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Contract No. CM 04/2024 – Outlying Islands Sewerage Stage 2 – South Lantau Sewerage Works – Environmental Team Services (2025 - 2027)

Monthly Environmental Monitoring and Audit Report for:
June 2025
Revision 2

Certified By:

Ting Po Chung, Ivan
Environmental Team Leader
Report Date: 11 July 2025

Drainage Services Department
The Government of the Hong Kong Special Administrative Region

Our Ref: 7076811/L32277/AC/KL/TK/KCL/rw

11 July 2025

Drainage Services Department
Sewage Services Branch
Consultants Management Division Group 4
42/F Revenue Tower
5 Gloucester Road
Wan Chai, Hong Kong

By Email and Post
(kkchan06@dsd.gov.hk)

Attn: Mr. CHAN Ka Keung

Dear Sir

Contract No. SD 7/2020
Independent Environmental Checker ("IEC") for Environmental Monitoring Work for South Lantau Sewerage Works
Verification of Monthly EM&A Report (June 2025)

With reference to the Monthly EM&A Report (June 2025) Revision 2 dated and certified by the ET Leader on 11 July 2025, please note that we have no adverse comments on the captioned and we hereby verify the captioned in accordance with Condition 3.4 of the Environmental Permit No. EP-538/2017.

Should you have questions please do not hesitate to contact the undersigned at tel. 3995-8140 or by email to kitty.lee@smec.com; or our Mr Tommy KONG on tel. 3995-8123 or by email to tommy.kong@smec.com.

Yours faithfully

Kitty LEE
Independent Environmental Checker

cc

Binnies	- Mr. Kevin CHAN	by email
Umwelt	- Mr. Ivan TING	by email
KLCW-JV	- Mr. Daniel Chu	by email

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Executive Summary

This Monthly Environmental Monitoring and Audit ("EM&A") Report summarise project monitoring and auditing data, with full interpretation illustrating the acceptability or otherwise of any environmental impacts and identification or assessment of the implementation status of agreed mitigation measures, including monitoring results and findings of the EM&A Programme, along with findings recorded during the site Inspections and audits, reports of Complaints, Notifications of Summons and Successful Prosecutions, and other necessary observations obtained within this reporting month of June 2025.

In the reporting month, the principal work activities conducted are as follow:

- Excavation, sewer laying, construction of manhole at Pui O Lo Uk Tsuen, South Lantau Road, Chi Ma Wan Road;
- Trenchless drilling works (Chi Ma Wan Road);
- Excavation and ELS work at POSPS;
- Superstructure RC works at SSWSTW;
- E&M Installation at POSPS

Noise Monitoring

Noise Monitoring has been conducted at 8 of the designated monitoring locations (N12a, N12b, N13, N14, N15b, N16a, N16b, and N17) where construction works has been conducted nearby during the reporting month.

During the reporting period, school examinations were held from 4 to 6, 9 and 16 to 17 June 2025. Accordingly, the noise limit for monitoring station N17-Bui O Public School was temporarily reduced to 65 dB(A) on these examination.

No action or limit level exceedance was recorded in construction noise level in this reporting period.

Water Quality Monitoring

Subsequent to the completion of marine work on 24 May 2025, water quality monitoring was considered completed by 30 May 2025. No water quality monitoring is conducted in this reporting month.

Should marine works resume, water quality monitoring will be conducted in accordance with the requirement stipulated in the EM&A Manual accordingly.

Ecological Impact Monitoring

Transplanting of the trees of *Aquilaris sinensis* was completed on 26 April 2022. Maintenance works for trees in holding nursery have commenced.

As per latest version of PTP, 4 tree found (1 no. of *Aquilaria sinensis* and 3 nos. of *Gmelina chinensis*) within the site of SSWSTW which are considered to be the plant species with conservative importance for temporarily transplanted to the nursery at Kam Tin and eventually be transplanted to Pui O Pumping Station.

The weekly site audit was carried out by ET include checking whether good site practices are being properly implemented by the Contractor.

The extent of the work site boundaries was checked by the ET during the weekly site audit.

Complaints, Notification of Summons and Prosecution

No environmental complaint was recorded in the reporting month.

No notification of summons and successful prosecution regarding construction works were recorded in the reporting month.

Reporting Changes

There are no reporting changes in the reporting month.

Future Key Issues

The construction works scheduled to be conducted in the coming 3 reporting months are listed as follows:

- Excavation, sewer laying, construction of manhole at Pui O Lo Uk Tsuen, South Lantau Road, Chi Ma Wan Road;
- Excavation and site formation at SSWSTW;
- Trenchless drilling works (Chi Ma Wan Road);
- Excavation and ELS work at POSPS;

- Superstructure RC works at SSWSTW;
- Retaining wall construction at SSWSTW;
- E&M Installation at POSPS

Key construction activities for the next three months with the recommended mitigation measures to be implemented are presented as follows:

Key Construction Works	Recommended Mitigation Measures
• Excavation, sewer laying, construction of manhole at Pui O Lo Uk Tsuen, South Lantau Road, Chi Ma Wan Road • Excavation and site formation at SSWSTW • Trenchless drilling works (Chi Ma Wan Road) • Excavation and ELS work at POSPS • Superstructure RC works at SSWSTW • Retaining wall construction at SSWSTW • E&M Installation at POSPS	• Prevention of site runoff during heavy rainstorms. • Implementation of noise pollution control in accordance with Construction Noise Mitigation Plan; • Dust control during dust generating works; • Adopt surface drainage and sediment control facilities for sewage installation in village and public roads; • Adopt temporary drainage and sediment control facilities on Site; • Vehicle wheel-washing and body washing facilities should be provided at the site entrance; • Regular water spraying on excavation works for dust control; and • Proper waste handling, recycling and storage.

1. Introduction

1.1 Project Background

1.1.1 The Environmental Protection Department ("EPD") completed the Outlying Islands Sewerage Master Plan ("SMP") Study in 1994 and drew up a SMP for Lantau Island and other outlying islands. The proposed sewerage works of the SMP were divided into 2 stages. The Stage 2 Works of the SMP were subsequently reviewed by EPD under the Outlying Islands Sewerage Master Plan Stage 2 Review (SMP Review Study) in 2001.

1.1.2 The proposed sewerage works for South Lantau were further reviewed in 2008 under the Review of Sewerage Scheme for South Lantau (Review Study). According to the Review Study, the proposed sewerage works for South Lantau would serve the unsewered areas of Shui Hau, Tong Fuk, Cheung Sha, San Shek Wan, Pui O and Ham Tin.

1.1.3 The Outlying Islands Sewerage Stage 2 – South Lantau Sewerage Works, herein referred to as "the Project", referred to the sewerage works for South Lantau that would serve the unsewered areas of Shui Hau, Tong Fuk, Cheung Sha, San Shek Wan, Pui O and Ham Tin.

1.1.4 The Project mainly comprises of the following items:

a) Construction of a secondary sewage treatment works ("STW") at San Shek Wan in South Lantau;
b) Construction of sewage pumping station ("SPS") at Pui O, San Shek Wan, Cheung Sha, Cheung Fu Street, Shui Hau and Tong Fuk;
c) Construction of about 1.4km of twin submarine outfalls with a diameter of 350mm for the disposal of treated effluent from the STW at San Shek Wan;
d) Construction of about 10.1km of gravity sewers with diameters ranging from 150mm to 375mm along South Lantau Road and Chi Ma Wan Road and at Pui O; and
e) Construction of about 3.1km of twin rising mains with a diameter of 200mm to 250mm along South Lantau Road and Chi Ma Wan Road.

1.2 Environmental Monitoring & Audit Programme

1.2.1 An Environmental Impact Assessment ("EIA") was subsequently prepared to review the potential environmental impact that would be due to the Project during its construction works and operational works. The EIA Report was submitted and approved on 24 April 2017, and Environmental Permit ("EP") No. EP-538/2017 was subsequently granted on 13 July 2017.

1.2.2 Environmental Monitoring & Audit ("EM&A") Programme is therefore implemented in accordance with the EM&A Manual under the EIA Report.

1.2.3 Umwelt Consulting Limited ("UCL") has been appointed to work as the Environmental Team ("ET") under EP No. EP-538/2017 to implement the Environmental Monitoring and Audit ("EM&A") programme as stipulated in the EM&A Manual of the approved EIA Report for the Outlying Islands Sewerage Stage 2 – South Lantau Sewerage Works (Register No.: AEIAR-210/2017).

1.3 Monthly Environmental Monitoring & Audit Report

1.3.1 This Monthly EM&A Report summarise project monitoring and auditing data, with full interpretation illustrating the acceptability or otherwise of any environmental impacts and identification or assessment of the implementation status of agreed mitigation measures, including monitoring results and findings of the EM&A Programme, along with findings recorded during the site Inspections and audits, reports of Complaints, Notifications of Summons and Successful Prosecutions, and other necessary observations obtained within this reporting month of June 2025.

1.3.2 The structure of this Report is detailed as follows:

a) ***Section 1 Introduction –***
Details the scope and structure of the report.

b) ***Section 2 Basic project Information and Environmental Status –***
Summarizes project organization and key personnel contact, construction programme and works undertaken for the month. Construction programme, works undertaken during the month with illustrations, drawing showing the project area, environmental sensitive receivers and monitoring locations.

c) ***Section 3 Implementation Status –***
Advice on the implementation status of environmental protection and pollution control/mitigation measures, as recommended in the EIA Report and summarised in the updated implementation schedule.

d) ***Section 4 Noise Monitoring –***
Summarizes the monitoring results obtained in the reporting period, including monitoring methodology, name of laboratory and equipment used and calibration details, parameters monitored, monitoring locations (and depth), monitoring date, frequency, and duration, for impact noise monitoring.

e) ***Section 5 Water Quality Monitoring –***
Summarizes the monitoring results obtained in the reporting period, including monitoring methodology, name of laboratory and equipment used and calibration details, parameters monitored, monitoring locations (and depth), monitoring date, frequency, and duration, for impact water quality monitoring.

f) ***Section 6 Ecology –***
Summarizes the audit findings during the reporting month on ecological aspects.

g) ***Section 7 Waste Management –***
Summarizes the status of waste management, including the amount and types of waste generated, and respective treatment approach.

h) ***Section 8 Report on Complaints, Notification of Summons and Successful Prosecutions –***
Summarizes:

- Record of all complaints received (written or verbal) for each media, including locations and nature of complaints investigation, liaison and consultation undertaken, actions and follow-up procedures taken, results and summary;
- Record of notifications of summons and successful prosecutions for breaches of the current environmental protection/pollution control legislations, including locations and nature of the breaches, investigation, follow-up actions taken, results and summary;

- Review of the reasons for and the implications of non-compliance, complaints, summons and prosecutions including review of pollution sources and working procedures; and
- Description of the actions taken in the event of non-compliance and deficiency reporting and any follow-up procedures related to non-compliance.

i) ***Section 9 Future Key Issues –***
An account of the future key issues as reviewed from the works programme and work method statements.

j) ***Section 10 Conclusion –***
Summarises the findings conclusion drawn from the environmental monitoring and audit programme in this reporting month.

2. Basic project Information and Environmental Status

2.1 Basic Project Information

2.1.1 Drainage Services Department ("DSD") is the project proponent and the permit holder of the Project. For the construction phase of the Project, Contractor(s), ET and Independent Environmental Checker ("IEC") are appointed to manage and control environmental issues. Key personnel and contact particulars are summarized in **Table** 2.1.

2.1.2 Upon conclusion of Contract No: SD 15/2022 Outlying Island Sewerage Stage 2 – South Lantau Sewage Works – Environmental Team Services (2023 – 2024), the subsequent contract, Contract No. CM 04/2024 Outlying Islands Sewerage Stage 2 – South Lantau Sewerage Works – Environmental Team Services (2025-2027), has been awarded to Umwelt Consulting Limited ("UCL") starting 1 February 2025. As such the environmental team leader ("ETL") appointed for the Project has been updated to Mr. Ting Po Chung, Ivan since 1 February 2025. His contact details has been updated in **Table** 2.1.

2.1.3 There are no other reporting changes in the reporting month.

Table 2.1: Contact Details of Key Personnel

Party	Role	Post	Name	Contact No.	Contact Fax
Drainage Services Department	The Engineer for the Contract	Engineer	Mr. KK Chan	2594 7297	3104 6426
Binnies Hong Kong Limited	Engineer's Representative	Resident Engineer	Mr. Kevin Chan	3529 3003	-
Kwan Lee – Chun Wo Joint Venture	Contractor	Sub Agent	Mr. Daniel Chu	6737 6701	2744 6937
		Environmental Supervisor	Ms. Joey Pang	6978 2876	
		Environmental Supervisor	Mr. Philip Wong	6908 8920	
SMEC Hong Kong	IEC	IEC	Ms. Kitty Lee	3995 8140	3422 3631
Umwelt Consulting Limited	ET	ET Leader	Mr. Ivan Ting	3756 9590	3582 3310

2.2 Construction Programme

2.2.1 The proposed sewerage works will collect the sewage generated from the unsewered areas of Shui Hau, Tong Fuk, Cheung Sha, San Shek Wan, Pui O and Ham Tin in South Lantau (i.e. within the Project Catchment Area) and convey it to a proposed sewage treatment works at San Shek Wan for treatment and disposal into outer bay of Pui O / Chi Ma Wan via a submarine outfall.

2.2.2 The Project was divided into 3 contracts. The current contract, Contract No. DC/2020/02 - Construction of San Shek Wan Sewage Treatment Works, Associated Submarine Outfall and Pui O Sewerage Works ("the Contract") would have the following implementations. The works site of the Contract is also given in **Figure 2.1**.

2.2.3 The major components of the Contract under Environmental Permit ("EP") (EP No. EP-538/2017) comprises:

a) Construction of a secondary sewage treatment works ("STW") at San Shek Wan in South Lantau;
b) Construction of a sewage pumping station ("SPS") at Pui O, San Shek Wan, Cheung Sha and Cheung Fu Street;
c) Construction of about 1.4km of submarine outfall with a diameter of 350mm for the disposal of treated effluent from the STW at San Shek Wan;
d) Construction of about 10.1km of gravity sewers with diameters ranging from 150mm to 375mm along South Lantau Road and Chi Ma Wan road and at Pui O; and
e) Construction of about 3.1km twin rising mains with a diameter of 200mm to 250mm along South Lantau Road and Chi Ma Wan Road.

2.3 Works undertaken during the Reporting Month

2.3.1 In the reporting month, the principal work activities conducted are as follow:

a) Excavation, sewer laying, construction of manhole at Pui O Lo Uk Tsuen, South Lantau Road, Chi Ma Wan Road
b) Trenchless drilling works (Chi Ma Wan Road)
c) Excavation and ELS work at POSPS;
d) Superstructure RC works at SSWSTW;
e) E&M Installation at POSPS;

2.3.2 The locations of the works are shown in **Figure 2.2**.

2.4 Drawing Showing the Project Area, Environmental Sensitive Receivers and Monitoring Locations

2.4.1 Noise and water monitoring location plans with sensitive receivers are shown in **Figure 2.3** and **Figure 2.4** respectively.

3. Implementation Status

3.1 Advice on the Implementation Status of Environmental Protection and Pollution Control/Mitigation Measures

3.1.1 Mitigation measures according to the environmental mitigation implementation schedule in Annex A of EM&A Manual were generally implemented by the Contractor. Hence, the EM&A programme was considered effective and shall be maintained.

3.2 Environmental Mitigation Measures

3.2.1 Environmental mitigation measures mentioned the EIA Report were weekly reviewed and recorded in Weekly Environmental Site Audit Checklist. Also, a summary of the current status on submissions and measures mentioned in the EP No. EP-538/2017 are shown in **Table** 3.1.

Table 3.1: Summary of Submission Status under EP-538/2017

EP Condition	Submission and Revision No.	Date of Latest Submission
2.10	Waste Management Plan (Rev. 5) (electronic copy)	4 April 2022#
2.11	Preservation and/or Transplantation Plan for Plant Species of Conservation Importance (Rev. 23)	9 September 2022#
2.12	Compensatory Woodland Planting Plan (Rev. 23)	15 May 2023^
2.13	Silt Curtain Deployment Plan (Rev. 11)	1 June 2022#
2.14	Landscape Mitigation Plan	To be confirmed
2.15	Construction Noise Mitigation Plan (Rev. 20)	4 August 2022#

Note:
^ Submission was made to EPD
# Approval from EPD was received

3.3 Environmental Monitoring Requirements and Contractual Requirements

3.3.1 A summary of the current status on licences and/or permits on environmental protection pertinent to the Project is shown in **Table** 3.2.

Table 3.2: Summary of the Current Status on Licences and/or Permits on Environmental Protection Pertinent to The Project

Permits and/or Licences	Permit. No. / Account No.	Issued Date	Valid Period & Expiry Date	Status
Notification of Works Under APCO	466408	14 Apr 2021	N/A	Valid
Wastewater Discharge Licence under Water Pollution Control Ordinance	SSWSTW: WT00039636-2021	30 Dec 2021	30 Dec 2021 to 31 Dec 2026	Valid
	POPS: WT00039820-2021	31 Dec 2021	31 Dec 2021 to 31 Dec 2026	Valid
	SSWSTW: Gravity Sewer & Raising Main: WT00042613-2022	09 Jan 2023	09 Jan 2023 to 31 Jan 2028	Valid

Permits and/or Licences	Permit. No. / Account No.	Issued Date	Valid Period & Expiry Date	Status
Billing account under Waste Disposal Ordinance	Account No.: 7040411	05 May 2021	N/A	Valid
Registration as a Chemical Waste Producer	0000-931-K3428-01	13 May 2021	N/A	Valid
Construction Noise Permit under Noise Control Ordinance for SSWSTW	GW-RS0084-25	28 Jan 2025	09 Feb 2025 to 08 Aug 2025	Valid
Construction Noise Permit under Noise Control Ordinance for POSPS	GW-RS0310-25	26 Mar 2025	28 Mar 2025 to 26 Sep 2025	Valid

Note: Only valid permits or permits under applications within the reporting month are included.

3.4 Site Inspection and Audit Reports

3.4.1 Within this reporting month, weekly environmental site inspections were conducted on 2, 9, 16, 23 and 30 June 2025. IEC attended the SSEMC meeting held on 16 June 2025. The ET and contractor participated in the holding nursery visit for transplanted trees on 30 June 2025.

3.4.2 No non-compliance was found during the site inspections while reminders on environmental measures were recommended. Reminders and/or Observations recorded during site inspections in this reporting month are listed in **Table** 3.3.

Table 3.3: Summary of Environmental Inspections

Inspection Date	Reminder and Recommendations	Close-out Date / Status
2 June 2025	**Pui O Sewage Pumping Station** No Reminder and/or Observation **San Shek Wan Sewage Treatment Works** Reminder 1 The contractor is reminded to instruct workers to sort waste properly. Reminder 2 The contractor is reminded to remove standing water in the construction site.	Contractor has rectified the reminders on 16 June 2025
9 June 2025	**Pui O Sewage Pumping Station** Reminder 1 The contractor is reminded to store the chemical container properly. **San Shek Wan Sewage Treatment Works** No reminder and/or observations	Contractor has rectified the reminders on 16 June 2025

Inspection Date	Reminder and Recommendations	Close-out Date / Status
16 June 2025	**Pui O Sewage Pumping Station** Reminder 1 The contractor is reminded to properly store the chemicals on site. **San Shek Wan Sewage Treatment Works** Reminder 2: The contractor is reminded to properly store the chemicals on site.	Contractor has rectified the reminders on 23 June 2025
23 June 2025	**Pui O Sewage Pumping Station** No Reminder and/or Observation **San Shek Wan Sewage Treatment Works** Reminder 1: The contractor is reminded to maintain the housekeeping.	Contractor has rectified the reminders on 30 June 2025
30 June 2025	**Pui O Sewage Pumping Station** No Reminder and/or Observation **San Shek Wan Sewage Treatment Works** Reminder 1: The contractor is reminded to maintain the housekeeping. **Kam Tin Nursery** Reminder 2: The contractor is reminded to properly install the tree tag.	To be verified in next inspection

4. Noise Monitoring

4.1 Monitoring Methodology

Monitoring Procedure

4.1.1 The impact noise monitoring should be carried out at all the designated monitoring stations when there are project-related construction activities undertaken within a radius of 300m from the monitoring stations.

4.1.2 The monitoring station shall normally be at a point 1m from the exterior of the sensitive receiver's building façade and be at a position 1.2m above the ground.

4.1.3 Façade measurements were made at the monitoring locations. For free-field measurement, a correction factor of +3dB(A) will be applied.

4.1.4 The battery condition was checked to ensure the correct functioning of the meter.

4.1.5 Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:

a) Frequency weighting: A,
b) Time weighting: Fast,
c) Measurement time set: continuous 5 mins

4.1.6 Prior and after to the noise measurement, the meter was checked using the acoustic calibrator for 94dB (A) at 1000 Hz. If the difference in the calibration level before and after measurement was more than ±1.0 dB (A), the measurement would be considered invalid and repeat of noise measurement would be required after recalibration or repair of the equipment.

4.1.7 Noise measurements will be made in accordance with standard acoustical principles and shall not be made in fog, rain, wind with a steady speed exceeding 5m/s or wind with gusts exceeding 10m/s. The wind speed shall be checked with a portable wind speed meter capable of measuring the wind speed in m/s.

Equipment Used for Noise Monitoring

4.1.8 Noise monitoring was performed using sound level meter at the designated monitoring locations. The sound level meters shall comply with the International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1) specifications. Acoustic calibrator shall be deployed to check the sound level meters at a known sound pressure level. Brand and model of the equipment is given in **Table** 4.1.

Table 4.1: Noise Monitoring Equipment

Equipment	Brand and Model	Serial Number	Valid Until
Integrated Sound Level Meter	Rion - NL-52	01198668	13 Jan 2026
Acoustic Calibrator	Rion - NC-75	34202223	13 Jan 2026

4.1.9 The calibration certificates of the noise monitoring equipment are attached in **Appendix 4.1**.

Calibration Details

4.1.10 The microphone head of the sound level meter was cleaned with soft cloth at regular intervals.

4.1.11 The sound level meter and calibrator were calibrated at yearly intervals.

Parameters Monitored

4.1.12 The construction noise level shall be measured in terms of the A-weighted equivalent continuous sound pressure level ("Leq"). $L_{eq(30min)}$ should be used as the monitoring parameter. Supplementary information for data auditing, statistical results such as L_{10} and L_{90} shall also be obtained for reference.

4.1.13 For impact monitoring for construction of village sewers / rising main, noise monitoring should be undertaken on weekly basis. 1 set of $L_{eq(30min)}$ noise level as 6 consecutive $L_{eq(5min)}$ between 07:00-19:00 hours on normal weekdays has been taken.

4.2 Monitoring Stations

4.2.1 The noise monitoring stations for the Project are listed and shown in **Table** 4.2. Impact noise monitoring was conducted once per week at the noise monitoring stations with construction works being conducted nearby. Noise monitoring has been conducted at 8 noise monitoring stations N12a, N12b, N13, N14, N15b, N16a, N16b and N17 in the reporting month.

4.2.2 During the reporting period, school examinations were held from 4 to 6, 9 and 16 to 17 June 2025. Accordingly, the noise limit for monitoring station N17-Bui O Public School was temporarily reduced to 65 dB(A) on these examination. The standard noise limit of 70 dB(A) remained applicable for all other days outside this examination period.

Table 4.2: Noise Monitoring Station

Monitoring Station ID +	Monitoring Location	Measurement Type	Level (in terms of no. of floor)
N01a	Shui Hau Village	Free-Field	G/F
N01c	Shui Hau Village	Free-Field	G/F
N03a	Tong Fuk Village	Free-Field	G/F
N05a	Residences at Cheung Fu Street	Free-Field	G/F
N07	Government Holiday Bungalows	Free-Field	G/F
N08	Cheung Sha Ha Tsuen	Free-Field	G/F
N10	Cheung Sha Sheung Tsuen	Façade	G/F
N11b	San Shek Wan – Ming Garden	Free-Field	G/F
N12a *	Lo Uk Tsuen	Free-Field	G/F
N12b *	Lo Uk Tsuen	Free-Field	G/F
N13 *	Pui O San Wai Tsuen	Free-Field	G/F
N14 *	South Lantau Community Centre	Free-Field	G/F
N15b *	Pui O Lo Wai Tsuen	Façade	G/F
N16a *	Residences at Ham Tin	Façade	G/F
N16b *	Residences at Ham Tin	Free-Field	G/F

Monitoring Station ID +	Monitoring Location	Measurement Type	Level (in terms of no. of floor)
N17 *	Bui O Public School	Façade	R/F

NOTE:
+ Fine adjustment of noise monitoring stations at all locations was proposed as per EP Condition 3.1.
* Measurement was conducted at the station in the reporting month.

4.3 Monitoring Date, Time, Frequency and Duration

4.3.1 For daytime construction work on normal weekdays, monitoring of $L_{eq(30min)}$ should be carried out at each station at 0700-1900 hours on normal weekdays at a frequency of once a week. Impact monitoring schedule can be referred to **Appendix 4.2**.

4.4 Noise Monitoring Results

4.4.1 Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in **Appendix 4.3**.

4.4.2 No action or limit level exceedance was recorded in construction noise level in this reporting period.

5. Water Quality Monitoring

5.1 Completion of Water Quality Monitoring

5.1.1 Subsequent to the completion of marine work on 24 May 2025, water quality monitoring was considered completed by 30 May 2025. No water quality monitoring is conducted in this reporting month.

5.1.2 Should marine works resume, water quality monitoring will be conducted in accordance with the requirement stipulated in the EM&A Manual accordingly.

6. Ecology

6.1 Monitoring Methodology

6.1.1 The weekly site audit to be carried out by the ET should include checking whether good site practices are being properly implemented by the Contractor

6.1.2 Impact monitoring of the transplanted *Aquilaris sinensis* at holding nursery and 1 retain tree of *Aquilaris sinensis* in SSWSTW Project Site, establishment and after-establishment caring measures of the compensatory mixed woodland to ensure the affected tree would not be affected by any unacceptable construction works. The trees would be treated with establishment works immediately after transplanting.

6.1.3 Site inspection at the nursery was conducted on 30 June 2025. One reminder was recorded.

6.2 Parameters Monitored

6.2.1 The extent of the work site boundaries should be checked by the ET during the weekly site audit. Any disturbance by the Contractor outside the works area especially any damage to the vegetation and surrounding habitats outside the Project area shall be reported to ER and IEC.

6.2.2 To identify any unacceptable construction works for the trees of *Aquilaris sinensis* during transplanting, establishment and after-establishment caring measures of the compensatory mixed woodland.

6.3 Monitoring Location

6.3.1 As per latest version of PTP, 4 tree found (1 no. of *Aquilaria sinensis* and 3 nos. of *Gmelina chinensis*) within the site of SSWSTW (**Figure 6.1**) which are considered to be the plant species with conservative importance for temporarily transplanted to the nursery (**Figure 6.2**) at Kam Tin and eventually be transplanted to Pui O Pumping Station.

6.4 Monitoring Date, Time, Frequency and Duration

6.4.1 The recommended good site practices to be audited once every week as part of the site audit programme. The weekly site audit to be carried out by the ET includes checking whether good site practices are being properly implemented by the Contractor. Results are recorded in Weekly Environmental Site Audit Checklist.

6.4.2 Monitoring programme for post-transplantation was conducted on 30 June 2025 once per month.

6.5 Monitoring Results

6.5.1 The weekly site audit was carried out by ET include checking whether good site practices are being properly implemented by the Contractor.

6.5.2 The extent of the work site boundaries was checked by the ET during the weekly site audit.

6.5.3 Results and findings of site audit in this reporting month are listed in **Table** 3.3.

7. Waste Management

7.1.1 The quantities of waste for disposal in the Reporting Period are summarized in **Table** 7.1. The Monthly Summary Waste Flow Table is shown in **Appendix 7.1**.

Table 7.1: Summary of Quantities of Waste Material

Waste Type	Quantity this month	Quantity (the end of last month)	Cumulative Quantity-to-Date
Hard Rock and Large Broken Concrete (Inert), in '000m^3	0	0	0
Reused in this Contract (Inert), in '000m^3	0	0	0
Reused in other Projects (Inert), in '000m^3	0	0	0
Disposal as Public Fill (Inert), in '000m^3	0.06	0.07	29.61789
Metals, in '000kg	26.0432	20.88	62.70697
Paper / Cardboard Packing, in '000kg	0.0943	0	1.12488
Plastics, in '000kg	0.0029	0	0.10306
Chemical Wastes, in '000kg	0	0	0
General Refuses, in '000kg	26.09	29.07	854.41
Marine Sediment (Type 1 – Open Sea Disposal), m^3	0	0	1360.2

NOTE:
The inert waste disposal record up to 7 April 2025 was based on the onsite record from the contractor instead of the official record from the Mui Wo Public Fill Reception Facility due to the maintenance of the weighting bridge. The subsequent inert waste disposal record will adopt the recorded weight at the Mui Wo Public Fill Reception Facility.

8. Complaints, Notification of Summons and Prosecution

8.1.1 No environmental complaint was recorded in the reporting month.

8.1.2 No notification of summons and successful prosecution regarding construction works were recorded in the reporting month.

8.1.3 Cumulative statistic on complaints, summary of complaints and successful prosecutions are summarized in **Table** 8.1, **Table** 8.2 and **Table** 8.3 respectively.

Table 8.1: Cumulative Statistics on Complaints

Reporting Period	**No. of Complaints**
Project commencement to the end of last reporting month	3
This Reporting Month (June 2025)	0
Total:	3

Table 8.2: Summary of Complaints

Date of Notification from EPD	Date of Complaint	Description of Complaint	Validity of Complaint	Close-Out Date / Status
26 May 2022	22 May 2022	A complaint is regarding to noise nuisance from marine site of San Shek Wan, Lantau Island.	Based on the investigation, the works activities of marine works did not result in any noise nuisance to Noise Sensitive Receivers (NSRs), noise nuisance from the Project is unlikely to be valid.	The interim report was submitted to EPD in June 2022. EPD replied no further comments on the final investigation report on 13 July 2022.
23 Dec 2022	21 Dec 2022	A complaint is regarding to the water quality for Pui O Beach, Lantau Island.	Based on the investigation, the works activities at POPS did not result in any water quality impacts to the Pui O Beach.	The interim report was submitted to EPD on 4 Jan 2023.
16 Aug 2024	15 Aug 2024	A complaint is regarding to the damaged silt curtain and potential water quality impact.	Based on the investigation, no marine works since Dec 2023 till present, the land based works activities at POPS did not result in any water quality impacts to the Pui O Wan	The interim report was submitted to EPD on 31 Aug 2024.

Table 8.3: Cumulative Statistics on Successful Prosecutions

Environmental Parameters	Cumulative No. Brought Forward	No. of Successful Prosecutions this month (Offence Date)	Cumulative No. Project-to-Date
Air	-	0	0
Noise	-	0	0
Water	-	0	0
Waste	-	0	0
Other	-	0	0
Total	**-**	**0**	**0**

9. Future Key Issues

9.1.1 In coming reporting 3 months, the scheduled construction activities are listed as follows:

- Excavation, sewer laying, construction of manhole at Pui O Lo Uk Tsuen, South Lantau Road, Chi Ma Wan Road
- Excavation and site formation at SSWSTW
- Trenchless drilling works (Chi Ma Wan Road)
- Excavation and ELS work at POSPS
- Superstructure RC works at SSWSTW
- Retaining wall construction at SSWSTW
- E&M Installation at POSPS

9.1.2 The scheduled construction activities and the recommended mitigation measures for the coming 3 months are listed in **Table** 9.1. The major construction activities for the next 3 months are summarized in 3 Months Rolling Programme – July 2025 to September 2025 in **Appendix 9.1**

Table 9.1: Construction Activities and Recommended Mitigation Measures in Coming Reporting 3 Months

Key Construction Works	Recommended Mitigation Measures
• Excavation, sewer laying, construction of manhole at Pui O Lo Uk Tsuen, South Lantau Road, Chi Ma Wan Road • Excavation and site formation at SSWSTW • Trenchless drilling works (Chi Ma Wan Road) • Excavation and ELS work at POSPS • Superstructure RC works at SSWSTW • Retaining wall construction at SSWSTW • E&M Installation at POSPS	• Prevention of site runoff during heavy rainstorms. • Implementation of noise pollution control in accordance with Construction Noise Mitigation Plan; • Dust control during dust generating works; • Adopt surface drainage and sediment control facilities for sewage installation in village and public roads; • Adopt temporary drainage and sediment control facilities on Site; • Vehicle wheel-washing and body washing facilities should be provided at the site entrance; • Regular water spraying on excavation works for dust control; and • Proper waste handling, recycling and storage.

10. Conclusion

10.1 Noise Monitoring

10.1.1 Noise Monitoring has been conducted at 8 of the designated monitoring locations where construction works has been conducted nearby during the reporting month.

10.1.2 During the reporting period, school examinations were held from 4 to 6, 9 and 16 to 17 June 2025. Accordingly, the noise limit for monitoring station N17-Bui O Public School was temporarily reduced to 65 dB(A) on these examination days. The standard noise limit of 70 dB(A) remained applicable for all other days outside this examination period.

10.1.3 No action or limit level exceedance was recorded in construction noise level in this reporting period.

10.2 Water Quality Monitoring

10.2.1 Subsequent to the completion of marine work on 24 May 2025, water quality monitoring was considered completed by 30 May 2025. No water quality monitoring is conducted in this reporting month.

10.3 Ecological Impact Monitoring

10.3.1 Transplanting of the trees of *Aquilaris sinensis* was completed on 26 April 2022. Maintenance works for trees in holding nursery have commenced.

10.3.2 As per latest version of PTP, 4 tree found (1 no. of *Aquilaria sinensis* and 3 nos. of *Gmelina chinensis*) within the site of SSWSTW which are considered to be the plant species with conservative importance for temporarily transplanted to the nursery at Kam Tin and eventually be transplanted to Pui O Pumping Station.

10.3.3 The weekly site audit was carried out by ET include checking whether good site practices are being properly implemented by the Contractor.

10.3.4 The extent of the work site boundaries was checked by the ET during the weekly site audit.

10.3.5 Within this reporting period, holding nursery visit for transplanted trees on 30 June 2025.

10.3.6 No non-compliance was found during the site inspection while reminders on environmental measures were recommended. Results and findings of these inspections in this reporting period are listed below in **Table** 10.1

Table 10.1: Summary of Ecological Impact Monitoring

Inspection Date	Reminder and Recommendations	Close-out Date / Status
30 June 2025	The contractor is reminded to properly install the tree tag.	In Section 3.4.2: to be verified in next inspection

10.4 Review of the Reasons for and the Implications of Non-compliance

10.4.1 No environmental non-compliance was recorded in the reporting month.

10.5 Summary of Action Taken in the Event of and Follow-Up on Non-Compliance

10.5.1 There was no particular action taken since no non-compliance was recorded in the reporting period.

10.5.2 The performance of the environmental management system of the reporting period was generally satisfied. Mitigation measures according to the environmental mitigation implementation schedule and the EIA were generally implemented by the Contractor. Hence, the EM&A programme was considered effective and shall be maintained.

Figures

SITE PLAN
1:100000

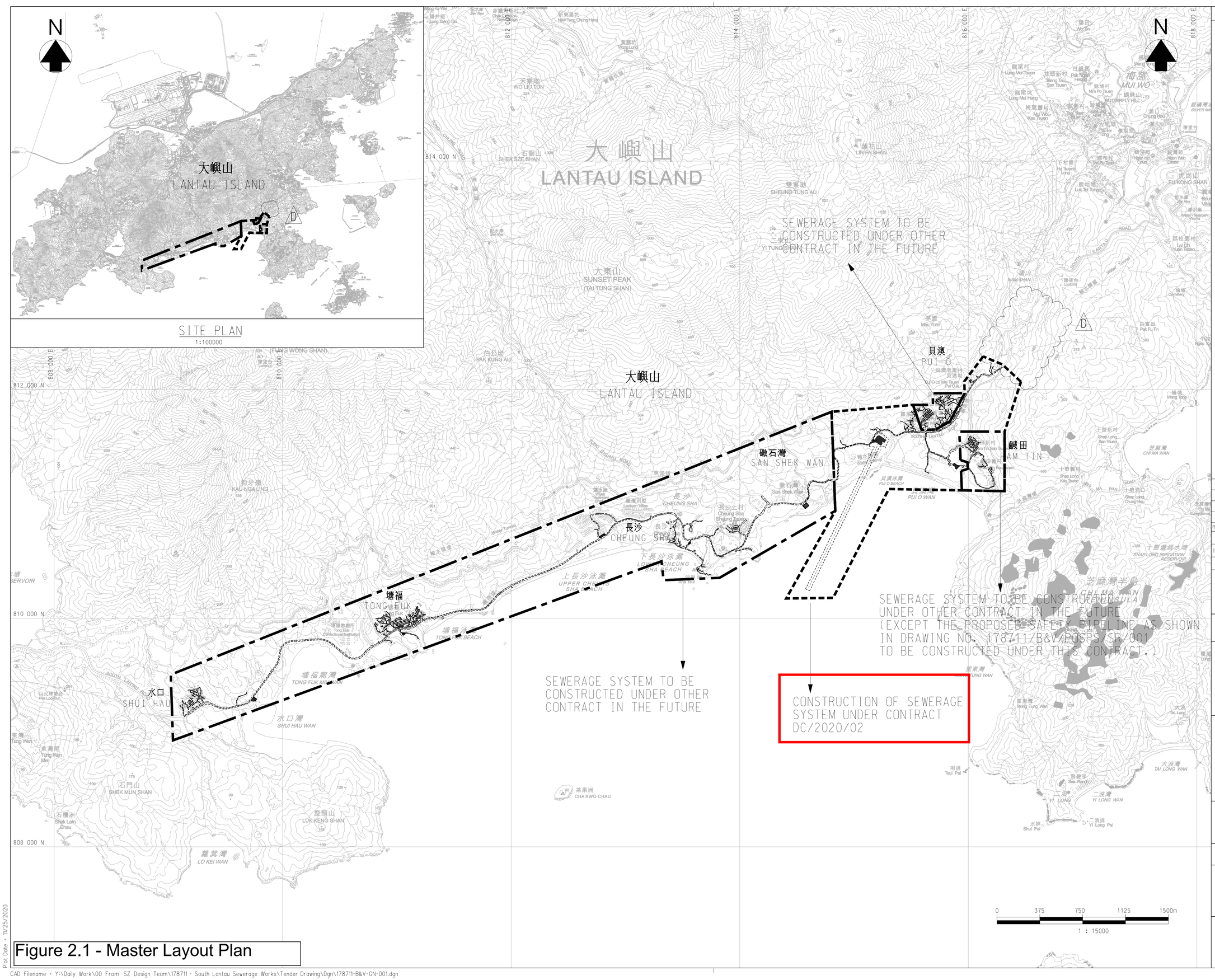

Figure 2.1 - Master Layout Plan

Revision	Date	Description	Initial
D	11/20	TENDER ADDENDUM NO.6	BL
C	11/20	TENDER ADDENDUM NO.5	BL
B	11/20	TENDER ADDENDUM NO.4	BL
A	09/20	TENDER ADDENDUM NO.2	TFL

	Designed	Checked	Drawn	Checked
Initial	TFL	BL	SZ	CSC
Date	04/20	04/20	04/20	04/20

Approved

Contract no.
DC/2020/02

Contract title
CONSTRUCTION OF SAN SHEK WAN SEWAGE TREATMENT WORKS, ASSOCIATED SUBMARINE OUTFALL AND PUI O SEWERAGE WORKS

Drawing title
SOUTH LANTAU SEWERAGE WORKS - MASTER LAYOUT PLAN

Drawing no.
178711/B&V/GN/001

Revision
D

Scale
1 : 15000

香港特別行政區政府渠務署
THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION
DRAINAGE SERVICES DEPARTMENT

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Plot Date = 11/25/2020

CAD Filename = Y:\Daily Work\00 From SZ Design Team\178711 - South Lantau Sewerage Works\Tender Drawing\Dgn\178711-B&V-GN-001.dgn

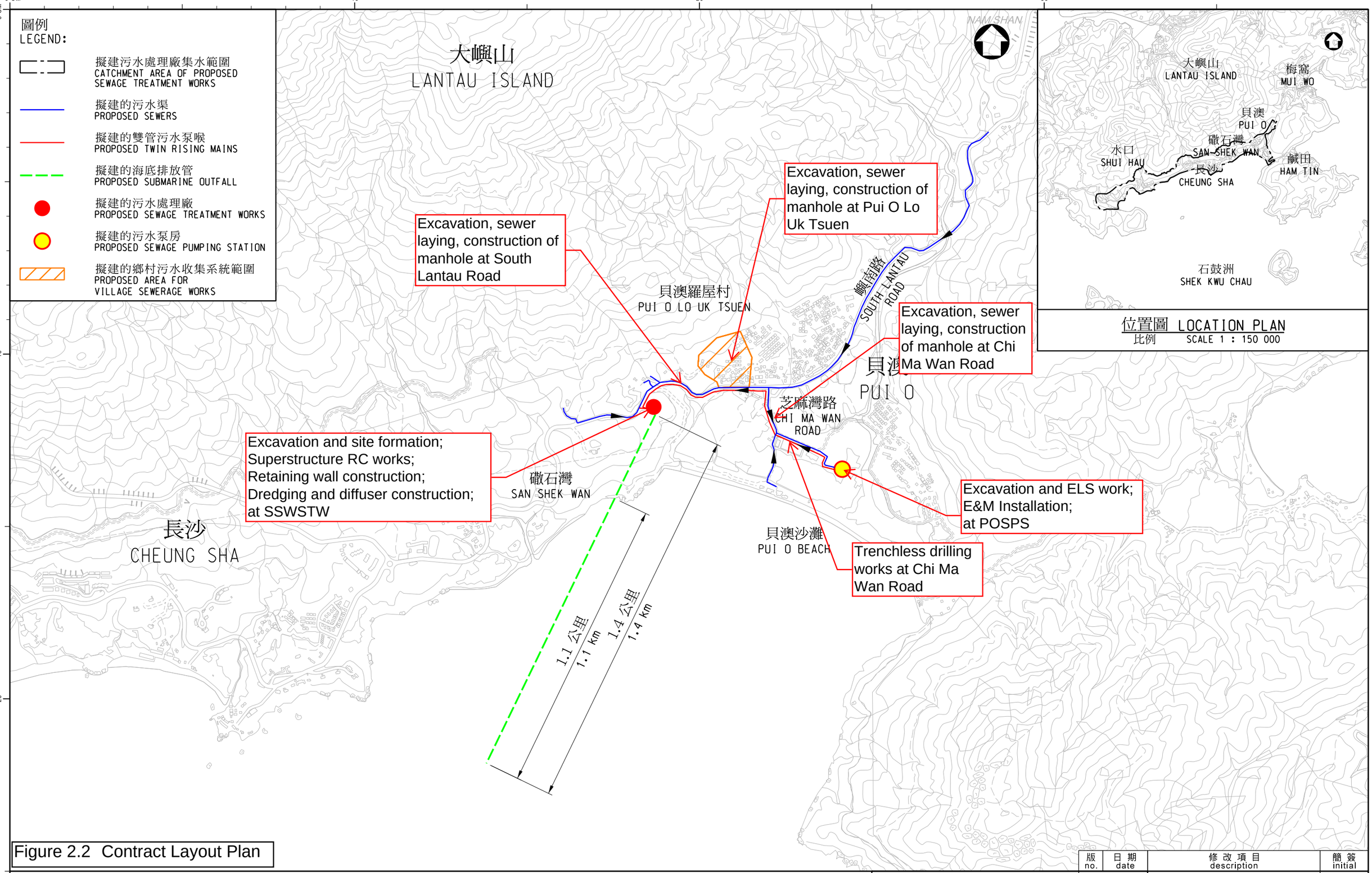

Figure 2.2 Contract Layout Plan

圖則名稱 drawing title

工務工程計劃編號331DS - 離島污水收集系統第2階段
- 南大嶼山污水收集系統工程
PWP ITEM NO.331DS - OUTLYING ISLANDS SEWERAGE, STAGE 2
- SOUTH LANTAU SEWERAGE WORKS

版 no.	日期 date	修改項目 description	簡簽 initial

繪畫 drawn	SIGNED W. H. CHAN	日期 date 27 APR 2020	
核對 checked	SIGNED Ir K. S. CHAN	日期 date 27 APR 2020	
批核 approved	SIGNED Ir L. CHEN	日期 date 27 APR 2020	
部門 office	特別職務部 SPECIAL DUTY DIVISION		

圖則編號 drawing no. DVD/2020/001

比例 scale 1:12 500

香港特別行政區政府渠務署
DRAINAGE SERVICES DEPARTMENT
GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION

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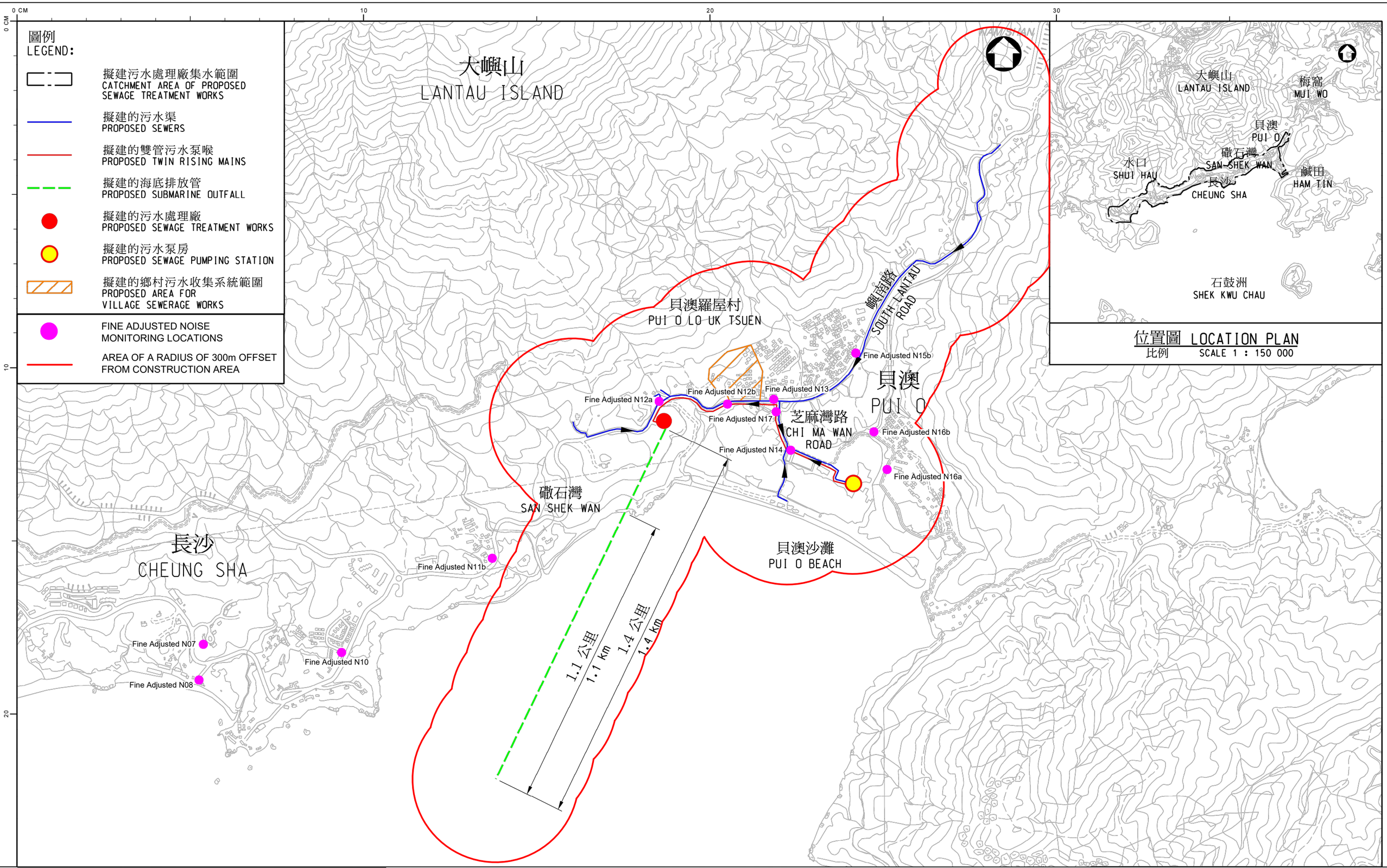
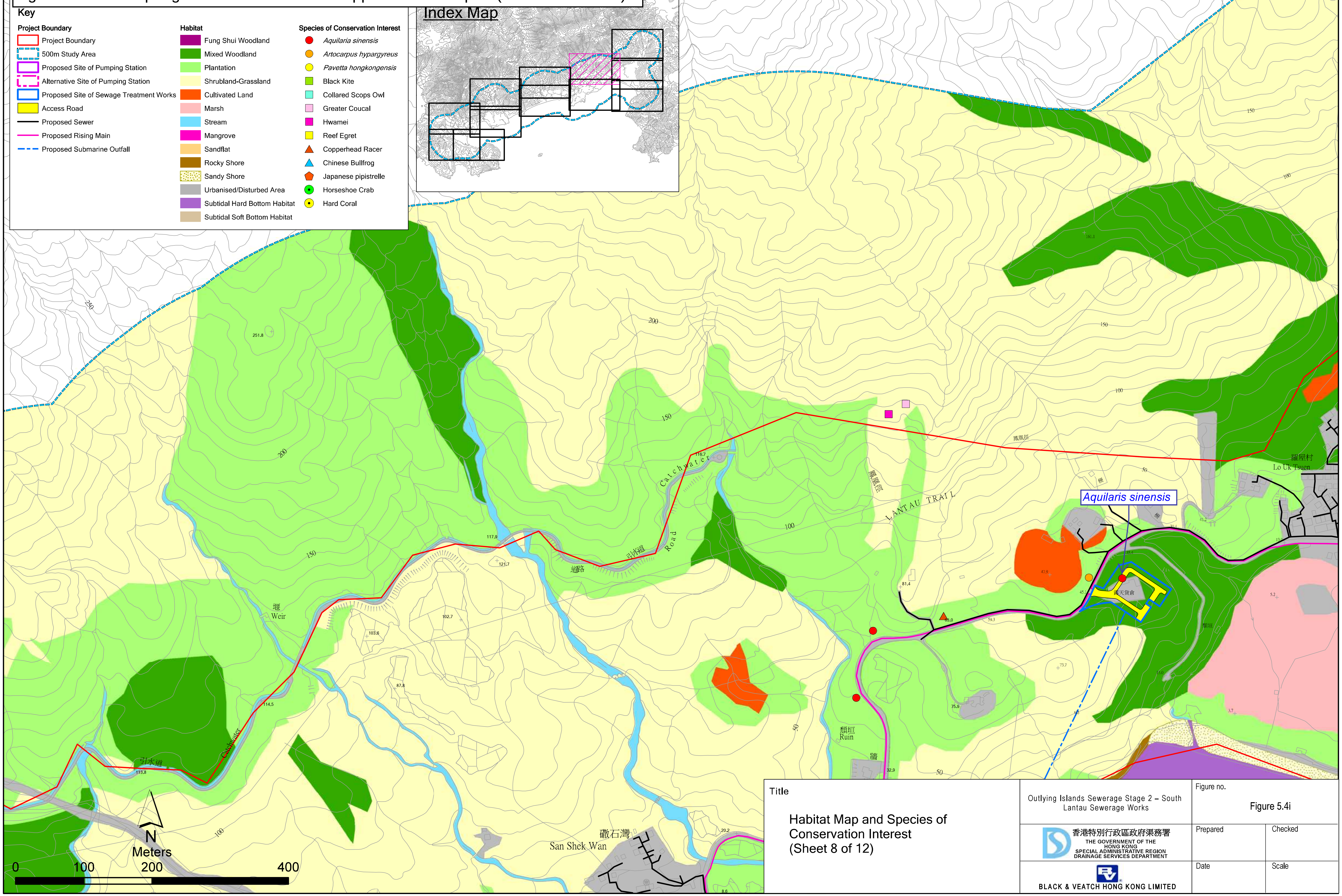


Figure 2.3 - Locations of Noise Monitoring Station

Figure 6.1 Mark up Figure 5.4i extracted from approved EIA Report (AEIAR-210/2017)


Key
Project Boundary
Project Boundary
500m Study Area
Proposed Site of Pumping Station
Alternative Site of Pumping Station
Proposed Site of Sewage Treatment Works
Access Road
Proposed Sewer
Proposed Rising Main
Proposed Submarine Outfall
Habitat
Fung Shui Woodland
Mixed Woodland
Plantation
Shrubland-Grassland
Cultivated Land
Marsh
Stream
Mangrove
Sandflat
Rocky Shore
Sandy Shore
Urbanised/Disturbed Area
Subtidal Hard Bottom Habitat
Subtidal Soft Bottom Habitat
Species of Conservation Interest
Aquilaria sinensis
Artocarpus hypargyreus
Pavetta hongkongensis
Black Kite
Collared Scops Owl
Greater Coucal
Hwamei
Reef Egret
Copperhead Racer
Chinese Bullfrog
Japanese pipistrelle
Horseshoe Crab
Hard Coral
Index Map
Aquilaris sinensis
LANTAU TRAIL
Catchwater Road
Weir
Lo Uk Tsuen
San Shek Wan
Ruin
N
Meters
0 100 200 400
Title
Habitat Map and Species of Conservation Interest (Sheet 8 of 12)
Outlying Islands Sewerage Stage 2 – South Lantau Sewerage Works
香港特別行政區政府渠務署
THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION DRAINAGE SERVICES DEPARTMENT
BLACK & VEATCH HONG KONG LIMITED
Figure no.
Figure 5.4i
Prepared
Checked
Date
Scale

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Date: 16/8/2016

Date : 2020-10-15
Prepared by Daniel Ho

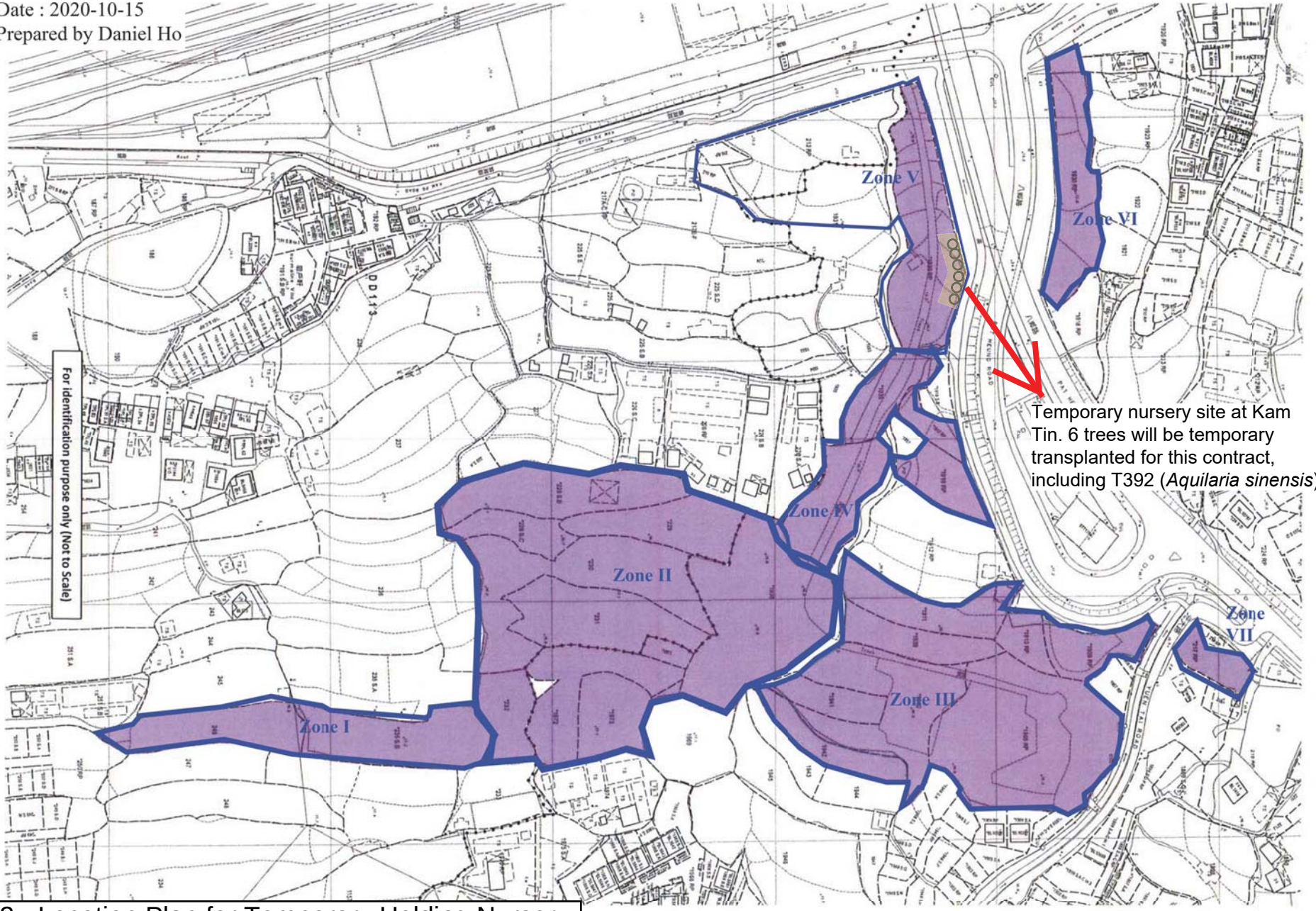


Figure 6.2 - Location Plan for Temporary Holding Nursery

Project : Contract No.: DC/2020/02
Construction of San Shek Wan Sewage Treatment Works, Associated Submarine Outfall and Pui O Sewerage Works

Toyo Greenland Co., Ltd.

Drawing Title : Location Plan for 6 nos. Trees on Kam Tin Nursery

Check : Ho Tat Pui, Daniel	Scale : N.T.S.	Rev.
Ref: C3109/22/TGD0164	Date : 10 January 2022	00

UMWELT CONSULTING LIMITED
23/F, On Hong Commercial Building, 145 Hennessy Road, Wan Chai, Hong Kong

Appendix 4.1

Calibration Certificates for Noise Meter and Acoustic Calibrator

綜合試驗有限公司
SOILS & MATERIALS ENGINEERING CO., LTD.
香港新界葵涌永基路22-24號好爸爸創科大廈
Good Ba Ba Hitech Building, Nos. 22-24 Wing Kei Road, Kwai Chung, New Territories, Hong Kong
Tel: (852) 2873 6860 Fax: (852) 2555 7533 E-mail: smec@cigismec.com Website: www.cigismec.com

HOKLAS 028 CAL

CERTIFICATE OF CALIBRATION

Certificate No.: 25CA0111 02-01 **Page** 1 **of** 2

Item tested

Description:	Sound Level Meter (Class 1)	Microphone	Preamp
Manufacturer:	Rion Co., Ltd.	Rion Co., Ltd.	Rion Co., Ltd.
Type/Model No.:	NL-52	UC-59	NH-25
Serial/Equipment No.:	01198668	16390	98882
Adaptors used:	-	-	-

Item submitted by

Customer Name: Umwelt Consulting Limited.
Address of Customer: -
Request No.: -
Date of receipt: 11-Jan-2025

Date of test: 14-Jan-2025

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Multi function sound calibrator	B&K 4226	2288444	28-Aug-2025	CIGISMEC
Signal generator	DS 360	33873	06-Mar-2025	CEPREI

Ambient conditions

Temperature: 21 ± 1 °C
Relative humidity: 55 ± 10 %
Air pressure: 1005 ± 5 hPa

Test specifications

1, The Sound Level Meter has been calibrated in accordance with the requirements as specified in BS 7580: Part 1: 1997 and the lab calibration procedure SMTP004-CA-152.
2, The electrical tests were performed using an electrical signal substituted for the microphone which was removed and replaced by an equivalent capacitance within a tolerance of ±20%.
3, The acoustic calibration was performed using an B&K 4226 sound calibrator and corrections was applied for the difference between the free-field and pressure responsess of the Sound Level Meter.

Test results

This is to certify that the Sound Level Meter conforms to BS 7580: Part 1: 1997 for the conditions under which the test was performed.

Details of the performed measurements are presented on page 2 of this certificate.

Actual Measurement data are documented on worksheets.

Approved Signatory: Feng Junqi **Date:** 15-Jan-2025 **Company Chop:** SOILS & MATERIALS ENGINEERING COMPANY LTD. 綜合試驗有限公司

Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument. The results apply to the item as received.

綜合試驗有限公司
SOILS & MATERIALS ENGINEERING CO., LTD.
香港新界葵涌永基路22-24號好爸爸創科大廈
Good Ba Ba Hitech Building, Nos. 22-24 Wing Kei Road, Kwai Chung, New Territories, Hong Kong
Tel: (852) 2873 6860 Fax: (852) 2555 7533 E-mail: smec@cigismec.com Website: www.cigismec.com

HKLAS 028 CAL

CERTIFICATE OF CALIBRATION

(Continuation Page)

Certificate No.: 25CA0111 02-01 **Page** 2 **of** 2

1, Electrical Tests

The electrical tests were perfomed using an equivalent capacitance substituted for the microphone. The results are given in below with test status and the estimated uncertainties. The "Pass" means the result of the test is inside the tolerances stated in the test specifications. The "-" means the result of test is outside these tolerances.

Test:	Subtest:	Status:	Expanded Uncertainty (dB)	Coverage Factor
Self-generated noise	A	Pass	0.3	
	C	Pass	0.8	2.1
	Lin (Z)	Pass	1.6	2.2
Linearity range for Leq	At reference range , Step 5 dB at 4 kHz	Pass	0.3	
	Reference SPL on all other ranges	Pass	0.3	
	2 dB below upper limit of each range	Pass	0.3	
	2 dB above lower limit of each range	Pass	0.3	
Linearity range for SPL	At reference range , Step 5 dB at 4 kHz	Pass	0.3	
Frequency weightings	A	Pass	0.3	
	C	Pass	0.3	
	Lin (Z)	Pass	0.3	
Time weightings	Single Burst Fast	Pass	0.3	
	Single Burst Slow	Pass	0.3	
Peak response	Single 100μs rectangular pulse	Pass	0.3	
R.M.S. accuracy	Crest factor of 3	Pass	0.3	
Time weighting I	Single burst 5 ms at 2000 Hz	N/A	N/A	
	Repeated at frequency of 100 Hz	N/A	N/A	
Time averaging	1 ms burst duty factor $1/10^3$ at 4kHz	Pass	0.3	
	1 ms burst duty factor $1/10^4$ at 4kHz	Pass	0.3	
Pulse range	Single burst 10 ms at 4 kHz	Pass	0.4	
Sound exposure level	Single burst 10 ms at 4 kHz	Pass	0.4	
Overload indication	SPL	Pass	0.3	
	Leq	Pass	0.4	

2, Acoustic tests

The complete sound level meter was calibrated on the reference range using a B&K 4226 acoustic calibrator with 1000Hz and SPL 94 dB. The sensitivity of the sound level meter was adjusted. The test results at 125 Hz and 8000 Hz are given in below with test status and the estimated uncertainties.

Test:	Subtest	Status	Expanded Uncertainty (dB)	Coverage Factor
Acoustic response	Weighting A at 125 Hz	Pass	0.3	
	Weighting A at 8000 Hz	Pass	0.5	

3, Response to associated sound calibrator

N/A

The expanded uncertainties have been calculated in accordance with the ISO Publication "Guide to the expression of uncertainty in measurement", and gives an interval estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.

- End -

Calibrated by: Fung Chi Yip **Date:** 14-Jan-2025

Checked by: Chan Yuk Yiu **Date:** 15-Jan-2025

The standard(s) and equipment used in the calibration are traceable to national or international recognised standards and are calibrated on a schedule to maintain the required accuracy level.

綜合試驗有限公司
SOILS & MATERIALS ENGINEERING CO., LTD.
香港新界葵涌永基路22-24號好爸爸創科大廈
Good Ba Ba Hitech Building, Nos. 22-24 Wing Kei Road, Kwai Chung, New Territories, Hong Kong
Tel: (852) 2873 6860 Fax: (852) 2555 7533 E-mail: smec@cigismec.com Website: www.cigismec.com

HOKLAS 028 CAL

CERTIFICATE OF CALIBRATION

Certificate No.: 25CA0111 02-02 **Page:** 1 **of** 2

Item tested

Description:	Acoustical Calibrator (Class 1)
Manufacturer:	Rion
Type/Model No.:	NC-75
Serial/Equipment No.:	34202223
Adaptors used:	-

Item submitted by

Curstomer:	Umwelt Consulting Limited.
Address of Customer:	-
Request No.:	-
Date of receipt:	11-Jan-2025

Date of test: 14-Jan-2025

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Lab standard microphone	B&K 4180	3257888	30-Jul-2025	SCL
Preamplifier	B&K 2673	3353200	29-Jun-2025	CEPREI
Measuring amplifier	B&K 2610	2346941	27-Jun-2025	CEPREI
Signal generator	DS 360	33873	06-Mar-2025	CEPREI
Digital multi-meter	34401A	US36087050	20-Jun-2025	CEPREI
Audio analyzer	8903B	GB41300350	19-Jun-2025	CEPREI
Universal counter	53132A	MY40003662	26-Jun-2025	CEPREI

Ambient conditions

Temperature:	21 ± 1 °C
Relative humidity:	55 ± 10 %
Air pressure:	1005 ± 5 hPa

Test specifications

1, The Sound Calibrator has been calibrated in accordance with the requirements as specified in IEC 60942 1997 Annex B and the lab calibration procedure SMTP004-CA-156.

2, The calibrator was tested with its axis vertical facing downwards at the specific frequency using insert voltage technique.

3, The results are rounded to the nearest 0.01 dB and 0.1 Hz and have not been corrected for variations from a reference pressure of 1013.25 hectoPascals as the maker's information indicates that the instrument is insensitive to pressure changes.

Test results

This is to certify that the sound calibrator conforms to the requirements of annex B of IEC 60942: 1997 for the conditions under which the test was performed. This does not imply that the sound calibrator meets IEC 60942 under any other conditions.

Details of the performed measurements are presented on **page 2** of this certificate.

Approved Signatory: Feng Junqi **Date:** 15-Jan-2025 **Company Chop:** SOILS AND MATERIALS ENGINEERING COMPANY LTD. 綜合試驗有限公司

Comments: The results reported in this certificate refer to the conditon of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument. The results apply to the item as received.

綜合試驗有限公司
SOILS & MATERIALS ENGINEERING CO., LTD.
香港新界葵涌永基路22-24號好爸爸創科大廈
Good Ba Ba Hitech Building, Nos. 22-24 Wing Kei Road, Kwai Chung, New Territories, Hong Kong
Tel: (852) 2873 6860 Fax: (852) 2555 7533 E-mail: smec@cigismec.com Website: www.cigismec.com

HOKLAS 028 CAL

CERTIFICATE OF CALIBRATION

(Continuation Page)

Certificate No.: 25CA0111 02-02 **Page:** 2 **of** 2

1, Measured Sound Pressure Level

The output Sound Pressure Level in the calibrator head was measured at the setting and frequency shown using a calibrated laboratory standard microphone and insert voltage technique. The results are given in below with the estimated uncertainties.

(Output level in dB re 20 μPa)

Frequency Shown Hz	Output Sound Pressure Level Setting dB	Measured Output Sound Pressure Level dB	Estimated Expanded Uncertainty dB
1000	94.00	94.04	0.10

2, Sound Pressure Level Stability - Short Term Fluctuations

The Short Term Fluctuations was determined by measuring the maximum and minimum of the fast weighted DC output of the B&K 2610 measuring amplifier over a 20 second time interval as required in the standard. The Short Term Fluctuation was found to be:

At 1000 Hz **STF = 0.008 dB**

Estimated expanded uncertainty 0.005 dB

3, Actual Output Frequency

The determination of actual output frequency was made using a B&K 4180 microphone together with a B&K 2673 preamplifier connected to a B&K 2610 measuring amplifier. The AC output of the B&K 2610 was taken to an universal counter which was used to determine the frequency averaged over 20 second of operation as required by the standard. The actual output frequency at 1 KHz was:

At 1000 Hz **Actual Frequency = 1000.0 Hz**

Estimated expanded uncertainty 0.1 Hz Coverage factor k = 2.2

4, Total Noise and Distortion

For the Total Noise and Distortion measurement, the unfiltered AC output of the B&K 2610 measuring amplifier was connected to an Agilent Type 8903 B distortion analyser. The TND result at 1 KHz was:

At 1000 Hz **TND = 0.7 %**

Estimated expanded uncertainty 0.7 %

The expanded uncertainties have been calculated in accordance with the ISO Publication "Guide to the expression of uncertainty in measurement", and gives an interval estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.

- End -

Calibrated by: Fung Chi Yip **Date:** 14-Jan-2025

Checked by: Chan Yuk Yiu **Date:** 15-Jan-2025

The standard(s) and equipment used in the calibration are traceable to national or international recognised standards and are calibrated on a schedule to maintain the required accuracy level.

UMWELT CONSULTING LIMITED
23/F, On Hong Commercial Building, 145 Hennessy Road, Wan Chai, Hong Kong

Appendix 4.2

Impact Monitoring Schedule for Construction Phase Noise Monitoring for the Reporting Month and Next Month

UMWELT CONSULTING LIMITED
23/F, On Hong Commercial Building, 145 Hennessy Road, Wan Chai, Hong Kong

Contract No. CM 04/2024
Outlying Islands Sewerage Stage 2 – South Lantau Sewerage Works – Environmental Team Services (2025 - 2027)
Environmental Monitoring Schedule Revision 1
Month: June-2025

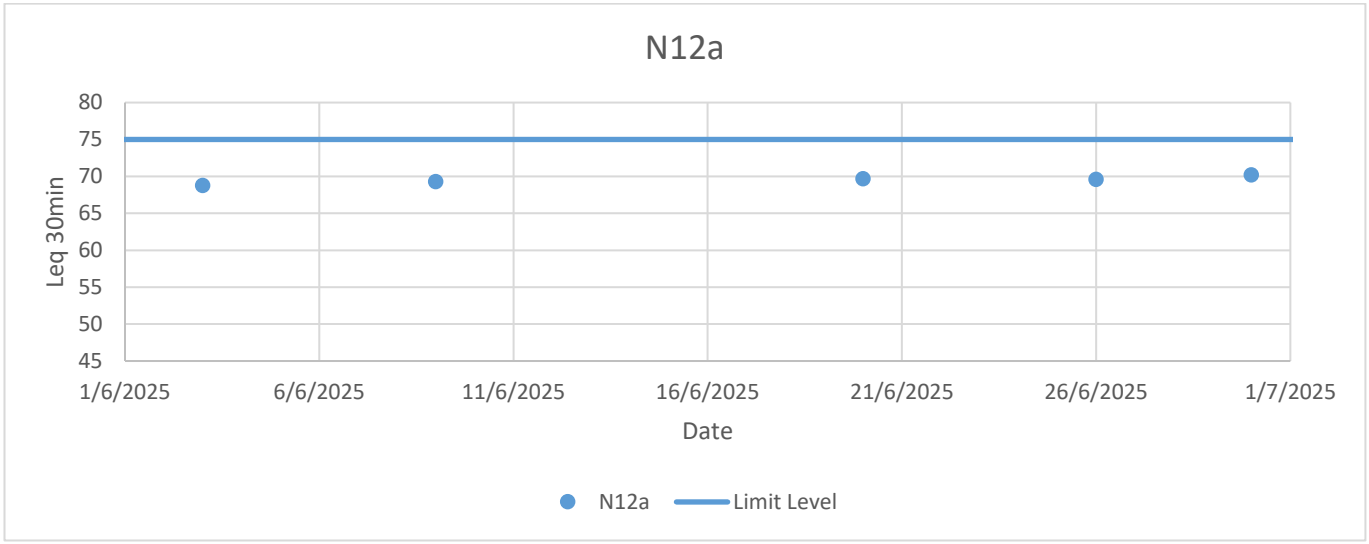
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1-Jun	2-Jun	3-Jun Noise Monitoring	4-Jun	5-Jun	6-Jun	7-Jun
8-Jun	9-Jun Noise Monitoring	10-Jun	11-Jun	12-Jun	13-Jun	14-Jun
15-Jun	16-Jun	17-Jun	18-Jun	19-Jun	20-Jun Noise Monitoring	21-Jun
22-Jun	23-Jun	24-Jun	25-Jun	26-Jun Noise Monitoring	27-Jun	28-Jun
29-Jun	30-Jun Noise Monitoring	Hong Kong Special Administrative Region Establishment Day				

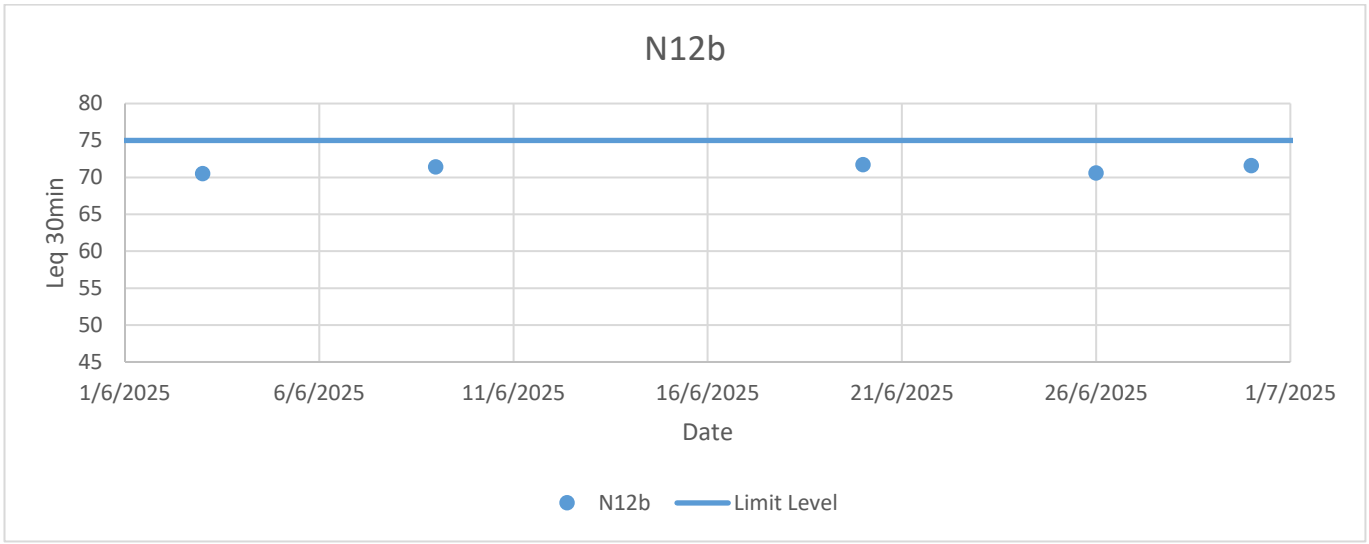
UMWELT CONSULTING LIMITED
23/F, On Hong Commercial Building, 145 Hennessy Road, Wan Chai, Hong Kong

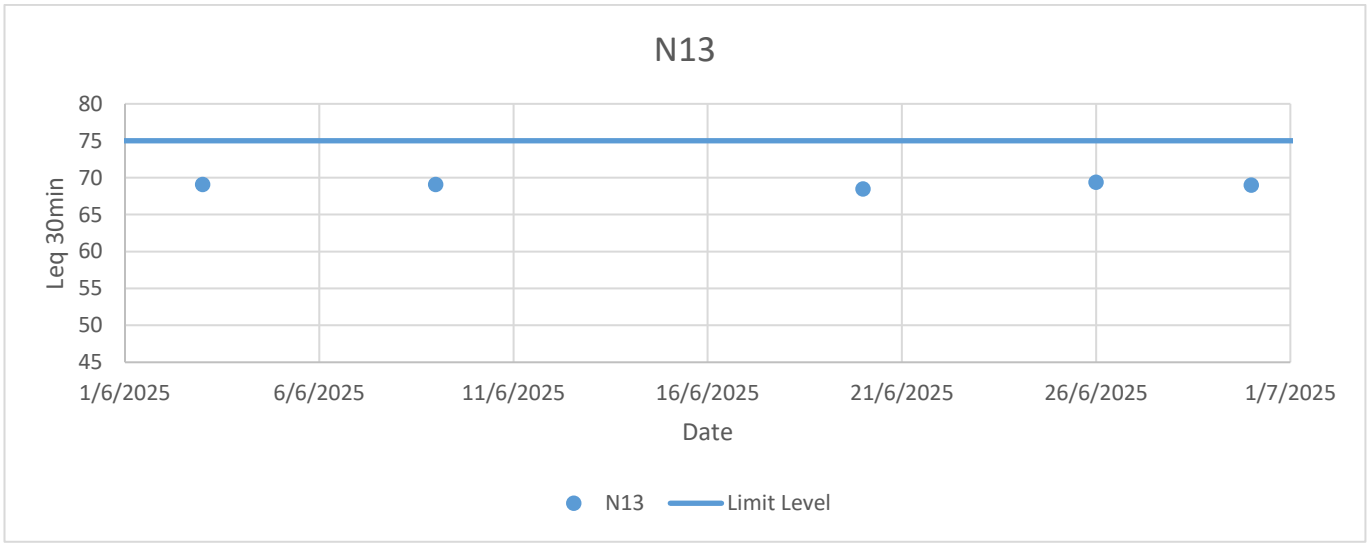
Contract No. CM 04/2024
Outlying Islands Sewerage Stage 2 – South Lantau Sewerage Works – Environmental Team Services (2025 - 2027)
Environmental Monitoring Schedule Revision 1
Month: July-2025

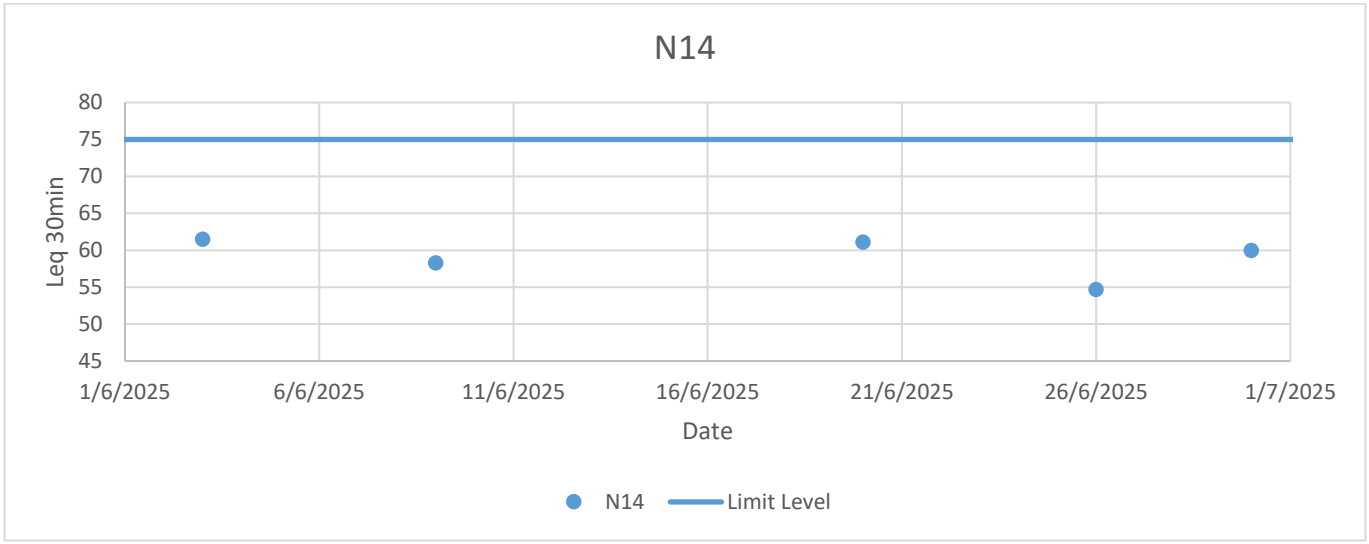
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		Hong Kong Special Administrative Region Establishment Day 1-Jul	2-Jul	3-Jul	4-Jul	5-Jul
6-Jul	7-Jul	8-Jul	9-Jul	10-Jul	Noise Monitoring 11-Jul	12-Jul
13-Jul	14-Jul	15-Jul	16-Jul	Noise Monitoring 17-Jul	18-Jul	19-Jul
20-Jul	21-Jul	22-Jul	Noise Monitoring 23-Jul	24-Jul	25-Jul	26-Jul
27-Jul	28-Jul	Noise Monitoring 29-Jul	30-Jul	31-Jul		

Appendix 4.3
Noise Monitoring Results and Graphical Representations


N12a
80
75
70
65
60
55
50
45
Leq 30min
1/6/2025
6/6/2025
11/6/2025
16/6/2025
21/6/2025
26/6/2025
1/7/2025
Date
N12a
Limit Level


N12b
80
75
70
65
60
55
50
45
Leq 30min
1/6/2025
6/6/2025
11/6/2025
16/6/2025
21/6/2025
26/6/2025
1/7/2025
Date
N12b
Limit Level


N13
80
75
70
65
60
55
50
45
Leq 30min
1/6/2025
6/6/2025
11/6/2025
16/6/2025
21/6/2025
26/6/2025
1/7/2025
Date
N13
Limit Level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80
75
70
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55
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Leq 30min
1/6/2025
6/6/2025
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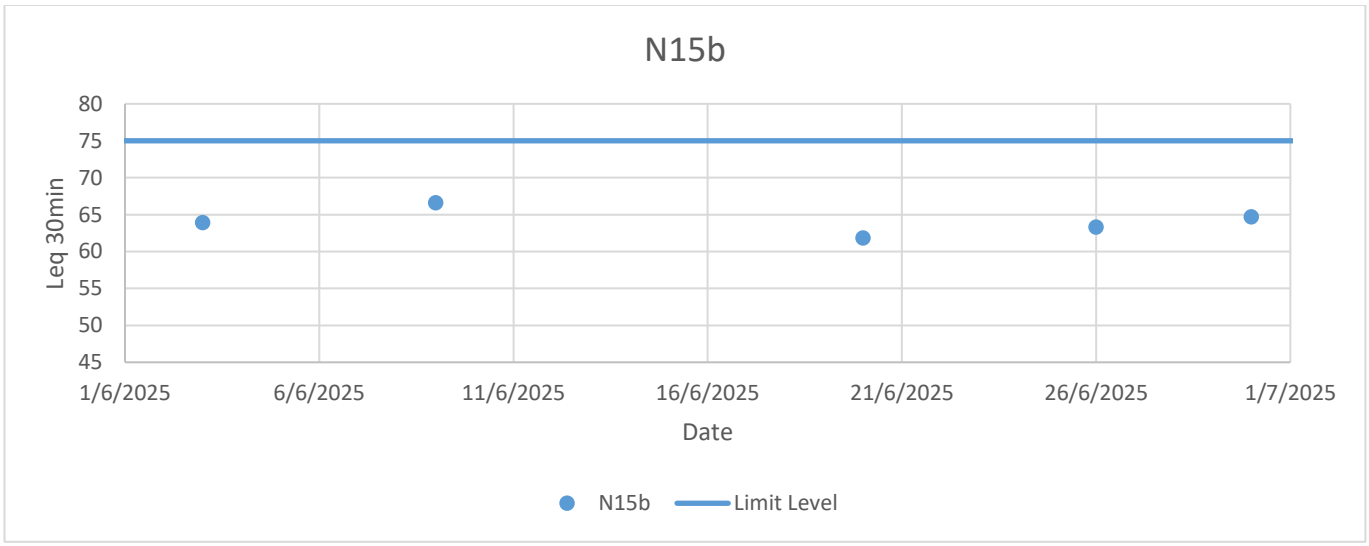
16/6/2025
21/6/2025
26/6/2025
1/7/2025
Date
N14
Limit Level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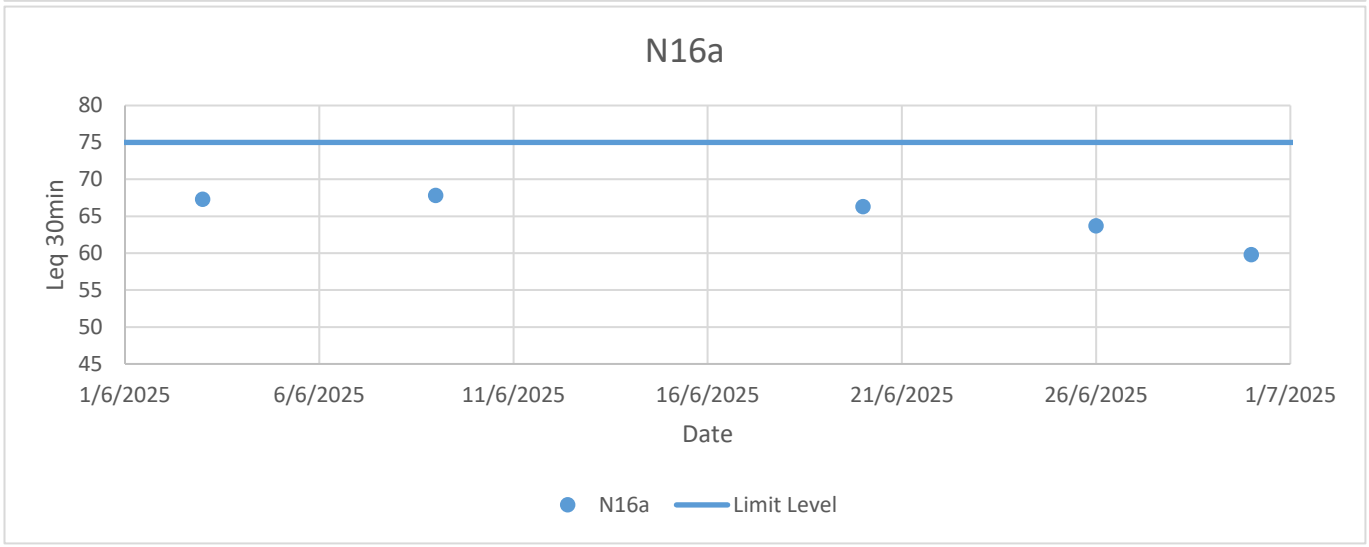
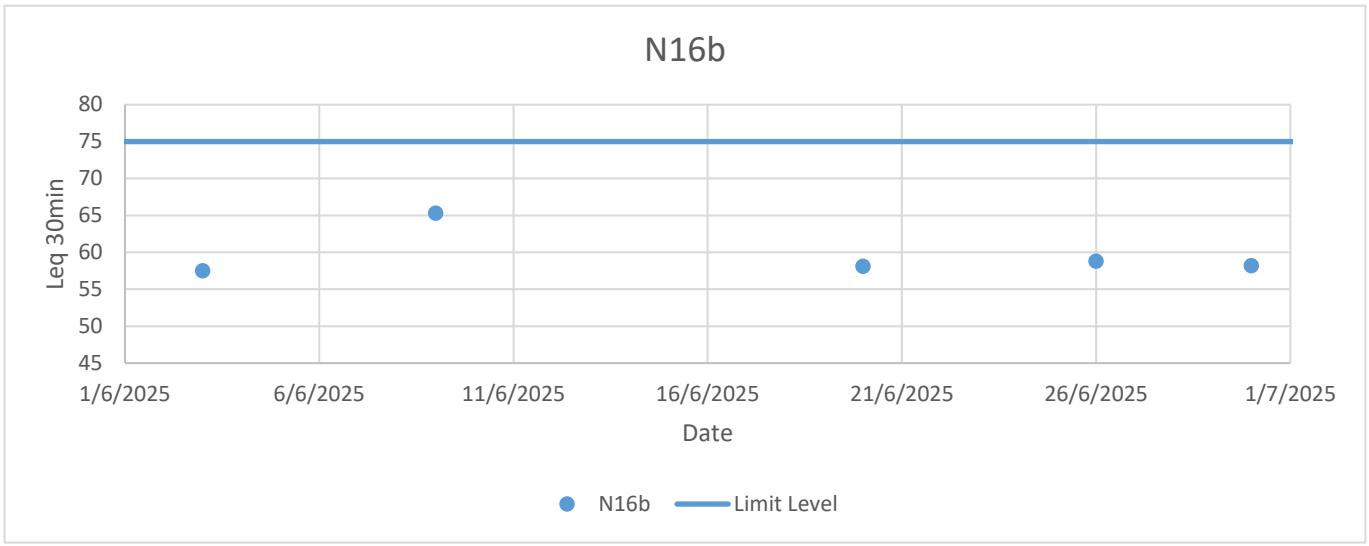
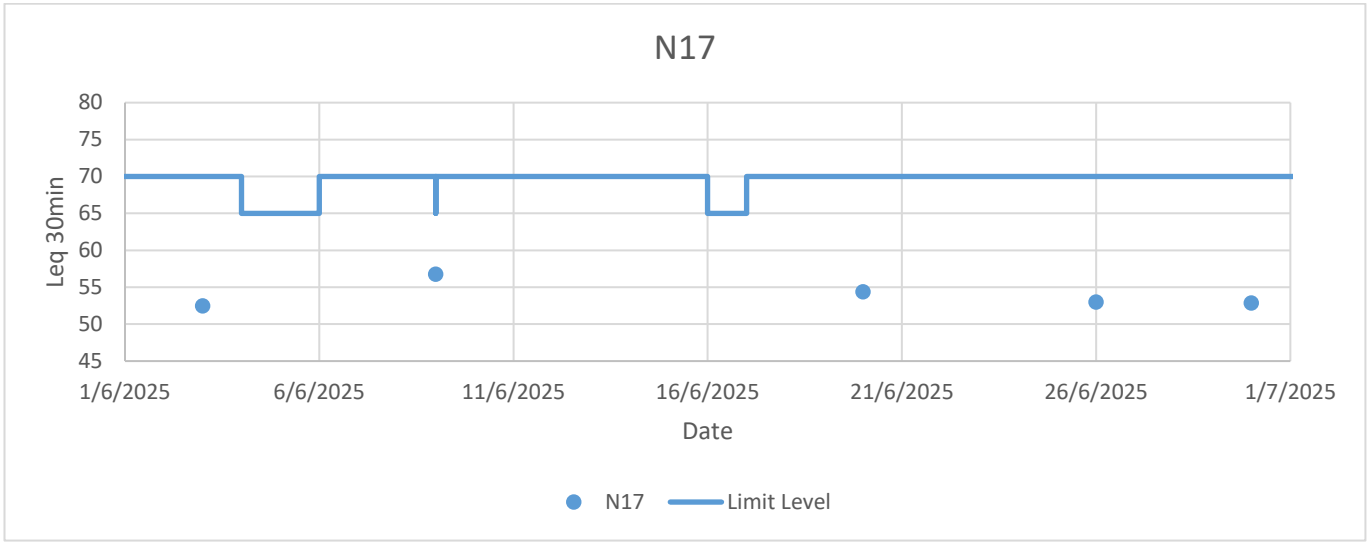
80
75
70
65
60
55
50
45
Leq 30min
1/6/2025
6/6/2025
11/6/2025
16/6/2025
21/6/2025
26/6/2025
1/7/2025
Date
N15b
Limit Level


N16a
80
75
70
65
60
55
50
45
Leq 30min
1/6/2025
6/6/2025
11/6/2025
16/6/2025
21/6/2025
26/6/2025
1/7/2025
Date
N16a
Limit Level


N16b
80
75
70
65
60
55
50
45
Leq 30min
1/6/2025
6/6/2025
11/6/2025
16/6/2025
21/6/2025
26/6/2025
1/7/2025
Date
N16b
Limit Level


N17
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75
70
65
60
55
50
45
Leq 30min
1/6/2025
6/6/2025
11/6/2025
16/6/2025
21/6/2025
26/6/2025
1/7/2025
Date
N17
Limit Level

	Ref	Location Name	Level	Type of Measurement
Location	N12a	Lo Uk Tsuen	G/F	Free-Field

Date	Weather	Wind Condition	Start Time	End Time	Measured Noise Level			Leq30mins	Façade Correction	Corrected Leq30mins	Baseline Level	Construction Noise Level	Action Level	Noise Sources	Construction Noise
					Leq	L10	L90								
3/6/2025	Cloudy	Calm	10:10	10:40	68.5	73.1	60.6	65.8	3.0	68.8	73.3	<Baseline Level	75.0	bird, traffic, dog barking	Not Observed
					63.8	68.3	58.0								
					65.2	69.2	56.9								
					66.3	68.6	55.0								
					65.4	68.2	53.9								
					63.5	68.5	52.9								
9/6/2025	Sunny	Calm	10:25	10:55	68.6	69.5	54.0	66.3	3.0	69.3	73.3	<Baseline Level	75.0	Human activity, Traffic	Not Observed
					65.8	69.1	53.4								
					64.5	69.4	53.3								
					65.8	69.1	53.4								
					66.6	69.5	55.1								
					65.2	67.5	55.9								
20/6/2025	Sunny	Calm	09:36	10:06	68.1	73.0	54.6	66.7	3.0	69.7	73.3	<Baseline Level	75.0	bird, traffic, human activities	Not Observed
					66.4	69.8	59.4								
					66.7	69.8	49.9								
					67.4	70.5	53.9								
					65.3	67.6	53.0								
					65.4	68.3	51.9								
26/6/2025	Sunny	Calm	12:06	12:36	70.8	71.5	60.5	66.6	3.0	69.6	73.3	<Baseline Level	75.0	birds, human activities, traffic	Not Observed
					60.1	64.0	59.7								
					67.0	71.7	51.3								
					67.6	74.2	54.7								
					62.8	67.0	50.8								
					62.4	67.5	55.9								
30/6/2025	Cloudy	Calm	10:25	10:55	67.6	71.4	56.8	67.2	3.0	70.2	73.3	<Baseline Level	75.0	dog bark, human activities, traffic	Not Observed
					67.2	70.0	57.4								
					63.9	67.1	56.5								
					68.6	71.6	58.0								
					67.6	69.1	51.5								
					66.9	70.6	51.8								

	Ref	Location Name	Level	Type of Measurement
Location	N12b	Lo Uk Tsuen	G/F	Free-field

Date	Weather	Wind Condition	Start Time	End Time	Measured Noise Level			Leq30mins	Façade Correction	Corrected Leq30mins	Baseline Level	Construction Noise Level	Action Level	Noise Sources	Construction Noise
					Leq	L10	L90								
3/6/2025	Cloudy	Calm	10:46	11:16	65.4	68.7	58.7	67.5	3.0	70.5	76.8	<Baseline Level	75.0	birds, human activities, traffic, observed from other project	Not Observed
					68.0	72.0	58.1								
					64.5	68.7	55.5								
					67.9	71.1	56.0								
					67.2	69.7	56.1								
					69.9	71.6	55.4								
9/6/2025	Sunny	Calm	11:02	11:32	69.8	74.2	50.4	68.4	3.0	71.4	76.8	<Baseline Level	75.0	Human activity, Traffic	Not Observed
					68.5	71.2	50.5								
					68.0	72.2	49.0								
					69.6	72.4	49.7								
					67.4	70.7	47.1								
					66.1	69.8	46.3								
20/6/2025	Sunny	Calm	10:08	10:38	69.5	72.2	52.4	68.7	3.0	71.7	76.8	<Baseline Level	75.0	birds, human activities, traffic, construction works from other project	Not Observed
					69.1	71.7	53.1								
					68.6	71.8	52.1								
					66.9	70.8	52.8								
					70.5	74.8	53.7								
					66.3	69.9	53.1								
26/6/2025	Sunny	Calm	11:28	11:58	66.4	70.1	53.7	67.6	3.0	70.6	76.8	<Baseline Level	75.0	birds, human activities, traffic	Not Observed
					68.0	72.7	53.9								
					67.2	70.1	53.4								
					67.7	71.2	56.7								
					67.2	69.5	63.5								
					68.8	71.7	54.1								
30/6/2025	Cloudy	Calm	11:01	11:31	69.3	71.9	62.6	68.6	3.0	71.6	76.8	<Baseline Level	75.0	human activities, traffic	Engine sound from other project
					67.8	71.8	54.1								
					69.9	73.2	50.9								
					67.8	69.0	50.3								
					66.8	70.3	50.8								
					69.1	72.9	51.6								

	Ref	Location Name	Level	Type of Measurement
Location	N13	Pui O San Wai Tsuen	G/F	Free-field

Date	Weather	Wind Condition	Start Time	End Time	Measured Noise Level			Leq30mins	Façade Correction	Corrected Leq30mins	Baseline Level	Construction Noise Level	Action Level	Noise Sources	Construction Noise
					Leq	L10	L90								
3/6/2025	Cloudy	Calm	11:20	11:50	64.3	69.0	52.7	66.1	3.0	69.1	73.6	<Baseline Level	75.0	birds, human activities, traffic, school bell	Not Observed
					61.6	64.4	51.8								
					68.5	70.4	51.8								
					65.3	68.1	56.0								
					67.8	70.0	58.1								
					65.7	70.2	52.5								
9/6/2025	Sunny	Calm	11:35	12:05	67.4	70.6	54.6	66.1	3.0	69.1	73.6	<Baseline Level	75.0	Human activity, Traffic	Not Observed
					66.4	69.2	59.8								
					64.4	68.1	57.4								
					65.7	68.7	57.2								
					66.5	69.9	57.7								
					65.7	68.9	57.8								
20/6/2025	Sunny	Calm	13:07	13:37	66.6	70.2	57.0	65.5	3.0	68.5	73.6	<Baseline Level	75.0	birds, traffic, human activities	Not Observed
					63.0	67.8	55.8								
					66.6	70.9	53.7								
					64.3	68.1	55.8								
					64.6	68.3	56.2								
					66.4	69.8	59.4								
26/6/2025	Cloudy	Calm	10:55	11:25	64.7	69.3	47.0	66.4	3.0	69.4	73.6	<Baseline Level	75.0	traffic, renovation, human activities, birds	Not Observed
					65.6	69.3	45.4								
					67.2	70.2	49.2								
					64.9	69.7	44.8								
					66.8	70.7	49.5								
					68.1	71.3	53.6								
30/6/2025	Cloudy	Calm	11:34	12:04	66.3	69.8	55.1	66.0	3.0	69.0	73.6	<Baseline Level	75.0	Human activity, Traffic, Helicopter bell ring, kid yelling	Not Observed
					65.5	70.4	54.1								
					65.5	68.7	55.7								
					66.4	69.3	55.3								
					63.4	66.8	55.7								
					67.8	69.1	53.0								

	Ref	Location Name	Level	Type of Measurement
Location	N14	South Lantau Community	G/F	Façade

Date	Weather	Wind Condition	Start Time	End Time	Measured Noise Level			Leq30mins	Façade Correction	Corrected Leq30mins	Baseline Level	Construction Noise Level	Action Level	Noise Sources	Construction Noise
					Leq	L10	L90								
3/6/2025	Cloudy	Calm	12:31	13:01	62.8	65.8	57.4	61.5	--	61.5	62.2	<Baseline Level	75.0	birds, traffic, human activities	Not Observed
					64.3	65.0	63.0								
					62.9	64.5	60.8								
					58.5	59.9	57.0								
					58.1	58.3	57.1								
					57.8	59.7	55.1								
9/6/2025	Sunny	Calm	12:48	13:18	59.7	61.9	51.3	58.3	--	58.3	62.2	<Baseline Level	75.0	Human activity, Traffic, Insect	Not Observed
					57.4	61.5	47.5								
					55.2	58.0	48.7								
					58.5	63.3	50.4								
					58.1	62.3	54.1								
					59.7	63.6	55.2								
20/6/2025	Sunny	Calm	11:06	11:36	56.5	60.3	49.8	61.1	--	61.1	62.2	<Baseline Level	75.0	traffic, human activity	Not Observed
					59.6	64.4	50.0								
					62.3	66.2	51.6								
					62.5	65.5	57.1								
					63.8	66.4	58.4								
					57.3	59.7	52.2								
26/6/2025	Sunny	Calm	17:20	17:50	53.9	57.6	45.0	54.7	--	54.7	62.2	<Baseline Level	75.0	birds, human activities, traffic	Not Observed
					57.3	60.4	45.1								
					55.2	60.4	44.9								
					53.6	57.7	44.9								
					53.9	57.4	46.1								
					52.8	57.1	45.0								
30/6/2025	Sunny	Calm	12:48	13:18	55.4	56.6	52.4	60.0	--	60.0	62.2	<Baseline Level	75.0	human activities, traffic	Not Observed
					59.6	62.2	52.4								
					58.7	60.0	52.3								
					59.5	61.4	53.3								
					62.8	64.5	61.1								
					60.6	62.5	57.4								

	Ref	Location Name	Level	Type of Measurement
Location	N15b	Pui O Lo Wai Tsuen	G/F	Façade

Date	Weather	Wind Condition	Start Time	End Time	Measured Noise Level			Leq30mins	Façade Correction	Corrected Leq30mins	Baseline Level	Construction Noise Level	Action Level	Noise Sources	Construction Noise
					Leq	L10	L90								
3/6/2025	Cloudy	calm	14:19	14:49	62.5	67.2	56.2	63.9	--	63.9	70.7	<Baseline Level	75.0	birds, traffic, human activities	Not Observed
					62.9	65.0	56.3								
					65.8	68.8	62.2								
					64.6	67.0	61.7								
					63.8	65.8	61.2								
					63.0	65.2	59.9								
9/6/2025	Sunny	Calm	14:40	15:10	61.9	63.3	57.6	66.6	--	66.6	70.7	<Baseline Level	75.0	Human activity, Traffic	Not Observed
					64.6	68.0	58.3								
					68.3	72.1	62.3								
					70.1	74.5	65.3								
					65.9	69.4	61.8								
					63.8	67.0	59.9								
20/6/2025	Cloudy	Calm	14:19	14:49	62.1	65.1	55.8	61.8	--	61.8	70.7	<Baseline Level	75.0	human activities, traffic	Not Observed
					60.4	64.2	55.2								
					63.6	67.2	55.4								
					60.2	64.9	54.5								
					62.7	64.7	55.2								
					60.7	62.7	54.8								
26/6/2025	Cloudy	Calm	10:04	10:34	66.2	68.0	59.4	63.3	--	63.3	70.7	<Baseline Level	75.0	traffic, human activities, birds	Not Observed
					60.5	64.2	56.7								
					65.1	65.6	56.6								
					63.6	66.6	55.3								
					61.5	64.9	55.0								
					58.0	60.3	54.6								
30/6/2025	Sunny	Calm	14:43	15:13	62.4	65.4	57.6	64.7	--	64.7	70.7	<Baseline Level	75.0	traffic, human activities	Not Observed
					62.5	65.9	55.4								
					64.4	67.4	55.1								
					66.7	70.0	62.4								
					63.5	66.3	60.4								
					66.5	68.7	61.5								

	Ref	Location Name	Level	Type of Measurement
Location	N16a	Residences at Ham Tin	G/F	Free-Field

Date	Weather	Wind Condition	Start Time	End Time	Measured Noise Level			Leq30mins	Façade Correction	Corrected Leq30mins	Baseline Level	Construction Noise Level	Action Level	Noise Sources	Construction Noise
					Leq	L10	L90								
3/6/2025	Sunny	Calm	13:09	13:39	57.2	57.3	53.9	64.3	3.0	67.3	68.1	<Baseline Level	75.0	birds, traffic, human activities	Not Observed
					61.1	61.7	57.5								
					63.7	65.2	61.4								
					67.2	67.9	66.2								
					66.4	67.1	64.9								
					63.7	64.8	60.9								
9/6/2025	Sunny	Calm	14:01	14:31	59.3	61.7	54.6	64.8	3.0	67.8	68.1	<Baseline Level	75.0	Human activity, Traffic, Helicopter, Construction work from pumping	Not Observed
					67.6	67.7	54.1								
					63.2	65.7	55.6								
					58.3	58.9	56.2								
					64.7	65.8	59.6								
					67.6	67.7	66.2								
20/6/2025	Cloudy	Calm	12:26	12:56	54.7	56.4	52.1	63.3	3.0	66.3	68.1	<Baseline Level	75.0	birds, traffic, human activities	Not Observed
					58.3	58.9	56.2								
					57.2	57.3	53.9								
					59.9	61.7	56.8								
					65.7	67.1	62.8								
					68.3	68.5	67.5								
26/6/2025	Sunny	Calm	14:00	14:30	63.3	65.3	58.9	60.7	3.0	63.7	68.1	<Baseline Level	75.0	birds, human activities, traffic	Not Observed
					62.5	66.0	56.7								
					52.0	55.7	45.4								
					53.9	56.5	48.6								
					60.8	65.2	49.2								
					61.8	65.3	48.0								
30/6/2025	Sunny	Calm	14:02	14:32	55.9	55.9	45.3	56.8	3.0	59.8	68.1	<Baseline Level	75.0	birds, human activities, traffic	Construction noise from other project
					53.3	54.4	46.2								
					51.1	53.7	46.4								
					55.0	55.7	46.6								
					56.4	56.4	46.0								
					61.5	61.5	50.8								

	Ref	Location Name	Level	Type of Measurement
Location	N16b	Residences at Ham Tin	G/F	Free-Field

Date	Weather	Wind Condition	Start Time	End Time	Measured Noise Level			Leq30mins	Façade Correction	Corrected Leq30mins	Baseline Level	Construction Noise Level	Action Level	Noise Sources	Construction Noise
					Leq	L10	L90								
3/6/2025	Sunny	Calm	13:43	14:13	55.5	57.4	52.7	54.5	3.0	57.5	68.5	<Baseline Level	75.0	birds, traffic, human activities	Not Observed
					52.4	53.8	50.4								
					52.5	52.1	49.3								
					50.2	51.6	46.8								
					54.8	58.7	45.9								
					56.5	61.6	45.9								
9/6/2025	Sunny	Calm	13:24	13:54	61.9	64.8	58.9	62.3	3.0	65.3	68.5	<Baseline Level	75.0	Human activity, Traffic, Helicopter	Lifting from other workplace
					61.0	62.2	60.0								
					61.4	62.9	60.2								
					62.3	63.6	61.0								
					62.2	63.4	61.0								
					64.2	64.4	63.0								
20/6/2025	Cloudy	Calm	11:50	12:20	53.9	56.9	45.3	55.1	3.0	58.1	68.5	<Baseline Level	75.0	human activities, traffic	Not Observed
					51.7	54.1	47.0								
					57.9	60.3	48.9								
					56.8	60.7	49.2								
					53.8	56.5	48.3								
					53.3	55.2	49.0								
26/6/2025	Cloudy	Calm	14:41	15:11	53.3	57.1	44.9	55.8	3.0	58.8	68.5	<Baseline Level	75.0	birds, human activities, traffic	Not Observed
					51.0	54.4	43.6								
					56.2	60.0	46.6								
					56.7	62.1	44.1								
					54.3	58.0	44.0								
					59.1	63.4	46.1								
30/6/2025	Sunny	Calm	13:27	13:57	55.8	57.9	49.4	55.2	3.0	58.2	68.5	<Baseline Level	75.0	human activities, traffic	Not Observed
					56.6	61.5	49.0								
					54.9	57.1	52.8								
					54.7	57.2	47.7								
					55.4	61.5	48.1								
					52.5	55.6	48.8								

	Ref	Location Name	Level	Type of Measurement
Location	N17	Bui O Public School	R/F	Façade

Date	Weather	Wind Condition	Start Time	End Time	Measured Noise Level			Leq30mins	Façade Correction	Corrected Leq30mins	Baseline Level	Construction Noise Level	Action Level	Noise Sources	Construction Noise
					Leq	L10	L90								
3/6/2025	Cloudy	Calm	11:55	12:25	51.0	51.8	49.3	52.5	--	52.5	62.3	<Baseline Level	70.0	birds, school bell	Not Observed
					53.5	54.9	49.4								
					53.8	56.2	49.1								
					52.6	55.8	49.2								
					52.0	52.4	49.1								
					51.3	53.1	49.3								
9/6/2025	Sunny	Calm	12:11	12:41	57.2	59.7	53.9	56.8	--	56.8	62.3	<Baseline Level	65.0	Human activity, Traffic	Not Observed
					56.6	57.4	54.5								
					58.3	60.8	55.6								
					56.4	57.6	55.4								
					56.2	57.2	54.7								
					55.4	56.6	54.2								
20/6/2025	Cloudy	Calm	13:41	14:11	58.4	61.7	53.7	54.4	--	54.4	62.3	<Baseline Level	70.0	birds, traffic, human activities	Not Observed
					54.4	56.2	51.6								
					52.4	53.7	51.0								
					51.4	52.6	48.7								
					51.8	53.9	49.0								
					53.3	54.9	51.3								
26/6/2025	Sunny	Calm	16:09	16:39	49.6	51.6	45.5	53.0	--	53.0	62.3	<Baseline Level	70.0	birds, human activities	Not Observed
					53.7	56.3	50.2								
					52.1	54.7	48.8								
					51.3	53.0	48.8								
					55.4	58.1	52.2								
					53.4	56.2	48.3								
30/6/2025	Sunny	Calm	12:10	12:40	53.2	54.4	50.1	52.9	--	52.9	62.3	<Baseline Level	70.0	birds, traffic, human activities	Not Observed
					53.5	56.1	49.7								
					52.0	54.7	48.5								
					53.0	55.1	48.8								
					52.7	54.1	50.8								
					52.6	54.7	49.8								

UMWELT CONSULTING LIMITED
23/F, On Hong Commercial Building, 145 Hennessy Road, Wan Chai, Hong Kong

Appendix 7.1
Monthly Summary Waste Flow Table

Drainage Services Department
Contract No. DC/2020/02
Construction of San Shek Wan Sewage Treatment Works,
Associated Submarine Outfall and Pui O Sewerage Works

Monthly Summary Waste Flow Table for 2025

Month	Actual Quantities of Inert C&D Material Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated (a) (in '000m^3)	Hard Rocks and Large Broken Concrete (b) (in '000m^3)	Reused in the Contract (c) (in '000m^3)	Reused in other Projects (d) (in '000m^3)	Disposed as Public Fill (a-b-c-d) (in '000m^3)	Imported Fill (in '000m^3)	Metals (in '000kg)	Paper/card-board packaging (in '000kg)	Plastics [see Note 3] (in '000kg)	Chemical waste (in '000kg)	Others. e.g. general refuse (in '000kg)
Jan	1.81	0.00	0.00	0.00	1.81	0.00	0.0000	0.0000	0.0000	0.00	8.62
Feb	1.37	0.00	0.00	0.00	1.37	0.00	0.0017	0.0593	0.0022	0.00	16.51
Mar	0.68	0.00	0.00	0.00	0.68	0.00	0.0000	0.0000	0.0000	0.00	10.86
Apr	0.39	0.00	0.00	0.00	0.39	0.00	0.0069	0.0528	0.0002	0.00	25.38
May	0.07	0.00	0.00	0.00	0.07	0.00	20.8800	0.0000	0.0000	0.00	29.07
Jun	0.06	0.00	0.00	0.00	0.06	0.00	26.0432	0.0943	0.0029	0.00	26.09
Sub-total	4.37	0.00	0.00	0.00	4.37	0.00	46.9318	0.2064	0.0053	0.00	116.53
July	0.00										
Aug	0.00										
Sept	0.00										
Oct	0.00										
Nov	0.00										
Dec	0.00										
Total	4.37	0.00	0.00	0.00	4.37	0.00	46.9318	0.2064	0.0053	0.00	116.53

Notes:
(1) The inert C&D material except slurry and bentonite are disposed at Mui Wo Temporary Public Fill Bank (MW-PFRF) or Tuen Mun Area 38 Fill Bank (TM38-FB)
(2) The slurry and bentonite are disposed at Tseung Kwan O Area 137 Fill Bank (TKO137FB)
(3) The non-inert waste is disposed at NENT or Outlying Islands Transfer Facilities
(4) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
(5) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material
(6) Assume the density of fill material is 2 tonne/m3.

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Appendix 9.1
3 Months Rolling Programme

KL-CW JV

Tentative Three Months Construction Rolling Program **Contract No.: DC/2020/02** **Construction of San Shek Wan Sewage Treatment Works, Associated Submarine Outfall and Pui O Sewerage Works**	**Reference No. : DC/2020/02** **Revision No. : -**

Construction Activities for the reporting period

Item	Construction Activities
1	Excavation, sewer laying, construction of manhole at Pui O Lo Uk Tsuen, South Lantau Road, Chi Ma Wan Road
2	Trenchless drilling works (Chi Ma Wan Road)
3	Excavation and ELS work at POSPS
4	Superstructure RC works at SSWSTW
5	E&M Installation at POSPS

KL-CW JV

Tentative Three Months Construction Rolling Program **Contract No.: DC/2020/02** **Construction of San Shek Wan Sewage Treatment Works, Associated Submarine Outfall and Pui O Sewerage Works**	**Reference No. : DC/2020/02** **Revision No. : -**

Tentative Three Months (July, August and September 2025) Construction Rolling Program

Item	Construction Activities
1	Excavation, sewer laying, construction of manhole at Pui O Lo Uk Tsuen, South Lantau Road, Chi Ma Wan Road
2	Excavation and site formation at SSWSTW
3	Trenchless drilling works (Chi Ma Wan Road)
4	Excavation and ELS work at POSPS
5	Superstructure RC works at SSWSTW
6	Retaining wall construction at SSWSTW
7	E&M Installation at POSPS