Environmetnal Team Services for Contract No. SS H504 Design and Construction of Chai Wan Government Complex and Vehicle Depot

23rd Monthly EM&A Report (September 2023)

Cetrified by:

Fredrick Leong
Environmental Team Leader (ETL)
Aurecon Hong Kong Limited

Date: 12 October 2023

Verified by:

Claudine Lee
Independent Envirnonmental Checker (IEC)
Meinhardt Infrastructure and Environment Limited

Date: 12 October 2023

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Contract No. SS H504 Design and Construction of Chai Wan Government Complex and Vehicle Depot

23rd Monthly EM&A Report

Yau Lee Construction Co, Ltd

2023-10-11

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Document prepared by:

Aurecon Hong Kong Limited
Unit 1608, 16/F, Tower B, Manulife Financial Centre,
223 – 231 Wai Yip Street, Kwun Tong, Kowloon
Hong Kong S. A. R.
T +852 3664 6888
F +852 3664 6999
E hongkong@aurecongroup.com
W aurecongroup.com

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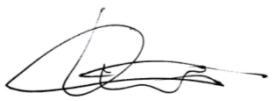
Reviewer's signature		Approver's signature	
Name	Keith Chau	Name	Fredrick Leong
Title	Associate, Environmental	Title	Environmental Team Leader

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Appendix

Executive Summary

Aurecon Hong Kong Limited (Aurecon) was commissioned by the Yau Lee Construction Co, Ltd (Yau Lee) to undertake the role of Environmental Team (ET) for carrying out the environmental monitoring and audit (EM&A) works for the "Contract No. SS H504 Design and Construction of Chai Wan Government Complex and Vehicle Depot (The Project).

An Environmental Permit (EP) No. EP-505/2015 was issued by the Environmental Protection Department (EPD) on 17 December 2015 for the construction of this project based on the Environmental Impact Assessment (EIA) Report (Register No: AEIAR-191/2015) approved by the EPD. The latest EP No. EP-505/2015/A was subsequently issued by the EPD on 8 November 2019 based on the documents (including an Environmental Review Report (ERR)) for the application of Variation of Environmental Permit.

The construction phase and EM&A programme of the Project commenced on 25 November 2021.

This 23rd Monthly EM&A Report presents the EM&A works conducted from 1 September 2023 to 30 September 2023 in accordance with the EM&A Manual.

Summary of Construction Works undertaken during Report Period

The major construction works undertaken during the reporting period include:

-	ELS works
-	Pile cap & tie beam construction
-	Column construction (L1 to L2)
-	Tower Crane Erection

Environmental Monitoring and Audit Progress

A summary of the monitoring activities in this reporting period is listed below:

-	Construction Noise Monitoring during normal weekdays at each monitoring station	4 times
-	Joint Environmental Site Inspection	4 times

Nosie

4 sets of 30-minute construction noise measurement were carried out at each monitoring stations during normal weekdays of the reporting period. No exceedance of Action and Limit Levels of construction noise was recorded during the reporting period.

Environmental Site Inspection

Joint environmental site inspections were carried out on 04, 14, 21 and 28 September 2023. The joint environmental site inspection was carried out by the representatives of the Engineer's Representative (ER), the Contractor, IEC and the ET on 04 September 2023. The Contractor has generally implemented the mitigation measures as recommended.

Environmental Exceedance/Non-conformance/Compliant/Summons and Prosecution

No exceedance of the Action and Limit Levels of construction noise was recorded at designated monitoring stations during the reporting period.

No non-compliance event was recorded during the reporting period.

No environmental complaint and summons/prosecutions was received in this reporting period.

EPD conducted general site inspection on 20 September 2023. No special findings were identified during the inspection.

Future Key Issues

Works to be undertaken in the next month include:

- Lift pit construction
- Pile cap & tie beam construction works
- Superstructure construction (L1 to L2)
- Tower Crane Erection (TC2)

Potential environmental impacts arising from the above construction activities are mainly associated with dust, construction noise, site runoff and waste management.

1 Introduction

1.1.1 Aurecon Hong Kong Limited (Aurecon) was commissioned by the Yau Lee Construction Co, Ltd (Yau Lee) to undertake the role of Environmental Team (ET) for carrying out the environmental monitoring and audit (EM&A) works for the “Contract No. SS H504 Design and Construction of Chai Wan Government Complex and Vehicle Depot (The Project).

1.2 Purpose of this Report

1.2.1 This is the twenty-third EM&A report which summarises the impact monitoring results and audit findings for the EM&A programme during the reporting period from 01 September 2023 to 30 September 2023.

1.3 Structure of the Report

1.3.1 The structure of the report is as follows:

Section 1 - Introduction
- details the background, purpose and structure of the report.

Section 2 - Project Information
- summarises background and scope of the Project, site description, project organization and contact details, construction programme, the construction works undertaken and the status of Environmental Permit(s)/License(s) during the reporting period.

Section 3 - Environmental Monitoring Requirement
- summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequency, monitoring locations, Action and Limit Levels, Event/Action Plans.

Section 4 - Implementation Status on Environmental Mitigation Measures
- summarises the implementation of environmental protection measures during the reporting period.

Section 5 - Monitoring Results
- summarises the monitoring results obtained in the reporting period.

Section 6 - Environmental Site Auditing
- summarises the audit findings of the weekly site inspections undertaken within the reporting period.

Section 7 - Environmental Non-conformance
- summarises any monitoring exceedance, environmental complaints and environmental summons within the reporting period.

Section 8 - Future Key Issues
- summarises the impact forecast and monitoring schedule for the next reporting month.

Section 9 - Review of EM&A Data and EIA Predictions
- compares and contrasts the EM&A data in the month with the EIA predictions and annotates with explanation for any discrepancies.

Section 10 - Conclusions

2 Project Information

2.1 Background

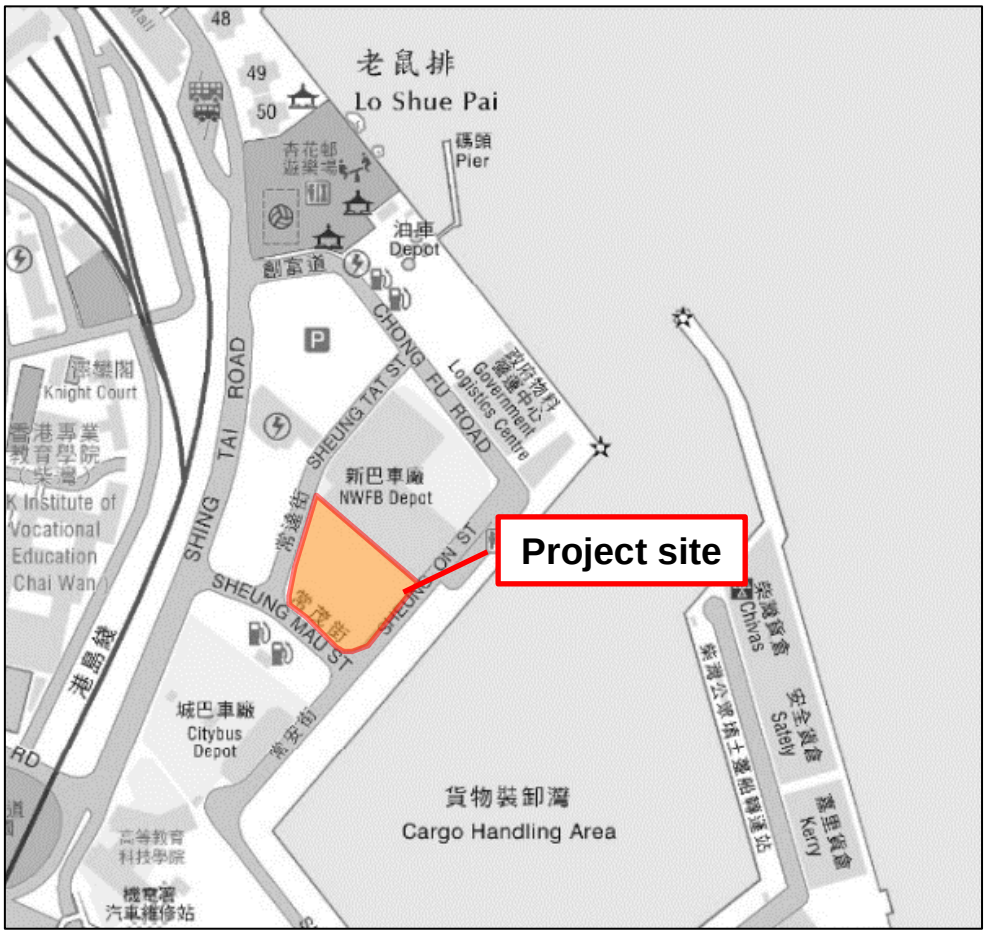
2.1.1 On 5 October 2015, the Environment Impact Assessment (EIA) for the proposed "Chai Wan Government Complex and Vehicle Depot" (AEIAR-191/2015, hereafter referred to as "the Project") was approved and an Environmental Permit (EP) (EP-505/2015) for the construction of the Project was issued. The latest EP No. EP-505/2015/A was subsequently issued by the EPD on 8 November 2019 based on the documents (including an Environmental Review Report (ERR)) for the application of Variation of Environmental Permit.

2.1.2 The construction phase and EM&A programme of the Project commenced on 25 November 2021.

2.2 Site Description

2.2.1 The scope of works of the Project, which is a Designated Project under the EIA Ordinance (EIAO), will construct joint user building comprising the government office, store, laboratory, transport pool and vehicle depot facilities in Chai Wan District. The Site is bounded by NWFB Depot to the north, Sheung On Street to the east, Sheung Mau Street to the south and Sheung Tat Street to the west. A layout plan of the Project is provided in **Figure 1-1**.

Figure 1-1 A layout plan of the Project



2.3 Construction Activities

2.3.1 A summary of the major construction activities undertaken in this reporting period is shown in **Table 2.1** and the construction programme is illustrated in **Appendix 1**.

Table 2-1 Major Construction Activities Undertaken in the Reporting Period

Construction Activities Undertaken
- ELS works
- Pile cap & tie beam construction
- Column construction (L1 to L2)
- Tower Crane Erection

2.4 Project Organisation

2.4.1 The Project organization chart and contact details are shown in **Appendix 2**.

2.5 Status of Environmental Approval Document

2.5.1 A summary of the relevant valid permits, licences, and/or notifications on environmental protection for this Project since the granting of the EP is presented in **Table 2.2**.

Table 2-2 Summary of the relevant valid permits, license, and/or notification on environmental protection

Permit / Licenses / Notification	Reference	Validity Period	Remark
Environmental Permit (EP)	EP-505/2015/A	Throughout the Contract	Permit granted on 8 November 2019
Notification of Construction Works as required under Air Pollution Control (Construction Dust) Regulation	469716	Throughout the Contract	Approved on 21 July 2021
Registration of Waste Producer under Waste Disposal Ordinance	7041313	Throughout the Contract	Approved on 13 August 2021
Registration as Chemical Waste Producer	5213-163-Y2782-01	Throughout the Contract	Approved on 24 August 2021
Construction Noise Permit	GW-RS0453-23	4 December 2023	Approved on 7 June 2023
Effluent Discharge License under Water Pollution Control Ordinance	WT00038924-2021	30 September 2026	Approved on 9 December 2021

3 Environmental Monitoring Requirements

3.1 Noise Monitoring Locations

3.1.1 The noise monitoring locations in approved EM&A Manual are summarised in **Table 3-1** and shown in **Figure 3-1**.

Table 3-1 Noise Monitoring Station in Approved EM&A Manual

Noise Monitoring ID	Proposed Noise Monitoring Location	Remark
NM1	Ground Floor at Heng Fa Chuen Block 50	-
NM2b	Pedestrian road at Shing Tai Road	*
NM3	Rooftop of THEi Campus	-

Remark: * - Hong Kong Institute of Vocational Education (Chai Wan) - Academic Block (NM2) is the noise monitoring stations for the construction phase EM&A programme as identified in the approved EM&A Manual for the Project. The access to NM2 and Knight Court (as a VTC Senior Quarters and NSR3 in approved EIA) were denied. A search for alternative noise monitoring locations along Shing Tai Road and Sheung Mau Street was carried out during the site visit on 4 October 2021.

Lamp Post no. 47447 at Sheung Mau Street (NM2a), which is located between project site and original noise monitoring location, Hong Kong Institute of Vocational Education (Chai Wan) - Academic Block (NM2), is found suitable and available to be an alternative noise monitoring location for NM2. Also, NM2a, which has a direct line of sight towards project site (where construction works will be carried out and likely to have noise impacts), is located closer to project site than NM2 and thus considered as a representative noise monitoring location. Monitoring position at NM2a is proposed at 2m above ground due to security concerns and minimize the road traffic noise contribution. Noise measurement at NM2a will be considered as free-field and a correction of +3dB(A) would be made to the noise monitoring results. The alternative location of NM2a, were therefore proposed and agreed by the Independent Environmental Checker (IEC).

Due to the adjustment of the location of NM2 to NM2a, the measured noise levels at NM2a would represent the noise levels at NM2.

To respond to the comment raised by EPD on monitoring location of NM2a by email dated 23 May 2022 and site meeting on 6 June 2022, the monitoring location of NM2a was adjusted to the pedestrian road at Shing Tai Road (NM2b) which is located between project site and original noise monitoring location, Hong Kong Institute of Vocational Education (Chai Wan) - Academic Block (NM2). Compared with NM2a, NM2b is far away from the traffic light and therefore should be able to minimise the traffic noise issue. This arrangement was started from 28 June 2022 and has been agreed by the Independent Environmental Checker (IEC). Noise measurement at NM2b will be considered as free-field and a correction of +3dB(A) would be made to the noise monitoring results.

Due to the adjustment of the location of NM2a to NM2b, the measured noise level at NM2b would represent the noise levels at NM2.

Figure 3-1 Location of Noise Monitoring Stations (NM1, NM2b and NM3)

3.2 Monitoring Parameters, Frequency and Duration

3.2.1 Weekly construction noise monitoring was conducted in accordance with the requirements stipulated in the EM&A Manual. The monitoring programme for this reporting period is shown in **Appendix 3.**

3.2.2 **Table 3-2** summarizes the monitoring parameters, frequency and duration of the impact noise monitoring.

Table 3-2 Noise Monitoring Parameters, Period and Frequency

Time Period	Parameters
Daytime on normal weekdays (0700-1900 hrs)	$L_{eq(30\ mins)}$, $L_{10(5\ mins)}$ and $L_{90(5\ mins)}$
Evening time on all days (1900-2300 hrs) and Holidays (including Sundays) during daytime and evening (0700-2300 hrs)	$L_{eq(5\ mins)}$, $L_{10(5\ mins)}$ and $L_{90(5\ mins)}$
All days during the night-time (2300-0700 hrs of the next day)	$L_{eq(5\ mins)}$ $L_{10(5\ mins)}$ and $L_{90(5\ mins)}$

3.3 Monitoring Equipment

3.3.1 Noise measurements were conducted in accordance with the calibration and measurement procedures as stated in Annex – General Calibration and Measurement Procedures of Technical Memorandum on Noise from Construction Work other than Percussive Piling (GW-TM) issued under the Noise Control Ordinance (NCO) (Cap.400).

3.3.2 The sound level meter and calibrator used for the noise measurement, as listed in **Table 3-3**, complies with IEC 651: 1979 and 804:1985 (Type 1) specification. The calibration certificates of the sound level meter and calibrator are given in **Appendix 4.**

Table 3-3 Noise Monitoring Equipment

Monitoring Station	Monitoring Equipment (Sound Level Meter and Calibrator)
NM1	Sound Level Meter: Rion NL 52(s/n:01010406) Calibrator: Larson Davis Cal 200(s/n: 11334)
NM2b	
NM3	

3.3.3 Immediately prior to and following the noise measurements, the accuracy of the measurement equipment was checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements were accepted as the calibration level from before and after the noise measurement agree to within 1.0 d(B).

3.3.4 A portable wind speed meter shall be used for measuring wind speeds in m/s.

3.4 Event / Action Plan

Table 3-4 Action and Limit Levels for Construction Noise Monitoring

Monitoring Station	Action Level	Limit Level	
		Noise Criteria, $Leq_{(30mins)}$, dB(A)	Remark
NM1	When one documented complaint is received	75	Applicable during 0700 – 1900 hours, Monday to Saturday
NM2b		70 65 (during examination)	
NM3		70 65 (during examination)	

3.4.1 Should non-compliance of the noise criteria occur, the Event and Action Plan as presented in **Appendix 5** should be followed.

3.5 Mitigation Measures

3.5.1 The mitigation measures in accordance with the EP, EIA and EM&A Manual and their implementation status are presented in **Appendix 6**.

4 Implementation Status on Environmental Mitigation Measures

4.1.1 The Contractor has generally implemented environmental mitigation measures and requirements as stated in the EIA Report, the EP and EM&A Manual and the contract documents. The implementation status during the reporting period is summarized in **Appendix 6**.

4.1.2 The implemented environmental mitigation measures are listed as follow:

I. The timing and sequence of construction activities were carefully arranged.

II. QPME were used to reduce the excessive noise impact.

III. Good site practices were implemented to reduce noise impact of the site activities. The practices are listed as below:

- Use only well-maintained and regularly-serviced plant during the works;
- Turn off or throttle down the plant in intermittent use to a minimum;
- Orient the plant known to emit noise strongly in one direction to face away from the NSRs;
- Use silencers, mufflers and enclosures for plant where possible and maintain properly throughout the works;
- Site fixed plant as far away from NSRs as possible; and
- Use stockpiles of excavated materials and other structures such as site buildings effectively to screen noise from the works.

IV. Movable noise barrier/acoustic sheet barriers as noise shield were adopted as far as practicable following the Construction Noise Management Plan (CNMP).

5 Monitoring Results

5.1 Noise

5.1.1 A total of 4 sets of 30-minute construction noise measurements were carried out at the monitoring stations (NM1, NM2b and NM3) during normal weekdays of the reporting period. The monitoring results together with graphical presentations are presented in **Appendix 7**. The local impacts observed near the monitoring stations were summarized below:

- NM1: Railway noise, road traffic noise and Yau Lee Site.
- NM2b: Road traffic noise and Yau Lee Site.
- NM3: Cargo Handling Area and Yau Lee Site.

5.1.2 No exceedance of Action and Limit Levels of construction noise was recorded during the reporting period. Therefore, there was no record of Notification of Environmental Quality Limits Exceedance in the **Appendix 11**.

5.1.3 Baseline corrections were made when the measured noise level is higher than both the noise limit level and the baseline level, and it is made by deducting the measured noise levels with their corresponding baseline noise level. The corrected noise level (ie. Construction Noise Level) would solely represent the noise levels of Construction works.

5.1.4 The methodology is shown as below:

- When Measured noise level (Leq 30mins) > Baseline noise level (Leq30), Construction noise level is calculated
- Construction noise level = Measured noise level (Leq 30 mins) – Baseline noise level
- If Measured noise level (Leq 30mins) < Baseline noise level, Corrected noise level = Measured noise level

5.2 Waste Management

5.2.1 Wastes generated from this Project include inert construction and demolition (C&D) materials and non-inert C&D materials. Non-inert C&D materials were made up of general refuse, steels and paper/cardboard packaging materials. Steel materials generated from the Project were also grouped into non-inert C&D materials as the materials were not disposed of with other inert C&D materials. With reference to relevant handling records and trip tickets of this Project, the quantities of different types of waste generated in the reporting period are summarised in **Appendix 8**. The non-inert C&D materials and general refuse generated from the Project were disposed of at the NENT Landfill. A total of 16.49 tonnes of general refuse was generated during the reporting period. The inert C&D materials generated from the Project were disposed of at the Chai Wan Public Fill Barging Point (CW-PFBP) or Fill Bank at Tseung Kwan O Area 137(TKO137FB). A total of 478.81 tonnes of inert waste was generated during the reporting period.

6 Environmental Site Inspection

6.1.1 Joint environmental site inspection was conducted in the reporting period on 04, 14, 21 and 28 September 2023. The joint environmental site inspection was carried out by the representatives of the Engineer's Representative (ER), the Contractor, IEC and the ET on 04 September 2023. The joint environmental site inspection record is shown in **Appendix 9**. There was no noncompliance recorded during the site inspections.

6.1.2 Major findings and recommendations are summarized as follows:

04 September 2023

- Accumulated waste was observed at the site entrance. The Contractor was reminded to arrange waste disposal after the tropical cyclone.
- Aluminium cans should be stored in the recycling bins. General waste should be collected properly by using the waste separation facilities for paper, aluminium cans, plastic bottles.

14 September 2023

- The accumulated surface runoff was found in the lower elevation. The accumulated surface runoff should be pumped out and divided to silt removal facility for wastewater treatment.
- The wastewater in the channel of the vehicle entrance was overflowed.
- Maintenance work should be conducted for the underground water tank to avoid overflow. The Contractor was advised to clear up the accumulated sand and silt in the underground water tank to increase the capacity of its as such the wastewater will not overflow at the vehicle entrance.
- The condition of footing should be reviewed after the rainfall and maintenance works should be conducted as the footing was cracked. The Contractor was recommended to conduct maintenance works on the footing.
- The Contractor was reminded to conduct checking of condition of silt removal facility after the series heavy rainfall to ensure it is functioning properly. The condition of silt removal facility should be reviewed after series of heavy rainfall and maintenance work shall be conducted if necessary.

21 September 2023

- The accumulated surface runoff was found at the lower elevation in Zone B. The Contractor was reminded to clear up the stagnant water.
- The work site was dry and dusty. The Contractor was reminded to schedule watering for the work site to minimize dust dispersion.

28 September 2023

- The accumulated surface runoff was found. The Contractor was reminded to pump out the surface runoff to silt removal facility for treatment to ensure potential stagnant pools are clear and prevented for mosquito breeding.
- Tarpaulin sheets should be provided for the area of paint works to minimize the risk of land contamination. The Contractor was recommended to proper handle chemical waste and place tarpaulin under the working area when the pain work was conducted.

- The overloading of waste skip was found. The Contractor was advised to provide enough waste skip for temporary storage.

7 Environmental Non-conformance

7.1 Summary of Monitoring Exceedance

7.1 No exceedance of the Action and Limit Levels of construction noise was recorded at monitoring station during the reporting period.

7.2 Summary of Environmental Non-compliance

7.2.1 No non-compliance event was recorded during the reporting period.

7.3 Summary of Environmental Complaint

7.3.1 No complaint was received during the reporting period.

7.4 Summary of Environmental Summons and Successful Prosecution

7.4.1 No summons was received during the reporting period.

8 Future Key Issues

8.1 Key Issues for the Coming Month

8.1.1 Works to be undertaken for the coming monitoring periods are summarized below:

- Lift pit construction
- Pile cap & tie beam construction
- Superstructure construction (L1 to L2)
- Tower Crane Erection (TC2)

8.1.2 Potential environmental impacts arising from the above construction activities are mainly associated with dust, construction noise, site runoff and waste management.

8.2 Monitoring Schedule for the Next Month

8.2.1 The tentative schedule of noise monitoring for the next reporting period is presented in **Appendix 10**.

8.3 Construction Programme for the Next Month

8.3.1 The most updated construction programme for the Project is presented in **Appendix 1**.

9 Review of EM&A Data and EIA Predictions

9.1 Noise

9.1.1 The EIA predicted the construction noise levels during the day-time period. In this reporting period, hoarding erection and piling works were conducted. Hence, a comparison between the measured noise results in this reporting month and predicted EIA noise levels was made. (**Table 9-1**).

Table 9-1 Comparison between the measured noise results and EIA predictions

Monitoring Station	EIA Predicted Construction Noise Levels, dB(A)	Baseline Noise Levels, dB(A)	Noise Monitoring Results, dB(A)	
			$Leq_{(30mins)}$, Average	Range
NM1	62	65.1	64.3	63-65
NM2b	69	73.4	71.0*	67-73*
NM3	66	69.8	66.5	64-68

Note: *The measured noise levels exceeded the limit noise level and they were lower than the baseline level for NM2b. Therefore, they were not considered as an exceedance of limit level. As such the EAP was not triggered.

9.1.2 The comparison shows that the average of 30-minute construction noise levels recorded at all monitoring stations during the reporting period were higher than the EIA predicted construction noise levels but lower than the baseline noise levels. Recommended mitigation measures in **Section 5.8** of EIA will be implemented throughout the construction period.

9.2 Waste Management

9.2.1 The estimated amount of waste generated in this Project and the accumulated quantities of waste generated up to this reporting month are presented in **Appendix 8**. The amount of construction waste generated are minimal. Recommended mitigation measures in **Section 8.5** of the EIA will be implemented during the construction stage.

9.3 Conclusion of Review

9.3.1 The EIA predictions against the monitoring results since the commencement of construction works have been reviewed. The EIA concluded that the Project would not cause adverse impacts to the environment, and the monitoring results have also indicated the same so far. Mitigation measures recommended in the EP, EIA, EM&A Manual and the contract documents will continue to be implemented throughout the construction phase of the Project.

10 Conclusion

10.1.1 For construction noise, no Action and Limit Level exceedance was recorded at the monitoring stations during the reporting period.

10.1.2 Environmental site inspection was carried out on 04, 14, 21 and 28 September 2023. Recommendations on remedial actions were given to the Contractors for the deficiencies identified during the site inspections.

10.1.3 EPD conducted general site inspection on 20 September 2023. No special findings were identified during the inspection.

10.1.4 No notification of summons and prosecution was received during the reporting period.

10.1.5 The ET will keep track on the EM&A programme to ensure compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

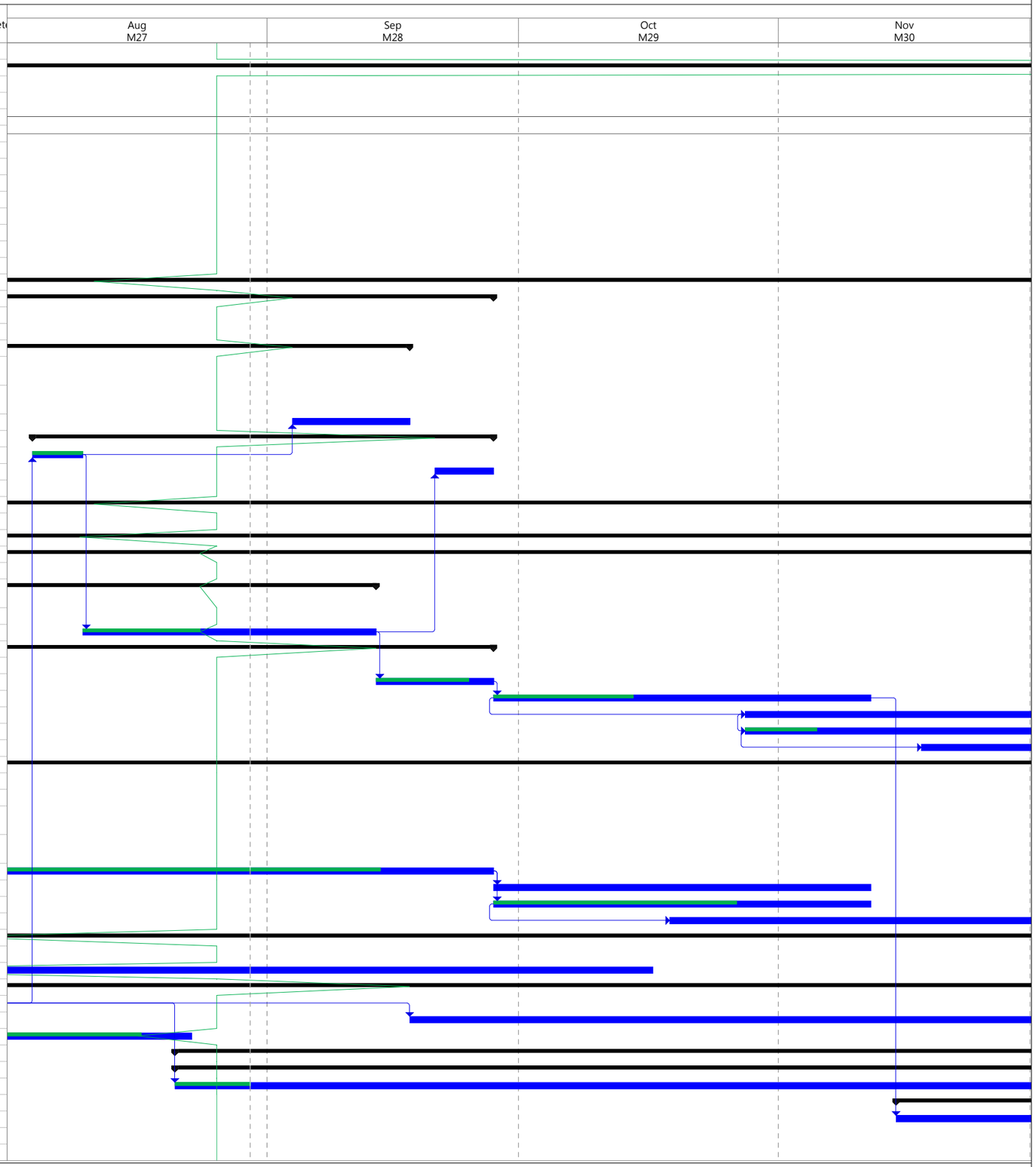
Appendix 1

Design and Construction of Chai Wan Government Complex and Vehicle Depot
Contract No. SS H504 (Programme No. 184GK)

3-Month Rolling Programme (09-2023 to 11-2023)

Update on: 25 August 2023

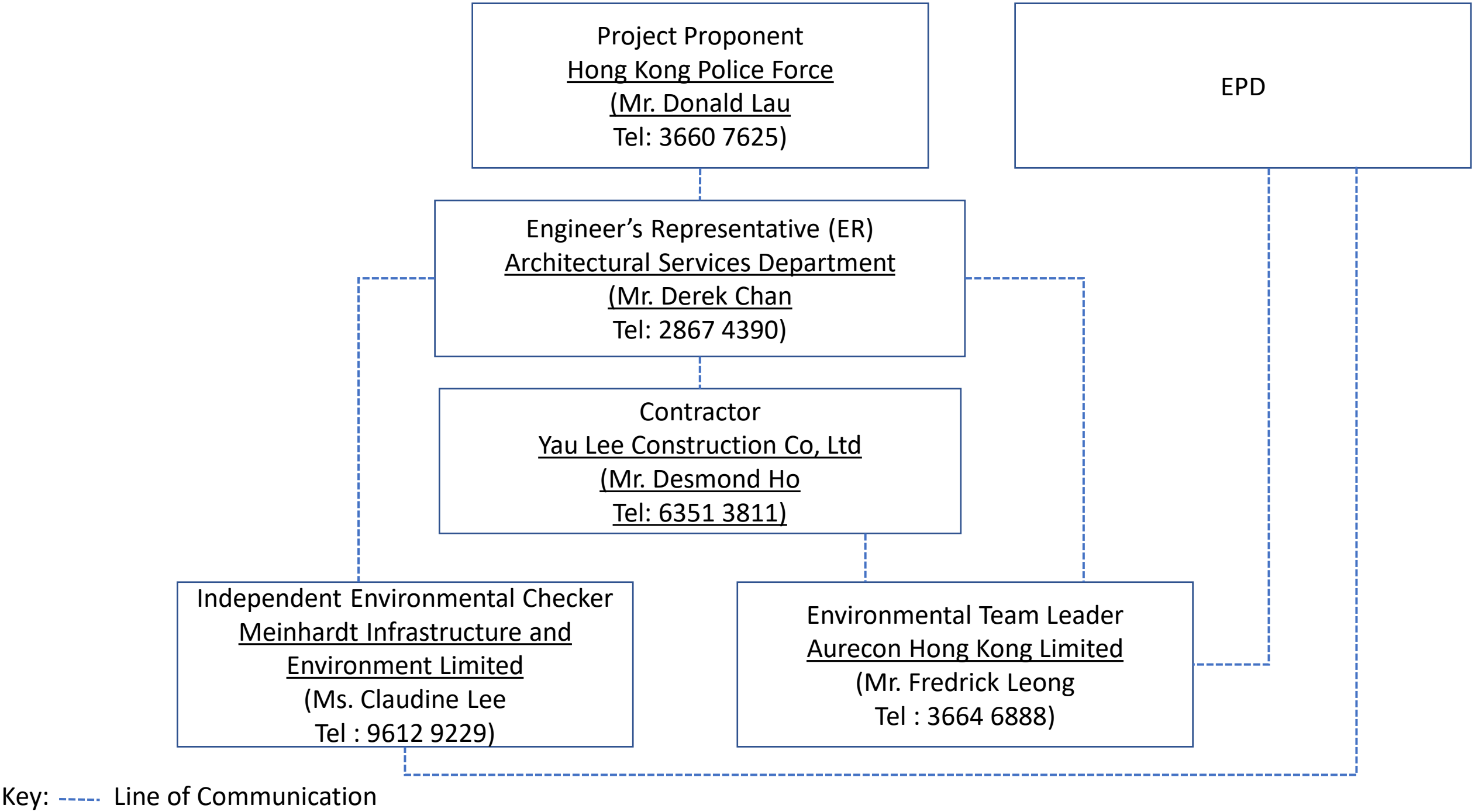
ID	Task Name	Duration	Start	Finish	Predecessors	Successors	Task Calendar	% Complete
1	Contract Date	0 days	Thu 24/6/21	Thu 24/6/21			Calendar day	100%
2	**Contract Period**	**.362.5 days**	**Mon 19/7/21**	**Fri 11/4/25**			**Calendar day**	**0%**
3	Starting Date	0 days	Mon 19/7/21	Mon 19/7/21		4SS,5SS+946 da	Calendar day	100%
4	Access Date	0 days	Mon 19/7/21	Mon 19/7/21	3SS		Calendar day	100%
5	Original Contract Period (945 days after starting date)	0 days	Mon 19/2/24	Mon 19/2/24	3SS+946 days		Calendar day	0%
6	Revised Contract Period (996.5 days after starting date)	0 days	Thu 11/4/24	Thu 11/4/24	3SS+997.5 days	7SS+365 days	Calendar day	0%
7	Defects Date	0 days	Fri 11/4/25	Fri 11/4/25	6SS+365 days		Calendar day	0%
8	**Major Submission Other than AIP/DDA**	**416 days**	**Tue 5/10/21**	**Thu 24/11/22**			**Calendar day**	**100%**
9	**Submission for Environmental Permit to EPD**	**77 days**	**Wed 27/10/21**	**Tue 11/1/22**			**Calendar day**	**100%**
16	**Traffic Impact Assessment (TIA)**	**90 days**	**Tue 5/10/21**	**Sun 2/1/22**			**Calendar day**	**100%**
20	**Construction Traffic Impact Assessment (CTIA)**	**90 days**	**Tue 5/10/21**	**Sun 2/1/22**			**Calendar day**	**100%**
24	**Submission to HKE for Transformer Room Layout**	**129 days**	**Wed 20/10/21**	**Fri 25/2/22**			**Calendar day**	**100%**
29	**Submission of GBP to Government Departments**	**142 days**	**Tue 16/11/21**	**Wed 6/4/22**			**Calendar day**	**100%**
34	**BEAM Plus Project Assessment Process**	**340 days**	**Mon 20/12/21**	**Thu 24/11/22**			**Calendar day**	**100%**
43	**Construction**	**862 days**	**Mon 23/8/21**	**Mon 1/1/24**			**Calendar day**	**78%**
44	**Site Mobilization and Preparation**	**743 days**	**Wed 15/9/21**	**Wed 27/9/23**			**Calendar day**	**91%**
45	Set up monitoring checkpoints (done on 29/10/21)	45 days	Wed 15/9/21	Fri 29/10/21			Calendar day	100%
46	Ground Investigation Works (done on 23/10/21)	30 days	Wed 15/9/21	Thu 14/10/21			Calendar day	100%
47	**Set up revised hoarding**	**441 days**	**Mon 4/7/22**	**Sun 17/9/23**			**Calendar day**	**91%**
48	Phase 1 (Sheung Tat St. and Sheung Mau St.) (started on 4/7/2022, done on 15/8/2022)	43 days	Mon 4/7/22	Mon 15/8/22		49,60SF-15 days	Calendar day	100%
49	Phase 2 (Sheung On St. and 2 nos. gantries) (started 9/12/2022, done on 10/3/2023)	92 days	Fri 9/12/22	Fri 10/3/23	48		Calendar day	100%
50	Phase 3 (Closing temp. gantry at Sheung On St.)	14 days	Mon 4/9/23	Sun 17/9/23	52FS+25 days		Calendar day	0%
51	**Erection of Tower Crane**	**55 days**	**Fri 4/8/23**	**Wed 27/9/23**			**Calendar day**	**46%**
52	T1 (for Left Zone) (done on 9/8/2023)	6 days	Fri 4/8/23	Wed 9/8/23	94FS+7 days	50FS+25 days,73	Calendar day	100%
53	T2 (for Right Zone)	7 days	Thu 21/9/23	Wed 27/9/23	73FS+7 days		Calendar day	0%
54	**Tree Removal and Preservation**	**296 days**	**Mon 23/8/21**	**Wed 15/6/22**			**Calendar day**	**100%**
61	**Structural Works**	**791 days**	**Tue 2/11/21**	**Mon 1/1/24**			**Calendar day**	**74%**
62	**Piling Works**	**569 days**	**Tue 2/11/21**	**Wed 24/5/23**			**Calendar day**	**100%**
68	**Substructure Works**	**402 days**	**Sat 26/11/22**	**Mon 1/1/24**			**Calendar day**	**66%**
69	**Zone A (near Sheung On Street)**	**363 days**	**Wed 4/1/23**	**Mon 1/1/24**			**Calendar day**	**66%**
70	Sheet pile installation (started on 4/1/2023, done on 18/3/20	74 days	Wed 4/1/23	Sat 18/3/23			Calendar day	100%
71	**Pile cap construction (pre-requisite for ELSW) (Started on 8/3/2023)**	**190 days**	**Wed 8/3/23**	**Wed 13/9/23**			**Calendar day**	**86%**
72	PC5F, PC5G, PC6F, PC6G (done on 5/7/2023)	120 days	Wed 8/3/23	Wed 5/7/23	66FS+49 days	75SS+14 days	Calendar day	100%
73	PC5D, PC5E, PC6D, PC6E, PC7D, PC7E	35 days	Thu 10/8/23	Wed 13/9/23	52	76,53FS+7 days	Calendar day	40%
74	**Installation of waling and strut (ELSW) (Started on 22/3/20**	**190 days**	**Wed 22/3/23**	**Wed 27/9/23**			**Calendar day**	**98%**
75	G.L. F-G (done on 17/7/2023)	110 days	Wed 22/3/23	Sun 9/7/23	72SS+14 days		Calendar day	100%
76	G.L. C-F (started on 24/7/2023)	14 days	Thu 14/9/23	Wed 27/9/23	73	77	Calendar day	80%
77	Pile cap construction (afte ELSW)	45 days	Thu 28/9/23	Sat 11/11/23	76	78SS+30 days,10	Calendar day	37%
78	Lift pit construction (including w/p work and testing)	45 days	Sat 28/10/23	Mon 11/12/23	77SS+30 days	79SS	Calendar day	0%
79	Tie beam construction and dismantle ELS strut	45 days	Sat 28/10/23	Mon 11/12/23	78SS	80SS+21 days	Calendar day	19%
80	Backfilling	45 days	Sat 18/11/23	Mon 1/1/24	79SS+21 days		Calendar day	0%
81	**Zone B (near Sheung Tat Street)**	**292 days**	**Tue 14/2/23**	**Sat 2/12/23**			**Calendar day**	**70%**
82	Sheet pile installation (started on 14/2/2023, done on 18/3/2	33 days	Tue 14/2/23	Sat 18/3/23	66FS+27 days	83FS+2 days	Calendar day	100%
83	Pumping test (Started on 21/3/2023)	12 days	Tue 21/3/23	Sat 1/4/23	82FS+2 days	84FS+13 days	Calendar day	100%
84	Pile cap construction (pre-requisite for ELSW) (started on 15/4/2023)	61 days	Sat 15/4/23	Wed 14/6/23	83FS+13 days	85SS+7 days	Calendar day	100%
85	Installation of waling and strut (ELSW) (started on 11/4/2023, done on 29/6/2023)	69 days	Sat 22/4/23	Thu 29/6/23	84SS+7 days	86	Calendar day	100%
86	Pile cap construction (afte ELSW) (started on15/7/2023)	90 days	Fri 30/6/23	Wed 27/9/23	85	87,88	Calendar day	85%
87	Lift pit construction (including w/p work and testing)	45 days	Thu 28/9/23	Sat 11/11/23	86		Calendar day	0%
88	Tie beam construction and dismantle ELS strut	45 days	Thu 28/9/23	Sat 11/11/23	86	89SS+21 days	Calendar day	65%
89	Backfilling & On-grade slab	45 days	Thu 19/10/23	Sat 2/12/23	88SS+21 days		Calendar day	0%
90	**Zone C (near NWBF)**	**396 days**	**Sat 26/11/22**	**Tue 26/12/23**			**Calendar day**	**63%**
91	Sheet pile installation (Start on 26/11/2022, Done on 18/03/2	113 days	Sat 26/11/22	Sat 18/3/23		92FS+2 days	Calendar day	100%
92	Excavation (Started on 21/3/2023)	210 days	Tue 21/3/23	Mon 16/10/23	91FS+2 days	94SS+7 days	Calendar day	50%
93	**Pile cap construction (Started on 21/3/2023)**	**274 days**	**Tue 28/3/23**	**Tue 26/12/23**			**Calendar day**	**55%**
94	G.L. 1-4 (done on 27/7/2023)	122 days	Tue 28/3/23	Thu 27/7/23	92SS+7 days	95FS+52 days,96	Calendar day	100%
95	G.L. 4-8	100 days	Mon 18/9/23	Tue 26/12/23	94FS+52 days		Calendar day	0%
96	Backfilling and construction of L1 slab at ramp portion	25 days	Sat 29/7/23	Tue 22/8/23	94FS+1 day		Calendar day	75%
97	**Superstructure Works**	**116 days**	**Mon 21/8/23**	**Thu 14/12/23**			**Calendar day**	**6%**
98	**Left Zone (G.L.1-5/A-G)**	**116 days**	**Mon 21/8/23**	**Thu 14/12/23**			**Calendar day**	**8%**
99	L1-L2 (started on 21/8/2023)	116 days	Mon 21/8/23	Thu 14/12/23	94FS+24 days		Calendar day	8%
100	**Right Zone (G.L.5-8/A-G)**	**30 days**	**Wed 15/11/23**	**Thu 14/12/23**			**Calendar day**	**0%**
101	L1-L2	30 days	Wed 15/11/23	Thu 14/12/23	77FS+3 days		Calendar day	0%
102	**Off-Site Mock Up**	**223 days**	**Wed 6/4/22**	**Mon 14/11/22**			**Calendar day**	**100%**
110	**MiC Mock Up**	**57 days**	**Mon 10/10/22**	**Mon 5/12/22**			**Calendar day**	**100%**



有利建築有限公司
Yau Lee Construction Co., Ltd.

Task | Critical Task | Milestone | Summary | Progress | Manual Progress

Appendix 2


Project Proponent
Hong Kong Police Force
(Mr. Donald Lau
Tel: 3660 7625)
EPD
Engineer's Representative (ER)
Architectural Services Department
(Mr. Derek Chan
Tel: 2867 4390)
Contractor
Yau Lee Construction Co, Ltd
(Mr. Desmond Ho
Tel: 6351 3811)
Independent Environmental Checker
Meinhardt Infrastructure and Environment Limited
(Ms. Claudine Lee
Tel : 9612 9229)
Environmental Team Leader
Aurecon Hong Kong Limited
(Mr. Fredrick Leong
Tel : 3664 6888)
Key: ----- Line of Communication

Appendix 3

2023 September

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
28	29	30	31	01	02	03
04	05 Noise Monitoring (NM1, NM2b and NM3)	06	07	08	09	10
11	12 Noise Monitoring (NM1, NM2b and NM3)	13	14	15	16	17
18	19 Noise Monitoring (NM1, NM2b and NM3)	20	21	22	23	24
25	26 Noise Monitoring (NM1, NM2b and NM3)	27	28	29	30	01
02	03	Notes: The schedule is subject to change due to unforeseeable circumstances (e.g. adverse weather, etc.).				

Appendix 4

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

Certificate of Calibration
校正證書

Certificate No. : C227324
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC22-2398) Date of Receipt / 收件日期 : 24 November 2022

Description / 儀器名稱 : Sound Level Meter
Manufacturer / 製造商 : Rion
Model No. / 型號 : NL-52
Serial No. / 編號 : 01010406
Supplied By / 委託者 : Envirotech Services Co.
Room 712, 7/F, My Loft, 9 Hoi Wing Road, Tuen Mun,
New Territories, Hong Kong

TEST CONDITIONS / 測試條件

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

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 18 December 2022

TEST RESULTS / 測試結果

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

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

Tested By 測試 : H T Wong
Assistant Engineer

Certified By 核證 : K C Lee
Engineer

Date of Issue 簽發日期 : 19 December 2022

Certificate of Calibration
校正證書

Certificate No. : C227324
證書編號

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours, and switched on to warm up for over 10 minutes before the commencement of the test.

2. Self-calibration was performed before the test.

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

4. Test equipment :

Equipment ID	Description	Certificate No.
CL280	40 MHz Arbitrary Waveform Generator	C220381
CL281	Multifunction Acoustic Calibrator	AV210017

5. Test procedure : MA101N.

6. Results :

6.1 Sound Pressure Level

6.1.1 Reference Sound Pressure Level

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 130	L_A	A	Fast	94.00	1	94.4	± 1.1

6.1.2 Linearity

UUT Setting				Applied Value		UUT Reading (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	
30 - 130	L_A	A	Fast	94.00	1	94.4 (Ref.)
				104.00		104.4
				114.00		114.5

IEC 61672 Class 1 Spec. : ± 0.6 dB per 10 dB step and ± 1.1 dB for overall different.

6.2 Time Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 130	L_A	A	Fast	94.00	1	94.4	Ref.
			Slow			94.4	± 0.3

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6.3 Frequency Weighting

6.3.1 A-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 130	L_A	A	Fast	94.00	63 Hz	68.1	-26.2 ± 1.5
					125 Hz	78.2	-16.1 ± 1.5
					250 Hz	85.7	-8.6 ± 1.4
					500 Hz	91.2	-3.2 ± 1.4
					1 kHz	94.4	Ref.
					2 kHz	95.6	+1.2 ± 1.6
					4 kHz	95.4	+1.0 ± 1.6
					8 kHz	93.4	-1.1 (+2.1 ; -3.1)
					16 kHz	86.4	-6.6 (+3.5 ; -17.0)

6.3.2 C-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 130	L_C	C	Fast	94.00	63 Hz	93.5	-0.8 ± 1.5
					125 Hz	94.2	-0.2 ± 1.5
					250 Hz	94.4	0.0 ± 1.4
					500 Hz	94.4	0.0 ± 1.4
					1 kHz	94.4	Ref.
					2 kHz	94.3	-0.2 ± 1.6
					4 kHz	93.6	-0.8 ± 1.6
					8 kHz	91.5	-3.0 (+2.1 ; -3.1)
					16 kHz	84.5	-8.5 (+3.5 ; -17.0)

Certificate of Calibration
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Certificate No. : C227324
證書編號

Remarks : - UUT Microphone Model No. : UC-59 & S/N : 13748

- Mfr's Spec. : IEC 61672 Class 1

- Uncertainties of Applied Value :

94 dB	: 63 Hz - 125 Hz	: ± 0.35 dB
	250 Hz - 500 Hz	: ± 0.30 dB
	1 kHz	: ± 0.20 dB
	2 kHz - 4 kHz	: ± 0.35 dB
	8 kHz	: ± 0.45 dB
	16 kHz	: ± 0.70 dB
104 dB	: 1 kHz	: ± 0.10 dB (Ref. 94 dB)
114 dB	: 1 kHz	: ± 0.10 dB (Ref. 94 dB)

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

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

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

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

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

Certificate of Calibration
校正證書

Certificate No. : C232461
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC23-0674) Date of Receipt / 收件日期 : 31 March 2023

Description / 儀器名稱 : Precision Acoustic Calibrator
Manufacturer / 製造商 : LARSON DAVIS
Model No. / 型號 : CAL200
Serial No. / 編號 : 11334
Supplied By / 委託者 : Envirotech Services Co.
Room 712, 7/F, My Loft, 9 Hoi Wing Road, Tuen Mun,
New Territories, Hong Kong

TEST CONDITIONS / 測試條件

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

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 1 May 2023

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
The results do not exceed specified limits.
These limits refer to manufacturer's published or user's specified tolerances as requested by the customer.
The results are detailed in the subsequent page(s).

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

Tested By 測試 : K C Lee
Engineer

Certified By 核證 : H C Chan
Engineer

Date of Issue 簽發日期 : 2 May 2023

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

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

Certificate of Calibration
校正證書

Certificate No. : C232461
證書編號

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

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

3. Test equipment :

Equipment ID	Description	Certificate No.
CL130	Universal Counter	C223647
CL281	Multifunction Acoustic Calibrator	CDK2302738
TST150A	Measuring Amplifier	C221750

4. Test procedure : MA100N.

5. Results :

5.1 Sound Level Accuracy

UUT Nominal Value	Measured Value (dB)	User's Limit (dB)	Uncertainty of Measured Value (dB)
94 dB, 1 kHz	93.65	± 0.5	± 0.20
114 dB, 1 kHz	113.60		

5.2 Frequency Accuracy

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

Remarks : - The user's limit is a customer pre-defined operating tolerance of the UUT, suitable for one's own intended use.

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

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

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

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

Appendix 5

Event and Action Plan for Construction Noise Monitoring

	Action			
	ET	IEC	ER	Contractor
Action Level	1. Notify the ER, IEC and Contractor. 2. Carry out investigation. 3. Report the results of investigation to the ER, IEC and Contractor. 4. Discuss with the IEC and Contractor and formulate remedial measures. 5. Increase monitoring frequency to check mitigation effectiveness.	1. Review the investigation results submitted by the ET. 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly. 3. Advise the ER on the effectiveness of the proposed remedial measures.	1. Confirm receipt of notification of failure in writing. 2. Notify the Contractor. 3. Require the Contractor to propose remedial measures. 4. Ensure remedial measures are properly implemented.	1. Submit noise mitigation proposals to the IEC and ER. 2. Implement noise mitigation proposals.
Limit Level	1. Notify the ER, IEC, Contractor and EPD. 2. Identify sources. 3. Repeat measurements 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, ER and Contractor the causes and action taken for the exceedances. 7. Assess the effectiveness of the Contractor's remedial action and keep the IEC, EPD and ER informed of the results. 8. If exceedance stops, cease additional monitoring.	1. Discuss amongst the ER, ET and Contractor on the potential remedial action. 2. Review the Contractor's remedial action whenever necessary to assure their effectiveness and advise the ER accordingly.	1. Confirm receipt of notification of failure in writing. 2. Notify the Contractor. 3. Require the Contractor to propose remedial measures. 4. Ensure remedial measures are properly implemented. 5. If exceedance continues, consider what portion of work is responsible and instruct the Contractor to stop that portion of works until the exceedance is abated.	1. Take immediate action to avoid further exceedance. 2. Submit proposals for remedial action to the IEC and ER within 3 working days of notification. 3. Implement the agreed proposals. 4. Submit further pro posals if problems still not under control. 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Notes

(1) ET – Environmental Team, IEC – Independent Environmental Checker;

(2) Each step of action should be undertaken within 1 working day unless otherwise specified

Appendix 6

Implementation Schedule for Environmental Mitigation Measures (EMIS)

EIA Ref.	EM&A Manual Ref.	Environmental Protection Measures	Location/ Duration of Measures/ Timing of Completion of Measures	Implementation Agent	Status
Air Quality					
4.8.2	2.3.1	Dust suppression measures stipulated in the Air Pollution Control (Construction Dust) Regulation and good site practices: • Use of regular watering, to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather; • Use of frequent watering for particularly dusty construction areas close to ASRs; • Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions. Where this is not practicable owing to frequent usage, watering should be applied to aggregate fines; • Open temporary stockpiles should be avoided or covered. Prevent placing dusty material storage plies near ASRs; • Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations; • Establishment and use of vehicle wheel and body washing facilities at the exit points of the site; • Imposition of speed controls for vehicles on unpaved site roads. 8 km/hr is the recommended limit; • Routing of vehicles and positioning of construction plant should be at the maximum possible distance from ASRs; • Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) , if applicable, should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3-sides; and • Loading, unloading, transfer, handling or storage of large amount of cement or dry PFA should be carried out in a totally enclosed system or facility, and nay vent or exhaust should be fitted with the an effective fabric filter or	All work sites	Contractor and sub-contractor(s)	√

EIA Ref.	EM&A Manual Ref.	Environmental Protection Measures	Location/ Duration of Measures/ Timing of Completion of Measures	Implementation Agent	Status
		equivalent air pollution control system.			
Noise					
5.8.3	3.4.1 – 3.4.2	Selection and Optimisation of Construction Processes • Carefully arrange the timing and sequencing of the various construction activities according to the actual site work situation; • Limit the quantity of PME to be operated concurrently; • In the case during school examination, more stringent construction noise criteria should be imposed, the potentially most disruptive construction activities should be avoided, and arranged to be conducted during school holidays as far as practicable; and • Preparation of the Construction Noise Management Plan.	All work sites	Contractor and sub-contractor(s)	√
5.8.4 – 5.8.6	3.4.1 – 3.4.2	Use of QPME and Quiet Working Methods In order to reduce the excessive noise impacts at the NSRs, quieter PME are recommended. Whilst quieter PME are listed, the Contractor may be able to obtain particular models of plant that are quieter than the PMEs given in GW-TM. The associated mitigation measures to the particular PME should be reviewed by the Contractor. The use of plants with SWLs less than those in the GW-TM are summarized in ***Table 5.14*** of the EIA report and the proposed mitigated plant inventory for the	All work sites	Contractor and sub-contractor(s)	√

EIA Ref.	EM&A Manual Ref.	Environmental Protection Measures	Location/ Duration of Measures/ Timing of Completion of Measures	Implementation Agent	Status
		construction works of the proposed Project is detailed in ***Appendix 5.8***.			
5.8.7 – 5.8.8	3.4.1 – 3.4.2	Use of movable noise barriers The use of movable noise barrier for certain PME could further minimize the construction noise impact. In general 5dB(A) reduction for mobile PME and 10dB(A) for stationary PME can be achieved provided that the direct line-of site of the PME is blocked. The Contractor shall be responsible for the design of the movable noise barrier with due consideration given to the size of the PME and the requirement of intercepting the line of sight between the NSRs and the PME, as well as ensuring that the barriers should have no openings and gaps.	All work sites	Contractor and sub-contractor(s)	√
5.8.9	3.4.1 – 3.4.2	Good site practices • Use of well-maintained and regularly-serviced plant during the works; • Plant operating on intermittent basis should be turned off or throttled down to a minimum; • Plant known to emit noise strongly in one direction should be orientated to face away from the NSRs; • Silencers, mufflers and enclosures for plant should be used where possible and properly maintained throughout the works; • Where possible fixed plants should be sited away from NSRs; and • Stockpiles of excavated materials and other structures such as site buildings should be used effectively to screen noise from the works.	All work sites	Contractor and sub-contractor(s)	√

EIA Ref.	EM&A Manual Ref.	Environmental Protection Measures	Location/ Duration of Measures/ Timing of Completion of Measures	Implementation Agent	Status
Water Quality & Sewerage					
6.9.1	4.4.2	In accordance with Professional Persons Environmental Consultative Committee Practice Notes (ProPECC PN) 1/94, potential water quality impact shall be minimised by the implementation of construction phase mitigation measures and general good site practice including the following: • At the establishment of works site, perimeter cut-off drains to direct off-site water around the Site should be constructed with internal drainage works and erosion and sedimentation control facilities implemented. Channels (both temporary and permanent drainage pipes and culverts), earth bunds or sand bag barriers should be provided to divert the stormwater to silt removal facilities. • Dikes or embankments for flood protection should be implemented around the boundaries of earthwork areas. Temporary ditches should be provided to facilitate the run-off discharge into an appropriate watercourse, through a silt/sediment trap. Silt/sediment traps should also be incorporated in the permanent drainage channels to enhance deposition rates; • The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94, which states that the retention time for silt/sand traps should be 5 minutes under maximum flow conditions. The sizes may vary depending upon the flow rate, but for a flow rate of 0.1m^3/s, a sedimentation basin of 30m^3 would be required and for a	All work sites	Contractor and sub-contractor(s)	√

EIA Ref.	EM&A Manual Ref.	Environmental Protection Measures	Location/ Duration of Measures/ Timing of Completion of Measures	Implementation Agent	Status
		flow rate of 0.5m^3/s the basin would be 150m^3. The detailed design of the sand/silt raps should be undertaken by the Contractor prior to the commencement of construction. • The construction works should be programmed to minimise surface excavation works during rainy seasons (April to September), as possible. All exposed earth areas should be completed and vegetated as soon as possible after completion of the earthwork, or alternatively, within 14 days of the cessation of earthworks where practicable. If excavation of soil cannot be avoided during the rainy season, or at any time of year when rainstorms are likely, exposed slope surfaces should be covered by tarpaulin or other means; • The overall slope of works sites should be kept to a minimum to reduce the erosive potential of surface water flows, and all trafficked areas and access roads should be protected by coarse stone ballast. An additional advantage accruing from the use of crushed stone is the positive traction gained during the prolonged periods of inclement weather and the reduction of surface sheet flows; • All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure their proper and efficient operation at all times particularly following rainstorms. Deposited silts and grits should be removed regularly and disposed of by spreading evenly over stable, vegetated areas; • Measures should be taken to minimise the ingress of site drainage into excavations. If the excavation of trenches in wet season is inevitable, they should be dug and backfilled in short sections wherever practicable. The water pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities; • All open stockpiles of construction materials (for example, aggregates, sand and fill materials) should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system; • Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials			√

EIA Ref.	EM&A Manual Ref.	Environmental Protection Measures	Location/ Duration of Measures/ Timing of Completion of Measures	Implementation Agent	Status
		or debris being washed into the drainage system and storm run-off being directed into foul sewers; • Precautions to be taken at any time of the year when rainstorms are likely, actions to be taken when a rainstorm is imminent or forecasted and during or after rainstorms, are summarised in Appendix A2 of ProPECC PN 1/94. Particular attention should be paid to the control of silty surface run-off during storm events; • All vehicles and plants should be cleaned before leaving the Project site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing bay should be provided at the exit of Project site where practicable. Wash-water should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-washing bay to public roads should be paved with sufficient backfall toward the wheel-washing bay to prevent vehicle tracking of soil and silty water to public roads and drains; • Oil interceptors should be provided in the drainage system downstream of any oil/fuel pollution sources. Oil interceptors should be emptied and cleaned regularly to prevent the release of oil and grease into the storm water drainage system after accidental spillage. A bypass should be provided for oil interceptors to prevent flushing during heavy rain. Any drainage channels connecting storm drains via designed sand/silt removal facilities should be disconnected/removed after completion of construction stage to prevent any direct discharge to the stormwater system; • The construction solid waste, debris and rubbish on-site should be collected, handled and disposed of properly to avoid causing any water quality impacts. The requirements for solid waste management are detailed in Section 8 of EIA report; and • All fuel tanks and storage areas should be provided with locks and sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled fuel oils from reaching the nearby WSRs.			√

EIA Ref.	EM&A Manual Ref.	Environmental Protection Measures	Location/ Duration of Measures/ Timing of Completion of Measures	Implementation Agent	Status
6.9.3	4.4.3	There is a need to apply to the EPD for a discharge licence for discharge of effluent from the construction site under the WPCO. The discharge quality must meet the requirements as specified in the discharge licence. All the run-off and wastewater generated from the works areas should be treated so that it satisfies all the standards listed in the Technical Memorandum. Minimum distances of 100 m should be maintained between the discharge points of construction site effluent and the existing seawater intakes. In addition, no new effluent discharges in nearby typhoon shelters should be allowed. The beneficial uses of the treated effluent for other on-site activities such as dust suppression, wheel washing and general cleaning etc., would minimise water consumption and reduce the effluent discharge volume.	All work sites	Contractor and sub-contractor(s)	√
6.9.4	4.4.4	Portable chemical toilets and sewage holding tanks are recommended for the handling of the construction sewage generated by the workforce. A licenced contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance.	All work sites	Contractor and sub-contractor(s)	√
6.9.6	4.4.5	Any maintenance facilities should be located on hard standings within a bunded area, and sumps and oil interceptors should be provided. Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should be undertaken within the areas appropriately equipped to control these discharges.	All work sites	Contractor and sub-contractor(s)	√
6.9.7	4.4.6	All sewage arising from the proposed Project should be collected and diverted to the public foul water drainage system via proper connections to minimise water quality impact from the operation of the Project and ensure compliance with Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters under the Water Pollution Control Ordinance (WPCO-TM).	The Government Complex and Vehicle Depot	Contractor and sub-contractor(s), HKPF, FEHD, EMSD and GL	√
6.9.8	4.4.7	Run-offs from the covered areas including vehicle washing bays and vehicle examination / maintenance / repair / testing area would be properly treated prior to discharge into the foul water drainage system. The wastewater treatment	The Government Complex and Vehicle Depot	Contractor and sub-contractor(s)	√

EIA Ref.	EM&A Manual Ref.	Environmental Protection Measures	Location/ Duration of Measures/ Timing of Completion of Measures	Implementation Agent	Status
		facilities for the proposed Project, which comprised of petrol interceptor and sedimentation tank, would be designed using sedimentation process with adequate treatment capacity. Oily waste collected by petrol interceptors is considered and disposed of as chemical waste. The wastewater treatment facilities for the proposed Project will be designed during the detailed design stage and the treated effluent for discharging into the public foul water drainage system should comply with the effluent standards as stated in the WPCO-TM.			
Landscape and Visual					
7.8.2	5.2.1	Hoardings should be provided with aesthetic treatment and designed to be subtle and camouflaged. It should be compatible with the surrounding landscape and visually "impermeable" to block the view of construction activities from VSRs.	All work sites	Contractor and sub-contractor(s)	√
7.8.3	5.2.1	Temporary landscape treatment, such as the provision of temporary landscape planting around the Site office in ornamental pots and application of green roof for Site office, should be considered during construction phase. Landscape planting in movable planters should also be considered as a temporary greening measure for the Project area (i.e. along Site hoarding). Design of the green roof and the type of species to be used shall be reviewed and confirmed during detailed design stage.	All work sites	Contractor and sub-contractor(s)	N/A

EIA Ref.	EM&A Manual Ref.	Environmental Protection Measures	Location/ Duration of Measures/ Timing of Completion of Measures	Implementation Agent	Status
7.8.4	5.2.1	Disturbance to existing vegetation should be avoided as far as practicable. Where possible, the construction programme should retain all trees in situ that are not in direct conflict with the development proposals. Subject to the detailed design of the proposed Project, a review shall be carried out before commencement of construction phase to assess the potential conflict of the construction activities with existing roadside trees and the need of corresponding measures. Proper protective fencing should be provided by the Contractor to protect the preserved trees before commencement of any works within the Project site. The protective fencing should be erected along or beyond the perimeter of the tree protection zone of each individual tree.	All work sites	Contractor and sub-contractor(s)	√

EIA Ref.	EM&A Manual Ref.	Environmental Protection Measures	Location/ Duration of Measures/ Timing of Completion of Measures	Implementation Agent	Status
7.8.7	5.2.1	A multi-patch of landscape area should be provided on the roof of the proposed building to soften the impact of the built structure. An area of approximately 2600m^2 of shrub, which comprises of a mix of native and ornamental species, is proposed to be provided to enhance the aesthetics of views for those viewing the roof. The type of shrub species will be confirmed during detailed design stage. The planting should be commenced during construction stage and be completed before the completion of construction stage to ensure the measure will be implemented on Day 1 of operation stage. Vegetation maintenance should be provided by the Operator.	The Government Complex and Vehicle Depot	Contractor and sub-contractor(s), Operator	N/A
7.8.8 7.8.9	5.2.1	The exterior of the permanent structure of the proposed Project should use non-reflective external finishes in light colour that is visually unobtrusive with surrounding context. Non-reflective paving materials should be considered to reduce potential glare from surface reflectance. The finishing material and colour will be reviewed and confirmed during detailed design stage. Lighting should be efficiently designed so that minimum amount of lighting is required for safety and security. The design may make reference to the Guidelines on Industry Best Practices for External Lighting Installations by Environmental Bureau, EPD and EMSD. The mounting height and direction of exterior lighting fixtures shall be designed and arranged to point away from sensitive receivers where possible. Specification of lighting operation schedule shall be formed by the operator to impose restriction on lighting operation after business hours, such as limiting the operation of lighting except for security lighting only, and in areas with necessary night-time operation where applicable.	The Government Complex and Vehicle Depot	Contractor and sub-contractor(s), Operator	N/A

EIA Ref.	EM&A Manual Ref.	Environmental Protection Measures	Location/ Duration of Measures/ Timing of Completion of Measures	Implementation Agent	Status
Waste Management					
8.5.1	6.2.1	Recommendations for good site practices: • The Contractor shall prepare a Waste Management Plan (WMP) in accordance with the requirements set out in the ETWB TCW No. 19/2005, Waste Management on Construction Site, for the Engineer's Representative approval. The WMP shall include monthly and yearly Waste Flow Tables that indicate the amounts of waste generated, recycled and disposed of (including final disposal site); • The Contractor's waste management practices and effectiveness shall be audited by the Engineer's Representative on regular basis; • The Contractor shall provide training for site staff for the concept of site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycling; • The Contractor shall ensure sufficient waste disposal points and regular collection of waste; • The Contractor shall use trucks with covering for the open-box bed and enclosed container shall be used to minimise windblown litter and dust during transportation of waste; • The Contractor shall implement regular cleaning and maintenance programme for drainage systems, pumps and oil interceptors; • Separation of chemical wastes for special handling and appropriate treatment at a Chemical Waste Treatment Facility (CWTF); • Encourage collection of aluminium cans, paper and plastic bottles by providing separate labelled bins to enable these wastes to be segregated from other general refuse generated by the workforce; • Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal; • Wheel washing facilities shall be used by all trucks leaving the site to prevent transfer of mud onto public roads;	All works sites	Contractor and Sub-contractors	√

EIA Ref.	EM&A Manual Ref.	Environmental Protection Measures	Location/ Duration of Measures/ Timing of Completion of Measures	Implementation Agent	Status
		• Make provisions in contract documents to allow and promote the use of recycled aggregates where appropriate; • No waste shall be burnt on-site; • A recording system for the amount of wastes generated, recycled and disposed (including disposal sites) should be proposed; • Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste; and • Adequate numbers of portable toilets should be provided for on-site workers. Portable toilets should be maintained in reasonable states, which will not deter the workers form utilizing them. Night soil should be regularly collected by licensed collectors.			√
8.5.1	6.2.1	<u>C&D Materials / Waste:</u> • Use standard formwork or pre-fabrication as far as practicable so as to minimise the C&D Materials arising; • Consider the use of more durable formwork or plastic facing for construction works; • Avoid the use of wooden hoardings and substitute with metal hoarding to facilitate recycling; • Purchase of construction materials should be carefully planned in order to avoid over-ordering and wastage; • Establish a trip-ticket system in accordance with DevB TC(W) No. 6/2010 and Waste Disposal (Charges for Disposal of Construction Waste) Regulation in order to monitor the disposal of inert C&D Materials at public fill and the remaining C&D Waste to landfills, and control fly-tipping; • Design foundation works to minimise the amount of excavated material to be generated; • Sort construction debris and excavated materials on-site to recover	All work sites	Contractor and Sub-contractors	√

EIA Ref.	EM&A Manual Ref.	Environmental Protection Measures	Location/ Duration of Measures/ Timing of Completion of Measures	Implementation Agent	Status
		reusable/recyclable portions (i.e. soil, broken concrete, metal, etc.) for backfilling and reinstatement; • Segregate and store different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal; • Specify in design & build contract the use of recycled aggregates where appropriate; • Plan and stock construction materials carefully to minimise the amount of waste to be generated and to avoid unnecessary generation of waste; and • Recommend the use of metal fencing or building panels, which are more durable than wooden panels, for the erection of construction site hoarding.			√
8.5.1	6.2.1	<u>Chemical waste:</u> • Chemical waste producers should be registered with the EPD; • Chemical waste should be handled in accordance with the "Code of Practice on the Packaging, Handling and Storage of Chemical Wastes" including but not limited to the followings: – Good quality containers compatible with the chemical wastes should be used and maintained in good conditions and securely closed, with incompatible chemicals be stored separately. – Appropriate labels should be securely attached on each chemical waste container in English and Chinese according to the instructions prescribed in Schedule 2 of the Regulations. – A licensed collector to transport and dispose of the chemical wastes should be employed by the Contractor, to either the Chemical Waste Treatment Centre at Tsing Yi, or any other licensed facilities. • Waste oils, chemicals or solvents should not be discharged to drain; and • Routine cleaning and maintenance programme for drainage systems, sumps	The Government Complex and Vehicle Depot	Contractor and Sub-contractor; HKPF, FEHD, EMSD and GL	√

EIA Ref.	EM&A Manual Ref.	Environmental Protection Measures	Location/ Duration of Measures/ Timing of Completion of Measures	Implementation Agent	Status
		and oil interceptors during operation.			
8.5.1	6.2.1	General refuse: • Sufficient dustbins should be provided for storage of waste as required under the Public Cleansing and Prevention of Nuisances By-laws; • Sufficient enclosed bins should be provided for general refuse, food and beverage waste to reduce odour, pest and litter impacts; • General refuse arising on-site should be stored in enclosed bins or compaction units separately from C&D and chemical wastes; • A reliable waste collector should be employed to clear general refuse from the construction site on a daily basis and disposed of to the licensed landfill or refuse transfer station; • Office wastes can be reduced by recycling of paper if such volume is sufficiently large to warrant collection. Participation in a local collection scheme by the Contractor should be advocated; and • Waste separation facilities for paper, aluminium cans, plastic bottles, etc. should be provided on-site and collected by individual collectors should be encouraged.	The Government Complex and Vehicle Depot	Contractor and Sub-contractor; HKPF, FEHD, EMSD and GL	√
Hazard to Life					
10.11.1	8.2.1	Recommendations for good site practices in construction phase: • ignition of fire on site should be controlled throughout the construction programme; • any temporary storage of fuel and flammable chemical should be minimised to reduce chance of causing explosion or escalation of fire in the case of emergency event at nearby potentially hazardous sources;	All works area	Contractor and sub-contractors	√

EIA Ref.	EM&A Manual Ref.	Environmental Protection Measures	Location/ Duration of Measures/ Timing of Completion of Measures	Implementation Agent	Status
		• fire extinguisher or other firefighting equipment should be made easily accessible to on-site workers; and • establish communication channel and evacuation plan in the case of emergency event at nearby potentially hazardous sources.			

Remark:
√ Compliance of Mitigation Measures
<> Compliance of Mitigation but need improvement
x Non-compliance of Mitigation Measures
▲ Non-compliance of Mitigation Measures but rectified by Yau Lee Construction, Co, Ltd
Δ Deficiency of Mitigation Measures but rectified by Yau Lee Construction, Co, Ltd
N/A Not Applicable in Reporting Period

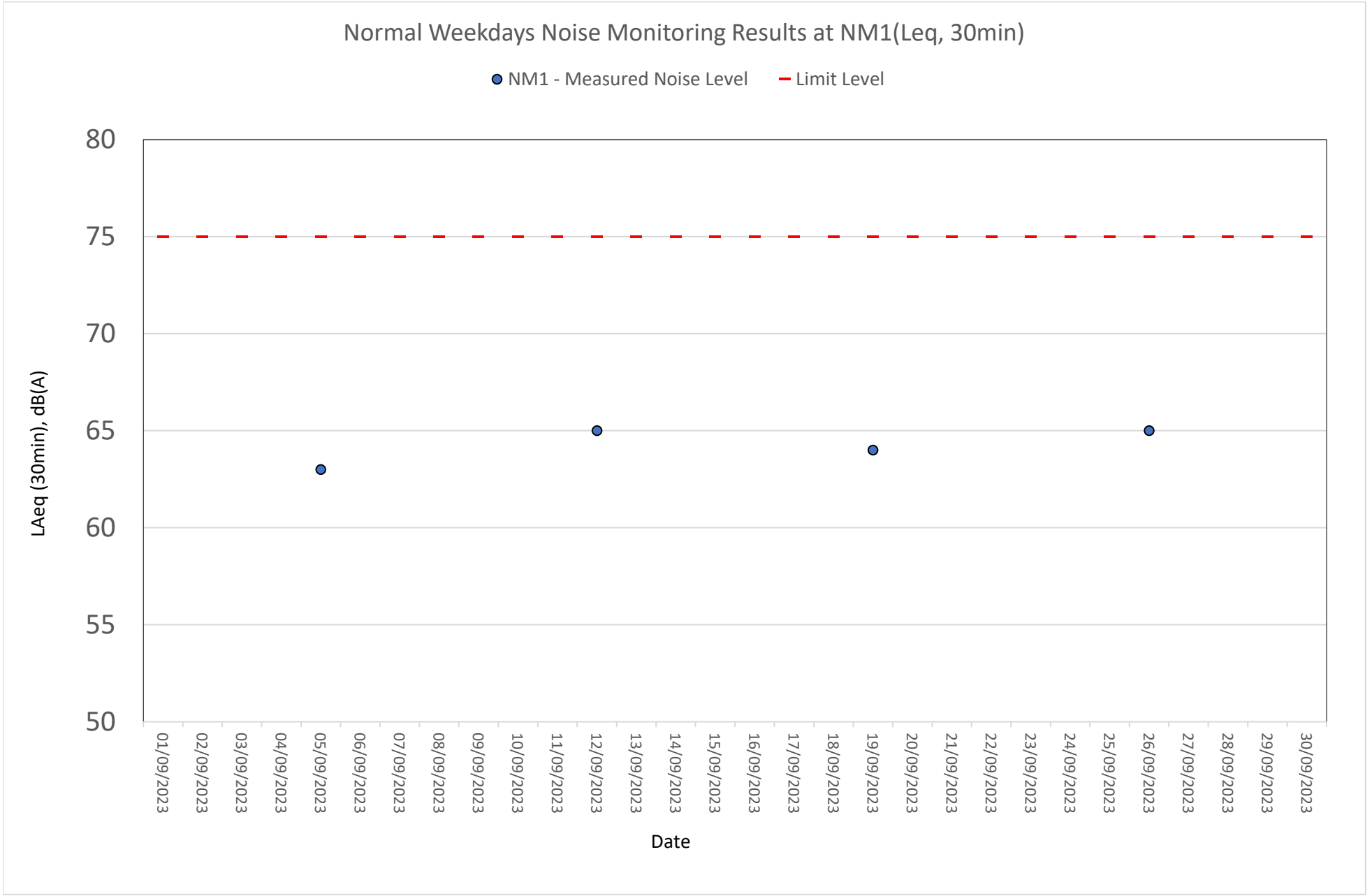
Appendix 7

Contract No. SS H504 Design and Construction of Chai Wan Government Complex and Vehicle Depot
Noise Monitoring Data

Date(yyyy-mm-dd)	Station	Start Time	Wind Speed, m/s	1st set 5mins, dB(A)		2nd set 5mins, dB(A)		3rd set 5mins, dB(A)		4th set 5mins, dB(A)		5th set 5mins, dB(A)		6th set 5mins, dB(A)		Measured Noise Level [Construction Noise Level], Leq 30mins, dB(A)		Unit	Site Observation	Construction Noise Level #	Unit
2023-09-05	NM1*	14:44	0.7	Leq:	62.8	Leq:	62.4	Leq:	63	Leq:	62.5	Leq:	62.8	Leq:	63.7	Leq:	63	dB(A)	Major: Noise from Yau Lee Site Other: Railway Noise and Traffic Noise.	N.A.	dB(A)
				L10:	66.4	L10:	65.6	L10:	66.7	L10:	65.3	L10:	66.1	L10:	66.4						
				L90:	56.9	L90:	57	L90:	56.6	L90:	58	L90:	57.8	L90:	58.1						
2023-09-05	NM2b *	14:07	0.7	Leq:	71.1	Leq:	66.8	Leq:	64.5	Leq:	64.8	Leq:	64	Leq:	66.1	Leq:	67	dB(A)	Major: Noise from Yau Lee Site Other: Traffic Noise.	N.A.	dB(A)
				L10:	73.4	L10:	69.8	L10:	67.8	L10:	68.8	L10:	67	L10:	68.9						
				L90:	66.5	L90:	62.1	L90:	59.7	L90:	59.6	L90:	59.7	L90:	61.4						
2023-09-05	NM3	13:18	0.6	Leq:	67.9	Leq:	67.7	Leq:	67.9	Leq:	67.5	Leq:	67.4	Leq:	67.4	Leq:	68	dB(A)	Major: Noise from Yau Lee Site Other: Noise from Cargo Handling Area.	N.A.	dB(A)
				L10:	68.5	L10:	68.8	L10:	68.9	L10:	68.8	L10:	68.4	L10:	68.4						
				L90:	67.1	L90:	66.3	L90:	66.8	L90:	66.1	L90:	66.3	L90:	66.1						
2023-09-12	NM1*	14:44	1.1	Leq:	66.2	Leq:	63.7	Leq:	64.7	Leq:	66.1	Leq:	64.3	Leq:	64.8	Leq:	65	dB(A)	Major: Noise from Yau Lee Site Other: Railway Noise and Traffic Noise.	N.A.	dB(A)
				L10:	69	L10:	66.5	L10:	67.1	L10:	69	L10:	66.8	L10:	68.5						
				L90:	61.5	L90:	59.3	L90:	61.1	L90:	61.3	L90:	60.3	L90:	58.8						
2023-09-12	NM2b *	13:59	0.9	Leq:	72.5	Leq:	72.7	Leq:	73.1	Leq:	73.4	Leq:	72.8	Leq:	73.2	Leq:	73^	dB(A)	Major: Noise from Yau Lee Site Other: Traffic Noise.	N.A.	dB(A)
				L10:	73.9	L10:	74.1	L10:	76.4	L10:	77	L10:	74.1	L10:	74.3						
				L90:	70.9	L90:	70.9	L90:	71.1	L90:	69.4	L90:	70.5	L90:	70.6						
2023-09-12	NM3	13:15	0.8	Leq:	65.3	Leq:	67.5	Leq:	67.2	Leq:	66.9	Leq:	65.6	Leq:	64.9	Leq:	66	dB(A)	Major: Noise from Yau Lee Site Other: Noise from Cargo Handling Area.	N.A.	dB(A)
				L10:	66.6	L10:	68	L10:	67.8	L10:	68.8	L10:	66.9	L10:	66.1						
				L90:	64	L90:	64.4	L90:	64.4	L90:	65.1	L90:	64.1	L90:	63.6						
2023-09-19	NM1*	14:20	0.8	Leq:	64.7	Leq:	63.6	Leq:	64.3	Leq:	63.9	Leq:	65.4	Leq:	63.3	Leq:	64	dB(A)	Major: Noise from Yau Lee Site Other: Railway Noise and Traffic Noise.	N.A.	dB(A)
				L10:	66.7	L10:	66.2	L10:	66.6	L10:	66.9	L10:	67.9	L10:	66.7						
				L90:	59.9	L90:	59.8	L90:	60.4	L90:	58.5	L90:	62.1	L90:	57.9						
2023-09-19	NM2b *	13:45	0.5	Leq:	70.5	Leq:	72.2	Leq:	70.8	Leq:	71.7	Leq:	72.1	Leq:	70.4	Leq:	71^	dB(A)	Major: Noise from Yau Lee Site Other: Traffic Noise.	N.A.	dB(A)
				L10:	73.4	L10:	74.3	L10:	73.6	L10:	74.3	L10:	74.5	L10:	73.3						
				L90:	67.2	L90:	68.2	L90:	68.2	L90:	68.5	L90:	68.3	L90:	67.7						
2023-09-19	NM3	13:00	0.6	Leq:	67.8	Leq:	67.2	Leq:	66.3	Leq:	66.3	Leq:	65.8	Leq:	65.1	Leq:	67	dB(A)	Major: Noise from Yau Lee Site Other: Noise from Cargo Handling Area.	N.A.	dB(A)
				L10:	68.6	L10:	69.1	L10:	67.5	L10:	67.9	L10:	67.2	L10:	66.7						
				L90:	63.8	L90:	64.8	L90:	64.3	L90:	63.6	L90:	63.6	L90:	63.1						
2023-09-26	NM1*	14:51	0.6	Leq:	65.2	Leq:	65.4	Leq:	65.9	Leq:	65	Leq:	63.7	Leq:	63.5	Leq:	65	dB(A)	Major: Noise from Yau Lee Site Other: Railway Noise and Traffic Noise.	N.A.	dB(A)
				L10:	67.8	L10:	67.3	L10:	67.9	L10:	67.2	L10:	66	L10:	66.2						
				L90:	61.2	L90:	61.6	L90:	61.8	L90:	61.2	L90:	60.2	L90:	58.4						
2023-09-26	NM2b *	14:17	0.7	Leq:	71.9	Leq:	71	Leq:	70.1	Leq:	70.6	Leq:	72.8	Leq:	70	Leq:	71^	dB(A)	Major: Noise from Yau Lee Site Other: Traffic Noise.	N.A.	dB(A)
				L10:	75.2	L10:	74.2	L10:	73.4	L10:	74.1	L10:	76	L10:	73						
				L90:	67.2	L90:	66	L90:	63.6	L90:	64.3	L90:	65	L90:	62.8						
2023-09-26	NM3	13:28	0.8	Leq:	64.7	Leq:	64.7	Leq:	64.7	Leq:	63.7	Leq:	64.3	Leq:	64.8	Leq:	64	dB(A)	Major: Noise from Yau Lee Site Other: Noise from Cargo Handling Area.	N.A.	dB(A)
				L10:	68	L10:	66.5	L10:	66	L10:	66	L10:	65.8	L10:	65.8						
				L90:	62.9	L90:	62.3	L90:	62.4	L90:	62.2	L90:	62.7	L90:	62.7						

Remark: * A facade correction of +3 dB(A) was applied to the measured noise level.

^On 12,19 and 26 September 2023, the measured noise levels of NM2b exceeded the limit level of 70dB(A). However, they were lower than the baseline level of 73.4 dB(A). Therefore, they are not considered as an limit level exceedance.


Normal Weekdays Noise Monitoring Results at NM1(Leq, 30min)
NM1 - Measured Noise Level
Limit Level
LAeq (30min), dB(A)
80
75
70
65
60
55
50
01/09/2023
02/09/2023
03/09/2023
04/09/2023
05/09/2023
06/09/2023
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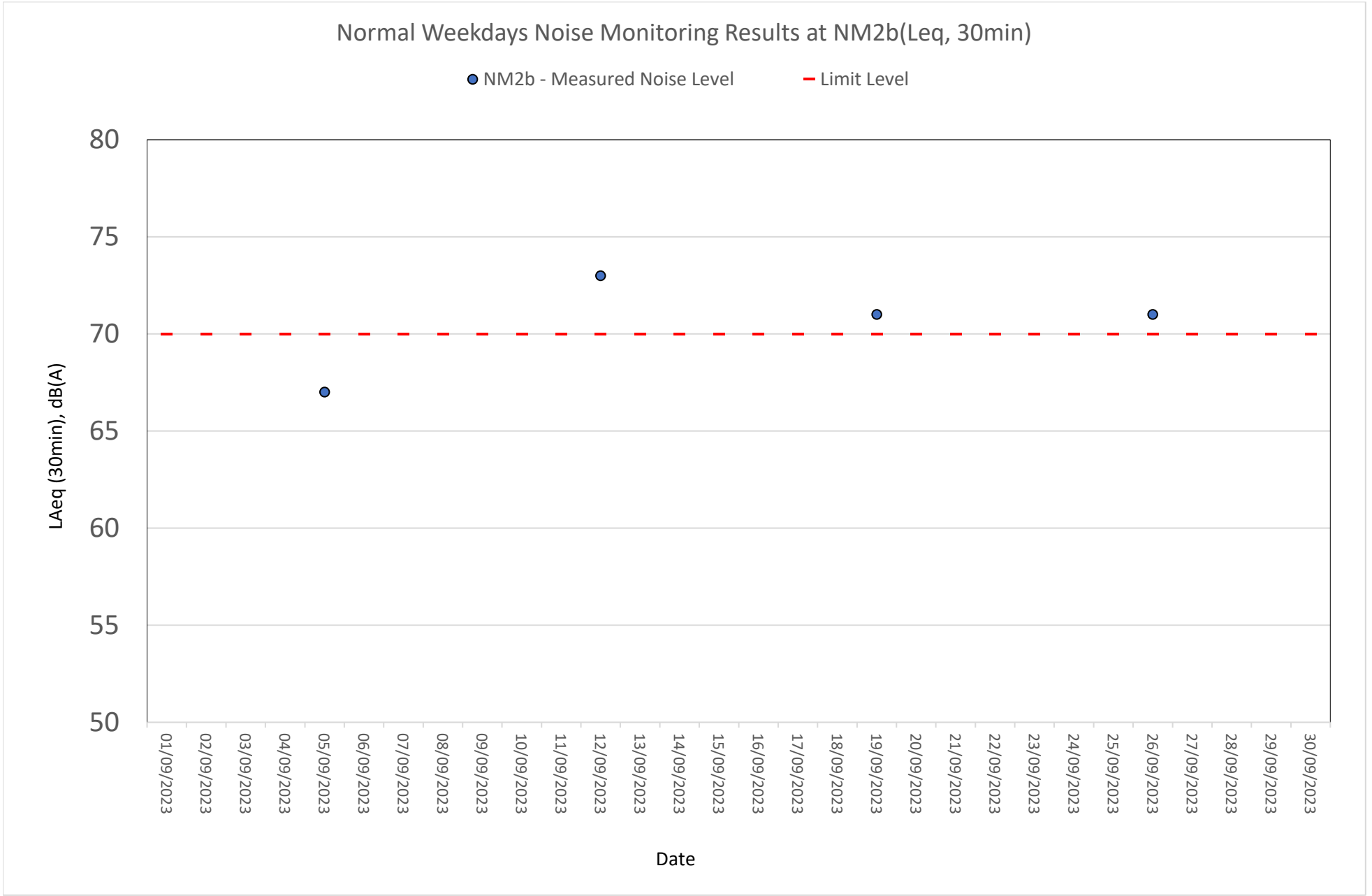
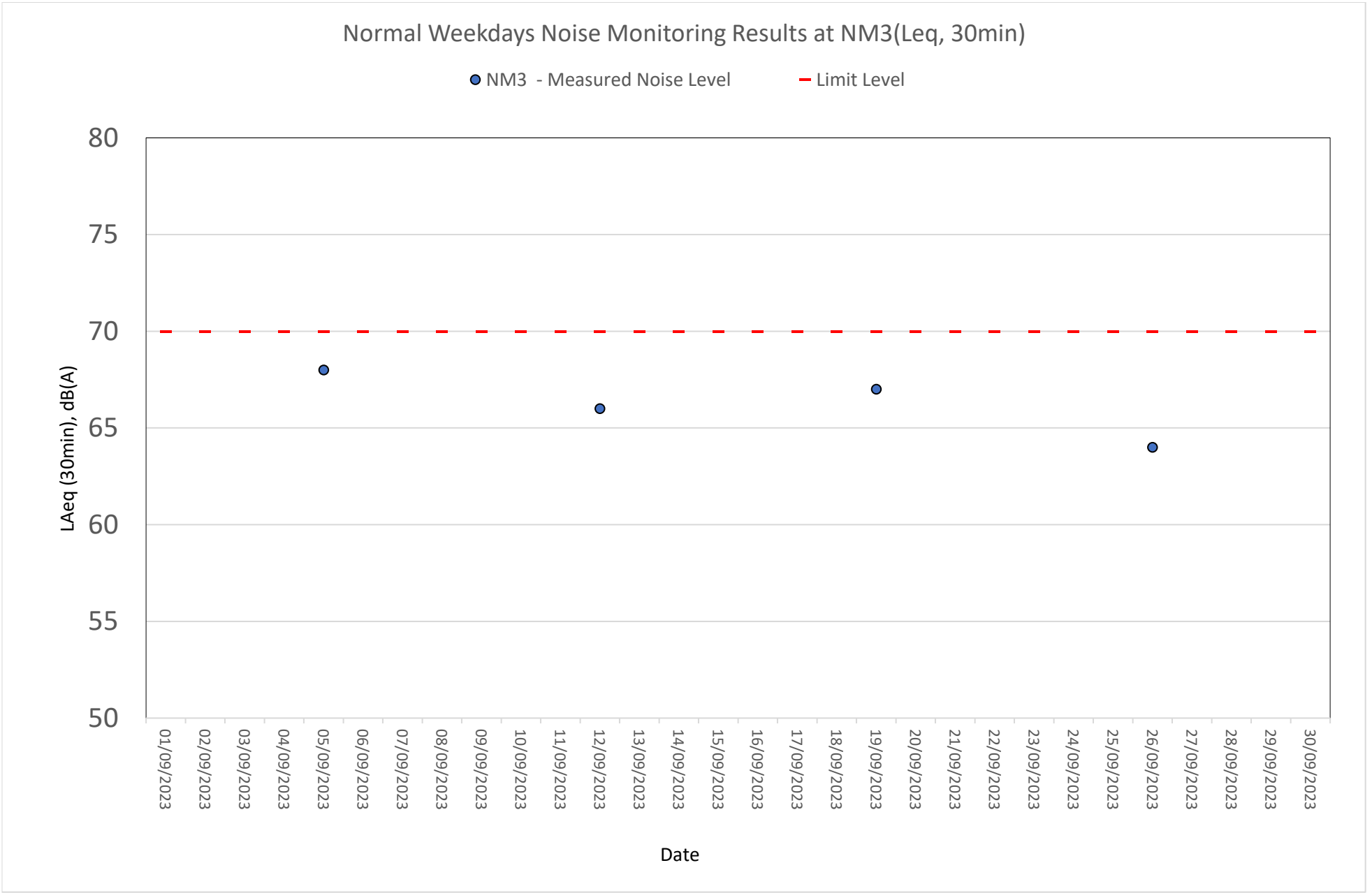


Remark:
On 12, 19 and 26 September 2023, the measured noise levels of NM2b exceeded the limit level of 70dB(A). However, they were lower than the baseline level of 73.4 dB(A). Therefore, they are not considered as an limit level exceedance.


Normal Weekdays Noise Monitoring Results at NM3(Leq, 30min)
NM3 - Measured Noise Level
Limit Level
LAeq (30min), dB(A)
80
75
70
65
60
55
50
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Date

Appendix 8

Waste Flow Table

Total Quantities of C&D Materials to be Generated from the Contract											
Month	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fill (Inert waste)[1]	Imported Fill	Metals	Timber	Paper / Cardboard Packaging	Plastics	Chemical Waste	Others, e.g. general refuse (Non-inert waste)[2]
	(in tonne)	(in tonne)	(in tonne)	(in tonne)	(in tonne)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000L)	(in tonne)
Jul-21	0	0	0	0	0	0	0	0	0	0	0
Aug-21	0	0	0	0	0	0	0	0	0	0	0
Sep-21	0	0	0	0	0	0	0	0	0	0	1.28
Oct-21	0	0	0	0	0	0	0	0	0	0	7.67
Nov-21	0	0	0	0	0	0	6.77	0.055	0	0	1.23
Dec-21	0	0	0	811.54	0	0	0	0	0	0	7.84
Jan-22	0	0	0	3270.8	0	0	0	0	0	0	2.5
Feb-22	0	0	0	2886.66	0	0	0	0	0	0	1.31
Mar-22	0	0	0	3793	0	0	0	0	0	0	3.43
Apr-22	0	0	0	3126.84	0	7.420	0	0	0	0	3.58
May-22	0	0	0	2414.91	0	0	0	0	0	0	3.64
Jun-22	0	0	0	4427.27	0	0	0	0	0	0	2.36
Jul-22	0	0	0	6759.07	0	0	0	0	0	1	4.28

Month	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fill (Inert waste)[1]	Imported Fill	Metals	Timber	Paper / Cardboard Packaging	Plastics	Chemical Waste	Others, e.g. general refuse (Non-inert waste)[2]
	(in tonne)	(in tonne)	(in tonne)	(in tonne)	(in tonne)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000L)	(in tonne)
Aug-22	0	0	0	5152.13	0	0	0	0	0	0	1.89
Sep-22	0	0	0	5305.27	0	0	0	0	0	0	8.32
Oct-22	0	0	0	5,120.34	0	0	0	0	0	0	12.84
Nov-22	0	0	0	5733.35	0	0	0	0	0	0	1.75
Dec-22	0	0	0	2063.77	0	0	0	0	0	0	3.02
Jan-23	0	0	0	577.99	0	0	0	0	0	0	17.84
Feb-23	0	0	0	1493.86	0	0	0	0	0	0	45.42
Mar-23	0	0	0	3537.78	0	0	0	0	0	0	9.53
Apr-23	0	0	0	7255.41	0	0	0	0	0	0	7.86
May-23	0	0	0	1788.17	0	0	0	0	0	0	8.7
Jun-23	0	0	0	2005.44	0	0	0	0	0	0	27.29
Jul-23	0	0	0	2950.43	0	0	0	0	0	0.2	19.94
Aug-23	0	0	0	5610.19	0	0	0	0	0	0	26.12
Sep-23	0	0	0	478.81	0	0	0	0	0	0	16.49
Total	0	0	0	76,563.03	0	7.420	6.77	0.055	0	1.2	246.13

Note: 1. Inert waste will be disposed to Chai Wan Public Fill Barging Point (CW-PFBP) or Fill Bank at Tseung Kwan O Area 137(TKO137FB).
2. Non-inert waste (General refuse) will be disposed to North East New Territories Landfill (NENT).

Appendix 9

Inspection Date:	4 September 2023	Inspected By:	Andy Ng
Time:	14:00 – 14:30	Weather Condition:	Sunny
Participants:	Mr K.Y Yip (Engineer's Representative); Desmond Ho (Contractor); Andy Ng (ET), Echo Hung (IEC)		

A	Permits/Licenses	N/A or Not Observed	Yes	No	Remarks / Photo
A1	Are Environmental Permit, license/ other permit displayed at major site exit and vehicle access?	☐	☐	☒	EP No.: EP-505/2015/A
A2	Are Construction Noise Permits available for inspection/posted at site entrance.	☐	☐	☒	CNP No: GW-RS0453-23
A3	Is wastewater discharge licence available for inspection?	☐	☒	☐	
A4	Are trip tickets for chemical waste and construction waste disposal available for inspection?	☐	☒	☐	
A5	Are relevant licence/permit for disposal of construction waste or excavated materials available for inspection?	☐	☒	☐	

B	Air Quality	N/A or Not Observed	Yes	No	Remarks / Photo
B1	Is open burning avoided?	☐	☒	☐	
B2	Are completed earthworks sealed as soon as practicable?	☐	☒	☐	
B3	Are plant and equipment well maintained (i. e. without black smoke from powered plant)?	☐	☒	☐	
B4	Any remedial action undertaken?	☒	☐	☐	N.A.
B5	Observed dust source(s)				
		☐ Wind erosion			
		☐ Vehicle/ Equipment Movements			
		☒ Loading/ unloading of materials			
		☐ Others: _____			
B6	Are unpaved areas/ designated roads watered regularly to avoid dust generation?	☐	☒	☐	
B7	Are dusty materials covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading?	☐	☒	☐	
B8	After removal of stockpile, are the remained dusty materials wetted with water and cleared from surface of roads?	☐	☒	☐	
B9	Is the stockpile of dusty materials avoid to be extend beyond the pedestrian barriers, fencing or traffic cones?	☐	☒	☐	
B10	Are loaded dump trucks covered by impervious sheeting appropriately before leaving the site?	☒	☐	☐	N.A.

B11	Are wheel washing facilities with high pressure water jet provided at all site exits if practicable?	☐	☒	☐	
B12	Are all vehicles and plant cleaned before they leave the construction site?	☐	☒	☐	
B13	Are hoarding ≥ 2.4m tall provided beside roads or area with public access?	☐	☒	☐	
B14	Is the portion of any road leading only to construction site (within 30m of a vehicle entrance or exit) kept clear of dusty materials?	☐	☒	☐	
B15	Are surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operations takes place sprayed with water or a dust suppression chemical continuously?	☐	☒	☐	
B16	Is the area involved demolition activities sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet?	☒	☐	☐	N.A.
B17	Is scaffolding erected around the perimeter of a building under construction?	☒	☐	☐	N.A.
B18	Are effective dust screens, sheeting or netting provided to enclose the scaffolding from the ground floor level of the building, or a canopy provided from the first floor level up to the highest level of the scaffolding?	☒	☐	☐	N.A.
B19	Is the skip hoist for materials transport enclosed by impervious sheeting?	☒	☐	☐	N.A.
B20	Is every stock of more than 20 bags of cement or dry pulverized fuel ash (PFA) covered entirely by impervious sheeting or placed in an area sheltered on the top and 3 sides?	☐	☒	☐	
B21	Are the areas of washing facilities and the road section between the washing facilities and the exit point paved with concrete, bituminous materials or hardcores?	☐	☒	☐	
B22	Are cement or dry PFA delivered in bulk stored in a closed silo fitted with an audible high-level alarm which is interlocked with the material filling line and no overfilling is allowed?	☐	☒	☐	
B23	Are the activities of loading, unloading, transfer, handing or storage of bulk cement or dry PFA carried out in a totally enclosed system or facility?	☐	☒	☐	
B24	Is any vent or exhaust fitted with an effective fabric filter or equipment air pollution control system?	☒	☐	☐	N.A.
B25	Is the exposed earth properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shotcrete or other suitable surface stabiliser within six months after last construction activity on the construction site or part of the construction site where the exposed earth lies?	☐	☒	☐	
B26	Are the worksites wetted with water regularly?	☐	☒	☐	
B27	Is generation of dust avoided during loading or unloading?	☐	☒	☐	
B28	Are all trucks loaded to a level within the side and tail boards?	☐	☒	☐	

B29	Are appropriate speed limit sign displayed?	☐	☒	☐	
B30	Are designated roads paved?	☐	☒	☐	
B31	Are site vehicle movements confined to designated roads?	☐	☒	☐	

C	Noise	N/A or Not Observed	Yes	No	Remarks / Photo
C1	Is well-maintained plant operated on-site and plant served regularly?	☐	☒	☐	
C2	Are vehicles and equipment switched off or throttled down while not in use?	☐	☒	☐	
C3	Is the noise directed away from nearby NSRs?	☐	☒	☐	
C4	Are the silencers or mufflers properly fitted on construction equipment and maintained regularly?	☐	☒	☐	
C5	Are mobile and/or noisy plant sited as far away from NSRs as possible and practicable and orientated so that the noise is directed away from nearby NSRs?	☐	☒	☐	
C6	Are material stockpiles, mobile container officer and other structures utilised to screen noisy activates?	☒	☐	☐	N.A.
C7	Is temporary hoarding installed located on the site boundaries between noisy construction activities and NSRs?	☐	☒	☐	
C8	Are noise barriers (typically density @14kg/m^2) acoustic mat or full enclosure close to noise plants including air compressor, generators and saw etc. provided to protect NSRs?	☐	☒	☐	
C9	Is the sequencing operation of construction plants where practicable?	☐	☒	☐	
C10	Is the hoarding maintained properly?	☐	☒	☐	
C11	Do air compressors have valid noise labels?	☐	☒	☐	
C12	Are compressor operated with doors closed?	☐	☒	☐	
C13	QPME used with valid noise labels?	☐	☒	☐	
C14	Major noise source(s)				
		☒ Traffic			
		☒ Construction activities inside of site			
		☐ Construction activities outside of site			
		☐ Others:_____			

D	Water Quality	N/A or Not Observed	Yes	No	Remarks / Photo
Construction Activities					
D1	Are catchpits and perimeter channels constructed in advance of site formation works and earthworks?	☐	☒	☐	
D2	Is wastewater from temporary site facilities controlled to prevent direct discharge to surface or marine water?	☐	☒	☐	
D3	Is minimise surface excavation works during rainy seasons (April to September), as possible?	☐	☒	☐	
D4	Is the storm drainage directed to storm drains via adequately designed sand/ silt removal facilities e.g. sand traps, silt?	☐	☒	☐	
D5	Are channels, earth bunds or sandbag barriers provided on site to properly direct stormwater to such silt removal facilities?	☐	☒	☐	
D6	Are the silt removal facilities, channels and manholes maintained regularly?	☐	☒	☐	
D7	Are the temporary access roads surfaced with crushed stone or gravel?	☐	☒	☐	
D8	Is the deposited silt and grit removed regularly?	☐	☒	☐	
D9	Is rainwater pumped out from trenches discharged into storm drains via silt system?	☐	☒	☐	
D10	Are measures taken to prevent the washout of construction materials, soil, silt or debris into any drainage system?	☐	☒	☐	
D11	Are open stockpiles of construction materials e.g. aggregates and sand on site covered with tarpaulin or similar fabric during rainstorms?	☐	☒	☐	
D12	Are manholes adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage?	☐	☒	☐	
D13	Are the discharges of surface run-off into foul sewer always prevented?	☐	☒	☐	
D14	Is a wheel washing bay provided at every site exit?	☐	☒	☐	
D15	Is the wheel wash overflow directed to silt removal facilities before being discharged to the storm drain?	☐	☒	☐	
D16	Is the section of construction road between the wheel washing bay and the public road surfaced with crushed stone or coarse gravel?	☐	☒	☐	
D17	Is wastewater generated from concreting, plastering, internal decoration, cleaning work and other similar activities screened to remove large objects?	☒	☐	☐	N.A.
D18	Are the vehicle and plant serving areas, vehicle wash bays and lubrication facilities located under roofed areas?	☐	☒	☐	
D19	Is leakage or spillages contained and cleaned up immediately?	☐	☒	☐	
D20	Does the surface runoff from bunded areas pass through oil/grease traps prior to discharge to the storm water system?	☒	☐	☐	N.A.

D21	Are site drainage systems provided over the entire project site with sediment control facilities?	☐	☒	☐	
D22	Are sedimentation tanks or package treatment systems provided to treat the large amount of sediment-laden wastewater generated from wheel washing, site runoff and construction works?	☐	☒	☐	
D23	Is the generated wastewater with high concentrations of SS collected to the sedimentation tanks or package treatment systems for proper treatment prior to disposal?	☐	☒	☐	
D24	Is the treated wastewater reused for vehicle washing, dust suppression and general cleaning?	☐	☒	☐	
D25	Is the sewage generated from toilets collected using a temporary storage system?	☐	☒	☐	
D26	Is there any sediment plume observed in nearby watercourses?	☐	☐	☒	
D27	Are slit-grease traps deployed to prevent a direct input of road surface runoff to the marine waters?	☒	☐	☐	N.A.

E	**Waste / Chemical Management**	**N/A or Not Observed**	**Yes**	**No**	**Remarks / Photo**
General Waste					
E1	Is the general waste generated on-site stored in enclosed bins or compaction units separately from the construction and chemical wastes?	☐	☐	☒	Rectified photo to be provided
E2	Is the general waste collected properly by using the waste separation facilities for paper, aluminium cans, plastic bottles etc.?	☐	☐	☒	Refer to Observation 2
E3	Does accumulation of waste avoid?	☐	☐	☒	Refer to Observation 1
E4	Is waste disposed regularly?	☐	☒	☐	
Construction Waste					
E5	Are the temporary stockpiles maintained regularly?	☒	☐	☐	N.A.
E6	Is the excavated fill material reused for backfilling and reinstatement?	☐	☒	☐	
E7	Are the C&D materials sorted and recycled on-site?	☐	☒	☐	
E8	Is there any contract documents provided to allow and promote the use of recycled aggregates where appropriate?	☒	☐	☐	Not Observed.
E9	Is the disposal of C&D materials avoided onto any sensitive locations e.g. agricultural lands etc.?	☒	☐	☐	N.A.
E10	Are the public fill and C&D waste segregated and stored in different containers or skips to enhance reuse or recycling of materials and their proper disposal?	☐	☒	☐	
E11	Is the durable formwork or plastic facing for construction works used?	☒	☐	☐	N.A.
E12	Do the wooden hoardings avoid to be used?	☐	☒	☐	
E13	Is metal hoarding used to enhance the possibility of recycling?	☐	☒	☐	

E14	Is the segregation and storage of C&D wastes undertaken in designated are?	☐	☒	☐	
E15	Are waste storage area properly cleaned and do not cause windblown litter and dust nuisance?	☐	☒	☐	
E16	Do the excavated materials appear contaminated?	☐	☐	☒	
E17	If suspected contaminated, appropriate procedures followed?	☒	☐	☐	N.A.
Chemical / Fuel Storage Area					
E18	Are the fuel tanks and chemical storage areas provided with locks and sited on sealed areas?	☐	☒	☐	
E19	Are the storage area enclosed 3 sides by walls/ fence of ≥2m tall and bounded with adequate bund capacity (>110% of largest container) or do the storage area allow storage of 20% of total volume of waste?	☐	☒	☐	
E20	Are the storage areas labelled and separated (if needed)?	☐	☒	☐	
E21	Do the storage areas have adequate ventilation and be covered to prevent rainfall entering?	☐	☒	☐	
E22	Are the containers used for the storage of chemical wastes suitable for the substance that are holding, resist to corrosion, maintained in a good condition, and securely closed?	☐	☒	☐	
E23	If no specification has been approved by EPD, are container with <450L capacity provided for storage of chemicals waste?	☐	☒	☐	
Chemical Waste / Waste Oil					
E24	Is chemical waste or waste oil stored and labelled in English and Chinese properly in designated area?	☐	☐	☒	Rectified photo to be provided
E25	Are chemicals and waste oil recycled or disposed properly?	☐	☒	☐	
E26	Is waste oil collected and stored for recycling or disposal?	☐	☒	☐	
Records					
E27	Is a licensed waste haulier used for waste collection?	☐	☒	☐	
E28	Are the records of quantities of wastes generated, recycled and disposed properly kept?	☐	☒	☐	
E29	For the demolition material/ waste, is the number of loads for each day recorded as appropriate?	☒	☐	☐	N.A.

F	Landscape and Visual Impacts	N/A or Not Observed	Yes	No	Remarks / Photo
F1	Is the work site confined within site boundaries?	☐	☒	☐	
F2	Is damage to surrounding areas avoided?	☐	☒	☐	
F3	Is the hoardings with aesthetic treatment provided and designed to be subtle and camouflaged?	☐	☒	☐	
F4	Is the temporary landscape treatment provided (such as the provision of temporary landscape planting around the Site office in ornamental pots and application of green roof for Site office)?	☐	☒	☐	
F5	Are the protective fencing erected along or beyond the perimeter of the tree protection zone of each individual tree?	☒	☐	☐	To be implemented before demolition of hoarding

G	Environmental Complaint	N/A or Not Observed	Yes	No	Remarks / Photo
G1	Number of Environmental Complaint received from 11/11/2021 to 04/09/2023	☐	☐	☒	

H	General Housekeeping	N/A or Not Observed	Yes	No	Remarks / Photo
H1	Are potential stagnant pools cleared and mosquito breeding prevented?	☐	☒	☐	
H2	Are the defined boundaries of working areas identified to prevent loss of vegetation	☐	☒	☐	

I	Others	N/A or Not Observed	Yes	No	Remarks / Photo
I1	Are the portable toilets maintained in a state, which will not deter the workers from utilizing these portable toilets?	☐	☒	☐	

Follow up action for previous Site Inspection:

Waiting for Contractor's input

Observation(s):

1. Accumulated waste is observed at the site entrance. (Photo 1)
2. Aluminum cans should be stored in the recycling bin. (Photo 2)

Photo 1

Photo 2

Corrective Actions – Mitigation Measures Implemented or Proposed (if any):

1. The Contractor has been reminded to arrange waste disposal after the tropical cyclone.
2. General waste should be collected properly by using the waste separation facilities for paper, aluminum cans, plastic bottles.

	Environmental Team Representative:	IEC's Representative:	Contractor's Representative:	Engineer's Representative
Signature:				
Name:	Andy Ng	Echo Hung	Desmond Ho	K. Y. Yip
Date:	4 September 2023	4 September 2023	4 September 2023	04-Sept-2023

SUPO/CAN Henry Lee

Inspection Date:	14 September 2023	Inspected By:	Andy Ng
Time:	15:00 – 16:00	Weather Condition:	Overcast
Participants:	Mr K.H Lam (Engineer's Representative); Desmond Ho (Contractor); Andy Ng (ET)		

A	Permits/Licenses	N/A or Not Observed	Yes	No	Remarks / Photo
A1	Are Environmental Permit, license/ other permit displayed at major site exit and vehicle access?	☐	☐	☒	EP No.: EP-505/2015/A
A2	Are Construction Noise Permits available for inspection/posted at site entrance.	☐	☐	☒	CNP No: GW-RS0453-23
A3	Is wastewater discharge licence available for inspection?	☐	☒	☐	
A4	Are trip tickets for chemical waste and construction waste disposal available for inspection?	☐	☒	☐	
A5	Are relevant licence/permit for disposal of construction waste or excavated materials available for inspection?	☐	☒	☐	

B	Air Quality	N/A or Not Observed	Yes	No	Remarks / Photo
B1	Is open burning avoided?	☐	☒	☐	
B2	Are completed earthworks sealed as soon as practicable?	☐	☒	☐	
B3	Are plant and equipment well maintained (i. e. without black smoke from powered plant)?	☐	☒	☐	
B4	Any remedial action undertaken?	☒	☐	☐	N.A.
B5	Observed dust source(s)				
		☐ Wind erosion			
		☐ Vehicle/ Equipment Movements			
		☐ Loading/ unloading of materials			
		☒ Others: Not Observed			
B6	Are unpaved areas/ designated roads watered regularly to avoid dust generation?	☐	☒	☐	
B7	Are dusty materials covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading?	☐	☒	☐	
B8	After removal of stockpile, are the remained dusty materials wetted with water and cleared from surface of roads?	☐	☒	☐	
B9	Is the stockpile of dusty materials avoid to be extend beyond the pedestrian barriers, fencing or traffic cones?	☐	☒	☐	
B10	Are loaded dump trucks covered by impervious sheeting appropriately before leaving the site?	☒	☐	☐	N.A.

B11	Are wheel washing facilities with high pressure water jet provided at all site exits if practicable?	☐	☒	☐	
B12	Are all vehicles and plant cleaned before they leave the construction site?	☐	☒	☐	
B13	Are hoarding ≥ 2.4m tall provided beside roads or area with public access?	☐	☒	☐	
B14	Is the portion of any road leading only to construction site (within 30m of a vehicle entrance or exit) kept clear of dusty materials?	☐	☒	☐	
B15	Are surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operations takes place sprayed with water or a dust suppression chemical continuously?	☐	☒	☐	
B16	Is the area involved demolition activities sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet?	☒	☐	☐	N.A.
B17	Is scaffolding erected around the perimeter of a building under construction?	☒	☐	☐	N.A.
B18	Are effective dust screens, sheeting or netting provided to enclose the scaffolding from the ground floor level of the building, or a canopy provided from the first floor level up to the highest level of the scaffolding?	☒	☐	☐	N.A.
B19	Is the skip hoist for materials transport enclosed by impervious sheeting?	☒	☐	☐	N.A.
B20	Is every stock of more than 20 bags of cement or dry pulverized fuel ash (PFA) covered entirely by impervious sheeting or placed in an area sheltered on the top and 3 sides?	☐	☒	☐	
B21	Are the areas of washing facilities and the road section between the washing facilities and the exit point paved with concrete, bituminous materials or hardcores?	☐	☒	☐	
B22	Are cement or dry PFA delivered in bulk stored in a closed silo fitted with an audible high-level alarm which is interlocked with the material filling line and no overfilling is allowed?	☐	☒	☐	
B23	Are the activities of loading, unloading, transfer, handing or storage of bulk cement or dry PFA carried out in a totally enclosed system or facility?	☐	☒	☐	
B24	Is any vent or exhaust fitted with an effective fabric filter or equipment air pollution control system?	☒	☐	☐	N.A.
B25	Is the exposed earth properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shotcrete or other suitable surface stabiliser within six months after last construction activity on the construction site or part of the construction site where the exposed earth lies?	☐	☒	☐	
B26	Are the worksites wetted with water regularly?	☐	☒	☐	
B27	Is generation of dust avoided during loading or unloading?	☐	☒	☐	
B28	Are all trucks loaded to a level within the side and tail boards?	☐	☒	☐	

B29	Are appropriate speed limit sign displayed?	☐	☒	☐	
B30	Are designated roads paved?	☐	☒	☐	
B31	Are site vehicle movements confined to designated roads?	☐	☒	☐	

C	Noise	N/A or Not Observed	Yes	No	Remarks / Photo
C1	Is well-maintained plant operated on-site and plant served regularly?	☐	☒	☐	
C2	Are vehicles and equipment switched off or throttled down while not in use?	☐	☒	☐	
C3	Is the noise directed away from nearby NSRs?	☐	☒	☐	
C4	Are the silencers or mufflers properly fitted on construction equipment and maintained regularly?	☐	☒	☐	
C5	Are mobile and/or noisy plant sited as far away from NSRs as possible and practicable and orientated so that the noise is directed away from nearby NSRs?	☐	☒	☐	
C6	Are material stockpiles, mobile container officer and other structures utilised to screen noisy activates?	☒	☐	☐	N.A.
C7	Is temporary hoarding installed located on the site boundaries between noisy construction activities and NSRs?	☐	☒	☐	
C8	Are noise barriers (typically density @14kg/m^2) acoustic mat or full enclosure close to noise plants including air compressor, generators and saw etc. provided to protect NSRs?	☐	☒	☐	
C9	Is the sequencing operation of construction plants where practicable?	☐	☒	☐	
C10	Is the hoarding maintained properly?	☐	☒	☐	
C11	Do air compressors have valid noise labels?	☐	☒	☐	
C12	Are compressor operated with doors closed?	☐	☒	☐	
C13	QPME used with valid noise labels?	☐	☒	☐	
C14	Major noise source(s)				
		☒ Traffic			
		☒ Construction activities inside of site			
		☐ Construction activities outside of site			
		☐ Others:_____			

D	Water Quality	N/A or Not Observed	Yes	No	Remarks / Photo
Construction Activities					
D1	Are catchpits and perimeter channels constructed in advance of site formation works and earthworks?	☐	☒	☐	
D2	Is wastewater from temporary site facilities controlled to prevent direct discharge to surface or marine water?	☐	☒	☐	
D3	Is minimise surface excavation works during rainy seasons (April to September), as possible?	☐	☒	☐	
D4	Is the storm drainage directed to storm drains via adequately designed sand/ silt removal facilities e.g. sand traps, silt?	☐	☒	☐	
D5	Are channels, earth bunds or sandbag barriers provided on site to properly direct stormwater to such silt removal facilities?	☐	☐	☒	Refer to Observation 2
D6	Are the silt removal facilities, channels and manholes maintained regularly?	☐	☐	☒	Refer to Reminder 1
D7	Are the temporary access roads surfaced with crushed stone or gravel?	☐	☒	☐	
D8	Is the deposited silt and grit removed regularly?	☐	☐	☒	Refer to Observation 3
D9	Is rainwater pumped out from trenches discharged into storm drains via silt system?	☐	☐	☐	Refer to Observation 1
D10	Are measures taken to prevent the washout of construction materials, soil, silt or debris into any drainage system?	☐	☒	☐	
D11	Are open stockpiles of construction materials e.g. aggregates and sand on site covered with tarpaulin or similar fabric during rainstorms?	☐	☒	☐	
D12	Are manholes adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage?	☐	☒	☐	
D13	Are the discharges of surface run-off into foul sewer always prevented?	☐	☒	☐	
D14	Is a wheel washing bay provided at every site exit?	☐	☒	☐	
D15	Is the wheel wash overflow directed to silt removal facilities before being discharged to the storm drain?	☐	☒	☐	
D16	Is the section of construction road between the wheel washing bay and the public road surfaced with crushed stone or coarse gravel?	☐	☒	☐	
D17	Is wastewater generated from concreting, plastering, internal decoration, cleaning work and other similar activities screened to remove large objects?	☒	☐	☐	N.A.
D18	Are the vehicle and plant serving areas, vehicle wash bays and lubrication facilities located under roofed areas?	☐	☒	☐	
D19	Is leakage or spillages contained and cleaned up immediately?	☐	☐	☒	Refer to Observation 4
D20	Does the surface runoff from bunded areas pass through oil/grease traps prior to discharge to the storm water system?	☒	☐	☐	N.A.

D21	Are site drainage systems provided over the entire project site with sediment control facilities?	☐	☒	☐	
D22	Are sedimentation tanks or package treatment systems provided to treat the large amount of sediment-laden wastewater generated from wheel washing, site runoff and construction works?	☐	☒	☐	
D23	Is the generated wastewater with high concentrations of SS collected to the sedimentation tanks or package treatment systems for proper treatment prior to disposal?	☐	☒	☐	
D24	Is the treated wastewater reused for vehicle washing, dust suppression and general cleaning?	☐	☒	☐	
D25	Is the sewage generated from toilets collected using a temporary storage system?	☐	☒	☐	
D26	Is there any sediment plume observed in nearby watercourses?	☐	☐	☒	
D27	Are slit-grease traps deployed to prevent a direct input of road surface runoff to the marine waters?	☒	☐	☐	N.A.

E	**Waste / Chemical Management**	**N/A or Not Observed**	**Yes**	**No**	**Remarks / Photo**
General Waste					
E1	Is the general waste generated on-site stored in enclosed bins or compaction units separately from the construction and chemical wastes?	☐	☐	☒	Rectified photo to be provided
E2	Is the general waste collected properly by using the waste separation facilities for paper, aluminium cans, plastic bottles etc.?	☐	☒	☐	
E3	Does accumulation of waste avoid?	☐	☒	☐	
E4	Is waste disposed regularly?	☐	☒	☐	
Construction Waste					
E5	Are the temporary stockpiles maintained regularly?	☒	☐	☐	N.A.
E6	Is the excavated fill material reused for backfilling and reinstatement?	☐	☒	☐	
E7	Are the C&D materials sorted and recycled on-site?	☐	☒	☐	
E8	Is there any contract documents provided to allow and promote the use of recycled aggregates where appropriate?	☒	☐	☐	Not Observed.
E9	Is the disposal of C&D materials avoided onto any sensitive locations e.g. agricultural lands etc.?	☒	☐	☐	N.A.
E10	Are the public fill and C&D waste segregated and stored in different containers or skips to enhance reuse or recycling of materials and their proper disposal?	☐	☒	☐	
E11	Is the durable formwork or plastic facing for construction works used?	☒	☐	☐	N.A.
E12	Do the wooden hoardings avoid to be used?	☐	☒	☐	
E13	Is metal hoarding used to enhance the possibility of recycling?	☐	☒	☐	
E14	Is the segregation and storage of C&D wastes undertaken in designated are?	☐	☒	☐	

E15	Are waste storage area properly cleaned and do not cause windblown litter and dust nuisance?	☐	☒	☐	
E16	Do the excavated materials appear contaminated?	☐	☐	☒	
E17	If suspected contaminated, appropriate procedures followed?	☒	☐	☐	N.A.
Chemical / Fuel Storage Area					
E18	Are the fuel tanks and chemical storage areas provided with locks and sited on sealed areas?	☐	☒	☐	
E19	Are the storage area enclosed 3 sides by walls/ fence of ≥2m tall and bounded with adequate bund capacity (>110% of largest container) or do the storage area allow storage of 20% of total volume of waste?	☐	☒	☐	
E20	Are the storage areas labelled and separated (if needed)?	☐	☒	☐	
E21	Do the storage areas have adequate ventilation and be covered to prevent rainfall entering?	☐	☒	☐	
E22	Are the containers used for the storage of chemical wastes suitable for the substance that are holding, resist to corrosion, maintained in a good condition, and securely closed?	☐	☒	☐	
E23	If no specification has been approved by EPD, are container with <450L capacity provided for storage of chemicals waste?	☐	☒	☐	
Chemical Waste / Waste Oil					
E24	Is chemical waste or waste oil stored and labelled in English and Chinese properly in designated area?	☐	☒	☐	
E25	Are chemicals and waste oil recycled or disposed properly?	☐	☒	☐	
E26	Is waste oil collected and stored for recycling or disposal?	☐	☒	☐	
Records					
E27	Is a licensed waste haulier used for waste collection?	☐	☒	☐	
E28	Are the records of quantities of wastes generated, recycled and disposed properly kept?	☐	☒	☐	
E29	For the demolition material/ waste, is the number of loads for each day recorded as appropriate?	☒	☐	☐	N.A.

F	Landscape and Visual Impacts	N/A or Not Observed	Yes	No	Remarks / Photo
F1	Is the work site confined within site boundaries?	☐	☒	☐	
F2	Is damage to surrounding areas avoided?	☐	☒	☐	
F3	Is the hoardings with aesthetic treatment provided and designed to be subtle and camouflaged?	☐	☒	☐	
F4	Is the temporary landscape treatment provided (such as the provision of temporary landscape planting around the Site office in ornamental pots and application of green roof for Site office)?	☐	☒	☐	
F5	Are the protective fencing erected along or beyond the perimeter of the tree protection zone of each individual tree?	☒	☐	☐	To be implemented before demolition of hoarding

G	Environmental Complaint	N/A or Not Observed	Yes	No	Remarks / Photo
G1	Number of Environmental Complaint received from 11/11/2021 to 14/09/2023	☐	☐	☒	

H	General Housekeeping	N/A or Not Observed	Yes	No	Remarks / Photo
H1	Are potential stagnant pools cleared and mosquito breeding prevented?	☐	☒	☐	
H2	Are the defined boundaries of working areas identified to prevent loss of vegetation	☐	☒	☐	

I	Others	N/A or Not Observed	Yes	No	Remarks / Photo
I1	Are the portable toilets maintained in a state, which will not deter the workers from utilizing these portable toilets?	☐	☒	☐	

Follow up action for previous Site Inspection:

1. Chemical container was removed. (Photo F1)
2. Stagnant water was pumped out. (Photo F2)
3. The accumulated non-inert waste in the waste skip was cleared of. (Photo F3)
4. The Contractor has provided recycling bins and notes to encourage waste segregation. (Photo F4)

	
Photo F1	Photo F2
	
Photo F3	Photo F4

Observation(s):

1. The accumulated surface runoff is found in the lower elevation. (Photo 1)
2. The wastewater in the channel of the vehicle entrance is overflowed. (Photo 2)
3. Maintenance work should be conducted for the underground water tank to avoid overflow. (Photo 3)
4. The condition of footing should be reviewed after the rainfall and maintenance works should be conducted as the footing is cracked. (Photo 4)

Reminder(s):

1. The Contractor has been reminded to conduct checking of condition of silt removal facility after the series of heavy rainfall to ensure it is functioning properly. (Photo 5)

	
Photo 1	Photo 2

	
Photo 3	Photo 4
	
Photo 5	

Corrective Actions – Mitigation Measures Implemented or Proposed (if any):

1. The accumulated surface runoff should be pumped out and divided to silt removal facility for wastewater treatment.
2. The Contractor has been advised to clear up the accumulated sand and silt in the underground water tank to increase the capacity of its as such the wastewater will not overflow at the vehicle entance.
3. The Contractor has been recommended to conduct maintenance works on the footing.
4. The condition of silt removal facility should be review after series of heavy rainfall and maintenance work shall be conducted if necessary.

	Environmental Team Representative:	IEC's Representative:	Contractor's Representative:	Engineer's Representative
Signature:		/		
Name:	Andy Ng	/	Desmond Ho	Henry Lam SUPD/COW
Date:	14 September 2023	/	14 September 2023	14-September-2023

Inspection Date:	21 September 2023	Inspected By:	Andy Ng
Time:	15:00 – 15:30	Weather Condition:	Sunny
Participants:	Mr K.Y Yip (Engineer's Representative); Desmond Ho (Contractor); Andy Ng (ET)		

A	Permits/Licenses	N/A or Not Observed	Yes	No	Remarks / Photo
A1	Are Environmental Permit, license/ other permit displayed at major site exit and vehicle access?	☐	☐	☒	EP No.: EP-505/2015/A
A2	Are Construction Noise Permits available for inspection/posted at site entrance.	☐	☐	☒	CNP No: GW-RS0453-23
A3	Is wastewater discharge licence available for inspection?	☐	☒	☐	
A4	Are trip tickets for chemical waste and construction waste disposal available for inspection?	☐	☒	☐	
A5	Are relevant licence/permit for disposal of construction waste or excavated materials available for inspection?	☐	☒	☐	

B	Air Quality	N/A or Not Observed	Yes	No	Remarks / Photo
B1	Is open burning avoided?	☐	☒	☐	
B2	Are completed earthworks sealed as soon as practicable?	☐	☒	☐	
B3	Are plant and equipment well maintained (i. e. without black smoke from powered plant)?	☐	☒	☐	
B4	Any remedial action undertaken?	☒	☐	☐	N.A.
B5	Observed dust source(s)				
		☐ Wind erosion			
		☐ Vehicle/ Equipment Movements			
		☐ Loading/ unloading of materials			
		☒ Others: Not Observed			
B6	Are unpaved areas/ designated roads watered regularly to avoid dust generation?	☐	☒	☐	
B7	Are dusty materials covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading?	☐	☒	☐	
B8	After removal of stockpile, are the remained dusty materials wetted with water and cleared from surface of roads?	☐	☒	☐	
B9	Is the stockpile of dusty materials avoid to be extend beyond the pedestrian barriers, fencing or traffic cones?	☐	☒	☐	
B10	Are loaded dump trucks covered by impervious sheeting appropriately before leaving the site?	☒	☐	☐	N.A.

B11	Are wheel washing facilities with high pressure water jet provided at all site exits if practicable?	☐	☒	☐	
B12	Are all vehicles and plant cleaned before they leave the construction site?	☐	☒	☐	
B13	Are hoarding ≥ 2.4m tall provided beside roads or area with public access?	☐	☒	☐	
B14	Is the portion of any road leading only to construction site (within 30m of a vehicle entrance or exit) kept clear of dusty materials?	☐	☒	☐	
B15	Are surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operations takes place sprayed with water or a dust suppression chemical continuously?	☐	☒	☐	
B16	Is the area involved demolition activities sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet?	☒	☐	☐	N.A.
B17	Is scaffolding erected around the perimeter of a building under construction?	☒	☐	☐	N.A.
B18	Are effective dust screens, sheeting or netting provided to enclose the scaffolding from the ground floor level of the building, or a canopy provided from the first floor level up to the highest level of the scaffolding?	☒	☐	☐	N.A.
B19	Is the skip hoist for materials transport enclosed by impervious sheeting?	☒	☐	☐	N.A.
B20	Is every stock of more than 20 bags of cement or dry pulverized fuel ash (PFA) covered entirely by impervious sheeting or placed in an area sheltered on the top and 3 sides?	☐	☒	☐	
B21	Are the areas of washing facilities and the road section between the washing facilities and the exit point paved with concrete, bituminous materials or hardcores?	☐	☒	☐	
B22	Are cement or dry PFA delivered in bulk stored in a closed silo fitted with an audible high-level alarm which is interlocked with the material filling line and no overfilling is allowed?	☐	☒	☐	
B23	Are the activities of loading, unloading, transfer, handing or storage of bulk cement or dry PFA carried out in a totally enclosed system or facility?	☐	☒	☐	
B24	Is any vent or exhaust fitted with an effective fabric filter or equipment air pollution control system?	☒	☐	☐	N.A.
B25	Is the exposed earth properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shotcrete or other suitable surface stabiliser within six months after last construction activity on the construction site or part of the construction site where the exposed earth lies?	☐	☒	☐	
B26	Are the worksites wetted with water regularly?	☐	☐	☒	Refer to Observation 2
B27	Is generation of dust avoided during loading or unloading?	☐	☒	☐	
B28	Are all trucks loaded to a level within the side and tail boards?	☐	☒	☐	

B29	Are appropriate speed limit sign displayed?	☐	☒	☐	
B30	Are designated roads paved?	☐	☒	☐	
B31	Are site vehicle movements confined to designated roads?	☐	☒	☐	

C	Noise	N/A or Not Observed	Yes	No	Remarks / Photo
C1	Is well-maintained plant operated on-site and plant served regularly?	☐	☒	☐	
C2	Are vehicles and equipment switched off or throttled down while not in use?	☐	☒	☐	
C3	Is the noise directed away from nearby NSRs?	☐	☒	☐	
C4	Are the silencers or mufflers properly fitted on construction equipment and maintained regularly?	☐	☒	☐	
C5	Are mobile and/or noisy plant sited as far away from NSRs as possible and practicable and orientated so that the noise is directed away from nearby NSRs?	☐	☒	☐	
C6	Are material stockpiles, mobile container officer and other structures utilised to screen noisy activates?	☒	☐	☐	N.A.
C7	Is temporary hoarding installed located on the site boundaries between noisy construction activities and NSRs?	☐	☒	☐	
C8	Are noise barriers (typically density @14kg/m^2) acoustic mat or full enclosure close to noise plants including air compressor, generators and saw etc. provided to protect NSRs?	☐	☒	☐	
C9	Is the sequencing operation of construction plants where practicable?	☐	☒	☐	
C10	Is the hoarding maintained properly?	☐	☒	☐	
C11	Do air compressors have valid noise labels?	☐	☒	☐	
C12	Are compressor operated with doors closed?	☐	☒	☐	
C13	QPME used with valid noise labels?	☐	☒	☐	
C14	Major noise source(s)				
		☒ Traffic			
		☒ Construction activities inside of site			
		☐ Construction activities outside of site			
		☐ Others:_____			

D	Water Quality	N/A or Not Observed	Yes	No	Remarks / Photo
Construction Activities					
D1	Are catchpits and perimeter channels constructed in advance of site formation works and earthworks?	☐	☒	☐	
D2	Is wastewater from temporary site facilities controlled to prevent direct discharge to surface or marine water?	☐	☒	☐	
D3	Is minimise surface excavation works during rainy seasons (April to September), as possible?	☐	☒	☐	
D4	Is the storm drainage directed to storm drains via adequately designed sand/ silt removal facilities e.g. sand traps, silt?	☐	☒	☐	
D5	Are channels, earth bunds or sandbag barriers provided on site to properly direct stormwater to such silt removal facilities?	☐	☒	☐	
D6	Are the silt removal facilities, channels and manholes maintained regularly?	☐	☒	☐	
D7	Are the temporary access roads surfaced with crushed stone or gravel?	☐	☒	☐	
D8	Is the deposited silt and grit removed regularly?	☐	☒	☐	
D9	Is rainwater pumped out from trenches discharged into storm drains via silt system?	☐	☒	☐	
D10	Are measures taken to prevent the washout of construction materials, soil, silt or debris into any drainage system?	☐	☒	☐	
D11	Are open stockpiles of construction materials e.g. aggregates and sand on site covered with tarpaulin or similar fabric during rainstorms?	☐	☒	☐	
D12	Are manholes adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage?	☐	☒	☐	
D13	Are the discharges of surface run-off into foul sewer always prevented?	☐	☒	☐	
D14	Is a wheel washing bay provided at every site exit?	☐	☒	☐	
D15	Is the wheel wash overflow directed to silt removal facilities before being discharged to the storm drain?	☐	☒	☐	
D16	Is the section of construction road between the wheel washing bay and the public road surfaced with crushed stone or coarse gravel?	☐	☒	☐	
D17	Is wastewater generated from concreting, plastering, internal decoration, cleaning work and other similar activities screened to remove large objects?	☒	☐	☐	N.A.
D18	Are the vehicle and plant serving areas, vehicle wash bays and lubrication facilities located under roofed areas?	☐	☒	☐	
D19	Is leakage or spillages contained and cleaned up immediately?	☐	☒	☐	
D20	Does the surface runoff from bunded areas pass through oil/grease traps prior to discharge to the storm water system?	☒	☐	☐	N.A.

D21	Are site drainage systems provided over the entire project site with sediment control facilities?	☐	☒	☐	
D22	Are sedimentation tanks or package treatment systems provided to treat the large amount of sediment-laden wastewater generated from wheel washing, site runoff and construction works?	☐	☒	☐	
D23	Is the generated wastewater with high concentrations of SS collected to the sedimentation tanks or package treatment systems for proper treatment prior to disposal?	☐	☒	☐	
D24	Is the treated wastewater reused for vehicle washing, dust suppression and general cleaning?	☐	☒	☐	
D25	Is the sewage generated from toilets collected using a temporary storage system?	☐	☒	☐	
D26	Is there any sediment plume observed in nearby watercourses?	☐	☐	☒	
D27	Are slit-grease traps deployed to prevent a direct input of road surface runoff to the marine waters?	☒	☐	☐	N.A.

E	Waste / Chemical Management	N/A or Not Observed	Yes	No	Remarks / Photo
General Waste					
E1	Is the general waste generated on-site stored in enclosed bins or compaction units separately from the construction and chemical wastes?	☐	☒	☐	
E2	Is the general waste collected properly by using the waste separation facilities for paper, aluminium cans, plastic bottles etc.?	☐	☒	☐	
E3	Does accumulation of waste avoid?	☐	☒	☐	
E4	Is waste disposed regularly?	☐	☒	☐	
Construction Waste					
E5	Are the temporary stockpiles maintained regularly?	☒	☐	☐	N.A.
E6	Is the excavated fill material reused for backfilling and reinstatement?	☐	☒	☐	
E7	Are the C&D materials sorted and recycled on-site?	☐	☒	☐	
E8	Is there any contract documents provided to allow and promote the use of recycled aggregates where appropriate?	☒	☐	☐	Not Observed.
E9	Is the disposal of C&D materials avoided onto any sensitive locations e.g. agricultural lands etc.?	☒	☐	☐	N.A.
E10	Are the public fill and C&D waste segregated and stored in different containers or skips to enhance reuse or recycling of materials and their proper disposal?	☐	☒	☐	
E11	Is the durable formwork or plastic facing for construction works used?	☒	☐	☐	N.A.
E12	Do the wooden hoardings avoid to be used?	☐	☒	☐	
E13	Is metal hoarding used to enhance the possibility of recycling?	☐	☒	☐	
E14	Is the segregation and storage of C&D wastes undertaken in designated are?	☐	☒	☐	

E15	Are waste storage area properly cleaned and do not cause windblown litter and dust nuisance?	☐	☒	☐	
E16	Do the excavated materials appear contaminated?	☐	☐	☒	
E17	If suspected contaminated, appropriate procedures followed?	☒	☐	☐	N.A.
Chemical / Fuel Storage Area					
E18	Are the fuel tanks and chemical storage areas provided with locks and sited on sealed areas?	☐	☒	☐	
E19	Are the storage area enclosed 3 sides by walls/ fence of ≥2m tall and bounded with adequate bund capacity (>110% of largest container) or do the storage area allow storage of 20% of total volume of waste?	☐	☒	☐	
E20	Are the storage areas labelled and separated (if needed)?	☐	☒	☐	
E21	Do the storage areas have adequate ventilation and be covered to prevent rainfall entering?	☐	☒	☐	
E22	Are the containers used for the storage of chemical wastes suitable for the substance that are holding, resist to corrosion, maintained in a good condition, and securely closed?	☐	☒	☐	
E23	If no specification has been approved by EPD, are container with <450L capacity provided for storage of chemicals waste?	☐	☒	☐	
Chemical Waste / Waste Oil					
E24	Is chemical waste or waste oil stored and labelled in English and Chinese properly in designated area?	☐	☒	☐	
E25	Are chemicals and waste oil recycled or disposed properly?	☐	☒	☐	
E26	Is waste oil collected and stored for recycling or disposal?	☐	☒	☐	
Records					
E27	Is a licensed waste haulier used for waste collection?	☐	☒	☐	
E28	Are the records of quantities of wastes generated, recycled and disposed properly kept?	☐	☒	☐	
E29	For the demolition material/ waste, is the number of loads for each day recorded as appropriate?	☒	☐	☐	N.A.

F	Landscape and Visual Impacts	N/A or Not Observed	Yes	No	Remarks / Photo
F1	Is the work site confined within site boundaries?	☐	☒	☐	
F2	Is damage to surrounding areas avoided?	☐	☒	☐	
F3	Is the hoardings with aesthetic treatment provided and designed to be subtle and camouflaged?	☐	☒	☐	
F4	Is the temporary landscape treatment provided (such as the provision of temporary landscape planting around the Site office in ornamental pots and application of green roof for Site office)?	☐	☒	☐	
F5	Are the protective fencing erected along or beyond the perimeter of the tree protection zone of each individual tree?	☒	☐	☐	To be implemented before demolition of hoarding

G	Environmental Complaint	N/A or Not Observed	Yes	No	Remarks / Photo
G1	Number of Environmental Complaint received from 11/11/2021 to 21/09/2023	☐	☐	☒	

H	General Housekeeping	N/A or Not Observed	Yes	No	Remarks / Photo
H1	Are potential stagnant pools cleared and mosquito breeding prevented?	☐	☐	☒	Refer to Observation 1
H2	Are the defined boundaries of working areas identified to prevent loss of vegetation	☐	☒	☐	

I	Others	N/A or Not Observed	Yes	No	Remarks / Photo
I1	Are the portable toilets maintained in a state, which will not deter the workers from utilizing these portable toilets?	☐	☒	☐	

Follow up action for previous Site Inspection:

1. The Contractor appointed their staff to clear up general refuse in the drip tray (Photo F1)
2. Stagnant water was pumped out. (Photo F2)
3. The Contractor has placed water pipes inside channel to avoid high flow rate of wastewater leaking out of the site. (Photo F3)
4. The Contractor scheduled maintenance work to remove the accumulate sand and silt in the underground water tank. (Photo F4)
5. The footing of hoarding has been repaved. (Photo F5)
6. The Contractor has reviewed the condition of silt removal facility and confirmed the silt removal facility is functioning properly. (Photo F6)

Photo F1

Photo F2

Photo F3

Photo F4

Photo F5

Photo F6

Observation(s):

1. The accumulated surface runoff is found at the lower elevation in Zone B. (Photo 1 and Photo 2)
2. The worksite is dry and dusty. (Photo 3)

Photo 1

Photo 2

Photo 3

Corrective Actions – Mitigation Measures Implemented or Proposed (if any):

1. The Contractor has been reminded to clear the stagnant water.
2. The Contractor has been reminded to schedule watering for the work site to minimize dust dispersion.

	Environmental Team Representative:	IEC's Representative:	Contractor's Representative:	Engineer's Representative
Signature:		/		
Name:	Andy Ng	/	Desmond Ho	K. Y. Yip
Date:	21 September 2023	/	21 September 2023	21-Sept-2023

SUPT/GW Henry Lau

Inspection Date:	28 September 2023	Inspected By:	Jason Man
Time:	15:00 – 16:00	Weather Condition:	Sunny
Participants:	Mr K.Y Yip (Engineer's Representative); Desmond Ho (Contractor); Jason Man (ET)		

A	Permits/Licenses	N/A or Not Observed	Yes	No	Remarks / Photo
A1	Are Environmental Permit, license/ other permit displayed at major site exit and vehicle access?	☐	☒	☐	EP No.: EP-505/2015/A
A2	Are Construction Noise Permits available for inspection/posted at site entrance.	☐	☒	☐	CNP No: GW-RS0453-23
A3	Is wastewater discharge licence available for inspection?	☐	☒	☐	
A4	Are trip tickets for chemical waste and construction waste disposal available for inspection?	☐	☒	☐	
A5	Are relevant licence/permit for disposal of construction waste or excavated materials available for inspection?	☐	☒	☐	

B	Air Quality	N/A or Not Observed	Yes	No	Remarks / Photo
B1	Is open burning avoided?	☐	☒	☐	
B2	Are completed earthworks sealed as soon as practicable?	☐	☒	☐	
B3	Are plant and equipment well maintained (i. e. without black smoke from powered plant)?	☐	☒	☐	
B4	Any remedial action undertaken?	☒	☐	☐	N.A.
B5	Observed dust source(s)				
		☐ Wind erosion			
		☐ Vehicle/ Equipment Movements			
		☒ Loading/ unloading of materials			
		☐ Others:_____			
B6	Are unpaved areas/ designated roads watered regularly to avoid dust generation?	☐	☒	☐	
B7	Are dusty materials covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading?	☐	☒	☐	
B8	After removal of stockpile, are the remained dusty materials wetted with water and cleared from surface of roads?	☐	☒	☐	
B9	Is the stockpile of dusty materials avoid to be extend beyond the pedestrian barriers, fencing or traffic cones?	☐	☒	☐	
B10	Are loaded dump trucks covered by impervious sheeting appropriately before leaving the site?	☒	☐	☐	N.A.
B11	Are wheel washing facilities with high pressure water jet provided at all site exits if practicable?	☐	☒	☐	

B12	Are all vehicles and plant cleaned before they leave the construction site?	☐	☒	☐	
B13	Are hoarding ≥ 2.4m tall provided beside roads or area with public access?	☐	☒	☐	
B14	Is the portion of any road leading only to construction site (within 30m of a vehicle entrance or exit) kept clear of dusty materials?	☐	☒	☐	
B15	Are surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operations takes place sprayed with water or a dust suppression chemical continuously?	☐	☒	☐	
B16	Is the area involved demolition activities sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet?	☒	☐	☐	N.A.
B17	Is scaffolding erected around the perimeter of a building under construction?	☒	☐	☐	N.A.
B18	Are effective dust screens, sheeting or netting provided to enclose the scaffolding from the ground floor level of the building, or a canopy provided from the first floor level up to the highest level of the scaffolding?	☒	☐	☐	N.A.
B19	Is the skip hoist for materials transport enclosed by impervious sheeting?	☒	☐	☐	N.A.
B20	Is every stock of more than 20 bags of cement or dry pulverized fuel ash (PFA) covered entirely by impervious sheeting or placed in an area sheltered on the top and 3 sides?	☒	☐	☐	N.A.
B21	Are the areas of washing facilities and the road section between the washing facilities and the exit point paved with concrete, bituminous materials or hardcores?	☐	☒	☐	
B22	Are cement or dry PFA delivered in bulk stored in a closed silo fitted with an audible high-level alarm which is interlocked with the material filling line and no overfilling is allowed?	☐	☒	☐	
B23	Are the activities of loading, unloading, transfer, handing or storage of bulk cement or dry PFA carried out in a totally enclosed system or facility?	☐	☒	☐	
B24	Is any vent or exhaust fitted with an effective fabric filter or equipment air pollution control system?	☒	☐	☐	N.A.
B25	Is the exposed earth properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shotcrete or other suitable surface stabiliser within six months after last construction activity on the construction site or part of the construction site where the exposed earth lies?	☐	☒	☐	
B26	Are the worksites wetted with water regularly?	☐	☒	☐	
B27	Is generation of dust avoided during loading or unloading?	☐	☒	☐	
B28	Are all trucks loaded to a level within the side and tail boards?	☐	☒	☐	
B29	Are appropriate speed limit sign displayed?	☐	☒	☐	

B30	Are designated roads paved?	☐	☒	☐	
B31	Are site vehicle movements confined to designated roads?	☐	☒	☐	

C	Noise	N/A or Not Observed	Yes	No	Remarks / Photo
C1	Is well-maintained plant operated on-site and plant served regularly?	☐	☒	☐	
C2	Are vehicles and equipment switched off or throttled down while not in use?	☐	☒	☐	
C3	Is the noise directed away from nearby NSRs?	☐	☒	☐	
C4	Are the silencers or mufflers properly fitted on construction equipment and maintained regularly?	☐	☒	☐	
C5	Are mobile and/or noisy plant sited as far away from NSRs as possible and practicable and orientated so that the noise is directed away from nearby NSRs?	☐	☒	☐	
C6	Are material stockpiles, mobile container officer and other structures utilised to screen noisy activates?	☒	☐	☐	N.A.
C7	Is temporary hoarding installed located on the site boundaries between noisy construction activities and NSRs?	☐	☒	☐	
C8	Are noise barriers (typically density @14kg/m^2) acoustic mat or full enclosure close to noise plants including air compressor, generators and saw etc. provided to protect NSRs?	☐	☒	☐	
C9	Is the sequencing operation of construction plants where practicable?	☐	☒	☐	
C10	Is the hoarding maintained properly?	☐	☒	☐	
C11	Do air compressors have valid noise labels?	☐	☒	☐	
C12	Are compressor operated with doors closed?	☐	☒	☐	
C13	QPME used with valid noise labels?	☐	☒	☐	
C14	Major noise source(s)				
		☐ Traffic			
		☒ Construction activities inside of site			
		☐ Construction activities outside of site			
		☐ Others:_____			

D	Water Quality	N/A or Not Observed	Yes	No	Remarks / Photo
Construction Activities					
D1	Are catchpits and perimeter channels constructed in advance of site formation works and earthworks?	☐	☒	☐	
D2	Is wastewater from temporary site facilities controlled to prevent direct discharge to surface or marine water?	☐	☒	☐	
D3	Is minimise surface excavation works during rainy seasons (April to September), as possible?	☐	☒	☐	
D4	Is the storm drainage directed to storm drains via adequately designed sand/ silt removal facilities e.g. sand traps, silt?	☐	☒	☐	
D5	Are channels, earth bunds or sandbag barriers provided on site to properly direct stormwater to such silt removal facilities?	☐	☒	☐	
D6	Are the silt removal facilities, channels and manholes maintained regularly?	☐	☒	☐	
D7	Are the temporary access roads surfaced with crushed stone or gravel?	☐	☒	☐	
D8	Is the deposited silt and grit removed regularly?	☐	☒	☐	
D9	Is rainwater pumped out from trenches discharged into storm drains via silt system?	☐	☐	☒	Refer to Observation 1
D10	Are measures taken to prevent the washout of construction materials, soil, silt or debris into any drainage system?	☐	☒	☐	
D11	Are open stockpiles of construction materials e.g. aggregates and sand on site covered with tarpaulin or similar fabric during rainstorms?	☐	☒	☐	
D12	Are manholes adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage?	☐	☒	☐	
D13	Are the discharges of surface run-off into foul sewer always prevented?	☐	☒	☐	
D14	Is a wheel washing bay provided at every site exit?	☐	☒	☐	
D15	Is the wheel wash overflow directed to silt removal facilities before being discharged to the storm drain?	☐	☒	☐	
D16	Is the section of construction road between the wheel washing bay and the public road surfaced with crushed stone or coarse gravel?	☐	☒	☐	
D17	Is wastewater generated from concreting, plastering, internal decoration, cleaning work and other similar activities screened to remove large objects?	☒	☐	☐	N.A.
D18	Are the vehicle and plant serving areas, vehicle wash bays and lubrication facilities located under roofed areas?	☐	☒	☐	
D19	Is leakage or spillages contained and cleaned up immediately?	☐	☐	☒	Refer to Observation 2
D20	Does the surface runoff from bunded areas pass through oil/grease traps prior to discharge to the storm water system?	☒	☐	☐	N.A.

D21	Are site drainage systems provided over the entire project site with sediment control facilities?	☐	☒	☐	
D22	Are sedimentation tanks or package treatment systems provided to treat the large amount of sediment-laden wastewater generated from wheel washing, site runoff and construction works?	☐	☒	☐	
D23	Is the generated wastewater with high concentrations of SS collected to the sedimentation tanks or package treatment systems for proper treatment prior to disposal?	☐	☒	☐	
D24	Is the treated wastewater reused for vehicle washing, dust suppression and general cleaning?	☐	☒	☐	
D25	Is the sewage generated from toilets collected using a temporary storage system?	☐	☒	☐	
D26	Is there any sediment plume observed in nearby watercourses?	☐	☐	☒	
D27	Are slit-grease traps deployed to prevent a direct input of road surface runoff to the marine waters?	☒	☐	☐	N.A.

E	Waste / Chemical Management	N/A or Not Observed	Yes	No	Remarks / Photo
General Waste					
E1	Is the general waste generated on-site stored in enclosed bins or compaction units separately from the construction and chemical wastes?	☐	☒	☐	
E2	Is the general waste collected properly by using the waste separation facilities for paper, aluminium cans, plastic bottles etc.?	☐	☒	☐	
E3	Does accumulation of waste avoid?	☐	☐	☒	Refer to Observation 3
E4	Is waste disposed regularly?	☐	☒	☐	
Construction Waste					
E5	Are the temporary stockpiles maintained regularly?	☒	☐	☐	N.A.
E6	Is the excavated fill material reused for backfilling and reinstatement?	☐	☒	☐	
E7	Are the C&D materials sorted and recycled on-site?	☐	☒	☐	
E8	Is there any contract documents provided to allow and promote the use of recycled aggregates where appropriate?	☒	☐	☐	Not Observed.
E9	Is the disposal of C&D materials avoided onto any sensitive locations e.g. agricultural lands etc.?	☒	☐	☐	N.A.
E10	Are the public fill and C&D waste segregated and stored in different containers or skips to enhance reuse or recycling of materials and their proper disposal?	☐	☒	☐	
E11	Is the durable formwork or plastic facing for construction works used?	☒	☐	☐	N.A.
E12	Do the wooden hoardings avoid to be used?	☐	☒	☐	
E13	Is metal hoarding used to enhance the possibility of recycling?	☐	☒	☐	

E14	Is the segregation and storage of C&D wastes undertaken in designated are?	☐	☒	☐	
E15	Are waste storage area properly cleaned and do not cause windblown litter and dust nuisance?	☐	☒	☐	
E16	Do the excavated materials appear contaminated?	☐	☐	☒	
E17	If suspected contaminated, appropriate procedures followed?	☒	☐	☐	N.A.
Chemical / Fuel Storage Area					
E18	Are the fuel tanks and chemical storage areas provided with locks and sited on sealed areas?	☐	☒	☐	
E19	Are the storage area enclosed 3 sides by walls/ fence of ≥2m tall and bounded with adequate bund capacity (>110% of largest container) or do the storage area allow storage of 20% of total volume of waste?	☐	☒	☐	
E20	Are the storage areas labelled and separated (if needed)?	☐	☒	☐	
E21	Do the storage areas have adequate ventilation and be covered to prevent rainfall entering?	☐	☒	☐	
E22	Are the containers used for the storage of chemical wastes suitable for the substance that are holding, resist to corrosion, maintained in a good condition, and securely closed?	☐	☒	☐	
E23	If no specification has been approved by EPD, are container with <450L capacity provided for storage of chemicals waste?	☐	☒	☐	
Chemical Waste / Waste Oil					
E24	Is chemical waste or waste oil stored and labelled in English and Chinese properly in designated area?	☐	☒	☐	
E25	Are chemicals and waste oil recycled or disposed properly?	☐	☒	☐	
E26	Is waste oil collected and stored for recycling or disposal?	☐	☒	☐	
Records					
E27	Is a licensed waste haulier used for waste collection?	☐	☒	☐	
E28	Are the records of quantities of wastes generated, recycled and disposed properly kept?	☐	☒	☐	
E29	For the demolition material/ waste, is the number of loads for each day recorded as appropriate?	☒	☐	☐	N.A.

F	Landscape and Visual Impacts	N/A or Not Observed	Yes	No	Remarks / Photo
F1	Is the work site confined within site boundaries?	☐	☒	☐	
F2	Is damage to surrounding areas avoided?	☐	☒	☐	
F3	Is the hoardings with aesthetic treatment provided and designed to be subtle and camouflaged?	☐	☒	☐	
F4	Is the temporary landscape treatment provided (such as the provision of temporary landscape planting around the Site office in ornamental pots and application of green roof for Site office)?	☐	☒	☐	
F5	Are the protective fencing erected along or beyond the perimeter of the tree protection zone of each individual tree?	☒	☐	☐	To be implemented before demolition of hoarding

G	Environmental Complaint	N/A or Not Observed	Yes	No	Remarks / Photo
G1	Number of Environmental Complaint received from 11/11/2021 to 21/09/2023	☐	☐	☒	

H	General Housekeeping	N/A or Not Observed	Yes	No	Remarks / Photo
H1	Are potential stagnant pools cleared and mosquito breeding prevented?	☐	☐	☒	Refer to Observation 1
H2	Are the defined boundaries of working areas identified to prevent loss of vegetation	☐	☒	☐	

I	Others	N/A or Not Observed	Yes	No	Remarks / Photo
I1	Are the portable toilets maintained in a state, which will not deter the workers from utilizing these portable toilets?	☐	☒	☐	

Follow up action for previous Site Inspection:

Waiting for Contractor Input

Observation(s):

1. The accumulated surface runoff is found. (Photo 1 to Photo 3)
2. The paint work is without the tarpaulin under the working area to minimize the risk of land contamination. (Photo 4)
3. The overloading of waste skip is found. (Photo 5)

Photo 1

Photo 2

Photo 3

Photo 4

Photo 5

Corrective Actions – Mitigation Measures Implemented or Proposed (if any):

1. The Contractor has been reminded to pump out the surface runoff to silt removal facilities for treatment to ensure potential stagnant pools are clear and prevent mosquito breeding.
2. The Contractor has been recommended to proper handle the chemical waste and place the tarpaulin under the working area when the paint work is conducted.
3. The Contractor has been advised to provide enough waste skip for waste temporary storage.

	Environmental Team Representative:	IEC's Representative:	Contractor's Representative:	Engineer's Representative
Signature:		/		
Name:	Jason Man	/	Desmond Ho	Henry Lam SUPD/COW
Date:	28 September 2023	/	28 September 2023	28-September-2023

Appendix 10

2023 October

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
25	26	27	28	29	30	01
02	03 Noise Monitoring (NM1, NM2b and NM3)	04	05	06	07	08
09	10 Noise Monitoring (NM1, NM2b and NM3)	11	12	13	14	15
16	17 Noise Monitoring (NM1, NM2b and NM3)	18	19	20	21	22
23	24 Noise Monitoring (NM1, NM2b and NM3)	25	26	27	28	29
30	31 Noise Monitoring (NM1, NM2b and NM3)	Notes: The schedule is subject to change due to unforeseeable circumstances (e.g. adverse weather, etc.).				

Appendix 11

There was no Notification of Environmental Quality Limits Exceedance in the reporting month.

Prepared by:

Aurecon Hong Kong Limited

Unit 1608, 16/F, Tower B, Manulife Financial Centre,

223 – 231 Wai Yip Street, Kwun Tong,

Kowloon Hong Kong S. A. R.

T: +852 3664 6888

F: +852 3664 6999

E: hongkong@aurecongroup.com

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