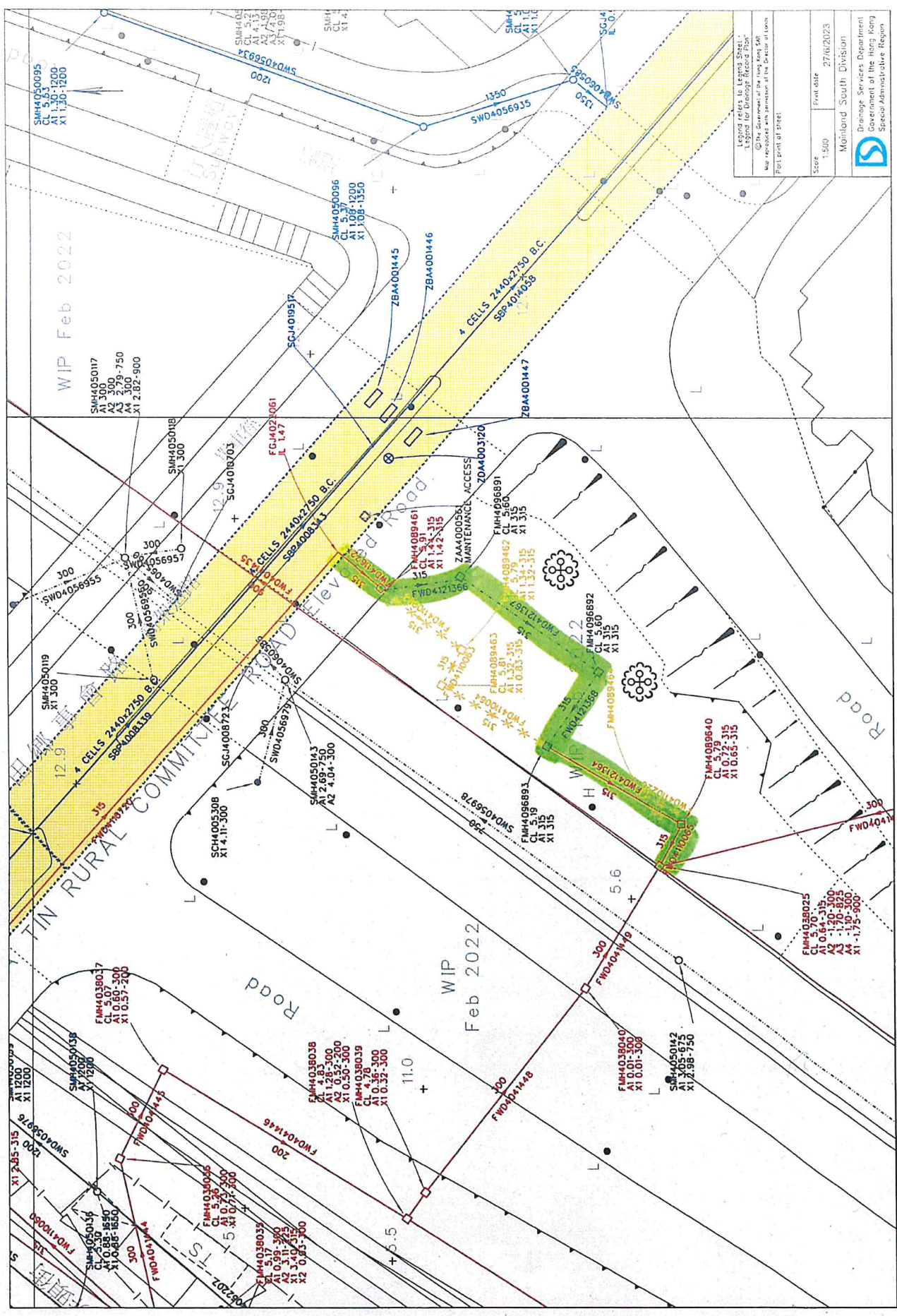
As discussed, our contractor is fully occupied and has no spare capacity to carry out the CCTV inspections.

Grateful if you Contractor could carry out the CCTV inspections and provide the inspection records for our reference.

The extent of inspection is highlighted as per attached. Many thanks.

Regards,
Chris Lam
E/ST, MSD, DSD
Tel: 2300 1573

Blind Note

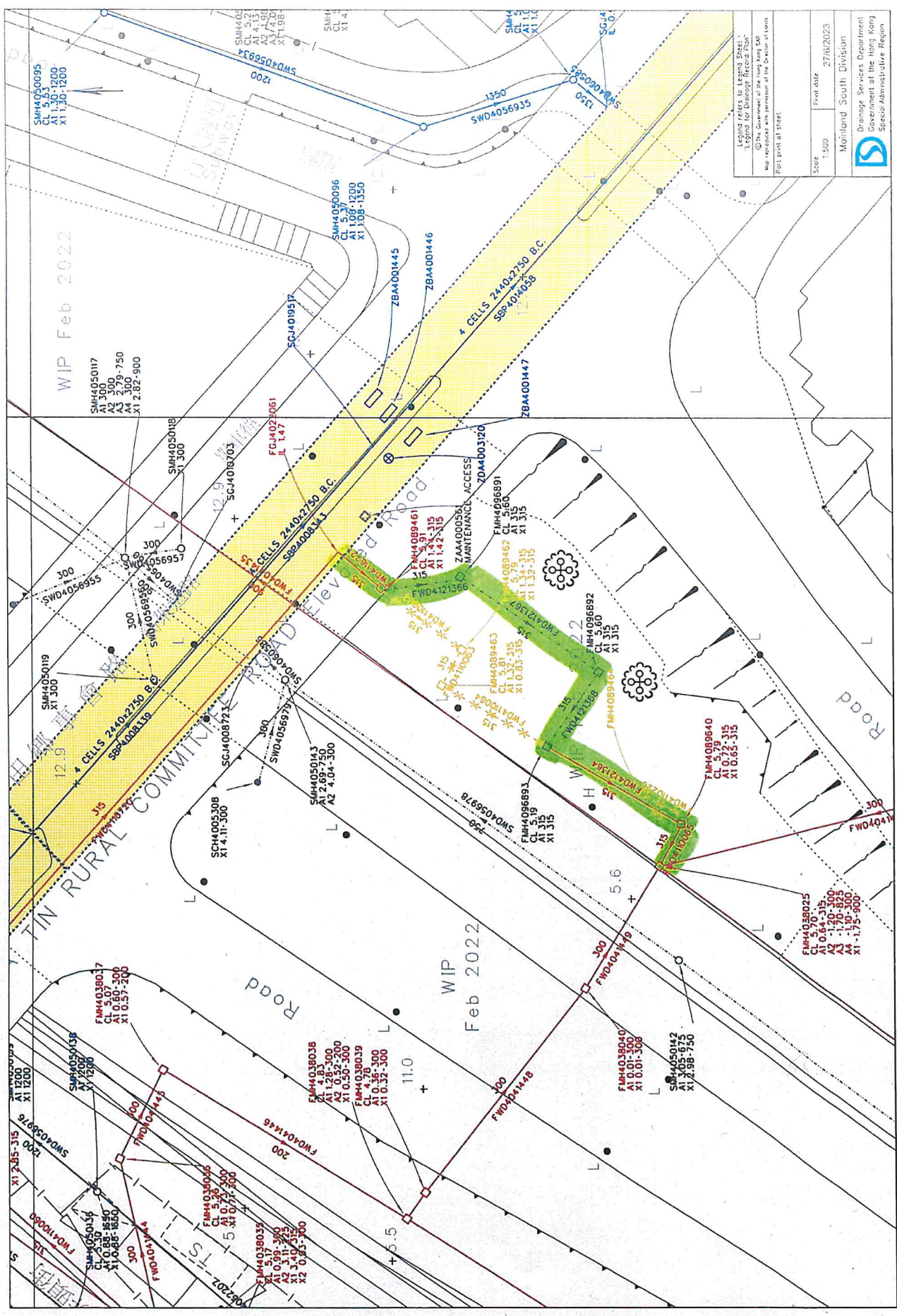


Legend refers to Legend Sheet.
 Legend for Drainage Network Plan
 © Government of the Hong Kong Special Administrative Region
 Map readers should refer to the Schedule of Works
 Part point of sheet

Scale	1:500	Print date	27/06/2023
Mokland South Division			
Drainage Services Department Government of the Hong Kong Special Administrative Region			

WIP Feb 2022

WIP Feb 2022



FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.fugro.com



Appendix O

Non-Compliance Photo Records



At Zone 3, a blue pipe was found and connected with the drainage system, no treatment facility was found near by the pump and blue pipe.



At Zone 4, N4, untreated muddy water surface run-off was observed, the water directly discharges into a guile without any treatment.



At Zone 4, N4, untreated muddy water discharge was found through the blue pipe to the MTR area, no treatment facility was found near by the pump and blue pipe.



At Zone 4, N4, the pump and blue pipe were found not connected to the sedimentation tank nearby. Untreated muddy water discharge was found through the blue pipe to the MTR area. The illegal discharge was stop by RE and ET immediately.