

JOB No.: TCS01267/22



CEDD SERVICE CONTRACT NO. WD/07/2022

**YUEN LONG SOUTH FIRST PHASE DEVELOPMENT -
ENVIRONMENTAL TEAM**

**MONTHLY ENVIRONMENTAL MONITORING AND AUDIT
REPORT – JANUARY 2025**

PREPARED FOR

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

Date	Reference No.	Prepared By	Certified By
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1	12 February 2025	First Submission
2	17 February 2025	Amended as IEC's comments
3	21 February 2025	Amended according to IEC's comment

EXECUTIVE SUMMARY

INTRODUCTION

ES.01 This is the Monthly Environmental Monitoring and Audit (EM&A) Report, presenting the monitoring results and inspection findings for the Project for the reporting period from **1st to 31st January 2025** (hereinafter called ‘the Reporting Period).

ENVIRONMENTAL MONITORING AND AUDIT ACTIVITIES

ES.02 Environmental monitoring activities under the EM&A programme of the Project in the Reporting Period are summarized in the following table.

Environmental Aspect	Monitoring Parameter	Monitoring Station/ Location	Number of Monitoring
Air Quality	1-hour Total Suspended Particulates (TSP)	DM-1, DM-2	36 sessions
Noise	Leq30mins	CM1a, CM2a, CM3, CM4 and CM8a	25 sessions
Water Quality	Dissolved oxygen, dissolved oxygen saturation (DO%), temperature, turbidity, salinity, pH and suspended solids (SS)	M1a, M2a, M3, M4, U3, U4a, M5a, M6a, D2a, M7a, U1b, U2a & EIS-1a	12 days
Site Inspection	Site audit for implementation of mitigation measures	Contract 1	5 events
		Contract 2	5 events
		Contract 3	4 events

ACTION AND LIMIT (A/L) LEVELS EXCEEDANCE

ES.03 In the Reporting Period, there were no exceedances of Action / Limit Levels for air quality. However, one (1) Action Level exceedance was recorded for construction noise and two (2) Limit Level exceedances for water quality. The summary of exceedances recorded in the Reporting Period is shown table below.

Environmental Aspect	Monitoring Parameters	Action Level	Limit Level	Event & Action		
				NOE Issued	Investigation Result	Corrective Actions
Air Quality	1-hour TSP	0	0	0	--	--
Construction Noise	L _{eq(30min)} Daytime	1	0	0	Valid to Contract 2	Weld the steel plates and use grouting to fill gaps where coarse material has been washed away.
Water Quality	DO	0	0	0	Exceedance on 2 nd January 2025 was project related.	temporary sandbags, WetSep systems, and sedimentation tanks were deployed
	Turbidity	0	1	1		
	SS	0	1	1		

ES.04 For water quality monitoring, two Limit Level exceedances (turbid water and SS) were recorded at D2a on 2nd January 2025. Notification of Exceedance (NOE), along with preliminary investigation and on-site observation was issued to the RE, Contractor of Contract 3 and IEC on the same day. Pilling work was conducted at Shan Ha Road Nullah, located upstream of D2a. Water mitigation measure of mud bund was installed to store wastewater generated by pilling works before pumping them into water treatment facilities. The mud bund, however, was collapsed causing overflow of muddy water into nullah. To address the system failure, a temporary bypass pumping/ pipeline system was set up to divert wastewater to a temporary

treatment system comprising sandbags, WetSep, and sedimentation tanks. Investigation identified that the limit level exceedance was a single event incident related to Contract 3 of the project.

- ES.05 In addition, one noise complaint was received which triggered the Action Level in the Reporting Period. Investigation was conducted and concluded that the noise complaint was valid to Contract 2. To prevent similar occurrences in the future, the Contractor was advised to weld the steel plates and use grouting to fill gaps where coarse material has been washed away.
- ES.06 The location of complaint is within Portion 10 of Contractor 2. The Contractor identified that the noise nuisance was likely caused by vehicles passing over the unwelded steel plates on the road with insufficient compaction. To prevent reoccurrences of similar incident, the Contractor was advised to weld the steel plates and grout to fill gaps where coarse material has been washed away. The noise incident was classified as valid complaint for Contract 2, which triggered Action Level exceedance under the EM&A. Although this is a single incident, the Contractor was advised to implement the recommended mitigation measures in the EMIS as far as practicable.
- ES.07 Bi-weekly inspection of landscape and visual impact and mitigation measures were conducted by ET during the weekly site inspection. It was observed that six individual trees under Contract 2 transplanted to the nursery site were in fair condition. For Contract 3, the nursery site for transplanted tree were properly maintained by the Contractor, and the transplanted trees were in fair health condition.
- ES.08 The Contractors are advised to implement the waste management plan and minimise the wastes generated through recycling or reusing. All mitigation measures stipulated in the Updated EM&A Manual and waste management plans shall be fully implemented.
- ES.09 Decontamination works was conducted in the reporting month. All decontamination works follows the procedures and guidelines stipulated in approved SCAP (Part 2) and CAR-RAP.

SITE INSPECTION

- ES.10 In the Reporting Period, weekly joint site inspection to evaluate the site environmental performance had been carried out by the representatives of the Consultants, ET and the respective Contractor of Contract 1, Contract 2 and Contract 3. No non-compliance was noted during the site inspection. Joint site inspection with ER, ET, IEC and the Contractor of Contract 2 and Contract 3 was carried out on 21st and 23rd January 2025. IEC’s observation/findings for joint site inspection in the Reporting Period is shown table below:

Date	Observation / Findings
21 st January 2025 (Contract 2 Joint site inspection)	No adverse environmental impact was observed.
23 rd January 2025 (Contract 3 Joint site inspection)	No adverse environmental impact was observed.

ENVIRONMENTAL COMPLAINT

- ES.11 In late December 2024, an enquiry was received regarding to noise nuisance caused by unwelded steel plates on Kung Um Road related to Contract 2. The case was subsequently transferred to CEDD, RE, Contractor of Contract 2 and ET as a formal complaint on 17th January 2025 for investigation. The location of complaint is within Portion 10 of Contractor 2. The Contractor determined that the noise nuisance was caused by vehicles passing over the unwelded steel plates on the road due to insufficient compaction. To prevent similar occurrences in the future, the Contractor was advised to weld the steel plates and use grouting to fill gaps where coarse material has been washed away. It is concluded that the complaint was valid to Contract 2, which triggered Action Level exceedance under the EM&A. Given the proximity of the construction site to residential areas, both Contractors were reminded to implement the recommended mitigation measures from the EM&A Manual as effectively as possible.

NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS

ES.12 In the Reporting Month, no environmental summons and prosecutions were recorded.

REPORTING CHANGE

ES.13 There is no reporting change in the Reporting Period.

FUTURE KEY ISSUES

ES.14 For dry season, the Contractor should fully implement the recommended air quality mitigation measures to minimize the impact of construction dust as far as practicable, in particular the contract works located near the village area.

ES.15 In addition, water quality mitigation measures shall be fully implemented in accordance with the Implementation Schedule for Environmental Mitigation Measures of the updated EM&A Manual. The Contractor should closely monitor the quality of the discharge from the site to avoid non-compliance. Front-line training or toolbox talk on morning briefing should be provided for workers to remind that workers should be careful with underground water pipes during excavation work to avoid water pipes bursting due to the excavation work.

ES.16 Construction noise would be a key environmental issue during construction work of the Project. Noise mitigation measures such as using quiet plants and/ or using movable temporary noise barriers should be implemented as stipulated under updated EM&A Manual to ensure construction noise impacts at the NSRs comply with the noise criteria.

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1 INTRODUCTION

1.1 BACKGROUND

- 1.1.1 Yuen long South (YLS) is located to the immediate south of Yuen Long New Town and is positioned as Yuen Long New Town Extension. It will serve as one of the major sources of land supply to meet the territory's medium to long-term housing needs through comprehensive planning and improvement of infrastructure including the linkage to Yuen Long New Town and the Hung Shui Kui/Ha Tsuen New Development Area (HSK/HT NDA).
- 1.1.2 Planning Department (PlanD) and Civil Engineering and Development Department (CEDD) of the HKSAR jointly commissioned the Planning and Engineering Study (YLS P&E Study) under Agreement No. CE 35/2012 (CE) in November 2012 to carry out planning, engineering and environmental studies with view to formulating a development proposal for YLS Development. It confirmed the feasibility of implementing the proposal for YLS Development to meet the medium and long-term housing, social, economic and environmental needs, and formulated the implementation strategies and programme for the YLS Development with first population intake by the year of 2028.
- 1.1.3 YLS P&E Study Project is a Designated Project (DP) under Schedule 3 of the Environmental Impact Assessment Ordinance (EIAO). In November 2017, Environmental Impact Assessment (EIA) report for YLS Development was approved by Director of Environmental Protection pursuant to EIAO. The approved EIA report (AEIAR-215/2017), the approval letter with conditions and recommendations and the relevant Environmental Permit (EPs) issued subsequently. To implement the Project, there are various infrastructure items among some of which are classified as DPs under Schedule 2 of the EIA Ordinance.
- 1.1.4 Under the YLS P&E Study, YLS Development was tentatively to be implemented in four stages including Stage 1, Stage 2, Stage 3 and Stage 4. Subsequently, the Stage 2 is further split into (i) stage 2A (previously known as stage 2, phase 1) and (i i) stage 2B (previously known as stage 2 remaining works). The design and construction consultancies of YLS Development stage 1 works (under Agreement No. CE 32/2017 (CE)) and stage 2A works (under Agreement No. CE 58/2019 (CE)) commenced in February 2018 and March 2020 respectively. First population intake of YLS Development is expected in 2028.
- 1.1.5 Currently, YLS Development will be implemented by three phases, namely First Phase, Second Phase and Third Phase Development. The phasing plan of YLS Development is shown in *Appendix A*. The site formation and engineering infrastructure works to support the First Phase Development, covering stage 1 works and stage 2A works (hereafter referred to as “the Project”) is funded under the following PWP items:
- 1) PWP Item No. 7817CL – Yuen Long South Development – stage 1 works; and
 - 2) PWP Items No. 7872CL – Yuen Long South Development – stage 2 works – site formation and engineering infrastructure and stages 2B and 3 works – detailed design and site investigation.

1.2 PROJECT SCOPE

- 1.2.1 The scopes of the Project comprise the following principal work elements:

Works under PWP Item No. 7817CL :-

- (a) Site formation works and decontamination works, if any, for the Sites VR1.1 , VR2.1 and R2.2
- (b) Construction of Road L 1 A and L 18 including widening existing roads and construction of new roads, to provide access to the Site R2.2 and connect to Tai Tong Road and Tai Shu Ha Road West
- (c) Construction of Road L2 to provide access to the Site VR2.1 and connect to Lam Tai West Road
- (d) Construction of Road L3 to provide access to the Site VR1.1 and connect to Long Hon Road
- (e) Construction of slopes and retaining walls associated with Road L 1 A and L 18
- (f) Construction of Common Utility Tunnel along part of Lam Tai East Road and Road L 1A

- (g) Improvement of Kung Um Road/ Kiu Hing Road between Sham Chung Road and Shap Pat Heung Road and associated road junctions by decking of Yuen Long Nullah and modification of drainage structure at junction of Yuen Long Nullah and Yuen Long bypass Floodway
- (h) Provision of other infrastructure to serve the sites as mentioned in (a) above to be formed under the Project
- (i) Provision of associated road junction improvement, street lighting, traffic aids, utility diversion, geotechnical, drainage, sewerage, water supply landscaping and environmental mitigation works

Works under PWP Item No. 7872CL :-

- (a) Reconstruction of Tong Yan San Tsuen (TYST) Interchange and Associated Works
 - Construction of new primary distributor roads with partly depressed roads and underpass
 - Construction/ modification of slip roads
 - Construction of junction connecting TYST Interchange, Shan Ha Road and Long Hon Road
 - Construction of noise mitigation measures
 - Construction of associated footpaths, cycle tracks and subways
- (b) Construction of New Roads
 - Construction of Road 01 (Part) with associated footpaths, pedestrian crossing and refuge island
 - Construction of Road 02 (Part) with associated footpaths, pedestrian crossing and refuge island
 - Construction of eastbound left-turn lane at the approach road of Shap Pat Heung Interchange heading to Pok Oi Interchange
- (c) Site Formation for Multi-storey Building (MSB) Sites
 - Site Formation works and decontamination works
 - Realignment/ widening/ extension of a section of Tong Tai Road
- (d) Construction/ modification of section of Kung Um Road at south of Yuen Long Highway
- (e) Construction/ modification of section of Wong Nai Tun Tsuen Road and Kiu Hing Road
- (f) Construction/ modification of section of Lam Tai East Road and Lam Yu Road
- (g) Provision of associated road junction improvement, street lighting, traffic aids, utility diversion, geotechnical, drainage, sewerage, water supply, landscaping and environmental mitigation works

Works from other projects to be entrusted

- (a) Construction of ON1600 watermains from HSKIHT NOA project

1.2.2 The Project will be delivered under three CEDD works contracts as below:-

- (a) CEDD Contract No. YL/2021/03 - Site Formation and Infrastructure Works for Yuen Long South First Phase Development - Contract 1
- (b) CEDD Contract No. YL/2021/04 - Site Formation and Infrastructure Works for Yuen Long South First Phase Development - Contract 2 (the designated works of Contract 2 are governed by EP-549/2018 & EP-553/2018/A)
- (c) CEDD Contract No. YL/2022/01 - Site Formation and Infrastructure Works for Yuen Long South First Phase Development - Contract 3 (the designated works of Contract 3 are governed by EP-548/2018/A, EP-549/2018, EP-550/2018/A, EP-551/2018/A)

1.2.3 The general layout of YLS First Phase Development is shown in [Appendix A](#).

1.3 DESIGNATED WORKS

1.3.1 To implement the Project, there are various infrastructure items among some of which are classified as DPs under *Schedule 2 of the EIA Ordinance*. In general, the designated works of YLS First Phase Development are governed by five Environmental Permits. The relevant EPs under the YLS First Phase Development and the respective Work Contracts are summarized in **Table I-1** and the Schedule 2 Designated Project under YLS First Phase Development are shown in [Appendix B](#).

Table 1-1 Summary of Schedule 2 Designated Project under YLS First Phase Development

DP Reference No.	EP	Designated Project	Contract Works	C2	C3
DP2	EP-548/2018/A	Construction of New Primary Distributor Roads (Tong Yan San Tsuen Interchange) for Housing Sites in YLS.	Reconstruction of Tong Yan San Tsuen Interchange		√
DP3	EP-549/2018	Construction of Two New District Distributor Roads (Road D1 to Road D2) for Housing Sites in YLS	C2: Construction of proposed Road D1, Road D2, Road L1A, Road L1B and slip road at the existing Shap Pat Heung Interchange C3: Improvement to sections of existing Shan Ha Road, Long Hon Road and Tong Tai Road, and other road works	√	√
DP5	EP-550/2018/A	Construction of Slip Roads at Tong Yan San Tsuen Interchange for Housing Sites in YLS	Reconstruction of Tong Yan San Tsuen Interchange		√
DP6	EP-551/2018/A	Construction of Partly Depressed Road / Underpass Located at Tin Shui Wai West Interchange and Full Enclosures at Tong Yan San Tsuen Interchange	Reconstruction of Tong Yan San Tsuen Interchange		√
DP10	EP-553/2018/A	Yuen Long Nullah Revitalisation / Decking along Kung Um Road and Kiu Hing Road for Housing Sites in YLS	Nullah deckings at various locations	√	

NOTE: DP reference no is according to approved EIA report (AEIAR-215/2017) and EM&A Manual (AEIAR-215/2017)

1.4 IMPLEMENTATION OF EM&A PROGRAMME

1.4.1 Ford Business International Limited (hereinafter called “Ford”) was awarded the CEDD Agreement Contract No. WD/07/2022 – Yuen Long South First Phase Development - Environmental Team (hereinafter called “the Service Contract”) on 26 October 2022. The Contractor period is 78 months which covered the construction period and the first-year operation period for the Works Contracts 1, 2 and 3 under the YLS First Phase Development (hereinafter named as “the Project”).

1.4.2 In accordance with relevant EPs condition 2.4, an updated EM&A Manual for YLS First Phase Development (Rev.18) (hereinafter named as “updated EM&A Manual”) has been submitted to EPD to include the latest EM&A requirement in accordance with the information and recommendation described in the EIA Report and by taking into account any specific site conditions that may be changed before the construction of the Project. It outlines the monitoring and audit programme for the Project for the construction phase and provided systematic procedures for monitoring, auditing and minimizing environmental impacts ensure compliance with the EIA recommendations.

1.4.3 In accordance with the updated EM&A Manual, baseline monitoring for air quality, noise and water quality monitoring was conducted by the ET of YLS First Phase Development at the agreed monitoring locations from 8 March 2023 to 4 June 2023. The Baseline Monitoring Report (Report ref.: TCS01267/22/600/R0044v4) which was verified by the Independent Environmental Checker (hereinafter referred as “the IEC”), was submitted to EPD on 7 July 2023.

1.4.4 According to the Project’s programme, the various infrastructure items, which are classified as DPs under *Schedule 2 of the EIA Ordinance*, are tentatively scheduled to commence in December 2023. Nevertheless, in light of the commencement of construction works at non-EP area of the

Project, the EM&A Programme in relevant sections was initiated on 13th July 2023 to fulfill the contractual and EM&A Manual requirements.

- 1.4.5 This is the Monthly EM&A Report, presenting the monitoring results and inspection findings for the Project, for the reporting period from **1st to 31st January 2025** (hereinafter called ‘the Reporting Period’).

1.5 REPORT STRUCTURE

- 1.5.1 The Monthly EM&A Report is structured into the following sections:-

Section 1	<i>Introduction</i>
Section 2	<i>Project Organization and Construction Progress</i>
Section 3	<i>Summary of Impact Monitoring Requirements under the Contract</i>
Section 4	<i>Air Quality Monitoring</i>
Section 5	<i>Construction Noise Monitoring</i>
Section 6	<i>Water Quality Monitoring</i>
Section 7	<i>Ecology Monitoring</i>
Section 8	<i>Waste Management</i>
Section 9	<i>Site Inspections</i>
Section 10	<i>Environmental Complaints and Non-Compliances</i>
Section 11	<i>Implementation Status of Mitigation Measures</i>
Section 12	<i>Conclusions and Recommendations</i>

2 CONSTRUCTION PROGRESS AND PROJECT ORGANISATION

2.1 CONSTRUCTION CONTRACT PACKAGING

2.1.1 To facilitate the project management and implementation, the site formation and engineering infrastructure works to support First Phase Development will be delivered under CEDD three works contracts as follows: -

- Contract 1 (CEDD Contract no.: YL/2021/03)
- Contract 2 (CEDD Contract no.: YL/2021/04)
- Contract 3 (CEDD Contract no.: YL/2022/01)

CEDD Contract No. YL/2021/03 - Site Formation and Infrastructure Works for Yuen Long South First Phase Development - Contract 1

2.1.2 The contract was scheduled to commence in September 2022 and will take about 32 months to complete. The scope of works covered in this contract is listing in the following:

- Site clearance and formation (including land decontamination works) for about five hectares of land, together with the provision of associated engineering infrastructure;
- Construction of a single two-lane carriageway of about 130 metres long connecting to Lam Tai West Road;
- Construction of a single two-lane carriageway of about 130 metres long connecting to Long Hon Road;
- Construction of associated works including footpaths, slopes, retaining wall, landscaping works, water supply system, sewerage system and drainage system; and
- Implementation of environmental mitigation measures for the works mentioned above.

CEDD Contract No. YL/2021/04 - Site Formation and Infrastructure Works for Yuen Long South First Phase Development - Contract 2

2.1.3 The contract was scheduled to commence in the 4th Quarter of 2022 and will take about 64 months to complete. The scope of works covered in this contract is listing in the following:

- Site clearance and formation (including land decontamination works);
- Nullah deckings at various locations;
- Construction of proposed Road D1, Road D2, Road L1A, Road L1B and slip road at the existing Shap Pat Heung Interchange;
- Improvement to sections of existing Kung Um Road, Kiu Hing Road, Wong Nai Tun Tsuen Road, Lam Tai East Road, Tai Kei Leng Road, Tai Tong Road, Lam Hi Road, Lam Yu Road, Shap Pat Heung Road and Sham Chung Road;
- Construction of associated works including water mains, drainage works and sewerage systems, cycle tracks, footpaths, common utility tunnel, box culverts, junction improvement works, slope works, retaining walls, landscaping works, electrical and mechanical works and other ancillary works; and
- Implementation of environmental mitigation measures (including noise semi-enclosures, noise barriers and low-noise road surfacing) and environmental monitoring works for the works mentioned above.

CEDD Contract No. YL/2022/01 - Site Formation and Infrastructure Works for Yuen Long South First Phase Development - Contract 3

2.1.4 The contract was scheduled to commence in 4th Quarter of 2022 and will take about 64 months to complete. The scope of works covered in this contract is listing in the following:

- Site clearance and formation (including land decontamination works);
- Reconstruction of Tong Yan San Tsuen Interchange;
- Improvement to sections of existing Shan Ha Road, Long Hon Road and Tong Tai Road, and other road works;

- Construction of associated works including water mains, drainage and sewerage works, subways, cycle tracks, footpaths, box culverts, nullah deckings, junction improvement works, slope works, retaining walls, landscaping works, electrical and mechanical works and other ancillary works; and
- Implementation of environmental mitigation measures (including noise enclosures, noise barriers and low-noise road surfacing) and environmental monitoring works for the works mentioned above.

2.2 PROJECT ORGANISATION

2.2.1 The project organization and the key personal contact is shown in *Appendix C*. The responsibilities of respective parties are:

Civil Engineering and Development Department

2.2.2 CEDD is the Project Proponent and the Permit Holder of the EP of the Project and assume overall responsibility for the project. An Independent Environmental Checker (IEC) shall be employed by CEDD to audit the results of the EM&A works carried out by the ET.

Environmental Protection Department (EPD)

2.2.3 EPD is the statutory enforcement body for environmental protection matters in Hong Kong.

Project Manager

2.2.4 AECOM is the Engineer's Representative (ER) responsible for overseeing the construction works and for ensuring that the works undertaken by the Contractor are in accordance with the specification and contractual requirements. The duties and responsibilities of the Consultants with respect to the EM&A may include:

- Supervise the Contractor's activities and ensure that the requirements in the EM&A Manual are fully complied with;
- Inform the Contractor when action is required to reduce impacts in accordance with the Event and Action Plans;
- Assist the Project Proponent in employing an IEC to audit the results of the EM&A works carried out by the ET;
- Participate in joint site inspection undertaken by the ET and/or IEC;
- Oversee the implementation of the agreed Event / Action Plan in the event of any exceedance; and
- Adhere to the procedures for carrying out complaint investigations.

The Contractor

2.2.5 Tung Lee Engineering Company is Contractor of the Contract 1; CREC Joint Venture is Contractor of the Contract 2; and China Road and Bridge Corporation Company is Contractor of the Contract 3. The duties and responsibilities of the Contractor is:

- Report to the Consultants;
- Implement the EIA recommendations and requirements;
- Provide assistance to ET in carrying out monitoring and auditing;
- Submit proposals on mitigation measures in case of exceedances of Action and Limit levels in accordance with the Event and Action Plans;
- Implement measures to reduce impact where Action and Limit levels are exceeded; and
- Adhere to the agreed procedures for carrying out compliant investigation.

Environmental Team (ET)

2.2.6 **Ford Business International Limited** was appointed by CEDD as the ET to undertake the EM&A programme with the associated duties in May 2019. The ET is managed by the ET Leader who has at least 7 years' experience in EM&A and has relevant professional qualifications. Suitably qualified staff should be included in the ET, and resources for the implementation of the EM&A programme should be allocated in time under the Contract, to enable fulfillment of the Project's EM&A requirements as specified in the EM&A Manual during construction of the Project. The duties of

ET shall include:

- Set up all the required environmental monitoring stations;
- Monitor various environmental parameters as required in the EM&A Manual;
- Analyse the environmental monitoring and audit data and review the success of EM&A programme to confirm the adequacy of mitigation measures implemented and the validity of the EIA predictions and to identify any adverse environmental impacts arising;
- Carry out site inspection to investigate and audit the Contractors' site practice, equipment and work methodologies with respect to pollution control and environmental mitigation, and take proactive actions to preempt problems;
- Liaison with IEC on all environmental performance matters, and timely submission of all relevant EM&A proforma for IEC's approval;
- Prepare reports on the environmental monitoring data and site environmental conditions;
- Report on the environmental monitoring and audit results to the IEC, Contractor, the Consultants, Project Proponent and EPD;
- Recommend suitable mitigation measures to the Contractor in the case of exceedance of Action and Limit levels in accordance with the Event and Action Plans;
- Give advice to the Contractor on environmental improvement, awareness, enhancement matters, etc. on site;
- Undertake regular on-site audits / inspections and report to the Contractor, the Consultants and IEC of any potential non-compliance;
- Follow up and close out non-compliance actions; and
- Adhere to the procedures for carrying out environmental complaint investigation.

Independent Environmental Checker (IEC)

2.2.7 **Telex Environmental and Energy Management Limited** is employed by the Permit Holder (i.e. CEDD). The IEC has over 7 years' experience in EM&A and environmental management. The duty of IEC should be:

- Review in an independent, objective and professional manner the EM&A works performed by the ET (at not less than monthly intervals);
- Audit the monitoring activities and results (at not less than monthly intervals);
- Validate and confirm the accuracy of monitoring results, monitoring equipment, monitoring locations, monitoring procedures and location of sensitive receivers;
- Report the audit results to the Consultants, the Project Proponent and EPD in parallel;
- Review the EM&A reports submitted by the ET;
- Check and review the proposed mitigation measures submitted by the Contractor in accordance with the Event and Action Plans;
- Check and review the effectiveness of the mitigation measures that have been recommended in the EIA and the EM&A Manual, and ensure they are properly implemented in a timely manner, when necessary;
- Report the findings of site inspections and other environmental performance reviews to Project Manager, Project Proponent and EPD.
- Coordinate the monitoring and auditing works for all the on-going contracts in the area in order to identify possible sources / causes of exceedances and recommend suitable remedial actions where appropriate;
- Coordinate the assessment and response to complaints / enquires from locals, green groups, district councils or the public at large;
- On as-needed basis, verify and certify the environmental acceptability of the Contractor's construction methodology (both temporary and permanent works), relevant design plans and submissions under the EP; and
- Verify investigation results of environmental complaint cases and the effectiveness of corrective measures.

2.3 CONSTRUCTION PROGRESS

2.3.1 According to the Project's programme, the various infrastructure items under Contract 2 and Contract 3, which are classified as DPs under Schedule 2 of the EIA Ordinance, are scheduled to commence in December 2023. The construction activities carried out in the Reporting Period are summarized **Table 2-1** and the 3-month rolling construction programme for Contract 1, Contract 2 and Contract 3

are shown in **Appendix D**.

Table 2-1 Summary of Construction Activities in the Reporting Period

Contract No.	Construction Activities undertaken in the Reporting Period	
	Non-designated work	Designated work
YL/2021/03 (Contract 1)	<ul style="list-style-type: none"> Demolition works Site Clearance Site Formation Construction of drainage system 	N/A
YL/2021/04 (Contract 2)	<ul style="list-style-type: none"> Soil Excavation Temporary access and haul road formation Road Set back works ELS and Construction for CUT Construction of retaining wall Ground Investigation Site Clearance Soldier pile wall construction 	EP-549/2018 <ul style="list-style-type: none"> Site clearance Decontamination works EP-553/2018/A <ul style="list-style-type: none"> Construction of Retaining Wall Sheet pile Installation Trial Trench Excavation UTBM Installation Construction of Box Culvert by UTBM
YL/2022/01 (Contract 3)	<ul style="list-style-type: none"> Site Clearance GI Works Tree Felling Demolition Rockfill for Retaining Wall RW30 in Portion 6A Sheet Pile Installation for Box Culvert BC01 Trial Pile TP1 and TP3 Trial Pile for Pre-bored H Pile 	EP-548/2018/A <ul style="list-style-type: none"> Nil. EP-549/2018 <ul style="list-style-type: none"> Nil EP-550/2018/A <ul style="list-style-type: none"> Nil EP-551/2018/A <ul style="list-style-type: none"> Nil

2.4 SUMMARY OF ENVIRONMENTAL LICENSES AND PERMITS

2.4.1 To implement the project works, summary of the relevant permits, licenses, and/or notifications on environmental protection for Contract 1, Contract 2 and Contract 3 are presented in **Table 2-2 to Table 2-4**.

Table 2-2 Status of Environmental Licenses and Permits of Contract 1

Item	Description	License/Permit Status		
		Ref. no.	Effective Date	Expiry Date
1	Air pollution Control (Construction Dust) Regulation	Notified EPD on 31/08/2022	N/A	N/A
2	Waste Disposal Regulation - Billing Account for Disposal of Construction Waste	Account No. 7045085	01/09/2022	Valid and till the Contract Works ends
3	Chemical Waste Producer Registration	WPN 5213-518-T1247-01 (Portion 4, 4A and 4B)	23/09/2022	Valid and till the Contract Works ends
		WPN 5213-518-T4069-01 (Portion 1A, 1B and 2A)	23/09/2022	
		WPN 5213-518-T1246-01 (portion3A, 3B and 3C)	23/09/2022	
4	Water Pollution Control Ordinance - Discharge	WTP00043472-2023 (Portion 1A, 1B and 2A)	20/10/2023	30/06/2028

Item	Description	License/Permit Status		
		Ref. no.	Effective Date	Expiry Date
	License	WTP00044815-2024 (Portion 4, 4A and 4B)	17/7/2024	31/7/2029
		WT10001331-2023 (Portion 3A, 3B, 3C)	17/7/2024	31/7/2029
5	Noise Control Ordinance – Construction Noise Permit	GW-RN1387-24	3/12/2024	2/6/2025

Table 2-3 Status of Environmental Licenses and Permits of Contract 2

Item	Description	License/Permit Status		
		Ref. no.	Effective Date	Expiry Date
1	Air pollution Control (Construction Dust) Regulation	Notified EPD on 04/01/2023	N/A	N/A
2	Waste Disposal Regulation - Billing Account for Disposal of Construction Waste	Account No. 7046574	13/2/2023	Valid and till the Contract Works ends
3	Chemical Waste Producer Registration	Waste Producers Number: No. WPN 5213-518-C4771-01	27/1/2023	Valid and till the Contract Works ends
4	Water Pollution Control Ordinance - Discharge License	WT00044244-2023 (Portion 9A)	16/8/2023	31/8/2028
		WT00044253-2023 (Portion 11)	21/8/2023	31/8/2028
		WT10001774-2023 (Lam Tai East Road: Portion 3,10,11,18,19)	30/11/2023	30/11/2028
		WT10001773-2023 (Yuen Long Nullah (Portion 1A, 4, 6C, 6, 6B, 6A)	08/01/2024	31/01/2029
		WT10001736-2023 (Portion 14)	8/1/2024	31/1/2029
		WT10002584-2023 (Portion 5A, 5B)	4/9/2024	31/3/2029
5	Noise Control Ordinance – Construction Noise Permit	GW-RN1396-24 (Portion 11)	29/11/2024	28/2/2025
		GW-RN1395-24 (Portion A)	1/12/2024	28/2/2025
		GW-RN1324-24 (Portion 9A)	30/11/2024	28/2/2025
		GW-RN0962-24 (Portion 14)	14/9/2024	13/1/2025
		GW-RN0042-25 (Portion 14)	16/1/2025	15/4/2025
		GW-RN1368-24 (YL Nullah TD Welding Works)	22/11/2024	12/3/2025
		GW-RN1506-24 (Portion 12)	29/12/2024	28/3/2025
		GW-RN1419-24 (Portion 10)	8/12/2024	7/3/2025
		GW-RN0007-25 (Portion 10)	10/2/2025	28/2/2025
		GW-RN0089-25 (Portion 10)	1/3/2025	31/3/2025
		GW-RN1418-24 (Portion 16)	13/12/2024	12/3/2025
GW-RN1420-24 (Portion 18, 19)	8/12/2024	7/3/2025		
	GW-RN1506-24 (Portion 12)	28/12/2024	28/3/2025	

Table 2-4 Status of Environmental Licenses and Permits of Contract 3

/Item	Description	License/Permit Status		
		Ref. no.	Effective Date	Expiry Date
1	Air pollution Control (Construction Dust) Regulation	Ref. no. 488406	13 Jan 2023	N/A
2	Waste Disposal Regulation - Billing Account for Disposal of Construction Waste	Account No. 7046323	18/01/2023	Valid and till the Contract Works ends
3	Chemical Waste Producer Registration	Waste Producers Number: No. WPN 5213-529-C4802-01	22/03/2023	Valid and till the Contract Works ends
		Waste Producers Number: No. WPN 5213-519-C4932-01	26/02/2024	Valid and till the Contract Works ends
4	Water Pollution Control Ordinance - Discharge License	WT10001097-2023	20/10/2023	20/10/2028
		WT10001099-2023	13/11/2023	30/11/2028
		WT10001098-2023	23/02/2024	28/02/2029
		WT10002735-2024	30/05/2024	31/05/2029
		WT10003017-2024	19/06/2024	30/06/2029
		WT00045335-2024	25/10/2024	31/10/2029
5	Noise Control Ordinance – Construction Noise Permit	GW-RN0050-25	19/01/2025	18/03/2025
		GW-RN0031-25	17/01/2025	06/04/2025
		GW-RN0045-25	21/01/2025	05/04/2025

3 AIR QUALITY MONITORING

3.1 MONITORING REQUIREMENTS

- 3.1.1 In accordance with the updated EM&A Manual, the ET shall carry out impact monitoring during the construction period. For regular impact monitoring of 1-hour TSP, the sampling frequency of at least 3 times in every 6 days should be undertaken. Before commencing impact monitoring, the ET shall inform the IEC of the impact monitoring programme such that the IEC can conduct on-site audit to ensure accuracy of the monitoring results.
- 3.1.2 In case of non-compliance with the air quality criteria, more frequent monitoring, as specified in the Action Plan in the following section, shall be conducted within the specified timeframe after the result is obtained. This additional monitoring shall be continued until the excessive dust emission or the deterioration in air quality is rectified, and agreed with the ER and the IEC.

3.2 MONITORING LOCATIONS

- 3.2.1 The phasing of the Project has been addressed in the approved EIA report, according to the updated EM&A Manual, DM-1 and DM2 are the monitoring stations for First Phase of YLS Development. The locations of construction dust monitoring stations under YLS First Phase Development are summarized in *Table 3-1* and illustrated in *Appendix E*.

Table 3-1 Construction Dust Monitoring Locations

ID	Monitoring Locations	Description of Location
<i>Existing Air Sensitive Receivers</i>		
DM-1	Shan Ha Tsuen House No. 613F	Shan Ha Tsuen House No. 613F
DM-2	Village House along Kung Um Road	No. 118G Kung Um Road - Golden Villa

3.3 MONITORING EQUIPMENT

- 3.3.1 Portable direct reading dust meters brand named “Sibata LD-3B Laser Dust monitor Particle Mass Profiler & Counter” were used to 1-hour TSP measurement. The portable direct reading dust meters provided a real time 1-hour TSP measurement based on 90° light scattering.
- 3.3.2 The portable direct reading dust meters were used within the valid period following manufacturer’s Operation and Service Manual. It was calibrated annually and determined periodically by the calibrated High-Volume Sampler to check the validity and accuracy of the results measured by direct reading method. The proposed use of portable direct reading dust meters was submitted to the IEC and obtained agreement and stated in Section 4.3 of the Updated EM&A Manual.
- 3.3.3 The equipment used for impact air quality monitoring is listed in *Table 3-2*. The copies of calibration certificates for air quality monitoring equipment are shown in *Appendix F1*.

Table 3-2 Air Quality Monitoring Equipment

Equipment	Model	Serial No.
<i>1-hour TSP</i>		
Portable Dust Meter	Sibata LD-3 Laser Dust monitor Particle Mass Profiler & Counter	366407
		366418
		366410
		2X6145

Wind Data Monitoring Equipment

- 3.3.4 In consideration of the safety concerns of setting up wind sensor at 10m above ground, the ETL had proposed alternative method to obtain representative wind data in the updated EM&A Manual. Meteorological information at Wetland Park Station collected from the Hong Kong Observatory were used for the Project. It is located nearby the Project site and the meteorological data is considered representative of the Project area. This station can also provide other meteorological information include air temperature, relative humidity, wind direction, wind speed and mean sea level pressure. In additional, adoption of meteorological information from Hong Kong Observatory

is a common alternative method for a lot of EM&A projects in Hong Kong. The weather data including wind speed and wind direction in the Reporting Month are summarized in *Appendix G*.

3.4 MONITORING PROCEDURES

- 3.4.1 The portable direct reading dust meters brand named “Sibata LD-3 Laser Dust monitor Particle Mass Profiler & Counter” was used for impact monitoring. It is a portable, battery-operated laser photometer and provides a real time 1-hour TSP measurement based on 90° light scattering.
- 3.4.2 The 1-hour TSP meter used is within the valid period, calibrated by the manufacturer prior to purchasing. Zero response of the instrument was checked before and after each monitoring event. Operation of the 1-hour TSP meter was follow manufacturer’s Operation and Service Manual.

3.5 ACTION/LIMIT LEVELS FOR AIR QUALITY

- 3.5.1 The baseline results form the basis for determining the environmental acceptance criteria for the impact monitoring. Following the guidelines for establishing the Action and Limit Levels for air quality monitoring, the Action and Limit Levels are presented in *Table 3-3*. Should project-related non-compliance of the environmental quality criteria occur, remedial actions will be triggered according to the Event and Action Plan which is presented in *Appendix H*.

Table 3-3 Action and Limit Levels for Air Quality Monitoring

Monitoring Station	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
DM-1	268	500
DM-2	268	500

3.6 AIR QUALITY MONITORING RESULTS

- 3.6.1 In light of the commencement of non-designated works and preparation of designated work of the Project, the EM&A Programme in relevant sections was initiated on 13th July 2023 to fulfill the contractual and EM&A Manual requirements. The monitoring schedule is presented in *Appendix I* and the monitoring results are summarized in the following sub-sections.
- 3.6.2 In the Reporting Period, 1-hour TSP monitoring were carried out at DM-1 and DM-2 and the monitoring results are summarised in *Tables 3-4*. The detailed 1-hour TSP monitoring results are provided in *Appendix J* and graphical plots of monitoring results are shown in *Appendix K*.

Table 3-4 Summary of 1-hour TSP Monitoring Results

1-hour TSP ($\mu\text{g}/\text{m}^3$)					
Station ID	Monitoring Location	Average (Range)	No. of Event	Action Level	Limit Level
DM-1	Shan Ha Tsuen House No. 613F	62 (51 – 74)	18	260	500
DM-2	Village House along Kung Um Road	64 (48 – 72)	18	260	500

- 3.6.3 In the Reporting Period, all the 1-hour TSP monitoring results were below the Action/Limit Levels and no corrective action was therefore required.

4 CONSTRUCTION NOISE MONITORING

4.1 MONITORING REQUIREMENTS

- 4.1.1 Construction noise monitoring should be carried out at the designated monitoring station when there are Project-related construction activities being undertaken within a 300m from the monitoring stations. The monitoring frequency should depend on the scale of the construction activities. An initial guide on the monitoring is to obtain one set of 30-minutes measurement at each station between 0700 and 1900 hours on normal weekdays at a frequency of once a week when construction activities are underway.
- 4.1.2 During normal construction working hour (0700-1900 Monday to Saturday), monitoring of Leq, (30min) noise levels (as six consecutive Leq, (5min) readings) shall be carried out at the agreed monitoring locations once every week. If construction works are extended to include works during the hours of 1900 - 0700, applicable permits under NCO shall be obtained by the Contractor and strictly followed. A schedule on the compliance monitoring shall be submitted to the ER and IEC for approval before the monitoring starts.
- 4.1.3 In case of non-compliance with the construction noise criteria, more frequent monitoring, as specified in the Event and Action Plan in the following section, shall be carried out. This additional monitoring shall be continued until the recorded noise levels are rectified or proved to be irrelevant to the construction activities.

4.2 MONITORING LOCATIONS

- 4.2.1 The most representative and affected Noise Sensitive Receivers (NSRs) were selected as monitoring stations. Phasing of the Project has been addressed in the approved EIA report, according to the updated EM&A Manual, CM1a, CM2a, CM3, CM4, CM8a and CM9a are monitoring stations for the First Phase of YLS Development. For planned NSRs CM11, CM12, CM13, CM14 and CM15, they are future developments and not yet constructed and construction noise monitoring shall perform after these NSRs being occupied. The locations of construction noise monitoring stations under YLS First Phase Development are summarized in **Table 4-1** and illustrated in **Appendix E**.

Table 4-1 Construction Noise Monitoring Stations

Monitoring Station ID	Monitoring Location	Description of location	Measurement Point
Existing Noise Sensitive Receivers			
CM1a	Village house in Shan Ha Tsuen	Squatter house near Shan Ha Tsuen Village house no. 354	Façade
CM2a	Village house in Tin Lung Yuen	Village house No. 126E in Tin Lung Yuen	Free field
CM3	Village house in Lung Tin Tsuen	Village house at 66 Kiu Hing Road	Façade
CM4	Village house in Tin Liu Tsuen	Village house in Tin Liu Tsuen - Kam Fong Yuen	Façade
CM8a	Village House in Eldorado	Village House in Sha Tseng Tsuen (lot no. DD1211462A)	Free field
CM9a	Village house in Pak Sha Tsuen	Village house No. 12 of Pak Sha Tsuen	Free field
Planned Noise Sensitive Receivers			
CM11	Public housing	No measurement before occupation of planned receivers (by other contract)	No measurement was conducted
CM12	Public housing		
CM13	Village rehousing		
CM14	Public housing		
CM15	Planned primary school (opposite to Pak Sha Tsuen)		

4.3 MONITORING EQUIPMENT

- 4.3.1 As referred to in the Technical Memorandum (TM) issued under the NCO, sound level meters in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and

804: 1985 (Type 1) specifications were used for carrying out the noise monitoring. Sound level meter shall be checked by an acoustic calibrator. Wind speed shall be checked with a portable wind speed meter which is capable of measuring the wind speeds in m/s.

- 4.3.2 Noise monitoring equipment used for impact monitoring is listed in **Table 4-2**. The copies of calibration certificates of noise monitoring equipment were shown in **Appendix F2**.

Table 4-2 Noise Monitoring Equipment

Equipment	Model	Serial No.
Integrating Sound Level Meter	Bruel & Kjaer 2238	2285762
	Rion NL-52	00809405
Calibrator	Rion NC-73	10655561
	Rion NC-75	34680623

4.4 MONITORING PROCEDURES

- 4.4.1 Immediately prior to and following each noise measurement, the accuracy of the sound level meter was checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements would be accepted as valid only if the calibration level from before and after the noise measurement agrees to within 1.0 dB.
- 4.4.2 During the monitoring, the microphone of the sound level meter was normally set at a height of about 1.2m subject to site condition and oriented pointed to the site, with the microphone facing perpendicular to the line of sight. Where there a building façade, monitoring was conducted 1 m from the exterior of the building façade. For free field measurement, the microphone was positioned away from any reflective surface, and a correction of +3 dB(A) has been made for the free field measurements.
- 4.4.3 Noise measurements were taken in terms of the A-weighted equivalent sound pressure level (L_{eq}) measured in decibels dB(A). All noise measurements were performed with the meter set to FAST response and on the A-weighted equivalent continuous sound pressure level (L_{eq}). $L_{eq(30min)}$ in six consecutive $L_{eq(5min)}$ measurements were used as the monitoring parameter for the time period between 0700-1900 hours on normal weekdays. As supplementary information for data auditing, statistical results such as A-weighted levels L_{10} and L_{90} shall also be obtained for reference.
- 4.4.4 After the monitoring, all the monitoring data stored in the sound level meter system were downloaded through the computer software, and all these data were checked and reviewed on computer.

4.5 ACTION AND LIMIT LEVELS FOR CONSTRUCTION NOISE

- 4.5.1 Following the guidelines for establishing the Action and Limit Levels for construction noise monitoring, the Action and Limit Levels are presented in **Table 4-3**. Should project-related non-compliance of the environmental quality criteria occur, remedial actions will be triggered according to the Event and Action Plan which is presented in **Appendix H**.

Table 4-3 Action and Limit Levels for Construction Noise

Monitoring Station ID	Time Period ⁽¹⁾	Action Level	Limit Level
CM1a, CM2a, CM3, CM4, CM8a and CM9a, CM11, CM12, CM13, CM14 & CM15	0700 – 1900 hours on normal weekdays	When one documented complaint is received at anytime during the construction period	75 dB(A) ⁽²⁾

Notes:

- (1) If works are to be carried out during restricted hours, the conditions stipulated in the Construction Noise Permit (CNP) issued by the Noise Control Authority have to be followed.
- (2) 70 dB(A) and 65 dB(A) for schools during normal teaching periods and school examination periods, respectively.

4.6 NOISE MONITORING RESULTS

4.6.1 In light of the commencement of non-designated works under the Project, the EM&A Programme in relevant sections was initiated on 13th July 2023 to fulfill the contractual and EM&A Manual requirements. Construction noise monitoring was carried out at the designated monitoring station when there are project-related construction activities being undertaken within a 300m from the monitoring stations.

4.6.2 In the Reporting Period, 5 sessions of noise measurements were carried out at designated monitoring stations CM1a, CM2a, CM3, CM4 and CM8a, which are within a 300m of the project-related construction activities. The noise monitoring results are summarised in **Table 4-4**. The detailed noise monitoring data are presented in **Appendix J** and the relevant graphical plots are shown in **Appendix K**.

Table 4-4 Summary of Construction Noise Monitoring Results

Construction Noise Level ($L_{eq30min}$), dB(A)					
Station ID	Description of location	Range	No. of Event	Action Level	Limit Level
CM1a	Squatter house near Shan Ha Tsuen Village house no. 354	52 – 67	5	When one documented complaint is received at anytime during the construction period	75
CM2a (*)	Village house No. 126E in Tin Lung Yuen	63 – 75	5		75
CM3	Village house at 66 Kiu Hing Road	60 – 73	5		75
CM4	Village house in Tin Liu Tsuen - Kam Fong Yuen	66 – 75	5		75
CM8a (*)	Village House in Sha Tseng Tsuen (lot no. DD1211462A)	59 – 63	5		75

Remarks

(*) *Noise measurements was conducted at free field condition and façade correction (+3 dB(A) was added according to acoustical principles and EPD guidelines*

4.6.3 As shown in **Table 4-4**, no construction noise measurement results triggered the Limit Level (75 dB(A)) in the Reporting Month.

5 WATER QUALITY MONITORING

5.1 MONITORING REQUIREMENTS

- 5.1.1 The impact monitoring shall be conducted during construction period at the monitoring stations for YLS First Phase Development. The purpose of impact monitoring is to ensure the implementation of the recommended mitigation measures, provide effective control of any malpractices, and provide continuous improvements to the environmental conditions. The interval between two sets of monitoring shall not be less than 36 hours. EPD shall also be notified immediately for any changes in schedule.
- 5.1.2 In general, where the difference in value between the first and second in-situ measurement of DO or turbidity parameters is more than 25% of the value of the first reading, the reading shall be discarded and further readings should be taken.
- 5.1.3 In case of project-related exceedances of Action and/or Limit Levels, the impact monitoring frequency shall be increased according to the requirement of Event and Action Plan in the following section.
- 5.1.4 The monitoring frequency and water quality parameters for impact monitoring is summarized in **Table 5-1**.

Table 5-1 Water Quality Monitoring Programme for Impact Monitoring

Item	Impact Monitoring
Monitoring Period	During construction period
Monitoring Frequency	3 Days in a Week
Monitoring Locations	All stations under YLS First Phase Development
Monitoring Parameters	Dissolved oxygen (DO), dissolved oxygen saturation (DO%), temperature, turbidity, salinity, pH and suspended solids (SS)
Intervals between 2 Sets of Monitoring	Not less than 36 hours

5.2 MONITORING LOCATIONS

- 5.2.1 According to the geographic locations of Contract 1, Contract 2 and Contract 3 under the First Phase YLS Development, the water quality monitoring locations with the purpose of monitoring are proposed in the updated EM&A Manual. The selection criterion for monitoring locations is based on the separation distance between work boundary of YLS First Phase Development and the river / stream. The water monitoring stations in respective with Contract 1, Contract 2 and Contract 3 are summarized in **Table 5-2**, **Table 5-3** and **Table 5-4**. Monitoring stations with work boundary of Contracts 1, 2 and 3 are illustrated in **Appendix E**.

Table 5-2 Locations of Water Quality Monitoring Stations for Impact Monitoring for Contract 1

WSR	Monitoring Station ID	Description	Co-ordinates	
			Eastings	Northing
S01 (Yuen Long Nullah)	M2a	Upstream station of Contract 1	820133	832282
	M3	Impact monitoring of Contract 1	820688	833127

Table 5-3 Locations of Water Quality Monitoring Stations for Impact Monitoring for Contract 2

WSR	Monitoring Station ID	Description	Co-ordinates	
			Eastings	Northing
S01 (Yuen Long Nullah)	U2a	Upstream of Contract 2	820303	830757
	U1(b)	Upstream of Contract 2	820120	831191
	U3	Upstream of Contract 2	820872	832455
	U4a	Upstream of Contract 2	821366	832458
	M1a	Gradient monitoring of Contract 2	820476	832295
	M2a	Gradient monitoring of Contract 2	820133	832282

WSR	Monitoring Station ID	Description	Co-ordinates	
			Easting	Northing
	M3	Impact monitoring of Contract 2	820688	833127
	M4	Impact monitoring of Contract 2	820910	833138
S05 (EIS)	EIS-1a	Impact monitoring of Contract 2	820341	830555

Table 5-4 Locations of Water Quality Monitoring Stations for Impact Monitoring for Contract 3

WSR	Monitoring Station ID	Description	Co-ordinates	
			Easting	Northing
S02 (near TYST)	M5a	Upstream monitoring of Contract 3	819327	832535
S03 (near Windsor Garden)	M6a	Upstream monitoring of Contract 3	819335	832170
S02/S03 (near TYST & Windsor Garden)	D2a	Impact monitoring of Contract 3	819867	833939
S17 (Along Kiu Hung Road)	M7a	Upstream monitoring of Contract 3	818761	832798
	D5a	Impact monitoring of Contract 3	818484	833362

5.2.2 If the water level of a monitoring station is too shallow when sampling, sediment would be disturbed which affecting the accuracy of water quality monitoring. In order to avoid disturbing sediment, depth limits should be set up for the water sampling for the ease of reference. When the measured water depth of the monitoring station (both control and impact stations) is lower than 150mm, water monitoring would not be to perform at that monitoring location. Instead, the monitoring location will be moved to a temporary alternative location monitoring location based on the criteria below:-

- (a) the alternative location should be either upstream or downstream of the original location and at the same the river/drain channel
- (b) the alternative location should be within 15m far from the original location
- (c) if no suitable alternative location could be found within 15m far from the original location, the sampling at that location will be cancelled since sampling at too far from the designated location could not make a representative sample.

5.3 MONITORING EQUIPMENT

Positioning of Monitoring Locations

5.3.1 A digital Global Positioning System (GPS) was used during water monitoring to ensure the monitoring vessel is at the correct location when taking measurement and samples.

Dissolved Oxygen, Dissolved Oxygen Saturation, Temperature, Turbidity, Salinity and pH value

5.3.2 The YSI Professional DSS Multiparameter Sampling Instrument was used for water in-situ measures, which automates the measurements and data logging of temperature, dissolved oxygen, dissolved oxygen saturation, turbidity, pH and salinity simultaneously.

Water Depth Detector

5.3.3 Measures tape was used for water depths determination at each designated monitoring station throughout the monitoring programme.

Water Sampling Equipment

5.3.4 Water sample collection was directly from water surface use sampling plastic bottle or sampling bucket to avoid inclusion of bottom sediment or humus. Teflon/stainless steel bailer maybe used for water sampling. The use of water sampling equipment depends on the depths of sampling locations.

Sample Containers and Storage

- 5.3.5 Water samples for SS should be stored in high density polythene bottles with no preservative added, packed in ice (cooled to 4°C without being frozen) and shipment to the testing laboratory. The samples shall be delivered to the laboratory within 24 hours of collection and be analysed as soon as possible after collection.

Calibration

- 5.3.6 The YSI Professional DSS Multiparameter Sampling Instrument was certified by a laboratory accredited under HOKLAS or any other international accreditation scheme, and subsequently re-calibrated at quarterly basis throughout all stages of the water quality monitoring. Responses of sensors and electrodes should be checked with certified standard solutions before each use. Wet bulb calibration for a DO meter shall be carried out before measurement at each monitoring station.

Back-up Equipment

- 5.3.7 Backup monitoring equipment shall also be made available so that monitoring can proceed uninterrupted even when some equipment is under maintenance, calibration, malfunction, etc.
- 5.3.8 Water quality monitoring equipment used for the impact monitoring are listed in **Table 5-5**. All in-situ measurement equipment were calibrated by HOKLAS accredited laboratory of three-month interval. Copies of calibration certificates for water quality monitoring equipment are shown in **Appendix F3**.

Table 5-5 Water Quality Monitoring Equipment

Equipment	Model	Serial No.
Water Depth Detector	Measure tape	N/A
Thermometer & DO meter	YSI Professional DSS Multiparameter Sampling Instrument	[20J101862/ 15H103928]/ [EQW018]
pH meter		
Turbidimeter		
Salinometer		
Sample Container	High density polythene bottles (provided by laboratory)	N/A
Storage Container	'Willow' 33-litter plastic cool box with Ice pad	N/A

5.4 MONITORING PROCEDURES

- 5.4.1 Water quality monitoring was conducted at all designated monitoring locations. In-situ of replicate measurements was undertaken during baseline monitoring; where the difference in value between the first and second in-situ measurement of DO or turbidity parameters is more than 25% of the value of the first reading, the reading was discarded then further readings to be take. Moreover, duplicate sample collection was also conducted from each monitoring location. The sampling and in-situ measurement process are below:

Sampling Procedure

- 5.4.2 A Digital Global Positioning System (GPS) was used to identify the designated monitoring stations. Prior to water sampling, measure tape was used for the determination of water depth at each station.
- 5.4.3 Where water depth is allowed, sampling should be conducted at three water depths which are 1m below water surface, mid-depth, and 1m above the river bed. If the sampling water depth is less than 6m, the mid-depth may be omitted. If the water depth is less than 3m, only the mid-depth may be omitted.
- 5.4.4 During the baseline water quality monitoring, the water depths of all stations were less than 3m, therefore, water samples were collected from 0.1m below water surface or water surface to prevent the river bed sediment for stirring.

- 5.4.5 The sample container was rinsed with a portion of the water sample. The water sample then was transferred to the high-density polythene bottles as provided by the laboratory, labeled with a unique sample number and sealed with a screw cap.
- 5.4.6 Before commencement of the sampling, general information such as the date and time of sampling and weather condition as well as the personnel responsible for the monitoring were recorded on the monitoring field data sheet.
- 5.4.7 A ‘Willow’ 33-liter plastic cool box packed with ice was used to preserve the collected water samples prior to arrival at the laboratory for chemical determination. The water temperature of the cool box was maintained at a temperature as close to 4°C as possible without being frozen. Samples collected were delivered to the laboratory upon collection.

In-situ Measurement

- 5.4.8 YSI Professional DSS Multiparameter Sampling Instrument was used for water in-situ measures, which automates the measurements and data logging of water temperature, dissolved oxygen & dissolved oxygen saturation, pH unit and salinity. Before each round of monitoring, the instrument was checked in accordance with the manufactory manual instruction to sure it is valid.

5.5 LABORATORY MEASUREMENT / ANALYSIS

- 5.5.1 Two replicate samples from each independent sampling event are required for the SS analysis. Sufficient water samples shall be collected at the monitoring stations for carrying out the laboratory measurement and analysis. The SS analysis were carried out by a local HOKLAS-accredited laboratory - *ALS Technichem (HK) Pty Ltd* and the HOKLAS-accreditation certificate of the testing laboratory is shown in **Appendix E4**. The laboratory determination work shall start within 24 hours after collection of the water samples. The analysis for suspended solids is presented in **Table 5-6**.

Table 5-6 Laboratory Analysis

Parameters	Analytical Method	Reporting Limit
Suspended Solid (SS)	APHA 2540-D	0.5mg/L

Action/Limit Levels for Water Quality for YLS First Phase Development

- 5.5.2 The Baseline Monitoring Report for Air Quality, Noise and Water Quality certified by ET Leader (ETL) and verified by Independent Environmental Checker (IEC) was submitted to Environmental Protection Department (EPD) and it was approved by EPD on 28th October 2024. According to the Baseline Report, the Action and Limit Level for water quality was updated.
- 5.5.3 Following the guidelines for establishing the Action and Limit Levels for water quality monitoring, the Action and Limit Levels for of Contract 1, Contract 2 and Contract 3 under YLS First Phase Development are presented in **Table 5-7** to **Table 5-9**. Should project-related non-compliance of the environmental quality criteria occur, remedial actions will be triggered according to the Event and Action Plan which is presented in **Appendix H**.

Table 5-7 Action and Limit Levels for Water Quality Monitoring for Contract 1

Water Sensitive Receiver (WSR)	Impact Monitoring Location	Parameter						Upstream / Control Station
		DO (mg/L)		Turbidity (NTU)		Suspended Solids (mg/L)		
		Action Level	Limit Level	Action Level	Limit Level	Action Level	Limit Level	
S01	@M2a	6.4	4.0	8.4	8.5	8.7	8.8	N/A
	*M3	3.0	2.9	20.5	22.6	30.2	30.3	N/A
Remarks								
@ Gradient Monitoring Location								
* Impact Monitoring Location								

Table 5-8 Action and Limit Levels for Water Quality Monitoring for Contract 2

Water Sensitive Receiver (WSR)	Gradient / Impact Monitoring Location	Parameter						Upstream / Control Station as related WSR
		DO (mg/L)		Turbidity (NTU)		Suspended Solids (mg/L)		
		Action Level	Limit Level	Action Level	Limit Level	Action Level	Limit Level	
S01	@M1a	1.3	1.2	106.9	131.6	242.5	273.5	U1b & U2a
	@M2a	6.4	4.0	8.4	8.5	8.7	8.8	N/A
	*M3	3.0	2.9	20.5	22.6	30.2	30.3	U1b & U2a
	*M4	6.1	4.0	30.9	35.9	18.6	20.1	U3 & U4a
S05	*EIS-1a	5.4	4.0	18.9	19.2	25.8	31.9	N/A
Remarks @ Gradient Monitoring Location * Impact Monitoring Location								

Table 5-9 Action and Limit Levels for Water Quality Monitoring for Contract 3

Water Sensitive Receiver (WSR)	Gradient / Impact Monitoring Location	Parameter						Upstream / Control Station as related WSR
		DO (mg/L)		Turbidity (NTU)		Suspended Solids (mg/L)		
		Action Level	Limit Level	Action Level	Limit Level	Action Level	Limit Level	
S02/S03	*D2a	6.7	4.0	21.7	22.0	88.3	151.6	M5a & M6a
S17	@M7a	6.1	4.0	12.6	12.7	12.0	13.1	None
	*D5a	5.1	4.0	19.1	19.6	57.1	67.5	
Remarks @ Gradient Monitoring Location * Impact Monitoring Location								

5.6 WATER QUALITY MONITORING RESULTS

5.6.1 In the Reporting Period, a total of **twelve (12)** days water quality monitoring were conducted at various stations, including M1a, M2a, M3, M4, U3, U4a, M5a, M6a, D2a, M7a, D5a, U1b, U2a and EIS-1a. The key monitoring parameters including DO, Turbidity and SS are summarised in **Tables 5-10 to 5-12**. Summary of non-project related exceedances are shown in **Table 5-13**. Detailed water quality monitoring result are shown in **Appendix J** and the relevant graphical plot are shown in **K I**.

Table 5-10 Water Quality Monitoring Results for Dissolved Oxygen

Monitoring Station	DO (mg/L) Average (range)	Action Level (mg/L)	Limited Level (mg/L)
M1a	5.0 (3.5 – 7.0)	1.3	1.2
M2a	6.9 (6.5 – 7.9)	6.4	4.0
M3	5.3 (3.8 – 9.7)	3.0	2.9
M4	8.8 (6.5 – 9.9)	6.1	4.0
U1b	6.1 (4.4 – 9.4)	No applicable for upstream and control station	
U2a	6.8 (6.1 – 8.0)	No applicable for upstream and control station	
U3	5.3 (3.5 – 6.7)	No applicable for upstream and control station	
U4a	5.1 (4.1 – 6.3)	No applicable for upstream and control station	
EIS-1a	8.7 (8.2 – 10.0)	5.4	4.0
M5a	6.7 (5.9 – 8.9)	No applicable for upstream and control station	
M6a	8.7 (8.0 – 9.4)	No applicable for upstream and control station	
D2a	7.7 (6.9 – 8.7)	6.7	4.0
M7a	7.4 (6.7 – 8.6)	6.1	4.0
D5a	7.3 (6.5 – 8.6)	5.1	4.0

Table 5-11 Water Quality Monitoring Results for Turbidity

Monitoring Station	Turbidity (NTU) Average (range)	Action Level (NTU)	Limit Level (NTU)
M1a	7.5 (5.9 – 13.8)	106.9	131.6
M2a	7.5 (5.1 – 8.2)	8.4	8.5
M3	8.6 (5.4 – 16.1)	20.5	22.6
M4	6.3 (3.1 – 16.3)	30.9	35.9
U1b	10.4 (7.7 – 14.9)	No applicable for upstream and control station	
U2a	4.6 (1.7 – 8.1)	No applicable for upstream and control station	
U3	6.4 (2.3 – 42.0)	No applicable for upstream and control station	
U4a	6.0 (2.9 – 8.6)	No applicable for upstream and control station	
EIS-1a	4.6 (2.9 – 13.0)	18.9	19.2
M5a	7.2 (1.7 – 13.3)	No applicable for upstream and control station	
M6a	3.9 (1.9 – 9.3)	No applicable for upstream and control station	
D2a	23.4 (5.9 – 117.0)	21.7	22.0
M7a	4.6 (1.1 – 11.2)	12.6	12.7
D5a	6.7 (3.4 – 12.9)	19.1	19.6

Table 5-12 Water Quality Monitoring Results for Suspended Solids

Monitoring Station	SS (mg/L) Average (range)	Action Level (mg/L)	Limited Level (mg/L)
M1a	13.9 (8.0 – 19.7)	242.5	273.5
M2a	7.2 (6.0 – 8.6)	8.7	8.8
M3	13.5 (6.2 – 29.4)	30.2	30.3
M4	15.1 (8.6 – 18.4)	18.6	20.1
U1b	24.0 (7.7 – 64.8)	No applicable for upstream and control station	
U2a	19.3 (3.9 – 46.9)	No applicable for upstream and control station	
U3	6.3 (3.3 – 11.8)	No applicable for upstream and control station	
U4a	15.1 (8.4 – 40.0)	No applicable for upstream and control station	
EIS-1a	8.4 (4.0 – 23.9)	25.8	31.9
M5a	32.6 (3.7 – 94.6)	No applicable for upstream and control station	
M6a	21.2 (10.3 – 40.5)	No applicable for upstream and control station	
D2a	55.5 (7.0 – 200.0)	88.3	151.6
M7a	7.1 (3.3 – 11.9)	12.0	13.1
D5a	19.5 (2.3 – 48.2)	57.1	67.5

5.6.2 In this Reporting Period, two (2) Limit Level exceedance of water quality monitoring was recorded. The summary of water quality monitoring exceedance recorded in the Reporting Period are shown in *Table 5-13*. Investigation results of the exceedance are shown in *Table 5-14*.

Table 5-13 Summary of Water Quality Monitoring Exceedance Recorded in the Reporting Period

Location	Dissolved Oxygen		Turbidity		Suspended Solids		Non-project related Exceedance		Project Related Exceedance	
	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL
M1a	0	0	0	0	0	0	0	0	0	0
M2a	0	0	0	0	0	0	0	0	0	0
M3	0	0	0	0	0	0	0	0	0	0
M4	0	0	0	0	0	0	0	0	0	0
EIS-1a	0	0	0	0	0	0	0	0	0	0

Location	Dissolved Oxygen		Turbidity		Suspended Solids		Non-project related Exceedance		Project Related Exceedance	
	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL
D2a	0	0	0	1	0	1	0	0	0	2
M7a	0	0	0	0	0	0	0	0	0	0
D5a	0	0	0	0	0	0	0	0	0	0
No of Exceedance	0	0	0	1	0	1	0	0	0	2

Table 5-14 Summary of Investigation Result for Water Quality Monitoring Exceedance

Date	Station	Parameter	Exceedance	Investigation	Action
2 nd January 2025	D2a	Turbidity, Suspended Solids	Limit Level	According to the site information, pilling work was conducted at Shan Ha Road Nullah, located upstream of D2a. As water quality mitigation measures, a mud bund was provided to the store wastewater generated by pilling work before it was pumped to water treatment facilities. However, the RE and the Contractor of Contract 3 advised that the mud bund had collapsed, and causing an overflow of muddy water. The investigation concluded that the exceedance was an single incident and related to Contract 3 of the project.	To address the situation, a bypass pipeline with a pump was set up to divert upstream water directly downstream, and temporary sandbags, WetSep systems, and sedimentation tanks were deployed for further wastewater treatment.

6 ECOLOGY MONITORING

6.1 REQUIREMENTS

- 6.1.1 As required under Section 8.3 of the updated EM&A Manual, wherever applicable, the implementation of the mitigation measures applicable to the three Contracts of the First Phase Development of the Project shall be audited regularly during the construction phase, the establishment phase of the mitigation measures and/or the early (the first 12 months of) operation phase of the Project.

Monitoring of Transplantation of Flora Species of Conservation Importance

- 6.1.2 Prior to commencement of construction works, an updated baseline survey was conducted by a qualified botanist/ plant ecologist within the proposed works area(s) to identify and update the conditions of any flora species of conservation importance. A Baseline Vegetation Survey and Transplantation Proposal would be prepared to confirm the locations, quantities and conditions of any identified flora species of conservation importance within the works area(s), and proposed methodology and receptor site(s) to transplant any of these specimens that are to be affected by the construction works.
- 6.1.3 Based on the result of the Vegetation Survey, flora species of conservation importance was not recorded within the works area(s). There would be no transplantation of flora species of conservation importance, and relevant monitoring is not required for the Project.

Monitoring of Mitigation Measures on Affected Aquatic Fauna of Conservation Importance

- 6.1.4 A baseline survey shall be conducted in all affected watercourses by a qualified ecologist of relevant experience to confirm the presence, relative abundance, and distribution of any aquatic species of conservation importance prior to any commencement of works which would lead to watercourse loss. A translocation programme shall be designed and developed with relevant authorities to translocate any affected aquatic fauna species of conservation importance. Capture and translocation of species to suitable permanent receptor site(s) (e.g. the retained natural watercourses in PDA or the recreated watercourse) or a holding area shall be conducted by a suitably qualified ecologist before the commencement of any construction works.
- 6.1.5 In view of commencement of preparation work at Yuen Long Nullah, baseline survey for the presence of aquatic species of conservation importance was conducted at the affected sections of the Nullah by the qualified ecologist of ET on 24th November 2023. There were no aquatic species of conservation importance found and recorded. The relevant baseline report will be submitted separately. In the Reporting Period, only preparation work was conducted at Yuen Long Nullah and no works would lead to watercourse.
- 6.1.6 Another baseline survey would be conducted for commencement of works which would lead to watercourse loss for other section of works.

Monitoring of Mitigation Measures to Minimize Disturbance Impacts to Tai Tong (Pak Sha Tsuen) Egret

- 6.1.7 Prior to commencement of construction activities, a baseline egret survey was conducted during the breeding season to confirm the location of egret, evidence of egret occupation and number of breeding pairs. Based on the survey result, no egret was found within 250m of the project boundary. Therefore, the relevant monitoring and flight-line surveys was not required in the Reporting Period.

7 LANDSCAPE AND VISUAL MONITORING

7.1 MONITORING REQUIREMENTS

7.1.1 The EIA has recommended EM&A for landscape and visual mitigation measures to be undertaken during the design, construction and operational stages of the project. The design, implementation and maintenance of landscape mitigation measures is a key aspect and should be checked to ensure that they are fully realised and that potential conflicts between the proposed landscape measures and any other project works and operational requirements are resolved at the earliest possible date and without compromise to the intention of the mitigation measures. In addition, implementation of the mitigation measures recommended by the EIA will be monitored through the site audit programme.

7.2 MITIGATION MEASURES

7.2.1 The Landscape and Visual Assessment of the EIA proposes a number of mitigation measures to ameliorate the landscape and visual impacts of the Project. These measures are listed in table below and implementation is summarised in the EMIS.

Table 7-1 Proposed Mitigation Measures for Landscape and Visual Impacts

Mitigation Measure Code	Summary Description	Mitigate Landscape Impacts	Mitigate Visual Impacts	Related to Contract
<i>Construction Phase</i>				
CM1	Optimisation of Construction Areas and Providing Temporary Landscape on Temporary Construction	√	√	C1, C2, C3
CM2	Minimise Topographical Changes	√	√	C1, C2, C3
CM3	Tree Protection and Preservation	√		C1, C2, C3
CM4	Transplanting of Existing Trees	√		C1, C2, C3
CM5	Screen Hording		√	C1, C2, C3
CM6	Watercourses of higher ecological value / Channels Protection	√		C2, C3
CM7	Construction Light Control		√	C1, C2, C3
CM8	Woodland Conservation	√		Not related to YLS First Phase

7.2.2 Mitigation measures to be implemented during construction should be adopted from the start of construction and be in place throughout the entire construction period. Tree transplantation, preservation of Potentially Registerable Old and Valuable Trees (POVTs), Rare and Protective Vegetation, and compensatory planting should be carried out as early as possible in the Project with transplantation carried out prior to construction starting in any particular area.

7.3 AUDIT REQUIREMENT

7.3.1 Site audits should be undertaken during the construction phase of the Project to check that the proposed landscape and visual mitigation measures are properly implemented and maintained as per their intended objectives. Site inspections should be undertaken by the ET at least once every two weeks during the construction period. In addition, as the Project contains various Schedule 2 DPs, site inspection program for these DPs shall make reference to the project details and works progress to schedule the inspection works. Particularly audits should be carried out during site clearance when proposed tree retain, tree felling, and transplantation may occur.

7.4 AUDIT RESULT

7.4.1 Bi-weekly inspection of landscape and visual impact and mitigation measures were conducted by ET during the weekly site inspection. It was observed that six individual trees under Contract 2 transplanted to the nursery site were in fair condition. Thirty-seven individual trees were transplanted to the nursery site under Contract 3. A total of forty-three individual trees were transplanted to the nursery site under Contract 2 and Contract 3. The nursery site for the transplanted trees was properly maintained by the Contractor, and all transplanted trees were in

fair health condition.

8 WASTE MANAGEMENT

8.1 GENERAL WASTE MANAGEMENT

8.1.1 Waste management was carried out in accordance with the Waste Management Plan for the Contract.

8.2 RECORDS OF WASTE QUANTITIES

8.2.1 All types of waste arising from the construction work are broadly classified into the following:

- Insert construction & demolition (C&D) Material; and
- C&D waste

8.2.2 The Contractors are advised to minimise the wastes generated through recycling or reusing. All mitigation measures stipulated in the Updated EM&A Manual and waste management plans shall be fully implemented. The contaminated soil shall be treating and backfilled on site after carried out decontaminate work.

8.2.3 The quantities of waste for disposal under Contract 1, Contract 2 and Contract 3 in this Reporting Period are summarized in **Tables 8-1** and **8-2** and they are made reference to the Waste Flow Table provide by the Contractors which shown in **Appendix L**.

Table 8-1 Summary of Quantities of Inert C&D Materials

Type of Waste	Contract 1		Contract 2		Contract 3	
	Quantity (tones)	Disposal Location	Quantity (tones)	Disposal Location	Quantity (tones)	Disposal Location
Total generated C&D Materials (Inert)	966.19	--	13278.4	--	4791.690	--
Reused in this Contract (Inert)	0	--	0	--	603.010	--
Reused in other Projects (Inert)	336.22	--	0	--	0	--
Disposal as Public Fill (Inert)	629.97	Tuen Mun Area 38	13278.4	Tuen Mun Area 38	4188.680	Tuen Mun Area 38

Table 8-2 Summary of Quantities of C&D Wastes

Type of Waste	Contract 1		Contract 2		Contract 3	
	Quantity (tones)	Disposal Location	Quantity (tones)	Disposal Location	Quantity (tones)	Disposal Location
Recycled Metal	0	--	0	--	15.000	Recycler collector
Recycled Paper / Cardboard Packing	0	--	0.33	Recycler collector	0	Recycler collector
Recycled Plastic	0	--	0	--	27.000	--
Chemical Wastes	0	--	0	--	0	--
General Refuses	13.69	WENT	145.21	WENT	138.440	WENT

9 LAND CONTAMINATION

9.1 GENERAL

Contract 2

- 9.1.1 According to the CAR-RAP approved by EPD on 30 October 2024, the concentration of Lead of E98-9 at 0.5m bgl and the concentration of PCRs (C17-C35) of E22“-4_1 at 0.5m bgl were found exceeding the criteria of RBRGs for Urban Residential. The recommended remediation approach for the Lead contaminated soil (Type A) is cement solidification while bioremediation is recommended to treat the PCRs (C17-C35) contaminated soil (Type B).
- 9.1.2 The decontaminated work at E98-9 using cement solidification was completed. The Remediation Report (RR) demonstrating the complete excavation and on-site treatment of all the contaminated soils within the assessment area has submitted to EPD. All relevant information, including details of closure assessment, sampling results, QA/QC results, laboratory testing reports, photographs, quality of treated soil and the final backfill site of treated soil were included in the RR.
- 9.1.3 In the Reporting Period, decontamination work using bioremediation was carried out at E22“-4_1. All works have been followed the procedures and guidelines stipulated in approved SCAP (Part 2) and CAR-RAP.

10 SITE INSPECTION

10.1 REQUIREMENTS

10.1.1 According to the updated EM&A Manual, the programme of environmental site inspection shall be formulated by ET Leader. Weekly environmental site inspections were carried out to confirm the environmental performance.

10.2 FINDINGS / DEFICIENCIES DURING THE REPORTING PERIOD

Contract 1

10.2.1 In the Reporting Period, joint site inspections to evaluate the site environmental performance for Contract 1 were carried out by the representatives of the RE, ET and the Contractor on **2nd, 8th, 15th, 22nd and 27th January 2025**. No non-compliance was noted.

10.2.2 The findings / deficiencies observed for **Contract 1** during the weekly site inspection are listed in **Table 10-1**.

Table 10-1 Site Inspection and Observations for Contract 1

Date	Findings / Deficiencies	Follow-Up Status
2 nd January 2025	• Sandy stockpile at Portion 3 should be covered properly.	• The sandy stockpile was covered properly with tarpaulin sheet to reduce dust impact.
8 th January 2025	• Chemical containers was not place in drip tray.	• The chemical containers are fully covered and relocated at drip tray to prevent land contamination.
15 th January 2025	No adverse environmental impact was observed.	NA
22 nd January 2025	No adverse environmental impact was observed.	NA
27 th January 2025	No adverse environmental impact was observed.	NA

10.2.3 There were several reminders given to the Contractor to enhance the environmental site performance. They are summarized below:-

- Fully implement the dust mitigation measures as required under the Updated EM&A Manual and project Environment Management Plan to spray water at haul road at least once per hour to reduce dust impact.
- To clean mud stain to enhance house-keeping.

Contract 2

10.2.4 In the Reporting Period, joint site inspections to evaluate the site environmental performance for Contract 2 were carried out by the representatives of the RE, ET and the Contractor on **2nd, 8th, 15th, 21st and 28th January 2025**. No non-compliance was noted.

10.2.5 The findings / deficiencies observed for **Contract 2** during the weekly site inspection are listed in **Table 10-2**.

Table 10-2 Site Inspection and Observations for Contract 2

Date	Findings / Deficiencies	Follow-Up Status
2 nd January 2025	• Oil stain in Portion 18 was observed, the Contractor should clean oil stain to prevent land contamination. • Chemical containers at Portion 12 was not place at design storage area.	• Oil stain was cleaned and disposed as chemical waste. Imprevious sheeting was laid to prevent land contamination. • Chemical containers was removed.
8 th January	• Oil stain in BC02a was observed the	• Oil stain was cleaned.

Date	Findings / Deficiencies	Follow-Up Status
2025	Contractor should clean oil stain to prevent land contamination.	
15 th January 2025	• General refuse in Portion 12 was observed, Contractor should dispose properly to enhance house-keeping.	• General refuse has been removed.
21 st January 2025	No adverse environmental impact was observed.	NA
28 th January 2025	No adverse environmental impact was observed.	NA

10.2.6 There were several reminders given to the Contractor to enhance the environmental site performance. They are summarized below:-

- Fully implement the dust mitigation measures as required under the Updated EM&A Manual and project Environment Management Plan to cover sandy stockpile properly with tarpaulin sheet to reduce dust impact.
- To dispose general refuse properly.
- To place chemical containers at drip tray.
- To maintain the steal plate on the Nullah to prevent flowing if wastewater from the site.
- To pay special attention on water quality.

10.2.7 General housekeeping such as site tidiness and cleanliness should be maintained for all works areas. Furthermore, the Contractor was reminded to implement the Waste Management Plan of the Contracts.

Contract 3

10.2.8 In the Reporting Period, joint site inspections to evaluate the site environmental performance for Contract 3 were carried out by the representatives of the RE, ET and the Contractor on **9th, 16th, 23rd and 27th January 2025**. No non-compliance was noted.

10.2.9 The findings / deficiencies observed for **Contract 3** during the weekly site inspection are listed in **Table 10-3**.

Table 10-3 Site Inspection and Observations for Contract 3

Date	Findings / Deficiencies	Follow-Up Status
9 th January 2025	• The Contractor should spray water for breaking work to reduce dust impact. (Portion 7B)	• Water spraying was used to suppress construction dust.
16 th January 2025	• General refuse in MSB was observed, the Contractor should be disposed properly to enhance house-keeping.	• The general refuse was regularly removed to landfill.
23 rd January 2025	No adverse environmental impact was observed.	NA
27 th January 2025	No adverse environmental impact was observed.	NA

10.2.10 There were several reminders given to the Contractor to enhance the environmental site performance. They are summarized below:-

- Fully implement the dust mitigation measures as required under the Updated EM&A Manual and project Environment Management Plan to cover sandy stockpile properly with tarpaulin sheet to reduce dust impact.
- To pay special attention on muddy water flow into drainage system during rainy day.

10.2.11 General housekeeping such as site tidiness and cleanliness should be maintained for all works areas. Furthermore, the Contractor was reminded to implement the Waste Management Plan of the

Contracts.

11 ENVIRONMENTAL COMPLAINTS AND NON-COMPLIANCES

11.1 ENVIRONMENTAL COMPLAINTS, SUMMONS AND PROSECUTIONS

11.1.1 There was no environmental prosecution or notification of summons received in the Reporting Period.

11.1.2 In late December 2024, an enquiry was received regarding to noise nuisance caused by unwelded steel plates on Kung Um Road related to Contract 2. The case was subsequently transferred to CEDD, RE, Contractor of Contract 2 and ET as a formal complaint on 17th January 2025 for investigation.

11.1.3 The location of complaint is within Portion 10 of Contractor 2. The Contractor identified that the noise nuisance was likely caused by vehicles passing over the unwelded steel plates on the road with insufficient compaction. To prevent reoccurrences of similar incident, the Contractor was advised to weld the steel plates and grout to fill gaps where coarse material has been washed away. The noise incident was classified as valid complaint for Contract 2, which triggered Action Level exceedance under the EM&A. Although this is a single incident, the Contract was advised to implement the recommended mitigation measures in the EMIS as far as practicable. To prevent similar case, all steel plates was laid on the road should be welding. Silencers or mufflers on construction equipment and movable temporary noise barriers should be properly fitted and maintained during the construction works.

11.1.4 The statistical summary table of the environmental complaints, summons and prosecutions are presented in *Tables 11-1, 11-2, 11-3 and 11-4*. Detailed complaint log for the Contract is presented in *Appendix M*.

Table 11-1 Statistical Summary of Environmental Complaints (Non-Designated Project)

Reporting Period	Contract No	Environmental Complaint Statistics		
		Frequency	Cumulative	Complaint Nature
13 th July 2023 – 31 st December 2024	Contract 1	0	0	NA
January 2025	Contract 1	0		NA
13 th July 2023 – 31 st December 2024	Contract 2	0	2	NA
January 2025	Contract 2	1		Noise
13 th July 2023 – 31 st December 2024	Contract 3	0	0	NA
January 2025	Contract 3	0		NA

Table 11-2 Statistical Summary of Environmental Complaints (Designated Project)

Reporting Period	Contract No	Environmental Complaint Statistics		
		Frequency	Cumulative	Complaint Nature
13 th July 2023 – 31 st December 2024	Contract 1	0	0	NA
January 2025	Contract 1	0		NA
13 th July 2023 – 31 st December 2024	Contract 2	0	1	NA
January 2025	Contract 2	1		Noise
13 th July 2023 – 31 st December 2024	Contract 3	0	0	NA
January 2025	Contract 3	0		NA

Table 11-3 Statistical Summary of Environmental Summons

Reporting Period	Contract No	Environmental Summons Statistics		
		Frequency	Cumulative	Summons Nature
13 th July 2023 – 31 st December 2024	Contract 1	0	0	NA
January 2025	Contract 1	0		NA
13 th July 2023 – 31 st December 2024	Contract 2	0	0	NA
January 2025	Contract 2	0		NA
13 th July 2023 – 31 st December 2024	Contract 3	0	0	NA
January 2025	Contract 3	0		NA

Table 11-4 Statistical Summary of Environmental Prosecution

Reporting Period	Contract No	Environmental Prosecution Statistics		
		Frequency	Cumulative	Prosecution Nature
13 th July 2023 – 31 st December 2024	Contract 1	0	0	NA
January 2025	Contract 1	0		NA
13 th July 2023 – 31 st December 2024	Contract 2	0	0	NA
January 2025	Contract 2	0		NA
13 th July 2023 – 31 st December 2024	Contract 3	0	0	NA
January 2025	Contract 3	0		NA

11.2 OTHER ENVIRONMENTAL NON-COMPLIANCES

11.2.1 In addition, no emergency events related to violation of environmental legislation for illegal dumping and landfilling were received in the Reporting Period.

12 IMPLEMENTATION STATUS OF MITIGATION MEASURES

12.1 GENERAL REQUIREMENTS

12.1.1 The environmental mitigation measures that recommended in the ISEMM in the EM&A Manual covered the issues of dust, noise, water and waste and they are summarised presented in *Appendix N*.

12.1.2 The Contract Works under the Project shall be implementing the required environmental mitigation measures according to the EM&A Manual as subject to the site condition. Environmental mitigation measures generally implemented by the Contractor and the implementation status are shown in *Appendix N*.

12.2 TENTATIVE CONSTRUCTION ACTIVITIES IN THE COMING MONTH

12.2.1 According to information provided by the Contractor, the construction works under the Contract in the coming month are listed below:

Table 12-1 Summary of Construction Activities in the next Reporting Period

Contract No.	Construction Activities undertaken in next Reporting Period	
	Non-designated work	Designated work
YL/2021/03 (Contract 1)	<ul style="list-style-type: none"> Demolition works Site Clearance Site Formation Construction of drainage system 	N/A
YL/2021/04 (Contract 2)	<ul style="list-style-type: none"> Soil Excavation Temporary access and haul road formation Road Set back works ELS and Construction for CUT Construction of retaining wall Site Clearance Soldier pile wall construction 	EP-553/2018/A <ul style="list-style-type: none"> Construction of retaining wall Sheetpile installation Trial Trench Excavation UTBM Installation Construction of Box Culvert EP-549/2018 <ul style="list-style-type: none"> Site clearance Decontamination works Excavation
YL/2022/01 (Contract 3)	<ul style="list-style-type: none"> Site Clearance GI Works Tree Felling Demolition Rockfill for Retaining Wall RW30 in Portion 6A Sheet Pile Installation for Box Culvert BC01 Trial Pile TP1 and TP3 Trial Pile for Pre-bored H Pile 	EP-548/2018/A <ul style="list-style-type: none"> Nil EP-549/2018 <ul style="list-style-type: none"> Nil EP-550/2018/A <ul style="list-style-type: none"> Nil EP-551/2018/A <ul style="list-style-type: none"> Nil

12.3 KEY ISSUES FOR THE COMING MONTH

12.3.1 Key issues for the coming month include the following:

- Implementation of control measures for rainstorm;
- Regular clearance of stagnant water;
- Implementation of dust suppression measures at all times;
- Potential wastewater quality impact due to surface runoff;
- Potential fugitive dust quality impact due from the dry/loose/exposure soil surface/dusty material;

- Disposal of empty engine oil containers within site area;
- Ensure dust suppression measures are implemented properly;
- Sediment catch-pits and silt removal facilities should be regularly maintained;
- Management of chemical wastes;
- Discharge of site effluent to the nearby wetland, stockpiling or disposal of materials, and any dredging or construction area at this area are prohibited;
- Follow-up of improvement on general waste management issues; and
- Implementation of construction noise preventative control measures.

13 CONCLUSIONS AND RECOMMENDATIONS

13.1 CONCLUSIONS

- 13.1.1 This is the Monthly EM&A Report presenting the monitoring results and inspection findings for the Project, for the Reporting Period from 1st to 31st January 2025.
- 13.1.2 No 1-hour TSP of air quality monitoring result that triggered the Action or Limit Levels was recorded. No corrective action was required.
- 13.1.3 In the Report Period, one (1) environmental complaint lodged on 17th January 2025 regarding noise nuisance caused by unwelded steel plates on Kung Um Road related to Contract 2. It is concluded that the complaint was valid to Contract 2, which triggered Action Level exceedance under the EM&A. To avoid the similar case in future, the Contractor was advised to conduct welding to reduce collision between steel plates.
- 13.1.4 For water quality monitoring, two Limit Level exceedances (turbid water and SS) were recorded at D2a on 2nd January 2025. Notification of Exceedance (NOE), along with preliminary investigation and on-site observation was issued to the RE, Contractor of Contract 3 and IEC on the same day. Pilling work was conducted at Shan Ha Road Nullah, located upstream of D2a. Water mitigation measure of mud bund was installed to store wastewater generated by pilling works before pumping them into water treatment facilities. The mud bund, however, was collapsed causing overflow of muddy water into nullah. To address the system failure, a temporary bypass pumping/ pipeline system was set up to divert wastewater to a temporary treatment system comprising sandbags, WetSep, and sedimentation tanks. Investigation identified that the limit level exceedance was a single event incident related to Contract 3 of the project.
- 13.1.5 Bi-weekly inspection of landscape and visual impact and mitigation measures were conducted by ET during the weekly site inspection. It was observed that six individual trees under Contract 2 transplanted to the nursery site were in fair condition. Thirty-seven individual trees were transplanted to the nursery site under Contract 3. A total of forty-three individual trees were transplanted to the nursery site under Contract 2 and Contract 3. The nursery site for the transplanted trees was properly maintained by the Contractor, and all transplanted trees were in fair health condition.
- 13.1.6 Decontamination works was conducted in the reporting month. All decontamination works was follows the procedures and guidelines stipulated in approved SCAP (Part 2) and CAR-RAP.
- 13.1.7 In late December 2024, an enquiry was received regarding to noise nuisance caused by unwelded steel plates on Kung Um Road related to Contract 2. The case was subsequently transferred to CEDD, RE, Contractor of Contract 2 and ET as a formal complaint on 17th January 2025 for investigation. The location of complaint is within Portion 10 of Contractor 2. The Contractor determined that the noise nuisance was caused by vehicles passing over the unwelded steel plates on the road due to insufficient compaction. To prevent similar occurrences in the future, the Contractor was advised to weld the steel plates and use grouting to fill gaps where coarse material has been washed away. It is concluded that the complaint was valid to Contract 2, which triggered Action Level exceedance under the EM&A. Although this is a single incident, the Contract was advised to implement the recommended mitigation measures in the EMIS as far as practicable.
- 13.1.8 In the Reporting Period, no summons and prosecution were received in the Reporting Period. In addition, no emergency events related to violation of environmental legislation for illegal dumping and landfilling were received.
- 13.1.9 In the Reporting Period, weekly joint site inspection to evaluate the site environmental performance had been carried out by the representatives of the Consultants, ET and the respective Contractor of Contract 1, Contract 2 and Contract 3. No non-compliance was noted during the site inspection. Joint site inspection with ER, ET, IEC and the Contractor of Contract 2 and Contract 3 was carried out on 21st and 23rd January 2025. IEC's observation/findings for joint site inspection in the Reporting Period is shown table below.

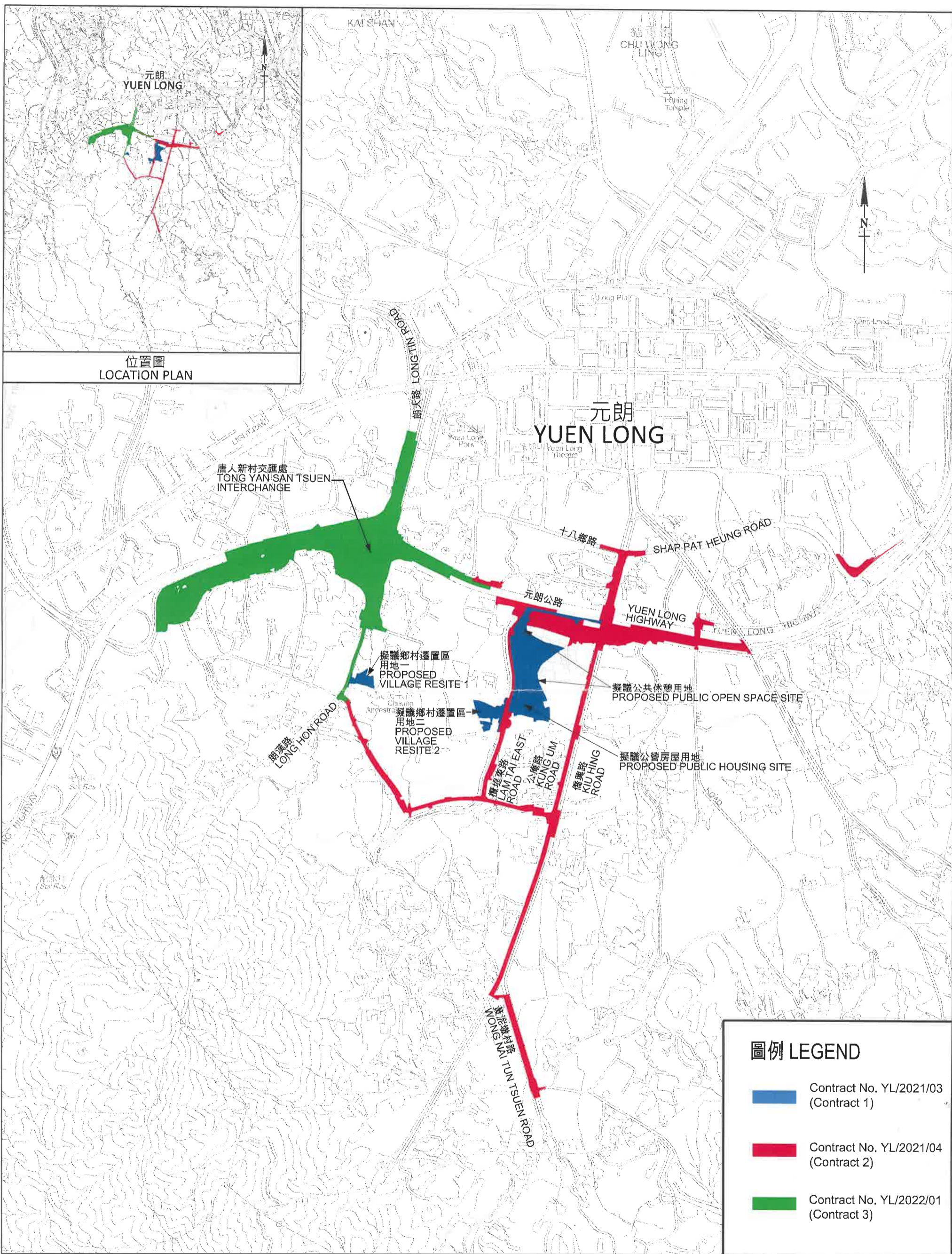
Date	Observation / Findings
21 st January 2025 (Contract 2 Joint site inspection)	No adverse environmental impact was observed.
23 rd January 2025 (Contract 3 Joint site inspection)	No adverse environmental impact was observed.

13.2 RECOMMENDATIONS

- 13.2.1 The Contractor should pay special attention on the water quality mitigation measures and fully implement according to the ISEMM of the EM&A Manual, in particular to prevent surface runoff with high SS content and other pollutants from flowing to stream. Perimeter cut-off drains to direct off-site water around the site should be constructed with internal drainage works. Channels, earth bunds or sandbag barriers should be implemented on site to direct wastewater to silt removal facilities. All effluent discharge shall be ensure to fulfill Technical Memorandum of Effluent Discharged into Drainage and Sewerage Systems, inland and Coastal Waters criteria or discharge permits stipulation.
- 13.2.2 Construction noise would be a key environmental issue during construction work of the Project. All steel plate was laid on the road should be welding. Silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works. Noise mitigation measures such as using quiet plants and/ or using movable temporary noise barriers should be implemented as stipulated under EM&A Manual to ensure construction noise impacts at the NSRs comply with the noise criteria.
- 13.2.3 Since the Works Contract located adjacent to villages, potential construction dust impact should be minimised. Moreover, the Contractor should fully implement the air quality mitigation measures as required under the Updated EM&A Manual and project Environment Management Plan. Exposed worksites and haul road should be watering for at least once per hour.
- 13.2.4 All other mitigation measures recommended in the ISEMM of the EM&A Manual should be properly implemented and maintained as far as practicable.

Appendix A

General layout of YLS First Phase Development



CONSTRUCTION CONTRACTS UNDER YUEN LONG SOUTH FIRST PHASE DEVELOPMENT

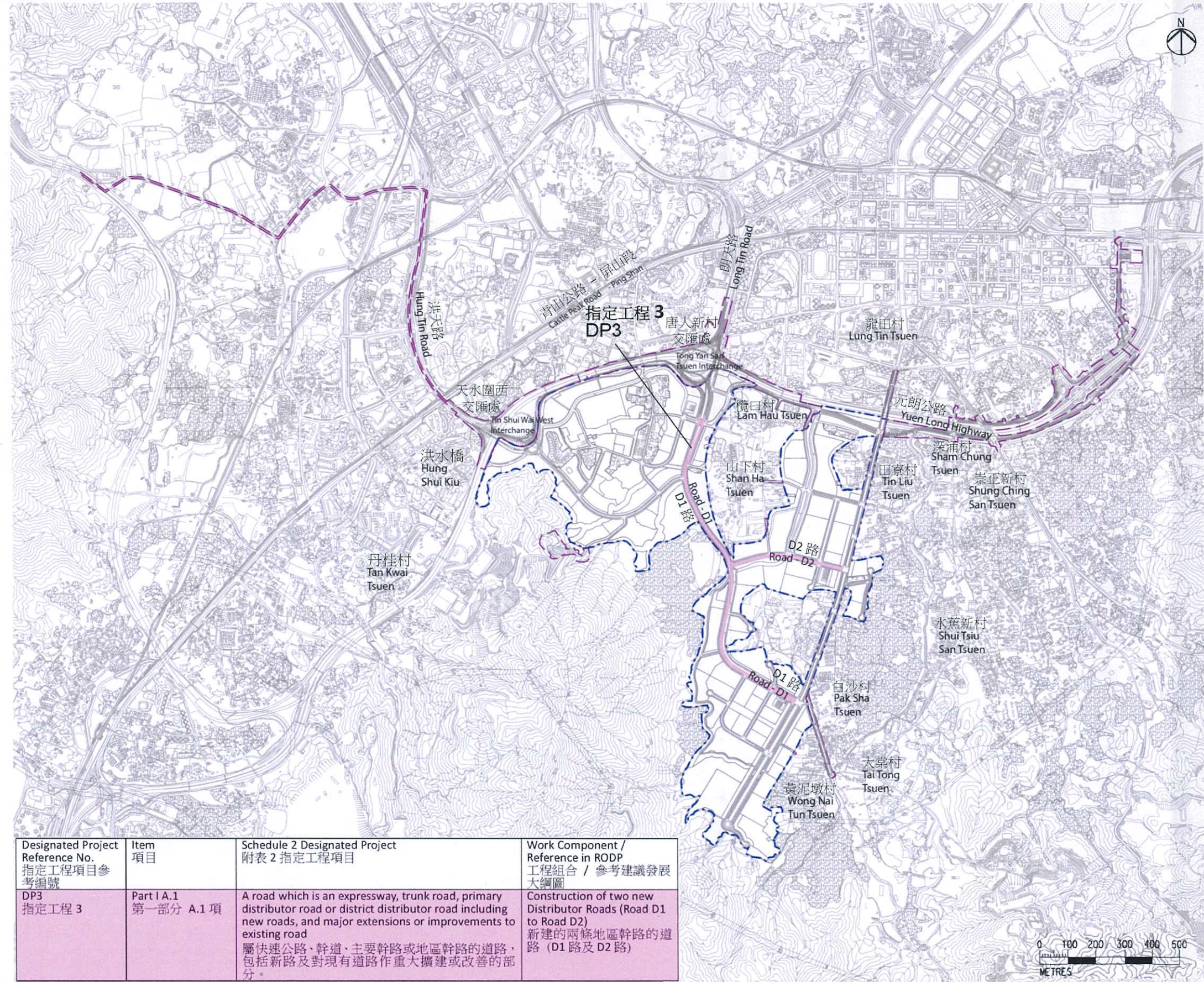
Appendix B

Schedule 2 Designated Projects

under YLS First Phase Development

Legend 圖例

-  Potential Development Area (PDA) 具發展潛力區
-  Works Boundary Outside PDA 具發展潛力區外的施工範圍



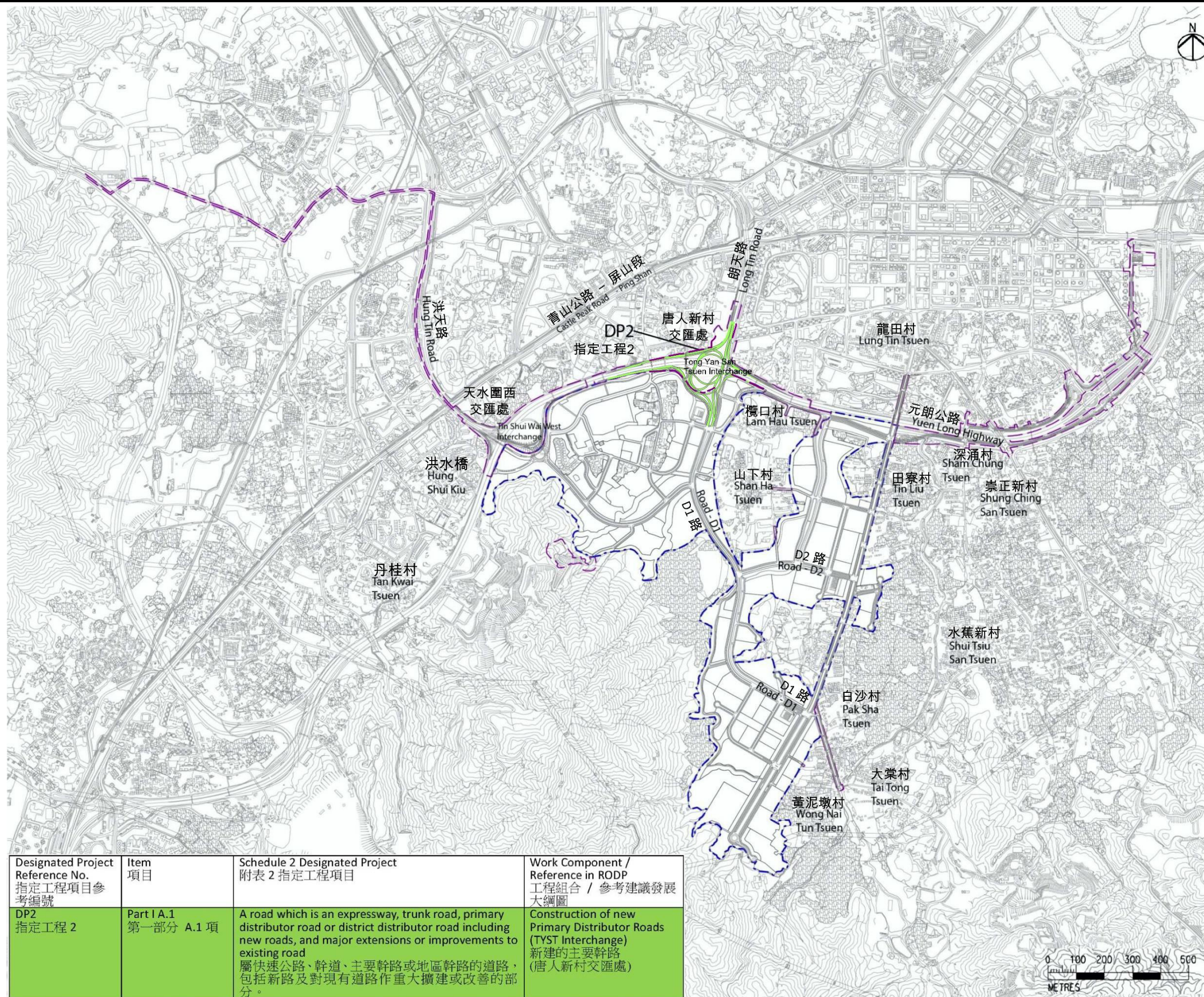
Designated Project Reference No. 指定工程項目參考編號	Item 項目	Schedule 2 Designated Project 附表 2 指定工程項目	Work Component / Reference in RODP 工程組合 / 參考建議發展大綱圖
DP3 指定工程 3	Part I A.1 第一部分 A.1 項	A road which is an expressway, trunk road, primary distributor road or district distributor road including new roads, and major extensions or improvements to existing road 屬快速公路、幹道、主要幹路或地區幹路的道路，包括新路及對現有道路作重大擴建或改善的部分。	Construction of two new Distributor Roads (Road D1 to Road D2) 新建的兩條地區幹路的道路 (D1 路及 D2 路)

Project Title: Construction of Two New District Distributor Roads (Road D1 to Road D2) for Housing Sites in Yuen Long South
 工程項目名稱：元朗南房屋用地新建的兩條地區幹路 (D1 路 - D2 路)

Figure 1: Project Location Plan
 圖 1: 工程項目位置圖

Environmental Permit No. : EP-549/2018
 環境許可證編號 : EP-549/2018





Legend 圖例

- [---] Development Area (DA) 發展區
- [---] Works Boundary Outside DA 發展區外的施工範圍

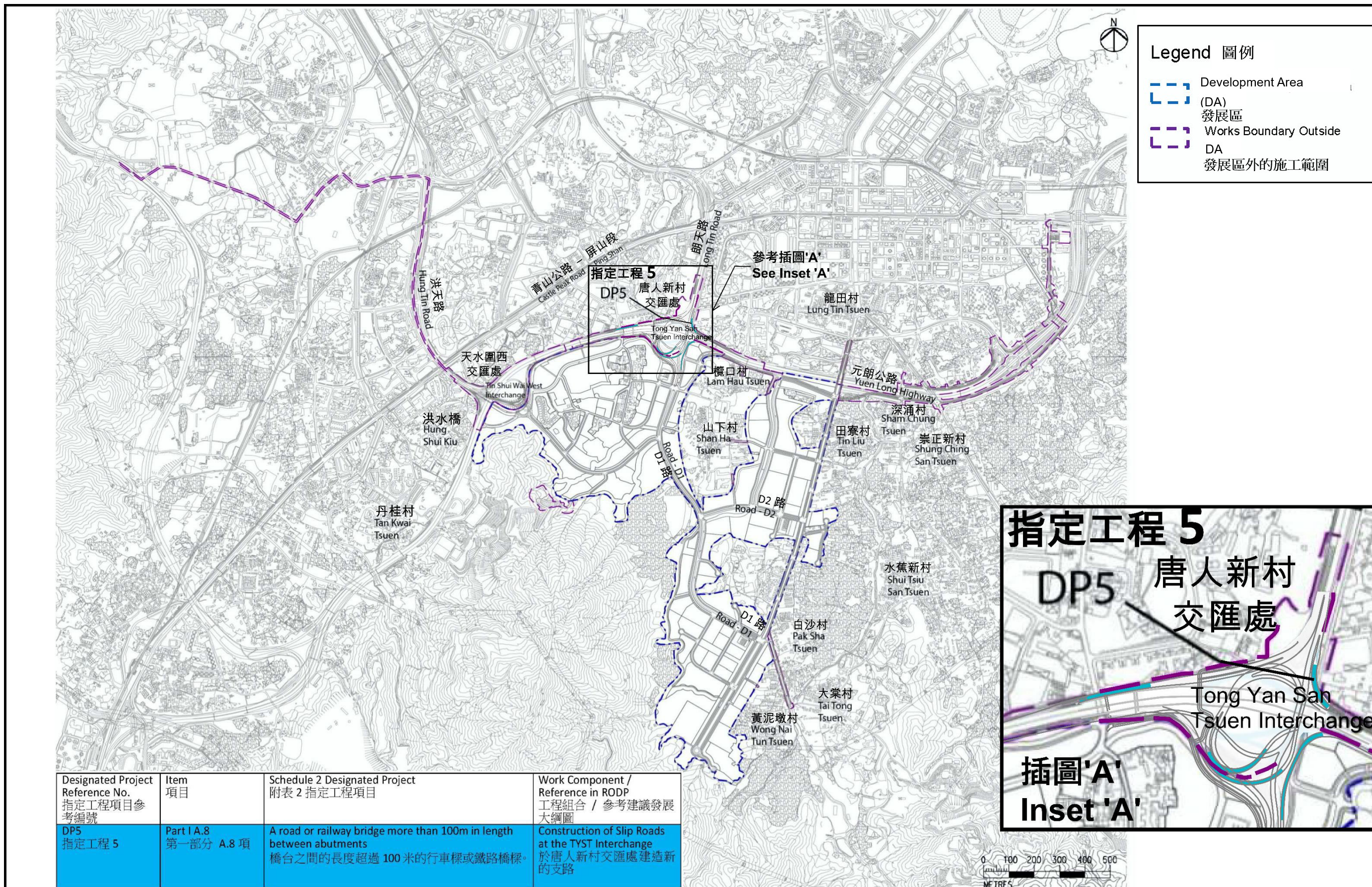
Designated Project Reference No. 指定工程項目參考編號	Item 項目	Schedule 2 Designated Project 附表 2 指定工程項目	Work Component / Reference in RODP 工程組合 / 參考建議發展大綱圖
DP2 指定工程 2	Part I A.1 第一部分 A.1 項	A road which is an expressway, trunk road, primary distributor road or district distributor road including new roads, and major extensions or improvements to existing road 屬快速公路、幹道、主要幹路或地區幹路的道路，包括新路及對現有道路作重大擴建或改善的部分。	Construction of new Primary Distributor Roads (TYST Interchange) 新建的主要幹路 (唐人新村交匯處)

Project Title: Construction of New Primary Distributor Roads (Tong Yan San Tsuen Interchange) for Housing Sites in Yuen Long South
 工程項目名稱：元朗南房屋用地新建的主要幹路（唐人新村交匯處）

Figure 1: Project Location Plan
 圖 1: 工程項目位置圖

Environmental Permit No. : EP-548/2018/A
 環境許可證編號 : EP-548/2018/A





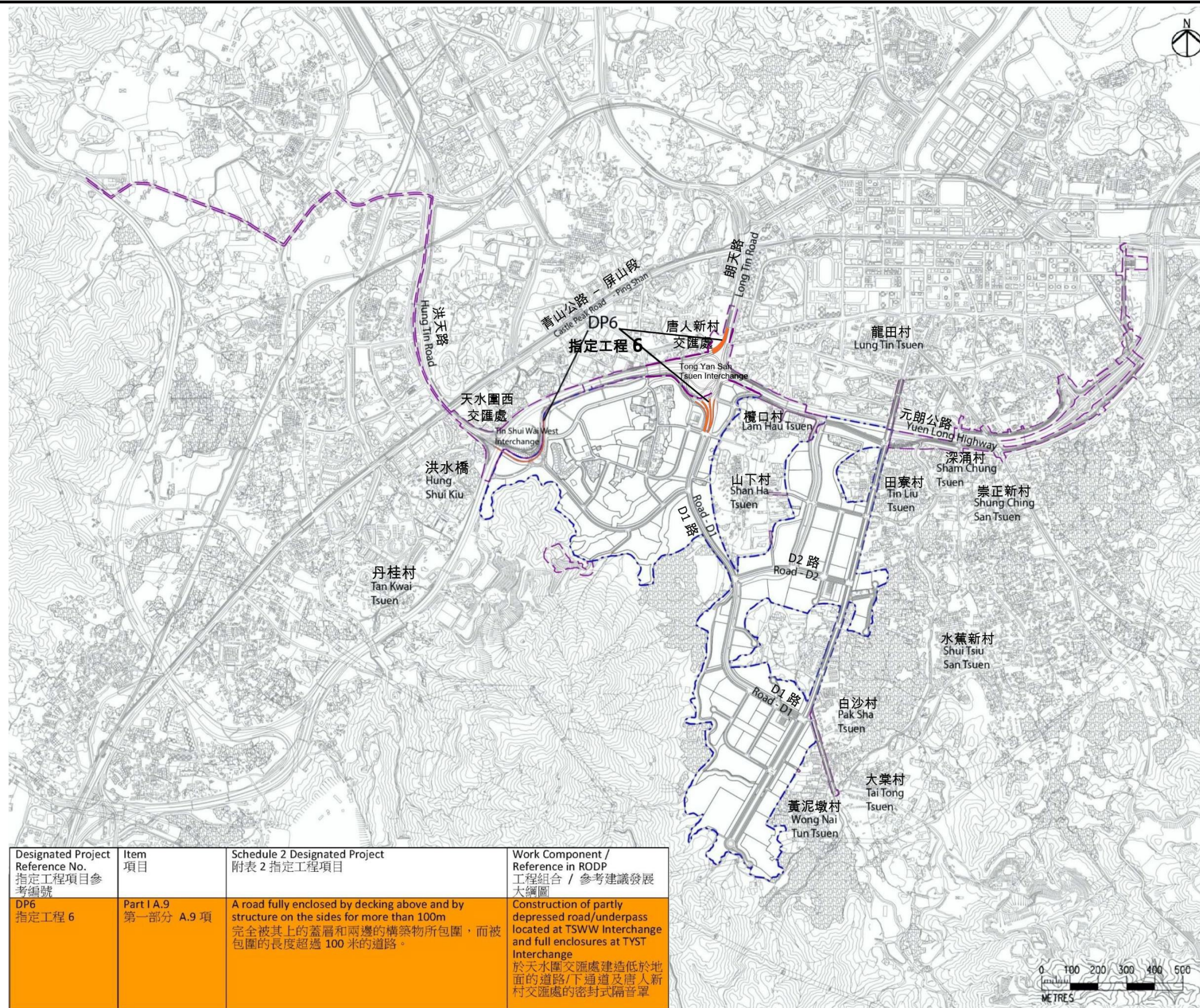
Designated Project Reference No. 指定工程項目參考編號	Item 項目	Schedule 2 Designated Project 附表 2 指定工程項目	Work Component / Reference in RODP 工程組合 / 參考建議發展大綱圖
DP5 指定工程 5	Part I A.8 第一部分 A.8 項	A road or railway bridge more than 100m in length between abutments 橋台之間的長度超過 100 米的行車樑或鐵路橋樑	Construction of Slip Roads at the TYST Interchange 於唐人新村交匯處建造新的支路

Project Title : Construction of Slip Roads at Tong Yan San Tsuen Interchange for Housing Sites in Yuen Long South
 工程項目名稱 : 元朗南房屋用地新建在唐人新村交匯處的支路

Figure 1: Project Location Plan
 圖 1: 工程項目位置圖

Environmental Permit No. : EP-550/2018A
 環境許可證編號 : EP-550/2018A





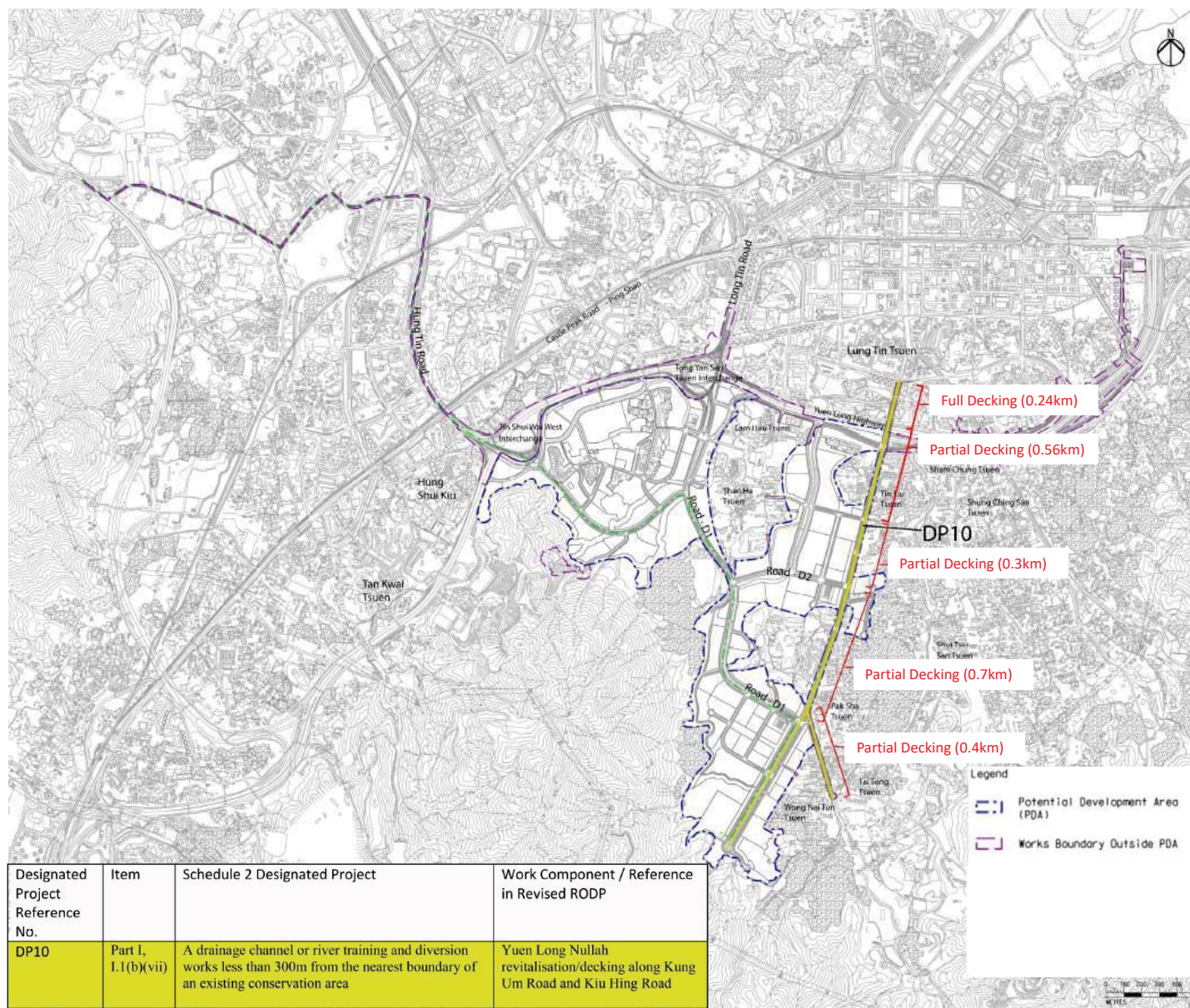
Designated Project Reference No. 指定工程項目參考編號	Item 項目	Schedule 2 Designated Project 附表 2 指定工程項目	Work Component / Reference in RODP 工程組合 / 參考建議發展大綱圖
DP6 指定工程 6	Part I A.9 第一部分 A.9 項	A road fully enclosed by decking above and by structure on the sides for more than 100m 完全被其上的蓋層和兩邊的構築物所包圍，而被包圍的長度超過 100 米的道路。	Construction of partly depressed road/underpass located at TSWW Interchange and full enclosures at TYST Interchange 於天水圍交匯處建造低於地面的道路/下通道及唐人新村交匯處的密封式隔音罩

Project Title : Construction of Partly Depressed Road / Underpass Located at Tin Shui Wai West Interchange and Full Enclosures at Tong Yan San Tsuen Interchange for Housing Sites in Yuen Long South
 工程項目名稱: 元朗南房屋用地建造於天水圍西交匯處的部分沉降道路/隧道及於唐人新村交匯處的密封式隔音罩

Figure 1: Project Location Plan
 圖 1: 工程項目位置圖

Environmental Permit No. : EP-551/2018A
 環境許可證編號 : EP-551/2018A





Designated Project Reference No.	Item	Schedule 2 Designated Project	Work Component / Reference in Revised RODP
DP10	Part I, I.1(b)(vii)	A drainage channel or river training and diversion works less than 300m from the nearest boundary of an existing conservation area	Yuen Long Nullah revitalisation/decking along Kung Um Road and Kiu Hing Road

Project Title: Yuen Long Nullah Revitalisation/Decking along Kung Um Road and Kiu Hing Road for Housing Sites in Yuen Long South
 工程項目名稱：元朗南房屋用地沿公庵路及僑興路的元朗明渠活化/加建上蓋工程

Figure 1a: Project Location Plan
 圖 1a：工程項目位置圖

Environmental Permit No. : EP-553/2018A
 環境許可證編號 : EP-553/2018A



Appendix C

Project Organization and the key personal contact

Contact Details of Key Personnel for Contract YL/2021/03 (Contract 1)

Organization	Project Role	Name of Key Staff	Tel No.	Fax No.
CEDD	Project Proponent	Mr. NG Kam Leung, Julian	2158 5612	2693 2918
AECOM	Chief Resident Engineer	Mr. Alex Chan	5208 5837	3549 5678
Tung Lee	Construction Manager	Mr. Chan Yan Kit	9681 8144	2352 6740
Tung Lee	Site Agent	Mr. Leung Kam Ho, Dennis	9223 7985	2352 6740
Tung Lee	Environmental Officer	Mr. Liu Ho Kan, Frank	6900 3526	2352 6740
Tung Lee	Environmental Supervisor	Mr. Kam Yun Sang, Johnny	6178 4786	2352 6740
Tung Lee	Environmental Supervisor	Mr. Wong Tsz Wing, Matt	6677 6383	2352 6740
Telexmax	Independent Environmental Checker	Ir Nelson Tam	9626 1239	3563 7018
Ford	Environmental Team Leader	Mr. Tam Tak Wing	2959 6059	2959 6079
Ford	Deputy Environmental Team Leader	Mr. Ben Tam	2959 6059	2959 6079
Ford	Environmental Consultant	Ms. Nicola Hon	2959 6059	2959 6079

Legend:

CEDD - (Project Proponent) – Civil Engineering and Development Department

AECOM - (Consultant) – AECOM Asia Company Limited

Telexmax (IEC) – Telexmax Environmental and Energy Management Ltd

Ford (ET) – Ford Business International Limited

Tung Lee - (the Contractor of the Contract YL/2021/04) – Tung Lee Engineering Co.

Contact Details of Key Personnel for Contract YL/2021/04 (Contract 2)

Organization	Project Role	Name of Key Staff	Tel No.	Fax No.
CEDD	Project Proponent	Mr. NG Kam Leung, Julian	2158 5612	2693 2918
AECOM	Chief Resident Engineer	Alex Chan	5208 5837	3549 5678
CREC - JV	Project Manager	Ricky Zhai	6067 1067	3549 5679
CREC - JV	Construction Manager	Cheang Chi Hong	6229 1657	3549 5679
CREC - JV	Site Agent	Jim Ko	9632 9163	3549 5679
CREC-JV	Environmental Office	Shirley Kong	9669 1558	3549 5679
CREC - JV	Environmental Officer	Karen Leung	5239 3606	3549 5679
CREC - JV	Environmental Supervisor	Wong Chi Kwan	5239 3606	3549 5679
CREC - JV	Environmental Supervisor	Raymond Lau	9686 0589	3549 5679
Telexmax	Independent Environmental Checker	Ir Nelson Tam	9626 1239	3563 7018
Ford	Environmental Team Leader	Tam Tak Wing	2959 6059	2959 6079
Ford	Deputy Environmental Team Leader	Ben Tam	2959 6059	2959 6079
Ford	Environmental Consultant	Nicola Hon	2959 6059	2959 6079

Legend:

CEDD - (Project Proponent) – Civil Engineering and Development Department

AECOM - (Consultant) – AECOM Asia Company Limited

Telexmax (IEC) – Telexmax Environmental and Energy Management Ltd

Ford (ET) – Ford Business International Limited

Contact Details of Key Personnel for Contract YL/2022/01 (Contract 3)

Organization	Project Role	Name of Key Staff	Tel No.	Fax No.
CEDD	Project Proponent	Mr. NG Kam Leung, Julian	2158 5612	2693 2918
AECOM	Chief Resident Engineer	Mr. Barry Lee	2349 5665	3549 5678
CRBC	Project Manager	Mr. Kwok Chung Yin, William	2283 1688	3905 8562
CRBC	Deputy Construction Manager	Raymond Suen	9779 8871	3905 8562
CRBC	Site Agent	Daniel Wong	53359572	3905 8562
CRBC	Environmental Officer	Calvin So	9724 6254	3905 8562
CRBC	Environmental Supervisor	Elvis Leung	6995 9685	3905 8562
Telexmax	Independent Environmental Checker	Ir Nelson Tam	9626 1239	3563 7018
Ford	Environmental Team Leader	Tam Tak Wing	2959 6059	2959 6079
Ford	Deputy Environmental Team Leader	Ben Tam	2959 6059	2959 6079
Ford	Environmental Consultant	Nicola Hon	2959 6059	2959 6079

Legend:

CEDD - (Project Proponent) – Civil Engineering and Development Department

AECOM - (Consultant) – AECOM Asia Company Limited

Telexmax (IEC) – Telexmax Environmental and Energy Management Ltd

Ford (ET) – Ford Business International Limited

CRBC - JV (the Contractor of the Contract YL/2022/01) – China Road and Bridge Corporation

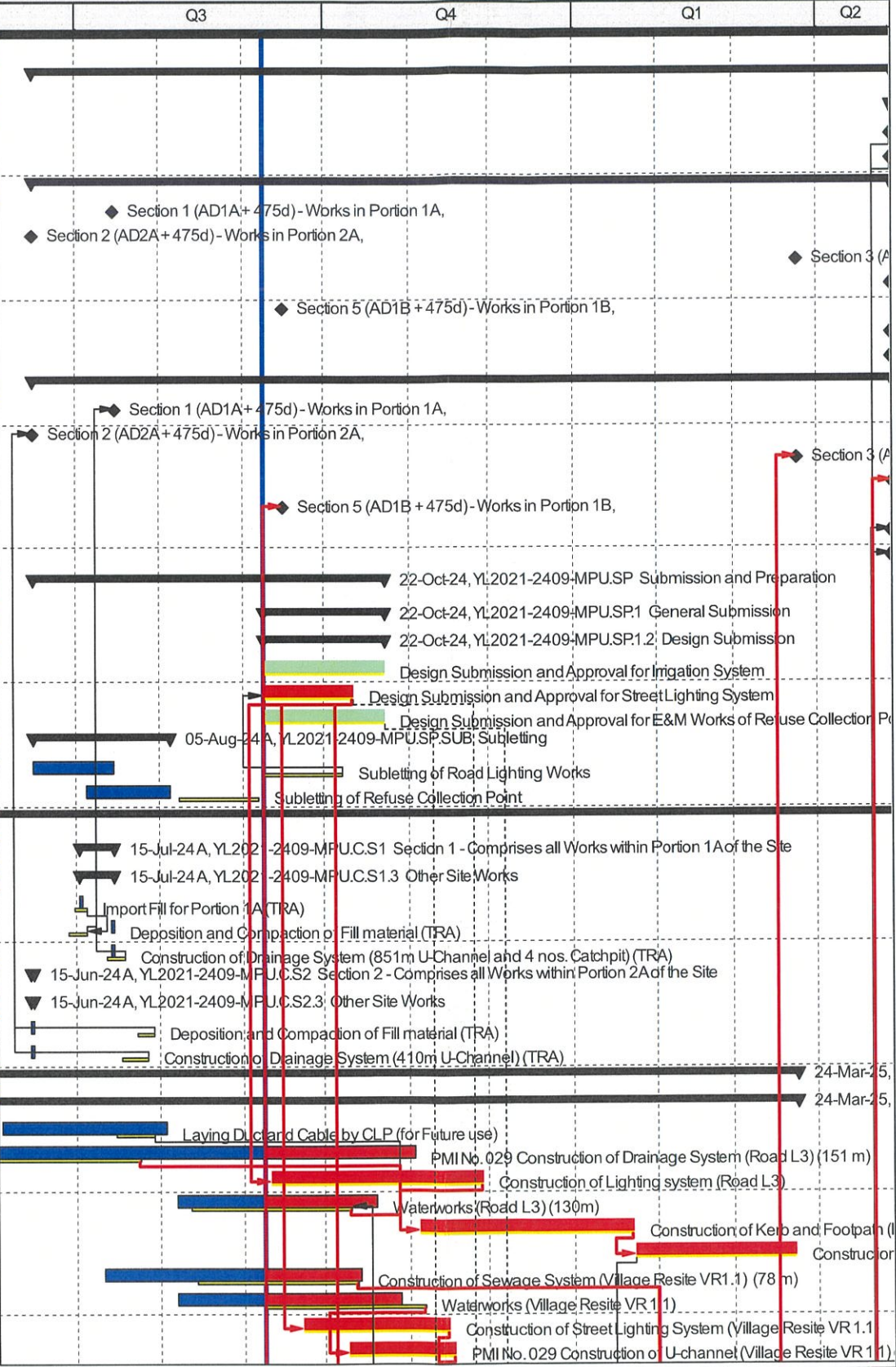
Appendix D

3-month Rolling Construction Programme

- (I) Contract 1**
- (II) Contract 2**
- (III) Contract 3**

3-month Rolling Construction Programme of Contract 1

#	Activity ID	Activity Name	Original Duration	Start	Finish	Late Start	Late Finish	Total Float	2024		2025	
									Q3	Q4	Q1	Q2
1	YL2021-2409-MPU Contract No. YL/2021/03		1339	29-Aug-22A	28-Apr-26	07-Sep-24	28-Apr-26	0				
2	YL2021-2409-MPU.CDP Contract Data Part 1		288	15-Jun-24A	29-Apr-25	14-Sep-24	28-Apr-26	365				
3	YL2021-2409-MPU.CDP.G General		0	28-Apr-25	28-Apr-25	28-Apr-25	28-Apr-25	0				
4	G2-CD1	Contract Completion Date (sd + 973d)	0		28-Apr-25*		28-Apr-25	0				
5	G2-CD2	Planned Completion Date	0		28-Apr-25*		28-Apr-25	0				
6	YL2021-2409-MPU.CDP.CD Contract Section Completion Date		256	15-Jun-24A	28-Apr-25	15-Sep-24	28-Apr-26	365				
7	S01	Section 1 (AD1A+475d) - Works in Portion 1A	0		15-Jul-24A		28-Apr-26		◆ Section 1 (AD1A+475d) - Works in Portion 1A,			
8	S02	Section 2 (AD2A+475d) - Works in Portion 2A	0		15-Jun-24A		28-Apr-26		◆ Section 2 (AD2A+475d) - Works in Portion 2A,			
9	S03	Section 3 (AD3A/AD3B/AD3C + 731d) - Works in Portion 3A, 3B, 3C	0		24-Mar-25*		24-Mar-25	0			◆ Section 3 (A	
10	S04	Section 4 (AD4/AD4A/AD4B + 731d) - Works in Portion 4, 4A, 4B	0		28-Apr-25*		28-Apr-25	0				
11	S05	Section 5 (AD1B + 475d) - Works in Portion 1B	0		15-Sep-24*		15-Sep-24	0		◆ Section 5 (AD1B + 475d) - Works in Portion 1B,		
12	S08	Section 8 (SD + 973d) Preservation and protection of existing trees	0		28-Apr-25*		28-Apr-25	0				
13	S09	Section 9 (SD + 973d) Landscape softworks	0		28-Apr-25*		28-Apr-25	0				
14	YL2021-2409-MPU.CDP.PCD Planned Section Completion Date		288	15-Jun-24A	29-Apr-25	14-Sep-24	28-Apr-26	365				
15	PS01	Section 1 (AD1A+475d) - Works in Portion 1A	0		15-Jul-24A		28-Apr-26		◆ Section 1 (AD1A+475d) - Works in Portion 1A,			
16	PS02	Section 2 (AD2A+475d) - Works in Portion 2A	0		15-Jun-24A		28-Apr-26		◆ Section 2 (AD2A+475d) - Works in Portion 2A,			
17	PS03	Section 3 (AD3A/AD3B/AD3C + 731d) - Works in Portion 3A, 3B, 3C	0		24-Mar-25*		24-Mar-25	0			◆ Section 3 (A	
18	PS04	Section 4 (AD4/AD4A/AD4B + 731d) - Works in Portion 4, 4A, 4B	0		29-Apr-25*		28-Apr-25	0				
19	PS05	Section 5 (AD1B + 475d) - Works in Portion 1B	0		15-Sep-24*		14-Sep-24	0		◆ Section 5 (AD1B + 475d) - Works in Portion 1B,		
20	PS08	Section 8 (SD + 973d) Preservation and Protection of Existing Trees	0		28-Apr-25*		28-Apr-25	0				
21	PS09	Section 9 (SD + 973d) Landscape Softworks	0		28-Apr-25*		28-Apr-25	0				
22	YL2021-2409-MPU.SP Submission and Preparation		76	15-Jun-24A	22-Oct-24	08-Sep-24	28-Apr-26	553				
23	YL2021-2409-MPU.SP.1 General Submission		45	08-Sep-24	22-Oct-24	08-Sep-24	28-Apr-26	553				
24	YL2021-2409-MPU.SP.1.2 Design Submission		45	08-Sep-24	22-Oct-24	08-Sep-24	28-Apr-26	553				
25	PRE-130	Design Submission and Approval for Irrigation System	45	08-Sep-24*	22-Oct-24	15-Mar-26	28-Apr-26	553				
26	PRE-135	Design Submission and Approval for Street Lighting System	34	08-Sep-24*	11-Oct-24	08-Sep-24	11-Oct-24	0				
27	PRE-155	Design Submission and Approval for E&M Works of Refuse Collection Point	45	08-Sep-24*	22-Oct-24	30-Oct-24	13-Dec-24	52				
28	YL2021-2409-MPU.SPSUB Subletting		61	15-Jun-24A	05-Aug-24A	08-Sep-24	28-Apr-26					
29	SUB-065	Subletting of Road Lighting Works	30	15-Jun-24A	15-Jul-24A	08-Sep-24	08-Sep-24					
30	SUB-090	Subletting of Refuse Collection Point	30	05-Jul-24A	05-Aug-24A	28-Apr-26	28-Apr-26					
31	YL2021-2409-MPU.C Construction		1339	29-Aug-22A	28-Apr-26	07-Sep-24	28-Apr-26	0				
32	YL2021-2409-MPU.C.S1 Section 1 - Comprises all Works within Portion 1A of the Site		21	02-Jul-24A	15-Jul-24A	28-Apr-26	28-Apr-26					
33	YL2021-2409-MPU.C.S1.3 Other Site Works		21	02-Jul-24A	15-Jul-24A	28-Apr-26	28-Apr-26					
34	WS1-108	Import Fill for Portion 1A (TRA)	5	02-Jul-24A	03-Jul-24A	28-Apr-26	28-Apr-26					
35	WS1-110	Deposition and Compaction of Fill material (TRA)	7	14-Jul-24A	15-Jul-24A	28-Apr-26	28-Apr-26					
36	WS1-112	Construction of Drainage System (851m U-Channel and 4 nos. Catchpit) (TRA)	7	14-Jul-24A	15-Jul-24A	28-Apr-26	28-Apr-26					
37	YL2021-2409-MPU.C.S2 Section 2 - Comprises all Works within Portion 2A of the Site		12	14-Jun-24A	15-Jun-24A	28-Apr-26	28-Apr-26					
38	YL2021-2409-MPU.C.S2.3 Other Site Works		12	14-Jun-24A	15-Jun-24A	28-Apr-26	28-Apr-26					
39	WS2-117	Deposition and Compaction of Fill material (TRA)	7	14-Jun-24A	15-Jun-24A	28-Apr-26	28-Apr-26					
40	WS2-119	Construction of Drainage System (410m U-Channel) (TRA)	10	14-Jun-24A	15-Jun-24A	28-Apr-26	28-Apr-26					
41	YL2021-2409-MPU.C.S3 Section 3 - Comprises all works Within Portion 3A, 3B 3C		323	06-Apr-24A	24-Mar-25	08-Sep-24	24-Mar-25	0				
42	YL2021-2409-MPU.C.S3.3 Drainage, Water and Road Works		323	06-Apr-24A	24-Mar-25	08-Sep-24	24-Mar-25	0				
43	WS3-106	Laying Duct and Cable by CLP (for Future use)	15	03-Jun-24A	03-Aug-24A	05-Nov-24	05-Nov-24					
44	WS3-110	PMI No.029 Construction of Drainage System (Road L3) (151 m)	80	06-Apr-24A	02-Nov-24	10-Sep-24	04-Nov-24	2				
45	WS3-111	Construction of Lighting system (Road L3)	80	10-Sep-24	28-Nov-24	11-Sep-24	29-Nov-24	1				
46	WS3-112	Waterworks (Road L3) (130m)	60	07-Aug-24A	19-Oct-24	09-Sep-24	20-Oct-24	1				
47	WS3-115	Construction of Kerb and Footpath (Road L3) (130m)	80	04-Nov-24	22-Jan-25	05-Nov-24	23-Jan-25	1				
48	WS3-117	Construction of Road Works/ Carriageway (Road L3) (1120 m2)	60	23-Jan-25	23-Mar-25	24-Jan-25	24-Mar-25	1				
49	WS3-120	Construction of Sewage System (Village Resite VR1.1) (78 m)	60	11-Jul-24A	13-Oct-24	10-Sep-24	15-Oct-24	2				
50	WS3-130	Waterworks (Village Resite VR 1.1)	60	07-Aug-24A	28-Oct-24	08-Sep-24	28-Oct-24	0				
51	WS3-135	Construction of Street Lighting System (Village Resite VR 1.1)	55	22-Sep-24	15-Nov-24	24-Sep-24	17-Nov-24	2				
52	WS3-137	PMI No.029 Construction of U-channel (Village Resite VR 1.1) (245m)	40	09-Oct-24	17-Nov-24	09-Oct-24	17-Nov-24	0				



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

Date	Revision	Checked
09-Sep-2024	Rev.0	WCF

Contract No. YL/2021/03 - Site Formation and Infrastructure Works for Yuen Long South First Phase Development - Contract 1

#	Activity ID	Activity Name	Original Duration	Start	Finish	Late Start	Late Finish	Total Float	2024			2025	
									Q3	Q4	Q1	Q2	
53	WS3-138	Construction of Street Furniture on Parapet Wall (130m)	30	23-Feb-25	24-Mar-25	23-Feb-25	24-Mar-25	0					
54	WS3-140	Construction of Kerb and Footpath (Village Resite VR 1.1) (165m)	105	18-Nov-24*	02-Mar-25	18-Nov-24	02-Mar-25	0					
55	WS3-145	Laying Duct and Cable by CLP (for substation)	45	08-Feb-25	24-Mar-25	08-Feb-25	24-Mar-25	0					
56	WS3-185	Construction of Concrete Pavement (other than Carriageway) and EVA	60	22-Jan-25	22-Mar-25	24-Jan-25	24-Mar-25	2					
57	YL2021-2409-MPUC.S3.4 Other Site Works		200	07-Jul-24A	14-Feb-25	08-Sep-24	24-Mar-25	38					
58	WS3-190	Construction of CLP Standalone Substation	200	07-Jul-24A	14-Feb-25	08-Sep-24	14-Feb-25	0					
59	WS3-200	Construction of Refuse Collection Point	45	17-Nov-24*	31-Dec-24	08-Feb-25	24-Mar-25	83					
60	YL2021-2409-MPUC.S4 Section 4 - Comprises all Works within Portion 4, 4A 4B		593	09-Sep-23A	29-Apr-25	07-Sep-24	28-Apr-26	365					
61	YL2021-2409-MPUC.S4.4 Portion 4		145	08-Sep-24	30-Jan-25	05-Dec-24	28-Apr-25	88					
62	WS4-015	Installation of ELS	20	08-Sep-24	27-Sep-24	05-Dec-24	24-Dec-24	88					
63	WS4-016	Installation of ELS (Time Risk Allowance)	5	28-Sep-24	02-Oct-24	25-Dec-24	29-Dec-24	88					
64	WS4-020	Excavation for UU Trench	30	03-Oct-24	01-Nov-24	30-Dec-24	28-Jan-25	88					
65	WS4-030	Construction of Drainage System	30	02-Nov-24	01-Dec-24	29-Jan-25	27-Feb-25	88					
66	WS4-040	Construction of Street Lighting System	30	02-Dec-24	31-Dec-24	28-Feb-25	29-Mar-25	88					
67	WS4-050	Construction of Street Furniture	30	01-Jan-25	30-Jan-25	30-Mar-25	28-Apr-25	88					
68	WS4-060	Construction of Road Works	30	01-Jan-25	30-Jan-25	30-Mar-25	28-Apr-25	88					
69	YL2021-2409-MPUC.S4.4AB Portion 4A & 4B		593	09-Sep-23A	29-Apr-25	07-Sep-24	28-Apr-26	365					
70	YL2021-2409-MPUC.S4.4AB.1 General Works		4	08-Sep-24	11-Sep-24	25-Apr-25	28-Apr-25	229					
71	WS4A-020	Demolition of Existing Structure (689 m2)	4	08-Sep-24*	11-Sep-24	25-Apr-25	28-Apr-25	229					
72	YL2021-2409-MPUC.S4.4AB.2 Land Decontamination Works		30	15-Sep-24	14-Oct-24	30-Mar-25	28-Apr-25	196					
73	WS4A-110	Construction of Fill Slope (90 m3)	30	15-Sep-24*	14-Oct-24	30-Mar-25	28-Apr-25	196					
74	YL2021-2409-MPUC.S4.4AB.4 Drainage, Water and Road Works		565	09-Sep-23A	24-Apr-25	07-Sep-24	28-Apr-25	4					
75	WS4A-114	Open Cut Excavation (Road L2)	45	09-Sep-23A	14-Sep-24	08-Sep-24	14-Sep-24	0					
76	WS4A-120	Construction of Drainage System (Road L2) (166m)	310	23-Sep-23A	24-Oct-24	10-Sep-24	26-Oct-24	3					
77	WS4A-130	Construction of Sewage System (Road L2) (40m)	63	14-Oct-24	16-Dec-24	15-Oct-24	16-Dec-24	0					
78	WS4A-150	Waterworks (Road L2) (130m)	90	08-Sep-24	06-Dec-24	08-Sep-24	06-Dec-24	0					
79	WS4A-152	Construction of Drainage System (EVA) (160m)	160	15-Jan-24A	25-Oct-24	08-Sep-24	25-Oct-24	0					
80	WS4A-153	Waterworks (EVA) (200m)	138	07-Aug-24A	17-Jan-25	07-Sep-24	16-Jan-25	0					
81	WS4A-154	Construction of Street Lighting System (EVA) (140m)	70	12-Oct-24	20-Dec-24	12-Oct-24	20-Dec-24	0					
82	WS4A-156	Construction of Sewage System (Village Resite VR 2.1) (100m)	105	20-Sep-24*	02-Jan-25	20-Sep-24	02-Jan-25	0					
83	WS4A-157	Waterworks (Village Resite VR 2.1) (100m)	75	13-Oct-24	26-Dec-24	13-Oct-24	26-Dec-24	0					
84	WS4A-160	Construction of Street Lighting System (Road L2) (140m)	70	12-Oct-24	20-Dec-24	17-Oct-24	25-Dec-24	5					
85	WS4A-169	Construction of Kerb and Footpath (Road L2)	60	26-Dec-24	23-Feb-25	26-Dec-24	23-Feb-25	0					
86	WS4A-180	Construction of Street Furniture (Road L2)	58	24-Feb-25	22-Apr-25	02-Mar-25	28-Apr-25	6					
87	WS4A-190	Construction of Road Works (Road L2) (4929 m2)	60	24-Feb-25	24-Apr-25	28-Feb-25	28-Apr-25	4					
88	WS4A-192	Construction of Road Works (EVA) (1100 m2)	30	17-Jan-25	16-Feb-25	17-Jan-25	15-Feb-25	0					
89	WS4A-195	Construction of Concrete Pavement (Other than Carriageway)	28	25-Feb-25	24-Mar-25	25-Feb-25	24-Mar-25	0					
90	YL2021-2409-MPUC.S4.4AB.3 Substation and Other Site Works		288	24-Jul-24A	29-Apr-25	08-Sep-24	28-Apr-25	0					
91	WS4A-200	Construction of CLP Standalone Substation	200	24-Jul-24A	24-Feb-25	08-Sep-24	24-Feb-25	0					
92	WS4A-210	Construction of Refuse Collection Point	120	14-Dec-24*	12-Apr-25	14-Dec-24	12-Apr-25	0					
93	WS4A-214	Construction of Septic Tank and Sokway Pit	100	02-Aug-24A	16-Nov-24	08-Sep-24	16-Nov-24	0					
94	WS4A-215	Construction of Chain Link Fence	35	25-Mar-25	29-Apr-25	25-Mar-25	28-Apr-25	0					
95	YL2021-2409-MPUC.S4.4AB.5 Trial Piling Works		34	24-Jun-24A	27-Jul-24A	28-Apr-26	28-Apr-26						
96	WS4A-710	PMI No. 028 Loading test for 831mm Dia. Bored Pile No. LT-YLS-P1	7	24-Jun-24A	28-Jun-24A	28-Apr-26	28-Apr-26						
97	WS4A-760	PMI No. 028 Loading test for 831mm Dia. Bored Pile No. LT-YLS-P2	10	09-Jul-24A	12-Jul-24A	28-Apr-26	28-Apr-26						
98	WS4A-770	PMI No. 028 Demolition of Pile Head (4 nos.)	7	02-Jul-24A	19-Jul-24A	28-Apr-26	28-Apr-26						
99	WS4A-780	Demobilization of Plant and Equipment	3	19-Jul-24A	27-Jul-24A	28-Apr-26	28-Apr-26						
100	YL2021-2409-MPUC.S5 Section 5 - Comprises all Works within Portion 1B		153	20-Mar-24A	04-Oct-24	07-Sep-24	05-Oct-24	2					
101	YL2021-2409-MPUC.S5.3 Drainage and Other Site Works		153	20-Mar-24A	04-Oct-24	07-Sep-24	05-Oct-24	2					
102	WS5-050	Construction of Drainage System (Catchpit) (16 nos.)	64	20-Mar-24A	11-Sep-24	09-Sep-24	12-Sep-24	2					
103	WS5-090	Construction of Drainage System (U-Channel) (535 m)	55	25-May-24A	04-Oct-24	09-Sep-24	05-Oct-24	2					
104	WS5-100	Deposition and Compaction of Fill Material	40	15-Jul-24A	15-Sep-24	07-Sep-24	14-Sep-24	0					
105	WS5-105	PMI No. 055 Proposed Access Road (280m)	30	15-Aug-24A	15-Sep-24	07-Sep-24	14-Sep-24	0					
106	YL2021-2409-MPUC.S8 Section 8 - Preservation and Protection of Existing Trees		974	29-Aug-22A	28-Apr-25	07-Sep-24	28-Apr-25	0					



■ Remaining Level of Effort ■ Actual Work ◆ Milestone
■ Actual Level of Effort ■ Remaining Work ▶ summary
— Primary Baseline ■ Critical Remaining Work

Contract No. YL/2021/03 - Site Formation and Infrastructure Works for Yuen Long South First Phase Development - Contract 1
THREE-MONTH ROLLING PROGRAMME (OCT 2024 TO DEC 2024)

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Date	Revision	Checked
09-Sep-2024	Rev.0	WCF

#	Activity ID	Activity Name	Original Duration	Start	Finish	Late Start	Late Finish	Total Float	2024				2025					
									Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2		
107	WS8-010	Preservation and Protection of Existing Trees	974	29-Aug-22A	28-Apr-25	07-Sep-24	28-Apr-25	0										
108	YL2021-2409-MPU.C.S9 Section 9 - Landscape Softworks		974	29-Aug-22A	28-Apr-25	07-Sep-24	28-Apr-25	0										
109	WS9-010	Landscape Softworks	974	29-Aug-22A	28-Apr-25	07-Sep-24	28-Apr-25	0										
110	YL2021-2409-MPU.C.S10 Section 10 - Establishment		365	29-Apr-25	28-Apr-26	29-Apr-25	28-Apr-26	0										
111	WS10-010	Establishment	365	29-Apr-25	28-Apr-26	29-Apr-25	28-Apr-26	0										
112	YL2021-2409-MPU.ES Executive Summary		690	13-Jun-23A	24-Apr-25	09-Sep-24	28-Apr-25	4										
113	YL2021-2409-MPU.ES.S3 Section 3		323	06-Apr-24A	24-Mar-25	10-Sep-24	24-Mar-25	0										
114	ES-S3-030	Installation of UU, Street Furniture and Road Works	61	23-Jan-25	24-Mar-25	24-Jan-25	24-Mar-25	0										24-Mar-25, Installation of UU, Street Furniture and Road Works
115	ES-S3-040	Erection of Structure	90	17-Nov-24	14-Feb-25	08-Feb-25	14-Feb-25	0										Erection of Structure
116	ES-S3-050	Drainage, Sewerage, Watermain and Flush Main System	85	06-Apr-24A	19-Oct-24	10-Sep-24	20-Oct-24	1										Drainage, Sewerage, Watermain and Flush Main System
117	YL2021-2409-MPU.ES.S4 Section 4		690	13-Jun-23A	24-Apr-25	10-Sep-24	28-Apr-25	4										
118	ES-S4-010	Works in Portion 4	161	13-Jun-23A	30-Jan-25	05-Dec-24	28-Apr-25	88										Works in Portion 4
119	ES-S4-040	Installation of UU, Street Furniture and Road Works	120	26-Dec-24	24-Apr-25	26-Dec-24	28-Apr-25	4										Erection of Structure
120	ES-S4-050	Erection of Structure	73	14-Dec-24	24-Feb-25	14-Dec-24	24-Feb-25	0										Erection of Structure
121	ES-S4-060	Drainage, Sewerage, Watermain and Flush Main System	100	23-Sep-23A	06-Dec-24	10-Sep-24	06-Dec-24	0										Drainage, Sewerage, Watermain and Flush Main System
122	YL2021-2409-MPU.ES.S5 Section 5		0	25-May-24A	15-Sep-24	09-Sep-24	14-Sep-24	0										15-Sep-24, YL2021-2409-MPU.ES.S5 Section 5
123	ES-S5-030	Drainage System	0	25-May-24A	15-Sep-24	09-Sep-24	14-Sep-24	0										Drainage System

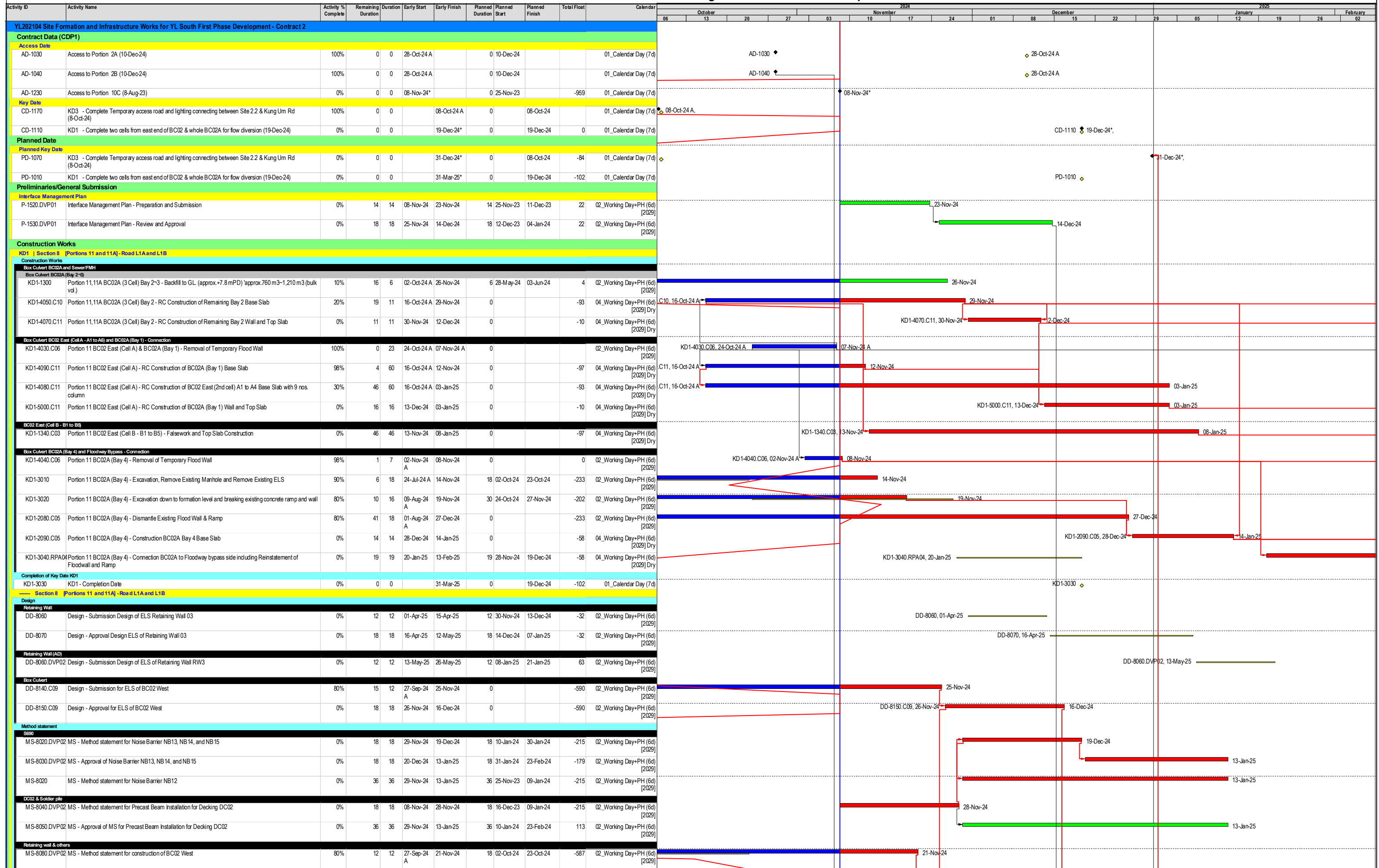


■ Remaining Level of Effort ■ Actual Work ◆ Milestone
■ Actual Level of Effort ■ Remaining Work ◆ summary
— Primary Baseline ■ Critical Remaining Work

Date	Revision	Checked
09-Sep-2024	Rev.0	WCF

3-month Rolling Construction Programme of Contract 2

Site Formation and Infrastructure Works for Yuen Long South First Phase Development – Contract 2



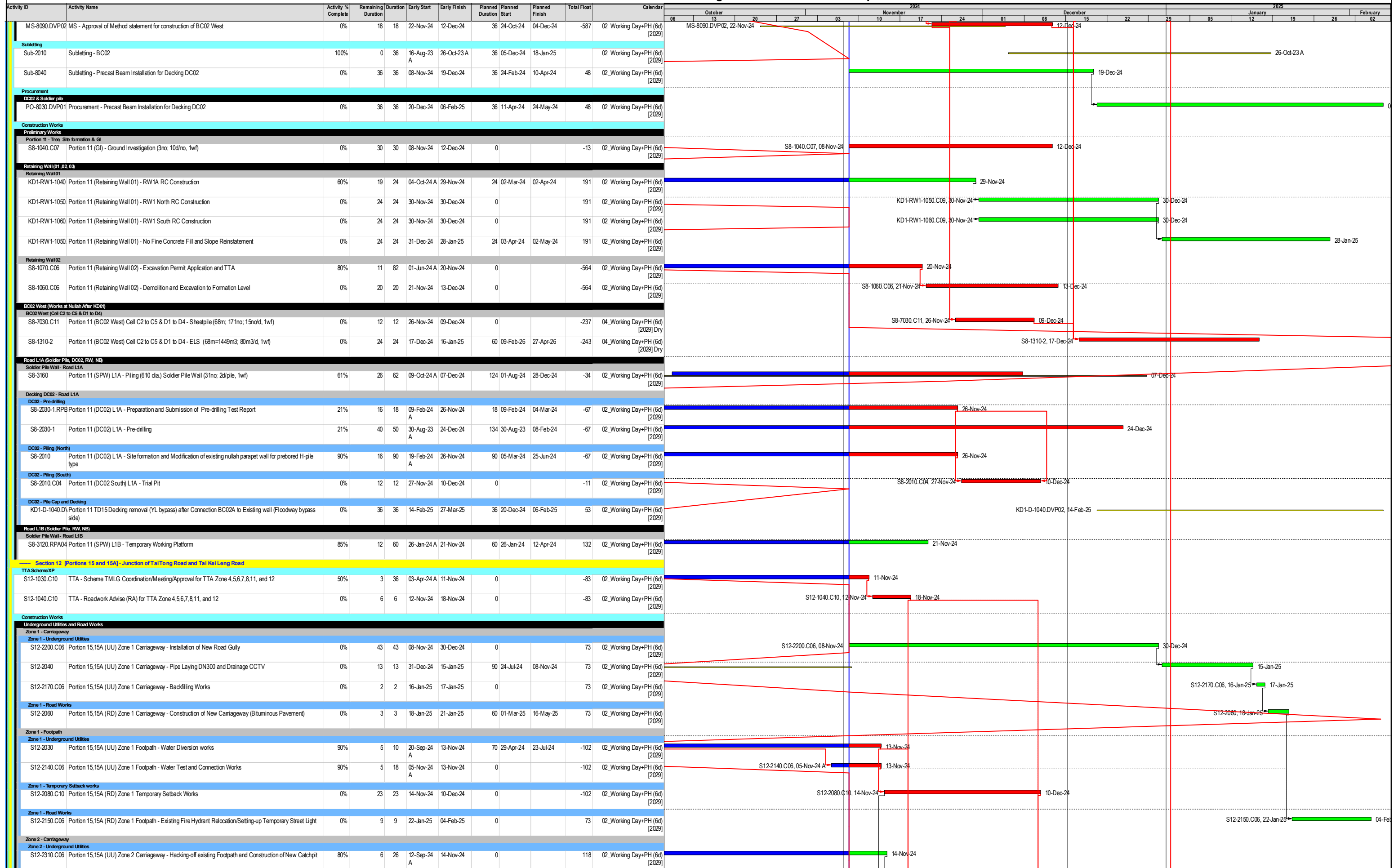
■ Actual Work	■ Project Baseline
■ Remaining Work	◆ Milestone
■ Critical Remaining Work	◆ Project Baseline

Data Date: 08-Nov-24
 Project Start: 8 Dec 2022
 Project End: 10-May-33
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YL/2021/04
 Monthly Programme Update
 Three Months Rolling Programme

Date	Revision	Checked	Approved
30-Nov-23	RPB02 - Accepted (3-Jan-24)		
15-Oct-24	202409 MPU		
15-Nov-24	202410 MPU		

Site Formation and Infrastructure Works for Yuen Long South First Phase Development – Contract 2



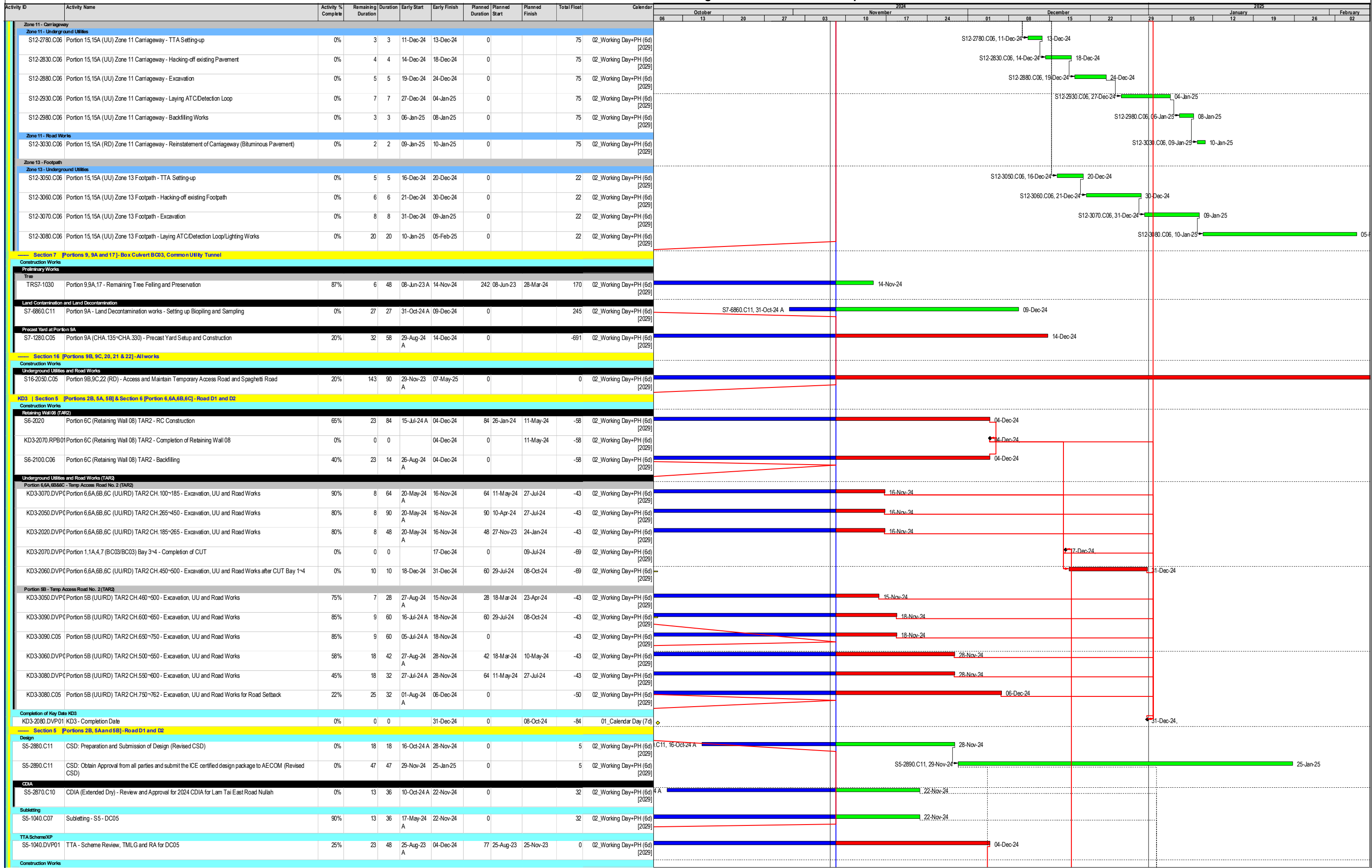
█ Actual Work █ Project Baseline
█ Remaining Work ◆ Milestone
█ Critical Remaining Work ◆ Project Baseline

Data Date: 08-Nov-24
 Project Start: 8 Dec 2022
 Project End: 10-May-33
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YL/2021/04
Monthly Programme Update
Three Months Rolling Programme

Date	Revision	Checked	Approved
30-Nov-23	RPB02 - Accepted (3-Jan-24)		
15-Oct-24	202409 MPU		
15-Nov-24	202410 MPU		

Site Formation and Infrastructure Works for Yuen Long South First Phase Development – Contract 2



	Actual Work		Project Baseline
	Remaining Work		Milestone
	Critical Remaining Work		Project Baseline

Data Date: 08-Nov-24
 Project Start: 8 Dec 2022
 Project End: 10-May-33
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YL/2021/04
 Monthly Programme Update
 Three Months Rolling Programme

Date	Revision	Checked	Approved
30-Nov-23	RPB02 - Accepted (3-Jan-24)		
15-Oct-24	202409 MPU		
15-Nov-24	202410 MPU		

Site Formation and Infrastructure Works for Yuen Long South First Phase Development – Contract 2

Activity ID	Activity Name	Activity % Complete	Remaining Duration	Duration	Early Start	Early Finish	Planned Start	Planned Finish	Total Float	Calendar	2024																												
											October							November							December							January							February
												06	13	20	27	03	10	17	24	01	08	15	22	29	05	12	19	26	02										
KD6-3070.DVP0	Portion 7 (DC03) - Construction of DC03 Base Slab Remaining Half of Bay 3	0%	6	6	12-Mar-25	18-Mar-25	78	12-Oct-24	14-Jan-25	-88	02_Working Day+PH (6d) [2029]	Mar-25																											
KD6-3080.DVP0	Portion 7 (DC03) - Backfilling Works	0%	18	18	09-Apr-25	03-May-25	12	15-Jan-25	28-Jan-25	-88	02_Working Day+PH (6d) [2029]	KD6-3080.DVP01, 09-Apr-25																											
Common Utility Tunnel (CUT) Bay 1-7																																							
CHC.774-745 (along CUT,BC03 Bay 1-2)																																							
S1-1020	Portion 1,1A,4,7 (CUT) Bay 1-2 - RC Construction (2 bays; 30d/bay, 1wf)	95%	54	60	02-Apr-24	13-Jan-25	60	18-Dec-23	02-Mar-24	-149	02_Working Day+PH (6d) [2029]	13-Jan-25																											
S1-1050	Portion 1,1A,4,7 (CUT) Bay 1-2 - Backfill and Removal of Sheet piles	0%	12	12	14-Jan-25	27-Jan-25	12	04-Mar-24	16-Mar-24	-149	02_Working Day+PH (6d) [2029]	27-Jan-25																											
CHC.745-715 (along CUT,BC03 Bay 3-4)																																							
S1-1020.DVP01	Portion 1,1A,4,7 (CUT) Bay 3-4 - RC Construction (2 bays; 30d/bay, 1wf)	90%	16	60	09-Mar-24	26-Nov-24	60	30-Jan-24	16-Apr-24	-81	02_Working Day+PH (6d) [2029]	26-Nov-24																											
S1-1050.DVP01	Portion 1,1A,4,7 (CUT) Bay 3-4 - Backfill and Removal of Sheet piles	0%	18	18	27-Nov-24	17-Dec-24	18	17-Apr-24	08-May-24	-81	02_Working Day+PH (6d) [2029]	17-Dec-24																											
CHC.715-685 (along CUT,BC03 Bay 5-6)																																							
S1-1030	Portion 1,1A,4,7 (CUT) Bay 5-6 - RC Construction (2 bays; 30d/bay, 1wf)	65%	54	60	12-Jun-24	13-Jan-25	60	15-Mar-24	30-May-24	-91	02_Working Day+PH (6d) [2029]	13-Jan-25																											
CHC.685-655 (along CUT,BC03 Bay 7)																																							
S1-1005.DVP01	Portion 1,1A,4,7 (CUT) Bay 7 - Sheet Pile Installation	50%	18	36	01-Mar-24	28-Nov-24	36	16-Feb-24	28-Mar-24	-57	02_Working Day+PH (6d) [2029]	28-Nov-24																											
S1-1040	Portion 1,1A,4,7 (CUT) Bay 7 - RC Construction (2 bays; 30d/bay, 1wf)	30%	54	60	23-Jul-24	13-Jan-25	60	02-May-24	13-Jul-24	-57	02_Working Day+PH (6d) [2029]	13-Jan-25																											
Box Culvert (BC03) CHC.774-374																																							
CHC.774-745 (along CUT,BC03 Bay 1-2)																																							
KD6-2690.C08	Portion 1,1A,4,7 (CUT) Bay 1-2 - Completion of Backfill and Removal of Sheet piles	0%	0	0		27-Jan-25	0			-149	02_Working Day+PH (6d) [2029]	KD6-2690.C08 27-Jan-25																											
CHC.685-655 (along CUT,BC03 Bay 7)																																							
DVPKD6-2190	Portion 1,1A,4,7 (BC03) CHC.685-655 - Backfill / Sheet Pile Removal	0%	6	6	25-Jul-25	31-Jul-25	42	19-Oct-24	06-Dec-24	-26	02_Working Day+PH (6d) [2029]	DVPKD6-2190, 25-Jul-25																											
CHC.685-625 (Bay 9-10)																																							
DVPKD6-2200	Portion 1,1A,4,7 (BC03) CHC.685-625 - Backfill / Sheet Pile Removal	0%	6	6	03-Sep-25	09-Sep-25	42	07-Dec-24	28-Jan-25	-39	02_Working Day+PH (6d) [2029]	DVPKD6-2200, 03-Sep-25																											
CHC.625-595 (Bay 11-12)																																							
DVPKD6-2100	Portion 1,1A,4,7 (BC03) CHC.625-595 - RC Construction (2 bays; 15d/bay, 1wf)	0%	34	34	03-Sep-25	14-Oct-25	48	07-Nov-24	04-Jan-25	-52	02_Working Day+PH (6d) [2029]	DVPKD6-2100, 03-Sep-25																											
Section 1 Portions 1, 1A, 4 and 7] - Lam Tai East Road																																							
Design - CUT / CUT Supporting Buildings Modification Work																																							
GBP Submission																																							
S7-4080.C11	CUT / CUT Supporting Buildings Modification Works - Design and Review for GBP Submission	100%	44	60	23-Sep-24	31-Dec-24	0			0	02_Working Day+PH (6d) [2029]	31-Dec-24																											
S7-4090.C11	CUT / CUT Supporting Buildings Modification Works - Submission of GBP with AP Approval to FSD	0%	0	0		31-Dec-24	0			0	02_Working Day+PH (6d) [2029]	S7-4090.C11 31-Dec-24																											
FSD Submission																																							
SUKD6-1020	CUT / CUT Supporting Buildings Modification Works - Revise and Resubmission of GBP by FSD	0%	30	30	17-Mar-25	24-Apr-25	30	28-Oct-24	30-Nov-24	0	02_Working Day+PH (6d) [2029]	SUKD6-1020, 17-Mar-25																											
Section 2 Portion 2A] - Open Space																																							
Method Statement																																							
S2-1030	Submission and approval of all necessary documents incl. MS, material and remain statutory submissions for S2	50%	1	90	08-Apr-24	08-Nov-24	90	08-Apr-24	25-Jul-24	15	02_Working Day+PH (6d) [2029]	08-Nov-24																											
Section 3 Portions 8 and 8A] - Lam Yu Road																																							
Construction Works																																							
Underground Utilities and Road Works																																							
TTA Stage 2																																							
Zone 3 - South Portion																																							
S3-3170.C03	Portion 8,8A (UU) Zone 3 South - Site Clearance and Removal of Existing UU	90%	1	6	01-Nov-24	08-Nov-24	0			-43	02_Working Day+PH (6d) [2029]	S3-3170.C03, 01-Nov-24																											
S3-3180.C03	Portion 8,8A (UU) Zone 3 South - Laying of Drainage Pipe and Gully	0%	23	23	09-Nov-24	05-Dec-24	0			-43	02_Working Day+PH (6d) [2029]	S3-3180.C03, 09-Nov-24																											
S3-3190.C03	Portion 8,8A (UU) Zone 3 South - Laying of Gas Main	0%	12	12	06-Dec-24	19-Dec-24	0			-43	02_Working Day+PH (6d) [2029]	S3-3190.C03, 06-Dec-24																											
S3-3200.C03	Portion 8,8A (UU) Zone 3 South - Laying of Ducting and Road Lighting	0%	8	8	20-Dec-24	31-Dec-24	0			-43	02_Working Day+PH (6d) [2029]	S3-3200.C03, 20-Dec-24																											
TTA Stage 3																																							
Zone 1 - North-West Portion																																							
S3-3090.C03	Portion 8,8A (UU) Zone 1 North-West - Site Clearance and Removal of Existing UU	0%	6	6	02-Jan-25	08-Jan-25	0			-43	02_Working Day+PH (6d) [2029]	S3-3090.C03, 02-Jan-25																											
S3-3040	Portion 8,8A (UU) Zone 1 North-West - Laying of Gas Main	0%	15	15	09-Jan-25	25-Jan-25	90	15-Nov-24	06-Mar-25	-43	02_Working Day+PH (6d) [2029]	S3-3040, 09-Jan-25																											
Zone 2 - North-East Portion																																							
S3-3130.C03	Portion 8,8A (UU) Zone 2 North-East - Site Clearance and Removal of Existing UU	0%	8	8	09-Jan-25	17-Jan-25	0			4	02_Working Day+PH (6d) [2029]	S3-3130.C03, 09-Jan-25																											
S3-3140.C03	Portion 8,8A (UU) Zone 2 North-East - Laying of CLP Ducting, Telecom Ducting and Road Lighting	0%	12	12	18-Jan-25	04-Feb-25	0			4	02_Working Day+PH (6d) [2029]	S3-3140.C03, 18-Jan-25																											
KD4 Section 9 Portions 18 and 19] - KU Rd. and KH Rd.																																							
Design																																							
ELS Design DC06																																							
DD-2120	Design - Review and Approval of DC06 ELS Design	90%	7	18	12-Jul-24	15-Nov-24	18	17-Jan-24	06-Feb-24	-849	02_Working Day+PH (6d) [2029]	15-Nov-24																											
ELS Design DC07																																							
DD-2122	Design - Review and Approval of DC07 ELS Design	90%	7	18	27-Jun-24	15-Nov-24	18	31-Jan-24	23-Feb-24	-1120	02_Working Day+PH (6d) [2029]	15-Nov-24																											
Method Statement																																							
Docking DC06																																							
MS-2050	MS - Preparation and Submission for DC06 ELS	50%	4	12	19-Sep-24	12-Nov-24	11	20-Sep-23	04-Oct-23	-879	02_Working Day+PH (6d) [2029]	12-Nov-24																											
MS-2090	MS - Preparation and Submission for DC06 Box Structure	50%	4	12	19-Sep-24	12-Nov-24	12	05-Jan-24	18-Jan-24	-819	02_Working Day+PH (6d) [2029]	12-Nov-24																											
MS-2060	MS - Review and Approval of DC06 ELS	0%	18	18	13-Nov-24	03-Dec-24	57	05-Oct-23	11-Dec-23	-879	02_Working Day+PH (6d) [2029]	03-Dec-24																											
MS-2100	MS - Review and Approval of DC06 Box Structure	0%	18	18	13-Nov-24	03-Dec-24	18	19-Jan-24	08-Feb-24	-819	02_Working Day+PH (6d) [2029]	03-Dec-24																											
Docking DC07																																							
MS-2101	MS - Preparation and Submission for DC07 Box Structure	50%	1	12	19-Sep-24	08-Nov-24	12	03-Jan-24	16-Jan-24	-1114	02_Working Day+PH (6d) [2029]	08-Nov-24																											

█ Actual Work █ Remaining Work █ Critical Remaining Work
◆ Milestone ◆ Project Baseline
◆ Milestone ◆ Project Baseline

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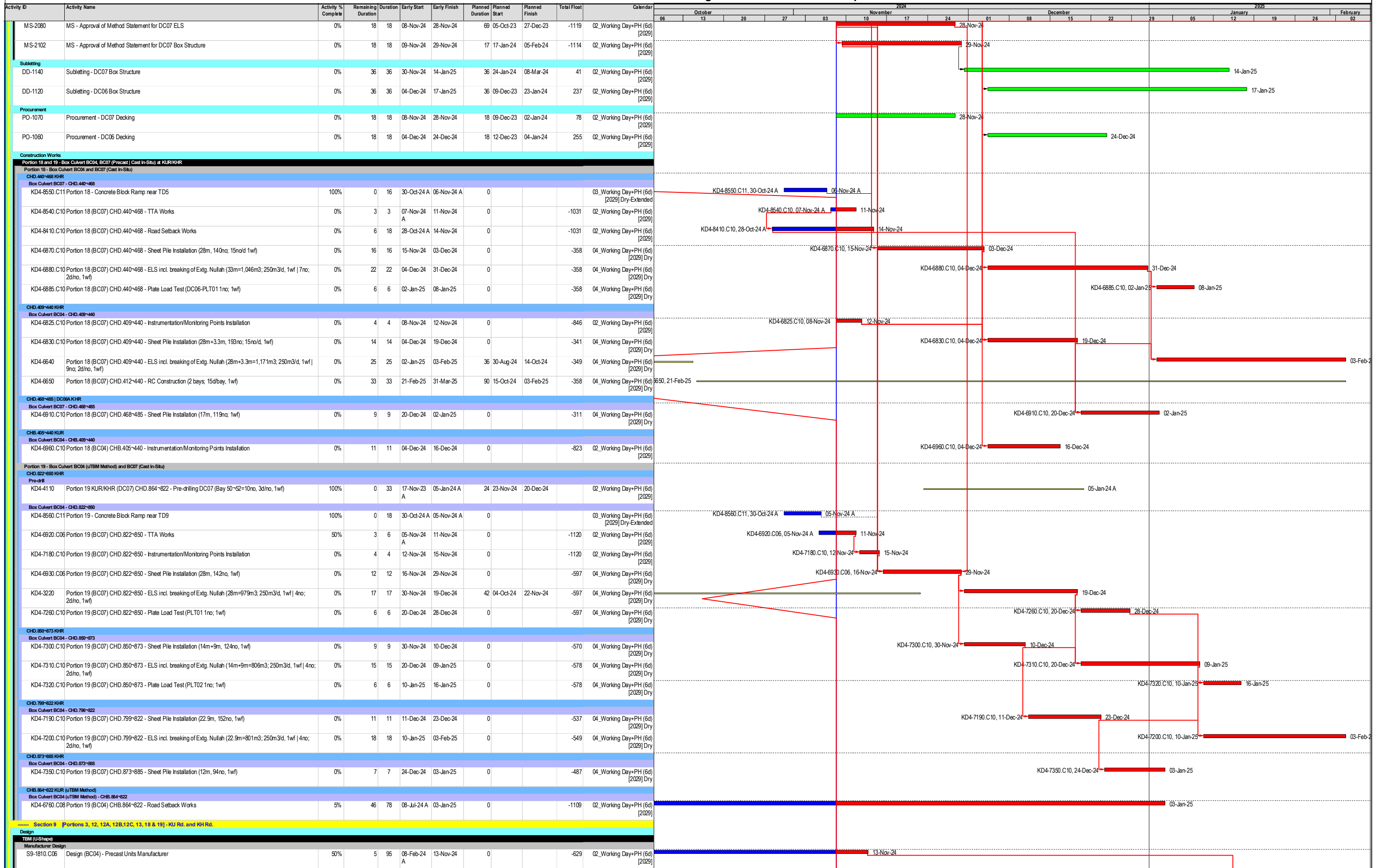
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Three Months Rolling Programme

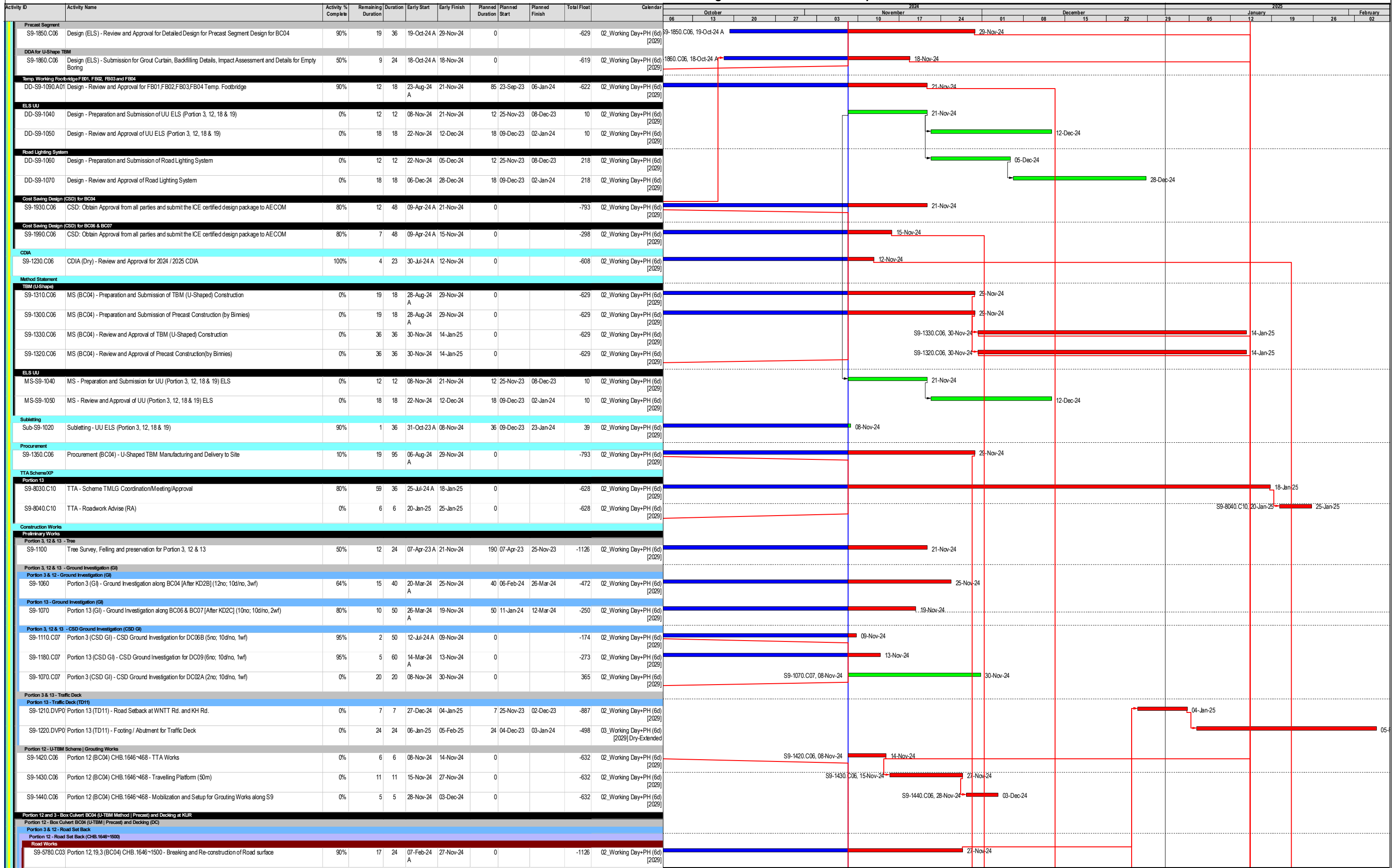
Date	Revision	Checked	Approved
30-Nov-23	RPB02 - Accepted (3-Jan-24)		
15-Oct-24	202409 MPU		
15-Nov-24	202410 MPU		

Site Formation and Infrastructure Works for Yuen Long South First Phase Development – Contract 2



Actual Work	Remaining Work	Critical Remaining Work	Project Baseline	Milestone	Project Baseline	Section 9 Portions 3, 12, 12A, 12B, 12C, 13, 18 & 19 - KU Rd. and KH Rd.															
<p>Data Date: 08-Nov-24 Project Start: 8 Dec 2022 Project End: 10-May-33 Page 7 of 12</p>																					
<p>YL/2021/04 Monthly Programme Update Three Months Rolling Programme</p>																					
		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Date</th> <th>Revision</th> <th>Checked</th> <th>Approved</th> </tr> <tr> <td>30-Nov-23</td> <td>RPB02 - Accepted (3-Jan-24)</td> <td></td> <td></td> </tr> <tr> <td>15-Oct-24</td> <td>202409 MPU</td> <td></td> <td></td> </tr> <tr> <td>15-Nov-24</td> <td>202410 MPU</td> <td></td> <td></td> </tr> </table>		Date	Revision	Checked	Approved	30-Nov-23	RPB02 - Accepted (3-Jan-24)			15-Oct-24	202409 MPU			15-Nov-24	202410 MPU				
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Site Formation and Infrastructure Works for Yuen Long South First Phase Development – Contract 2



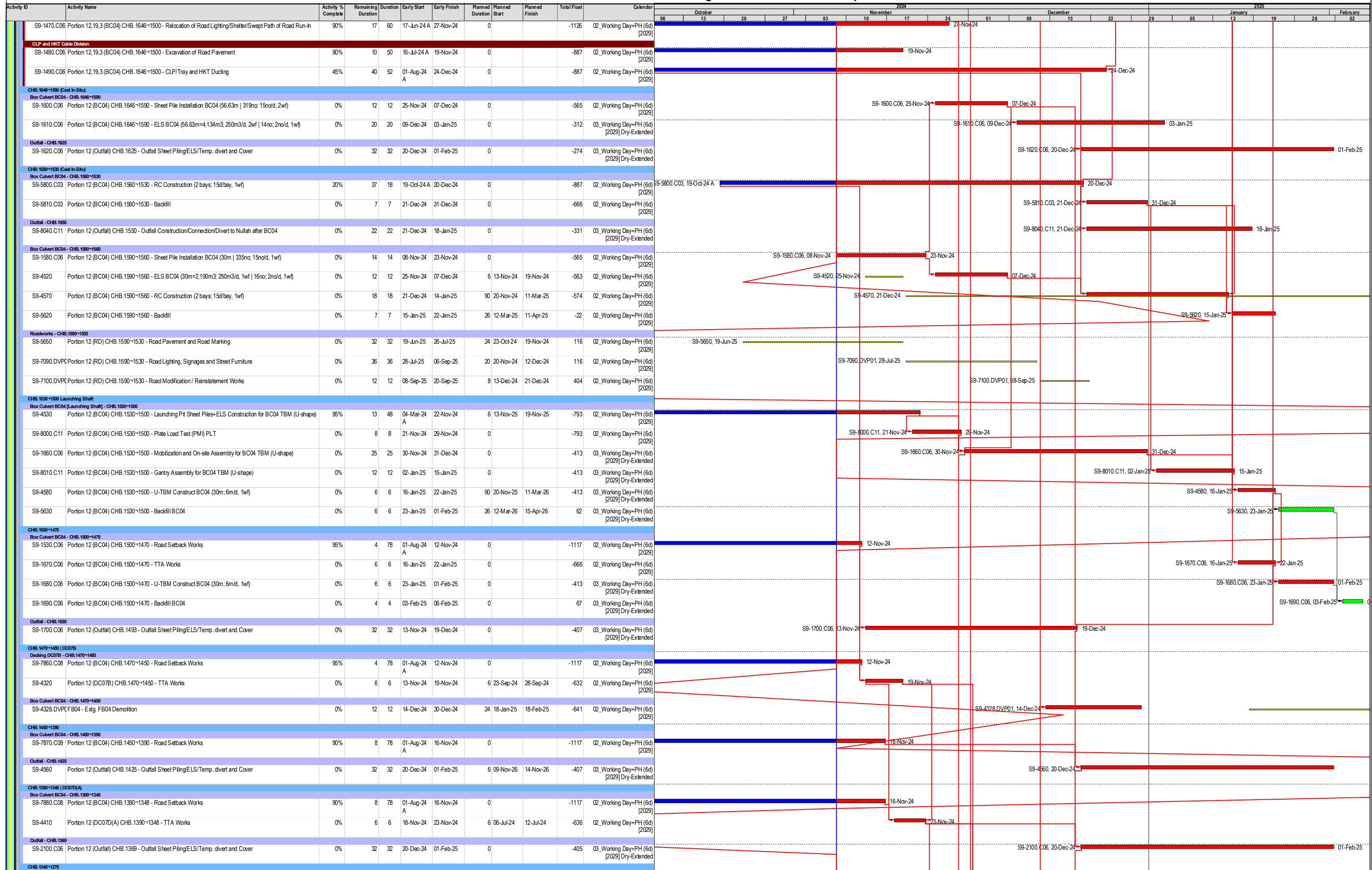
	Actual Work		Project Baseline
	Critical Remaining Work		Milestone
	Project Baseline		

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15-Oct-24	202409 MPU		
15-Nov-24	202410 MPU		

Site Formation and Infrastructure Works for Yuen Long South First Phase Development – Contract 2



	Actual Work		Project Baseline
	Remaining Work		Milestone
	Critical Remaining Work		Project Baseline

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Date	Revision	Checked	Approved
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15-Oct-24	202409 MPU		
15-Nov-24	202410 MPU		

Site Formation and Infrastructure Works for Yuen Long South First Phase Development – Contract 2

Activity ID	Activity Name	Activity % Complete	Remaining Duration	Duration	Early Start	Early Finish	Planned Duration	Planned Start	Planned Finish	Total Float	Calendar	2024											
												06	13	20	27	03	10	17	24	01	08	15	22
Box Culvert BC04 - CHB.1348-1275 S9-7890.C08 Portion 12 (BC04) CHB.1348-1275 - Road Setback Works 90% 8 78 01-Aug-24 16-Nov-24 0 -1117 02_Working Day+PH (6d) [2029]																							
S9-2190.C06 FB04 - Temp. FB04 Construction 0% 12 12 30-Nov-24 13-Dec-24 0 -388 03_Working Day+PH (6d) [2029] Dry-Extended																							
Outfall - CHB.1310 S9-2230.C06 Portion 12 (Outfall) CHB.1310 - Outfall Sheet Piling/ELS/Temp. divert and Cover 0% 32 32 20-Dec-24 01-Feb-25 0 -405 03_Working Day+PH (6d) [2029] Dry-Extended																							
CHB.1275-1200 Box Culvert BC04 - CH.1275-1200 S9-7900.C08 Portion 12 (BC04) CHB.1275-1200 - Road Setback Works 90% 8 78 01-Aug-24 16-Nov-24 0 -1117 02_Working Day+PH (6d) [2029]																							
CHB.1200-1112 Box Culvert BC04 - CH.1200-1112 S9-7910.C08 Portion 12 (BC04) CHB.1200-1112 - Road Setback Works 90% 8 78 01-Aug-24 16-Nov-24 0 -1117 02_Working Day+PH (6d) [2029]																							
CHB.1112-1070 (DC07C/A) / DC07A Box Culvert BC04 - CHB.1112-1070 S9-7920.C08 Portion 12 (BC04) CHB.1112-1070 - Road Setback Works 90% 8 78 01-Aug-24 16-Nov-24 0 -1117 02_Working Day+PH (6d) [2029]																							
S9-4210 Portion 12 (DC07A & DC07C(A)) CHB.1112-1070 - TTA Works 0% 6 6 25-Nov-24 30-Nov-24 6 06-Feb-24 15-Feb-24 -578 02_Working Day+PH (6d) [2029]																							
Portion 3 - Box Culvert BC04 (U-TBM) Precast and Decking (DC) CHB.765-720 Roadworks - CHB.765-720 S9-6890.DVP1 Portion 3 (RD) CHB.765-720 - Road Modification / Reinstatement Works 0% 12 12 24-Jun-27 08-Jul-27 30 31-Oct-24 04-Dec-24 -208 02_Working Day+PH (6d) [2029]																							
Portion 3 and 13 - Box Culvert BC04, BC06 & BC07 (Cast In-Situ) and Decking at KUR Portion 3 TTA-1 (283m) - Box Culvert BC04 (Cast In-Situ) and Decking (DC) CHB.150-120 Box Culvert BC04 - CHB.150-120 S9-1520 Portion 3 (BC04) CHB.150-120 - ELS incl. breaking of Extg. Nullah (30m=585m3; 250m3/d, 1wf 8no; 4dln, 1wf) 0% 42 42 27-Nov-29 17-Jan-30 48 16-Nov-24 14-Jan-25 -526 04_Working Day+PH (6d) [2029] Dry																							
CHB.95-55 Box Culvert BC04 - CHB.95-55 (DC02A/FB01) S9-1270 Portion 3 (BC04) CHB.95-55 - RC Construction (2 bays; 15d/bay, 1wf) 0% 42 42 01-Feb-31 21-Mar-31 60 21-Nov-24 05-Feb-25 -528 04_Working Day+PH (6d) [2029] Dry																							
Portion 3 TTA-2 (270m) - Box Culvert BC04 (Cast In-Situ) and Decking (DC) CHB.375-345 Box Culvert BC04 - CHB.375-345 S9-1340 Portion 3 (BC04) CHB.375-345 - ELS incl. breaking of Extg. Nullah (25.52mm=496m3; 250m3/d, 1wf 7no; 4dln, 1wf) 0% 37 37 20-Mar-29 03-Dec-29 18 24-Oct-24 13-Nov-24 -357 04_Working Day+PH (6d) [2029] Dry																							
Portion 13 - Box Culvert BC06 and BC07 (Cast In-Situ) and Decking (DC) CHD.360-330 Box Culvert BC07 - CHD.360-330 S9-5400 Portion 13 (BC07) CHD.360-330 KHR - Road Setback Works 0% 78 78 27-Dec-24 01-Apr-25 24 05-Nov-24 02-Dec-24 -887 02_Working Day+PH (6d) [2029]																							
CHC.150-120 (DC08A) Box Culvert BC06 - CHC.150-120 S9-1043.DVP1 Portion 13 (BC06) CHC.150-120 WNTTR - RC Construction (2 bays; 15d/bay, 1wf) 0% 34 34 08-Nov-28 16-Dec-28 52 05-Nov-24 07-Jan-25 -355 04_Working Day+PH (6d) [2029] Dry																							
Section 11 Portions 16 and 16A - KHR Rd. and Wong Ngai Tun Tsuen Road Design ELS DD-S11-1030.DV Design - Review and Approval of ELS for BC06 and BC07 for Portion 16 90% 7 18 09-Jan-24 15-Nov-24 18 09-Dec-23 02-Jan-24 -298 02_Working Day+PH (6d) [2029]																							
Method Statement ELS MS-S11-1035.DVMS - Review and Approval of ELS for BC06 and BC07 for Portion 16 90% 7 18 02-Jul-24 15-Nov-24 18 09-Dec-23 02-Jan-24 -298 02_Working Day+PH (6d) [2029]																							
Subletting SL-S11-1020.C03 Subletting - RC for BC06 and BC07 for Portion 16 50% 7 36 16-Aug-24 15-Nov-24 0 -298 02_Working Day+PH (6d) [2029]																							
Construction Works Portion 16/16A - Box Culvert BC06 and BC07 (Cast In-Situ) and Decking (DC) CHC.435-405 Box Culvert BC06 - CHC.435-405 S11-4470.C07 Portion 16,16A (BC06) CHC.435-405 WNTTR - Trial Pit and Existing Watermain Pipe Support (150mm) 50% 20 96 24-Aug-24 30-Nov-24 0 -311 02_Working Day+PH (6d) [2029]																							
S11-2010 Portion 16,16A (BC06/BC07) CHC.435-405 WNTTR & KHR - ELS (30m=1.936m3; 250m3/d, 1wf 15no; 4dln, 1wf) 0% 38 38 02-Dec-24 17-Jan-25 72 28-Feb-24 28-May-24 -136 04_Working Day+PH (6d) [2029] Dry																							
CHD.439-405 Box Culvert BC07 - CHD.439-405 S11-4610.C11 Portion 16,16A (BC07) Concrete Block Access Ramp for Portion 16 10% 7 8 07-Nov-24 15-Nov-24 0 -298 02_Working Day+PH (6d) [2029]																							
S11-4500.C07 Portion 16,16A (BC07) CHD.439-405 KHR - Trial Pit and Existing Watermain Pipe Support (250mm) 50% 20 96 08-Jul-24 30-Nov-24 0 -311 02_Working Day+PH (6d) [2029]																							
Underground Utilities - CHD.439-405 S11-7420.DVP1 Portion 16,16A (UU) CHD.439-405 KHR - Lightning Duct, Cable Laying and Connection 0% 30 30 31-Mar-25 10-May-25 30 24-Oct-24 27-Nov-24 -118 02_Working Day+PH (6d) [2029]																							
Roadworks - CHD.439-405 S11-4050 Portion 16,16A (RD) CHD.439-405 KHR - Road Pavement and Road Marking 0% 17 17 21-May-25 10-Jun-25 30 28-Nov-24 04-Jan-25 -118 02_Working Day+PH (6d) [2029]																							
CHC.405-385 incl. DC10 Box Culvert BC06 - CHC.405-385 S11-4070.C06 Portion 16,16A (BC06) CHC.405-385 WNTTR - Road Setback Works 80% 7 78 16-May-24 15-Nov-24 0 -847 02_Working Day+PH (6d) [2029]																							
S11-4080.C09 Portion 16,16A (BC06) CHC.405-385 WNTTR - CLP Trial Pit, Duct Laying and Pole Relocation 70% 7 78 02-Jul-24 15-Nov-24 0 -291 02_Working Day+PH (6d) [2029]																							
S11-4090.C06 Portion 16,16A (BC06) CHC.405-385 WNTTR - Sheet Pile Installation (74no; 8no/d, 1wf) 0% 10 10 16-Nov-24 27-Nov-24 0 -257 02_Working Day+PH (6d) [2029]																							
S11-4480.C07 Portion 16,16A (BC06) CHC.405-385 WNTTR - Trial Pit and Existing Watermain Pipe Support (150mm) 50% 27 96 16-Aug-24 09-Dec-24 0 -267 02_Working Day+PH (6d) [2029]																							
CHD.405-389 incl. DC10 Box Culvert BC07 - CHD.405-389 S11-4510.C07 Portion 16,16A (BC07) CHD.405-389 KHR - Trial Pit and Existing Watermain Pipe Support (250mm) 50% 46 78 08-Jul-24 03-Jan-25 0 -286 02_Working Day+PH (6d) [2029]																							
Remaining Works at Portion 16/16A - Box Culvert BC06 and BC07 (Cast In-Situ) and Decking (DC) CHC.385-360 incl. DC09A Box Culvert BC06 - CHC.385-360																							

	Actual Work		Project Baseline
	Remaining Work		Milestone
	Critical Remaining Work		Project Baseline

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15-Oct-24	202409 MPU		
15-Nov-24	202410 MPU		

Site Formation and Infrastructure Works for Yuen Long South First Phase Development – Contract 2

Activity ID	Activity Name	Activity % Complete	Remaining Duration	Duration	Early Start	Early Finish	Planned Start	Planned Finish	Planned Float	Calendar	2024																												
											October							November							December							January							February
												06	13	20	27	03	10	17	24	01	08	15	22	29	05	12	19	26	02										
S11-2020	Portion 16, 16A (BC06/BC07) CHC.385-360 WNTR &KHR - ELS (16m=1,091m3; 250m3/d, 1wf 10no; 4d/no, 1wf)	0%	26	26	03-Nov-25	02-Dec-25	48	17-Oct-24	11-Dec-24	159	04_Working Day+PH (6d) [2029] Dry	11-3020, 03-Nov-25																											
Section 4 Portion 14 Slip Road S2																																							
Design																																							
DD-S4-1040.DVP1	Design - Approval of Construction of Box Structure / CSD	90%	16	18	12-Sep-24 A	26-Nov-24	18	08-Dec-23	30-Dec-23	-131	02_Working Day+PH (6d) [2029]	26-Nov-24																											
Design E&M																																							
S4-2120.C06	Design - Approval of Road Lighting and Deck Void Lighting	50%	1	30	17-Aug-24 A	08-Nov-24	0			103	02_Working Day+PH (6d) [2029]	08-Nov-24																											
S4-2140.C06	Design - Cable Duct and Drawpit Material Submission and Approval	50%	1	60	04-Jul-24 A	08-Nov-24	0			-17	02_Working Day+PH (6d) [2029]	08-Nov-24																											
S4-2160.C06	Design - Settlement of Disposal and construction fee with CLP	50%	11	30	17-Oct-24 A	20-Nov-24	0			-25	02_Working Day+PH (6d) [2029]	03-Nov-24, 17-Oct-24 A																											
Method Statement																																							
S4-1040.DVP02	MS - Submission of ELS of Box Structure	0%	12	12	08-Nov-24	21-Nov-24	12	29-Dec-23	12-Jan-24	-157	02_Working Day+PH (6d) [2029]	21-Nov-24																											
S4-1090.DVP02	MS - Submission of Construction of Box Structure	0%	12	12	08-Nov-24	21-Nov-24	12	02-Jan-24	15-Jan-24	-145	02_Working Day+PH (6d) [2029]	21-Nov-24																											
S4-1090.C06	MS - Submission of Retaining Wall 13 and Retaining Wall 14	0%	18	18	08-Nov-24	28-Nov-24	0			-128	02_Working Day+PH (6d) [2029]	S4-1090.C06, 08-Nov-24																											
S4-1060.DVP02	MS - Approval of ELS of Box Structure	0%	18	18	22-Nov-24	12-Dec-24	18	13-Jan-24	02-Feb-24	-157	02_Working Day+PH (6d) [2029]	12-Dec-24																											
S4-1100.DVP02	MS - Approval of Construction of Box Structure	0%	18	18	22-Nov-24	12-Dec-24	18	16-Jan-24	05-Feb-24	-145	02_Working Day+PH (6d) [2029]	12-Dec-24																											
S4-1100.C06	MS - Approval of Retaining Wall 13 and Retaining Wall 14	0%	18	18	29-Nov-24	19-Dec-24	0			-128	02_Working Day+PH (6d) [2029]	S4-1100.C06, 29-Nov-24																											
Construction Works																																							
Site Formation/Fill Replacement																																							
S4-2120.RP.B01	Portion 14 (SF) Mass Concrete C20 - Pit-by-Pit Construction along Box Structure (332no; 6no/d)	3.6%	59	62	15-Jul-24 A	18-Jan-25	150	15-Apr-24	14-Oct-24	-174	02_Working Day+PH (6d) [2029]	18-Jan-25																											
S4-2230.C06	Portion 14 (SF) Mass Concrete C20 - Pit-by-Pit Construction outside Box Structure (144no; 6no/d)	0%	26	26	03-Jan-25	05-Feb-25	0			-163	02_Working Day+PH (6d) [2029]	S4-2230.C06, 03-Jan-25																											
S4-2190.C06	Portion 14 (SF) No-Fines Concrete - Pit-by-Pit Construction at Zone 1-4 (1,498no; 6 no/d) after CLP Diversion	66.5%	79	231	14-Jun-24 A	14-Feb-25	0			-118	02_Working Day+PH (6d) [2029]																												
Box Structure and Backdrop Manhole																																							
Box Structure and Backdrop MH																																							
S4-2080.DVP01	Portion 14 (UU) - Construction of Drainage Pipe (300dia. x2no) and MH with Backdrop at Bay 3	0%	30	30	13-Dec-24	20-Jan-25	30	14-May-24	19-Jun-24	-157	02_Working Day+PH (6d) [2029]	20-Jan-25																											
Drainage and Road Works																																							
S4-2150.RP.B01	Portion 14 (UU) - Road and Drainage Construction	0%	36	36	06-Jun-25	18-Jul-25	36	12-Nov-24	23-Dec-24	-168	02_Working Day+PH (6d) [2029]	S4-2150.RP.B01, 06-Jun-25																											
Underground Utilities and Road Works																																							
Existing Watermain Diversion																																							
S4-2350.C11	Portion 14 (UU/RD) - Watermain Laying at Zone F2 (30m) incl. Connection	0%	50	50	08-Nov-24	08-Jan-25	0			-118	02_Working Day+PH (6d) [2029]	S4-2350.C11, 08-Nov-24																											
S4-2360.C11	Portion 14 (UU/RD) - Watermain Laying at Zone E2 (30m) incl. Connection	0%	50	30	27-Sep-24 A	08-Jan-25	0			-118	02_Working Day+PH (6d) [2029]	08-Jan-25																											
Drainage/Sewer/Watermain/Irrigation/Telecom/Road Works																																							
S4-2030	Portion 14 (UU/RD) - Drainage, sewer, watermain, irrigation, lighting duct	0%	60	60	06-Jun-25	15-Aug-25	60	12-Nov-24	23-Jan-25	-164	02_Working Day+PH (6d) [2029]	S4-2030, 06-Jun-25																											
KDS Section 10 Portions 10, 10A, 10B, 10C, &10D Box Culvert BC01																																							
Cost Saving Design (CSD) for BC01																																							
DD-1220.C06	CSD: Obtain Approval from all parties and submit the ICE certified design package to AECOM BC01 Bay 4	50%	14	48	27-Sep-24 A	23-Nov-24	0			-600	02_Working Day+PH (6d) [2029]	23-Nov-24																											
Method Statement																																							
MS-KS-1110	MS - Box Construction Approval including CIA	100%	0	18	03-Jan-24 A	06-Feb-24 A	18	17-Oct-24	06-Nov-24		02_Working Day+PH (6d) [2029]	06-Feb-24 A																											
Subletting																																							
Sub-KS-1050	Subletting - ELS & structure for BC01	100%	0	36	24-Oct-23 A	23-Jan-24 A	36	17-Oct-24	27-Nov-24		02_Working Day+PH (6d) [2029]	23-Jan-24 A																											
Construction Works																																							
Box Culvert (BC01)																																							
BC01 Bay 1-3																																							
KD5-BC1-2010	Portion 10 (BC01) Bay 1~3 - ELS	100%	0	18	24-Jan-24 A	20-Mar-24 A	18	19-Dec-24	11-Jan-25		03_Working Day+PH (6d) [2029] Dry-Extended	20-Mar-24 A																											
KD5-BC1-2020	Portion 10 (BC01) Bay 1~3 - Demolish the Existing Nullah Bund Wall	100%	0	12	31-Jan-24 A	20-Mar-24 A	12	13-Jan-25	25-Jan-25		03_Working Day+PH (6d) [2029] Dry-Extended	20-Mar-24 A																											
BC01 Bay 4																																							
KD5-BC1-4050.(Portion 10 (BC01) Bay 4 - ELS BC04 (10m=2503m3; 250m3/d, 1wf 2no; 2hold, 1wf)		50%	12	18	31-Oct-24 A	21-Nov-24	0			-259	04_Working Day+PH (6d) [2029] Dry	KD5-BC1-4050.C05, 31-Oct-24 A																											
KD5-BC1-4060.(Portion 10 (BC01) Bay 4 - Demolish the Existing Nullah		50%	12	12	31-Oct-24 A	21-Nov-24	0			-259	04_Working Day+PH (6d) [2029] Dry	KD5-BC1-4060.C05, 31-Oct-24 A																											
KD5-4070.C10	Portion 10 (BC01) Bay 4 - Plate Load Test (PLT 1no; 8d/no, 1wf)	0%	8	8	22-Nov-24	30-Nov-24	0			-259	04_Working Day+PH (6d) [2029] Dry	KD5-4070.C10, 22-Nov-24																											
KD5-BC1-4070.(Portion 10 (BC01) Bay 4 - Base Slab Construction		0%	18	18	02-Dec-24	21-Dec-24	0			-259	04_Working Day+PH (6d) [2029] Dry	KD5-BC1-4070.C05, 02-Dec-24																											
KD5-BC1-3020	Portion 10 (BC01) Bay 4 - Wall and Top Slab Construction	0%	18	18	23-Dec-24	15-Jan-25	18	06-Mar-25	26-Mar-25	-259	04_Working Day+PH (6d) [2029] Dry	KD5-BC1-3020, 23-Dec-24																											
Noise Barrier (NB06)																																							
KD5-BC1-2030.D	Portion 10 (NB06) - Backfilling and Road Reinstatement near NB06 Footing	0%	12	12	19-May-25	02-Jun-25	12	17-Oct-24	30-Oct-24	2	02_Working Day+PH (6d) [2029]	DVP01, 19-May-25																											
KD5-BC1-2040.D	Portion 10 (NB06) - Site Clearance and road diversion works	0%	18	18	03-Jun-25	23-Jun-25	18	31-Oct-24	20-Nov-24	2	02_Working Day+PH (6d) [2029]	KD5-BC1-2040.DVP01, 03-Jun-25																											
Section 10 Portions 10, 10A, 10B, 10C, &10D Decking DC01 & Noise Enclosure																																							
Design																																							
Cost Saving Design (CSD) for DC01																																							
S10-5010.C08	CSD: Obtain Approval from all parties and submit the ICE certified design package to AECOM	90%	1	48	24-Aug-24 A	08-Nov-24	0			-569	02_Working Day+PH (6d) [2029]	08-Nov-24																											
Construction Works																																							
Preliminary Works																																							
UU Diversion																																							
AW-KS-2010	UU diversion, planter wall demotion, and setback works near Shap Pat Heung Road	50%	18	24	11-Dec-23 A	28-Nov-24	24	25-Nov-23	22-Dec-23	-314	02_Working Day+PH (6d) [2029]	28-Nov-24																											
Nullah Decking (DC01) Bay 1~7																																							
DC01 Bay 1 (CSD) and Noise Barrier NB07																																							

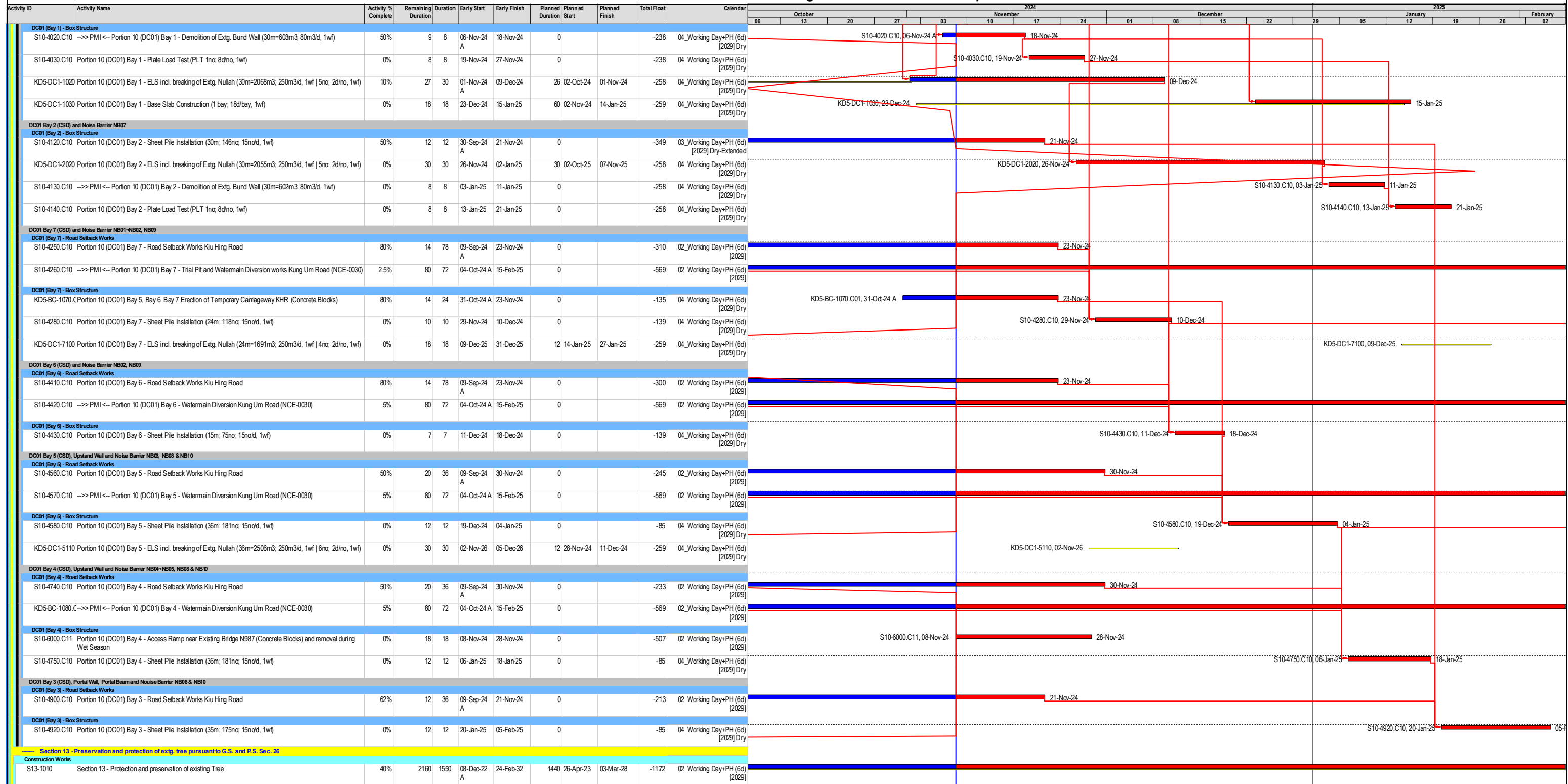
█ Actual Work █ Remaining Work █ Critical Remaining Work
◆ Milestone ◆ Milestone ◆ Milestone
◆ Project Baseline ◆ Project Baseline ◆ Project Baseline

Data Date: 08-Nov-24
 Project Start: 8 Dec 2022
 Project End: 10-May-33
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YL/2021/04
Monthly Programme Update
Three Months Rolling Programme

Date	Revision	Checked	Approved
30-Nov-23	RPB02 - Accepted (3-Jan-24)		
15-Oct-24	202409 MPU		
15-Nov-24	202410 MPU		

Site Formation and Infrastructure Works for Yuen Long South First Phase Development – Contract 2



█ Actual Work █ Remaining Work █ Critical Remaining Work
 Project Baseline
◆ Milestone ◆ Project Baseline

Data Date: 08-Nov-24
 Project Start: 8 Dec 2022
 Project End: 10-May-33
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YL/2021/04
Monthly Programme Update
Three Months Rolling Programme

Date	Revision	Checked	Approved
30-Nov-23	RPB02 - Accepted (3-Jan-24)		
15-Oct-24	202409 MPU		
15-Nov-24	202410 MPU		

3-month Rolling Construction Programme of Contract 3

Activity ID	Activity Name	Original Dur	Remaining Dur	Early Start	Early Finish	2025				
						Jan 25	Feb 26	Mar 27	Apr 28	
Site Formation and Infrastructure Works for Yuen Long South First Phase Development										
Access Date						▼ Access Date				
ACD10875	Portion 1E	0	0	09-Jan-25	09-Jan-25	◆ Portion 1E				
Contractual Completion of Key Date and Section of the Works (CE No.4)						→ Contractual				
Contractual Completion of Key Date (CE No.43)						▼ Contractual				
KEY10080	KD2-Complete construction of 1500 diameter storm drain and stormwater manholes	0	0	07-Apr-25	07-Apr-25	◆ KD2-Compl				
Contractual Completion of Section of the Works (CE No.43)						▼ Contractual Completion of Section of the Works (CE No.43)				
KEY10280	Section 2-Completion of all works within Portions 10 and 10A of the Site	0	0	08-Jan-25	08-Jan-25	◆ Section 2-Completion of all works within Portions 10 and 10A of the Site				
Planned Completion of Key Dates and Section of the Works						▼ Planned Co				
Planned Completion of Key Dates						▼ Planned Co				
KEY10580	KD2-Complete construction of 1500 diameter storm drain and stormwater manholes	0	0	07-Apr-25	07-Apr-25	◆ KD2-Comp				
Preliminaries, Contractor's Design, Method Statement Submission and Approval										
Contractor's Design Submission and Approval										
Contractor's Permanent Works Design						→ Contractor's Permanent Works Design				
Alternative design for noise barrier and noise enclosures						→ Alternative design for noise barrier and noise e				
PRE11460	Resubmit alternative design for noise enclosures(DDA)	42	42	09-Jan-25	26-Feb-25	→ Resubmit alternative design for noise enclosures(DDA)				
PRE11480	Review and accept alternative design for noise enclosures(DDA)	21	21	27-Feb-25	22-Mar-25	→ Review and accept alternative design for noise				
Cost Savings Design (CSD)						→ Cost Savings Design (CSD)				
CSD-002 - Cantilever Footpath						→ CSD-002 - Cantilever Footpath				
PRE10400.95	Review and Acceptance for Geotechnical Assessment Report	14	21	07-Nov-23 A	29-Jan-25	→ Review and Acceptance for Geotechnical Assessment Report				
Major Temporary Design										
Construction Drainage Impact Assessment (CDIA)						→ Construction Drainage Impact Assessment (CDIA)				
PRE12140	Review and accept for CDIA of Box Culvert BC02, Bridge B and Bridge D by DSD	21	7	24-May-24 A	16-Jan-25	→ Review and accept for CDIA of Box Culvert BC02, Bridge B and Bridge D by DSD				
ELS Design for Construction of Bridge Pile Cap										
ELS Design for Construction of Bridge A Pile Cap						→ ELS Design for Construction of Bridge A Pile Cap				
PRE10100	Prepare and submit ELS Design for Construction of Bridge A Pile Cap	21	21	09-Jan-25	01-Feb-25	→ Prepare and submit ELS Design for Construction of Bridge A Pile Cap				
PRE10101	Review and accept ELS Design for Construction of Bridge A Pile Cap	21	21	03-Feb-25	26-Feb-25	→ Review and accept ELS Design for Construction of Bridge A Pile Cap				
ELS Design for Construction of Bridge B Pile Cap						→ ELS Design for Construction of Bridge B Pile Cap				
PRE10102	Prepare and submit ELS Design for Construction of Bridge B Pile Cap	21	21	09-Jan-25	01-Feb-25	→ Prepare and submit ELS Design for Construction of Bridge B Pile Cap				
PRE10103	Review and accept ELS Design for Construction of Bridge B Pile Cap	21	21	03-Feb-25	26-Feb-25	→ Review and accept ELS Design for Construction of Bridge B Pile Cap				
ELS Design for Construction of Bridge C Pile Cap										
PRE10104	Prepare and submit ELS Design for Construction of Bridge C Pile Cap	21	21	27-Feb-25	22-Mar-25	→ Prepare and submit ELS Design for Construct				
PRE10105	Review and accept ELS Design for Construction of Bridge C Pile Cap	21	21	24-Mar-25	16-Apr-25	→ Review and accept ELS Design for Construct				
ELS Design for Construction of Bridge D Pile Cap						→ ELS Design for Construction of Bridge D Pile Cap				
PRE10106	Prepare and submit ELS Design for Construction of Bridge D Pile Cap	21	21	07-Nov-24 A	01-Feb-25	→ Prepare and submit ELS Design for Construction of Bridge D Pile Cap				
PRE10107	Review and accept ELS Design for Construction of Bridge D Pile Cap	21	21	03-Feb-25	26-Feb-25	→ Review and accept ELS Design for Construction of Bridge D Pile Cap				
ELS Design for Construction of Bridge G Pile Cap						→ ELS Design for Construction of Bridge G Pile Cap				
PRE10112	Prepare and submit ELS Design for Construction of Bridge G Pile Cap	21	21	15-Aug-24 A	01-Feb-25	→ Prepare and submit ELS Design for Construction of Bridge G Pile Cap				
PRE10113	Review and accept ELS Design for Construction of Bridge G Pile Cap	21	21	03-Feb-25	26-Feb-25	→ Review and accept ELS Design for Construction of Bridge G Pile Cap				
ELS Design for Construction of Noise Barrier Foundation						→ ELS Design for Construc				
PRE10120	Prepare and submit ELS Design for construction of noise barrier foundation	42	15	09-Aug-23 A	25-Jan-25	→ Prepare and submit ELS Design for construction of noise barrier foundation				
PRE10122	Review and discuss ELS Design for construction of noise barrier foundation	21	21	27-Jan-25	19-Feb-25	→ Review and discuss ELS Design for construction of noise barrier foundation				
PRE10125	Resubmit ELS Design for construction of noise barrier foundation	21	21	20-Feb-25	15-Mar-25	→ Resubmit ELS Design for construction of noise barrier founda				
PRE10130	Review and accept ELS Design for construction of noise barrier foundation	14	14	17-Mar-25	01-Apr-25	→ Review and accept ELS				

Activity ID	Activity Name	Original Dur	Remaining Dur	Early Start	Early Finish	2025			
						Jan 25	Feb 26	Mar 27	Apr 28
Design of Temporary Piling Platform for Nullah Decking ND2 South End						Design of Temporary Piling Platform for Nullah Decking ND2 South End			
PRE11630	Prepare and submit Design of Temporary Piling Platform for Nullah Decking ND2 South End	42	45	20-Jul-23 A	01-Mar-25	Prepare and submit Design of Temporary Piling Platform for Nullah Decking ND2 South End			
PRE11640	Review and discuss Design of Temporary Piling Platform for Nullah Decking ND2 South End	21	62	12-Aug-23 A	25-Mar-25	Review and discuss Design of Temporary Piling Platform for Nullah Decking ND2 South End			
Falsework Design for Bridge Deck						Falsework Design for Bridge Deck			
PRE10140	Prepare and submit false work design for bridge deck	42	42	09-Jan-25	26-Feb-25	Prepare and submit false work design for bridge deck			
PRE10142	Review and discuss false work design for bridge deck	21	21	27-Feb-25	22-Mar-25	Review and discuss false work design for bridge deck			
PRE10145	Resubmit False work design for bridge deck	21	21	24-Mar-25	16-Apr-25	Resubmit False work design for bridge deck			
Method Statement Submission and Approval for Major Construction Works						Method Statement Submission and Approval for Major Construction Works			
Method Statement Submission and Approval for Construction of Retaining Wall RW37						Method Statement Submission and Approval for Construction of Retaining Wall RW37			
MSS10630	Review and accept Method Statement for ELS Works for Retaining Wall RW37	21	21	13-Aug-24 A	01-Feb-25	Review and accept Method Statement for ELS Works for Retaining Wall RW37			
Method Statement Submission and Approval for Construction of Box Culvert BC02						Method Statement Submission and Approval for Construction of Box Culvert BC02			
MSS10920	Resubmit Method Statement for Construction of Box Culvert BC02	14	15	20-Dec-23 A	25-Jan-25	Resubmit Method Statement for Construction of Box Culvert BC02			
MSS10940	Accept Method Statement for Construction of Box Culvert BC02	14	14	27-Jan-25	11-Feb-25	Accept Method Statement for Construction of Box Culvert BC02			
Method Statement Submission and Approval for Construction of U-trough Lift at MSB Site						Method Statement Submission and Approval for Construction of U-trough Lift at MSB Site			
MSS10470	Review and accept Method Statement for ELS Works for U-trough Lift and Pile Cap at MSB Site	21	3	31-Oct-24 A	11-Jan-25	Review and accept Method Statement for ELS Works for U-trough Lift and Pile Cap at MSB Site			
Method Statement Submission and Approval for Construction of Subway M						Method Statement Submission and Approval for Construction of Subway M			
Method Statement Submission and Approval for RTBM Construction for Subway M						Method Statement Submission and Approval for RTBM Construction for Subway M			
MSS11420	Prepare and submit Method Statement for RTBM Construction for Subway M	42	20	20-Oct-23 A	31-Jan-25	Prepare and submit Method Statement for RTBM Construction for Subway M			
MSS11440	Review and accept Method Statement for RTBM Construction for Subway M	21	21	11-Nov-23 A	24-Feb-25	Review and accept Method Statement for RTBM Construction for Subway M			
Method Statement Submission and Approval for Launching Shaft of Subway M						Method Statement Submission and Approval for Launching Shaft of Subway M			
MSS11520	Review and accept Method Statement for Excavation and Support Installation at Launching Shaft of Subway M	42	35	06-Jul-24 A	18-Feb-25	Review and accept Method Statement for Excavation and Support Installation at Launching Shaft of Subway M			
Method Statement Submission and Approval for Construction of Bridge A and Slip Road						Method Statement Submission and Approval for Construction of Bridge A and Slip Road			
MSS10020	Prepare and submit method statement for bridge A and slip road	48	24	11-Sep-23 A	05-Feb-25	Prepare and submit method statement for bridge A and slip road			
MSS10022	Review and discuss method statement for bridge A and slip road	21	21	06-Feb-25	01-Mar-25	Review and discuss method statement for bridge A and slip road			
MSS10025	Resubmit method statement for bridge A and slip road	21	21	03-Mar-25	26-Mar-25	Resubmit method statement for bridge A and slip road			
MSS10030	Accept method statement for bridge A and slip road	14	14	27-Mar-25	11-Apr-25	Accept method statement for bridge A and slip road			
Method Statement Submission and Approval for Construction of Bridge B						Method Statement Submission and Approval for Construction of Bridge B			
MSS10100	Prepare and submit method statement for bridge B	42	42	09-Jan-25	26-Feb-25	Prepare and submit method statement for bridge B			
MSS10102	Review and discuss submission for bridge B	21	21	27-Feb-25	22-Mar-25	Review and discuss submission for bridge B			
MSS10105	Resubmit submission for bridge B	21	21	24-Mar-25	16-Apr-25	Resubmit submission for bridge B			
Method Statement Submission and Approval for Construction of Bridge D						Method Statement Submission and Approval for Construction of Bridge D			
MSS10220	Prepare and submit method statement for bridge D	21	21	09-Jan-25	01-Feb-25	Prepare and submit method statement for bridge D			
MSS10222	Review and discuss method statement for bridge D	21	21	03-Feb-25	26-Feb-25	Review and discuss method statement for bridge D			
MSS10225	Resubmit method statement for bridge D	21	21	27-Feb-25	22-Mar-25	Resubmit method statement for bridge D			
MSS10230	Accept method statement for bridge D	14	14	24-Mar-25	08-Apr-25	Accept method statement for bridge D			
Method Statement Submission and Approval for Construction of Bridge F						Method Statement Submission and Approval for Construction of Bridge F			
MSS10240	Prepare and submit method statement for bridge F	14	14	09-Jan-25	24-Jan-25	Prepare and submit method statement for bridge F			
MSS10250	Accept method statement for bridge F	21	21	25-Jan-25	18-Feb-25	Accept method statement for bridge F			
Method Statement Submission and Approval for Construction of Bridge G						Method Statement Submission and Approval for Construction of Bridge G			
MSS10260	Prepare and submit method statement for bridge G	21	21	09-Jan-25	01-Feb-25	Prepare and submit method statement for bridge G			
MSS10270	Accept method statement for bridge G	21	21	03-Feb-25	26-Feb-25	Accept method statement for bridge G			
Method Statement Submission and Approval for Demolition of Existing Bridge 711A						Method Statement Submission and Approval for Demolition of Existing Bridge 711A			
MSS10400	Prepare and submit method statement for demolition of existing bridge 711A	21	21	09-Jan-25	01-Feb-25	Prepare and submit method statement for demolition of existing bridge 711A			
MSS10402	Review and discuss method statement for demolition of existing bridge 711A	21	21	03-Feb-25	26-Feb-25	Review and discuss method statement for demolition of existing bridge 711A			
MSS10405	Resubmit method statement for demolition of existing bridge 711A	21	21	27-Feb-25	22-Mar-25	Resubmit method statement for demolition of existing bridge 711A			

Activity ID	Activity Name	Original Dur	Remaining Dur	Early Start	Early Finish	2025				
						Jan 25	Feb 26	Mar 27	Apr 28	
MSS10410	Accept method statement for demolition of existing bridge 711A	14	14	24-Mar-25	08-Apr-25					Accept m
Method Statement Submission and Approval for Construction of Cantilever Footpath		91	64	13-Nov-24 A	24-Mar-25	Method Statement Submission and Appro				
MSS10300	Prepare and submit method statement for construction of cantilever footpath	21	8	13-Nov-24 A	17-Jan-25	Prepare and submit method statement for construction of cantilever footpath				
MSS10302	Review and discuss method statement for construction of cantilever footpath	21	21	18-Jan-25	11-Feb-25	Review and discuss method statement for construction of cantilever footpath				
MSS10305	Resubmit method statement for construction of cantilever footpath	21	21	12-Feb-25	07-Mar-25	Resubmit method statement for construction of cantilever footpath				
MSS10310	Accept method statement for construction of cantilever footpath	14	14	08-Mar-25	24-Mar-25	Accept method statement for construction				
Method Statement Submission and Approval for Road Pavement Works		63	63	12-Feb-25	25-Apr-25					
MSS10320	Prepare and submit method statement for road pavement works	21	21	12-Feb-25	07-Mar-25	Prepare and submit method statement for road pavement works				
MSS10322	Review and discuss method statement for road pavement works	21	21	08-Mar-25	01-Apr-25	Review and discuss met				
MSS10325	Resubmit method statement for road pavement works	21	21	02-Apr-25	25-Apr-25					
Method Statement Submission and Approval for Slope Works		21	21	08-Apr-25	01-May-25					
MSS10360	Prepare and submit method statement for slope works	21	21	08-Apr-25	01-May-25					
Traffic Management		209	116	04-Sep-24 A	04-May-25					
PRE10234	Preparation,submission and approval of TTA scheme (TMLG No.7)	90	26	04-Sep-24 A	03-Feb-25	Preparation,submission and approval of TTA scheme (TMLG No.7)				
PRE10236	Preparation,submission and approval of TTA scheme (TMLG No.8)	90	90	04-Feb-25	04-May-25					
Precasting Works		381	302	11-Sep-24 A	26-Dec-25					
PRE10340	Setup of off-site precast yard	60	32	11-Sep-24 A	14-Feb-25	Setup of off-site precast yard				
PRE10360	Fabrication of precast segments	270	270	15-Feb-25	26-Dec-25					
Major Subletting Works		742	240	12-Dec-23 A	15-Oct-25					
PRE11042	Design, Supply and Installation of E&M System for Underpass	60	240	29-Feb-24 A	15-Oct-25					
PRE11062	Supply, Fabrication, Delivery and Installation for Structure Frame for Noise Barrier and Noise Enclosure	40	20	02-Oct-24 A	31-Jan-25	Supply, Fabrication, Delivery and Installation for Structure Frame for Noise Barrier and Noise Enclosure				
PRE11064	R.C. Works for Subway N, Underpass H & U-trough Structure H2	60	200	12-Dec-23 A	29-Aug-25					
PRE11074	Prestressing Works for Bridges B, C, D, E, F and G	30	90	21-Feb-24 A	23-Apr-25					
PRE11086	Supply and Installation of Movement Joint for Bridges	30	90	24-Apr-24 A	23-Apr-25					
PRE11088	Design, Supply and Installation of Lighting System for Road, Subway and Noise Enclosure	30	150	30-May-24 A	02-Jul-25					
Section 1 of the Works-Completion of All works Including Piling works		1574	924	06-Feb-23 A	21-Jul-27					
Preparation Works		60	30	06-Feb-23 A	15-Feb-25	Preparation Works				
SEC011000	Site clearance	32	30	14-Feb-23 A	15-Feb-25	Site clearance				
SEC011040	UU detection and trial pit	28	20	06-Feb-23 A	04-Feb-25	UU detection and trial pit				
Utility Protection / Diversion		571	77	20-Feb-24 A	12-Apr-25					
CLP Cable		77	77	09-Jan-25	12-Apr-25					
SECA10262	Joint Bay of CLP 132kV power cables at Cycle Track near TYST Road	18	18	17-Jan-25	10-Feb-25	Joint Bay of CLP 132kV power cables at Cycle Track near TYST Road				
SECA10266	Diversion of CLP 132kV power cables along Cycle Track between Long Hon Road and TYST Road (Stage 2)	77	77	09-Jan-25	12-Apr-25					
SECA10270	Diversion of CLP 132kV power cables at Long Tin Road	77	77	09-Jan-25	12-Apr-25					
HKCG Gasmain		556	62	20-Feb-24 A	25-Mar-25	HKCG Gasmain				
SEC101740	Laying of new gas main and abandoning of existing gas main at Long Tin Road	28	10	20-Feb-24 A	04-Mar-25	Laying of new gas main and abandoning of existing gas main at Long Tin Road				
SECA10080.10	Diversion of gas main incl. ELS, Excavation and T&C (Long Bin Section)	97	28	11-May-24 A	13-Feb-25	Diversion of gas main incl. ELS, Excavation and T&C (Long Bin Section)				
SECA10080.20	Diversion of gas main incl. ELS, Excavation at FSWS Road (Hop Hing Section) (additional trial pit for HKCG)	44	23	02-Oct-24 A	13-Feb-25	Diversion of gas main incl. ELS, Excavation at FSWS Road (Hop Hing Section) (additional trial pit for HKCG)				
SECA10080.30	Gas main T&C and Tie-in at at FSWS Road (Hop Hing Section)	34	34	14-Feb-25	25-Mar-25	Gas main T&C and Tie-in at at FSWS R				
Trial Pile for Prebored H-Pile		59	59	31-Dec-24 A	21-Mar-25	Trial Pile for Prebored H-Pile				
SECA1025	Design Review for Trial pre-bored H-pile (TP610-01)	12	12	31-Dec-24 A	22-Jan-25	Design Review for Trial pre-bored H-pile (TP610-01)				
SECA1035	Trial Pile for pre-bored H-pile and Loading Test	35	35	23-Jan-25	07-Mar-25	Trial Pile for pre-bored H-pile and Loading Test				
SECA1045	Design Review for Trial pre-bored H-pile	12	12	08-Mar-25	21-Mar-25	Design Review for Trial pre-bored H-pile				
Bridge A		446	80	07-Mar-24 A	16-Apr-25					
Utility Diversion		73	15	07-Mar-24 A	25-Jan-25	Utility Diversion				

Activity ID	Activity Name	Original Dur	Remaining Dur	Early Start	Early Finish	2025			
						Jan 25	Feb 26	Mar 27	Apr 28
SECA10030	Bridge A - Trial Pit Excavation (additional trial pit)	73	15	07-Mar-24 A	25-Jan-25	Bridge A - Trial Pit Excavation (additional trial pit)			
Pre-drilling Works		18	18	26-Mar-25	16-Apr-25				
SECA30020	Pre-drilling works (Remaing 5 nos, 1 rig)	18	18	26-Mar-25	16-Apr-25				
Piling Works		31	31	11-Mar-25	16-Apr-25				
SECA10180	Plant mobilization	31	31	11-Mar-25	16-Apr-25				
Bridge B		257	158	13-Aug-24 A	24-Jul-25				
Utility Diversion		30	30	09-Jan-25	15-Feb-25	Utility Diversion			
SECB20375	Temporary diversion of DN1050 storm drainage for P01	15	15	09-Jan-25	25-Jan-25	Temporary diversion of DN1050 storm drainage for P01			
SECB20380	Permanent diversion of Twin DN700 Rising main for P02	30	30	09-Jan-25	15-Feb-25	Permanent diversion of Twin DN700 Rising main for P02			
Demolition Works		45	25	13-Aug-24 A	10-Feb-25	Demolition Works			
SECB20490	Demolition of existing Noise Barrier NB174	45	25	13-Aug-24 A	10-Feb-25	Demolition of existing Noise Barrier NB174			
Piling Works		95	74	05-Dec-24 A	09-Apr-25	Piling Works			
Pier B2		79	58	13-Dec-24 A	20-Mar-25	Pier B2			
SECB11140	Installation of bored pile P03 at pier B2	12	15	13-Dec-24 A	25-Jan-25	Installation of bored pile P03 at pier B2			
SECB11160	Installation of bored pile P04 at pier B2	12	12	27-Jan-25	12-Feb-25	Installation of bored pile P04 at pier B2			
SECB11170	Sonic test and interface core for P03@B2	7	7	27-Feb-25	06-Mar-25	Sonic test and interface core for P03@B2			
SECB11175	Sonic test and interface core for P04@B2	7	7	13-Mar-25	20-Mar-25	Sonic test and interface core for P04@B2			
Pier B4		49	49	04-Feb-25	01-Apr-25	Pier B4			
Bored Pile P10		43	43	04-Feb-25	25-Mar-25	Bored Pile P10			
SECB11320	Installation of bored pile P10 at pier B4	12	12	04-Feb-25	17-Feb-25	Installation of bored pile P10 at pier B4			
SECB11325	Sonic test and interface core for P10@B4	7	7	18-Mar-25	25-Mar-25	Sonic test and interface core for P10@B4			
Bored Pile P09		24	24	05-Mar-25	01-Apr-25	Bored Pile P09			
SECB11295	TTA after diversion of gas main	12	12	05-Mar-25	18-Mar-25	TTA after diversion of gas main			
SECB11300	Installation of bored pile P09 at pier B4 (affected by gas diversion)	12	12	19-Mar-25	01-Apr-25	Installation of bored pile P09 at pier B4			
Pier B3		74	74	05-Dec-24 A	09-Apr-25	Pier B3			
SECB11219	Construction of protective slab for Underground utilities at Pier B3	24	0	05-Dec-24 A	04-Jan-25 A	Construction of protective slab for Underground utilities at Pier B3			
SECB11220	Piling plant mobilization and setup	7	7	06-Jan-25 A	16-Jan-25	Piling plant mobilization and setup			
SECB11230	Installation of bored pile P06 at pier B3	12	12	17-Jan-25	03-Feb-25	Installation of bored pile P06 at pier B3			
SECB11240	Installation of bored pile P05 at pier B3	12	12	18-Feb-25	03-Mar-25	Installation of bored pile P05 at pier B3			
SECB11290	Sonic test and interface core for P06@B3	7	7	04-Mar-25	11-Mar-25	Sonic test and interface core for P06@B3			
SECB11293	Sonic test and interface core for P05@B3	7	7	01-Apr-25	09-Apr-25	Sonic test and interface core for P05@B3			
Pile Cap		21	21	21-Mar-25	15-Apr-25	Pile Cap			
Pile Cap for Pier B2		21	21	21-Mar-25	15-Apr-25	Pile Cap for Pier B2			
SECB14020	Installation of sheetpile	7	7	21-Mar-25	28-Mar-25	Installation of sheetpile			
SECB14040	Excavation works	7	7	29-Mar-25	07-Apr-25	Excavation works			
SECB14060	Pilehead treatment	7	7	08-Apr-25	15-Apr-25	Pilehead treatment			
Rising Main (2xNS700)		158	158	09-Jan-25	24-Jul-25	Rising Main (2xNS700)			
Trenchless method (CHA116.159-CHA183.028)		115	115	09-Jan-25	03-Jun-25	Trenchless method (CHA116.159-CHA183.028)			
SECB19990	Existing Rising mains diversion	45	45	09-Jan-25	05-Mar-25	Existing Rising mains diversion			
SECB20000	Construction of jacking pit	40	40	06-Mar-25	25-Apr-25	Construction of jacking pit			
SECB20020	Construction of receiving pit	40	40	11-Apr-25	03-Jun-25	Construction of receiving pit			
Open Cut Method (CHA 0 - CHA116.159)		95	95	27-Mar-25	24-Jul-25	Open Cut Method (CHA 0 - CHA116.159)			
SECB20120	Installation of 2xNS700 rising mains	95	95	27-Mar-25	24-Jul-25	Installation of 2xNS700 rising mains			
Bridge D		279	129	02-Apr-24 A	17-May-25	Bridge D			
Land Contamination Works		85	24	02-Apr-24 A	01-Feb-25	Land Contamination Works			

Activity ID	Activity Name	Original Dur	Remaining Dur	Early Start	Early Finish	2025			
						Jan 25	Feb 26	Mar 27	Apr 28
SECD10055	Land decontamination assessment approval by EPD	14	14	02-Apr-24 A	22-Jan-25	Land decontamination assessment approval by EPD			
SECD10060	Land decontamination works (10150m3)	6	6	23-Jan-25	01-Feb-25	Land decontamination works (10150m3)			
Pre-drilling Works and Piling Work		279	129	09-Oct-24 A	17-May-25				
Abutment D2		126	102	04-Dec-24 A	17-May-25				
SECD20680	Concrete block platform - Stage 1 for demolition of existing noise barrier footing	30	14	04-Dec-24 A	24-Jan-25	Concrete block platform - Stage 1 for demolition of existing noise barrier footing			
SECD20681	TTA implementation at Yuen Long Highway	6	6	25-Jan-25	04-Feb-25	TTA implementation at Yuen Long Highway			
SECD20682	Sheet piling works adjacent to YLH - Stage 1 for demolition of existing noise barrier footing	25	25	05-Feb-25	05-Mar-25	Sheet piling works adjacent to YLH - Stage 1 for demolition of existing noise barrier footing			
SECD20682.5	Excavation for demolition of existing noise barrier footing	12	12	06-Mar-25	19-Mar-25	Excavation for demolition of existing noise barrier footing			
SECD20683	Demolition of existing noise barrier footing - Stage 1	45	45	20-Mar-25	17-May-25	Demolition of existing noise barrier footing - Stage 1			
SECD20692	Access to Humility Enterprises Ltd	0	0	09-Jan-25*		◆ Access to Humility Enterprises Ltd			
SECD20730	Fill up access and platform - Stage 2 for bored pile works	40	40	07-Jan-25 A	27-Feb-25	Fill up access and platform - Stage 2 for bored pile works			
Pier D5		61	61	13-Feb-25	14-Apr-25				
SECD20150	TTA at Shan Ha Road	6	6	13-Feb-25	18-Feb-25	TTA at Shan Ha Road			
SECD20620	Diversion of existing of footway/underground cable to commence trial pit and predrill	16	16	19-Feb-25	08-Mar-25	Diversion of existing of footway/underground cable to commence trial pit and predrill			
SECD20630	Pre-drilling works (PH13)	6	6	10-Mar-25	15-Mar-25	Pre-drilling works (PH13)			
SECD20640	Diversion of underground cable by CLP	14	14	17-Mar-25	01-Apr-25	Diversion of underground cable by CLP			
SECD20650	Installation of bored piles (P14) for Pier D5	10	10	02-Apr-25	14-Apr-25	Installation of bored piles (P14) for Pier D5			
Pier D4		69	69	11-Dec-24 A	18-Mar-25	Pier D4			
SECD20555	Protection of existing 132kV	24	0	11-Dec-24 A	03-Jan-25 A	Protection of existing 132kV			
SECD20600	Installation of bored piles (P12) for Pier D4	10	26	04-Jan-25 A	11-Feb-25	Installation of bored piles (P12) for Pier D4			
SECD20610	Sonic test and interface core for P12@D4	7	7	12-Mar-25	18-Mar-25	Sonic test and interface core for P12@D4			
Pier D3		78	78	09-Jan-25	27-Mar-25	Pier D3			
SECD20520	Installation of bored piles (P10) for Pier D3	10	10	12-Feb-25	22-Feb-25	Installation of bored piles (P10) for Pier D3			
SECD20525	Pre-drilling works (PH09)	6	6	09-Jan-25	15-Jan-25	Pre-drilling works (PH09)			
SECD20800	Sonic test and interface core for P10@D3	7	7	21-Mar-25	27-Mar-25	Sonic test and interface core for P10@D3			
Pier D1		227	77	02-Dec-24 A	26-Mar-25	Pier D1			
SECD20305	Pre-drilling works (PH05-1)	6	1	02-Dec-24 A	09-Jan-25	Pre-drilling works (PH05-1)			
SECD20390	Installation of bored piles (P06) for Pier D1	10	17	28-Dec-24 A	28-Jan-25	Installation of bored piles (P06) for Pier D1			
SECD20789	Mobilization of rigs from P01 to P05	3	3	12-Mar-25	14-Mar-25	Mobilization of rigs from P01 to P05			
SECD20790	Installation of bored piles (P05) for Pier D1	10	10	15-Mar-25	26-Mar-25	Installation of bored piles (P05) for Pier D1			
SECD20850	Sonic test and interface core for P06@D1	7	7	01-Mar-25	07-Mar-25	Sonic test and interface core for P06@D1			
Abutment D1		176	82	09-Oct-24 A	16-Apr-25				
SECD20350	Diversion of overhead/underground cable to ground before further piling works	42	0	09-Oct-24 A	07-Jan-25 A	Diversion of overhead/underground cable to ground before further piling works			
SECD20455	Mobilization of rigs from P06 to P04	3	3	01-Feb-25	04-Feb-25	Mobilization of rigs from P06 to P04			
SECD20460	Installation of bored piles (P04) for Abutment D1	10	10	05-Feb-25	15-Feb-25	Installation of bored piles (P04) for Abutment D1			
SECD20461	Installation of bored piles (P02) for Abutment D1	10	10	17-Feb-25	27-Feb-25	Installation of bored piles (P02) for Abutment D1			
SECD20462	Installation of bored piles (P01) for Abutment D1	10	10	28-Feb-25	11-Mar-25	Installation of bored piles (P01) for Abutment D1			
SECD20465	Sonic test and interface core for P04@Ab.D1	7	7	16-Mar-25	22-Mar-25	Sonic test and interface core for P04@Ab.D1			
SECD20470	Sonic test and interface core for P03@Ab.D1	7	7	25-Jan-25	31-Jan-25	Sonic test and interface core for P03@Ab.D1			
SECD20475	Sonic test and interface core for P02@Ab.D1	7	7	28-Mar-25	03-Apr-25	Sonic test and interface core for P02@Ab.D1			
SECD20480	Sonic test and interface core for P01@Ab.D1	7	7	10-Apr-25	16-Apr-25	Sonic test and interface core for P01@Ab.D1			
Bridge E		20	20	10-Mar-25	01-Apr-25	Bridge E			
Piling Works		20	20	10-Mar-25	01-Apr-25	Piling Works			
SECE10130	Bored pile works for Abutment E1 (2 nos)	20	20	10-Mar-25	01-Apr-25	Bored pile works for Abutment E1 (2 nos)			
Bridge F&G		171	138	18-Oct-24 A	26-May-25				

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						Jan 25	Feb 26	Mar 27	Apr 28
Land Contamination Works						▼ Land Contamination Works Environmental ground investigation (N.A) Land decontamination works (4836 m3)(N.A)			
SECFG1060	Environmental ground investigation (N.A)	0	0	09-Jan-25	09-Jan-25				
SECFG1080	Land decontamination works (4836 m3)(N.A)	0	0	09-Jan-25	09-Jan-25				
Cycle Track CT02 and Footpath						▼ Cycle Track CT02 and Footpath ▼ Utilities Works Along Cycle Track CT02 and Footpath Laying of Utilities duct along CT02 and footpath			
Utilities Works Along Cycle Track CT02 and Footpath									
SEC95090	Laying of Utilities duct along CT02 and footpath	40	40	09-Jan-25	27-Feb-25				
Piling Works for Bridge F and Bridge G									
Pier F1 - P13, P14, F2 - P15, P16 and Abutment F2						▼ Pier F1 - P13, P14, F2 - P15, P16 and Abutment F2 ▼ Bored Pile Works ▼ Pier F2 - P15, P16 Sonic test and interface core for P16@F2 Abutment F2 Sonic test and interface core for P17@Ab.F2 Sonic test and interface core for P18@Ab.F2 Sonic test and interface core for P19@Ab.F2 Sonic test and interface core for P20@Ab.F2			
Bored Pile Works									
Pier F2 - P15, P16									
F5060	Sonic test and interface core for P16@F2	7	10	18-Oct-24 A	18-Jan-25				
Abutment F2									
F5100	Sonic test and interface core for P17@Ab.F2	7	7	09-Jan-25	15-Jan-25				
F5110	Sonic test and interface core for P18@Ab.F2	7	7	09-Jan-25	15-Jan-25				
F5120	Sonic test and interface core for P19@Ab.F2	7	7	09-Jan-25	15-Jan-25				
F5130	Sonic test and interface core for P20@Ab.F2	7	7	09-Jan-25	15-Jan-25				
Abutment FG1, Pier G2, Pier G3, Pier G4 and Abutment G2									
Bored Pile Works									
Abutment FG1 - P06, P08-P12						▼ Abutment FG1 - P06, P08-P12 Installation of bored pile P09@Ab.FG1 Sonic test and interface core for P09@Ab.FG1			
G1140	Installation of bored pile P09@Ab.FG1	12	12	24-Feb-25	08-Mar-25				
G5120	Sonic test and interface core for P09@Ab.FG1	7	7	03-Apr-25	09-Apr-25				
Pier G1 - P21, P22						▼ Pier G1 - P21, P22 Submission and approval of method statement for diversion of DN1350 drainage Diversion of DN1350 drainage Installation of bored pile P21@G1 Sonic test and interface core for P22@G1 Sonic test and interface core for P21@G1			
G1153	Submission and approval of method statement for diversion of DN1350 drainage	21	12	10-Dec-24 A	22-Jan-25				
G1155	Diversion of DN1350 drainage	12	12	23-Jan-25	08-Feb-25				
G1160	Installation of bored pile P21@G1	12	12	10-Feb-25	22-Feb-25				
G5160	Sonic test and interface core for P22@G1	7	7	18-Oct-24 A	15-Jan-25				
G5170	Sonic test and interface core for P21@G1	7	7	23-Mar-25	29-Mar-25				
Pier G2 - P23, P23a,P24						▼ Pier G2 - P23, P23a,P24 Sonic test and interface core for P24@G2 Sonic test and interface core for P23@G2 Sonic test and interface core for P23a@G2			
G5180	Sonic test and interface core for P24@G2	7	7	09-Jan-25	15-Jan-25				
G5190	Sonic test and interface core for P23@G2	7	7	09-Jan-25	15-Jan-25				
G5200	Sonic test and interface core for P23a@G2	7	7	09-Jan-25	15-Jan-25				
Pier G3-P25,P25a,P26						Installation of bored pile P26a@G3 Installation of bored pile P26@G3 Installation of bored pile P25@G3 Installation of bored pile P25a@G3 Sonic test and interface core for P26@G3 Sonic test and interface core for P25@G3 Sonic test and interface core for P25a@G3 Sonic test and interface core for P26a@G3			
G1200	Installation of bored pile P26a@G3	12	14	06-Nov-24 A	24-Jan-25				
G1205	Installation of bored pile P26@G3	12	12	25-Jan-25	11-Feb-25				
G1210	Installation of bored pile P25@G3	12	12	12-Feb-25	25-Feb-25				
G1216	Installation of bored pile P25a@G3	12	12	26-Feb-25	11-Mar-25				
G5210	Sonic test and interface core for P26@G3	7	7	19-Mar-25	25-Mar-25				
G5220	Sonic test and interface core for P25@G3	7	7	26-Mar-25	01-Apr-25				
G5230	Sonic test and interface core for P25a@G3	7	7	10-Apr-25	16-Apr-25				
G5240	Sonic test and interface core for P26a@G3	7	7	12-Mar-25	18-Mar-25				
Abutment G2 - P29-P34						▼ Abutment G2 - P29-P34 P29 Sonic test and interface core for P29@Ab.G2 P34 Sonic test and interface core for P34@Ab.G2			
P29									
G5270	Sonic test and interface core for P29@Ab.G2	7	7	09-Jan-25	15-Jan-25				
P34									
G5280	Sonic test and interface core for P34@Ab.G2	7	7	11-Jan-25	17-Jan-25				

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						Jan 25	Feb 26	Mar 27	Apr 28
P32		55	7	19-Nov-24 A	15-Feb-25	P32			
G1300	Installation of bored pile P32@Ab.G2	12	0	19-Nov-24 A	08-Jan-25 A	Installation of bored pile P32@Ab.G2			
G5290	Sonic test and interface core for P32@Ab.G2	7	7	09-Feb-25	15-Feb-25	Sonic test and interface core for P32@Ab.G2			
P30		52	52	09-Jan-25	01-Mar-25	P30			
G1320	Installation of bored pile P30@Ab.G2	12	12	09-Jan-25	22-Jan-25	Installation of bored pile P30@Ab.G2			
G5300	Sonic test and interface core for P30@Ab.G2	7	7	23-Feb-25	01-Mar-25	Sonic test and interface core for P30@Ab.G2			
P31		69	69	23-Jan-25	01-Apr-25	P31			
G1325	Relocation of pillar box	14	14	23-Jan-25	11-Feb-25	Relocation of pillar box			
G1330	Installation of bored pile P31@Ab.G2	12	12	12-Feb-25	25-Feb-25	Installation of bored pile P31@Ab.G2			
G5310	Sonic test and interface core for P31@Ab.G2	7	7	26-Mar-25	01-Apr-25	Sonic test and interface core for P31@Ab.G2			
Construction of Bridge F		80	80	23-Dec-24 A	16-Apr-25				
Substructure Works		80	80	23-Dec-24 A	16-Apr-25				
Abutment F2		20	20	24-Mar-25	16-Apr-25				
F2020	Installation of sheetpile, excavation, pilehead treatment and construction of pile cap for Abutment F2	20	20	24-Mar-25	16-Apr-25				
Pier F1 and Pier F2		80	80	23-Dec-24 A	16-Apr-25				
Pilecap		80	80	23-Dec-24 A	16-Apr-25				
Pilecap for Pier F1		60	60	09-Jan-25	22-Mar-25	Pilecap for Pier F1			
F2052	Excavation works	20	20	09-Jan-25	04-Feb-25	Excavation works			
F2053	Pilehead treatment	20	20	05-Feb-25	27-Feb-25	Pilehead treatment			
F2054	Construction of pile cap	20	20	28-Feb-25	22-Mar-25	Construction of pile cap			
Pilecap for Pier F2		80	20	23-Dec-24 A	16-Apr-25				
F2071	Installation of sheetpile	20	0	23-Dec-24 A	08-Jan-25 A	Installation of sheetpile			
F2072	Excavation works	20	20	24-Mar-25	16-Apr-25				
Construction of Bridge G		35	35	10-Apr-25	26-May-25				
Pilecap		35	35	10-Apr-25	26-May-25				
G1410	Construction of pile cap for Abutment FG1	35	35	10-Apr-25	26-May-25				
Widening of Existing Bridge N713 Deck		17	6	27-Aug-24 A	15-Jan-25	Widening of Existing Bridge N713 Deck			
Pre-drilling Works		17	6	27-Aug-24 A	15-Jan-25	Pre-drilling Works			
SEC02900	Implementation of TTA at TYST Road	3	3	27-Aug-24 A	11-Jan-25	Implementation of TTA at TYST Road			
SEC02905	Pre-drilling works (PH05) for P05	6	0	20-Dec-24 A	04-Jan-25 A	Pre-drilling works (PH05) for P05			
SEC02910	Pre-drilling works (PH03) for P03	6	6	09-Jan-25	15-Jan-25	Pre-drilling works (PH03) for P03			
U Trough K2, Under Pass K, U-Trough K1, Underpass J and U-Trough J1		93	88	09-Dec-24 A	29-Apr-25				
Underpass K		93	88	09-Dec-24 A	29-Apr-25				
Bay 3 to Bay 6		93	88	09-Dec-24 A	29-Apr-25				
SECK01027	Installation of sheetpile works along Yuen Long Highway	2	2	06-Jan-25 A	10-Jan-25	Installation of sheetpile works along Yuen Long Highway			
SECK01028	Demolition of existing noise barrier (uncharted cable observed)	17	10	09-Dec-24 A	22-Jan-25	Demolition of existing noise barrier (uncharted cable observed)			
SECK01029	Installation of sheetpile works for construction of Bay 3 - Bay 6	14	14	17-Jan-25	05-Feb-25	Installation of sheetpile works for construction of Bay 3 - Bay 6			
SECK01040	Excavation and installation of struts	25	25	06-Feb-25	06-Mar-25	Excavation and installation of struts			
SECK01120	Construction of Bay 3	18	18	07-Mar-25	27-Mar-25	Construction of Bay 3			
SECK01130	Construction of Bay 4	18	18	21-Mar-25	11-Apr-25	Construction of Bay 4			
SECK01140	Construction of Bay 5	18	18	04-Apr-25	29-Apr-25	Construction of Bay 5			
Nullah Decking ND1		413	145	16-Nov-23 A	09-Jul-25				
Pre-drilling and Piling Works		376	120	16-Nov-23 A	09-Jun-25				
SECND1000	Pre-drilling works (28nos) - (revised to 24 nos)	32	0	16-Nov-23 A	09-Jan-25	Pre-drilling works (28nos) - (revised to 24 nos)			
SECND1020	Installation of pre-bored H-piles (revised to 73 nos)	150	120	09-Sep-24 A	09-Jun-25	Installation of pre-bored H-piles (revised to 73 nos)			

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						Jan 25	Feb 26	Mar 27	Apr 28
Construction of Pilecap and Wall Stem		104	104	07-Aug-24 A	09-Jul-25				
SECND1040	Installation of sheetpile,excavation and installation of lateral support(129.3m*2)	104	104	07-Aug-24 A	09-Jul-25				
Cantilever Footpath		195	108	15-Nov-23 A	24-May-25				
Bay 1 to Bay 7 (in Portion 1E)		101	108	14-Dec-24 A	24-May-25				
SECFP1020	Pre-drilling works (42 nos) (4 days/per one)-4 rigs (revised to 5 nos)	35	45	14-Dec-24 A	05-Mar-25				Pre-drilling works (42 nos) (4 days/per one)-4 rigs (revised to 5 nos)
SECFP1040	Installation of pre-bored H-piles works (42 nos) -3rigs	63	63	06-Mar-25	24-May-25				
Bay 8 to Bay 31		152	76	15-Nov-23 A	11-Apr-25				
SECFP1120	Installation of working platform and implementation of TTA	21	21	05-Mar-25	28-Mar-25				Installation of working platform and
SECFP1140	Pre-drilling works (144 nos) (4 days/per one) (Revised to 25 nos)-4 rigs	150	76	15-Nov-23 A	11-Apr-25				Pre
Subway M and Subway N		440	200	07-May-24 A	27-Jul-25				
Design Acceptance, Procurement, Manufacturing and Delivery		440	200	07-May-24 A	27-Jul-25				
Subway M - RTBM Design and Statutory Approval		14	14	15-Jun-24 A	22-Jan-25				Subway M - RTBM Design and Statutory Approval
SECNM0190	Review and Acceptance	14	14	15-Jun-24 A	22-Jan-25				Review and Acceptance
Procurement, Manufacturing and Delivery		415	200	07-May-24 A	27-Jul-25				
SECNM0230	Manufacturing and Delivery RTBM and Associated Equipment	150	130	07-May-24 A	18-May-25				
SECNM0270	Manufacturing and Delivery of Subway Precast Segments	200	200	09-Jan-25	27-Jul-25				
Design and Approval Launching Shaft ELS		14	14	06-Jun-24 A	22-Jan-25				Design and Approval Launching Shaft ELS
SECNM1260	Review and Approval	14	14	06-Jun-24 A	22-Jan-25				Review and Approval
Subway M		89	89	17-Dec-24 A	30-Apr-25				
Construction of Launching Shaft		82	89	17-Dec-24 A	30-Apr-25				
SECNM0915	Excavation works and installation of walings and struts (approx.+17mPD to +1.3mPD)	42	40	17-Dec-24 A	27-Feb-25				Excavation works and installation of walings and struts (approx.+17mPD to +1.3mPD)
SECNM0920	200mm blinding concrete and backfilling	5	5	28-Feb-25	05-Mar-25				200mm blinding concrete and backfilling
SECNM0925	Lower part of thrustw wall (2m high, +1.5mPD to +3.5mPD)	14	14	06-Mar-25	21-Mar-25				Lower part of thrustw wall (2m high, +1.5mPD to
SECNM0930	Removal of 6th layer waling and strut (+4.0mPD)	5	5	22-Mar-25	27-Mar-25				Removal of 6th layer waling and str
SECNM0935	Construction of base slab	25	25	28-Mar-25	30-Apr-25				
Construction of Retrieval Shaft at Subway N		79	79	02-Jan-25 A	15-Apr-25				
Sheet Piling Works and DN1400 F.W Protection Works at Retrieval Shaft		18	13	02-Jan-25 A	23-Jan-25				Sheet Piling Works and DN1400 F.W Protection Works at Retrieval Shaft
SECNM1072	Installation of UPVC pipe for drilling and grout block	3	0	02-Jan-25 A	04-Jan-25 A				Installation of UPVC pipe for drilling and grout block
SECNM1074	Installation of UU settlement monitoring point on 1400 F.W	1	0	06-Jan-25 A	06-Jan-25 A				Installation of UU settlement monitoring point on 1400 F.W
SECNM1076	Backfilling to +12mpD, removal of strut, waling and 3 sides of sheet piles	10	13	04-Jan-25 A	23-Jan-25				Backfilling to +12mpD, removal of strut, waling and 3 sides of sheet piles
ELS Works for Retrieval Shaft - Stage 1		66	66	24-Jan-25	15-Apr-25				
SECNM1078	Installation of sheet piling for Retrieval Shaft close to 1400 F.W (by silent piler)	7	7	24-Jan-25	04-Feb-25				Installation of sheet piling for Retrieval Shaft close to 1400 F.W (by silent piler)
SECNM1080	Drilling of grout pipe for DN1400 F.W at grout block Zone B	5	5	05-Feb-25	10-Feb-25				Drilling of grout pipe for DN1400 F.W at grout block Zone B
SECNM1082	Grouting for DN1400 F.W at grout block Zone B	7	7	11-Feb-25	18-Feb-25				Grouting for DN1400 F.W at grout block Zone B
SECNM1084	Installation of concrete block platform with light weight concrete up to +14mpD	7	7	19-Feb-25	26-Feb-25				Installation of concrete block platform with light weight concrete up to +14mpD
SECNM1086	Pre-drilling for Subway N upper portion (2 nos.)	14	14	27-Feb-25	14-Mar-25				Pre-drilling for Subway N upper portion (2 nos.)
SECNM1088	Installation of 6 nos. of 610 pipe pile	6	6	15-Mar-25	21-Mar-25				Installation of 6 nos. of 610 pipe pile
SECNM1090	Installation of remaining sheet piles (by vibratory hammer)	20	20	22-Mar-25	15-Apr-25				
Noise Barrier and Noise Enclosure		864	747	15-Apr-24 A	21-Jul-27				
Procurement and Fabrication Works		730	730	01-Feb-25	21-Jul-27				
SENB0020	Procurement and delivery of steel components	700	700	01-Feb-25	15-Jun-27				
SENB0050	Fabrication of steel components for noise barrier and noise enclosure	700	700	08-Mar-25	21-Jul-27				
Noise Barrier VB9		94	94	03-Jan-25 A	08-May-25				
Bay 5 to Bay 7		94	94	03-Jan-25 A	08-May-25				
SENB7000	Access to Humility Enterprises Ltd	0	0	08-Jan-25*					Access to Humility Enterprises Ltd

Activity ID	Activity Name	Original Dur	Remaining Dur	Early Start	Early Finish	2025			
						Jan 25	Feb 26	Mar 27	Apr 28
SENB7260	Site clearance and tree felling works	24	0	03-Jan-25 A	07-Jan-25 A	Site clearance and tree felling works			
SENB7280	Construction of platform for pre-drilling works	16	16	09-Jan-25	27-Jan-25	Construction of platform for pre-drilling works			
SENB7300	Pre-drilling works (3 nos)	18	18	28-Jan-25	20-Feb-25	Pre-drilling works (3 nos)			
SENB7310	TTA at Yuen Long Highway	2	2	21-Feb-25	22-Feb-25	TTA at Yuen Long Highway			
SENB7320	Sheet piling works adjacent to YLH	30	30	24-Feb-25	29-Mar-25	Sheet piling works adjacent to			
SENB7340	Demolition of existing noise barrier footing	28	28	31-Mar-25	08-May-25	Demolition of existing noise barrier footing			
Bay 1 to Bay 4		88	88	09-Jan-25	29-Apr-25	Bay 1 to Bay 4			
SENB7020	Site clearance and tree felling works	30	30	09-Jan-25	15-Feb-25	Site clearance and tree felling works			
SENB7040	Construction of platform for pre-drilling works	28	28	17-Feb-25	20-Mar-25	Construction of platform for pre-drilling works			
SENB7042	Pre-drilling works (5 nos)	30	30	21-Mar-25	29-Apr-25	Pre-drilling works (5 nos)			
Noise Barrier VB21 and VB22		18	18	26-Mar-25	16-Apr-25	Noise Barrier VB21 and VB22			
Foundation Works		18	18	26-Mar-25	16-Apr-25	Foundation Works			
SENB1525	Pre-drilling works for VB22 (remaining 3 nos)	18	18	26-Mar-25	16-Apr-25	Pre-drilling works for VB22 (remaining 3 nos)			
Semi-Enclosure Noise Barrier SE01		170	117	31-Jul-24 A	05-Jun-25	Semi-Enclosure Noise Barrier SE01			
Foundation of Semi-Enclosure Noise Barrier SE01		170	117	31-Jul-24 A	05-Jun-25	Foundation of Semi-Enclosure Noise Barrier SE01			
SENB2036	Pre-drilling works (additional 2nos)	16	10	27-Dec-24 A	20-Jan-25	Pre-drilling works (additional 2nos)			
SENB2050	Trial pit and temp. casing installation and installation of pre-bored H-piles (94 nos)	170	117	31-Jul-24 A	05-Jun-25	Trial pit and temp. casing installation and installation of pre-bored H-piles (94 nos)			
Full-Enclosure Noise Barrier FE01		106	106	14-Feb-25	25-Jun-25	Full-Enclosure Noise Barrier FE01			
SENB2482	Installation of sheet pile (remaining bays)	16	16	14-Feb-25	04-Mar-25	Installation of sheet pile (remaining bays)			
SENB2486	Excavation works (remaining bays)	45	45	05-Mar-25	30-Apr-25	Excavation works (remaining bays)			
SENB2500	Construction of base slab (remaining bays)	75	75	22-Mar-25	25-Jun-25	Construction of base slab (remaining bays)			
Full-Enclosure Noise Barrier FE05		30	30	15-Apr-24 A	15-Feb-25	Full-Enclosure Noise Barrier FE05			
Bay FE05-01L to Bay FE05-07L and Bay FE05-01X		30	30	15-Apr-24 A	15-Feb-25	Bay FE05-01L to Bay FE05-07L and Bay FE05-01X			
SENB2820	Pre-drilling works (7 nos) - 1 rig	30	30	15-Apr-24 A	15-Feb-25	Pre-drilling works (7 nos) - 1 rig			
Retaining Wall		101	101	13-Dec-24 A	16-May-25	Retaining Wall			
Retaining Wall RW12		87	81	13-Dec-24 A	17-Apr-25	Retaining Wall RW12			
SECRW1261	Construction of base slab (Bay 12 & 13)	21	12	13-Dec-24 A	22-Jan-25	Construction of base slab (Bay 12 & 13)			
SECRW1261.5	Backfilling works for base slab (Bay 12 & 13)	21	21	23-Jan-25	19-Feb-25	Backfilling works for base slab (Bay 12 & 13)			
SECRW1262	Installation of sheetpile (remaining bays)	18	18	27-Mar-25	17-Apr-25	Installation of sheetpile (remaining bays)			
Retaining Wall RW22		36	36	09-Jan-25	22-Feb-25	Retaining Wall RW22			
SECRW1625	Excavation and ducting laying by CLP	18	18	09-Jan-25	01-Feb-25	Excavation and ducting laying by CLP			
SECRW1626	Installation of sheetpile at CH66.4-CH147.99 (partial)	18	18	03-Feb-25	22-Feb-25	Installation of sheetpile at CH66.4-CH147.99 (partial)			
Retaining Wall RW37		98	101	18-Dec-24 A	16-May-25	Retaining Wall RW37			
Construction of Bay 8 - Bay 12		98	101	18-Dec-24 A	16-May-25	Construction of Bay 8 - Bay 12			
SECRW1790	Temporary diversion of DN900 Storm Drain	10	14	18-Dec-24 A	24-Jan-25	Temporary diversion of DN900 Storm Drain			
SECRW1800	Excavation works	15	15	25-Jan-25	14-Feb-25	Excavation works			
SECRW1840	Construction of base slab for L-shaped retaining wall (5 bays)	50	50	13-Feb-25	12-Apr-25	Construction of base slab for L-shaped retaining wall (5 bays)			
SECRW1860	Construction of wall stem (5 bays)	40	40	25-Mar-25	16-May-25	Construction of wall stem (5 bays)			
Box Culvert BC01 (CH730 to CH1202)		71	71	09-Jan-25	04-Apr-25	Box Culvert BC01 (CH730 to CH1202)			
CH750 to CH840		71	71	09-Jan-25	04-Apr-25	CH750 to CH840			
SECBC1001	Notice to diversion of haul road by CLP	0	0	09-Jan-25		Notice to diversion of haul road by CLP			
SECBC1002	Diversion of haul road at Cycle Track	7	7	09-Jan-25	16-Jan-25	Diversion of haul road at Cycle Track			
SECBC1005	Installation of sheetpile @BC01 (Stage 2)	18	18	11-Feb-25	03-Mar-25	Installation of sheetpile @BC01 (Stage 2)			
SECBC1010	Excavation and installation of lateral support @BC01	18	18	04-Mar-25	24-Mar-25	Excavation and installation of lateral support @BC01			
SECBC1015	Placing of 600m thick grade 200 fill material @BC01	10	10	25-Mar-25	04-Apr-25	Placing of 600m thick grade 200 fill material @BC01			

Activity ID	Activity Name	Original Dur	Remaining Dur	Early Start	Early Finish	2025			
						Jan 25	Feb 26	Mar 27	Apr 28
Section 2 of the Works-Completion of all works within Portions 10 and									
Demolition Works									
SEC021080	Temporary diversion of existing drainage	14	14	03-Apr-25	23-Apr-25				
SEC021100	Temporary diversion of existing sewage	7	7	09-Apr-25	16-Apr-25				
Land Decontamination Works									
SEC021205	Land decontamination assessment approval by EPD	48	10	22-Dec-23 A	18-Jan-25				
SEC021220	Land decontamination works	35	35	03-Dec-24 A	21-Feb-25				
Box Culvert BC01(CH0 to CH88.7)									
Bay 1 - Bay 6									
SEC021270	Excavation and installation of lateral support except Bay 3	45	5	23-Aug-24 A	14-Jan-25				
SEC021287	Demolition of box culvert (Bay 2)	15	0	18-Dec-24 A	07-Jan-25 A				
SEC021288	Re-construction of box culvert (Bay 2)	20	20	09-Jan-25	04-Feb-25				
SEC021290	Construction of box culvert (Bay 4-6)	50	40	02-Dec-24 A	27-Feb-25				
SEC021300	Backfilling works for Bay 1-2	21	21	05-Feb-25	28-Feb-25				
SEC021301	Backfilling works for Bay Bay 4-6	21	21	28-Feb-25	24-Mar-25				
SEC021303	Road diversion for construction of Bay 3	2	2	09-Jan-25	10-Jan-25				
SEC021304	Sheetpiling for Bay 3	2	2	01-Mar-25	03-Mar-25				
SEC021307	Remainig excavation and installation of lateral support	21	21	04-Mar-25	27-Mar-25				
SEC021308	Construction of box culvert (Bay 3)	25	25	05-Mar-25	02-Apr-25				
SEC021310	Backfilling works for Bay 3	21	21	03-Apr-25	02-May-25				
Bay 0 (CH -5.906 to CH 0) (NCE No.049)									
Sewerage and Storm Water Works near Bay 0									
SEC102250	ELS works for sewerage pipe between sewerage manhole FHM7001 and FMH1000	10	1	04-Jan-25 A	09-Jan-25				
SEC102260	DN600 sewerage pipe installation between sewerage manhole FHM7001 and FMH1000	10	10	10-Jan-25	21-Jan-25				
SEC102280	Backfill up to the storm water drain level	5	5	22-Jan-25	27-Jan-25				
SEC102300	Construction of storm water drain M1018	14	14	28-Jan-25	15-Feb-25				
SEC102320	Diversion of Pedestrian walkway - Stage 2	7	7	17-Feb-25	24-Feb-25				
SEC102340	Connect remaining sewerage pipe	21	21	25-Feb-25	20-Mar-25				
SEC102360	Construction of storm water drain	14	14	21-Mar-25	07-Apr-25				
Construction of Bay 0									
SEC102380	Diversion of existing nullah	7	7	10-Jan-25	17-Jan-25				
SEC102400	Sawcut and demolish the existing Nullah	12	12	18-Jan-25	04-Feb-25				
SEC102420	Excavation to formation	12	12	05-Feb-25	18-Feb-25				
SEC102440	Construction of base slab	10	10	19-Feb-25	01-Mar-25				
SEC102460	Construction of wall and top slab	21	21	03-Mar-25	26-Mar-25				
SEC102480	Backfilling works	10	10	27-Mar-25	08-Apr-25				
Drainage Works									
SEC021330	Drainage works (from M1017 to box culvert ~71m)	36	36	28-Mar-25	15-May-25				
Sewage Works									
SEC021340	Construction of remaining sewage works at MSB	105	40	22-Jun-24 A	27-Feb-25				
Site Formation Works									
SEC021380	Site formation works(56453m3) (affected by rainy days for SRT)	120	50	11-May-24 A	23-May-25				
Section 3 of the Works-Completion of All works within Portions 8A, 9A,									
Land Decontamination Works									
SEC031108	Land decontamination assessment approval by EPD	21	21	06-May-24 A	29-Jan-25				

Activity ID	Activity Name	Original Dur	Remaining Dur	Early Start	Early Finish	2025			
						Jan 25	Feb 26	Mar 27	Apr 28
SEC031120	Land decontamination works in Portion 14 and Portion 14A	50	50	28-Mar-25	02-Jun-25				
SEC031125	Land decontamination works in Portion 8A	40	40	01-Feb-25	19-Mar-25				
SEC031130	Land decontamination works in Portion 9A	7	7	20-Mar-25	27-Mar-25				
Box Culvert BC01(CH200 to CH250)		20	20	25-Sep-24 A	04-Feb-25				
SEC102020	Installation of sheetpile @BC01	20	20	25-Sep-24 A	04-Feb-25				
Fresh Water and Flushing Water Works		20	20	09-Jan-25	04-Feb-25				
SEC031300	Abandonment of the fresh water and flushing water	20	20	09-Jan-25	04-Feb-25				
Utilities		50	50	09-Jan-25	11-Mar-25				
SEC031330	Utilities detection and trial pit (remaining)	7	7	09-Jan-25	16-Jan-25				
SEC031340	Abandonment of existing utilities(LV)	30	30	05-Feb-25	11-Mar-25				
Section 4 of the Works-Completion of All works within Portions 8E, 15		744	213	07-Jul-23 A	09-Aug-25				
Preparation Works		467	35	07-Jul-23 A	21-Feb-25				
SEC041000	Site clearance (EW No.005)	14	5	07-Jul-23 A	14-Jan-25				
SEC041020	Tree felling works	14	14	05-Aug-24 A	24-Jan-25				
SEC041030	Utilities detection and trial pit	7	7	29-May-24 A	16-Jan-25				
SEC041040	Disconnect power supply, HKT cable	21	21	25-Jan-25	21-Feb-25				
Demolition Works		150	30	18-Oct-23 A	21-Feb-25				
SEC041080	Demolition of existing structure (7513m2) (affected by late site handover)	150	30	18-Oct-23 A	21-Feb-25				
Land Decontamination Works		445	180	03-Oct-23 A	09-Aug-25				
SEC041100	Environmental ground investigation & Report Submission	30	30	03-Oct-23 A	17-Mar-25				
SEC041102	Land decontamination assessment approval by EPD	21	21	18-Mar-25	07-Apr-25				
SEC041120	Land decontamination works (28100 m3)	100	100	08-Apr-25	09-Aug-25				
Section 5 of the Works-Completion of All Works within Portions 16, 16A		493	160	23-Oct-23 A	26-Jul-25				
Preparation Works		14	4	23-Oct-23 A	13-Jan-25				
Preparation Works for Portion 16A, 16B, 16C & 16D		14	4	23-Oct-23 A	13-Jan-25				
SEC051160	Utilities detection and trial pit for Portions (Affected by wooden poles and overhead cable,EW012)	14	4	23-Oct-23 A	13-Jan-25				
Box Culvert BC02		100	100	23-Dec-24 A	15-May-25				
SEC053900	Sheet piling works (KD3) @BC02	15	0	23-Dec-24 A	04-Jan-25 A				
SEC054020	Demolition of existing rectangular channel (KD3) @BC02 (affected by CLP cable)	25	25	09-Jan-25	10-Feb-25				
SEC054040	Excavation,laying of rockfill and construction of box culvert BC02(KD3) @BC02	45	45	11-Feb-25	03-Apr-25				
SEC054060	Backfill works(KD3) @BC02	30	30	04-Apr-25	15-May-25				
Fresh and Flushing Water Works		140	16	28-Aug-24 A	27-Jan-25				
SEC056000	TTA and Installation of water main from CHM 000 to CHM 274 (DN 150 pipe)(KD3)	140	16	28-Aug-24 A	27-Jan-25				
Utilities		90	90	04-Apr-25	26-Jul-25				
SEC057000	Excavation and installation of utilities duct along westbound of Long Hon Road	90	90	04-Apr-25	26-Jul-25				
Section 6 of the Works-Completion of All works within Portions 8C,8D,		1301	195	14-Aug-23 A	22-Jul-25				
Preparation Works		14	14	14-Aug-23 A	24-Jan-25				
SEC061000	Site clearance	14	14	14-Aug-23 A	24-Jan-25				
Land Decontamination Works		421	72	22-Sep-23 A	21-Mar-25				
SEC061100	Environmental ground investigation & Report Submission	30	14	22-Sep-23 A	24-Jan-25				
SEC061102	Land decontamination assessment (part I for handovered site) approval by EPD	21	21	25-Jan-25	14-Feb-25				
SEC061120	Land decontamination works (part I for handovered site)	15	15	15-Feb-25	04-Mar-25				
SEC101800	Land decontamination assessment (part II for remaining site) approval by EPD	21	21	25-Jan-25	14-Feb-25				
SEC101820	Land decontamination works (part II for remaining site)	15	15	05-Mar-25	21-Mar-25				
Box Culvert BC01 from CH88.7 to CH164		60	45	01-Nov-24 A	05-Mar-25				

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						Jan 25	Feb 26	Mar 27	Apr 28
SEC061220	Backfilling works @BC01	60	45	01-Nov-24 A	05-Mar-25	Backfilling works @BC01			
Box Culvert BC01 from CH250 to CH450		156	119	04-Oct-24 A	07-Jun-25				
SEC061300	Installation of sheetpile @BC01	49	44	04-Oct-24 A	04-Mar-25	Installation of sheetpile @BC01			
SEC061320	Excavation and installation of lateral support @BC01	75	75	05-Mar-25	07-Jun-25				
Box Culvert BC01 from CH450 to CH730		180	156	21-Nov-24 A	22-Jul-25				
SEC061372	UU detection and trial pit	18	6	21-Nov-24 A	15-Jan-25	UU detection and trial pit			
SEC061375	Installation of sheetpile @BC01	56	56	16-Jan-25	25-Mar-25	Installation of sheetpile @BC01			
SEC061380	Excavation and installation of lateral support @BC01	95	95	25-Mar-25	22-Jul-25				
Retaining Wall RW35		42	30	30-Oct-24 A	03-Apr-25	Retaining Wall RW35			
Bay 1 - Bay 8		42	30	30-Oct-24 A	03-Apr-25	Bay 1 - Bay 8			
SEC101220	Backfilling works	42	30	30-Oct-24 A	03-Apr-25	Backfilling works			
Subway L and U-trough Structure		84	84	03-Jan-25 A	24-Apr-25				
Drainage Diversion of Existing Ping Shan Nullah		38	38	03-Jan-25 A	25-Feb-25	Drainage Diversion of Existing Ping Shan Nullah			
Drainage Diversion - Stage 2		38	38	03-Jan-25 A	25-Feb-25	Drainage Diversion - Stage 2			
SEC061510	Preparation works and road diversion	20	14	03-Jan-25 A	24-Jan-25	Preparation works and road diversion			
SEC061512	Installation of sheetpile to connect Stage 1 temporary trench with BC01	14	14	14-Jan-25	01-Feb-25	Installation of sheetpile to connect Stage 1 temporary trench with BC01			
SEC061514	Excavation and installation of lateral support	18	18	03-Feb-25	22-Feb-25	Excavation and installation of lateral support			
SEC061516	Drainage diversion of Ping Shan Nullah - Stage 2	2	2	24-Feb-25	25-Feb-25	Drainage diversion of Ping Shan Nullah - Stage 2			
Construction of Subway L and U-trough Structure		81	81	13-Jan-25	24-Apr-25				
U-trough Structure		75	75	13-Jan-25	14-Apr-25				
SEC061522	Installation of sheetpile for lift shaft	7	7	13-Jan-25	20-Jan-25	Installation of sheetpile for lift shaft			
SEC061524	Excavation and installation of lateral support	14	14	21-Jan-25	08-Feb-25	Excavation and installation of lateral support			
SEC061526	Construction of pile cap	14	14	10-Feb-25	25-Feb-25	Construction of pile cap			
SEC061528	Construction of base slab	10	10	26-Feb-25	08-Mar-25	Construction of base slab			
SEC061530	Construction of retaining wall	30	30	10-Mar-25	14-Apr-25				
Subway L		14	14	04-Apr-25	24-Apr-25				
SEC061540	Construction of base slab (2 bays)	14	14	04-Apr-25	24-Apr-25				
Noise Barrier VB23		56	56	26-Mar-25	06-Jun-25				
SEC061620	Installation of sheetpile (~229m)	56	56	26-Mar-25	06-Jun-25				
Sewage Works		100	100	09-Jan-25	15-May-25				
SEC061810	Construction of FMH300,3002 & FMH1009540, installation of DN600 pipe between FMH7003 and FMH1009540 at Section 6	28	28	09-Jan-25	13-Feb-25	Construction of FMH300,3002 & FMH1009540, installation of DN600 pipe between FMH7003 and FMH1009540 at Section 6			
SEC061830	Sewage works (DN600 for diversion of existing sewage in Section 2)	60	60	28-Feb-25	15-May-25				
Water Works		732	110	04-Oct-24 A	27-May-25				
Installation of DN1800 MS pipe under BC01 CH240 - CH255		156	80	04-Oct-24 A	16-Apr-25				
SEC061832	Installation of sheetpile	30	5	04-Oct-24 A	14-Jan-25	Installation of sheetpile			
SEC061834	Excavation and installation of lateral support	50	50	15-Jan-25	17-Mar-25	Excavation and installation of lateral support			
SEC061836	Installation of DN1800 MS pipe	25	25	18-Mar-25	16-Apr-25				
Remaining Water Works		596	110	20-Dec-24 A	27-May-25				
SEC061839	Construction of DN1000 and DN150 watermain above RW35 Bay 1-8	50	50	24-Mar-25	27-May-25				
SEC061840	DN1000 watermain works (Discovery of unsuitable materials - dark soil with general refuse, plastic and concrete debris)	120	80	20-Dec-24 A	16-Apr-25				
Section 7 of the Works-Completion of All Works within Portions 8B, 9B		163	107	23-Feb-24 A	25-Apr-25				
Preparation Works		120	75	06-Aug-24 A	10-Apr-25				
SEC031010	Disconnect power supply	30	30	09-Jan-25	15-Feb-25	Disconnect power supply			
SEC071000	Site clearance	30	15	06-Aug-24 A	05-Mar-25	Site clearance			
SEC071020	Tree felling works	30	30	06-Mar-25	10-Apr-25	Tree			

Activity ID	Activity Name	Original Dur	Remaining Dur	Early Start	Early Finish	2025			
						Jan 25	Feb 26	Mar 27	Apr 28
SEC071060	Erection of hoarding in Portion 8B&9B	7	7	09-Jan-25	16-Jan-25	Erection of hoarding in Portion 8B&9B			
Land Decontamination Works		138	107	23-Feb-24 A	25-Apr-25				
SEC071145	Land decontamination assessment prapratation, submission and approval by EPD	90	67	23-Feb-24 A	16-Mar-25	Land decontamination assessment prapratation, submission and approval by EPD			
SEC071160	Land decontamination works in Portions 13A and Portion 13 (8100m3)	45	45	28-Feb-25	25-Apr-25	Land decontamination works in Portions 13A and Portion 13 (8100m3)			
Section 9 of the Works-Completion of All Works within Portions 5C, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100		772	150	28-Apr-23 A	07-Jun-25				
Preparation Works		729	107	28-Apr-23 A	25-Apr-25				
SEC091000	Site clearance (EW No.005)	14	10	28-Apr-23 A	20-Jan-25	Site clearance (EW No.005)			
SEC091020	Tree felling works	14	10	05-Jun-23 A	20-Jan-25	Tree felling works			
SEC101825	TD/RMO for TTA to construct Temp. Bridge between Shan Ha Road and Long Hong Road	28	28	09-Jan-25	10-Feb-25	TD/RMO for TTA to construct Temp. Bridge between Shan Ha Road and Long Hong Road			
SEC101830	Excavation and construction of at-grade pavement	30	30	11-Feb-25	17-Mar-25	Excavation and construction of at-grade pavement			
SEC101840	Temp. Bridge between Shan Ha Road and Long Hong Road	30	30	18-Mar-25	25-Apr-25	Temp. Bridge between Shan Ha Road and Long Hong Road			
Land Decontamination Works		26	26	09-Jan-25	03-Feb-25	Land Decontamination Works			
SEC091090	Land decontamination assessment approval by EPD	14	14	09-Jan-25	22-Jan-25	Land decontamination assessment approval by EPD			
SEC091100	Land decontamination works in Portion 7	7	7	23-Jan-25	03-Feb-25	Land decontamination works in Portion 7			
Nullah Decking ND2		338	119	02-Jan-24 A	07-Jun-25				
Demolition Works		14	14	09-Jan-25	24-Jan-25	Demolition Works			
SEC091230	Demolition of existing bridge NF138	14	14	09-Jan-25	24-Jan-25	Demolition of existing bridge NF138			
Pre-drilling		24	20	02-Jan-24 A	08-Feb-25	Pre-drilling			
SEC091260	Road modification and site formation	24	20	02-Jan-24 A	08-Feb-25	Road modification and site formation			
Piling Works		167	70	24-Apr-24 A	03-Apr-25	Piling Works			
SEC091290	Installation of pre-bored H-Piles (46 nos)-2 rigs (due to unforeseen ground)	167	70	24-Apr-24 A	03-Apr-25	Installation of pre-bored H-Piles (46 nos)-2 rigs (due to unforeseen ground)			
Construction of Pilecap and Wall Stem		168	119	14-Aug-24 A	07-Jun-25				
SEC091300	Installation of sheetpile(60+59+18m,2 workfront) & ELS (Affected by the updated site boundary, NCE No. 014)	110	90	14-Aug-24 A	02-May-25	Installation of sheetpile(60+59+18m,2 workfront) & ELS (Affected by the updated site boundary, NCE No. 014)			
SEC091320	Pilehead treatment and construction of pilecap(6 days/2 bays)	70	70	11-Mar-25	07-Jun-25	Pilehead treatment and construction of pilecap(6 days/2 bays)			
Nullah Wall NW1		110	110	09-Jan-25	27-May-25				
Pre-drilling and Piling Works		110	110	09-Jan-25	27-May-25	Pre-drilling and Piling Works			
SEC091500	Pre-drilling works (2 nos)	12	12	09-Jan-25	22-Jan-25	Pre-drilling works (2 nos)			
SEC091520	Installation of pre-bored H-Piles(8 nos)	40	40	04-Apr-25	27-May-25	Installation of pre-bored H-Piles(8 nos)			
Drainage Works and Sewage Works		89	89	28-Dec-24 A	07-Apr-25	Drainage Works and Sewage Works			
SEC091745	Implement TTA at Shan Ha Road	1	1	10-Feb-25	10-Feb-25	Implement TTA at Shan Ha Road			
SEC091750	ELS installation for drainage manhole SMH3001 (KD2)	10	10	28-Dec-24 A	20-Jan-25	ELS installation for drainage manhole SMH3001 (KD2)			
SEC091751	ELS installation between drainage manhole SMH3001 and SMH3004 (KD2)	18	13	04-Jan-25 A	23-Jan-25	ELS installation between drainage manhole SMH3001 and SMH3004 (KD2)			
SEC091752	ELS installation for drainage manhole SMH3004 (KD2)	10	10	24-Jan-25	07-Feb-25	ELS installation for drainage manhole SMH3004 (KD2)			
SEC091753	ELS installation from drainage manhole SMH3001 to interface inlet (KD2)	10	10	11-Feb-25	21-Feb-25	ELS installation from drainage manhole SMH3001 to interface inlet (KD2)			
SEC091754	ELS installation from drainage manhole SMH3004 to nullah (KD2)	14	14	22-Feb-25	10-Mar-25	ELS installation from drainage manhole SMH3004 to nullah (KD2)			
SEC091755	1500mm drainage installation between drainage manhole SMH3001 and SMH3004 (KD2)	28	28	24-Jan-25	28-Feb-25	1500mm drainage installation between drainage manhole SMH3001 and SMH3004 (KD2)			
SEC091756	1500mm drainage installation from drainage manhole SMH3001 to interface inlet (KD2)	14	14	01-Mar-25	17-Mar-25	1500mm drainage installation from drainage manhole SMH3001 to interface inlet (KD2)			
SEC091757	1500mm drainage installation from drainage manhole SMH3004 to nullah (KD2)	10	10	18-Mar-25	28-Mar-25	1500mm drainage installation from drainage manhole SMH3004 to nullah (KD2)			
SEC091758	Construction of drainage manhole SMH3001 (KD2)	14	14	21-Jan-25	08-Feb-25	Construction of drainage manhole SMH3001 (KD2)			
SEC091759	Construction of drainage manhole SMH3004 (KD2)	14	14	10-Feb-25	25-Feb-25	Construction of drainage manhole SMH3004 (KD2)			
SEC091760	Backfilling between drainage manhole SMH3001 and SMH3004 (KD2)	18	18	01-Mar-25	21-Mar-25	Backfilling between drainage manhole SMH3001 and SMH3004 (KD2)			
SEC091761	Backfilling from drainage manhole SMH3001 to interface inlet (KD2)	8	8	22-Mar-25	31-Mar-25	Backfilling from drainage manhole SMH3001 to interface inlet (KD2)			
SEC091762	Backfilling from drainage manhole SMH3004 to nullah (KD2)	5	5	01-Apr-25	07-Apr-25	Backfilling from drainage manhole SMH3004 to nullah (KD2)			
SEC091800	Planned completion of Key Date KD2 of the works	0	0		07-Apr-25	Planned completion of Key Date KD2 of the works			
Section 11 of the Works-Completion of All Works for Water Trunk Main		173	183	04-Dec-24 A	22-Aug-25				

Activity ID	Activity Name	Original Dur	Remaining Dur	Early Start	Early Finish	2025			
						Jan 25	Feb 26	Mar 27	Apr 28
Water Trunk Mains in Section 6 (B1+343 to B0+578)		156	166	04-Dec-24 A	02-Aug-25				
Water Trunk Mains from B1+343 to B1+160 (183m)(Nearby Section 2)		130	166	04-Dec-24 A	02-Aug-25				
SEC11670	Installation of sheetpiles,excavation and installation of lateral support	81	81	04-Dec-24 A	17-Apr-25				
SEC11690	Construction of chambers and installation of twin DN1800 MS pipes(6m/day)	105	105	25-Mar-25	02-Aug-25				
Water Trunk Mains from B1+160 to B1+130 (30m)(Nearby Section 2)		60	60	21-Jan-25	03-Apr-25				
SEC101900	Installation of sheetpiles,excavation and installation of lateral support	30	30	21-Jan-25	27-Feb-25				
SEC101920	Construction of chambers and installation of twin DN1800 MS pipes(6m/day)	30	30	28-Feb-25	03-Apr-25				
Water Trunk Mains in Section 1 (B0+000 to B0+335, B0+390 to B0+578)		110	110	09-Apr-25	22-Aug-25				
Water Trunk Mains from B0+578 to B0+390 (188m)		110	110	09-Apr-25	22-Aug-25				
SEC11110	Installation of sheetpiles,excavation and installation of lateral support	110	110	09-Apr-25	22-Aug-25				
Section 12 of the Works-Comprises All Preservation and Protection of		1858	1522	26-Feb-23 A	10-Mar-29				
SEC12100	Preservation and protection of existing trees	1858	1522	26-Feb-23 A	10-Mar-29				
Section 13 of the Works-Comprises All of the Landscape Softworks		1858	1522	26-Feb-23 A	10-Mar-29				
SEC13100	Landscape softworks	1858	1522	26-Feb-23 A	10-Mar-29				

Appendix E

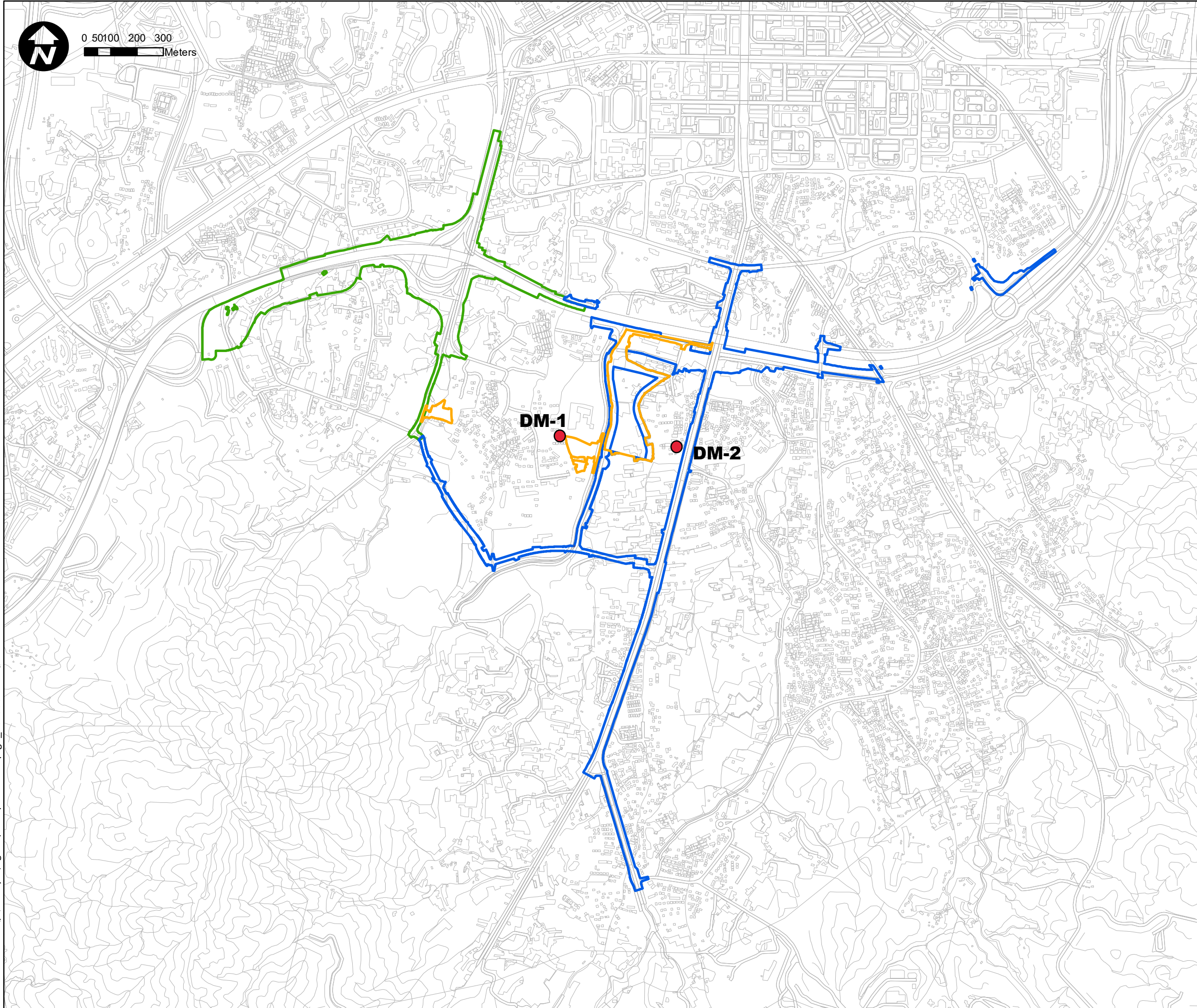
Monitoring Locations



0 50 100 200 300
Meters

LEGEND

- Boundary of YL/2021/03 (Contract 1)
- Boundary of YL/2021/04 (Contract 2)
- Boundary of YL/2022/01 (Contract 3)
- Construction Dust Monitoring Stations



Document Path: D:\p\aves-yls\Figure\MXD\20230615\Fig1_20230627.mxd

Project Title:
 CEDD Service Contract No. WD/07/2022
 Yuen Long South First Phase Development -
 Environmental Team

Figure Title:
**Location of Construction Dust
 Monitoring Stations for YLS First Phase
 Development**

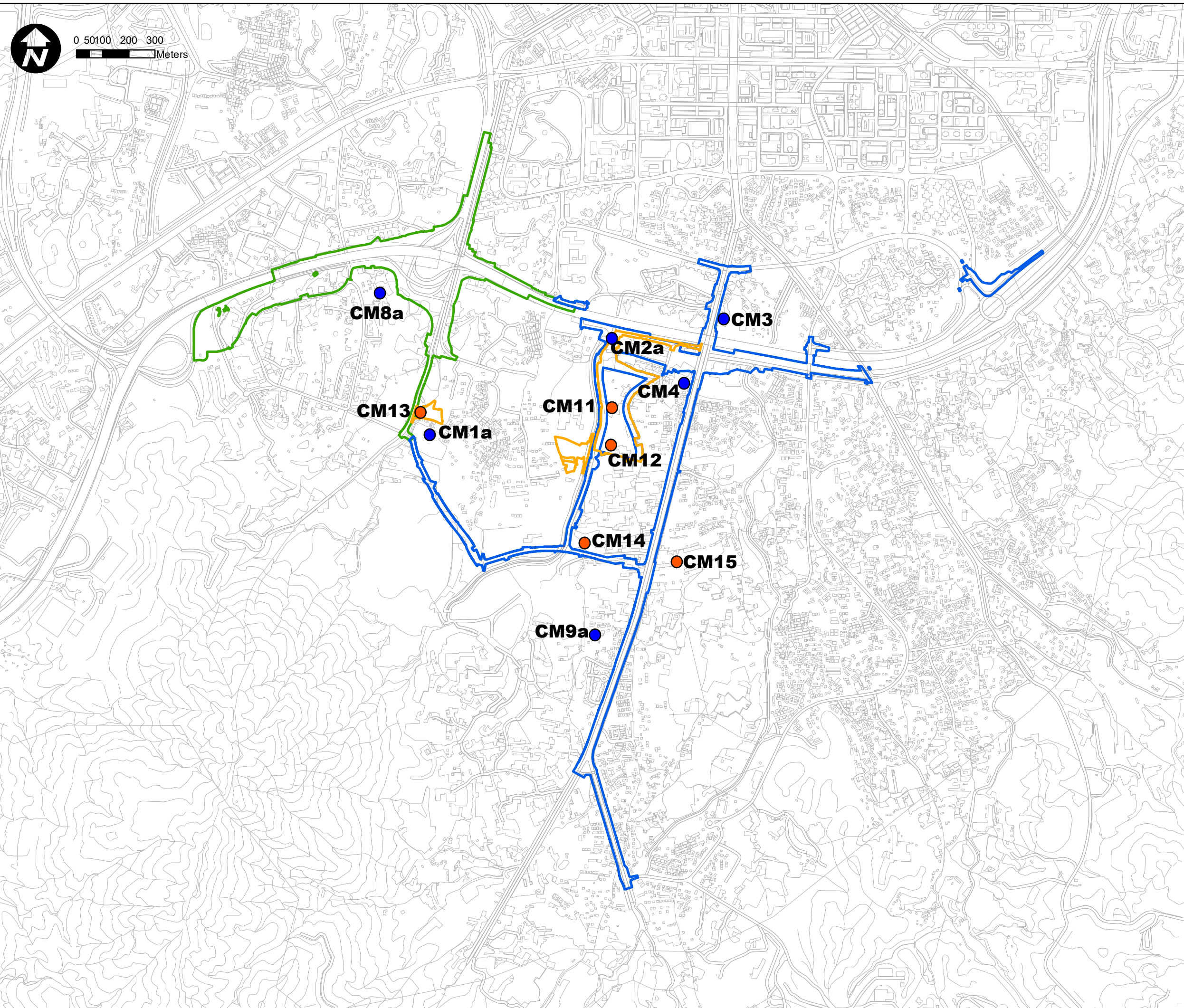
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Checked By:	
Approved by:	
Figure Number:	Revision: 0



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Meters

LEGEND

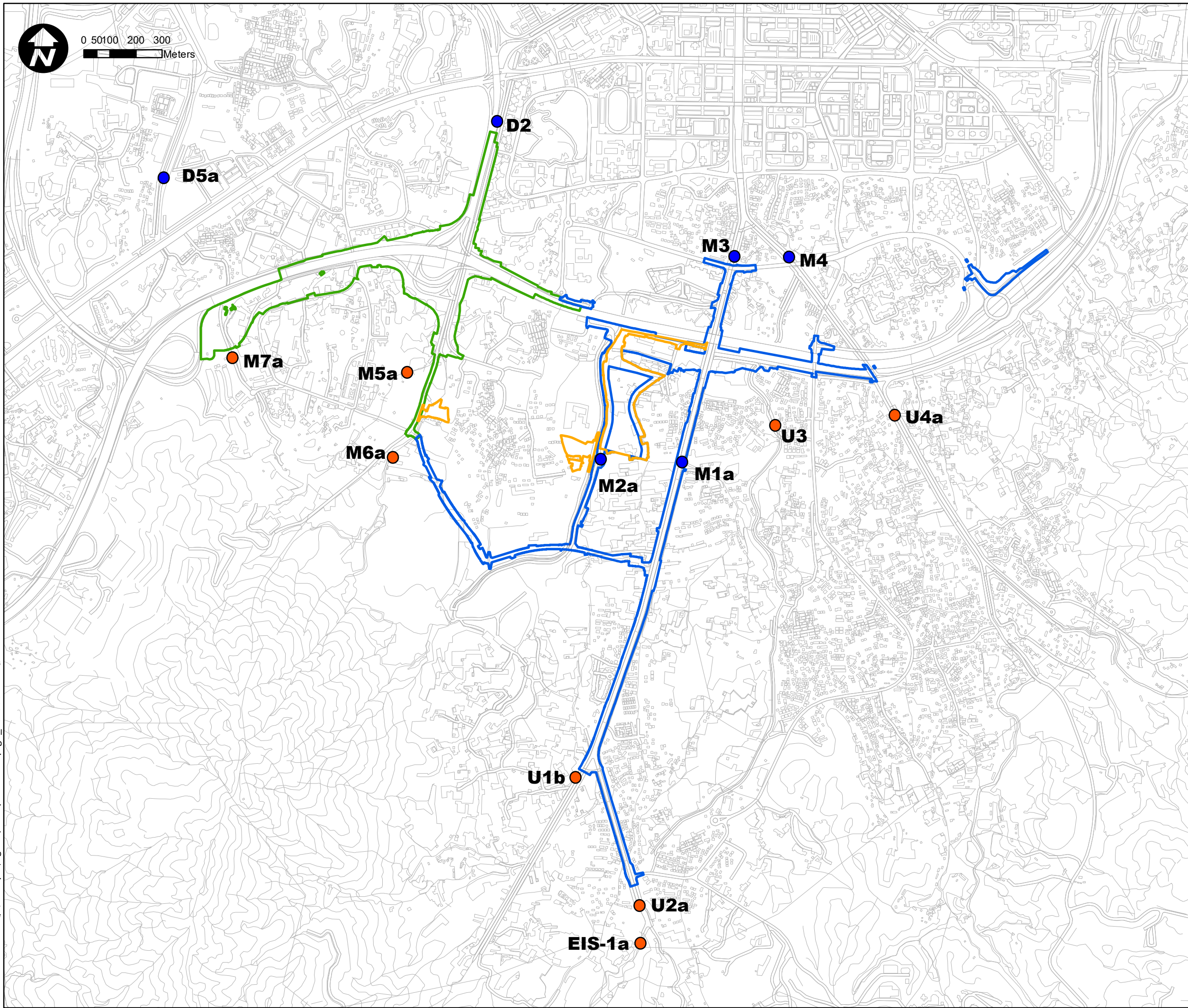
- Boundary of YL/2021/03 (Contract 1)
- Boundary of YL/2021/04 (Contract 2)
- Boundary of YL/2022/01 (Contract 3)
- Construction Noise Monitoring Stations
- Construction Noise Monitoring Stations (Planned NSRs)



Project Title:
 CEDD Service Contract No. WD/07/2022
 Yuen Long South First Phase Development -
 Environmental Team

Figure Title:
**Location of Construction Noise
 Monitoring Stations for YLS First Phase
 Development**

Drawn by:	Scale: 1:13,745 on A3
Checked By:	
Approved by:	
Figure Number:	Revision: 0



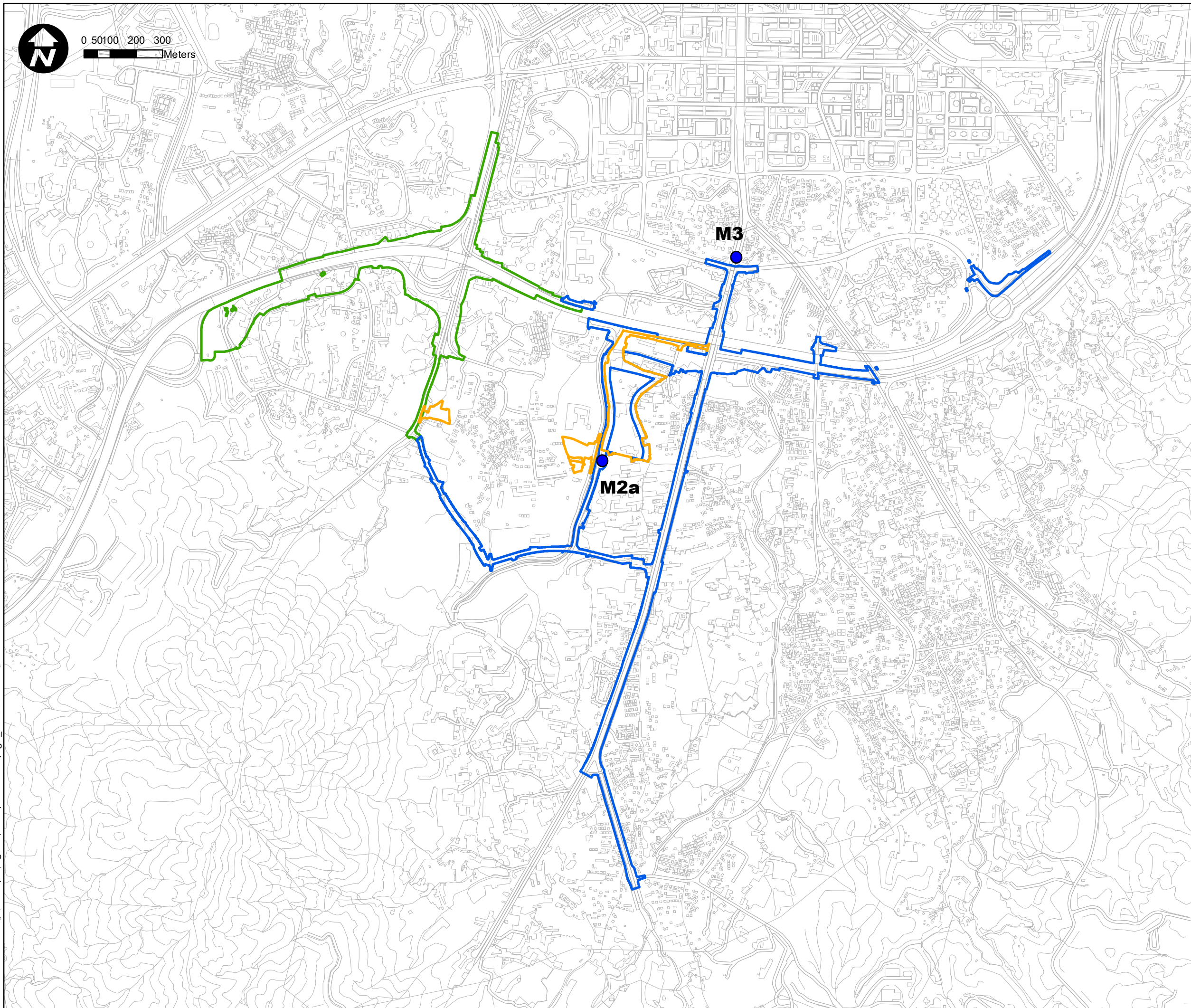
LEGEND

- Boundary of YL/2021/03 (Contract 1)
- Boundary of YL/2021/04 (Contract 2)
- Boundary of YL/2022/01 (Contract 3)
- Water Quality Monitoring Impact / Gradient Stations
- Water Quality Monitoring Control Stations

Project Title:
 CEDD Service Contract No. WD/07/2022
 Yuen Long South First Phase Development -
 Environmental Team

Figure Title:
**Location of Water Quality Monitoring
 Stations for YLS First Phase
 Development**

Drawn by:	Scale: 1:13,745 on A3
Checked By:	
Approved by:	
Figure Number:	Revision: 0



LEGEND

- Boundary of YL/2021/03 (Contract 1)
- Boundary of YL/2021/04 (Contract 2)
- Boundary of YL/2022/01 (Contract 3)
- Water Quality Monitoring Impact / Gradient Stations

Project Title:
 CEDD Service Contract No. WD/07/2022
 Yuen Long South First Phase Development -
 Environmental Team

Figure Title:
**Location of Water Quality Monitoring
 Stations for Contract 1**

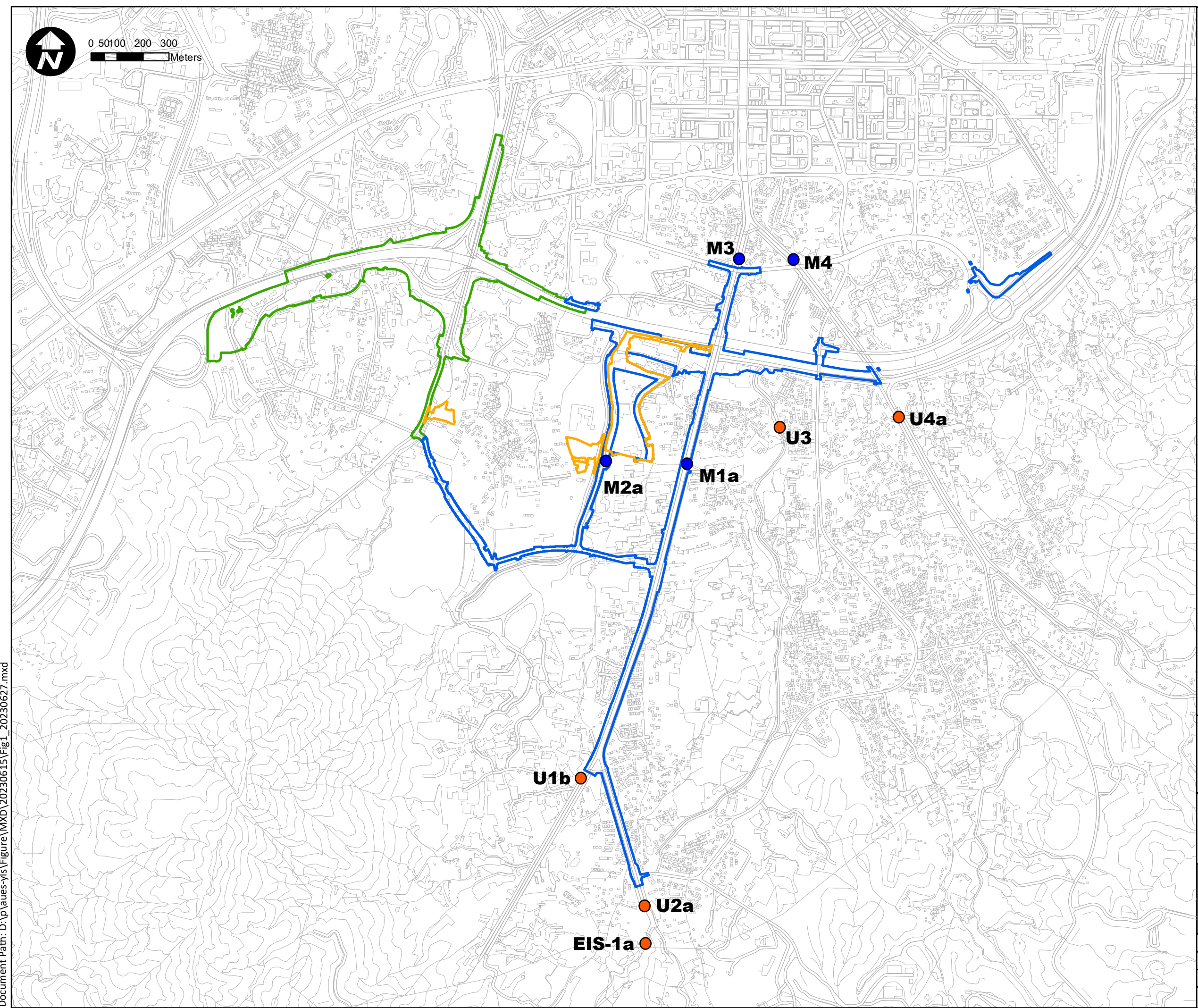
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Checked By:	
Approved by:	
Figure Number:	Revision: 0



0 50 100 200 300
Meters

LEGEND

- Boundary of YL/2021/03 (Contract 1)
- Boundary of YL/2021/04 (Contract 2)
- Boundary of YL/2022/01 (Contract 3)
- Water Quality Monitoring Impact / Gradient Stations
- Water Quality Monitoring Control Stations

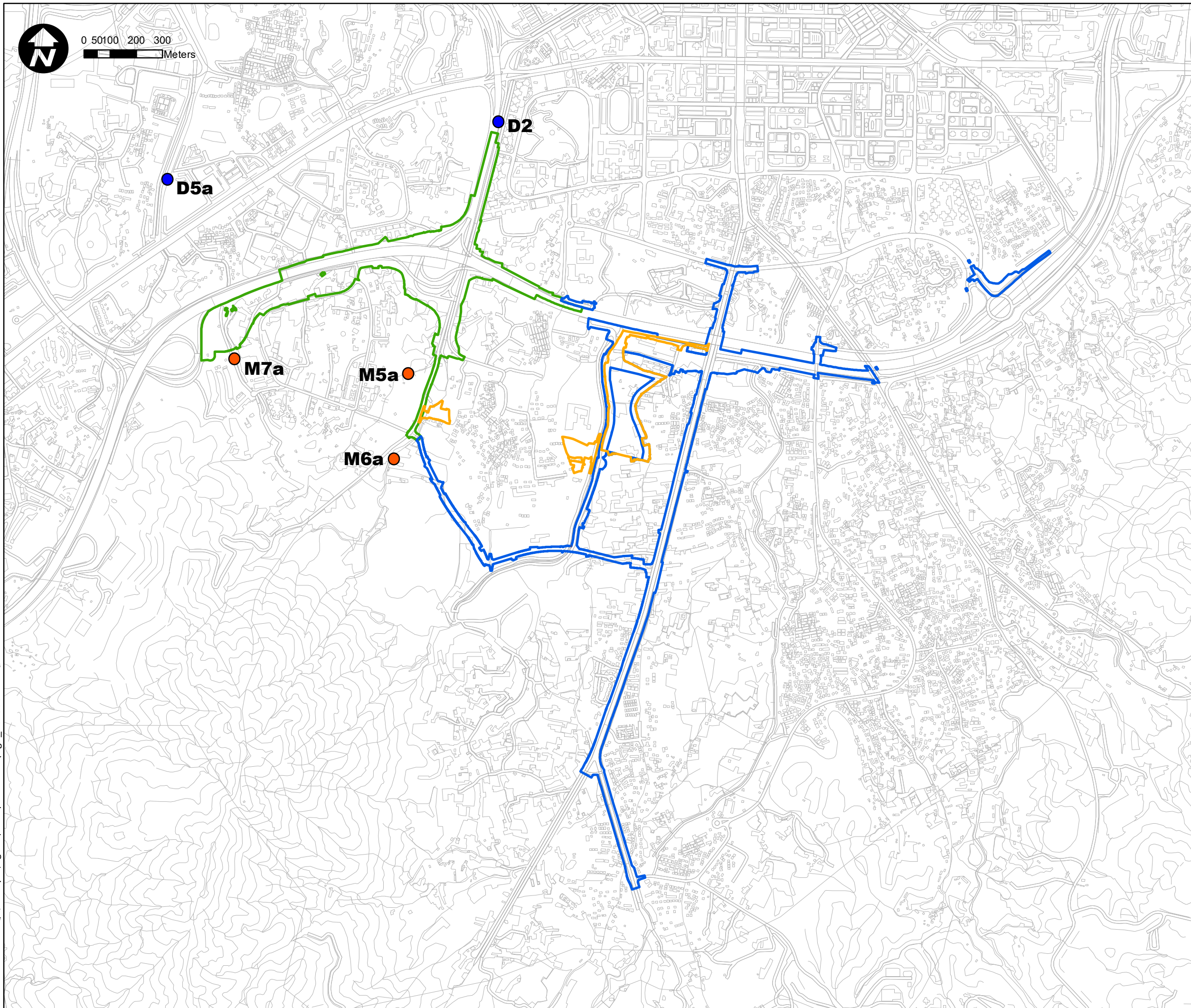


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Project Title:
 CEDD Service Contract No. WD/07/2022
 Yuen Long South First Phase Development -
 Environmental Team

Figure Title:
**Location of Water Quality Monitoring
 Stations for Contract 2**

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Checked By:	
Approved by:	
Figure Number:	Revision: 0



LEGEND

- Boundary of YL/2021/03 (Contract 1)
- Boundary of YL/2021/04 (Contract 2)
- Boundary of YL/2022/01 (Contract 3)
- Water Quality Monitoring Impact / Gradient Stations
- Water Quality Monitoring Control Stations

Project Title:
 CEDD Service Contract No. WD/07/2022
 Yuen Long South First Phase Development -
 Environmental Team

Figure Title:
**Location of Water Quality Monitoring
 Stations for Contract 3**

Drawn by:	Scale: 1:13,745 on A3
Checked By:	
Approved by:	
Figure Number:	Revision: 0

Appendix F

Calibration Certificates

Appendix F1

Calibration Certificates for

Air Quality Monitoring Equipment



ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

SUB-CONTRACTING REPORT

CONTACT	: MR BEN TAM	WORK ORDER	: HK2437857
CLIENT	: ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING		
ADDRESS	: RM A 20/F., GOLD KING IND BLDG, NO. 35-41 TAI LIN PAI ROAD, KWAI CHUNG, N.T.	SUB-BATCH	: 1
		DATE RECEIVED	: 16-SEP-2024
		DATE OF ISSUE	: 24-SEP-2024
PROJECT	: ----	NO. OF SAMPLES	: 1
		CLIENT ORDER	: ----

General Comments

- Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.
 - Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified. The result(s) is/are related only to the item(s) tested.
 - Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in ambient condition.
 - Calibration was subcontracted to and analysed by Action United Environmental Services & Consulting.
-

Signatories

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

Signatories

Position

Richard Fung

Managing Director

This report supersedes any previous report(s) with the same work order number.

All pages of this report have been checked and approved for release.

ALS Technichem (HK) Pty Ltd
Part of the **ALS Laboratory Group**

11/F. Chung Shun Knitting Centre 1 - 3 Wing Yip Street Kwai Chung N.T. Hong Kong
Tel. +852 2610 1044 Fax. +852 2610 2021 www.alsglobal.com

WORK ORDER : HK2437857
SUB-BATCH : 1
CLIENT : ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING
PROJECT : ----



ALS Lab ID	Client's Sample ID	Sample Type	Sample Date	External Lab Report No.
HK2437857-001	S/N: 467389 (EQ125)	AIR	16-Sep-2024	S/N: 467389 (EQ125)

----- END OF REPORT -----

Equipment Verification Report (TSP)

Equipment Calibrated:

Type: Laser Dust monitor
Manufacturer: Sibata LD-5R
Serial No. 467389
Equipment Ref: EQ125

Standard Equipment:

Standard Equipment: Higher Volume Sampler (TSP)
Location & Location ID: AUES office (calibration room)
Equipment Ref: HVS 018
Last Calibration Date: 15 August 2024

Equipment Verification Results:

Verification Date: 3 September 2024

Date	Hour	Time	Mean Temp °C	Mean Pressure (hPa)	Concentration in ug/m ³ (Standard Equipment)	Total Count (Calibrated Equipment)	Count/Minute (Total Count/min)
3-Sep-24	2hr00mins	09:26 ~ 11:26	30.2	1006.1	24.3	2216	18.5
3-Sep-24	2hr00mins	11:37 ~ 13:37	30.2	1006.1	42.3	3932	32.8
3-Sep-24	2hr00mins	12:49 ~ 14:49	30.2	1006.1	45.5	4413	36.8

Sensitivity Adjustment Scale Setting (Before Calibration) 704 (CPM)

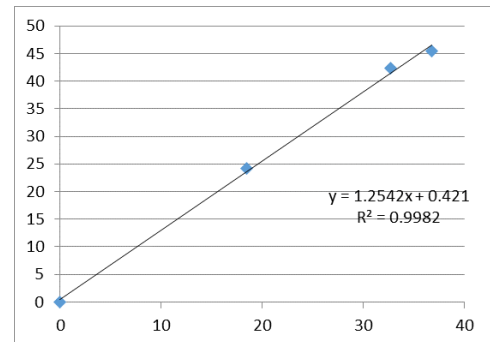
Sensitivity Adjustment Scale Setting (After Calibration) 705 (CPM)

Linear Regression of Y or X

Slope (K-factor): 1.2542 (µg/m³)/CPM

Correlation Coefficient (R) 0.9991

Date of Issue 10 September 2024



Remarks:

- Strong** Correlation ($R > 0.8$)
- Factor 1.2542 (µg/m³)/CPM should be apply for TSP monitoring

*If $R < 0.5$, repair or re-verification is required for the equipment

Operator : Martin Li Signature : [Signature] Date : 10 September 2024

QC Reviewer : Ben Tam Signature : [Signature] Date : 10 September 2024

TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location : Gold King Industrial Building, Kwai Chung Date of Calibration: 15-Aug-24
 Location ID : Calibration Room - TISCH Higher Volume Sampler (Model TE-5170) S/N:1260 Next Calibration Date: 15-Nov-24

CONDITIONS

Sea Level Pressure (hPa)	1005.2	Corrected Pressure (mm Hg)	753.9
Temperature (°C)	27.7	Temperature (K)	301

CALIBRATION ORIFICE

Make->	TISCH	Qstd Slope ->	2.13163
Model->	5025A	Qstd Intercept ->	-0.03523
Calibration Date->	15-Dec-23	Expiry Date->	15-Dec-24

CALIBRATION

Plate No.	H2O (L) (in)	H2O (R) (in)	H2O (in)	Qstd (m3/min)	I (chart)	IC corrected	LINEAR REGRESSION
18	6.4	6.4	12.8	1.681	46	45.61	Slope = 31.2876 Intercept = -7.3464 Corr. coeff. = 0.9981
13	5.2	5.2	10.4	1.517	40	39.66	
10	4	4	8.0	1.332	35	34.70	
8	2.5	2.5	5.0	1.057	25	24.79	
5	1.6	1.6	3.2	0.849	20	19.83	

Calculations :

$$Qstd = 1/m[\text{Sqrt}(H20(Pa/Pstd)(Tstd/Ta))-b]$$

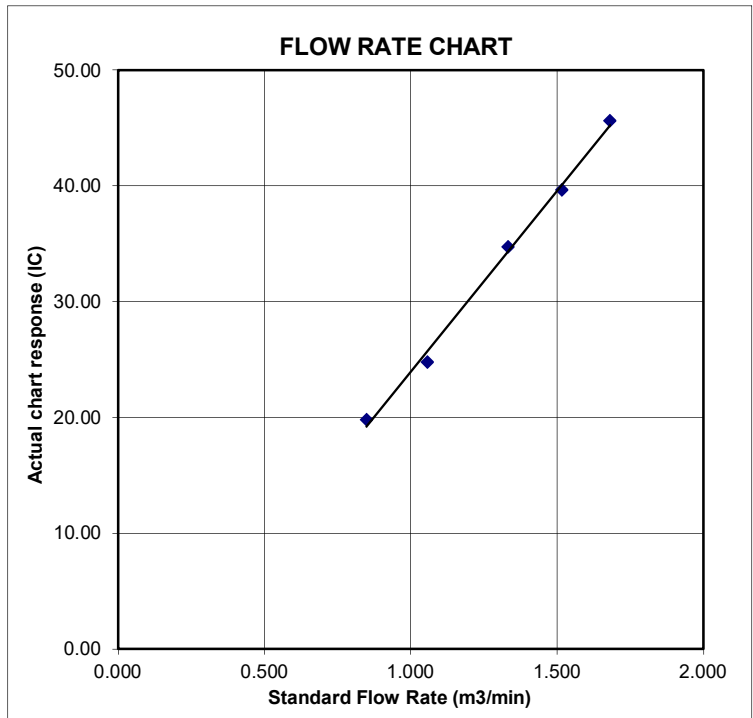
$$IC = I[\text{Sqrt}(Pa/Pstd)(Tstd/Ta)]$$

Qstd = standard flow rate
 IC = corrected chart responses
 I = actual chart response
 m = calibrator Qstd slope
 b = calibrator Qstd intercept
 Ta = actual temperature during calibration (deg K)
 Pstd = actual pressure during calibration (mm Hg)

For subsequent calculation of sampler flow:

$$1/m((I)[\text{Sqrt}(298/Tav)(Pav/760)]-b)$$

m = sampler slope
 b = sampler intercept
 I = chart response
 Tav = daily average temperature
 Pav = daily average pressure



Certificate of Calibration

Calibration Certification Information			
Cal. Date: December 15, 2023	Rootsmeter S/N: 438320	Ta: 295	°K
Operator: Jim Tisch		Pa: 748.5	mm Hg
Calibration Model #: TE-5025A	Calibrator S/N: 1941		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4590	3.2	2.00
2	3	4	1	1.0360	6.4	4.00
3	5	6	1	0.9260	8.0	5.00
4	7	8	1	0.8840	8.9	5.50
5	9	10	1	0.7290	12.9	8.00

Data Tabulation					
Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H \left(\frac{Pa}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H (Ta/Pa)}$ (y-axis)
0.9907	0.6790	1.4106	0.9957	0.6825	0.8878
0.9864	0.9522	1.9949	0.9914	0.9570	1.2556
0.9843	1.0630	2.2304	0.9893	1.0684	1.4037
0.9831	1.1121	2.3393	0.9881	1.1178	1.4723
0.9778	1.3413	2.8213	0.9828	1.3481	1.7756
QSTD	m=	2.13163	QA	m=	1.33479
	b=	-0.03523		b=	-0.02217
	r=	0.99999		r=	0.99999

Calculations	
Vstd= $\Delta Vol((Pa-\Delta P)/Pstd)(Tstd/Ta)$	Va= $\Delta Vol((Pa-\Delta P)/Pa)$
Qstd= $Vstd/\Delta Time$	Qa= $Va/\Delta Time$
For subsequent flow rate calculations:	
Qstd= $1/m \left(\left(\sqrt{\Delta H \left(\frac{Pa}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)} \right) - b \right)$	Qa= $1/m \left(\left(\sqrt{\Delta H (Ta/Pa)} \right) - b \right)$

Standard Conditions	
Tstd:	298.15 °K
Pstd:	760 mm Hg
Key	
ΔH:	calibrator manometer reading (in H2O)
ΔP:	rootsmeter manometer reading (mm Hg)
Ta:	actual absolute temperature (°K)
Pa:	actual barometric pressure (mm Hg)
b:	intercept
m:	slope

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



ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

SUB-CONTRACTING REPORT

CONTACT	: MR BEN TAM	WORK ORDER	: HK2437858
CLIENT	: ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING		
ADDRESS	: RM A 20/F., GOLD KING IND BLDG, NO. 35-41 TAI LIN PAI ROAD, KWAI CHUNG, N.T.	SUB-BATCH	: 1
		DATE RECEIVED	: 16-SEP-2024
		DATE OF ISSUE	: 24-SEP-2024
PROJECT	: ----	NO. OF SAMPLES	: 1
		CLIENT ORDER	: ----

General Comments

- Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.
 - Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified. The result(s) is/are related only to the item(s) tested.
 - Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in ambient condition.
 - Calibration was subcontracted to and analysed by Action United Environmental Services & Consulting.
-

Signatories

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

Signatories

Position

Richard Fung

Managing Director

This report supersedes any previous report(s) with the same work order number.

All pages of this report have been checked and approved for release.

ALS Technichem (HK) Pty Ltd
Part of the **ALS Laboratory Group**

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Tel. +852 2610 1044 Fax. +852 2610 2021 www.alsglobal.com

WORK ORDER : HK2437858
SUB-BATCH : 1
CLIENT : ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING
PROJECT : ----



ALS Lab ID	Client's Sample ID	Sample Type	Sample Date	External Lab Report No.
HK2437858-001	S/N: 467390 (EQ126)	AIR	16-Sep-2024	S/N: 467390 (EQ126)

----- END OF REPORT -----

Equipment Verification Report (TSP)

Equipment Calibrated:

Type: Laser Dust monitor
Manufacturer: Sibata LD-5R
Serial No. 467390
Equipment Ref: EQ126

Standard Equipment:

Standard Equipment: Higher Volume Sampler (TSP)
Location & Location ID: AUES office (calibration room)
Equipment Ref: HVS 018
Last Calibration Date: 15 August 2024

Equipment Verification Results:

Verification Date: 3 September 2024

Date	Hour	Time	Mean Temp °C	Mean Pressure (hPa)	Concentration in ug/m ³ (Standard Equipment)	Total Count (Calibrated Equipment)	Count/Minute (Total Count/min)
3-Sep-24	2hr00mins	09:26 ~ 11:26	30.2	1006.1	24.3	2225	18.5
3-Sep-24	2hr00mins	11:37 ~ 13:37	30.2	1006.1	42.3	4033	33.6
3-Sep-24	2hr00mins	12:49 ~ 14:49	30.2	1006.1	45.5	4455	37.1

Sensitivity Adjustment Scale Setting (Before Calibration) 613 (CPM)

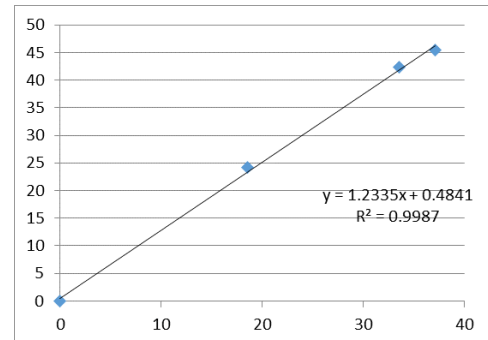
Sensitivity Adjustment Scale Setting (After Calibration) 612 (CPM)

Linear Regression of Y or X

Slope (K-factor): 1.2335 (µg/m³)/CPM

Correlation Coefficient (R) 0.9993

Date of Issue 10 September 2024



Remarks:

- Strong** Correlation ($R > 0.8$)
- Factor 1.2335 (µg/m³)/CPM should be apply for TSP monitoring

*If $R < 0.5$, repair or re-verification is required for the equipment

Operator : Martin Li Signature : [Signature] Date : 10 September 2024

QC Reviewer : Ben Tam Signature : [Signature] Date : 10 September 2024

TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location : Gold King Industrial Building, Kwai Chung Date of Calibration: 15-Aug-24
 Location ID : Calibration Room - TISCH Higher Volume Sampler (Model TE-5170) S/N:1260 Next Calibration Date: 15-Nov-24

CONDITIONS

Sea Level Pressure (hPa)	1005.2	Corrected Pressure (mm Hg)	753.9
Temperature (°C)	27.7	Temperature (K)	301

CALIBRATION ORIFICE

Make->	TISCH	Qstd Slope ->	2.13163
Model->	5025A	Qstd Intercept ->	-0.03523
Calibration Date->	15-Dec-23	Expiry Date->	15-Dec-24

CALIBRATION

Plate No.	H2O (L) (in)	H2O (R) (in)	H2O (in)	Qstd (m3/min)	I (chart)	IC corrected	LINEAR REGRESSION
18	6.4	6.4	12.8	1.681	46	45.61	Slope = 31.2876 Intercept = -7.3464 Corr. coeff. = 0.9981
13	5.2	5.2	10.4	1.517	40	39.66	
10	4	4	8.0	1.332	35	34.70	
8	2.5	2.5	5.0	1.057	25	24.79	
5	1.6	1.6	3.2	0.849	20	19.83	

Calculations :

$$Qstd = 1/m[\text{Sqrt}(H20(Pa/Pstd)(Tstd/Ta))-b]$$

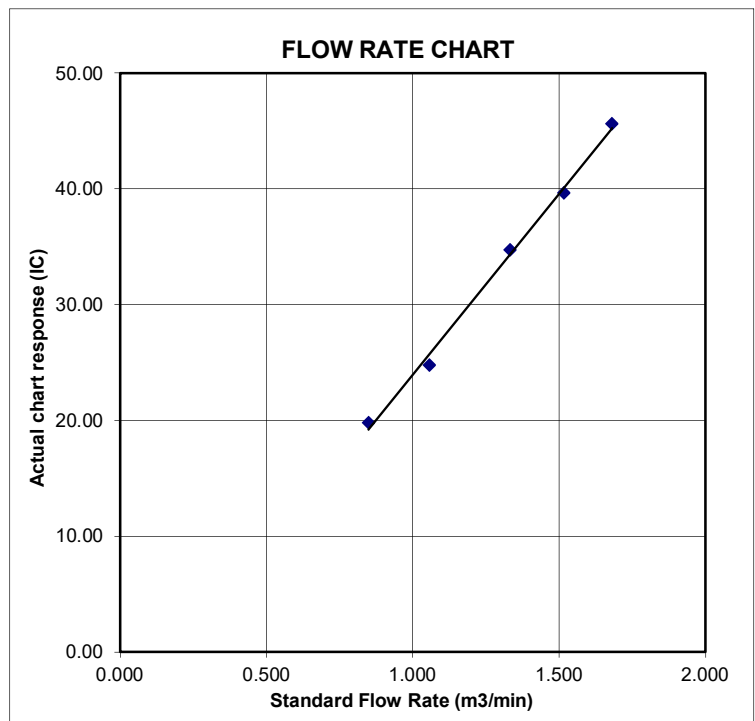
$$IC = I[\text{Sqrt}(Pa/Pstd)(Tstd/Ta)]$$

Qstd = standard flow rate
 IC = corrected chart responses
 I = actual chart response
 m = calibrator Qstd slope
 b = calibrator Qstd intercept
 Ta = actual temperature during calibration (deg K)
 Pstd = actual pressure during calibration (mm Hg)

For subsequent calculation of sampler flow:

$$1/m((I)[\text{Sqrt}(298/Tav)(Pav/760)]-b)$$

m = sampler slope
 b = sampler intercept
 I = chart response
 Tav = daily average temperature
 Pav = daily average pressure



Certificate of Calibration

Calibration Certification Information			
Cal. Date: December 15, 2023	Rootsmeter S/N: 438320	Ta: 295	°K
Operator: Jim Tisch		Pa: 748.5	mm Hg
Calibration Model #: TE-5025A	Calibrator S/N: 1941		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4590	3.2	2.00
2	3	4	1	1.0360	6.4	4.00
3	5	6	1	0.9260	8.0	5.00
4	7	8	1	0.8840	8.9	5.50
5	9	10	1	0.7290	12.9	8.00

Data Tabulation					
Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H \left(\frac{Pa}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H (Ta/Pa)}$ (y-axis)
0.9907	0.6790	1.4106	0.9957	0.6825	0.8878
0.9864	0.9522	1.9949	0.9914	0.9570	1.2556
0.9843	1.0630	2.2304	0.9893	1.0684	1.4037
0.9831	1.1121	2.3393	0.9881	1.1178	1.4723
0.9778	1.3413	2.8213	0.9828	1.3481	1.7756
QSTD	m=	2.13163	QA	m=	1.33479
	b=	-0.03523		b=	-0.02217
	r=	0.99999		r=	0.99999

Calculations	
Vstd= $\Delta Vol((Pa-\Delta P)/Pstd)(Tstd/Ta)$	Va= $\Delta Vol((Pa-\Delta P)/Pa)$
Qstd= $Vstd/\Delta Time$	Qa= $Va/\Delta Time$
For subsequent flow rate calculations:	
Qstd= $1/m \left(\left(\sqrt{\Delta H \left(\frac{Pa}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)} \right) - b \right)$	Qa= $1/m \left(\left(\sqrt{\Delta H (Ta/Pa)} \right) - b \right)$

Standard Conditions	
Tstd:	298.15 °K
Pstd:	760 mm Hg
Key	
ΔH:	calibrator manometer reading (in H2O)
ΔP:	rootsmeter manometer reading (mm Hg)
Ta:	actual absolute temperature (°K)
Pa:	actual barometric pressure (mm Hg)
b:	intercept
m:	slope

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



ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

SUB-CONTRACTING REPORT

CONTACT	: MR BEN TAM	WORK ORDER	: HK2437859
CLIENT	: ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING		
ADDRESS	: RM A 20/F., GOLD KING IND BLDG, NO. 35-41 TAI LIN PAI ROAD, KWAI CHUNG, N.T.	SUB-BATCH	: 1
		DATE RECEIVED	: 16-SEP-2024
		DATE OF ISSUE	: 24-SEP-2024
PROJECT	: ----	NO. OF SAMPLES	: 1
		CLIENT ORDER	: ----

General Comments

- Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.
 - Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified. The result(s) is/are related only to the item(s) tested.
 - Calibration was subcontracted to and analysed by Action United Environmental Services & Consulting.
 - Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in ambient condition.
-

Signatories

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

Signatories

Position

Richard Fung

Managing Director

This report supersedes any previous report(s) with the same work order number.

All pages of this report have been checked and approved for release.

ALS Technichem (HK) Pty Ltd
Part of the **ALS Laboratory Group**

11/F. Chung Shun Knitting Centre 1 - 3 Wing Yip Street Kwai Chung N.T. Hong Kong
Tel. +852 2610 1044 Fax. +852 2610 2021 www.alsglobal.com

WORK ORDER : HK2437859
SUB-BATCH : 1
CLIENT : ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING
PROJECT : ----



ALS Lab ID	Client's Sample ID	Sample Type	Sample Date	External Lab Report No.
HK2437859-001	S/N: 467391 (EQ127)	AIR	16-Sep-2024	S/N: 467391 (EQ127)

----- END OF REPORT -----

Equipment Verification Report (TSP)

Equipment Calibrated:

Type: Laser Dust monitor
Manufacturer: Sibata LD-5R
Serial No. 467391
Equipment Ref: EQ127

Standard Equipment:

Standard Equipment: Higher Volume Sampler (TSP)
Location & Location ID: AUES office (calibration room)
Equipment Ref: HVS 018
Last Calibration Date: 15 August 2024

Equipment Verification Results:

Verification Date: 3 September 2024

Date	Hour	Time	Mean Temp °C	Mean Pressure (hPa)	Concentration in ug/m ³ (Standard Equipment)	Total Count (Calibrated Equipment)	Count/Minute (Total Count/min)
3-Sep-24	2hr00mins	09:26 ~ 11:26	30.2	1006.1	24.3	2221	18.5
3-Sep-24	2hr00mins	11:37 ~ 13:37	30.2	1006.1	42.3	3972	33.1
3-Sep-24	2hr00mins	12:49 ~ 14:49	30.2	1006.1	45.5	4481	37.3

Sensitivity Adjustment Scale Setting (Before Calibration) 665 (CPM)

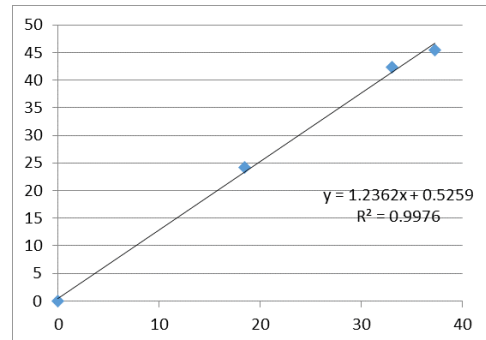
Sensitivity Adjustment Scale Setting (After Calibration) 665 (CPM)

Linear Regression of Y or X

Slope (K-factor): 1.2362 (µg/m³)/CPM

Correlation Coefficient (R) 0.9987

Date of Issue 10 September 2024



Remarks:

- Strong** Correlation ($R > 0.8$)
- Factor 1.2362 (µg/m³)/CPM should be apply for TSP monitoring

*If $R < 0.5$, repair or re-verification is required for the equipment

Operator : Martin Li Signature : [Signature] Date : 10 September 2024

QC Reviewer : Ben Tam Signature : [Signature] Date : 10 September 2024

TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location : Gold King Industrial Building, Kwai Chung Date of Calibration: 15-Aug-24
 Location ID : Calibration Room - TISCH Higher Volume Sampler (Model TE-5170) S/N:1260 Next Calibration Date: 15-Nov-24

CONDITIONS

Sea Level Pressure (hPa)	1005.2	Corrected Pressure (mm Hg)	753.9
Temperature (°C)	27.7	Temperature (K)	301

CALIBRATION ORIFICE

Make->	TISCH	Qstd Slope ->	2.13163
Model->	5025A	Qstd Intercept ->	-0.03523
Calibration Date->	15-Dec-23	Expiry Date->	15-Dec-24

CALIBRATION

Plate No.	H2O (L) (in)	H2O (R) (in)	H2O (in)	Qstd (m3/min)	I (chart)	IC corrected	LINEAR REGRESSION
18	6.4	6.4	12.8	1.681	46	45.61	Slope = 31.2876 Intercept = -7.3464 Corr. coeff. = 0.9981
13	5.2	5.2	10.4	1.517	40	39.66	
10	4	4	8.0	1.332	35	34.70	
8	2.5	2.5	5.0	1.057	25	24.79	
5	1.6	1.6	3.2	0.849	20	19.83	

Calculations :

$$Qstd = 1/m[\text{Sqrt}(H20(Pa/Pstd)(Tstd/Ta))-b]$$

$$IC = I[\text{Sqrt}(Pa/Pstd)(Tstd/Ta)]$$

Qstd = standard flow rate

IC = corrected chart responses

I = actual chart response

m = calibrator Qstd slope

b = calibrator Qstd intercept

Ta = actual temperature during calibration (deg K)

Pstd = actual pressure during calibration (mm Hg)

For subsequent calculation of sampler flow:

$$1/m((I)[\text{Sqrt}(298/Tav)(Pav/760)]-b)$$

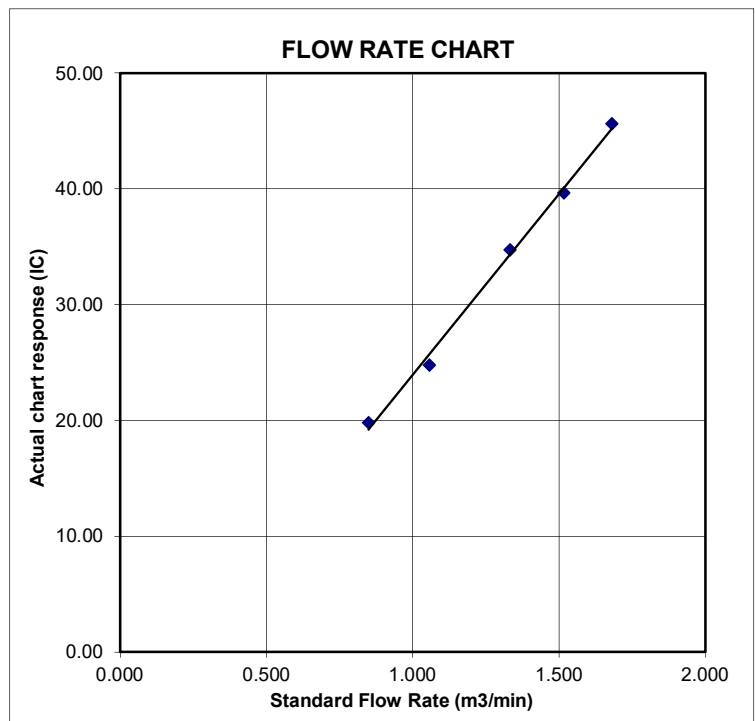
m = sampler slope

b = sampler intercept

I = chart response

Tav = daily average temperature

Pav = daily average pressure



Certificate of Calibration

Calibration Certification Information			
Cal. Date: December 15, 2023	Rootsmeter S/N: 438320	Ta: 295	°K
Operator: Jim Tisch		Pa: 748.5	mm Hg
Calibration Model #: TE-5025A	Calibrator S/N: 1941		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4590	3.2	2.00
2	3	4	1	1.0360	6.4	4.00
3	5	6	1	0.9260	8.0	5.00
4	7	8	1	0.8840	8.9	5.50
5	9	10	1	0.7290	12.9	8.00

Data Tabulation					
Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H \left(\frac{Pa}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H (Ta/Pa)}$ (y-axis)
0.9907	0.6790	1.4106	0.9957	0.6825	0.8878
0.9864	0.9522	1.9949	0.9914	0.9570	1.2556
0.9843	1.0630	2.2304	0.9893	1.0684	1.4037
0.9831	1.1121	2.3393	0.9881	1.1178	1.4723
0.9778	1.3413	2.8213	0.9828	1.3481	1.7756
QSTD	m=	2.13163	QA	m=	1.33479
	b=	-0.03523		b=	-0.02217
	r=	0.99999		r=	0.99999

Calculations	
Vstd= $\Delta Vol((Pa-\Delta P)/Pstd)(Tstd/Ta)$	Va= $\Delta Vol((Pa-\Delta P)/Pa)$
Qstd= $Vstd/\Delta Time$	Qa= $Va/\Delta Time$
For subsequent flow rate calculations:	
Qstd= $1/m \left(\left(\sqrt{\Delta H \left(\frac{Pa}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)} \right) - b \right)$	Qa= $1/m \left(\left(\sqrt{\Delta H (Ta/Pa)} \right) - b \right)$

Standard Conditions	
Tstd:	298.15 °K
Pstd:	760 mm Hg
Key	
ΔH:	calibrator manometer reading (in H2O)
ΔP:	rootsmeter manometer reading (mm Hg)
Ta:	actual absolute temperature (°K)
Pa:	actual barometric pressure (mm Hg)
b:	intercept
m:	slope

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

Appendix F2

Calibration Certificates for

Noise Monitoring Equipment



輝創工程有限公司

Sun Creation Engineering Limited

Calibration & Testing Laboratory

Certificate of Calibration

校正證書

Certificate No. : C242244

證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC24-0561)

Date of Receipt / 收件日期 : 3 April 2024

Description / 儀器名稱 : Integrating Sound Level Meter (EQ006)
Manufacturer / 製造商 : Brüel & Kjær
Model No. / 型號 : 2238
Serial No. / 編號 : 2285762
Supplied By / 委託者 : Action-United Environmental Services and Consulting
Unit A, 20/F., Gold King Industrial Building,
35-41 Tai Lin Pai Road, Kwai Chung, N.T.

TEST CONDITIONS / 測試條件

Temperature / 溫度 : $(23 \pm 2)^{\circ}\text{C}$

Relative Humidity / 相對濕度 : $(50 \pm 25)\%$

Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

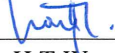
Calibration check


DATE OF TEST / 測試日期 : 20 April 2024

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 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
- Hottinger Brüel & Kjær Calibration Laboratory, Denmark
- 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 : 22 April 2024
簽發日期

The test equipment used for calibration is traceable to the National Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗室書面批准。

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 - 校正及檢測實驗室

c/o 香港新界屯門興安里一號四樓

Tel/電話: (852) 2927 2606

Fax/傳真: (852) 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com

Certificate of Calibration

校正證書

Certificate No. : C242244
證書編號

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

3. Test equipment :

<u>Equipment ID</u>	<u>Description</u>	<u>Certificate No.</u>
CL280	40 MHz Arbitrary Waveform Generator	C240212
CL281	Multifunction Acoustic Calibrator	CDK2302738

4. Test procedure : MA101N.

5. Results :

5.1 Sound Pressure Level

5.1.1 Reference Sound Pressure Level

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Limit (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
50 - 130	L _{AFP}	A	F	94.00	1	94.0	± 0.7

5.1.2 Linearity

UUT Setting				Applied Value		UUT Reading (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	
50 - 130	L _{AFP}	A	F	94.00	1	94.0 (Ref.)
				104.00		104.0
				114.00		114.0

IEC 60651 Type 1 Limit : ± 0.4 dB per 10 dB step and ± 0.7 dB for overall different.

5.2 Time Weighting

5.2.1 Continuous Signal

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Limit (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
50 - 130	L _{AFP}	A	F	94.00	1	94.0	Ref.
	L _{ASP}		S			94.0	± 0.1
	L _{AIP}		I			94.1	± 0.1

The test equipment used for calibration is traceable to the National Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗室所書面批准。

Certificate of Calibration

校正證書

Certificate No. : C242244

證書編號

5.2.2 Tone Burst Signal (2 kHz)

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Limit (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Burst Duration		
30 - 110	L _{AFP}	A	F	106.0	Continuous	106.0	Ref.
	L _{AFMax}				200 ms	105.0	-1.0 ± 1.0
	L _{ASP}	S	Continuous		106.0	Ref.	
	L _{ASMax}		500 ms		102.0	-4.1 ± 1.0	

5.3 Frequency Weighting

5.3.1 A-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Limit (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
50 - 130	L _{AFP}	A	F	94.00	31.5 Hz	55.1	-39.4 ± 1.5
					63 Hz	68.0	-26.2 ± 1.5
					125 Hz	77.9	-16.1 ± 1.0
					250 Hz	85.3	-8.6 ± 1.0
					500 Hz	90.8	-3.2 ± 1.0
					1 kHz	94.0	Ref.
					2 kHz	95.3	+1.2 ± 1.0
					4 kHz	95.0	+1.0 ± 1.0
					8 kHz	92.9	-1.1 (+1.5 ; -3.0)
					12.5 kHz	89.8	-4.3 (+3.0 ; -6.0)

5.3.2 C-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Limit (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
50 - 130	L _{CFP}	C	F	94.00	31.5 Hz	91.4	-3.0 ± 1.5
					63 Hz	93.3	-0.8 ± 1.5
					125 Hz	93.9	-0.2 ± 1.0
					250 Hz	94.0	0.0 ± 1.0
					500 Hz	94.0	0.0 ± 1.0
					1 kHz	94.0	Ref.
					2 kHz	93.8	-0.2 ± 1.0
					4 kHz	93.2	-0.8 ± 1.0
					8 kHz	91.0	-3.0 (+1.5 ; -3.0)
					12.5 kHz	87.8	-6.2 (+3.0 ; -6.0)

The test equipment used for calibration is traceable to the National Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗室所書面批准。

Certificate of Calibration

校正證書

Certificate No. : C242244
證書編號

5.4 Time Averaging

UUT Setting				Applied Value					UUT	IEC 60804
Range (dB)	Parameter	Frequency Weighting	Integrating Time	Frequency (kHz)	Burst Duration (ms)	Burst Duty Factor	Burst Level (dB)	Equivalent Level (dB)	Reading (dB)	Type 1 Limit (dB)
30 - 110	L _{Aeq}	A	10 sec.	4	1	1/10	110.0	100	100.0	± 0.5
						1/10 ²		90	90.0	± 0.5
			60 sec.			1/10 ³		80	79.4	± 1.0
			5 min.			1/10 ⁴		70	69.3	± 1.0

Remarks : - UUT Microphone Model No. : 4188 & S/N : 2250447

- Mfr's Limit : IEC 60651 Type 1 & IEC 60804 Type 1

- Uncertainties of Applied Value :

94 dB : 31.5 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
12.5 kHz	: ± 0.70 dB
104 dB : 1 kHz	: ± 0.10 dB (Ref. 94 dB)
114 dB : 1 kHz	: ± 0.10 dB (Ref. 94 dB)
Burst equivalent level	: ± 0.2 dB (Ref. 110 dB continuous sound level)

- 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.



輝創工程有限公司

Sun Creation Engineering Limited

Calibration & Testing Laboratory

Certificate of Calibration

校正證書

Certificate No. : C242242
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC24-0561) Date of Receipt / 收件日期 : 28 March 2024

Description / 儀器名稱 : Sound Level Meter (EQ018)
Manufacturer / 製造商 : Rion
Model No. / 型號 : NL-52
Serial No. / 編號 : 00809405
Supplied By / 委託者 : Action-United Environmental Services and Consulting
Unit A, 20/F., Gold King Industrial Building,
35-41 Tai Lin Pai Road, Kwai Chung, N.T.

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

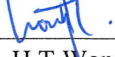
Calibration check


DATE OF TEST / 測試日期 : 20 April 2024

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 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
- Hottinger Brüel & Kjær Calibration Laboratory, Denmark
- 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 : 22 April 2024
簽發日期

The test equipment used for calibration is traceable to the National Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗室書面批准。

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 - 校正及檢測實驗室

c/o 香港新界屯門興安里一號四樓

Tel/電話: (852) 2927 2606

Fax/傳真: (852) 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com

Certificate of Calibration

校正證書

Certificate No. : C242242
證書編號

- 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.
- Self-calibration was performed before the test.
- The results presented are the mean of 3 measurements at each calibration point.
- Test equipment :

<u>Equipment ID</u>	<u>Description</u>	<u>Certificate No.</u>
CL280	40 MHz Arbitrary Waveform Generator	C240212
CL281	Multifunction Acoustic Calibrator	CDK2302738

- Test procedure : MA101N.

- Results :

6.1 Sound Pressure Level

6.1.1 Reference Sound Pressure Level

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Limit (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 130	L _A	A	Fast	94.00	1	94.0	± 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	94.0 (Ref.)
				104.00		104.1
				114.00		114.0

IEC 61672 Class 1 Limit : ± 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 Limit (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 130	L _A	A	Fast	94.00	1	94.0	Ref.
			Slow				

The test equipment used for calibration is traceable to the National Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗室書面批准。

Certificate of Calibration

校正證書

Certificate No. : C242242
證書編號

6.3 Frequency Weighting

6.3.1 A-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Limit (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 130	L _A	A	Fast	94.00	63 Hz	67.7	-26.2 ± 1.5
					125 Hz	77.8	-16.1 ± 1.5
					250 Hz	85.3	-8.6 ± 1.4
					500 Hz	90.7	-3.2 ± 1.4
					1 kHz	94.0	Ref.
					2 kHz	95.2	+1.2 ± 1.6
					4 kHz	95.0	+1.0 ± 1.6
					8 kHz	93.0	-1.1 (+2.1 ; -3.1)
					16 kHz	86.0	-6.6 (+3.5 ; -17.0)

6.3.2 C-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Limit (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 130	L _C	C	Fast	94.00	63 Hz	93.2	-0.8 ± 1.5
					125 Hz	93.8	-0.2 ± 1.5
					250 Hz	94.0	0.0 ± 1.4
					500 Hz	94.0	0.0 ± 1.4
					1 kHz	94.0	Ref.
					2 kHz	93.8	-0.2 ± 1.6
					4 kHz	93.2	-0.8 ± 1.6
					8 kHz	91.1	-3.0 (+2.1 ; -3.1)
					16 kHz	84.1	-8.5 (+3.5 ; -17.0)

The test equipment used for calibration is traceable to the National Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗室所書面批准。



Certificate of Calibration

校正證書

Certificate No. : C242242
證書編號

Remarks : - UUT Microphone Model No. : UC-59 & S/N : 16463

- Mfr's Limit : 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.

The test equipment used for calibration is traceable to the National Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗室所書面批准。

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 - 校正及檢測實驗室

c/o 香港新界屯門興安里一號四樓

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Website/網址: www.suncreation.com



Calibration Certificate

Certificate No. **411107**

Page 1 of 2 Pages

Customer : Action-Unltod Environmental Services & consulting

Address : Unit A, 20/F, Gold King Industrial Building, 35-41 Tai Lin Pai Road, Kwai Chung, New Territories, Hong Kong

Order No. : Q44140

Date of receipt : 25-Oct-24

Item Tested

Description : Sound Level Calibrator

Manufacturer : Rion

Model : NC-73

I.D. : EQ085

Serial No. : 10655561

Test Conditions

Date of Test : 8-Nov-24

Ambient Temperature : (23 ± 3)°C

Supply Voltage : --

Relative Humidity : (50 ± 25) %

Test Specifications

Calibration check.

Ref. Document/Procedure : F21, Z02, IEC 60942:2017.

Test Results

The results are shown in the attached page(s).

Main Test equipment used:

<u>Equipment No.</u>	<u>Description</u>	<u>Cert. No.</u>	<u>Traceable to</u>
S014	Spectrum Analyzer	405219	NIM-PRC & SCL-HKSAR
S240	Sound Level Calibrator	405380	NIM-PRC & SCL-HKSAR
S041	Universal Counter	402289	SCL-HKSAR
S206	Sound Level Meter	405379	SCL-HKSAR

The values given in this Calibration 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 environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Hong Kong Calibration Ltd. shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration are traceable to International System of Units (SI), or by reference to a natural constant. The test results apply to the above Unit-Under-Test only

Calibrated by : 
Elva Chong

Approved by : 
Kin Wong

Date: 8-Nov-24



Calibration Certificate

Certificate No. 411107

Page 2 of 2 Pages

Results :

1. Generated Sound Pressure Level

UUT Nominal Value (dB)	Measured Value (dB)	Tolerance (Ref: IEC 60942 Class 2 Spec.)
94.0	94.1	± 0.4 dB

Uncertainty : ± 0.2 dB

2. Short-term Level Fluctuation : 0.0 dB

Tolerance (Ref: IEC 60942 Class 2 Spec.) : ± 0.15 dB

Uncertainty : ± 0.05 dB

3. Frequency

UUT Nominal Value (kHz)	Measured Value (kHz)	Tolerance (Ref: IEC 60942 Class 2 Spec.)
1	*0.952	± 1.7 %

Uncertainty : ± 3.6 x 10⁻⁶

4. Total Distortion + Noise : < 0.1 %

Tolerance (Ref: IEC 60942 Class 2 Spec.) : < 3.0 %

Uncertainty : ± 2.3 % of reading

Remark : 1. UUT : Unit-Under-Test

2. The uncertainty claimed is for a confidence probability of not less than 95%.

3. Atmospheric Pressure : 1 008 hPa.

4. *Out of Tolerance.

----- END -----



輝創工程有限公司

Sun Creation Engineering Limited

Calibration & Testing Laboratory

Certificate of Calibration

校正證書

Certificate No. : C242239

證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC24-0561)

Date of Receipt / 收件日期 : 28 March 2024

Description / 儀器名稱 : Sound Calibrator (EQ089)
Manufacturer / 製造商 : Rion
Model No. / 型號 : NC-75
Serial No. / 編號 : 34680623
Supplied By / 委託者 : Action-United Environmental Services and Consulting
Unit A, 20/F., Gold King Industrial Building,
35-41 Tai Lin Pai Road, Kwai Chung, N.T.

TEST CONDITIONS / 測試條件

Temperature / 溫度 : $(23 \pm 2)^{\circ}\text{C}$

Relative Humidity / 相對濕度 : $(50 \pm 25)\%$

Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範


Calibration check

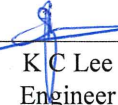
DATE OF TEST / 測試日期 : 20 April 2024

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 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
- Hottinger Brüel & Kjær Calibration Laboratory, Denmark
- 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 : 22 April 2024
簽發日期

The test equipment used for calibration is traceable to the National Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

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 - 校正及檢測實驗室

c/o 香港新界屯門興安里一號四樓

Tel/電話: (852) 2927 2606

Fax/傳真: (852) 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com

Certificate of Calibration

校正證書

Certificate No. : C242239
證書編號

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.
- Test equipment :

<u>Equipment ID</u>	<u>Description</u>	<u>Certificate No.</u>
CL130	Universal Counter	C233799
CL281	Multifunction Acoustic Calibrator	CDK2302738
TST150A	Measuring Amplifier	C241879

- Test procedure : MA100N.

- Results :

5.1 Sound Level Accuracy

UUT Nominal Value	Measured Value (dB)	Mfr's Limit (dB)	Uncertainty of Measured Value (dB)
94 dB, 1 kHz	94.05	± 0.25	± 0.20

5.2 Frequency Accuracy

UUT Nominal Value (kHz)	Measured Value (kHz)	Mfr's Limit	Uncertainty of Measured Value (Hz)
1	1.000 0	1 kHz ± 0.1 %	± 0.1

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

Note :

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

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

Appendix F3

Calibration Certificates for

Water Quality Monitoring Equipment



ALS Technichem (HK) Pty Ltd

11/F., Chung Shun Knitting Centre,

1 - 3 Wing Yip Street,

Kwai Chung, N.T., Hong Kong

T: +852 2610 1044

F: +852 2610 2021

www.alsglobal.com

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT: MR BEN TAM
CLIENT: ACTION-UNITED ENVIRONMENTAL SERVICES &
ADDRESS: RM A 20/F., GOLD KING IND BLDG,
NO. 35-41 TAI LIN PAI ROAD,
KWAI CHUNG, N.T.

WORK ORDER: HK2450300
SUB-BATCH: 0
LABORATORY: HONG KONG
DATE RECEIVED: 04-Dec-2024
DATE OF ISSUE: 12-Dec-2024

GENERAL COMMENTS

The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principle as practised by the laboratory or quoted from relevant international standards.

The validity of equipment/ meter performance only applies to the result(s) stated in the report.

This report superseded any previous report(s) with same work order number.

EQUIPMENT INFORMATION

Equipment information (Brand name, Model No., Serial No. and Equipment No.) is provided by client.

Equipment Type: Multifunctional Meter

Service Nature: Performance Check

Scope: Conductivity, Dissolved Oxygen, pH Value, Turbidity, Salinity and Temperature

Brand Name/ Model No.: [YSI]/ [Professional DSS]

Serial No./ Equipment No.: [20J101862/ 15H103928]/ [EQW018]

Date of Calibration: 12-December-2024

Ms. Cheng Sin Ying, May
Senior Chemist - Inorganics

This report shall not be reproduced except in full without the written approval of the laboratory.

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK2450300
SUB-BATCH: 0
DATE OF ISSUE: 12-Dec-2024
CLIENT: ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [Professional DSS]
Serial No./ Equipment No.: [20J101862/ 15H103928]/ [EQW018]
Date of Calibration: 12-December-2024 Date of Next Calibration: 12-March-2025

PARAMETERS:

Conductivity

Method Ref: APHA (23rd edition), 2510B

Expected Reading ($\mu\text{S}/\text{cm}$)	Displayed Reading ($\mu\text{S}/\text{cm}$)	Tolerance (%)
146.9	143.5	-2.3
6667	6690	+0.3
12890	12926	+0.3
58670	59566	+1.5
	Tolerance Limit (%)	± 10.0

Dissolved Oxygen

Method Ref: APHA (23rd edition), 4500O: G

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
2.63	2.77	+0.14
5.70	5.84	+0.14
7.26	7.35	+0.09
	Tolerance Limit (mg/L)	± 0.20

pH Value

Method Ref: APHA (23rd edition), 4500H: B

Expected Reading (pH unit)	Displayed Reading (pH unit)	Tolerance (pH unit)
4.0	3.84	-0.16
7.0	7.02	+0.02
10.0	9.98	-0.02
	Tolerance Limit (pH unit)	± 0.20

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Ms. Cheng Sin Ying, May
Senior Chemist - Inorganics

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK2450300
SUB-BATCH: 0
DATE OF ISSUE: 12-Dec-2024
CLIENT: ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [Professional DSS]
Serial No./ Equipment No.: [20J101862/ 15H103928]/ [EQW018]
Date of Calibration: 12-December-2024 Date of Next Calibration: 12-March-2025

PARAMETERS:

Turbidity

Method Ref: APHA (23rd edition), 2130B

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.39	--
4	3.95	-1.3
40	40.06	+0.2
80	78.27	-2.2
400	404.62	+1.2
800	779.27	-2.6
	Tolerance Limit (%)	±10.0

Salinity

Method Ref: APHA (23rd edition), 2520B

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.01	--
10	9.40	-6.0
20	20.03	+0.2
30	30.46	+1.5
	Tolerance Limit (%)	±10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Ms. Cheng Sin Ying, May
Senior Chemist - Inorganics

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK2450300
SUB-BATCH: 0
DATE OF ISSUE: 12-Dec-2024
CLIENT: ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [Professional DSS]
Serial No./ Equipment No.: [20J101862/ 15H103928]/ [EQW018]
Date of Calibration: 12-December-2024 Date of Next Calibration: 12-March-2025

PARAMETERS:

Temperature

Method Ref: Section 6 of International Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Expected Reading (°C)	Displayed Reading (°C)	Tolerance (°C)
10.5	10.8	+0.3
18.5	17.8	-0.7
41.0	40.2	-0.8
	Tolerance Limit (°C)	±2.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Ms. Cheng Sin Ying, May
Senior Chemist - Inorganics



REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT: MR BEN TAM
CLIENT: ACTION-UNITED ENVIRONMENTAL SERVICES &
CONSULTING
ADDRESS: RM A 20/F., GOLD KING IND BLDG,
NO. 35-41 TAI LIN PAI ROAD,
KWAI CHUNG, N.T.

WORK ORDER: HK2439734
SUB-BATCH: 0
LABORATORY: HONG KONG
DATE RECEIVED: 02-Oct-2024
DATE OF ISSUE: 08-Oct-2024

GENERAL COMMENTS

The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principle as practised by the laboratory or quoted from relevant international standards.

The validity of equipment/ meter performance only applies to the result(s) stated in the report.

This report superseded any previous report(s) with same work order number.

EQUIPMENT INFORMATION

Equipment information (Brand name, Model No., Serial No. and Equipment No.) is provided by client.

Equipment Type: Multifunctional Meter

Service Nature: Performance Check

Scope: Conductivity, Dissolved Oxygen, pH Value, Turbidity, Salinity and Temperature

Brand Name/ Model No.: [YSI]/ [Professional DSS]

Serial No./ Equipment No.: [17B102764/17B100758]/ [EQW019]

Date of Calibration: 07-October-2024

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganics

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REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK2439734
SUB-BATCH: 0
DATE OF ISSUE: 08-Oct-2024
CLIENT: ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [Professional DSS]
Serial No./ Equipment No.: [17B102764/17B100758]/ [EQW019]
Date of Calibration: 07-October-2024 Date of Next Calibration: 07-January-2025

PARAMETERS:

Conductivity

Method Ref: APHA (23rd edition), 2510B

Expected Reading ($\mu\text{S}/\text{cm}$)	Displayed Reading ($\mu\text{S}/\text{cm}$)	Tolerance (%)
146.9	144.7	-1.5
6667	6701	+0.5
12890	13085	+1.5
58670	61082	+4.1
	Tolerance Limit (%)	± 10.0

Dissolved Oxygen

Method Ref: APHA (23rd edition), 4500O: G

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
2.23	2.24	+0.01
5.25	5.42	+0.17
7.63	7.56	-0.07
	Tolerance Limit (mg/L)	± 0.20

pH Value

Method Ref: APHA (23rd edition), 4500H: B

Expected Reading (pH unit)	Displayed Reading (pH unit)	Tolerance (pH unit)
4.0	3.80	-0.20
7.0	7.19	+0.19
10.0	10.12	+0.12
	Tolerance Limit (pH unit)	± 0.20

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganics

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK2439734
SUB-BATCH: 0
DATE OF ISSUE: 08-Oct-2024
CLIENT: ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [Professional DSS]
Serial No./ Equipment No.: [17B102764/17B100758]/ [EQW019]
Date of Calibration: 07-October-2024 Date of Next Calibration: 07-January-2025

PARAMETERS:

Turbidity

Method Ref: APHA (23rd edition), 2130B

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.47	--
4	3.74	-6.5
40	36.73	-8.2
80	73.74	-7.8
400	404.91	+1.2
800	778.30	-2.7
	Tolerance Limit (%)	±10.0

Salinity

Method Ref: APHA (23rd edition), 2520B

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.00	--
10	10.45	+4.5
20	20.93	+4.7
30	31.59	+5.3
	Tolerance Limit (%)	±10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganics

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK2439734
SUB-BATCH: 0
DATE OF ISSUE: 08-Oct-2024
CLIENT: ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [Professional DSS]
Serial No./ Equipment No.: [17B102764/17B100758]/ [EQW019]
Date of Calibration: 07-October-2024 Date of Next Calibration: 07-January-2025

PARAMETERS:

Temperature

Method Ref: Section 6 of International Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Expected Reading (°C)	Displayed Reading (°C)	Tolerance (°C)
11.0	12.4	+1.4
19.5	19.8	+0.3
41.0	40.4	-0.6
	Tolerance Limit (°C)	±2.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganics

Appendix G

Meteorological Data

Date		Weather	Total Rainfall (mm)	Wetland Park Station			
				Mean Air Temperature (°C)	Wind Speed (km/h)	Mean Relative Humidity (%)	Wind Direction
1-Jan-25	Wed	Fine. Very dry	Trace	20.6	3.7	71.2	E/NE
2-Jan-25	Thu	Moderate to fresh northerly winds	Trace	21.1	3.2	61.5	E/NE
3-Jan-25	Fri	Moderate to fresh easterly winds.	0	18.3	5.7	49.5	NE
4-Jan-25	Sat	Fine. Very dry	Trace	18.5	3.7	66	E/NE
5-Jan-25	Sun	Light to moderate northerly winds	Trace	19.5	3	64	N/NE
6-Jan-25	Mon	Fine. Very dry in the afternoon.	0	18.9	4	66	NE
7-Jan-25	Tue	Dry with sunny periods	0	17.5	3.7	70	NE
8-Jan-25	Wed	Mainly fine and dry	0	20.4	4	63	NE
9-Jan-25	Thu	Mainly fine and dry.	0	18.7	3.7	69.5	N
10-Jan-25	Fri	Very dry during the day.	0	15.9	5.5	44.5	N
11-Jan-25	Sat	Moderate to fresh north to northeasterly winds	0	15	4	42.5	N
12-Jan-25	Sun	Moderate to fresh east to northeasterly winds	0	15.5	5.5	54	N/NE
13-Jan-25	Mon	Dry with sunny periods.	0	15.9	4.2	63	NE
14-Jan-25	Tue	Mainly cloudy with a few light rain	0	19.5	3.7	56	NE
15-Jan-25	Wed	Mainly fine and dry.	Trace	20.9	6.2	56.5	N/NE
16-Jan-25	Thu	Moderate east to northeasterly winds	0	17.6	3.7	49	N
17-Jan-25	Fri	Mainly fine and dry.	0	16.3	3.7	55.5	N/NW
18-Jan-25	Sat	Mainly cloudy.	0	17.1	3	61	N/NE
19-Jan-25	Sun	Sunny periods during the day	0	18	3	65	N/NE
20-Jan-25	Mon	Moderate easterly winds	0	17.2	3	69	W
21-Jan-25	Tue	Mainly cloudy.	0.6	17.6	6.2	60	N/NE
22-Jan-25	Wed	Sunny periods during the day	1	15.2	4	63.7	NE
23-Jan-25	Thu	Mainly fine and dry.	1.2	19.5	3.7	88.7	W/SW
24-Jan-25	Fri	Mainly cloudy with a few light rain	0	20.8	6.2	51.0	E/NE
25-Jan-25	Sat	Moderate east to northeasterly winds	Trace	19.2	7	75.0	E/NE
26-Jan-25	Sun	Fine and very dry.	0.2	14.0	4.2	77.5	N
27-Jan-25	Mon	Moderate north to northeasterly winds.	0	15.9	8	48.2	N/NE
28-Jan-25	Tue	Fine and very dry.	0	16.5	6.2	33.2	N/NE
29-Jan-25	Wed	Mainly fine.	0	17.4	5	44	E
30-Jan-25	Thu	Dry in the afternoon.	0	17.2	6.2	71	E/NE
31-Jan-25	Fri	Moderate east to northeasterly winds.	1.2	19.6	5.7	66	E/NE

Appendix H

Event and Action Plan

Event / Action Plan for Air Quality

Event	Action			
	ET	IEC	ER	Contractor
Action level exceedance for one sample	<ol style="list-style-type: none"> Identify source, investigate the causes of exceedance and propose remedial measures; Inform IEC and ER; Repeat measurement to confirm finding; Increase monitoring frequency to daily 	<ol style="list-style-type: none"> Check monitoring data submitted by ET; Check Contractor's working method 	<ol style="list-style-type: none"> Notify Contractor. 	<ol style="list-style-type: none"> Rectify any unacceptable practice; Amend working methods if appropriate.
Action level exceedance for two or more consecutive samples	<ol style="list-style-type: none"> Identify source; Inform IEC and ER; Advise the ER on the effectiveness of the proposed remedial measures; Repeat measurements to confirm findings; Increase monitoring frequency to daily; Discuss with IEC and Contractor on remedial actions required; If exceedance continues, arrange meeting with IEC and ER; If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> Check monitoring data submitted by ET; Check Contractor's working method; Discuss with ET and Contractor on possible remedial measures; Advise the ET on the effectiveness of the proposed remedial measures; Supervise Implementation of remedial measures. 	<ol style="list-style-type: none"> Confirm receipt of notification of failure in writing; Notify Contractor; Ensure remedial measures properly implemented. 	<ol style="list-style-type: none"> Submit proposals for remedial to ER within 3 working days of notification; Implement the agreed proposals; Amend proposal if appropriate.
Limit level exceedance for one sample	<ol style="list-style-type: none"> Identify source, investigate the causes of exceedance and propose remedial measures; Inform ER, Contractor and EPD; Repeat measurement to confirm finding; Increase monitoring frequency to daily; Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results. 	<ol style="list-style-type: none"> Check monitoring data submitted by ET; Check Contractor's working method; Discuss with ET and Contractor on possible remedial measures; Advise the ER on the effectiveness of the proposed remedial measures; Supervise implementation of remedial measures. 	<ol style="list-style-type: none"> Confirm receipt of notification of failure in writing; Notify Contractor; Ensure remedial measures properly implemented. 	<ol style="list-style-type: none"> Take immediate action to avoid further exceedance; Submit proposals for remedial actions to IEC within 3 working days of notification; Implement the agreed proposals; Amend proposal if appropriate.
Limit level exceedance for two or more consecutive samples	<ol style="list-style-type: none"> Notify IEC, ER, Contractor and EPD; Identify source; Repeat measurement to confirm findings; Increase monitoring frequency to daily; Carry out analysis of Contractor's working procedures to determine 	<ol style="list-style-type: none"> Discuss amongst ER, ET, and Contractor on the potential remedial actions; Review Contractor's remedial actions whenever necessary to assure their effectiveness and 	<ol style="list-style-type: none"> Confirm receipt of notification of failure in writing; Notify Contractor; In consultation with the IEC, agree with the 	<ol style="list-style-type: none"> Take immediate action to avoid further exceedance; Submit proposals for remedial actions to IEC within 3 working days of notification; Implement the agreed proposals;

Event	Action			
	ET	IEC	ER	Contractor
	<p>possible mitigation to be implemented;</p> <p>6. Arrange meeting with IEC and ER to discuss the remedial actions to be taken;</p> <p>7. Assess effectiveness of Contractor’s remedial actions and keep IEC, EPD and ER informed of the results;</p> <p>8. If exceedance stops, cease additional monitoring.</p>	<p>advise the ER accordingly;</p> <p>3. Supervise the implementation of remedial measures.</p>	<p>Contractor on the remedial measures to be implemented;</p> <p>4. Ensure remedial measures properly implemented;</p> <p>5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.</p>	<p>5 Resubmit proposals if problem still not under control;</p> <p>6 Stop the relevant portion of works as determined by the ER until the exceedance is abated.</p>

Notes:

ET – Environmental Team

IEC – Independent Environmental Checker

ER – Engineer’s Representative

Event / Action Plan for Construction Noise

Event	Action			
	ET	IEC	ER	Contractor
Action Level Exceedance	1. Notify the IEC, ER and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss with the Contractor and formulate remedial measures; 5. Increase monitoring frequency to check mitigation effectiveness.	1. Review the monitoring data submitted by the ET; 2. Review the construction methods and proposed remedial measures by the Contractor, and advise the ET and ER if the proposed remedial measures would be sufficient; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify the Contractor; 3. Require the Contractor to propose remedial measures for the analyzed noise problem; 4. Ensure remedial measures are properly implemented.	1. Submit noise mitigation proposals to the ER and IEC and copy to the ET; 2. Implement noise mitigation proposals.
Limit Level Exceedance	1. Identify sources. 2. Inform IEC, ER, EPD and Contractor; 3. Repeat measurements to confirm findings; 4. Increase the monitoring frequency; 5. Carry out analysis of the Contractor's working procedures with the ER and Contractor to determine possible mitigations to be implemented; 6. Inform IEC, ER, EPD and Contractor the causes and actions taken for the exceedances; 7. Assess the effectiveness of the Contractor's remedial action with the ER and keep the IEC informed of the results; 8. If exceedance stops, cease additional monitoring.	1. Discuss amongst the ER, ET and Contractor on the potential remedial actions; 2. Review the Contractor's remedial action whenever necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify the Contractor. 3. Require the Contractor to propose remedial measures for the analyzed noise problems; 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 ER and IEC and copy to the ET within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problems still not under control; stop the relevant portion of works as determined by the ER until the exceedance is abated.

Notes:

ET – Environmental Team
 IEC – Independent Environmental Checker
 ER – Engineer's Representative

Event / Action Plan for Water Quality

Event	Action			
	ET	IEC	ER	Contractor
Action level exceedance for one sampling day	<ol style="list-style-type: none"> Repeat in-situ measurement on next day of exceedance to confirm findings; Inform IEC, Contractor and ER; Check monitoring data, all plant, equipment and Contractor's working methods; and Discuss remedial measures with IEC and Contractor and ER. 	<ol style="list-style-type: none"> Discuss with ET, ER and Contractor on the implemented mitigation measures; Review proposals on remedial measures submitted by Contractor and advise the ER accordingly; and Review and advise the ET and ER on the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> Discuss with IEC, ET and Contractor on the implemented mitigation measures; Make agreement on the remedial measures to be implemented; and Supervise the implementation of agreed remedial measures. 	<ol style="list-style-type: none"> Identify source(s) of impact; Inform the ER and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ER, ET and IEC and purpose remedial measures to IEC and ER; and Implement the agreed mitigation measures.
Action level exceedance for more than one consecutive sampling days	<ol style="list-style-type: none"> Repeat in-situ measurement on next day of exceedance to confirm findings; Inform IEC, contractor and ER; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss remedial measures with IEC, contractor and ER; and Ensure remedial measures are implemented. 	<ol style="list-style-type: none"> Discuss with ET, Contractor and ER on the implemented mitigation measures; Review the proposed remedial measures submitted by Contractor and advise the ER accordingly; and Review and advise the ET and ER on the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> Discuss with ET, IEC and Contractor on the proposed mitigation measures; Make agreement on the remedial measures to be implemented; and Discuss with ET, IEC and Contractor on the effectiveness of the implemented remedial measures. 	<ol style="list-style-type: none"> Identify source(s) of impact; Inform the ER and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment and consider changes of working methods; Discuss with ET, IEC and ER and submit proposal of remedial measures to ER and IEC within 3 working days of notification; and Implement the agreed mitigation measures
Limit level exceedance for one sampling day	<ol style="list-style-type: none"> Repeat measurement on next day of exceedance to confirm findings; Inform IEC, contractor and ER; Rectify unacceptable practice; Check monitoring data, all plant, equipment and Contractor's working methods; Consider changes 	<ol style="list-style-type: none"> Discuss with ET, Contractor and ER on the implemented mitigation measures; Review the proposed remedial measures submitted by Contractor and advise the ER accordingly; and Review and 	<ol style="list-style-type: none"> Discuss with ET, IEC and Contractor on the implemented remedial measures; Request Contractor to critically review the working methods; Make agreement on the remedial measures to be implemented; and 	<ol style="list-style-type: none"> Identify source(s) of impact; Inform the ER and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment and consider changes of working methods; Discuss with ET, IEC and ER and submit proposal of additional mitigation measures to

Event	Action			
	ET	IEC	ER	Contractor
	of working methods; 6. Discuss mitigation measures with IEC, ER and Contractor; and 7. Ensure the agreed remedial measures are implemented	advise the ET and ER on the effectiveness of the implemented mitigation measures.	4. Discuss with ET, IEC and Contractor on the effectiveness of the implemented remedial measures.	ER and IEC within 3 working days of notification; and 6. Implement the agreed remedial measures.
Limit level exceedance for more than one consecutive sampling days	1. Inform IEC, contractor and ER; 2. Check monitoring data, all plant, equipment and Contractor's working methods; 3. Discuss mitigation measures with IEC, ER and Contractor; 4. Ensure mitigation measures are implemented; and 5. Increase the monitoring frequency to daily until no exceedance of Limit Level for two consecutive days.	1. Discuss with ET, Contractor and ER on the implemented mitigation measures; 2. Review the proposed remedial measures submitted by Contractor and advise the ER accordingly; and 3. Review and advise the ET and ER on the effectiveness of the implemented mitigation measures.	1. Discuss with ET, IEC and Contractor on the implemented remedial measures; 2. Request Contractor to critically review the working methods; 3. Make agreement on the remedial measures to be implemented; 4. Discuss with ET and IEC on the effectiveness of the implemented mitigation measures; and 5. Consider and instruct, if necessary, the Contractor to slow down or stop all or part of the dredging activities until no exceedance of Limit level.	1. Identify source(s) of impact; 2. Inform the ER and confirm notification of the non-compliance in writing; 3. Rectify unacceptable practice; 4. Check all plant and equipment and consider changes of working methods; 5. Discuss with ET, IEC and ER and submit proposal of additional mitigation measures to ER and IEC within 3 working days of notification; and 6. Implement the agreed remedial measures. 7. As directed by the ER, to slow down or stop all or part of the dredging activities until no exceedance of Limit level.

Notes:

ET – Environmental Team
 IEC – Independent Environmental Checker
 ER – Engineer's Representative

Appendix I

Monitoring Schedule

Impact Monitoring Schedule for Reporting Month – January 2025

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2 1-hr TSP X2 Noise Water quality	3	4 Water quality
5	6 Water quality	7	8 1-hr TSP X2 Noise Water quality	9	10 Water quality	11
12	13	14 1-hr TSP X2 Noise Water quality	15	16 Water quality	17	18 Water quality
19	20 Water quality 1-hr TSP X2 Noise	21	22 Water quality	23	24 Water quality	25 1-hr TSP X2
26	27	28 1-hr TSP X2 Noise Water quality	29	30	31	

Impact Monitoring Schedule for next Reporting Month – February 2025

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1 Water quality
2	3 1-hr TSP X2 Noise Water quality	4	5 Water quality	6	7 1-hr TSP X2	8 Water quality
9	10 Water quality	11	12 Water quality	13 1-hr TSP X2 Noise	14 Water quality	15
16	17	18 Water quality	19 1-hr TSP X2 Noise	20 Water quality	21	22 Water quality
23	24 Water quality	25 1-hr TSP X2 Noise	26 Water quality	27	28 Water quality	

Appendix J1

Detailed Monitoring Results

Construction Dust Monitoring Results

Location: DM-1

Date	Start Time	1-hour TSP ($\mu\text{g}/\text{m}^3$)			Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level($\mu\text{g}/\text{m}^3$)
		1 st reading	2 nd reading	3 rd reading		
2-Jan-25	9:00	67	56	60	268	500
8-Jan-25	13:00	67	62	63	268	500
14-Jan-25	13:05	55	51	55	268	500
20-Jan-25	13:00	60	62	64	268	500
25-Jan-25	13:10	69	72	74	268	500
28-Jan-25	13:00	54	58	58	268	500

Location: DM-2

Date	Start Time	1-hour TSP ($\mu\text{g}/\text{m}^3$)			Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level($\mu\text{g}/\text{m}^3$)
		1 st reading	2 nd reading	3 rd reading		
2-Jan-25	9:15	72	69	69	268	500
8-Jan-25	8:15	64	71	67	268	500
14-Jan-25	8:07	48	59	51	268	500
20-Jan-25	9:00	64	69	71	268	500
25-Jan-25	9:00	67	71	61	268	500
28-Jan-25	9:00	62	56	54	268	500

Construction Noise Monitoring Results

Location: CM1a

Date	Start Time	1 st Leq _{5min}	L10	L90	2 nd Leq _{5min}	L10	L90	3 rd Leq _{5min}	L10	L90	4 th Leq _{5min}	L10	L90	5 th Leq _{5min}	L10	L90	6 th Leq _{5min}	L10	L90	Leq30min	Limit Level
2-Jan-25	13:45	63.4	66.9	59.6	62.4	66.9	59.4	58.7	61.3	58.4	60.4	54.3	56.6	54.4	54.5	55.4	55.6	44.2	48.7	60	75
8-Jan-25	14:08	55.2	58.5	53.5	56.9	60.5	54.3	57.6	59.9	54.2	58.0	61.5	54.0	57.3	60.1	53.2	61.3	62.5	55.1	58	75
14-Jan-25	11:20	54.0	57.1	47.8	54.3	58.8	48.0	61.6	64.7	49.3	58.8	60.4	49.0	55.3	57.9	47.9	57.4	60.8	48.8	58	75
20-Jan-25	14:00	71.2	73.0	56.4	66.1	70.8	54.5	65.4	69.7	52.9	65.4	69.6	53.8	66.2	70.2	55.6	66.8	69.9	52.1	67	75
28-Jan-25	13:45	53.4	59.6	48.2	52.9	54.1	47.7	51.7	53.9	47.8	50.9	52.7	47.5	50.6	53.2	47.1	52.2	54.3	46.9	52	75

Location: CM2a

Date	Start Time	1 st Leq _{5min}	L10	L90	2 nd Leq _{5min}	L10	L90	3 rd Leq _{5min}	L10	L90	4 th Leq _{5min}	L10	L90	5 th Leq _{5min}	L10	L90	6 th Leq _{5min}	L10	L90	Leq30min	Façade Correction	Limit Level
2-Jan-25	11:00	72.6	75.2	62.6	69.5	69.9	58.8	68.8	73.2	60.3	70.6	73.6	60.4	65.4	68.6	61.2	68.6	71.2	60.5	70	73	75
8-Jan-25	10:12	66.4	70.1	56.3	67.2	70.5	55.9	66.2	69.7	55.5	67.5	71.2	56.5	68.7	72.4	58.0	67.1	70.2	56.1	67	70	75
14-Jan-25	9:36	60.7	63.3	59.1	62.9	65.0	57.8	59.5	63.4	58.7	59.0	64.4	57.3	62.3	65.1	59.4	62.4	63.7	58.4	61	64	75
20-Jan-25	9:36	70.1	71.9	62.5	72.9	77.0	62.5	70.2	72.2	61.8	72.2	75.6	62.3	70.8	74.2	62.2	73.4	77.4	64.1	72	75	75
28-Jan-25	9:50	56.5	57.4	55.2	60.4	62.6	56.1	60.9	62.8	56.8	59.4	60.9	56.9	62.3	64.0	57.8	57.8	59.6	55.3	60	63	75

Remark: façade correction (+3 dB(A)) was added according to acoustical principles and EPD guidelines

Location: CM3

Date	Start Time	1 st Leq _{5min}	L10	L90	2 nd Leq _{5min}	L10	L90	3 rd Leq _{5min}	L10	L90	4 th Leq _{5min}	L10	L90	5 th Leq _{5min}	L10	L90	6 th Leq _{5min}	L10	L90	Leq30min	Limit Level
2-Jan-25	9:30	61.2	62.3	59.0	61.8	63.2	59.1	62.8	63.8	58.8	61.3	62.3	58.7	61.5	62.6	59.2	63.9	65.3	58.4	62	75
8-Jan-25	8:45	73.5	74.1	71.9	73.0	74.2	71.5	72.2	73.5	70.8	71.2	72.5	70.9	72.5	73.2	71.0	73.2	74.5	69.9	73	75
14-Jan-25	8:29	70.5	74.4	62.7	69.3	73.4	63.3	69.4	73.5	62.7	73.8	74.6	62.1	68.3	72.9	63.0	68.1	72.4	63.1	70	75
20-Jan-25	10:50	59.0	60.1	58.0	58.9	59.7	57.8	58.8	59.6	57.7	59.1	60.0	58.2	61.9	60.2	58.0	58.7	59.8	57.6	60	75
28-Jan-25	10:35	69.9	71.7	61.6	70.5	73.3	63.5	73.2	75.6	59.8	70.8	73.4	60.1	68.6	71.1	58.8	71.7	72.6	59.5	71	75

Location: CM4

Date	Start Time	1 st Leq _{5min}	L10	L90	2 nd Leq _{5min}	L10	L90	3 rd Leq _{5min}	L10	L90	4 th Leq _{5min}	L10	L90	5 th Leq _{5min}	L10	L90	6 th Leq _{5min}	L10	L90	Leq30min	Limit Level
2-Jan-25	10:10	70.1	72.6	62.0	72.8	75.2	62.3	72.7	74.3	63.0	69.3	71.9	62.5	70.1	71.8	63.8	70.6	72.6	62.8	71	75
8-Jan-25	9:35	70.8	73.5	62.9	70.9	74.2	63.1	69.9	72.9	62.5	71.7	74.5	64.0	70.5	73.2	63.8	70.1	73.5	62.1	71	75
14-Jan-25	9:01	65.4	69.3	56.0	66.3	69.7	56.4	64.5	68.3	57.5	66.7	70.4	57.3	67.4	71.3	57.6	64.3	70.7	57.1	66	75
20-Jan-25	10:15	71.5	74.7	62.8	79.6	81.5	65.0	74.2	77.1	64.4	75.0	78.4	64.8	74.0	75.0	63.2	73.4	76.5	63.3	75	75
28-Jan-25	9:10	72.5	75.1	64.4	70.9	73.3	64.3	71.3	74.1	64.0	70.8	73.9	62.4	71.9	74.2	63.2	70.4	73.7	64.5	71	75

Location: CM8a

Date	Start Time	1 st Leq _{5min}	L10	L90	2 nd Leq _{5min}	L10	L90	3 rd Leq _{5min}	L10	L90	4 th Leq _{5min}	L10	L90	5 th Leq _{5min}	L10	L90	6 th Leq _{5min}	L10	L90	Leq30min	Façade Correction	Limit Level
2-Jan-25	13:03	56.6	58.7	52.4	58.7	62.5	54.6	57.4	63.1	55.1	58.3	58.1	49.1	57.2	58.4	54.3	61.8	57.6	50.9	59	62	75
8-Jan-25	13:22	56.5	62.1	50.9	57.3	62.0	50.1	56.9	61.9	51.0	57.5	61.9	50.8	57.0	65.2	53.4	56.2	63.2	52.2	57	60	75
14-Jan-25	10:30	54.3	59.2	53.1	55.0	59.8	54.7	55.6	61.3	54.5	63.8	67.4	54.1	58.6	59.9	55.0	55.7	60.1	54.6	59	62	75
20-Jan-25	13:05	57.4	62.6	46.3	59.4	64.8	46.8	56.5	57.9	46.2	54.3	53.3	44.9	48.3	50.2	45.3	49.6	52.2	45.1	56	59	75
28-Jan-25	14:30	60.3	62.2	52.5	59.4	61.4	52.3	58.6	59.9	49.6	58.8	59.6	56.2	59.5	61.1	53.4	61.2	64.5	54.2	60	63	75

Remark: façade correction (+3 dB(A)) was added according to acoustical principles and EPD guidelines

Water Quality Monitoring Results

Location: M1a

Date: 2-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M1a	11:01	0.50	20.9	20.9	4.43	4.4	47.1	47.0	7.8	7.8	7.36	7.4	0.16	0.16	16.4	14.7
			20.9		4.4		46.8		7.8		7.36		13			

Date: 4-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M1a	13:02	0.50	20.8	20.8	3.47	3.5	37.2	37.4	8.5	8.5	7.35	7.4	0.16	0.16	12.8	12.2
			20.8		3.46		37.5		8.5		7.35		11.5			

Date: 6-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M1a	10:59	0.30	18.6	18.6	4.87	4.9	50.2	50.3	5.9	5.9	7.30	7.3	0.16	0.16	15.6	15.0
			18.6		4.87		50.3		5.9		7.30		14.3			

Date: 8-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M1a	13:16	0.60	21.1	21.1	4.47	4.5	49.7	49.7	5.9	5.9	7.13	7.1	0.15	0.15	12.6	12.7
			21.1		4.47		49.7		5.9		7.13		12.8			

Date: 10-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M1a	13:16	0.50	17.2	17.2	4.44	4.4	49.9	49.9	6.4	6.4	7.08	7.1	0.15	0.15	12.8	12.9
			17.2		4.44		49.9		6.4		7.08		13			

Date: 14-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M1a	10:50	0.40	19.9	19.9	6.17	6.2	66.8	66.6	7.0	7.0	7.48	7.5	0.12	0.12	24.8	18.8
			19.9		6.15		66.4		7.0		7.48		12.8			

Date: 16-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M1a	14:12	0.40	19.7	19.7	5.54	5.5	59.3	59.3	6.4	6.4	7.55	7.6	0.20	0.20	16.5	19.7
			19.7		5.53		59.2		6.4		7.55		22.8			

Date: 18-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M1a	11:29	0.50	19.5	19.5	5.5	5.5	58.8	58.8	7.1	7.1	7.28	7.3	0.15	0.15	7.8	10.4
			19.5		5.48		58.7		7.1		7.28		13			

Date	20-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M1a	11:10	0.50	19.2	19.2	4.56	4.6	49.2	49.1	7.2	7.2	7.16	7.2	0.14	0.14	7	8.0
			19.2		4.55		49.0		7.2		7.16		0.14		8.9	

Date	22-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M1a	9:55	0.50	20.6	20.6	5.6	5.6	61.1	61.3	7.5	7.5	7.28	7.3	0.15	0.15	11.7	12.2
			20.6		5.6		61.4		7.5		7.28		0.15		12.7	

Date	24-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M1a	13:10	0.40	20.9	20.9	4.24	4.2	46.8	46.8	7.0	7.0	7.10	7.1	0.14	0.14	11.8	10.4
			20.9		4.24		46.8		7.0		7.10		0.14		9	

Date	28-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M1a	9:50	0.30	16.5	16.5	6.98	7.0	69.5	69.5	13.8	13.8	7.52	7.5	0.09	0.09	15.5	19.5
			16.5		6.98		69.5		13.8		7.52		0.09		23.5	

Water Quality Monitoring Results

Location: M2a

Date: 2-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M2a	11:18	0.10	20.8	20.8	7.04	7.0	79.1	79.0	7.6	7.6	7.54	7.5	0.18	0.18	7.6	6.8
			20.8		7.05		78.9		7.6		7.54		0.18		5.9	

Date: 4-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M2a	13:22	0.10	20.5	20.5	6.80	6.8	74.0	73.7	8.2	8.2	7.53	7.5	0.20	0.20	7.4	6.6
			20.5		6.75		73.4		8.2		7.53		0.20		5.8	

Date: 6-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M2a	11:20	0.10	19.4	19.4	6.588	6.5	68.9	69.3	5.2	5.1	7.52	7.5	0.24	0.24	6.4	6.5
			19.4		6.426		69.7		5.1		7.52		0.24		6.5	

Date: 8-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M2a	13:32	0.10	20.9	20.9	6.966	7.0	73.8	73.8	7.7	7.7	7.60	7.6	0.46	0.46	8.1	8.1
			20.9		6.966		73.8		7.7		7.60		0.46		8	

Date: 10-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M2a	13:27	0.10	18.5	18.5	6.643	6.6	75.3	75.3	8.0	8.0	7.67	7.7	0.27	0.27	7	8.5
			18.5		6.643		75.3		8.0		7.67		0.27		9.9	

Date: 14-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M2a	11:10	0.10	18.6	18.6	6.72	6.7	70.1	70.0	8.0	8.0	7.77	7.8	0.26	0.26	5.7	6.0
			18.6		6.704		69.9		7.9		7.77		0.26		6.2	

Date: 16-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M2a	14:29	0.10	18.4	18.4	6.54	6.5	68.0	67.9	7.9	7.9	7.42	7.4	0.26	0.26	6.3	6.3
			18.4		6.5		67.8		7.9		7.42		0.26		6.3	

Date: 18-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M2a	11:48	0.10	18.8	18.8	7.254	7.2	75.6	75.5	7.1	7.5	7.64	7.6	0.26	0.26	7.2	7.2
			18.8		7.2		75.4		7.9		7.64		0.26		7.2	

Date	20-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M2a	11:31	0.10	18.7	18.7	6.678	6.7	70.4	70.0	8.1	8.1	7.66	7.7	0.26	0.26	6.9	6.3
			18.7		6.657		69.7		8.0		7.66		0.26		5.7	

Date	22-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M2a	10:15	0.20	20.5	20.5	6.7	6.7	75.3	75.3	7.1	7.1	7.47	7.5	0.12	0.12	7.1	7.2
			20.5		6.7		75.3		7.1		7.47		0.12		7.2	

Date	24-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M2a	13:35	0.20	21.8	21.75	7.93	7.9	85.7	85.7	6.9	7.0	7.52	7.5	0.13	0.13	8.8	8.6
			21.7		7.93		85.7		7.0		7.52		0.13		8.3	

Date	28-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M2a	11:24	0.20	16.7	16.7	6.636	6.6	60.2	60.2	8.0	8.0	7.62	7.6	0.24	0.24	7.5	8.3
			16.7		6.636		60.2		8.0		7.62		0.24		9	

Water Quality Monitoring Results

Location: M3

Date	2-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M3	9:50	0.30	20.3	20.3	4.7	4.7	51.0	51.0	7.4	7.4	7.36	7.4	0.21	0.21	13.3	14.0
			20.3		4.68		50.9		7.3		7.36		0.21		14.6	

Date	4-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M3	11:40	0.40	20.1	20.1	3.8	3.8	40.5	40.3	5.4	5.4	7.32	7.3	0.21	0.21	9.4	8.7
			20.1		3.77		40.1		5.4		7.32		0.21		7.9	

Date	6-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M3	9:47	0.40	17.8	17.8	4.35	4.4	44.2	44.3	7.6	7.6	7.53	7.5	0.24	0.24	10.6	10.1
			17.8		4.38		44.3		7.6		7.53		0.24		9.5	

Date	8-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M3	12:18	0.40	21.6	21.6	6.12	6.1	63.0	63.1	5.6	5.6	7.76	7.8	0.28	0.28	7.2	7.3
			21.6		6.13		63.1		5.6		7.76		0.28		7.4	

Date	10-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M3	12:01	0.30	17.1	17.1	4.73	4.7	53.1	53.5	9.7	9.7	7.66	7.7	0.24	0.24	28.4	29.4
			17.1		4.72		53.8		9.6		7.66		0.24		30.4	

Date	14-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M3	9:47	0.40	19.5	19.5	5.17	5.2	55.2	55.2	9.0	9.0	7.71	7.7	0.23	0.23	17	15.4
			19.5		5.16		55.1		9.0		7.71		0.23		13.7	

Date	16-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M3	12:48	0.30	19	19	4.34	4.3	45.8	45.7	8.5	8.5	7.64	7.6	0.23	0.23	17.9	18.2
			19		4.3		45.5		8.5		7.64		0.23		18.4	

Date	18-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M3	10:02	0.50	18.6	18.6	5.14	5.1	54.3	54.2	5.8	5.8	7.55	7.6	0.23	0.23	10.1	9.5
			18.6		5.12		54.0		5.8		7.55		0.23		8.9	

Date	20-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M3	9:49	0.50	18.4	18.4	4.15	4.1	43.3	43.2	5.9	5.9	7.48	7.5	0.22	0.22	8.7	8.9
			18.4		4.13		43.0		5.9		7.48		0.22		9	

Date	22-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M3	10:18	0.40	21.8	21.75	6.36	6.4	71.0	71.1	15.6	15.6	7.64	7.6	0.26	0.26	21	20.1
			21.7		6.36		71.2		15.6		7.64		0.26		19.1	

Date	24-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M3	12:11	0.40	21.5	21.5	5.17	5.2	58.0	58.0	16.1	16.1	7.50	7.5	0.22	0.22	15	14.7
			21.5		5.17		58.0		16.1		7.50		0.22		14.4	

Date	28-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M3	10:13	0.50	15.3	15.3	9.72	9.7	95.2	95.2	6.9	6.9	7.80	7.8	0.14	0.14	6.7	6.2
			15.3		9.72		95.2		6.9		7.80		0.14		5.6	

Water Quality Monitoring Results

Location: M4

Date: 2-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M4	9:31	0.20	21.8	21.8	7.06	7.1	79.9	79.8	4.0	4.0	7.40	7.4	0.39	0.39	19.1	16.6
			21.8		7.05		79.6		4.0		7.40		0.39		14.1	

Date: 4-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M4	11:29	0.20	21.7	21.7	6.52	6.5	74.1	74.1	3.1	3.1	7.37	7.4	0.39	0.39	7.8	8.6
			21.7		6.50		74.0		3.1		7.37		0.39		9.4	

Date: 6-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M4	9:34	0.20	19.7	19.7	8.82	8.8	96.2	96.2	3.6	3.6	7.67	7.7	0.42	0.42	9.9	10.9
			19.7		8.84		96.2		3.6		7.67		0.42		11.8	

Date: 8-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M4	12:00	0.30	24.3	24.3	8.98	9.0	107.2	107.2	8.2	8.2	7.73	7.7	0.07	0.07	14.4	18.3
			24.3		8.98		107.2		8.2		7.73		0.07		22.1	

Date: 10-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M4	11:48	0.30	18	18	8.40	8.4	99.1	99.1	3.6	3.6	7.75	7.8	0.06	0.06	16.6	17.1
			18		8.39		99.1		3.6		7.75		0.06		17.5	

Date: 14-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M4	9:31	0.20	22.3	22.3	9.76	9.8	112.9	113.0	4.4	4.3	7.20	7.2	0.26	0.26	14.8	12.9
			22.3		9.75		113.0		4.3		7.20		0.26		10.9	

Date: 16-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M4	12:31	0.20	22	22	9.92	9.9	114.5	114.4	3.6	3.6	7.21	7.2	0.26	0.26	15.4	13.1
			22		9.90		114.3		3.6		7.21		0.26		10.8	

Date: 18-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M4	9:44	0.20	22.9	22.9	9.66	9.7	113.8	113.8	7.2	7.1	7.94	7.9	0.29	0.29	13.1	15.0
			22.9		9.64		113.7		7.1		7.95		0.29		16.8	

Date	20-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M4	9:33	0.20	22.7	22.7	9.95	9.9	115.5	115.4	5.7	5.7	7.93	7.9	0.28	0.28	11.8	15.8
			22.7		9.93		115.2		5.7		7.93		0.28		19.8	

Date	22-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M4	9:55	0.20	24.3	24.3	8.53	8.5	101.4	101.4	16.4	16.3	7.79	7.8	0.26	0.26	17.1	18.4
			24.3		8.53		101.4		16.3		7.79		0.26		19.7	

Date	24-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M4	12:01	0.20	24	24	8.43	8.4	94.6	94.6	10.7	10.7	7.69	7.7	0.41	0.41	16	17.0
			24		8.43		94.6		10.7		7.69		0.41		18	

Date	28-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M4	9:45	0.10	18.1	18.1	9.38	9.4	99.0	99.0	5.3	5.3	7.75	7.8	0.27	0.27	16.4	18.0
			18.1		9.38		99.0		5.3		7.75		0.27		19.5	

Water Quality Monitoring Results

Location: U1b

Date: 2-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U1b	10:47	0.20	20.8	20.8	5.77	5.8	63.7	63.7	11.1	11.1	7.34	7.3	0.24	0.2	19.3	18.8
			20.8		5.76		63.6		11.1		7.34		0.24		18.3	

Date: 4-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U1b	12:46	0.20	20.7	20.7	4.88	4.9	53.4	53.3	12.1	12.1	7.34	7.3	0.24	0.2	13.3	14.1
			20.7		4.87		53.1		12.1		7.34		0.24		14.9	

Date: 6-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U1b	10:43	0.20	17.9	17.9	7.86	7.9	82.0	82.0	9.7	9.7	7.52	7.5	0.25	0.3	18.1	17.2
			17.9		7.86		82.0		9.7		7.52		0.25		16.2	

Date: 8-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U1b	13:00	0.20	21.7	21.7	5.62	5.6	62.0	61.9	9.4	9.4	7.43	7.4	0.26	0.3	21.3	21.9
			21.7		5.63		61.8		9.4		7.43		0.26		22.5	

Date: 10-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U1b	13:00	0.20	18.5	18.5	4.41	4.4	49.4	49.4	9.0	9.0	7.40	7.4	0.26	0.3	32.6	27.4
			18.5		4.41		49.4		9.0		7.40		0.26		22.1	

Date: 14-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U1b	10:38	0.30	19.9	19.9	6.28	6.3	67.4	67.4	11.6	11.6	7.53	7.5	0.25	0.3	93.6	64.8
			19.9		6.27		67.3		11.6		7.53		0.25		35.9	

Date: 16-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U1b	13:47	0.30	19	19	5.26	5.3	57.1	57.1	9.5	9.5	7.51	7.5	0.26	0.3	16.8	17.5
			19		5.25		57.0		9.5		7.51		0.26		18.2	

Date: 18-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U1b	11:10	0.30	19.6	19.6	6.14	6.1	63.0	62.9	8.2	8.2	7.46	7.5	0.23	0.2	30.1	25.1
			19.6		6.12		62.7		8.2		7.46		0.23		20	

Date	20-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U1b	10:48	0.30	19.5	19.5	5.11	5.1	55.0	54.9	8.1	8.1	7.43	7.4	0.24	0.2	13.2	27.7
			19.5		5.1		54.8		8.1		7.43		0.24		42.2	

Date	22-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U1b	11:18	0.30	21.5	21.5	6.56	6.6	73.4	73.4	14.9	14.9	7.43	7.4	0.12	0.1	29.2	24.9
			21.5		6.56		73.4		14.9		7.43		0.12		20.5	

Date	24-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U1b	12:50	0.20	21.4	21.4	5.61	5.6	62.2	62.2	13.3	13.3	7.34	7.3	0.21	0.2	22.3	21.5
			21.4		5.61		62.2		13.3		7.34		0.21		20.7	

Date	28-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U1b	11:00	0.20	15.1	15.1	9.36	9.4	90.9	90.9	7.7	7.7	7.56	7.6	0.01	0.0	8.7	7.7
			15.1		9.36		90.9		7.7		7.56		0.01		6.7	

Water Quality Monitoring Results

Location: U2a

Date																
2-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U2a	10:29	0.40	19.4	19.4	6.46	6.5	69.4	69.4	1.8	1.7	7.01	7.0	0.08	0.1	3.8	4.6
			19.4		6.45		69.3		1.7		7.03		0.08		5.3	
Date																
4-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U2a	12:26	0.40	19.3	19.3	6.14	6.1	64.7	64.6	2.4	2.4	7.30	7.3	0.08	0.1	9.2	8.4
			19.3		6.1		64.5		2.4		7.30		0.08		7.6	
Date																
6-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U2a	10:21	0.50	17	17	7.34	7.3	71.2	71.3	2.1	2.1	7.14	7.1	0.08	0.1	6.7	7.1
			17		7.3		71.3		2.1		7.13		0.08		7.4	
Date																
8-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U2a	12:49	0.40	19.9	20	6.52	6.5	70.7	70.7	2.4	2.4	6.97	7.0	0.08	0.1	3.7	3.9
			20.1		6.53		70.7		2.4		6.97		0.08		4.1	
Date																
10-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U2a	12:44	0.40	17.7	17.7	6.18	6.2	66.1	66.1	2.6	2.6	7.16	7.2	0.08	0.1	4.8	4.8
			17.7		6.18		66.1		2.6		7.16		0.08		4.8	
Date																
14-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U2a	10:27	0.70	18.7	18.7	7	7.0	73.8	73.8	5.8	5.8	7.21	7.2	0.09	0.1	22.5	31.0
			18.7		6.98		73.7		5.8		7.21		0.09		39.4	
Date																
16-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U2a	13:21	0.70	18.6	18.6	6.59	6.6	69.4	69.4	7.3	7.3	7.13	7.1	0.09	0.1	44.2	30.1
			18.6		6.57		69.3		7.3		7.13		0.09		16	

Date																
18-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U2a	10:41	0.70	18.2	18.2	7.15	7.1	75.5	75.4	4.3	4.3	7.16	7.2	0.08	0.1	6.5	7.3
			18.2		7.14		75.3		4.3		7.16		0.08		8.1	
Date																
20-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U2a	10:35	0.70	18	18	6.75	6.7	71.4	71.4	5.3	5.3	7.03	7.0	0.08	0.1	30.9	22.0
			18		6.74		71.3		5.3		7.03		0.08		13	
Date																
22-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U2a	10:50	0.70	19.8	19.85	7.43	7.4	75.6	75.6	5.6	5.6	7.43	7.4	0.10	0.1	60.5	41.5
			19.9		7.43		75.6		5.5		7.43		0.10		22.4	
Date																
24-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U2a	12:39	0.70	20.2	20.2	6.13	6.1	66.5	66.5	8.1	8.1	7.22	7.2	0.09	0.1	71.8	46.9
			20.2		6.13		66.5		8.1		7.22		0.09		21.9	
Date																
28-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U2a	10:45	0.30	14.9	14.9	8.03	8.0	76.6	76.6	7.8	7.8	7.66	7.7	0.11	0.1	28.1	23.7
			14.9		8.03		76.6		7.8		7.66		0.11		19.3	

Water Quality Monitoring Results

Location: U3

Date: 2-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U3	9:17	0.30	20.5	20.5	4.61	4.6	50.4	50.4	3.4	3.4	7.39	7.4	0.17	0.17	9.3	8.8
			20.5		4.6		50.3		3.4		7.39		0.17		8.3	

Date: 4-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U3	11:05	0.30	20.7	20.7	3.49	3.5	38.1	38.1	3.6	3.5	7.36	7.4	0.17	0.17	4.7	5.4
			20.7		3.47		38.0		3.5		7.36		0.17		6	

Date: 6-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U3	9:17	0.30	18.4	18.4	4.83	4.8	46.4	46.4	2.3	2.3	7.57	7.6	0.19	0.19	12.6	11.8
			18.4		4.82		46.4		2.3		7.57		0.19		10.9	

Date: 8-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U3	11:46	0.30	22.4	22.4	6.71	6.7	76.4	76.4	3.8	3.8	7.59	7.6	0.18	0.18	6.4	6.6
			22.4		6.71		76.3		3.8		7.59		0.18		6.8	

Date: 10-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U3	11:29	0.30	16.3	16.3	5.59	5.6	63.5	63.5	3.0	3.0	7.59	7.6	0.17	0.17	5.3	5.5
			16.3		5.59		63.5		3.0		7.59		0.17		5.7	

Date: 14-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U3	9:17	0.30	21	21	5.82	5.8	64.7	64.6	2.9	2.8	7.87	7.9	0.18	0.18	5.7	6.1
			21		5.81		64.5		2.8		7.87		0.18		6.4	

Date: 16-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U3	12:10	0.30	20	20	5.03	5.0	55.9	55.7	2.5	2.5	7.84	7.8	0.17	0.17	5.9	5.6
			20		5.02		55.5		2.5		7.84		0.17		5.2	

Date: 18-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U3	9:26	0.30	20.4	20.4	6.02	6.0	64.7	64.6	2.9	2.9	7.79	7.8	0.20	0.20	5.4	6.2
			20.4		5.99		64.5		2.9		7.79		0.20		6.9	

Date	20-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U3	9:17	0.40	20	20	4.94	4.9	54.1	54.1	2.9	2.9	7.74	7.7	0.20	0.20	5.4	5.3
			20		4.93		54.0		2.9		7.74		0.20		5.2	

Date	22-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U3	9:26	0.40	22.2	22.25	5.96	6.0	63.4	63.4	42.0	42.0	7.58	7.6	0.18	0.18	6.1	5.8
			22.3		5.94		63.4		42.0		7.58		0.18		5.4	

Date	24-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U3	11:45	0.20	22.5	22.5	4.6	4.6	51.8	51.8	4.3	4.3	7.51	7.5	0.17	0.17	5.8	6.1
			22.5		4.6		51.8		4.3		7.51		0.17		6.3	

Date	28-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U3	9:15	0.50	16.2	16.2	6.12	6.1	61.1	61.1	3.4	3.4	7.64	7.6	0.18	0.18	3	3.3
			16.2		6.12		61.1		3.4		7.64		0.18		3.6	

Water Quality Monitoring Results

Location: U4a

Date: 2-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U4a	9:01	0.40	19.6	19.6	5.75	5.7	60.6	60.5	8.1	8.1	7.23	7.2	0.15	0.15	33.1	40.0
			19.6		5.74		60.4		8.1		7.23		0.15		46.8	

Date: 4-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U4a	10:45	0.30	19.6	19.6	4.3	4.3	45.8	45.7	4.0	4.0	7.62	7.6	0.13	0.13	17	14.0
			19.6		4.27		45.6		4.0		7.62		0.13		11	

Date: 6-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U4a	9:02	0.40	17.3	17.3	6.31	6.3	60.3	60.3	7.9	7.9	7.52	7.5	0.22	0.22	19.4	19.9
			17.3		6.32		60.3		7.9		7.52		0.22		20.3	

Date: 8-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U4a	11:30	0.40	20.4	20.4	5.67	5.6	61.6	61.65	2.9	2.9	7.25	7.3	0.14	0.14	9.1	9.7
			20.4		5.62		61.7		2.9		7.25		0.14		10.2	

Date: 10-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U4a	11:11	0.40	15.5	15.5	5.04	5.0	56.1	56.2	3.6	3.6	7.15	7.2	0.15	0.15	10	9.4
			15.5		5.04		56.3		3.6		7.15		0.15		8.7	

Date: 14-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U4a	8:50	0.40	19	19	5.49	5.5	58.0	58.0	5.2	5.2	7.61	7.6	0.48	0.48	33.2	25.9
			19		5.45		57.9		5.2		7.61		0.48		18.5	

Date: 16-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U4a	11:45	0.40	18.7	18.7	4.12	4.1	43.7	43.7	4.4	4.4	7.45	7.5	0.15	0.15	11.7	12.2
			18.7		4.1		43.6		4.4		7.45		0.15		12.7	

Date: 18-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U4a	9:10	0.40	18.2	18.2	4.86	4.9	50.9	50.8	6.0	6.0	7.69	7.7	0.43	0.43	9.1	8.8
			18.2		4.85		50.6		6.0		7.69		0.43		8.5	

Date	20-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U4a	8:50	0.40	18	18	4.49	4.5	47.8	47.7	5.3	5.3	7.64	7.6	0.18	0.18	11.8	10.0
			18		4.48		47.5		5.3		7.64		0.18		8.2	

Date	22-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U4a	9:07	0.40	20.5	20.5	5.86	5.9	59.3	59.4	8.4	8.4	7.70	7.7	0.32	0.32	11.3	11.0
			20.5		5.87		59.4		8.4		7.70		0.32		10.7	

Date	24-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U4a	11:26	0.40	20.6	20.65	4.7	4.7	50.5	50.6	8.6	8.6	7.57	7.6	0.18	0.2	10.8	11.6
			20.7		4.71		50.6		8.6		7.57		0.18		12.4	

Date	28-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
U4a	9:00	0.20	15.1	15.15	4.55	4.6	44.9	44.9	7.0	7.0	7.61	7.6	0.20	0.2	8.7	8.4
			15.2		4.55		44.9		7.0		7.61		0.20		8	

Water Quality Monitoring Results

Location: EIS-1a

Date: 2-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
EIS-1a	10:11	0.20	19.5	19.5	8.77	8.8	95.0	94.9	3.2	3.2	7.04	7.0	0.04	0.04	4.8	4.4
			19.5		8.75		94.7		3.2		7.04		0.04		4	

Date: 4-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
EIS-1a	12:00	0.20	19.3	19.3	8.57	8.6	93.0	93.0	3.4	3.4	7.45	7.5	0.04	0.04	5.3	5.7
			19.3		8.55		93.0		3.4		7.45		0.04		6.1	

Date: 6-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
EIS-1a	10:02	0.30	16.8	16.85	8.93	8.9	91.5	91.5	3.2	3.2	7.26	7.3	0.05	0.05	6.5	6.5
			16.9		8.94		91.5		3.2		7.26		0.05		6.5	

Date: 8-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
EIS-1a	12:31	0.30	20.5	20.5	8.39	8.4	93.1	93.1	7.0	7.0	7.31	7.3	0.05	0.05	20.2	19.2
			20.5		8.39		93.1		7.0		7.31		0.05		18.2	

Date: 10-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
EIS-1a	12:18	0.30	16.4	16.4	8.38	8.4	92.7	92.7	3.2	3.2	7.01	7.0	0.05	0.05	6.2	6.7
			16.4		8.38		92.7		3.2		7.01		0.05		7.2	

Date: 14-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
EIS-1a	10:05	0.40	18.6	18.6	8.77	8.8	93.6	93.6	3.9	3.9	7.23	7.2	0.06	0.06	5.9	6.4
			18.6		8.76		93.5		3.9		7.23		0.06		6.8	

Date: 16-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
EIS-1a	13:02	0.40	18.3	18.3	8.7	8.7	92.4	92.2	3.8	3.8	7.03	7.0	0.05	0.05	6.5	5.6
			18.3		8.69		92.0		3.8		7.03		0.05		4.6	

Date: 18-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
EIS-1a	10:26	0.30	18.3	18.3	8.57	8.6	90.9	90.9	2.9	2.9	7.07	7.1	0.06	0.06	4.3	4.0
			18.3		8.57		90.8		2.9		7.07		0.06		3.7	

Date	20-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
EIS-1a	10:19	0.40	18.2	18.2	8.41	8.4	88.9	88.8	3.2	3.2	6.96	7.0	0.06	0.06	3.3	4.2
			18.2		8.4		88.7		3.2		6.96		5			

Date	22-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
EIS-1a	10:33	0.20	21	21	8.43	8.4	94.2	94.2	13.0	13.0	7.47	7.5	0.06	0.06	28.7	23.9
			21		8.43		94.2		13.0		7.47		19			

Date	24-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
EIS-1a	12:30	0.20	20.9	21	8.23	8.2	88.4	88.5	4.6	4.6	7.16	7.2	0.05	0.05	8.6	8.9
			21.1		8.23		88.6		4.6		7.16		9.2			

Date	28-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
EIS-1a	10:25	0.30	13.5	13.5	9.98	10.0	96.2	96.2	4.2	4.2	7.93	7.9	0.07	0.07	4.9	4.9
			13.5		9.98		96.2		4.2		7.90		4.9			

Water Quality Monitoring Results

Location: M5a

Date	2-Jan-25															
Location	Time	Depth (m)	Temp (oC)		6.88		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M5a	12:00	0.20	20.9	20.9	6.88	6.9	76.7	76.6	2.1	2.1	7.24	7.2	0.18	0.18	3.8	3.7
			20.9		6.87		76.5		2.1		7.24		0.18		3.6	

Date	4-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M5a	13:55	0.20	20.7	20.7	6.31	6.3	70.0	70.0	6.3	6.3	7.24	7.2	0.18	0.18	34.9	29.4
			20.7		6.3		69.9		6.3		7.24		0.18		23.8	

Date	6-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M5a	11:47	0.10	19	19	6.74	6.7	72.0	72.1	6.3	6.3	7.41	7.4	0.18	0.18	52.5	43.4
			19		6.73		72.1		6.3		7.41		0.18		34.2	

Date	8-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M5a	14:06	0.10	20.4	20.4	6.74	6.7	72.8	72.8	1.7	1.7	7.15	7.2	0.18	0.18	8	7.1
			20.4		6.74		72.8		1.7		7.15		0.18		6.1	

Date	10-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M5a	14:05	0.10	16.1	16.1	5.89	5.9	64.8	64.8	10.4	10.3	7.25	7.3	0.18	0.18	44.4	42.2
			16.1		5.89		64.8		10.2		7.25		0.18		40	

Date	14-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M5a	11:46	0.10	18.7	18.7	7.05	7.0	74.6	74.6	7.9	7.9	7.52	7.5	0.18	0.18	16.4	19.4
			18.7		7.03		74.5		7.9		7.52		0.18		22.3	

Date	16-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M5a	15:17	0.10	18.7	18.7	6.07	6.1	64.7	64.6	7.4	7.4	7.41	7.4	0.18	0.18	71.4	40.2
			18.7		6.05		64.5		7.4		7.41		0.18		8.9	

Date	18-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M5a	12:17	0.10	19.1	19.1	6.53	6.5	70.5	70.4	5.7	5.7	7.37	7.4	0.17	0.17	34.2	30.3
			19.1		6.52		70.3		5.7		7.37		0.17		26.4	

Date	20-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M5a	12:15	0.10	19.5	19.5	5.97	6.0	64.7	64.7	9.8	9.8	7.36	7.4	0.11	0.11	72.1	94.6
			19.5		5.98		64.6		9.8		7.36		0.11		117	

Date	22-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M5a	10:55	0.10	20.8	20.8	6.67	6.7	74.2	74.2	13.4	13.3	7.25	7.3	0.18	0.18	38.6	42.0
			20.8		6.67		74.2		13.3		7.25		0.18		45.3	

Date	24-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M5a	14:26	0.10	20.8	20.8	6.3	6.3	69.1	69.2	5.7	5.7	7.21	7.2	0.18	0.18	16.2	16.6
			20.8		6.31		69.2		5.7		7.21		0.18		16.9	

Date	28-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M5a	12:10	0.20	15.9	15.9	8.89	8.9	88.2	88.2	9.5	9.5	7.45	7.5	0.19	0.19	20.5	22.2
			15.9		8.89		88.2		9.5		7.45		0.19		23.8	

Water Quality Monitoring Results

Location: M6a

Date		2-Jan-25														
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M6a	11:39	0.10	20.1	20.1	9.41	9.4	103.9	103.8	2.3	2.3	7.26	7.3	0.05	0.05	15	17.7
			20.1		9.4		103.7		2.3		7.26		0.05		20.4	

Date		4-Jan-25														
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M6a	13:38	0.10	20.4	20.4	9.18	9.2	102.7	102.65	2.3	2.3	7.26	7.3	0.04	0.04	13.1	12.3
			20.4		9.2		102.6		2.3		7.26		0.04		11.5	

Date		6-Jan-25														
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M6a	11:36	0.10	20.1	20.1	8.81	8.8	100.7	100.55	4.1	4.1	7.43	7.4	0.04	0.04	26.8	22.3
			20.1		8.82		100.4		4.1		7.43		0.04		17.8	

Date		8-Jan-25														
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M6a	13:50	0.10	23.8	23.75	8.13	8.1	96.2	96.2	1.9	1.9	7.21	7.2	0.04	0.04	23.8	23.8
			23.7		8.14		96.2		1.9		7.21		0.04		23.8	

Date		10-Jan-25														
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M6a	13:45	0.10	15.4	15.4	8.65	8.6	95.8	95.8	2.4	2.4	7.18	7.2	0.04	0.04	11.2	10.3
			15.4		8.64		95.8		2.4		7.18		0.04		9.4	

Date		14-Jan-25														
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M6a	11:31	0.10	20.8	20.8	8.11	8.1	90.2	90.15	5.4	5.4	7.81	7.8	0.05	0.05	22.2	17.5
			20.8		8.11		90.1		5.4		7.81		0.05		12.7	

Date		16-Jan-25														
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M6a	14:50	0.10	20	20	8.2	8.2	91.5	91.45	2.6	2.6	7.54	7.5	0.04	0.04	12.5	16.4
			20		8.19		91.4		2.6		7.54		0.04		20.2	

Date		18-Jan-25														
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M6a	12:00	0.10	18	18	8.02	8.0	92.1	92.05	3.2	3.2	7.50	7.5	0.05	0.05	18.5	26.5
			18		8		92.0		3.2		7.50		0.05		34.4	

Date	20-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M6a	11:50	0.10	18.8	18.8	9.09	9.1	97.8	97.75	5.0	5.0	7.25	7.3	0.04	0.04	13.7	13.9
			18.8		9.07		97.7		5.0		7.25		0.04		14	

Date	22-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M6a	10:35	0.10	21.9	21.9	8.72	8.7	99.5	99.5	9.3	9.3	7.31	7.3	0.04	0.04	43	34.2
			21.9		8.72		99.5		9.3		7.31		0.04		25.3	

Date	24-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M6a	13:56	0.10	21.7	21.7	8.98	9.0	102.4	102.35	2.6	2.6	7.13	7.1	0.04	0.04	8.3	19.3
			21.7		8.98		102.3		2.6		7.13		0.04		30.3	

Date	28-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M6a	11:40	0.10	20.3	20.3	8.78	8.8	97.1	97.1	5.4	5.4	7.59	7.6	0.07	0.07	37.5	40.5
			20.3		8.78		97.1		5.4		7.59		0.07		43.4	

Water Quality Monitoring Results

Location: D2a

Date: 2-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
D2a	13:30	0.50	22.8	22.8	8.71	8.7	101.3	101.3	117.0	117.0	7.88	7.9	0.23	0.23	199	200.0
			22.8		8.7		101.3		117.0		7.88		0.23		201	

Date: 4-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
D2a	14:37	0.50	20.5	20.5	7.12	7.1	79.3	79.2	20.7	20.6	7.72	7.7	0.43	0.43	93.3	82.1
			20.5		7.1		79.0		20.5		7.72		0.43		70.9	

Date: 6-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
D2a	12:56	0.50	20.3	20.3	8.3	8.3	91.2	91.3	8.9	8.9	7.89	7.9	0.42	0.42	36.6	30.9
			20.3		8.31		91.4		8.9		7.89		0.42		25.1	

Date: 8-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
D2a	14:47	0.50	20.1	20.1	7.53	7.5	82.8	82.8	20.2	20.2	7.75	7.8	1.03	1.04	81.2	70.5
			20.1		7.53		82.8		20.2		7.75		1.04		59.8	

Date: 10-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
D2a	14:50	0.10	17.6	17.6	6.89	6.9	76.5	76.5	13.8	13.8	7.78	7.8	0.96	0.96	50.5	52.8
			17.6		6.89		76.5		13.8		7.78		0.96		55	

Date: 14-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
D2a	12:47	0.50	19.7	19.7	7.63	7.6	83.8	83.7	5.9	5.9	7.77	7.8	0.50	0.50	12.2	16.3
			19.7		7.6		83.5		5.9		7.77		0.50		20.3	

Date: 16-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
D2a	16:12	0.50	19.4	19.4	7	7.0	75.4	75.4	13.0	13.0	7.42	7.4	0.67	0.67	24.9	26.2
			19.4		6.96		75.3		13.0		7.42		0.67		27.4	

Date: 18-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
D2a	13:10	0.50	20.9	20.9	8.02	8.0	90.1	90.1	14.2	14.2	7.76	7.8	0.18	0.18	21.8	23.2
			20.9		8		90.0		14.2		7.76		0.18		24.5	

Date	20-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
D2a	13:17	0.50	20	20	8.08	8.1	90.4	90.2	18.3	18.3	7.60	7.6	0.22	0.22	25	24.6
			20		8.07		90.0		18.2		7.60		0.22		24.1	

Date	22-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
D2a	12:00	0.50	20.2	20.2	8.57	8.6	95.2	95.2	20.4	20.4	7.95	8.0	0.39	0.39	49	49.6
			20.2		8.57		95.2		20.4		7.95		0.39		50.2	

Date	24-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
D2a	15:42	0.50	20.2	20.2	6.88	6.9	76.2	76.2	21.1	21.2	7.73	7.7	0.69	0.69	90	83.0
			20.2		6.88		76.2		21.2		7.73		0.69		75.9	

Date	28-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
D2a	13:13	0.30	18.2	18.2	8.23	8.2	87.0	87.0	7.7	7.7	7.65	7.7	0.68	0.68	7.3	7.0
			18.2		8.23		87.0		7.7		7.65		0.68		6.7	

Water Quality Monitoring Results

Location: M7a

Date: 2-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M7a	12:30	0.10	21.4	21.4	7.65	7.7	86.4	86.4	8.7	8.7	7.53	7.5	0.78	0.78	10.7	11.5
			21.4		7.66		86.3		8.7		7.53		12.3			

Date: 4-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M7a	14:00	0.10	21.2	21.2	7.33	7.3	82.5	82.3	11.2	11.2	7.41	7.4	0.73	0.73	11.6	11.9
			21.2		7.31		82.0		11.2		7.41		12.2			

Date: 6-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M7a	12:12	0.10	20.4	20.4	7.55	7.6	82.3	82.3	4.3	4.3	7.57	7.6	0.13	0.13	3.2	4.0
			20.4		7.55		82.3		4.3		7.57		4.7			

Date: 8-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M7a	14:19	0.10	20.2	20.2	7.75	7.8	84.6	84.6	1.9	1.9	7.58	7.6	0.13	0.13	6.6	6.0
			20.2		7.75		84.6		1.9		7.58		5.3			

Date: 10-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M7a	14:17	0.10	17.6	17.6	7.35	7.4	80.2	80.2	1.1	1.1	7.37	7.4	0.13	0.13	4.9	4.6
			17.6		7.36		80.2		1.1		7.37		4.3			

Date: 14-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M7a	12:01	0.10	19	19	7.41	7.4	79.0	78.9	2.6	2.6	7.49	7.5	0.12	0.12	3.1	3.3
			19		7.4		78.8		2.6		7.49		3.4			

Date: 16-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M7a	15:36	0.10	18.9	18.9	6.99	6.8	74.5	74.4	2.0	1.9	7.30	7.3	0.12	0.12	5.9	5.3
			18.9		6.68		74.3		1.9		7.30		4.6			

Date: 18-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M7a	12:30	0.10	19	19	7.09	7.1	75.2	75.1	8.3	8.3	7.48	7.5	0.13	0.13	8.4	9.2
			19		7.08		75.0		8.2		7.48		10			

Date	20-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M7a	12:36	0.10	19	19	6.66	6.7	70.6	70.5	2.5	2.5	7.34	7.3	0.13	0.13	4	4.4
			19		6.65		70.3		2.5		7.34		0.13		4.8	

Date	22-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M7a	11:15	0.10	19.9	19.9	7.83	7.8	85.1	85.1	5.8	5.8	7.33	7.3	0.13	0.13	9.5	11.3
			19.9		7.83		85.1		5.8		7.33		0.13		13	

Date	24-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M7a	14:41	0.10	19.8	19.8	7.26	7.3	78.5	78.5	2.6	2.6	7.18	7.2	0.12	0.12	6.4	5.9
			19.8		7.26		78.5		2.6		7.16		0.12		5.4	

Date	28-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M7a	12:31	0.10	19.1	19.1	8.57	8.6	91.3	91.3	4.7	4.7	7.61	7.6	0.13	0.13	6.6	7.6
			19.1		8.57		91.3		4.7		7.61		0.13		8.5	

Water Quality Monitoring Results

Location: D5a

Date: 2-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
D5a	13:02	0.10	21.3	21.3	7.32	7.3	83.0	83.0	7.4	7.4	7.55	7.6	1.70	1.70	27.2	35.8
			21.3		7.33		82.9		7.4		7.55		1.70		44.4	

Date: 4-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
D5a	14:18	0.10	21	21	7.11	7.1	81.2	81.1	6.4	6.4	7.65	7.7	3.61	3.61	18.9	19.8
			21		7.1		81.0		6.4		7.65		3.61		20.7	

Date: 6-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
D5a	12:33	0.10	21.1	21.1	7.88	7.9	88.3	88.3	5.2	5.2	7.31	7.3	3.74	3.74	14.7	15.2
			21.1		7.86		88.3		5.2		7.31		3.74		15.6	

Date: 8-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
D5a	14:36	0.10	20.1	20.1	7.49	7.5	83.7	83.7	12.9	12.9	7.28	7.3	3.57	3.57	54	48.2
			20.1		7.47		83.6		12.9		7.28		3.56		42.3	

Date: 10-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
D5a	14:39	0.10	17.1	17.1	7.3	7.3	79.9	79.8	9.8	9.8	7.35	7.4	0.06	0.06	34.6	36.4
			17.1		7.3		79.7		9.8		7.35		0.06		38.2	

Date: 14-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
D5a	12:25	0.20	18.6	18.6	7.29	7.3	78.2	78.1	3.8	3.8	7.40	7.4	2.01	2.01	5.6	5.4
			18.6		7.28		78.0		3.8		7.40		2.01		5.1	

Date: 16-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
D5a	15:55	0.20	18.5	18.5	6.85	6.8	72.6	72.6	3.4	3.4	7.46	7.5	1.03	1.03	3.3	24.0
			18.5		6.84		72.5		3.4		7.46		1.03		44.7	

Date: 18-Jan-25																
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
D5a	12:55	0.30	19	19	6.95	6.9	74.4	74.4	4.3	4.3	7.34	7.3	1.18	1.18	4.2	4.1
			19		6.94		74.3		4.3		7.34		1.18		4	

Date	20-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
D5a	12:55	0.30	18	18	6.54	6.5	70.0	69.9	4.2	4.2	7.38	7.4	0.22	0.22	2.4	2.3
			18		6.53		69.7		4.2		7.38		0.22		2.1	

Date	22-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
D5a	11:35	0.20	19.9	19.95	7.27	7.3	80.6	80.6	6.1	6.1	7.17	7.2	2.61	2.61	7.6	7.4
			20		7.27		80.6		6.1		7.17		2.61		7.1	

Date	24-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
D5a	15:10	0.20	19.9	19.8	7.04	7.0	77.8	77.8	5.9	5.9	7.24	7.2	2.62	2.62	6.4	6.1
			19.7		7.04		77.7		5.9		7.24		2.62		5.8	

Date	28-Jan-25															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
D5a	12:43	0.10	18.2	18.2	8.57	8.6	91.9	91.9	11.0	11.0	7.27	7.3	2.81	2.81	30	29.1
			18.2		8.57		91.9		11.0		7.27		2.81		28.2	

Appendix J2

Summary of Exceedance Records

Summary of Investigation results of Exceedance of A/L Level for Water Quality Monitoring

Date	Station	Parameter	Exceedance	Investigation	Action
10 Oct 2023	D2a	Turbidity and Suspended Solids	Limit Level	There was heavy rainstorm on 9 and 10 Oct after typhoon. The water quality in the channel was deteriorated by runoff from the surrounding environment. It was concluded that the exceedances were not project related.	Since the exceedances were non-project related, increase monitoring frequency according to the requirement of Event and Action Plan is not required.
8 Jan 2024	M1a	Turbidity and Suspended Solids	Limit Level	Turbid water was observed flowing from upstream of work area and reaching M1a and there was no construction work carried out in the respective section of nullah, and no discharge made from construction sites associated with the Project. It is concluded that the exceedances were not related to the works under the Project.	Since the exceedances were non-project related, increase monitoring frequency according to the requirement of Event and Action Plan is not required, and corrective action is not required.
19 Jan 2024	M3	Turbidity and Suspended Solids	Limit Level	Contractor of C2 advised that no pre-drill works were conducted between monitoring M1a and M3 on 19 Jan 2024, but preparation works for temporary deck was conducted. Mitigation measures such as the sandbag barrier, steel plate cover along the active work areas were in place and no muddy runoff into the Yuen Long Nullah is observed. It is concluded that the exceedances were not related to the works under the Project.	Repeat measurement of in-situ parameter turbidity was conducted on 20 January 2024 and no exceedance was recorded. As the exceedances were concluded as non-Project related, corrective action is not required.
19 Feb 2024	D2a (Note: instead of M1a as typo made in monthly EM&A report of Feb 24 and Mar 24)	Turbidity and Suspended Solids	Limit Level	The Contractor of C3 advised that no piling works or pre-drilling works had been conducted along Shan Ha Road nullah. Welding works of H-pile, TTA and housekeeping of nullah were being conducted on that day along the nullah. Based on ET's site inspection on 22 Feb 2024, it is observed that no piling works or pre-drilling works was observed to be conducted along Shan Ha Road nullah, and there was no discharge made from the site of C3. It is considered that the exceedances were unlikely due the Project.	Since the exceedances were non-project related, increase monitoring frequency according to the requirement of Event and Action Plan is not required, and corrective action is not required.
18 Mar 2024	M2a	Turbidity and Suspended Solids	Limit Level	During the course of monitoring, it was observed that turbid water was flowing from the outfall of public drains and contaminated the water quality in the M2a. The Contractor subsequently carried out detailed investigation and identified the source of impact and confirmed that there were no construction works under YLS construction site at upstream of M2a. Therefore, it is concluded that the exceedances on 18 March 2024 were unlikely due to project.	Since the exceedances were non-project related, increase monitoring frequency according to the requirement of Event and Action Plan is not required, and corrective action is not required.
22 Apr 2024	M2a D2a	DO, Turbidity and Suspended Solids	Limit Level	During water quality monitoring conducted on 22 April 2024, no major construction works was conducted near M2a, and pre-drilling & piling works were conducted at Shan Ha Road Nullah which located at upstream of D2a. Weekly site inspection was carried out by ET and it was observed that water streams within works area were well maintained, with wastewater collected and treated by wastewater	Since the exceedances were non-project related, increase monitoring frequency according to the requirement of Event and Action Plan is not required, and corrective

				<p>treatment facilities before discharge. In addition, the work area at Shan Ha Road Nullah under Contract 3 was far from D2a and there was other active construction site located at upstream of D2a.</p> <p>According to the weather information from the Hong Kong Observatory, there were consecutive rainy days from 20 to 22 April 2024 with rainfall at 42.2mm, 81.6mm and 13.2mm respectively. This rainfall likely led to runoff from the surrounding environment, resulting in a deterioration of water quality in the channel or river course.</p>	action is not required.
24 Apr 2024	M2a M3 EIS-1a D5a D2a	DO, Turbidity and Suspended Solids	Limit Level	<p>During water quality monitoring conducted on 24 April 2024, it was observed that the water in the throughout the channel affected by rainfall, including control station, gradient station and impact station.</p> <p>There were no major construction works conducted near M2a, M3 & EIS-1a & D5a, and pre-drilling works, concrete breaking and earth works conducted at Shan Ha Road Nullah which located at upstream of D2a. Weekly site inspection was carried out by ET and it was observed that water streams within works area were well maintained, with wastewater collected and treated by wastewater treatment facilities before discharge. In addition, the work area at Shan Ha Road Nullah under Contract 3 was far from D2a and there was other active construction site located at upstream of D2a.</p> <p>According to the weather information from the Hong Kong Observatory, there were rainy day on 23 April 2024 with rainfall at 40.0mm. This rainfall likely led to runoff from the surrounding environment and affected the water quality on the next day (24 Apr), resulting in a deterioration of water quality in the channel or river course.</p>	Since the exceedances were non-project related, increase monitoring frequency according to the requirement of Event and Action Plan is not required, and corrective action is not required.
26 Apr 2024	M2a M3 EIS-1a D5a D2a	DO, Turbidity and Suspended Solids	Limit Level	<p>During water quality monitoring conducted on 26 April 2024, it was observed that the water in the throughout the channel affected by rainfall, including control station, gradient station and impact station.</p> <p>There were no major construction works conducted near M2a, M3 & EIS-1a & D5a, and pre-drilling works and bored piling works were conducted at Shan Ha Road Nullah which located at upstream of D2a. Weekly site inspection was carried out by ET and it was observed that water streams within works area were well maintained, with wastewater collected and treated by wastewater treatment facilities before discharge. In addition, the work area at Shan Ha Road Nullah under Contract 3 was far from D2a and there was other active construction site located at upstream of D2a.</p>	Since the exceedances were non-project related, increase monitoring frequency according to the requirement of Event and Action Plan is not required, and corrective action is not required.

				<p>According to the weather information from the Hong Kong Observatory, there were heavy rainfall on 26 April 2024 with rainfall at 25.0mm. This rainfall likely led to runoff from the surrounding environment, resulting in a deterioration of water quality in the channel or river course.</p>	
4 May 2024	M2a M3 EIS-1a M7a D5a D2a	DO, Turbidity and Suspended Solids	Limit Level	<p>During water quality monitoring conducted on 4 May 2024, it was observed that the water in the throughout the channel affected by rainfall, including control station, gradient station and impact station.</p> <p>There were no major construction works conducted near M2a, M3, EIS-1a, M7a & D5a and pre-drilling works, concrete breaking and earth works conducted at Shan Ha Road Nullah which located at upstream of D2a. Weekly site inspection was carried out by ET and it was observed that water streams within works area were well maintained, with wastewater collected and treated by wastewater treatment facilities before discharge.</p> <p>According to the weather information from the Hong Kong Observatory, there were heavy rainstorm on 4 May 2024 with rainfall at 75.1mm. This rainfall likely led to runoff from the surrounding environment, resulting in a deterioration of water quality in the channel or river course.</p>	<p>Since the exceedances were non-project related, increase monitoring frequency according to the requirement of Event and Action Plan is not required, and corrective action is not required.</p>
21 May 2024	M1a M2a M3 EIS-1a M7a D5a D2a	DO, Turbidity and Suspended Solids	Limit Level	<p>During water quality monitoring conducted on 21 May 2024, it was observed that the water in the throughout the channel affected by rainfall, including control station, gradient station and impact station.</p> <p>There were no major construction works conducted near M1a, M2a, M3, EIS-1a, M7a & D5a, and pre-drilling works, concrete breaking and earth works conducted at Shan Ha Road Nullah which located at upstream of D2a. Weekly site inspection was carried out by ET and it was observed that water streams within works area were well maintained, with wastewater collected and treated by wastewater treatment facilities before discharge.</p> <p>According to the weather information from the Hong Kong Observatory, there were rainy day on 21 May 2024 with rainfall at 45.3mm. This rainfall likely led to runoff from the surrounding environment, resulting in a deterioration of water quality in the channel or river course.</p>	<p>Since the exceedances were non-project related, increase monitoring frequency according to the requirement of Event and Action Plan is not required, and corrective action is not required.</p>
17 July 2024	M3 EIS-1a D2a	Turbidity and Suspended Solids	Limit Level	<p>During water quality monitoring conducted on 17 July 2024, it was observed that the water in the throughout the channel affected by rainfall, including control station, gradient station and impact station.</p> <p>There were no major construction works conducted near M3, EIS-1a, D2a and</p>	<p>Since the exceedances were non-project related, increase monitoring frequency according to the requirement of Event and Action Plan is not</p>

				<p>pre-drilling works, concrete breaking and earth works conducted at Shan Ha Road Nullah which located at upstream of D2a. Weekly site inspection was carried out by ET and it was observed that water streams within works area were well maintained, with wastewater collected and treated by wastewater treatment facilities before discharge.</p> <p>According to the weather information from the Hong Kong Observatory, there were heavy rainstorm on 17 July 2024 with rainfall at 13.7 mm. This rainfall likely led to runoff from the surrounding environment, resulting in a deterioration of water quality in the channel or river course.</p>	required, and corrective action is not required.
19 July 2024	M2a M3 EIS-1a D2a	Turbidity and Suspended Solids	Limit Level	<p>During water quality monitoring conducted on 19 July 2024, it was observed that the water in the throughout the channel affected by rainfall, including control station, gradient station and impact station.</p> <p>There were no major construction works conducted near M2a, M3, EIS-1a, D2a and pre-drilling works, concrete breaking and earth works conducted at Shan Ha Road Nullah which located at upstream of D2a. Weekly site inspection was carried out by ET and it was observed that water streams within works area were well maintained, with wastewater collected and treated by wastewater treatment facilities before discharge.</p> <p>According to the weather information from the Hong Kong Observatory, there were heavy rainstorm on 19 July 2024 with rainfall at 40.5 mm. This rainfall likely led to runoff from the surrounding environment, resulting in a deterioration of water quality in the channel or river course.</p>	Since the exceedances were non-project related, increase monitoring frequency according to the requirement of Event and Action Plan is not required, and corrective action is not required.
31 July 2024	M2a M3 EIS-1a D5a D2a	Turbidity and Suspended Solids	Limit Level	<p>During water quality monitoring conducted on 31 July 2024, it was observed that the water in the throughout the channel affected by rainfall, including control station, gradient station and impact station.</p> <p>There were no major construction works conducted near M2a, M3, EIS-1a, D2a and pre-drilling works, concrete breaking and earth works conducted at Shan Ha Road Nullah which located at upstream of D2a. Weekly site inspection was carried out by ET and it was observed that water streams within works area were well maintained, with wastewater collected and treated by wastewater treatment facilities before discharge.</p> <p>According to the weather information from the Hong Kong Observatory, there were heavy rainstorm on 31 July 2024 with rainfall at 48.2 mm and Amber Rainstorm Warning Signal. This rainfall likely led to runoff from the surrounding environment, resulting in a deterioration of water quality in the channel or river course.</p>	Since the exceedances were non-project related, increase monitoring frequency according to the requirement of Event and Action Plan is not required, and corrective action is not required.
14 August	M2a, M3 and	Turbidity and	Limit Level	<p>During water quality monitoring conducted on 14 August 2024, turbid water was observed at</p>	Since the exceedances

2024	D2a	Suspended Solids		<p>M3 and its upstream station U1b, and D2a and its upstream station M5a.</p> <p>There were no major construction works conducted near M2a, M3 and pre-drilling works, concrete breaking and earth works conducted at Shan Ha Road Nullah which located at upstream of D2a. Weekly site inspection was carried out by ET and it was observed that water streams within works area were well maintained, with wastewater collected and treated by wastewater treatment facilities before discharge.</p> <p>The Contractor was reminded continually fully implement the water mitigation measures as recommended in the implementation schedule for environmental mitigation measures in the EM&A Manual.</p>	were non-project related, increase monitoring frequency according to the requirement of Event and Action Plan is not required, and corrective action is not required.
23 August 2024	M3, EIS-1a and D2a	Turbidity	Limit Level	<p>During water quality monitoring conducted on 23 August 2024 turbid water were observed at M3, EIS-1a and D2a.</p> <p>There were no major construction works conducted near EIS-1a and M3. Pre-drilling works, concrete breaking and earth works conducted at Shan Ha Road Nullah which located at upstream of D2a. Weekly site inspection was carried out by ET and it was observed that water streams within works area were well maintained, with wastewater collected and treated by wastewater treatment facilities before discharge.</p> <p>The Contractor was reminded continually fully implement the water mitigation measures as recommended in the implementation schedule for environmental mitigation measures in the EM&A Manual.</p>	Since the exceedances were non-project related, increase monitoring frequency according to the requirement of Event and Action Plan is not required, and corrective action is not required.
28 August 2024	D2a	Turbidity and Suspended Solids	Limit Level	<p>During water quality monitoring conducted on 28 August 2024, turbid water was observed at D2a.</p> <p>Pre-drilling works, concrete breaking and earth works conducted at Shan Ha Road Nullah which located at upstream of D2a. Weekly site inspection was carried out by ET and it was observed that water streams within works area were well maintained, with wastewater collected and treated by wastewater treatment facilities before discharge.</p> <p>The Contractor was reminded continually fully implement the water mitigation measures as recommended in the implementation schedule for environmental mitigation measures in the EM&A Manual.</p>	Since the exceedances were non-project related, increase monitoring frequency according to the requirement of Event and Action Plan is not required, and corrective action is not required.
2 nd September 2024	M3 and D2a	Turbidity	Limit Level	<p>During water quality monitoring conducted on 2 September 2024, it was observed that the turbid water were observed at M3 and D2a.</p> <p>There were no construction works conducted adjacent to M3 and D2a. It is considered the exceedances were related to other source along the Nullah.</p>	Since the exceedances were non-project related, increase monitoring frequency according to the requirement of Event and Action Plan is not required, and corrective action is not required.

				<p>The Contractor was reminded continually fully implement the water mitigation measures as recommended in the implementation schedule for environmental mitigation measures in the EM&A Manual.</p>	
4 th September 2024	EIS-1a and D2a	Turbidity	Limit Level	<p>During water quality monitoring conducted on 4 September 2024, slightly turbid water were observed at EIS-1a and D2a.</p> <p>There were no construction works conducted adjacent to EIS-1a and D2a. It is considered the exceedances were related to other source along the Nullah.</p> <p>The Contractor was reminded continually fully implement the water mitigation measures as recommended in the implementation schedule for environmental mitigation measures in the EM&A Manual.</p>	<p>Since the exceedances were non-project related, increase monitoring frequency according to the requirement of Event and Action Plan is not required, and corrective action is not required.</p>
6 th September 2024	EIS-1a, M3, M7a, D2a and D5a	Turbidity	Limit Level	<p>During water quality monitoring conducted on 6 September 2024, it was observed that the water throughout the channel were affected by rainfall and typhoon, including control station, gradient station and impact station.</p> <p>According to the weather information from the Hong Kong Observatory, Signal No. 8 was hoisted during the morning and brought a total of rainfall at 84.1mm on 6 September 2024. This rainfall likely led to runoff from the surrounding environment, resulting in a deterioration of water quality in the channel or river course. Elevated turbidity levels were also observed at control / upstream station. It is considered that the exceedances were likely related to the rainstorm.</p> <p>The Contractor was reminded continually fully implement the water mitigation measures as recommended in the implementation schedule for environmental mitigation measures in the EM&A Manual.</p>	<p>Since the exceedances were non-project related, increase monitoring frequency according to the requirement of Event and Action Plan is not required, and corrective action is not required.</p>
13 th September 2024	M2a and D2a	Turbidity	Limit Level	<p>During water quality monitoring conducted on 13 September 2024, it was observed that the turbid water were observed at M2a and D2a. (refer to Photo Record)</p> <p>There were no construction works conducted adjacent to M2a and D2a. It is considered the exceedances were related to other source along the Nullah.</p> <p>The Contractor was reminded continually fully implement the water mitigation measures as recommended in the implementation schedule for environmental mitigation measures in the EM&A Manual.</p>	<p>Since the exceedances were non-project related, increase monitoring frequency according to the requirement of Event and Action Plan is not required, and corrective action is not required.</p>
21 st September 2024	M2a, M3, EIS-1a, M7a,	Turbidity	Limit Level and Action Level	<p>During water quality monitoring conducted on 21 September 2024, it was observed that the water in the throughout the channel affected by</p>	<p>Since the exceedances were non-project related, increase monitoring</p>

	D5a and D2a			<p>rainfall, including control station, gradient station and impact station.</p> <p>According to the weather information from the Hong Kong Observatory, here were heavy rainstorm on 21 September 2024 with total rainfall of 72.9mm and Red Rainstorm Warning Signal was issued during the morning. This rainfall likely led to runoff from the surrounding environment, resulting in a deterioration of water quality in the channel or river course. Elevated Turbidity levels were also observed at Control / upstream station.</p> <p>The Contractor was reminded continually fully implement the water mitigation measures as recommended in the implementation schedule for environmental mitigation measures in the EM&A Manual.</p>	<p>frequency according to the requirement of Event and Action Plan is not required, and corrective action is not required.</p>
23 rd September 2024	M2a, M3, EIS-1a, M7a, D5a and D2a	Turbidity	Limit Level	<p>During water quality monitoring conducted on 23 September 2024, it was observed that the water in the throughout the channel affected by rainfall, including control station, gradient station and impact station.</p> <p>According to the weather information from the Hong Kong Observatory, here were heavy rainstorm on 23 September 2024 with total rainfall of 24.9mm. This rainfall likely led to runoff from the surrounding environment, resulting in a deterioration of water quality in the channel or river course. Elevated Turbidity levels were also observed at Control / upstream station.</p> <p>The Contractor was reminded continually fully implement the water mitigation measures as recommended in the implementation schedule for environmental mitigation measures in the EM&A Manual.</p>	<p>Since the exceedances were non-project related, increase monitoring frequency according to the requirement of Event and Action Plan is not required, and corrective action is not required.</p>
25 th September 2024	M2a, M3, EIS-1a, M7a, D5a and D2a	Turbidity	Limit Level	<p>During water quality monitoring conducted on 25 September 2024, it was observed that the water in the throughout the channel affected by rainfall, including control station, gradient station and impact station.</p> <p>According to the weather information from the Hong Kong Observatory, there were consecutive rainy days from 21 to 25 September 2024. This rainfall likely led to runoff from the surrounding environment, resulting in a deterioration of water quality in the channel or river course. Elevated Turbidity levels were also observed at Control / upstream station.</p>	<p>Since the exceedances were non-project related, increase monitoring frequency according to the requirement of Event and Action Plan is not required, and corrective action is not required.</p>

				<p>The Contractor was reminded continually fully implement the water mitigation measures as recommended in the implementation schedule for environmental mitigation measures in the EM&A Manual.</p>	
25 th October 2024	D2a	Turbidity	Limit Level	<p>During water quality monitoring conducted on 25 October 2024, the turbid water were observed at D2a.</p> <p>Investigation revealed that no major construction activities were conducted near the monitoring stations of D2a. Weekly site inspection was carried out by ET at the works area near the D2a on 24 October 2024 and it was observed that water streams within works area were well maintained, with wastewater collected and treated by wastewater treatment.</p> <p>There were no construction works conducted adjacent to D2a. It is considered the exceedances were related to other source along the Nullah.</p> <p>The Contractor was reminded continually fully implement the water mitigation measures as recommended in the implementation schedule for environmental mitigation measures in the EM&A Manual.</p>	<p>Since the exceedances were non-project related, increase monitoring frequency according to the requirement of Event and Action Plan is not required, and corrective action is not required.</p>
20 th November 2024	M6a, M5a, D2a	Turbidity	Limit Level and Action Level	<p>During water quality monitoring conducted on 20 November 2024, it was observed that the water in the throughout the channel affected by rainfall, including control station and impact station.</p> <p>According to the weather information from the Hong Kong Observatory, there were heavy rainstorm on 20 November 2024 with total rainfall of 73.8mm. This rainfall likely led to runoff from the surrounding environment, resulting in a deterioration of water quality in the channel or river course. Elevated Turbidity levels were also observed at Control / upstream station.</p> <p>The Contractor was reminded continually fully implement the water mitigation measures as recommended in the implementation schedule for environmental mitigation measures in the EM&A Manual.</p>	<p>Since the exceedances were non-project related, increase monitoring frequency according to the requirement of Event and Action Plan is not required, and corrective action is not required.</p>
28 th November 2024	M3	Turbidity	Limit Level	<p>During water quality monitoring conducted on 28 November 2024, turbid water was observed at Impact Station M3. Repeat measurement of turbidity was conducted on 29 November 2024 and no exceedance was recorded.</p> <p>It was observed that a broken sewage pipe was carried out at upstream of M3. This incident is likely the sewage runoff from the broken sewage pipe, resulting in a deterioration of water quality in the channel or river course.</p> <p>The Contractor was reminded to continually fully implement the water mitigation measures</p>	<p>For the above investigation, the exceedance was concluded as project related. Repeat measurement of turbidity was conducted on 29 November 2024. Relevant sewage pump was switch off and the repair the broken pipe.</p>

				as recommended in the implementation schedule for environmental mitigation measures in the EM&A Manual.	The water streams within works area were well maintained, with wastewater collected and treated by wastewater treatment.
16 th Decemb er 2024	M2a	Turbidity	Limit Level	<p>During water quality monitoring conducted on 16 December 2024, turbid water was observed at M2a. Repeat measurement of turbidity was conducted on 17 December 2024 and no exceedance was recorded.</p> <p>Joint site inspection among the IEC and ET was carried out 16 December 2024 for the exceedance investigation. Investigation revealed that no construction activities were conducted near the monitoring station of M2a. It was observed that water streams within works area were well maintained, with wastewater collected and treated by wastewater treatment.</p> <p>The Contractor was reminded to continually fully implement the water mitigation measures as recommended in the implementation schedule for environmental mitigation measures in the EM&A Manual.</p>	Since the exceedances were non-project related, increase monitoring frequency according to the requirement of Event and Action Plan is not required, and corrective action is not required.
2 nd January 2025	D2a	Turbidity and Suspended Solid (SS)	Level Limit	<p>During water quality monitoring conducted on 2 January 2025, turbid water was observed at D2a. Repeat measurement of turbidity was conducted on 3 January 2025 and no exceedance was recorded.</p> <p>It was observed that a mud bund collapsed was carried out at upstream of D2a. The mud bund is used to store wastewater generated by piling work before pumped to water treatment facilities. This incident is likely caused the muddy water overflow from the collapsed mud bund, resulting in a deterioration of water quality in the channel or river course.</p> <p>The Contractor was reminded to continually fully implement the water mitigation measures as recommended in the implementation schedule for environmental mitigation measures in the EM&A Manual.</p>	For the above investigation, the exceedance was concluded as project related. Repeat measurement of turbidity was conducted on 3 rd January 2025. From the Contract 3 current piling area, by-pass pipeline with pump was set up to divert upstream water directly to downstream and temporary and extraneous sandbags, WetSep and sedimentation tanks was equipped for further wastewater treatment.

Cumulative Action/ Limit Level Exceedance for Water Quality

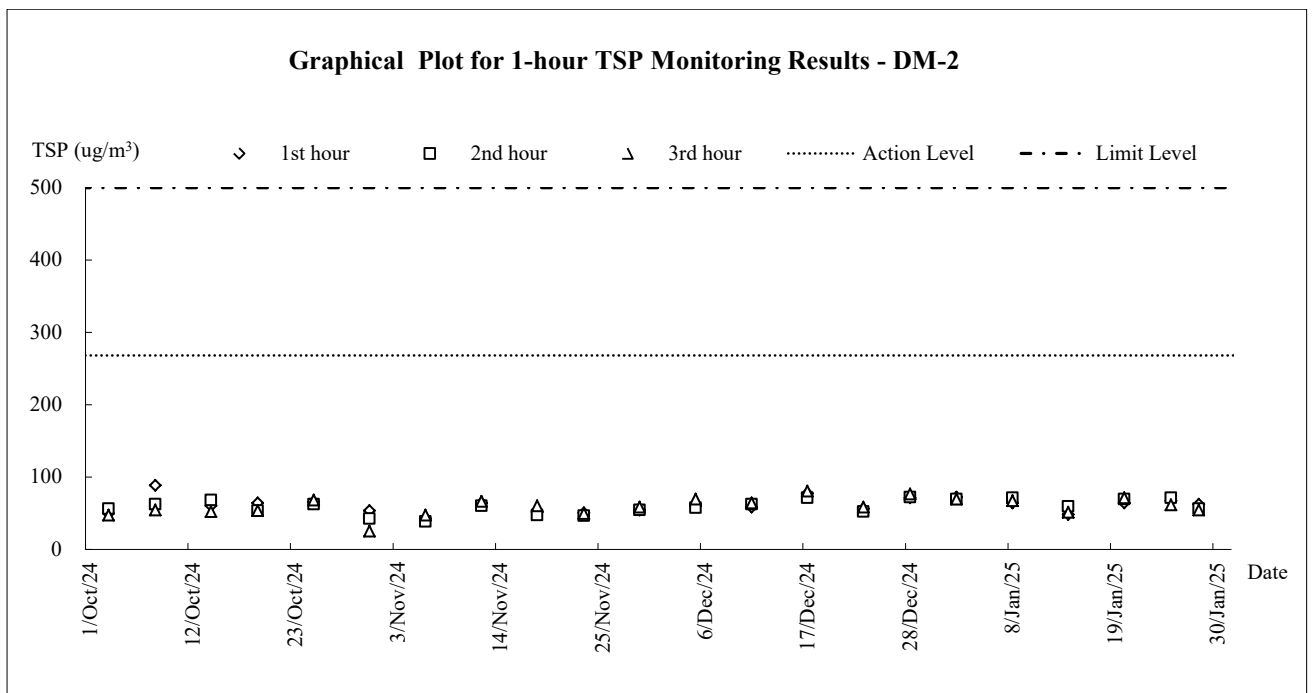
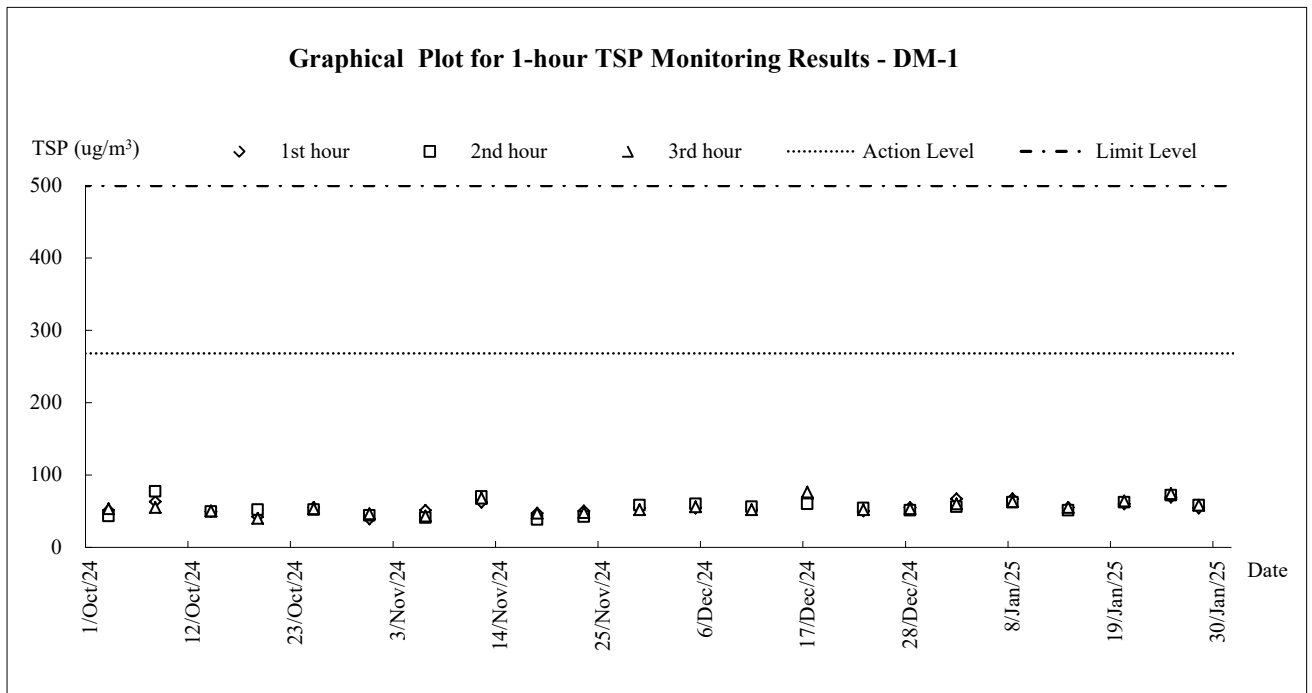
Location	Dissolved Oxygen		Turbidity		Suspended Solids		Non-project related Exceedance		Project Related Exceedance	
	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL
M1a	0	0	0	2	0	2	0	4	0	0
M2a	0	3	1	13	0	11	1	27	0	0
M3	0	0	1	15	0	16	1	30	0	1
M4	0	0	0	0	0	0	0	0	0	0
EIS-1a	0	1	0	13	3	10	3	24	0	0
D2a	0	2	0	22	4	5	4	27	0	2
M7a	0	0	0	6	0	6	0	12	0	0
D5a	0	1	0	9	0	6	0	16	0	0
No of Exceedance	0	7	2	80	7	56	9	140	0	3

Remark: Cumulative Action/ Limit Level Exceedance for Water Quality from January 2024

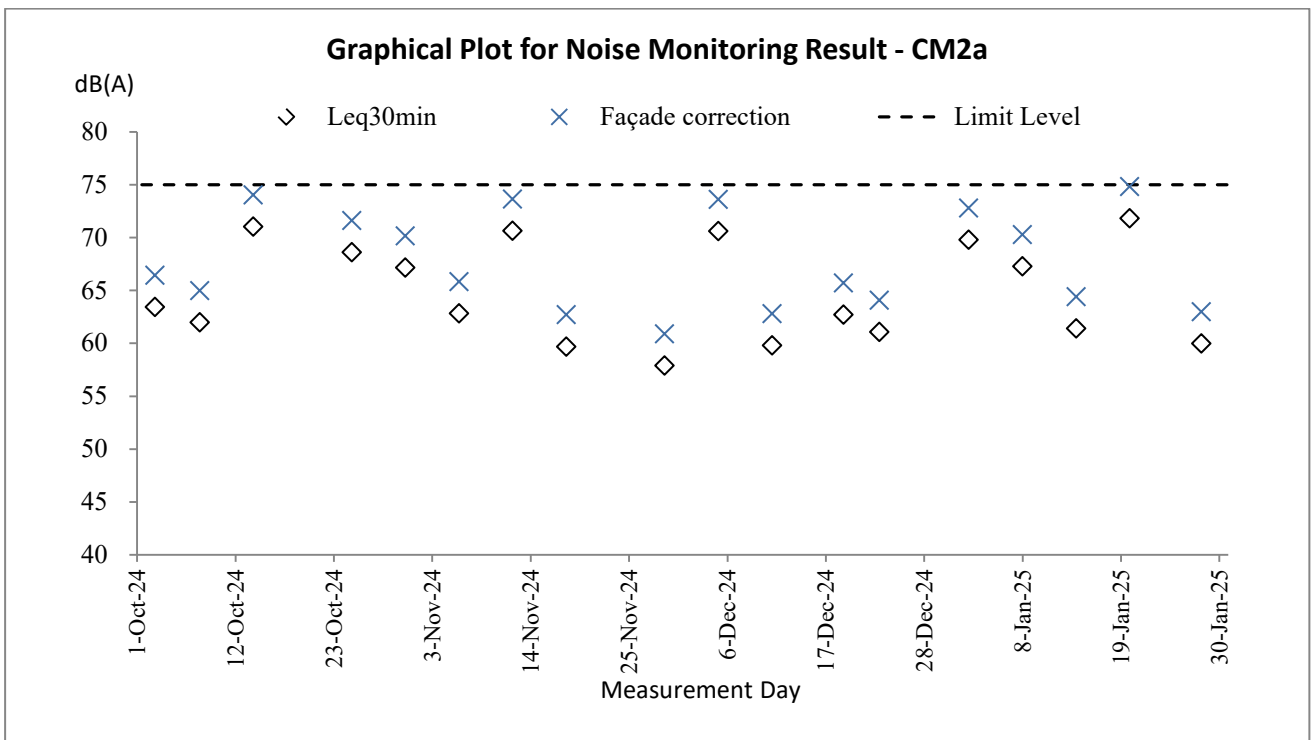
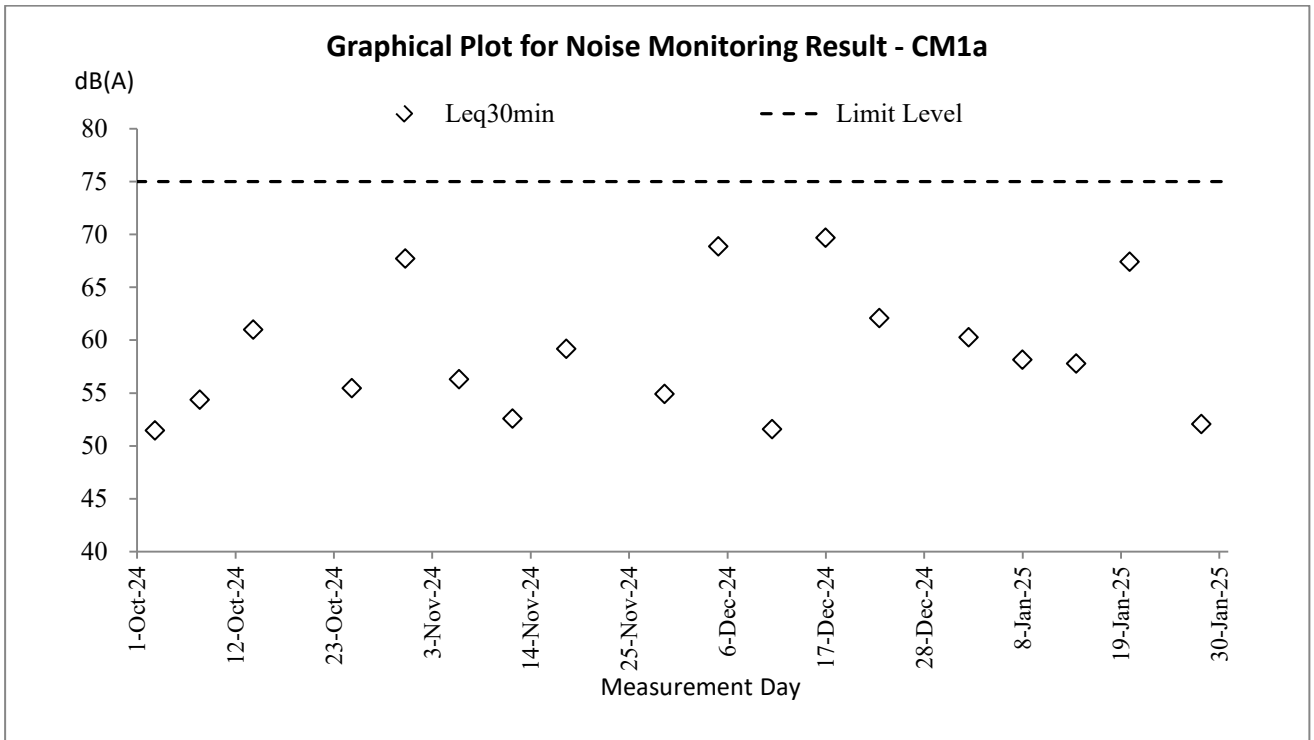
Appendix K

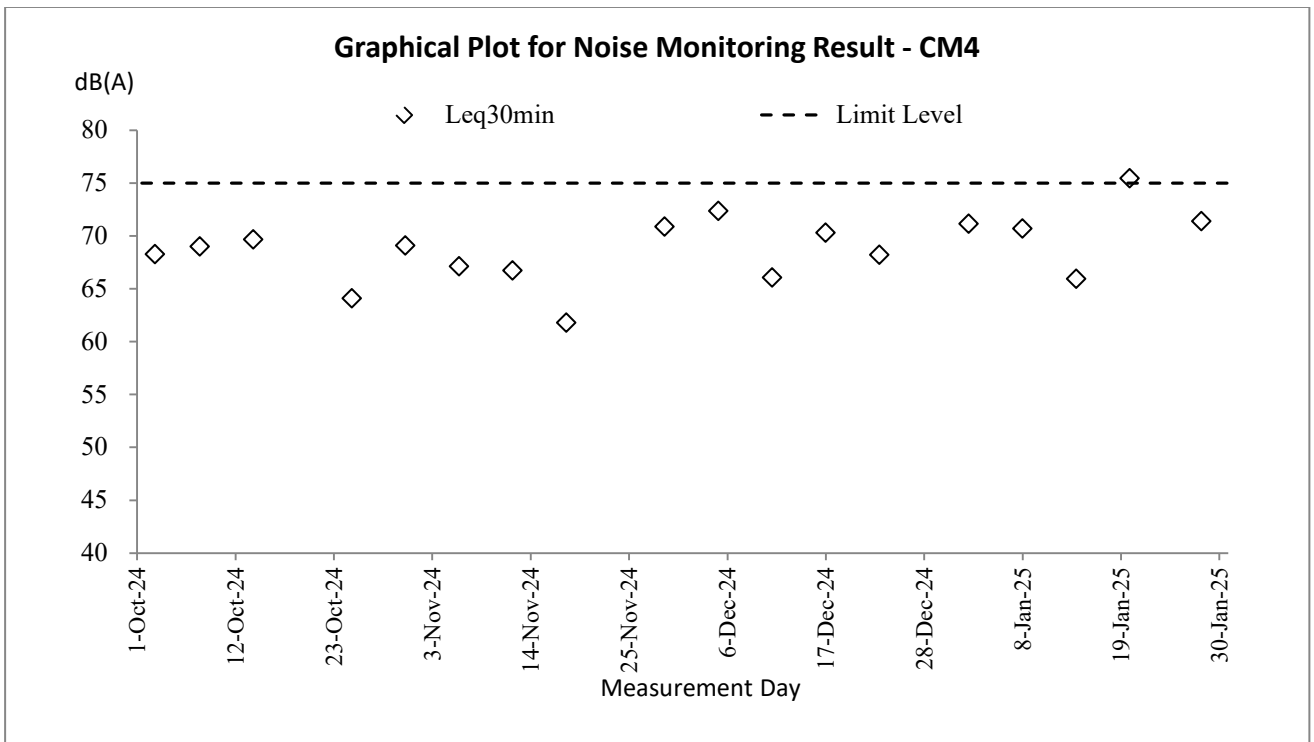
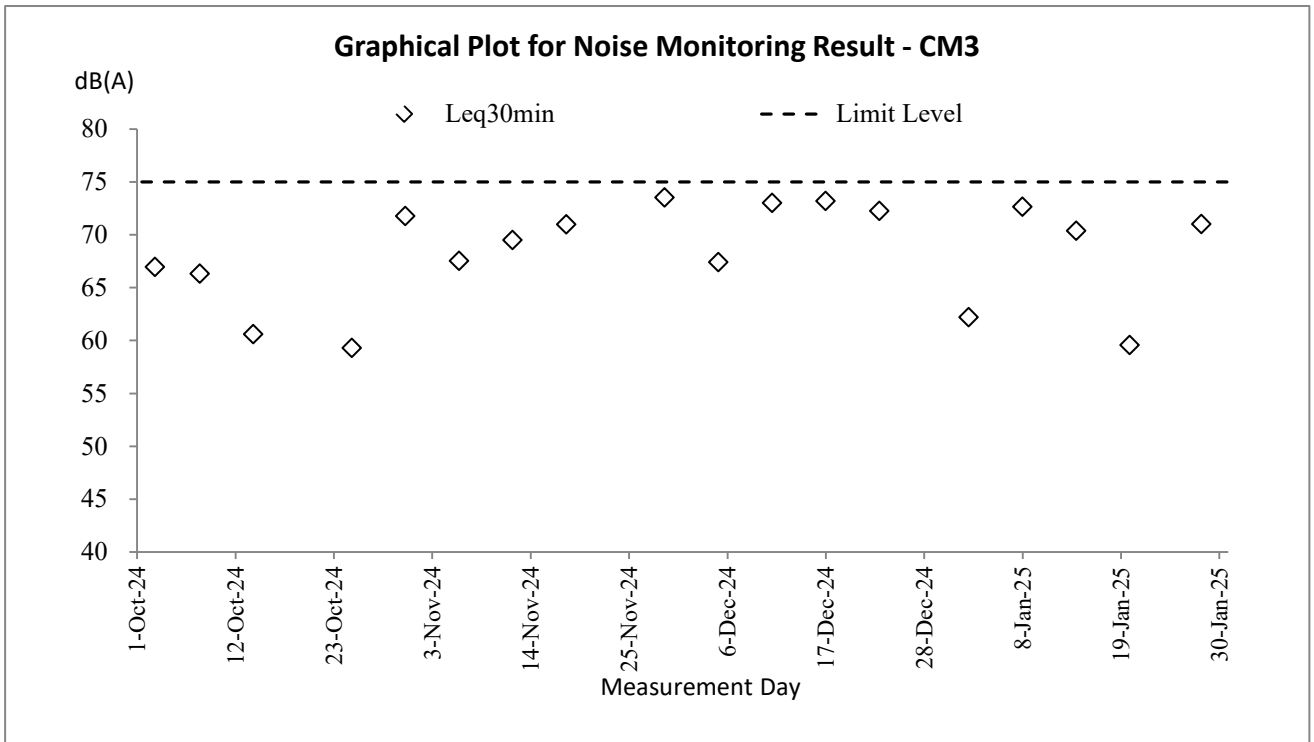
Graphical Plots for Monitoring Result

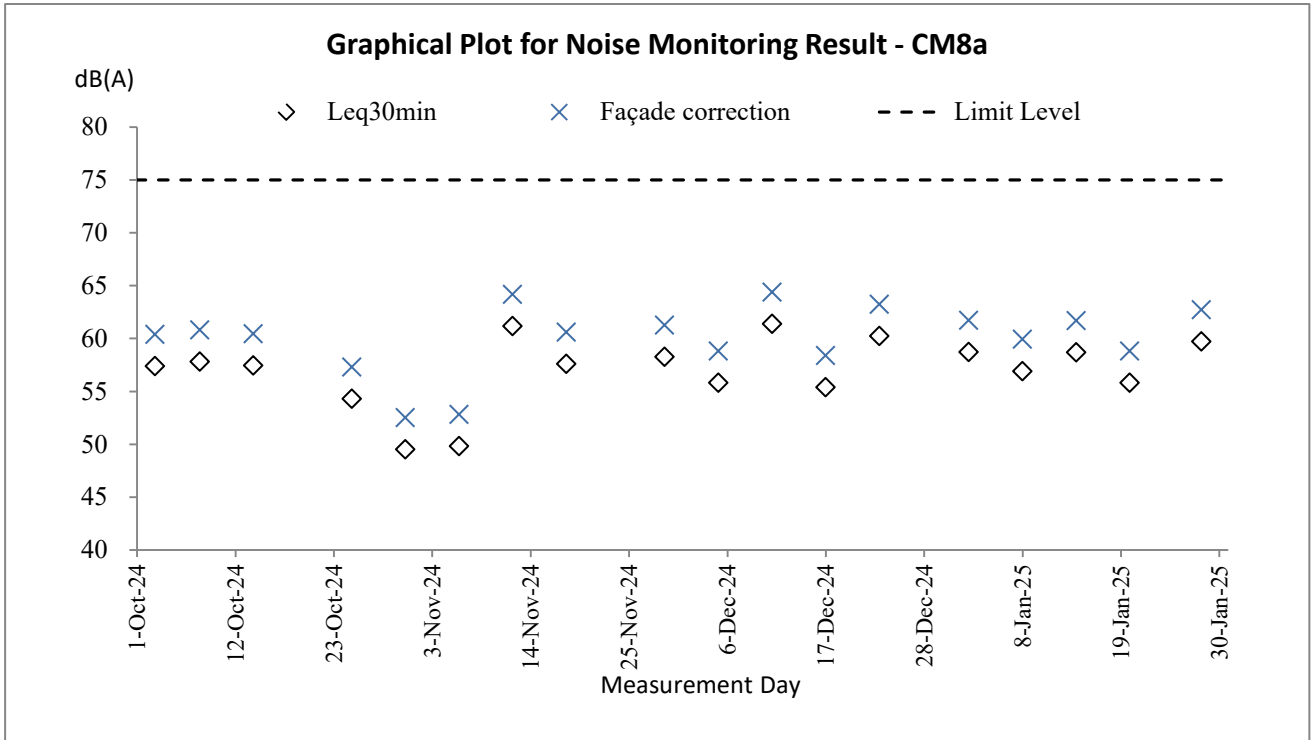
Air Quality – 1-hour TSP



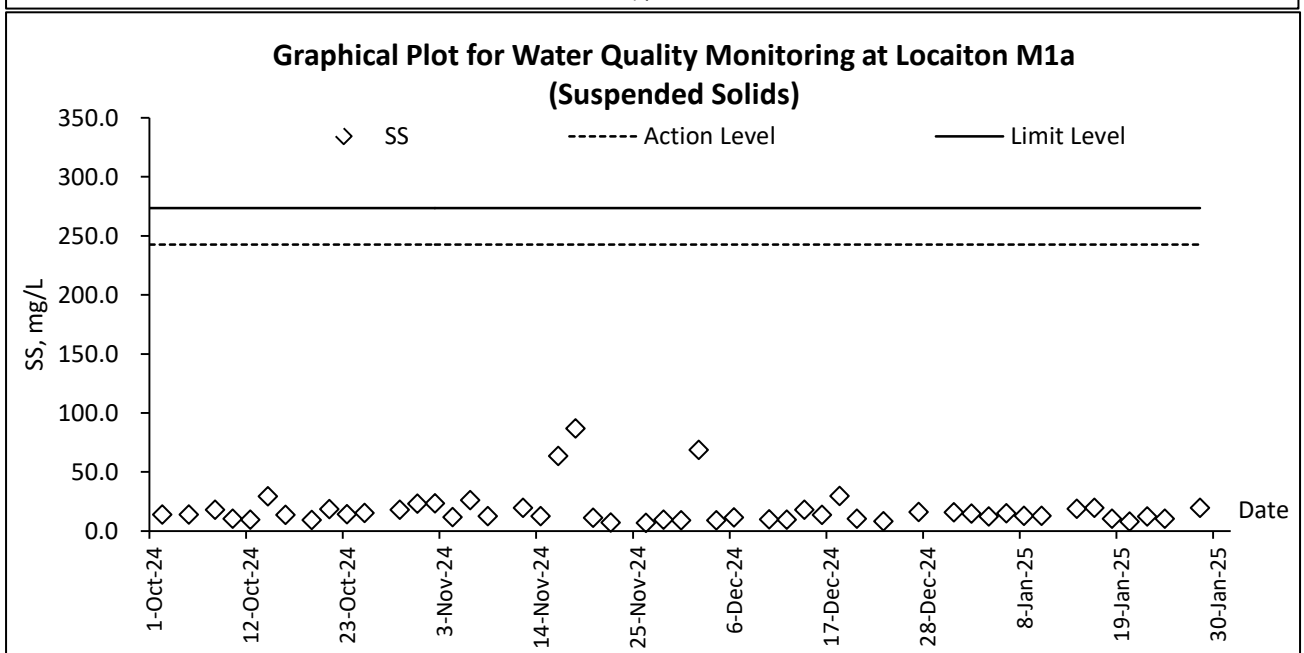
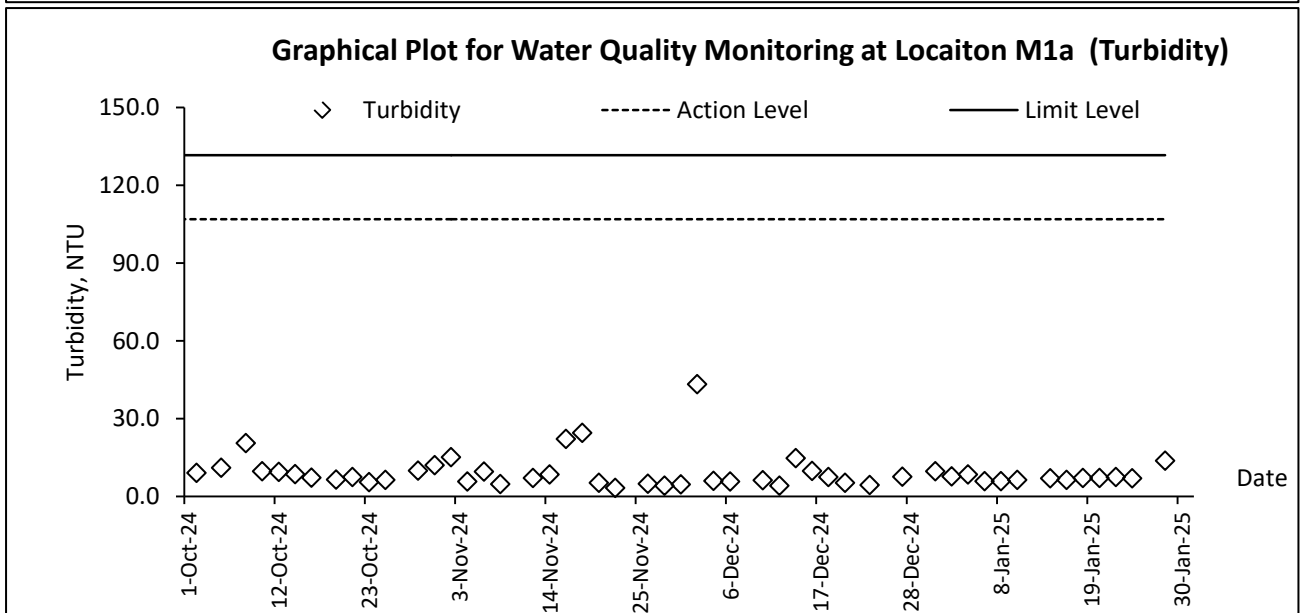
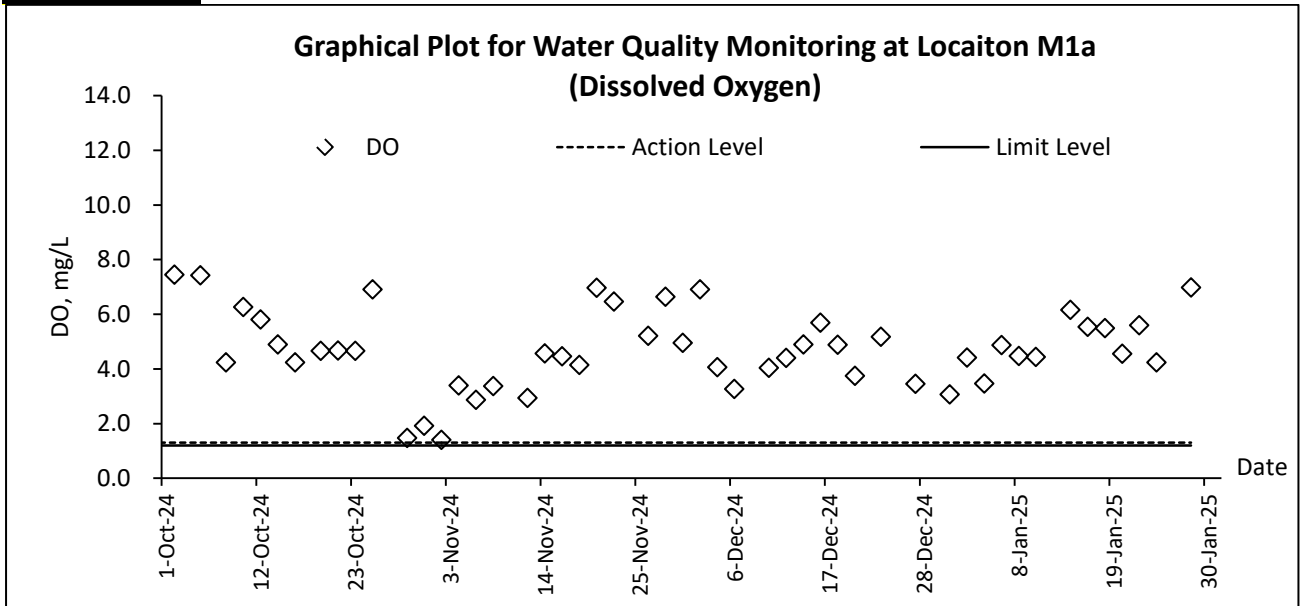
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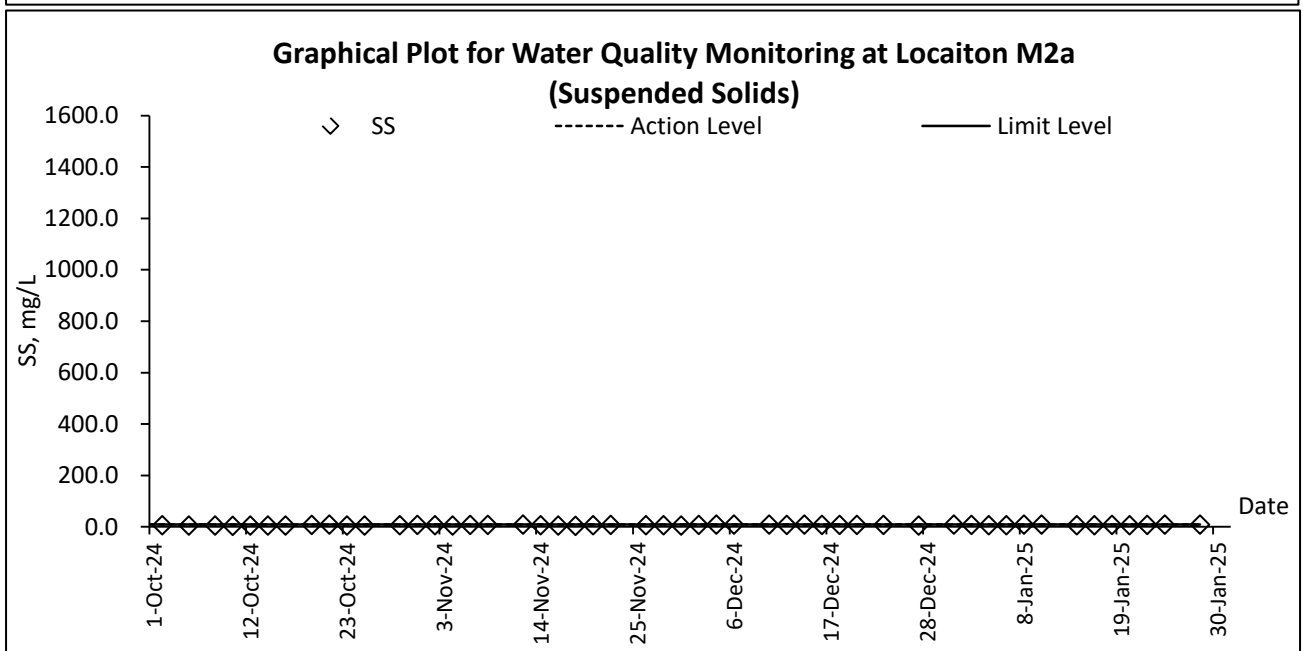
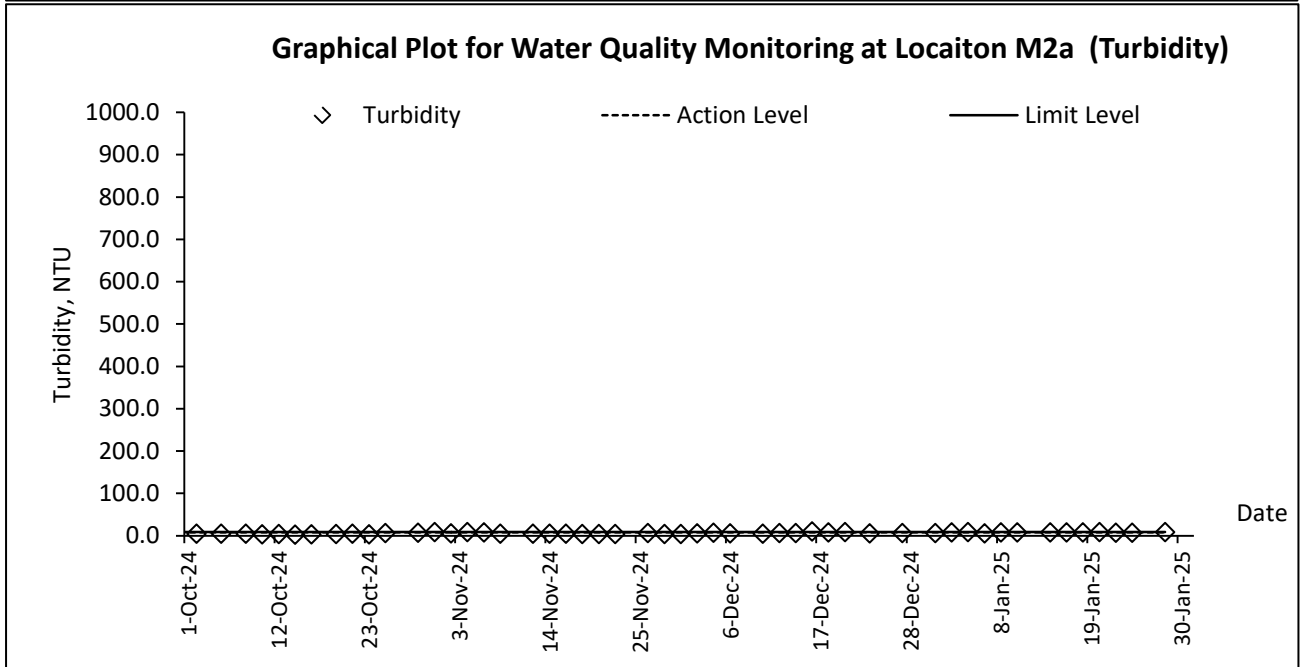
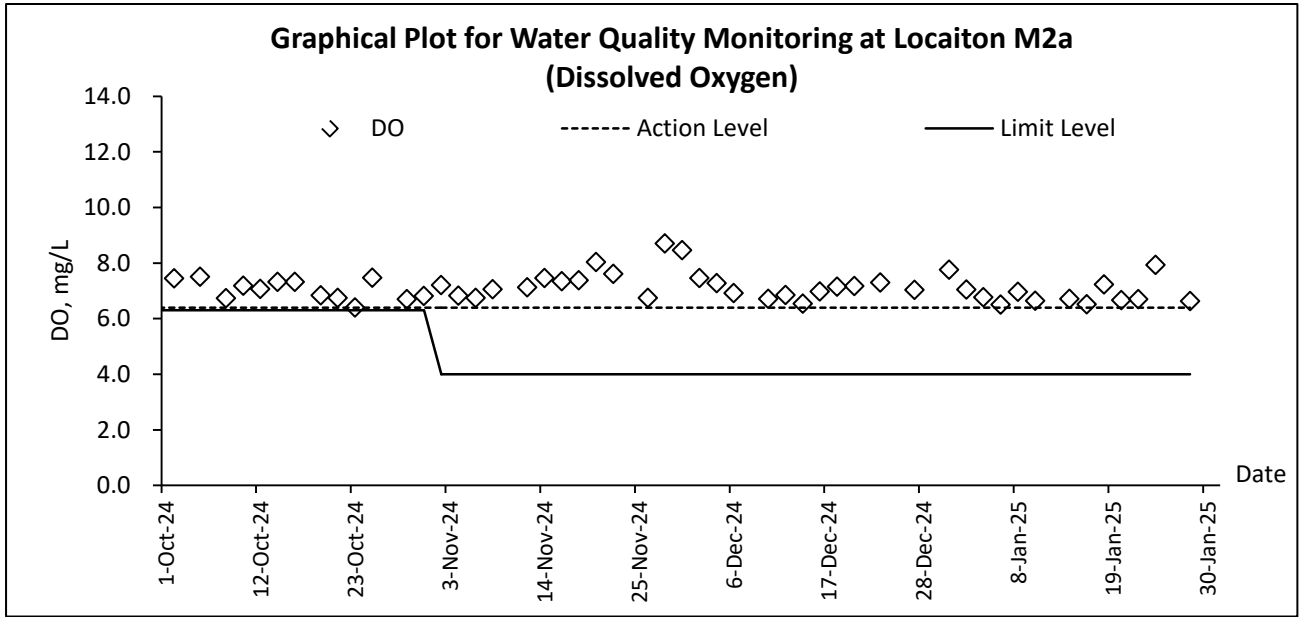


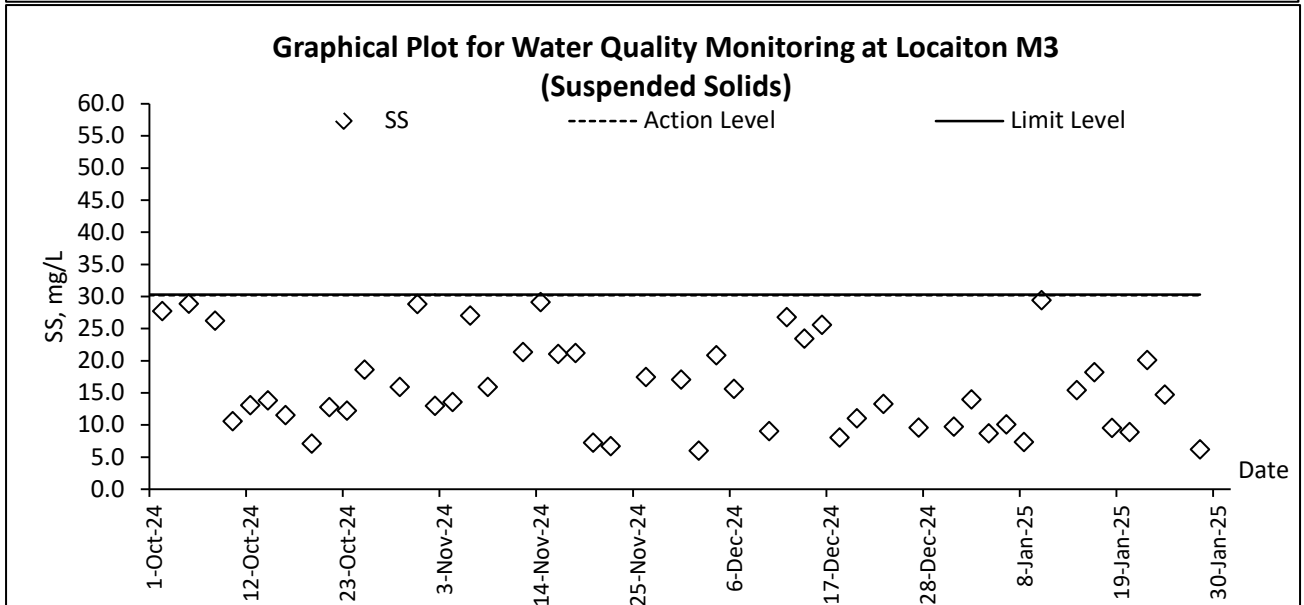
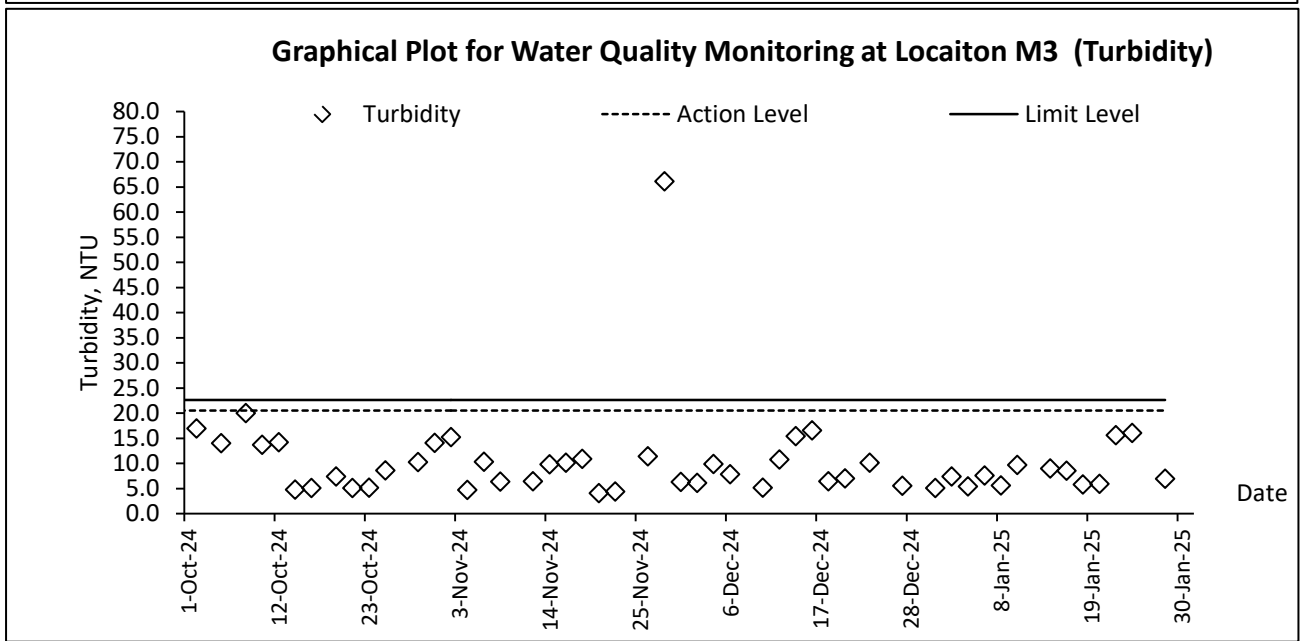
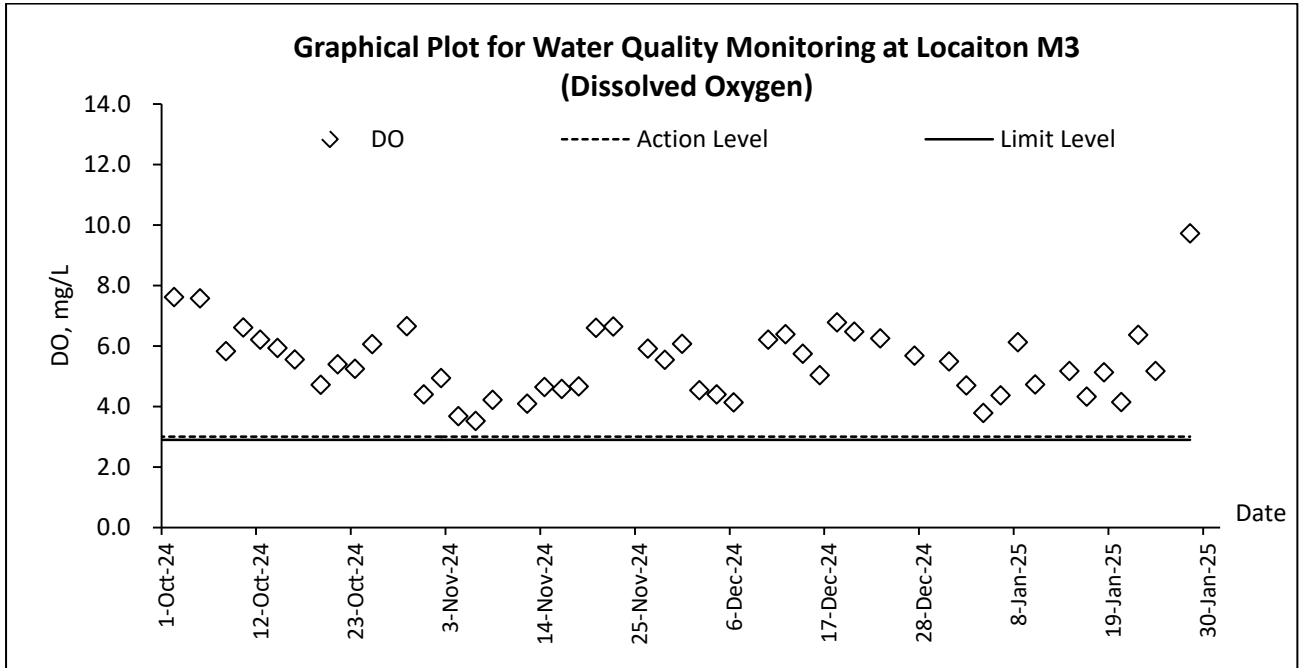


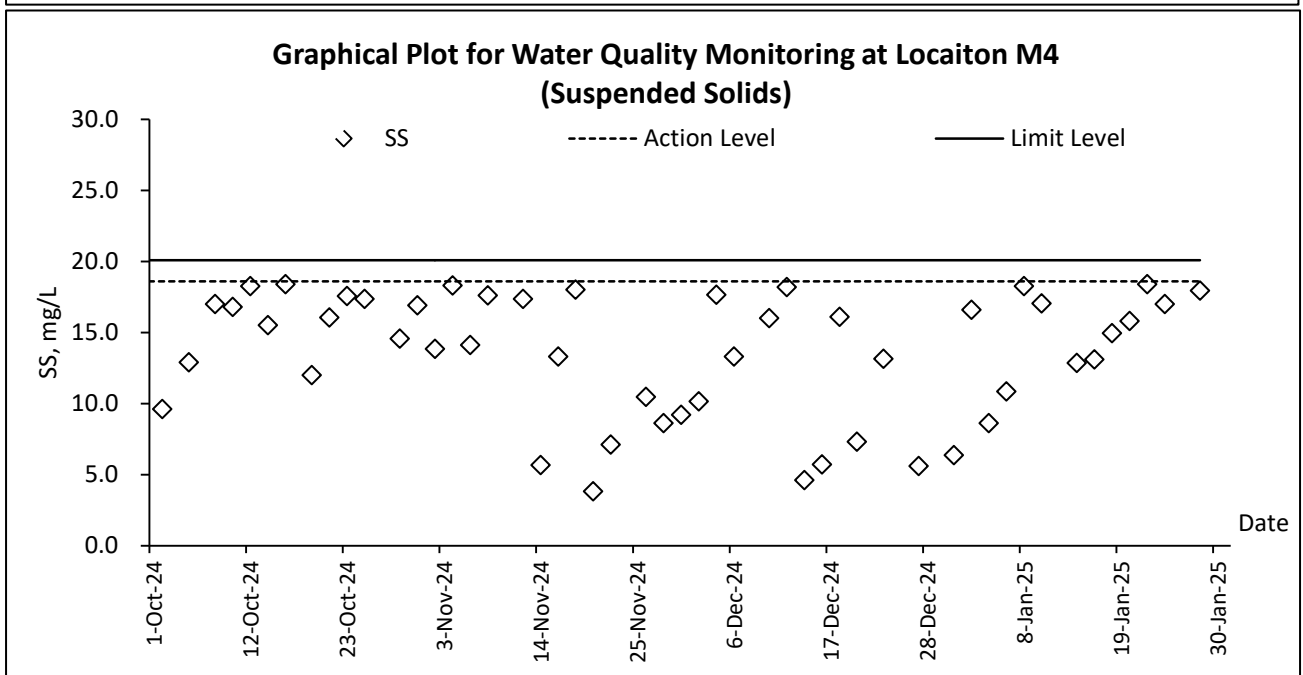
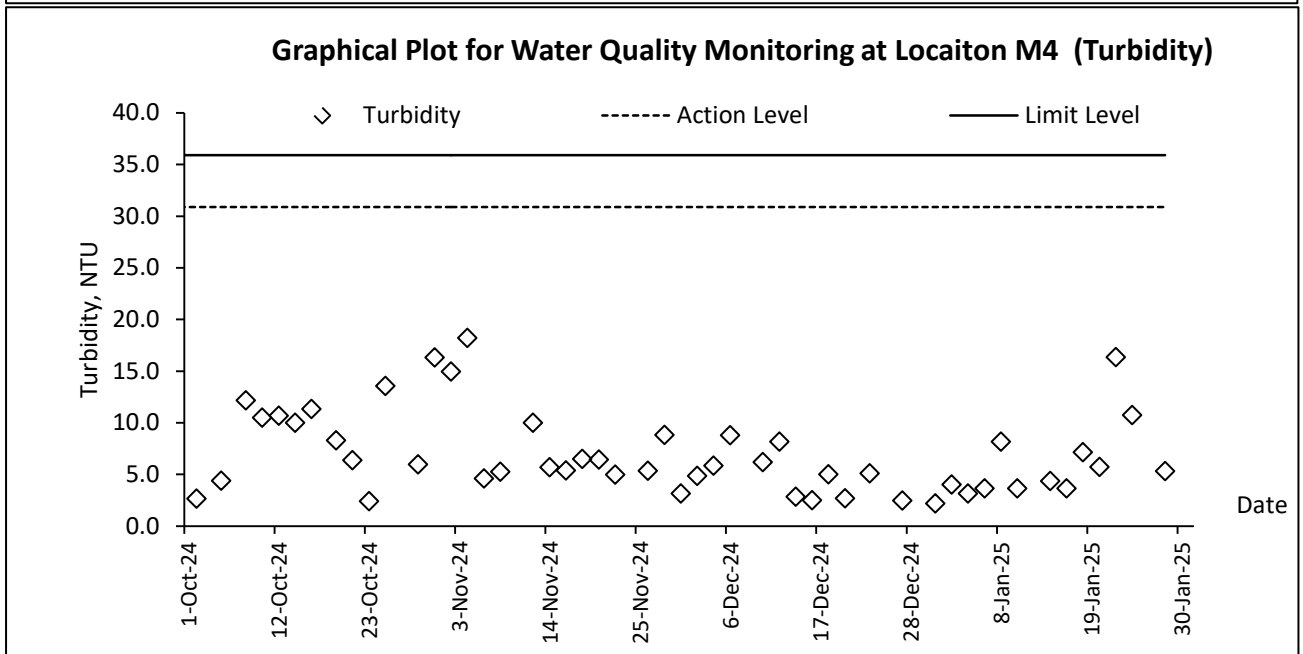
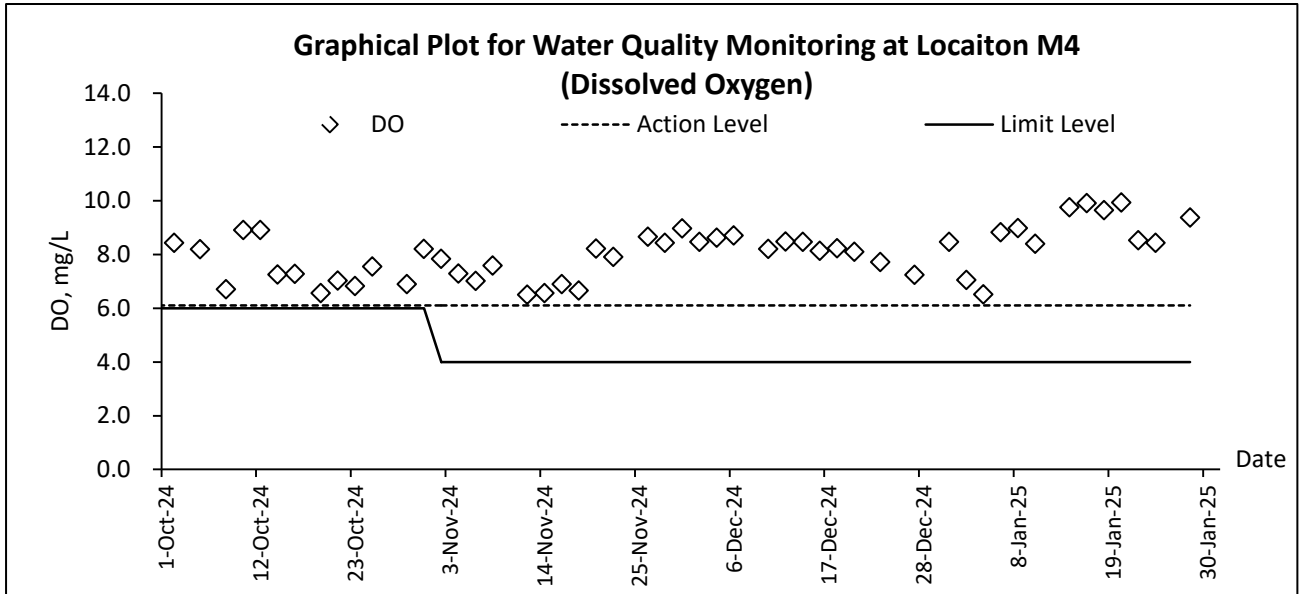


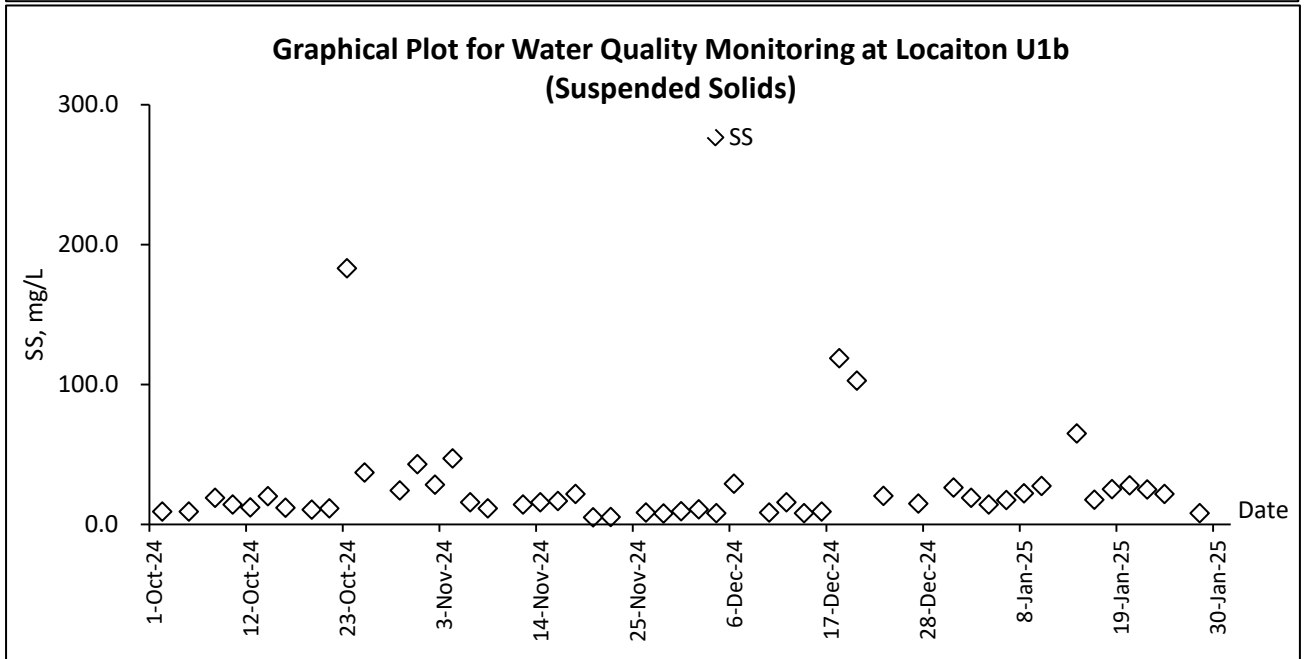
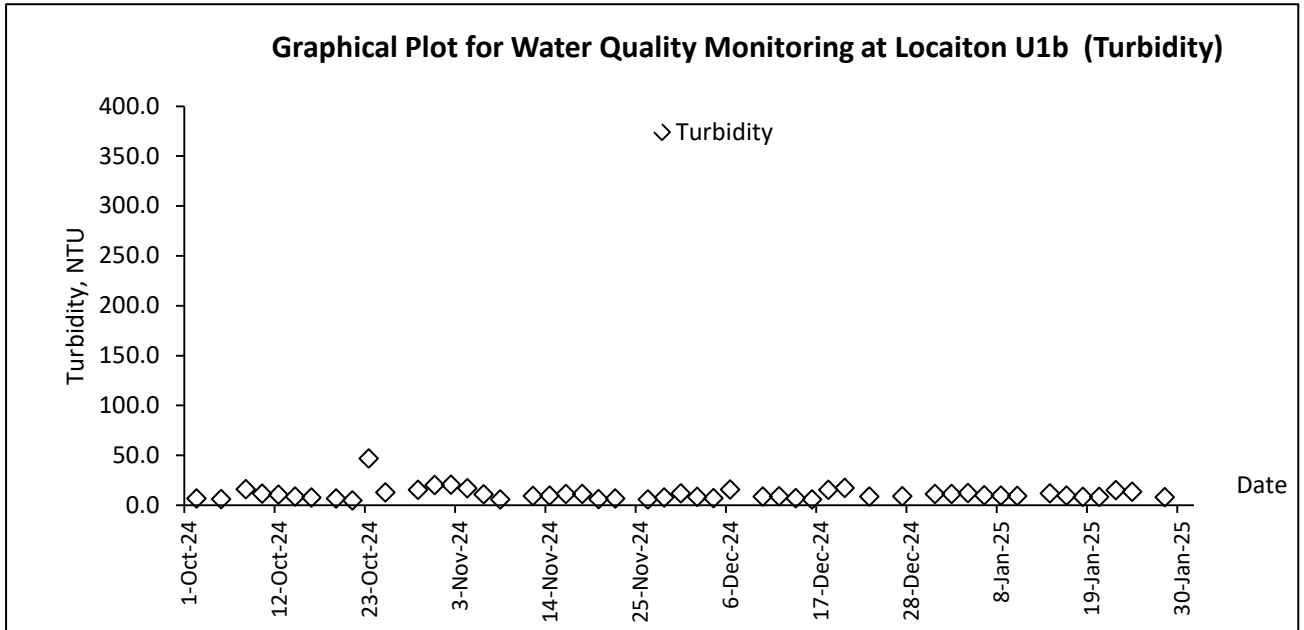
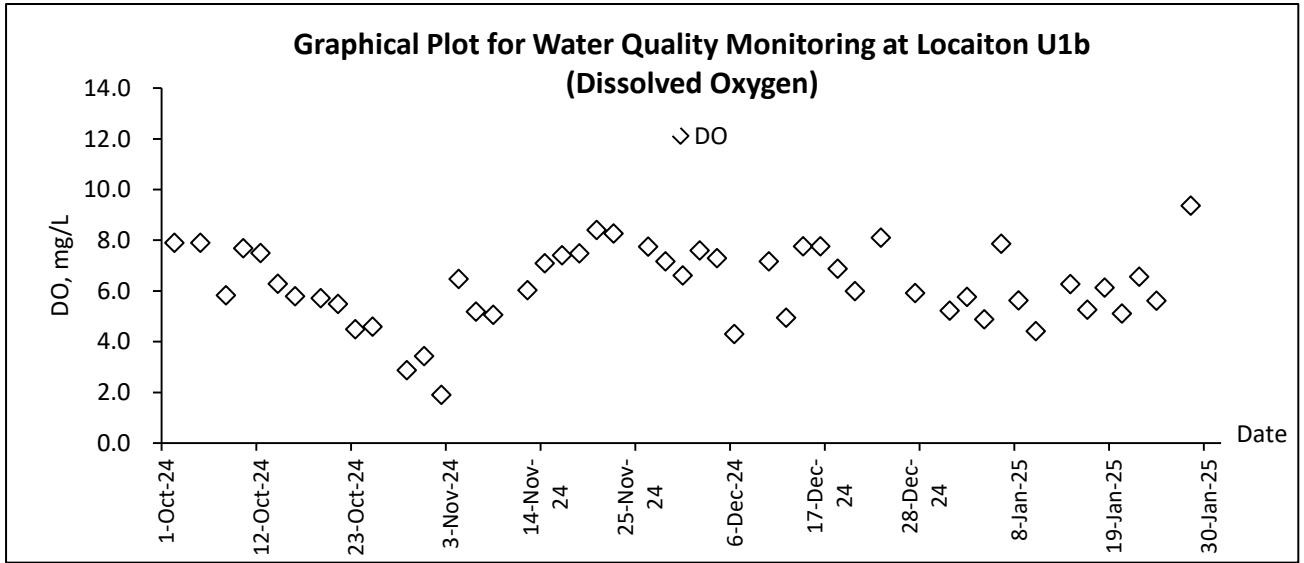
Water Quality

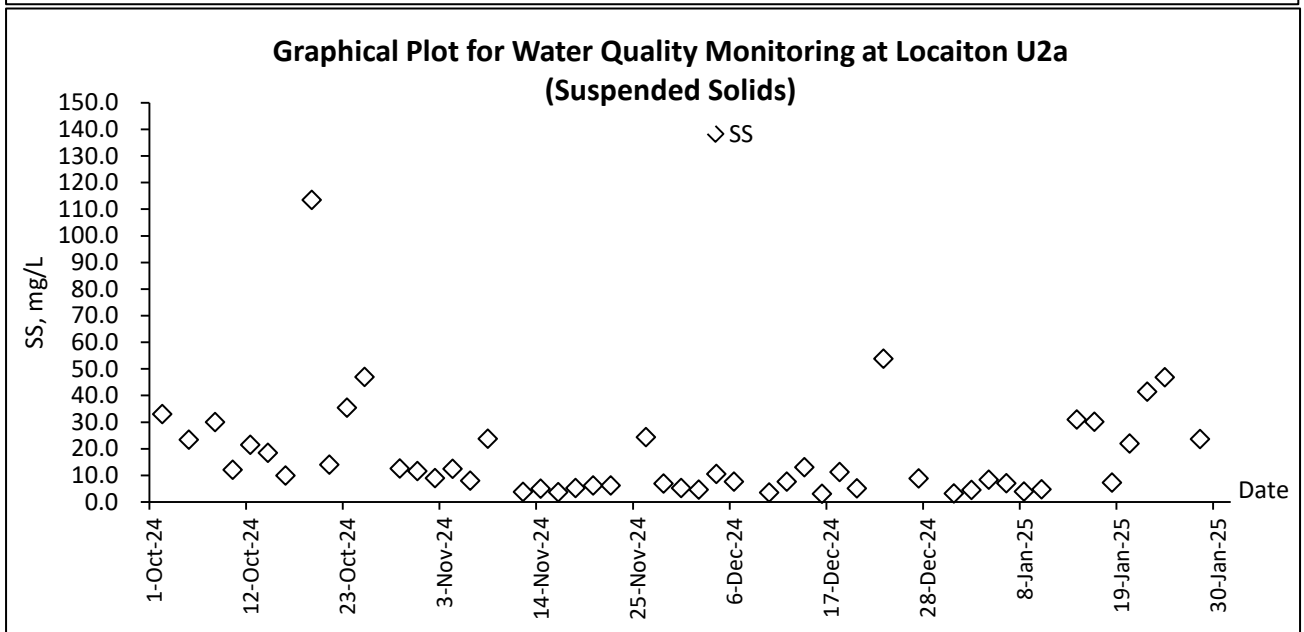
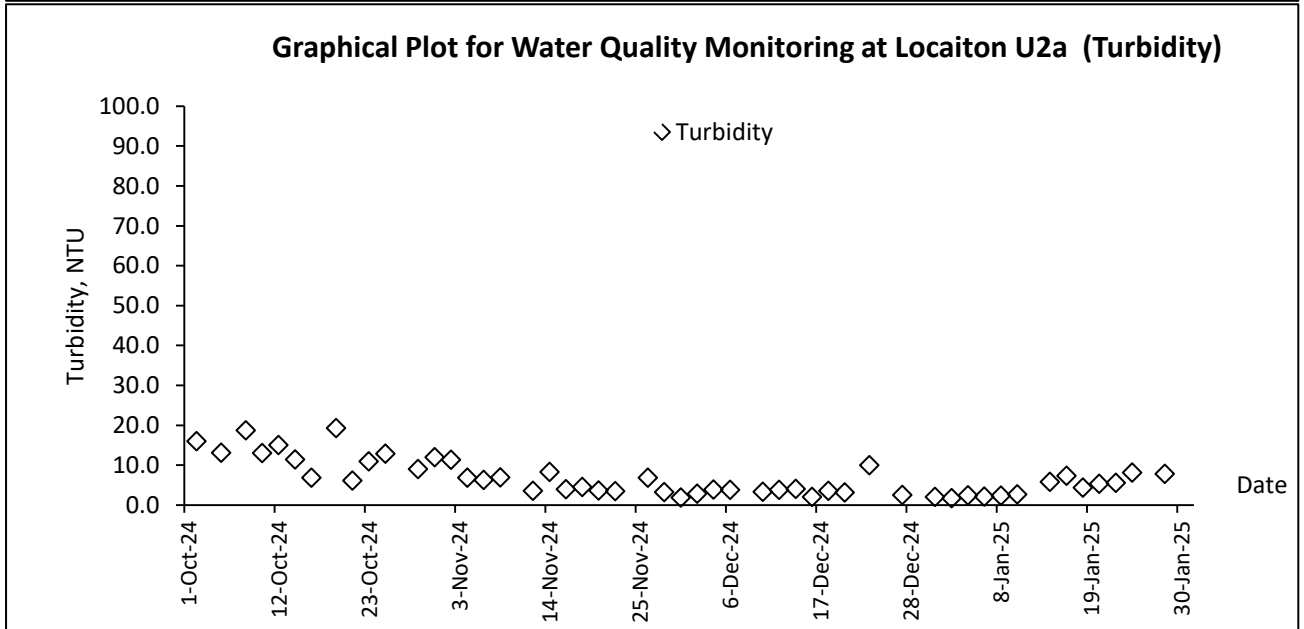
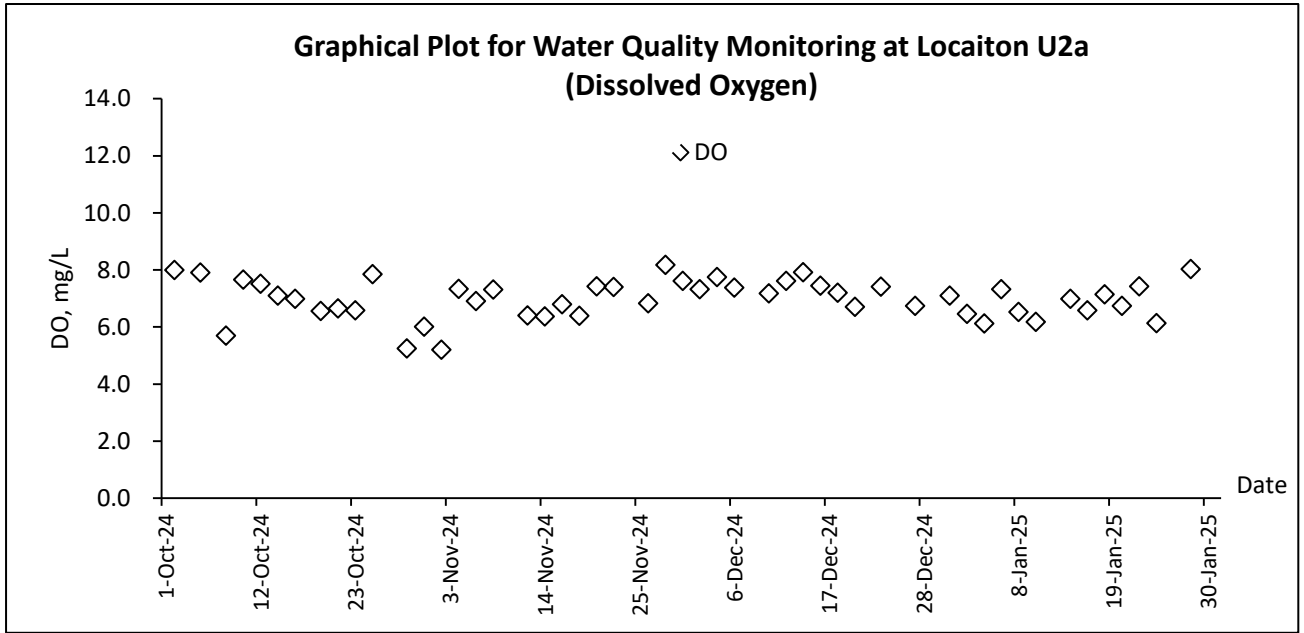


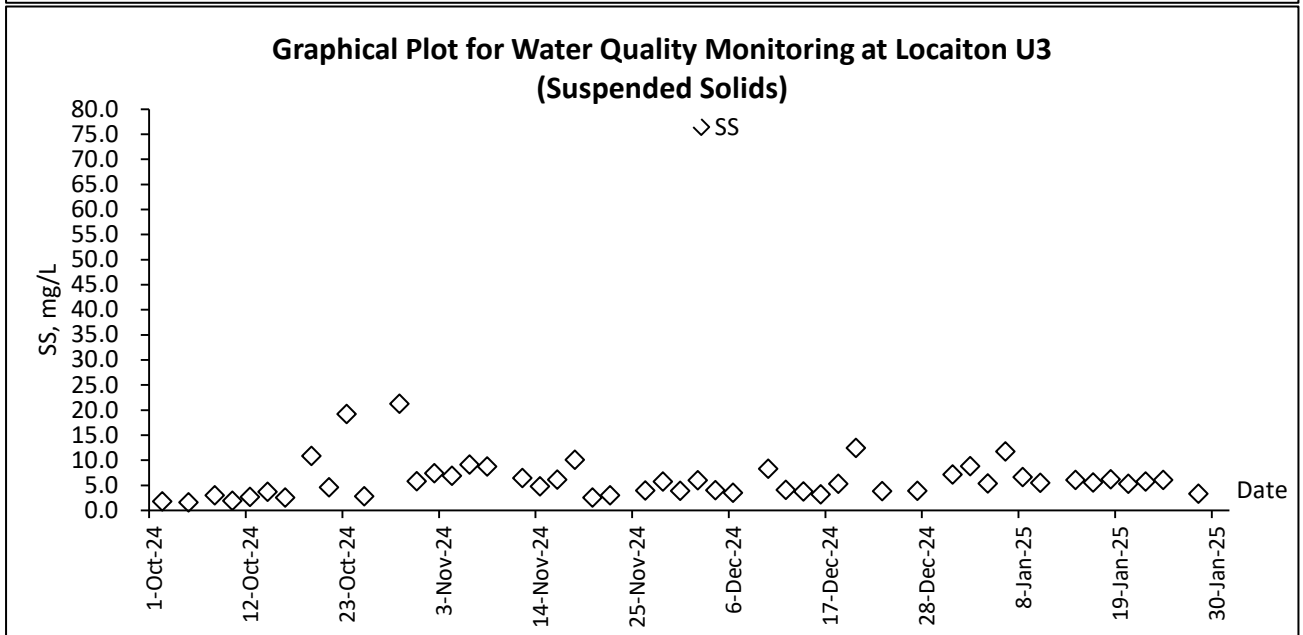
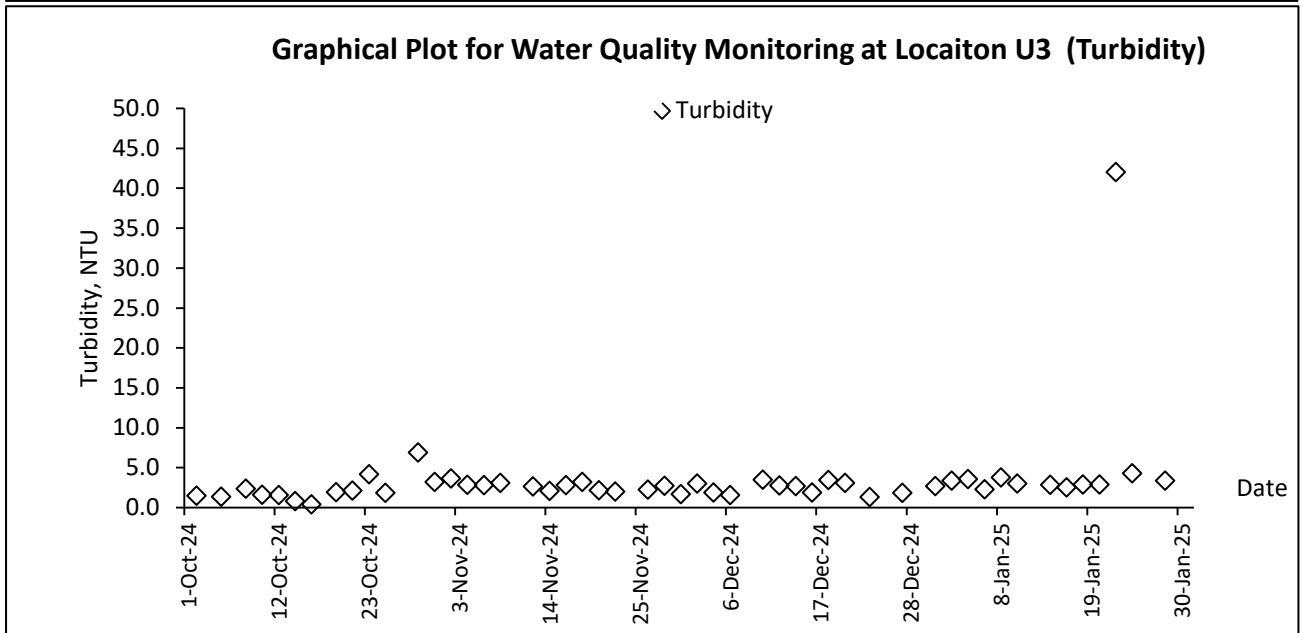
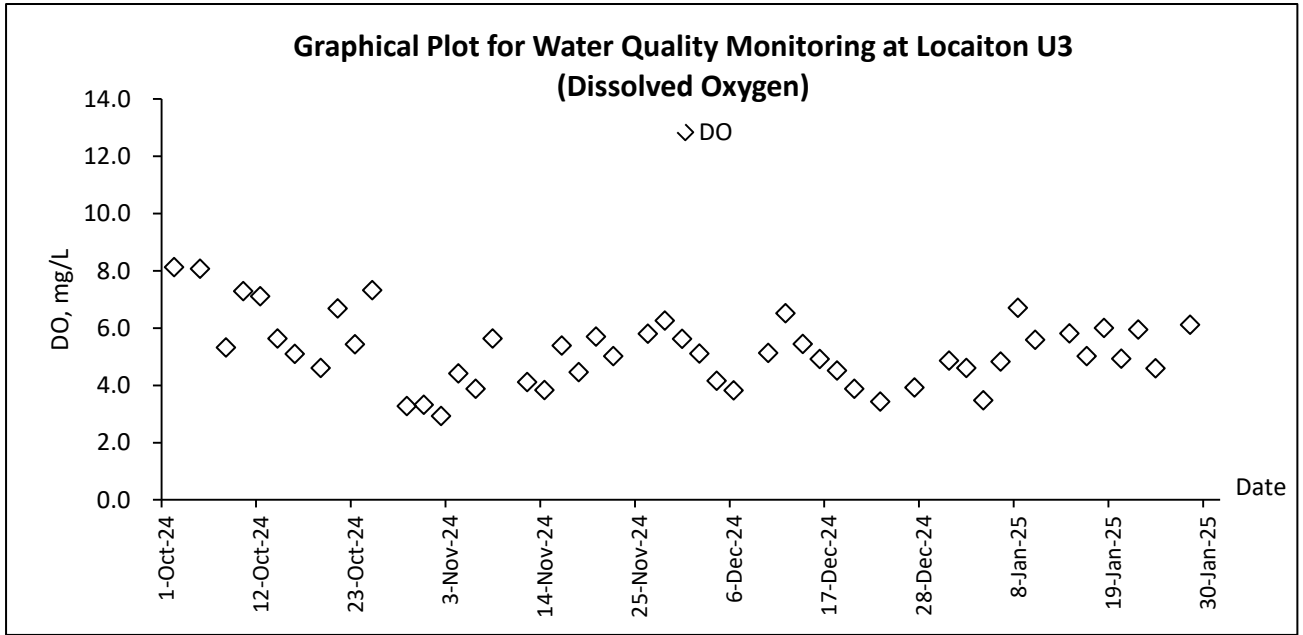


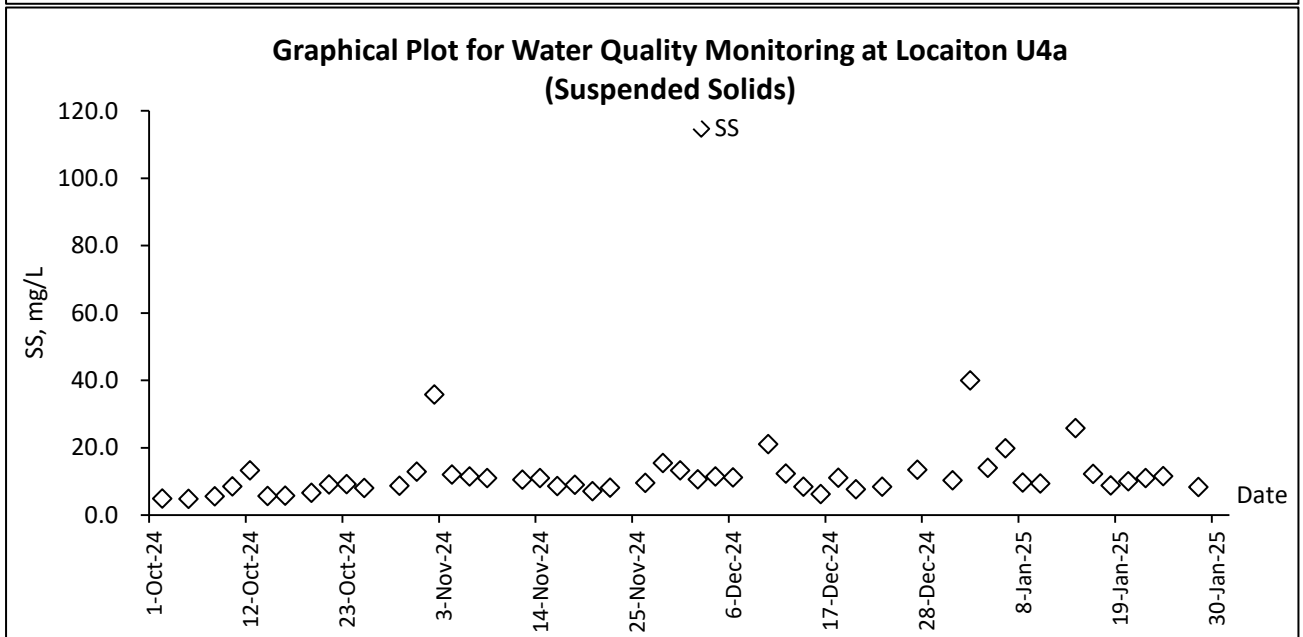
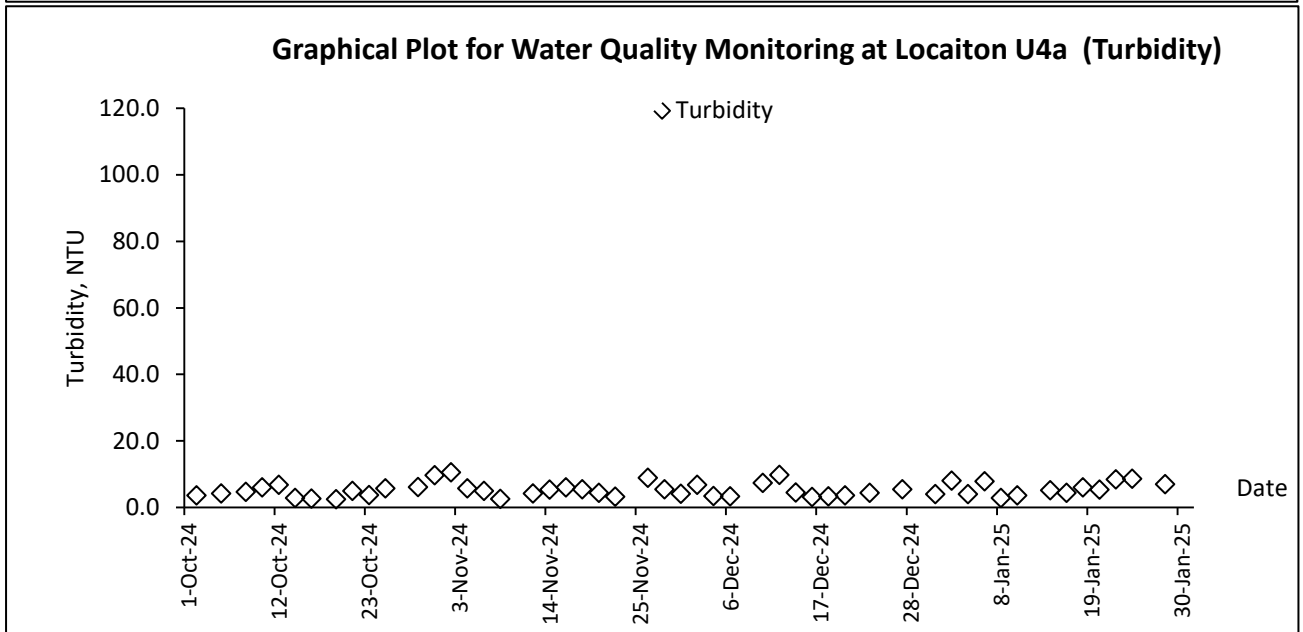
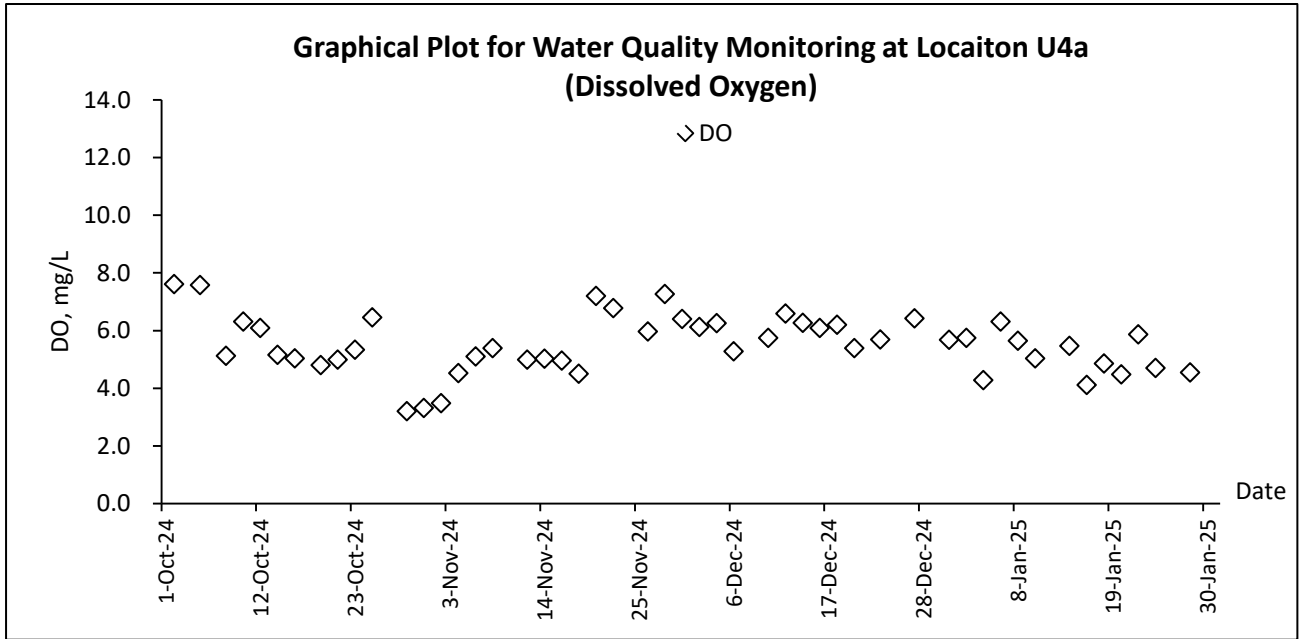


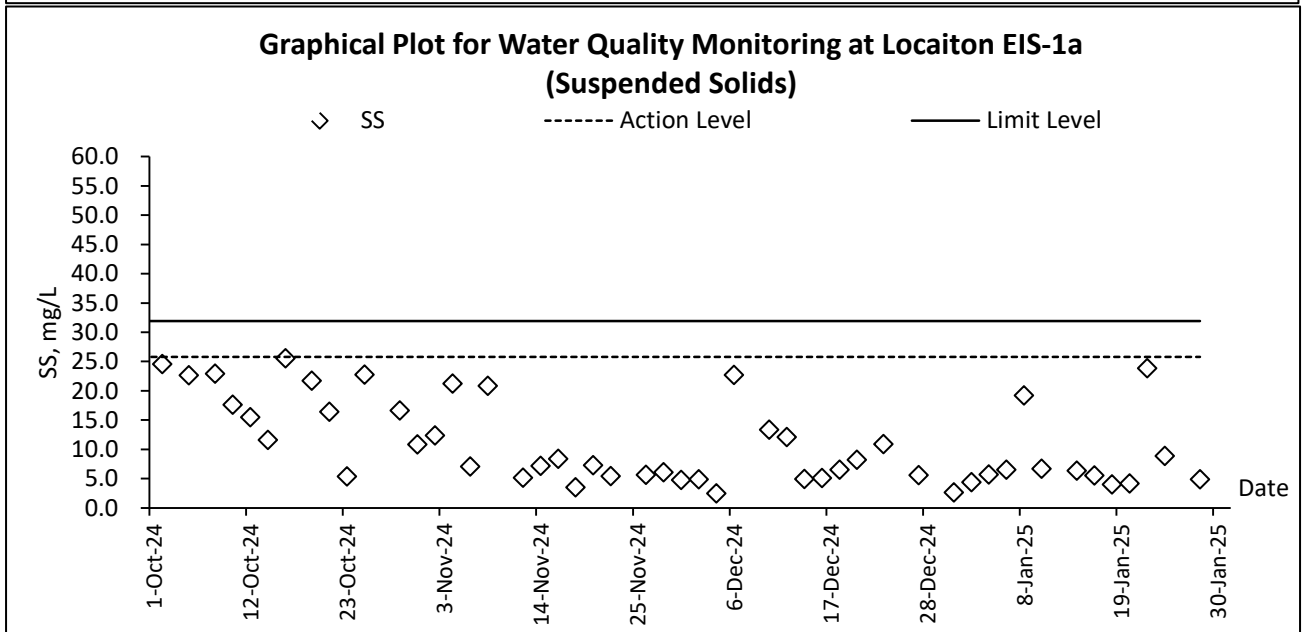
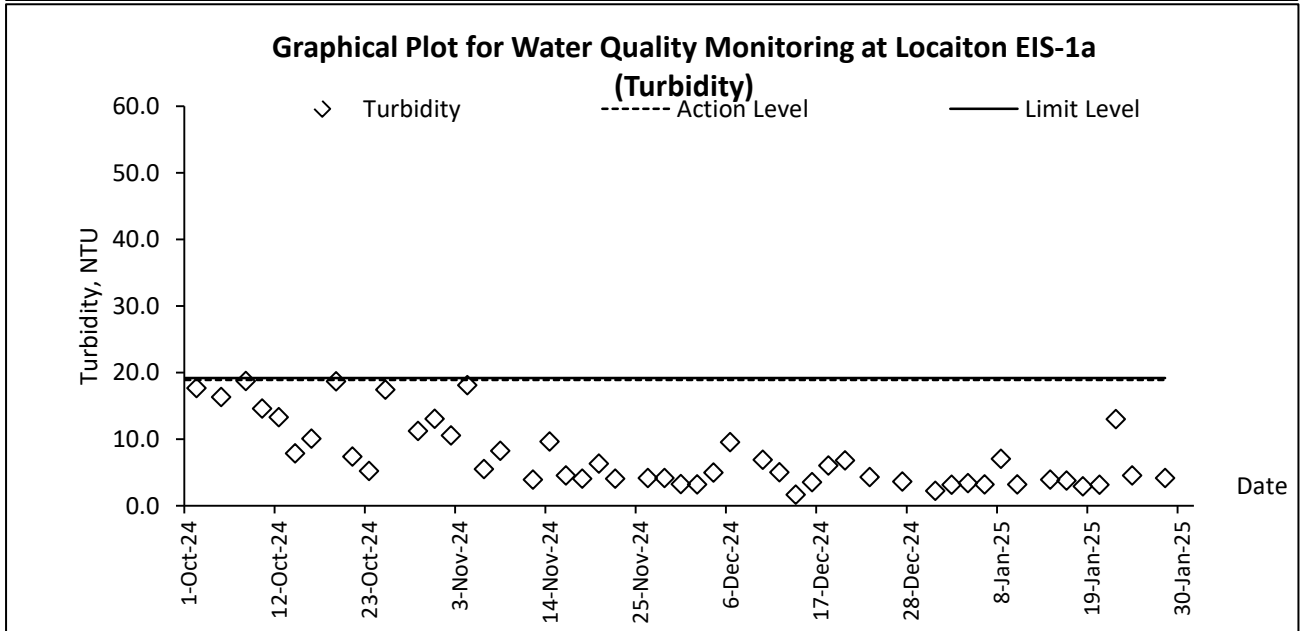
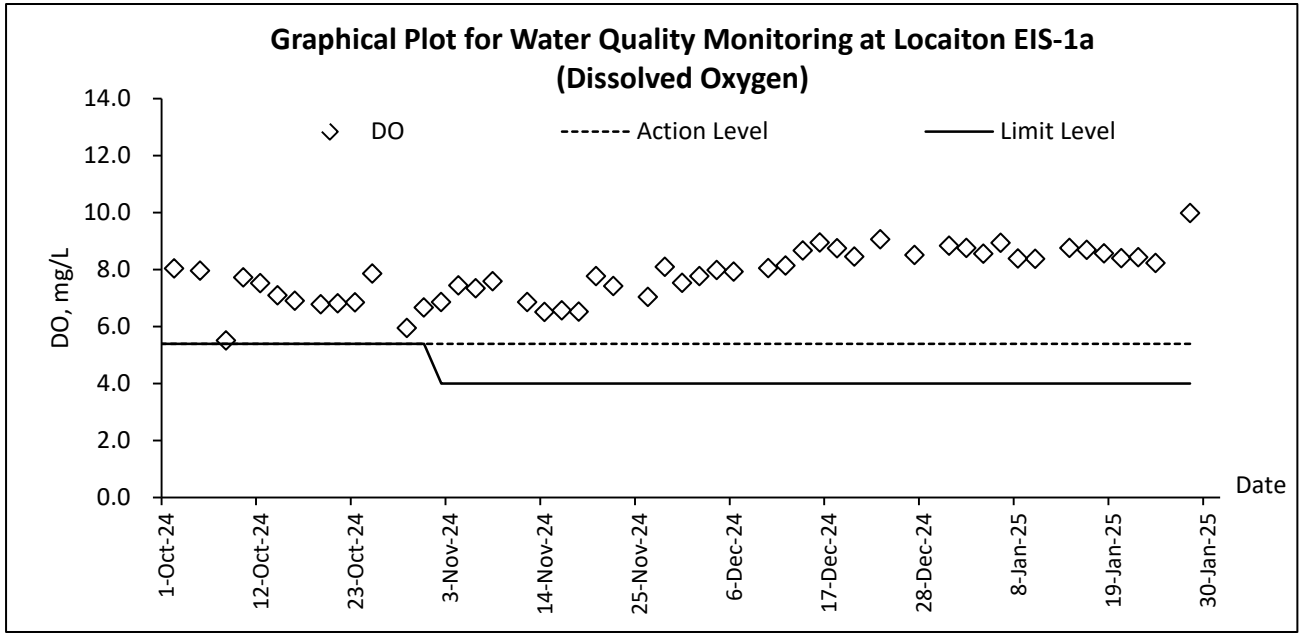


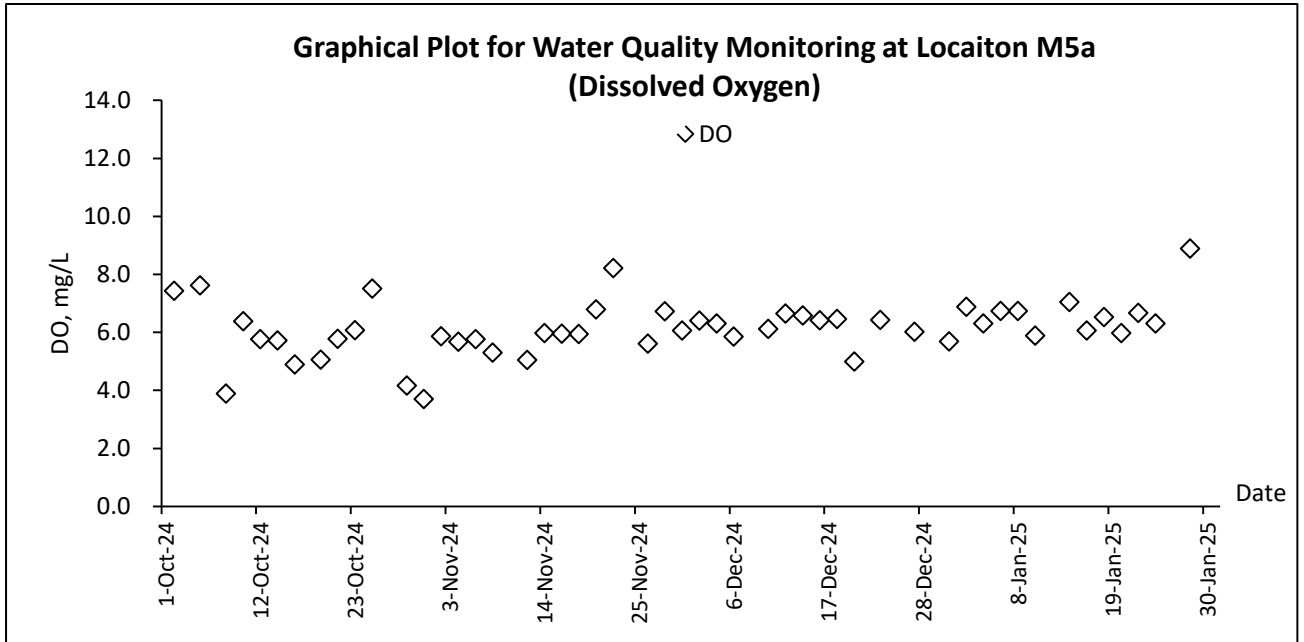


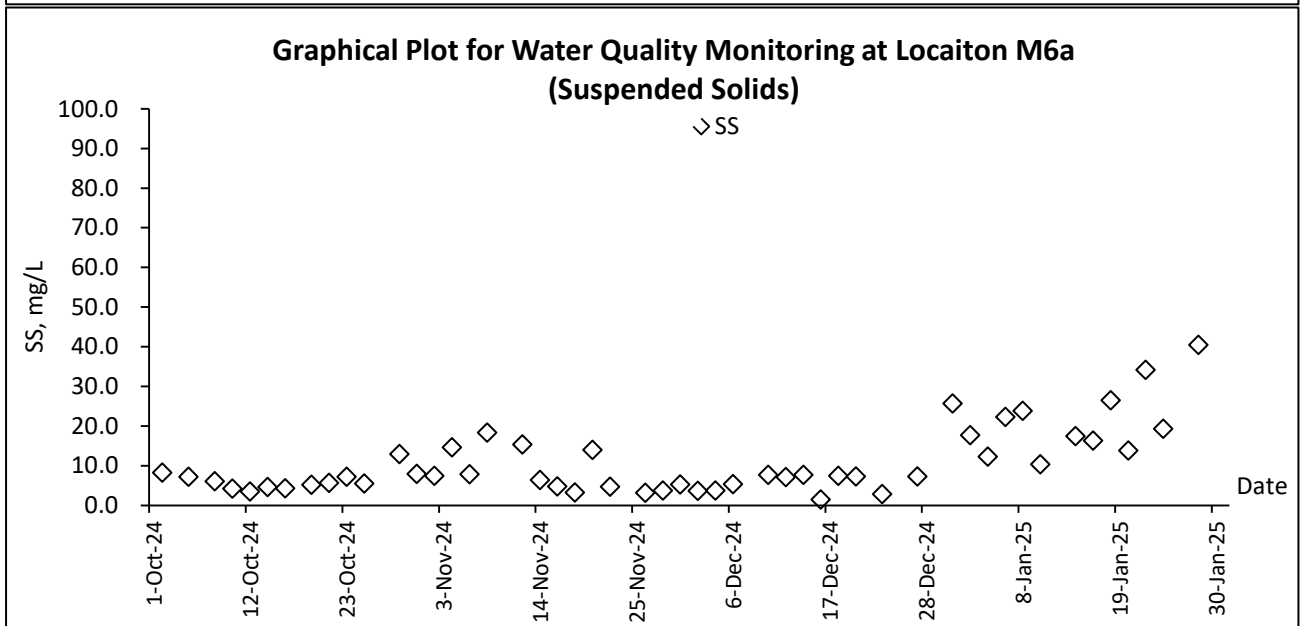
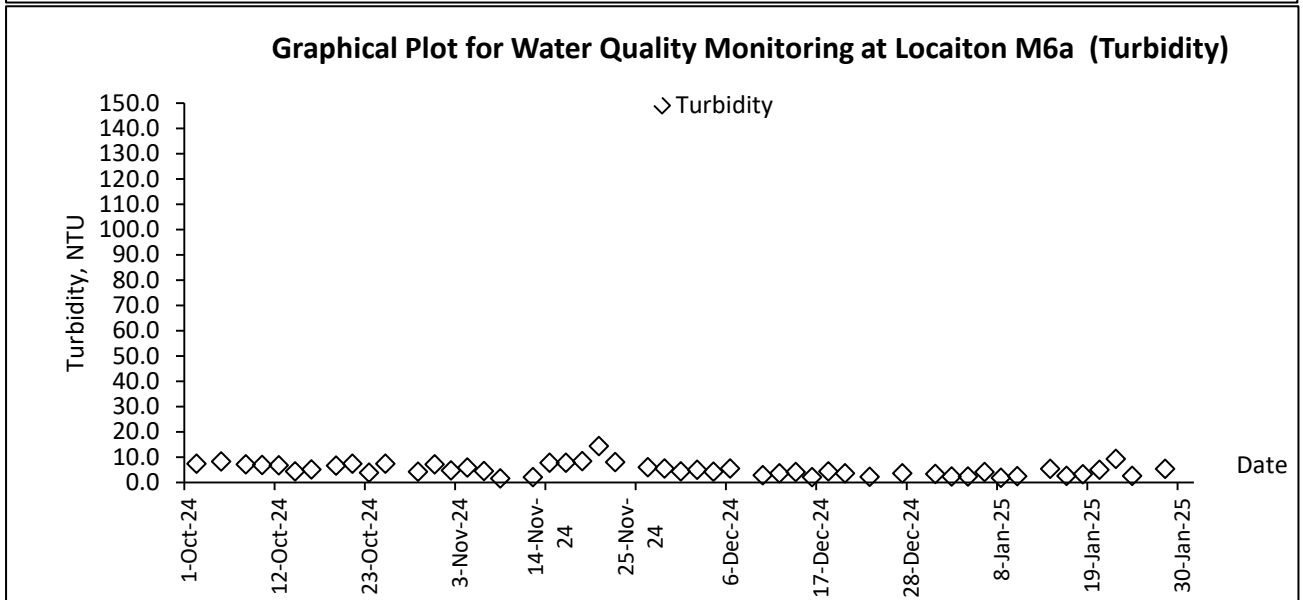
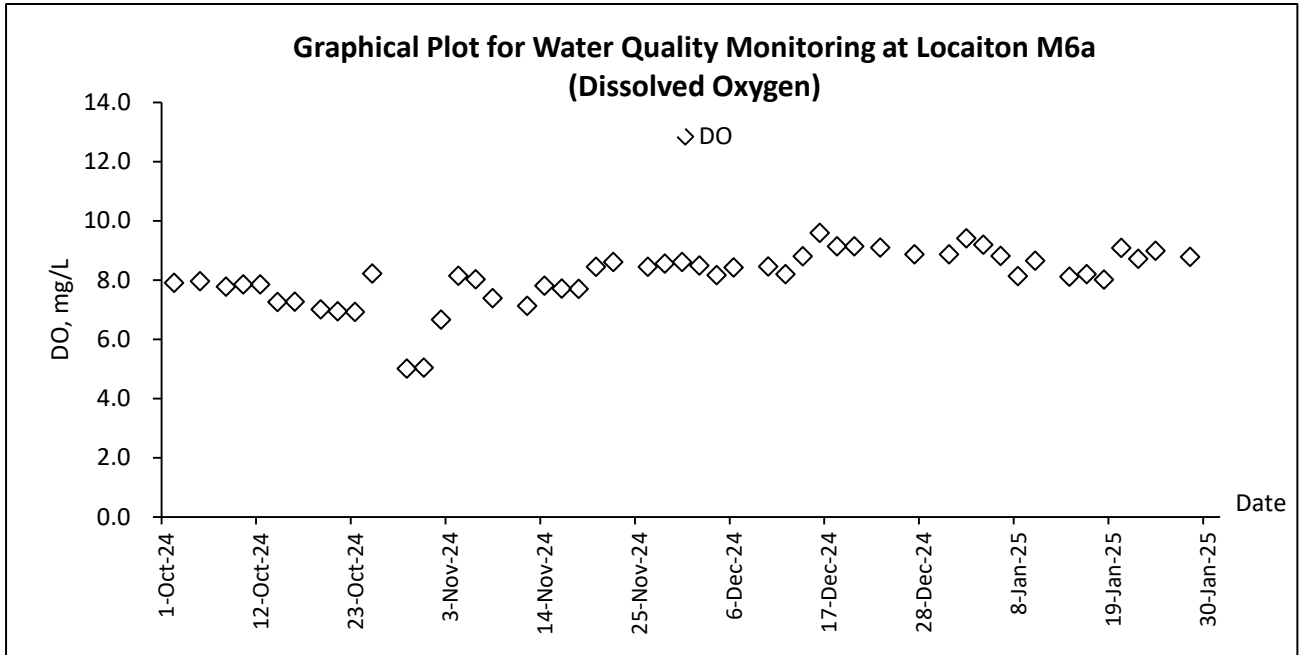


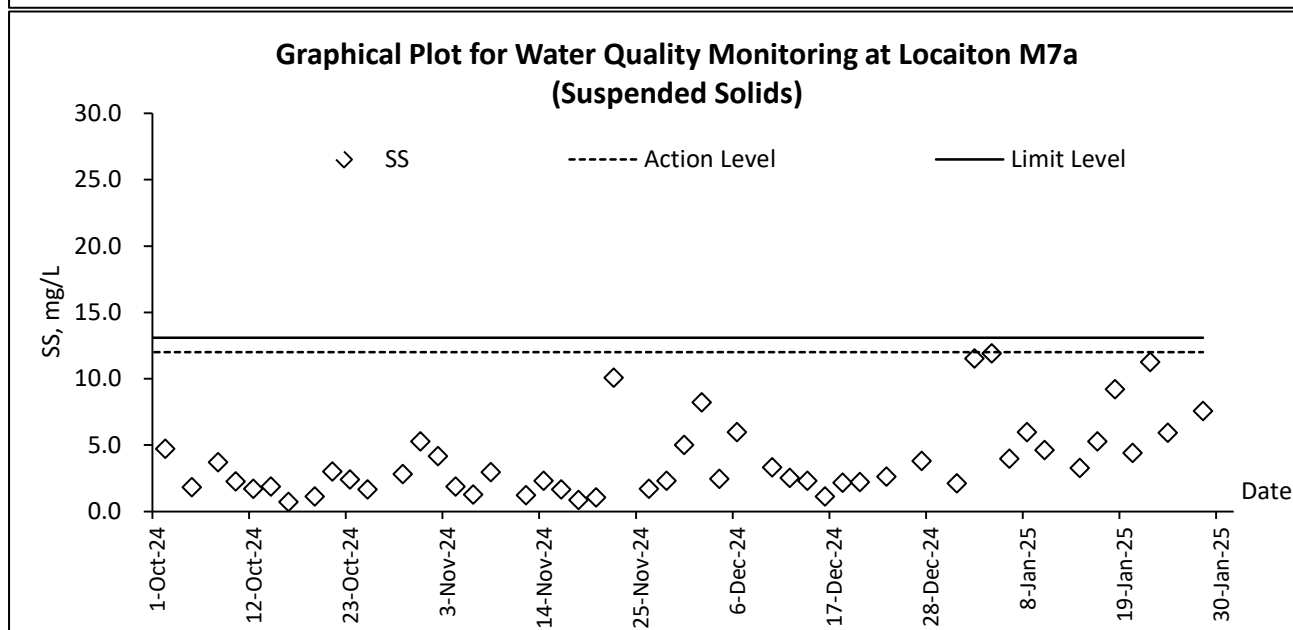
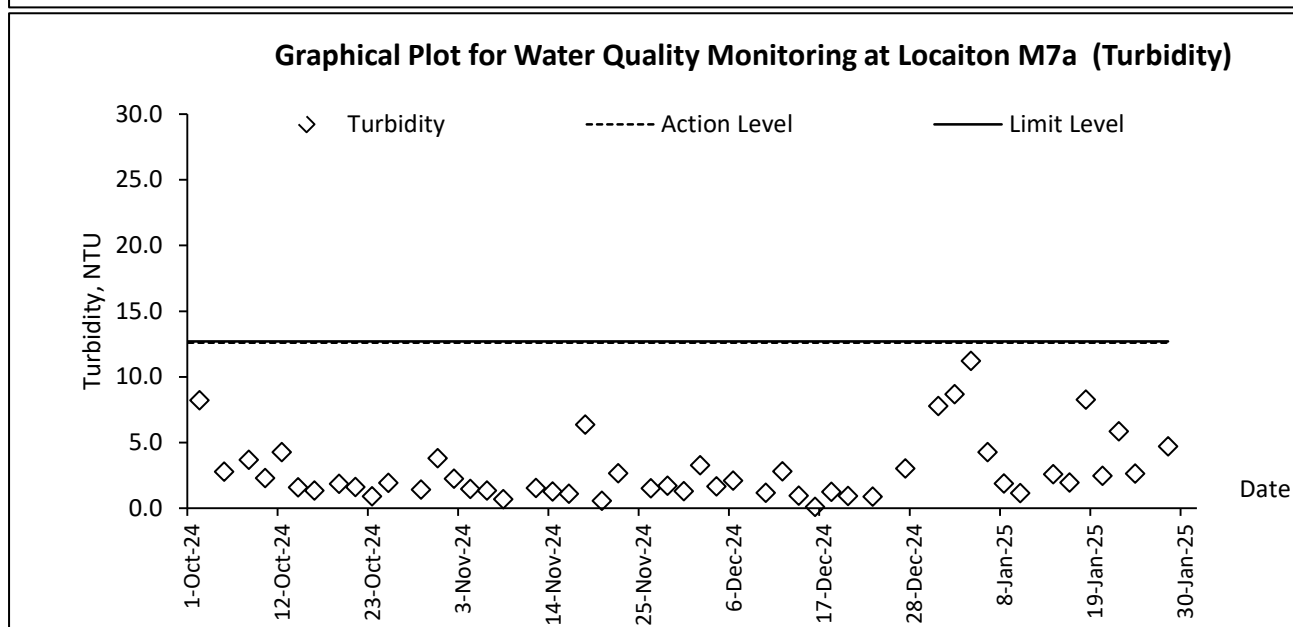
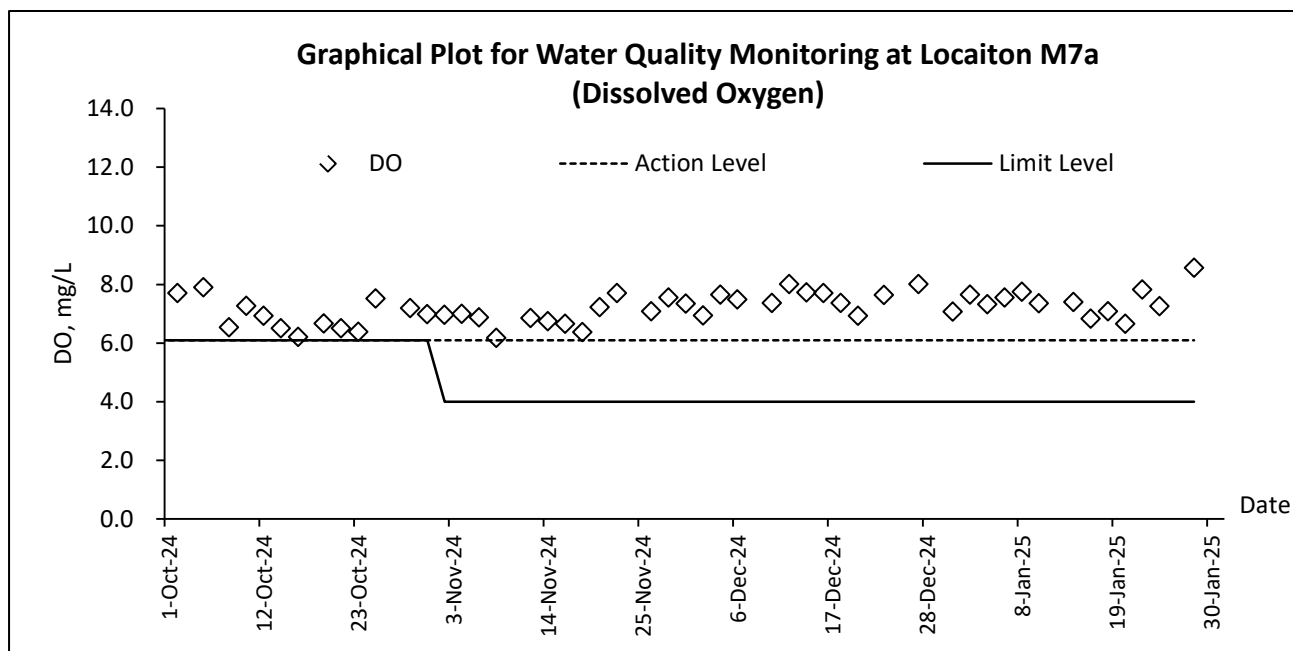


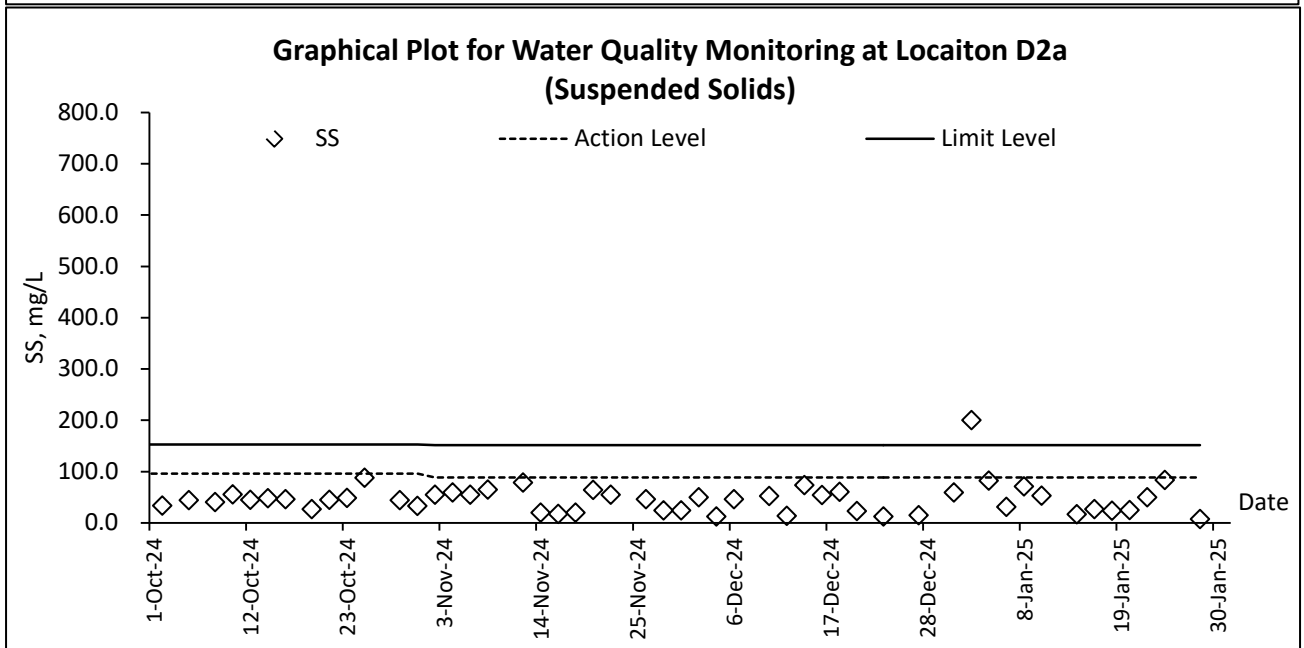
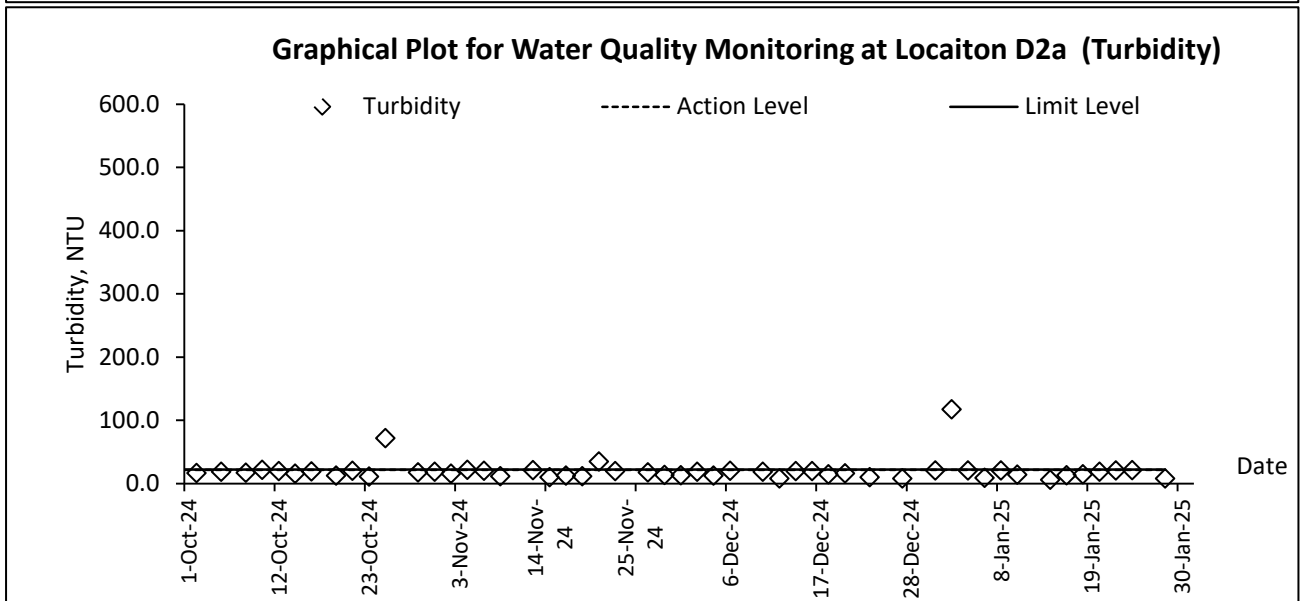
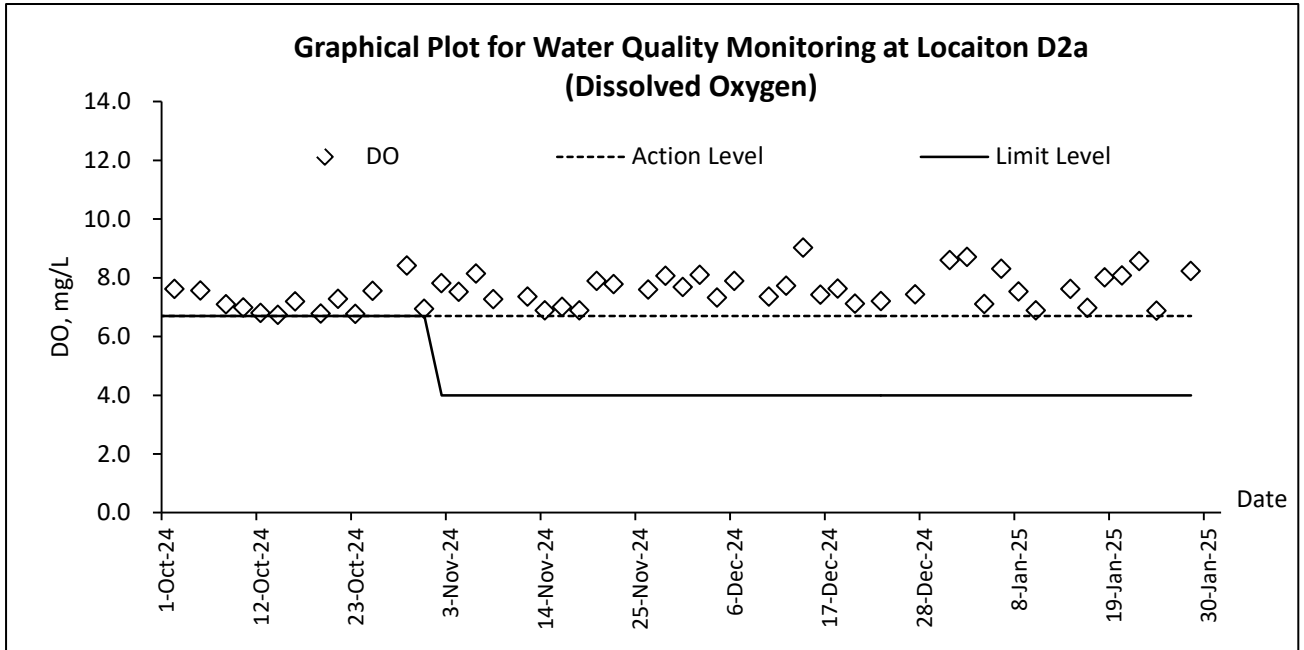


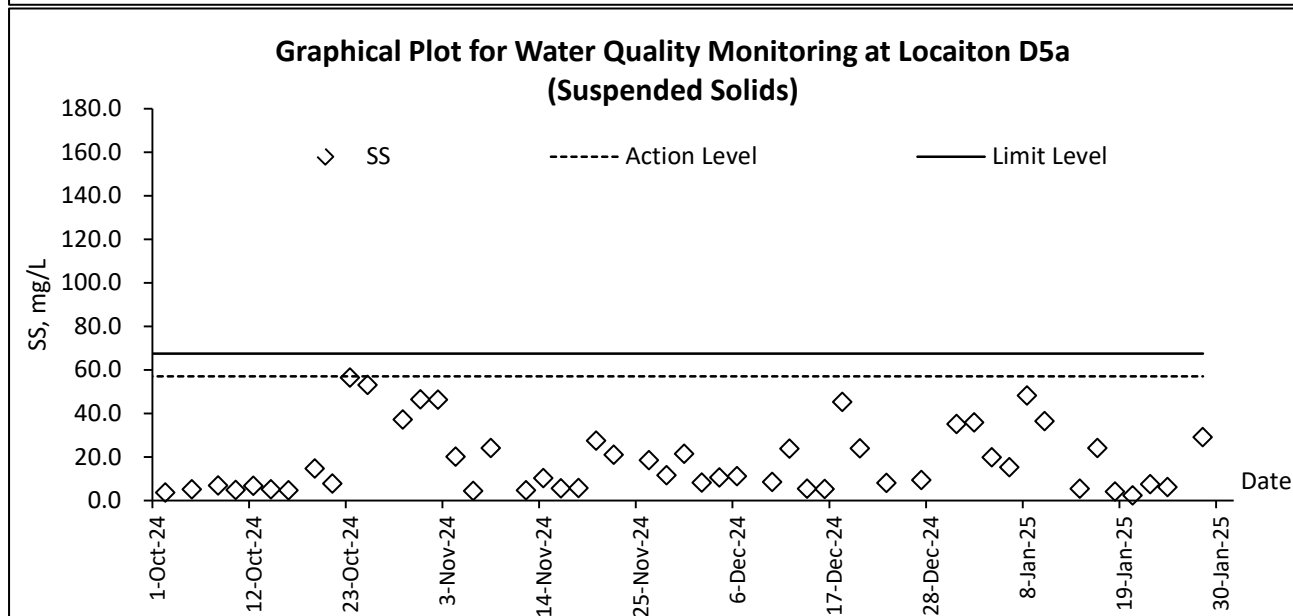
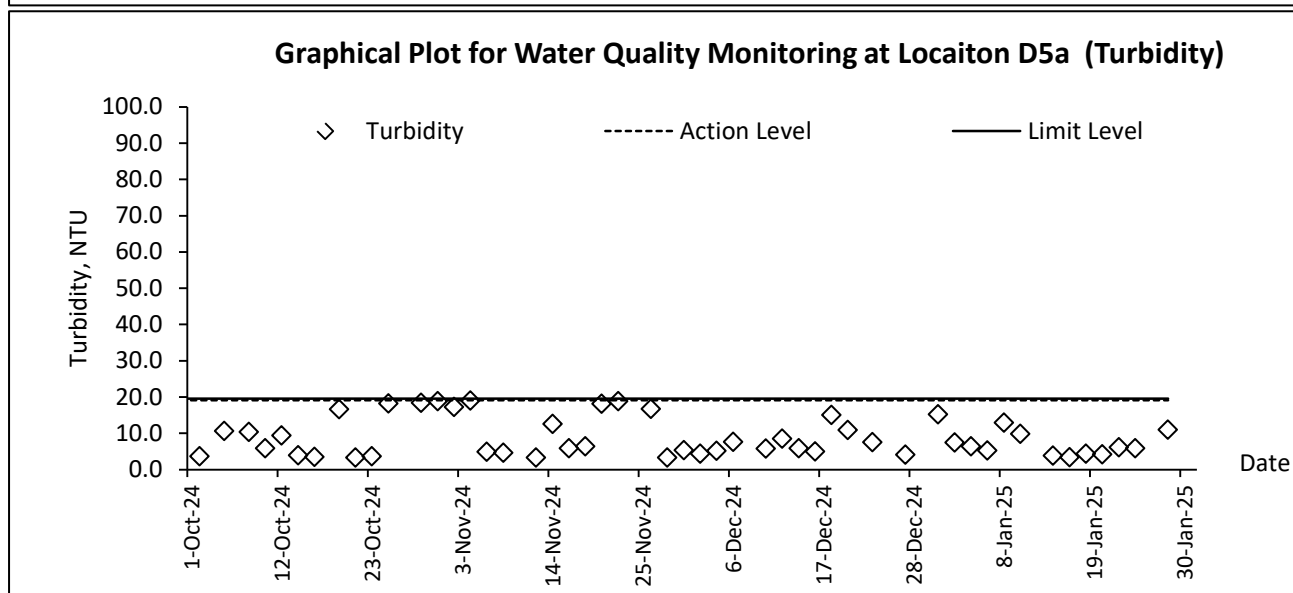
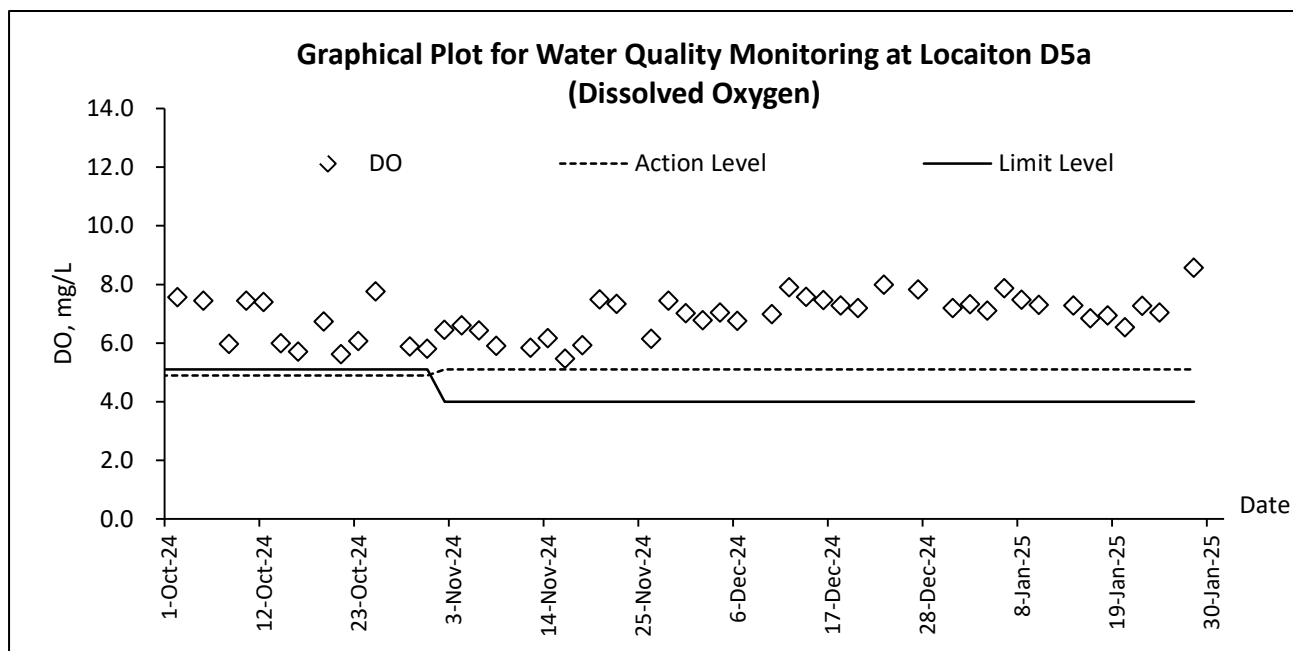












Appendix L

Waste Flow Table

Yuen Long South Development Site Formation and
Infrastructure Works for Yuen Long South First Phase Development - Contract 1

Monthly Summary Waste Flow Table for 2025 (Year)

Month	Actual Quantities of Inert C&D Materials Generated Monthly					Actual Quantities of Non-inert C&D Materials Generated Monthly				
	Total Quantity Generated	Hard Rocks & Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Metals	Paper / cardboard packaging	Plastics	Chemical waste	Others (general refuse)
	(in tons)	(in tons)	(in tons)	(in tons)	(in tons)	(in tons)	(in tons)	(in tons)	(in tons)	(in tons)
Jan	966.19	0.00	0.00	336.22	629.97	0.00	0.00	0.00	0.00	13.69
Feb										
Mar										
Apr										
May										
Jun										
Sub-total	966.19	0.00	0.00	336.22	629.97	0.00	0.00	0.00	0.00	13.69
July										
August										
September										
October										
November										
December										
Year - 2022	28.25	0.00	0.00	28.25	0.00	0.00	0.00	0.00	0.00	71.92
Year - 2023	24627.56	0.00	0.00	0.00	24627.56	93.07	0.08	0.05	2.82	453.68
Year - 2024	39588.46	0.00	0.00	0.00	27640.40	0.00	0.00	0.00	0.00	171.06
Grand Total	65210.46	0.00	0.00	364.47	52897.93	93.07	0.08	0.05	2.82	710.35

- Notes:
- (1) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
 - (2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
 - (3) Broken concrete for recycling into aggregates.
 - (4) Non-inert portion including bamboo, timber, plywood and general refuse transferred to West East New Territories (WENT) .
 - (5) Inert portion including Soil, building, debris, broken rock and concrete transferred to Tuen Mun Area 38 Fill Bank.
 - (6) Slurry and bentonite transferred to Tsung Kwan O Area 137 Fill Bank.

Name of Department: CEDD

Contract No.: YL/2021/04

Waste Flow Table for 2025 (Year)

Month	Total Quantity Generated	Actual Quantities of Inert C&D Materials Generated Monthly							Actual Quantities of Non-Inert C&D Wastes Generated Monthly					
		Hard Rock and Large Broken Concrete (see Note 3)	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Record as Wet Soil (See Note 5)	Record as Slurry (See Note 5)	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse	Yard waste
	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in kg)	(in tonnes)	(in tonnes)	(in tonnes)
Jan	13,278.40	0.00	0.00	0.00	13,278.40	0.00	984.60	20.61	0.00	0.33	0.0	0.00	145.21	49.16
Feb	0.00													
Mar	0.00													
Apr	0.00													
May	0.00													
June	0.00													
Sub-total	13,278.40	0.00	0.00	0.00	13,278.40	0.00	0.00	20.61	0.00	0.33	0.00	0.00	145.21	49.16
July	0.00													
Aug	0.00													
Sept	0.00													
Oct	0.00													
Nov	0.00													
Dec	0.00													
Sub-total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.000	0.00	0.00	0.00
Total	13,278.40	0.00	0.00	0.00	13,278.40	0.00	0.00	20.61	0.000	0.33	0.000	0.00	145.21	49.16

- Notes:
- (1) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
 - (2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
 - (3) Broken concrete for recycling into aggregates.
 - (4) Assume 1 liter of lubricant oil is equivalent 0.88 kilogram
 - (5) Recorded Wet soil and slurry by the Fill Management

Monthly Summary Waste Flow Table for 2025 (year)

Name of Person completing the record: Calvin So (EO)

Project : Site Formation and Infrastructure Works for Yuen Long South First Phase Development – Contract 3

Contract No.: YL/2022/01

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse
	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in '000m ³)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)
Jan	4791.690	0.000	603.010	0.000	4188.680	0.000	15.000	0.000	27.000	0.000	138.440
Feb											
Mar											
Apr											
May											
Jun											
Sub-total	4791.690	0.000	603.010	0.000	4188.680	0.000	15.000	0.000	27.000	0.000	138.440
Jul											
Aug											
Sep											
Oct											
Nov											
Dec											
Total	4791.690	0.000	603.010	0.000	4188.680	0.000	15.000	0.000	27.000	0.000	138.440

Note:

1. For non-inert portion of C&D material, assume the density of 1 m³ general refuse is equal to 200 kg.
2. For inert portion of C&D material, assume 6 m³ per each full-filled dump truck.
3. All values are round off to the third decimal places.

Appendix M

Environmental Complaints Log

Environmental Complaint Log

Designated Project

Log ref.	Date of Complaint	Complaint Route	Complaint Nature	Investigation finding	Status
1	17 th January 2025	1823	Noise	The location of complaint is within Portion 10 of Contractor 2. The Contractor determined that the noise nuisance was caused by vehicles passing over the unwelded steel plates on the road due to insufficient compaction. To prevent similar occurrences in the future, the Contractor was advised to weld the steel plates and use grouting to fill gaps where coarse material has been washed away. It is concluded that the complaint was valid to Contract 2, which triggered Action Level exceedance under the EM&A. Given the proximity of the construction site to residential areas, both Contractors were reminded to implement the recommended mitigation measures from the EM&A Manual as effectively as possible.	Interim IR was included in EM&A Report – January 2025

Non-Designated Project

Log ref.	Date of Complaint	Complaint Route	Complaint Nature	Investigation finding	Status
1	1 st September 2024	1823	Noise	There was a complaint regarding noise nuisance at Lam Tai East Road, Portion 1A which is non-EP area under Contract 2. Upon the receipt of the complaint through CEDD on 4 Sep 2024, investigation has carried out by the Contractor on the same day and revealed that the complaint was related to the emergency repairment work of water pipe. To avoid the similar case in future, the Contract was advised to provide training to front-line staff, to inform / introduce which type of equipment and machine could be used in that CNP. The investigation report of the complaint is under review by the relevant parties.	Interim IR was submitted to CEDD and included in EM&A Report – September 2024

Appendix N

Implementation Schedule for Environmental Mitigation Measures

Environmental Mitigation Implementation Schedule

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
Common Mitigation Measures (Applicable to ALL Project Components, including DPs and Non-DPs)									
Construction Dust Impact							C1	C2	C3
S4.4.6	D1	Water spraying every hour on exposed worksites and haul road.	Minimise dust impact at the nearby sensitive receivers	Contractor	All construction sites	<ul style="list-style-type: none"> • APCO To control the dust impact to meet HKAQO and EIAO-TM criteria 	√	√	√
S4.4.6	D2	The contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction Dust) Regulation.	Minimise dust impact at the nearby sensitive receivers	Contractor	All construction sites	<ul style="list-style-type: none"> • APCO To control the dust impact to meet HKAQO and EIAO-TM criteria 	√	√	√
S4.4.6	D3	<p>The following dust suppression measures should be incorporated to control the dust nuisance throughout the construction phase:</p> <ul style="list-style-type: none"> • Any excavated or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading; • Any dusty materials remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads; • A stockpile of dusty material should not be 	Minimise dust impact at the nearby sensitive receivers	Contractor	All construction sites	<ul style="list-style-type: none"> • APCO To control the dust impact to meet HKAQO and EIAO-TM criteria 	√ The Contractor should remove or cover sandy stockpile properly with tarpaulin sheet to reduce dust impact. (Portion 3)	√ Cement bags was not covered properly with tarpaulin sheet. (Portion 11)	√ The Contractor should spray water for breaking work to reduce dust impact. (Portion 7B)

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
Common Mitigation Measures (Applicable to ALL Project Components, including DPs and Non-DPs)									
Construction Dust Impact							C1	C2	C3
		<p>extended beyond the pedestrian barriers, fencing or traffic cones;</p> <ul style="list-style-type: none"> • The load of dusty materials on a vehicle leaving a construction site should be covered entirely by impervious sheeting to ensure that the dusty materials do not leak from the vehicle; • Where practicable, vehicle washing facilities with high pressure water jet should be provided at every discernible or designated vehicle exit point. The area where vehicle washing takes place and the road section between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores; • When there are open excavation and reinstatement works, hoarding of not less than 2.4m high should be provided as far as practicable along the site boundary with provision for public crossing. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are properly maintained throughout the construction period; • The portion of any road leading only to construction site that is within 30m of a vehicle entrance or exit should be kept clear of dusty materials; 							

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
Common Mitigation Measures (Applicable to ALL Project Components, including DPs and Non-DPs)									
Construction Dust Impact							C1	C2	C3
		<ul style="list-style-type: none"> • Surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operation takes place should be sprayed with water or a dust suppression chemical continuously; • Any area that involves demolition activities should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet; • Where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting should be provided to enclose the scaffolding from the ground floor level of the building, or a canopy should be provided from the first floor level up to the highest level of the scaffolding; • Any skip hoist for material transport should be totally enclosed by impervious sheeting; • Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides; • Cement or dry PFA delivered in bulk should 							

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
Common Mitigation Measures (Applicable to ALL Project Components, including DPs and Non-DPs)									
Construction Dust Impact							C1	C2	C3
		<p>be stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed;</p> <ul style="list-style-type: none"> • Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system; and • Exposed earth should be properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shotcrete or other suitable surface stabiliser within six months after the last construction activity on the construction site or part of the construction site where the exposed earth lies. 							
S4.4.6	D4	Implement regular dust monitoring under EM&A programme during the construction stage.	Monitoring of dust impact	Contractor	Selected dust monitoring stations	EIAO-TM	√	√	√

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
							C1	C2	C3
Construction Noise							C1	C2	C3
S5.5.3	N1	<p>Implement construction noise mitigation measures, including, but not limited to, good site management practices, use of quiet plant, installation of movable temporary noise barrier and setup up of liaison group to ensure construction noise impacts at the NSRs comply with the construction noise criteria.</p> <p>1. Good site management practices</p> <ul style="list-style-type: none"> • only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme; • machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; • plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs; • silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works; • mobile plant should be sited as far away from NSRs as possible and practicable; and • material stockpiles, site office and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities. <p>2. Use of quiet plant Use of quiet plant listed in the Quality Powered</p>	Control construction noise impacts	Contractor	All construction sites	EIAO-TM	√	√	√

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
							C1	C2	C3
<i>Construction Noise</i>							C1	C2	C3
		<p>Mechanical Equipment (QPME) / other commonly used PME listed in Environmental Protection Department (EPD) web pages.</p> <p>3. Installation of movable temporary noise barrier</p> <ul style="list-style-type: none"> • Install movable temporary noise barriers (typical design is wooden framed barrier with a small-cantilevered upper portion of superficial density no less than 7kg/m² on a skid footing with 25mm thick internal sound absorptive lining), and full enclosure, screen the noisy plants including air compressors, generators etc. <p>4. Setup of liaison group</p> <ul style="list-style-type: none"> • Setup a liaison group among CEDD, relevant government departments, contractors of the work contracts, etc. during construction phase to ensure proper implementation of the proposed noise mitigation measures. 							
S5.5.3	N2	Carry out construction noise monitoring in accordance with the EM&A Manual.	Monitor the construction noise impacts	Contractor	Selected noise monitoring stations	EIAO-TM	√	√	√

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
							C1	C2	C3
Water Quality (Construction Phase)							C1	C2	C3
S6.8.1.2	W1	<p><u>General Construction Activities</u></p> <p>In accordance with the Practice Note for Professional Persons on Construction Site Drainage, Environmental Protection Department, 1994 (ProPECC PN1/94), best management practices should be implemented on site as far as practicable. The best practices are detailed below:</p> <ul style="list-style-type: none"> • At the start of site establishment, perimeter cut-off drains to direct off-site water around the site should be constructed with internal drainage works. Channels (both temporary and permanent drainage pipes and culverts), earth bunds or sand bag barriers should be provided on site to direct stormwater to silt removal facilities; • Diversion of natural stormwater should be provided as far as possible. The design of temporary on-site drainage should prevent runoff going through site surface, construction machinery and equipment in order to avoid or minimise polluted runoff. Sedimentation tanks with sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8 m³ capacities, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal. The system capacity shall be flexible and able to handle multiple inputs from a variety of sources and suited to applications where the 	To minimise water quality impact from construction site runoff and general construction activities	Contractor	All construction sites where applicable	<ul style="list-style-type: none"> • Water Pollution Control Ordinance • ProPECC PN1/94 • EIAO-TM • TM-DSS 	<p>√</p> <p>The Contractor should remove or cover sand by stockpile properly with tarpaulin sheet to reduce dust impact. (Portion 3)</p>	<p>√</p> <p>Oil stain was observed, the Contractor should clean oil stain to prevent land contamination. (Portion 18)</p> <p>The Contractor should provide drip tray for chemical containers and remove to design storage area.</p>	<p>√</p>

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
Water Quality (Construction Phase)							C1	C2	C3
		<p>influent is pumped; The dikes or embankments for flood protection should be implemented around the boundaries of earthwork areas. Temporary ditches should be provided to facilitate the runoff discharge into an appropriate watercourse, through a silt/sediment trap. The silt/sediment traps should be incorporated in the permanent drainage channels to enhance deposition rates;</p> <ul style="list-style-type: none"> The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94. The detailed design of the sand/silt traps should be undertaken by the contractor prior to the commencement of construction; Construction works should be programmed to minimise surface excavation works during the rainy seasons (April to September). All exposed earth areas should be completed and vegetated as soon as possible after earthworks have been completed. 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; All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times 						(Portion 12) The Contractor should clean oil stain at BC02a.	

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
<i>Water Quality (Construction Phase)</i>							C1	C2	C3
		<p>and particularly following rainstorms. Deposited silt and grit should be removed regularly and disposed of by spreading evenly over stable, vegetated areas;</p> <ul style="list-style-type: none"> • If the excavation of trenches in wet periods is necessary, it should be dug and backfilled in short sections wherever practicable. 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 material) 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 or debris being washed into the drainage system and storm runoff being directed into foul sewers; • Precautions to be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent or forecasted, and actions to be taken during or after rainstorms are summarized in Appendix A2 of ProPECC PN 1/94. Particular attention should be paid to the 							

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
<i>Water Quality (Construction Phase)</i>							C1	C2	C3
		<p>control of silty surface runoff during storm events;</p> <ul style="list-style-type: none"> • All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing facilities should be provided at every construction site exit 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-wash bay to the public road should be paved with sufficient backfall toward the wheel-wash 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. The 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 the oil interceptors to prevent flushing during heavy rain; • Construction solid waste, debris and rubbish on site should be collected, handled and disposed of properly to avoid water quality impacts; 							

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
							C1	C2	C3
<i>Water Quality (Construction Phase)</i>							C1	C2	C3
		<ul style="list-style-type: none"> 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 water sensitive receivers nearby;and Regular environmental audit on the construction site should be carried out in order to prevent any malpractices. Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the water bodies, mangroves and open sea. 							
S6.8.1.4	W2	<p><u>Prevention of Accidental Spillage of Chemicals</u></p> <ul style="list-style-type: none"> The chemicals used during construction, such as fuel, oil, solvents and lubricants shall be properly stored and contained in designated area with secondary containment to prevent spillage and contamination of the nearby water environment. Any maintenance activities and workshops with chemicals use shall be located away from watercourses on hard standings within a bunded area. Sumps and oil interceptors should be provided as appropriate. The Contractor shall register as a chemical waste producer and employ licensed collector for collection of chemical waste 	To prevent water quality impact due to chemical spillage	Contractor	All construction sites where practicable	<ul style="list-style-type: none"> Water Pollution Control Ordinance Waste Disposal (Chemical Waste) (General) Regulation 	√	√	√

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
							C1	C2	C3
Water Quality (Construction Phase)							C1	C2	C3
		from the construction site. Any chemical waste generated shall be managed in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.							
S6.8.1.7	W3	<p><u>Sewage from workforce</u></p> <ul style="list-style-type: none"> • Portable chemical toilets and sewage holding tanks are recommended for handling the construction sewage generated by the workforce. A licensed contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance; • Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment during the construction phase of the Project; • Regular environmental audit on the construction site should be conducted in order to provide an effective control of any malpractices and achieve continual improvement of environmental performance on site. 	To minimise water quality impact from sewage effluent in construction phase	Contractor	All construction sites where practicable	Water Pollution Control Ordinance TM-DSS	√	√	√
S6.8.1.9	W4	<p><u>Contaminated Groundwater and Site Runoff</u></p> <p>To prevent the water quality due to the contaminated water from the area with contamination, the following mitigation measures should be adopted.</p>	To minimise water quality impact from contaminated groundwater	Contractor	All construction sites where practicable	TM-DSS	√	√	√

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
							C1	C2	C3
Water Quality (Construction Phase)							C1	C2	C3
		<ul style="list-style-type: none"> Cover the contaminated soil and surface to prevent the generation of contaminated water. No open stockpiling of contaminated soil should be allowed to prevent generation of contaminated water due to precipitation. Contaminated water, either from groundwater or runoff, should be treated by wastewater treatment facility (WTF) to an acceptable level as indicated in TM-DSS before disposal if the deployment of such WTF is feasible. Recharging the contaminated groundwater back to the aquifer should be sought if treatment of the contaminated groundwater by WTF is not feasible, subject to the agreement with EPD. 	construction phase						
S6.8.1.10	W5	<p><u>Construction Works of near/ within Watercourses</u></p> <ul style="list-style-type: none"> Cofferdams and impermeable sheet piles should be installed as appropriate to isolate the flow of the nullah from the construction works area. The detailed design of the cofferdams will be conducted by the Contractor during the construction phase to fulfil the requirements in DSD Technical Circular No. 1/2017 “Temporary Flow Diversions and Temporary Works Affecting Capacity in Stormwater Drainage System” for DSD approval, in order to formulate 	To avoid any direct water quality impact to existing watercourses	Contractor	All construction sites where practicable	<ul style="list-style-type: none"> ETWB (Works) 5/2005 TC No. 	√	√	√

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
Water Quality (Construction Phase)							C1	C2	C3
		<p>feasible options of these temporary structure.</p> <ul style="list-style-type: none"> • Stockpiling of construction materials and dusty materials should be located from any watercourses, contained in bunded areas and covered with tarpaulin. • Construction debris and spoil should be covered with tarpaulin during storage. Timely removal of materials away from the site for disposal should be arranged to avoid being washed into the nearby watercourses. • Water pumps should be used to collect any wastewater and construction site surface runoff within the cofferdam/ temporary works platform. The collected wastewater shall be properly treated before discharge. • Toe-board and bunds shall be provided along the edge of the works area/ temporary platform to prevent wastewater/ debris from falling into the watercourses. Any temporary works site inside the watercourses should be temporarily isolated, such as by placing of sandbags or silt curtains with lead edge at bottom and properly supported props to prevent adverse impact on the water quality. • Proper shoring may need to be erected in order to prevent soil / mud from slipping into the inland water bodies. • Construction effluent, site run-off and 							

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
							C1	C2	C3
Water Quality (Construction Phase)							C1	C2	C3
		sewage should be properly collected and/or treated.							
S6.8.1.11	W6	<p><u>Removal/ Diversion of watercourses</u></p> <ul style="list-style-type: none"> Cofferdams and impermeable sheet piles should be installed as appropriate to isolate the water flow from the construction works area. Dewatering or flow diversion shall be conducted prior to the construction works to prevent water overflow to the surrounding area. Watercourse removal and flow diversion should be conducted in dry season as far as practicable when the water flow is low. Water drained from the watercourse shall be diverted to new/ temporary drainage for watercourse diversion. For watercourse removal, the water drained shall be collected and treated to meet the requirements of WPCO and TM- DSS before discharge. Any excavated land-based sediment from the removal/ diversion of watercourse shall be properly stored at bunded areas away from any watercourse and covered with tarpaulin before transporting out of the site. 	To avoid water quality impact on existing watercourses to be retained	Contractor	All construction sites where practicable	<ul style="list-style-type: none"> Water Pollution Control Ordinance TM-DSS ETWB TC (Works) No. 5/2005 ProPECC PN1/94 	√	√	√
S6.8.1.12	W7	<p><u>Removal/ Filing of ponds</u></p> <ul style="list-style-type: none"> Dewatering shall be conducted prior to the construction works to prevent water 	To avoid water quality impact on existing watercourses to be retained	Contractor	All construction sites where practicable	ProPECC PN1/94	NA	NA	√

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
<i>Water Quality (Construction Phase)</i>							C1	C2	C3
		<p>overflow to the surrounding area. Water drained from the ponds shall be collected in appropriate temporary storage tank and reuse on-site as far as practicable. Surplus drained water shall be properly disposal at STW. No direct discharge to stormwater drainage system or marine water should be allow.</p> <ul style="list-style-type: none"> Any excavated land-based sediment from the ponds shall be properly stored at bunded areas away from any watercourse and covered with tarpaulin before transporting out of the site. 							

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
							C1	C2	C3
Ecology (Construction Phase)									
S8.6.6	EC7	Precautionary surveys to check for presence of any aquatic fauna species of conservation importance in the watercourses to be directly impacted before commencement of works; affected aquatic fauna of conservation importance shall be captured and translocated to suitable receptor site(s)	To minimise direct impacts on aquatic species of conservation importance	CEDD/ Contractor	All affected watercourses Before commencement of construction works	EIAO-TM	√	√	√
S8.6.5	EC8	To conduct a baseline plant survey within all proposed works areas to ascertain the presence and update the quantities and conditions of any flora species of conservation importance; to transplant all affected plant species of conservation importance to suitable receptor site(s) before commencement of construction works	To minimise direct impacts on plant species of conservation importance	CEDD/ Contractor	All potential works areas Before commencement of construction works	EIAO-TM	√	√	√
S8.6.2	EC9	To designate 15m wide buffer on both sides of the retained watercourses; the protected zones will be maintained and properly protected by solid barriers throughout the construction phase Aquatic faunal monitoring on monthly basis shall be conducted when there are construction activities within 100m of the three retained watercourses in Area 1 and Area 3 and the new watercourse along the hillside of the western boundary of Area 3.	To minimise direct construction phase impacts on retained watercourses	CEDD/ Contractor	Retained watercourses and their buffer zones, and the new hillside river Construction phase	EIAO-TM	NA	NA	NA
S8.8	EC10	Egretry location shall be checked for any evidence of occupation during the ardeid breeding season by a qualified ecologist of the ET prior to the commencement of any works activity within 250m of the egretry; to monitor regularly the conditions of the egretry and potential impacts to egretry flight-lines.	To minimise disturbance impacts to egretry	CEDD/ Contractor	Existing and all potential egretry location(s) within 250m from any works activity Before commencement of the construction	EIAO-TM	√	√	√

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
							C1	C2	C3
<i>Ecology (Construction Phase)</i>							C1	C2	C3
					works and monitoring throughout the construction phase				
S8.6.6	EC11	Checking and clearance for nesting birds (buildings and vegetation) shall be conducted/ supervised by a qualified ecologist with relevant experience	To minimise direct impacts on nesting birds	CEDD/ Contractor	All works areas Before commencement of construction work	EIAO-TM	√	√	√
S8.6.6	EC12	Checking and clearance of bat roosts shall be conducted/ supervised by a qualified ecologist with relevant experienced	To minimise direct impacts on bat roost(s)	CEDD/ Contractor	All works areas Before commencement of construction work	EIAO-TM	√	√	√
S8.6.6	EC13	Good site practices to control construction phase water quality impacts	To minimise induced water quality impacts on nearby water bodies	CEDD/ Contractor	All works areas Construction Phase	EIAO-TM	√	√	√
S8.6.6	EC14	To provide woodland mix planting of at least 1:1 compensation area ratio for the cumulative loss of approximately 2.42ha hillside woodland; the proposed woodland planting will be conducted in the proposed hillside site (~12ha) to the west of PDA. Details of woodland planting and monitoring programme will be specified in a Woodland Compensation Plan.	To adequately compensate for cumulative loss of hillside woodlands in PDA	CEDD/ Contractor	The proposed planting site (~12ha) within CA zone at the hillside site to the west of PDA	EIAO-TM	NA	NA	NA

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
<i>Fisheries</i>							C1	C2	C3
S9.5.2	F1	<ul style="list-style-type: none"> To adopt the mitigation measures for the control of water quality impacts 	To protect fisheries resources from potential direct impacts arising from deterioration of water quality	CEDD/ Contractor	All works areas	EIAO-TM	√	√	√

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
							C1	C2	C3
Landscape and Visual (Construction Phase)									
S10.12 – Table 10.12.1, CM1	LV1	<p><u>Optimisation of Construction Areas and Providing Temporary Landscape on Temporary Construction</u></p> <ul style="list-style-type: none"> Construction areas' control shall be enforced, where possible, to ensure that the landscape and visual impacts arising from the construction activities are minimised. It includes reduction of the extent of working areas and temporary works areas, management on storing and using the construction equipment and materials, and consideration of detailed schedules to shorten the construction period. Temporary landscape treatments are considered to be adopted such as applying hydro-seeding on temporary stockpiles and reclamation areas to alleviate the potential impacts. 	Minimise impacts from construction activities on adjacent landscape and visual sensitive receivers	CEDD (via Contractor)	All construction areas and temporary works areas		√	√	√
S10.12 – Table 10.12.1, CM2	LV2	<p><u>Minimise Topographical Changes</u></p> <p>To minimise landscape and visual impacts, the vertical and horizontal alignment of the at-grade road construction works should be optimised to reduce topographical/ landform changes, as well as reduce land take and interference with natural terrain and reduce overall earth movements. Where there is a need to significantly cut into the existing landform, retaining walls should be considered as well as cut slopes, to minimise landform changes and land resumption, whilst also considering visual amenity. Earthworks and engineered slopes should be designed to provide a structurally stable and visually interesting landform, which is compatible with surrounding landscape and mimics the natural contouring and terrain (e.g. introduction and continuation of natural features such as spurs and ridges where appropriate) to support</p>	Minimise landscape and visual impacts from topographical/ landform changes	CEDD (via Contractor)	All construction areas		√	√	√

		landscape and visual assimilation with the surrounding terrain.							
S10.12 – Table 10.12.1, CM3	LV3	<p>Existing trees to be retained within the Project Site should be carefully protected during construction. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in contractor’s works areas.</p> <p>A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained</p>		Contractor)		<ul style="list-style-type: none"> • DEVB TCW No.7/2015; • ETWB TCW No.29/2004 	√	√	√
S10.12 – Table 10.12.1, CM4	LV4	<p><u>Transplanting of Existing Trees</u></p> <p>Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible.</p> <p>A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with DEVB TCW No.6/2015 and DEVB TCW 7/2015 and final locations of transplanted trees should be agreed prior to commencement of the work.</p> <p>For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted, following HyD Guidelines HQ/GN/13</p> <p>‘Interim Guidelines for Tree Transplanting Works under Highways Department’s Vegetation Maintenance Ambit’.</p>	Transplant Trees where suitable for transplantation	CEDD (via Contractor)	On site where possible	<ul style="list-style-type: none"> • DEVB TCW No.6/2015; • DEVB TCW 7/2015; • HyD Guidelines HQ/GN/13 	√	√	√

S10.12 – Table 10.12.1, CM5	LV5	<p><u>Screen Hoarding</u></p> <p>Screen hoarding shall be erected along areas of the construction boundary where the works site borders with publicly accessible routes and/or is close to visually sensitive receivers (VSRs), to screen undesirable views of the works site. It is proposed that the screening be compatible with the surrounding environment in terms of material choice and colour.</p>	Screen undesirable views of the construction sites	CEDD (via Contractor)	All construction areas and temporary works areas		√	√	√
S10.12 – Table 10.12.1, CM6	LV6	<p><u>Watercourses of higher ecological value/ Channels Protection</u></p> <p>For all the watercourses of higher ecological value inside the development area, in accordance with ETWB TCW 5/2005, consideration of protection measures should be made to minimise any impacts from the construction works. Precast structures or other similar approaches will be used to prevent any construction works in river and thus to avoid any direct water quality impact. Good site management as stipulated in ProPECC PN1/94 will be fully implemented to avoid polluted liquid or solid wastes from falling into the river waters.</p>	Avoid direct impacts to watercourses	CEDD (via Contractor)	All watercourses of higher ecological value inside the development area	<ul style="list-style-type: none"> • ETWB TCW 5/2005; • ProPECC PN1/94 	√	√	√
S10.12 – Table 10.12.1, CM7	LV7	<p><u>Construction Light Control</u></p> <p>All security floodlights for construction sites should be carefully controlled to minimise light pollution and night- time glare to nearby users.</p>	Minimise impact of night-time lighting and glare	CEDD (via Contractor)	All construction areas and temporary works areas		√	√	√
S10.12 – Table 10.12.1, CM8	LV8	<p><u>Woodland Conservation</u></p> <p>Woodland conservation is proposed to avoid large scale of potential loss of the existing secondary woodland within the PDA</p>	Avoid the loss of natural woodland areas	CEDD (via Contractor)	On site	<ul style="list-style-type: none"> • DEVB TCW No.7/2015; • ETWB TCW No.29/2004 	NA	NA	NA

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
							C1	C2	C3
Waste Management (Construction Waste)							C1	C2	C3
S11.2.7	WM1	<p><u>Comments on C&DMMP given by PFC</u></p> <ul style="list-style-type: none"> To ensure good quality rock is put to full use. Where necessary, the Project Proponent should consult the Mines Division, GEO for advice on the appropriate arrangement to put to full use the good quality rock. The Project Proponent should also maintain close liaison with the quarry operators for the necessary disposal arrangements; To on-site reuse all surplus inert C&D hard material generated within the Project for balanced cut-and-fill designs. The Project Proponent is reminded that surplus fill might be generated by others in the subsequent building development works within the Project's area. The detailed site formation design should reserve sufficient capacity to absorb all such fill materials so that no disposal would be required outside the Project area; To carry out on-site temporary storage in case of any programme mismatch between fill generation and demand, the Project Proponent should carry out on-site temporary storage. Where necessary, the Project Proponent shall ensure suitable environmental mitigation measures such as provision of covers and water spraying system are duly implemented. The Project Proponent shall also carry out necessary measures to ensure the stability of the temporary stockpiles; 	Enhance the management of C&D materials and to minimize their generation at source	Contractor	All construction sites	Section 4.1.3 of the Project Administrative Handbook for Civil Engineering Works (2014 Edition)	√	√	√

		<ul style="list-style-type: none"> • To adopt in-situ remedial measures for the contaminated soil in accordance with the EPD's Practice Guide for Investigation and Remediation of Contaminated Land. The remedial soil shall be completely reused within the development site; • To set up effective control procedures to ensure the traceability of disposal and reuse of the C&D materials; and • To adopt re-usable non-timber formwork and precast concrete construction as far as practicable. 							
S11.5.1	WM2	<p><u>Good Site Practices</u></p> <p>The following good site practices are recommended throughout the construction activities:</p> <ul style="list-style-type: none"> • nomination of an approved personnel, such as a site manager, to be responsible for the implementation of good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site; • training of site personnel in site cleanliness, appropriate waste management procedures and concepts of waste reduction, reuse and recycling; • provision of sufficient waste disposal points and regular collection for disposal; • appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; 	Minimise waste Generation during construction	Contractor	All construction sites	Waste Disposal Ordinance	√	√	√

		<ul style="list-style-type: none"> regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors; <p>a Waste Management Plan (WMP) should be prepared by the contractor and submitted to the Engineer for approval.</p>							
S11.5.1	WM3	<p><u>Waste Reduction Measures</u></p> <p>Waste reduction is best achieved at the planning and design phase, as well as by ensuring the implementation of good site practices. The following recommendations are proposed to achieve reduction:</p> <ul style="list-style-type: none"> segregate and store different types of waste in different containers, skip or stockpiles to enhance reuse or recycling of materials and their proper disposal; proper storage and site practices to minimise the potential for damage and contamination of construction materials; plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste; sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable portions (i.e. soil, broken concrete, metal etc.); and provide training to workers on the importance of appropriate waste management procedures, including waste reduction, reuse and recycling. 	Reduce waste generation	Contractor	All construction sites	Waste Disposal Ordinance	√	√	√
S11.5.1	WM4	<p><u>Storage, Collection and Transportation of Waste</u></p> <p>The following recommendation should be implemented to minimise the impacts:</p>	Good site practice to minimise the waste generation and recycle the C&D materials as	Contractor	All construction sites	<ul style="list-style-type: none"> Land (Miscellaneous Provisions) 			

		<ul style="list-style-type: none"> waste such as soil should be handled and stored well to ensure secure containment; and depends on actual site activities, certain locations within the site area would be used for storage of waste to enhance reuse. However, there would not be any designated location for storage of waste, and the storage locations would need to be adjusted to suite actual site conditions. 	far as practicable so as to reduce the amount for final disposal			Ordinance			
S11.5.1	WM5	<p><u>Excavated Sediment</u></p> <p>The anticipated minor amount excavated sediment is proposed to be stabilised / solidified by mixing with cement so that the mixture is suitable to be reused on-site as backfill in construction of road base.</p>	Handle excavated sediment	Contractor	All construction sites where applicable	ETWB-TCW 34/2002	√	√	√
S11.5.1	WM6	<p><u>Collection and Transportation of Waste</u></p> <p>The following recommendation should be implemented to minimise the impacts:</p> <ul style="list-style-type: none"> waste such as soil should be handled and stored well to ensure secure containment; stockpiling area should be provided with covers and water spraying system to prevent materials from wind- blown or being washed away; and different locations should be designated to stockpile each material to enhance reuse. 	Minimise waste impacts from storage	Contractor	All construction sites	Waste Disposal Ordinance	√	√	√
S11.5.1	WM7	<p><u>Site Formation and C&D Materials</u></p> <p>Wherever practicable, C&D materials should be segregated from other wastes to avoid contamination and ensure acceptability at public fill reception facilities or reclamation sites. The following mitigation measures should be implemented in handling the excavated and C&D materials:</p> <ul style="list-style-type: none"> maintain temporary stockpiles and reuse 	Minimise waste impacts from excavated and C&D materials	Contractor	All construction	<ul style="list-style-type: none"> Land (Miscellaneous Provisions) Ordinance Waste Disposal Ordinance ETWB TCW 			

		<p>excavated fill material for backfilling;</p> <ul style="list-style-type: none"> carry out on-site sorting; make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate; and <p>implement a trip-ticket system for each works contract to ensure that the disposal of C&D materials are properly documented and verified.</p>				No. 19/2005			
S11.5.1	WM8	<p><u>Chemical Waste</u></p> <p>If chemical wastes are produced at the construction site, the Contractors should register with EPD as chemical waste producer. Chemical wastes should be stored in appropriate containers and collected by a licensed chemical waste collector. Chemical wastes (e.g. spent lubricant oil) should be recycled at an appropriate facility as far as possible, while the chemical waste that cannot be recycled should be disposed of at either the Chemical Waste Treatment Centre, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.</p>	Control the chemical waste and ensure proper storage, handling and disposal.	Contractor	All construction sites	<ul style="list-style-type: none"> Waste Disposal (Chemical Waste) (General) Regulation Code of Practice on the Packaging, Labelling and Storage of Chemical Waste 	√	√	√
S11.5.1	WM9	<p><u>Asbestos Containing Materials</u></p> <p>Some key precautionary measures related to the handling and disposal of asbestos are listed as below.</p> <ul style="list-style-type: none"> Adoption of protection, such as full containment, mini containment, or segregation of work area; Provision of decontamination facilities for cleaning of workings, equipment and bagged waste before leaving the work area; Adoption of engineering control techniques to prevent fibre release from work area, such as 	Precautionary measures to handle and disposal of asbestos	Contractor	All construction sites	<ul style="list-style-type: none"> Handling of Asbestos Containing Materials in Buildings (ProPECC PN 2/97) 	√	√	√

		<p>use of negative pressure equipment with high efficiency particulate air (HEPA) filters to control air flow between the work area and the outside environment;</p> <ul style="list-style-type: none"> • Wetting of asbestos containing materials before and during disturbance, minimizing the breakage and dropping of asbestos containing materials, and packing of debris and waste immediately after it is produced; • Cleaning of work area by wet wiping and vacuuming with HEPA filtered vacuum cleaner; • Coating on any surfaces previously in contact with or contained by asbestos with a sealant; • Proper bagging, safe storage and disposal of asbestos and asbestos contaminated waste; • Pre-treatment of all effluent from the work area before discharged; and • Air monitoring strategy to check the leakage and clearance of the work area during and after the asbestos work. 							
S11.5.1	WM10	<p><u>General Refuse</u></p> <ul style="list-style-type: none"> • General refuse should be stored in enclosed bins separately from construction and chemical wastes. Recycling bins should also be placed to encourage recycling. • Preferably enclosed and covered areas should be provided for general refuse collection and routine cleaning for these areas should also be implemented to keep areas clean. • A reputable waste collector should be employed to remove general refuse on a daily 	Minimise production of the general refuse and avoid odour, pest and litter impacts	Contractor	All construction sites	<ul style="list-style-type: none"> • Waste Disposal Ordinance 	√	√ The Contractor should dispose general refuse to enhance house-keeping. (Portion 12)	√ General refuse on-site should be disposed to enhance house-keeping (MSB)

		basis.							
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EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
							C1	C2	C3
Land Contamination									
S12.6	LC1	<ul style="list-style-type: none"> Undertaking environmental Site Inspection (SI) for all potentially contaminated sites as listed in the Contamination Assessment Plan (CAP). 	Verify the land contamination potential before the commencement of construction	Project Proponent / Detailed Design Consultant / Private developer	All potentially contaminated sites as listed in the CAP	<ul style="list-style-type: none"> Annex 19 of the EIAO-TM, Guidelines for Assessment of Impact On Sites of Cultural Heritage and Other Impacts (Section 3: Potential Contaminated Land Issues); Guidance Manual for Use of Risk-Based Remediation Goals (RBRGs) for Contaminated Land Management; Guidance Notes for Contaminated Land Assessment and Remediation; and Practice Guide for Investigation and Remediation of 	√	√	√

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							C1	C2	C3
Land Contamination							C1	C2	C3
						Contaminated Land • Recommendations in Health Risk Assessment			
S12.7	LC2	Re-appraisal would be required for the 'potentially contaminated landuses', 'industrial site with no potential for land contamination' and 'Non-Industrial landuses' within the land contamination assessment area as the development of these sites/ areas would only commence a number of years later, which may allow changes in the land usage of these sites and may give rise to potential land contamination issues. The Project Proponent's appointed consultant would prepare a supplementary CAP presenting the findings of the re- appraisal and strategy of the recommended SI, if required, and submit to EPD for review and approval.	To assess the latest site situation and identify any potential additional hot spots and contaminated sites.	Project Proponent / Detailed Design Consultant / Private developer	All the surveyed sites as listed in the CAP, other remaining areas of the PDAs and works areas for the associated infrastructures	Ditto	√	√	√
S12.7	LC3	After approval of the supplementary CAP and upon completion of the SI works, the Project Proponent should prepare and submit a supplementary Contamination Assessment Report (CAR) for all potentially contaminated sites listed in the CAP to EPD for agreement.	Present the findings of SI and evaluate the level and extent of potential contamination	Project Proponent / Detailed Design Consultant / Private developer	All the surveyed sites as listed in the CAP, other remaining areas of the PDAs and works areas for the associated infrastructures	Ditto	√	√	√
S.12.8	LC4	Preparation and submission of Remediation Action Plan (RAP) to EPD for agreement if land contamination is confirmed.	Recommend appropriate mitigation measures for	Project Proponent / Detailed	All the surveyed sites as	Ditto	NA	NA	NA

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							C1	C2	C3
<i>Land Contamination</i>							C1	C2	C3
			the contaminated soil and groundwater identified in the assessment remediation is required	Design Consultant / Private developer	listed in the CAP, other remaining areas of the PDAs and works areas for the associated infrastructures				
S.12.8	LC5	Preparation and submission of Remediation Report (RR) to EPD for agreement.	Demonstrate that the decontamination work is adequate and is carried out in accordance with the endorsed CAR and RAP	Project Proponent / Detailed Design Consultant / Private developer	All the surveyed sites as listed in the CAP, other remaining areas of the PDAs and works areas for the associated infrastructures		NA	NA	NA

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							C1	C2	C3
<i>Cultural Heritage Impact (Construction and Operational Phase)</i>							C1	C2	C3
S.13.7	CH1	<ul style="list-style-type: none"> Further archaeological surveys will be conducted upon land resumption prior to the commencement of any construction works within areas of moderate archaeological potential at three locations: area near Tin Shui Wai West Interchange, area near Tong Yan San Tsuen and area near Shan Ha Tsuen. The scope and programme of the proposed archaeological work shall be agreed with AMO. Subject to the findings of the archaeological work, appropriate mitigation measures would be proposed by the project proponent in prior agreement with AMO. For the areas with low-moderate archaeological potential, AMO should be informed immediately in case of discovery of antiquities or supposed antiquities in the course of the construction works. Agreement from AMO would be sought on the follow-up actions if required 	To assess further archaeological potential and development impacts on private land for the purpose of protecting and managing cultural heritage. Control EM&A Performance.	Project Proponent	Area near Tin Shui Wai West Interchange, area near Tong Yan San Tsuen and area near Shan Ha Tsuen to be surveyed upon land resumption and prior to construction	AMO Ordinance (Cap 53) Guidance notes on assessment of impact on sites of CH in EIA studies. EIAO (Cap 499). EIAO-TM Annexes 10 and 19. HKPSG. Guidelines for Cultural Heritage Impact Assessment	NA	NA	NA
S.13.7	CH2	<ul style="list-style-type: none"> The Grade 3 historic building of Yeung Hau temple at Tong Yan San Tsuen should be preserved via a 5m non-construction buffer with screening to prevent visitor and worker access and minimise dust during the construction phase. A site audit should be conducted at 6 month intervals during the construction phase to monitor potential direct impacts as well as indirect impacts from noise, dust, visual and vibration effects from adjacent 	Protect and manage cultural heritage. To assess further heritage impacts for the purpose of protecting built heritage and mitigating development impacts.	Project Proponent	Yeung Hau Temple (Tong Yan San Tsuen), Tang Ancestral Hall (Ha Tsuen) and 33 graves located within 100m		NA	NA	NA

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
<i>Cultural Heritage Impact (Construction and Operational Phase)</i>							C1	C2	C3
		<p>construction works.</p> <ul style="list-style-type: none"> Built heritage in forms of temples, ancestral halls and buildings throughout the area also offers the opportunity for incorporation of historic buildings into heritage trails or visitor areas. The planned sewer works to the north-west of the PDA near Ha Tsuen Shi are expected to impact a narrow disturbed footprint along Tin Ha Road south of the village. The impact of these works on the declared monument, i.e. Tang Ancestral Hall located 90m away, are expected to be nil. Thus no mitigation measures are needed. A total of 33 graves, which none of these graves yielded dates older than 100 years (no earlier than 1930), were recorded within the 100m assessment area. The potential management measures on these graves are either retain or relocate within the development. 	Control EM&A Performance.		<p>assessment (A 5m non-construction buffer and a 6-month- interval site audit to Yeung Hau Temple will be applied during construction.</p> <p>A further study to design heritage trails or visitor Areas incorporating heritage buildings in the area is recommended to be conducted during detailed design stage. Once the idea of heritage trails is pursued, the implementation and management</p>				

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
<i>Cultural Heritage Impact (Construction and Operational Phase)</i>							C1	C2	C3
					agencies shall also be identified before operation. Some of the 33 graves within 100m buffer could potentially be negotiated to relocate before the construction stage)				

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
							C1	C2	C3
EM&A Project									
S14.2	EM1	<ul style="list-style-type: none"> An Independent Environmental Checker needs to be employed as per the EM&A Manual. 	Control EM&A Performance	Project Proponent	All construction sites	<ul style="list-style-type: none"> EIA Ordinance Guidance Note No.4/2010 EIAO-TM 	√	√	√
S14.2-14.4	EM2	<ol style="list-style-type: none"> An Environmental Team needs to be employed as per the EM&A Manual. Prepare a systematic Environmental Management Plan to ensure effective implementation of the mitigation measures. <p>An environmental impact monitoring needs to be implementing by the Environmental Team to ensure all the requirements given in the EM&A Manual are fully complied with.</p>	Perform environmental monitoring & auditing	Project Proponent	All construction sites	<ul style="list-style-type: none"> EIA Ordinance Guidance Note No.4/2010 EIAO-TM 	√	√	√