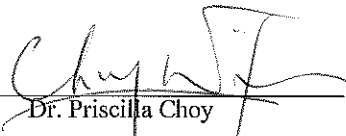


Civil Engineering and Development Department

**Service Contract No. NDO 04/2019
Environmental Team for Environmental
Monitoring and Audit Works in
Construction Phase for the First Phase
Development of Kwu Tung North and
Fanling North New Development Areas**

**Monthly Environmental Monitoring and
Audit Report for November 2020
(Version 1.0)**

Certified By


Dr. Priscilla Choy
(Environmental Team Leader)

REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

WELLAB accepts no responsibility for changes made to this report by third parties.

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Agreement No. CE 33/2019 (EP)

**Independent Environmental Checker for Environmental Monitoring and Audit Works in
Construction Phase for the First Phase Development of Kwu Tung North and Fanling
North New Development Areas – Investigation**

Monthly Environmental Monitoring and Audit Report No. 13 (November 2020)

11 December 2020

BY EMAIL

Dear Sir,

We refer to email of 11 December 2020 attaching the Monthly Environmental Monitoring and Audit Report No. 13 prepared by the Environmental Team (ET) of the captioned.

We would like to inform you that we have no adverse comment on the captioned submission. Therefore we write to verify the captioned submission in accordance with the Condition 3.4 of the Environmental Permit no. EP-466/2013, EP-467/2013/A, EP-468/2013/A, EP-469/2013, EP-470/2013, EP-473/2013/A, EP-475/2013/A and EP-546/2017.

Should you have any queries, please contact the undersigned or our Ms. Liz Lo at 2828 5751.

Yours faithfully,
For and on behalf of the
Mott MacDonald Hong Kong Limited



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TABLE OF CONTENTS

	Page
EXECUTIVE SUMMARY	1
Introduction	1
Environmental Monitoring and Audit Progress	2
Breaches of Action and Limit Levels	3
Air Quality	4
Construction Noise	4
Water Quality	4
Land Contamination	4
Landfill Gas Monitoring	4
Ecological Monitoring	4
Complaint Log	4
Notification of Summons and Successful Prosecutions	4
Reporting Changes	4
Future Key Issues	5
 1 INTRODUCTION	 7
Purpose of the report.....	7
Structure of the report.....	7
 2 PROJECT INFORMATION	 9
Background	9
Project Organization	10
Summary of Construction Works Undertaken During Reporting Month	12
Construction Programme	13
Status of Environmental Licences, Notifications and Permits.....	13
 3 AIR QUALITY MONITORING	 16
Monitoring Requirements	16
Monitoring Location.....	16
Monitoring Equipment.....	16
Monitoring Parameters, Frequency and Duration	17
Monitoring Methodology and QA/QC Procedure.....	18
Results and Observations.....	20
Event and Action Plan	21
 4 NOISE MONITORING	 22
Monitoring Requirements	22
Monitoring Location.....	22
Monitoring Equipment.....	22
Monitoring Parameters, Frequency and Duration	23
Monitoring Methodology and QA/QC Procedures	24
Maintenance and Calibration	24
Results and Observations.....	24
Event and Action Plan	26
 5 WATER QUALTY MONITORING	 27
Monitoring Requirements	27
Monitoring Parameters, Frequency	27
Results and Observations.....	27
 6 LAND CONTAMINATION (AMBIENT ARSENIC MONITORING)	 29
Monitoring Requirements	29
Monitoring Location.....	29

Monitoring Equipment.....	30
Monitoring Parameters, Frequency and Duration	30
Monitoring Methodology and QA/QC Procedure.....	30
Maintenance/Calibration.....	31
Laboratory Measurement / Analysis	31
Results and Observations.....	32
Event and Action Plan	32
7 LANDFILL GAS MONITORING	33
Monitoring Requirement.....	33
Monitoring Parameters and Frequency.....	33
Monitoring Locations	33
Monitoring Equipment.....	34
Results and Observations.....	34
Event and Action Plan	34
8 ECOLOGICAL MONITORING	35
Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River, Sheung Yue River, Shek Sheung River and Long Valley	35
Monitoring of Measures to Minimise Impacts to Ma Tso Lung Stream and Siu Hang San Tsuen Stream, and Long Valley.....	37
Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution.....	37
Results and Observation	40
9 ENVIRONMENTAL SITE INSPECTION.....	41
Site Audits.....	41
Implementation Status of Environmental Mitigation Measures	43
Solid and Liquid Waste Management Status	45
10 ENVIRONMENTAL NON-CONFORMANCE	46
Summary of Exceedances	46
Summary of Environmental Non-Compliance.....	46
Summary of Environmental Complaint.....	46
Summary of Environmental Summon and Successful Prosecution	46
11 FUTURE KEY ISSUES.....	47
Key Issues in the Coming Two Months	47
Monitoring Schedule for the Next Month.....	52
Construction Programme for the Next Month	53
12 CONCLUSIONS AND RECOMMENDATIONS.....	54
Conclusions	54
Recommendations	54

LIST OF TABLES

Table I	Works Contracts under relevant Environmental Permit(s) in the Reporting Month
Table II	Summary Table for EM&A Activities in the Reporting Month
Table III	Summary Table for Events Recorded in the Reporting Month
Table IV	Summary Table for Site Activities in the coming Two Months
Table 2.1	Summary of EPs under the Project and the Respective Work Contracts
Table 2.2	Key Contacts of the Project
Table 2.3	Summary Table for Major Site Activities in the Reporting Month
Table 2.4	Status of Environmental Licences, Notifications and Permits
Table 3.1	Location for Air Quality Monitoring Locations
Table 3.2	Air Quality Monitoring Equipment
Table 3.3	Impact Dust Monitoring Parameters, Frequency and Duration
Table 3.4	Summary Table of 1-hour TSP Monitoring Results during the Reporting Month
Table 3.5	Summary Table of 24-hour TSP Monitoring Results during the Reporting Month
Table 3.6	Observation at Dust Monitoring Stations
Table 4.1	Location for Noise Monitoring Stations
Table 4.2	Noise Monitoring Equipment
Table 4.3	Noise Monitoring Parameters, Duration and Frequency
Table 4.4	Summary Table of Noise Monitoring Results during the Reporting Month
Table 4.5	Observation at Noise Monitoring Stations
Table 5.1	Water Quality Monitoring Parameters and Frequency
Table 6.1	Location of Ambient Arsenic Monitoring station
Table 6.2	Ambient Arsenic Monitoring Equipment
Table 6.3	Impact Ambient Arsenic Monitoring Parameters, Frequency and Duration
Table 6.4	Summary Table of 24-hour RSP Monitoring Results during the Reporting Month
Table 7.1	Landfill Gas Monitoring Equipment
Table 9.1	Summary of Site Audit
Table 9.2	Observations and Recommendations of Site Audit
Table 9.3	Photographic Records and Implementation Status of Measures
Table 11.1	Summary Table for Site Activities, Potential Environmental Impacts and Recommended Mitigation Measures in the coming Two Months

LIST OF DRAWINGS

Drawing no. 1	Project Boundary for the Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas
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LIST OF FIGURES

Figure 1	Location of Air Quality Monitoring Station (KTN)
Figure 2	Location of Air Quality Monitoring Station (FLN)
Figure 3	Location of Noise Monitoring Station (KTN)
Figure 4	Location of Noise Monitoring Station (FLN)
Figure 5	Location of Ambient Arsenic Monitoring Station
Figure 6	Location of Landfill gas monitoring
Figure 7	Location of Monitoring of Measures to minimize Disturbance to Water Birds on Ng Tung, Sheung Yue River and Long Valley (Transect Routes for T1-T3&T5)
Figure 8	Location of Monitoring Stations at Ma Tso Lung Stream
Figure 9	Location of Transect Routes of Ecological Sensitive Habitats (Non-Aquatic Fauna) Transects (T1, T3-T6)
Figure 10	Hoarding Plan of EP-466/2013
Figure 11	Hoarding Plan of EP-467/2013/A
Figure 12	Hoarding Plan of EP-468/2013/A
Figure 13	Hoarding Plan of EP-469/2013
Figure 14	Hoarding Plan of EP-473/2013/A
Figure 15	Hoarding Plan of EP-475/2013/A

LIST OF APPENDICES

Appendix A	Construction Programme
Appendix B	Action and Limit Levels
Appendix C	Copies of Calibration Certificates
Appendix D	Environmental Monitoring Schedules
Appendix E	Air Quality and Ambient Arsenic Monitoring Results and Graphical Presentation
Appendix F	Noise Monitoring Results and Graphical Presentation
Appendix G	Landfill gas monitoring result
Appendix H	Ecological Monitoring Result
Appendix I	Weather Condition
Appendix J	Event Action Plans
Appendix K	Summary of Exceedance
Appendix L	Site Audit Summary
Appendix M	Environmental Mitigation Implementation Schedule (EMIS)
Appendix N	Waste Generation in the Reporting Month
Appendix O	Complaint Log
Appendix P	Summary of Successful Prosecution
Appendix Q	Summary Table for Required Submission under Environmental Permits

EXECUTIVE SUMMARY**Introduction**

1. This is the 13th monthly Environmental Monitoring and Audit (EM&A) Report under First Phase Development of Kwu Tung North (KTN) and Fanling North (FLN) New Development Areas (NDAs), comprising the Advance Works and First Stage Works (the Project). This report was prepared by Wellab Limited under “Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of KTN and FLN NDAs” (hereinafter called the “Service Contract”). This report documents the findings of Environmental Monitoring and Audit (EM&A) work conducted in November 2020.
2. During the reporting month, the following Works Contracts under relevant Environmental Permit(s) were undertaken for the Project:

Table I Works Contracts under relevant Environmental Permit(s) in the Reporting Month

Works Contracts	Environmental Permit No.	Designated Project (DP)	Commencement date of construction
Contract No. ND/2019/01 - Kwu Tung North New Development Area, Phase 1: Site Formation and Infrastructure Works	EP-466/2013	Castle Peak Road Diversion	12 th August 2020
	EP-467/2013/A	Kwu Tung North New Development Area Road P1 and P2 and Associated New Kwu Tung Interchange and Pak Shek Au Interchange Improvement	12 th August 2020
	EP-468/2013/A	Kwu Tung North New Development Area Road D1 to D5	1 st June 2020
	EP-470/2013	Utilization of Treated Sewage Effluent (TSE) from Shek Wu Hui Sewage Treatment Works	23 rd March 2020
Contract No. ND/2019/02 - Kwu Tung North New Development Area, Phase 1: Roads and Drains between Kwu Tung North New Development Area and Shek Wu Hui	EP-469/2013	Sewage Pumping Stations in Kwu Tung North New Development Area	28 th October 2020
Contract No. ND/2019/03 - Kwu Tung North New Development Area, Phase 1:	EP-468/2013/A	Kwu Tung North New Development Area Road D1 to D5	3 rd July 2020

Works Contracts	Environmental Permit No.	Designated Project (DP)	Commencement date of construction
Development of Long Valley Nature Park	EP-473/2013/A	Fanling Bypass Eastern Section (New Road)	6 th October 2020
Contract No. ND/2019/05 - Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shung Him Tong to Kau Lung Hang)	EP-473/2013/A	Fanling Bypass Eastern Section (New Road)	1 st August 2020
Contract No. ND/2019/06 - Fanling North New Development Area, Phase 1: Re-provisioning of North District Temporary Wholesale Market for Agricultural Products	EP-475/2013/A	Reprovision of temporary Wholesale Market in Fanling North New Development Area	29 th October 2019

Environmental Monitoring and Audit Progress

3. A summary of the EM&A activities in this reporting month is listed in **Table II** below:

Table II Summary Table for EM&A Activities in the Reporting Month

EM&A Activities		Works Contracts				
		ND/2019/01	ND/2019/02	ND/2019/03	ND/2019/05	ND/2019/06
1-hr Total Suspended Particulates (TSP) Monitoring		2, 6, 12, 18, 24, 30 Nov 2020	N/A	2, 3, 6, 9, 12, 13, 18, 19, 24, 25, 30 Nov 2020	3, 9, 13, 19, 25 Nov 2020	N/A
24-hr TSP Monitoring		2, 6, 12, 18, 24, 30 Nov 2020	N/A	2, 6, 12, 18, 24, 30 Nov 2020	2, 6, 12, 18, 24, 30 Nov 2020	
24-hr RSP (Ambient Arsenic) Monitoring for Land Contamination		5, 11, 17, 23, 27 Nov 2020	N/A	5, 11, 17, 23, 27 Nov 2020	N/A	
Noise Monitoring		2, 12, 18, 24 Nov 2020	2, 12, 18, 24 Nov 2020	3, 9, 19, 25 Nov 2020		
Landfill Gas Monitoring		17 Nov 2020	N/A	N/A	N/A	N/A
Ecologic-al Survey	Monitoring of Measures to Minimise Disturbance to Water Birds on Ng Tung River, Sheung Yue River, and Long Valley	N/A*	N/A*	2, 13, 16, 25, 30 Nov 2020	N/A*	N/A*

	Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution	20, 27 Nov 2020	20, 27 Nov 2020	27 Nov 2020	27 Nov 2020	N/A*
Environmental Site Inspection		3, 10, 17, 24 Nov 2020	4, 11, 20, 25 Nov 2020	6, 13, 17, 27 Nov 2020	2, 11, 16, 23, 30 Nov 2020	5, 9, 19, 26 Nov 2020

Remark:

N/A – No relevant monitoring is required according to updated EM&A Manual

N/A* – No relevant monitoring is required according to Baseline Ecological Monitoring Plan (Table 3.1)

[1] Since the distance between noise monitoring station CP-FLN-NMS2 and site boundary of ND/2019/03 under EP-473/2013/A exceeds 300m. The monitoring station is not applicable to the contract.

Breaches of Action and Limit Levels

4. Summary of the environmental exceedances of the reporting month is tabulated in **Table III**.

Table III Summary Table for Events Recorded in the Reporting Month

Environmental Monitoring	Parameter	No. of non-project related Exceedances		Total No. of non-project related Exceedances	No. of Exceedance related to the Construction Works of the Contract		Total No. of Exceedance related to the Construction Works of the Contract
		Action Level	Limit Level		Action Level	Limit Level	
Air Quality	1-hr TSP	0	0	0	0	0	0
	24-hr TSP	0	0	0	0	0	0
	24-hr RSP (Ambient Arsenic)	0	0	0	0	0	0
Noise	L _{eq} (30min)	1	0	1	0	0	0
Landfill Gas	O ₂	0	0	0	0	0	0
	CH ₄						
	CO ₂						

Air Quality

5. All construction air quality monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

Construction Noise

6. All construction noise monitoring was conducted as scheduled in the reporting month. One Action Level exceedance was recorded due to documented noise complaints received for Contract ND/2019/05 in this reporting month. No Limit Level exceedance was recorded in the reporting month.

Water Quality

7. No construction of channel for alternation of natural streams was carried out in the reporting month. Therefore, no water quality monitoring was conducted. For the details, please refer to Section 5.

Land Contamination

8. All ambient arsenic monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

Landfill Gas Monitoring

9. Monitoring of landfill gases in the reporting month was carried out by the Contractor under ND/2019/01 at excavation location, Portion 6b. No Limit Level exceedance was recorded.

Ecological Monitoring

10. All ecological monitoring was conducted as scheduled in the reporting month. Action and limit level will be compared after the issue of Final Baseline Ecological Report. The ecological monitoring result in the Reporting Month is shown in **Appendix H**.

Complaint Log

11. Two environmental complaints were received in the reporting month. One complaint was received for ND/2019/01 and one complaint was received for ND/2019/05.

Notification of Summons and Successful Prosecutions

12. No notification of summons or successful prosecutions was received in the reporting month.

Reporting Changes

13. This report has been prepared in compliance with the reporting requirements for the subsequent monthly EM&A Report as required by the “Updated Environmental Monitoring and Audit Manual for Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas” (Updated EM&A Manual).

Future Key Issues

14. The major site activities for the coming two months are shown in **Table IV**.

Table IV Summary Table for Site Activities in the coming Two Months	
Contract No.	Site Activities (December 2020 and January 2021)
ND/2019/01	<ul style="list-style-type: none"> (a) Ground investigation, site clearance and tree felling in Portion 1f; (b) Site clearance, construct temporary road and soil nail in Portion 2 (c) Tree survey and site clearance in Portion 3 (d) Construct temporary noise barrier, construct open channel and sand trap in Portion 4 (e) Temporary slope cutting and temporary soil nailing in Portion 5 (f) Site clearance, temporary slope cutting and temporary soil nailing, sheetpiling and excavation, pipes laying, pre-bored H-piling in Portion 6a (g) Provide soil treatment for HAC soil by ECM in Portion 6b (h) Construction of temporary road for alternative Po Lau Road and stockpiling in Portion 7 (i) Site clearance, construction of retaining wall, cut slope and soil nailing works, excavation works for fresh water service reservoir, sub-soil drain laying at flushing water reservoir, R.C. works for flushing water S.R. in Portion 8a; (j) Tree survey, site clearance and ground investigation in Portion 9b&9d (k) Sheetpiling and excavation works, pipes laying in Portion 10a (l) Site Clearance in 10b (m) Site Clearance in Portion 11a
ND/2019/02	<ul style="list-style-type: none"> (a) GI (b) Trial Pit (c) Tree felling (d) ELS (e) Hoarding erection (f) Pre-bored Socketed H-pile

ND/2019/03	<p>(a) Drainage works along Yin Kong Road, soil replacing in Portion 1;</p> <p>(b) Portion 2 to Portion 20</p> <ul style="list-style-type: none"> - Recommended initial maintenance work - Erection of Permanent Boundary Structure - Construction of Irrigation Channel - Geotechnical Works in Long Valley (Trail Pits & Drill Hole) - Construction of Temporary Road in Long Valley - Asbestos Removal in Long Valley - Demolition of Existing Construction in Handed over Area - Construction works of storage shed and type 2 Storage House - Wetland Creation & Restoration works after Obtaining Approval from AFCD <p>(c) Portion 22 and Portion 27</p> <ul style="list-style-type: none"> - Site clearance and demolition at Portion 22 - Fish cage placing for Pre-Translocation
ND/2019/05	<p>(a) Site Clearance</p> <p>(b) Establishment of Temporary Site</p> <p>(c) Tree Felling</p> <p>(d) Trial Pits</p> <p>(e) Installation of site hoarding, fencing and temp. facilities</p> <p>(f) Construction of PM's Site Accommodation</p> <p>(g) Ground Investigation/Pre-drilling</p> <p>(h) Bored piling</p> <p>(i) Socketed H-pile installation</p> <p>(j) Footpath construction</p> <p>(k) Removal of existing noise barrier</p>
ND/2019/06	<p>(a) Construction of finishing works, E&M works and Building Services works of Management Office Building (MOB) at Portion 4.</p> <p>(b) Installation of steel canopy column at Portion 3.</p> <p>(c) Construction of underground utilities in the final stage market at Portion 3.</p> <p>(d) Tree felling at Portion 6</p> <p>(e) Off-site fabrication and welding test of columns and steel truss of steel canopy in China.</p> <p>(f) Demolition of existing public toilet at Portion 5.</p> <p>(g) Slope improvement works at Portion 6.</p>

1 INTRODUCTION

- 1.1 Wellab Limited was commissioned by Civil Engineering and Development Department (CEDD) as the Environmental Team to undertake the Environmental Monitoring and Audit (EM&A) services for the Works Contracts involved in the implementation of First Phase Development of Kwu Tung North (KTN) and Fanling North (FLN) New Development Areas (NDAs) Project to ensure that the environmental performance of the Works Contracts comply with the requirements specified in the Environmental Permits (EPs), Updated Environmental Monitoring & Audit (EM&A) Manual, Environmental Impact Assessment (EIA) Report of the KTN FLN NDAs project and other relevant statutory requirements.

Purpose of the report

- 1.2 This is the 13th EM&A Report which summarises the key findings of the EM&A programme in November 2020.

Structure of the report

- 1.3 The structure of the report is as follows:

- Section 1: **Introduction** - purpose and structure of the report.
- Section 2: **Project Information** - summarises background and scope of the Project, site description, project organisation and contact details, construction programme, the construction works undertaken and the status of Environmental Permits/Licences during the reporting month.
- Section 3: **Air Quality Monitoring** - summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequencies, monitoring locations, Action and Limit Levels, monitoring results and Event / Action Plans.
- Section 4: **Noise Monitoring** - summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequencies, monitoring locations, Action and Limit Levels, monitoring results and Event / Action Plans.
- Section 5: **Water Quality Monitoring** - summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequencies, monitoring locations, Action and Limit Levels and Event / Action Plans.
- Section 6: **Land Contamination (Ambient Arsenic Monitoring)** - summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequencies, monitoring locations, Action and Limit Levels, monitoring results and Event / Action Plans.
- Section 7: **Landfill Gas Monitoring** - summarises the monitoring requirement, monitoring parameters and frequency, monitoring locations, Action and Limit Levels, monitoring results and observation, and Event / Action Plans.
- Section 8: **Ecological Monitoring** – summarises the details of Monitoring of Measures to Minimise Disturbance to Waterbirds in Ng Tung River, Sheung Yue River, Shek Sheung River and Long Valley, Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution , result and observation during the Reporting Month

-
- Section 9: **Environmental Site Inspection** - summarises the audit findings of the weekly site inspections undertaken within the reporting month.
- Section 10: **Environmental Non-conformance** - summarises any monitoring exceedance, environmental complaints, environmental summons and successful prosecutions within the reporting month.
- Section 11: **Future Key Issues** - summarises the impact forecast, proposed mitigation measures and monitoring schedule for the upcoming months.
- Section 12: **Conclusions and Recommendations**

2 PROJECT INFORMATION

Background

- 2.1 The Kwu Tung North (KTN) and Fanling North (FLN) New Development Areas (NDAs) are one of the important sources of land and housing supply in the medium and long term. The development of the KTN and FLN NDAs will be implemented in phase for full completion by 2031. The Phase 1 of the NDAs development, comprising the Advance Works and First Stage Works, is targeted to be implemented from the second half of 2019 progressively. The Advance and First Stage Works would include site formation, engineering infrastructure works (including roads, drainage, sewerage, waterworks, landscaping works, pumping stations, and fresh water and flushing water service reservoirs), soil remediation, reprovisioning of North District Temporary Wholesale Market, development of a nature park at Long Valley and implementation of environmental mitigation measures.
- 2.2 The scope of works under the Advance and First Stage Works comprises the following:
- a) The Advance Works (PWP item No. 7747CL-2) consist of:
 - i) site formation of land (including soil remediation) in KTN and FLN NDAs for housing, community facilities and engineering infrastructure;
 - ii) construction of roads including the eastern section of Fanling Bypass (FLBP(E)) connecting the FLN NDA to Fanling Highway and other roads with footpaths and cycle tracks, and associated junction/ road improvements;
 - iii) engineering infrastructure works including drainage. Sewerage (including two sewage pumping stations), waterworks (including a fresh water service reservoir and a flushing water service reservoir in the KTN NDA), landscape works and slopeworks;
 - iv) part expansion and upgrading of Shek Wu Hui Sewage Treatment Works (SWHSTW);
 - v) reprovisioning works; and
 - vi) implementation of environmental mitigation measures and environmental monitoring and audit (EM&A) programme for the works mentioned in (i) to (v) above.
 - b) The First Stage Works (PWP item No. 7759CL) consist of:
 - i) development of a nature park at Long Valley including provision of a visitor centre and a footbridge spanning across Sheung Yue River for connection between these two facilities;
 - ii) reprovisioning of two egret sites in the FLN NDA and enhancement works to an existing egret site in the KTN NDA;
 - iii) site formation of land for a village resite area and a district police station in the KTN NDA;
 - iv) engineering infrastructure works including roads, drainage, sewerage, waterbirds, and landscape works; and
 - v) implementation of environmental mitigation measures and environmental monitoring and audit (EM&A) programme for the works mentioned in (i) to (iv) above.

- 2.3 The Project which covers KTN and FLN NDAs is a designated project (DP) under Schedule 3 of the Environmental Impact Assessment (EIA) Ordinance (Cap. 499). In October 2013, the EIA Report (AEIAR-175/2013) for the Project was approved by the Director of Environmental Protection pursuant to the EIA Ordinance. The relevant EPs under the Project and the respective Work Contracts are summarized in **Table 2.1**.

Table 2.1 Summary of EPs under the Project and the Respective Work Contracts

EP No.	Designated Project	C1	C2	C3	C5 A	C5 B	C6	C7
EP-466/2013	Castle Peak Road Diversion	✓						
EP-467/2013/A	Kwu Tung North New Development Area Road P1 and P2 and Associated New Kwu Tung Interchange and Pak Shek Au Interchange Improvement	✓						
EP-468/2013/A	Kwu Tung North New Development Area Road D1 to D5	✓		✓				
EP-469/2013	Sewage Pumping Stations in Kwu Tung North New Development Area		✓					
EP-470/2013	Utilization of Treated Sewage Effluent (TSE) from Shek Wu Hui Sewage Treatment Works	✓						
EP-473/2013/A	Fanling Bypass Eastern Section			✓	✓	✓		
EP-475/2013/A	Reprovision of temporary Wholesale Market in Fanling North New Development Area						✓	
EP-546/2017	Fanling North Temporary Sewage Pumping Station				✓			

Note: C1: ND/2019/01 C2: ND/2019/02 C3: ND/2019/03 C5A: ND/2019/04
C5B: ND/2019/05 C6: ND/2019/06 C7: ND/2019/07

- 2.4 The site boundary of the Project and all Works Contracts are shown in **Drawing No. 1**.
- 2.5 The required submissions and submission status under Environmental Permits are shown in **Appendix Q**.

Project Organization

- 2.6 Different parties with different levels of involvement in the Project organization include:
- Project Proponent – Civil Engineering and Development Department (CEDD)
 - *Supervisor / Supervisor's* Representative – AECOM
 - Environmental Team (ET) – Wellab Limited
 - Independent Environmental Checker (IEC) – Mott MacDonald Hong Kong Ltd (MottMac)
- 2.7 The key personnel contact names and numbers are summarised in **Table 2.2**.

Table 2.2 Key Contacts of the Project

Party	Role	Contact Person	Phone No.	Fax No.
Civil Engineering and Development Department, HKSAR (CEDD)	Project Proponent	Mr. Felix Fan	3152 3551	3547 1658
<i>Supervisor / Supervisor's Representative</i> (AECOM)	Chief Resident Engineer	Mr. Alan Lee	6398 5982	2645 3900
Environmental Team (Wellab Limited)	Environmental Team Leader	Dr. Priscilla Choy	2898 7388	2898 7076
Independent Environmental Checker (MottMac)	Independent Environmental Checker	Mr. Thomas Chan	2828 5967	2827 1823
<u>Contract No. ND/2019/01</u> Contractor (Build King – Richwell Engineering Joint Venture.)	Site Agent	Mr. Ivan Leung	9640 8340	--
	Environmental Officer	Mr. Edward Tam	9287 8270	
<u>Contract No. ND/2019/02</u> Contractor (Chun Wo – Kwan Lee Joint Venture.)	Site Agent	Mr. Luk Wai Lam	3485 9780	--
	Environmental Officer	Mr. Ng Tao, Richard	9802 9577	
<u>Contract No. ND/2019/03</u> Contractor (Sang Hing Kuly Joint Venture)	Site Agent	Mr. Tang Wing Kai	9300 7037	--
	Environmental Officer	Mr. Chow Ka Wing	9184 6351	
	Environmental Supervisor	Mr. Ken Kwok	9732 4360	
<u>Contract No. ND/2019/05</u> Contractor (CRCC – Paul Y. Joint Venture)	Site Agent	Mr. Francis Suen	6672 0311	--
	Environmental Officer	Mr. Pan Fong	9436 9435	
<u>Contract No. ND/2019/06</u> Contractor (New Concepts Engineering Development Ltd.)	Site Agent	Mr. Anson Chan	9349 1320	2363 2162
	Environmental Officer	Mr. Alex Choy	9409 9608	
	Environmental Coordinator	Ms. Mildred Hung	9460 2745	

Summary of Construction Works Undertaken During Reporting Month

The major site activities undertaken in the reporting month are shown in **Table 2.3**.

Table 2.3 Summary Table for Major Site Activities in the Reporting Month

Contract No.	Site Activities (November 2020)
ND/2019/01	<ul style="list-style-type: none"> (a) Site clearance and site formation in Portion 1f (b) Site clearance, ground investigation and working platform erection for soil nail in Portion 2 (c) Site clearance and ground investigation in Portion 3 (d) Site clearance, temporary slope cutting for temporary soil nailing, Stockpile of soil, ground investigation in Portion 5 (e) Site clearance, temporary slope cutting for temporary soil nailing, sheetpiling and excavation, pipes laying, pre-bored H-piling in Portion 6a (f) Pilot trial of ex-situ cement mixing (ECM) for arsenic soil treatment works in Portion 6b (g) Site clearance, construction of temporary road for alternative Po Lau Road, land contamination assessment in Area T1, T2 & T3 in Portion 7 (h) Construction of retaining wall, slope cutting, soil nailing, excavation works for fresh water service reservoir and soil nail in Portion 8a (i) Site clearance and stockpile of soil in Portion 9c (j) Site clearance, tree felling, sheetpiling and excavation works in Portion 10a (k) Site clearance in Portion 10b (l) Install temporary noise barrier and building demolition in Portion 11a
ND/2019/02	<ul style="list-style-type: none"> (a) GI (b) Trial Pit (c) Tree felling (d) Lowering the existing carriageway
ND/2019/03	<ul style="list-style-type: none"> (a) Road and Drainage work, Soil Replacing in Portion 1 (b) Recommended Initial Maintenance Work, Erection of Permanent Boundary Structure, Construction of Irrigation Channel, Geotechnical Works in Long Valley (Trail Pits & Drill Hole), Construction of Temporary Road in Long Valley, Asbestos Removal in Long Valley, Demolition of Existing Construction in Handed over Area, Construction works of storage shed and Type 2 Storage House, Wetland Creation & Restoration works after Obtaining Approval from AFCD in Portion 2 to 20 (c) Site Clearance and Demolition at Portion 22 and Fish Cage Placing for Pre-Translocation in Portion 22 and Portion 27.
ND/2019/05	<ul style="list-style-type: none"> (a) Site Clearance (d) Establishment of Temporary Site (e) Tree Felling

Contract No.	Site Activities (November 2020)
	(f) Trial Pits (g) Installation of site hoarding, fencing and temp. facilities (h) Construction of PM's Site Accommodation (i) Ground Investigation/Pre-drilling
ND/2019/06	(a) Construction of finishing works, E&M works and Building Services works of Management Office Building (MOB) at Portion 4 is in progress. (b) Installation of steel canopy column at Portion 3 is in progress. (c) Construction of underground utilities in the final stage market at Portion 3 is in progress. (d) Tree felling at Portion 6 is in progress. (e) Off-site fabrication, welding and application of coating of columns of steel canopy in China is in progress. (f) Demolition of existing public toilet at Portion 5. (g) Slope improvement works at Portion 6 are in progress. (h) Predrilling works for mini-piles at Portion 3 and 6 have been completed.

Construction Programme

- 2.8 A copy of Contractors' construction programme is provided in **Appendix A**.

Status of Environmental Licences, Notifications and Permits

- 2.9 A summary of the relevant permits, licences, and/or notifications on environmental protection for this Project is presented in **Table 2.4**.

Table 2.4 Status of Environmental Licenses, Notifications and Permits

Table 2: Status of Environmental Licenses, Notifications and Permits				
Contract No.	Permit / License No.	Valid Period		Status
		From	To	
Environmental Permit (EP)				
ND/2019/01	EP-466/2013	21/11/2013	N/A	Valid
	EP-467/2013/A	27/01/2017	N/A	Valid
	EP-468/2013/A	27/01/2017	N/A	Valid
	EP-470/2013	21/11/2013	N/A	Valid
ND/2019/02	EP-469/2013	21/11/2013	N/A	Valid
ND/2019/03	EP-468/2013/A	27/01/2017	N/A	Valid
	EP-473/2013/A	21/11/2013	N/A	Valid
ND/2019/05	EP-473/2013/A	21/11/2013	N/A	Valid
ND/2019/06	EP-475/2013/A	13/01/2017	N/A	Valid
Construction Noise Permit (CNP)				
ND/2019/01	GW-RN0540-20	29/07/2020	16/01/2021	Valid
	GW-RN0626-20	16/09/2020	15/03/2021	Valid
	GW-RN0625-20	08/09/2020	07/03/2021	Valid
ND/2019/03	GW-RN0649-20	13/09/2020	28/02/2021	Valid
ND/2019/05	GW-RN0578-20	11/08/2020	03/02/2021	Valid
	GW-RN0788-20	05/11/2020	04/05/2021	Valid
ND/2019/06	GW-RN0507-20	25/07/2020	24/01/2021	Valid
Notification pursuant to Air Pollution Control (Construction Dust) Regulation				
ND/2019/01	451792	11/12/2019	N/A	Valid
ND/2019/02	454012	05/03/2020	N/A	Valid
ND/2019/03	452216	24/12/2019	N/A	Valid
	452332	31/12/2019	N/A	Valid
	452333	31/12/2019	N/A	Valid
ND/2019/05	454323	13/03/2020	N/A	Valid
ND/2019/06	449369	24/09/2019	N/A	Valid
Billing Account for Disposal of Construction Waste				
ND/2019/01	7036265	17/01/2020	N/A	Valid
ND/2019/02	7036898	01/04/2020	N/A	Valid
ND/2019/03	7036378	22/01/2020	N/A	Valid
ND/2019/05	7036901	01/04/2020	N/A	Valid
ND/2019/06	7035473	17/10/2019	N/A	Valid
Registration of Chemical Waste Producer				
ND/2019/01	5213-545-B2578-01	10/01/2020	N/A	Valid
ND/2019/02	5213-548-C4439-01	06/05/2020	N/A	Valid
ND/2019/03	5213-623-S4231-01	14/04/2020	N/A	Valid
ND/2019/05	5213-625-C4464-01	20/05/2020	N/A	Valid
ND/2019/06	5213-625-N2716-01	02/10/2019	N/A	Valid
Effluent Discharge License under Water Pollution Control Ordinance				
ND/2019/01	WT00036071-2020	22/06/2020	30/06/2025	Valid

	WT00036073-2020	22/06/2020	30/06/2025	Valid
	WT00036067-2020	22/06/2020	30/06/2025	Valid
	WT00036076-2020	22/06/2020	30/06/2025	Valid
	WT00036075-2020	22/06/2020	30/06/2025	Valid
ND/2019/02	WT00036584-2020	21/10/2020	31/10/2025	Valid
ND/2019/03	WT00035847-2020	12/08/2020	31/08/2025	Valid
ND/2019/05	Ref. Number: 455137	N/A	N/A	EPD received application on 14 April 2020. EPD carried out site inspection on 20 Oct 2020.
ND/2019/06	WT00035415-2019	20/03/2020	31/03/2025	Valid

3 AIR QUALITY MONITORING**Monitoring Requirements**

- 3.1 In accordance with the Updated EM&A Manual, impact 1-hour TSP and 24-hr TSP monitoring were conducted to monitor the air quality for the Works Contracts. **Appendix B** shows the established Action/Limit Levels for the air quality monitoring works.
- 3.2 Impact 1-hour TSP monitoring was conducted for at least three times every 6 days, while the impact 24-hour TSP monitoring was conducted for at least once every 6 days at one air quality monitoring station.

Monitoring Location

- 3.3 Impact air quality monitoring was conducted at the monitoring stations under the Works Contracts, as shown in **Figure 1 and Figure 2** according to Table 1.1 of Updated EM&A Manual. **Table 3.1** describes the location of the air quality monitoring station.

Table 3.1 Location for Air Quality Monitoring Locations

EP No.	Contract No.	Monitoring Station	Location
EP-473/2013/A	ND/2019/03	FLN-DMS1 ^[2]	Scattered Village Houses North of Proposed Potential Ecopark
	ND/2019/05	FLN-DMS3 ^[3]	House near Tong Hang
EP-466/2013 EP-467/2013/A EP-468/2013/A	ND/2019/01	KTN-DMS4	Temporary Structure near Fanling Highway (near Pak Shek Au)
EP-468/2013/A	ND/2019/03		

Remark:

[1]: Noting that construction phase air quality monitoring at the other proposed monitoring stations (e.g. planned), where access is permitted, will be conducted during the relevant works contract(s).

[2]: Since the distance between monitoring station and site boundary of ND/2019/05 under EP-473/2013/A exceeds 500m. The monitoring station is not applicable to ND/2019/05.

[3]: Since the distance between monitoring station and site boundary of ND/2019/03 under EP-473/2013/A exceeds 500m. The monitoring station is not applicable to ND/2019/03.

Monitoring Equipment

- 3.4 As the power supply for High Volume Sample (HVS) for TSP monitoring at KTN-DMS 4 was rejected, direct reading dust meter was used to measure both 1-hour and 24-hour average TSP levels:-
- The proposal for alternative monitoring equipment (i.e. direct reading dust meter) for TSP monitoring was approved by EPD according to approved Baseline Air Quality Monitoring Report (KTN & FLN NDA); and
 - Adopt same measurement methodology (i.e. direct reading dust meter) as baseline monitoring for reliable comparison.
- 3.5 The proposed use of portable direct reading dust meters was submitted to IEC and obtained agreement from the IEC as stated in Section 2.4.5 of the Updated EM&A Manual.

- 3.6 HVS for 24-hr TSP monitoring will be adopted once secured supply of electricity become available at KTN-DMS 4.
- 3.7 **Table 3.2** summarizes the equipment used in the impact air monitoring programme. Copies of calibration certificates are attached in **Appendix C**.

Table 3.2 Air Quality Monitoring Equipment

Monitoring Station	Equipment	Manufacturer	Model and Make	Quantity
KTN-DMS4	Dust Monitor (1-hour and 24-hour TSP)	Met One Instruments	AEROCET-831	4
FLN-DMS1 FLN-DMS3	Dust Monitor (1-hour TSP)			
	HVS Sampler (TSP) (24-hour TSP)	Tisch	TISCH Model: TE-5170	2

- 3.8 Meteorological information extracted from “Hong Kong Observatory - Ta Kwu Ling Weather Station” was proposed as the alternative method to obtain representative wind data. For Ta Kwu Ling Weather Station, it is located nearby the Project site and situated at approximately 15m above mean sea level. The station’s wind data monitoring equipment is set above the existing ground ten meters in compliance with the general setting up requirement. Furthermore, this station also provides other meteorological information, such as the humidity, rainfall, air pressure and temperature etc.
- 3.9 The general weather conditions (i.e. sunny, cloudy or rainy) were recorded by the field staffs during the monitoring day.

Monitoring Parameters, Frequency and Duration

- 3.10 **Table 3.3** summarizes the monitoring parameters and frequencies of impact dust monitoring during the Works Contracts activities. The air quality monitoring schedule for the reporting month is shown in **Appendix D**.

Table 3.3 Impact Dust Monitoring Parameters, Frequency and Duration

Parameters	Frequency
1-hr TSP	Three times/ 6 days
24-hr TSP	Once / 6 days

Monitoring Methodology and QA/QC Procedure**1-hour and 24-hour TSP Air Quality Monitoring*****Instrumentation***

- 3.11 Direct reading dust meter was deployed for the air quality monitoring as shown in **Table 3.2**.
- 3.12 The measuring procedures of the dust meter are in accordance with the Manufacturer's Instruction Manual as follows:

(AEROCET-831)

- The dust meter is placed at least 1.3 meters above ground.
- Remove the red rubber cap from the AEROCET-831 inlet nozzle.
- Turn on the power switch that is located on the right side of the AEROCET-831.
- On power up the product intro screen is displayed for 3 seconds. The intro screen displays the product name and firmware version.
- Then the main counter screen will be displayed.
- Press the START button. Internal vacuum pump start running. After 1 minute the pump will stop and the 0.5µm and 5µm channels will show the cumulative counts of particles larger than 0.5µm and 5µm per cubic foot.
- The AEROCET-831 is now checked out and ready for use.
- To switch off the AEROCET-831 power to stop the measuring after sampling.
- Information such as sampling date, time, and display value and site condition were recorded during the monitoring period.

Maintenance/Calibration

- 3.13 The following maintenance/calibration was required for the direct dust meters:
- Check and calibrate the meter by HVS to check the validity and accuracy of the results measured by direct reading method at 2-month intervals throughout all stages of the air quality monitoring.

24-hour TSP Air Quality Monitoring***Instrumentation*****(TISCH Model: TE-5170)**

- 3.14 High volume Samplers (HVS) completed with appropriate sampling inlets were employed for 24-hour TSP monitoring. Each sampler was composed of a motor, a filter holder, a flow controller and a sampling inlet and its performance specification complies with that required by USEPA Standard Title 40, Code of Federation Regulations Chapter 1 (Part 50).

HVS Installation

- 3.15 The following guidelines were adopted during the installation of HVS:

- A horizontal platform with appropriate support was provided to secure the samplers against gusty wind.
- No two samplers were placed less than 2 meters apart.
- The distance between the sampler and an obstacle, such as buildings, was at least twice the height that the obstacle protrudes above the sampler.
- A minimum of 2 meters of separation from walls, parapets and penthouses was required for rooftop samples.
- A minimum of 2 meters separation from any supporting structure, measured horizontally was required.
- No furnaces or incineration flues were nearby.
- Airflow around the sampler was unrestricted.
- The samplers were more than 20 meters from the drip line.
- Any wire fence and gate, to protect the sampler, should not cause any obstruction during monitoring.
- Permission and access to the monitoring stations have been obtained to set up the samplers; and
- A secured supply of electricity was provided to operate the samplers.

Filters Preparation

- 3.16 Wellab Limited (HOKLAS Registration No.083) is the HOKLAS accredited laboratory and responsible for the preparation of 24-hr conditioned and pre-weighed filter papers for monitoring team.
- 3.17 All filters were equilibrated in the conditioning environment for 24 hours before weighing. The conditioning environment temperature was around 25 °C and not variable by more than ± 3 °C; the relative humidity (RH) was $< 50\%$ and not variable by more than $\pm 5\%$. A convenient working RH was 40%.

Operating/Analytical Procedures

- 3.18 Operating/analytical procedures for the air quality monitoring were highlighted as follows:
- Prior to the commencement of the dust sampling, the flow rate of the HVS was properly set (between 1.1 m³/min. and 1.4 m³/min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50;
 - The power supply was checked to ensure the sampler worked properly;
 - On sampling, the sampler was operated for 5 minutes to establish thermal equilibrium before placing any filter media at the designated air quality monitoring station;
 - The filter holding frame was then removed by loosening the four nuts and carefully a weighted and conditioned filter was centered with the stamped number upwards, on a supporting screen;
 - The filter was aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter. Then the filter holding frame was tightened to the filter holder with swing bolts. The applied pressure should be sufficient to avoid air leakage at the edges;
 - The shelter lid was closed and secured with the aluminum strip;

- The timer was then programmed. Information was recorded on the record sheet, which included the starting time, the weather condition and the filter number (the initial weight of the filter paper can be found out by using the filter number);
- After sampling, the filter was removed and kept in a clean and tightly sealed plastic bag. The filter paper was then be returned to the HOKLAS laboratory (Wellab Ltd.) for reconditioning in the humidity-controlled chamber followed by accurate weighting by an electronic balance with a readout down to 0.1mg. The elapsed time was also recorded; and
- Before weighing, all filters were equilibrated in a conditioning environment for 24 hours. The conditioning environment temperature should be between 25°C and 30°C and not vary by more than $\pm 3^\circ\text{C}$; the RH should be $< 50\%$ and not vary by more than $\pm 5\%$. A convenient working RH is 40%. Weighing results were returned for further analysis of TSP concentrations collected by each filter.

Maintenance/Calibration

3.19 The following maintenance/calibration was required for the HVS:

- The high volume motors and their accessories were properly maintained. Appropriate maintenance such as routine motor brushes replacement and electrical wiring checking were made to ensure that the equipment and necessary power supply are in good working condition; and
- All HVS were calibrated (five point calibration) using Calibration Kit prior to the commencement of the baseline monitoring and thereafter at bi-monthly intervals.

Results and Observations

3.20 The monitoring results for 1-hour TSP and 24-hour TSP are summarized in **Table 3.4** and **3.5**, respectively. Detailed monitoring results and graphical presentations of 1-hour and 24-hour TSP monitoring results are shown in **Appendix E**.

Table 3.4 Summary Table of 1-hour TSP Monitoring Results during the Reporting Month

Monitoring Station	Concentration ($\mu\text{g}/\text{m}^3$)		Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
	Average	Range		
FLN -DMS1	106.9	78.4-146.4	303	500
FLN -DMS3	142.7	97.7-216.7	301	500
KTN-DMS4	105.8	39.1-149.8	297	500

Table 3.5 Summary Table of 24-hour TSP Monitoring Results during the Reporting Month

Monitoring Station	Concentration ($\mu\text{g}/\text{m}^3$)		Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
	Average	Range		
FLN -DMS1	103.8	76.6-119.5	150	260
FLN -DMS3	52.1	24.8-103.4	165	260
KTN-DMS4	100.7	44.7-136.7	192	260

- 3.21 All 1-hour and 24-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedances were recorded.
- 3.22 According to our field observations, the major dust source identified at the designated air quality monitoring stations in the reporting month are shown in **Table 3.6**:

Table 3.6 Observation at Dust Monitoring Stations

Monitoring Station	Major Dust Source
FLN -DMS1	Road traffic, excavator
FLN -DMS3	Road traffic, dump truck
KTN-DMS4	Road traffic

Event and Action Plan

- 3.23 Should project-related non-compliance of the criteria occur, action in accordance with the Action Plan in **Appendix J** shall be carried out.

4 NOISE MONITORING**Monitoring Requirements**

- 4.1 In accordance with Updated EM&A Manual, construction noise monitoring was conducted in terms of the A-weighted equivalent continuous sound pressure level (Leq) to monitor the construction noise arising from the construction activities. The regular monitoring frequency for each monitoring station shall be on a weekly basis and conduct one set of measurements between 0700 and 1900 hours on normal weekdays. **Appendix B** shows the established Action and Limit Levels for the environmental monitoring works.

Monitoring Location

- 4.2 Impact noise monitoring was conducted at the monitoring stations, as shown in **Figure 3** and **4** according to Table 1.1 of Updated EM&A Manual. **Table 4.1** describes the locations of the noise monitoring stations.

Table 4.1 Location of Noise Monitoring Stations

Contract No.	Monitoring Station(s)	Location(s)
ND/2019/06	CP-FLN-NMS1 ^[2]	Belair Monte
ND/2019/05	CP-FLN-NMS2 ^[3]	Scattered Village Houses in Tong Hang
ND/2019/01	CP-KTN-NMS2 ^[4]	Residential Buildings at Ma Tso Lung
	CP-KTN-NMS3 ^[5]	Fung Kong Garden
ND/2019/01	CP-KTN-NMS5	N/A
ND/2019/02	CP-KTN-NMS6	Ho Sheung Heung, Hau Ku Shek Ancestral Hall, Hung Shing Temple & Pai Fung Temple and Sin Wai Nunnery

Remarks:

[1]: Noting that construction phase noise monitoring at the other proposed monitoring stations (e.g. planned), where access is permitted, will be conducted during the relevant works contract(s).

[2]: Since the distance between monitoring station and site boundary of ND/2019/03 under EP-473/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03.

[3]: Since the distance between monitoring station and site boundary of ND/2019/03 under EP-473/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03.

[4],[5]: Since the distance between monitoring station and site boundary of ND/2019/03 under EP-468/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03.

Monitoring Equipment

- 4.3 Integrating Sound Level Meter was used for impact noise monitoring. The meters are Type 1 sound level meter capable of giving a continuous readout of the noise level readings including equivalent continuous sound pressure level (Leq) and percentile sound pressure level (Lx) that also complied with International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1) specifications. **Table 4.2** summarizes the noise monitoring equipment being used. Copies of calibration certificates are attached in **Appendix C**.

Table 4.2 Noise Monitoring Equipment

Equipment	Manufacturer	Model	Quantity
Sound & Vibration Analyser	BSWA	BSWA 801	1
Sound Level Meter	BSWA	BSWA 308	2
Acoustical Calibrator	SVANTEK	SV30A	2

Monitoring Parameters, Frequency and Duration

4.4 **Table 4.3** summarises the monitoring parameters, frequency and total duration of monitoring. The noise monitoring schedule is shown in **Appendix D**.

Table 4.3 Noise Monitoring Parameters, Duration and Frequency

Contract No.	Monitoring Stations	Parameter	Duration	Frequency	Measurement
ND/2019/06	CP-FLN-NMS1	$L_{10}(30 \text{ min.}) \text{ dB(A)}$ $L_{90}(30 \text{ min.}) \text{ dB(A)}$ $L_{eq}(30 \text{ min.}) \text{ dB(A)}$ (as six consecutive $L_{eq, 5 \text{ min}}$ readings)	0700-1900 hrs on normal weekdays	Once per week	Façade
ND/2019/05	CP-FLN-NMS2 ^[3]				
ND/2019/01	CP-KTN NMS2 ^[4]				Free-field ^[1]
	CP-KTN NMS3 ^[5]				
ND/2019/01	CP-KTN NMS5				
ND/2019/02	CP-KTN-NMS6				Façade

Remarks:

[1]: Correction of +3dB (A) for Free-field Measurement.

[2]: A-weighted equivalent continuous sound pressure level (L_{eq}). It is the constant noise level which, under a given situation and time period, contains the same acoustic energy as the actual time-varying noise level.

L_{10} is the level exceeded for 10% of the time. For 10% of the time, the sound or noise has a sound pressure level above L_{10} .

L_{90} is the level exceeded for 90% of the time. For 90% of the time, the noise level is above this level.

[3]: Since the distance between monitoring station and site boundary of ND/2019/03 under EP-473/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03.

[4],[5]: Since the distance between monitoring station and site boundary of ND/2019/03 under EP-468/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03.

Monitoring Methodology and QA/QC Procedures

- The microphone head of the sound level meter was positioned at 1m from the exterior of the noise sensitive I and lowered sufficiently so that the building's external wall acted as a reflecting surface;
- The battery condition was checked to ensure the correct functioning of the meter;
- Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:
 - frequency weighting : A
 - time weighting : Fast
 - time measurement : $L_{eq}(30 \text{ min.}) \text{ dB(A)}$
(as six consecutive $L_{eq, 5\text{min}}$ readings) during non-restricted hours (i.e. 0700-1900 hrs on normal weekdays)
- Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement was more than 1.0 dB, the measurement would be considered invalid and repeat of noise measurement would be required after re- calibration or repair of the equipment;
- During the monitoring period, the L_{eq} , L_{90} and L_{10} were recorded. In addition, site conditions and noise sources were recorded on a standard record sheet;
- Noise measurement was paused temporarily during periods of high intrusive noise (e.g. dog barking, helicopter noise) if possible and observation record during measurement period should be provided; and
- Noise monitoring was cancelled in the presence of fog, rain, and wind with a steady speed exceeding 5 m/s, or wind with gusts exceeding 10 m/s. The wind speed should be checked with a portable wind speed meter capable of measuring the wind speed in m/s.

Maintenance and Calibration

- 4.5 The microphone head of the sound level meter and calibrator were cleaned with a soft cloth at quarterly intervals.
- 4.6 The sound level meter and calibrator were checked and calibrated at yearly intervals.
- 4.7 Immediately prior to and following each noise measurement, the accuracy of the sound level meter should be 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 levels before and after the noise measurement agreed to within 1.0 dB.

Results and Observations

- 4.8 The noise monitoring results are summarized in **Table 4.4**. Detailed monitoring results and graphical presentations of noise monitoring are shown in **Appendix F**. The weather information for the reporting month is summarized in **Appendix I**.

Table 4.4 Summary Table of Noise Monitoring Results during the Reporting Month

Contract No.	Monitoring Station	Noise Level Leq (30 min), dB(A)	Baseline Level, dB(A)	Limit Level, dB(A)
ND/2019/06	CP-FLN-NMS1	66.3-73.5	69.9	75
ND/2019/05	CP-FLN-NMS2 ^[1]	54.1-59.2	59.6	
ND/2019/01	CP-KTN NMS2 ^[2]	56.5-63.3	58.6	
	CP-KTN NMS3 ^[3]	48.4-58.4	51.6	
ND/2019/01	CP-KTN NMS5	49.5-59.1	57.2	
ND/2019/02	CP-KTN-NMS6	55.7-62.8	55.1	

Remarks:

[1]: Since the distance between monitoring station and site boundary of ND/2019/03 under EP-473/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03.

[2],[3]: Since the distance between monitoring station and site boundary of ND/2019/03 under EP-468/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03.

- 4.9 All noise monitoring was conducted as scheduled in the reporting month. One Action Level exceedance for noise monitoring was recorded due to the documented noise complaints received for ND/2019/05 and no Limit Level exceedance was recorded in this reporting month. The summary of exceedance record in reporting month is shown in **Appendix K**.
- 4.10 According to our field observations, the major noise source identified at the designated noise monitoring stations in the reporting month are as follows:
- 4.11

Table 4.5 Observation at Noise Monitoring Stations

Contract No.	Monitoring Station	Location	Major Noise Source
ND/2019/06	CP-FLN-NMS1	Belair Monte (Existing)	Road Traffic at Ma Sik Road, excavator, other construction site
ND/2019/05	CP-FLN-NMS2 ^[1]	Scattered Village House in Tong Hang (Existing)	Road Traffic near Tong Hang, other construction site
ND/2019/01	CP-KTN-NMS2 ^[2]	Residential Buildings at Ma Tso Lung (Existing)	Road Traffic near Ma Tso Lung
ND/2019/01	CP-KTN-NMS3 ^[3]	Fung Kong Garden (Existing)	Road Traffic near Fung Kong Garden

ND/2019/01	CP-KTN-NMS5	N/A	Traffic noise from railway, other construction site
ND/2019/02	CP-KTN-NMS6	Ho Sheung Heung, Hau Ku Shek Ancestral Hall, Hung Shing Temple & Pai Fung Temple and Sin Wai Nunnery (Existing)	Road Traffic near Ho Sheung Heung, forklift

Remarks:

[1]: Since the distance between monitoring station and site boundary of ND/2019/03 under EP-473/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03.

[2],[3]: Since the distance between monitoring station and site boundary of ND/2019/03 under EP-468/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03.

Event and Action Plan

- 4.12 Should any project related non-compliance of the criteria occur, action in accordance with the Action Plan in **Appendix J** shall be carried out.

5 WATER QUALITY MONITORING**Monitoring Requirements**

- 5.1 In accordance with the Updated EM&A Manual, impact water quality monitoring shall be carried out three days per week at all the designated monitoring stations during the construction period. The measurement periods are during the construction of channel specified in Table 4.1 of Updated EM&A Manual. The interval between two sets of monitoring shall not be less than 36 hours.
- 5.2 Replicate in-situ measurements of Dissolved Oxygen (DO), temperature, turbidity, pH, Suspended Solids (SS) and samples for Suspended Solids (SS), ammonia nitrogen, unionized ammonia, nitrate nitrogen and orthophosphate from each independent sampling event shall be collected to ensure a robust statistically interpretable database.
- 5.3 **Appendix B** shows the established Action and Limit Levels for the water quality monitoring work according to pre-construction ET's Updated EM&A Manual and Baseline Water Quality Monitoring Report (KTN & FLN NDA).

Monitoring Parameters, Frequency

- 5.4 **Table 5.1** summarized the monitoring parameters, monitoring periods and frequencies of the water quality monitoring.

Table 5.1 Water Quality Monitoring Parameters and Frequency

Parameters, unit	Depth	Frequency
<ul style="list-style-type: none"> • Temperature(°C) • pH(pH unit) • turbidity (NTU) • water depth (m) • salinity (ppt) • DO (mg/L and % of saturation) • SS (mg/L) • Ammonia Nitrogen (NH₃-N) (mg NH₃-N/L) • Unionized Ammonia (UIA) (mg/L) • Nitrate-nitrogen (NO₃-N) (mg NO₃⁻-N/L) • Ortho-phosphate (PO₄) (mg PO₄³⁻-P/L) 	<ul style="list-style-type: none"> • 3 water depths: 1m below water surface, mid-depth and 1m above river bed. • If the water depth was less than 3m, mid-depth sampling only. • If water depth was less than 6m, mid-depth may be omitted. 	3 days per week during construction of channel

Results and Observations

- 5.5 According to the Section 5.6.1.2 of approved EIA Report, the potential water quality impact

during construction is due to the alternation of natural streams (i.e. channelization of Ma Tso Lung Stream and Siu Hang San Tsuen Stream) as these two streams are the ecological importance streams.

- 5.6 No construction of channel was carried out Ma Tso Lung Stream and Siu Hang San Tsuen Stream during the reporting month. Therefore, no water quality monitoring was conducted.

6 LAND CONTAMINATION (AMBIENT ARSENIC MONITORING)**Monitoring Requirements**

- 6.1 According to Section 7.5 of updated EM&A Manual, an ambient arsenic monitoring is required to be conducted in KTN during the clean-up processes of arsenic containing soil and the construction phase.
- 6.2 The Respirable Suspended Particulate (RSP, or PM10) should be measured by High Volume Sampler (HVS) equipped with PM10 selector following the "Reference Method for the Determination of Particulate Matter as PM10 in the Atmosphere" Part 50 Chapter 1 Appendix J, Title 40 of the Code of Federal Regulations of the USEPA.
- 6.3 The Dust-laden air should be drawn through PM10 HVS fitted with a conditioned pre-weighting filter paper, at a controlled rate. After sampling for 24-hour (refer Section 9.5.5 for details on measurement period), the filter paper with retained PM10 particulates shall be collected and returned to the laboratory for drying in a desiccators followed by accurate weighting. 24-hour average RSP levels shall be calculated from the ratio of the mass of PM10 particulates retained on the filter paper to the total volume of air sampled.
- 6.4 The weighted filter paper shall be prepared for arsenic testing through a "Hot Acid Extraction Procedure". The extracted material shall be tested for arsenic by using Inductively Coupled Plasma/Mass Spectrometry (ICP/MS). The extraction and testing will be referenced to the following methods:
- Compendium Method 10-3.1 Selection, Preparation and Extraction of Filter Material, Center for Environmental Research Information, Office of Research and Development, USEPA, June 1999; and
 - Compendium Method 10-3.5 determination of Metals in Ambient Particulate Matter using Inductively Coupled Plasma/Mass Spectrometry (ICP/MS., Center for Environmental Research Information, Office of Research and Development, USEPA, June 1999.

Monitoring Location

- 6.5 Ambient arsenic monitoring was conducted at the monitoring station under the Work Contract, as shown in **Figure 5**. **Table 6.1** describes the locations of the ambient arsenic monitoring station.

Table 6.1 Location of Ambient Arsenic Monitoring station

EP. No	Contract No.	Monitoring Stations	Location
EP-466/2013 EP-467/2013/A EP-468/2013/A	ND/2019/01	KTN-DMS-4A ^[1]	Temporary Structure at Pak Shek Au
EP-468/2013/A	ND/2019/03		

Remarks:

[1]: Monitoring at original KTN-DMS-4 (originally proposed in the approved EM&A Manual) was denied as no electricity supply. An alternative location (KTN-DMS-4A) was proposed.

Monitoring Equipment

- 6.6 **Table 6.2** summarizes the equipment used in the ambient arsenic monitoring. Copies of calibration certificates are attached in **Appendix C**.

Table 6.2 Ambient Arsenic Monitoring Equipment

Monitoring Stations	Equipment	Model and Make	Quantity
KTN-DMS-4A	Calibrator	TISCH Model: TE-5025A	1
	HVS Sampler (RSP)	TISCH Model: TE-6070X	1

Monitoring Parameters, Frequency and Duration

- 6.7 **Table 6.3** summarizes the monitoring parameters and frequencies of ambient arsenic during the clean-up processes of arsenic-containing soil and construction. The ambient arsenic monitoring schedule for the reporting month is shown in **Appendix D**.

Table 6.3 Impact Ambient Arsenic Monitoring Parameters, Frequency and Duration

Parameters	Frequency
24-hr RSP (Ambient Arsenic)	Once/ 6 days

Monitoring Methodology and QA/QC Procedure***24-hour RSP Monitoring***Instrumentation

- 6.8 High volume samplers (HVS) (GMW PM10 (TE6070X)) complete with appropriate sampling inlets was employed for 24-hour RSP monitoring. The sampler is composed of a motor, a filter holder, a flow controller and a sampling inlet and its performance specification complied with that required by USEPA Standard Title 40, Code of Federation Regulations Chapter 1 (Part 50).
- 6.9 The following guidelines were adopted during the installation of HVS:
- a horizontal platform with appropriate support to secure the samplers against gusty wind was provided;
 - no two samplers was placed less than 2 meters apart;
 - the distance between the sampler and an obstacle, such as buildings, was at least twice the height that the obstacle protrudes above the sampler;
 - a minimum of 2 meters of separation from walls, parapets and penthouses was required for rooftop samplers;
 - a minimum of 2 meters separation from any supporting structure, measured horizontally was required;
 - no furnace or incinerator flue was nearby;
 - airflow around the sampler was unrestricted;
 - the sampler was more than 20 meters from the dripline;
 - any wire fence and gate, to protect the sampler, were not cause any obstruction during monitoring;
 - permission was obtained to set up the samplers and to obtain access to the monitoring stations; and
 - a secured supply of electricity was needed to operate the samplers.

Operating/analytical procedures for the operation of HVS

- Prior to the commencement of the dust sampling, the flow rate of the high volume sampler will be properly set (between 1.1 m³/min. and 1.4 m³/min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50.
- The power supply was checked to ensure the sampler worked properly. On sampling, the sampler was operated for 5 minutes to establish thermal equilibrium before placing any filter media at the designated air monitoring station.
- The filter holding frame was then removed by loosening the four nuts and a weighted and conditioned filter will be carefully centered with the stamped number upwards, on a supporting screen.
- The filter was aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter. Then the filter holding frame was tightened to the filter holder with swing bolts. The applied pressure were sufficient to avoid air leakage at the edges.
- The shelter lid was closed and secured with the aluminum strip.
- The timer was then programmed. Information was recorded on the record sheet, which included the starting time, the weather condition and the filter number (the initial weight of the filter paper can be found out by using the filter number).
- After sampling, the filter was removed and sent to the Wellab Ltd. for weighing. The elapsed time was also recorded.
- Before weighing, all filters were equilibrated in a conditioning environment for 24 hours. The conditioning environment temperature was between 25°C and 30°C and not vary by more than $\pm 3^{\circ}\text{C}$; the relative humidity (RH) was $< 50\%$ and not vary by more than $\pm 5\%$. A convenient working RH was 40%. Weighing results were further analysis of RSP concentrations collected by each filter.

Maintenance/Calibration

- 6.10 The following maintenance/calibration was required for the HVS:
- The high volume motors and their accessories were properly maintained. Appropriate maintenance such as routine motor brushes replacement and electrical wiring checking were made to ensure that the equipment and necessary power supply were in good working condition.
 - High volume samplers were calibrated at bi-monthly intervals using TE-5025A Calibration Kit throughout all stages of the ambient arsenic monitoring.

Laboratory Measurement / Analysis

- 6.11 Quartz filters of size 8" x 10" were labelled before sampling. A HOKLAS accredited laboratory, Wellab Ltd., is responsible for the preparation of 24-hr conditioned and pre-weighed filter papers for the monitoring team. The balance for weighting filter paper was regularly calibrated against a traceable standard.
- 6.12 All filters, which were prepared by Wellab Ltd., were equilibrated in the conditioning environment for 24 hours before weighing. The conditioning environment temperature was around 25 °C and not variable by more than $\pm 3^{\circ}\text{C}$; the relative humidity (RH) was $< 50\%$ and not variable by more than $\pm 5\%$. A convenient working RH was 40%.
- 6.13 Wellab Ltd. (HOKLAS Registration No. 083), is responsible for the extraction and testing procedure for Arsenic and comprehensive quality assurance and quality control programmes were conducted.

Results and Observations

- 6.14 The ambient arsenic monitoring results are summarized in **Table 6.4**. Detailed monitoring results and test report are shown in **Appendix E**.

Table 6.4 Summary Table of 24-hour RSP Monitoring Results (Ambient Arsenic) during the Reporting Month

Monitoring Date	Monitoring Station	Concentration (ng/m ³)	Action Level (ng/m ³)	Limit Level, (ng/m ³)
05/11/2020	KTN-DMS-4A	2.62	9.36	11.7
11/11/2020		3.46		
17/11/2020		1.49		
23/11/2020		1.43		
27/11/2020		2.58		

- 6.15 All ambient arsenic monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedances were recorded.

Event and Action Plan

- 6.16 Should project-related non-compliance of the criteria occur, action in accordance with the Action Plan in **Appendix J** shall be carried out.

7 LANDFILL GAS MONITORING

Monitoring Requirement

- 7.1 In accordance with the updated EM&A Manual, monitoring of landfill gas (LFG) is required for construction works within the Ma Tso Lung Landfill (MTLL, close to KTN NDA) during the construction phase. This section presents the results of landfill gas measurements performed by the Contractor. **Appendix B** shows the Limit Levels for the monitoring works.
- 7.2 The MTLL is situated in the vicinity of the KTN NDA. A portion of the development falls within the MTLL and its 250m Consultation Zone.

Monitoring Parameters and Frequency

- 7.3 Monitoring parameters for Landfill gas monitoring include Methane, Carbon dioxide and Oxygen.
- 7.4 According to the mitigation measures of the updated EM&A Manual, measurements of the following frequencies should be carried out according to the monitoring requirements and procedures specified in Paragraphs 8.23 to 8.28 of EPD's Guidance Note, "LANDFILL GAS HAZARD ASSESSMENT GUIDANCE NOTE".
- 7.5 The frequency of monitoring of LFG are conducted referring to the updated EM&A Manual - Monitoring of any LFG which may be migrated to the site should be undertaken during the construction of infrastructure and the development within the Consultation Zone and within MTLL when the works involve confined spaces. Routine gas monitoring should be undertaken during groundwork construction and in all excavations. Monthly gas monitoring should also be conducted for offices, stores etc. set up on site.

Monitoring Locations

- 7.6 Monitoring of oxygen, methane and carbon dioxide was performed for construction of infrastructure and the development within the Consultation Zone and within MTLL when the works involve confined spaces. In this reporting month, the area required to be monitored for landfill gas are shown below and **Figure 6** shows the landfill gas monitoring locations.

- | | |
|-----------------------------------|--------------------------|
| ➤ Excavation Locations: | Portion 6b |
| ➤ Manholes and Chambers: | N/A |
| ➤ Relocation of monitoring wells: | N/A |
| ➤ Any other Confined Spaces: | Containers in Portion 6b |

Monitoring Equipment

- 7.7 **Table 7.1** summarizes the equipment employed by the Contractor for the landfill gas monitoring.

Table 7.1 Landfill Gas Monitoring Equipment

Equipment	Model and Make	Quantity
Portable gas detector	RKI Eagle (Serial No. E094106)	1

Results and Observations

- 7.8 In the reporting month, landfill gas monitoring was carried out by the Contractor at the aforesaid locations on 1 occasion with 6 monitoring stations. No Limit Level exceedance for landfill gas monitoring was recorded in the reporting month. The monitoring results are provided in **Appendix G**. Copies of calibration certificates are attached in **Appendix C**.

Event and Action Plan

- 7.9 Should any project related non-compliance of the criteria occur, action in accordance with the Action Plan in **Appendix J** would be carried out.

8 ECOLOGICAL MONITORING

Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River, Sheung Yue River, Shek Sheung River and Long Valley

Monitoring Requirements and Protocol

- 8.1 As required under Section 12.3.2.5 of Updated EM&A Manual, where development under the NDAs project is undertaken within 200m (the maximum distance at which it is predicted there may be some disturbance, and hence a reduction in numbers, of large waterbirds) of Sheung Yue River and Long Valley, weekly transect at both high and low tides should be followed (It is considered high tide when the tidal levels are above 1.5m and low tide when the tidal levels are below 1.5m at Tsim Bei Tsui Station).
- 8.2 The purpose of the survey was to identify and enumerate all bird species utilizing the river channels and Long Valley Nature Park (LVNP) and identify any sources of actual or potential disturbance to birds due to construction activities throughout the construction period according to Methodology specified in Table 12.1 in Updated EM&A Manual.
- 8.3 Monitoring in Long Valley should follow the methodology adopted by the regular HKBWS bird monitoring programme in order to obtain comparable results and complete coverage of the area in the shortest time possible.

Monitoring Frequency

- 8.4 High tide and low tide avifauna monitoring is required to be carried out on weekly basis. Additional night-time avifauna monitoring in Long Valley is required to be carried out twice monthly from September to April.

Date of avifauna monitoring: 2nd, 13th, 16th, 25th, 30th November 2020

Date of night-time monitoring: 16th, 30th November 2020

Monitoring Location

- 8.5 The avifauna monitoring was carried out at Ng Tung River, Sheung Yue River and Long Valley in Reporting Month according to construction works. The transect routes in the Reporting Month were as follows:

- T1. Ng Tung River
- T2. Ng Tung River
- T3. Sheung Yue River
- T5. Long Valley

As the sensitive receivers (large waterbirds) are easily visible, the transect route will only need to follow one bank of the rivers.

- 8.6 The location of Transects T1, T2, T3 and T5 is shown in **Figure 7** for reference.

Monitoring Parameters

- 8.7 The monitoring parameters and survey methodology for each transect are described below:
- Abundance of birds
 - Types of habitat which birds in use
 - Notable bird behaviours such as roosting, feeding, nesting and presence of juveniles
 - Birds heard though birdcalls that could not be located would be marked as “heard”, while birds flying over the survey area would be marked as “flight”. Species of conservation significance would be specified.
- 8.8 Other information at the time of survey such as weather condition, tidal condition, tide level and noticeable natural or anthropogenic activities would be documented.
- 8.9 For Avifauna survey, Ornithological nomenclature would make reference to The Avifauna of Hong Kong (Carey *et al.* 2001), The Birds of Hong Kong and South China (Viney *et al.* 2005), and the most recent updated list from other sources (e.g. Hong Kong Bird Watching Society).

Monitoring Result

- 8.10 In total, 69 species of birds were recorded during the bird surveys within assessment area. Among the recorded birds, there were 25 species of waterbirds. The detailed list of waterbirds and all recorded birds are shown in **Appendix H1m and H1n** respectively.
- 8.11 Among the four transects, the transect T5 had a higher species diversity and abundance due to its diverse habitat types within Long Valley. Species such as *Ardeola bacchus* and *Egretta garzetta* were commonly found roosting and foraging at wetland habitats such as agricultural lands and shallow water habitats.
- 8.12 Along the transect T5 in Long Valley, species with conservation interest such as *Himantopus himantopus*, which is a passage migrant, and *Tringa glareola*, which is a passage migrant and winter visitor, were also commonly observed in shallow water habitat.
- 8.13 A high abundance of *Himantopus himantopus* and *Tringa glareola* were found roosting at night-time in shallow water habitats. *Anas crecca*, *Recurvirostra avosetta*, *Gallinago gallinago* and *Gallinago stenura* were also found in Shallow Water Habitat during the night survey.
- 8.14 Soil turning with excavator and landscape formation works were observed in T5 in the reporting month.
- 8.15 Transect T3 was conducted along the Sheung Yue River. Bird species such as *Ardeola bacchus*, *Tringa ochropus* and *Egretta garzetta* were commonly observed feeding and roosting on the river bank and river bed.
- 8.16 Transect T1 and T2 are located at Ng Tung River. *Ardeola bacchus* and *Egretta garzetta* were

commonly found and were observed feeding and roosting along the Ng Tung River. Fishing activities were observed during the avifauna monitoring.

- 8.17 *Psittacula eupatria*, *Phylloscopus borealis*, *Glaucidium cuculoides*, *Muscicapa latirostris*, *Turdus mandarinus*, *Ixobrychus cinnamomeus*, *Phalacrocorax carbo*, *Vanellus cinereus*, *Emberiza pusilla* and *Emberiza aureola* were recorded for the first time since the first reporting month for avifauna survey in July 2020.
- 8.18 Avifauna monitoring in construction phase was conducted during the reporting month and the detailed results are attached in **Appendix H1**.

Monitoring of Measures to Minimise Impacts to Ma Tso Lung Stream and Siu Hang San Tsuen Stream, and Long Valley

Monitoring Requirements and Protocol

- 8.19 As required under Section 12.3.2.14 of Updated EM&A Manual, aquatic faunal monitoring should be carried out during the construction phase.
- 8.20 Larger organisms such as fish would be monitored by direct counting, while kick-netting and sweep-netting would be used for invertebrate sampling. There would be three replicates for invertebrate sampling at each sampling point. For kick-netting, the net would be placed with the opening facing the water current, and the substrate would be disturbed by kicking to dislodge organisms from the stream bed. Sweep-netting would be conducted when kick-netting was not feasible, such as in area with no water current. Small organisms that could not be identified with naked eye would be brought to the laboratory for identification under the dissecting microscope.

Monitoring Frequency

- 8.21 Quantitative aquatic fauna replicate surveys of stream fauna is required to be carried out on monthly basis during wet season. Three replicates for invertebrates sampling and direct counting of fish fauna would be performed respectively.

Monitoring Location

- 8.22 During the Reporting Month, the monitoring location carried out in Ma Tso Lung Stream according to construction works are as follow:-

- | | | | | |
|---------|---------|---------|---------|---------|
| • MS_01 | • MS_02 | • MS_03 | • MS_04 | • MS_05 |
| • MS_06 | • MS_07 | • MS_08 | • MS_09 | • MS_10 |

- 8.23 The location of Monitoring Stations shown in **Figure 8** for reference.

Monitoring Parameters

- 8.24 The monitoring parameters and survey methodology for each monitoring station are described below:
- Species composition
 - Abundance

- Distribution for invertebrates and fish fauna
 - Species of conservation significance would be specified
- 8.25 Other information at the time of survey such as weather condition and noticeable natural or anthropogenic activities would be recorded.

Monitoring Status

- 8.26 According to the Updated EM&A Manual, quantitative aquatic fauna replicate surveys of stream fauna is required to be carried out on monthly basis during wet season. During the reporting Month, no aquatic fauna replicate surveys was carried out.

Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution

Monitoring Requirements and Protocol

- 8.27 As required under Section 12.3.2.17 of Updated EM&A Manual, monitoring of measures to minimize impacts should be carried out during the construction phase.
- 8.28 The purpose of survey is to monitor the effectiveness of measures to minimize impacts on ecologically sensitive habitats from disturbance and pollution by standard faunal transect surveys.

Mammal survey

- 8.29 Mammal survey would be performed during both day and night times, in areas along the transect routes which may potentially be utilized by terrestrial mammals. Field signs such as droppings, footprints, diggings and burrows left by larger terrestrial mammals would be observed. Mammals directly observed would be recorded, and identification would be made as accurate as possible from the field signs observed.
- 8.30 Bat survey would be conducted along the transect routes shortly after sunset, with the use of a bat detector to record the echolocation calls. The relative abundance of the species encountered would be estimated using a scale from one (single individual recorded) to five (very abundant). Nomenclature of mammal will be based on Shek (2006).

Herpetofauna survey (Amphibians and Reptiles)

- 8.31 Amphibian surveys would be conducted whenever possible on evenings following or during periods of rainfall, focusing on areas suitable for amphibians (e.g. forest, shrublands, grasslands, streams, ponds, marshes, etc.). Calling amphibians would be recorded, supplemented by visual observation of eggs, tadpoles, adult frogs, and toads.
- 8.32 Active searching of appropriate microhabitats such as stones, pond bunds, crevices and leaf debris would be performed mainly. Observation of exposed, basking and foraging reptiles would also be conducted. Nomenclature of amphibian and reptile will be based on Chan et al. (2005) and Karsen et al. (1998), respectively.

Insect survey (Butterfly and Dragonfly)

- 8.33 Butterflies and dragonflies observed along the transects would be identified and counted.

Preferable habitats of the insects such as watercourses, fishponds, and vegetated areas would be observed with special attention. Nomenclature and protection status of the species will be based on Lo et al. (2005) for butterflies and Tam et al. (2011) for dragonflies

Monitoring Frequency

- 8.34 Monitoring surveys of ecological sensitive receivers such as mammals, insects (butterflies and dragonflies), and herpetofauna will be undertaken on a monthly bases.

Date of Monitoring surveys of ecological sensitive receivers: 20th, 27th November 2020

Monitoring Location

- 8.35 The transect routes in the Reporting Month according to construction works are as follows:
- T1. Ma Tso Lung riparian zone and associated wetland habitats;
 - T1. Green belt areas E1-8, D1-8 and G1-3 in KTN NDA;
 - T1. AGR one C2-4 and C2-2 in KTN NDA;
 - T1. Area north of Ng Tung River;
 - T3. Area west of Siu Hang San Tsuen Stream
 - T4. South side of Fanling Highway and Castle Peak Road in the vicinity of Pak Shek Au;
 - T5. Area west and east of the southern limit of the FLN NDA work area; and
 - T6. Areas in the western part of KTN
- 8.36 The location of Transects is shown in **Figure 9** for reference.

Monitoring Parameters

- 8.37 The monitoring parameters and survey methodology for each transect are described below:-
- Species composition
 - Abundance
 - Distribution for fauna observed
 - Species of conservation significance would be specified

Monitoring Result

Mammal

- 8.38 During the survey, a total of 3 mammal species were recorded from transects T1, T3, T4, T5 and T6. Domestic cat, *Felis catus* was found at T1, T3 and T5. Domestic dog, *Canis lupus familiaris*, was found at T1, T3, T4, T5 and T6, where associated with human settlements.
- 8.39 Bat species, *Cynopterus sphinx* was observed roosting in the tent-shaped shelter under fronds of Chinese Fan-palm during daytime survey of birds and herpetofauna, and was found in flight at nighttime at T1, T3, T4, T5 and T6.
- 8.40 According to EIA, echolocation calls of bats were recorded. The structure of the echolocation calls from these recordings was later analysed to identify species as far as possible (the lack of literature on echolocation call structure makes the field identification of some bat species in Hong Kong impossible, and some species remain unidentified from the recordings).

Herpetofauna (Amphibians and Reptiles)

- 8.41 Along the transects, a total of 10 herpetofauna species were observed. Species including frog,

gecko, lizard and turtle were recorded near wetland habitats and watercourse. Transect T1 has higher species diversity and abundance than other transects.

Insects (Butterfly and Dragonfly)

- 8.42 During the insect survey, total 26 butterfly species and 15 odonata species were recorded from transects. Transect T1 and T5 had higher butterfly species diversity than other transects. Rare species *Tajuria cippus* was found in transect T5.
- 8.43 Transect T1, T3 and T6 had higher dragonfly species diversity than T4 and T5. Most of the dragonfly species recorded were common and abundant in Hong Kong.
- 8.44 Ecological sensitive receivers such as mammals, insects (butterflies and dragonflies), and herpetofauna monitoring in construction phase was conducted during the reporting month and the results are attached in **Appendix H2 to H5**.

Results and Observation

Details of the Influencing Factors

Major Activities

- 8.45 During the survey of Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley, anthropogenic activities including soil turning with excavator and landscape formation works were observed in Long Valley. Construction work was observed beside Sheung Yue River.
- 8.46 The anthropogenic activities affected only a small area of habitat in Long Valley during the monitoring and would only pose minor disturbances to the birds. It was observed that *Bubulcus coromandus* foraged in close vicinity to the excavators.
- 8.47 During the survey of Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River, anthropogenic activities such as recreational fishing by fishing rod and fishing net were observed.

Weather Conditions

- 8.48 According to the observation during survey, temperature and the rain flow record in the Reporting Month (Reference: <http://www.weather.gov.hk/wxinfo/pastwx/metob202012.htm>), weather condition might pose influence towards the monitoring result.
- 8.49 Since the Final Baseline Ecological Monitoring Report has not been issued yet during the Reporting Month, the Action and Limit Level of ecological monitoring will be compared with the monitoring results in the Reporting Month and track back exceedance reporting (if any) after the Final Baseline Ecological Monitoring Report has been issued.
- 8.50 The detailed Ecological monitoring results are attached in **Appendix H**.

9 ENVIRONMENTAL SITE INSPECTION**Site Audits**

- 9.1 Site audits were carried out by ET on weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures on the Contract site. The summaries of site audits are presented in **Table 9.1** and **Appendix L**.

Table 9.1 Summary of Site Audit

Environment al Site Inspection	Works Contracts				
	ND/2019/01	ND/2019/02	ND/2019/03	ND/2019/05	ND/2019/06
Weekly site audit with representative of the <i>Supervisor's</i> Representative and the Contractor	3 rd , 10 th , 17 th , 24 th November 2020	4 th , 11 th , 20 th , 25 th November 2020	6 th , 13 th , 17 th , 27 th November 2020	2 nd , 11 th , 16 th , 23 rd , 30 th November 2020	5 th , 9 th , 19 th , 26 th November 2020
Joint Site Audit with representative of the <i>Supervisor's</i> Representative, the Contractor and IEC	17 th November 2020	20 th November 2020	17 th November 2020	11 th November 2020	9 th November 2020

- 9.2 During site inspections in the reporting month, no non-conformance was identified. The observations and recommendations made during the audit sessions are summarised in **Table 9.2**.

Table 9.2 Observations and Recommendations during Site Audits

	Date	Observations and Recommendations	Follow-up
Contract No.: ND/2019/01			
<i>Air Quality</i>	27/10/2020	Contractor was reminded to enhance dust control measures in works area.	Improvement/Rectification was observed during follow-up audit session on 3 November 2020.
	03/11/2020	Contractor was reminded to enhance dust control measures in works area Portion 7.	Improvement/Rectification was observed during follow-up audit session on 10 November 2020.
<i>Water Quality</i>	17/11/2020	Contractor was reminded to clear the sedimentation tank at Portion 6 regularly.	Improvement/Rectification was observed during follow-up audit session on 24 November 2020.
Contract No.: ND/2019/02			
<i>Air Quality</i>	04/11/2020	Exposed worksites should be watered regularly.	Improvement/Rectification was observed during follow-up audit session on 11 November 2020.
	11/11/2020	Stockpile of dusty materials should be covered entirely by impervious sheeting.	Improvement/Rectification was observed during follow-up audit session on 20 November 2020.
	25/11/2020	Slope should be covered entirely by impervious sheeting.	Follow-up action is needed to be reported in the following month.
<i>Water Quality</i>	20/11/2020	Contractor was reminded to enhance water control measure to prevent any discharge of wastewater into nearby watercourse.	Improvement/Rectification was observed during follow-up audit session on 25 November 2020.
<i>Waste / Chemical Management</i>	04/11/2020	Chemical waste/oil should be stored properly in designated area.	Improvement/Rectification was observed during follow-up audit session on 11 November 2020.
	11/11/2020	Chemical waste/oil should be stored properly in designated area.	Improvement/Rectification was observed during follow-up audit session on 20 November 2020.

Contract No.: ND/2019/03			
<i>Air Quality</i>	30/10/2020	Stockpile of dusty materials should be covered by impervious materials/sheeting.	Improvement/Rectification was observed during follow-up audit session on 6 November 2020.
	6/11/2020	Stockpile of dusty materials should be covered by impervious materials.	Improvement/Rectification was observed during follow-up audit session on 13 November 2020.
	13/11/2020	Stockpile of dusty materials should be covered by impervious materials.	Improvement/Rectification was observed during follow-up audit session on 17 November 2020.
Contract No.: ND/2019/05			
<i>Water Quality</i>	02/11/2020	Contractor was reminded to review and ensure surface runoff would not be discharged to nearby watercourse.	Improvement/Rectification was observed during follow-up audit session on 11 November 2020.
	23/11/2020	Contractor was reminded to cover the manhole at Portion 11.	Improvement/Rectification was observed during follow-up audit session on 30 November 2020.
<i>Waste / Chemical Management</i>	02/11/2020	Contractor was reminded to store chemical properly in designated area.	Improvement/Rectification was observed during follow-up audit session on 11 November 2020.
	23/11/2020	Drip trays should be provided for chemical storage at Portion 11.	Item was remarked as 201130-O01. Follow-up action is needed to be reviewed.
	30/11/2020	Drip trays should be provided for chemical storage at Portion 11.	Follow-up action is needed to be reported in the following month.
Contract No.: ND/2019/06			
-	-	No environmental deficiency was observed in the reporting month.	-

Implementation Status of Environmental Mitigation Measures

- 9.3 According to the EIA Report, EPs and the Updated EM&A Manual, the mitigation measures detailed in the documents are recommended to be implemented during the construction phase. An updated summary of the Environmental Mitigation Implementation Schedule is provided in **Appendix M**. The photographic records of measures as stipulated in EP to mitigate

environmental impacts in the reporting month are presented in **Table 9.3**.

Table 9.3 Photographic Records and Implementation Status of Measures

EP No.	Condition	Photographic Record	Implementation Status
EP- 468/2013/ A	2.11	 <p>To minimise adverse impacts on habitats of ecological importance in the vicinity of the Project, 2m high solid dull green site barrier fences shall be erected around all active works areas.(Figure 12)</p>	^ ^[1]
EP- 473/2013/ A	2.13	 <p>To minimise adverse impacts on habitats of ecological importance in the vicinity of the Project, 2m high solid dull green site barrier fences shall be erected around all active works areas.(Figure 14)</p>	^ ^[1]
EP- 475/2013/ A	2.7	 <p>To minimise adverse impacts on habitats of ecological importance in the vicinity of the Project, 2m high solid dull green site barrier fences shall be erected around all active works areas.(Figure 15)</p>	^ ^[1]

Implementation status:	^ Mitigation measure was fully implemented * Observation/reminder was made during site audit but improved/rectified by the contractor # Observation/reminder was made during site audit but not yet improved/ rectified by the contractor X Non-compliance of mitigation measure • Non-compliance but rectified by the contractor N/A Not Applicable at this stage as no such site activities were conducted in the reporting period
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[1]: Barrier fences might be subjected to change according to phasing plan designed at detailed design stage

- 9.4 Under EP-466/2013 (Condition 2.9), EP-467/2013/A (Condition 2.9), EP-469/2013 (Condition 2.7) to minimise adverse impacts on habitats of ecological importance in the vicinity of the Project, 2m high solid dull green site barrier fences shall be erected around all active works areas. As the Works programme under above EPs were still under preparation work and the barrier fences erection was still progressing in the Reporting Month, 2m high solid dull green site barrier fences will be checked once in place. The Hoarding Plan of the above EPs are shown in **Figure 10**, **Figure 11** and **Figure 13** respectively.

Solid and Liquid Waste Management Status

- 9.5 Waste generated from Contract No. ND/2019/02, ND/2019/03, ND/2019/05 and ND/2019/06 include inert construction and demolition (C&D) materials and non-inert C&D wastes, while ND/2019/01 included only non-inert C&D wastes in the Reporting Month.
- 9.6 The amount of wastes generated by the construction works of the Contract No. ND/2019/01, ND/2019/02, ND/2019/03, ND/2019/05 and Contract No. ND/2019/06 during the reporting month is shown in **Appendix N**.
- 9.7 The Contractors are advised to minimize the wastes generated through the recycling or reusing. All mitigation measures stipulated in the Updated EM&A Manual and waste management plans shall be fully implemented. The status of implementation of waste management and reduction measures are summited in **Appendix M**.

10 ENVIRONMENTAL NON-CONFORMANCE

Summary of Exceedances

- 10.1 One Action Level exceedance for construction noise monitoring was recorded due to the documented noise complaint received for Contract ND/2019/05 and no exceedance of Limit Level for construction noise monitoring was recorded in this reporting month.
- 10.2 No exceedance of Action and Limit Levels of air quality, ambient arsenic and landfill gas monitoring in the reporting month. The summary of exceedance record in reporting month is shown in **Appendix K**.
- 10.3 Ecological monitoring was carried out in the Reporting Month. The Action and Limit Level will be compared after the issue of Final Baseline Ecological Report.
- 10.4 Should the monitoring results of the environmental monitoring parameters at any designated monitoring stations indicate that the Action / Limit Levels are exceeded, the actions in accordance with the Event and Action Plans in **Appendix J** would be carried out.

Summary of Environmental Non-Compliance

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

Summary of Environmental Complaint

- 10.6 Two environmental complaints were received in the reporting month. The Cumulative Complaint Log since the commencement of the Project is presented in **Appendix O**.

Summary of Environmental Summon and Successful Prosecution

- 10.7 There was no successful environmental prosecution or notification of summons received since the Project commencement. The Cumulative Log for environmental summon and successful prosecution since the commencement of the Project is presented in **Appendix P**.

11 FUTURE KEY ISSUES

Key Issues in the Coming Two Months

11.1 The major site activities, potential environmental impacts and recommended mitigation measures for the coming two months are shown in **Table 11.1**.

Table 11.1 Summary Table for Site Activities, Potential Environmental Impacts and Recommended Mitigation Measures in the coming Two Months

Contract No.	Major Site Activities (November and December 2020)	Location/ Working Period	Potential Environmental Impact	Recommended Mitigation Measures
ND/2019/01	(a) Site clearance	Portion 1f, 2, 5, 6a, 7, 8a, 9c, 10a, 10b	- Construction Dust impact - Noise Impact (Construction Phase) - Water Quality Impact (Construction Phase) - Waste Management (Construction Waste)	Air - Regular watering on exposed worksites and haul road. - Cover the stockpiles or dusty materials. - Deploy water browsers to water the haul road. - Deploy mist-cannon on site - Install sprinkler system for dust suppression. - Erect scaffolding with dust screens for demolition of existing structure. - Provide shelter with top and 3-sides for cement production activities. - Entirely cover the Arsenic-containing soil. - Store the bulk cement in enclosed silo tank for Solidification / Stabilization treatment. - Close the mechanical cover of the vehicles used for transporting dusty materials. - Establish vehicle wheel washing facilities at vehicle exit points. - Speed control of site vehicles. - Shotcrete on exposed slope.
	(b) GI works	Portion 2, 7		
	(c) Excavation	Portion 6a, 10a		
	(d) Construction of temporary road	Portion 7, 8a		
	(e) Construction of retaining wall	Portion 8a		
	(f) Sheetpiling	Portion 6a, 10a		
	(g) Soil nailing / shotcrete	Portion 6a, 8a		
	(h) Demolition of existing structure	Portion 11a		
	(i) Pre-bored H pile	Portion 6a		
	(j) Pilot trial for arsenic soil treatment works	Portion 6b		

				<ul style="list-style-type: none"> - Erect solid site hoarding. <p>Noise</p> <ul style="list-style-type: none"> - Regular inspect of construction plants in good condition - Provide temporary noise screens if necessary. - Use of Quiet plants (QPME) and working methods if possible. - Sequencing operation of construction plants where practicable. - Shut down the machines and plant if not in use. - Only well-maintained plant to be operated on-site. - Mobile plant to be sited as far away from NSRs as possible and practicable. - Conduct noise monitoring regularly. <p>Water</p> <ul style="list-style-type: none"> - Re-circulation / re-use of water to minimize wastewater generation. - Set up wastewater treatment system (AquaSed) on site. - Erect soil bund / temporary drain to divert /collect surface runoff. - Maintain the drainage and wastewater treatment facilities. <p>Waste Management</p> <ul style="list-style-type: none"> - Sort out demolition debris and excavated materials from demolition works to recover reusable / recyclable portions. - Provide recycling bin on site, encourage reuse and recycle as much as possible. - Provide drip tray for chemical containers.
--	--	--	--	---

				<ul style="list-style-type: none"> - Chemical spill kit available on site. - Chemical waste cabinet available on site. - Chemical wastes to be stored in appropriate containers and collected by a licensed chemical waste collector. - Delivery of yard waste to EcoPark for reuse.
ND/2019/02	(a) GI	Portion 7, 9, 10	Air, Water, Waste	<ul style="list-style-type: none"> - Dusty works should be sprayed with water or idle stockpile or slope should be covered by Tarpaulin sheet properly. - Plants should be well maintained to prevent dark smoke and oil leakage. Idle plant should be turned off. - Drip tray should be provided for all chemical and stationary plants. - No construction works shall be carried out in restricted hours (7:00 pm to 7:00 am) unless CNP is obtained. - Waste should be sorted and disposed according to the Waste Management Plan - No direct discharge of wastewater into storm drains is allowed. Wastewater must be de-silted before discharged in accordance with the water discharge licence. - Dull green barrier and ecological measures should be implemented according to the Ecological protection plan.
	(b) Tree Felling	Portion 7, 10	Air, Noise, Waste	
	(c) ELS	Portion 7, 9, 10	Air, Noise, Water, Waste, Ecology	
	(d) Hoarding erection	Portion 7, 9, 10	Air, Noise, Water, Waste	
	(e) Pre-bored Socketed H-pile	Portion 7, 9, 10	Air, Noise, Water, Waste, Ecology	
	(f) Lowering the Existing Carriageway	Portion 9	Air, Noise, Water, Waste, Ecology	
	(g) Footpath improvement work	Portion 1	Air, Noise, Water, Waste	
ND/2019/03	(a) Excavation of irrigation channel	Long Valley	<ul style="list-style-type: none"> - C&D waste - Air pollution - Noise pollution 	<ul style="list-style-type: none"> - Watering exposed earth regularly - Cover C&D material by tarpaulin - Adopt QPME for excavation
	(b) Excavation of trench in Yin Kong Road	Portion 1 and Portion 1A	<ul style="list-style-type: none"> - C&D waste - Air pollution - Noise pollution - Water pollution 	<ul style="list-style-type: none"> - Watering exposed earth regularly - Cover C&D material by tarpaulin - Noise barrier for screening from source of noise

				- Wastewater will be treated before discharging to channel
	(c) Demolition of existing structure	Long Valley	- C&D material - Air Pollution	- Cover C&D material by tarpaulin - Watering while demolish the structure
	(d) Construction works of storage shed and Type 2 Storage House	Long Valley	- C&D material - Air Pollution	- Watering exposed earth regularly - Cover C&D material by tarpaulin
	(e) Asbestos Removal in Long Valley	Long Valley	- Air Pollution	- Removing the asbestos containing material according to requirement of COP
ND/2019/05	(a) Bored piling	D2-02, E2-02& E3-02	- Construction Dust Impact - Noise Impact - Water Quality Impact (Construction Phase) - Waste Management (Construction Waste)	- Regular watering on exposed worksites and haul road stockpiling area should be provided with covers and water spraying system - only well-maintained plant to be operated on-site plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs; - mobile plant to be sited as far away from NSRs as possible practicable - All open stockpiles of construction materials of more than 50m ³ to be covered with tarpaulin - Manholes to be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system - All vehicles and plant to be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. - Segregate and store different types of waste in different containers, skip or stockpiles to enhance
	(b) Socketed H-pile installation	Ho Ka Yuen Footbridge		
	(c) Formation of site entrance	C1-02 and C3-03		
	(d) Construction of haul road, temporary footpath and cycle track	D2-02, C4-01a, C2-01		
	(e) Road widening, site clearance and tree pruning for haul road	E2-02		
	(f) Structural works	Project Manager's Site Accommodation		
	(g) Public service removal application	Jockey Club Road		

	(h) Permanent footpath construction	Jockey Club Road		reuse or recycling of materials and their proper disposal - Sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable portions - Provide training to workers on appropriate waste management procedures, including waste reduction, reuse and recycling - To adopt other good site practice, such as arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site and regular cleaning and maintenance programme for drainage - Chemical wastes to be stored in appropriate containers and collected by a licensed chemical waste Contractor. 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
	(i) Removal of existing noise barrier	Tai Wo Service Road West		
	(j) Pedestrian Refuge Island Removal	Tai Wo Service Road West		
	(k) Underground utility diversion	Tai Wo Service Road West		
	(l) Box culvert BC5 and associated drainage construction	Tai Wo Service Road East		
	(m) Temporary removal of noise barrier and sign gantry for D2-03 construction	Fanling Highway		
ND/2019/06	(a) Construction of finishing works, E&M works and Building Services works of Management Office Building (MOB)	Portion 4	- Noise pollution - Water pollution	- Adopt noise barrier in screening noise - Wastewater generated after wheel washing of vehicles should be treated properly before discharge

	(b) Installation of steel canopy column	Portion 3	- Noise pollution	- Adopt noise barrier in screening noise
	(c) Construction of underground utilities in the final stage market	Portion 3	- C&D waste - Air pollution - Noise pollution - Water pollution	- Cover C&D waste by impervious sheeting - Spray with water to work area before, during and after the work - Adopt QPME for excavator - Wastewater generated after wheel washing of vehicles should be treated properly before discharge
	(d) Tree felling	Portion 6	- C&D waste - Noise pollution	- Cover C&D waste by impervious sheeting - Adopt QPME for excavator
	(e) Off-site fabrication and welding test of columns and steel truss of steel canopy	Fabrication yard in China	None	None
	(f) Demolition of existing public toilet	Portion 5	- C&D waste - Air pollution - Noise pollution - Water pollution	- Cover C&D waste by impervious sheeting - Spray with water to work area before, during and after the work - Adopt QPME for excavator - Wastewater generated after wheel washing of vehicles should be treated properly before discharge
	(g) Slope improvement works	Portion 6	- C&D waste - Air Pollution - Noise Pollution	- Cover C&D waste by impervious sheeting - Spray with water to work area before, during and after the work - Adopt QPME for excavator

11.2 The major site activities in coming two months is shown in **Table IV**.

Monitoring Schedule for the Next Month

11.3 The tentative environmental monitoring schedule for the next month is shown in **Appendix D**.

Construction Programme for the Next Month

11.4 A tentative construction programme is provided in **Appendix A**.

12 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

- 12.1 This Monthly EM&A Report presents the EM&A work undertaken in November 2020 in accordance with Updated EM&A Manual.
- 12.2 One Action Level exceedance for construction noise monitoring was recorded due to the documented noise complaint received for Contract ND/2019/05 and no exceedance of Limit Level for construction noise monitoring was recorded in this reporting month.
- 12.3 No Action and Limit Levels exceedance were recorded for air quality, ambient arsenic and landfill gas monitoring in the reporting month.

Contract No. ND/2019/01

- 12.4 Environmental site inspection were conducted on 3rd, 10th, 17th, 24th November 2020 by ET in the reporting month.

Contract No. ND/2019/02

- 12.5 Environmental site inspection were conducted on 4th, 11th, 20th, 25th November 2020 by ET in the reporting month.

Contract No. ND/2019/03

- 12.6 Environmental site inspection were conducted on 6th, 13th, 17th, 27th November 2020 by ET in the reporting month.

Contract No. ND/2019/05

- 12.7 Environmental site inspections were conducted on 2nd, 11th, 16th, 23rd, 30th November 2020 by ET in the reporting month.

Contract No. ND/2019/06

- 12.8 Environmental site inspections were conducted on 5th, 9th, 19th, 26th November 2020 by ET in the reporting month.
- 12.9 There were two environmental complaints, no notification of summons or successful prosecutions received in the reporting month.
- 12.10 The ET would keep track on the EM&A programme to ensure compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

Recommendations

- 12.11 According to the environmental audits performed in the reporting month, the following recommendations were made:

Air Quality Impact

- To enhance the dust suppression measures such as water spraying on all haul roads and

-
- expose work site area; and
 - To maintain the impervious material to cover the stockpile of dusty materials; and
 - To ensure all regulated machines with valid Non-road Mobile Machinery (NRMM) labels.

Water Impact

- To prevent any surface runoff discharge into nearby drainage or stream;
- To divert all the water generated from construction site to de-silting facilities with enough handling capacity before discharge; and
- To ensure the drainage facilities would not be clogged with waste to avoid overflow.

Waste/Chemical Management

- To avoid improper handling, storage and dispose of oil drums or chemical containers on site; and
- To store chemical waste/waste oil properly in the designated place before disposal.

Landscape & Visual Impact

- To clear the construction materials/wastes properly within the tree protection zone.
- Retained trees should be carefully protected.
- Dull green fencing should be secured with no gaps or no holes.

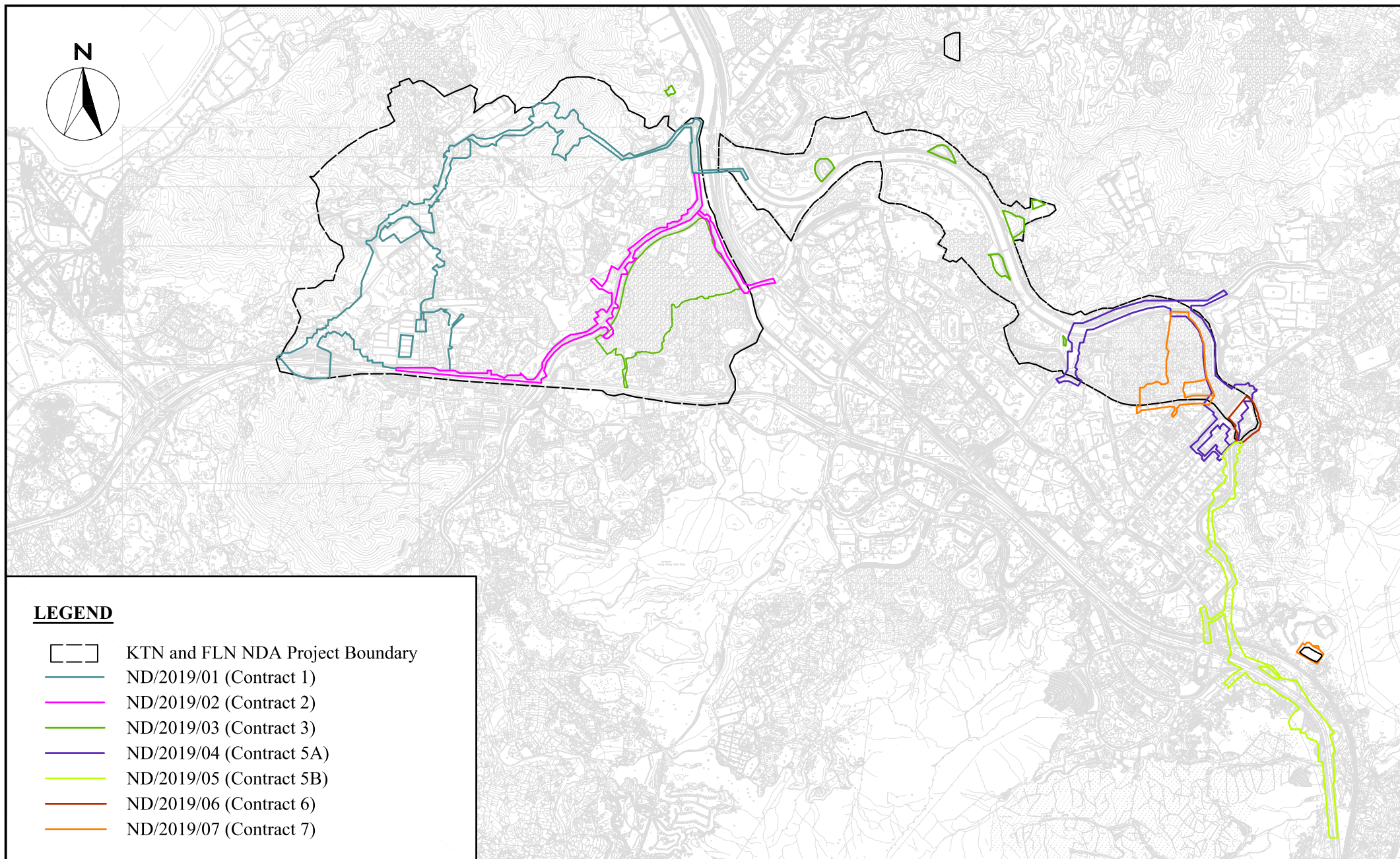
Landfill Gas Hazard

- “No Smoking” and “No Naked Flame” notices in Chinese and English should be posted prominently around the construction site.

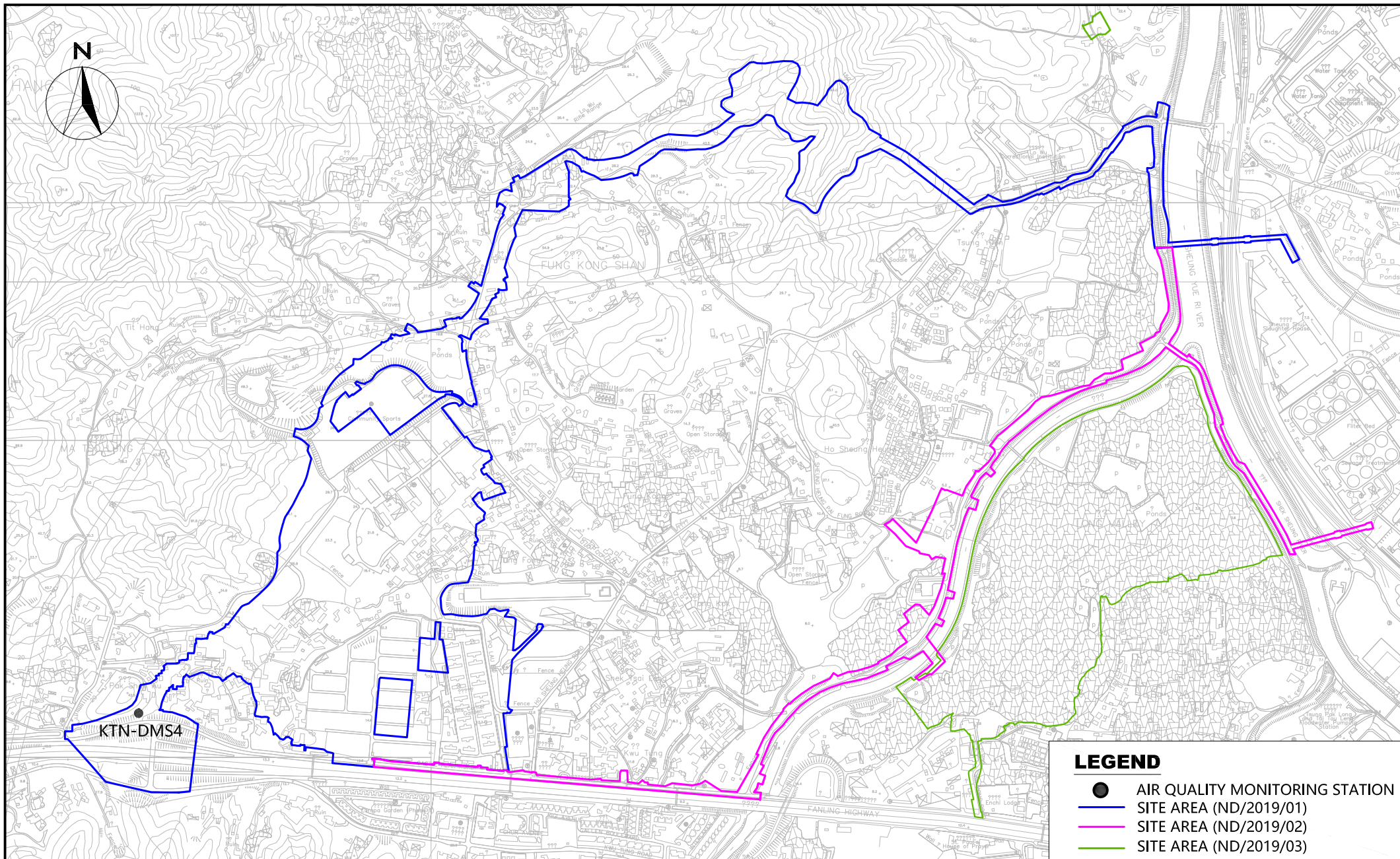
Land Contamination

- Stockpiling site(s) should be lined with impermeable sheeting and banded. Stockpiles should be properly covered by impermeable sheeting to reduce dust emission during dry season or contaminated run-off during rainy season. Watering should be avoided on stockpiles of soil to minimize runoff.

DRAWING(S)

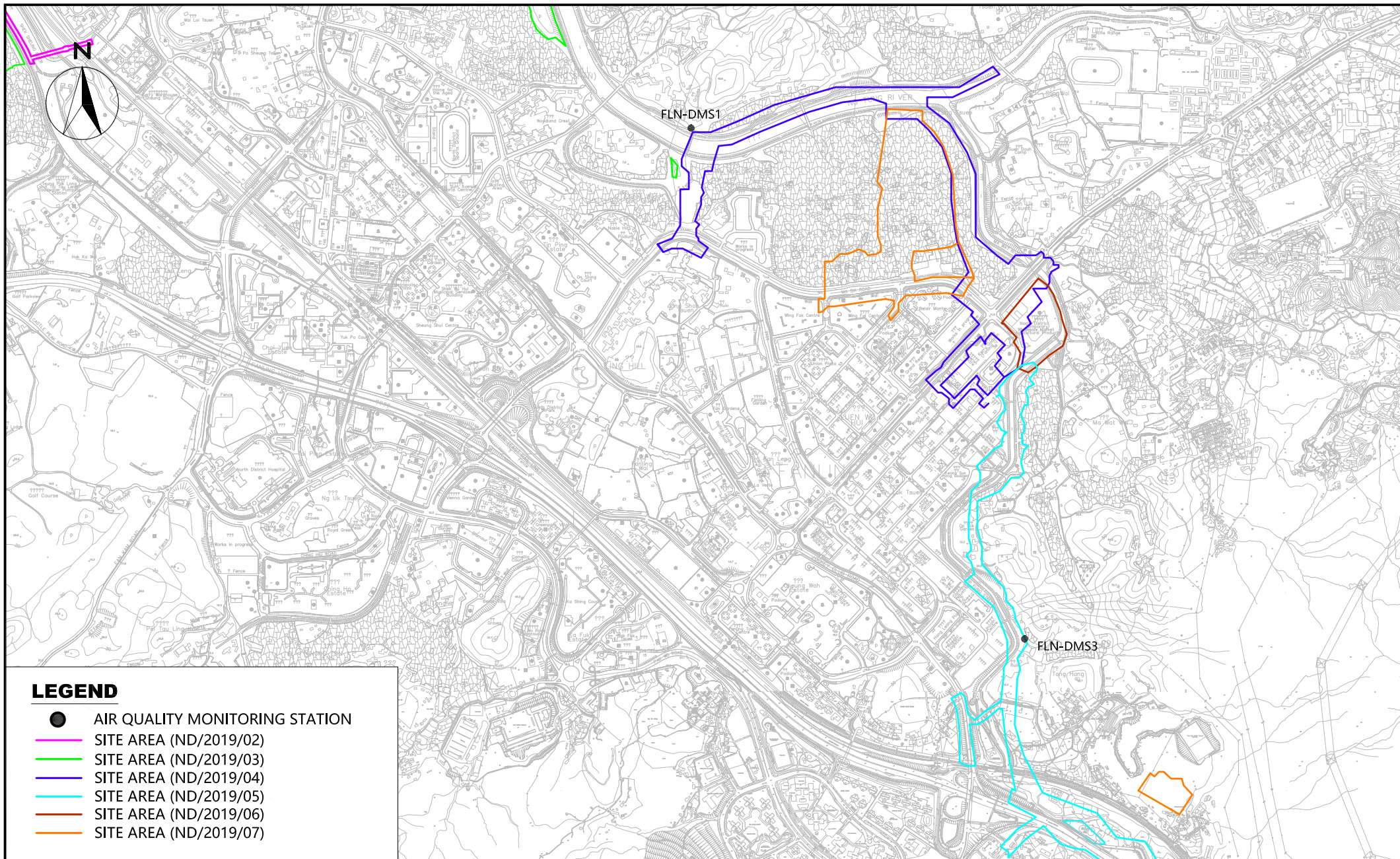


FIGURE(S)



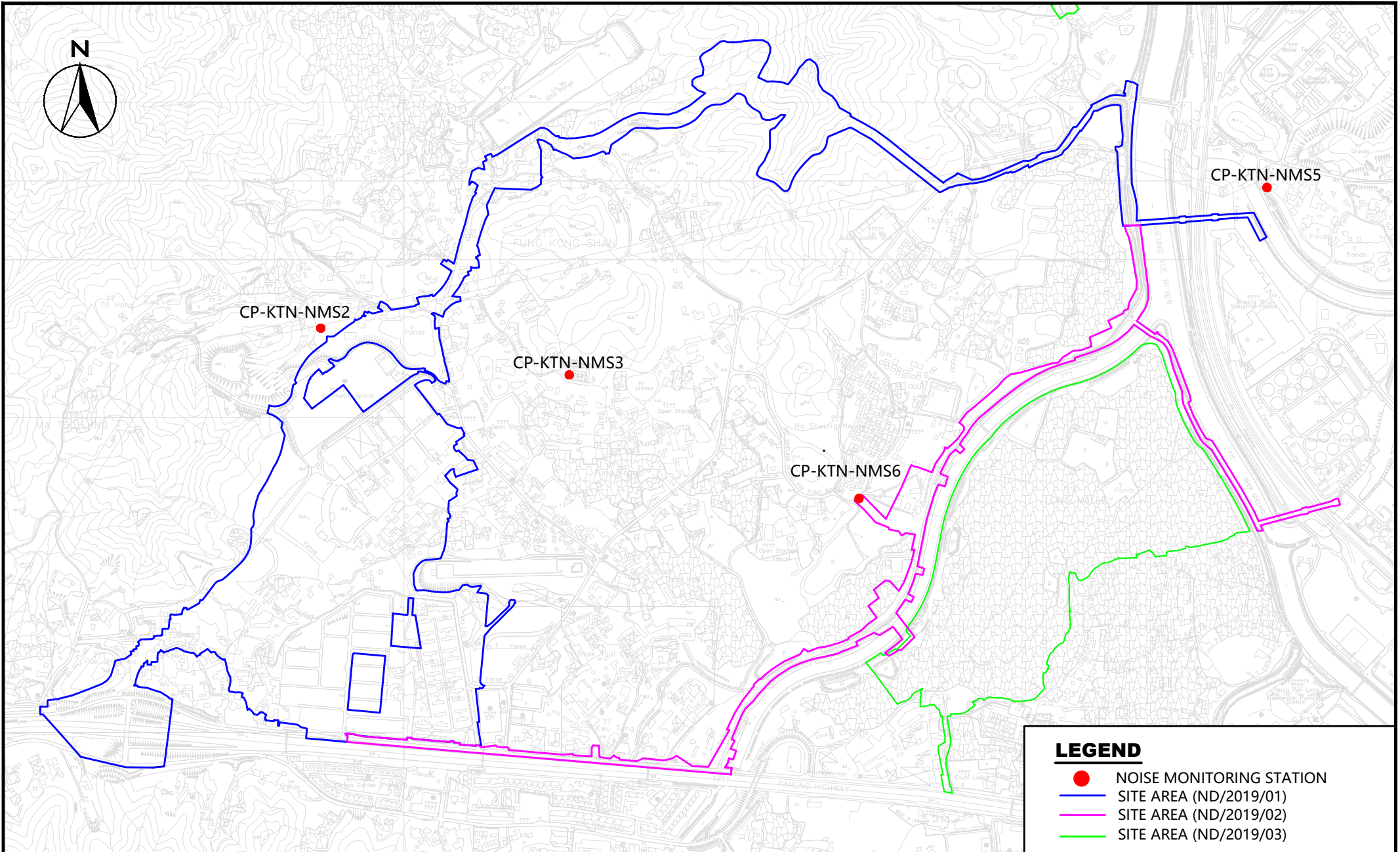
LEGEND

- AIR QUALITY MONITORING STATION
- SITE AREA (ND/2019/01)
- SITE AREA (ND/2019/02)
- SITE AREA (ND/2019/03)



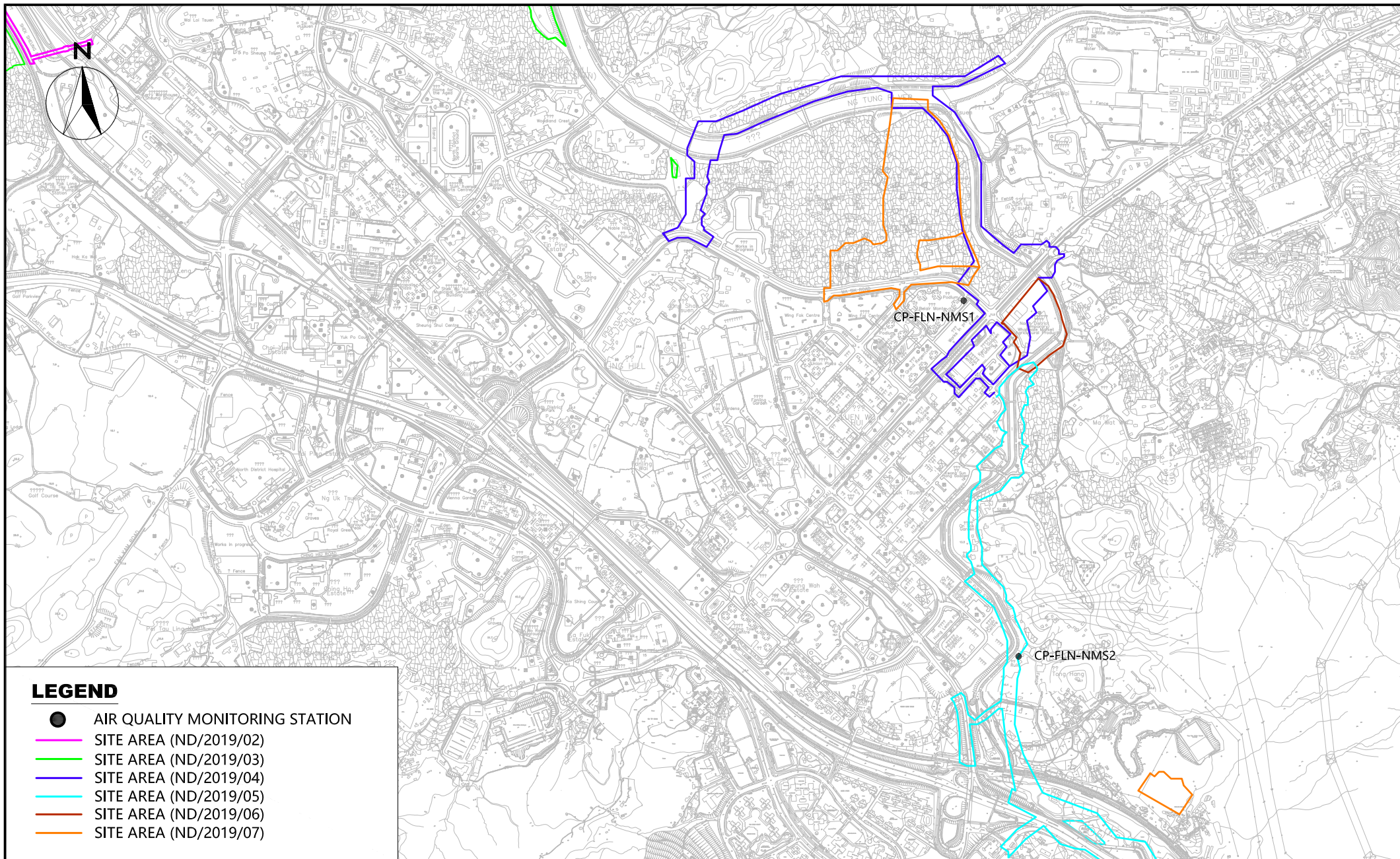
LEGEND

- AIR QUALITY MONITORING STATION
- SITE AREA (ND/2019/02)
- SITE AREA (ND/2019/03)
- SITE AREA (ND/2019/04)
- SITE AREA (ND/2019/05)
- SITE AREA (ND/2019/06)
- SITE AREA (ND/2019/07)



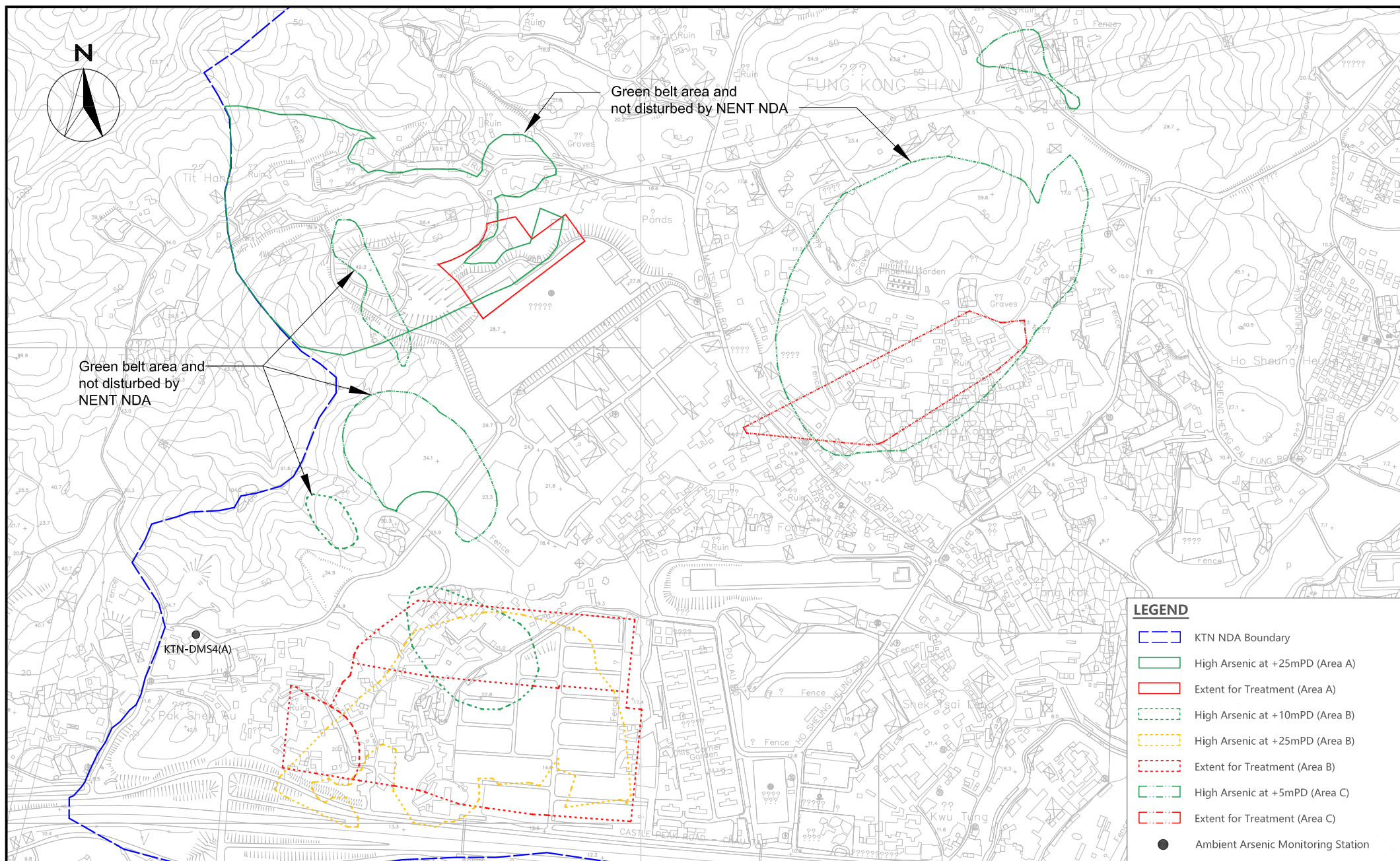
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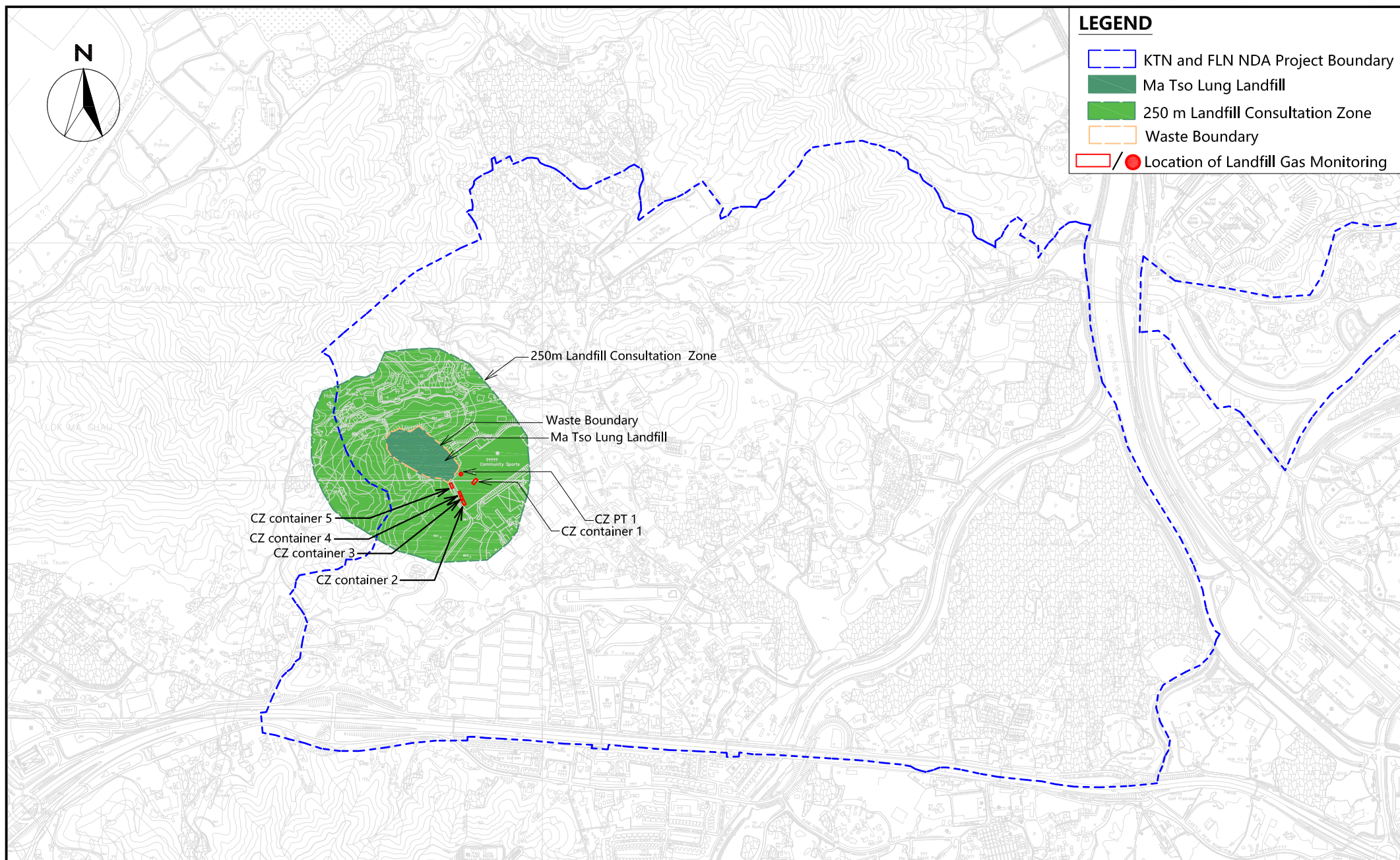
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- SITE AREA (ND/2019/01)
- SITE AREA (ND/2019/02)
- SITE AREA (ND/2019/03)

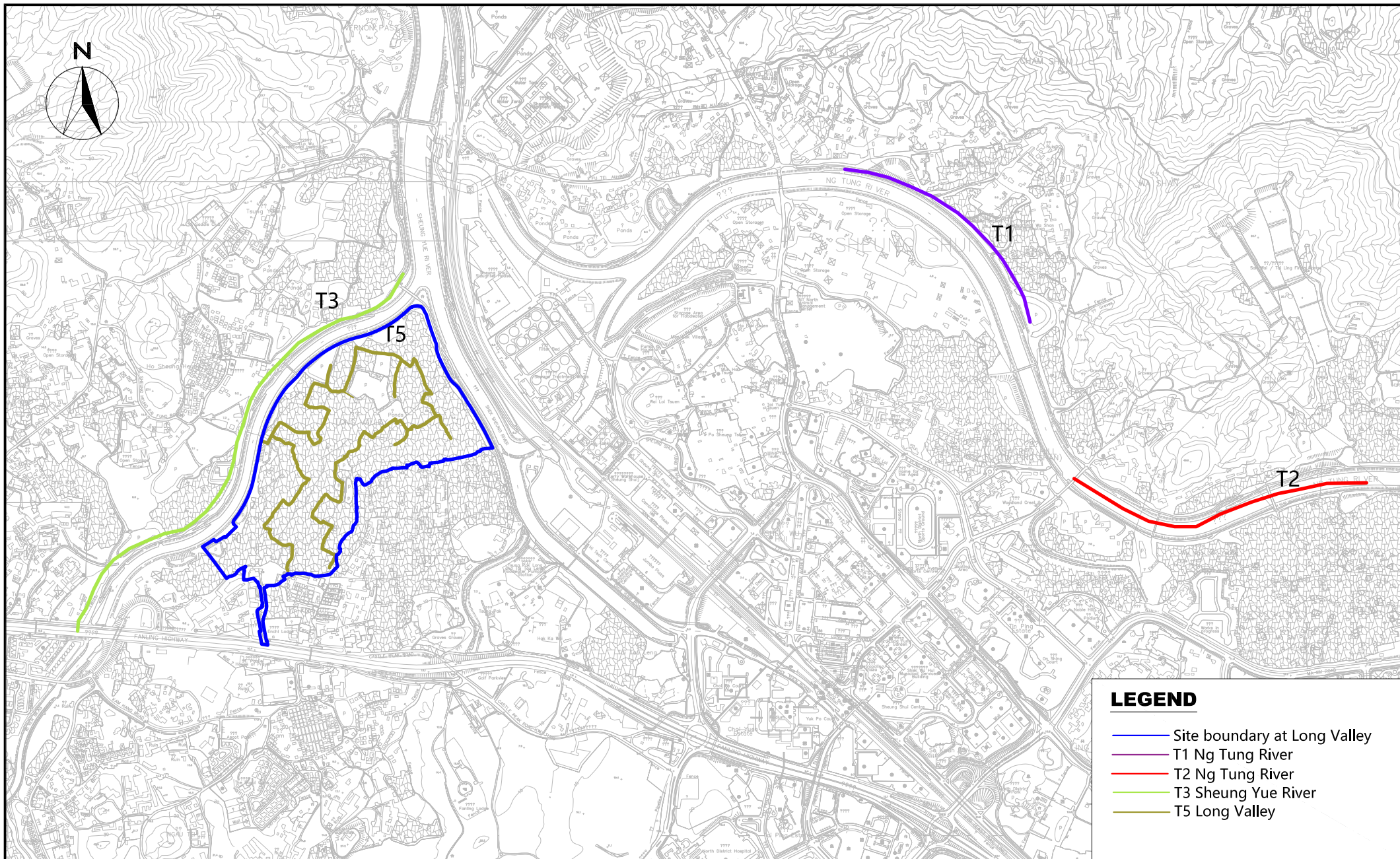


LEGEND

- AIR QUALITY MONITORING STATION
- SITE AREA (ND/2019/02)
- SITE AREA (ND/2019/03)
- SITE AREA (ND/2019/04)
- SITE AREA (ND/2019/05)
- SITE AREA (ND/2019/06)
- SITE AREA (ND/2019/07)

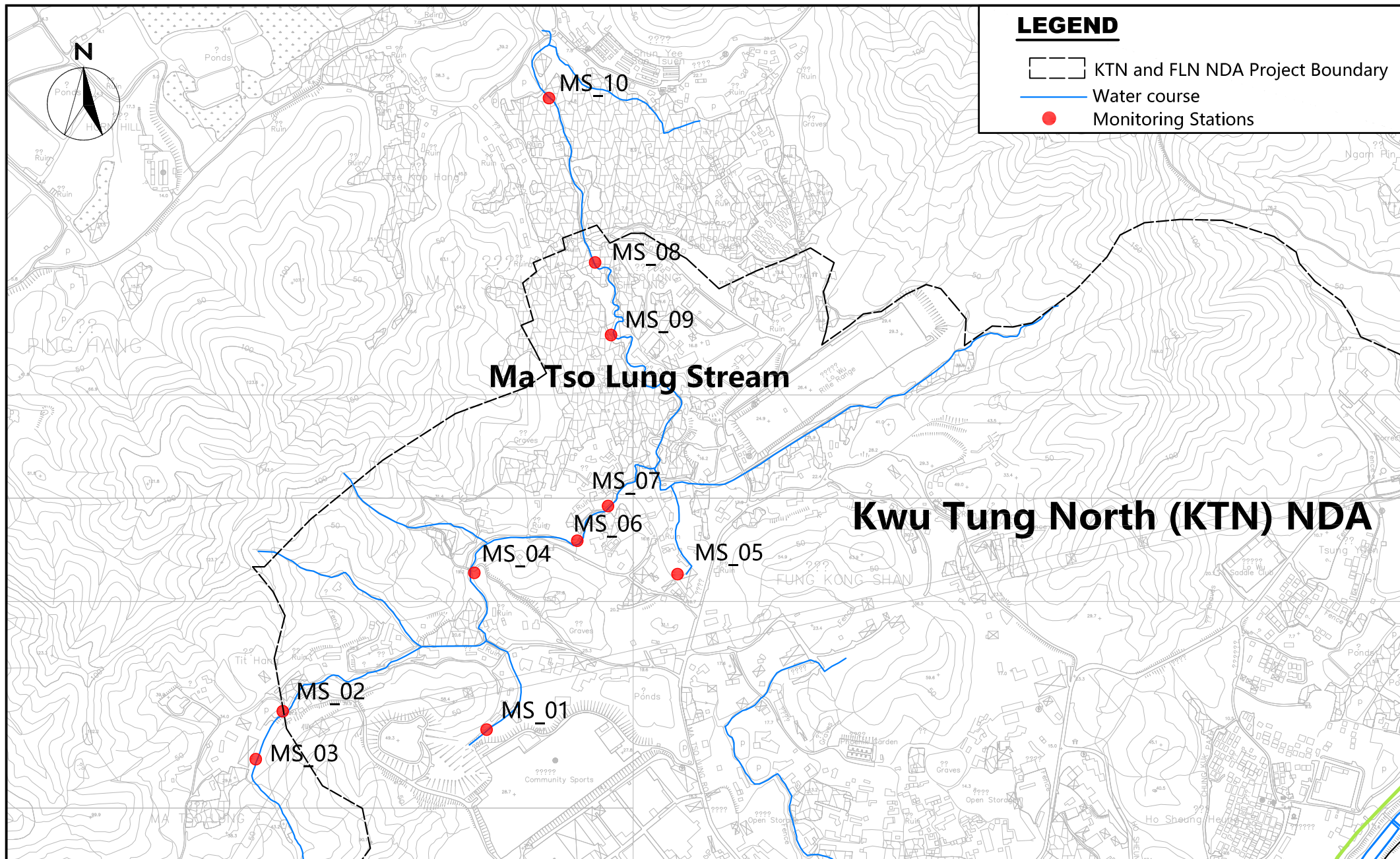






LEGEND

- Site boundary at Long Valley
- T1 Ng Tung River
- T2 Ng Tung River
- T3 Sheung Yue River
- T5 Long Valley



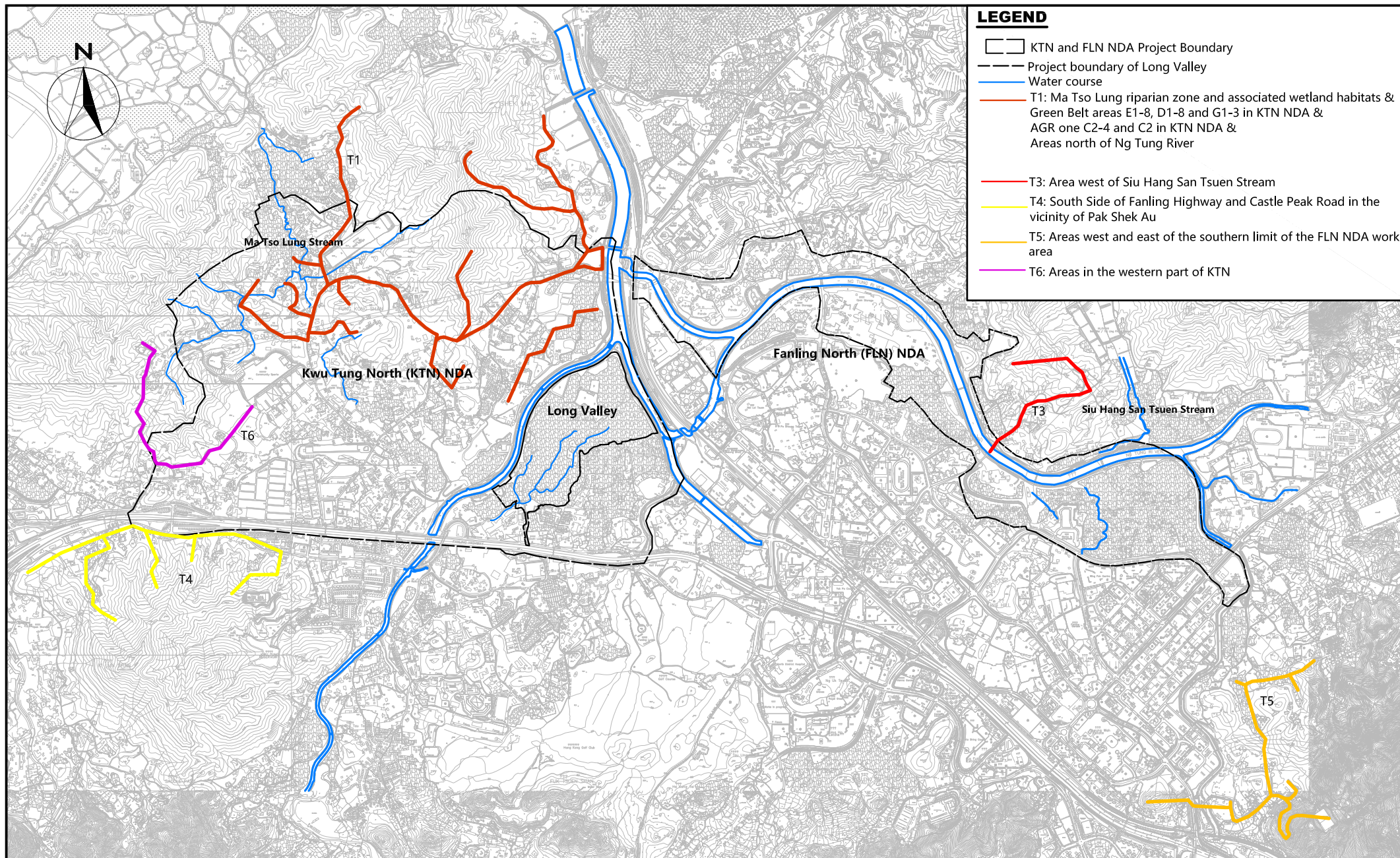
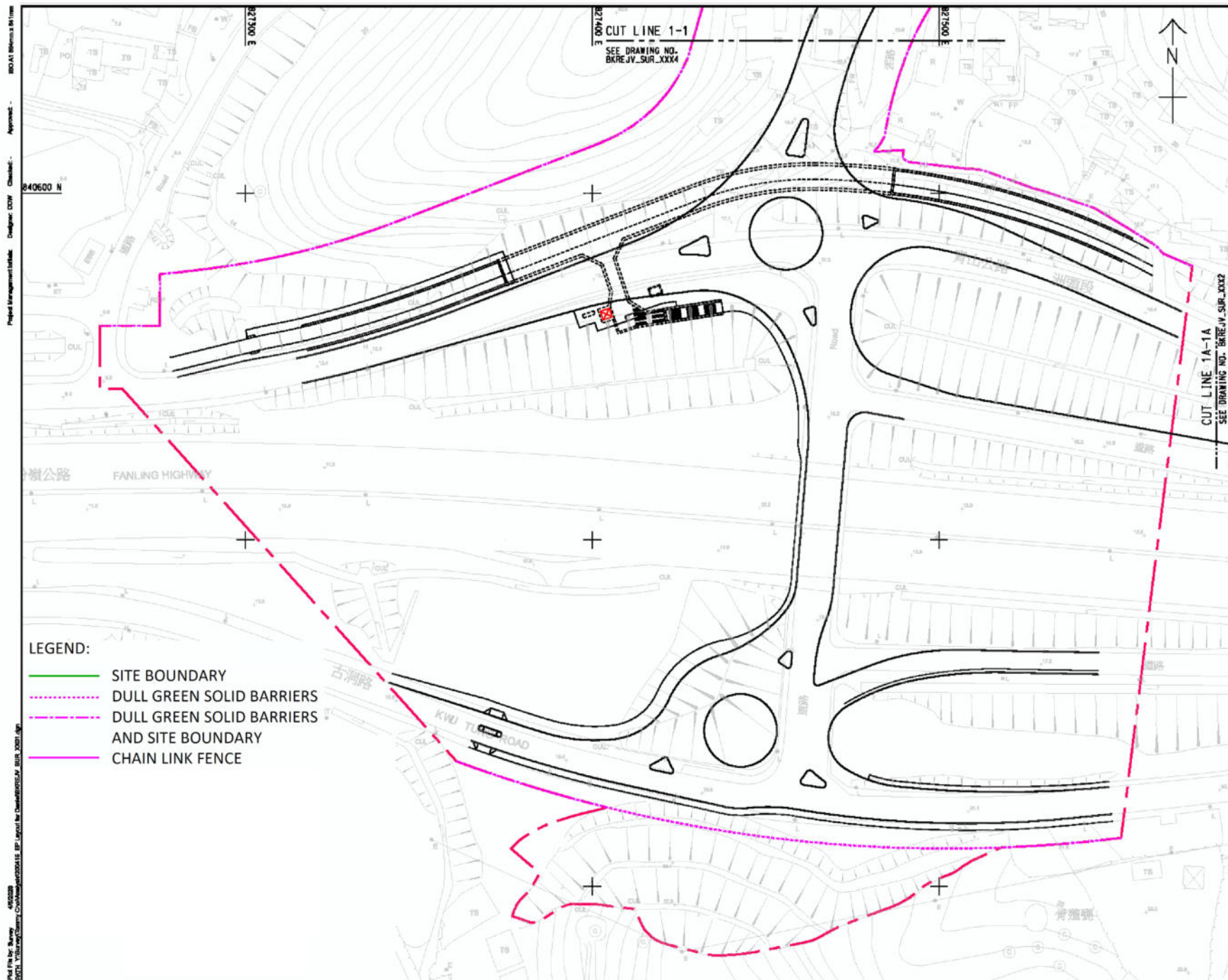


Figure 10

Hoarding Plan

EP-466/2013



BKREJV

TITLE OF DESIGNATED PROJECT:
Castle Peak Road Diversion

CONTRACT TITLE:

CONTRACT NO.: ND/2019/01
KWU TUNG NORTH NEW
DEVELOPMENT AREA, PHASE 1:
SITE FORMATION AND
INFRASTRUCTURE WORKS

CLIENT

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

CONSULTANT

AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS

STATUS

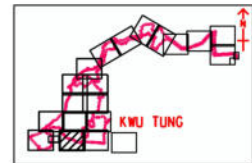
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DIMENSION UNIT

METRES

KEY PLAN



PROJECT NO.

60335576

CONTRACT NO.

ND/2019/01

SHEET TITLE

**DULL GREEN SOLID
BARRIERS LAYOUT**

SHEET NUMBER

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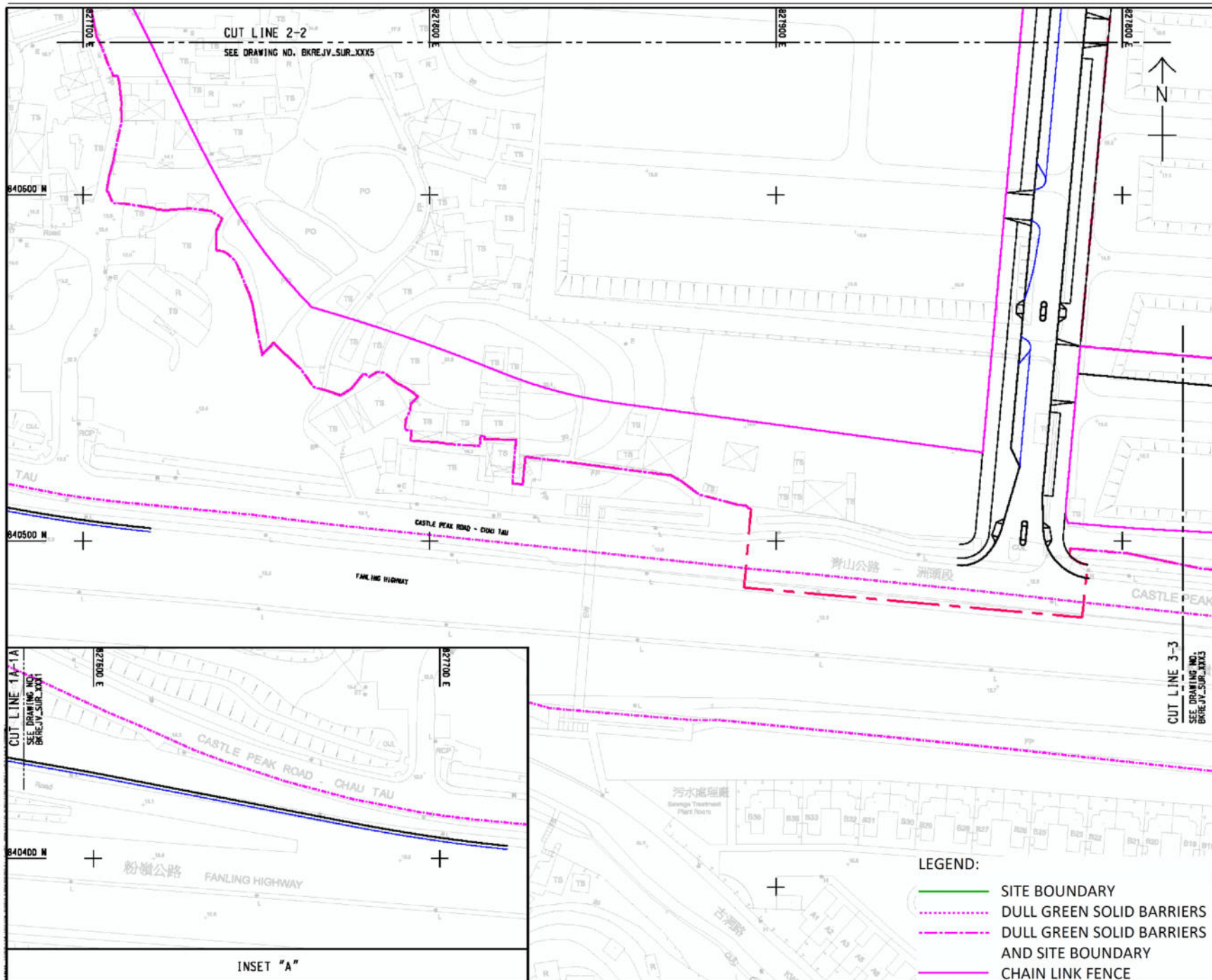


Figure 11

Hoarding Plan

EP-467/2013/A

45/2019
Road File No: Survey
Project: Kwu Tung North New Development Area Road P1 and P2 and Associated New Kwu Tung Interchange and Pak Shek Au Interchange Improvement
Project Management Module
Designed: CDM
Checked: -
Approved: -
BCKA1: BCKA1 a BCKA1

NOTES:

1. FOR NOTES AND LEGEND REFER TO DRAWING NO. BKREJV_SUR_XXX7.
2. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING NOS. BKREJV_SUR_XXX1 TO BKREJV_SUR_XXX19.



84100 N

84100 N

CUT LINE 5-5

SEE DRAWING NO. BKREJV_SUR_XXX5

CUT LINE 7-7

SEE DRAWING NO. BKREJV_SUR_XXX9

CUT LINE 6-6
SEE DRAWING NO. BKREJV_SUR_XXX8

LEGEND:

- SITE BOUNDARY
- DULL GREEN SOLID BARRIERS
- DULL GREEN SOLID BARRIERS AND SITE BOUNDARY
- CHAIN LINK FENCE

BKREJV

TITLE OF DESIGNATED PROJECT:

Kwu Tung North New Development Area Road P1 and P2 and Associated New Kwu Tung Interchange and Pak Shek Au Interchange Improvement

CONTRACT TITLE:

CONTRACT NO.: ND/2019/01
KWU TUNG NORTH NEW DEVELOPMENT AREA, PHASE 1:
SITE FORMATION AND INFRASTRUCTURE WORKS

CLIENT

 土木工程拓展署
Civil Engineering and Development Department

CONSULTANT

AECOM Asia Company Ltd.
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SUB-CONSULTANTS

STATUS

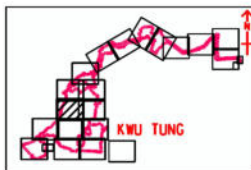
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DIMENSION UNIT

METRES

KEY PLAN



PROJECT NO.

60335576

CONTRACT NO.

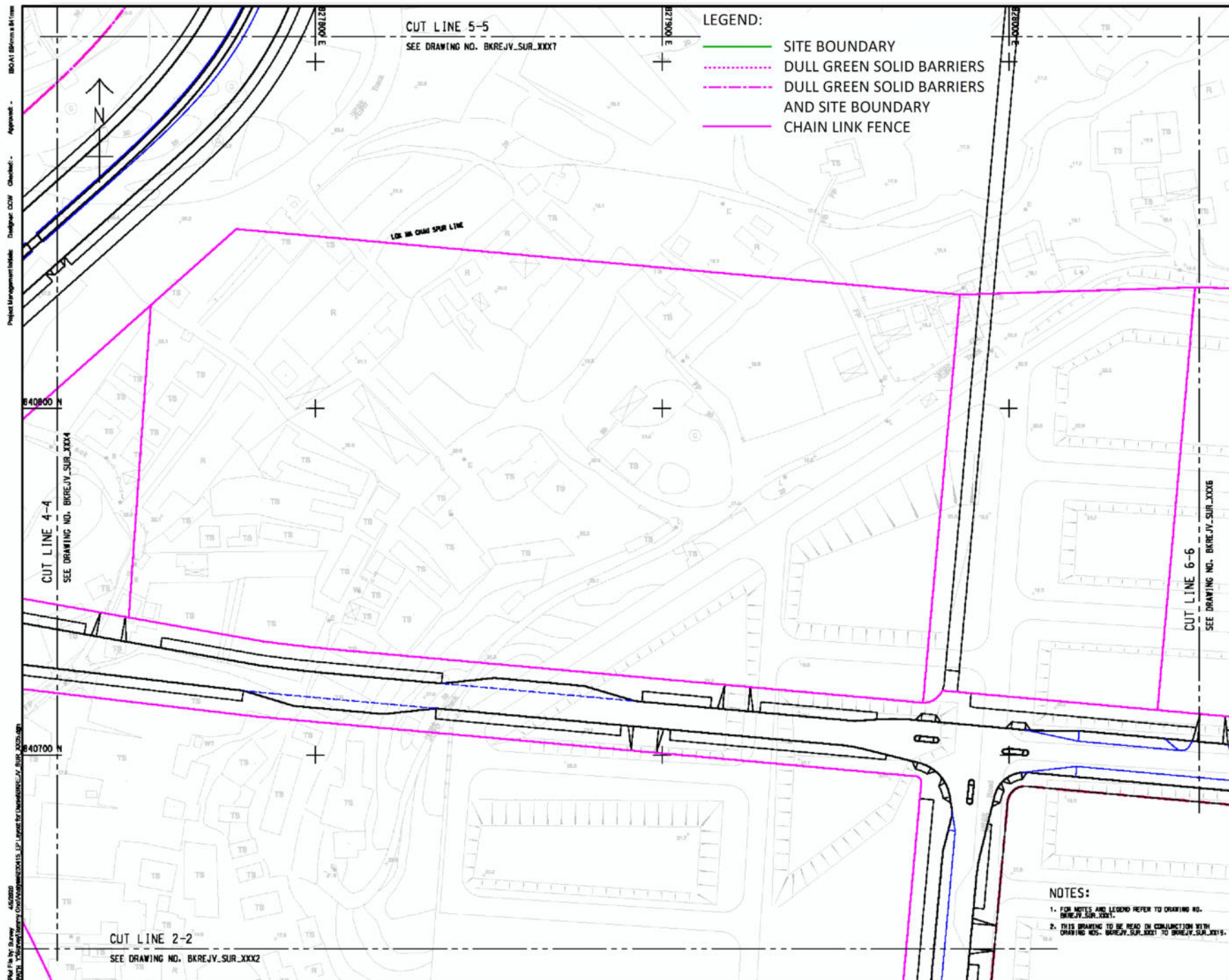
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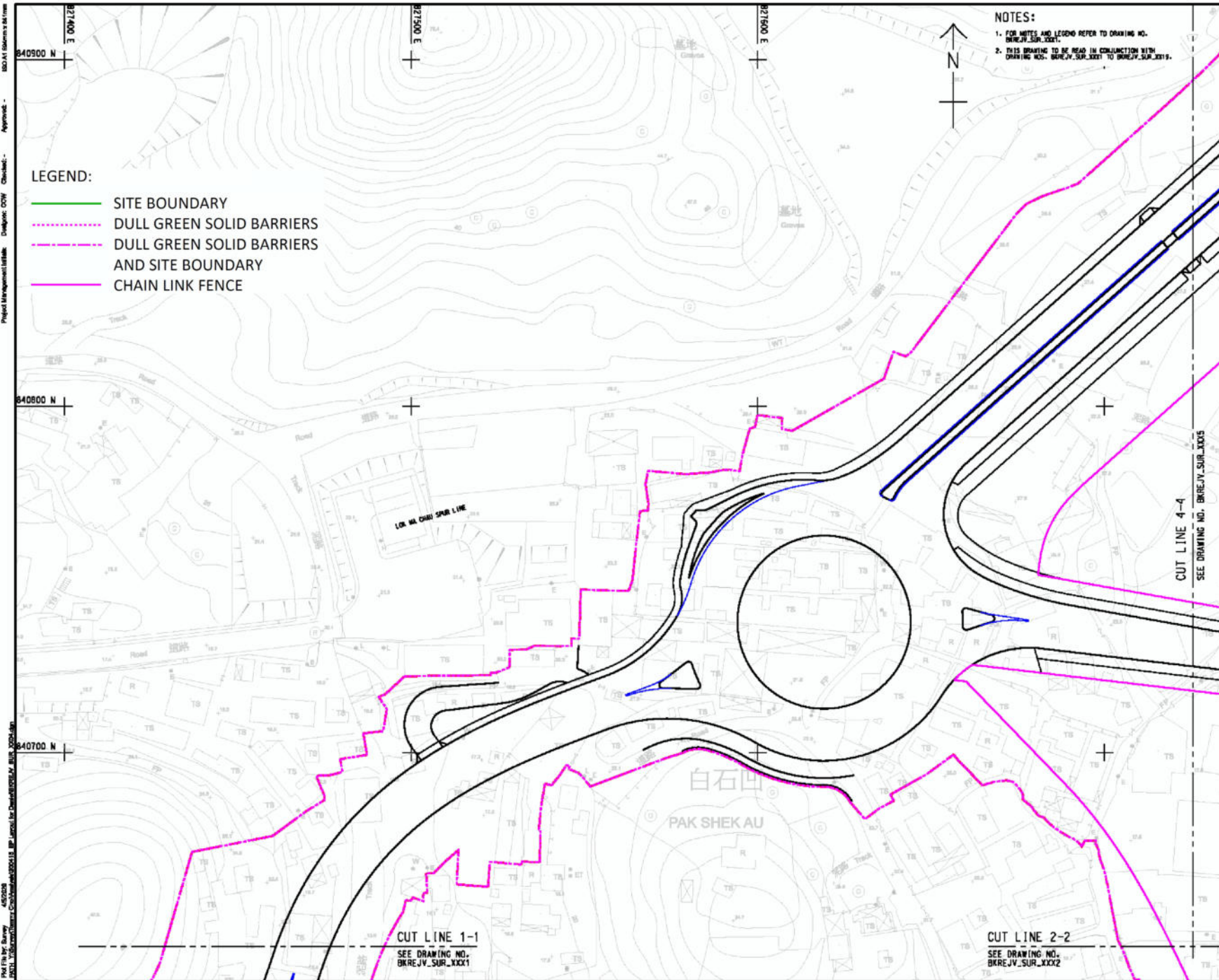
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DULL GREEN SOLID BARRIERS LAYOUT

SHEET NUMBER

BKREJV_SUR_XXX7





NOTES:
1. FOR METES AND LEGEND REFER TO DRAWING NO. BKREJV_SUR_XXX1.
2. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING NOS. BKREJV_SUR_XXX1 TO BKREJV_SUR_XXX9.

LEGEND:

- SITE BOUNDARY
- DULL GREEN SOLID BARRIERS
- DULL GREEN SOLID BARRIERS AND SITE BOUNDARY
- CHAIN LINK FENCE

BKREJV

TITLE OF DESIGNATED PROJECT:

Kwu Tung North New Development Area Road P1 and P2 and Associated New Kwu Tung Interchange and Pak Shek Au Interchange Improvement

CONTRACT TITLE:

CONTRACT NO.: ND/2019/01
KWU TUNG NORTH NEW DEVELOPMENT AREA, PHASE 1:
SITE FORMATION AND INFRASTRUCTURE WORKS

CLIENT

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CONSULTANT

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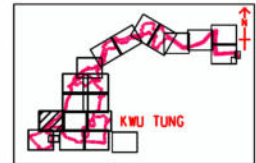
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STATUS

SCALE DIMENSION UNIT

A3 1:1000 METRES

KEY PLAN



PROJECT NO.

60335576

CONTRACT NO.

ND/2019/01

SHEET TITLE

DULL GREEN SOLID BARRIERS LAYOUT

SHEET NUMBER

BKREJV_SUR_XXX4

BKREJV

TITLE OF DESIGNATED PROJECT:
Kwu Tung North New
Development Area Road P1 and
P2 and Associated New Kwu
Tung Interchange and Pak Shek
Au Interchange Improvement

CONTRACT TITLE:

CONTRACT NO.: ND/2019/01
KWU TUNG NORTH NEW
DEVELOPMENT AREA, PHASE 1:
SITE FORMATION AND
INFRASTRUCTURE WORKS

CLIENT

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

CONSULTANT

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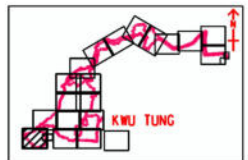
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STATUS

SCALE **DIMENSION UNIT**

A3 1:1000 METRES

KEY PLAN



PROJECT NO.

60335576

CONTRACT NO.

ND/2019/01

SHEET TITLE

**DULL GREEN SOLID
BARRIERS LAYOUT**

SHEET NUMBER

BKREJV_SUR_XXX1

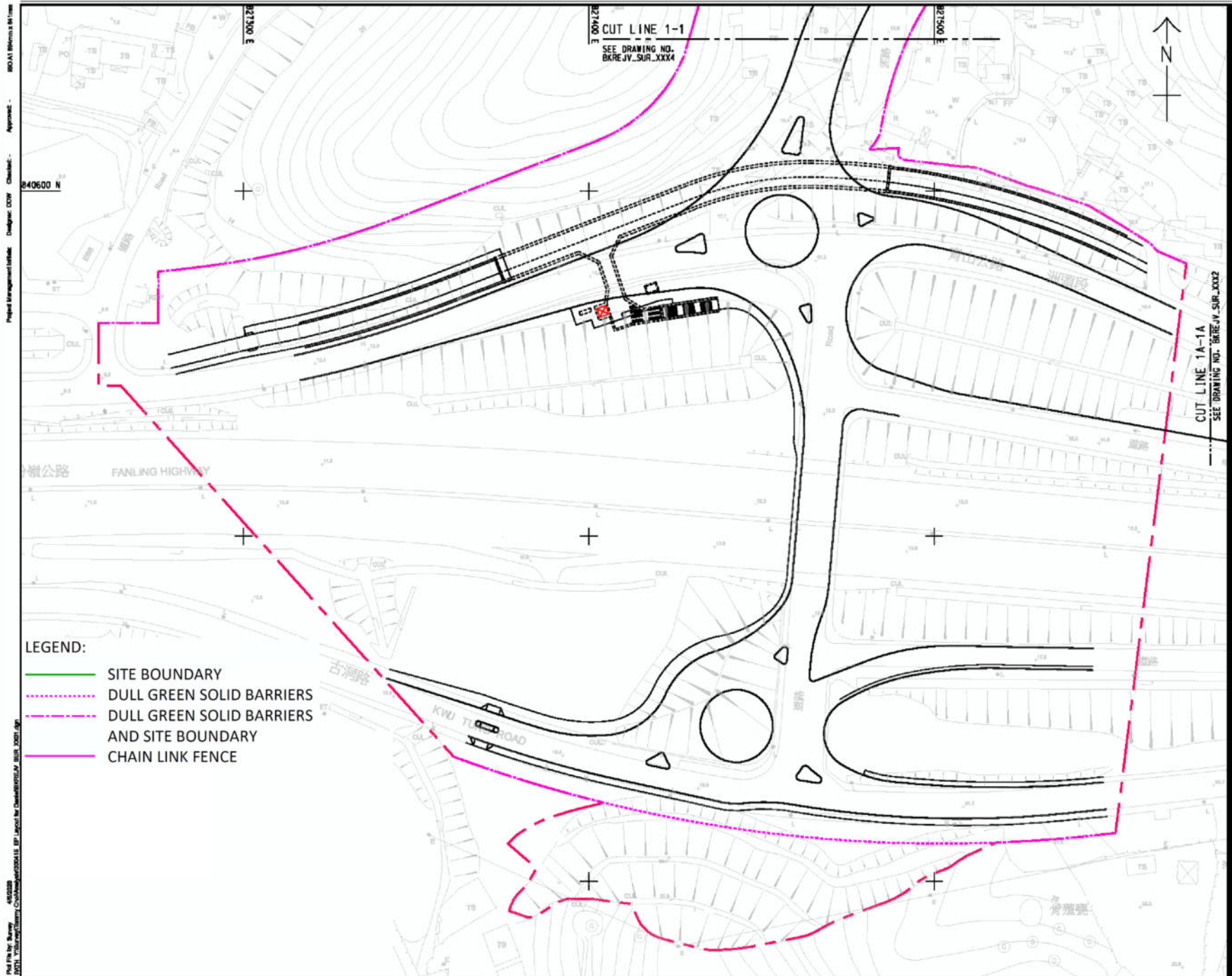


Figure 12

Hoarding Plan

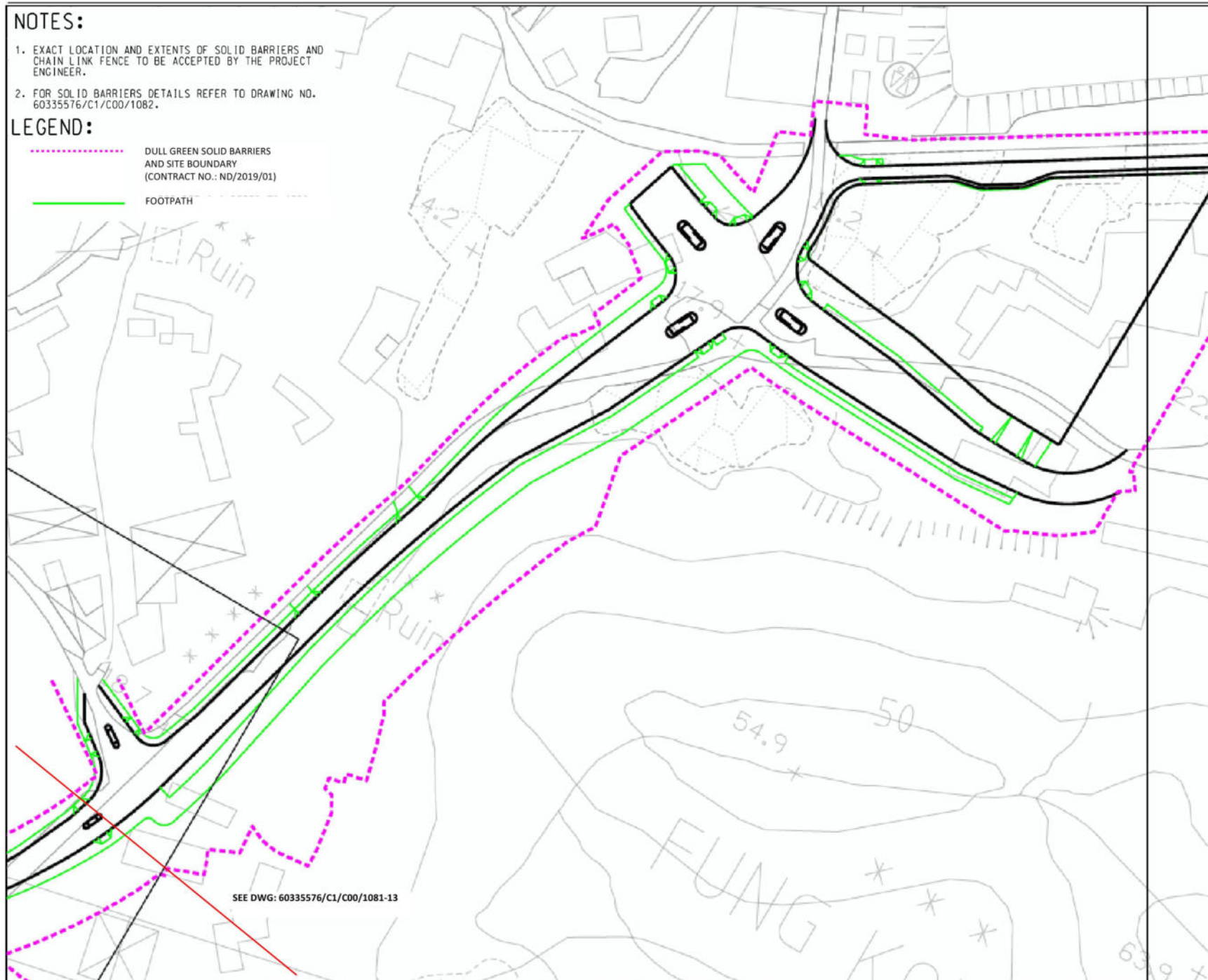
EP-468/2013/A

NOTES:

1. EXACT LOCATION AND EXTENTS OF SOLID BARRIERS AND CHAIN LINK FENCE TO BE ACCEPTED BY THE PROJECT ENGINEER.
2. FOR SOLID BARRIERS DETAILS REFER TO DRAWING NO. 60335576/C1/C00/1082.

LEGEND:

- DULL GREEN SOLID BARRIERS AND SITE BOUNDARY (CONTRACT NO.: ND/2019/01)
- FOOTPATH



BKREJV

TITLE OF DESIGNATED PROJECT:

KWU TUNG NORTH NEW
DEVELOPMENT AREA ROAD D1 TO
D5

CONTRACT TITLE:

CONTRACT NO.: ND/2019/01
KWU TUNG NORTH NEW
DEVELOPMENT AREA, PHASE 1:
SITE FORMATION AND
INFRASTRUCTURE WORKS

CLIENT

 土木工程拓展署
Civil Engineering and
Development Department

CONSULTANT

AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS

STATUS

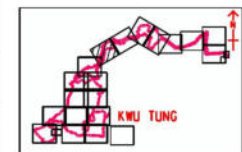
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DIMENSION UNIT

METRES

KEY PLAN



PROJECT NO.

60335576

CONTRACT NO.

ND/2019/01

SHEET TITLE

**DULL GREEN SOLID
BARRIERS LAYOUT**

SHEET NUMBER

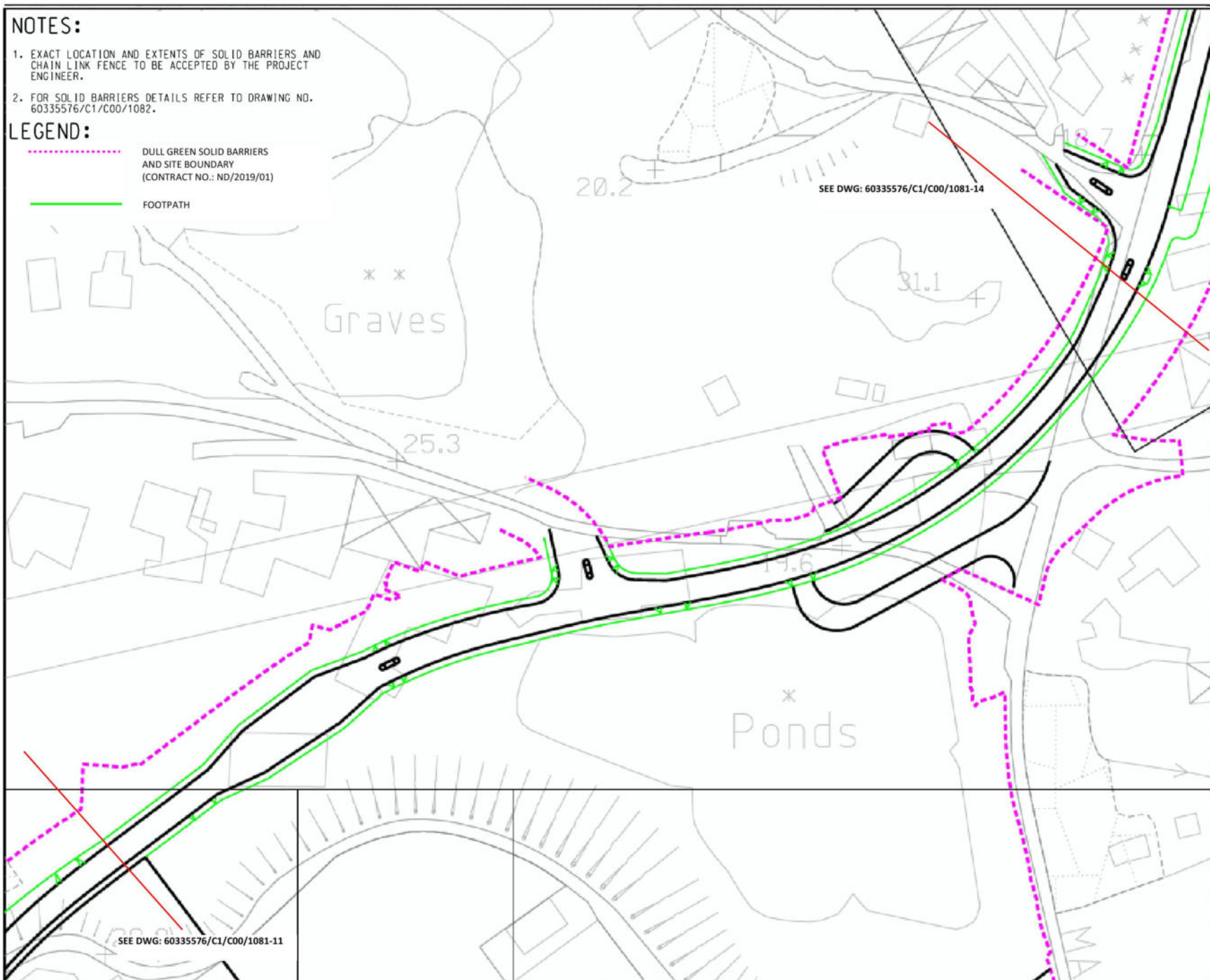
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NOTES:

1. EXACT LOCATION AND EXTENTS OF SOLID BARRIERS AND CHAIN LINK FENCE TO BE ACCEPTED BY THE PROJECT ENGINEER.
2. FOR SOLID BARRIERS DETAILS REFER TO DRAWING NO. 60335576/C1/C00/1082.

LEGEND:

-  DULL GREEN SOLID BARRIERS AND SITE BOUNDARY (CONTRACT NO.: ND/2019/01)
-  FOOTPATH



BKREJV

TITLE OF DESIGNATED PROJECT:

KWU TUNG NORTH NEW
DEVELOPMENT AREA ROAD D1 TO
D5

CONTRACT TITLE:

CONTRACT NO.: ND/2019/01
KWU TUNG NORTH NEW
DEVELOPMENT AREA, PHASE 1:
SITE FORMATION AND
INFRASTRUCTURE WORKS

CLIENT

 土木工程拓展署
Civil Engineering and
Development Department

CONSULTANT

AECOM Asia Company Ltd.
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SUB-CONSULTANTS

STATUS

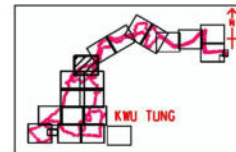
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DIMENSION UNIT

METRES

KEY PLAN



PROJECT NO.

60335576

CONTRACT NO.

ND/2019/01

SHEET TITLE

DULL GREEN SOLID
BARRIERS LAYOUT

SHEET NUMBER

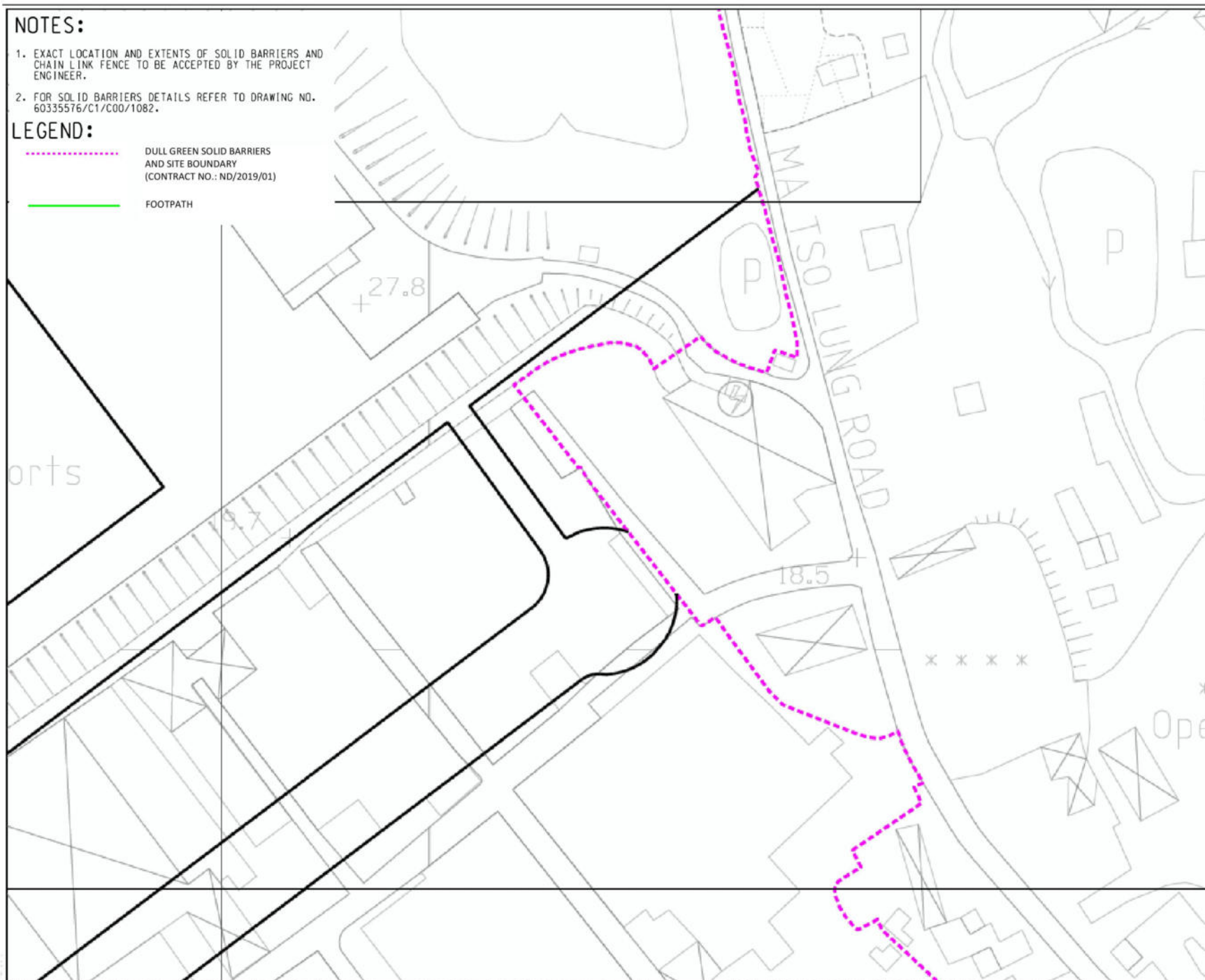
60335576/C1/C00/1081-13

NOTES:

1. EXACT LOCATION AND EXTENTS OF SOLID BARRIERS AND CHAIN LINK FENCE TO BE ACCEPTED BY THE PROJECT ENGINEER.
2. FOR SOLID BARRIERS DETAILS REFER TO DRAWING NO. 60335576/C1/C00/1082.

LEGEND:

- DULL GREEN SOLID BARRIERS
AND SITE BOUNDARY
(CONTRACT NO.: ND/2019/01)
- FOOTPATH



BKREJV

TITLE OF DESIGNATED PROJECT:
KWU TUNG NORTH NEW
DEVELOPMENT AREA ROAD D1 TO
D5

CONTRACT TITLE:

CONTRACT NO.: ND/2019/01
**KWU TUNG NORTH NEW
DEVELOPMENT AREA, PHASE 1:
SITE FORMATION AND
INFRASTRUCTURE WORKS**

CLIENT

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

CONSULTANT

AECOM Asia Company Ltd.
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SUB-CONSULTANTS

STATUS

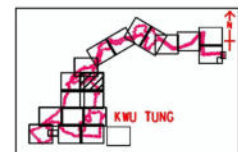
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DIMENSION UNIT

METRES

KEY PLAN



PROJECT NO.

60335576

CONTRACT NO.

ND/2019/01

SHEET TITLE

**DULL GREEN SOLID
BARRIERS LAYOUT**

SHEET NUMBER

60335576/C1/C00/1081-12

BKREJV

TITLE OF DESIGNATED PROJECT:
KWU TUNG NORTH NEW
DEVELOPMENT AREA ROAD D1 TO
D5

CONTRACT TITLE:

CONTRACT NO.: ND/2019/01
**KWU TUNG NORTH NEW
DEVELOPMENT AREA, PHASE 1:
SITE FORMATION AND
INFRASTRUCTURE WORKS**

CLIENT

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

CONSULTANT

AECOM Asia Company Ltd.
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SUB-CONSULTANTS

STATUS

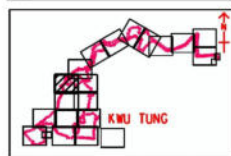
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DIMENSION UNIT

METRES

KEY PLAN



PROJECT NO.

60335576

CONTRACT NO.

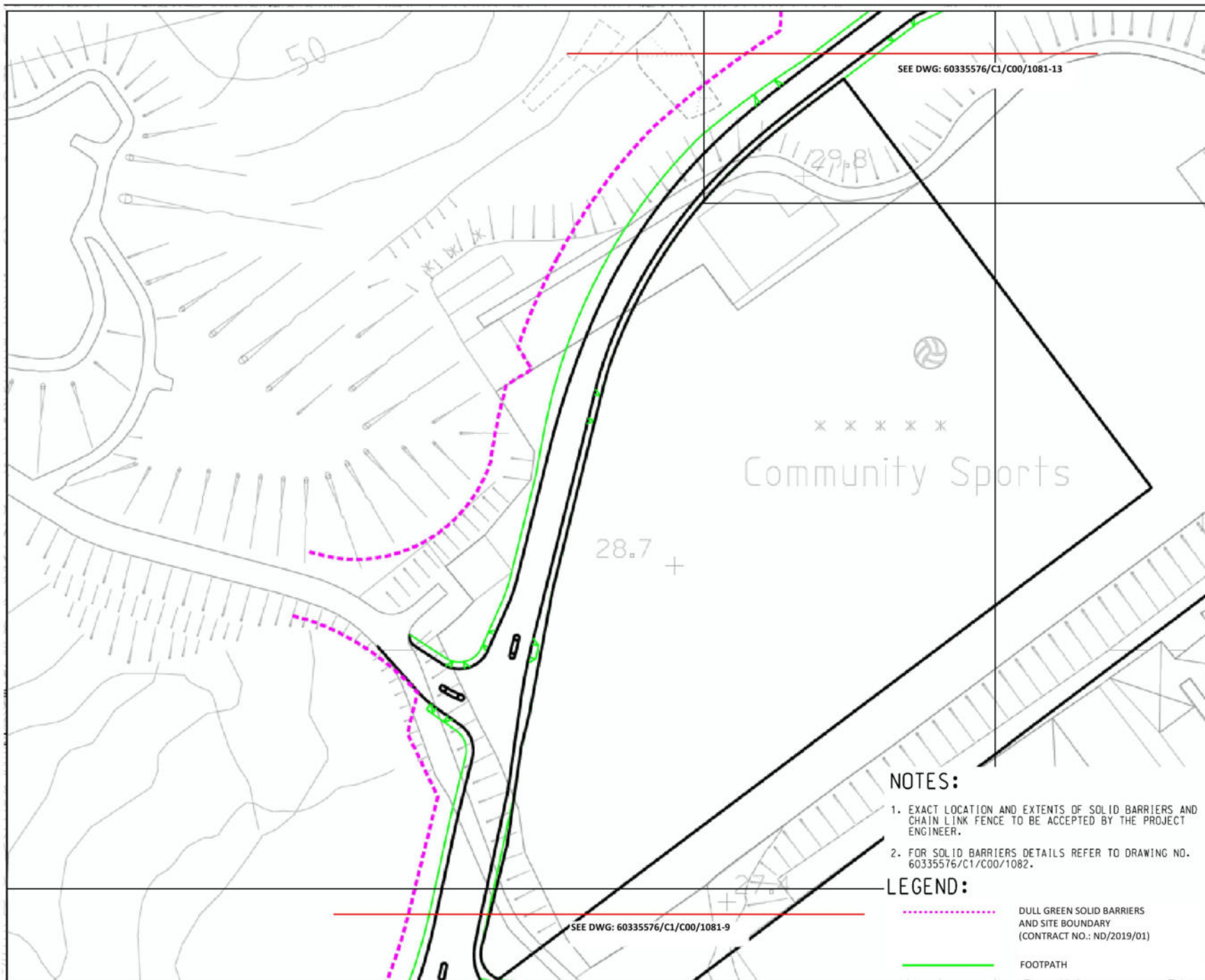
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SHEET TITLE

**DULL GREEN SOLID
BARRIERS LAYOUT**

SHEET NUMBER

60335576/C1/C00/1081-11



SEE DWG: 60335576/C1/C00/1081-13

SEE DWG: 60335576/C1/C00/1081-9

NOTES:

1. EXACT LOCATION AND EXTENTS OF SOLID BARRIERS AND CHAIN LINK FENCE TO BE ACCEPTED BY THE PROJECT ENGINEER.
2. FOR SOLID BARRIERS DETAILS REFER TO DRAWING NO. 60335576/C1/C00/1082.

LEGEND:

- DULL GREEN SOLID BARRIERS AND SITE BOUNDARY (CONTRACT NO.: ND/2019/01)
- FOOTPATH

BKREJV

TITLE OF DESIGNATED PROJECT:
KWU TUNG NORTH NEW
DEVELOPMENT AREA ROAD D1 TO
D5

CONTRACT TITLE:

CONTRACT NO.: ND/2019/01
**KWU TUNG NORTH NEW
DEVELOPMENT AREA, PHASE 1:
SITE FORMATION AND
INFRASTRUCTURE WORKS**

CLIENT

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CONSULTANT

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STATUS

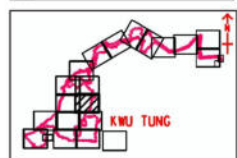
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DIMENSION UNIT

METRES

KEY PLAN



PROJECT NO.

60335576

CONTRACT NO.

ND/2019/01

SHEET TITLE

**DULL GREEN SOLID
BARRIERS LAYOUT**

SHEET NUMBER

60335576/C1/C00/1081-10

SEE DWG: 60335576/C1/C00/1081-9

NOTES:

1. EXACT LOCATION AND EXTENTS OF SOLID BARRIERS AND CHAIN LINK FENCE TO BE ACCEPTED BY THE PROJECT ENGINEER.
2. FOR SOLID BARRIERS DETAILS REFER TO DRAWING NO. 60335576/C1/C00/1082.

LEGEND:

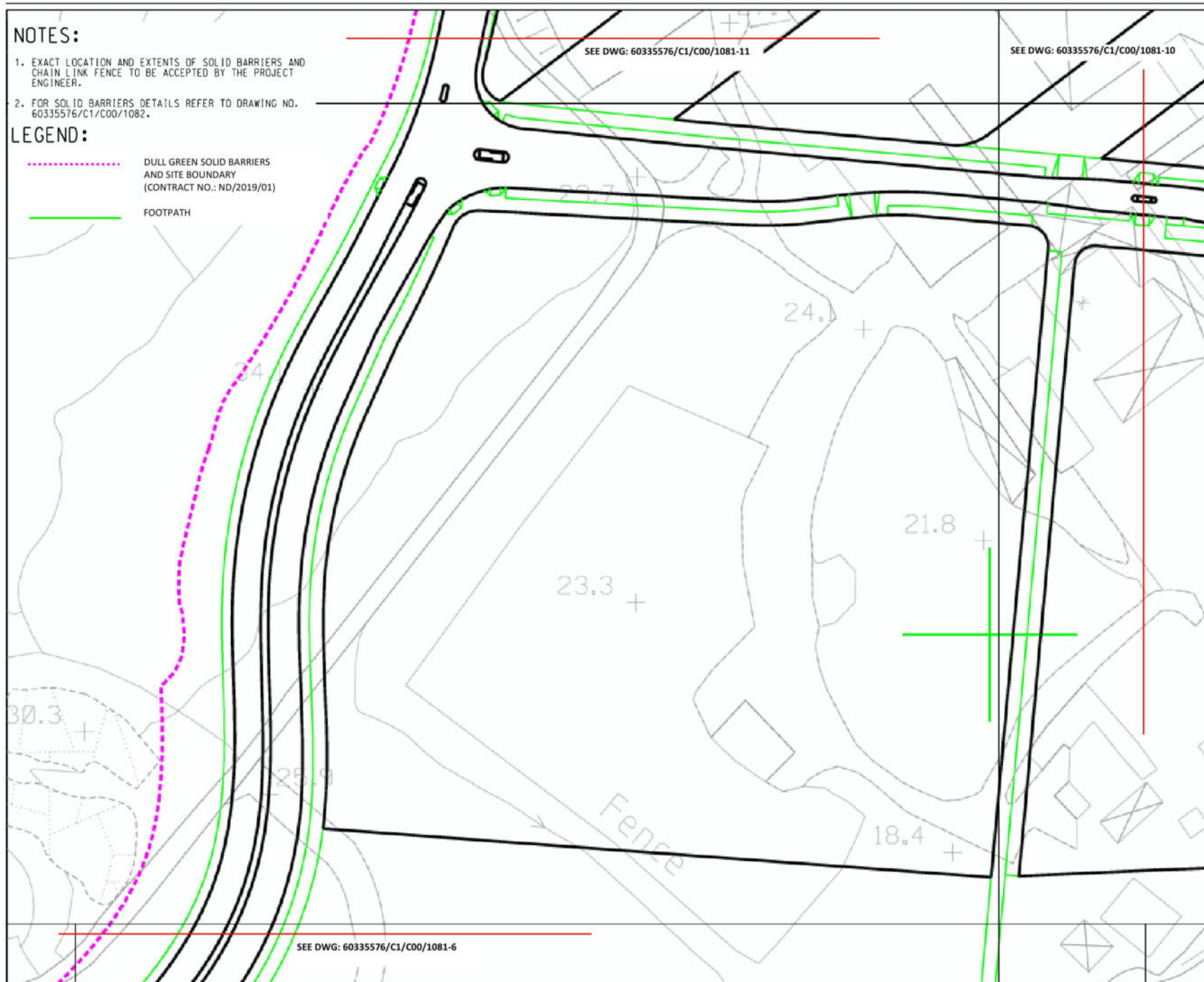
- DULL GREEN SOLID BARRIERS AND SITE BOUNDARY (CONTRACT NO.: ND/2019/01)
- FOOTPATH

NOTES:

1. EXACT LOCATION AND EXTENTS OF SOLID BARRIERS AND CHAIN LINK FENCE TO BE ACCEPTED BY THE PROJECT ENGINEER.
2. FOR SOLID BARRIERS DETAILS REFER TO DRAWING NO. 60335576/C1/C00/1082.

LEGEND:

- DULL GREEN SOLID BARRIERS AND SITE BOUNDARY (CONTRACT NO.: ND/2019/01)
- FOOTPATH



BKREJV

TITLE OF DESIGNATED PROJECT:

KWU TUNG NORTH NEW
DEVELOPMENT AREA ROAD D1 TO
D5

CONTRACT TITLE:

CONTRACT NO.: ND/2019/01
KWU TUNG NORTH NEW
DEVELOPMENT AREA, PHASE 1:
SITE FORMATION AND
INFRASTRUCTURE WORKS

CLIENT

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Civil Engineering and
Development Department

CONSULTANT

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SUB-CONSULTANTS

STATUS

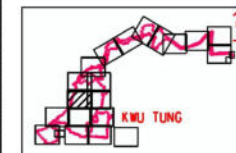
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DIMENSION UNIT

METRES

KEY PLAN



PROJECT NO.

60335576

CONTRACT NO.

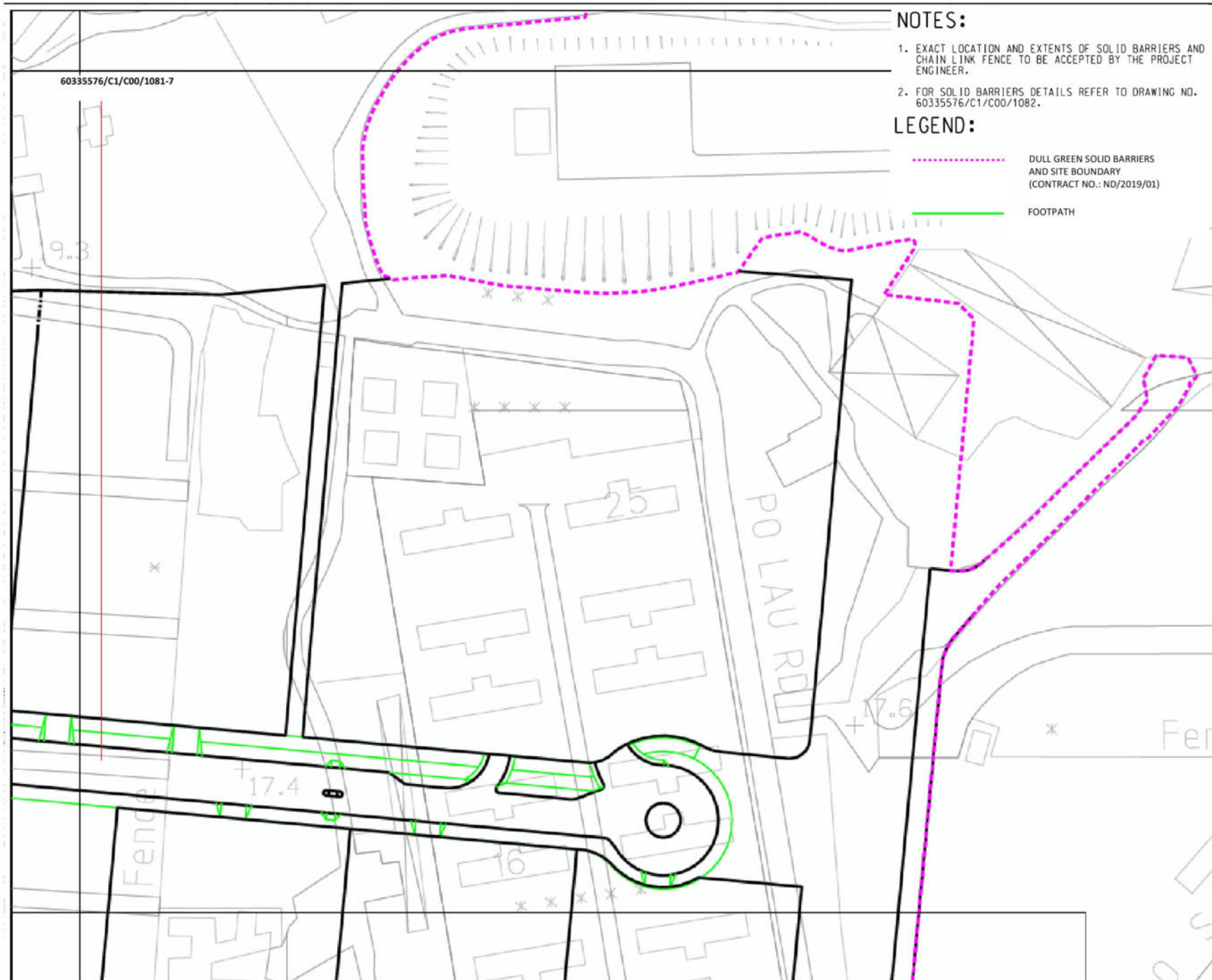
ND/2019/01

SHEET TITLE

DULL GREEN SOLID
BARRIERS LAYOUT

SHEET NUMBER

60335576/C1/C00/1081-9



NOTES:

1. EXACT LOCATION AND EXTENTS OF SOLID BARRIERS AND CHAIN LINK FENCE TO BE ACCEPTED BY THE PROJECT ENGINEER.
2. FOR SOLID BARRIERS DETAILS REFER TO DRAWING NO. 60335576/C1/C00/1082.

LEGEND:

- DULL GREEN SOLID BARRIERS AND SITE BOUNDARY (CONTRACT NO.: ND/2019/01)
- FOOTPATH

BKREJV

TITLE OF DESIGNATED PROJECT:
KWU TUNG NORTH NEW
DEVELOPMENT AREA ROAD D1 TO
D5

CONTRACT TITLE:

CONTRACT NO.: ND/2019/01
KWU TUNG NORTH NEW
DEVELOPMENT AREA, PHASE 1:
SITE FORMATION AND
INFRASTRUCTURE WORKS

CLIENT

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

CONSULTANT

AECOM Asia Company Ltd.
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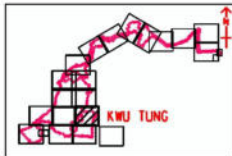
SUB-CONSULTANTS

STATUS

SCALE DIMENSION UNIT

A3 1:1000 METRES

KEY PLAN



PROJECT NO.

60335576

CONTRACT NO.

ND/2019/01

SHEET TITLE

DULL GREEN SOLID
BARRIERS LAYOUT

SHEET NUMBER

60335576/C1/C00/1081-8

BKREJV

TITLE OF DESIGNATED PROJECT:
KWU TUNG NORTH NEW
DEVELOPMENT AREA ROAD D1 TO
D5

CONTRACT TITLE:

CONTRACT NO.: ND/2019/01
**KWU TUNG NORTH NEW
DEVELOPMENT AREA, PHASE 1:
SITE FORMATION AND
INFRASTRUCTURE WORKS**

CLIENT

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Civil Engineering and
Development Department

CONSULTANT

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SUB-CONSULTANTS

STATUS

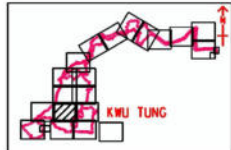
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DIMENSION UNIT

METRES

KEY PLAN



PROJECT NO.

60335576

CONTRACT NO.

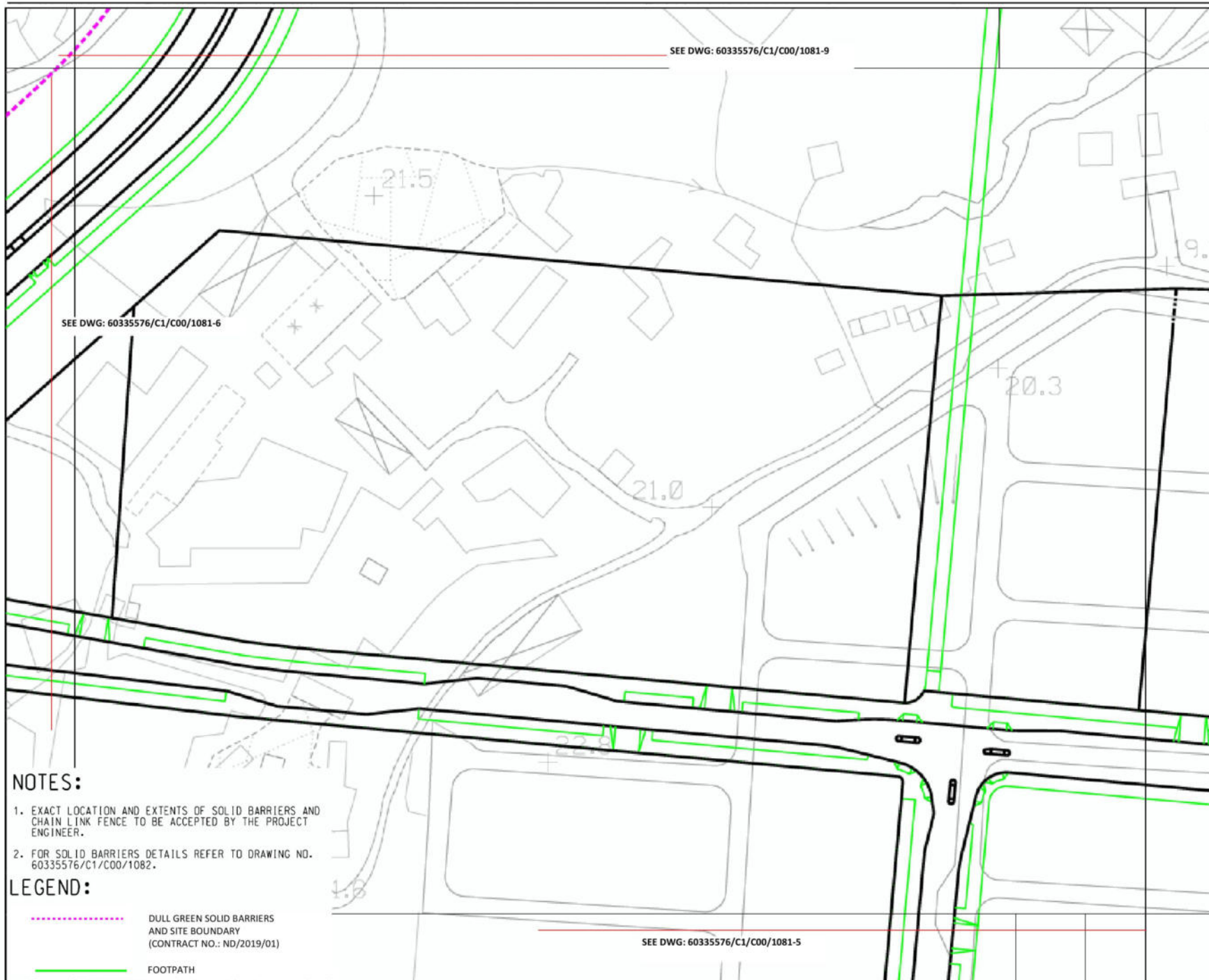
ND/2019/01

SHEET TITLE

**DULL GREEN SOLID
BARRIERS LAYOUT**

SHEET NUMBER

60335576/C1/C00/1081-7



NOTES:

1. EXACT LOCATION AND EXTENTS OF SOLID BARRIERS AND CHAIN LINK FENCE TO BE ACCEPTED BY THE PROJECT ENGINEER.
2. FOR SOLID BARRIERS DETAILS REFER TO DRAWING NO. 60335576/C1/C00/1082.

LEGEND:

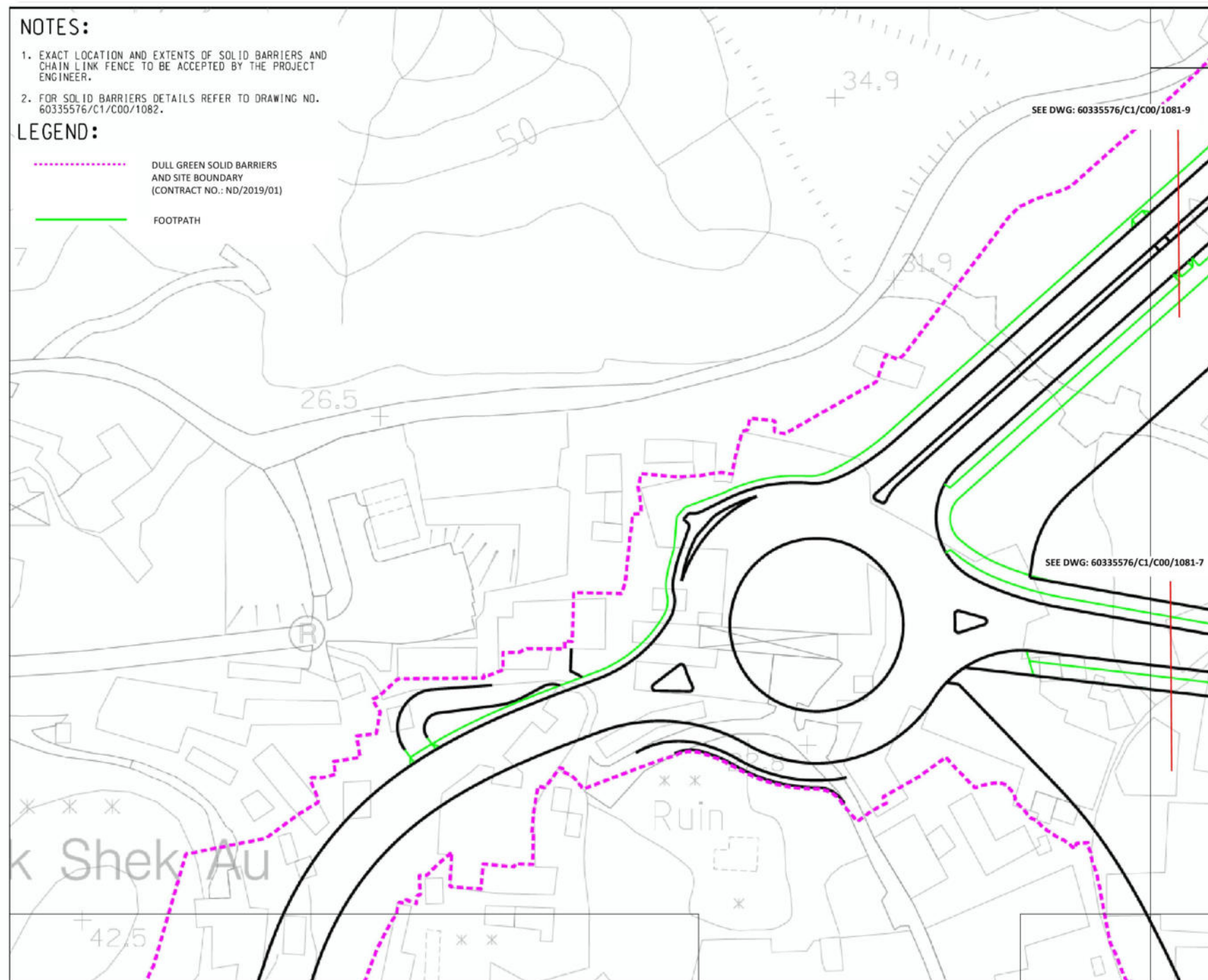
- DULL GREEN SOLID BARRIERS AND SITE BOUNDARY (CONTRACT NO.: ND/2019/01)
- FOOTPATH

NOTES:

1. EXACT LOCATION AND EXTENTS OF SOLID BARRIERS AND CHAIN LINK FENCE TO BE ACCEPTED BY THE PROJECT ENGINEER.
2. FOR SOLID BARRIERS DETAILS REFER TO DRAWING NO. 60335576/C1/C00/1082.

LEGEND:

- DULL GREEN SOLID BARRIERS AND SITE BOUNDARY (CONTRACT NO.: ND/2019/01)
- FOOTPATH



BKREJV

TITLE OF DESIGNATED PROJECT:

KWU TUNG NORTH NEW
DEVELOPMENT AREA ROAD D1 TO
D5

CONTRACT TITLE:

CONTRACT NO.: ND/2019/01
KWU TUNG NORTH NEW
DEVELOPMENT AREA, PHASE 1:
SITE FORMATION AND
INFRASTRUCTURE WORKS

CLIENT

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

CONSULTANT

AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS

中環工程顧問有限公司

STATUS

已核准

SCALE

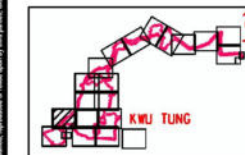
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DIMENSION UNIT

METRES

KEY PLAN

位置圖



PROJECT NO.

60335576

CONTRACT NO.

ND/2019/01

SHEET TITLE

DULL GREEN SOLID
BARRIERS LAYOUT

SHEET NUMBER

60335576/C1/C00/1081-6

BKREJV

TITLE OF DESIGNATED PROJECT:
KWU TUNG NORTH NEW
DEVELOPMENT AREA ROAD D1 TO
D5

CONTRACT TITLE:

CONTRACT NO.: ND/2019/01
**KWU TUNG NORTH NEW
DEVELOPMENT AREA, PHASE 1:
SITE FORMATION AND
INFRASTRUCTURE WORKS**

CLIENT

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

CONSULTANT

AECOM Asia Company Ltd.
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SUB-CONSULTANTS

STATUS

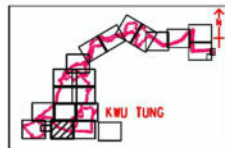
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DIMENSION UNIT

METRES

KEY PLAN



PROJECT NO.

60335576

CONTRACT NO.

ND/2019/01

SHEET TITLE

**DULL GREEN SOLID
BARRIERS LAYOUT**

SHEET NUMBER

60335576/C1/C00/1081-5

SEE DWG: 60335576/C1/C00/1081-7

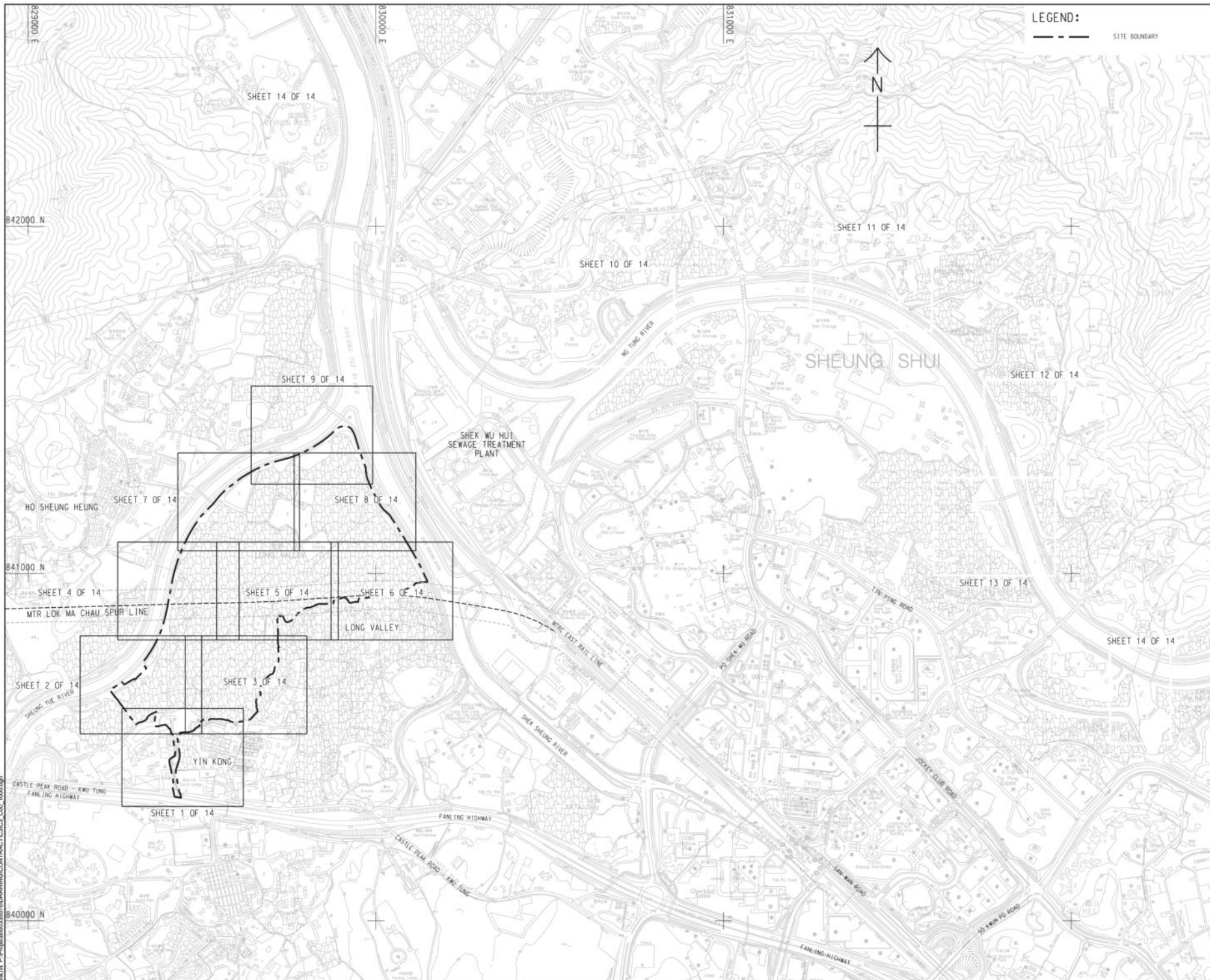
CASTLE PEAK ROAD - CHAU TAU

NOTES:

1. EXACT LOCATION AND EXTENTS OF SOLID BARRIERS AND CHAIN LINK FENCE TO BE ACCEPTED BY THE PROJECT ENGINEER.
2. FOR SOLID BARRIERS DETAILS REFER TO DRAWING NO. 60335576/C1/C00/1082.

LEGEND:

----- DULL GREEN SOLID BARRIERS
AND SITE BOUNDARY
(CONTRACT NO.: ND/2019/01)



60335576/C3/C00/1000

ND/2019/03

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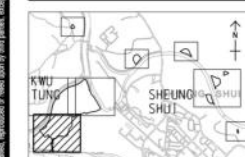


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A	AUG-19	TENDER ADDENDUM NO. 3	CYC	
-	JUN-19	TENDER DRAWING	CYC	
VR	DATE	DESCRIPTION	CH	

KEY PLAN A1 1 : 40000



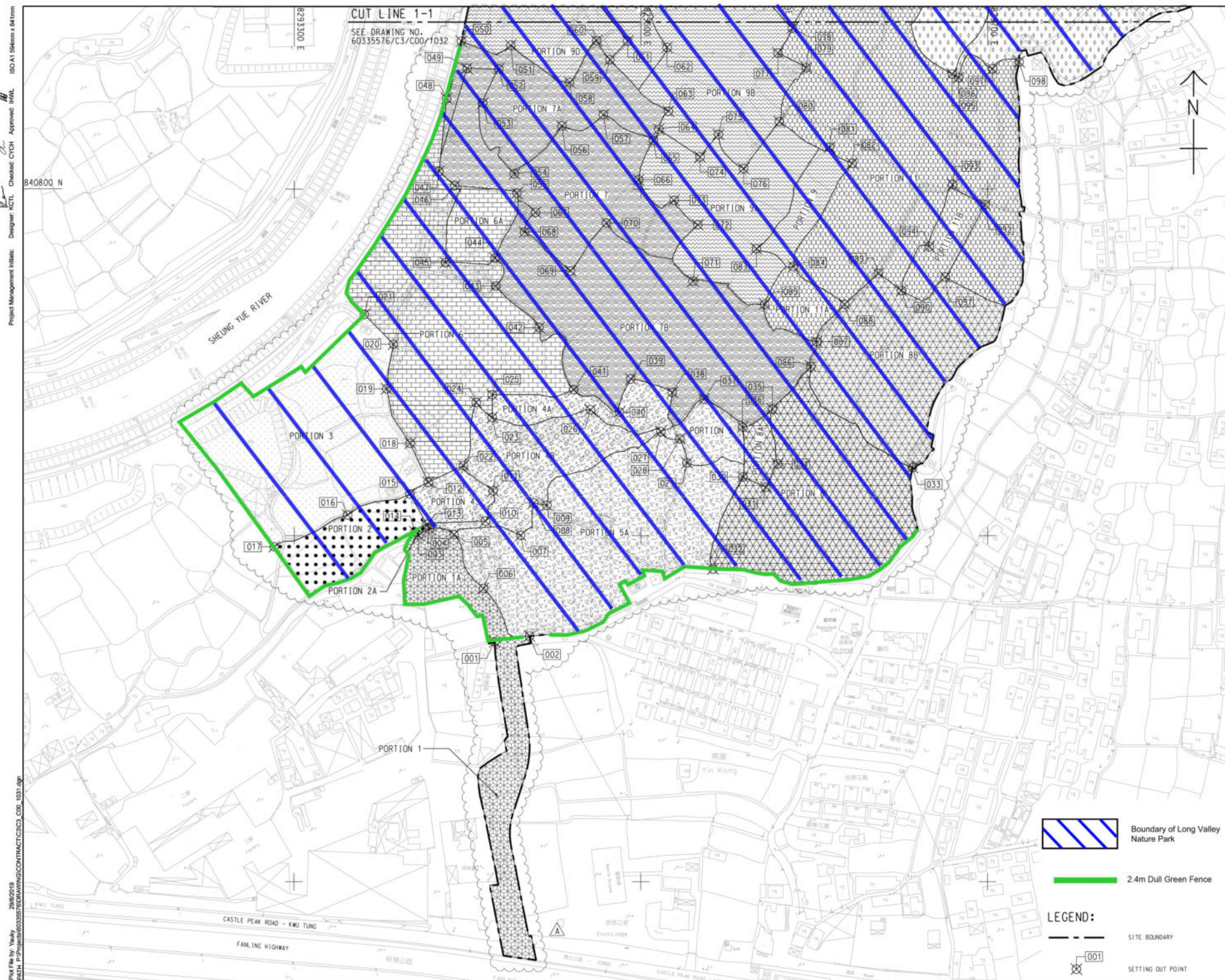
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60335576	ND/2019/03

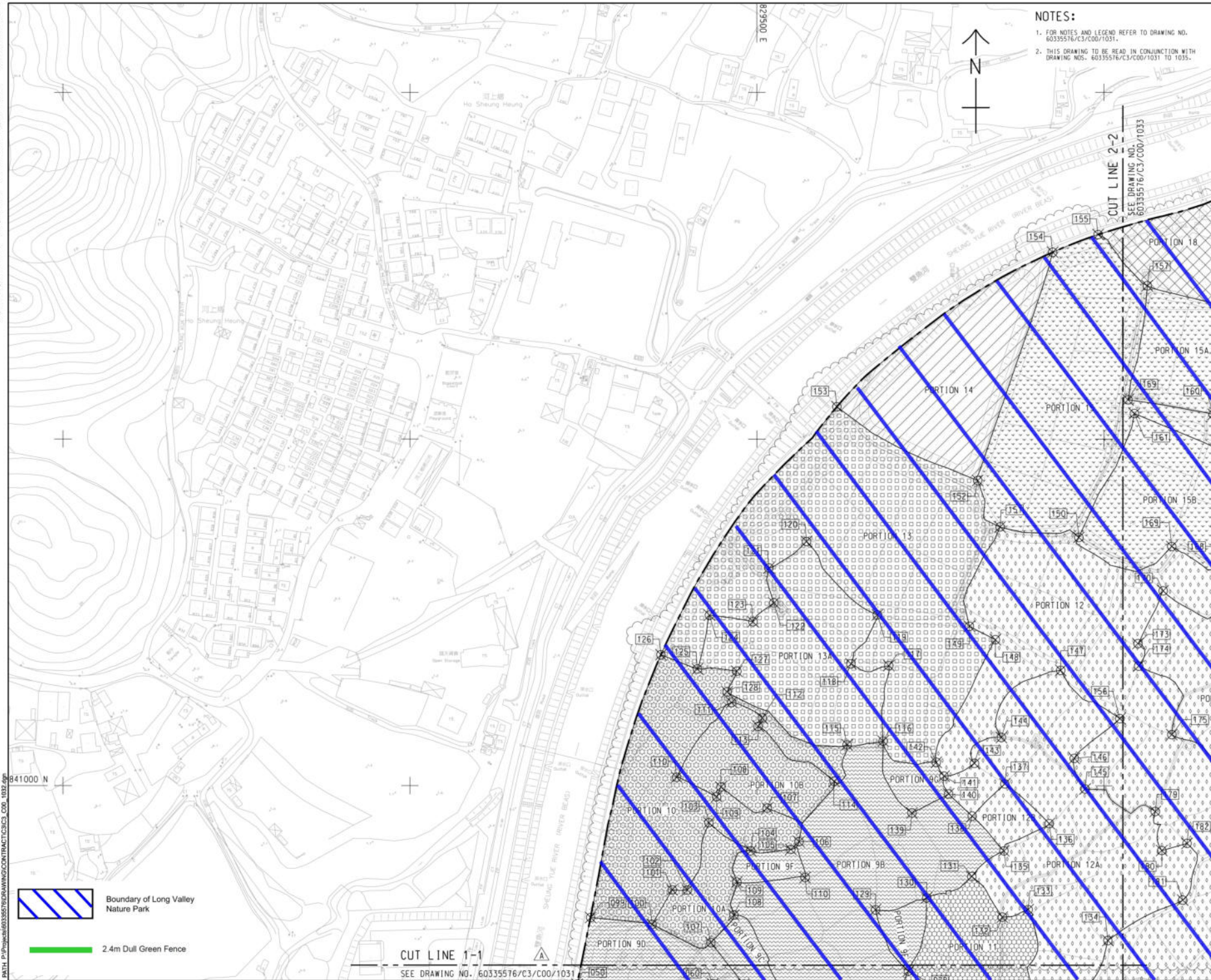
SHEET TITLE
圖紙名稱

PORTION OF SITE

SHEET NUMBER
圖號/版次

60335576/C3/C00/1031A





NOTES:

1. FOR NOTES AND LEGEND REFER TO DRAWING NO. 60335576/C3/C00/1031.
2. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING NOS. 60335576/C3/C00/1031 TO 1035.

Sang Hing - Kuly Joint Venture

Title of Designated Project
Kwu Tung North North New
Development Area Road
D1 to D5

CLIENT

土木 工程 拓展 署
CEDD
Civil Engineering and
Development Department

CONSULTANT

AECOM Asia Company Ltd.
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SUB-CONSULTANTS

土木 工程 拓展 署

ISSUE/REVISION

NO.	DATE	DESCRIPTION	CHK.
A	AUG-19	TENDER ADDENDUM NO.3	CYCH
JUN-19	TENDER DRAWING	CYCH	

STATUS

STATUS

SCALE

比例

A1 1: 1000

DIMENSION UNIT

尺寸單位

METRES

KEY PLAN

位置圖

A1 1: 40000



PROJECT NO.

項目編號

60335576

CONTRACT NO.

合約編號

ND/2019/03

SHEET TITLE

圖紙名稱

PORTION OF SITE

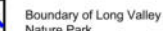
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圖紙編號

60335576/C3/C00/1032A

SHEET 2 OF 5

1. FOR NOTES AND LEGEND REFER TO DRAWING NO. 60335576/C3/C00/1031.
2. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING NOS. 60335576/C3/C00/1031 TO 1035.



 2.4m Dull Green Fence



SHEK WU HUI
SEWAGE TREATMENT WORKS
SHEK WU HUI
WAGE TREATMENT WORKS

CLIENT



土木工程拓展署
Civil Engineering and
Development Department

CONSULTANT

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SUB-CONSULTANTS

ISSUE/REVISION
#57

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-	JUN-19	TENDER DRAWING	CY
VR	DATE	DESCRIPTION	CH

STATUS

SCALE

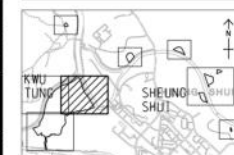
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DIMENSION UNIT

METRES

KEY PLAN

A1 1 : 40000



PROJECT NO.

60335576

SHEET TITLE

PORTION OF SITE

CONTRACT NO.

ND/2019/03

SHEET NUMBER

60335576/C3/C00/1033A

SHEET 3 OF 5

ISO A1 594mm x 841mm

Project Management Initials: Designer: KCTL Checked: CYCH Approved: INWA

Plot File by: Yauky 2018/2019

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







CUT LINE 1-1
SEE DRAWING NO. 60335576/C3/C00/103



NOTES:

1. COORDINATES ARE RELATED TO HONG KONG METRIC GRID (1980).
2. DIMENSIONS AND CHAINAGE ARE IN METRES UNLESS OTHERWISE SHOWN.
3. FOR VERTICAL PROFILE REFER TO DRAWING NO. 60335576/C3/COO/2002

LEGEND:

- | | |
|---|---|
|  | SITE BOUNDARY |
|  | PRINCIPAL SETTING OUT LINE
WITH CHAINAGE |
|  | SETTING OUT LINE |
|  | SETTING OUT POINT |
|  | CURVE RADIUS IN METRES |
|  | SETTING OUT LINE WITH NUMBER |
|  | ROAD WIDTH (METRE) |
|  | CARRIAGEWAY |
|  | CENTRAL MEDIAN |
|  | CURVE TO TANGENT |
|  | TANGENT TO CURVE |

SETTING OUT DATA FOR S.O.L. YKR

POINT	CHAINAGE (m)	EASTING (m)	NORTHING (m)	ELEMENT	LENGTH (m)
PDB	100.000	879428.447	840359.536		
PI	172.832	879414.436	840431.007	STRAIGHT	50.266
PC	160.526	879416.804	840418.931		
CC	172.832	879462.926	840427.912		
PT	184.598	879418.791	840442.694		
				R = +47.000	24.072
PI	217.166	879426.495	840473.623	STRAIGHT	21.383
PC	205.981	879424.989	840463.501		
CC	217.166	879380.154	840477.123		
PT	222.942	879426.836	840484.684		
				R = -47.000	21.961
PI	299.304	879416.265	840555.259	STRAIGHT	57.195
PC	285.137	879418.364	840541.248		
CC	299.304	879315.838	840551.819		
PT	312.508	879406.250	840565.219		
				R = -43.000	27.371
PDE	356.637	879377.931	840598.611	STRAIGHT	47.130

SETTING OUT POINTS

POINTS	EASTING	NORTHING
101	829382.121	840589.417
102	829396.172	840570.827
103	829403.578	840563.698
104	829401.244	840574.273
105	829407.739	840568.021
106	829417.437	840472.407
107	829421.525	840467.266

SECTION A-A

Sang Hing - Kuly
Venture

Title of Designated Project
Kwu Tung North New
Development Area Road
D1 to D5

CLIENT



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Civil Engineering and
Development Department

CONSULTANT

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ISSUE/REVISION

-	JUN-19	TENDER DRAWING	CYC
VR	DATE	DESCRIPTION	CHIR

STATUS

SCALE	DIMENSION UNIT
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A3 1:1000

METRES

KEY PLAN A1 1:40000

PROJECT NO.

60335576

CONTRACT NO.

ND/2019/03

SHEET TITLE

YIN KONG ROAD -
ROAD SETTING OUT PLAN

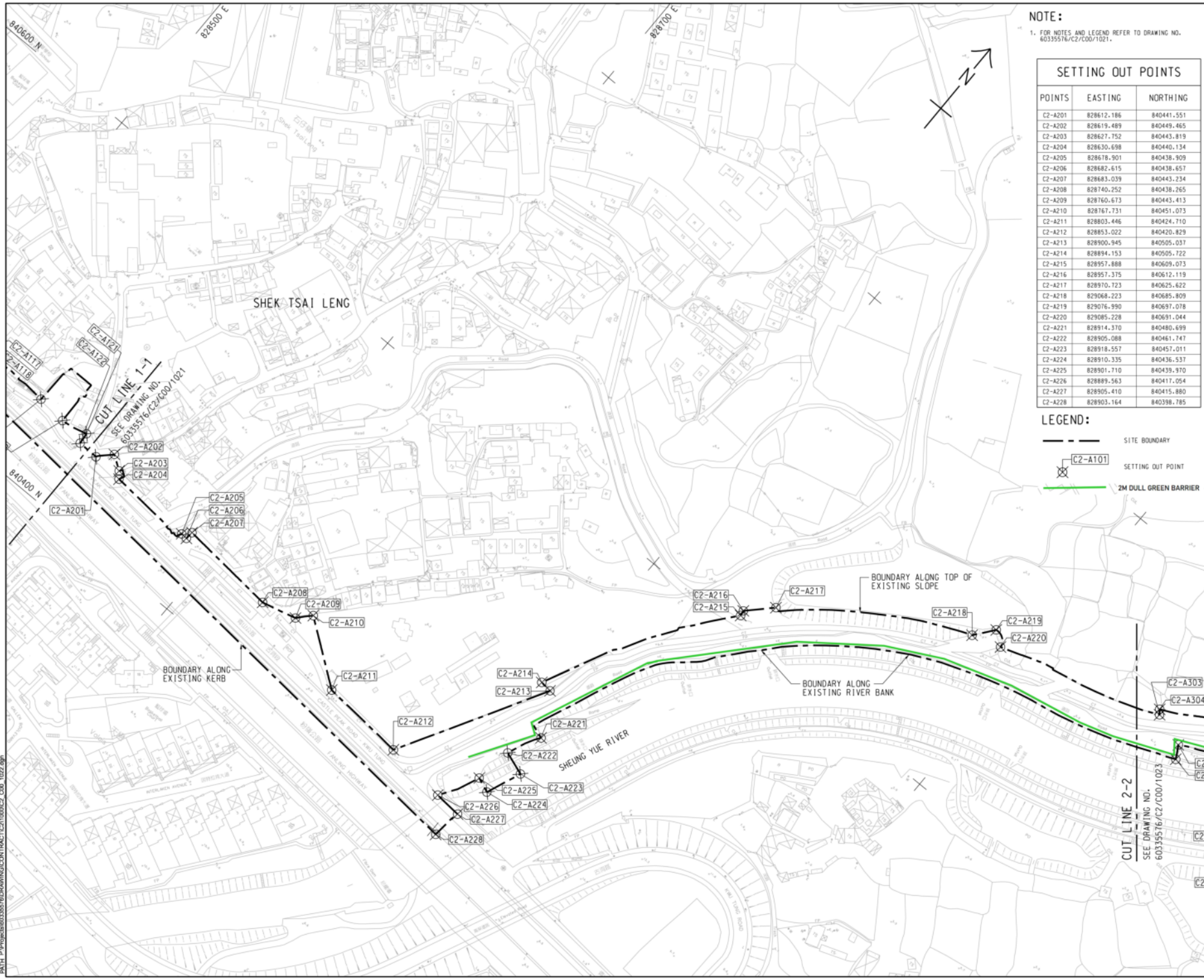
SHEET NUMBER

60335576/C3/C00/2001

Figure 13

Hoarding Plan

EP-469/2013



NOTE:
1. FOR NOTES AND LEGEND REFER TO DRAWING NO. 60335576/C2/C00/1021.

SETTING OUT POINTS		
POINTS	EASTING	NORTHING
C2-A201	828612.186	840441.551
C2-A202	828619.489	840449.465
C2-A203	828627.752	840443.819
C2-A204	828630.698	840440.134
C2-A205	828618.901	840438.909
C2-A206	828682.615	840438.657
C2-A207	828683.039	840443.234
C2-A208	828740.252	840438.265
C2-A209	828760.673	840443.413
C2-A210	828767.731	840451.073
C2-A211	828803.446	840424.710
C2-A212	828853.022	840420.829
C2-A213	828900.945	840505.037
C2-A214	828894.153	840505.722
C2-A215	828957.888	840609.073
C2-A216	828957.375	840612.119
C2-A217	828970.723	840625.622
C2-A218	829068.223	840685.809
C2-A219	829076.990	840697.078
C2-A220	829085.228	840691.044
C2-A221	828914.370	840480.699
C2-A222	828905.088	840461.747
C2-A223	828918.557	840457.011
C2-A224	828910.335	840436.537
C2-A225	828901.710	840439.970
C2-A226	828889.563	840417.054
C2-A227	828905.410	840415.880
C2-A228	828903.164	840398.785

LEGEND:
--- SITE BOUNDARY
C2-A101 SETTING OUT POINT
2M DULL GREEN BARRIER

CW-KL JV

Title of Designated Project:
Sewage Pumping Station in Kwu Tung North New Development Area

Contract No.: ND/2019/02

Contract Title: Kwu Tung North New Development Area, Phase 1: Road and Drains between Kwu Tung North New Development Area and Shek Wu Hui

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1	SEP-19	TENDER DRAWING	CYCH

STATUS

SCALE
A1 1:1000

DIMENSION UNIT
METRES

KEY PLAN
A1 N.T.S.

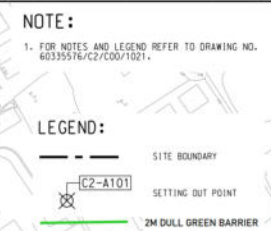
PROJECT NO.
60335576

CONTRACT NO.
ND/2019/02

SHEET TITLE
SITE OF WORKS

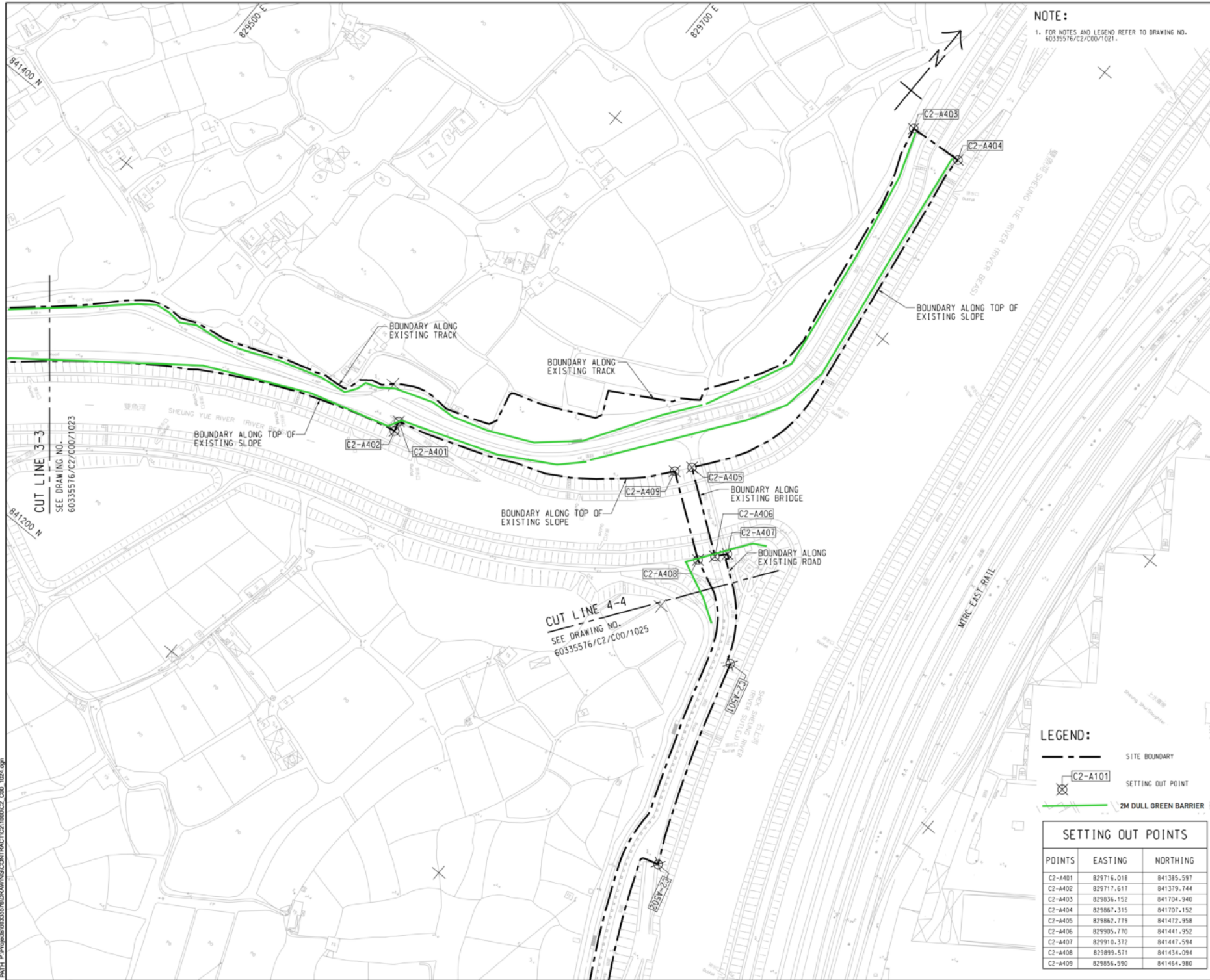
SHEET NUMBER
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SHEET 2 OF 5

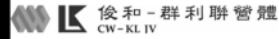


603355/6/G2/C00/1023B

SETTING OUT POINTS			
POINTS	EASTING	NORTHING	
D2-A331	829409.383	841172.166	
D2-A332	829415.258	841170.258	
D2-A333	829464.840	841262.219	
D2-A334	829445.786	841181.820	
D2-A335	829451.277	841170.335	
D2-A336	829445.721	841159.954	
D2-A337	829433.752	841619.712	
D2-A338	829399.636	841172.788	
D2-A339	829417.719	841104.097	
D2-A340	829409.574	841081.576	
D2-A341	829354.628	840877.775	
D2-A342	829346.094	840892.372	
D2-A343	829361.412	840888.043	
D2-A344	829357.475	840873.041	
D2-A345	829342.468	840877.232	
D2-A346	829332.636	840828.137	
D2-A347	829337.039	840821.269	
D2-A348	829329.778	840607.900	
D2-A349	829312.728	840815.147	
D2-A350	829295.444	840782.909	
D2-A351	829340.409	840727.717	
D2-A352	829306.496	840694.649	
D2-A353	829304.062	840697.144	
D2-A354	829276.268	840688.555	
D2-A355	829285.291	840687.711	
D2-A356	829309.378	840711.000	
D2-A357	829287.460	840750.622	
D2-A358	829255.404	840730.330	
D2-A359	829240.921	840737.102	



NOTE:
1. FOR NOTES AND LEGEND REFER TO DRAWING NO. 60335576/C2/C00/1021.



Title of Designated Project:
Sewage Pumping Station in Kwu Tung North New Development Area

Contract No.: ND/2019/02
Contract Title: Kwu Tung North New Development Area, Phase 1: Road and Drains between Kwu Tung North New Development Area and Shek Wu Hui

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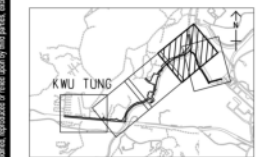
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NO.	DATE	DESCRIPTION	BY
1	SEP-19	TENDER DRAWING	CYCH
2			
3			
4			
5			

STATUS

SCALE
比例尺: 1:1000
DIMENSION UNIT
尺寸單位: METRES

KEY PLAN
位置圖: A1 N.T.S.



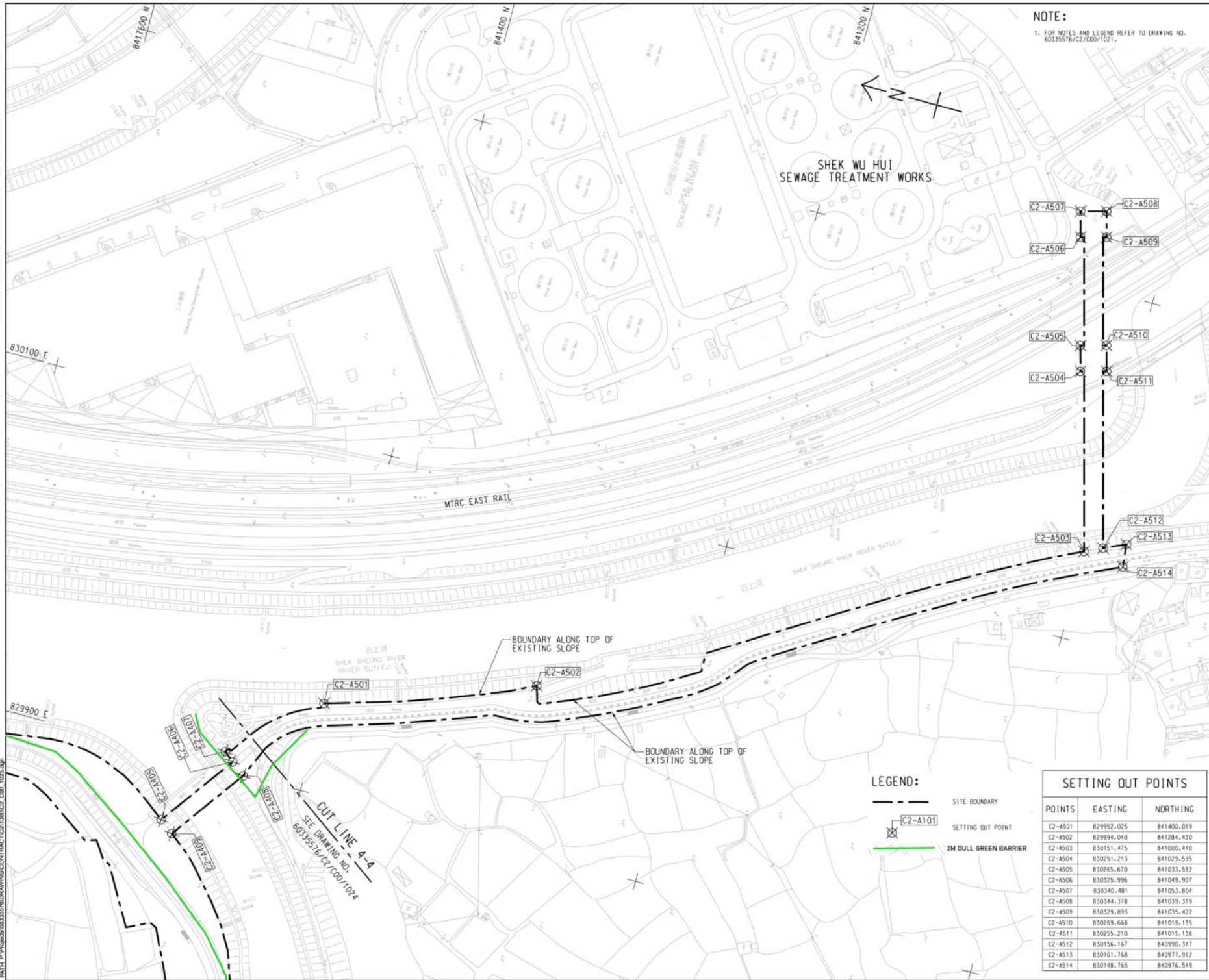
- LEGEND:**
- SITE BOUNDARY
 - ⊗ C2-A101 SETTING OUT POINT
 - 2M DULL GREEN BARRIER

SETTING OUT POINTS		
POINTS	EASTING	NORTHING
C2-A401	829716.018	841385.597
C2-A402	829717.617	841379.744
C2-A403	829836.152	841704.940
C2-A404	829867.315	841707.152
C2-A405	829862.779	841472.958
C2-A406	829905.770	841441.952
C2-A407	829910.372	841447.594
C2-A408	829899.571	841434.094
C2-A409	829856.590	841464.980

PROJECT NO.
項目編號: 60335576
CONTRACT NO.
合約編號: ND/2019/02

SHEET TITLE
圖紙名稱: SITE OF WORKS

SHEET NUMBER
圖紙編號: 60335576/C2/C00/1024



俊和 - 群利聯營體
CW-KL IV

Title of Designated Project:
Sewage Pumping Station in Kwu Tung North New Development Area

Contract No.: ND/2019/02
Contract Title: Kwu Tung North New Development Area, Phase 1: Road and Drains between Kwu Tung North New Development Area and Shek Wu Hui

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STATUS

SCALE
A1 1:1000
METRES

DIMENSION UNIT
A1 N.T.S.

KEY PLAN

PROJECT NO.
60335576

CONTRACT NO.
ND/2019/02

SHEET TITLE
SITE OF WORKS

SHEET NUMBER
60335576/C2/C00/1025

SHEET 5 OF 5

Figure 14

Hoarding Plan

EP-473/2013/A

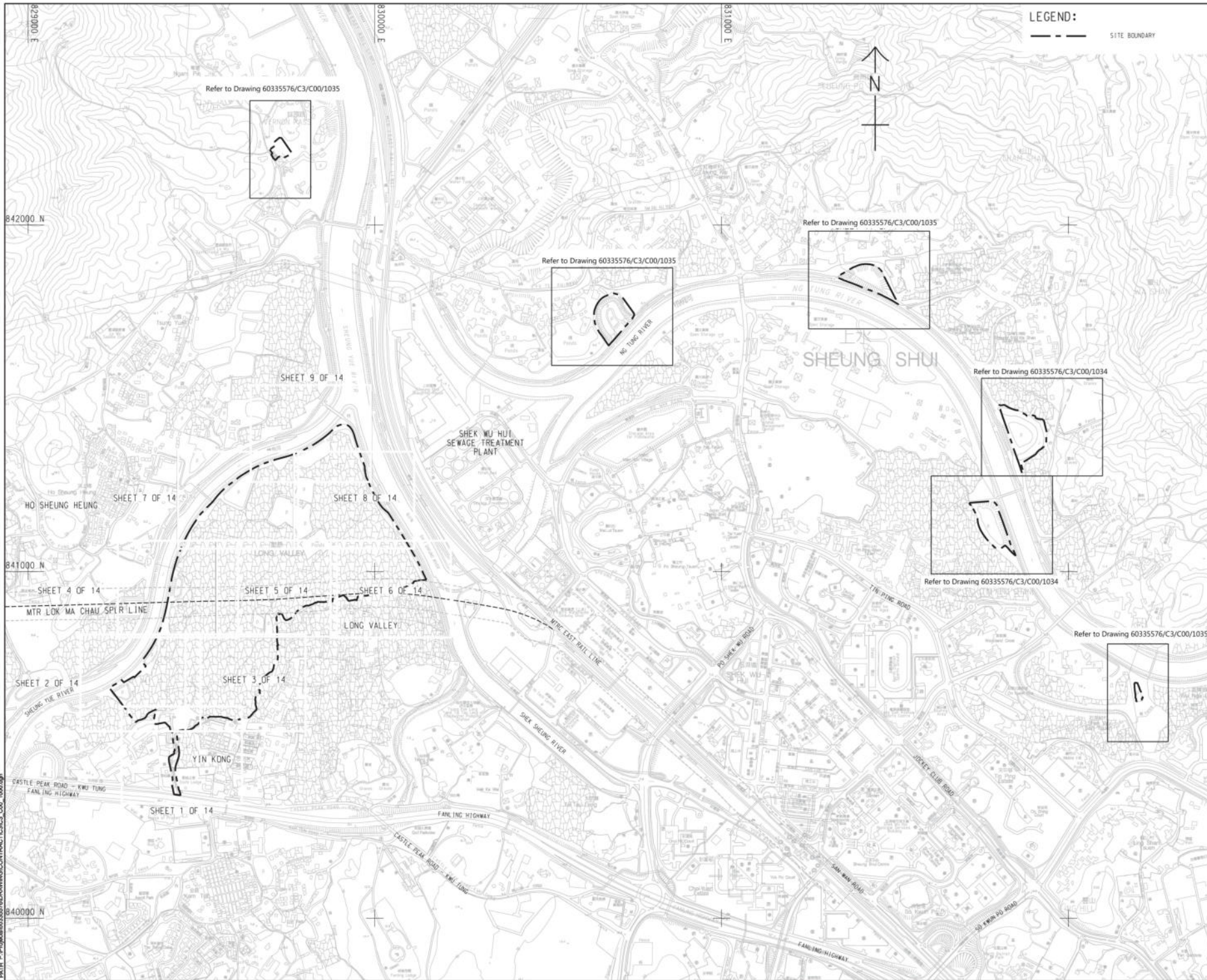
Summary of submission (EP-473/2013/A)

Submission of Layout Plan

EP's Condition 2.5: The Permit shall, no later than 2 weeks before the commencement of construction of the Project, deposit four hard copies and one electronic copy of location plan(s) of the Project with a scale of 1:1000 or other appropriate scale as agreed with the Director. The plans shall include the details the works boundaries, works areas, vertical and horizontal alignments of the roads and any other major facilities; and the locations of key environmental mitigation measures.

Table of Summary of Submission

EP required detail	Layout Details			
	Detail	Reference No.	Scale	Remarks
Works Boundaries and Works Areas	Key Plan	60335576/C3/C00/1000	A1 1:5000	Scale Not in 1:1000 For indication of following layout plans only
	Portion 24, 26	60335576/C3/C00/1034	A1 1:1000	
	Portion 22, 23, 25, 27	60335576/C3/C00/1035	A1 1:1000	
The location of key environmental mitigation measure	Relocation Plan for Rose Bitterling (Condition 2.6) Portion 23, 24, 25, 26, 27	60335576/C3/C00/1034 60335576/C3/C00/1035	A1 1:1000	No dull green fence shall be erected in Portion 23 and 24 advised by AFCD No construction works will be carried out in Portion 23, 24, 25, 26 and 27
	Alternative Egret site (Condition 2.7) Portion 22, 23, 24	60335576/C3/C00/1034 60335576/C3/C00/1035	A1 1:1000	No dull green fence shall be erected in Portion 23 and 24 advised by AFCD No construction works will be carried out in Portion 22, 23 and 24



LEGEND:
--- SITE BOUNDARY

Sang Hing - Kuly Venture
Title of Designated Project
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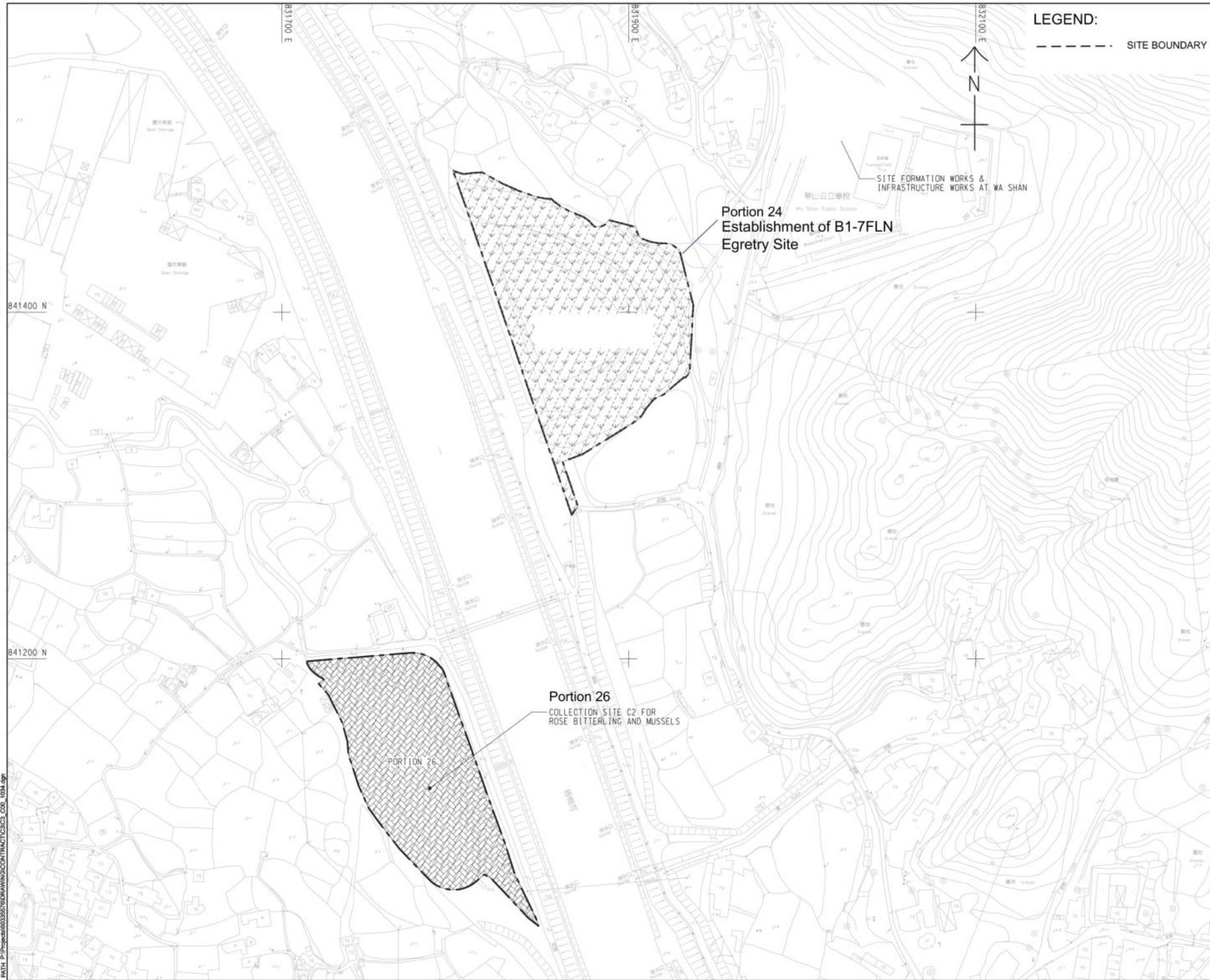
SCALE
A1 1:5000
DIMENSION UNIT
METRES

KEY PLAN

PROJECT NO.
60335576
CONTRACT NO.
ND/2019/03

SHEET TITLE
KEY PLAN OF GENERAL LAYOUT

SHEET NUMBER
60335576/C3/C00/1000



LEGEND:
----- SITE BOUNDARY

Portion 24
Establishment of B1-7FLN
Egret Site

Portion 26
COLLECTION SITE C2 FOR
ROSE BITTERLING AND MUSSELS

SITE FORMATION WORKS &
INFRASTRUCTURE WORKS AT WA SHAN

Sang Hing - Kuly Venture

Title of Designated Project
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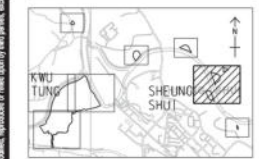
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1	JUN-19	TENDER DRAWING	CYCH	

STATUS

SCALE
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DIMENSION UNIT
METRES

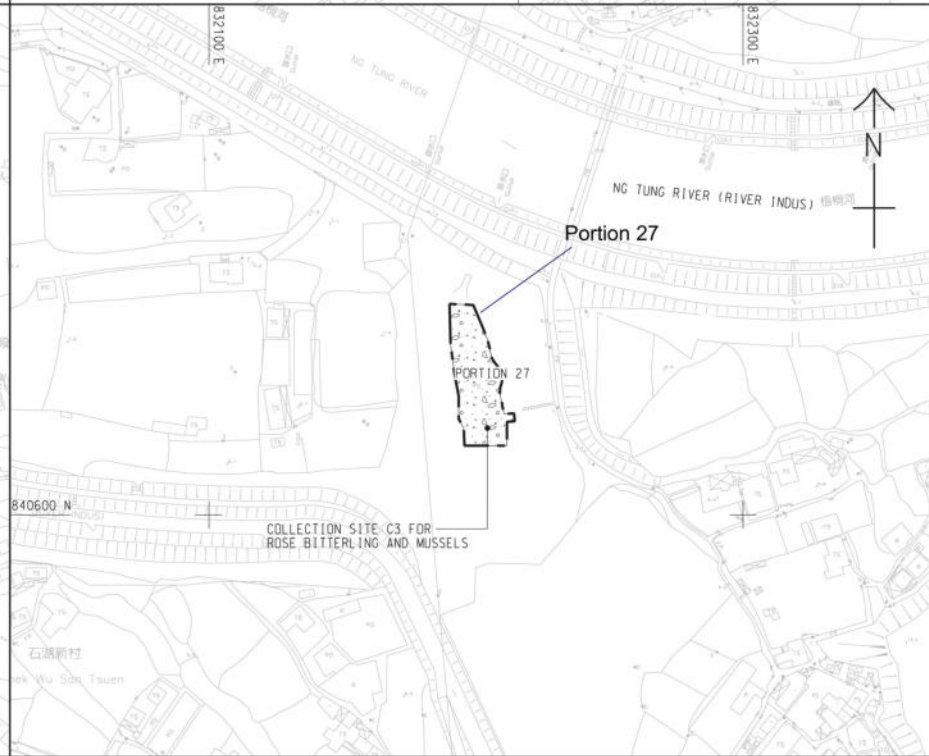
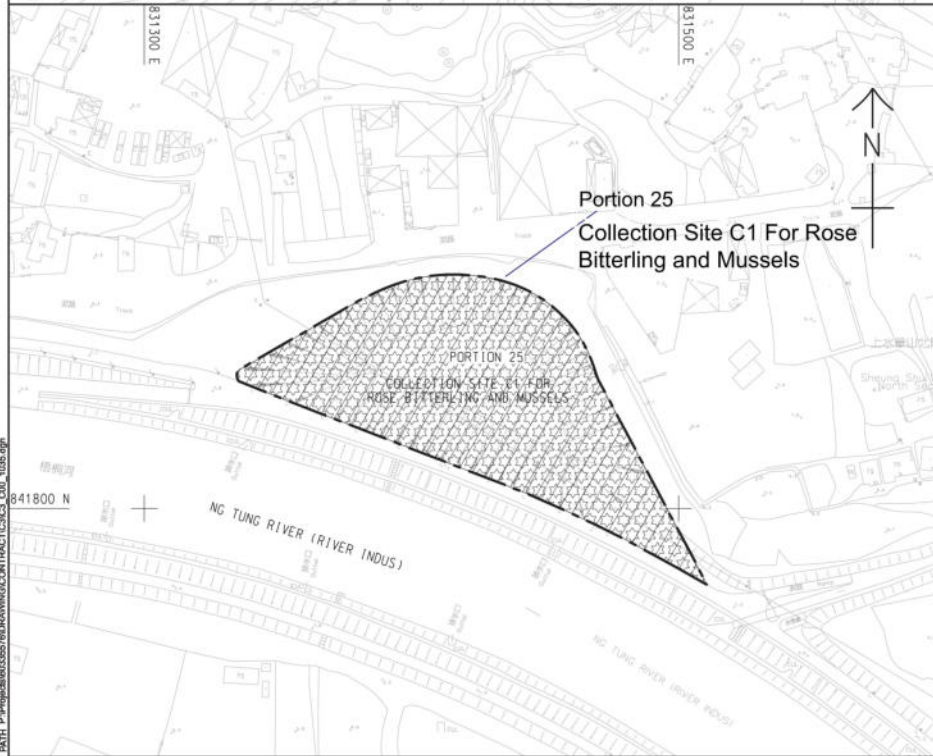
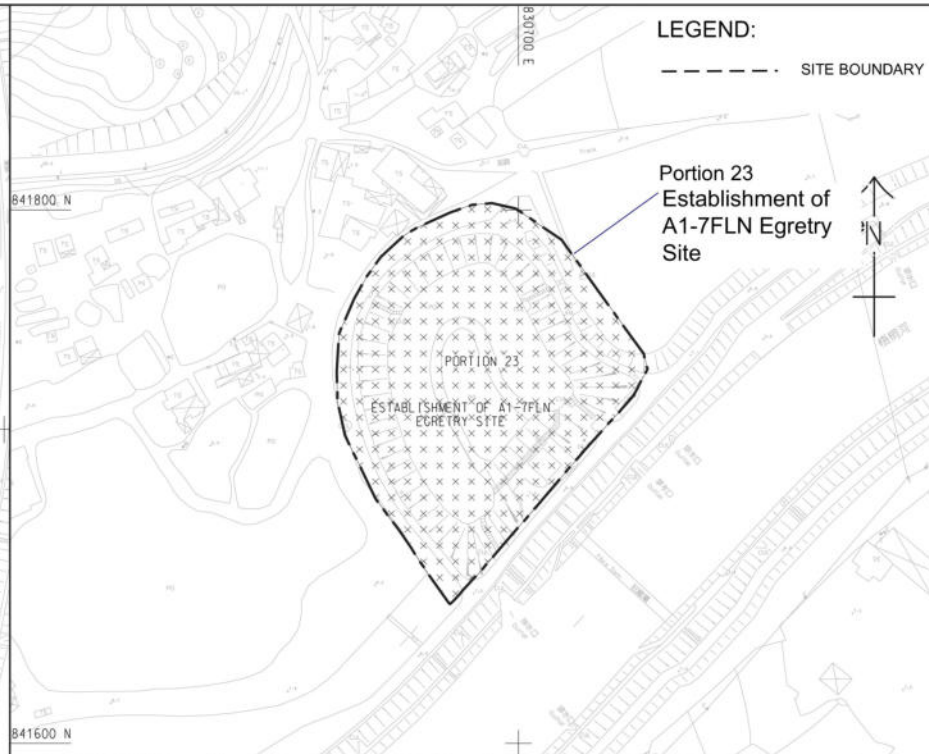
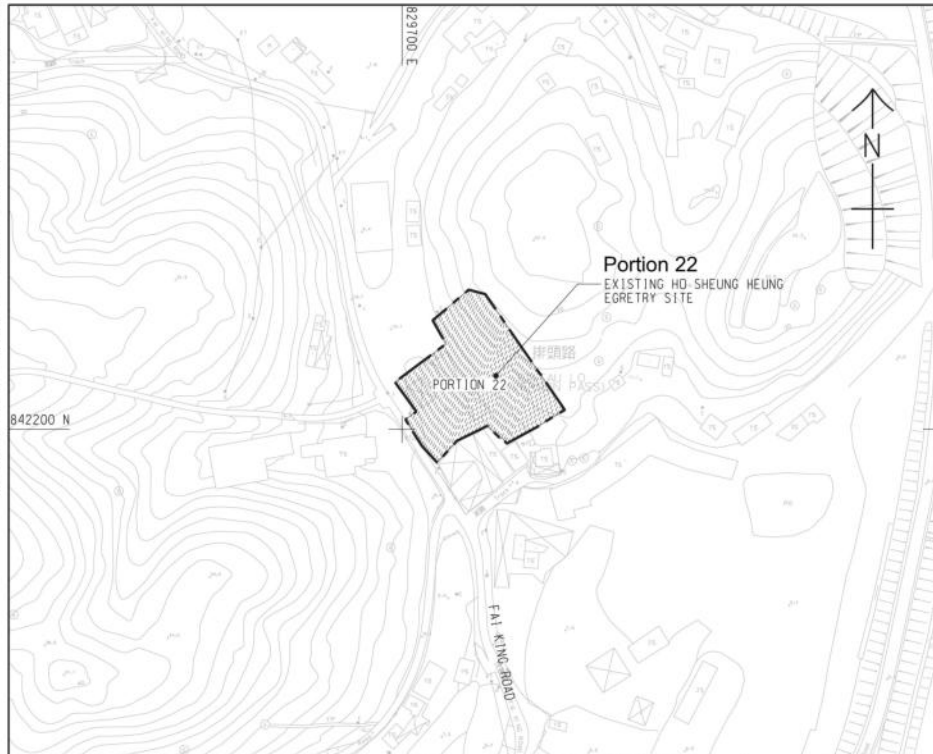
KEY PLAN
A1 1 : 40000



PROJECT NO.
60335576
CONTRACT NO.
ND/2019/03

SHEET TITLE
PORTION OF SITE

SHEET NUMBER
60335576/C3/C00/1034



LEGEND:

----- SITE BOUNDARY

Portion 23
Establishment of
A1-7FLN Egretty
Site

Portion 22
EXISTING H0-SHEUNG HEUNG
EGRETRY SITE

Portion 25
Collection Site C1 For Rose
Bitterling and Mussels

Portion 27

COLLECTION SITE C3 FOR
ROSE BITTERLING AND MUSSELS

COLLECTION SITE C1 FOR
ROSE BITTERLING AND MUSSELS

Sang Hing - Kuly
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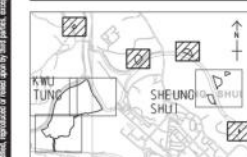
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STATUS

SCALE DIMENSION UNIT

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KEY PLAN



PROJECT NO.

60335576

CONTRACT NO.

ND/2019/03

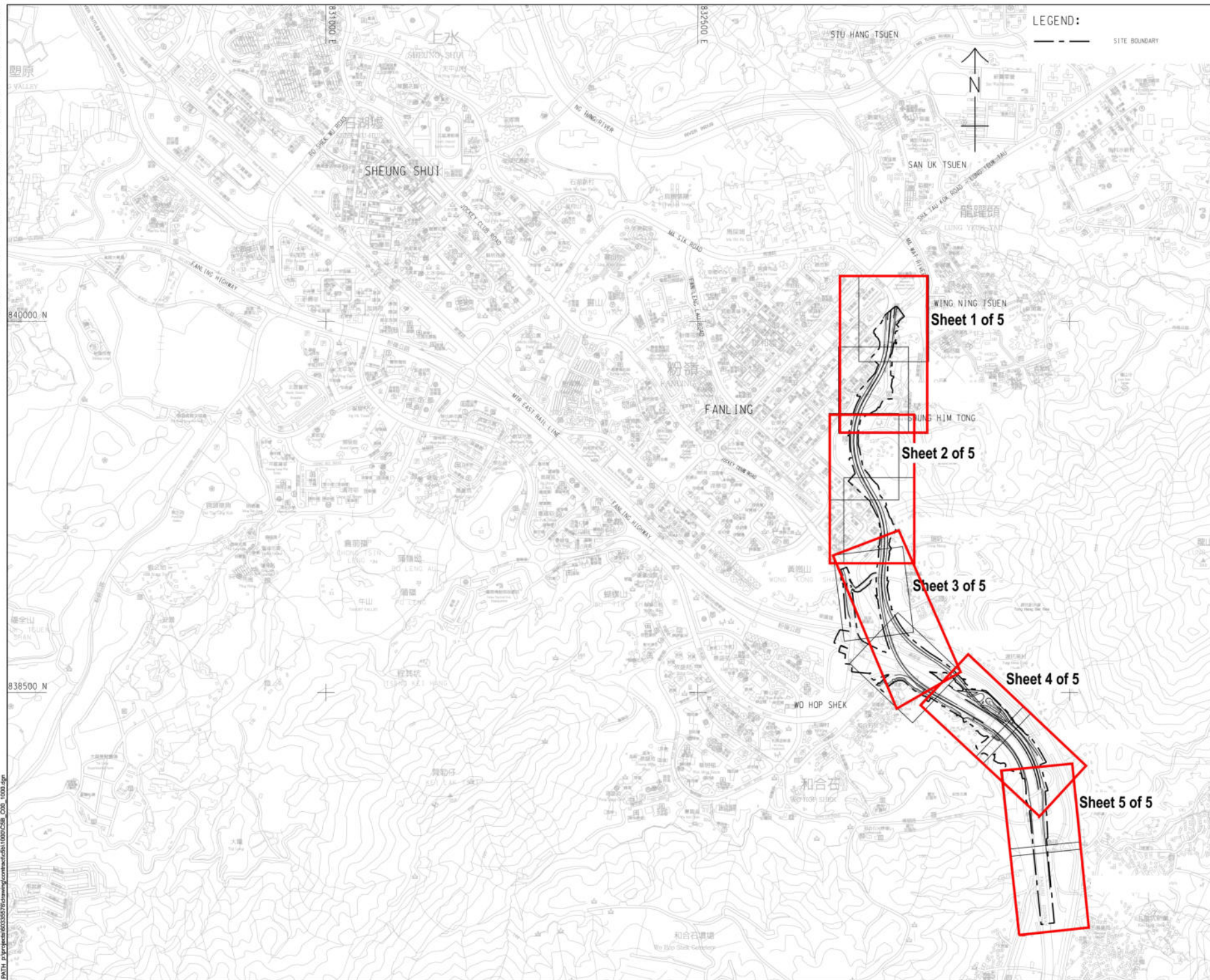
SHEET TITLE

PORTION OF SITE

SHEET NUMBER

60335576/C3/C00/1035

SHEET 5 OF 5



LEGEND:
--- SITE BOUNDARY

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Title of Designated Project:
Fanling Bypass Eastern
Section

CONTRACT TITLE: ND/2019/05

FANLING NORTH NEW
DEVELOPMENT AREA, PHASE 1:
FANLING BYPASS
EASTERN SECTION
(SHUNG HIM TONG TO
KAU LUNG HANG)

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1	JUN-19	TENDER DRAWING	RPCM
2			
3			
4			
5			

STATUS
圖 樣

SCALE
比例
A1 1: 7000

DIMENSION UNIT
尺寸單位
METRES

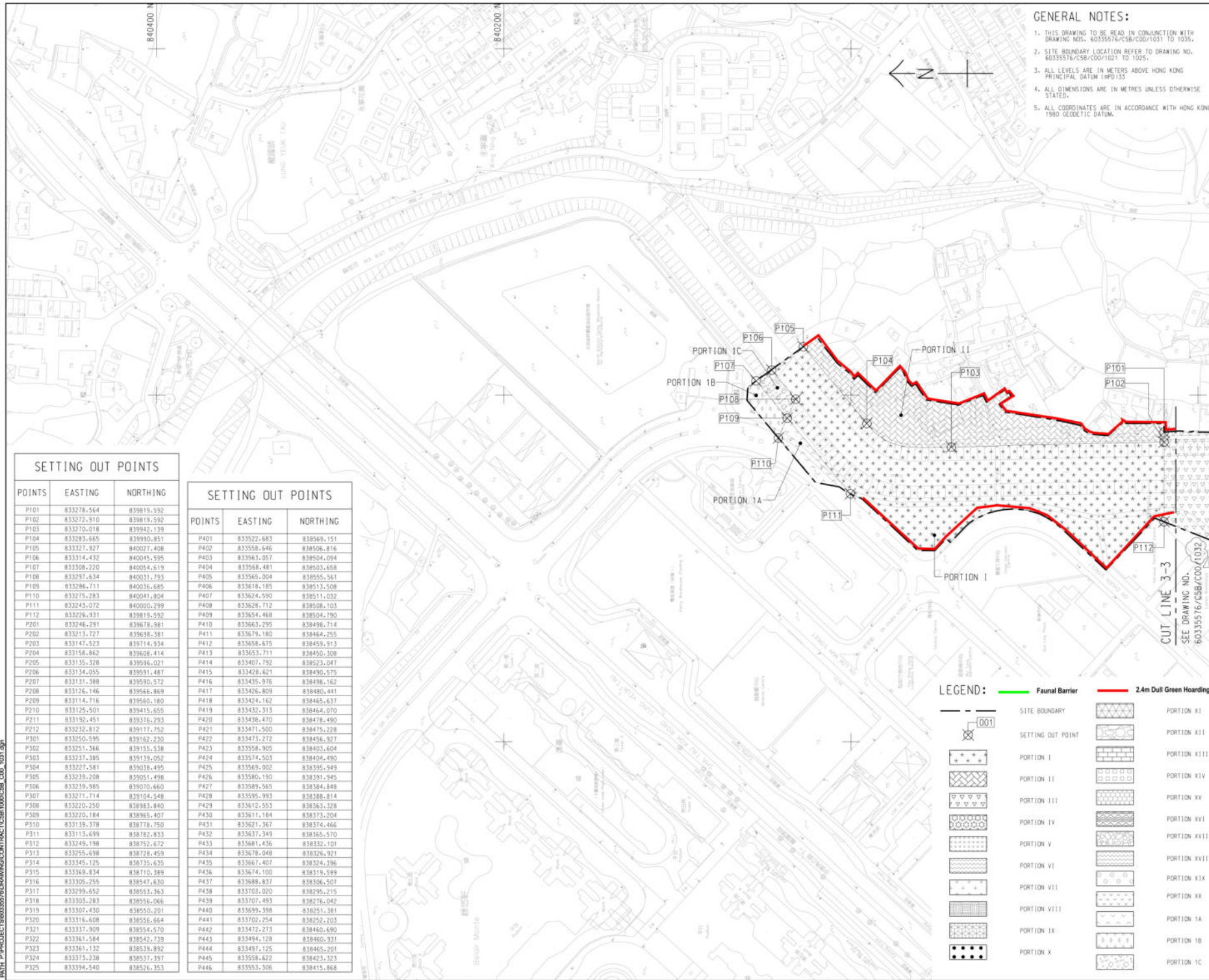
KEY PLAN
索引圖

PROJECT NO.
項目編號
60335576

CONTRACT NO.
合約編號
ND/2019/05

SHEET TITLE
圖紙名稱
KEY PLAN AND LOCATION PLAN

SHEET NUMBER
圖紙編號
60335576/C5B/C00/1000



- GENERAL NOTES:
1. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING NOS. 60335576/CSB/C00/1031 TO 1035.
 2. SITE BOUNDARY LOCATION REFER TO DRAWING NO. 60335576/CSB/C00/1023 TO 1025.
 3. ALL LEVELS ARE IN METERS ABOVE HONG KONG PRINCIPAL DATUM (HPD133)
 4. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.
 5. ALL COORDINATES ARE IN ACCORDANCE WITH HONG KONG 1980 GEODETIC DATUM.

CRCC - Paul Y Joint Venture

Title of Designated Project:
**Fanling Bypass Eastern
Section**

CONTRACT TITLE: ND/2019/05

FANLING NORTH NEW
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EASTERN SECTION
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A JUL-19 TENDER ADDENDUM NO.2 RPCM
JUN-19 TENDER DRAWING RPCM

IR	DATE	DESCRIPTION	CHK.
001	19/08/2019	ISSUED FOR TENDER	WWHY

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METRES

DIMENSION UNIT
METRES

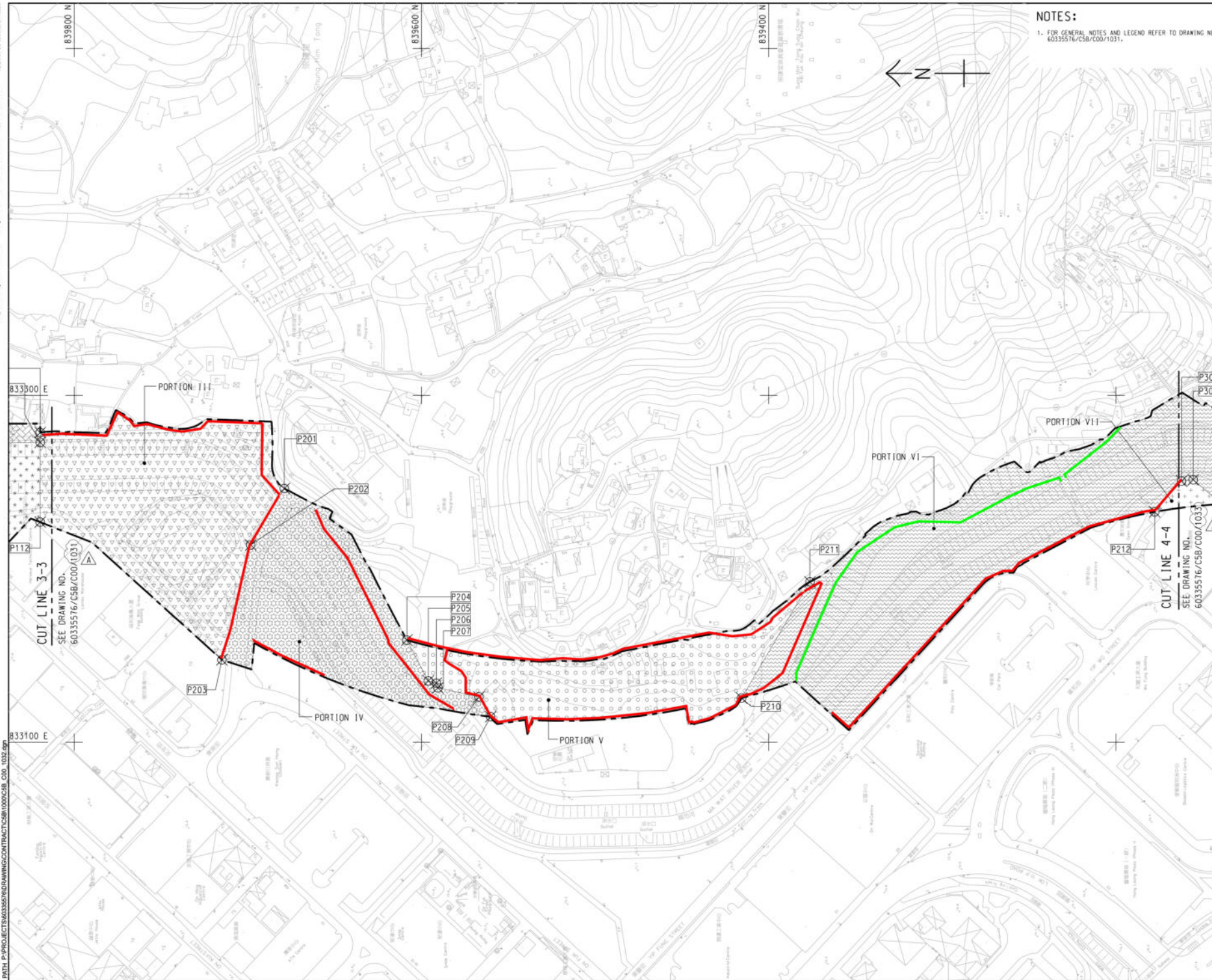
KEY PLAN
SHEUNG SHUI
FANLING

PROJECT NO.
60335576
CONTRACT NO.
ND/2019/05

SHEET TITLE
PORTION OF SITE

SHEET NUMBER
60335576/CSB/C00/1031B

SHEET 1 OF 5



NOTES:

1. FOR GENERAL NOTES AND LEGEND REFER TO DRAWING NO. 60335576/C5B/C00/1031.

CRCC - Paul Y Joint Venture

Title of Designated Project:
**Fanling Bypass Eastern
Section**

CONTRACT TITLE: ND/2019/05

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DEVELOPMENT AREA, PHASE 1:
FANLING BYPASS
EASTERN SECTION
(SHUNG HIM TONG TO
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IR	DATE	DESCRIPTION	CHK

STATUS

此圖為初步設計圖，僅供參考，不得作為施工依據。

SCALE DIMENSION UNIT

A1 1: 1000 METRES

KEY PLAN

A1 1: 70000



PROJECT NO.

60335576

CONTRACT NO.

ND/2019/05

SHEET TITLE

PORTION OF SITE

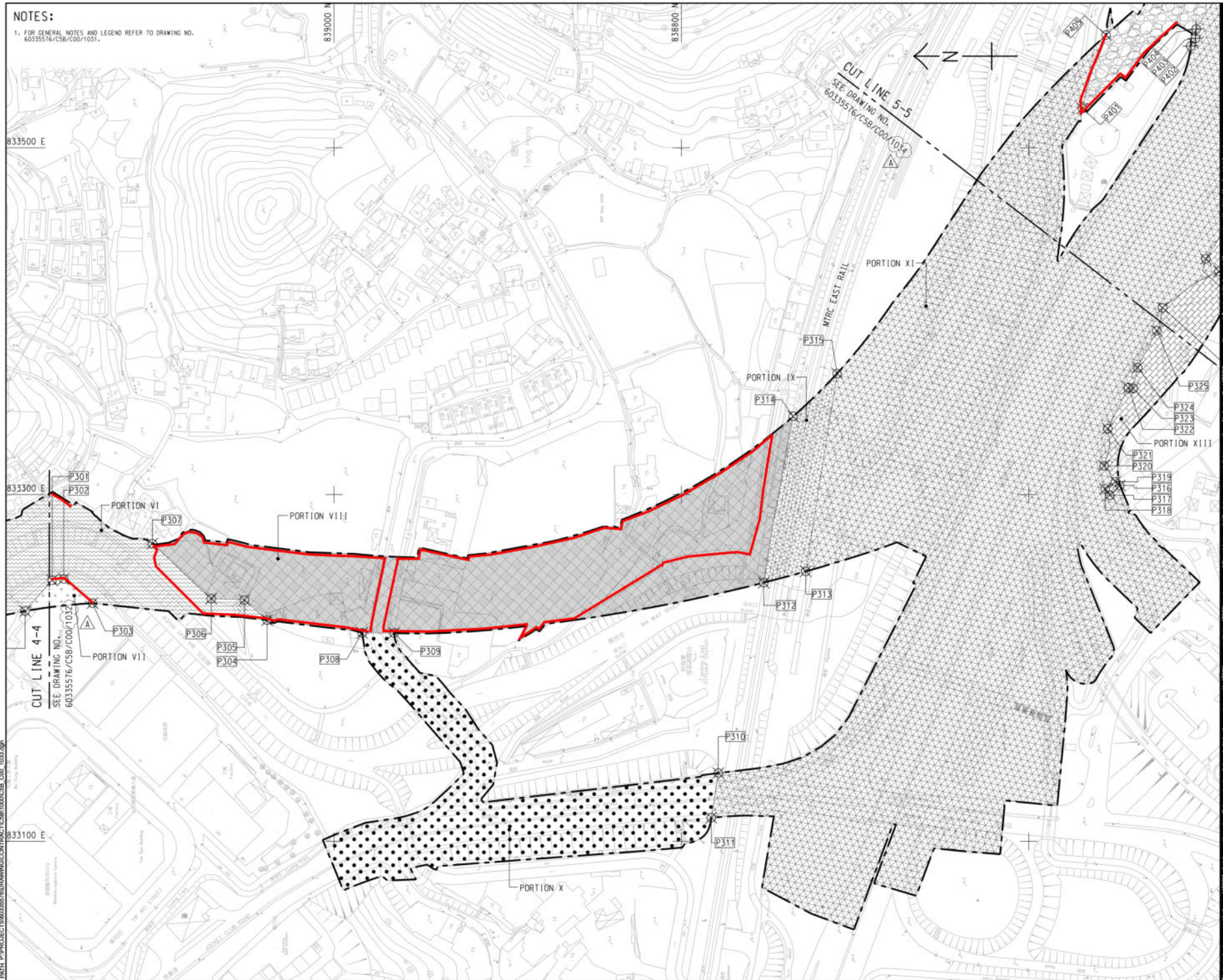
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60335576/C5B/C00/1032A

SHEET 2 OF 5

NOTES:

1. FOR GENERAL NOTES AND LEGEND REFER TO DRAWING NO. 60335576/C58/C00/1031.



CRCC - Paul Y Joint Venture

Title of Designated Project:
**Fanling Bypass Eastern
Section**

CONTRACT TITLE: ND/2019/05

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DEVELOPMENT AREA, PHASE 1:
FANLING BYPASS
EASTERN SECTION
(SHUNG HIM TONG TO
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JUN-19	JUN-19	TENDER DRAWING	RPCM
MR	DATE	DESCRIPTION	CHK.

STATUS

SCALE DIMENSION UNIT

A1 1: 1000 METRES

KEY PLAN A1 1: 70000



PROJECT NO. CONTRACT NO.

60335576 ND/2019/05

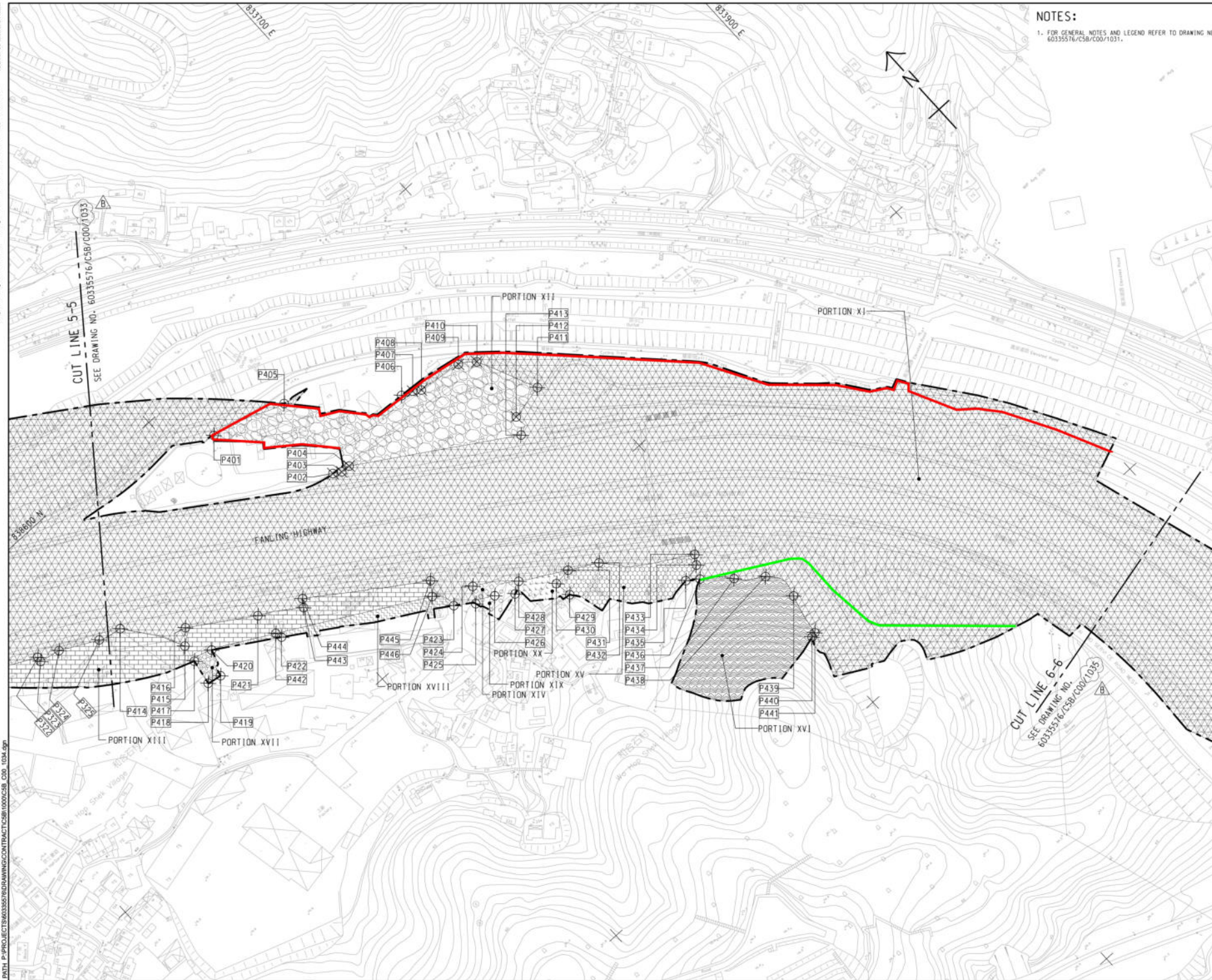
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PORTION OF SITE

SHEET NUMBER

60335576/C58/C00/1033A

SHEET 3 OF 5



NOTES:

1. FOR GENERAL NOTES AND LEGEND REFER TO DRAWING NO. 60335576/C58/C00/1031.

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Section**

CONTRACT TITLE: ND/2019/05

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DEVELOPMENT AREA, PHASE 1:
FANLING BYPASS
EASTERN SECTION
(SHUNG HIM TONG TO
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-	JUN-19	TENDER DRAWING	RPCM
VR	DATE	DESCRIPTION	CHK
REV	DATE	DESCRIPTION	CHK

STATUS

SCALE DIMENSION UNIT

A1 1:1000 METRES

KEY PLAN A1 1:70000



PROJECT NO.

60335576

CONTRACT NO.

ND/2019/05

SHEET TITLE

PORTION OF SITE

SHEET NUMBER

60335576/C58/C00/1034B

SHEET 4 OF 5



NOTES:

1. FOR GENERAL NOTES AND LEGEND REFER TO DRAWING NO.
60335576/C5B/C00/1031.

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Joint Venture**

Title of Designated Project:
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Section

CONTRACT TITLE: ND/2019/05

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UR 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 審核

STATUS
解説SCALE
比例

A1 1 : 1000

DIMENSION UNIT
尺寸單位

METRES

KEY PLAN A1 1 : 70000

SHELING SHIT

PROJECT NO.
項目番号

60335576

CONTRACT NO.
合約編號

ND/2019/05

SHEET TITLE
圖紙名稱

PORTION OF SITE

SHEET 5 OF 5

SHEET NUMBER
00-00-00

60335576/C5B/C00/1035A

Figure 15

Hoarding Plan

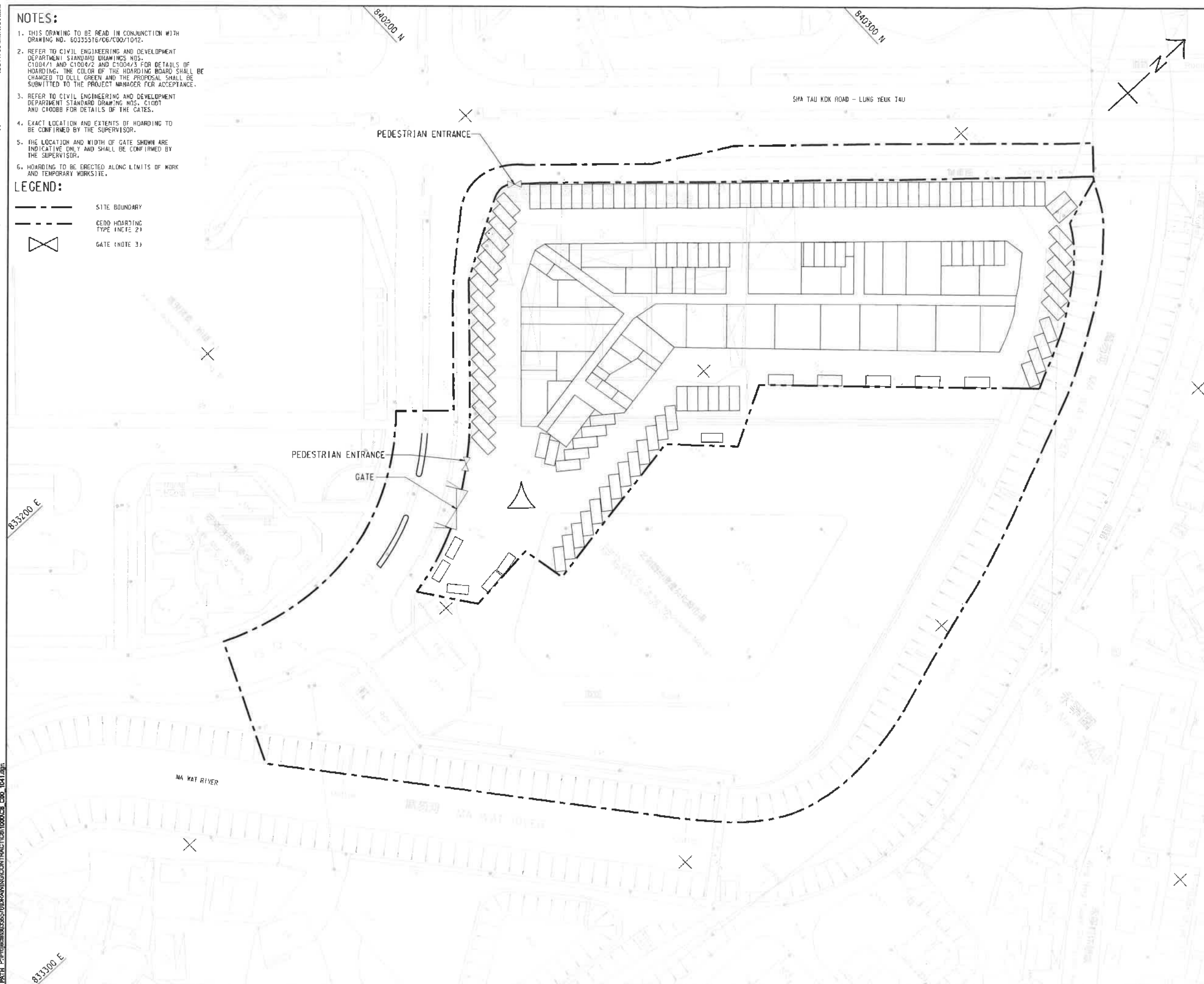
EP-475/2013/A

NOTES:

1. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING NO. 60335576/C6/C00/1042.
2. REFER TO CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT STANDARD DRAWINGS NOS. C1004/1 AND C1004/2 AND C1004/3 FOR DETAILS OF HOARDING. THE COLOR OF THE HOARDING BOARD SHALL BE CHANGED TO DULL GREEN AND THE PROPOSAL SHALL BE SUBMITTED TO THE PROJECT MANAGER FOR ACCEPTANCE.
3. REFER TO CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT STANDARD DRAWING NOS. C1007 AND C1008B FOR DETAILS OF THE GATES.
4. EXACT LOCATION AND EXTENTS OF HOARDING TO BE CONFIRMED BY THE SUPERVISOR.
5. THE LOCATION AND WIDTH OF GATE SHOWN ARE INDICATIVE ONLY AND SHALL BE CONFIRMED BY THE SUPERVISOR.
6. HOARDING TO BE ERECTED ALONG LIMITS OF WORK AND TEMPORARY WORKSITE.

LEGEND:

- SITE BOUNDARY
--- CEDD HOARDING TYPE 1 (NOTE 2)
X GATE (NOTE 3)



AECOM

PROJECT

DEVELOPMENT OF KWU TUNG NORTH AND FANLING NORTH NEW DEVELOPMENT AREAS, PHASE 1

CONTRACT TITLE:

FANLING NORTH NEW DEVELOPMENT AREA, PHASE 1: REPROVISIONING OF NORTH DISTRICT TEMPORARY WHOLESALE MARKET FOR AGRICULTURAL PRODUCTS

CLIENT

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

CONSULTANT

AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS

ISSUE/REVISION

NO.	DATE	DESCRIPTION	BY	CHKD.
1	FEB-19	TENDER DRAWING	ALUI	

STATUS

SCALE

A1 1:500

DIMENSION UNIT

METRES

KEY PLAN

PROJECT NO.

60335576

CONTRACT NO.

ND/2019/06

SHEET TITLE

HOARDING PLAN
(INTERIM STAGE)

SHEET NUMBER

60335576/C6/C00/1041

NOTES:

- FOR NOTES AND LEGEND REFER TO DRAWING NO. 60335576/C8/C00/1041.
- THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING NOS. 60335576/C8/C00/1041 & 1042.
- REFER TO CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT STANDARD DRAWING NOS. C1007 AND C1008 FOR DETAILS OF THE GATES.

LEGEND:

- SITE BOUNDARY
--- CEDD HOARDING TYPE (NOTE 2)
X GATE (NOTE 3)

840000 N

833200 E

833300 E

SHA TAU KOK ROAD - LUNG YEUK TAU

ON KUI STREET

MA WAT RIVER

MA WAT RIVER

AECOM

PROJECT

DEVELOPMENT OF KWU TUNG NORTH AND FANLING NORTH NEW DEVELOPMENT AREAS, PHASE 1

CONTRACT TITLE:

FANLING NORTH NEW DEVELOPMENT AREA, PHASE 1: REPROVISIONING OF NORTH DISTRICT TEMPORARY WHOLESALE MARKET FOR AGRICULTURAL PRODUCTS

CLIENT

CEDD
Civil Engineering and Development Department

CONSULTANT

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SUB-CONSULTANTS

ISSUE/REVISION

NO.	DATE	DESCRIPTION	CHK.
A	JUN-19	TENDER ADDENDUM NO. 2	ALU
B	FEB-19	TENDER DRAWING	ALU

STATUS

SCALE

A1:600

DIMENSION UNIT

METRES

KEY PLAN

PROJECT NO.

60335576

CONTRACT NO.

ND/2019/06

SHEET TITLE


HOARDING PLAN
(FINAL STAGE)

SHEET NUMBER

60335576/C8/C00/1042A

APPENDIX A
CONSTRUCTION PROGRAMME

<div>AECOM</div>		ND/2019/01 - Kwu Tung North New Development Area, Phase 1:Site Formation and Infrastructure Works																		<div><div>CEDD</div>土木工程拓展署 Civil Engineering and Development Department</div>																	
Activity ID		Activity Name				Remaining Duration	Start	Finish	Total Float	Calendar	October 2020					November 2020				December 2020				January 2021													
											7	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17	24									
Revised Programme (2020-10-25)																																					
2.0 - Site Access Date																																					
AD-1030		Portion 1d - (Late Possession from 6 Jul 2020)				0	25-Oct-20*		-111	CD (7d)	◆ Portion 1d - (Late Possession from 6 Jul 2020)																										
AD-1070		Portion 3 - (Late Possession from 6 Apr 2020)				0	25-Oct-20*		-202	CD (7d)	◆ Portion 3 - (Late Possession from 6 Apr 2020)																										
AD-1160		Poriton 9b - (Late Possession from 6 Jul 2020) (Minor Area Handovered on 17 Sep 2020)				0	25-Oct-20*		-111	CD (7d)	◆ Poriton 9b - (Late Possession from 6 Jul 2020) (Minor Area Handovered on 17 Sep 2020)																										
AD-1180		Poriton 9d - (Late Possession from 6 Jul 2020)				0	25-Oct-20*		-111	CD (7d)	◆ Poriton 9d - (Late Possession from 6 Jul 2020)																										
AD-1210		Protion 11a				0	25-Oct-20*		-111	CD (7d)	◆ Protion 11a																										
AD-1250		Portion 14				0	07-Dec-20*		0	CD (7d)	◆ Portion 14																										
AD-1270		Portion 16 - (Part of Area Handovered on 30 Dec 2020)				0	25-Oct-20*		-84	CD (7d)	◆ Portion 16 - (Part of Area Handovered on 30 Dec 2020)																										
4.0 - Key Date																																					
4.1 Key Date Completion																																					
KD0-1020		KD3 320 days after starting date				0		25-Oct-20*	-3	CD (7d)	◆ KD3 320 days after starting date																										
KD0-1030		KD4 366 days after starting date				0		06-Dec-20*	0	CD (7d)	◆ KD4 366 days after starting date																										
KD0-1040		KD5 305 days after starting date				0		25-Oct-20*	-18	CD (7d)	◆ KD5 305 days after starting date																										
KD0-1050		KD6 351 days after starting date				0		21-Nov-20*	0	CD (7d)	◆ KD6 351 days after starting date																										
4.2 Planned Key Date Completion																																					
KD-1020		KD3 320 days after starting date				0		21-Dec-20*	-61	CD (7d)	◆ KD3 320 days after starting date																										
KD-1030		KD4 366 days after starting date				0		21-Jan-21*	-46	CD (7d)	◆ KD4 366 days after starting date																										
5.0 - Ordering Date																																					
OD-1020		Order for Section 19A (subject to excision, within 244 days from starting date inclusive)				0		25-Oct-20*	-80	CD (7d)	◆ Order for Section 19A (subject to excision, within 244 days from starting date inclusive)																										
OD-1030		Order for Section 19B (subject to excision, within 244 days from starting date inclusive)				0		25-Oct-20*	-80	CD (7d)	◆ Order for Section 19B (subject to excision, within 244 days from starting date inclusive)																										
OD-1040		Order for Section 19C (subject to excision, within 244 days from starting date inclusive)				0		25-Oct-20*	-80	CD (7d)	◆ Order for Section 19C (subject to excision, within 244 days from starting date inclusive)																										
6.0 - Preliminaries and General Requirements																																					
6.1 - Preliminaries																																					
PRE-1020		Baseline Ecological Monitoring Works (by ET) (from 3/7/19 to 2/7/20)				0	28-Nov-19 A	30-Jun-20 A		CD (7d)																											
PRE-1030		Provision of Waste Water Treatment Facilities				0	01-Feb-20 A	10-Feb-20 A		CD (7d)																											
PRE-1040		Erection of Interim Contractor's Site Accommodation in Additional Land near Portion 1f				0	08-Jan-20 A	21-Jan-20 A		WD (6d)																											
6.2 - General Submission																																					
GS-1040		Submission of Draft Construction Health and Safety Plan				0	28-Nov-19 A	06-Dec-19 A		CD (7d)																											
GS-1060		Submission of Draft Environmental Management Plan				0	28-Nov-19 A	06-Dec-19 A		CD (7d)																											
GS-1070		Submission of Environmental Management Plan				0	28-Nov-19 A	31-Dec-19 A		CD (7d)																											
GS-1080		Submission of Site Traffic Safety Management Plan				42	25-Oct-20	05-Dec-20*	-95	CD (7d)	<div></div>																										
GS-1100		Submission of Interface Management Plan				21	25-Oct-20*	14-Nov-20	296	CD (7d)	<div></div>																										
GS-1120		Acceptance of Interface Management Plan				21	15-Nov-20	05-Dec-20	296	CD (7d)	<div></div>																										
GS-1130		Submission of Detailed Interface Document				21	06-Dec-20	26-Dec-20	296	CD (7d)	<div></div>																										
GS-1140		Acceptance of Detailed Interface Document				21	27-Dec-20	16-Jan-21	296	CD (7d)	<div></div>																										
GS-1160		Submission of Subcontractor Management Plan				0	28-Nov-19 A	06-Dec-19 A		CD (7d)																											
GS-1180		Submission of Emergency Unit				0	06-Dec-19 A	17-Dec-19 A		CD (7d)																											
GS-1200		Acceptance of Details for Project Manager's Site Accommodation				0	30-May-20 A	23-Jun-20 A		CD (7d)																											
<div><div><div></div><div>BuildKing</div><div>RW</div></div><div>Build King – Richwell Engineering Joint Venture</div></div>		<div><div></div>Planned Work</div> <div><div></div>Critical Work</div> <div><div></div>Actual Work</div> <div><div></div>Milestone</div> <div><div></div>Milestone Critical</div> <div><div></div>Summary LOE</div> <div><div></div>Summary LOE Critical</div>				ND/2019/01 - 3 Month Rolling Programme (2020-10)										Data Date: 25-Oct-20Run Date:10-Nov-20										Project ID: ND201901-RP-4 Layout: ND201901-3MRP with logo Page 1 of 13				THE 3-MONTH ROLLING PROGRAMME							
																														Date		Revision		Checked		Approved	
																														25-Oct-20		Rev.0		JC		BY	

Activity ID		Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	October 2020					November 2020				December 2020				January 2021														
								7	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17	24										
GS-1230		Submission of Major Method Statements	42	06-Dec-19 A	05-Dec-20	2223	CD (7d)																												
GS-1260		Acceptance of Archaeological Action Plan and Issuance of Licence to Excavate and Search for Antiquities	132	08-Sep-20 A	05-Mar-21*	0	CD (7d)																												
6.3 - Subletting Package																																			
SP-1020		Site Hoarding	0	05-Mar-20 A	20-Apr-20 A		CD (7d)																												
SP-1030		Independent Checking Engineer Services	0	14-Feb-20 A	17-Apr-20 A		CD (7d)																												
SP-1040		Security System for the site	0	07-Dec-19 A	08-Jan-20 A		CD (7d)																												
SP-1060		Tree Survey	0	20-Jan-20 A	24-Mar-20 A		CD (7d)																												
SP-1070		Ground Investigation and Laboratory Testing	0	20-Jan-20 A	24-Mar-20 A		CD (7d)																												
SP-1090		Piling Works	0	10-Jul-20 A	25-Aug-20 A		CD (7d)																												
SP-1110		RC Works for Retaining Wall (same as SP-1112)	0	11-Jun-20 A	06-Aug-20 A		CD (7d)																												
SP-1111		Civil Provisions for STF (TSPS & MBR)	69	25-Oct-20	01-Jan-21	5	CD (7d)																												
SP-1112		RC Works for Reservoirs (same as SP-1110)	0	11-Jun-20 A	06-Aug-20 A		CD (7d)																												
SP-1121		Trenchless Works 600mm dia Watermain	0	09-Jun-20 A	07-Aug-20 A		CD (7d)																												
SP-1130		Road & Drainage & Watermain Laying Works (Stage 1 Works along D1 and L1 Road)	0	11-May-20 A	05-Jun-20 A		CD (7d)																												
SP-1131		Road & Drainage Works (Stage 2 for Remaining Whole Site)	7	03-Jun-20 A	31-Oct-20	-37	CD (7d)																												
SP-1132		Watermain Laying Works (Stage 2 for Remaining Whole Site)	7	03-Jun-20 A	31-Oct-20	309	CD (7d)																												
SP-1140		Road Lighting Works	0	08-Jun-20 A	04-Aug-20 A		CD (7d)																												
SP-1150		Construction works for Temporary Noise Barrier (same as SP-1230)	0	10-Jun-20 A	26-Aug-20 A		CD (7d)																												
SP-1160		E&M works for MBR Plant and Associated Works (including Sewage Transfer Station)	0	02-Apr-20 A	03-Jun-20 A		CD (7d)																												
SP-1170		E&M works for Water Service Reservoirs (Service Reservoir Specialist)	90	28-Sep-20 A	22-Jan-21	65	CD (7d)																												
SP-1200		Slope Works - Soil Nailing	0	15-Jul-20 A	08-Sep-20 A		CD (7d)																												
SP-1220		Pipeworks of District Cooling System (DCS)	60	25-Oct-20	23-Dec-20	331	CD (7d)																												
SP-1230		Panel Installation for Permanent Noise Barriers (same as SP-1150)	0	13-Jun-20 A	26-Aug-20 A		CD (7d)																												
SP-1240		Traffic Consultant	0	14-Feb-20 A	09-Apr-20 A		CD (7d)																												
SP-1250		Interim Community Liaison Centre	0	22-Feb-20 A	24-Mar-20 A		CD (7d)																												
SP-1260		Condition Survey	0	22-Feb-20 A	17-Apr-20 A		CD (7d)																												
SP-1270		Building Information Modelling (BIM)	0	06-Jun-20 A	07-Jul-20 A		CD (7d)																												
SP-1280		Construction Video Film Production	0	23-Apr-20 A	29-May-20 A		CD (7d)																												
SP-1290		Demolition of Small Building	0	04-Jun-20 A	17-Jul-20 A		CD (7d)																												
SP-1300		Testing Laboratory (for Arsenic containing soil)	0	15-May-20 A	14-Oct-20 A		CD (7d)																												
7.0 - CONSTRUCTION																																			
Section 1																																			
S1-1012		Opening of Cycle Track at Portion 10a (EWN No. 017)	0		25-Oct-20	-129	CD (7d)						Opening of Cycle Track at Portion 10a (EWN No. 017)																						
S1-1014		Unexpected Long Process for Approval of Tree Felling Application of Portion 10a (CNE No. 013)	0		07-Oct-20 A		CD (7d)						Unexpected Long Process for Approval of Tree Felling Application of Portion 10a (CNE No. 013)																						
S1-1016		Removal of Existing CLP Facilities (EWN No. 018)	0		25-Oct-20	-129	CD (7d)						Removal of Existing CLP Facilities (EWN No. 018)																						
S1-1018		Excavation Permit (XP) for New Cycle Path (EWN No. 021)	0		25-Oct-20	-129	CD (7d)						Excavation Permit (XP) for New Cycle Path (EWN No. 021)																						
Portion 10a in Area H, H1, H2 (Soil Treatment & Provision of Site Access & EVA to MWSC)																																			
Preparation work/Tree Survey/Site Clearance/GI																																			
S1P10a-1020		Approval and acceptance of tree felling application	0	30-May-20 A	07-Oct-20 A		CD (7d)																												
S1P10a-1030		Tree felling, transplant and protection	5	07-Oct-20 A	31-Oct-20	-134	WD (6d)																												
S1P10a-1031		Additional tree felling due to increase in total nos. of trees to be felled at Portions 7 & 10a (EWN No. 012)	20	07-Oct-20 A	18-Nov-20	-134	WD (6d)																												
S1P10a-1060		Prepare Arsenic Assessment Report	8	26-May-20 A	04-Nov-20	-51	WD (6d)																												
S1P10a-1070		Arsenic Treatment Plan	8	26-May-20 A	04-Nov-20	-51	WD (6d)																												
<div><div><div></div><div><div>Build King – Richwell Engineering</div><div>Joint Venture</div></div></div><div><div><div><div><div></div><div>Milestone</div></div><div><div></div><div>Milestone Critical</div></div><div><div></div><div>Summary LOE</div></div><div><div></div><div>Summary LOE Critical</div></div></div></div></div></div>								ND/2019/01 - 3 Month Rolling Programme (2020-10)										Project ID: ND201901-RP-4 Lauyout: ND201901-3MRP with logo Page 2 of 13										THE 3-MONTH ROLLING PROGRAMME							
																												Date		Revision		Checked		Approved	
																												25-Oct-20		Rev.0		JC		BY	

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	7	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17	24
Preparation work/Tree Survey/Site Clearance/GI at Late Possession Area (Area H, H1)							◆ Late Possession of Site of Part of Portions 7 and 10a (in Area H, H1, T1, T2 & T3) (CNE No. 001)																	
S1P10a-1100	Late Possession of Site of Part of Portions 7 and 10a (in Area H, H1, T1, T2 & T3) (CNE No. 001)	0	25-Oct-20		-174	CD (7d)																		
S1P10a-1130	Site clearance	5	07-Oct-20 A	31-Oct-20	-146	WD (6d)																		
S1P10a-1150	Prepare Arsenic Assessment Report	15	26-May-20 A	12-Nov-20	-92	WD (6d)																		
S1P10a-1160	Arsenic Treatment Plan	15	26-May-20 A	12-Nov-20	-92	WD (6d)																		
KD1 - Provision of Site Access and EVA to MWSC																								
Soil Treatment																								
S1K1-1010	Remove soil (original assumed 29975m3) (7 / 7 EGI completed, interim soil to be excavated / treated : 14400m3 / 5000m3)	80	26-Sep-20 A	30-Jan-21	-146	WD (6d)																		
Civil Work																								
Road D1 (Stage 1)																								
S1K1-2000	Construct & maintain Temporary drainage	377	22-Sep-20 A	31-Jan-22	-146	WD (6d)																		
S1K1-2002	Underground Drainage ELS & Excavation (around 30m) Manhole M1.71 to SMH KT2001	5	22-Sep-20 A	31-Oct-20	-146	WD (6d)																		
S1K1-2004	Underground Drainage (around 30m) Manhole M 1.71 to SMH KT2001	24	02-Nov-20	28-Nov-20	-143	WD (6d)																		
S1K1-2006	Underground Drainage (around 160m) Manhole M 1.64 to M 1.60	60	03-Dec-20	17-Feb-21	-146	WD (6d)																		
S1K1-2008	Underground Sewerage (around 190m)	66	23-Jan-21	16-Apr-21	-146	WD (6d)																		
Road D1 (Stage 2) Castle Peak road junction																								
S1K1-2024	Construct & maintain Temporary drainage	332	23-Nov-20	05-Jan-22	-124	WD (6d)																		
S1K1-2026	Underground Drainage ELS & Excavation (around 40m)	24	23-Nov-20	19-Dec-20	-130	WD (6d)																		
S1K1-2028	Underground Drainage (around 40m)	40	21-Dec-20	08-Feb-21	-124	WD (6d)																		
Rooad L1																								
S1K1-2100	Construct & maintain Temporary drainage	328	23-Dec-20	31-Jan-22	-146	WD (6d)																		
S1K1-2102	Underground Drainage ELS & Excavation (around 10m) atRoad D1 junction	24	23-Dec-20	22-Jan-21	-130	WD (6d)																		
S1K1-2104	Underground Drainage (around 120m)	72	23-Dec-20	23-Mar-21	-130	WD (6d)																		
Smart Road Lightings System Installation																								
S1K1-3010	Submissions of smart road lighting system design and shop drawings	30	10-Sep-20 A	23-Nov-20	220	CD (7d)																		
S1K1-3020	Procurement and delivery of smart road lighting system	90	24-Nov-20	21-Feb-21	220	CD (7d)																		
Section 2A																								
S2A-1002	Removal of Existing CLP Facilities (EWN No. 018)	0		25-Oct-20	352	CD (7d)	◆ Removal of Existing CLP Facilities (EWN No. 018)																	
Portion 5 in Area C1 (Soil Treatment & Interface with HD's Contractors)																								
Preparation work/Tree Survey/Site Clearance/GI							◆ Late Possession of Site of Part of Portion 5 (in Area C1) (CNE No. 004)																	
S2AP5-1000	Late Possession of Site of Part of Portion 5 (in Area C1) (CNE No. 004)	0	25-Oct-20		272	CD (7d)																		
S2AP5-1010	Tree survey and prepare tree felling and transplant report	0	08-Apr-20 A	04-Jun-20 A		WD (6d)																		
S2AP5-1015	Approval & Acceptance of Tree Felling Application	15	20-Jun-20 A	08-Nov-20	88	CD (7d)																		
S2AP5-1020	Site Clearance	30	26-Feb-20 A	30-Nov-20	219	WD (6d)																		
S2AP5-1040	Prepare Arsenic Assessment Report	28	27-Oct-20	27-Nov-20	219	WD (6d)																		
S2AP5-1050	Arsenic Treatment Plan	28	28-Nov-20	02-Jan-21	219	WD (6d)																		
Soil Treatment																								
S2AP5-2000	Construct & maintain Temporary drainage	94	15-Jan-21	12-May-21	219	WD (6d)																		
S2AP5-2010	Remove soil (original assumed 13140m3) (6 / 6 EGI completed, interim soil to be excavated / treated : 24300m3 / 12600m3)	34	15-Jan-21	26-Feb-21	219	WD (6d)																		
Section 3							◆ Unexpected Long Process for Approval of Tree Felling Application of Portion 7 (CNE No. 013)																	
S3-1002	Unexpected Long Process for Approval of Tree Felling Application of Portion 7 (CNE No. 013)	0		07-Oct-20 A		CD (7d)																		



Build King – Richwell Engineering Joint Venture

Planned Work

Critical Work

Actual Work

◆

Milestone

◆

Milestone Critical

Summary LOE

Summary LOE Critical

ND/2019/01 - 3 Month Rolling Programme (2020-10)

Data Date: 25-Oct-20

Run Date:10-Nov-20

Project ID: ND201901-RP-4

Lauyout: ND201901-3MRP with logo

Page 3 of 13

THE 3-MONTH ROLLING PROGRAMME

Date	Revision	Checked	Approved
25-Oct-20	Rev.0	JC	BY

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	7	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17	24						
Portion 7 in Area E (Soil Treatment & Interface with HKHS's Contractors)																														
Preparation work/Tree Survey/Site Clearance/GI																														
S3P7-1010	Tree survey and prepare tree felling and transplant report	0	06-Apr-20 A	18-May-20 A		WD (6d)																								
S3P7-1015	Approval & Acceptance of Tree Felling Application	0	30-May-20 A	07-Oct-20 A		CD (7d)																								
S3P7-1020	Site Clearance	18	06-Apr-20 A	16-Nov-20	216	WD (6d)																								
S3P7-1030	Environmental ground investigation and lab test (3 EGI) (another 1 EGI in other portion represent part of this portion)	0	21-May-20 A	13-Jun-20 A		WD (6d)																								
S3P7-1040	Prepare Arsenic Assessment Report	36	27-Oct-20*	07-Dec-20	198	WD (6d)																								
S3P7-1050	Arsenic Treatment Plan	36	08-Dec-20	21-Jan-21	198	WD (6d)																								
Soil Treatment																														
S3P7-2000	Construct & maintain Temporary drainage	122	22-Jan-21	23-Jun-21	198	WD (6d)																								
S3P7-2010	Remove soil (original assumed 15718m3) (3 / 4 EGI completed, interim soil to be excavated / treated : 6300m3 / 2000m3)	50	22-Jan-21*	24-Mar-21	198	WD (6d)																								
Interface with HKHS's contractor to carry out GI																														
S3P7-3010	HKHS Contractor to carry out GI in Area E	24	07-Dec-20*	06-Jan-21	211	WD (6d)																								
Section 5																														
Portion 4 in Area I (Soil Treatment & Complete Temp. Noise Barriers along Castle Peak Road)																														
Preparation work/Tree Survey/Site Clearance/GI																														
S5P4-1010	Tree survey and prepare tree felling and transplant report	0	17-Apr-20 A	11-May-20 A		WD (6d)																								
S5P4-1020	Site Clearance	0	05-Mar-20 A	13-Apr-20 A		WD (6d)																								
S5P4-1030	Environmental ground investigation and laboratory test(1 / 1 EGI completed)	0	14-Apr-20 A	29-Apr-20 A		WD (6d)																								
S5P4-1040	Prepare Arsenic Assessment Report	0	30-Apr-20 A	18-May-20 A		WD (6d)																								
S5P4-1050	Arsenic Treatment Plan	0	30-Apr-20 A	18-May-20 A		WD (6d)																								
Soil Treatment																														
S5P4-2020	Site formation works	50	11-Nov-20*	11-Jan-21	23	WD (6d)																								
KD9 - Complete the temp. noise barriers along Castle Peak Road in Area T1, T2, T3, H, H1, I, J, K																														
S5P4-3000	Construct & maintain Temporary drainage	86	24-Sep-20 A	06-Feb-21	618	WD (6d)																								
S5P4-3005	Construction of Slope Drainage in Portion 4 (48m) along Castle Peak Road	0	24-Sep-20 A	08-Oct-20 A		WD (6d)																								
S5P4-3020	Erection of temporary noise barrier in Portion 4 (48m)	30	12-Jan-21	18-Feb-21	641	WD (6d)																								
Portion 14 in Area I (Soil Treatment & Complete Temp. Noise Barriers along Castle Peak Road)																														
Preparation work/Tree Survey/Site Clearance/GI																														
S5P14-1010	Site Clearance	6	07-Dec-20	12-Dec-20	0	WD (6d)																								
Soil Treatment																														
S5P14-2000	Construct & maintain Temporary drainage	36	14-Dec-20	27-Jan-21	0	WD (6d)																								
S5P14-2010	Remove soil (EGI was carried out by other Contract, interim soil to be excavated and treated : 0m3)	6	14-Dec-20	19-Dec-20	0	WD (6d)																								
S5P14-2020	Backfilling to the formation levels	30	21-Dec-20	27-Jan-21	0	WD (6d)																								
Sectoin 6A																														
Portion 1e in Area G1 (Soil Treatment & Forming Hammerhead)																														
Preparation work/Tree Survey/Site Clearance/GI																														
S6AP1e-1035	Environmental ground investigation and laboratory test(1/1 EGI completed) in Hammer Head area	0	20-May-20 A	23-May-20 A		WD (6d)																								
Section 7 (Subject to excision)																														
Portion 14 in Area K (Complete TSPS with Associated Sewerage)																														
Preparation work/Tree Survey/Site Clearance/GI																														



Planned Work

Critical Work

Actual Work

Milestone

Milestone Critical

Summary LOE

Summary LOE Critical

ND/2019/01 - 3 Month Rolling Programme (2020-10)

Data Date: 25-Oct-20

Run Date:10-Nov-20

Project ID: ND201901-RP-4


Lauyout: ND201901-3MRP with logo

Page 4 of 13

THE 3-MONTH ROLLING PROGRAMME

Date	Revision	Checked	Approved
25-Oct-20	Rev.0	JC	BY

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	October 2020					November 2020				December 2020				January 2021					
							7	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17	24	
S7P14-1010	Site Clearance	24	07-Dec-20	06-Jan-21	0	WD (6d)						<div></div>													
KD2 - Complete Temporary Sewage Pumping Station and associated rising mains and sewers, and connect																									
Design and Civil Construction																									
S7P14-2010	Design and approval of Temporary Sewage Pumping Station (TSPS)	6	04-Jun-20 A	30-Oct-20	-36	CD (7d)	<div></div>																		
S7P14-2020	Construction of TSPS	185	07-Jan-21	21-Aug-21	0	WD (6d)						<div></div>													
E&M Works																									
S7P14-3010	Submission and Approval of E&M plants & materials for TSPS	38	04-Jun-20 A	01-Dec-20	7	CD (7d)	<div></div>					<div></div>													
S7P14-3020	Procurement of E&M equipment for TSPS	30	02-Dec-20	31-Dec-20	7	CD (7d)						<div></div>													
S7P14-3030	Supply, Factory Acceptance Test (FAT) & Delivery of E&M e quipment for TSPS	140	02-Jan-21	24-Jun-21	5	WD (6d)						<div></div>													
Sewerage Works																									
S7P14-4000	Construct & maintain Temporary drainage	220	07-Dec-20	03-Sep-21	15	WD (6d)						<div></div>													
S7P14-4010	Laying of sewage rising mains from TSPS and connect to existing tank of MBR plant	200	07-Dec-20	11-Aug-21	15	WD (6d)						<div></div>													
KD2 - Portion 11b in Area K (Complete Temp. Noise Barriers along Castle Peak Road)																									
Preparation work																									
S7P11b-1000	Early Access to Portion 11b Area K for KD-2 works	0		25-Oct-20*	-51	CD (7d)						<div>◆ Early Access to Portion 11b Area K for KD-2 works</div>													
S7P11b-1010	Site Clearance	18	27-Oct-20	16-Nov-20	-42	WD (6d)	<div></div>																		
Sewerage Works																									
S7P11b-1015	Construct & maintain Temporary drainage	294	17-Nov-20	12-Nov-21	-42	WD (6d)						<div></div>													
S7P11b-1020	Laying of sewage rising mains from TSPS and connect to existing tank of MBR plant	294	17-Nov-20	12-Nov-21	-42	WD (6d)						<div></div>													
Portion 4 in Area K (Complete Temp. Noise Barriers along Castle Peak Road)																									
Preparation work																									
S7P4-1010	Site Clearance	0	05-Mar-20 A	13-Apr-20 A		WD (6d)																			
Sewerage Works																									
S7P4-2000	Construct & maintain Temporary drainage	412	17-Nov-20	07-Apr-22	270	WD (6d)						<div></div>													
S7P4-2010	Laying of sewage rising mains from TSPS and connect to existing tank of MBR plant	294	02-Nov-20	28-Oct-21	-29	WD (6d)						<div></div>													
Section 8																									
S8-1012	Suspension of Works at Part of Portion 2 (EWN No. 019)	0		25-Oct-20	-42	CD (7d)						<div>◆ Suspension of Works at Part of Portion 2 (EWN No. 019)</div>													
S8-1014	Insufficent Stockpile Area (EWN No. 020)	0		25-Oct-20	244	CD (7d)						<div>◆ Insufficent Stockpile Area (EWN No. 020)</div>													
S8-1016	Opening of Cycle Track at Portion 2 and 10a (EWN No. 017)	0		25-Oct-20	-55	CD (7d)						<div>◆ Opening of Cycle Track at Portion 2 and 10a (EWN No. 017)</div>													
S8-1018	Excavation Permit (XP) for New Cycle Path (EWN No. 021)	0		25-Oct-20	-55	CD (7d)						<div>◆ Excavation Permit (XP) for New Cycle Path (EWN No. 021)</div>													
Portion 2 in Area A (Soil Treatment & Construction of Pak Shek Au Junction)																									
Preparation work/Tree Survey/Site Clearance/GI																									
S8P2-0010	Tree Survey and prepare tree felling and transplant report	0	19-Jun-20 A	21-Jul-20 A		WD (6d)																			
S8P2-0015	Approval & Acceptance of Tree Felling Application	20	23-Jul-20 A	13-Nov-20	-62	CD (7d)	<div></div>																		
S8P2-0020	Implement of Stage 1 TTA	12	27-Oct-20	09-Nov-20	-46	WD (6d)						<div></div>													
S8P2-1010	Site clearance / Tree Felling	30	21-Sep-20 A	30-Nov-20	-64	WD (6d)	<div></div>					<div></div>													
S8P2-1015	Ground investigation (1 / 2 GI completed)	24	08-Jul-20 A	23-Nov-20	-58	WD (6d)	<div></div>					<div></div>													
S8P2-1020	Environmental ground investigation and laboratory test (0 / 2 EGI)	36	28-Aug-20 A	07-Dec-20	-70	WD (6d)	<div></div>					<div></div>													
S8P2-1025	Verification of Ground Condition & Design Review by Project Manager	60	22-Dec-20	19-Feb-21	-85	CD (7d)						<div></div>													
S8P2-1030	Prepare Arsenic Assessment Report	30	08-Dec-20	14-Jan-21	-69	WD (6d)						<div></div>													
S8P2-1040	Arsenic Treatment Plan	30	08-Dec-20	14-Jan-21	-69	WD (6d)						<div></div>													
Soil Treatment																									



**Build King – Richwell Engineering
Joint Venture**

Planned Work

Critical Work

Actual Work

Milestone

Milestone Critical

Summary LOE

Summary LOE Critical

ND/2019/01 - 3 Month Rolling Programme (2020-10)

Data Date: 25-Oct-20 Run Date: 10-Nov-20


Project ID: ND201901-RP-4

Layout: ND201901-3MRP with logo

Page 5 of 13

THE 3-MONTH ROLLING PROGRAMME			
Date	Revision	Checked	Approved
25-Oct-20	Rev.0	JC	BY

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	7	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17	24						
S8P2-2010	Remove soil (original assumed 6898m3) (0 / 1 EGI completed, interim soil to be excavated / treated : 0m3 / 0m3)	26	15-Jan-21*	17-Feb-21	51	WD (6d)	<div></div>																							
Civil Work																														
Construction of Pak Shek Au Junction Stage 1																														
S8P2-3000	Construct & maintain Temporary drainage	424	15-Jan-21	23-Jun-22	-69	WD (6d)	<div></div>																							
S8P2-3020	Excavation for retaining wall (1333m3)	30	15-Jan-21	22-Feb-21	-69	WD (6d)	<div></div>																							
Portion 3 in Area A (Soil Treatment, Drainage & Roadwork)																														
Preparation work/Tree Survey/Site Clearance/GI																														
S8P3-1000	Assumed Handover Date of Portion 3 (Late Possession)	0	25-Oct-20*		489	CD (7d)	◆ Assumed Handover Date of Portion 3 (Late Possession)																							
S8P3-1010	Site clearance	60	27-Oct-20	07-Jan-21	396	WD (6d)	<div></div>																							
S8P3-1015	Ground investigation (0 / 1 GI completed)	6	08-Jan-21	14-Jan-21	396	WD (6d)	<div></div>																							
S8P3-1020	Environmental ground investigation and laboratory test(0 / 1 EGI completed)	15	08-Jan-21	25-Jan-21	396	WD (6d)	<div></div>																							
S8P3-1025	Verification of Ground Condition & Design Review by Project Manager	60	15-Jan-21	15-Mar-21	616	CD (7d)	<div></div>																							
Portion 5 in Area A (Soil Treatment, Bored Pile Wall (CSD), Drainage & Roadwork)																														
Preparation work/Tree Survey/Site Clearance/GI																														
S8P5-1015	Ground investigation (1 / 1 GI completed) outside CSD location	0	07-Sep-20 A	09-Sep-20 A		WD (6d)	<div></div>																							
S8P5-1020	Ground investigation (3 / 3 GI completed) within CSD loaction	0	20-Jul-20 A	04-Aug-20 A		WD (6d)	<div></div>																							
S8P5-1035	Verification of Ground Condition & Design Review by Project Manager	0	05-Aug-20 A	04-Oct-20 A		CD (7d)	<div></div>																							
S8P5-1040	Prepare Arsenic Assessment Report	18	26-May-20 A	16-Nov-20	30	WD (6d)	<div></div>																							
S8P5-1050	Arsenic Treatment Plan	36	17-Nov-20	30-Dec-20	30	WD (6d)	<div></div>																							
Construction according to CSD for Alternative on Bored Pile Wall																														
S8P5-2004	Construct & maintain Temporary drainage	996	05-Oct-20 A	05-Mar-24	0	WD (6d)	<div></div>																							
S8P5-2010	Slope cutting and temporary soil nail installation Row A + Row B (200 Nos Soil nails) (concurrent with S8P6a-2010)	18	05-Oct-20 A	16-Nov-20	0	WD (6d)	<div></div>																							
S8P5-2012	Slope cutting and temporary soil nail installation Row C + Row D (260 Nos Soil nails) (concurrent with S8P6a-2012)	40	17-Nov-20	05-Jan-21	0	WD (6d)	<div></div>																							
S8P5-2014	Slope cutting and temporary soil nail installation Row E + Row F (250 Nos Soil nails) (concurrent with S8P6a-2014)	40	06-Jan-21	24-Feb-21	0	WD (6d)	<div></div>																							
Soil Treatment																														
S8P5-3040	Remove soil (original assumed 3303m3) (7 / 7 EGI completed, interim soil to be excavated / treated : 41000m3 / 17000m3)	84	23-Sep-20 A	04-Feb-21	0	WD (6d)	<div></div>																							
Portion 6a in Area A (Soil Treatment, Bored Pile Wall, Drainage & Roadwork)																														
Preparation work/Tree Survey/Site Clearance/GI																														
S8P6a-1002	Tree Survey and prepare tree felling and transplant report	0	25-Apr-20 A	23-May-20 A		CD (7d)	<div></div>																							
S8P6a-1004	Approval & Acceptance of Tree Felling Application & Tree Felling	3	16-Jun-20 A	27-Oct-20	2	CD (7d)	<div></div>																							
S8P6a-1010	Site clearance	3	15-Feb-20 A	29-Oct-20	0	WD (6d)	<div></div>																							
S8P6a-1035	Verification of Ground Condition & Design Review by Project Manager	0	28-Jul-20 A	04-Oct-20 A		CD (7d)	<div></div>																							
S8P6a-1040	Prepare Arsenic Assessment Report	18	26-May-20 A	16-Nov-20	30	WD (6d)	<div></div>																							
S8P6a-1050	Arsenic Treatment Plan	36	17-Nov-20	30-Dec-20	30	WD (6d)	<div></div>																							
Construction according to CSD for Alternative on Bored Pile Wall																														
S8P6a-2004	Construct & maintain Temporary drainage	996	05-Oct-20 A	05-Mar-24	0	WD (6d)	<div></div>																							
S8P6a-2010	Slope cutting and temporary soil nail installation Row A + Row B (200 Nos Soil nails) (concurrent with S8P5-2010)	15	05-Oct-20 A	16-Nov-20	0	WD (6d)	<div></div>																							
S8P6a-2012	Slope cutting and temporary soil nail installation Row C + Row D (260 Nos Soil nails) (concurrent with S8P5-2012)	40	17-Nov-20	05-Jan-21	0	WD (6d)	<div></div>																							



ND/2019/01 - 3 Month Rolling Programme (2020-10)


Data Date: 25-Oct-20 Run Date: 10-Nov-20

Project ID: ND201901-RP-4
 Layout: ND201901-3MRP with logo
 Page 6 of 13

THE 3-MONTH ROLLING PROGRAMME			
Date	Revision	Checked	Approved
25-Oct-20	Rev. 0	JC	BY

Planned Work
 Critical Work
 Actual Work
 Milestone
 Milestone Critical
 Summary LOE
 Summary LOE Critical

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	October 2020					November 2020				December 2020					January 2021				
							7	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17	24	
S8P6a-2014	Slope cutting and temporary soil nail installation Row E + Row F (250 Nos Soil nails) (concurrent with S8P5-2014)	60	06-Jan-21	19-Mar-21	0	WD (6d)																			
Soil Treatment																									
S8P6a-3040	Remove soil (original assumed 40834m3) (3 / 6 EGI completed, interim soil to be excavated / treated : 6300m3 / 6300m3)	84	23-Sep-20 A	04-Feb-21	0	WD (6d)																			
Civil Work																									
S8P6a-4010	Road D4 (CH160 - CH400) - Underground Drainage work	177	08-Sep-20 A	02-Jun-21	0	WD (6d)																			
Portion 9b & 9d in Area A (Soil Treatment, Slope, Retaining Wall, Drainage & Roadwork)																									
Preparation work/Tree Survey/Site Clearance/GI																									
S8P9b-0005	Late Possession of Site of Portions 9b & 9d (CNE No. 007) (EWN No. 011)	0		25-Oct-20	-110	CD (7d)																			
S8P9b-0006	Removal of Existing CLP Facilities (EWN No. 018)	0		25-Oct-20	643	CD (7d)																			
S8P9b-0010	Liasion with HKPF and submit proposal of protective measures for works near Lo Wu Firing Range	0	10-Feb-20 A	04-Mar-20 A		CD (7d)																			
S8P9b-1010	Site clearance	48	27-Oct-20	21-Dec-20	-93	WD (6d)																			
S8P9b-1015	Ground investigation (0 / 14 GI completed)	60	28-Nov-20	09-Feb-21	-93	WD (6d)																			
S8P9b-1020	Environmental ground investigation and laboratory test(0 / 8 EGI completed)	40	22-Dec-20	09-Feb-21	-93	WD (6d)																			
Civil Work																									
S8P9b-3015	Construct & maintain Temporary drainage	1029	22-Dec-20	17-Jun-24	-93	WD (6d)																			
S8P9b-3020	Form the access to service reservoirs	48	22-Dec-20	22-Feb-21	472	WD (6d)																			
Portion 8a in Area A (Soil Treatment, Reservoirs, Slope, Drainage & Roadwork)																									
Preparation work/Tree Survey/Site Clearance/GI																									
S8P8a-1004	Approval & Acceptance of Tree Felling Application	15	27-Jun-20 A	12-Nov-20	-57	WD (6d)																			
S8P8a-1020	Site clearance to Fresh Water Service Reservior	69	15-Oct-20 A	18-Jan-21	-57	WD (6d)																			
S8P8a-1030	Ground investigation (0 / 5 GI completed) to Fresh Water Service Reservoir	30	31-Dec-20	04-Feb-21	-21	WD (6d)																			
S8P8a-1042	Environmental ground investigation and laboratory test(0 / 3 EGI) to Fresh Water Service Reservoir	30	31-Dec-20	04-Feb-21	87	WD (6d)																			
S8P8a-1044	Verification of Ground Condition & Design Review by Project Manager (to Flushing Water Service Reservoir)	0	18-Jul-20 A	15-Sep-20 A		CD (7d)																			
S8P8a-1050	Prepare Arsenic Assessment Report Flushing Water Service Reservoir	24	09-Oct-20 A	23-Nov-20	177	WD (6d)																			
Forming Site Access and Site Fomation																									
Stage 1																									
S8P8a-1105	Construct & maintain Temporary drainage	287	25-Aug-20 A	13-Oct-21	-83	WD (6d)																			
S8P8a-1110	Form site access to Flushing Water Service Reservoir	0	06-Jan-20 A	08-Apr-20 A		WD (6d)																			
S8P8a-1120	General excavation for New Feature KS45 and adjacent road	0	25-Aug-20 A	17-Oct-20 A		WD (6d)																			
S8P8a-1130	General excavation for New Feature KS46 and adjacent road	252	25-Aug-20 A	31-Aug-21	-1	WD (6d)																			
S8P8a-1140	General excavation for area surrounding Flushing Water Service Reservoir	252	25-Aug-20 A	31-Aug-21	30	WD (6d)																			
S8P8a-1150	Form haul road to Fresh Water Service Reservoir	102	03-Sep-20 A	01-Mar-21	-90	WD (6d)																			
S8P8a-1160	General excavation for remaining of Road W1	287	11-Jun-20 A	13-Oct-21	-83	WD (6d)																			
KD8 - complete all works for fresh water and flushing water services reservoirs, pipe laying and roa																									
S8K8 -6000	Insufficent Stockpile Area (EWN No. 020)	0		25-Oct-20	244	CD (7d)																			
Construction of Kwu Tung North Flushing Water Service Reservoir (KTN FLWSR)																									
Civil Works																									
S8K8-1005	Construct & maintain Temporary drainage	792	25-Aug-20 A	29-Jun-23	150	WD (6d)																			
S8K8-1010	General excavation (24709m3)	166	25-Aug-20 A	20-May-21	30	WD (6d)																			
Remaining Civil Work in Portion 8a Area A																									
S8P8a-2150	Construct & maintain Temporary drainage	82	14-Sep-20 A	02-Feb-21	-1	WD (6d)																			



ND/2019/01 - 3 Month Rolling Programme (2020-10)

Data Date: 25-Oct-20 Run Date: 10-Nov-20

Project ID: ND201901-RP-4
 Layout: ND201901-3MRP with logo
 Page 7 of 13

THE 3-MONTH ROLLING PROGRAMME			
Date	Revision	Checked	Approved
25-Oct-20	Rev. 0	JC	BY

Activity ID		Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	7	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17	24
S8P8a	S8P8a-2155	Slopeworks for KS46 - Mobilization and Test soil nail	0	14-Sep-20 A	04-Oct-20 A		WD (6d)																		
	S8P8a-2160	Slopeworks for KS46 - Slope cutting and soil nail installation Row J + Row K (13 Nos Soil nails)	0	05-Oct-20 A	12-Oct-20 A		WD (6d)																		
	S8P8a-2170	Slopeworks for KS46 - Slope cutting and soil nail installation Row H + Row I (24 Nos Soil nails)	0	13-Oct-20 A	23-Oct-20 A		WD (6d)																		
	S8P8a-2180	Slopeworks for KS46 - Slope cutting and soil nail installation Row F + Row G (36 Nos Soil nails)	15	24-Oct-20 A	12-Nov-20	-1	WD (6d)																		
	S8P8a-2190	Slopeworks for KS46 - Slope cutting and soil nail installation Row D + Row E (56 Nos Soil nails)	22	13-Nov-20	08-Dec-20	-1	WD (6d)																		
	S8P8a-2192	Slopeworks for KS46 - Slope cutting and soil nail installation Row B + Row C (77 Nos Soil nails)	27	09-Dec-20	12-Jan-21	-1	WD (6d)																		
	S8P8a-2200	Slopeworks for KS46 - Slope cutting and soil nail installation Row A (44 Nos Soil nails)	18	13-Jan-21	02-Feb-21	-1	WD (6d)																		
	S8P8a-2498	Construct & maintain Temporary drainage	42	11-Jun-20 A	14-Dec-20	-96	WD (6d)																		
	S8P8a-2500	Excavation for retaining wall KW06 bay 8 - bay 13 (1833m3)	0	11-Jun-20 A	06-Oct-20 A		WD (6d)																		
	S8P8a-2502	Construction of retaining wall KW06 bay 8 - bay 13 (900m3)	42	07-Jul-20 A	14-Dec-20	-96	WD (6d)																		
	S8P8a-2538	Construct & maintain Temporary drainage	195	04-Nov-20	03-Jul-21	-96	WD (6d)																		
	S8P8a-2540	Excavation for retaining wall KW06 bay 14 - bay 21 (2444m3)	100	04-Nov-20	06-Mar-21	-79	WD (6d)																		
	S8P8a-2542	Construction of retaining wall KW06 bay 14 - bay 21 (1200m3)	160	15-Dec-20	03-Jul-21	-96	WD (6d)																		
	S8P8a-2598	Construct & maintain Temporary drainage	158	18-Nov-20	02-Jun-21	-96	WD (6d)																		
	S8P8a-2600	Excavation for retaining wall KW05 bay 10 - bay 16 (2139m3)	90	18-Nov-20	09-Mar-21	-96	WD (6d)																		
	S8P8a-2602	Construction of retaining wall KW05 bay 10 - bay 16 (1050m3)	140	09-Dec-20	02-Jun-21	-96	WD (6d)																		
	Portion 8b in Area A (Soil Treatment & Install Watermains by Trenchless / Open Trench Method)																								
	Preparation work/Tree Survey/Site Clearance/GI																								
S8P8b-1010	Site Clearance	90	27-Oct-20	11-Feb-21	-24	WD (6d)																			
S8P8b-1015	Ground investigation (0 / 3 GI completed)	18	22-Jan-21	11-Feb-21	81	WD (6d)																			
Section 10A																									
S10A-1011	Removal of Existing CLP Facilities (EWN No. 018)	0		25-Oct-20	2265	CD (7d)																			
Portion 4 in Area J (Soil Treatment & Temp. Noise Barriers along Castle Peak Road)																									
Preparation work/Tree Survey/Site Clearance/GI																									
S10AP4-0010	Tree survey and prepare tree felling and transplant report	0	17-Apr-20 A	11-May-20 A		WD (6d)																			
S10AP4-0020	Site clearance	0	05-Mar-20 A	09-Apr-20 A		WD (6d)																			
S10AP4-0030	Environmental ground investigation and lab test (3 EGI) (another 2 EGI in other portion represent part of this portion)	0	14-Apr-20 A	29-Apr-20 A		WD (6d)																			
S10AP4-0040	Prepare Arsenic Assessment Report	0	30-Apr-20 A	18-May-20 A		WD (6d)																			
S10AP4-0050	Arsenic Treatment Plan	0	30-Apr-20 A	18-May-20 A		WD (6d)																			
KD9 - Complete the temporary noise barriers along Castle Peak Road in Area T1, T2, T3, H, H1, I, J,																									
S10AP4-2000	Construction of Slope Drainage in Area J (103m) along Castle Peak Road	0	25-Aug-20 A	05-Sep-20 A		CD (7d)																			
Section 11																									
Portion 6b in Area B (Soil Treatment & Operation of HAC Soil Treatment Plant)																									
S11P6b-1000	Planned completion of KD4 - Portion 6b	0		03-Nov-20	33	CD (7d)																			
Preparation work/Tree Survey/Site Clearance/GI																									
S11P6b-1020	Site Clearance	0	20-Feb-20 A	26-Feb-20 A		WD (6d)																			
KD4 - Setting up and T&C of the High Arsenic-containing Soil Treatment Plant																									
S11P6b-2005	Construct & maintain Temporary drainage	1323	05-May-20 A	14-Apr-25	217	WD (6d)																			
S11P6b-2010	Set up, testing and commissioning high arsenic-containing soil treatment plant (KD4)	7	05-May-20 A	03-Nov-20	-129	WD (6d)																			
Operation and Dismantling of the Soil Treatment Plant																									
S11P6b-3010	Provide treatment to high arsenic-containing soil	1073	04-Nov-20	20-Jun-24	-129	WD (6d)																			
Section 12A																									



Build King – Richwell Engineering
Joint Venture

Planned Work

Critical Work

Actual Work

Milestone

Milestone Critical

Summary LOE

Summary LOE Critical

ND/2019/01 - 3 Month Rolling Programme (2020-10)

Data Date: 25-Oct-20

Run Date:10-Nov-20

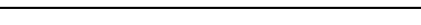
Project ID: ND201901-RP-4
Lauyout: ND201901-3MRP with logo
Page 8 of 13

THE 3-MONTH ROLLING PROGRAMME

Date	Revision	Checked	Approved
25-Oct-20	Rev.0	JC	BY

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	7	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17	24						
Portion 10b in Area L1 (Soil Treatment, Drainage & Roadwork)																														
Preparation work/Tree Survey/Site Clearance/GI																														
S12P10b-1005	Resumption date from suspension of works at Portion 10b (EWN 13)	0		25-Oct-20	703	CD (7d)	◆ Resumption date from suspension of works at Portion 10b (EWN 13)																							
S12P10b-1010	Tree survey and prepare tree felling and transplant report	48	20-Jul-20 A	21-Dec-20	522	WD (6d)																								
S12P10b-1020	Site Clearance	48	22-Dec-20	22-Feb-21	522	WD (6d)																								
S12P10b-1035	Environmental ground investigation and laboratory test (2 of 2 EGI completed)	0	19-May-20 A	29-May-20 A		WD (6d)																								
Section 13																														
S13-1015	Late Possession of remaining part of Portion 2 for soil nail works (CNE No. 008) (EWN No. 006)	0		10-Oct-20 A		CD (7d)	◆ Late Possession of remaining part of Portion 2 for soil nail works (CNE No. 008) (EWN No. 006)																							
Portion 2 in Area N (Soil Treatment, Slope, Drainage & Pak Shek Au Junction)																														
Preparation work/Tree Survey/Site Clearance/GI																														
S13P2-1012	Approval & Acceptance of Tree Felling Application	24	23-Jul-20 A	17-Nov-20	289	CD (7d)																								
S13P2-1018	Site clearance for existing slope feature 2SE-B/CR148	6	18-Nov-20	24-Nov-20	235	WD (6d)																								
S13P2-1020	Implement TTMS	12	27-Oct-20	09-Nov-20	182	WD (6d)																								
S13P2-1030	Site clearance	60	10-Nov-20	21-Jan-21	182	WD (6d)																								
S13P2-1035	Ground investigation (0 / 2 GI completed)	6	10-Oct-20 A	02-Nov-20	202	WD (6d)																								
S13P2-1040	Environmental ground investigation and laboratory test(3 EGI)	30	16-Oct-20 A	30-Nov-20	224	WD (6d)																								
S13P2-1045	Verification of Ground Condition & Design Review by Project Manager	60	03-Nov-20	01-Jan-21	251	CD (7d)																								
Soil Treatment																														
S13P2-2010	Remove soil (original assumed 10854m3) (0 / 3 EGI completed, interim soil to be excavated / treated : 0m3 / 0m3)	32	22-Jan-21*	03-Mar-21	182	WD (6d)																								
Civil Work																														
S13P2-3000	Construct & maintain Temporary drainage	1106	02-Jan-21	25-Sep-24	185	WD (6d)																								
S13P2-3005.1	Existing feature 2SE-B/CR148 - Mobilisation for Soil nail works	12	02-Jan-21	15-Jan-21	205	WD (6d)																								
S13P2-3005.2	Existing feature 2SE-B/CR148 - Soil nail installation Row L + Row M (41 Nos Soil nails)	36	16-Jan-21	02-Mar-21	205	WD (6d)																								
Portion 7 in Area N (Soil Treatment, Drainage & Roadwork)																														
Preparation work/Tree Survey/Site Clearance/GI																														
S13P7-1002	Unexpected Long Process for Approval of Tree Felling Application of Portion 7 (CNE No. 013)	0		07-Oct-20 A		CD (7d)	◆ Unexpected Long Process for Approval of Tree Felling Application of Portion 7 (CNE No. 013)																							
S13P7-1005	Approval & Acceptance of Tree Felling Application	0	30-May-20 A	07-Oct-20 A		CD (7d)																								
S13P7-1010	Site clearance	5	06-Apr-20 A	31-Oct-20	646	WD (6d)																								
S13P7-1030	Prepare Arsenic Assessment Report	23	16-Jul-20 A	21-Nov-20	592	WD (6d)																								
S13P7-1040	Arsenic Treatment Plan	36	23-Nov-20	06-Jan-21	592	WD (6d)																								
Soil Treatment																														
S13P7-2010	Remove soil (original assumed 316m3) (3 / 3 EGI completed, interim soil to be excavated / treated : 1350m3 / 900m3)	30	07-Jan-21*	10-Feb-21	592	WD (6d)																								
Civil Work																														
Underground Utilities																														
S13P7-3000	Construct & maintain Temporary drainage	737	07-Jan-21	05-Jul-23	592	WD (6d)																								
Portion 6a & 5 in Area N (Soil Treatment, Noise Barrier, Drainage & Roadwork)																														
Preparation work/Tree Survey/Site Clearance/GI																														
S13P6a-1002	Removal of Existing CLP Facilities (EWN No. 018)	0		25-Oct-20	1081	CD (7d)	◆ Removal of Existing CLP Facilities (EWN No. 018)																							
S13P6a-1015	Ground investigation (0 / 1 GI completed)	0	25-Aug-20 A	29-Sep-20 A		WD (6d)																								
S13P6a-1025	Pre-drilling for Noise Barriers	0	17-Jun-20 A	08-Jul-20 A		WD (6d)																								
S13P6a-1026	Trial pit for Dongjiang watermains	0	18-Jun-20 A	29-Jun-20 A		WD (6d)																								

Activity ID		Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	October 2020					November 2020				December 2020				January 2021				
								7	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17	24
	S13P6a-1030	Prepare Arsenic Assessment Report	36	27-Oct-20	07-Dec-20	805	WD (6d)																		
	S13P6a-1040	Arsenic Treatment Plan	36	08-Dec-20	21-Jan-21	805	WD (6d)																		
Soil Treatment																									
	S13P6a-2010	Remove soil (original assumed 566m3) (1 / 1 EGI completed, interim soil to be excavated / treated : 0m3 / 0m3)	30	22-Jan-21	01-Mar-21	805	WD (6d)																		
Civil Work																									
	S13P6a-3000	Construct & maintain Temporary drainage	577	20-Oct-20 A	07-Oct-22	805	WD (6d)																		
	S13P6a-3010	Noise barrier NB08 foundation (revised according to CSD) (12 nos. pre-bored H-pile)	90	20-Oct-20 A	11-Feb-21	877	WD (6d)																		
Section 14																									
Portion 10a in Area H1 (Soil Treatment, UU Diversion & Construction Access to MWSC)																									
KD5 - Provision of construction access in Area H1 and between Area H1 and Multi-Welfare Services Com																									
	S14K5-1001	Late Possession of Site of Part of Portions 7 and 10a (in Area H, H1, T1, T2 & T3) (CNE No. 001)	0		25-Oct-20	-92	CD (7d)																		
	S14K5-1002	Opening of Cycle Track at Portion 10a (EWN No. 017)	0		25-Oct-20	-43	CD (7d)																		
	S14K5-1003	Unexpected Long Process for Approval of Tree Felling Application of Portion 7 and 10a (CNE No. 013)	0		07-Oct-20 A		CD (7d)																		
	S14K5-1004	Excavation Permit (XP) for New Cycle Path (EWN No. 021)	0		25-Oct-20	-39	CD (7d)																		
Soil Treatment																									
	S14K5-1010	Remove soil (original assumed 2143m3) (1 / 1 EGI completed, interim soil to be excavated and treated : 0m3)	0	09-Oct-20 A	21-Oct-20 A		WD (6d)																		
	S14K5-1020	Backfilling to the formation levels	42	13-Nov-20	04-Jan-21	-92	WD (6d)																		
Civil Works																									
	S14K5-2000	Construction of Access in Area H1 (70m) at Castle Peak Road Junction (KD5)	16	27-Oct-20	13-Nov-20	-32	WD (6d)																		
	S14K5-2002	Formation works for Access and u channel in Area H1 (50m)	34	22-Oct-20 A	04-Dec-20	-105	WD (6d)																		
	S14K5-2004	Construction of Access and u channel in Area H1 (50m)	36	05-Dec-20	19-Jan-21	-105	WD (6d)																		
	S14K5-2006	Construct 10m wide precast concrete slab Temporary access A1 to MWSC site	12	20-Jan-21	02-Feb-21	-104	WD (6d)																		
	S14K5-2007	Divert temporary watermain in Area H for MWSC site and Area P	18	20-Jan-21	09-Feb-21	-104	WD (6d)																		
Portion 10a in Area H2 (Soil Treatment & Construction Access to MWSC)																									
KD6 - Provision of construction access in Area H2 and between Area H2 and Multi-Welfare Services Com																									
Soil Treatment																									
	S14K6-1010	Remove soil (original assumed 2827m3) (2 / 2 EGI completed, interim soil to be excavated and treated : 0m3)	0	07-Oct-20 A	21-Oct-20 A		WD (6d)																		
	S14K6-1020	Backfilling to the formation levels	42	19-Nov-20	09-Jan-21	-63	WD (6d)																		
Civil Works																									
	S14K6-2000	Formation works for Access and u channel in Area H2 (KD6)	30	22-Oct-20 A	30-Nov-20	-65	WD (6d)																		
	S14K6-2002	Construction of Access and u channel in Area H2	34	20-Jan-21	03-Mar-21	-105	WD (6d)																		
Portion 7 in Area P (Soil Treatment & KD3 - Tree Felling, General Site Clearance)																									
KD3 - Tree felling, general site clearance (including the berm removal / levelling and general site																									
	S14P7P-1000	Planned completion date of KD3	0		21-Dec-20	-61	CD (7d)																		
	S14P7P-1002	Unexpected Long Process for Approval of Tree Felling Application of Portion 7 (CNE No. 013)	0		07-Oct-20 A		CD (7d)																		
Preparation work																									
	S14P7P-1006	Approval and acceptance of tree felling application	0	30-May-20 A	07-Oct-20 A		CD (7d)																		
	S14P7P-1020	General site clearance (tree felling and remaining clearance)	5	07-Oct-20 A	31-Oct-20	-42	WD (6d)																		
	S14P7P-1021	Additional site clearance due to increase in total nos. of trees to be felled at Portions 7 & 10a (EWN No. 012)	14	07-Oct-20 A	11-Nov-20	-51	WD (6d)																		
	S14P7P-1023	Berm removal and General Site levelling	34	12-Nov-20	21-Dec-20	-51	WD (6d)																		
	S14P7P-1026	Removal of Existing CLP Facilities (EWN No. 018)	0		25-Oct-20	1423	CD (7d)																		



Planned Work

Critical Work

Actual Work

Milestone

Milestone Critical

Summary LOE

Summary LOE Critical

ND/2019/01 - 3 Month Rolling Programme (2020-10)

Data Date: 25-Oct-20

Run Date: 10-Nov-20


Project ID: ND201901-RP-4

Layout: ND201901-3MRP with logo

Page 10 of 13

THE 3-MONTH ROLLING PROGRAMME			
Date	Revision	Checked	Approved
25-Oct-20	Rev.0	JC	BY

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	October 2020					November 2020				December 2020					January 2021			
							7	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17	24
S14P7P-1028	Site formation for Construction of Alternative Po Lau Road	0	10-Jul-20 A	17-Jul-20 A		WD (6d)																		
Ground Investigation																								
S14P7P-1120	Prepare Arsenic Assessment Report	20	27-Oct-20	18-Nov-20	1145	WD (6d)																		
S14P7P-1130	Arsenic Treatment Plan	20	19-Nov-20	11-Dec-20	1145	WD (6d)																		
Portion 7 in Area S3 (Soil Treatment & Operation of HAC Soil Treatment Plant)																								
S14P7S3-1000	Planned completion date of KD4	0		21-Jan-21	-46	CD (7d)																		◆ Planned o
Preparation work/Tree Survey/Site Clearance/GI																								
S14P7S3-1015	Approval & Acceptance of Tree Felling Application	0	30-May-20 A	07-Oct-20 A		CD (7d)																		
S14P7S3-1018	Tree Felling and General site clearance	18	07-Oct-20 A	16-Nov-20	1161	WD (6d)																		
S14P7S3-1030	Environmental ground investigation and lab test (3 EGI) (another 1 EGI in other portion represent part of this portion)	0	09-May-20 A	28-May-20 A		WD (6d)																		
S14P7S3-1040	Prepare Arsenic Assessment Report	20	27-Oct-20	18-Nov-20	1139	WD (6d)																		
S14P7S3-1050	Arsenic Treatment Plan	20	19-Nov-20	11-Dec-20	1139	WD (6d)																		
KD4 - Setting up and T&C of the High Arsenic-containing Soil Treatment Plant																								
S14P7S3-2010	Set up, testing and commissioning high arsenic-containing soil treatment plant (KD4)	72	27-Oct-20	21-Jan-21	-37	WD (6d)																		
Operation and Dismantling of the Soil Treatment Plant																								
S14P7S3-3010	Provide treament to high arsenic-containing soil	1084	22-Jan-21*	17-Sep-24	-34	WD (6d)																		
Portion 16 in Area Q (Soil Treatment & Construction of CLC)																								
S14P16-1002	Late Possession of Site of Portion 16 (CNE No. 011)	0		25-Oct-20	-73	CD (7d)																		
KD7 - Complete the construction works of Community Liaison Centre in Area Q																								
S14P16-1010	Site Clearance	60	27-Oct-20	07-Jan-21	-61	WD (6d)																		
S14P16-1020	Site Formation for CLC construction	50	08-Jan-21	10-Mar-21	-61	WD (6d)																		
S14P16-3010	Design submission for construction of Community Liaison Centre (CLC) using MiC method	48	25-Oct-20	11-Dec-20	-96	CD (7d)																		
S14P16-3020	Approval of design for construction of CLC	60	12-Dec-20	09-Feb-21	-96	CD (7d)																		
Portion 7 in Area T1, T2, T3 (Soil Treatment & Temp. Noise Barrier along Castle Peak Road)																								
Preparation work/Tree Survey/Site Clearance/GI																								
S14P7T-1001	Late Possession of Site of Part of Portions 7 and 10a (in Area H, H1, T1, T2 & T3) (CNE No. 001)	0	25-Oct-20*		-235	CD (7d)																		
S14P7T-1020	Site Clearance	30	27-Oct-20	30-Nov-20	-192	WD (6d)																		
S14P7T-1022	Approval & Acceptance of Tree felling Application	0	30-May-20 A	22-Oct-20 A		CD (7d)																		
S14P7T-1024	Tree felling works	30	27-Oct-20	30-Nov-20	-138	WD (6d)																		
Arsenic Assessment																								
S14P7T-1025	Ground investigation (0 / 1 GI completed)	12	24-Nov-20	07-Dec-20	-144	WD (6d)																		
S14P7T-1040	Prepare Arsenic Assessment Report	36	08-Dec-20	21-Jan-21	1287	WD (6d)																		
S14P7T-1050	Arsenic Treatment Plan	36	22-Jan-21	08-Mar-21	1287	WD (6d)																		
Land Contamination Assessment																								
S14P7T-1061	Site investigation (SI) (inspection pits, boreholes and sampling)	36	03-Nov-20	14-Dec-20	-192	WD (6d)																		
S14P7T-1062	Laboratory testing	12	15-Dec-20	30-Dec-20	-192	WD (6d)																		
S14P7T-1063	Submit and acceptance of Contamination Assessment Report (CAR) & Remediation Action Plan (RAP)	30	31-Dec-20	04-Feb-21	-192	WD (6d)																		
Portion 6a in Area S2 (Soil Treatment)																								
Preparation work/Tree Survey/Site Clearance/GI																								
S14P6a-1010	Tree survey and prepare tree felling and transplant report	0	14-Apr-20 A	08-Jun-20 A		WD (6d)																		
S14P6a-1030	Environmental ground investigation and laboratory test(1 / 1 EGI in other portion represent this portion)	0	15-Jun-20 A	27-Jul-20 A		WD (6d)																		
S14P6a-1040	Prepare Arsenic Assessment Report	36	14-Jan-21*	27-Feb-21	1234	WD (6d)																		



ND/2019/01 - 3 Month Rolling Programme (2020-10)

Data Date: 25-Oct-20 Run Date: 10-Nov-20

Project ID: ND201901-RP-4
 Layout: ND201901-3MRP with logo
 Page 11 of 13

THE 3-MONTH ROLLING PROGRAMME			
Date	Revision	Checked	Approved
25-Oct-20	Rev.0	JC	BY

Planned Work
 Critical Work
 Actual Work
 Milestone
 Milestone Critical
 Summary LOE
 Summary LOE Critical


Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	7	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17	24						
Portion 6b in Area S2 (Soil Treatment)																														
Preparation work/Tree Survey/Site Clearance/GI																														
S14P6b-1010	Tree survey and prepare tree felling and transplant report	0	14-Apr-20 A	03-Jun-20 A		WD (6d)																								
S14P6b-1015	Approval & Acceptance of Tree Felling Application	10	16-Jun-20 A	03-Nov-20	1460	CD (7d)																								
S14P6b-1025	Ground investigation (0 / 1 GI completed)	6	04-Nov-20	10-Nov-20	1286	WD (6d)																								
S14P6b-1030	Environmental ground investigation and laboratory test(3 EGI in other portion represent this portion)	0	15-Jun-20 A	27-Jul-20 A		WD (6d)																								
Portion 1f in Area R (Soil Treatment & Construction of Interim CLC & Road A1)																														
Preparation work/Tree Survey/Site Clearance/GI																														
S14P1f-1015	Approval & Acceptance of Tree Felling Application	0	21-Jul-20 A	07-Oct-20 A		CD (7d)																								
S14P1f-1020	Site Clearance	20	06-Jan-20 A	18-Nov-20	1151	WD (6d)																								
S14P1f-1030	Environmental ground investigation and laboratory test(2 EGI)	15	22-Oct-20 A	12-Nov-20	1151	WD (6d)																								
S14P1f-1040	Prepare Arsenic Assessment Report	36	13-Nov-20	24-Dec-20	1151	WD (6d)																								
S14P1f-1050	Arsenic Treatment Plan	36	28-Dec-20	08-Feb-21	1151	WD (6d)																								
Interim Community Liaison Centre (CLC)																														
S14P1f-2010	Submissions and approval for proposed interim CLC	0	09-Mar-20 A	18-Mar-20 A		CD (7d)																								
S14P1f-2020	Construction of interim CLC	0	14-Apr-20 A	18-May-20 A		WD (6d)																								
S14P1f-2030	Occupation of interim CLC	195	18-May-20 A	07-May-21	1243	CD (7d)																								
Portion 9c in Area S1 (Soil Treatment)																														
Preparation work/Tree Survey/Site Clearance/GI																														
S14P9c-1010	Tree survey and prepare tree felling and transplant report	5	31-Jul-20 A	31-Oct-20	-137	WD (6d)																								
S14P9c-1020	Forming site access and site clearance	14	17-Jun-20 A	11-Nov-20	-146	WD (6d)																								
S14P9c-1030	Environmental ground investigation and laboratory test(3 / 3 EGI completed)	0	02-Jul-20 A	21-Jul-20 A		WD (6d)																								
S14P9c-1040	Prepare Arsenic Assessment Report	28	16-Oct-20 A	27-Nov-20	1297	WD (6d)																								
S14P9c-1050	Arsenic Treatment Plan	36	28-Nov-20	12-Jan-21	1297	WD (6d)																								
Portion 3 (Soil Treatment & Civil Works)																														
Preparation work/Tree Survey/Site Clearance/GI																														
S14P3-1100	Tree survey and prepare tree felling and transplant report	60	27-Oct-20	07-Jan-21	1001	WD (6d)																								
S14P3-1102	Approval & Acceptance of Tree Felling Application	30	08-Jan-21	11-Feb-21	1001	WD (6d)																								
Portion 5 (Soil Treatment & Civil Works)																														
Preparation work/Tree Survey/Site Clearance/GI																														
S14P5-1100	Tree survey and prepare tree felling and transplant report	0	08-Apr-20 A	04-Jun-20 A		WD (6d)																								
S14P5-1102	Approval & Acceptance of Tree Felling Application	15	20-Jun-20 A	12-Nov-20	1052	WD (6d)																								
S14P5-1104	Site Clearance	30	26-Feb-20 A	30-Nov-20	1037	WD (6d)																								
S14P5-1106	Environmental ground investigation and laboratory test(2 / 2 EGI completed)	0	15-May-20 A	18-May-20 A		WD (6d)																								
S14P5-1108	Prepare Arsenic Assessment Report	30	01-Dec-20	07-Jan-21	1037	WD (6d)																								
S14P5-1110	Arsenic Treatment Plan	30	01-Dec-20	07-Jan-21	1037	WD (6d)																								
Section 15																														
S15-1000	Presevation and protection of tree	1648	06-Dec-19 A	29-Apr-25	252	CD (7d)																								
Section 20 (Subject to excision)																														
S20-1012	Part of Portion 2 Occupied by YL/2015/01 (EWN No. 016)	0	25-Oct-20		81	CD (7d)	◆ Part of Portion 2 Occupied by YL/2015/01 (EWN No. 016)																							
S20-1016	Opening Cycle Track at Portion 2 (EWN No. 017)	0		25-Oct-20	632	CD (7d)	◆ Opening Cycle Track at Portion 2 (EWN No. 017)																							
S20-1020	Suspension of Works at Part of Portion 2 (EWN No. 019)	0		25-Oct-20	502	CD (7d)	◆ Suspension of Works at Part of Portion 2 (EWN No. 019)																							



Build King – Richwell Engineering
Joint Venture

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Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	October 2020					November 2020				December 2020					January 2021					
							7	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17	24		
Construction of Pedestrian Subway cum Cycle Track Stage 1 (South of Castle Peak Road)																										
Foundation and ELS																										
S20S1-1010	Site investigation (22 SI holes)	60	15-Jan-21	29-Mar-21	-1	WD (6d)																				
Section 21 (Subject to excision)																										
S21-1011	Late Possession of Site Portion 11a (Dillis Corner Garden) (CNE No. 012, EWN No. 015)	0		25-Oct-20	1609	CD (7d)																				
Portion 1d in Area M (Soil Treatment & Demolition of Existing CLC)																										
Preparation work																										
S21P1d-0005	Late Possession of Site of Portions 1d (CNE No. 009)	0		25-Oct-20	1541	CD (7d)																				
S21P1d-0010	Demolition of existing Community Liaison Centre (CLC)	0	27-May-20 A	05-Jun-20 A		WD (6d)																				
Portion 11a in Area M (Soil Treatment)																										
Preparation work																										
S21P11a-10005	Late Possession of Site of Portions 11a (CNE No. 009)	0		25-Oct-20	1535	CD (7d)																				
8.0 - PMI / CE																										
PC-1002	Remove the existing un-wanted vegetation in Area 1.3 within Portion 7 (PMI 001, CE 001)	0	15-Feb-20 A	18-Feb-20 A		WD (6d)																				
PC-1003	Remove the existing un-wanted vegetation in Area 2 within Portion 10a (PMI 001, CE 001)	0	03-Feb-20 A	12-Feb-20 A		WD (6d)																				
PC-1004	Remove the existing un-wanted vegetation in Area 3 within Portion 4 (PMI 001, CE 001)	0	05-Feb-20 A	12-Feb-20 A		WD (6d)																				
PC-1006	Site clearance and ground investigation for SALRS at Wa Shan Site (PMI 002, CE 002)	0	09-Jul-20 A	15-Dec-20 A		WD (6d)																				
PC-1007	Design and Construction of Alternative Access road for Po Lau Road (PMI 017)	72	10-Jul-20 A	21-Jan-21	1068	WD (6d)																				
PC-1008	Additional Tree Survey at the Vested Land of MTRCL around future Kwu Tung Station (PMI 027, CE 024)	48	27-Oct-20	21-Dec-20	1789	WD (6d)																				
PC-1009	Provision of Soil & Water testing at Wa Shan Site under SALRS (PMI 028, CE 025)	30	27-Oct-20	30-Nov-20	1807	WD (6d)																				
9.0 - Major EWN / CNE																										
EC-1001	Late Possession of Site of Part of Portions 7 and 10a (in Area H, H1, T1, T2 & T3) (CNE No. 001)	0	06-Apr-20 A	25-Oct-20	-235	CD (7d)																				
EC-1004	Late Possession of Site of Part of Portion 5 (in Area C1) (CNE No. 004)	0	06-Apr-20 A	25-Oct-20	272	CD (7d)																				
EC-1005	Late Possession of Site of Portion 3 (CNE No. 005)	0	06-Apr-20 A	25-Oct-20	489	CD (7d)																				
EC-1007	Late Possession of remaining part of Portion 2 for soil nail works (CNE No. 008) (EWN No. 006)	0	06-Jan-20 A	10-Oct-20 A		CD (7d)																				
EC-1008	No Access to Part of Portion 8b near Sheung Shui Slaughter House (EWN No. 007)	0	06-May-20 A	25-Oct-20	82	CD (7d)																				
EC-1013	Late Possession of Site of Portions 9b & 9d (CNE No. 007) (EWN No. 011)	0	06-Jul-20 A	25-Oct-20	-110	CD (7d)																				
EC-1014	Part of Portion 2 Occupied by YL/2015/01 (EWN No. 016)	0	23-Dec-19 A	25-Oct-20	81	CD (7d)																				
EC-1015	Late Possession of Site of Portions 1d & 11a (CNE No. 009)	0	06-Jul-20 A	25-Oct-20	1535	CD (7d)																				
EC-1016	Suspension of Works at Portion 10b (EWN No. 013)	0	02-Jul-20 A	25-Oct-20	703	CD (7d)																				
EC-1017	Short of Accredited Laboratory for TCLP Test of Arsenic (EWN No. 014)	0	10-Jul-20 A	25-Oct-20	-147	CD (7d)																				
EC-1018	Opening of Cycle Track at Portion 2 and 10a (EWN No. 017)	0	04-Aug-20 A	25-Oct-20	-129	CD (7d)																				
EC-1019	Late Possession of Site Portion 11a (Dillis Corner Garden) (CNE No. 012, EWN No. 015)	0	31-Jul-20 A	25-Oct-20	1609	CD (7d)																				
EC-1021	Removal of Existing CLP Facilities - (both Overhead and Underground) within Portion 5, 6a, 7, 9b and 10a (EWN No. 018)	0	02-Apr-20 A	25-Oct-20	-129	CD (7d)																				
EC-1023	Late Possession of Site of Portion 16 (CNE No. 011)	0	02-Aug-20 A	25-Oct-20	-73	CD (7d)																				
EC-1024	Unexpected Long Process for Approval of Tree Felling Application of Portion 7 and 10a (CNE No. 013) (EWN No. 012)	0	21-May-20 A	07-Oct-20 A		CD (7d)																				
EC-1025	Handling of Unlawful Occupied Property Affected by the Works (CNE No. 014)	0	21-Aug-20 A	25-Oct-20	2265	CD (7d)																				
EC-1026	Handling of Unlawful Occupied Property Affected by the Works within the Site (CNE No. 015)	0	31-Aug-20 A	25-Oct-20	2265	CD (7d)																				
EC-1027	Suspension of Works at Part of Portion 2 (CNE No. 016) (EWN No. 019)	0	31-Aug-20 A	25-Oct-20	-42	CD (7d)																				
EC-1028	Insufficient Stockpile Area (EWN No. 020)	0	15-Sep-20 A	25-Oct-20	244	CD (7d)																				
EC-1029	Excavation Permit (XP) for New Cycle Path (EWN No. 021)	0	19-Oct-20 A	25-Oct-20	-129	CD (7d)																				



Build King – Richwell Engineering
Joint Venture

Planned Work

Critical Work

Actual Work

◆

◆ Milestone

◆

◆ Milestone Critical

Summary LOE

Summary LOE Critical

ND/2019/01 - 3 Month Rolling Programme (2020-10)

Data Date: 25-Oct-20

Run Date:10-Nov-20





Project ID: ND201901-RP-4

Lauyout: ND201901-3MRP with logo

Page 13 of 13

THE 3-MONTH ROLLING PROGRAMME			
Date	Revision	Checked	Approved
25-Oct-20	Rev.0	JC	BY

Activity ID	Activity Name	Original Duration	Remaining Duration	BL Project Start	BL Project Finish	Start	Finish	Activity % Complete	Total Float	2020			2021
										Oct	Nov	Dec	Jan
ND-2019-02 KTNDA Phase 1:Roads and Drains between Kwu Tong North New Development & Shek Wu Hui 0331													
Programme Data													
Access Dates													
PD1132	Portion 11 (183d after Starting Date) (18 Aug 20)	0	0	18-Aug-20		30-Oct-20*		0%	-73				
Preliminaries													
Subletting													
Specialist Subcontractors													
SC-1080	Award of subcontract - Pipework, Roadwork, Footbridge, Structure	0	0		13-Jul-20		30-Oct-20	0%	-37				
SC-1090	Award of subcontract - Pipejacking	0	0		12-Aug-20		28-Nov-20	0%	-31				
Statutory Submission													
HyD													
XP-1010	Excavation permit (XP) application for Portion 4 & 5	70	30	16-Jun-20	24-Aug-20	16-Jun-20 A	28-Nov-20	57.14%	3				
Site Offices & Preliminaries													
Site Offices & Preliminaries													
Temporary office for RE													
SP-1000b	Maintenance of container office	1739	1520	25-Mar-20	27-Dec-24	25-Mar-20 A	27-Dec-24	12.59%	354				
Tree Survey													
TS-1020	Tree Survey Works - Re-submission to PM	30	0	21-Aug-20	25-Sep-20	22-Sep-20 A	30-Oct-20 A	100%					
TS-1030	Tree Survey Works - Submission to EPD	60	60			30-Oct-20	09-Jan-21	0%	0				
Works in Section 1													
Portion 1 - Road & Drains													
Pre-construction works													
P1-1030	Inspection Pit	40	22	21-Jul-20	04-Sep-20	08-Sep-20 A	24-Nov-20	45%	-60				
P1-1040	Coordination with UU owner to arrange diversion / abandon	30	30	05-Sep-20	12-Oct-20	25-Nov-20	30-Dec-20	0%	-60				
P1-1050	Environmental GI & Submission of Lab Report (EGI-9G-01)	21	21	21-Jul-20	18-Aug-20	30-Oct-20	27-Nov-20	0%	-26				
P1-1580	Removal of Existing Stormwater Drains / channels next to Dill Corner Garden	18	18	23-Sep-20	15-Oct-20	12-Dec-20	04-Jan-21	0%	-60				
Drainage Installation from KT6002 to KT6005 & KT2003 by Pipejacking													
Inspection shaft at SMH_KT6003													
ELS													
P1-1140	Set up TTAat Castle Peak Road footpath	3	3	13-Oct-20	15-Oct-20	31-Dec-20	04-Jan-21	0%	-60				
P1-1150	ELS for inspection shaft at SMH_KT6003	24	24	16-Oct-20	13-Nov-20	05-Jan-21	01-Feb-21	0%	-60				
Inspection shaft at SMH_KT6004													
ELS													
P1-1220	Set up TTAat Castle Peak Road Footpath	3	3	13-Oct-20	15-Oct-20	31-Dec-20	04-Jan-21	0%	-60				
P1-1230	ELS for inspection shaft at SMH_KT6004	24	24	16-Oct-20	13-Nov-20	05-Jan-21	01-Feb-21	0%	-60				
Sewer Installation from KT1.23 to KT1.26 by Pipejacking													
Receiving shaft at FMH_KT1.26													
ELS													
P1-1060	Set up TTAat Castle Peak Road carriageway (westbound)	3	3	13-Oct-20	15-Oct-20	31-Dec-20	04-Jan-21	0%	-60				
P1-1070	ELS for receiving shaft at FMH_KT1.26	24	24	16-Oct-20	13-Nov-20	05-Jan-21	01-Feb-21	0%	-60				
Works in Section 2													
Portion 2 - Road & Drains													

Primary Baseline  Actual Work  Remaining Activity	 Baseline Milestone  Milestone	ND/2019/02 <h3>3-Months Rolling Programme (Nov to Jan-2021)</h3>	<table border="1"> <tr> <th colspan="4">1128</th> </tr> <tr> <th>Date</th> <th>Revision</th> <th>Checked</th> <th>Approved</th> </tr> <tr> <td>30-Nov-20</td> <td>ND201902-DMP Ver.0</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table>	1128				Date	Revision	Checked	Approved	30-Nov-20	ND201902-DMP Ver.0						
1128																			
Date	Revision	Checked	Approved																
30-Nov-20	ND201902-DMP Ver.0																		

Chun Wo - Kwan Lee JOINT VENTURE										2 of 3			
Activity ID	Activity Name	Original Duration	Remaining Duration	BL Project Start	BL Project Finish	Start	Finish	Activity % Complete	Total Float	2020			2021
										Oct	Nov	Dec	Jan
Pre-construction works													
P2-1030	Inspection Pit	40	21	25-Aug-20	12-Oct-20	08-Sep-20 A	23-Nov-20	47.5%	-3				
P2-1040	Coordination with UU owner to arrange diversion / abandon	30	30	13-Oct-20	17-Nov-20	24-Nov-20	29-Dec-20	0%	-3				
P2-1050	Environmental GI & Submission of Lab report	21	13	25-Aug-20	17-Sep-20	21-Sep-20 A	13-Nov-20	38.1%	-26				
P2-1060	Borehole (2nos.), Submissoin & Approval of GI Report	74	74	08-Sep-20	05-Dec-20	30-Oct-20	26-Jan-21	0%	-26				
Portion 3 - Road & Drains													
Pre-construction works													
P3-1030	Coordination with UU owner to arrange diversion / abandon	30	0	30-Nov-20	05-Jan-21	19-Sep-20 A	30-Sep-20 A	100%					
Portion 4 - Road & Drains													
Pre-construction works													
P4-1030	Coordination with UU owner to arrange diversion / abandon	30	0	24-Oct-20	28-Nov-20	23-Sep-20 A	30-Sep-20 A	100%					
P4-1040	Environmental GI & submission of Lab report (PS:1.138)	30	30	05-Sep-20	12-Oct-20	30-Oct-20	03-Dec-20	0%	184				
P4-1050	Trial Pit (3nos.), Submissoin & Approval of GI Report	60	60	05-Sep-20	17-Nov-20	30-Oct-20	09-Jan-21	0%	154				
Portion 5 - Sewage Rising Main													
P5-1050	Circulation & Approval of TTAs	20	27	10-Oct-20	03-Nov-20	08-Sep-20 A	30-Nov-20	0%	-2				
Sewage Rising Main Installation by Open Cut (CHA1047 to CHA1532)													
CHA1250 - CHA1336 (86m)													
P5-2000	Expose Utilities by Hand excavation	22	22	04-Nov-20	28-Nov-20	01-Dec-20	26-Dec-20	0%	1				
P5-2010	Sheet Pile installation	28	28	16-Nov-20	17-Dec-20	12-Dec-20	15-Jan-21	0%	1				
P5-2020	Soft Excavation to 1st strut level & Installation of strut S1	28	28	27-Nov-20	30-Dec-20	24-Dec-20	27-Jan-21	0%	1				
P5-2030	Soft Excavation to 2nd strut level & Installation of strut S2	30	30	09-Dec-20	14-Jan-21	07-Jan-21	10-Feb-21	0%	1				
P5-2040	Soft Excavation to F.L.; (approx. 6.5m depth)	32	32	21-Dec-20	28-Jan-21	19-Jan-21	27-Feb-21	0%	1				
CHA1336 - CHA1457 (121m)													
P5-2200	Expose Utilities by Hand excavation	30	30	24-Oct-20	28-Nov-20	27-Nov-20	02-Jan-21	0%	-2				
P5-2210	Sheet Pile installation	42	42	09-Nov-20	28-Dec-20	11-Dec-20	30-Jan-21	0%	-2				
P5-2220	Soft Excavation to 1st strut level & Installation of strut S1	42	42	23-Nov-20	12-Jan-21	26-Dec-20	17-Feb-21	0%	-2				
P5-2230	Soft Excavation to 2nd strut level & Installation of strut S2	46	46	07-Dec-20	30-Jan-21	11-Jan-21	08-Mar-21	0%	-2				
P5-2240	Soft Excavation to F.L.; (approx. 6.5m depth)	46	46	21-Dec-20	17-Feb-21	25-Jan-21	22-Mar-21	0%	-2				
Portion 7 - Kwu Tung North Sewage Pumping station													
Sewage Pumping Station													
Site Preparation													
P7-1001	Temporary haulroad	30	0	26-Aug-20	30-Sep-20	26-Aug-20 A	30-Sep-20 A	100%					
P7-1004	Initial Site Set Up and mobilizatoin (Temp. Power & Water, Wet Set, Wheel Wa	18	18	16-Sep-20	09-Oct-20	30-Oct-20	19-Nov-20	0%	38				
P7-1010	Environmental GI & Submission of Lap Report (PS:1.138)	24	0	18-Aug-20	18-Sep-20	21-Sep-20 A	30-Sep-20 A	100%					
P7-1030	Borehole (1 nos.), Submission & Approval of GI Report	66	66	07-Sep-20	26-Nov-20	30-Oct-20	16-Jan-21	0%	176				
Foundation													
P7-2000	Pre-Drilling (~11nos.)	18	18	08-Dec-20	30-Dec-20	15-Oct-20 A	31-Dec-20	0%	3				
P7-2010	Install H-pile (62 nos.; 1 pile / week/rig, 2 rigs)	186	186	30-Dec-20	13-Aug-21	02-Jan-21	14-Aug-21	0%	3				
Works in Section 3													
Portion 8 - Roads & Drains													
Pre-construction works													
Legend										1128			
Primary Baseline										Date	Revision		Checked
Actual Work										30-Nov-20	ND201902-DMP Ver.0		Approved
Remaining Activity													
ND/2019/02													
3-Months Rolling Programme (Nov to Jan-2021)													

Activity ID	Activity Name	Original Duration	Remaining Duration	BL Project Start	BL Project Finish	Start	Finish	Activity % Complete	Total Float	2020			2021
										Oct	Nov	Dec	Jan
P8-1050	Formation of Temporary Haul Road & Entrance to Portion 7 & Portion 10	30	2	26-Aug-20	30-Sep-20	21-Sep-20 A	31-Oct-20	93.33%	4				
Portion 9 - Footbridge													
Footbridge Construction													
Site Preparation													
P9-1020	Site Setup, Setup TTA & Plant Mobilization	18	0	14-Jul-20	04-Aug-20	21-Sep-20 A	31-Oct-20 A	100%					
P9-1520	Trial Pit (3nos. T60, T61 & T65) & Borehole (1nos.)	18	18	14-Jul-20	04-Aug-20	30-Oct-20	19-Nov-20	0%	239				
P9-1530	Submission & Approval of GI Report	60	60	04-Aug-20	15-Oct-20	20-Nov-20	30-Jan-21	0%	239				
1st Dry Season: Foundation Works													
P9-1030	Start of 1st Dry Season	0	0	01-Nov-20		01-Nov-20*		0%	0				
Piling works in Existing Feature: 2SE-B/FR107 (North River Embankment)													
P9-1050	Erection of temporary retaining wall (3m height; 63nos. concrete blocks)	3	0	02-Nov-20	04-Nov-20	30-Oct-20 A	30-Oct-20 A	100%					
P9-1060	Site formation to existing ground level (+5.2mPD)	10	10	05-Nov-20	16-Nov-20	05-Nov-20	17-Nov-20	0%	0				
P9-1070	Sheet pile (130nos.12m long ; 10nos./day/rig) (2rig)	7	7	17-Nov-20	24-Nov-20	17-Nov-20	25-Nov-20	0%	0				
P9-1080	Pre-Drilling (6 nos.) (4days/nos/rig) (3 rigs)	8	8	25-Nov-20	03-Dec-20	25-Nov-20	04-Dec-20	0%	0				
P9-1090	Pre-bored H-pile (12nos.42m long with 3m socket; 1nos./week/rig) (2 rigs)	36	36	04-Dec-20	16-Jan-21	04-Dec-20	18-Jan-21	0%	0				
P9-1100	Pile Load Test	8	8	17-Jan-21	26-Jan-21	18-Jan-21	27-Jan-21	0%	0				
P9-1110	ELS from +5.2 mPD to -0.7mPD (approx. 1000m3; 100m3/day)	10	10	26-Jan-21	06-Feb-21	27-Jan-21	08-Feb-21	0%	0				
Piling works Existing Feature: 2SE-B/FR104 (South River Embankment)													
P9-1190	Erection of temporary retaining wall (3m height; 63nos. concrete blocks)	3	0	05-Nov-20	07-Nov-20	30-Oct-20 A	30-Oct-20 A	100%					
P9-1200	Site formation to existing ground level (+5.2mPD)	10	10	05-Nov-20	16-Nov-20	05-Nov-20	17-Nov-20	0%	0				
P9-1210	Sheet pile (130nos.12m long ; 10nos./day/rig) (2rig)	7	7	17-Nov-20	24-Nov-20	17-Nov-20	25-Nov-20	0%	0				
P9-1220	Pre-Drilling (6 nos.) (4days/nos/rig) (3 rigs)	8	8	25-Nov-20	03-Dec-20	25-Nov-20	04-Dec-20	0%	0				
P9-1230	Pre-bored H-pile (12nos.42m long with 3m socket; 1nos./week/rig) (2 rigs)	36	36	04-Dec-20	16-Jan-21	04-Dec-20	18-Jan-21	0%	0				
P9-1240	Pile Load Test	8	8	17-Jan-21	26-Jan-21	18-Jan-21	27-Jan-21	0%	0				
P9-1250	ELS from +5.2 mPD to -0.7mPD (approx. 1000m3; 100m3/day)	10	10	26-Jan-21	06-Feb-21	27-Jan-21	08-Feb-21	0%	0				
Works in Section 4													
Portion 10 - Visitor Centre													
Pre-construction works													
P10-1010	Temporary haulroad	30	0	26-Aug-20	30-Sep-20	26-Aug-20 A	30-Oct-20 A	100%					
P10-1030	Borehole (1nos.), submission & approval of GI Report	66	66	15-Sep-20	15-Dec-20	30-Oct-20	29-Jan-21	0%	145				
Visitor Centre													
Foundation													
P10-2000	Pre-Drilling (~10nos.)	20	20	15-Dec-20	09-Jan-21	06-Oct-20 A	09-Jan-21	0%	0				
P10-2010	Install H-pile (61 nos.; 1 pile / week/rig, 2 rigs)	184	184	09-Jan-21	20-Aug-21	11-Jan-21	20-Aug-21	0%	0				

Kwu Tung North and Fanling North New Development Areas, Phase 1 : Development of Long Valley Nature Park

Project Programme of the Works

ID	Task Name	Duration	Start	Finish	Predecessors	Successors	Total Slack	Q3	Q4	2020	Q1	Q2	Q3	Q4	2021	Q1	Q2	Q3	Q4	2022	Q1	Q2	Q3	Q4	2023	Q1	Q2	Q3	Q4	2024	Q1
1	Contract Key Dates	0 days	Tue 10/12/19	Tue 10/12/19			1470 days																								
2	1.1 Contract Date	0 days	Tue 10/12/19	Tue 10/12/19			1470 days																								
3	1.2 Starting Date	1 day	Thu 19/12/19	Thu 19/12/19		57,59,60,61,40,5,55,43,45,42,41,3 days,156,6FS+30 days,7FS+60 days,8FS+121 days,11FS+212 days,13FS+304 days,17,16FS+396 days,53,54,20FS+851 days,21FS+1034 days,22FS+1003 days,24FS+273 days,25FS+394 days,26FS+528 days,27FS+592 days,28FS+...	0 days																								
4	1.3 Site Access Dates	0 days	Thu 19/12/19	Thu 19/12/19			1461 days																								
5	Portions 25, 26, 27	0 days	Thu 19/12/19	Thu 19/12/19	3		1460 days																								
6	Portions 1, 5, 6A, 7, 8A, 9A, 9C, 9E, 9F, 9G, 10A, 10B, 11A, 11B, 12A, 12C, 12D, 13A, 15B, 15C, 16, 17, 19A, 19B, 19C, 20A, 20B	0 days	Sat 18/1/20	Sat 18/1/20	3FS+30 days	,68,69,71,80,124,207,224,242,268,6 days,75FS+30 days,76,77	128 days																								
7	Portions 23, 24	0 days	Mon 17/2/20	Mon 17/2/20	3FS+60 days	301	1400 days																								
8	Portions 15A, 18, 19, 20, 20C, 22	0 days	Sat 18/4/20	Sat 18/4/20	3FS+121 days	9,10	789 days																								
9	Delay of Site Access Dates: Portion 15A, 18, 19, 20 (Structure has not been handed over)	19 days	Sun 19/4/20	Thu 7/5/20	8	192,243,269	1300 days																								
10	Delay of Site Access Dates: Portion 22 (Structure has not been handed over)	25 days	Sun 19/4/20	Wed 13/5/20	8	302	789 days																								
11	Portions 1A, 2, 2A, 3, 4, 4A, 4B, 5A, 6, 8, 7A, 7B	0 days	Sat 18/7/20	Sat 18/7/20	3FS+212 days	81,109,125,208,244,37,12	136 days																								
12	Delay of Site Access Dates: 4B,5A	77 days	Sun 19/7/20	Sat 3/10/20	11		1171 days																								
13	Portions 8B, 9, 9B, 9D, 10, 11, 12, 12B, 13, 14	0 days	Sun 18/10/20	Sun 18/10/20	3FS+304 days	200,209,225,270,14,15	0 days																								
14	Delay of Site Access Date: Portion 9D	0 days	Sun 18/10/20	Sun 18/10/20	13		1156 days																								
15	Delay of Site Access for Area with Structure in Portion 8B, 9B	0 days	Sun 18/10/20	Sun 18/10/20	13		1156 days																								
16	Portions 15, 16A, 16B, 17A, 17B, 21	0 days	Mon 18/1/21	Mon 18/1/21	3FS+396 days	287,226,245,271	10 days																								
17	Works Area WA1	0 days	Thu 19/12/19	Thu 19/12/19	3		1460 days																								
18																															
19	1.4 Completion of the works	0 days	Thu 19/12/19	Thu 19/12/19	3		1460 days																								
20	Section 1	0 days	Mon 18/4/22	Mon 18/4/22	3FS+851 days		609 days																								
21	Section 2	0 days	Tue 18/10/22	Tue 18/10/22	3FS+1034 days		426 days																								
22	Section 3	0 days	Sat 17/9/22	Sat 17/9/22	3FS+1003 days		457 days																								
23	Section 3A	0 days	Sun 17/9/23	Sun 17/9/23	3FS+1368 days		92 days																								
24	Section 4	0 days	Thu 17/9/20	Thu 17/9/20	3FS+273 days		1187 days																								
25	Section 5	0 days	Sat 16/1/21	Sat 16/1/21	3FS+394 days		1066 days																								
26	Section 6	0 days	Sun 30/5/21	Sun 30/5/21	3FS+528 days		932 days																								
27	Section 7	0 days	Mon 2/8/21	Mon 2/8/21	3FS+592 days		868 days																								
28	Section 8	0 days	Tue 13/7/21	Tue 13/7/21	3FS+572 days		888 days																								
29	Section 9	0 days	Sat 6/11/21	Sat 6/11/21	3FS+688 days		772 days																								
30	Section 10	0 days	Thu 30/6/22	Thu 30/6/22	3FS+924 days		536 days																								
31	Section 11	0 days	Sun 18/12/22	Sun 18/12/22	3FS+1095 days		365 days																								
32	Section 11A	0 days	Mon 18/12/23	Mon 18/12/23	3FS+1460 days		0 days																								
33	Section 12	0 days	Fri 18/12/20	Fri 18/12/20	3FS+365 days		1095 days																								
34																															
35	2. Preliminary works	646 days	Fri 20/12/19	Sat 25/9/21			814 days																								
36	Set up Project Manager's Accommodation in WA1 (1st part)	14 days	Wed 17/6/20	Tue 30/6/20			1266 days																								
37	Set up Project Manager's Accommodation in Portion 3 (2nd part)	14 days	Sun 19/7/20	Sat 1/8/20	11		1234 days																								
38	Prepare, submit & Approve ICE	30 days	Mon 3/2/20	Tue 3/3/20	3	162	0 days																								
39	Prepare, submit & Approve Traffic Consultant	30 days	Wed 1/1/20	Thu 30/1/20	3	83	0 days																								
40	Prepare, submit & Approve Landscape Team Leader	100 days	Mon 3/2/20	Tue 12/5/20	3	73,50,52	0 days																								
41	Prepare, submit & Approve Agricultural Specialist	30 days	Fri 20/12/19	Sat 18/1/20	3	50,52	0 days																								
42	Prepare, submit & Approve Constructed / Treatment Wetland Specialist	30 days	Fri 28/2/20	Sat 28/3/20	3	62	0 days																								
43	Prepare, submit & Approve Ecological Team Leader	30 days	Fri 20/12/19	Sat 18/1/20	3	45	0 days																								
44	Habitat Survey	112 days	Sun 19/1/20	Sat 9/5/20			0 days																								
45	Submission/approval of Habitat Surveys Method Statement and Programme	40 days	Sun 19/1/20	Thu 27/2/20	3,43	46	0 days																								
46	Habitat Surveys	30 days	Fri 28/2/20	Sat 28/3/20	45	47	0 days																								
47	Submission of Habitat Record	14 days	Sun 29/3/20	Sat 11/4/20	46	48	0 days																								
48	Approval of Habitat Survey Record	28 days	Sun 12/4/20	Sat 9/5/20	47	49,51	0 days																								

Revised Programme: November 2020

Data Date : 2020-11-3

Task

Critical Task

Milestone

Summary

Rolled Up Task

Rolled Up Critical Task

Rolled Up Milestone

Rolled Up Progress

Split

External Tasks

Project Summary

Group By Summary

Inactive Milestone

Inactive Summary

Manual Task

Duration-only

Manual Summary Rollup

Manual Summary

Start-only

Finish-only

External Tasks

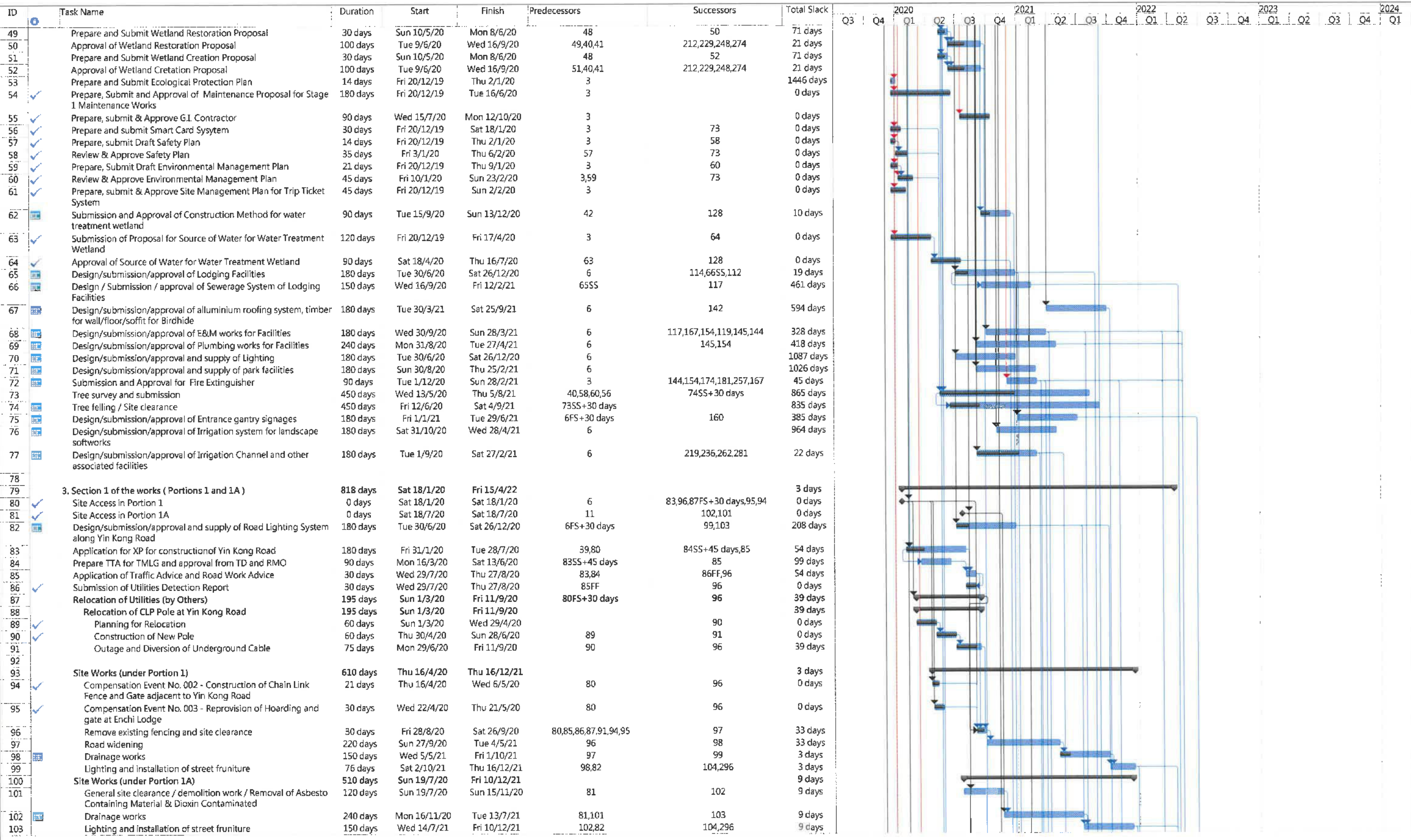
External Milestone

Progress

Deadline

Kwu Tung North and Fanling North New Development Areas, Phase 1 : Development of Long Valley Nature Park

Project Programme of the Works



Revised Programme: November 2020

Data Date : 2020-11-3

Task

Critical Task

Milestone

Summary

Rolled Up Task

Rolled Up Critical Task

Rolled Up Milestone

Rolled Up Progress

Split

External Tasks

Project Summary

Group By Summary

Inactive Milestone

Inactive Summary

Manual Task

Duration-only

Manual Summary Rollup

Manual Summary

Start-only

Finish-only

External Tasks

External Milestone

Progress

Deadline

Kwu Tung North and Fanling North New Development Areas, Phase 1 : Development of Long Valley Nature Park

Project Programme of the Works

ID	Task Name	Duration	Start	Finish	Predecessors	Successors	Total Slack	Q3	Q4	2020	Q1	Q2	Q3	Q4	2021	Q1	Q2	Q3	Q4	2022	Q1	Q2	Q3	Q4	2023	Q1	Q2	Q3	Q4	2024	Q1
104	Paving block on footway	60 days	Fri 17/12/21	Mon 14/2/22	99,103	105	3 days																								
105	bituminous pavement on carriageway	60 days	Tue 15/2/22	Fri 15/4/22	104	106	3 days																								
106	Completion of Section 1 of the works	0 days	Fri 15/4/22	Fri 15/4/22	105		3 days																								
107																															
108	4. Section 2 of the works (Portions 2 and 2A)	803 days	Sat 18/7/20	Thu 29/9/22			19 days																								
109	Site Access in Portions 2 and 2A	0 days	Sat 18/7/20	Sat 18/7/20	11	110	162 days																								
110	General site clearance / demolition work / Removal of Asbestos Containing Material	60 days	Sun 19/7/20	Wed 16/9/20	109	112	120 days																								
111	Construction of lodging facility & associated facilities	642 days	Sun 27/12/20	Thu 29/9/22			19 days																								
112	Excavation and formation preparation	120 days	Sun 27/12/20	Sun 25/4/21	110,65	113	19 days																								
113	Construction of foundation / pavement	120 days	Mon 26/4/21	Mon 23/8/21	112	114	19 days																								
114	Supply of logging units	200 days	Tue 24/8/21	Fri 11/3/22	113,65	115FS-50 days	19 days																								
115	Installation of lodging units	100 days	Fri 21/1/22	Sat 30/4/22	114FS-50 days	116,117,118,119	19 days																								
116	Installation of furniture / facility	120 days	Sun 1/5/22	Sun 28/8/22	115	120	24 days																								
117	Installation of E&M works	125 days	Sun 1/5/22	Fri 2/9/22	68,66,115	120	19 days																								
118	Installation of Fire Services	125 days	Sun 1/5/22	Fri 2/9/22	115	120	19 days																								
119	Installation of plumbing works	125 days	Sun 1/5/22	Fri 2/9/22	68,115	120	19 days																								
120	Testing and commissioning	27 days	Sat 3/9/22	Thu 29/9/22	119,117,118,115	121	19 days																								
121	Completion of Section 2 of the works	0 days	Thu 29/9/22	Thu 29/9/22	120		19 days																								
122																															
123	5. Section 3 of the works (Portions 3, 4, 4A, 4B, 5, 5A, 6 & 6A)	993 days	Fri 20/12/19	Wed 7/9/22			467 days																								
124	Site Access in Portions 5 and 6A	0 days	Sat 18/1/20	Sat 18/1/20	6	128,126SS	128 days																								
125	Site Access in Portions 3, 4, 4A, 4B, 5A and 6	0 days	Sat 18/7/20	Sat 18/7/20	11	139,128,126FF+20 days	136 days																								
126	General site clearance / demolition work / Removal of Asbestos Containing Material	300 days	Sun 19/1/20	Fri 13/11/20	124SS,125FF+20 days	148,139	38 days																								
127	Construction of water treatment wetland	588 days	Mon 14/12/20	Sun 24/7/22			10 days																								
128	Excavation for sedimentation pond	120 days	Mon 14/12/20	Mon 12/4/21	62,124,125,64	129	10 days																								
129	Excavation for macrophyte zones - down stream	71 days	Tue 13/4/21	Tue 22/6/21	128	130,136	10 days																								
130	Bedding preparation	45 days	Wed 23/6/21	Fri 6/8/21	129	131,133	10 days																								
131	Excavation for macrophyte zones - mid stream	72 days	Sat 7/8/21	Sun 17/10/21	130	132	747 days																								
132	Bedding preparation	45 days	Mon 18/10/21	Wed 1/12/21	131	134	747 days																								
133	Excavation for macrophyte zones - upstream	72 days	Sat 7/8/21	Sun 17/10/21	130	135,184	10 days																								
134	Bedding preparation	45 days	Mon 18/10/21	Wed 1/12/21	133	137	10 days																								
135	Excavation for open water zone	115 days	Thu 2/12/21	Sat 26/3/22	134	185	55 days																								
136	Construction of wetland broadwalk	205 days	Wed 23/6/21	Thu 13/1/22	129	185	247 days																								
137	Construction of Inlet and outlet structures	120 days	Sun 27/3/22	Sun 24/7/22	135	185	55 days																								
138	Construction of birdhide	536 days	Sat 14/11/20	Tue 3/5/22			38 days																								
139	Excavation and formation preparation	21 days	Sat 14/11/20	Fri 4/12/20	125,126	140	38 days																								
140	Construction of base slab	45 days	Sat 5/12/20	Mon 18/1/21	139	141	38 days																								
141	Installation of steel structural frame	60 days	Tue 19/1/21	Fri 19/3/21	140	142,169,144,176	38 days																								
142	Installation of timber wall / roof	120 days	Sun 26/9/21	Sun 23/1/22	141,67	143	594 days																								
143	Installation of timber rised flooring	100 days	Mon 24/1/22	Tue 3/5/22	142		594 days																								
144	Installation of E&M, Fire Services System	120 days	Mon 29/3/21	Mon 26/7/21	141,68,72	145	328 days																								
145	Testing & commissioning	90 days	Tue 27/7/21	Sun 24/10/21	68,69,144	185	328 days																								
146	Construction of farmer's forum / open area	978 days	Fri 20/12/19	Tue 23/8/22			25 days																								
147	Construction of tea house pavilion	251 days	Fri 3/12/21	Wed 10/8/22			38 days																								
148	Construction of base slab	21 days	Fri 3/12/21	Thu 23/12/21	126,164	149	38 days																								
149	Construction of walls with columns	35 days	Fri 24/12/21	Thu 27/1/22	148	150	38 days																								

Revised Programme: November 2020

Data Date : 2020-11-3

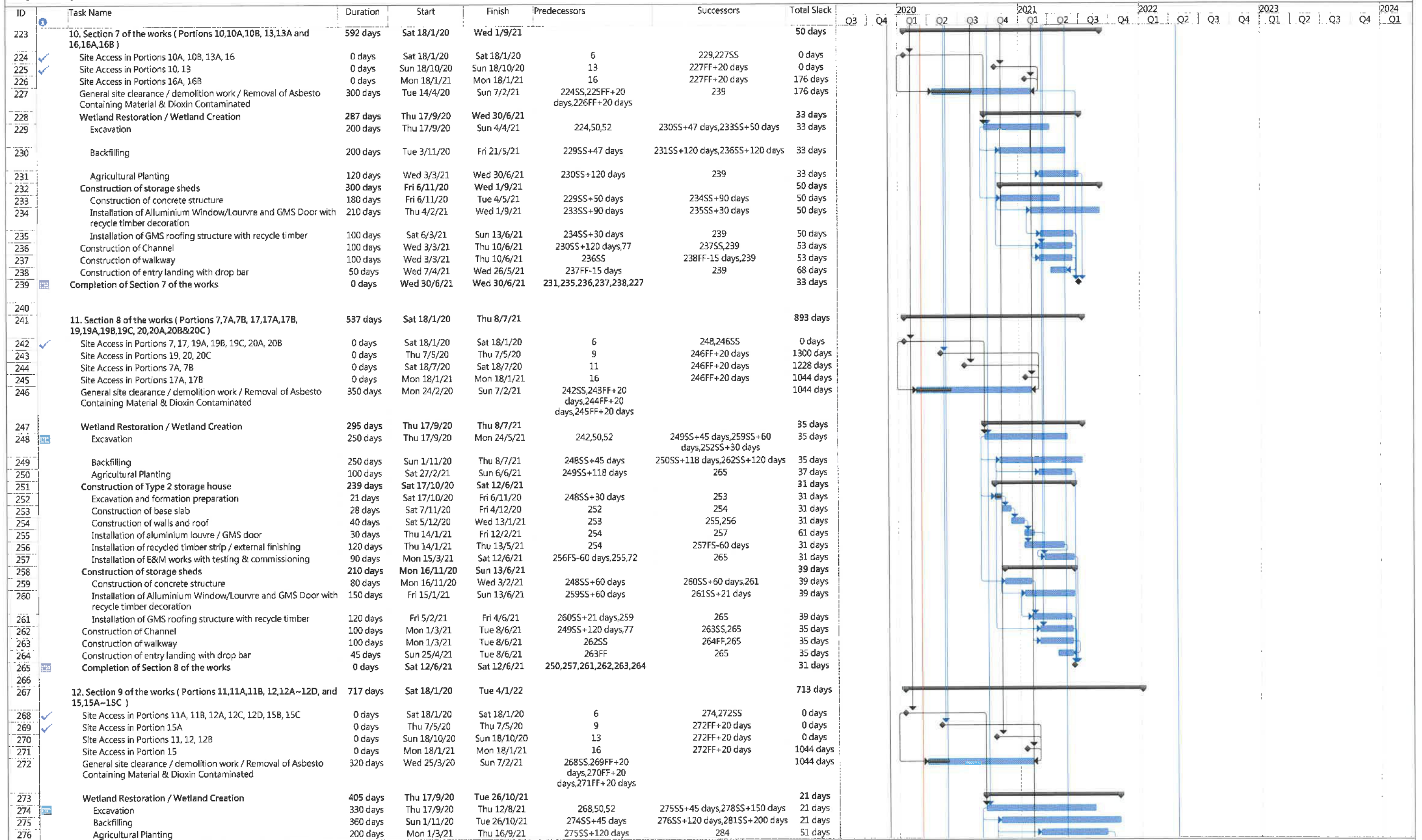
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Critical Task		Rolled Up Critical Task		External Tasks		Inactive Summary		Manual Summary		External Milestone		External Milestone	
Milestone		Rolled Up Milestone		Project Summary		Manual Task		Start-only		Progress		Progress	
Summary		Rolled Up Progress		Group By Summary		Duration-only		Finish-only		Deadline		Deadline	

Project Programme of the Works

Revised Programme: November 2020 Data Date : 2020-11-3	Task		Rolled Up Task		Split		Inactive Milestone		Manual Summary Rollup		External Tasks	
	Critical Task		Rolled Up Critical Task		External Tasks		Inactive Summary		Manual Summary		External Milestone	
	Milestone		Rolled Up Milestone		Project Summary		Manual Task		Start-only		Progress	
	Summary		Rolled Up Progress		Group By Summary		Duration-only		Finish-only		Deadline	

Kwu Tung North and Fanling North New Development Areas, Phase 1 : Development of Long Valley Nature Park

Project Programme of the Works



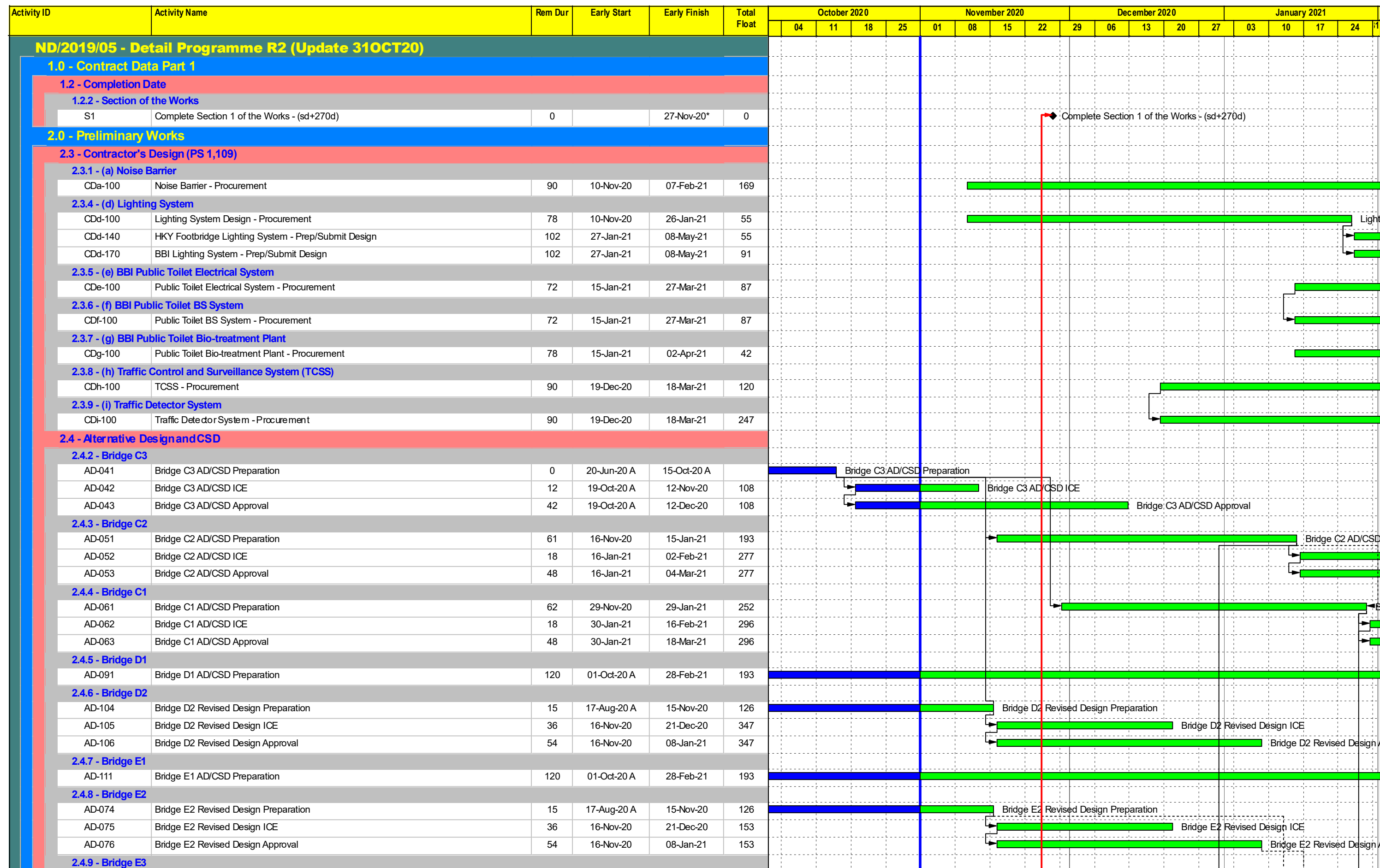
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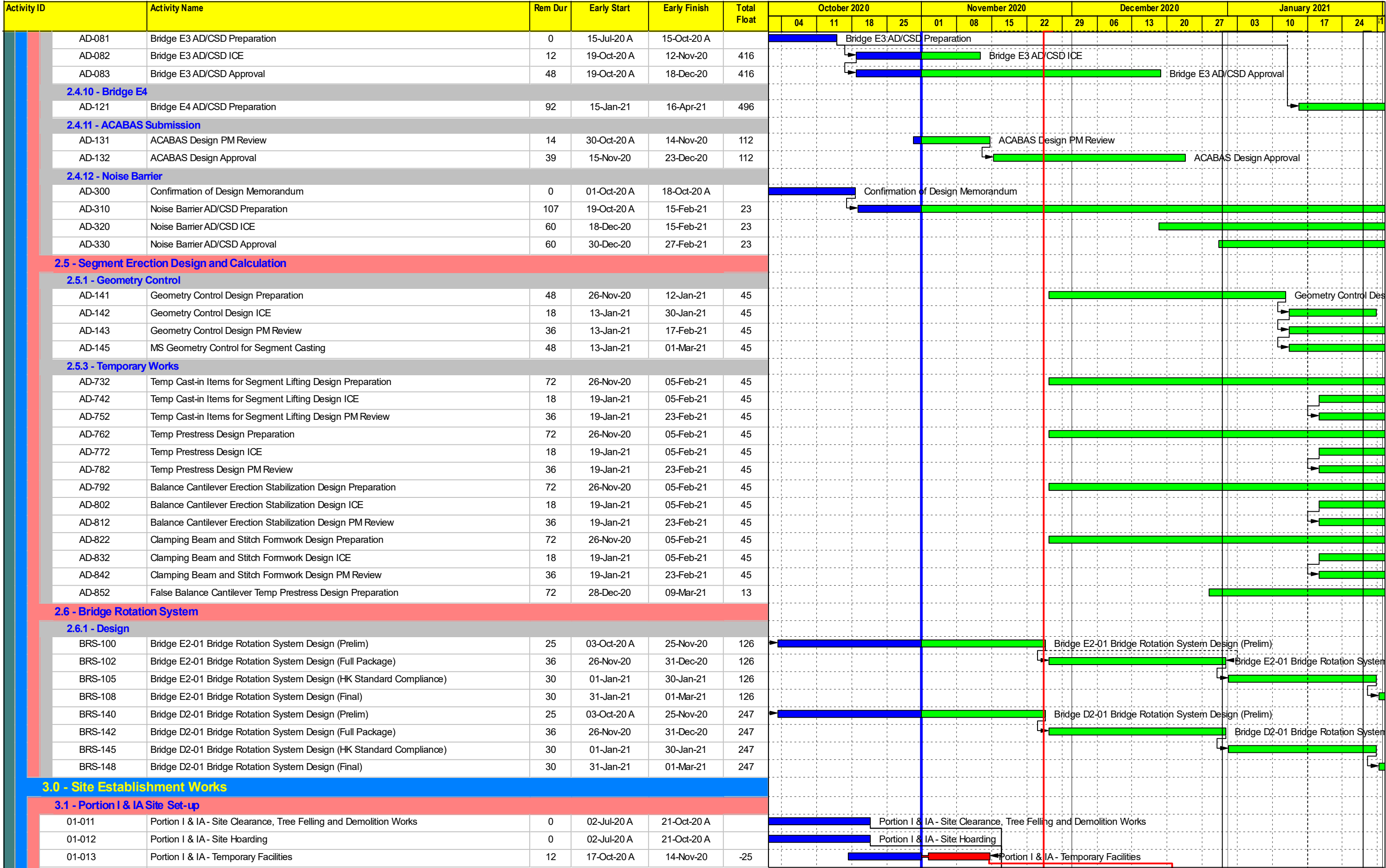
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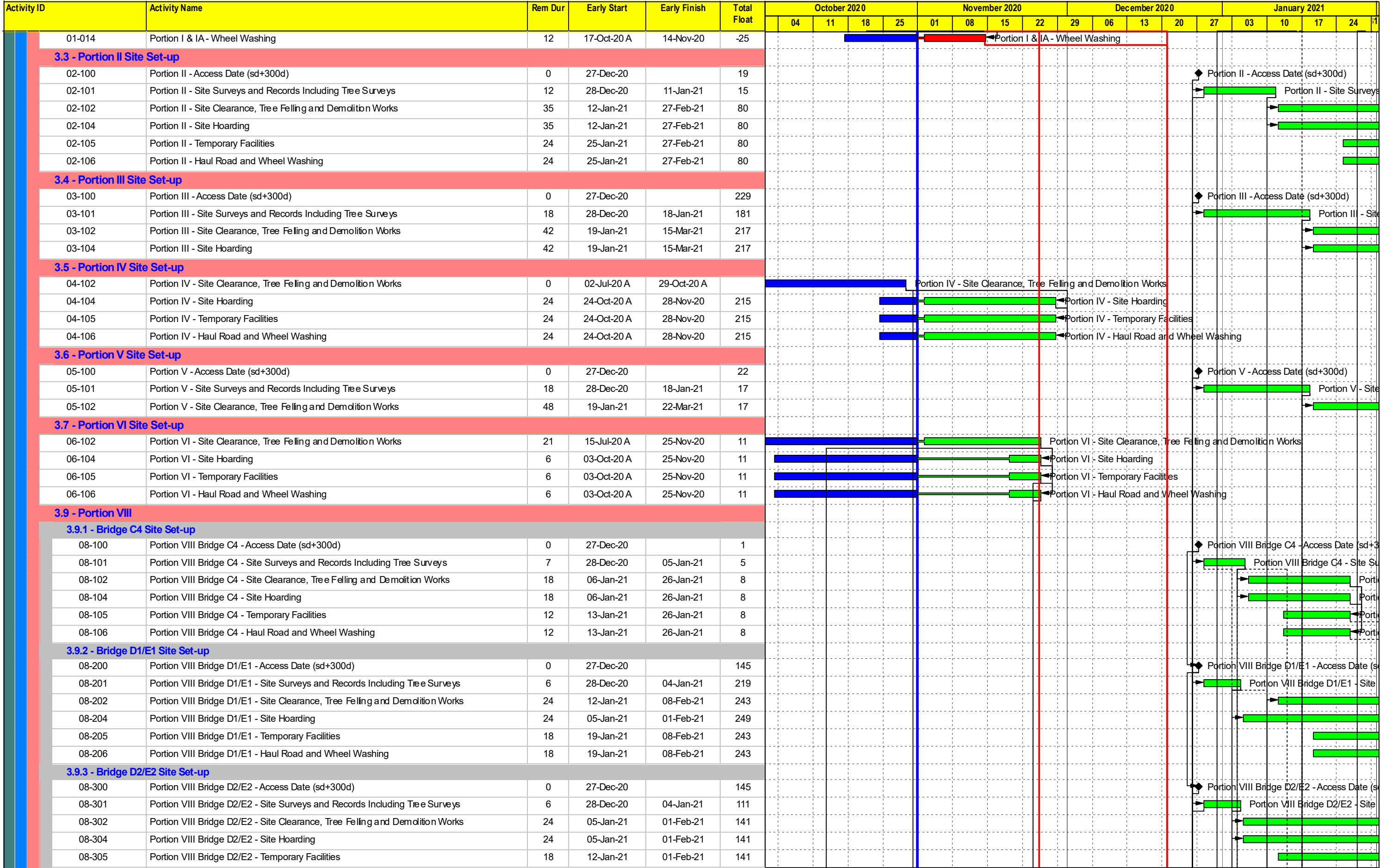


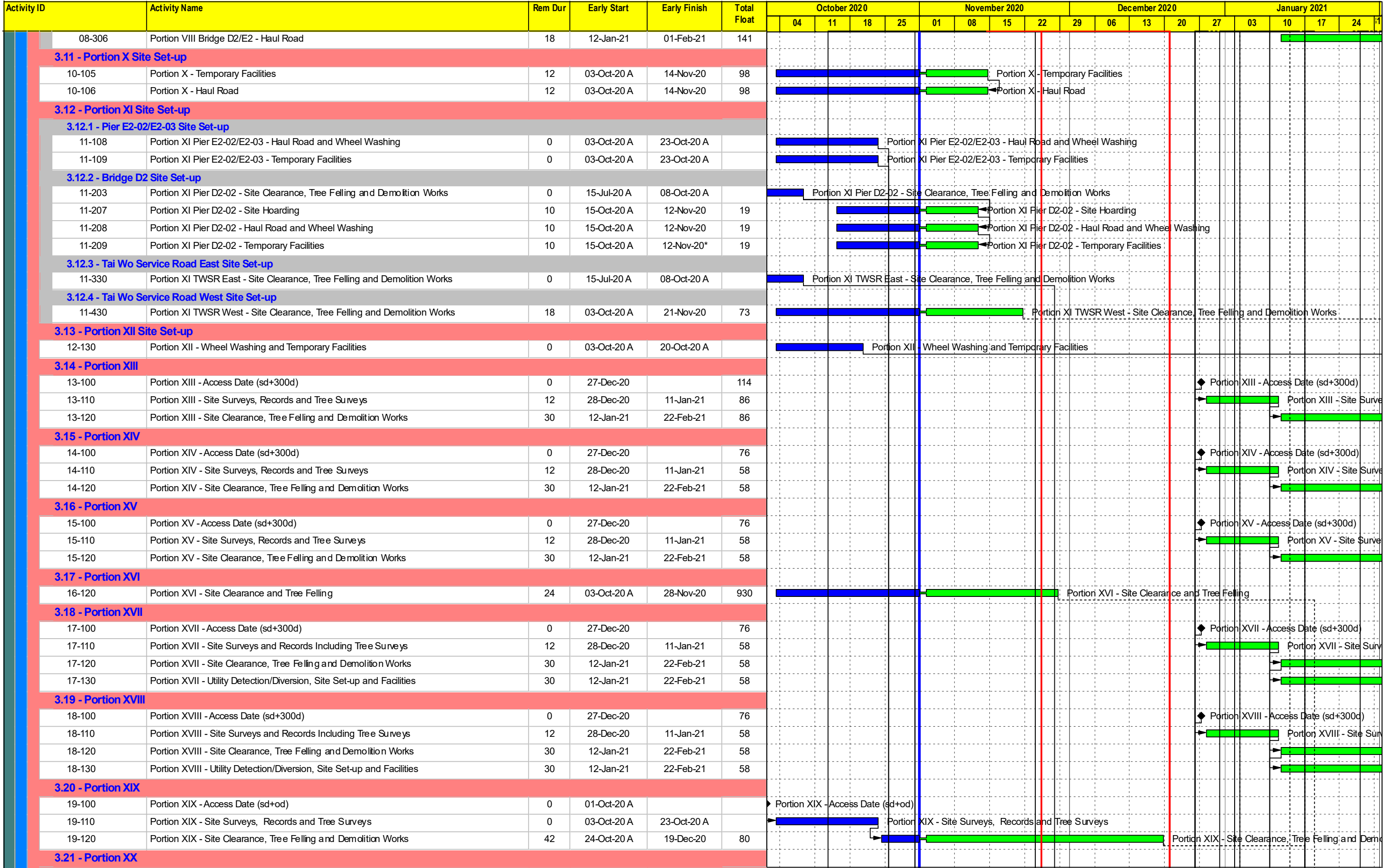
Project Programme of the Works

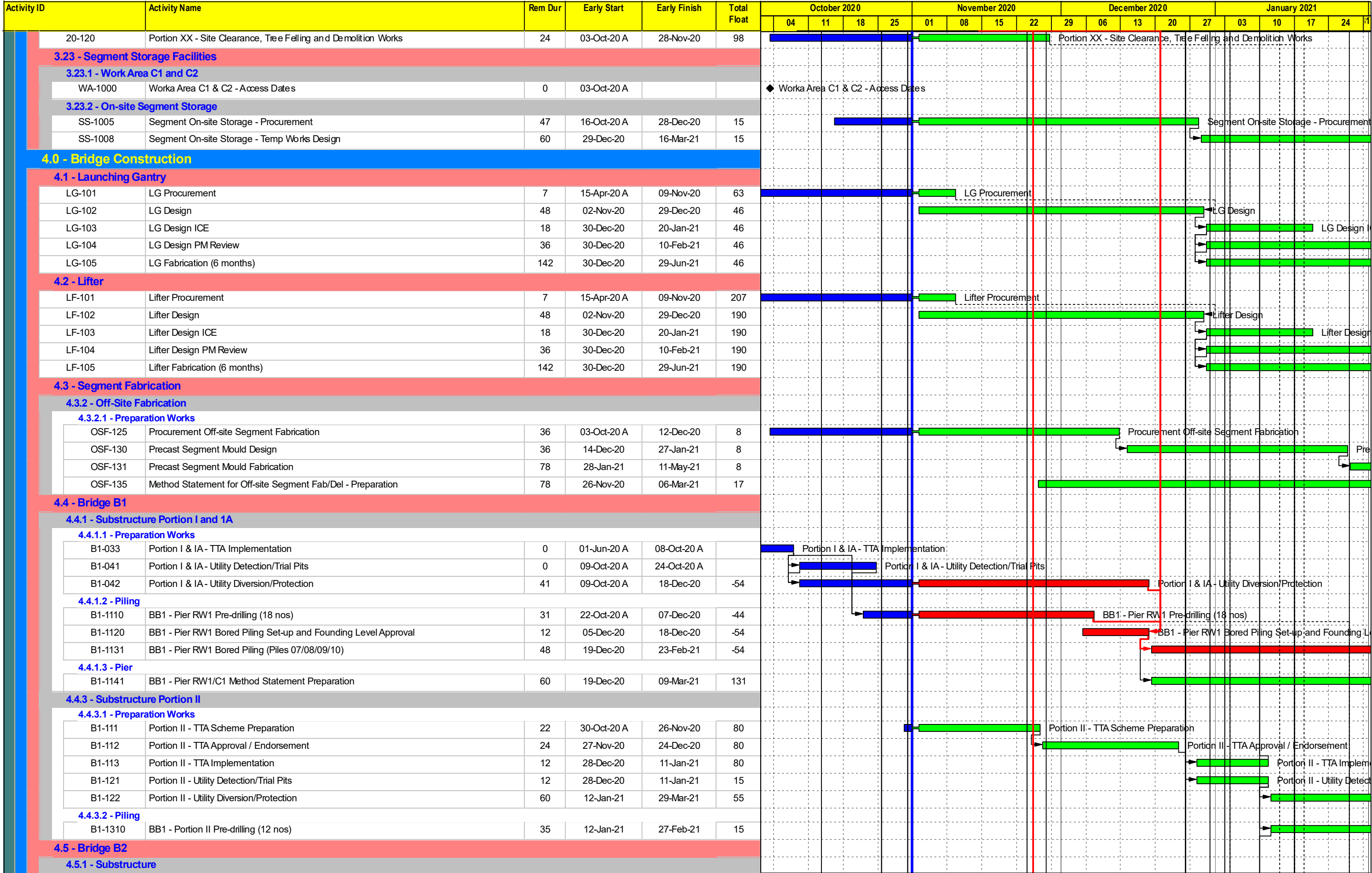
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	Milestone		Rolled Up Milestone		Project Summary		Manual Task		Start-only		Progress	
	Summary		Rolled Up Progress		Group By Summary		Duration-only		Finish-only		Deadline	











CRCC - Paul Y.
Joint Venture

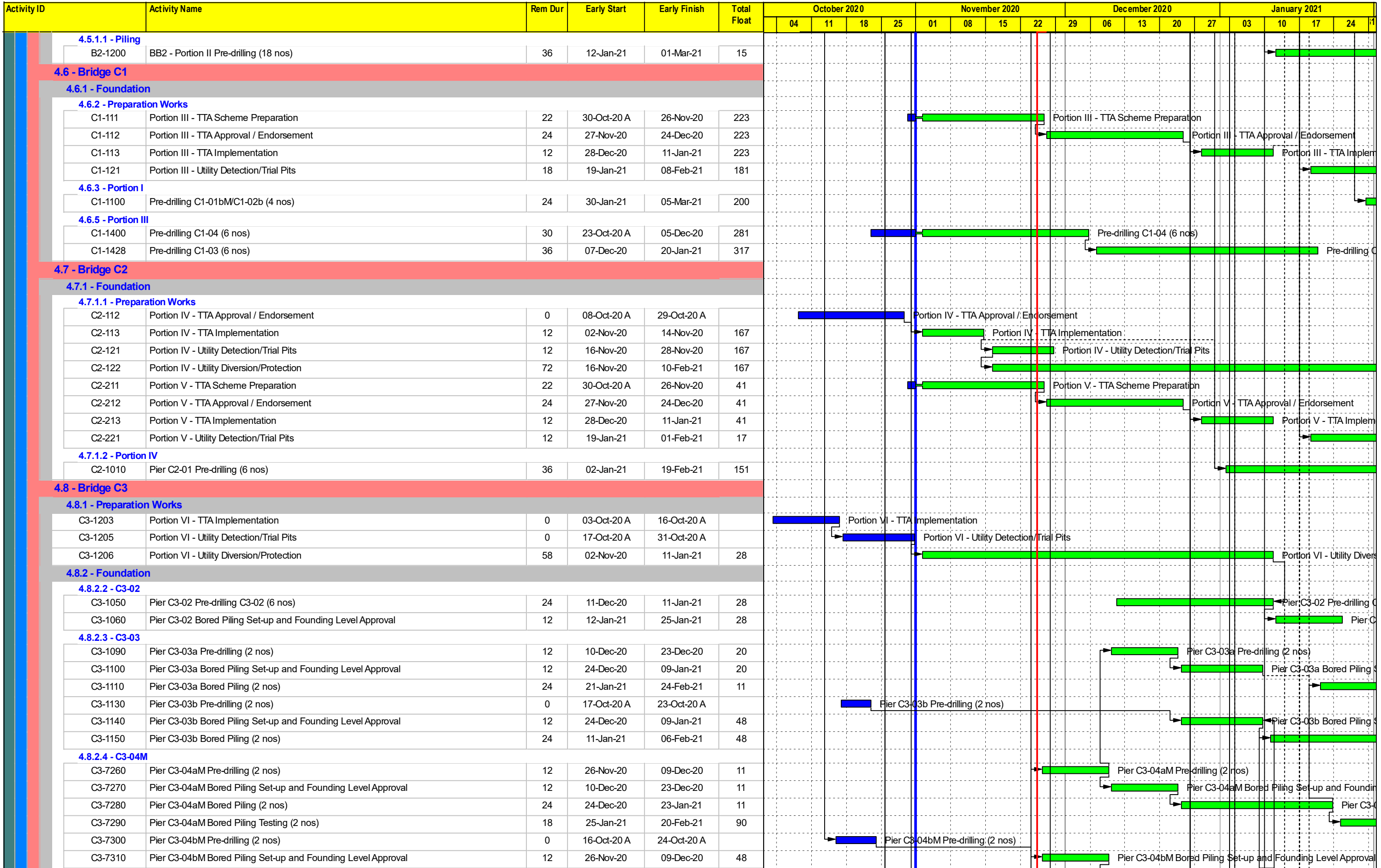
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- Actual Work
- Remaining Work
- Critical Remaining Work
- Milestone

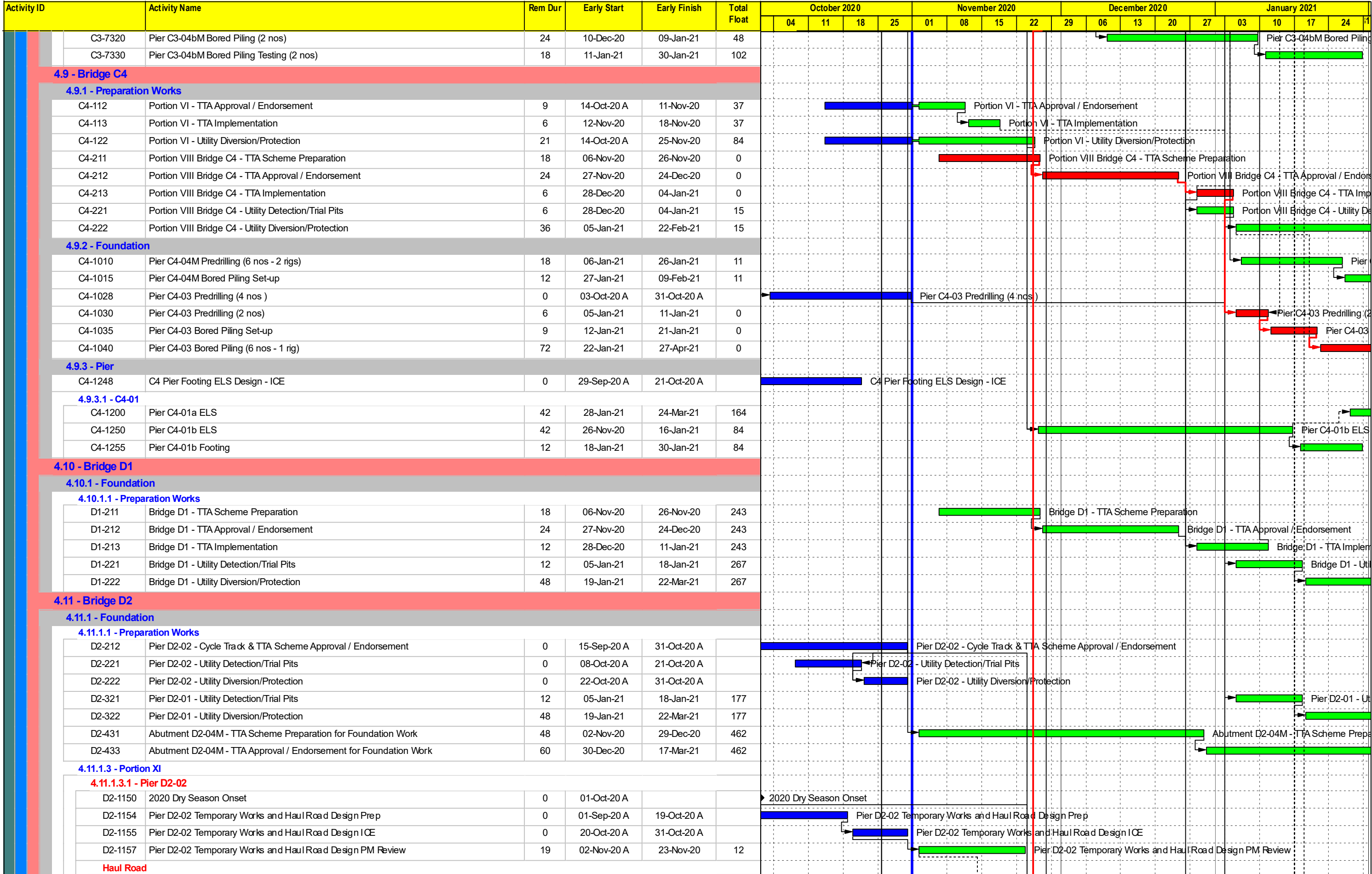
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3-Month Rolling Programme - November 2020

Proj ID : DPr3
Layout : ND201905 3MRP
Date : Page 5 of 11

3-Month Rolling Programme

Date	Revision	Checked	Approved
09-Nov-20	November 2020		





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Joint Venture

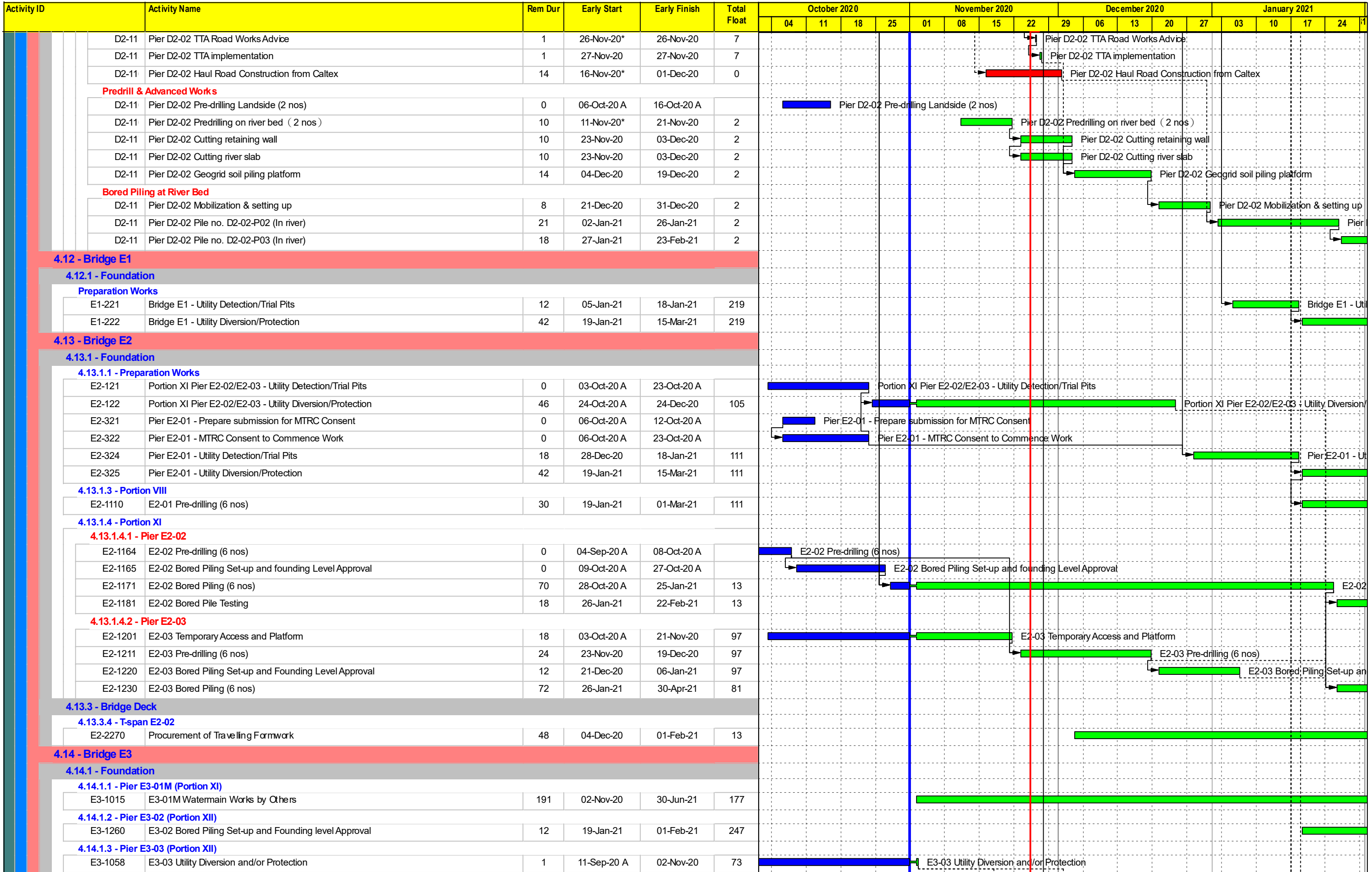
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- Remaining Work
- Critical Remaining Work
- Milestone

Contract ND/2019/05 - FBES (Shung Him Tong to Kau Lung Hang)
3-Month Rolling Programme - November 2020

Proj ID : DPr3
Layout : ND201905 3MRP
Date : Page 7 of 11

3-Month Rolling Programme

Date	Revision	Checked	Approved
09-Nov-20	November 2020		



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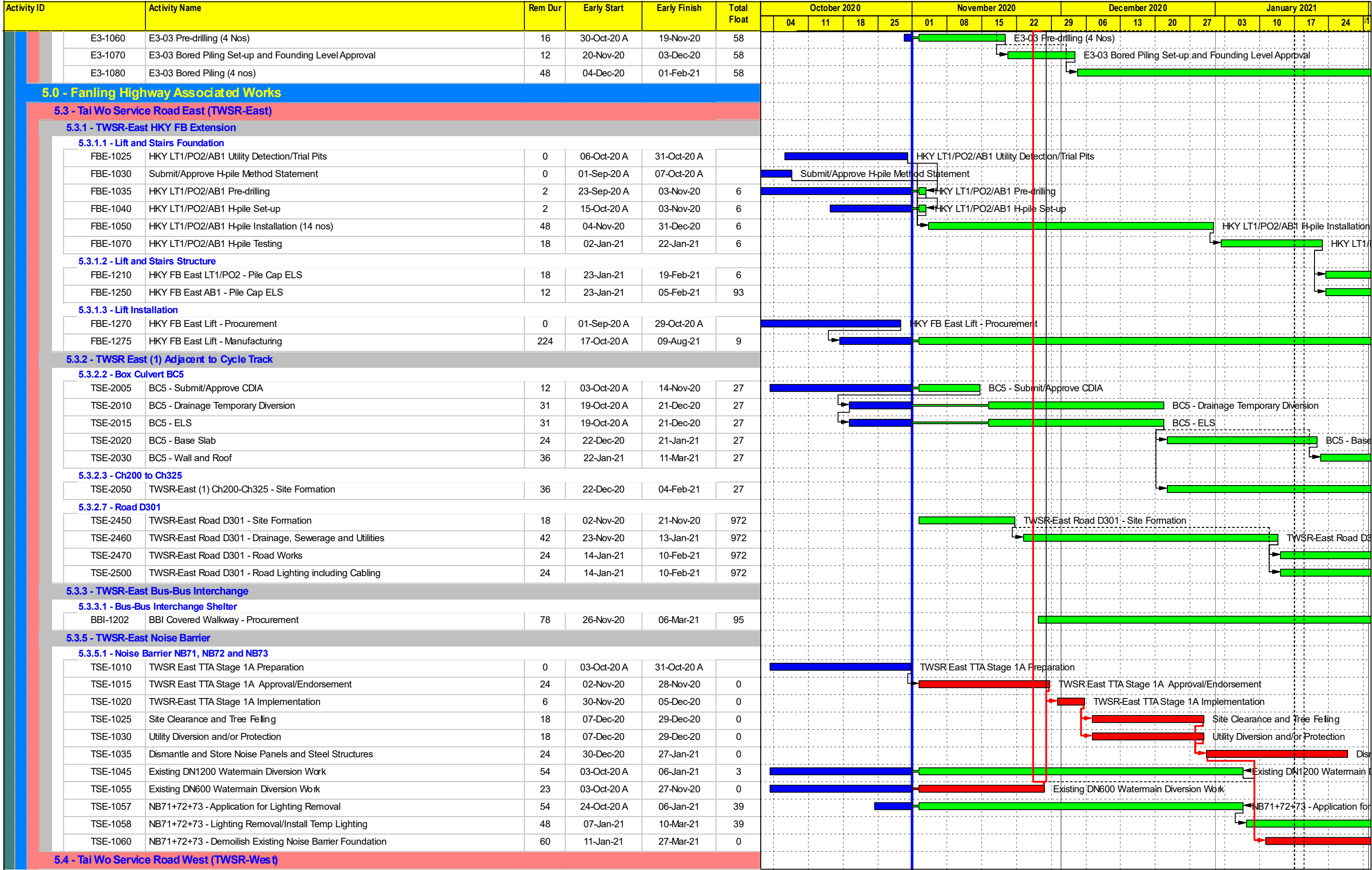
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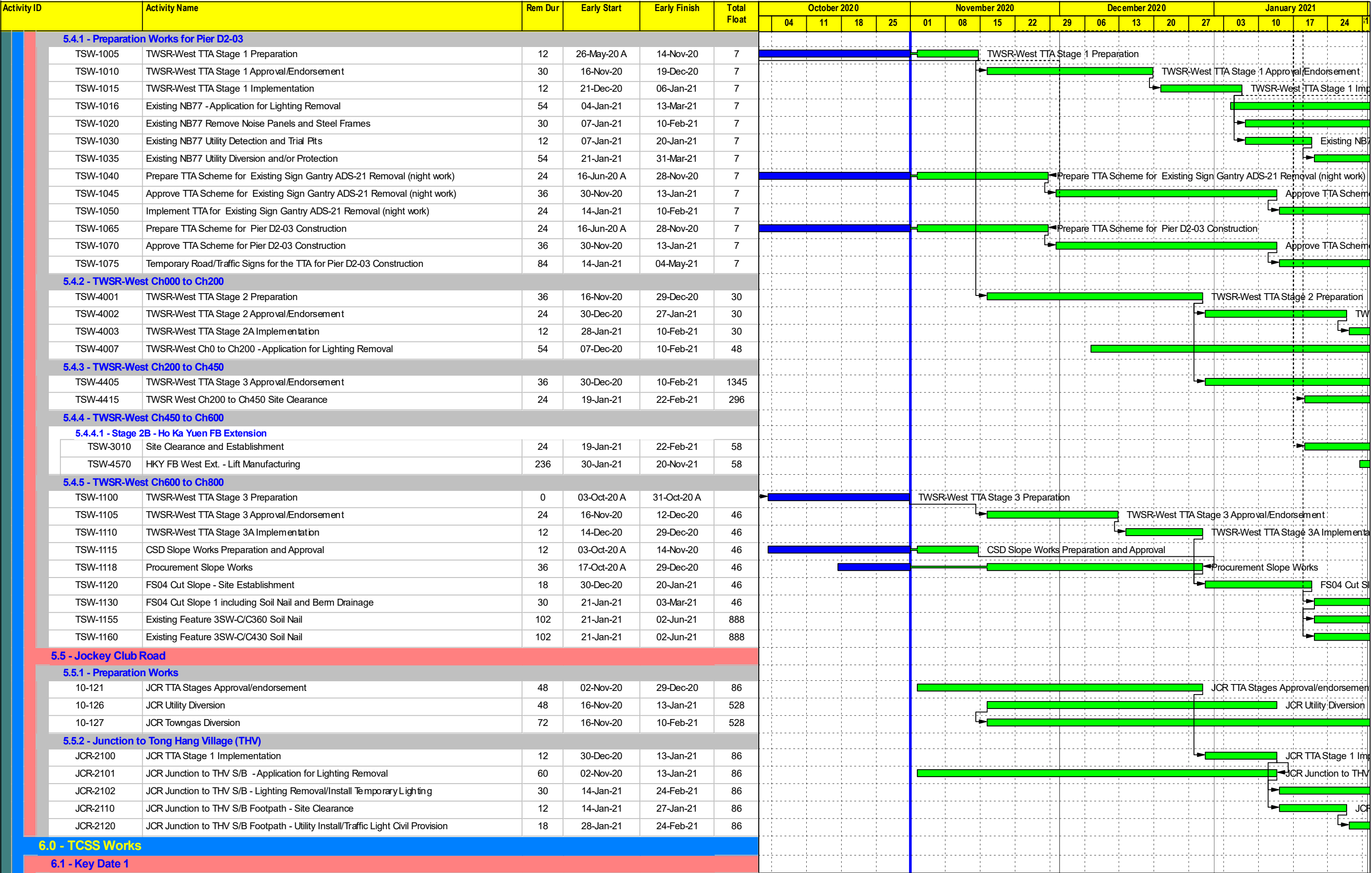
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3-Month Rolling Programme - November 2020

Proj ID : DPr3
Layout : ND201905 3MRP
Date : Page 8 of 11

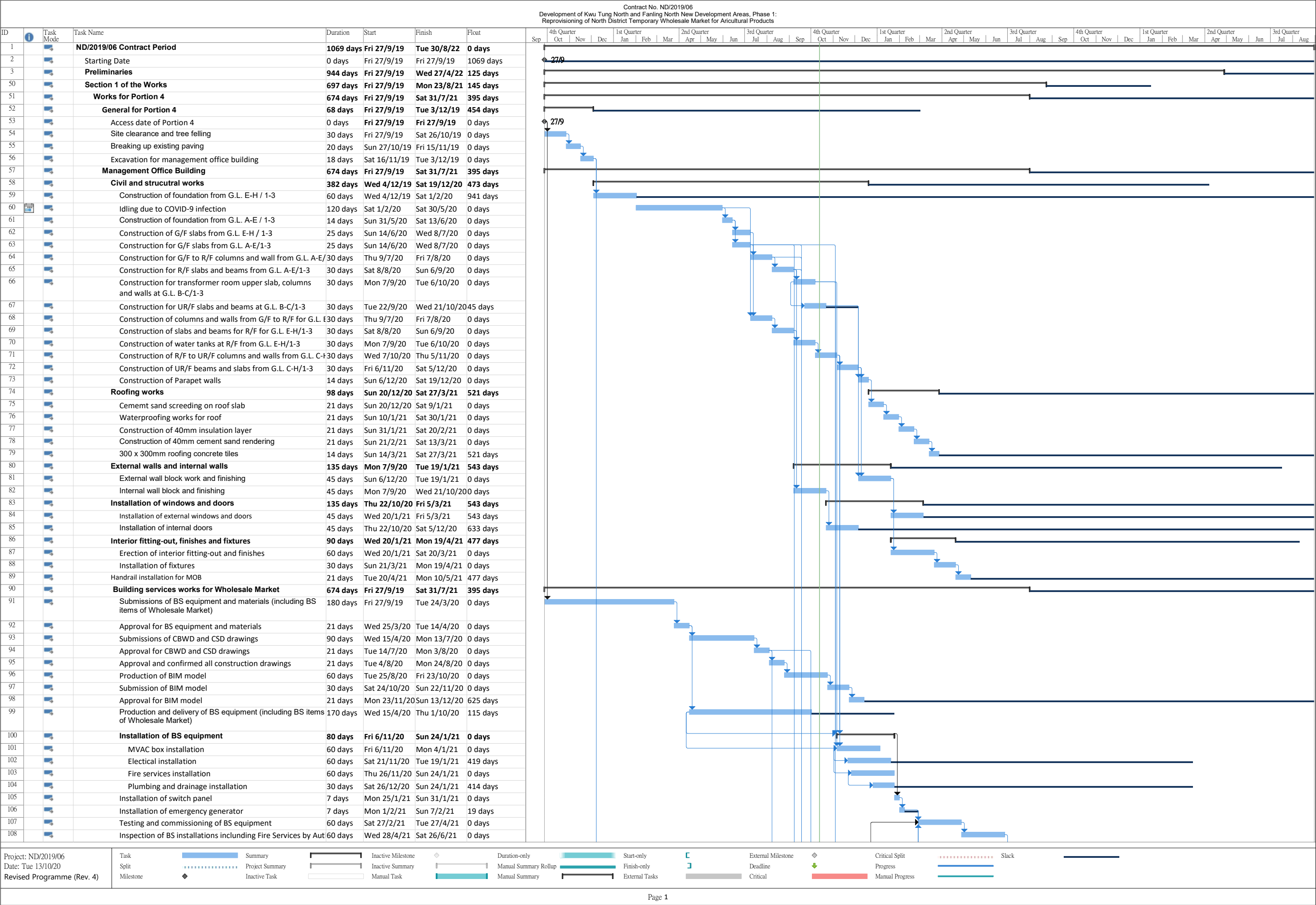
3-Month Rolling Programme

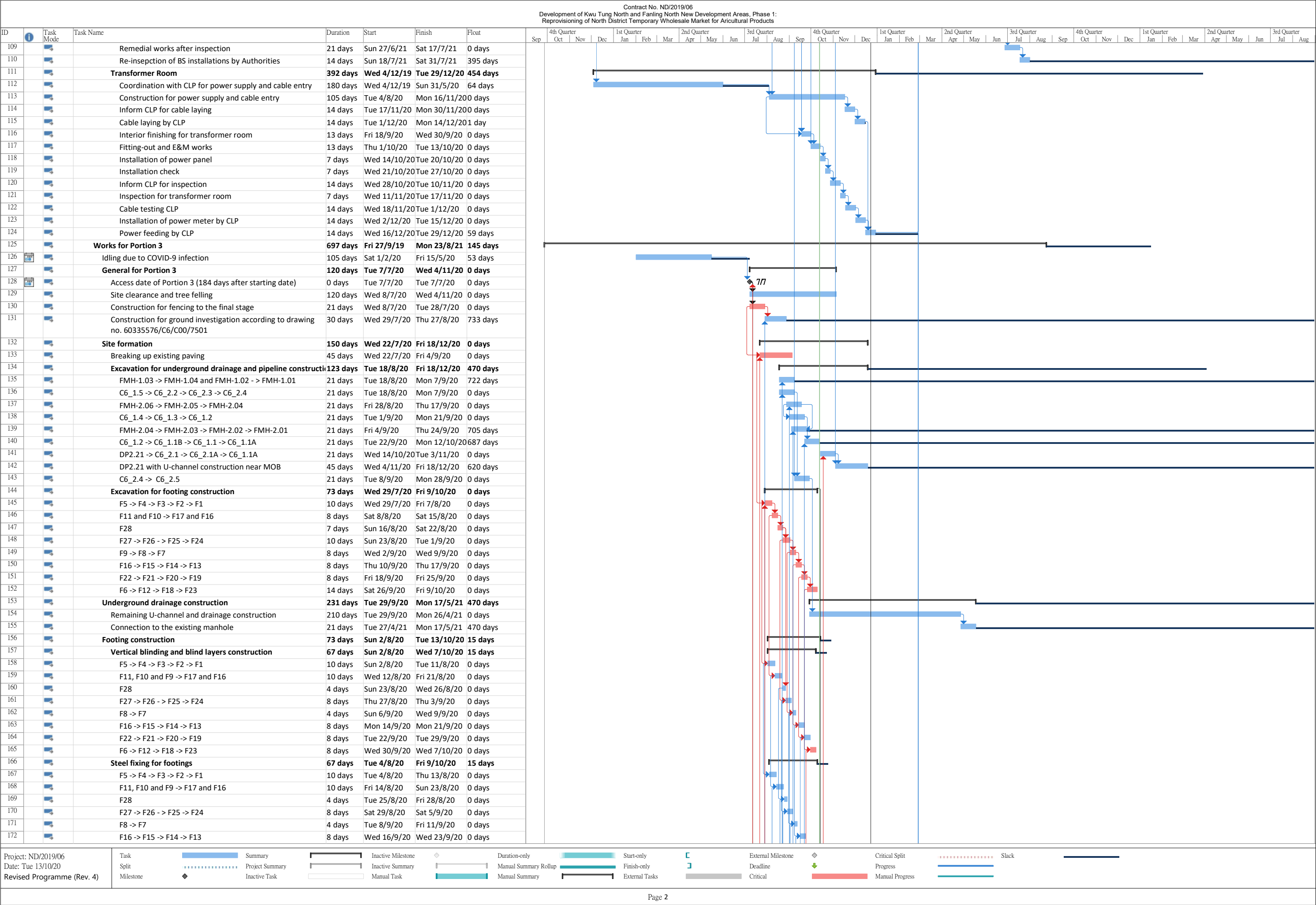
Date	Revision	Checked	Approved
09-Nov-20	November 2020		



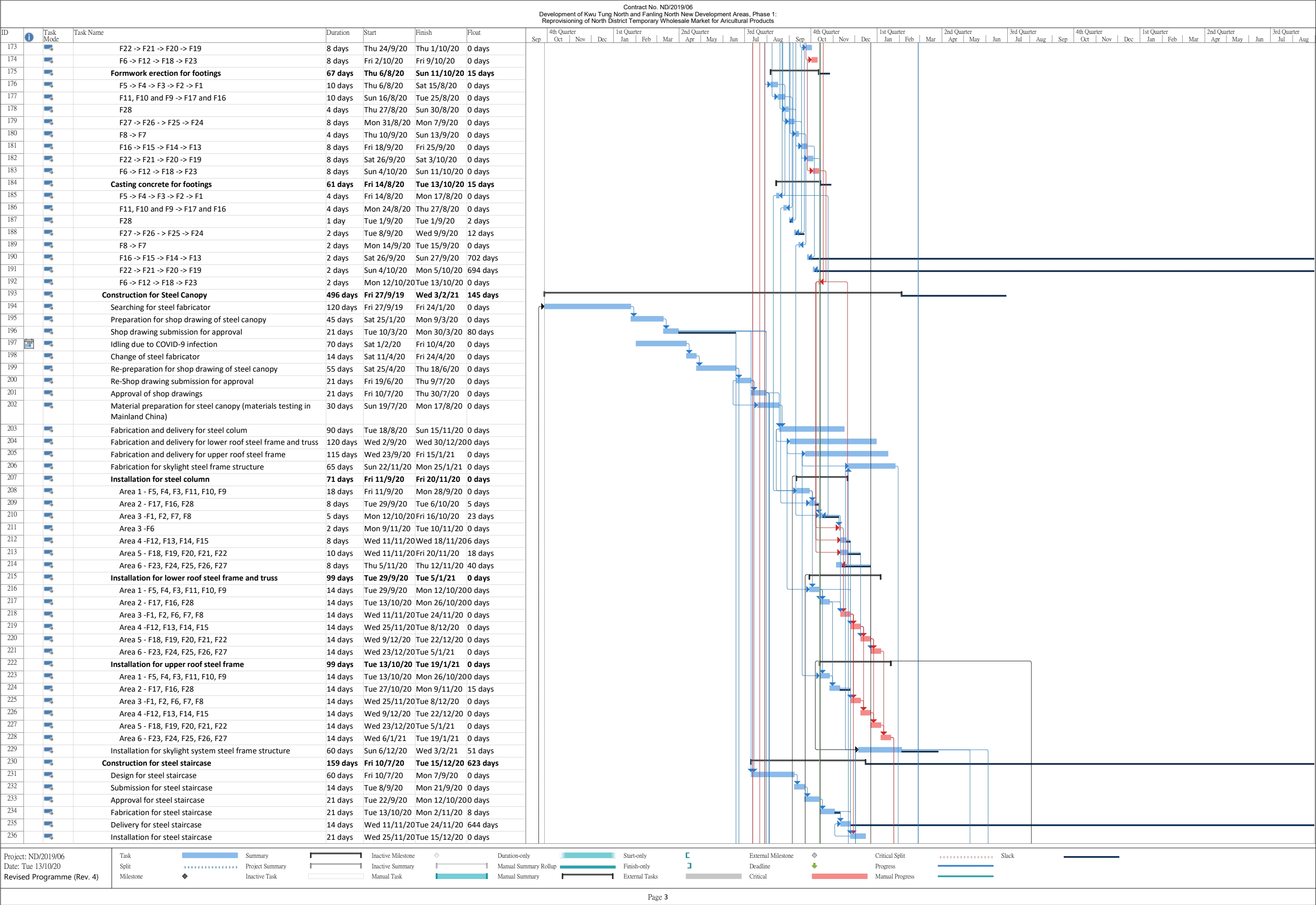


Activity ID		Activity Name	Rem Dur	Early Start	Early Finish	Total Float	October 2020				November 2020				December 2020				January 2021					
							04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17	24	
	TCS-100	Tolo/Fanling Highway Section 3 - Submit /Approve Interface Management Plan	109	19-Oct-20 A	18-Mar-21	0																		
	6.4 - Section 9C																							
	TCS-440	BCP Connecting Road TCSS - Submit /Approve Interface Management Plan	120	16-Jan-21	19-Jun-21	346																		
	TCS-450	BCP Connecting Road TCSS - Removal of Existing TCSS Equipment	300	16-Jan-21	24-Jan-22	346																		
	7.0 - Miscellaneous Works																							
	MIS-100	Preservation and Protection of Trees	356	28-Oct-20 A	17-Jan-22	700																		





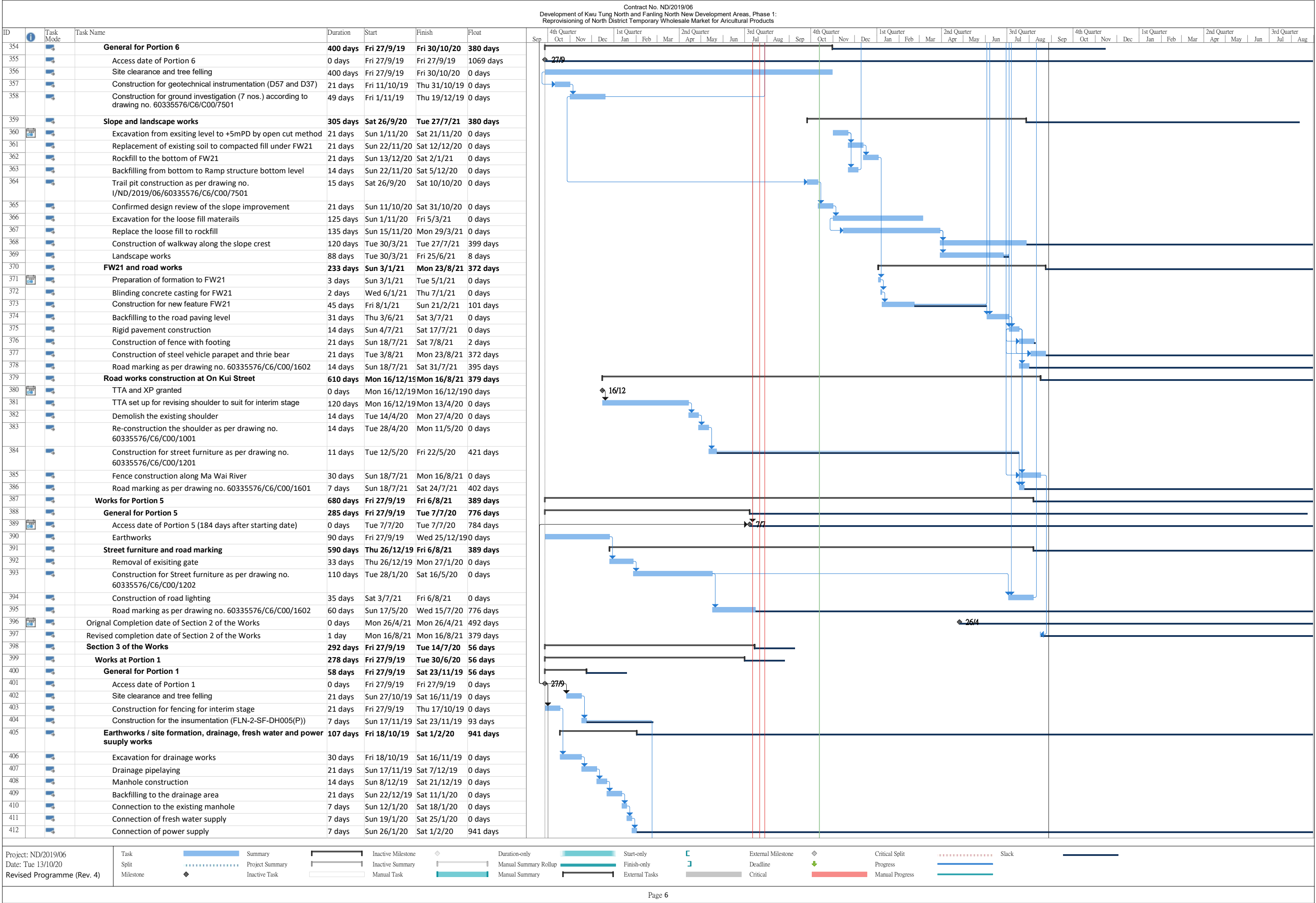
Page 2



Page 3

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Contract No. ND/2019/06

Development of Kwu Tung North and Fanling North New Development Areas, Phase 1:
Reprovisioning of North District Temporary Wholesale Market for Aricultural Products

ID		Task Mode	Task Name	Duration	Start	Finish	Float	Sep	4th Quarter Oct Nov Dec	1st Quarter Jan Feb Mar	2nd Quarter Apr May Jun	3rd Quarter Jul Aug Sep	4th Quarter Oct Nov Dec	1st Quarter Jan Feb Mar	2nd Quarter Apr May Jun	3rd Quarter Jul Aug Sep	4th Quarter Oct Nov Dec	1st Quarter Jan Feb Mar	2nd Quarter Apr May Jun	3rd Quarter Jul Aug
413			Pavments and road marking to the ground for interim stage	65 days	Sat 1/2/20	Sun 5/4/20	114 days													
414			Idling due to COVID-9 infection	30 days	Sat 1/2/20	Sun 1/3/20	0 days													
415			100m bituminous materials on compacted backfill	21 days	Mon 2/3/20	Sun 22/3/20	0 days													
416			Installation of street furniture according to drawing no. 60335576/C6/C00/1201	7 days	Mon 23/3/20	Sun 29/3/20	0 days													
417			Construction for road marking and traffic sign as per drawing no. 60335576/C6/C00/1601	7 days	Mon 30/3/20	Sun 5/4/20	877 days													
418			Temporary lighting installation for Portion 1 and Portion 2	215 days	Fri 27/9/19	Tue 28/4/20	56 days													
419			Temporary lighting design	120 days	Fri 27/9/19	Fri 24/1/20	0 days													
420			Temporary lighting design submission	14 days	Sat 25/1/20	Fri 7/2/20	0 days													
421			Temporary lighting apprvoal	30 days	Sat 8/2/20	Sun 8/3/20	0 days													
422			Materials preparation for temporary lighting	14 days	Mon 9/3/20	Sun 22/3/20	0 days													
423			Idling due to COVID-9 infection	28 days	Mon 23/3/20	Sun 19/4/20	0 days													
424			Temporary lighting installation	9 days	Mon 20/4/20	Tue 28/4/20	854 days													
425			Rain Shelter Construction	158 days	Sat 25/1/20	Tue 30/6/20	56 days													
426			Desgin submission for foldable rain shelter	30 days	Sat 25/1/20	Sun 23/2/20	0 days													
427			Approval for design submission for foldable rain shelter	21 days	Mon 24/2/20	Sun 15/3/20	44 days													
428			Idling due to COVID-9 infection	65 days	Mon 24/2/20	Tue 28/4/20	0 days													
429			Material preparation for foldable rain shelter	14 days	Wed 29/4/20	Tue 12/5/20	0 days													
430			Construction for foldable rain shelter	14 days	Wed 13/5/20	Tue 26/5/20	826 days													
431			PMI for changing part of foldable rain shelter to fixed rain shel	0 days	Mon 6/4/20	Mon 6/4/20	0 days													
432			Design submission for fixed rain shelter	30 days	Mon 6/4/20	Tue 5/5/20	0 days													
433			Approval for design submission for fixed rain shelter	21 days	Wed 6/5/20	Tue 26/5/20	0 days													
434			Materials preparation for fixed rain shelter	14 days	Wed 27/5/20	Tue 9/6/20	0 days													
435			Construction for fixed rain shelter	21 days	Wed 10/6/20	Tue 30/6/20	0 days													
436			Works at Portion 2	141 days	Tue 25/2/20	Tue 14/7/20	777 days													
437			General for Portion 2	7 days	Tue 25/2/20	Mon 2/3/20	885 days													
438			Access date for Portion 2 (152 days after starting date)	0 days	Tue 25/2/20	Tue 25/2/20	0 days													
439			Site clearance and tree felling	7 days	Tue 25/2/20	Mon 2/3/20	0 days													
440			Underground drainage works	24 days	Tue 3/3/20	Thu 26/3/20	885 days													
441			Excavation for underground drainage	7 days	Tue 3/3/20	Mon 9/3/20	0 days													
442			Underground drainage pipelaying	7 days	Tue 10/3/20	Mon 16/3/20	0 days													
443			Construction of manhole	7 days	Tue 17/3/20	Mon 23/3/20	0 days													
444			Connection to the existing manhole	3 days	Tue 24/3/20	Thu 26/3/20	0 days													
445			Road marking as per drawing no. 60335576/C6/C00/1601	2 days	Fri 27/3/20	Sat 28/3/20	885 days													
446			Container office - Modification works	91 days	Wed 15/4/20	Tue 14/7/20	777 days													
447			PMI for container office modification works	0 days	Wed 15/4/20	Wed 15/4/20	0 days													
448			Desgin submission for contanier office modification works	30 days	Wed 15/4/20	Thu 14/5/20	0 days													
449			Design approval for container office modification works	21 days	Fri 15/5/20	Thu 4/6/20	0 days													
450			Material preparation for contanier office modification works	7 days	Fri 5/6/20	Thu 11/6/20	26 days													
451			Construction of container offices modification works	7 days	Wed 8/7/20	Tue 14/7/20	777 days													
452			Change of Market Stage	188 days	Sat 1/2/20	Thu 6/8/20	56 days													
453			From Existing Stage to Iterim Stage Arrangement	158 days	Sat 1/2/20	Tue 7/7/20	0 days													
454			Idling due to COVID-9 infection	88 days	Sat 1/2/20	Tue 28/4/20	56 days													
455			Notice to stall traders for relocation to Interim Market (30 days before the key date)	7 days	Wed 24/6/20	Tue 30/6/20	0 days													
456			Relocation of stall traders from existing NDTWM to Interim Market	7 days	Wed 1/7/20	Tue 7/7/20	0 days													
457			Original Key Date completion of interim North District Temporary Wholesale Market for Agricultural Products	0 days	Sat 28/3/20	Sat 28/3/20	886 days													
458			Revised Key Date completion of interim North District Temporary Wholesale Market for Agricultural Products	0 days	Tue 7/7/20	Tue 7/7/20	784 days													
459			Completion of Reinstatement of interim NDTWM	30 days	Wed 8/7/20	Thu 6/8/20	754 days													
460			Carrying out reinstatement works	30 days	Wed 8/7/20	Thu 6/8/20	754 days													
461			Maintenance Period (12 months of DLP)	372 days	Tue 24/8/21	Tue 30/8/22	0 days													
462			Outstanding works and defects	365 days	Tue 31/8/21	Tue 30/8/22	0 days													
463			Completion of outstanding works	180 days	Tue 31/8/21	Sat 26/2/22	185 days													
464			Rectification of defects	365 days	Tue 31/8/21	Tue 30/8/22	0 days													
465			Final handover of the site	7 days	Tue 24/8/21	Mon 30/8/21	0 days													
466			Pre-handover inspection	7 days	Tue 24/8/21	Mon 30/8/21	0 days													
467			Handover of the Site	7 days	Tue 24/8/21	Mon 30/8/21	365 days													

Project: ND/2019/06
Date: Tue 13/10/20
Revised Programme (Rev. 4)

Task
Split
Milestone

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Summary
Project Summary
Inactive Task

Inactive Milestone
Inactive Summary
Manual Task

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Duration-only
Manual Summary Rollup
Manual Summary

Start-only
Finish-only
External Tasks

External Milestone
Deadline
Critical

Critical Split
Progress
Manual Progress

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Slack

Page 7

APPENDIX B
ACTION AND LIMIT LEVELS

Appendix B - Action and Limit Levels**Table B-1 Action and Limit Levels for 1-hour TSP**

Monitoring station	Action Level (ug/m ³)	Limit Level (ug/m ³)
FLN-DMS1	303	500
FLN-DMS3	301	
KTN-DMS4	297	

Table B-2 Action and Limit Levels for 24-hour TSP

Monitoring station	Action Level (ug/m ³)	Limit Level (ug/m ³)
FLN-DMS1	150	260
FLN-DMS3	165	
KTN-DMS4	192	

Table B-3 Action and Limit Levels for Construction Noise

Time Period	Action Level	Limit Level
0700-1900 hrs on normal weekdays	When one documented complaint is received	75 dB(A) *

Noted:

If works are to be carried during restricted hours, the conditions stipulated in the construction noise permit issued by the Noise Control Authority have to be followed.

(*) reduce to 70 dB(A) for schools and 65 dB(A) during school examination periods.

Table B-4.1 Action and Limit Levels for Water Quality Monitoring⁽¹⁾

Parameters	Action Level	Limit Level
DO in mg/L (depth average) ^{#+}	5 percentile of baseline data.	4 mg/L or 1 percentile of baseline data.
SS in mg/L (depth averaged) ^{*&}	95 percentile of baseline data or 120% of upstream control station.	20 mg/L or 99 percentile of baseline data or 130% of upstream control station.
Turbidity in NTU (depth averaged) ^{*^}	95 percentile of baseline data or 120% of upstream control station.	99 percentile of baseline data or 130% of upstream control station.
Unionized ammonia in mg/L (depth averaged) ^{*~}	95 percentile of baseline data or 120% of upstream control station.	0.021mg/L or 99 percentile of baseline data or 130% of upstream control station.
Nitrate nitrogen in mg/L (depth averaged) ^{*^}	95 percentile of baseline data or 120% of upstream control station.	99 percentile of baseline data or 130% of upstream control station.

Orthophosphate in mg/L (depth averaged)*^	95 percentile of baseline data or 120% of upstream control station.	99 percentile of baseline data or 130% of upstream control station.
---	---	---

Remarks:

AL of DO is 5 percentile of baseline data or level at control station at same tide of the same day (whichever lower) and LL of DO is 4.0 mg/L or level at control station at same tide of the same day (whichever lower);

+ 1 percentile of baseline data were adopted for LL for DO as those levels were greater than 4 mg/L;

* AL is 120% of control station's level at the same tide of the same day when depth average greater than 95 percentile of baseline data;

^ LL is 130% of control station's level at the same tide of the same day when depth average greater than 99 percentile of baseline data.

~ LL is 130% of control station's level at the same tide of the same day when depth average greater than 99 percentile of baseline data or 0.021mg/L.

& LL is 130% of control station's level at the same tide of the same day when depth average greater than 99 percentile of baseline data or 20mg/L.

Table B-4.2 Summary of Baseline Water Quality Monitoring Results (KTN NDA)⁽¹⁾

Monitoring Parameter					
Location Parameter	KTN-CS1				
	Max	Min	Average	5 Percentile	1 Percentile
DO in mg/L	7.79	6.28	6.82	6.32	6.28
	Max	Min	Average	95 Percentile	99 Percentile
Turbidity in NTU	72.4	4.59	10.88	62.2	72.2
Suspended Solid in mg/L	74	2	9	60	73
Unionized ammonia in mg/L	0.0005	0.0001	0.0003	0.0004	0.0005
Nitrate nitrogen in mg/L	0.52	0.09	0.27	0.50	0.52
Orthophosphate in mg/L	0.19	0.01	0.10	0.17	0.19

Monitoring Parameter					
Location Parameter	KTN-IS1				
	Max	Min	Average	5 Percentile	1 Percentile
DO in mg/L	8.08	4.71	6.83	6.14	5.02
	Max	Min	Average	95 Percentile	99 Percentile
Turbidity in NTU	44.56	4.57	8.63	38.98	44.56
Suspended Solid in mg/L	35	2	6	31	35

Unionized ammonia in mg/L	0.0006	0.0001	0.0004	0.0005	0.0006
Nitrate nitrogen in mg/L	0.57	0.09	0.29	0.54	0.57
Orthophosphate in mg/L	0.14	0.03	0.09	0.13	0.14

Note:

(1) The Action and Limit Levels for Water Quality Monitoring and the Summary of Baseline Water Quality Monitoring Results are according to pre-construction ET's Updated EM&A Manual and Baseline Water Quality Monitoring Report (KTN & FLN NDA).

Table B-5 Action and Limit Levels for Ambient Arsenic Monitoring

Parameter	Action Level	Limit Level
Ambient Arsenic Concentration	9.36ng/m³ - 80% of 11.7ng/m ³ – the highest ambient arsenic concentration predicted during the construction phase with mitigation measures implemented)	11.7ng/m³ - the highest ambient arsenic concentration predicted during the construction phase with mitigation measures implemented

Table B-6 Action level in the event of LFG being detected

Parameter	Monitoring Results	Actions
O ₂	<19% v/v	Increase underground ventilation to restore O ₂ to >19% v/v
	<18% v/v	Stop works, evacuate all personnel, prohibit entry, and increase ventilation to restore O ₂ level to >19%
CH ₄	>10% LEL	Prohibit hot works, increase ventilation to restore CH ₄ to <10% LEL
	>20% LEL	Stop works, evacuate all personnel, increase ventilation further to restore CH ₄ to <10% LEL
CO ₂	>0.5% v/v	Increase ventilation to restore C O ₂ to <0.5% v/v
	>1.5% v/v	Stop works, evacuate all personnel, increase ventilation further to restore CO ₂ to <0.5%

Table B-7.1 Action and Limit Levels and Responses to Evidence of Disturbance to Waterbirds using in Ng Tung, Sheung Yue and Shek Sheung Rivers

Action Level	Response	Limit Level	Response
Construction Phase			
Decline in numbers of all waterbird species relative to numbers during Baseline Monitoring such that the Action Level response is triggered.	Investigate cause and if cause identified as related to NDAs project instigate remedial action to remove or reduce source of disturbance.	Decline in numbers of all waterbird species relative to numbers during Baseline Monitoring such that the Limit Level response is triggered.	Investigate cause and if caused identified as related to NDAs project instigate remedial action. Review and adjust LVNP management measures to improve conditions for

			affected species.
Decline in numbers of any one waterbird species occurring in significant numbers* during Baseline Monitoring such that the Action Level response is triggered.	Investigate cause and if cause identified as related to NDAs project instigate remedial action to remove or reduce source of disturbance.	Decline in numbers of any one waterbird species occurring in significant numbers* during Baseline Monitoring such that the Limit Level response is triggered.	Investigate cause and if caused identified as related to NDAs project instigate remedial action. Review and adjust LVNP management measures to improve conditions for affected species.
Operational Phase			
Decline in numbers of all waterbird species relative to numbers during Baseline Monitoring such that the Action Level response is triggered.	Investigate cause and if cause identified as related to NDAs review and adjust LVNP management measures to improve conditions for affected species in LVNP.	Decline in numbers of all waterbird species relative to numbers during Baseline Monitoring such that the Limit Level response is triggered.	Investigate cause and if cause identified as related to NDAs consider and implement additional mitigation measures (e.g. additional screening and screen planting, adjustments to infrastructure design).
Decline in numbers of any one waterbird species occurring in significant numbers* during Baseline Monitoring such that the Action Level response is triggered.	Investigate cause and if cause identified as related to NDAs review and adjust LVNP management measures to improve conditions for affected species.	Decline in numbers of any one waterbird species occurring in significant numbers* during Baseline Monitoring such that the Limit Level response is triggered.	Investigate cause and if cause identified as related to NDAs consider and implement additional mitigation measures (e.g. additional screen planting, adjustments to infrastructure design).

* Whether numbers are significant will depend on species and season and should be determined following collection and evaluation of Baseline survey data.

Table B-7.2 Action and Limit Levels and Responses to Evidence of Declines in Aquatic Fauna

Action Level	Response	Limit Level	Response
Construction Phase			
Reduction in species diversity such that Action Level response is triggered.	Investigate cause and if cause identified as related to Project instigate remedial action to remove or reduce source of disturbance.	Reduction in taxa diversity such that Limit Level response is triggered.	Investigate cause and if caused identified as related to Project instigate remedial action.

* Whether numbers are significant will depend on species and season. Significance threshold for each species should be reviewed following collection of Baseline survey data.

Table B-7.3 Action and Limit Levels and Responses to Evidence of Declines in non-aquatic Fauna

Action Level	Response	Limit Level	Response
Construction Phase			
Reduction in species diversity such that Action Level response is triggered.	Investigate cause and if cause identified as related to Project instigate remedial action to remove or reduce source of disturbance.	Reduction in taxa diversity such that Limit Level response is triggered.	Investigate cause and if caused identified as related to Project instigate remedial action.

* Whether numbers are significant will depend on species and season. Significance threshold for each species should be reviewed following collection of Baseline survey data.

**APPENDIX C
COPIES OF CALIBRATION
CERTIFCATES**

TEST REPORT

APPLICANT: Wellab Limited
(EM&A Department)
Room 1701, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	34033
Date of Issue:	2020-09-07
Date Received:	2020-09-04
Date Tested:	2020-09-04
Date Completed:	2020-09-07
Next Due Date:	2020-11-06

Page: 1 of 1

ATTN: Mr. W. K. Tang

Certificate of Calibration**Item for Calibration:**

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X23807
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-01

Test Conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications & Methodology:

1. Instruction and Operation Manual High Volume Sampler, Tisch Environmental Inc.
2. In-house method in according to the instruction manual: The Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	1.099
-------------------------	-------

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

APPLICANT: Wellab Limited
(EM&A Department)
Room 1701, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	34223
Date of Issue:	2020-10-27
Date Received:	2020-10-23
Date Tested:	2020-10-23
Date Completed:	2020-10-27
Next Due Date:	2020-12-26

Page: 1 of 1

ATTN: Mr. W. K. Tang

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X24476
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-05

Test Conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications & Methodology:

1. Instruction and Operation Manual High Volume Sampler, Tisch Environmental Inc.
2. In-house method in according to the instruction manual: The Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	1.073
-------------------------	-------

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

APPLICANT: Wellab Limited
(EM&A Department)
Room 1701, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	34223A
Date of Issue:	2020-10-27
Date Received:	2020-10-23
Date Tested:	2020-10-23
Date Completed:	2020-10-27
Next Due Date:	2020-12-26

Page: 1 of 1

ATTN: Mr. W. K. Tang

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X24477
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-06

Test Conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications & Methodology:

1. Instruction and Operation Manual High Volume Sampler, Tisch Environmental Inc.
2. In-house method in according to the instruction manual: The Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	1.099
-------------------------	-------

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

APPLICANT: Wellab Limited
(EM&A Department)
Room 1701, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.: 34223D
Date of Issue: 2020-10-27
Date Received: 2020-10-23
Date Tested: 2020-10-23
Date Completed: 2020-10-27
Next Due Date: 2020-12-26

Page: 1 of 1

ATTN: Mr. W. K. Tang

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X24478
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-10

Test Conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications & Methodology:

1. Instruction and Operation Manual High Volume Sampler, Tisch Environmental Inc.
2. In-house method in according to the instruction manual: The Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	1.101
-------------------------	-------

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**



PATRICK TSE
General Manager

TEST REPORT

APPLICANT: Wellab Limited
(EM&A Department)
Room 1701, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.: 32667
Date of Issue: 2019-12-06
Date Received: 2019-12-04
Date Tested: 2019-12-04
Date Completed: 2019-12-06
Next Due Date: 2020-12-05

Page: 1 of 1

ATTN: Mr. W. K. Tang

Certificate of Calibration

Item for calibration:

Description : Sound & Vibration Analyser
Manufacturer : BSWA
Model No. : BSWA 801
Serial No. : 35924
Equipment No. : N-13-01

Test conditions:

Room Temperature : 17-22 degree Celsius
Relative Humidity : 40-70%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

Reference Set Point, dB	Instrument Readings, dB
94	94.0
114	114.0

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

APPLICANT: Wellab Limited
(EM&A Department)
Room 1701, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.: 33250C
Date of Issue: 2020-03-11
Date Received: 2020-03-10
Date Tested: 2020-03-10
Date Completed: 2020-03-11
Next Due Date: 2021-03-10

Page: 1 of 1

ATTN: Mr. W. K. Tang

Certificate of Calibration

Item for calibration:

Description : Sound Level Meter
Manufacturer : BSWA
Model No. : BSWA 308
Serial No. : 580006
Equipment No. : WN-01-04

Test conditions:

Room Temperature : 17-22 degree Celsius
Relative Humidity : 40-70%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

Reference Set Point, dB	Instrument Readings, dB
94	94.0
114	114.0

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

APPLICANT: Wellab Limited
(EM&A Department)
Room 1701, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.: 33251A
Date of Issue: 2020-03-13
Date Received: 2020-03-12
Date Tested: 2020-03-12
Date Completed: 2020-03-13
Next Due Date: 2021-03-12

Page: 1 of 1

ATTN: Mr. W. K. Tang

Certificate of Calibration

Item for calibration:

Description : Sound Level Meter
Manufacturer : BSWA
Model No. : BSWA 308
Serial No. : 580013
Equipment No. : WN-01-09

Test conditions:

Room Temperature : 17-22 degree Celsius
Relative Humidity : 40-70%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

Reference Set Point, dB	Instrument Readings, dB
94	94.0
114	114.0

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

APPLICANT: Wellab Limited
(EM&A Department)
Room 1701, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.: 33963A
Date of Issue: 2020-08-21
Date Received: 2020-08-19
Date Tested: 2020-08-19
Date Completed: 2020-08-21
Next Due Date: 2021-08-20

Page: 1 of 1

ATTN: Mr. W. K. Tang

Certificate of Calibration

Item for calibration:

Description : Acoustical Calibrator
Manufacturer : SVANTEK
Model No. : SV30A
Serial No. : 24791
Equipment No. : N-09-04

Test conditions:

Room Temperature : 17-22 degree Celsius
Relative Humidity : 40-70%

Methodology:

The Sound Level Calibrator has been calibrated in accordance with the documented procedures and using standard(s) and instrument(s) which are recommended by the manufacturer, or equivalent.

Results:

Sound Pressure Level (1kHz)	Measured SPL	Tolerance
At 94 dB SPL	94.0	94.0 ± 0.1 dB
At 114 dB SPL	114.0	114.0 ± 0.1 dB

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

APPLICANT: Wellab Limited
(EM&A Department)
Room 1701, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.: 34136A
Date of Issue: 2020-10-03
Date Received: 2020-09-29
Date Tested: 2020-09-29
Date Completed: 2020-10-03
Next Due Date: 2021-10-02

Page: 1 of 1

ATTN: Mr. W. K. Tang

Certificate of Calibration

Item for calibration:

Description : Acoustical Calibrator
Manufacturer : SVANTEK
Model No. : SV30A
Serial No. : 24780
Equipment No. : N-09-05

Test conditions:

Room Temperature : 17-22 degree Celsius
Relative Humidity : 40-70%

Methodology:

The Sound Level Calibrator has been calibrated in accordance with the documented procedures and using standard(s) and instrument(s) which are recommended by the manufacturer, or equivalent.

Results:

Sound Pressure Level (1kHz)	Measured SPL	Tolerance
At 94 dB SPL	94.0	94.0 ± 0.1 dB
At 114 dB SPL	114.0	114.0 ± 0.1 dB

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

High-Volume TSP Sampler

5-POINT CALIBRATION DATA SHEET

Station FLN-DMS1 - Scattered Village Houses North of Proposed Potential Ecopark File No. WMA20002/20/0002
Date: 3-Oct-20 Operator: WK
Equipment No.: WA-12-20 Next Due Date: 2-Dec-20
Serial No. 3223

Ambient Condition			
Temperature, Ta (K)	300.4	Pressure, Pa (mmHg)	761.9

Orifice Transfer Standard Information					
Serial No.	2896	Slope, mc	0.0588	Intercept, bc	-0.02681
Last Calibration Date:	18-Feb-20	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	18-Feb-21	$Qstd = \{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler					
Calibration Point	Orifice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) X - axis	ΔW (HVS), in. of water	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Y-axis
1	12.9	3.58	61.37	12.0	3.45
2	9.6	3.09	53.01	9.8	3.12
3	7.5	2.73	46.90	8.5	2.91
4	5.2	2.27	39.13	6.3	2.50
5	3.3	1.81	31.27	4.9	2.21

By Linear Regression of Y on X

Slope, mw = 0.0420 Intercept, bw = 0.8909
Correlation coefficient* = 0.9983

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation	
From the TSP Field Calibration Curve, take Qstd = 43 CFM	
From the Regression Equation, the "Y" value according to	
$mw \times Qstd + bw = [\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$	
Therefore, Set Point; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ <u>7.32</u>	

Remarks: _____

Conducted by: Wk Tang Signature: [Signature] Date: 3/10/2020
Checked by: LEE Man Signature: [Signature] Date: 3-10-2020

RSP - Respirable Suspended Particulates Sampler (PM 10)
Field Calibration Report

Station KTN-DMS4A - Temporary Structure at Pak Shek Au File No. WMA20002/03/0002
Date: 15-Oct-20 Operator: WK
Equipment No.: WA-11-03 Next Due Date: 14-Dec-20
Serial No. 3225

Ambient Condition			
Temperature, Ta (K)	301	Pressure, Pa (mmHg)	763.6

Orifice Transfer Standard Information					
Serial No.:	2896	Slope, mc	0.0588	Intercept, bc	-0.02681
Last Calibration Date:	18-Feb-20	Next Calibration Date:	18-Feb-21		

Calibration of RSP Sampler							
Calibration Point	ORIFICE					HVS	
	ΔH (orifice), in. of water	Del Hc ⁽¹⁾	Qstd ⁽²⁾ (CFM)	Qa ⁽³⁾ (CFM) X-axis	Qa ⁽³⁾ (m ³ /min) X-axis	ΔW (HVS), in. of water	$[\Delta W \times (Ta + 30) / Pa]^{1/2}$ Y-axis
1	8.6	8.55	50.20	50.47	1.43	9.6	2.04
2	6.8	6.76	44.69	44.93	1.27	8.4	1.91
3	5.4	5.37	39.87	40.08	1.13	7.7	1.83
4	3.5	3.48	32.19	32.36	0.92	6.6	1.69
5	2.0	1.99	24.44	24.57	0.70	5.1	1.49

By Linear Regression of Y on X

Slope, mw = 0.0206 Intercept, bw = 0.9968
Correlation coefficient* = 0.9965

(1) $DEL Hc = \Delta H \times (Pa / 760 \times 298 / Ta)$

(2) $Qstd = \{[\Delta H \times (Pa / 760) \times (298 / Ta)]^{1/2} - bc\} / mc$ (m³/min)

(3) $Qa = Qstd \times (Ta / Pa) \times (760 / 298)$ (m³/min)

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation	
Set Point Flow Rate., SFR	
$SFR = 1.13 \times (760 / Pa) \times (Ta / 298) =$	<u>40.14</u>
Sampler Well - Type Manometer Set Point, SSP	
$SSP = [(mw \times SFR + bw)^2 \times Pa] / (Ta + 30) =$	<u>7.68</u>

Remarks: _____

Conducted by: Wk Tung Signature: Wk Tung Date: 15/10/2020
Checked by: LFE MAN Signature: her Date: 15-10-2020

Certificate of Calibration

Calibration Certification Information

Cal. Date: February 18, 2020

Rootsmeter S/N: 438320

Ta: 294 °K

Operator: Jim Tisch

Pa: 753.1 mm Hg

Calibration Model #: TE-5025A

Calibrator S/N: 2896

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4340	3.2	2.00
2	3	4	1	1.0230	6.4	4.00
3	5	6	1	0.9080	8.0	5.00
4	7	8	1	0.8680	8.8	5.50
5	9	10	1	0.7160	12.8	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)	$\sqrt{\Delta H \left(\frac{Ta}{Pa} \right)}$ (y-axis)
1.0001	0.6975	1.4173	0.9958	0.6944	0.8836
0.9959	0.9735	2.0044	0.9915	0.9692	1.2496
0.9937	1.0944	2.2410	0.9894	1.0896	1.3971
0.9927	1.1436	2.3504	0.9883	1.1386	1.4653
0.9873	1.3790	2.8347	0.9830	1.3729	1.7672
QSTD	m=	2.07675	QA	m=	1.30043
	b=	-0.02681		b=	-0.01672
	r=	0.99993		r=	0.99993

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= $1/m \left(\left(\sqrt{\Delta H \left(\frac{Ta}{Pa} \right)} \right) - b \right)$	

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



Calibration Certificate

Number: CCP/80000

Customer: Hong Kong Landfill Restoration Group Limited
Contact Person: Mr. Stanley Cheng
Detector Model: RKI Eagle
Serial Number: E094106

Sensor Type	Calibration gas & concentration	Fresh air reading	Span Set to	Gas Mfg. Co. Cylinder / Lot No.
CH4	50% vol	0% vol	50% vol	SPANTECH / M70/05/2020-1 to 6
CH4	50% LEL	0% LEL	50% LEL	SPANTECH / M63/05/2020-1 to 6
O2	18% vol	20.9% vol	18% vol	SPANTECH / M63/05/2020-1 to 6
CO2	30% vol	0% vol	30% vol	SPANTECH / AG3431-7-1

Next Calibration Date: 30th July 2021

Remarks: Instrument PASSED – fit for service.

Authorized Signature



Technical Department

Date: 31st July 2020

FireMark Hong Kong Limited
Flat A, 11/F., Hop Hing Industrial Building, 704 Castle Peak Road, Lai Chi Kok,
Kowloon, Hong Kong
Tel : (852) 2751 8871 Fax : (852) 2751 8806

**APPENDIX D
ENVIRONMENTAL MONITORING
SCHEDULES**

Contract No. NDO 04/2019
Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas
Impact Air Quality and Noise Monitoring Schedule (November 2020)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1-Nov	2-Nov	3-Nov	4-Nov	5-Nov	6-Nov	7-Nov
	<u>1hr TSP* X3, 24hr TSP*</u> KTN-DMS4 <u>24hr TSP</u> FLN-DMS1, FLN-DMS3 <u>Noise</u> CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6	<u>1hr TSP* X3</u> FLN-DMS1, FLN-DMS3 <u>Noise</u> CP-FLN-NMS1, CP-FLN-NMS2		<u>24hr RSP (Arsenic)</u> KTN-DMS4A	<u>1hr TSP* X3, 24hr TSP*</u> KTN-DMS4 <u>24hr TSP</u> FLN-DMS1, FLN-DMS3	
8-Nov	9-Nov	10-Nov	11-Nov	12-Nov	13-Nov	14-Nov
	<u>1hr TSP* X3</u> FLN-DMS1, FLN-DMS3 <u>Noise</u> CP-FLN-NMS1, CP-FLN-NMS2		<u>24hr RSP (Arsenic)</u> KTN-DMS4A	<u>1hr TSP* X3, 24hr TSP*</u> KTN-DMS4 <u>24hr TSP</u> FLN-DMS1, FLN-DMS3 <u>Noise</u> CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6	<u>1hr TSP* X3</u> FLN-DMS1, FLN-DMS3	
15-Nov	16-Nov	17-Nov	18-Nov	19-Nov	20-Nov	21-Nov
		<u>24hr RSP (Arsenic)</u> KTN-DMS4A	<u>1hr TSP* X3, 24hr TSP*</u> KTN-DMS4 <u>24hr TSP</u> FLN-DMS1, FLN-DMS3 <u>Noise</u> CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6	<u>1hr TSP* X3</u> FLN-DMS1, FLN-DMS3 <u>Noise</u> CP-FLN-NMS1, CP-FLN-NMS2		
22-Nov	23-Nov	24-Nov	25-Nov	26-Nov	27-Nov	28-Nov
	<u>24hr RSP (Arsenic)</u> KTN-DMS4A	<u>1hr TSP* X3, 24hr TSP*</u> KTN-DMS4 <u>24hr TSP</u> FLN-DMS1, FLN-DMS3 <u>Noise</u> CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6	<u>1hr TSP* X3</u> FLN-DMS1, FLN-DMS3 <u>Noise</u> CP-FLN-NMS1, CP-FLN-NMS2		<u>24hr RSP (Arsenic)</u> KTN-DMS4A	
29-Nov	30-Nov					
	<u>1hr TSP* X3, 24hr TSP*</u> KTN-DMS4 <u>24hr TSP</u> FLN-DMS1, FLN-DMS3					

Remarks:

*Monitoring session would be conducted by portable TSP monitor.

Environmental Permit(s)	Contract No.	Air Quality Stations	Noise Stations
EP-466/2013 EP-467/2013/A EP-468/2013/A	ND/2019/01	<u>1hr TSP and 24hr TSP</u> KTN-DMS4 - Temporary Structure near Fanling Highway (near Pak Shek Au)	--
EP-468/2013/A	ND/2019/03		
EP-466/2013 EP-467/2013/A EP-468/2013/A	ND/2019/01	<u>24hr RSP (Arsenic)</u> KTN-DMS4A - Temporary Structure at Pak Shek Au	--
EP-468/2013/A	ND/2019/03		
EP-467/2013/A EP-468/2013/A ⁽¹⁾	ND/2019/01	--	CP-KTN-NMS2 - Residential Buildings at Ma Tso Lung
EP-468/2013/A ⁽²⁾	ND/2019/01	--	CP-KTN-NMS3 -Fung Kong Garden
EP-469/2013 ⁽³⁾	ND/2019/02	--	CP-KTN-NMS6 - Ho Sheung Heung, Hau Ku Shek Ancestral Hall, Hung Shing Temple & Pai Fung Temple and Sin Wai Nunnery
EP-470/2013	ND/2019/01	--	CP-KTN-NMS5 - N/A
EP-473/2013/A ⁽⁴⁾	ND/2019/03	<u>1hr TSP and 24hr TSP</u> FLN-DMS1 - Scattered Village Houses North of Proposed Potential Ecopark	--
EP-473/2013/A ⁽⁵⁾	ND/2019/05	<u>1hr TSP and 24hr TSP</u> FLN-DMS3 - House near Tong Hang	--
EP-473/2013/A ⁽⁶⁾	ND/2019/05	--	CP-FLN-NMS2 - Scattered Village Houses in Tong Hang
EP-473/2013/A ⁽⁷⁾	ND/2019/03	--	CP-FLN-NMS1 - Belair Monte
EP-473/2013/A	ND/2019/05	--	
EP-475/2013/A	ND/2019/06	--	
Remarks: 1. Since the distance between monitoring station CP-KTN-NMS2 and site boundary of ND/2019/03 under EP-468/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03 2. Since the distance between monitoring station CP-KTN-NMS3 and site boundary of ND/2019/03 under EP-468/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03 3. Since the distance between monitoring station CP-KTN-NMS1 and site boundary of ND/2019/02 under EP-469/2013 exceeds 300m. The monitoring station is not applicable to ND/2019/02 4. Since the distance between monitoring station FLN-DMS1 and site boundary of ND/2019/05 under EP-473/2013/A exceeds 500m. The monitoring station is not applicable to ND/2019/05 5. Since the distance between monitoring station FLN-DMS3 and site boundary of ND/2019/03 under EP-473/2013/A exceeds 500m. The monitoring station is not applicable to ND/2019/03 6. Since the distance between monitoring station CP-FLN-NMS2 and site boundary of ND/2019/03 under EP-473/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03 7. Since the distance between monitoring station CP-FLN-NMS1 and site boundary of ND/2019/03 under EP-473/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03.			

Contract No. NDO 04/2019
Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas
Impact Ecological Monitoring Schedule (November 2020)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1-Nov	2-Nov	3-Nov	4-Nov	5-Nov	6-Nov	7-Nov
	Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River, Sheung Yue River, and Long Valley High tide: Start time: 11:00 Low tide: Start time: 15:30					
8-Nov	9-Nov	10-Nov	11-Nov	12-Nov	13-Nov	14-Nov
					Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River, Sheung Yue River, and Long Valley High tide: Start time: 10:00 Low tide: Start time: 14:00	
15-Nov	16-Nov	17-Nov	18-Nov	19-Nov	20-Nov	21-Nov
	Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River, Sheung Yue River, and Long Valley# High tide: Start time: 10:00 Low tide: Start time: 15:00				Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution <u>T1, T6</u>	
22-Nov	23-Nov	24-Nov	25-Nov	26-Nov	27-Nov	28-Nov
			Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River, Sheung Yue River, and Long Valley High tide: Start time: 08:00 Low tide: Start time: 12:00		Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution <u>T3, T4, T5</u>	
29-Nov	30-Nov					
	Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River, Sheung Yue River, and Long Valley# High tide: Start time: 10:00 Low tide: Start time: 14:00					

#Night-time avifauna monitoring in Long Valley

Item	Activity	Monitoring Stations/Transects
1	Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River, Sheung Yue River, and Long Valley	<p>T1. Ng Tung River T2. Ng Tung River T3. Sheung Yue River T5. Long Valley</p>
2	Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution	<p>T1. Ma Tso Lung riparian zone and associated wetland habitats</p> <p>T1. Green belt areas E1-8,D1-8 and G1-3 in KTN NDA</p> <p>T1. AGR one C2-4 and C2-2 in KTN NDA</p> <p>T1. Areas north of Ng Tung River</p> <p>T3. Area west of Siu Hang San Tsuen Stream</p> <p>T4. South side of Fanling Highway and Castle Peak Road in the vicinity of Pak Shek Au</p> <p>T5. Area west and east of the southern limit of the FLN NDA work area</p> <p>T6. Areas in the western part of KTN</p>

Contract No. NDO 04/2019
Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas
Weekly Site Inspection Schedule for November 2020

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1-Nov	2-Nov	3-Nov	4-Nov	5-Nov	6-Nov	7-Nov
	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01)	Site Inspection (ND/2019/02)	Site Inspection (ND/2019/06)	Site Inspection (ND/2019/03)	
8-Nov	9-Nov	10-Nov	11-Nov	12-Nov	13-Nov	14-Nov
	Site Inspection (ND/2019/06)	Site Inspection (ND/2019/01)	Site Inspection (ND/2019/02) Site Inspection (ND/2019/05)		Site Inspection (ND/2019/03)	
15-Nov	16-Nov	17-Nov	18-Nov	19-Nov	20-Nov	21-Nov
	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01) Site Inspection (ND/2019/03)		Site Inspection (ND/2019/06)	Site Inspection (ND/2019/02)	
22-Nov	23-Nov	24-Nov	25-Nov	26-Nov	27-Nov	28-Nov
	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01)	Site Inspection (ND/2019/02)	Site Inspection (ND/2019/06)	Site Inspection (ND/2019/03)	
29-Nov	30-Nov					
	Site Inspection (ND/2019/05)					

Contract No. NDO 04/2019
Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas
Tentative Impact Air Quality and Noise Monitoring Schedule (December 2020)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1-Dec	2-Dec	3-Dec	4-Dec	5-Dec
		<u>1hr TSP* X3</u> FLN-DMS1, FLN-DMS3 <u>Noise</u> CP-FLN-NMS1, CP-FLN-NMS2		<u>24hr RSP (Arsenic)</u> KTN-DMS4A	<u>1hr TSP* X3, 24hr TSP*</u> KTN-DMS4 <u>24hr TSP</u> FLN-DMS1, FLN-DMS3 <u>Noise</u> CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6	
6-Dec	7-Dec	8-Dec	9-Dec	10-Dec	11-Dec	12-Dec
	<u>1hr TSP* X3</u> FLN-DMS1, FLN-DMS3 <u>Noise</u> CP-FLN-NMS1, CP-FLN-NMS2		<u>24hr RSP (Arsenic)</u> KTN-DMS4A	<u>1hr TSP* X3, 24hr TSP*</u> KTN-DMS4 <u>24hr TSP</u> FLN-DMS1, FLN-DMS3 <u>Noise</u> CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6	<u>1hr TSP* X3</u> FLN-DMS1, FLN-DMS3	
13-Dec	14-Dec	15-Dec	16-Dec	17-Dec	18-Dec	19-Dec
		<u>24hr RSP (Arsenic)</u> KTN-DMS4A	<u>1hr TSP* X3, 24hr TSP*</u> KTN-DMS4 <u>24hr TSP</u> FLN-DMS1, FLN-DMS3 <u>Noise</u> CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6	<u>1hr TSP* X3</u> FLN-DMS1, FLN-DMS3 <u>Noise</u> CP-FLN-NMS1, CP-FLN-NMS2		
20-Dec	21-Dec	22-Dec	23-Dec	24-Dec	25-Dec	26-Dec
	<u>24hr RSP (Arsenic)</u> KTN-DMS4A	<u>1hr TSP* X3, 24hr TSP*</u> KTN-DMS4 <u>24hr TSP</u> FLN-DMS1, FLN-DMS3 <u>Noise</u> CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6	<u>1hr TSP* X3</u> FLN-DMS1, FLN-DMS3 <u>Noise</u> CP-FLN-NMS1, CP-FLN-NMS2	<u>24hr RSP (Arsenic)</u> KTN-DMS4A		
27-Dec	28-Dec	29-Dec	30-Dec	31-Dec		
	<u>1hr TSP* X3, 24hr TSP*</u> KTN-DMS4 <u>24hr TSP</u> FLN-DMS1, FLN-DMS3 <u>Noise</u> CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6	<u>1hr TSP* X3</u> FLN-DMS1, FLN-DMS3 <u>Noise</u> CP-FLN-NMS1, CP-FLN-NMS2	<u>24hr RSP (Arsenic)</u> KTN-DMS4A	<u>1hr TSP* X3, 24hr TSP*</u> KTN-DMS4		

The schedule may be changed due to unforeseen circumstances (adverse weather, etc)

Remarks:

*Monitoring session would be conducted by portable TSP monitor.

Environmental Permit(s)	Contract No.	Air Quality Stations	Noise Stations
EP-466/2013 EP-467/2013/A EP-468/2013/A	ND/2019/01	<u>1hr TSP and 24hr TSP</u> KTN-DMS4 - Temporary Structure near Fanling Highway (near Pak Shek Au)	--
EP-468/2013/A	ND/2019/03		
EP-466/2013 EP-467/2013/A EP-468/2013/A	ND/2019/01	<u>24hr RSP (Arsenic)</u> KTN-DMS4A - Temporary Structure at Pak Shek Au	--
EP-468/2013/A	ND/2019/03		
EP-467/2013/A EP-468/2013/A ⁽¹⁾	ND/2019/01	--	CP-KTN-NMS2 - Residential Buildings at Ma Tso Lung
EP-468/2013/A ⁽²⁾	ND/2019/01	--	CP-KTN-NMS3 -Fung Kong Garden
EP-469/2013 ⁽³⁾	ND/2019/02	--	CP-KTN-NMS6 - Ho Sheung Heung, Hau Ku Shek Ancestral Hall, Hung Shing Temple & Pai Fung Temple and Sin Wai Nunnery
EP-470/2013	ND/2019/01	--	CP-KTN-NMS5 - N/A
EP-473/2013/A ⁽⁴⁾	ND/2019/03	<u>1hr TSP and 24hr TSP</u> FLN-DMS1 - Scattered Village Houses North of Proposed Potential Ecopark	--
EP-473/2013/A ⁽⁵⁾	ND/2019/05	<u>1hr TSP and 24hr TSP</u> FLN-DMS3 - House near Tong Hang	--
EP-473/2013/A ⁽⁶⁾	ND/2019/05	--	CP-FLN-NMS2 - Scattered Village Houses in Tong Hang
EP-473/2013/A ⁽⁷⁾	ND/2019/03	--	CP-FLN-NMS1 - Belair Monte
EP-473/2013/A	ND/2019/05	--	
EP-475/2013/A	ND/2019/06	--	
Remarks: 1. Since the distance between monitoring station CP-KTN-NMS2 and site boundary of ND/2019/03 under EP-468/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03 2. Since the distance between monitoring station CP-KTN-NMS3 and site boundary of ND/2019/03 under EP-468/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03 3. Since the distance between monitoring station CP-KTN-NMS1 and site boundary of ND/2019/02 under EP-469/2013 exceeds 300m. The monitoring station is not applicable to ND/2019/02 4. Since the distance between monitoring station FLN-DMS1 and site boundary of ND/2019/05 under EP-473/2013/A exceeds 500m. The monitoring station is not applicable to ND/2019/05 5. Since the distance between monitoring station FLN-DMS3 and site boundary of ND/2019/03 under EP-473/2013/A exceeds 500m. The monitoring station is not applicable to ND/2019/03 6. Since the distance between monitoring station CP-FLN-NMS2 and site boundary of ND/2019/03 under EP-473/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03 7. Since the distance between monitoring station CP-FLN-NMS1 and site boundary of ND/2019/03 under EP-473/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03.			

Contract No. NDO 04/2019
Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas
Tentative Impact Ecological Monitoring Schedule (December 2020)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1-Dec	2-Dec	3-Dec	4-Dec	5-Dec
6-Dec	7-Dec	8-Dec	9-Dec	10-Dec	11-Dec	12-Dec
	Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution <u>T3, T4, T5</u>			Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River <u>T1 T2</u> High tide: Start time: 08:00 Low tide: Start time: 13:00	Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley# <u>T3 T5</u> High tide: Start time: 09:00 Low tide: Start time: 14:00	
13-Dec	14-Dec	15-Dec	16-Dec	17-Dec	18-Dec	19-Dec
	Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River <u>T1 T2</u> High tide: Start time: 11:00 Low tide: Start time: 15:00	Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley <u>T3 T5</u> High tide: Start time: 12:00 Low tide: Start time: 09:00			Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution <u>T1, T6</u>	
20-Dec	21-Dec	22-Dec	23-Dec	24-Dec	25-Dec	26-Dec
	Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River <u>T1 T2</u> High tide: Start time: 15:00 Low tide: Start time: 10:00		Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley# <u>T3 T5</u> High tide: Start time: 16:00 Low tide: Start time: 12:00			
27-Dec	28-Dec	29-Dec	30-Dec	31-Dec		
			Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River <u>T1 T2</u> High tide: Start time: 12:00 Low tide: Start time: 15:00	Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley <u>T3 T5</u> High tide: Start time: 12:00 Low tide: Start time: 08:00		

The schedule may be changed due to unforeseen circumstances (adverse weather, etc)

#Night-time avifauna monitoring in Long Valley

Item	Activity	Monitoring Stations/Transects
1	Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River, Sheung Yue River, and Long Valley	<p>T1. Ng Tung River T2. Ng Tung River T3. Sheung Yue River T5. Long Valley</p>
2	Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution	<p>T1. Ma Tso Lung riparian zone and associated wetland habitats</p> <p>T1. Green belt areas E1-8,D1-8 and G1-3 in KTN NDA</p> <p>T1. AGR one C2-4 and C2-2 in KTN NDA</p> <p>T1. Areas north of Ng Tung River</p> <p>T3. Area west of Siu Hang San Tsuen Stream</p> <p>T4. South side of Fanling Highway and Castle Peak Road in the vicinity of Pak Shek Au</p> <p>T5. Area west and east of the southern limit of the FLN NDA work area</p> <p>T6. Areas in the western part of KTN</p>

Contract No. NDO 04/2019
Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas
Tentative Weekly Site Inspection Schedule for December 2020

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1-Dec	2-Dec	3-Dec	4-Dec	5-Dec
		Site Inspection (ND/2019/01)	Site Inspection (ND/2019/02)	Site Inspection (ND/2019/06)	Site Inspection (ND/2019/03)	
6-Dec	7-Dec	8-Dec	9-Dec	10-Dec	11-Dec	12-Dec
	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01)	Site Inspection (ND/2019/02)	Site Inspection (ND/2019/06)	Site Inspection (ND/2019/03)	
13-Dec	14-Dec	15-Dec	16-Dec	17-Dec	18-Dec	19-Dec
	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01)	Site Inspection (ND/2019/02)	Site Inspection (ND/2019/06)	Site Inspection (ND/2019/03)	
20-Dec	21-Dec	22-Dec	23-Dec	24-Dec	25-Dec	26-Dec
	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01)	Site Inspection (ND/2019/02)	Site Inspection (ND/2019/06) Site Inspection (ND/2019/03)		
27-Dec	28-Dec	29-Dec	30-Dec	31-Dec		
	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01)	Site Inspection (ND/2019/02)	Site Inspection (ND/2019/06) Site Inspection (ND/2019/03)		

The schedule may be changed due to unforeseen circumstances (adverse weather, etc)

APPENDIX E
AIR QUALITY AND AMBIENT ARSENIC
MONITORING RESULTS AND
GRAPHICAL PRESENTATION

Appendix E - 1-hour TSP Monitoring Results

Location FLN-DMS1 - Scattered Village Houses North of Proposed Potential Ecopark			
Date	Time	Weather	Particulate Concentration ($\mu\text{g}/\text{m}^3$)
3-Nov-20	13:00	Cloudy	112.9
3-Nov-20	14:00	Cloudy	115.8
3-Nov-20	15:00	Cloudy	106.0
9-Nov-20	13:00	Sunny	120.5
9-Nov-20	14:00	Sunny	111.8
9-Nov-20	15:00	Sunny	101.2
13-Nov-20	8:45	Sunny	136.7
13-Nov-20	9:45	Sunny	130.7
13-Nov-20	10:45	Sunny	146.4
19-Nov-20	9:00	Fine	84.4
19-Nov-20	10:00	Fine	92.9
19-Nov-20	11:00	Fine	87.3
25-Nov-20	8:30	Sunny	78.4
25-Nov-20	9:30	Sunny	86.5
25-Nov-20	10:30	Sunny	92.6
Average			106.9
Maximum			146.4
Minimum			78.4

Location FLN-DMS3 - House near Tong Hang			
Date	Time	Weather	Particulate Concentration ($\mu\text{g}/\text{m}^3$)
3-Nov-20	8:45	Cloudy	123.3
3-Nov-20	9:45	Cloudy	138.4
3-Nov-20	10:45	Cloudy	122.0
9-Nov-20	13:00	Sunny	133.6
9-Nov-20	14:00	Sunny	122.7
9-Nov-20	15:00	Sunny	121.8
13-Nov-20	13:00	Sunny	187.5
13-Nov-20	14:00	Sunny	181.8
13-Nov-20	15:00	Sunny	190.8
19-Nov-20	13:00	Fine	97.7
19-Nov-20	14:00	Fine	113.8
19-Nov-20	15:00	Fine	106.1
25-Nov-20	8:45	Sunny	216.7
25-Nov-20	9:45	Sunny	162.7
25-Nov-20	10:45	Sunny	120.9
Average			142.7
Maximum			216.7
Minimum			97.7

Appendix E - 1-hour TSP Monitoring Results

Location KTN-DMS4 - Temporary Structure near Fanling Highway (near Pak Shek Au)			
Date	Time	Weather	Particulate Concentration ($\mu\text{g}/\text{m}^3$)
2-Nov-20	9:00	Sunny	149.8
2-Nov-20	10:00	Sunny	143.0
2-Nov-20	11:00	Sunny	122.8
6-Nov-20	13:00	Sunny	115.1
6-Nov-20	14:00	Sunny	122.1
6-Nov-20	15:00	Sunny	97.8
12-Nov-20	9:00	Sunny	134.7
12-Nov-20	10:00	Sunny	123.1
12-Nov-20	11:00	Sunny	99.0
18-Nov-20	13:00	Cloudy	39.1
18-Nov-20	14:00	Cloudy	39.9
18-Nov-20	15:00	Cloudy	44.2
24-Nov-20	9:00	Cloudy	115.0
24-Nov-20	10:00	Cloudy	110.7
24-Nov-20	11:00	Cloudy	123.9
30-Nov-20	9:00	Sunny	124.9
30-Nov-20	10:00	Sunny	101.0
30-Nov-20	11:00	Sunny	98.1
Average			105.8
Maximum			149.8
Minimum			39.1

Appendix E - 24-hour TSP Monitoring Results

Location FLN-DMS1 - Scattered Village Houses North of Proposed Potential Ecopark

Start Date	Weather Condition	Air Temp. (K)	Filter Weight (g)		Particulate weight (g)	Elapse Time		Sampling Time(hrs.)	Flow Rate (m ³ /min.)		Av. flow (m ³ /min)	Total vol. (m ³)	Conc. (µg/m ³)
			Initial	Final		Initial	Final		Initial	Final			
2-Nov-20	Sunny	295.3	3.4662	3.6640	0.1978	3755.9	3779.9	24.0	1.23	1.23	1.23	1777.2	111.3
6-Nov-20	Sunny	294.5	3.5164	3.7066	0.1902	3779.9	3803.9	24.0	1.24	1.24	1.24	1781.4	106.8
12-Nov-20	Sunny	291.3	3.5040	3.7190	0.2150	3803.9	3827.9	24.0	1.25	1.25	1.25	1799.6	119.5
18-Nov-20	Sunny	297.4	3.5086	3.6438	0.1352	3837.1	3861.1	24.0	1.23	1.22	1.23	1764.8	76.6
24-Nov-20	Sunny	295.5	3.4879	3.6803	0.1924	3861.1	3885.1	24.0	1.24	1.24	1.24	1781.3	108.0
30-Nov-20	Sunny	290.3	3.4898	3.6716	0.1818	3885.1	3909.1	24.0	1.26	1.26	1.26	1809.8	100.5
												Min	76.6
												Max	119.5
												Average	103.8

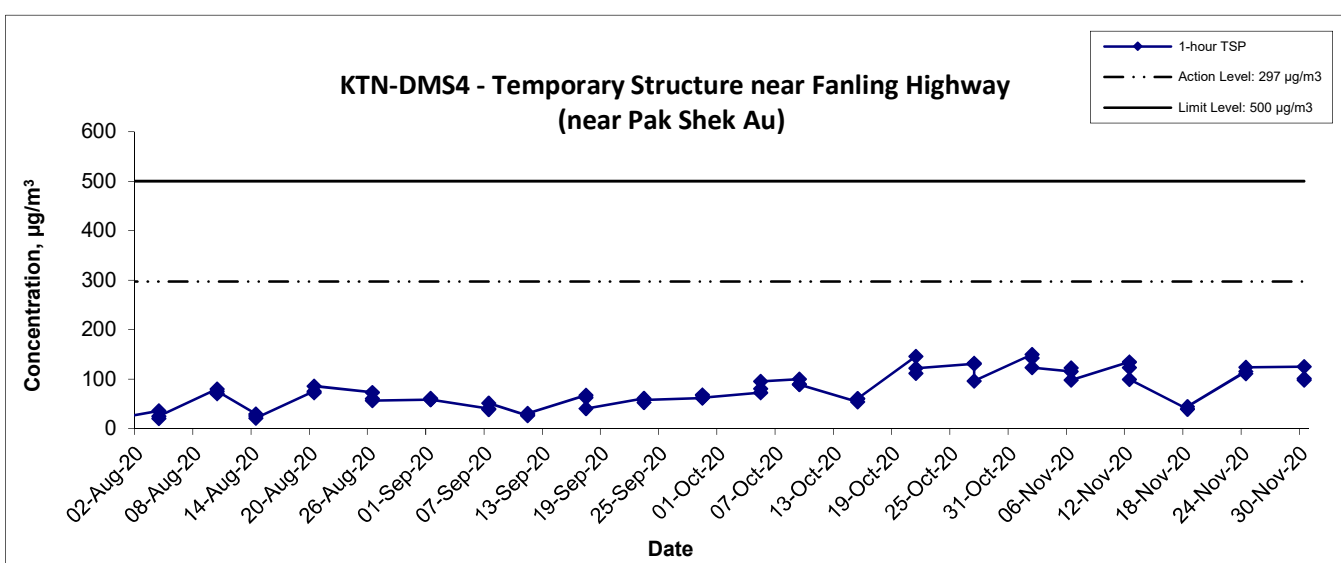
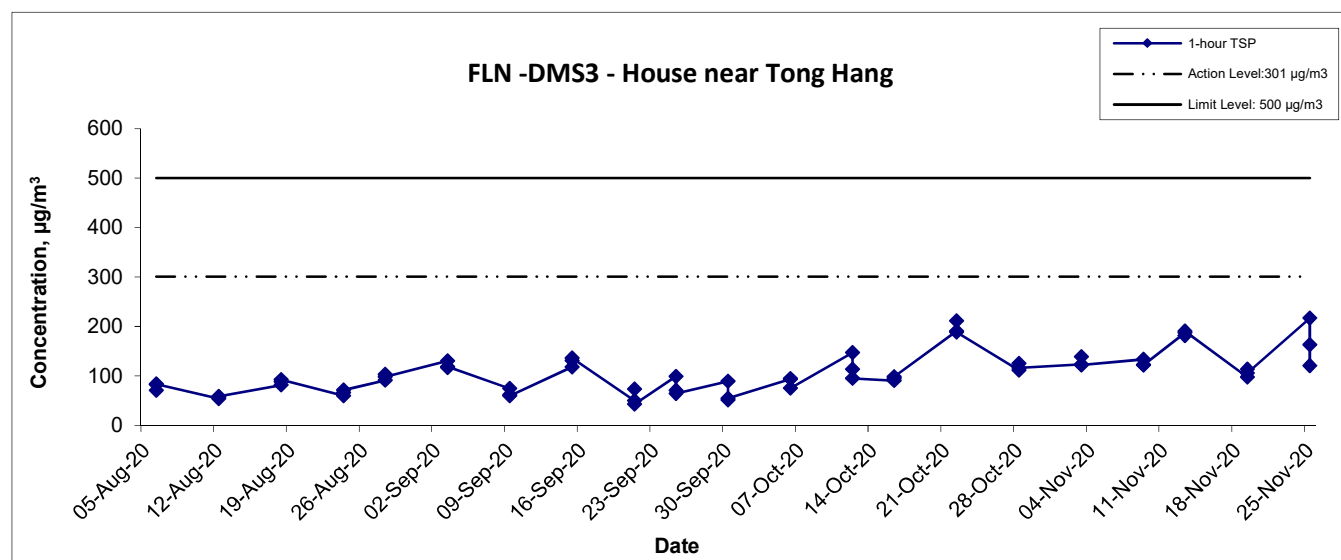
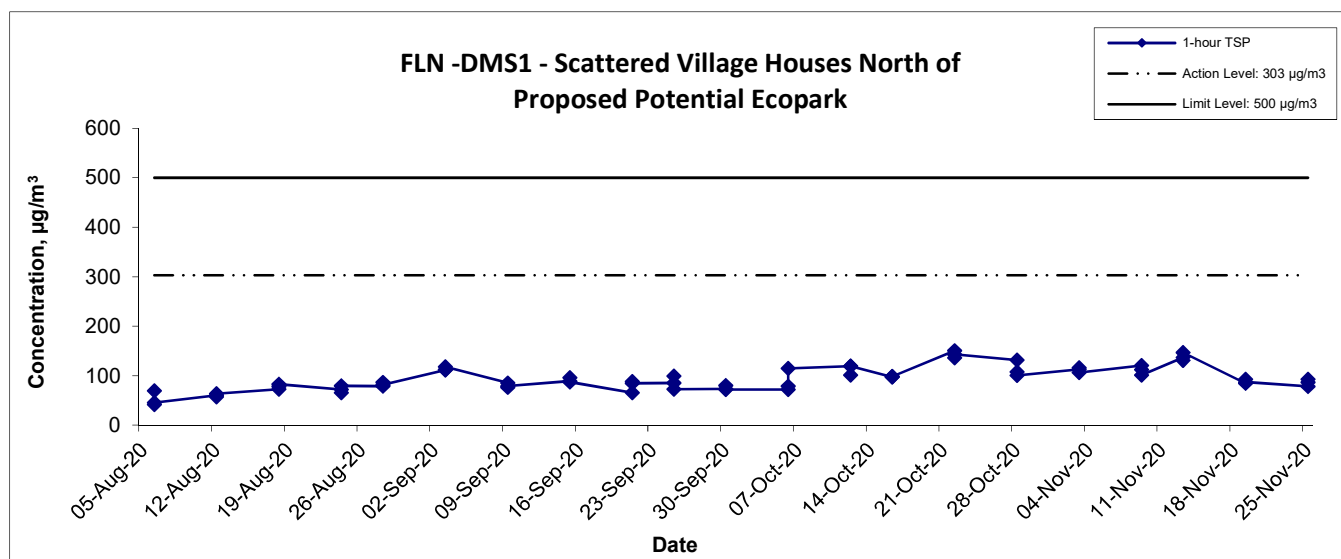
Location FLN-DMS3 - House near Tong Hang

Start Date	Weather Condition	Air Temp. (K)	Filter Weight (g)		Particulate weight (g)	Elapse Time		Sampling Time(hrs.)	Flow Rate (m ³ /min.)		Av. flow (m ³ /min)	Total vol. (m ³)	Conc. (µg/m ³)
			Initial	Final		Initial	Final		Initial	Final			
2-Nov-20	Sunny	295.4	3.4983	3.5859	0.0876	4797.1	4821.1	24.0	1.23	1.23	1.23	1774.3	49.4
6-Nov-20	Sunny	294.4	3.5078	3.5945	0.0867	4821.1	4845.1	24.0	1.24	1.23	1.24	1778.4	48.8
12-Nov-20	Sunny	291.4	3.5224	3.7078	0.1854	4845.1	4869.1	24.0	1.25	1.24	1.24	1792.2	103.4
18-Nov-20	Sunny	297.5	3.4870	3.5308	0.0438	4869.1	4893.1	24.0	1.23	1.22	1.23	1764.6	24.8
24-Nov-20	Sunny	295.5	3.4891	3.5696	0.0805	4903.4	4927.4	24.0	1.24	1.23	1.23	1778.0	45.3
30-Nov-20	Sunny	290.4	3.5202	3.5939	0.0737	4927.4	4951.4	24.0	1.25	1.25	1.25	1800.2	40.9
												Min	24.8
												Max	103.4
												Average	52.1

Appendix E - 24-hour TSP Monitoring Results

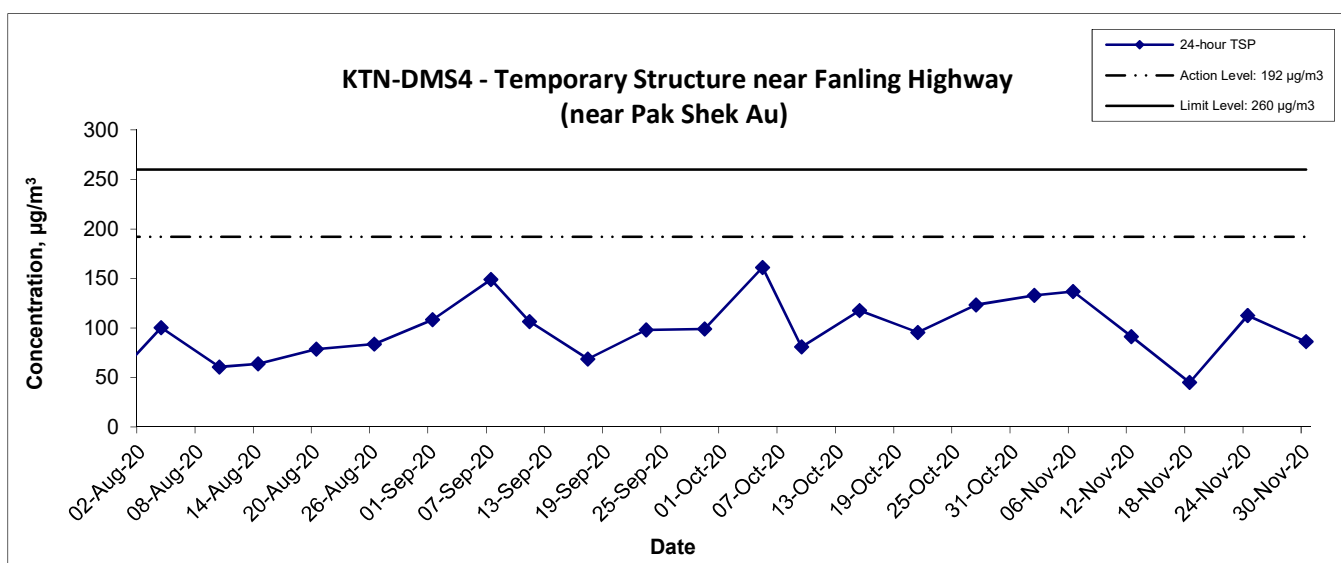
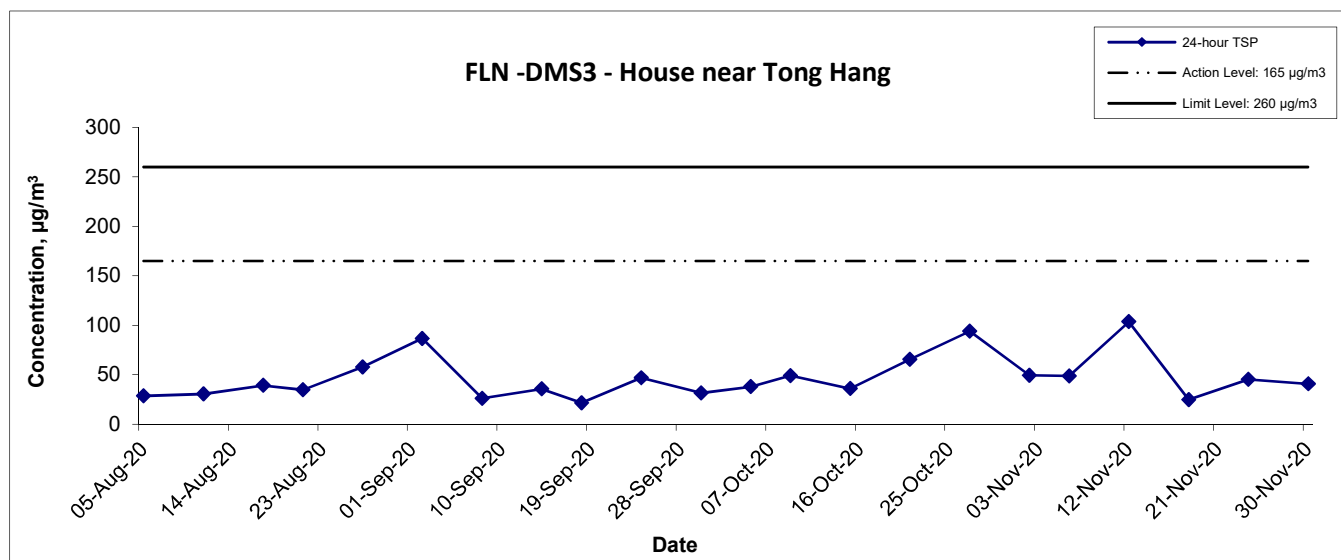
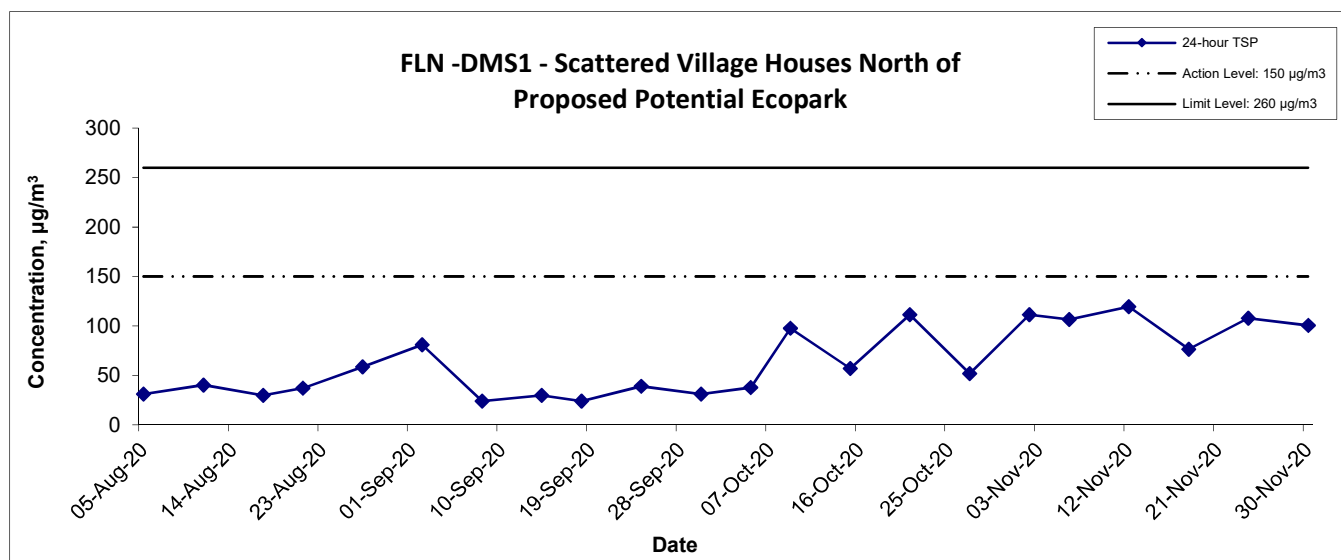
Location KTN-DMS4 - Temporary Structure near Fanling Highway (near Pak Shek Au)			
Date	Time	Weather	Particulate Concentration ($\mu\text{g}/\text{m}^3$)
2-Nov-20	9:00	Sunny	132.9
6-Nov-20	11:00	Sunny	136.7
12-Nov-20	8:00	Sunny	91.2
18-Nov-20	8:00	Cloudy	44.7
24-Nov-20	9:00	Cloudy	112.5
30-Nov-20	9:00	Sunny	86.2
		Minimum	44.7
		Maximum	136.7
		Average	100.7


1-hr TSP Concentration Levels



Title Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwo Tung North and Fanling North New Development Areas Graphical Presentation of 1-hour TSP Monitoring Results	Scale N.T.S	Project No. WMA20002	
	Date Nov 20	Appendix E	

24-hr TSP Concentration Levels

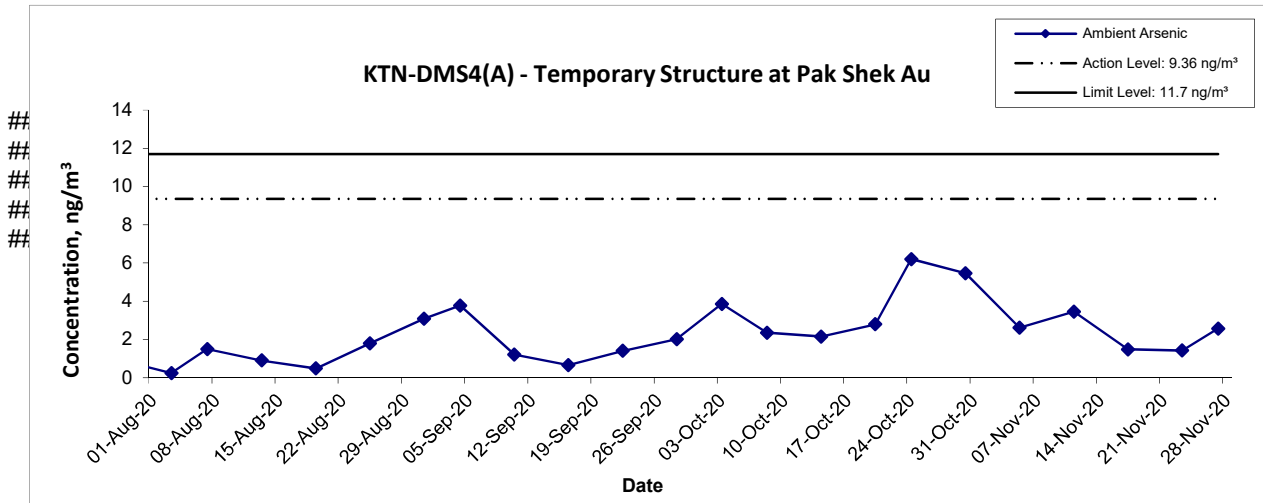



Title Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwo Tung North and Fanling North New Development Areas Graphical Presentation of 24-hour TSP Monitoring Results	Scale N.T.S	Project No. WMA20002	 consulting . testing . research
	Date Nov 20	Appendix E	

Appendix E - Ambient Arsenic Monitoring Results

Location KTN-DMS4(A) - Temporary Structure at Pak Shek Au			
Date	Arsenic (μg)	Standard Volume, Vstd (m^3)	Ambient Arsenic Concentration (ng/m^3)
5-Nov-20	4.2	1603.5	2.62
11-Nov-20	5.5	1587.7	3.46
17-Nov-20	2.4	1616.1	1.49
23-Nov-20	2.3	1602.9	1.43
27-Nov-20	4.1	1586.2	2.58

Ambient Arsenic



Title	Service Contract No. NDO 04/2019	Scale	Project No.	
	Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas	N.T.S	WMA20002	
	Graphical Presentation of Ambient Arsenic Monitoring Results	Date	Appendix	
		Nov 20	E	

Service Contract No. NDO 04/2019

Environmental Team for Environmental Monitoring and Audit Works in
Construction Phase for the First Phase Development of
Kwu Tung North and Fanling North New Development Areas

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Table I - Ambient Arsenic Concentration on 5th November 2020

Parameter	Monitoring Station	Arsenic (Refer to Report No.: 34326)	Standard Volume, $V_{std} = Q_{std_{avg}} \times \text{Total Time}$ (Refer to the 24-hr RSP Field Operation Data Log Sheet)	Ambient Arsenic Concentration	Exceedance (Refer to Table II for Action and Limit Level)
Ambient Arsenic Concentration, ng/m^3	KTN-DMS4(A) - Temporary Structure at Pak Shek Au	4.2 μg	1603.5 m^3	2.62 ng/m^3	No

Table II – Action and Limit Levels for Ambient Arsenic Monitoring

Parameters	Action Level	Limit Level
Ambient Arsenic Concentration	9.36 ng/m^3 80% of 11.7 ng/m^3 –the highest ambient concentration predicted during the construction phase with mitigation measures implemented	11.7 ng/m^3 - the highest ambient arsenic concentration predicted during the construction phase with mitigation measures implemented

	Name	Signature	Date
Prepared by:	Meiling Tang	<i>Meiling Tang</i>	19 November 2020
Checked by:	Ivy Tam	<i>Ivy Tam</i>	19 November 2020

TEST REPORT

APPLICANT: Wellab (EM&A)
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Report No.:	34326
Date of Issue:	2020-11-13
Date Received:	2020-11-09
Date Tested:	2020-11-13
Date Completed:	2020-11-13

ATTN: Ms Ivy Tam

Page: 1 of 1

Sample Description : 1 sample as received from customer said to be quartz filter
Laboratory No. : 34326
Project No. : WMA 20002
Project Title: Service Contract No. NDO 04/2019
Environmental Team for Environmental Monitoring and Audit Works in
Construction Phase for the First Phase Development of Kwu Tung North
and Fanling North New Development Areas

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Arsenic	In-house method SOP036 (ICP-MS)	0.18 µg

Results:

Sample ID	200615/031
Sample No.	34326-1
Arsenic (µg)	4.2

Remarks: 1) <= less than

2) Results for the test material reported as received

*****END OF REPORT*****

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

APPLICANT: Wellab (EM&A)
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Report No.:	QC34326
Date of Issue:	2020-11-13
Date Received:	2020-11-09
Date Tested:	2020-11-13
Date Completed:	2020-11-13

ATTN: Ms Ivy Tam

Page: 1 of 2

QC report:

Method Blank

Parameter	Method Blank	Acceptance
Arsenic (µg)	<0.036	<0.036

Filter Lot Blank

Parameter	Filter Lot Blank	Acceptance
Arsenic (µg)	0.03	N/A

Laboratory control spike/ Method QC

Parameter	MQC	Acceptance
Arsenic (%)	99	80-120

Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	87	90-110

Interference check solution A

Parameter	ICS A	Acceptance
Arsenic (µg)	<0.036	<0.036

Interference check solution AB

Parameter	ICS AB	Acceptance
Arsenic (%)	90	70-130

Remarks: 1) < = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 34326

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

Report No.:	QC34326
Date of Issue:	2020-11-13
Date Received:	2020-11-09
Date Tested:	2020-11-13
Date Completed:	2020-11-13

Page: 2 of 2

QC report: Matrix Spike

Parameter	Matrix Spike	Acceptance
Arsenic (%)	80	75-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	1	RPD \leq 20%

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	100	90-110

Remarks: 1) \leq less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 34326

*****END OF REP ORT*****

Contract No. NDO 04/2019

Advance and First Stage Works of

Kwu Tung North and Fanling North New Development Areas

24-hr RSP Air Quality Monitoring (Project No.: WMA20002)

Field Operation Data Log Sheet

WELLAB 匯力
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Station: KTN-DMS4A - Temporary Structure at Pak Shek Au

Sampling Date & Time: From: 5/11/2020 (00:00)

Collection Date: 6/11/2020

Operators: W.K. Tang

 Weather: Sunny Cloudy Windy Rainy
 Wind: Strong Mild Calm

High Volume Sampler	Model no.	TE-6070X
	Blower Motor Serial no.	3225

RSP - Respirable Suspended Particulates Sampler				
Equipment No.	WA-11-03		Set Point	6.777 7.68
Slope, m	0.0206		Intercept. b	0.9968
	Initial, I		Final, f	
Ambient Pressure (mmHg), Pa	765.7		766.0	
Ambient Temperature (K), Ta	295.0		294.8	
Delta (in. of Water), W	7.7		7.7	
$Y = [W \times (Ta+30)/Pa]^{1/2}$	1.808		1.807	
Standard flow, Qstd (m ³ /min) = (Y - b)*0.0283/m	1.114		1.113	
Elapsed Timer Indicator (Hours), T	11825.05		11849.05	
Filter Identification no.	200615/031			
Weight of Filter (g)	4.5771		4.6002	
Weight of Particulate (g)	0.0731			
Mean Standard Flow, Qstd _{avg} = (Qstd _i + Qstd _f)/2	1.114			
Total Time, Total Time = (Tf - Ti) x 60	1440.00			
Standard Volume, Vstd (m ³) = Qstd _{avg} x Total Time	1603.5			
Particulate Concentration (µg/m ³)		45.6		
Observed Construction Activities	Main Construction Site	N/A		
	Other Construction Site	N/A		

Remarks: N/A

Conducted by: W.K. Tang

Signature: W.K. Tang

Date: 6/11/2020

Checked by: M.K. Tang

Signature: M.K. Tang

Date: 10/11/2020

Project No. WMA20002

Service Contract No. NDO 04/2019

Environmental Team for Environmental Monitoring and Audit Works in
Construction Phase for the First Phase Development of
Kwu Tung North and Fanling North New Development Areas

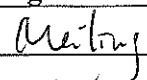

WELLAB 匯力
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Table I - Ambient Arsenic Concentration on 11th November 2020

Parameter	Monitoring Station	Arsenic (Refer to Report No.: 34346)	Standard Volume, $V_{std} = Q_{std_{avg}} \times \text{Total Time}$ (Refer to the 24-hr RSP Field Operation Data Log Sheet)	Ambient Arsenic Concentration	Exceedance (Refer to Table II for Action and Limit Level)
Ambient Arsenic Concentration, ng/m^3	KTN-DMS4(A) - Temporary Structure at Pak Shek Au	5.5 μg	1587.7 m^3	3.46 ng/m^3	No

Table II – Action and Limit Levels for Ambient Arsenic Monitoring

Parameters	Action Level	Limit Level
Ambient Arsenic Concentration	9.36 ng/m^3 80% of 11.7 ng/m^3 – the highest ambient concentration predicted during the construction phase with mitigation measures implemented	11.7 ng/m^3 - the highest ambient arsenic concentration predicted during the construction phase with mitigation measures implemented

	Name	Signature	Date
Prepared by:	Meiling Tang		19 November 2020
Checked by:	Ivy Tam		19 November 2020

TEST REPORT

APPLICANT: Wellab (EM&A)
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Report No.: 34346
Date of Issue: 2020-11-18
Date Received: 2020-11-12
Date Tested: 2020-11-16
Date Completed: 2020-11-18

ATTN: Ms Ivy Tam

Page: 1 of 1

Sample Description : 1 sample as received from customer said to be quartz filter
Laboratory No. : 34346
Project No. : WMA 20002
Project Title: Service Contract No. NDO 04/2019
Environmental Team for Environmental Monitoring and Audit Works in
Construction Phase for the First Phase Development of Kwu Tung North
and Fanling North New Development Areas

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Arsenic	In-house method SOP036 (ICP-MS)	0.18 µg

Results:

Sample ID	200615/032
Sample No.	34346-1
Arsenic (µg)	5.5

Remarks: 1) < = less than

2) Results for the test material reported as received

*****END OF REPORT*****

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

APPLICANT: Wellab (EM&A)
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Report No.:	QC34346
Date of Issue:	2020-11-18
Date Received:	2020-11-12
Date Tested:	2020-11-18
Date Completed:	2020-11-18

Page: 1 of 2

ATTN: Ms Ivy Tam

QC report:
Method Blank

Parameter	Method Blank	Acceptance
Arsenic (µg)	<0.036	<0.036

Filter Lot Blank

Parameter	Filter Lot Blank	Acceptance
Arsenic (µg)	0.03	N/A

Laboratory control spike/ Method QC

Parameter	MQC	Acceptance
Arsenic (%)	96	80-120

Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	100	90-110

Interference check solution A

Parameter	ICS A	Acceptance
Arsenic (µg)	<0.036	<0.036

Interference check solution AB

Parameter	ICS AB	Acceptance
Arsenic (%)	118	70-130

Remarks: 1) < = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 34346

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

Report No.:	QC34346
Date of Issue:	2020-11-18
Date Received:	2020-11-12
Date Tested:	2020-11-18
Date Completed:	2020-11-18

Page: 2 of 2

QC report:

Matrix Spike

Parameter	Matrix Spike	Acceptance
Arsenic (%)	86	75-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	2	RPD ≤ 20%

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	107	90-110

Remarks: 1) < = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 34346

*****END OF REPORT*****

Contract No. NDO 04/2019
Advance and First Stage Works of
Kwu Tung North and Fanling North New Development Areas
24-hr RSP Air Quality Monitoring (Project No.: WMA20002)
Field Operation Data Log Sheet

WELLAB 匯力
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Station: KTN-DMS4A - Temporary Structure at Pak Shek Au

Sampling Date & Time: From: 11/11/2020 (0 : 00) Collection Date: 12/11/2020

Operators: Wk Weather (Sunny Cloudy Windy Rainy)
Wind: Strong Mild Calm

High Volume Sampler	Model no.	TE-6070X
	Blower Motor Serial no.	3325

RSP - Respirable Suspended Particulates Sampler				
Equipment No.		WA-11-03	Set Point	768
Slope, m		0.0206	Intercept. b	0.9968
		Initial, I	Final, f	
Ambient Pressure (mmHg), Pa		767.7	768.4	
Ambient Temperature (K), Ta		294.0	291.9	
Delta (in. of Water), W		7.7	7.7	
$Y = [W \times (Ta+30)/Pa]^{1/2}$		1.803	1.796	
Standard flow, Qstd (m ³ /min) = (Y - b)*0.0283/m		1.107	1.098	
Elapsed Timer Indicator (Hours), T		11848.05	11873.05	
Filter Identification no.		200615.32		
Weight of Filter (g)		4.5256	4.6154	
Weight of Particulate (g)		0.0898		
Mean Standard Flow, Qstd _{avg} = (Qstd _i + Qstd _f)/2		1.103		
Total Time, Total Time = (Tf - Ti) x 60		1440.00		
Standard Volume, Vstd (m ³) = Qstd _{avg} x Total Time		1587.7		
Particulate Concentration (µg/m ³)		56.6		
Observed Construction Activities	Main Construction Site	N/A		
	Other Construction Site	N/A		

Remarks: Road traffic

Conducted by: H. to Signature: [Signature] Date: 12/11/2020

Checked by: Ming Tang Signature: [Signature] Date: 13/11/2020

Project No. WMA20002

Service Contract No. NDO 04/2019

Environmental Team for Environmental Monitoring and Audit Works in
Construction Phase for the First Phase Development of
Kwu Tung North and Fanling North New Development Areas

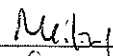
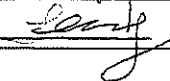
WELLAB 匯力
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Table I - Ambient Arsenic Concentration on 17th November 2020

Parameter	Monitoring Station	Arsenic (Refer to Report No.: 34363)	Standard Volume, Vstd = Qstd _{avg} x Total Time (Refer to the 24-hr RSP Field Operation Data Log Sheet)	Ambient Arsenic Concentration	Exceedance (Refer to Table II for Action and Limit Level)
Ambient Arsenic Concentration, ng/m ³	KTN-DMS4(A) - Temporary Structure at Pak Shek Au	2.4 µg	1616.1 m ³	1.49 ng/m ³	No

Table II – Action and Limit Levels for Ambient Arsenic Monitoring

Parameters	Action Level	Limit Level
Ambient Arsenic Concentration	9.36 ng/m ³ 80% of 11.7ng/m ³ –the highest ambient concentration predicted during the construction phase with mitigation measures implemented	11.7 ng/m ³ - the highest ambient arsenic concentration predicted during the construction phase with mitigation measures implemented

	Name	Signature	Date
Prepared by:	Meiling Tang		3 December 2020
Checked by:	Kenneth Leung		3 December 2020

TEST REPORT

APPLICANT: Wellab (EM&A)
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Report No.:	34363
Date of Issue:	2020-11-24
Date Received:	2020-11-18
Date Tested:	2020-11-23
Date Completed:	2020-11-24

ATTN: Ms Ivy Tam

Page: 1 of 1

Sample Description : 1 sample as received from customer said to be quartz filter
Laboratory No. : 34363
Project No. : WMA 20002
Project Title: Service Contract No. NDO 04/2019
Environmental Team for Environmental Monitoring and Audit Works in
Construction Phase for the First Phase Development of Kwu Tung North
and Fanling North New Development Areas

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Arsenic	In-house method SOP036 (ICP-MS)	0.18 µg

Results:

Sample ID	200615/033
Sample No.	34363-1
Arsenic (µg)	2.4

Remarks: 1) <= less than

2) Results for the test material reported as received

*****END OF REPORT*****

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

APPLICANT: Wellab (EM&A)
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Report No.:	QC34363
Date of Issue:	2020-11-24
Date Received:	2020-11-18
Date Tested:	2020-11-23
Date Completed:	2020-11-24

ATTN: Ms Ivy Tam

Page: 1 of 2

QC report:

Method Blank

Parameter	Method Blank	Acceptance
Arsenic (µg)	<0.036	<0.036

Filter Lot Blank

Parameter	Filter Lot Blank	Acceptance
Arsenic (µg)	0.03	N/A

Laboratory control spike/ Method QC

Parameter	MQC	Acceptance
Arsenic (%)	89	80-120

Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	94	90-110

Interference check solution A

Parameter	ICS A	Acceptance
Arsenic (µg)	<0.036	<0.036

Interference check solution AB

Parameter	ICS AB	Acceptance
Arsenic (%)	104	70-130

Remarks: 1) < = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 34363

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

Report No.:	QC34363
Date of Issue:	2020-11-24
Date Received:	2020-11-18
Date Tested:	2020-11-23
Date Completed:	2020-11-24

Page: 2 of 2

QC report: Matrix Spike

Parameter	Matrix Spike	Acceptance
Arsenic (%)	82	75-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	1	RPD \leq 20%

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	104	90-110

Remarks: 1) \leq less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 34363

*****END OF REP ORT*****

Contract No. NDO 04/2019

Advance and First Stage Works of

Kwu Tung North and Fanling North New Development Areas

24-hr RSP Air Quality Monitoring (Project No.: WMA20002)

Field Operation Data Log Sheet

WELLAB 匯力
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Station: KTN-DMS4A - Temporary Structure at Pak Shek Au

Sampling Date & Time: From: 17-11-2020 (00:00)

Collection Date: 18/11/2020

Operators: [Signature]

Weather: Sunny Cloudy Windy Rainy

Wind: Strong Mild Calm

High Volume Sampler	Model no.	TE-6070X
	Blower Motor Serial no.	3225

RSP - Respirable Suspended Particulates Sampler			
Equipment No.	WA-11-05	Set Point	7.68
Slope, m	0.0206	Intercept. b	0.9968
	Initial, I	Final, f	
Ambient Pressure (mmHg), Pa	765.6	763.8	
Ambient Temperature (K), Ta	296.0	297.4	
Delta (in. of Water), W	7.7	7.7	
$Y = [W \times (Ta+30)/Pa]^{1/2}$	1.811	1.817	
Standard flow, Qstd (m ³ /min) = (Y - b)*0.0283/m	1.118	1.126	
Elapsed Timer Indicator (Hours), T	11873.08	11897.08	
Filter Identification no.	200615/033		
Weight of Filter (g)	4.5419	4.6002	
Weight of Particulate (g)	0.0584		
Mean Standard Flow, $Qstd_{avg} = (Qstd_i + Qstd_f)/2$	1.122		
Total Time, Total Time = (Tf - Ti) x 60	1440.00		
Standard Volume, $Vstd (m^3) = Qstd_{avg} \times \text{Total Time}$	1616.1		
Particulate Concentration (µg/m ³)	36.1		
Observed Construction Activities	Main Construction Site	N/A	
	Other Construction Site	N/A	

Remarks: Road traffic

Conducted by: [Signature]Signature: [Signature]

Date: 18-11-2020

Checked by: [Signature]Signature: [Signature]

Date: 19/11/2020

Project No. WMA20002

Service Contract No. NDO 04/2019

**Environmental Team for Environmental Monitoring and Audit Works in
Construction Phase for the First Phase Development of
Kwu Tung North and Fanling North New Development Areas**


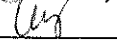
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Table I - Ambient Arsenic Concentration on 23rd November 2020

Parameter	Monitoring Station	Arsenic (Refer to Report No.: 34377)	Standard Volume, Vstd = Qstd _{avg} x Total Time (Refer to the 24-hr RSP Field Operation Data Log Sheet)	Ambient Arsenic Concentration	Exceedance (Refer to Table II for Action and Limit Level)
Ambient Arsenic Concentration, ng/m ³	KTN-DMS4(A) - Temporary Structure at Pak Shek Au	2.3 µg	1602.9 m ³	1.43 ng/m ³	No

Table II – Action and Limit Levels for Ambient Arsenic Monitoring

Parameters	Action Level	Limit Level
Ambient Arsenic Concentration	9.36 ng/m ³ 80% of 11.7ng/m ³ –the highest ambient concentration predicted during the construction phase with mitigation measures implemented	11.7 ng/m ³ - the highest ambient arsenic concentration predicted during the construction phase with mitigation measures implemented

	Name	Signature	Date
Prepared by:	Meiling Tang		7 December 2020
Checked by:	Ivy Tam		7 December 2020

TEST REPORT

APPLICANT: Wellab (EM&A)
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Report No.:	34377
Date of Issue:	2020-11-30
Date Received:	2020-11-24
Date Tested:	2020-11-26
Date Completed:	2020-11-30

ATTN: Ms Ivy Tam

Page: 1 of 1

Sample Description : 1 sample as received from customer said to be quartz filter
Laboratory No. : 34377
Project No. : WMA 20002
Project Title: Service Contract No. NDO 04/2019
Environmental Team for Environmental Monitoring and Audit Works in
Construction Phase for the First Phase Development of Kwu Tung North
and Fanling North New Development Areas

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Arsenic	In-house method SOP036 (ICP-MS)	0.18 µg

Results:

Sample ID	200615/034
Sample No.	34377-1
Arsenic (µg)	2.3

Remarks: 1) < = less than

2) Results for the test material reported as received

*****END OF REPORT*****

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

APPLICANT: Wellab (EM&A)
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Report No.:	QC 34377
Date of Issue:	2020-11-30
Date Received:	2020-11-24
Date Tested:	2020-11-26
Date Completed:	2020-11-30

ATTN: Ms Ivy Tam

Page: 1 of 2

QC report:

Method Blank

Parameter	Method Blank	Acceptance
Arsenic (µg)	<0.036	<0.036

Filter Lot Blank

Parameter	Filter Lot Blank	Acceptance
Arsenic (µg)	0.03	N/A

Laboratory control spike/ Method QC

Parameter	MQC	Acceptance
Arsenic (%)	93	80-120

Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	90	90-110

Interference check solution A

Parameter	ICS A	Acceptance
Arsenic (µg)	<0.036	<0.036

Interference check solution AB

Parameter	ICS AB	Acceptance
Arsenic (%)	87	70-130

Remarks: 1) < = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 34363

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

Report No.:	QC 34377
Date of Issue:	2020-11-30
Date Received:	2020-11-24
Date Tested:	2020-11-26
Date Completed:	2020-11-30
Page:	2 of 2

QC report:

Matrix Spike

Parameter	Matrix Spike	Acceptance
Arsenic (%)	115	75-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	6	RPD \leq 20%

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	105	90-110

Remarks: 1) \leq less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 34363

*****END OF REP ORT*****

Contract No. NDO 04/2019

Advance and First Stage Works of

Kwu Tung North and Fanling North New Development Areas

24-hr RSP Air Quality Monitoring (Project No.: WMA20002)

Field Operation Data Log Sheet

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Station: KTN-DMS4A - Temporary Structure at Pak Shek AuSampling Date & Time: From: 23-11-2020 (00 : 00)Collection Date: 24-11-2020
 Operators: A^{su} Ka Chun Weather: Sunny Cloudy Windy Rainy
 Wind: Strong Mild Calm

High Volume Sampler	Model no.	TE-6070X
	Blower Motor Serial no.	3225

RSP - Respirable Suspended Particulates Sampler				
Equipment No.	WA-11-03		Set Point	7.68
Slope, m	0.0206		Intercept. b	0.9968
	Initial, I		Final, f	
Ambient Pressure (mmHg), Pa	765.9		767.5	
Ambient Temperature (K), Ta	295.0		295.3	
Delta (in. of Water), W	7.7		7.7	
$Y = [W \times (Ta+30)/Pa]^{1/2}$	1.808		1.807	
Standard flow, Qstd (m ³ /min) = (Y - b)*0.0283/m	1.114		1.112	
Elapsed Timer Indicator (Hours), T	11897.05		11921.05	
Filter Identification no.	200615/034			
Weight of Filter (g)	4.5165		4.5869	
Weight of Particulate (g)	0.0704			
Mean Standard Flow, Qstd _{avg} = (Qstd _i + Qstd _f)/2	1.113			
Total Time, Total Time = (Tf - Ti) x 60	1440.00			
Standard Volume, Vstd (m ³) = Qstd _{avg} x Total Time	1602.9			
Particulate Concentration (µg/m ³)	43.9			
Observed Construction Activities	Main Construction Site	N.A		
	Other Construction Site	Excavator		

Remarks: Road trafficConducted by: Alex Signature: Li Date: 24-11-2020Checked by: Meibing Tang Signature: Meibing Date: 25/11/2020

Project No. WMA20002

Service Contract No. NDO 04/2019

Environmental Team for Environmental Monitoring and Audit Works in
Construction Phase for the First Phase Development of
Kwu Tung North and Fanling North New Development Areas

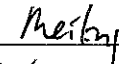
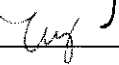
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Table I - Ambient Arsenic Concentration on 27th November 2020

Parameter	Monitoring Station	Arsenic (Refer to Report No.: 34413)	Standard Volume, Vstd = Qstd _{avg} x Total Time (Refer to the 24-hr RSP Field Operation Data Log Sheet)	Ambient Arsenic Concentration	Exceedance (Refer to Table II for Action and Limit Level)
Ambient Arsenic Concentration, ng/m ³	KTN-DMS4(A) - Temporary Structure at Pak Shek Au	4.1 µg	1586.2 m ³	2.58 ng/m ³	No

Table II – Action and Limit Levels for Ambient Arsenic Monitoring

Parameters	Action Level	Limit Level
Ambient Arsenic Concentration	9.36 ng/m ³ 80% of 11.7ng/m ³ –the highest ambient concentration predicted during the construction phase with mitigation measures implemented	11.7 ng/m ³ - the highest ambient arsenic concentration predicted during the construction phase with mitigation measures implemented

	Name	Signature	Date
Prepared by:	Meiling Tang		9 December 2020
Checked by:	Ivy Tam		9 December 2020

TEST REPORT

APPLICANT: Wellab (EM&A)
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Report No.:	34413
Date of Issue:	2020-12-04
Date Received:	2020-11-30
Date Tested:	2020-12-04
Date Completed:	2020-12-04

ATTN: Ms Ivy Tam

Page: 1 of 1

Sample Description : 1 sample as received from customer said to be quartz filter
Laboratory No. : 34413
Project No. : WMA 20002
Project Title: Service Contract No. NDO 04/2019
Environmental Team for Environmental Monitoring and Audit Works in
Construction Phase for the First Phase Development of Kwu Tung North
and Fanling North New Development Areas

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Arsenic	In-house method SOP036 (ICP-MS)	0.18 µg

Results:

Sample ID	200615/035
Sample No.	34413-1
Arsenic (µg)	4.1

Remarks: 1) < = less than

2) Results for the test material reported as received

*****END OF REPORT*****

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

APPLICANT: Wellab (EM&A)
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Report No.:	QC 34413
Date of Issue:	2020-12-04
Date Received:	2020-11-30
Date Tested:	2020-12-04
Date Completed:	2020-12-04

ATTN: Ms Ivy Tam

Page: 1 of 2

QC report:

Method Blank

Parameter	Method Blank	Acceptance
Arsenic (μg)	<0.036	<0.036

Filter Lot Blank

Parameter	Filter Lot Blank	Acceptance
Arsenic (μg)	0.03	N/A

Laboratory control spike/ Method QC

Parameter	MQC	Acceptance
Arsenic (%)	105	80-120

Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	94	90-110

Interference check solution A

Parameter	ICS A	Acceptance
Arsenic (μg)	<0.036	<0.036

Interference check solution AB

Parameter	ICS AB	Acceptance
Arsenic (%)	96	70-130

Remarks: 1) < = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 34363

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

Report No.:	QC 34413
Date of Issue:	2020-12-04
Date Received:	2020-11-30
Date Tested:	2020-12-04
Date Completed:	2020-12-04
Page:	2 of 2

QC report:

Matrix Spike

Parameter	Matrix Spike	Acceptance
Arsenic (%)	80	75-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	4	RPD \leq 20%

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	109	90-110

Remarks: 1) \leq less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 34363

*****END OF REP ORT*****

Contract No. NDO 04/2019

Advance and First Stage Works of

Kwu Tung North and Fanling North New Development Areas

24-hr RSP Air Quality Monitoring (Project No.: WMA20002)


Field Operation Data Log Sheet

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Station: KTN-DMS4A - Temporary Structure at Pak Shek Au

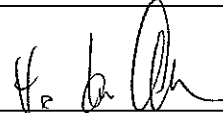
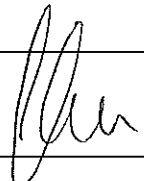
Sampling Date & Time: From: 27-11-2020 (0 : 00)

Collection Date: 30-11-2020

Operators: Weather: Sunny Cloudy Windy RainyWind: Strong Mild Calm

High Volume Sampler	Model no.	TE-6070X
	Blower Motor Serial no.	3225

RSP - Respirable Suspended Particulates Sampler				
Equipment No.	WA-11-03		Set Point	7.68
Slope, m	0.0206		Intercept, b	0.9068
		Initial, I	Final, f	
Ambient Pressure (mmHg), Pa		767.6	769.8	
Ambient Temperature (K), Ta		294.8	291.1	
Delta (in. of Water), W		7.7	7.7	
$Y = [W \times (Ta+30)/Pa]^{1/2}$		1.805	1.792	
Standard flow, Qstd (m ³ /min) = (Y - b)*0.0283/m		1.110	1.093	
Elapsed Timer Indicator (Hours), T		11:21.05	11:45.05	
Filter Identification no.		20061563x		
Weight of Filter (g)		4.5444	4.6245	
Weight of Particulate (g)		0.0801		
Mean Standard Flow,		1.101		
Qstd _{avg} = (Qstd _i + Qstd _f)/2				
Total Time,		1440.00		
Total Time = (Tf - Ti) x 60				
Standard Volume,		1586.2		
Vstd (m ³) = Qstd _{avg} x Total Time				
Particulate Concentration (µg/m ³)		50.5		
Observed Construction Activities	Main Construction Site	N/A		
	Other Construction Site	N/A		

Remarks: Road to officeConducted by: Signature: 

Date: 30-11-2020

Checked by: Mei Tung TangSignature: Mei Tung

Date: 1/12/2020

Project No. WMA20002

APPENDIX F
NOISE MONITORING RESULTS AND
GRAPHICAL PRESENTATION

Appendix F - Noise Monitoring Results

Location CP-FLN-NMS1 - Belair Monte (Existing)							
Date	Weather	Time	Unit: dB (A) (5-min)			Average	Baseline Level
			L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}
3-Nov-20	Cloudy	8:30	69.7	72.3	60.9	69.3	69.9
		8:35	66.5	71.4	58.8		
		8:40	71.2	75.2	60.3		
		8:45	68.5	72.0	60.5		
		8:50	68.9	73.0	58.6		
8:55	69.8	73.9	57.5				
9-Nov-20	Cloudy	14:45	66.1	68.8	59.1	66.3	
		14:50	67.0	68.9	61.0		
		14:55	65.7	68.4	59.2		
		15:00	66.3	69.2	60.6		
		15:05	66.5	69.4	61.2		
15:10	65.9	68.6	60.3				
19-Nov-20	Cloudy	10:30	76.6	78.5	61.6	73.5	
		10:35	73.3	77.7	59.8		
		10:40	70.4	75.8	58.9		
		10:45	71.9	76.1	63.3		
		10:50	74.4	78.0	65.7		
10:55	71.7	74.4	63.9				
25-Nov-20	Sunny	9:40	69.0	72.1	60.6	67.8	
		9:45	68.0	71.2	62.2		
		9:50	66.4	70.8	58.1		
		9:55	66.5	70.3	57.4		
		10:00	65.8	69.5	58.1		
10:05	69.8	73.2	62.0				

Location CP-FLN-NMS2 - Scattered Village House in Tong Hang (Existing)							
Date	Weather	Time	Unit: dB (A) (5-min)			Average	Baseline Level
			L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}
3-Nov-20	Cloudy	9:00	55.1	55.3	49.7	55.2	59.6
		9:05	52.1	52.8	51.4		
		9:10	52.6	53.4	51.6		
		9:15	52.8	54.0	51.9		
		9:20	55.6	56.2	51.9		
		9:25	58.9	62.5	51.0		
9-Nov-20	Sunny	13:40	56.9	57.2	49.5	54.1	
		13:45	55.2	56.1	50.1		
		13:50	52.0	52.9	50.6		
		13:55	51.5	52.5	50.4		
		14:00	51.9	52.8	51.0		
		14:05	54.4	56.4	51.2		
19-Nov-20	Cloudy	13:30	59.3	60.2	58.4	59.2	
		13:35	59.2	60.0	58.3		
		13:40	59.0	59.9	58.2		
		13:45	59.2	60.0	58.0		
		13:50	58.9	59.8	58.2		
		13:55	59.4	60.1	58.3		
25-Nov-20	Sunny	8:45	56.5	57.5	54.9	59.1	
		8:50	57.0	58.0	55.8		
		8:55	57.7	59.6	56.0		
		9:00	62.1	66.1	56.4		
		9:05	59.0	61.7	55.7		
		9:10	59.5	63.1	55.2		

Appendix F - Noise Monitoring Results

Location CP-KTN-NMS2 - Residential Buildings at Ma Tso Lung (Existing)							
Date	Weather	Time	Unit: dB (A) (5-min)			Average	Baseline Level
			L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}
2-Nov-20	Sunny	13:00	56.6	57.0	51.2	56.5	58.6
		13:05	57.0	58.2	52.2		
		13:10	56.6	57.4	51.6		
		13:15	56.7	57.3	49.7		
		13:20	56.0	56.9	44.8		
		13:25	55.7	56.3	43.1		
12-Nov-20	Sunny	10:00	59.8	64.3	55.4	63.3	
		10:05	59.0	63.5	55.3		
		10:10	58.4	60.4	55.4		
		10:15	69.4	72.5	56.1		
		10:20	59.0	62.0	55.7		
		10:25	59.0	59.4	53.5		
18-Nov-20	Cloudy	10:23	51.6	54.0	48.3	61.5	
		10:28	53.3	55.1	50.0		
		10:33	52.7	55.2	49.8		
		10:38	59.5	56.3	50.3		
		10:43	55.6	56.6	51.2		
		10:48	68.3	65.3	48.5		
24-Nov-20	Cloudy	8:57	62.7	65.3	45.7	57.1	
		9:02	55.8	58.5	43.2		
		9:07	54.4	58.2	44.1		
		9:12	49.4	53.0	42.7		
		9:17	54.7	56.3	44.0		
		9:22	53.0	58.9	45.1		

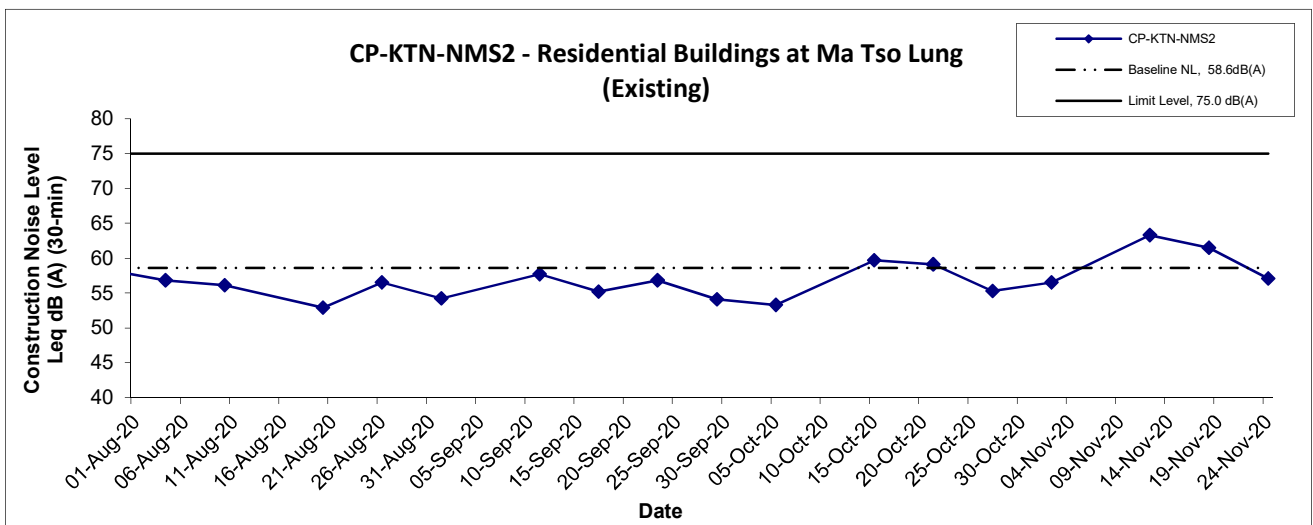
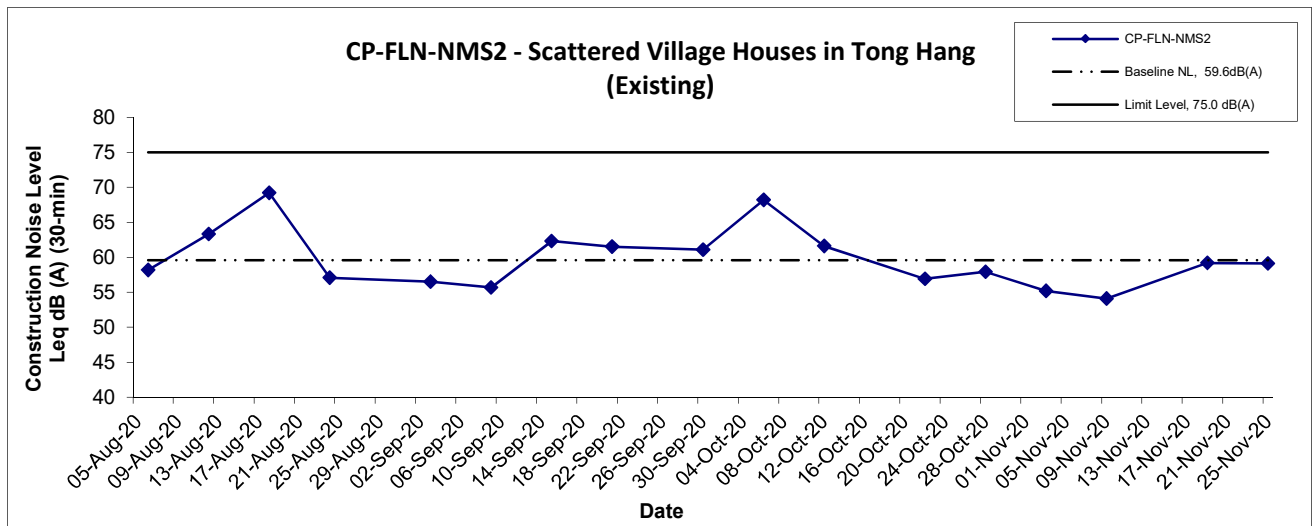
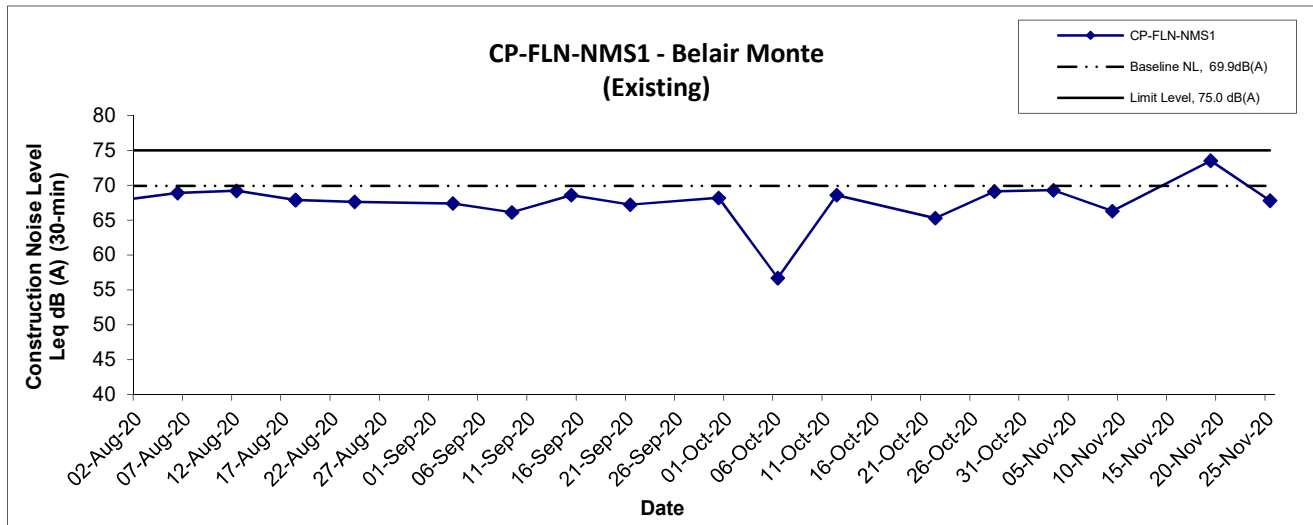
Location CP-KTN-NMS3 - Fung Kong Garden (Existing)							
Date	Weather	Time	Unit: dB (A) (5-min)			Average	Baseline Level
			L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}
2-Nov-20	Sunny	14:00	54.3	55.2	49.9	55.0	51.6
		14:05	54.6	56.0	50.0		
		14:10	53.8	55.4	49.4		
		14:15	54.9	55.5	49.2		
		14:20	56.0	57.6	50.8		
		14:25	56.0	57.6	52.0		
12-Nov-20	Sunny	10:45	51.9	52.5	51.3	53.2	
		10:50	57.1	59.7	51.5		
		10:55	51.7	52.1	51.2		
		11:00	52.4	52.2	51.1		
		11:05	51.8	52.2	45.6		
		11:10	50.3	53.4	41.4		
18-Nov-20	Cloudy	10:30	50.0	51.0	48.0	58.4	
		10:35	59.0	60.1	55.6		
		10:40	63.0	66.1	56.3		
		10:45	56.5	56.9	55.6		
		10:50	56.0	56.5	55.4		
		10:55	56.2	56.8	55.5		
24-Nov-20	Cloudy	9:36	52.8	48.7	42.3	48.4	
		9:41	45.6	48.1	42.2		
		9:46	46.2	48.6	42.3		
		9:51	46.8	49.5	42.9		
		9:56	46.4	47.9	42.4		
		10:01	47.1	50.1	42.8		


Appendix F - Noise Monitoring Results

Location CP-KTN-NMS5 - N/A						
Date	Weather	Time	Unit: dB (A) (5-min)			Average
			L _{eq}	L ₁₀	L ₉₀	L _{eq}
2-Nov-20	Sunny	10:40	63.8	66.4	59.8	59.1
		10:45	59.4	60.3	54.4	
		10:50	56.3	57.5	53.6	
		10:55	54.7	55.2	51.0	
		11:00	55.8	56.7	49.3	
		11:05	57.3	58.2	51.6	
12-Nov-20	Sunny	8:05	49.3	51.6	42.5	49.5
		8:10	49.4	52.7	44.7	
		8:15	49.4	53.7	44.7	
		8:20	49.3	52.6	43.6	
		8:25	49.5	51.7	42.8	
		8:30	49.9	53.8	45.0	
18-Nov-20	Cloudy	13:09	52.2	54.2	47.4	53.0
		13:14	54.2	55.1	48.3	
		13:19	51.3	52.7	48.3	
		13:24	52.1	51.3	47.0	
		13:29	51.9	52.9	49.0	
		13:34	54.9	58.2	49.7	
24-Nov-20	Cloudy	13:03	51.5	50.5	45.3	51.9
		13:08	50.2	50.5	46.2	
		13:13	53.5	53.0	46.6	
		13:18	51.9	54.3	47.9	
		13:23	52.2	51.5	47.2	
		13:28	51.6	51.2	47.6	

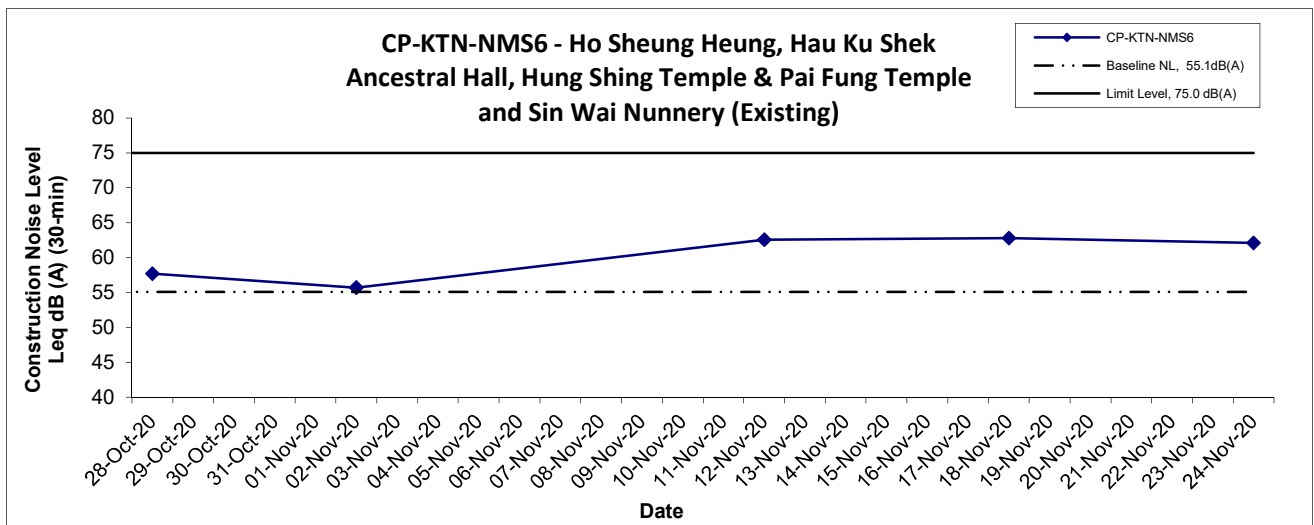
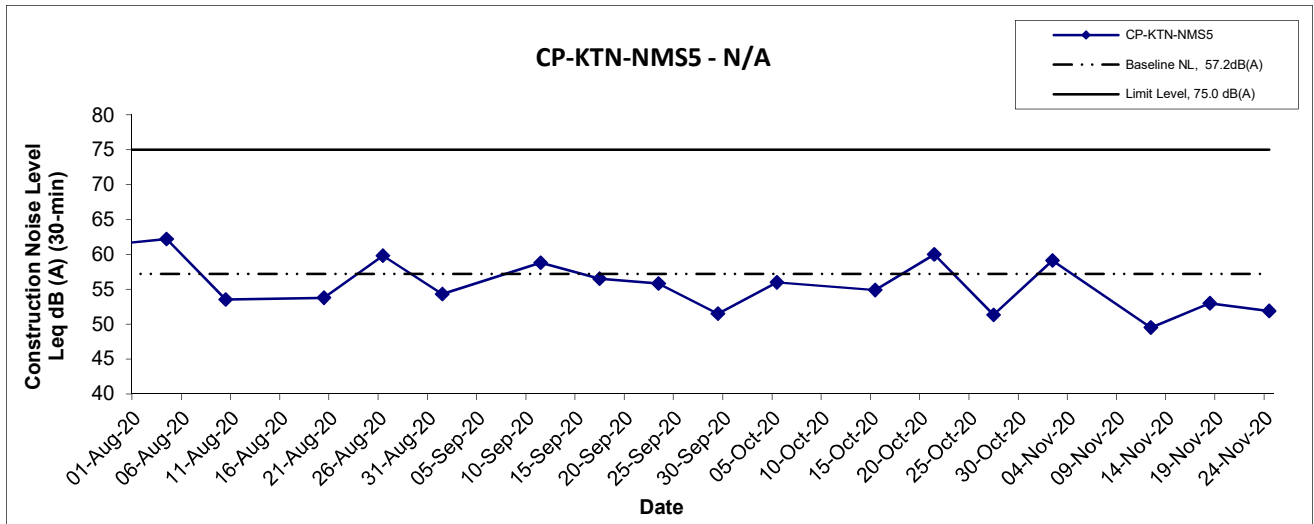
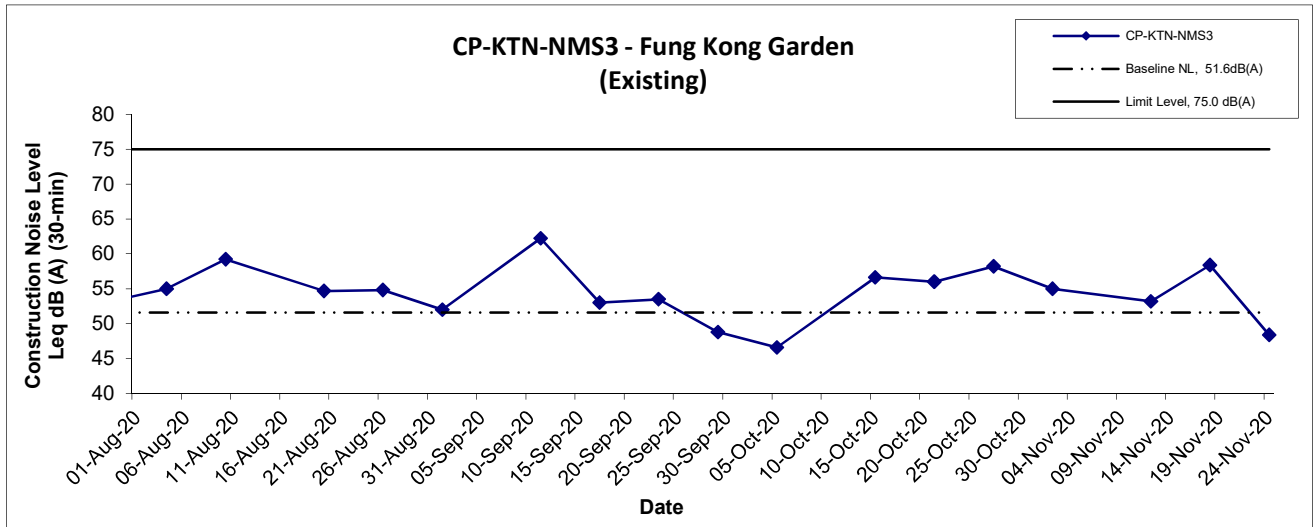
Location CP-KTN-NMS6 - Ho Sheung Heung, Hau Ku Shek Ancestral Hall, Hung Shing Temple & Pai Fung Temple and Sin Wai Nunnery (Existing)						
Date	Weather	Time	Unit: dB (A) (5-min)			Average
			L _{eq}	L ₁₀	L ₉₀	L _{eq}
2-Nov-20	Sunny	11:30	56.7	57.3	50.4	55.7
		11:35	57.4	58.8	47.8	
		11:40	55.3	56.0	49.0	
		11:45	53.2	54.5	48.2	
		11:50	56.0	57.5	48.6	
		11:55	54.5	55.6	49.0	
12-Nov-20	Sunny	11:30	54.1	56.5	50.2	62.6
		11:35	56.5	58.6	50.1	
		11:40	67.8	67.6	50.2	
		11:45	58.8	60.9	50.2	
		11:50	59.4	61.4	50.2	
		11:55	63.9	66.6	51.6	
18-Nov-20	Cloudy	11:20	61.8	63.4	55.8	62.8
		11:25	58.4	59.3	56.9	
		11:30	62.5	62.9	58.2	
		11:35	65.2	65.8	61.3	
		11:40	62.7	63.6	61.4	
		11:45	63.4	64.0	57.5	
24-Nov-20	Cloudy	10:18	63.1	61.5	49.4	62.1
		10:23	61.2	64.7	51.7	
		10:28	61.8	64.4	55.4	
		10:33	61.7	64.0	56.1	
		10:38	62.9	63.9	57.7	
		10:43	61.5	63.7	55.9	


Noise Levels



Title Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas Graphical Presentation of Construction Noise Monitoring Results	Scale N.T.S	Project No. WMA20002	 consulting . testing . research
	Date Nov 20	Appendix F	

Noise Levels



Title Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas Graphical Presentation of Construction Noise Monitoring Results	Scale N.T.S	Project No. WMA20002	 consulting . testing . research
	Date Nov 20	Appendix F	

**APPENDIX G
LANDFILL GAS MONITORING
RESULTS**

Contract No. ND/2019/01

**Development of Kwu Tung North & Fanling North New Development Area, Phase 1:
Kwu Tung North New Development Area, Phase 1: Site formation & Infrastructure works**

堆填區附近區域(Consultation Zone)每月氣體監察記錄

日期及時間	位置	氣體及安全標準	氧氣 O ₂ >19%	甲烷 CH ₄ <10% LEL	二氧化碳 CO ₂ <0.5%
17-11-2020 8:30	CZ PT 1		20.9	0	0
17-11-2020 8:40	CZ container 1		20.9	0	0
17-11-2020 8:43	CZ container 2		20.9	0	0
17-11-2020 8:46	CZ container 3		20.9	0	0
17-11-2020 8:49	CZ container 4		20.9	0	0
17-11-2020 8:52	CZ container 5		20.9	0	0

Prepared by : Matthew Cheng (Safety Officer)

Date : 17-11-2020

APPENDIX H
ECOLOGICAL MONITORING RESULT

Appendix H1a. Avifauna Species Recorded for Water Birds Monitoring, 2 November 2020, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			2/11/2020						
					Weather Condition			Sunny						
					Tidal Condition			High						
					Tide Level (m)			2.04						
					Start Time			11:00						
					Abundance									
					Transect Walk									
T1	T2	T3	T5											
			WAL	DAL	SWH	P	Heard	Flight						
Black-necked Starling	<i>Sturnus nigricollis</i>	黑領棕鳥	R				3	2				5		
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷸	PM	RC			2			45			2	
Chinese Bulbul	<i>Pycnonotus sinensis</i>	白頭鵯	R		2	2	1							
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)	4	3	2	1	1	1			4	
Common Greenshank	<i>Tringa nebularia</i>	青腳鷸	PM, WV	RC			1			1				
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鷸	WV, PM				1							
Common Tailorbird	<i>Orthotomus sutorius</i>	長尾縫葉鶯	R						2					
Crested Bulbul	<i>Pycnonotus jocosus</i>	紅耳鵯	R		2	2								
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R				1							
Domestic Pigeon	<i>Columba livia</i>	原鴿	R						8					
Daurian Redstart	<i>Phoenicurus aureus</i>	北紅尾鵯	WV						2					
Dusky Warbler	<i>Phylloscopus fuscatus</i>	褐柳鶯	PM, WV				2		6					
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	R, PM	(LC)				14	4					
Eastern Yellow Wagtail	<i>Motacilla tschutschensis</i>	東黃鵲鴝	PM, WV					2	6				2	
Eurasian Teal	<i>Anas crecca</i>	綠翅鴨	WV	RC		2								
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R		3	3			8					
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)	2	3	1							

Appendix H1a. Avifauna Species Recorded for Water Birds Monitoring, 2 November 2020, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			2/11/2020					
					Weather Condition			Sunny					
					Tidal Condition			High					
					Tide Level (m)			2.04					
					Start Time			11:00					
					Abundance								
					Transect Walk								
T1	T2	T3	T5					Heard	Flight				
			WAL	DAL	SWH	P							
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鵪	UPM, WV				7						
Grey Heron	<i>Ardea cinerea</i>	蒼鷺	WV	PRC	2	3	5						2
Japanese White-eye	<i>Zosterops japonicus</i>	暗綠繡眼鳥	R		1								
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)	4	4	6						4
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鴝	WV, PM	LC		1		6	6				
Long-tailed Shrike	<i>Lanius schach</i>	棕背伯勞	R					2					
Magpie Robin	<i>Copsychus saularis</i>	鵲鴝	R		1	2			1				
Olive Backed Pipit	<i>Anthus hodgsoni</i>	樹鵪	WV						3				
Pied Avocet	<i>Recurvirostra avosetta</i>	反嘴鵪	WV	RC						2			
Pintail Snipe	<i>Gallinago stenura</i>	針尾沙錐	CPM					1					
Red-throated Pipit	<i>Anthus cervinus</i>	紅喉鵪	CPM, WV	RC					2				
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R		4	4	4		3			1	
Spotted Munia	<i>Lonchura punctulata</i>	斑文鳥	R					23	22				
Stejneger's Stonechat	<i>Saxicola stejnegeri</i>	黑喉石鵪	WV			1			5				
White Wagtail	<i>Motacilla alba</i>	白鵪鶉	PM, WV		2	3	2	6	28				14
White-rumped munia	<i>Lonchura striata</i>	白腰文鳥	R					8					
Wood Sandpiper	<i>Tringa glareola</i>	林鵪	LC			2	2		2				1
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷦鶯	R				1					2	

Appendix H1a. Avifauna Species Recorded for Water Birds Monitoring, 2 November 2020, High Tide

Appendix III: Avian Species Recorded for Water Birds Monitoring, 2 November 2020, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		2/11/2020							
					Weather Condition		Sunny							
					Tidal Condition		High							
					Tide Level (m)		2.04							
					Start Time		11:00							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
			WAL	DAL	SWH	P	Heard	Flight						
Yellow-browed Warbler	<i>Phylloscopus inornatus</i>	黃眉柳鶯	WV, SpM			3					1			
Zitting Cisticola	<i>Cisticola juncidis</i>	棕扇尾鶯	PM, WV	LC					2					
Total No. of Species					11	14	17	10	18	4	0	4	7	
Total No. of Conservation Interest Species					4	6	6	3	5	4	0	0	4	
Note: R – Resident; RR - Rare resident, WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce passage migrant; CaM - Common autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; UR – Uncommon resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; M - Spring and Autumn Migrant Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net) Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance Cap.586 : Endangered Species of Animals and Plants Ordinance (Cap.586) CR: Rare in China Red Data Book Status VU: Vulnerable in IUCN Red List Status (VU): Vulnerable in China Red Data Book Status NT: Near Threatened in IUCN Red List Status CR: Critically Endangered in IUCN Red List Status RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002) WAL: Wet Agricultural Land DAL: Dry Agricultural Land SWH: Shallow Water Habitat P: Pond														

Appendix H1b. Avifauna Species Recorded for Water Birds Monitoring, 2 November, Low Tide

Appendix 115: Avifauna Species Recorded for Water Birds Monitoring, 2 November, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			2-11-2020					
					Weather Condition			Sunny					
					Tidal Condition			Low					
					Tide Level (m)			1.40					
					Start Time			15:00					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
			WAL	DAL	SWH	P	Heard	Flight					
Black-necked Starling	<i>Sturnus nigricollis</i>	黑領棕鳥	R		2	2						4	
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷸	PM	RC			2			45			4
Chinese Bulbul	<i>Pycnonotus sinensis</i>	白頭鵯	R		1								
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)	3	3	6	4	2	1			2
Common Greenshank	<i>Tringa nebularia</i>	青腳鷸	PM, WV	RC			1			3			
Common Kingfisher	<i>Alcedo atthis</i>	普通翠鳥	R			1							
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鷸	WV, PM				1						
Common Snipe	<i>Gallinago gallinago</i>	扇尾沙錐	WV, PM						1				
Crested Bulbul	<i>Pycnonotus jocosus</i>	紅耳鵯	R		3	3							
Domestic Pigeon	<i>Columba livia</i>	原鴿	R				3		28				
Daurian Redstart	<i>Phoenicurus aureoreus</i>	北紅尾鵯	WV						1				
Dusky Warbler	<i>Phylloscopus fuscatus</i>	褐柳鵯	PM, WV				4		4			1	
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鵯	R, PM	(LC)			2	5	8				
Eastern Yellow Wagtail	<i>Motacilla tschutschensis</i>	東黃鵯鵯	PM, WV					6	10				1
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R		4	6	3		3				
Great Egret	<i>Ardea alba</i>	大白鵯	R, WV	PRC(RC)	3	3	2				1		1
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鷸	UPM, WV				4						

Appendix H1b. Avifauna Species Recorded for Water Birds Monitoring, 2 November 2020, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			2-11-2020					
					Weather Condition			Sunny					
					Tidal Condition			Low					
					Tide Level (m)			1.40					
					Start Time			15:00					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
			WAL	DAL	SWH	P	Heard	Flight					
Grey Heron	<i>Ardea cinerea</i>	蒼鷺	WV	PRC	2	3	9						
Grey-headed Lapwing	<i>Vanellus cinereus</i>	灰頭麥雞	SWV	LC			2						
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)	4	4	4	1		1			10
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鴝	WV, PM	LC		2	4	3					
Magpie Robin	<i>Copsychus saularis</i>	鵲鴝	R		1	2							
Plain Prinia	<i>Prinia inornata</i>	純色鷓鴣	R						2				
Red-throated Pipit	<i>Anthus cervinus</i>	紅喉鵲	CPM, WV	RC					1				
Richard's Pipit	<i>Anthus richardi</i>	田鵲	WV, PM						1				
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鴝	R		4	4	7	10			1	5	
Spotted Munia	<i>Lonchura punctulata</i>	斑文鳥	R					22					25
Stejneger's Stonechat	<i>Saxicola stejnegeri</i>	黑喉石鵲	WV			2	1		4				
White Wagtail	<i>Motacilla alba</i>	白鵲鴝	PM, WV		2	3	3	6	25				14
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R				1						
White-rumped munia	<i>Lonchura striata</i>	白腰文鳥	R					35					
White-throated Kingfisher	<i>Halcyon smyrnensis</i>	白胸翡翠	R							1			
Wood Sandpiper	<i>Tringa glareola</i>	林鵲	LC					4		14			1
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷓鴣	R				2		1			1	

Appendix H1b. Avifauna Species Recorded for Water Birds Monitoring, 2 November 2020, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		2-11-2020							
					Weather Condition		Sunny							
					Tidal Condition		Low							
					Tide Level (m)		1.40							
					Start Time		15:00							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
			WAL	DAL	SWH	P	Heard	Flight						
Total No. of Species					11	13	19	10	14	6	2	4	8	
Total No. of Conservation Interest Species					4	5	9	4	3	4	1	0	4	
Note: R – Resident; RR - Rare resident, WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce passage migrant; CaM - Common autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; UR – Uncommon resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; M - Spring and Autumn Migrant Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net) Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance Cap.586 : Endangered Species of Animals and Plants Ordinance (Cap.586) CR: Rare in China Red Data Book Status VU: Vulnerable in IUCN Red List Status (VU): Vulnerable in China Red Data Book Status NT: Near Threatened in IUCN Red List Status CR: Critically Endangered in IUCN Red List Status RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002) WAL: Wet Agricultural Land DAL: Dry Agricultural Land SWH: Shallow Water Habitat P: Pond														

Appendix H1c. Avifauna Species Recorded for Water Birds Monitoring, 13 November 2020, High Tide

Appendix III: Mynna Species Recorded for Water Birds Monitoring, 10 November 2020, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			13/11/2020						
					Weather Condition			Sunny with cloudy intervals						
					Tidal Condition			High						
					Tide Level (m)			2.17						
					Start Time			10:00						
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
			WAL	DAL	SWH	P	Heard	Flight						
Black Kite	<i>Milvus migrans</i>	黑鳶	R, WV	(RC), Cap.586	1									1
Black-necked Starling	<i>Sturnus nigricollis</i>	黑領棕鳥	R					6				6		4
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷸	PM	RC				6	3	26				3
Chinese Bulbul	<i>Pycnonotus sinensis</i>	白頭鵯	R											1
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)	2	6	2	1	6	1				2
Cinereous Tit	<i>Parus cinereus</i>	蒼背山雀	R		2									
Collared Crow	<i>Corvus torquatus</i>	白頸鴉	UR	LC, VU		1								
Common Kingfisher	<i>Alcedo atthis</i>	普通翠鳥	R		2									
Common Myna	<i>Acridotheres tristis</i>	家八哥	UR						2					
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鷸	WV, PM				1							
Common Tailorbird	<i>Orthotomus sutorius</i>	長尾縫葉鶯	R						3					
Crested Bulbul	<i>Pycnonotus jocosus</i>	紅耳鵯	R		3		2		5					
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R		3	4			2					4
Domestic Pigeon	<i>Columba livia</i>	原鴿	R				8	16						9
Dusky Warbler	<i>Phylloscopus fuscatus</i>	褐柳鶯	PM, WV				5		1			1		
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	R, PM	(LC)			3	11	12	5				4

Appendix H1c. Avifauna Species Recorded for Water Birds Monitoring, 13 November 2020, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			13/11/2020						
					Weather Condition			Sunny with cloudy intervals						
					Tidal Condition			High						
					Tide Level (m)			2.17						
					Start Time			10:00						
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						Heard
			WAL	DAL	SWH	P								
Eastern Yellow Wagtail	<i>Motacilla tschutschensis</i>	東黃鵲鴝	PM, WV					11						
Eurasian Teal	<i>Anas crecca</i>	綠翅鴨	WV	RC	3									
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R		1	7		12	14			36		
Great Cormorant	<i>Phalacrocorax carbo</i>	普通鸕鶿	CWV	PRC			1							
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)	1	1	4		1	3		4		
Greater Painted-snipe	<i>Rostratula benghalensis</i>	彩鵲	R, PM, WV	LC						1				
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鵲	UPM, WV				3			2				
Grey Heron	<i>Ardea cinerea</i>	蒼鷺	WV	PRC	1		12							
Grey Wagtail	<i>Motacilla cinerea</i>	灰鵲鴝	WV			2								
Little Bunting	<i>Emberiza pusilla</i>	小鵲	CPM, WV					1						
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)	3	14	13	6	2	6		18		
Little Grebe	<i>Tachybaptus ruficollis</i>	小鷺鵼	R	LC	2	1								
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鵲	WV, PM	LC		12			7					
Magpie Robin	<i>Copsychus saularis</i>	鵲鴝	R						1					
Pallas's Leaf Warbler	<i>Phylloscopus proregulus</i>	黃腰柳鷺	WV				1							
Pied Avocet	<i>Recurvirostra avosetta</i>	反嘴鵲	WV	RC						5				
Plain Prinia	<i>Prinia inornata</i>	純色鵲鷺	R						1					

Appendix H1c. Avifauna Species Recorded for Water Birds Monitoring, 13 November 2020, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			13/11/2020						
					Weather Condition			Sunny with cloudy intervals						
					Tidal Condition			High						
					Tide Level (m)			2.17						
					Start Time			10:00						
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
			WAL	DAL	SWH	P	Heard	Flight						
Sooty-headed Bulbul	<i>Pycnonotus aurigaster</i>	白喉紅臀鵯	UR					1						
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R		5	1	1	1	13				1	
Spotted Munia	<i>Lonchura punctulata</i>	斑文鳥	R					45					87	
Stejneger's Stonechat	<i>Saxicola stejnegeri</i>	黑喉石鵯	WV			1			3					
White Wagtail	<i>Motacilla alba</i>	白鵲鵯	PM, WV		1	3	4	4	27	1			4	
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R									2		
White-headed Munia	<i>Lonchura maja</i>	白頭文鳥	R					22						
White-rumped munia	<i>Lonchura striata</i>	白腰文鳥	R										44	
White-throated Kingfisher	<i>Halcyon smyrnensis</i>	白胸翡翠	R		1				1					
Wood Sandpiper	<i>Tringa glareola</i>	林鵯	LC			2			13		1		2	
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷦鶯	R							1		2		
Yellow-breasted Bunting	<i>Emberiza aureola</i>	黃胸鵯	PM	CR, RC				3						
Total No. of Species					15	13	14	12	22	10	1	4	16	
Total No. of Conservation Interest Species					7	6	6	5	6	7	0	0	6	

Appendix H1c. Avifauna Species Recorded for Water Birds Monitoring, 13 November 2020, High Tide

Appendix III: Wetland Species Recorded for Water Birds Monitoring, 10 November 2020, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		13/11/2020							
					Weather Condition		Sunny with cloudy intervals							
					Tidal Condition		High							
					Tide Level (m)		2.17							
					Start Time		10:00							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
			WAL	DAL	SWH	P	Heard	Flight						
<p>Note:</p> <p>R – Resident; RR - Rare resident, WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce passage migrant; CaM - Common autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; UR – Uncommon resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; M - Spring and Autumn Migrant</p> <p>Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net)</p> <p>Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance</p> <p>Cap.586 : Endangered Species of Animals and Plants Ordinance (Cap.586)</p> <p>CR: Rare in China Red Data Book Status</p> <p>VU: Vulnerable in IUCN Red List Status</p> <p>(VU): Vulnerable in China Red Data Book Status</p> <p>NT: Near Threatened in IUCN Red List Status</p> <p>CR: Critically Endangered in IUCN Red List Status</p> <p>RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002)</p> <p>WAL: Wet Agricultural Land</p> <p>DAL: Dry Agricultural Land</p> <p>SWH: Shallow Water Habitat</p> <p>P: Pond</p>														

Appendix H1d. Avifauna Species Recorded for Water Birds Monitoring, 13 November 2020, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			13/11/2020						
					Weather Condition			Cloudy						
					Tidal Condition			Low						
					Tide Level (m)			0.91						
					Start Time			14:00						
					Abundance									
					Transect Walk									
T1	T2	T3	T5											
			WAL	DAL	SWH	P	Heard	Flight						
Arctic Warbler	<i>Phylloscopus borealis</i>	極北柳鶯	PM		1				2					
Black Kite	<i>Milvus migrans</i>	黑鳶	R, WV	(RC), Cap.586									1	
Black-necked Starling	<i>Sturnus nigricollis</i>	黑領棕鳥	R					6				3	3	
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷸	PM	RC				3	2	24				
Chinese Bulbul	<i>Pycnonotus sinensis</i>	白頭鵯	R						1					
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)	3	8	4	3	4					
Collared Crow	<i>Corvus torquatus</i>	白頸鴉	UR	LC, VU					2					
Common Greenshank	<i>Tringa nebularia</i>	青腳鷸	PM, WV	RC			1							
Common Myna	<i>Acridotheres tristis</i>	家八哥	UR						6					
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鷸	WV, PM				1							
Crested Bulbul	<i>Pycnonotus jocosus</i>	紅耳鵯	R		2	2			1					
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R		4	4	2		32					
Domestic Pigeon	<i>Columba livia</i>	原鴿	R						26					
Dusky Warbler	<i>Phylloscopus fuscatus</i>	褐柳鶯	PM, WV				3		2					
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	R, PM	(LC)				14	3	6				
Eurasian Teal	<i>Anas crecca</i>	綠翅鴨	WV	RC	2	6				1				
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R		4	5	4		13					

Appendix H1d. Avifauna Species Recorded for Water Birds Monitoring, 13 November 2020, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			13/11/2020							
					Weather Condition			Cloudy							
					Tidal Condition			Low							
					Tide Level (m)			0.91							
					Start Time			14:00							
					Abundance										
					Transect Walk										
T1			T2			T3			T5						
									WAL	DAL	SWH	P	Heard	Flight	
Great Cormorant	<i>Phalacrocorax carbo</i>	普通鸕鷀	CWV	PRC											2
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)	2	5	3	1		3					1
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鷸	UPM, WV				4			2					
Grey Heron	<i>Ardea cinerea</i>	蒼鷺	WV	PRC	1	2	10								
Grey Wagtail	<i>Motacilla cinerea</i>	灰鵲鵲	WV						1						
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)	3	7	11	7	1	3					7
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鵲	WV, PM	LC		12	4		1	1					
Magpie Robin	<i>Copsychus saularis</i>	鵲鵲	R						1						
Masked Laughing Thrush	<i>Garrulax perspicillatus</i>	黑臉噪鵲	R		1	4			6						
Pied Avocet	<i>Recurvirostra avosetta</i>	反嘴鵲	WV	RC					1	5					
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R		4	1	9	1	17						1
Spotted Munia	<i>Lonchura punctulata</i>	斑文鳥	R				4	34							20
Stejneger's Stonechat	<i>Saxicola stejnegeri</i>	黑喉石鵲	WV						2						
White Wagtail	<i>Motacilla alba</i>	白鵲鵲	PM, WV		2	3	6		14						7
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R										1		
White-headed Munia	<i>Lonchura maja</i>	白頭文鳥	R												8

Appendix H1d. Avifauna Species Recorded for Water Birds Monitoring, 13 November 2020, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			13/11/2020						
					Weather Condition			Cloudy						
					Tidal Condition			Low						
					Tide Level (m)			0.91						
					Start Time			14:00						
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
			WAL	DAL	SWH	P	Heard	Flight						
White-rumped munia	<i>Lonchura striata</i>	白腰文鳥	R				41						32	
Wood Sandpiper	<i>Tringa glareola</i>	林鷸	LC		2	2			5					
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷓鴣	R								2			
Zitting Cisticola	<i>Cisticola juncidis</i>	棕扇尾鶯	PM, WV	LC			1							
Total No. of Species					11	13	17	9	21	9	0	4	10	
Total No. of Conservation Interest Species					5	6	7	5	7	7	0	0	4	

Appendix H1d. Avifauna Species Recorded for Water Birds Monitoring, 13 November 2020, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		13/11/2020							
					Weather Condition		Cloudy							
					Tidal Condition		Low							
					Tide Level (m)		0.91							
					Start Time		14:00							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
			WAL	DAL	SWH	P	Heard	Flight						
Note: R – Resident; RR - Rare resident, WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce passage migrant; CaM - Common autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; UR – Uncommon resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; M - Spring and Autumn Migrant Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net) Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance Cap.586 : Endangered Species of Animals and Plants Ordinance (Cap.586) CR: Rare in China Red Data Book Status VU: Vulnerable in IUCN Red List Status (VU): Vulnerable in China Red Data Book Status NT: Near Threatened in IUCN Red List Status CR: Critically Endangered in IUCN Red List Status RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002) WAL: Wet Agricultural Land DAL: Dry Agricultural Land SWH: Shallow Water Habitat P: Pond														

Appendix H1e. Avifauna Species Recorded for Water Birds Monitoring, 16 November 2020, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			16/11/2020					
					Weather Condition			Sunny					
					Tidal Condition			High					
					Tide Level (m)			1.89					
					Start Time			10:00					
					Abundance								
					Transect Walk								
T1	T2	T3	T5										
			WAL	DAL	SWH	P	Heard	Flight					
Black Kite	<i>Milvus migrans</i>	黑鳶	R, WV	(RC), Cap.586		2	1						1
Black-necked Starling	<i>Sturnus nigricollis</i>	黑領棕鳥	R		2	4			1			7	
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷸	PM	RC			11	7					
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)	4	3	3	8					
Common Greenshank	<i>Tringa nebularia</i>	青腳鷸	PM, WV	RC			1						
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鷸	WV, PM				2						
Common Snipe	<i>Gallinago gallinago</i>	扇尾沙錐	WV, PM										1
Crested Bulbul	<i>Pycnonotus jocosus</i>	紅耳鶇	R		4	3						2	
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R		4	4		2					1
Domestic Pigeon	<i>Columba livia</i>	原鴿	R						12				
Daurian Redstart	<i>Phoenicurus aureus</i>	北紅尾鵯	WV			1	1						
Dusky Warbler	<i>Phylloscopus fuscatus</i>	褐柳鶯	PM, WV				2		2			1	
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	R, PM	(LC)			1	11					
Eastern Yellow Wagtail	<i>Motacilla tschutschensis</i>	東黃鵲鴝	PM, WV				2	3					
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R		3	2			14				
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)	1	2	3			2			
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鷸	UPM, WV				4						

Appendix H1e. Avifauna Species Recorded for Water Birds Monitoring, 16 November 2020, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			16/11/2020					
					Weather Condition			Sunny					
					Tidal Condition			High					
					Tide Level (m)			1.89					
					Start Time			10:00					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
			WAL	DAL	SWH	P	Heard	Flight					
Grey-headed Lapwing	<i>Vanellus cinereus</i>	灰頭麥雞	SWV	LC			2						1
Grey Heron	<i>Ardea cinerea</i>	蒼鷺	WV	PRC	2	2	4						
Japanese White-eye	<i>Zosterops japonicus</i>	暗綠繡眼鳥	R										6
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)	3	2	3	4	2	1			
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鴝	WV, PM	LC				4					
Long-tailed Shrike	<i>Lanius schach</i>	棕背伯勞	R						1				
Magpie Robin	<i>Copsychus saularis</i>	鵲鴝	R						1				
Plain Prinia	<i>Prinia inornata</i>	純色鷓鴣	R						1				
Richard's Pipit	<i>Anthus richardi</i>	田鸚	WV, PM						1				
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鴝	R		3	3			3			3	
Spotted Munia	<i>Lonchura punctulata</i>	斑文鳥	R						7				
Stejneger's Stonechat	<i>Saxicola stejnegeri</i>	黑喉石鴝	WV					1	5				4
White Wagtail	<i>Motacilla alba</i>	白鵲鴝	PM, WV		2	4	5	5	17				
Wood Sandpiper	<i>Tringa glareola</i>	林鴝	LC			2	2			1			
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷓鴣	R									1	
Total No. of Species					10	13	16	9	13	3	0	5	6
Total No. of Conservation Interest Species					4	5	9	5	1	2	0	0	2

Appendix H1e. Avifauna Species Recorded for Water Birds Monitoring, 16 November 2020, High Tide

Appendix III: Wetland Species Recorded for Water Birds Monitoring, 16 November 2020, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		16/11/2020							
					Weather Condition		Sunny							
					Tidal Condition		High							
					Tide Level (m)		1.89							
					Start Time		10:00							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
			WAL	DAL	SWH	P	Heard	Flight						
<p>Note:</p> <p>R – Resident; RR - Rare resident, WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce passage migrant; CaM - Common autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; UR – Uncommon resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; M - Spring and Autumn Migrant</p> <p>Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net)</p> <p>Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance</p> <p>Cap.586 : Endangered Species of Animals and Plants Ordinance (Cap.586)</p> <p>CR: Rare in China Red Data Book Status</p> <p>VU: Vulnerable in IUCN Red List Status</p> <p>(VU): Vulnerable in China Red Data Book Status</p> <p>NT: Near Threatened in IUCN Red List Status</p> <p>CR: Critically Endangered in IUCN Red List Status</p> <p>RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002)</p> <p>WAL: Wet Agricultural Land</p> <p>DAL: Dry Agricultural Land</p> <p>SWH: Shallow Water Habitat</p> <p>P: Pond</p>														

Appendix H1f. Avifauna Species Recorded for Water Birds Monitoring, 16 November 2020, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			16/11/2020					
					Weather Condition			Sunny					
					Tidal Condition			Low					
					Tide Level (m)			1.39					
					Start Time			15:00					
					Abundance								
					Transect Walk								
T1	T2	T3	T5										
			WAL	DAL	SWH	P	Heard	Flight					
Black-necked Starling	<i>Sturnus nigricollis</i>	黑領棕鳥	R				1	1	4			2	
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷸	PM	RC			2	32		12			
Chinese Bulbul	<i>Pycnonotus sinensis</i>	白頭鵯	R		2	2	4						
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)	1	2	1	3	5	2			1
Cinnamon Bittern	<i>Ixobrychus cinnamomeus</i>	栗葦鵯	SPM	LC							1		
Common Greenshank	<i>Tringa nebularia</i>	青腳鵯	PM, WV	RC			1						
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鵯	WV, PM				5						
Common Tailorbird	<i>Orthotomus sutorius</i>	長尾縫葉鶯	R						3				
Crested Bulbul	<i>Pycnonotus jocosus</i>	紅耳鵯	R		3	4			4				
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R		4	4							1
Domestic Pigeon	<i>Columba livia</i>	原鴿	R						6				3
Daurian Redstart	<i>Phoenicurus aureus</i>	北紅尾鵯	WV						2				
Dusky Warbler	<i>Phylloscopus fuscatus</i>	褐柳鶯	PM, WV				5		1				
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鶯	R, PM	(LC)				12	5				
Eastern Yellow Wagtail	<i>Motacilla tschutschensis</i>	東黃鵯鶯	PM, WV					4					2
Eurasian Teal	<i>Anas crecca</i>	綠翅鴨	WV	RC		4				1			

Appendix H1f. Avifauna Species Recorded for Water Birds Monitoring, 16 November 2020, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			16/11/2020						
					Weather Condition			Sunny						
					Tidal Condition			Low						
					Tide Level (m)			1.39						
					Start Time			15:00						
					Abundance									
					Transect Walk									
T1	T2	T3	T5											
			WAL	DAL	SWH	P	Heard	Flight						
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R					14						
Great Cormorant	<i>Phalacrocorax carbo</i>	普通鸕鶿	CWV	PRC								2		
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)	1	4	4			2				
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鷸	UPM, WV				5							
Grey-headed Lapwing	<i>Vanellus cinereus</i>	灰頭麥雞	SWV	LC			2							
Grey Heron	<i>Ardea cinerea</i>	蒼鷺	WV	PRC	1	2	12							
Jungle Crow	<i>Corvus macrorhynchus</i>	大嘴烏鴉	R				1							
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)	2	3	8	1	2	2		6		
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鴝	WV, PM	LC			9			2				
Long-tailed Shrike	<i>Lanius schach</i>	棕背伯勞	R				1		1					
Magpie Robin	<i>Copsychus saularis</i>	鵲鴝	R		1	3			2					
Olive Backed Pipit	<i>Anthus hodgsoni</i>	樹鵲	WV				2							
Pied Avocet	<i>Recurvirostra avosetta</i>	反嘴鷸	WV	RC					1	8		1		
Pintail Snipe	<i>Gallinago stenura</i>	針尾沙錐	CPM						2					
Richard's Pipit	<i>Anthus richardi</i>	田鵲	WV, PM						1					
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R		2	3	2	8			2	1		
Spotted Munia	<i>Lonchura punctulata</i>	斑文鳥	R					35				3		
Stejneger's Stonechat	<i>Saxicola stejnegeri</i>	黑喉石鵲	WV			2	4		5					

Appendix H1f. Avifauna Species Recorded for Water Birds Monitoring, 16 November 2020, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			16/11/2020						
					Weather Condition			Sunny						
					Tidal Condition			Low						
					Tide Level (m)			1.39						
					Start Time			15:00						
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
			WAL	DAL	SWH	P	Heard	Flight						
White Wagtail	<i>Motacilla alba</i>	白鵲鵲	PM, WV		1	3	12	9	26				4	
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R							1				
Wood Sandpiper	<i>Tringa glareola</i>	林鵲	LC			6		5	5				1	
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷓鴣	R				2					2		
Yellow-browed Warbler	<i>Phylloscopus inornatus</i>	黃眉柳鶯	WV, SpM				2							
Zitting Cisticola	<i>Cisticola juncidis</i>	棕扇尾鶯	PM, WV	LC			1		2					
Total No. of Species					10	13	22	10	19	8	2	3	10	
Total No. of Conservation Interest Species					4	5	9	4	5	7	1	0	4	

Appendix H1f. Avifauna Species Recorded for Water Birds Monitoring, 16 November 2020, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		16/11/2020							
					Weather Condition		Sunny							
					Tidal Condition		Low							
					Tide Level (m)		1.39							
					Start Time		15:00							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
			WAL	DAL	SWH	P	Heard	Flight						
Note: R – Resident; RR - Rare resident, WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce passage migrant; CaM - Common autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; UR – Uncommon resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; M - Spring and Autumn Migrant Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net) Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance Cap.586 : Endangered Species of Animals and Plants Ordinance (Cap.586) CR: Rare in China Red Data Book Status VU: Vulnerable in IUCN Red List Status (VU): Vulnerable in China Red Data Book Status NT: Near Threatened in IUCN Red List Status CR: Critically Endangered in IUCN Red List Status RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002) WAL: Wet Agricultural Land DAL: Dry Agricultural Land SWH: Shallow Water Habitat P: Pond														

Appendix H1g. Avifauna Species Recorded for Water Birds Monitoring, 25 November 2020, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			25/11/2020						
					Weather Condition			Sunny						
					Tidal Condition			High						
					Tide Level (m)			1.8						
					Start Time			8:00						
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
			WAL	DAL	SWH	P	Heard	Flight						
Alexandrine Parakeet	<i>Psittacula eupatria</i>	亞歷山大鸚鵡	RR	NT					1					
Arctic Warbler	<i>Phylloscopus borealis</i>	極北柳鶯	PM				1		1					
Asian Brown Flycatcher	<i>Muscicapa latirostris</i>	北灰鶲	PM, WV						1					
Black-necked Starling	<i>Sturnus nigricollis</i>	黑領棕鳥	R					3	8	2		3		
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷸	PM	RC			1			33			1	
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鶯	R	PRC(RC)	3	5	3	4	3	2				
Common Greenshank	<i>Tringa nebularia</i>	青腳鷸	PM, WV	RC			1							
Common Kingfisher	<i>Alcedo atthis</i>	普通翠鳥	R				1							
Common Myna	<i>Acridotheres tristis</i>	家八哥	UR						1					
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鷸	WV, PM				2							
Common Snipe	<i>Gallinago gallinago</i>	扇尾沙錐	WV, PM							2				
Common Tailorbird	<i>Orthotomus sutorius</i>	長尾縫葉鶯	R						3					
Crested Bulbul	<i>Pycnonotus jocosus</i>	紅耳鶲	R		2	2			2					
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R										2	
Domestic Pigeon	<i>Columba livia</i>	原鴿	R						1					
Daurian Redstart	<i>Phoenicurus aureus</i>	北紅尾鶲	WV						1					

Appendix H1g. Avifauna Species Recorded for Water Birds Monitoring, 25 November 2020, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			25/11/2020					
					Weather Condition			Sunny					
					Tidal Condition			High					
					Tide Level (m)			1.8					
					Start Time			8:00					
					Abundance								
					Transect Walk								
T1	T2	T3	T5										
			WAL	DAL	SWH	P	Heard	Flight					
Dusky Warbler	<i>Phylloscopus fuscatus</i>	褐柳鶯	PM, WV				3		3			1	
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鶯	R, PM	(LC)			1	8	1				
Eastern Yellow Wagtail	<i>Motacilla tschutschensis</i>	東黃鵲鴝	PM, WV					1	2	3			4
Eurasian Teal	<i>Anas crecca</i>	綠翅鴨	WV	RC		3				6			
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R		3	1			6				7
Great Egret	<i>Ardea alba</i>	大白鶯	R, WV	PRC(RC)	2	3	4			1			
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鶯	UPM, WV				6						
Grey-headed Lapwing	<i>Vanellus cinereus</i>	灰頭麥雞	SWV	LC			2						
Grey Heron	<i>Ardea cinerea</i>	蒼鶯	WV	PRC	1	2	5						
Grey Wagtail	<i>Motacilla cinerea</i>	灰鵲鴝	WV				1		2				
Japanese White-eye	<i>Zosterops japonicus</i>	暗綠繡眼鳥	R						2				
Little Egret	<i>Egretta garzetta</i>	小白鶯	R	PRC(RC)	2	4	7	2		1			1
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鴝	WV, PM	LC			5						
Long-tailed Shrike	<i>Lanius schach</i>	棕背伯勞	R						3				
Magpie Robin	<i>Copsychus saularis</i>	鵲鴝	R						1				
Olive Backed Pipit	<i>Anthus hodgsoni</i>	樹鵲	WV				4						
Pied Avocet	<i>Recurvirostra avosetta</i>	反嘴鵲	WV	RC						2			

Appendix H1g. Avifauna Species Recorded for Water Birds Monitoring, 25 November 2020, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			25/11/2020						
					Weather Condition			Sunny						
					Tidal Condition			High						
					Tide Level (m)			1.8						
					Start Time			8:00						
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
			WAL	DAL	SWH	P	Heard	Flight						
Pintail Snipe	<i>Gallinago stenura</i>	針尾沙錐	CPM										4	
Plain Prinia	<i>Prinia inornata</i>	純色鷓鴣	R			1								
Red-rumped Swallow	<i>Hirundo daurica</i>	金腰燕	UPM										5	
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R		4	4	1	1	9					
Spotted Munia	<i>Lonchura punctulata</i>	斑文鳥	R			4		15	7					
Stejneger's Stonechat	<i>Saxicola stejnegeri</i>	黑喉石鵯	WV			2	2		1					
White Wagtail	<i>Motacilla alba</i>	白鵲鴿	PM, WV		1	2	11	2	22				7	
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R					2		1				
White-rumped munia	<i>Lonchura striata</i>	白腰文鳥	R						2				9	
White-throated Kingfisher	<i>Halcyon smyrnensis</i>	白胸翡翠	R							1				
White Headed Munia	<i>Lonchura maja</i>	白頭文鳥	R						4				20	
Wood Sandpiper	<i>Tringa glareola</i>	林鵲	LC			10	1	3		9				
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷓鴣	R				3					4		
Yellow-browed Warbler	<i>Phylloscopus inornatus</i>	黃眉柳鶯	WV, SpM				1							
Zitting Cisticola	<i>Cisticola juncidis</i>	棕扇尾鶯	PM, WV	LC			5							

Appendix H1g. Avifauna Species Recorded for Water Birds Monitoring, 25 November 2020, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		25/11/2020							
					Weather Condition		Sunny							
					Tidal Condition		High							
					Tide Level (m)		1.8							
					Start Time		8:00							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
			WAL	DAL	SWH	P	Heard	Flight						
Total No. of Species					8	12	22	10	24	12	0	3	10	
Total No. of Conservation Interest Species					4	5	10	3	2	6	0	0	2	
Note: R – Resident; RR - Rare resident, WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce passage migrant; CaM - Common autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; UR – Uncommon resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; M - Spring and Autumn Migrant Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net) Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance Cap.586 : Endangered Species of Animals and Plants Ordinance (Cap.586) CR: Rare in China Red Data Book Status VU: Vulnerable in IUCN Red List Status (VU): Vulnerable in China Red Data Book Status NT: Near Threatened in IUCN Red List Status CR: Critically Endangered in IUCN Red List Status RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002) WAL: Wet Agricultural Land DAL: Dry Agricultural Land SWH: Shallow Water Habitat P: Pond														

Appendix H1h. Avifauna Species Recorded for Water Birds Monitoring, 25 November 2020, Low Tide

Appendix 1: Wetland Species Recorded for Water Level Monitoring, 25 November 2020, 20:11:11

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		25/11/2020								
					Weather Condition		Sunny								
					Tidal Condition		Low								
					Tide Level (m)		0.98								
					Start Time		12:00								
					Abundance										
					Transect Walk										
T1	T2	T3	T5						Heard	Flight					
			WAL	DAL	SWH	P									
Asian Brown Flycatcher	<i>Muscicapa latirostris</i>	北灰鶇	PM, WV					1							
Black Kite	<i>Milvus migrans</i>	黑鳶	R, WV	(RC), Cap.586								1			
Black-necked Starling	<i>Sturnus nigricollis</i>	黑領棕鳥	R					7			5				
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鶇	PM	RC			2		35						
Chinese Blackbird	<i>Turdus mandarinus</i>	烏鶇	CWV					1							
Chinese Bulbul	<i>Pycnonotus sinensis</i>	白頭鶇	R		2	1		3							
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鶇	R	PRC(RC)	3	3	5	5	1	2		3			
Cinereous Tit	<i>Parus cinereus</i>	蒼背山雀	R		2										
Collared Crow	<i>Corvus torquatus</i>	白頸鴉	UR	LC, VU		1									
Common Greenshank	<i>Tringa nebularia</i>	青腳鶇	PM, WV	RC			1								
Common Myna	<i>Acridotheres tristis</i>	家八哥	UR					2							
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鶇	WV, PM				2								
Common Snipe	<i>Gallinago gallinago</i>	扇尾沙錐	WV, PM						3						
Crested Bulbul	<i>Pycnonotus jocosus</i>	紅耳鶇	R		3	3		2							
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R				5					3			
Domestic Pigeon	<i>Columba livia</i>	原鴿	R					8							
Daurian Redstart	<i>Phoenicurus aureus</i>	北紅尾鶇	WV					1							

Appendix H1h. Avifauna Species Recorded for Water Birds Monitoring, 25 November 2020, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			25/11/2020						
					Weather Condition			Sunny						
					Tidal Condition			Low						
					Tide Level (m)			0.98						
					Start Time			12:00						
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
			WAL	DAL	SWH	P	Heard	Flight						
Dusky Warbler	<i>Phylloscopus fuscatus</i>	褐柳鶯	PM, WV				4		3			2		
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鶯	R, PM	(LC)			3	12	2					
Eastern Yellow Wagtail	<i>Motacilla tschutschensis</i>	東黃鵲鴝	PM, WV					6	3				4	
Eurasian Teal	<i>Anas crecca</i>	綠翅鴨	WV	RC		4				8				
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R		3	3			7					
Great Egret	<i>Ardea alba</i>	大白鶯	R, WV	PRC(RC)	2	4	3	1						
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鵲	UPM, WV				6							
Grey-headed Lapwing	<i>Vanellus cinereus</i>	灰頭麥雞	SWV	LC			2							
Grey Heron	<i>Ardea cinerea</i>	蒼鶯	WV	PRC	1	2	8		1					
Grey Wagtail	<i>Motacilla cinerea</i>	灰鵲鴝	WV				2							
Little Egret	<i>Egretta garzetta</i>	小白鶯	R	PRC(RC)	2	2	2							
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鵲	WV, PM	LC		3	6		4					
Long-tailed Shrike	<i>Lanius schach</i>	棕背伯勞	R						4					
Magpie Robin	<i>Copsychus saularis</i>	鵲鴝	R		2	2			1					
Masked Laughing Thrush	<i>Garrulax perspicillatus</i>	黑臉噪鵲	R						9					
Pallas's Leaf Warbler	<i>Phylloscopus proregulus</i>	黃腰柳鶯	WV				2							

Appendix H1h. Avifauna Species Recorded for Water Birds Monitoring, 25 November 2020, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			25/11/2020						
					Weather Condition			Sunny						
					Tidal Condition			Low						
					Tide Level (m)			0.98						
					Start Time			12:00						
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
			WAL	DAL	SWH	P	Heard	Flight						
Pied Avocet	<i>Recurvirostra avosetta</i>	反嘴鷸	WV	RC						3				
Red-rumped Swallow	<i>Hirundo daurica</i>	金腰燕	UPM										4	
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R		4	2	4		17			3	8	
Spotted Munia	<i>Lonchura punctulata</i>	斑文鳥	R					28	24					
Stejneger's Stonechat	<i>Saxicola stejnegeri</i>	黑喉石鵯	WV				3							
White Wagtail	<i>Motacilla alba</i>	白鵲鵯	PM, WV		1	2	19	1	27				8	
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R							1				
White-rumped munia	<i>Lonchura striata</i>	白腰文鳥	R					10					12	
White Headed Munia	<i>Lonchura maja</i>	白頭文鳥	R					30						
Wood Sandpiper	<i>Tringa glareola</i>	林鵲	LC			11	1	5		11				
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷦鶯	R				1					1		
Total No. of Species					11	14	19	10	21	7	0	4	8	
Total No. of Conservation Interest Species					4	7	9	3	4	4	0	0	2	

Appendix H1h. Avifauna Species Recorded for Water Birds Monitoring, 25 November 2020, Low Tide

Appendix VIII: Wading Species Recorded for Water Birds Monitoring, 25 November 2020, Bow Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		25/11/2020							
					Weather Condition		Sunny							
					Tidal Condition		Low							
					Tide Level (m)		0.98							
					Start Time		12:00							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
			WAL	DAL	SWH	P	Heard	Flight						
Note: R – Resident; RR - Rare resident, WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce passage migrant; CaM - Common autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; UR – Uncommon resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; M - Spring and Autumn Migrant Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net) Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance Cap.586 : Endangered Species of Animals and Plants Ordinance (Cap.586) CR: Rare in China Red Data Book Status VU: Vulnerable in IUCN Red List Status (VU): Vulnerable in China Red Data Book Status NT: Near Threatened in IUCN Red List Status CR: Critically Endangered in IUCN Red List Status RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002) WAL: Wet Agricultural Land DAL: Dry Agricultural Land SWH: Shallow Water Habitat P: Pond														

Appendix H1i. Avifauna Species Recorded for Water Birds Monitoring, 30 November 2020, High Tide

Appendix III: Avian Species Recorded for Water Birds Monitoring, 30 November 2020, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			30/11/2020					
					Weather Condition			Sunny					
					Tidal Condition			High					
					Tide Level (m)			1.75					
					Start Time			10:00					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
			WAL	DAL	SWH	P	Heard	Flight					
Arctic Warbler	<i>Phylloscopus borealis</i>	極北柳鶯	PM					1					
Asian Brown Flycatcher	<i>Muscicapa latirostris</i>	北灰鶇	PM, WV					1					
Black-necked Starling	<i>Sturnus nigricollis</i>	黑領棕鳥	R			3	1		3			8	2
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷸	PM	RC			4			33			5
Chinese Bulbul	<i>Pycnonotus sinensis</i>	白頭鵯	R						2				
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鶯	R	PRC(RC)	3	3	3	2	3				1
Collared Crow	<i>Corvus torquatus</i>	白頸鴉	UR	LC, VU									2
Common Greenshank	<i>Tringa nebularia</i>	青腳鷸	PM, WV	RC			1						
Common Kingfisher	<i>Alcedo atthis</i>	普通翠鳥	R		1						1		
Common Moorhen	<i>Gallinula chloropus</i>	黑水雞	R							1			
Common Myna	<i>Acridotheres tristis</i>	家八哥	UR		2								
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鷸	WV, PM				1						
Common Snipe	<i>Gallinago gallinago</i>	扇尾沙錐	WV, PM							3			
Common Tailorbird	<i>Orthotomus sutorius</i>	長尾縫葉鶯	R			1							
Crested Bulbul	<i>Pycnonotus jocosus</i>	紅耳鵯	R		2								
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R				1		4				

Appendix H1i. Avifauna Species Recorded for Water Birds Monitoring, 30 November 2020, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			30/11/2020						
					Weather Condition			Sunny						
					Tidal Condition			High						
					Tide Level (m)			1.75						
					Start Time			10:00						
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
			WAL	DAL	SWH	P	Heard	Flight						
Domestic Pigeon	<i>Columba livia</i>	原鴿	R					14						
Daurian Redstart	<i>Phoenicurus aureoreus</i>	北紅尾鵯	WV		1									
Dusky Warbler	<i>Phylloscopus fuscatus</i>	褐柳鶯	PM, WV					2	2					
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鶯	R, PM	(LC)				11	2			1		
Eastern Yellow Wagtail	<i>Motacilla tschutschensis</i>	東黃鵪鶉	PM, WV					4	3					
Eurasian Teal	<i>Anas crecca</i>	綠翅鴨	WV	RC		4				6				
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R			3			19					
Great Cormorant	<i>Phalacrocorax carbo</i>	普通鸕鶿	CWV	PRC	1									
Great Coucal	<i>Centropus sinensis</i>	褐翅鴉鵂	R	(VU)						1				
Great Egret	<i>Ardea alba</i>	大白鶯	R, WV	PRC(RC)		2	2			1				
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鶿	UPM, WV				4							
Grey-headed Lapwing	<i>Vanellus cinereus</i>	灰頭麥雞	SWV	LC			2							
Grey Heron	<i>Ardea cinerea</i>	蒼鶯	WV	PRC		1	4					2		
Grey Wagtail	<i>Motacilla cinerea</i>	灰鵪鶉	WV						1					
Japanese White-eye	<i>Zosterops japonicus</i>	暗綠繡眼鳥	R		3									
Jungle Crow	<i>Corvus macrorhynchos</i>	大嘴烏鴉	R				1					2		
Little Egret	<i>Egretta garzetta</i>	小白鶯	R	PRC(RC)		3	2		1			2		

Appendix H1i. Avifauna Species Recorded for Water Birds Monitoring, 30 November 2020, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			30/11/2020					
					Weather Condition			Sunny					
					Tidal Condition			High					
					Tide Level (m)			1.75					
					Start Time			10:00					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
			WAL	DAL	SWH	P	Heard	Flight					
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鵲	WV, PM	LC			5			2			
Long-tailed Shrike	<i>Lanius schach</i>	棕背伯勞	R						1				
Magpie Robin	<i>Copsychus saularis</i>	鵲鵲	R			4			2				
Olive Backed Pipit	<i>Anthus hodgsoni</i>	樹鵲	WV						1				
Pallas's Leaf Warbler	<i>Phylloscopus proregulus</i>	黃腰柳鶯	WV		1		1						
Pied Avocet	<i>Recurvirostra avosetta</i>	反嘴鵲	WV	RC						4			
Plain Prinia	<i>Prinia inornata</i>	純色鷓鴣	R			2			3				
Red-rumped Swallow	<i>Hirundo daurica</i>	金腰燕	UPM		4								18
Russet Sparrow	<i>Passer cinnamomeus</i>	山麻雀	SWV						1				
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鵲	R		3		2		4				3
Spotted Munia	<i>Lonchura punctulata</i>	斑文鳥	R						21				18
Stejneger's Stonechat	<i>Saxicola stejnegeri</i>	黑喉石鵲	WV				1		5				
White Wagtail	<i>Motacilla alba</i>	白鵲鵲	PM, WV				5	9	19	3			7
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R							1			
White-rumped munia	<i>Lonchura striata</i>	白腰文鳥	R						25				18
White-throated Kingfisher	<i>Halcyon smyrnensis</i>	白胸翡翠	R						2				
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鵲	WV, PM	LC			5			2			

Appendix H1i. Avifauna Species Recorded for Water Birds Monitoring, 30 November 2020, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			30/11/2020						
					Weather Condition			Sunny						
					Tidal Condition			High						
					Tide Level (m)			1.75						
					Start Time			10:00						
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
			WAL	DAL	SWH	P	Heard	Flight						
White Headed Munia	<i>Lonchura maja</i>	白頭文鳥	R					2						
Wood Sandpiper	<i>Tringa glareola</i>	林鵲	LC		9			3	4					
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷦鶯	R			1					2			
Total No. of Species					10	11	18	4	26	12	1	2	13	
Total No. of Conservation Interest Species					2	5	8	2	3	6	0	0	6	

Note:

R – Resident; RR - Rare resident, WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce passage migrant; CaM - Common autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; UR – Uncommon resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; M - Spring and Autumn Migrant

Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net)

Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance

Cap.586 : Endangered Species of Animals and Plants Ordinance (Cap.586)

CR: Rare in China Red Data Book Status

VU: Vulnerable in IUCN Red List Status

(VU): Vulnerable in China Red Data Book Status

NT: Near Threatened in IUCN Red List Status

CR: Critically Endangered in IUCN Red List Status

RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002)

WAL: Wet Agricultural Land

DAL: Dry Agricultural Land

SWH: Shallow Water Habitat

P: Pond

Appendix H1j. Avifauna Species Recorded for Water Birds Monitoring, 30 November 2020, Low Tide

Appendix H: Avian Species Recorded for Water Birds Monitoring, 30 November 2020, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			30/11/2020					
					Weather Condition			Sunny					
					Tidal Condition			Low					
					Tide Level (m)			1.35					
					Start Time			14:00					
					Abundance								
					Transect Walk								
T1	T2	T3	T5										
			WAL	DAL	SWH	P	Heard	Flight					
Arctic Warbler	<i>Phylloscopus borealis</i>	極北柳鶯	PM		1								
Black-necked Starling	<i>Sturnus nigricollis</i>	黑領棕鳥	R		3	2		3	7			7	4
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷸	PM	RC				2		38			
Chinese Bulbul	<i>Pycnonotus sinensis</i>	白頭鵯	R		1	3			4				
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鶯	R	PRC(RC)	6	5	5	9	2	1			4
Collared Crow	<i>Corvus torquatus</i>	白頸鴉	UR	LC, VU					1				2
Common Greenshank	<i>Tringa nebularia</i>	青腳鷸	PM, WV	RC						1			
Common Moorhen	<i>Gallinula chloropus</i>	黑水雞	R							2			
Common Myna	<i>Acridotheres tristis</i>	家八哥	UR						2				
Common Tailorbird	<i>Orthotomus sutorius</i>	長尾縫葉鶯	R			2							
Crested Bulbul	<i>Pycnonotus jocosus</i>	紅耳鵯	R		3	3	1		5			2	1
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R		2	1			7				7
Domestic Pigeon	<i>Columba livia</i>	原鴿	R				4		9				11
Dusky Warbler	<i>Phylloscopus fuscatus</i>	褐柳鶯	PM, WV				1					1	
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鶯	R, PM	(LC)					2				
Eastern Yellow Wagtail	<i>Motacilla tschutschensis</i>	東黃鵲鴝	PM, WV					4	1				2
Eurasian Teal	<i>Anas crecca</i>	綠翅鴨	WV	RC		3				1			

Appendix H1j. Avifauna Species Recorded for Water Birds Monitoring, 30 November 2020, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			30/11/2020					
					Weather Condition			Sunny					
					Tidal Condition			Low					
					Tide Level (m)			1.35					
					Start Time			14:00					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
			WAL	DAL	SWH	P	Heard	Flight					
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R		4	3		1	2				7
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)	2	3	1		1				
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鷸	UPM, WV				3						
Grey Heron	<i>Ardea cinerea</i>	蒼鷺	WV	PRC	1	2	6						
Jungle Crow	<i>Corvus macrorhynchos</i>	大嘴烏鴉	R						1			1	1
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)	3	4	7		1	2			1
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鴝	WV, PM	LC		4	6						
Long-tailed Shrike	<i>Lanius schach</i>	棕背伯勞	R						2				1
Magpie Robin	<i>Copsychus saularis</i>	鵲鴝	R		2	1		1					
Masked Laughing Thrush	<i>Garrulax perspicillatus</i>	黑臉噪鵲	R						3			2	
Olive Backed Pipit	<i>Anthus hodgsoni</i>	樹鵲	WV						1				
Pallas's Leaf Warbler	<i>Phylloscopus proregulus</i>	黃腰柳鶯	WV				2					1	
Pied Avocet	<i>Recurvirostra avosetta</i>	反嘴鷸	WV	RC						5			
Plain Prinia	<i>Prinia inornata</i>	純色鷓鴣	R						1				
Red-rumped Swallow	<i>Hirundo daurica</i>	金腰燕	UPM										17
Red-throated Pipit	<i>Anthus cervinus</i>	紅喉鵲	CPM, WV	RC	1								
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R		4	3		1	2				7

Appendix H1j. Avifauna Species Recorded for Water Birds Monitoring, 30 November 2020, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			30/11/2020					
					Weather Condition			Sunny					
					Tidal Condition			Low					
					Tide Level (m)			1.35					
					Start Time			14:00					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
			WAL	DAL	SWH	P	Heard	Flight					
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R		4	3	8		14				2
Spotted Munia	<i>Lonchura punctulata</i>	斑文鳥	R						39				10
Stejneger's Stonechat	<i>Saxicola stejnegeri</i>	黑喉石鵯	WV			1	3		3				
White Wagtail	<i>Motacilla alba</i>	白鵲鴿	PM, WV		2	3	10	4	18		1		4
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R				3						
White-rumped munia	<i>Lonchura striata</i>	白腰文鳥	R							20			10
White Headed Munia	<i>Lonchura maja</i>	白頭文鳥	R										80
Wood Sandpiper	<i>Tringa glareola</i>	林鵲	LC			7		5	1	3			4
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷦鶯	R				1					1	
Total No. of Species					14	17	15	8	23	9	1	7	18
Total No. of Conservation Interest Species					5	6	5	2	5	6	0	0	3

Appendix H1j. Avifauna Species Recorded for Water Birds Monitoring, 30 November 2020, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		30/11/2020							
					Weather Condition		Sunny							
					Tidal Condition		Low							
					Tide Level (m)		1.35							
					Start Time		14:00							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
			WAL	DAL	SWH	P	Heard	Flight						
Note: R – Resident; RR - Rare resident, WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce passage migrant; CaM - Common autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; UR – Uncommon resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; M - Spring and Autumn Migrant Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net) Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance Cap.586 : Endangered Species of Animals and Plants Ordinance (Cap.586) CR: Rare in China Red Data Book Status VU: Vulnerable in IUCN Red List Status (VU): Vulnerable in China Red Data Book Status NT: Near Threatened in IUCN Red List Status CR: Critically Endangered in IUCN Red List Status RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002) WAL: Wet Agricultural Land DAL: Dry Agricultural Land SWH: Shallow Water Habitat P: Pond														

Appendix H1k. Avifauna Species Recorded for Water Birds Monitoring, Night Survey, 16 November 2020, T5

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date: 16/11/2020					
					Start Time: 17:30					
					Abundance					
					WAL	DAL	SWH	P	Heard	Flight
Black-necked Starling	<i>Sturnus nigricollis</i>	黑領棕鳥	R			40				
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷸	PM	RC	11		28			
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)						1
Common Myna	<i>Acridotheres tristis</i>	家八哥	UR			5				
Common Snipe	<i>Gallinago gallinago</i>	扇尾沙錐	WV, PM				3			
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R			150			20	
Eurasian Teal	<i>Anas crecca</i>	綠翅鴨	WV	RC			2			
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)						1
Pied Avocet	<i>Recurvirostra avosetta</i>	反嘴鷸	WV	RC			4			
Wood Sandpiper	<i>Tringa glareola</i>	林鷸	WV, PM	LC			16			
Total No. of Species					1	3	5	0	1	2
Total No. of Conservation Interest Species					1	0	4	0	0	2

Appendix H1k. Avifauna Species Recorded for Water Birds Monitoring, Night Survey, 16 November 2020, T5

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Appendix 1: Water Birds Monitoring, Flight Survey, 16 November 2020, 18					
					Date: 16/11/2020					
					Start Time: 17:30					
					Abundance					
					WAL	DAL	SWH	P	Heard	Flight
Note: R – Resident; RR - Rare resident, WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce passage migrant; CaM - Common autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; UR – Uncommon resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; M - Spring and Autumn Migrant Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net) Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance Cap.586 : Endangered Species of Animals and Plants Ordinance (Cap.586) CR: Rare in China Red Data Book Status VU: Vulnerable in IUCN Red List Status (VU): Vulnerable in China Red Data Book Status NT: Near Threatened in IUCN Red List Status CR: Critically Endangered in IUCN Red List Status RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002) WAL: Wet Agricultural Land DAL: Dry Agricultural Land SWH: Shallow Water Habitat P: Pond										

Appendix H11. Avifauna Species Recorded for Water Birds Monitoring, Night Survey, 30 November 2020, T5

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date: 30/11/2020					
					Start Time: 17:30					
					Abundance					
					WAL	DAL	SWH	P	Heard	Flight
Asian Barred Owlet	<i>Glaucidium cuculoides</i>	斑頭鵂鶯	UR	Cap.586		1				
Black-necked Starling	<i>Sturnus nigricollis</i>	黑領棕鳥	R			50				
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷸	PM	RC			38			1
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)						1
Common Myna	<i>Acridotheres tristis</i>	家八哥	UR			2				
Common Snipe	<i>Gallinago gallinago</i>	扇尾沙錐	WV, PM				16			3
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R			200			20	
Eurasian Teal	<i>Anas crecca</i>	綠翅鴨	WV	RC			5			
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)			1			1
Grey Heron	<i>Ardea cinerea</i>	蒼鷺	WV	PRC		2				1
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)			1			2
Pied Avocet	<i>Recurvirostra avosetta</i>	反嘴鷸	WV	RC			2			
Pintail Snipe	<i>Gallinago stenura</i>	針尾沙錐	CPM				5			
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R				2		1	
Wood Sandpiper	<i>Tringa glareola</i>	林鷸	LC				20			
Total No. of Species					0	5	9	0	2	6
Total No. of Conservation Interest Species					0	2	5	0	0	5

Appendix H11. Avifauna Species Recorded for Water Birds Monitoring, Night Survey, 30 November 2020, T5

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date: 30/11/2020					
					Start Time: 17:30					
					Abundance					
					WAL	DAL	SWH	P	Heard	Flight
<p>Note:</p> <p>R – Resident; RR - Rare resident, WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce passage migrant; CaM - Common autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; UR – Uncommon resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; M - Spring and Autumn Migrant</p> <p>Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net)</p> <p>Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance</p> <p>Cap.586 : Endangered Species of Animals and Plants Ordinance (Cap.586)</p> <p>CR: Rare in China Red Data Book Status</p> <p>VU: Vulnerable in IUCN Red List Status</p> <p>(VU): Vulnerable in China Red Data Book Status</p> <p>NT: Near Threatened in IUCN Red List Status</p> <p>CR: Critically Endangered in IUCN Red List Status</p> <p>RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002)</p> <p>WAL: Wet Agricultural Land</p> <p>DAL: Dry Agricultural Land</p> <p>SWH: Shallow Water Habitat</p> <p>P: Pond</p>										

Appendix H1m. Waterbirds Recorded in November 2020

Common Name	Species Name	Chinese Name	Conservation Status	Recorded habitat from the survey	Distribution in Hong Kong*
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷸	RC	T3: River bed T5: Wet Agricultural Land, Shallow Water Habitat, In flight	Common passage migrant. Found in Deep Bay area, Long Valley, Kam Tin.
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	PRC(RC)	T1: River bank, River bed T2: River Bed T3: River bank, River bed, in flight T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat, In flight	Common resident. Widely distributed in Hong Kong.
Cinnamon Bittern	<i>Ixobrychus cinnamomeus</i>	栗葦鵐	LC	T5: Pond	Scarce passage migrant. Found in Deep Bay area, Long Valley, Tai Yuen (Sheung Shui), Pui O.
Collared Crow	<i>Corvus torquatus</i>	白頸鴉	LC, VU	T2: River bank T3: River bank T5: Dry Agricultural Land, In flight	Uncommon resident. Found in Inner Deep Bay area, Nam Chung, Kei Ling Ha, Tai Mei Tuk, Pok Fu Lam, Chek lap Kok, Shuen Wan, Lam Tsuen.
Common Greenshank	<i>Tringa nebularia</i>	青腳鷸	RC	T3: River bank T5: Shallow Water Habitat	Common passage migrant and winter visitor. Widely distributed in wetland area throughout Hong Kong.
Common Kingfisher	<i>Alcedo atthis</i>	普通翠鳥		T1: River bank T2: River bank T3: River bank T5: Pond	Common passage migrant and winter visitor. Widely distributed in wetland habitat throughout Hong Kong.
Common Moorhen	<i>Gallinula chloropus</i>	黑水雞		T5: Shallow Water Habitat	Common resident. Found in Deep Bay area, Shuen Wan, Starling Inlet.
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鷸		T3: River bank, River bed	Common passage migrant and winter visitor. Widely distributed in wetland area throughout Hong Kong.
Common Snipe	<i>Gallinago gallinago</i>	扇尾沙錐		T5: Dry Agricultural Land, Shallow Water Habitat, In flight	Common passage migrant and winter visitor. Found in Long Valley, Chau Tau, Sai Kung.

Appendix H1m. Waterbirds Recorded in November 2020

Common Name	Species Name	Chinese Name	Conservation Status	Recorded habitat from the survey	Distribution in Hong Kong*
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	(LC)	T3: River bank T5: Wet Agricultural Land, Dry Agriculture Land, Shallow Water Habitat, In flight	Resident and common passage migrant. Widely distributed in Hong Kong.
Eurasian Teal	<i>Anas crecca</i>	綠翅鴨	RC	T1: River bed T2: River bed T5: Shallow Water Habitat	Common winter visitor. Found in Deep Bay area, Shuen Wan, Tai Lam Chung Reservoir, Victoria Harbour, Urban Park.
Great Cormorant	<i>Phalacrocorax carbo</i>	普通鸕鶿	PRC	T1: River bed T3: In flight T5: In flight	Common winter visitor. Widely distributed in coastal areas throughout Hong Kong.
Great Egret	<i>Ardea alba</i>	大白鷺	PRC(RC)	T1: River bank, River bed T2: River bank, River bed, In flight T3: River bank, River bed, In flight T5: Dry Agricultural Land, Wet Agricultural Land, Shallow Water Habitat, Pond, In flight	Common resident and winter visitor. Widely distributed in Hong Kong.
Greater Painted-snipe	<i>Rostratula benghalensis</i>	彩鶺鴒	LC	T5: Shallow Water Habitat	Resident, Passage migrant and winter visitor. Found in Ha Tsuen, Lok Ma Chau, Kam Tin, Long Valley, Hong Kong Wetland Park.
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鶺鴒		T3: River bank, River bed T5: Shallow Water Habitat	Uncommon passage migrant and winter visitor. Found in Deep Bay area, Shuen Wan, Long Valley, Kam Tin, Shek Kong, Ho Chung.
Grey-headed Lapwing	<i>Vanellus cinereus</i>	灰頭麥雞	LC	T3: River bed	Scarce winter visitor. Found in Kam Tin, Tsim Bei Tsui, Lo Wu, Tai Long Wan, Shuen Wan, Castle Peak coast, Chek Lap Kok
Grey Heron	<i>Ardea cinerea</i>	蒼鷺	PRC	T1: River Bank, River bed T2: River bed T3: River bank, River bed, In flight T5: Dry Agricultural Land, In flight	Common winter visitor. Found in Deep Bay area, Starling Inlet, Kowloon Park, Cape D'Aguilar.

Appendix H1m. Waterbirds Recorded in November 2020

Common Name	Species Name	Chinese Name	Conservation Status	Recorded habitat from the survey	Distribution in Hong Kong*
Little Egret	<i>Egretta garzetta</i>	小白鷺	PRC(RC)	T1: River bed, River bank, In flight T2: River bed, River bank T3: River bank, River bed, In flight T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat, In flight	Common resident. Widely distributed in coastal area throughout Hong Kong.
Little Grebe	<i>Tachybaptus ruficollis</i>	小鸕鷀	LC	T1: River bed T2 : River bed	Common resident. Found in Deep Bay area.
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鸻	LC	T2: River bed T3: River bed T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat	Common winter visitor and passage migrant. Widely distributed in freshwater areas throughout Hong Kong.
Pied Avocet	<i>Recurvirostra avosetta</i>	反嘴鹬	RC	T5: Dry Agricultural Land, Shallow Water Habitat	Abundant winter visitor. Found in Deep Bay area.
Pintail Snipe	<i>Gallinago stenura</i>	針尾沙錐		T5: Wet Agricultural Land, Dry Agricultural Land, In flight	Common passage migrant. Found in Long Valley, Chau Tau, Ha Tsuen.
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥		T3: River bank T5: Wet Agricultural Land, Shallow Water Habitat, In flight	Common resident. Widely distributed in wetland throughout Hong Kong.
White-throated Kingfisher	<i>Halcyon smyrnensis</i>	白胸翡翠	(LC)	T1: River bank T5: Dry Agricultural Land, Shallow Water Habitat	Common resident. Widely distributed in coastal areas throughout Hong Kong.
Wood Sandpiper	<i>Tringa glareola</i>	林鵲	LC	T2: River bed T3: River bed T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat, In flight	Common passage migrant and winter visitor. Widely distributed in wetland area throughout Hong Kong.

Appendix H1m. Waterbirds Recorded in November 2020

Common Name	Species Name	Chinese Name	Conservation Status	Recorded habitat from the survey	Distribution in Hong Kong*
<p>Note:</p> <p>R – Resident; RR - Rare resident, WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce passage migrant; CaM - Common autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; UR – Uncommon resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; M - Spring and Autumn Migrant</p> <p>Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net)</p> <p>Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance</p> <p>Cap.586 : Endangered Species of Animals and Plants Ordinance (Cap.586)</p> <p>CR: Rare in China Red Data Book Status</p> <p>VU: Vulnerable in IUCN Red List Status</p> <p>(VU): Vulnerable in China Red Data Book Status</p> <p>NT: Near Threatened in IUCN Red List Status</p> <p>CR: Critically Endangered in IUCN Red List Status</p> <p>RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002)</p> <p>WAL: Wet Agricultural Land</p> <p>DAL: Dry Agricultural Land</p> <p>SWH: Shallow Water Habitat</p> <p>P: Pond</p> <p>*Source: Hong Kong Biodiversity Database, AFCD (https://www.afcd.gov.hk/English/conservation/hkbiodiversity/database/search.php)</p>					

Appendix H1n. Birds Recorded in November 2020

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status
Alexandrine Parakeet	<i>Psittacula eupatria</i>	亞歷山大鸚鵡	RR	NT
Arctic Warbler	<i>Phylloscopus borealis</i>	極北柳鶯	PM	
Asian Barred Owlet	<i>Glaucidium cuculoides</i>	斑頭鵂鶯	UR	Cap.586
Asian Brown Flycatcher	<i>Muscicapa latirostris</i>	北灰鶲	PM, WV	
Black Kite	<i>Milvus migrans</i>	黑鳶	R, WV	(RC), Cap.586
Black-necked Starling	<i>Sturnus nigricollis</i>	黑領椋鳥	R	
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷸	PM	RC
Chinese Blackbird	<i>Turdus mandarinus</i>	烏鶲	CWV	
Chinese Bulbul	<i>Pycnonotus sinensis</i>	白頭鶲	R	
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鶯	R	PRC(RC)
Cinereous Tit	<i>Parus cinereus</i>	蒼背山雀	R	
Cinnamon Bittern	<i>Ixobrychus cinnamomeus</i>	栗葦鶯	SPM	LC
Collared Crow	<i>Corvus torquatus</i>	白頸鴉	UR	LC, VU
Common Greenshank	<i>Tringa nebularia</i>	青腳鷸	PM, WV	RC
Common Kingfisher	<i>Alcedo atthis</i>	普通翠鳥	R	
Common Moorhen	<i>Gallinula chloropus</i>	黑水雞	R	
Common Myna	<i>Acridotheres tristis</i>	家八哥	UR	
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鷸	WV, PM	
Common Snipe	<i>Gallinago gallinago</i>	扇尾沙錐	WV, PM	
Common Tailorbird	<i>Orthotomus sutorius</i>	長尾縫葉鶯	R	
Crested Bulbul	<i>Pycnonotus jocosus</i>	紅耳鶲	R	

Appendix H1n. Birds Recorded in November 2020

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R	
Daurian Redstart	<i>Phoenicurus aureoreus</i>	北紅尾鴝	WV	
Domestic Pigeon	<i>Columba livia</i>	原鴿	R	
Dusky Warbler	<i>Phylloscopus fuscatus</i>	褐柳鶯	PM, WV	
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	R, PM	(LC)
Eastern Yellow Wagtail	<i>Motacilla tschutschensis</i>	東黃鸝	PM, WV	
Eurasian Teal	<i>Anas crecca</i>	綠翅鴨	WV	
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R	
Great Cormorant	<i>Phalacrocorax carbo</i>	普通鸕鶿	CWV	PRC
Great Coucal	<i>Centropus sinensis</i>	褐翅鴉鵂	R	(VU)
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)
Greater Painted-snipe	<i>Rostratula benghalensis</i>	彩鸛	R, PM, WV	LC
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鸛	UPM, WV	
Grey-headed Lapwing	<i>Vanellus cinereus</i>	灰頭麥雞		
Grey Heron	<i>Ardea cinerea</i>	蒼鷺	WV	
Grey Wagtail	<i>Motacilla cinerea</i>	灰鸝	WV	
Japanese White-eye	<i>Zosterops japonicus</i>	暗綠繡眼鳥	R	
Jungle Crow	<i>Corvus macrorhynchus</i>	大嘴烏鴉	R	
Little Bunting	<i>Emberiza pusilla</i>	小鵪	CPM, WV	
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)
Little Grebe	<i>Tachybaptus ruficollis</i>	小鸕鷀	R	LC

Appendix H1n. Birds Recorded in November 2020

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鸻	WV, PM	LC
Long-tailed Shrike	<i>Lanius schach</i>	棕背伯勞	R	
Magpie	<i>Pica pica</i>	喜鵲	R	
Magpie Robin	<i>Copsychus saularis</i>	鵲鴝	R	
Masked Laughing Thrush	<i>Garrulax perspicillatus</i>	黑臉噪鵲	R	
Olive Backed Pipit	<i>Anthus hodgsoni</i>	樹鵲	WV	
Pallas's Leaf Warbler	<i>Phylloscopus proregulus</i>	黃腰柳鶯	WV	
Pied Avocet	<i>Recurvirostra avosetta</i>	反嘴鷸	WV	RC
Plain Prinia	<i>Prinia inornata</i>	純色鷦鶯	R	
Pintail Snipe	<i>Gallinago stenura</i>	針尾沙錐	CPM	
Red-rumped Swallow	<i>Hirundo daurica</i>	金腰燕	UPM	
Red-throated Pipit	<i>Anthus cervinus</i>	紅喉鵲	CPM, WV	RC
Richard's Pipit	<i>Anthus richardi</i>	田鵲	WV, PM	
Sooty-headed Bulbul	<i>Pycnonotus aurigaster</i>	白喉紅臀鵲	UR	
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R	
Spotted Munia	<i>Lonchura punctulata</i>	斑文鳥	R	
Stejneger's Stonechat	<i>Saxicola stejnegeri</i>	黑喉石鵲	WV	
White Headed Munia	<i>Lonchura maja</i>	白頭文鳥	R	
White Wagtail	<i>Motacilla alba</i>	白鵲鴝	PM, WV	
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R	
White-rumped munia	<i>Lonchura striata</i>	白腰文鳥	R	

Appendix H1n. Birds Recorded in November 2020

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status
White-throated Kingfisher	<i>Halcyon smyrnensis</i>	白胸翡翠	R	(LC)
Wood Sandpiper	<i>Tringa glareola</i>	林鷸	WV, PM	LC
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷦鶯	R	
Yellow-breasted Bunting	<i>Emberiza aureola</i>	黃胸鵪	PM	CR, RC
Yellow-browed Warbler	<i>Phylloscopus inornatus</i>	黃眉柳鶯	WV, SpM	
Zitting Cisticola	<i>Cisticola juncidis</i>	棕扇尾鶯	PM, WV	LC

Note:

R – Resident; RR - Rare resident, WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce passage migrant; CaM - Common autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; UR – Uncommon resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; M - Spring and Autumn Migrant

Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net)

Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance

Cap.586 : Endangered Species of Animals and Plants Ordinance (Cap.586)

CR: Rare in China Red Data Book Status

VU: Vulnerable in IUCN Red List Status

(VU): Vulnerable in China Red Data Book Status

NT: Near Threatened in IUCN Red List Status

CR: Critically Endangered in IUCN Red List Status

RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002)

WAL: Wet Agricultural Land

DAL: Dry Agricultural Land

SWH: Shallow Water Habitat

P: Pond

Appendix H2. Mammal Species Recorded for Ecologically Sensitive Habitat Monitoring, 20 and 27 November 2020

Common Name	Species Name	Chinese Name	Local Restrictedness	Conservation Status	Date: 20/11/2020, 27/11/2020				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
Domestic Cat	<i>Felis catus</i>	野貓	Uncommon	-	+	+		+	
Domestic Dog	<i>Canis lupus familiaris</i>	野狗	Common	-	+	+	+	+	+
Short-nosed Fruit Bat	<i>Cynopterus sphinx</i>	短吻果蝠	Very Common	Cap. 170	++	++	+	+	+
Total No. of species					3	3	2	3	2
Total No. of Conservation Interest Species					1	1	1	1	1
Note: Cap. 170: Species under protection of Wild Animals Protection Ordinance (Cap. 170) +: species recorded within transect routes ++: species commonly recorded within transect routes +++: dominant species within transect routes									

Appendix H3. Herpetofauna Species Recorded for Ecologically Sensitive Habitat Monitoring, 20 and 27 November 2020

Appendix No. 1: Reptile and Amphibian Species Recorded for Ecologically Sensitive Habitat Monitoring, 26 and 27 November 2020

Common Name	Species Name	Chinese Name	Conservation Status	Date: 20/11/2020, 27/11/2020				
				Relative Abundance				
				Transect Walk				
				T1	T3	T4	T5	T6
Amphibian								
Asian Common Toad	<i>Bufo melanostictus</i>	黑眶蟾蜍	-	+		+		+
Brown Tree Frog	<i>Polypedates megacephalus</i>	斑腿泛樹蛙	-	+				
Greenhouse Frog	<i>Eleutherodactylus planirostris</i>	溫室蟾	-			+		
Reptile								
Bowring's Gecko	<i>Hemidactylus bowringii</i>	原尾蜥虎	-	+	+	+	+	
Changeable Lizard	<i>Calotes versicolor</i>	變色樹蜥	-	+				
Chinese gecko	<i>Gekko chinensis</i>	中國壁虎	-	+			+	+
Chinese Skink	<i>Plestiodon chinensis chinensis</i>	石龍子	-	+	+			+
Four-Clawed Gecko	<i>Gehyra mutilata</i>	截趾虎	-	+				
Long-tailed Skink	<i>Mabuya longicaudata</i>	長尾南蜥	-	+				+
Red-eared Slider	<i>Trachemys scripta</i>	紅耳龜	-		+			
Total No. of species				8	3	3	2	4
Total No. of Conservation Interest Species				0	0	0	0	0
Note: +: species recorded within transect routes ++: species commonly recorded within transect routes +++: dominant species within transect routes								

Appendix H4. Butterfly Species Recorded Ecologically Sensitive Habitat Monitoring, 20 and 27 November 2020

Common Name	Species Name	Chinese Name	Local Restrictedness	Conservation Status	Date: 20/11/2020, 27/11/2020				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
Angled Castor	<i>Ariadne ariadne</i>	波蛱蝶	Common	-					+
Banded Tree Brown	<i>Lethe confusa</i>	白帶黛眼蝶	Common	-				+	
Blue Tiger	<i>Tirumala limniace</i>	青斑蝶	Common	-				+	
Blue-spotted Crow	<i>Euploea midamus</i>	藍點紫斑蝶	Very common	-	+				
Common Bluebottle	<i>Graphium sarpedon</i>	青鳳蝶	Common	-	+				+
Common Five-ring	<i>Ypthima baldus</i>	矍眼蝶	Very Common	-			+		+
Common Grass Yellow	<i>Eurema hecabe</i>	寬邊黃粉蝶	Very common	-	+	++	+	+	+
Common Mormon	<i>Papilio polytes</i>	玉帶鳳蝶	Very common	-	+		+		
Common Sailer	<i>Neptis hylas</i>	中環蛱蝶	Very common	-	+		+	+	
Common Tiger	<i>Danaus genutia</i>	虎斑蝶	Common	-					+
Dark Cerulean	<i>Jamides bochus</i>	雅灰蝶	Common	-			+	+	
Dark-brand Bush Brown	<i>Mycalesis mineus</i>	小眉眼蝶	Very common	-					+
Great Orange Tip	<i>Hebomoia glaucippe</i>	鶴頂粉蝶	Common	-	+				
Great Mormon	<i>Papilio memnon</i>	美鳳蝶	Very common	-	+		+	+	
Indian Cabbage White	<i>Pieris canidia</i>	東方菜粉蝶	Very common	-	+	++	++	+	++
Pale Grass Blue	<i>Pseudozizeeria maha</i>	酢漿灰蝶	Very common	-	+	+	+	+	++

Appendix H4. Butterfly Species Recorded Ecologically Sensitive Habitat Monitoring, 20 and 27 November 2020

Common Name	Species Name	Chinese Name	Local Restrictedness	Conservation Status	Date: 20/11/2020, 27/11/2020				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
Paris Peacock	<i>Papilio paris</i>	巴黎翠鳳蝶	Very Common	-	+				+
Peacock Royal	<i>Tajuria cippus</i>	雙尾灰蝶	Rare	-				+	
Plains Cupid	<i>Chilades pandava</i>	曲紋紫灰蝶	Uncommon	-	+				
Plum Judy	<i>Abisara echerius</i>	蛇目褐蛱蝶	Very common	-			+	+	
Punchinello	<i>Zemeros flegyas</i>	波蛱蝶	Common	-			+		
Purple Sapphire	<i>Heliophorus epicles</i>	斜斑彩灰蝶	Common	-	+				
Red-base Jezebel	<i>Delias pasithoe</i>	報喜斑粉蝶	Very Common	-	++	+	++	++	++
Red Ring Skirt	<i>Hestina assimilis</i>	黑脈蛱蝶	Common	-				+	
Spangle	<i>Papilio protenor</i>	藍鳳蝶	Very Common	-	+			+	+
Tailed Jay	<i>Graphium agamemnon</i>	統帥青鳳蝶	Common	-				+	
Total No. of species					14	4	11	14	11
Total No. of Conservation Interest Species					0	0	0	0	0
Note: LC: listed as Local Concern by Fellowes et al (2002) #: Least concern in IUCN Red List Status +: species recorded within transect routes ++: species commonly recorded within transect routes +++: dominant species within transect routes									

Appendix H5. Odonata Species Recorded for Ecologically Sensitive Habitat Monitoring 20 and 27 November 2020

Common Name	Species Name	Chinese Name	Local Restrictedness	Conservation Status	Date: 20/11/2020, 27/11/2020				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
Asian Amberwing	<i>Brachythemis contaminata</i>	黃翅蜻	Abundant	-		+			+
Black Threadtail	<i>Prodasineura autumnalis</i>	烏齒原螳	Abundant	-		+			
Common Blue Jewel	<i>Rhinocypha perforata</i>	三斑陽鼻螳	Abundant	-				+	
Common Blue Skimmer	<i>Orthetrum glaucum</i>	黑尾灰蜻	Common	-	+				+
Common Red Skimmer	<i>Orthetrum pruinosum</i>	赤褐灰蜻	Abundant	-			+		
Crimson Darter	<i>Crocothemis servilia</i>	紅蜻	Abundant	-	+				
Common Flangetail	<i>Ictinogomphus pertinax</i>	霸王葉春蜓	Common	-					+
Crimson Dropwing	<i>Trithemis aurora</i>	曉褐蜻	Abundant	-	+				
Green Skimmer	<i>Orthetrum sabina</i>	狹腹灰蜻	Abundant	-		+			+
Indigo Dropwing	<i>Trithemis festiva</i>	慶褐蜻	Abundant					+	
Marsh Skimmer	<i>Orthetrum luzonicum</i>	呂宋灰蜻	Abundant	-		+			+
Red-faced Skimmer	<i>Orthetrum chrysis</i>	華麗灰蜻	Abundant	-	+	+	+		
Scarlet Basker	<i>Urothemis signata</i>	赤斑曲鈎脈蜻	Common	LC	+				
Variegated Flutterer	<i>Rhyothemis variegata</i>	斑麗翅蜻	Common	-					+
Wandering Glider	<i>Pantala flavescens</i>	黃蜻	Abundant	-	++	++	++	+	+

Appendix H5. Odonata Species Recorded for Ecologically Sensitive Habitat Monitoring 20 and 27 November 2020

Appendix B5: Guonata Species Recorded for Ecologically Sensitive Habitat Monitoring 26 and 27 November 2020

Common Name	Species Name	Chinese Name	Local Restrictedness	Conservation Status	Date: 20/11/2020, 27/11/2020				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
Total No. of species					7	6	3	3	7
Total No. of Conservation Interest Species					1	0	0	0	0
Note: LC: listed as Local Concern by Fellowes et al (2002) +: species recorded within transect routes ++: species commonly recorded within transect routes +++: dominant species within transect routes									

APPENDIX I
WEATHER CONDITION

APPENDIX I –**GENERAL WEATHER CONDITIONS DURING THE MONITORING PERIOD**

Date	Mean Air Temperature (°C)	Mean Relative Humidity (%)	Precipitation (mm)
1 Nov 20	24.0	72	-
2 Nov 20	25.3	64	-
3 Nov 20	23.6	69	0.1
4 Nov 20	23.0	69	0.4
5 Nov 20	22.9	69	-
6 Nov 20	24.7	68	-
7 Nov 20	26.8	56	-
8 Nov 20	25.7	59	-
9 Nov 20	23.7	60	Trace
10 Nov 20	22.9	61	-
11 Nov 20	22.5	68	-
12 Nov 20	22.2	66	-
13 Nov 20	22.9	62	0.4
14 Nov 20	23.3	65	-
15 Nov 20	23.0	77	Trace
16 Nov 20	24.0	75	-

Date	Mean Air Temperature (°C)	Mean Relative Humidity (%)	Precipitation (mm)
17 Nov 20	24.2	78	Trace
18 Nov 20	24.9	81	1
19 Nov 20	25.3	86	Trace
20 Nov 20	25.9	84	-
21 Nov 20	23.5	88	2
22 Nov 20	24.8	83	1.1
23 Nov 20	23.0	84	Trace
24 Nov 20	23.3	79	-
25 Nov 20	23.5	77	-
26 Nov 20	24.0	77	-
27 Nov 20	22.8	70	-
28 Nov 20	20.4	68	-
29 Nov 20	20.0	64	-
30 Nov 20	19.2	65	0.1

* The above information was extracted from the daily weather summary by Hong Kong Observatory.

APPENDIX J
EVENT ACTION PLANS

Appendix J:**Table J-1: Event / Action Plan for Air Quality**

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
ACTION LEVEL				
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform IEC,ER and Contractor; 3. Repeat measurement to confirm finding; and 4. Increase monitoring frequency to daily.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; and 3. Review and advise the ET and ER on the effectiveness of the proposed remedial measures.	1. Notify Contractor.	1. Identify source, investigate the causes of exceedance and propose remedial measures 2. Rectify any unacceptable practice and implement remedial measures; and 3. Amend working methods agreed with ER if appropriate.
2. Exceedance for two or more consecutive samples	Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform IEC,ER and Contractor; 3. Advise the ER and Contractor on the effectiveness of the proposed remedial measures; 4. Repeat measurements	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ET and ER on the effectiveness of the proposed remedial measures; and 5. Supervise	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; and 3. Supervise and ensure remedial measures properly implemented.	1. Identify source, investigate the causes of exceedance and propose remedial measures 2. Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification; 3. Implement the

	to confirm findings; 5. Increase monitoring frequency to daily; 6. Discuss with IEC, ER and Contractor on remedial actions required; 7. If exceedance continues, arrange meeting with IEC and ER; and 8. If exceedance stops, cease additional monitoring.	Implementation of remedial measures.		agreed proposals; and 4. Amend proposal if appropriate.
LIMIT LEVEL				
1.Exceedance for one sample	Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform ER, Contractor, IEC and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET, ER and Contractor on possible remedial measures; 4. Advise the ER and ET on the effectiveness of the proposed remedial measures; 5. Supervise implementation of remedial	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; and 3. Supervise and ensure remedial measures properly implemented.	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Take immediate action to avoid further exceedance; 3. Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification; 4. Implement the agreed proposals; and 5. Amend proposal if appropriate.

		measures.		
2.Exceedance for two or more consecutive samples	1. Notify IEC, ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Arrange meeting with IEC, Contractor and ER to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 4. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; and 5. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise and ensure remedial measures properly implemented; and 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.	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Take immediate action to avoid further exceedance; 3. Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification; 4. Implement the agreed proposals; 5. Resubmit proposals if problem still not under control; 6. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

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

Table J-2: Event / Action Plan for Construction Noise

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Action Level	1. Notify IEC, ER and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss jointly 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 Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures are properly implemented	1. Submit noise mitigation proposals to ER and copy to the IEC and ET; 2. Implement noise mitigation proposals.
Limit Level	1. Identify source; 2. Inform IEC, ER and Contractor; 3. Repeat measurements to confirm findings; 4. Increase the monitoring frequency; 5. Carry out analysis of Contractor's working procedures with the ER and Contractor to determine possible mitigation to be implemented; 6. Inform IEC, ER and Contractor the causes and actions taken for the exceedances;	1. Discuss amongst the ER, ET, and Contractor on the potential remedial actions; 2. Review the Contractor's remedial actions 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 analysed noise problem; 4. Ensure remedial measures are properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and instruct the	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to the ER and copy to the ET and IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problems still not under control; 5. Stop the relevant portion of works as

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
	7. Assess effectiveness of Contractor's remedial actions and keep IEC informed of the results; 8. If exceedance stops, cease additional monitoring.		Contractor to stop that portion of work until the exceedance is abated.	determined by the ER until the exceedance is abated.

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

Table J-3: Event / Action Plan for Water Quality

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Action level being exceeded by one sampling day	1. Inform IEC, Contractor and ER; 2. Check monitoring data, all plant, equipment and Contractor's working methods; and 3. Discuss remedial measures with IEC and Contractor and ER.	1. Discuss with ET, ER and Contractor on the implemented mitigation measures; 2. Review proposals on 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 IEC, ET and Contractor on the Implemented mitigation measures; 2. Make agreement on the remedial measures to be implemented; 3. Supervise the implementation of agreed remedial measures.	1. Identify source(s) of impact; 2. Inform the ER and confirm notification of the noncompliance in writing; 3. Rectify unacceptable practice; 4. Check all plant and equipment; 5. Consider changes of working methods; 6. Discuss with ER, ET and IEC and purpose remedial measures to IEC and ER; and 7. Implement the agreed mitigation measures.

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Action level being exceeded by more than one consecutive sampling days	1. Repeat in-situ measurement on next day of exceedance to confirm findings; 2. Inform IEC, Contractor and ER; 3. Check monitoring data, all plant, equipment and Contractor's working methods; 4. Discuss remedial measures with IEC, contractor and ER 5. Ensure remedial measures are implemented	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 proposed mitigation measures; 2. Make agreement on the remedial measures to be implemented; and 3. Discuss with ET, IEC and Contractor on the effectiveness of the implemented remedial measures.	1. Identify source(s) of impact; 2. Inform the ER and confirm notification of the noncompliance 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 remedial measures to ER and IEC within 3 working days of notification; and 6. Implement the agreed mitigation measures.
Limit level being exceeded by one sampling day	1. Repeat measurement on next day of exceedance to confirm findings; 2. Inform IEC, Contractor and ER; 3. Rectify unacceptable practice; 4. Check monitoring data, all	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	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	1. Identify source(s) of impact; 2. Inform the ER and confirm notification of the noncompliance in writing; 3. Rectify unacceptable practice;

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
	plant, equipment and Contractor's working methods; 5. Consider changes of working methods; 6. Discuss mitigation measures with IEC, ER and Contractor; and 7. Ensure the agreed remedial measures are implemented	accordingly; and 3. Review and advise the ET and ER on the effectiveness of the implemented mitigation measures.	remedial measures to be implemented; and 4. Discuss with ET, IEC and Contractor on the effectiveness of the implemented remedial measures.	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.
Limit level being exceeded by 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; and 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 to stop all or part of	1. Identify source(s) of impact; 2. Inform the ER and confirm notification of the noncompliance 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;

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
			the dredging activities until no exceedance of Limit level.	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.

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

Table J-4: Actions in the event of LFG being detected

Parameter	Monitoring Results	Actions
O ₂	<19% v/v	Increase underground ventilation to restore O ₂ to >19% v/v
	<18% v/v	Stop works, evacuate all personnel, prohibit entry, and increase ventilation to restore O ₂ level to >19%
CH ₄	>10% LEL	Prohibit hot works, increase ventilation to restore CH ₄ to <10% LEL
	>20% LEL	Stop works, evacuate all personnel, increase ventilation further to restore CH ₄ to <10% LEL
CO ₂	>0.5% v/v	Increase ventilation to restore C O ₂ to <0.5% v/v
	>1.5% v/v	Stop works, evacuate all personnel, increase ventilation further to restore CO ₂ to <0.5%

Note: Depending on the results of the measurements, actions required will vary and should be set down by the Safety Officer or another appropriately qualified person. As a minimum these should encompass those actions specified in the above table.

Table J-5: Event / Action Plan for Ambient Arsenic Monitoring

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
ACTION LEVEL				
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform IEC,ER and Contractor; 3. Repeat measurement to confirm finding; and 4. Increase monitoring frequency to daily.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; and 3. Review and advise the ET and ER on the effectiveness of the proposed remedial measures.	1. Notify Contractor.	1. Rectify any unacceptable practice; 2. Amend working methods if appropriate
2. Exceedance for two or more consecutive samples	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform IEC,ER and Contractor; 3. Advise the ER and Contractor on the effectiveness of the proposed remedial measures; 4. Repeat measurements to confirm findings; 5. Increase monitoring frequency to daily; 6. Discuss with IEC, ER and Contractor on remedial	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ET and ER on the effectiveness of the proposed remedial measures; and 5. Supervise Implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; and 3. Supervise and ensure remedial measures properly implemented.	1. Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification; 2. Implement the agreed proposals; and 3. Amend proposal if appropriate.

	actions required; 7. If exceedance continues, arrange meeting with IEC and ER; and 8. If exceedance stops, cease additional monitoring.			
LIMIT LEVEL				
1.Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform ER, Contractor, IEC and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET, ER and Contractor on possible remedial measures; 4. Advise the ER and ET on the effectiveness of the proposed remedial measures; 5. Supervise implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; and 3. Supervise and ensure remedial measures properly implemented.	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Take immediate action to avoid further exceedance; 3. Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification; 4. Implement the agreed proposals; and 5. Amend proposal if appropriate.
2.Exceedance for two or more consecutive samples	1. Notify IEC, ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor's working	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consultation with the ET and IEC, agree with the Contractor on the	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification;

	procedures to determine possible mitigation to be implemented;	their effectiveness and advise the ER accordingly;	remedial measures to be implemented;	3. Implement the agreed proposals;
	6. Arrange meeting with IEC, Contractor and ER to discuss the remedial actions to be taken;	3. Supervise the implementation of remedial measures	4. Supervise and ensure remedial measures properly implemented; and	4. Resubmit proposals if problem still not under control;
	7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results;		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.	5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.
	8. If exceedance stops, cease additional monitoring.			

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

Table J-6.1 Action and Limit Levels and Responses to Evidence of Disturbance to Waterbirds using in Ng Tung, Sheung Yue and Shek Sheung Rivers

Action Level	Response	Limit Level	Response
Construction Phase			
Decline in numbers of all waterbird species relative to numbers during Baseline Monitoring such that the Action Level response is triggered.	Investigate cause and if cause identified as related to NDAs project instigate remedial action to remove or reduce source of disturbance.	Decline in numbers of all waterbird species relative to numbers during Baseline Monitoring such that the Limit Level response is triggered.	Investigate cause and if caused identified as related to NDAs project instigate remedial action. Review and adjust LVNP management measures to improve conditions for affected species.

Decline in numbers of any one waterbird species occurring in significant numbers* during Baseline Monitoring such that the Action Level response is triggered.	Investigate cause and if cause identified as related to NDAs project instigate remedial action to remove or reduce source of disturbance.	Decline in numbers of any one waterbird species occurring in significant numbers* during Baseline Monitoring such that the Limit Level response is triggered.	Investigate cause and if caused identified as related to NDAs project instigate remedial action. Review and adjust LVNP management measures to improve conditions for affected species.
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* Whether numbers are significant will depend on species and season and should be determined following collection and evaluation of Baseline survey data.

Table J-6.2 Action and Limit Levels and Responses to Evidence of Declines in Aquatic Fauna

Action Level	Response	Limit Level	Response
Construction Phase			
Reduction in species diversity such that Action Level response is triggered.	Investigate cause and if cause identified as related to Project instigate remedial action to remove or reduce source of disturbance.	Reduction in taxa diversity such that Limit Level response is triggered.	Investigate cause and if caused identified as related to Project instigate remedial action.

* Whether numbers are significant will depend on species and season. Significance threshold for each species should be reviewed following collection of Baseline survey data.

Table J-6.3 Action and Limit Levels and Responses to Evidence of Declines in non-aquatic Fauna

Action Level	Response	Limit Level	Response
Construction Phase			
Reduction in species diversity such that Action Level response is triggered.	Investigate cause and if cause identified as related to Project instigate remedial action to remove or reduce source of disturbance.	Reduction in taxa diversity such that Limit Level response is triggered.	Investigate cause and if caused identified as related to Project instigate remedial action.

* Whether numbers are significant will depend on species and season. Significance threshold for each species should be reviewed following collection of Baseline survey data.

APPENDIX K
SUMMARY OF EXCEEDANCE

Appendix K: Exceedance Report

(A) Exceedance Report for Air Quality

Environmental Monitoring	Parameter	No. of non-project related Exceedance		No. of Exceedance related to the Construction Activities of this Contract	
		Action Level	Limit Level	Action Level	Limit Level
Air Quality	1-hr TSP	0	0	0	0
	24-hr TSP	0	0	0	0
	24-hr RSP (Ambient Arsenic)	0	0	0	0

(B) Exceedance Report for Construction Noise

Environmental Monitoring	Parameter	No. of non-project related Exceedance		No. of Exceedance related to the Construction Activities of this Contract	
		Action Level	Limit Level	Action Level	Limit Level
Noise	$L_{eq}(30 \text{ min.}) \text{ dB(A)}$	1	0	0	0

(C) Exceedance Report for Landfill Gas

Environmental Monitoring	Parameter	No. of non-project related Exceedance		No. of Exceedance related to the Construction Activities of this Contract	
		Action Level	Limit Level	Action Level	Limit Level
Landfill Gas	O_2 (% v/v) CH_4 (% LEL) CO_2 (%v/v)	0	0	0	0

APPENDIX L
SITE AUDIT SUMMARY

Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

ND/2019/01 – Kwu Tung North New Development Area, Phase 1: Site Formation and Infrastructure Work

Weekly Site Inspection Record Summary

Checklist Reference Number	201103
Date	3 November 2020 (Tuesday)
Time	09:30-11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
201103-R01	• Contractor was reminded to enhance dust control measures in works area Portion 7.	B1
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Land Contamination	
	• No environmental deficiency was identified during site inspection.	
	G. Landfill Gas Hazard	
	• No environmental deficiency was identified during site inspection.	
	H. Cultural Heritage	
	• No environmental deficiency was identified during site inspection.	
	I. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	J. Ecology	
	• No environmental deficiency was identified during site inspection.	
	K. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	L. Others	
	• Follow-up on previous audit section (Ref. No.:201027), all environmental deficiencies were rectified by the contractor.	

	Name	Signature	Date
Recorded by	Kimmy Lui		3 November 2020
Checked by	Dr. Priscilla Choy		3 November 2020



Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

ND/2019/01 – Kwu Tung North New Development Area, Phase 1: Site Formation and Infrastructure Work

Weekly Site Inspection Record Summary

Checklist Reference Number	201110
Date	10 November 2020 (Tuesday)
Time	09:30-11:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>C. Noise</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>E. Waste / Chemical Management</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>F. Land Contamination</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>G. Landfill Gas Hazard</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>H. Cultural Heritage</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Landscape and Visual</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>J. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>K. Permits/Licences</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>L. Others</i>	
	• Follow-up on previous audit section (Ref. No.:201103), all environmental deficiency was rectified by the contractor.	

	Name	Signature	Date
Recorded by	Kimmy Lui		11 November 2020
Checked by	Dr. Priscilla Choy		11 November 2020

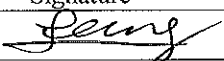

Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

ND/2019/01 – Kwu Tung North New Development Area, Phase 1: Site Formation and Infrastructure Work

Weekly Site Inspection Record Summary

Checklist Reference Number	201117
Date	17 November 2020 (Tuesday)
Time	09:30-12:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
201117-R01	• Contractor was reminded to clear the sedimentation tank at Portion 6 regularly	D 5iii
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Land Contamination	
	• No environmental deficiency was identified during site inspection.	
	G. Landfill Gas Hazard	
	• No environmental deficiency was identified during site inspection.	
	H. Cultural Heritage	
	• No environmental deficiency was identified during site inspection.	
	I. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	J. Ecology	
	• No environmental deficiency was identified during site inspection.	
	K. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	L. Others	
	• Follow-up on previous audit section (Ref. No.:201110), no environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Kenneth Leung		18 November 2020
Checked by	Dr. Priscilla Choy		18 November 2020

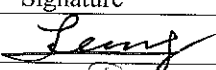
Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

ND/2019/01 – Kwu Tung North New Development Area, Phase 1: Site Formation and Infrastructure Work

Weekly Site Inspection Record Summary

Checklist Reference Number	201124
Date	24 November 2020 (Tuesday)
Time	09:30-11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Land Contamination	
	• No environmental deficiency was identified during site inspection.	
	G. Landfill Gas Hazard	
	• No environmental deficiency was identified during site inspection.	
	H. Cultural Heritage	
	• No environmental deficiency was identified during site inspection.	
	I. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	J. Ecology	
	• No environmental deficiency was identified during site inspection.	
	K. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	L. Others	
	• Follow-up on previous audit section (Ref. No.:201117), all environmental deficiency was rectified by the contractor.	

	Name	Signature	Date
Recorded by	Kenneth Leung		25 November 2020
Checked by	Dr. Priscilla Choy		25 November 2020

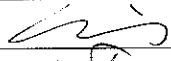
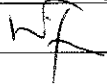
Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

ND/2019/02 – Kwu Tung North New Development Area, Phase 1: Roads and Drains between Kwu Tung North New Development and Shek Wu Hui

Weekly Site Inspection Record Summary

Checklist Reference Number	201104
Date	4 November 2020 (Wednesday)
Time	9:30-11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
201104-R01	• Exposed worksites should be watered regularly.	B1
	C. Construction Noise Impact	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
201104-R02	• Chemical waste/oil should be stored properly in designated area.	E2
	F. Cultural Heritage	
	• No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	H. Ecology	
	• No environmental deficiency was identified during site inspection.	
	I. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	L. Others	
	• Follow-up on previous audit section (Ref. No.:201028), no major environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Kimmy Lui		4 November 2020
Checked by	Dr. Priscilla Choy		4 Novmeber 2020



Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

ND/2019/02 – Kwu Tung North New Development Area, Phase 1: Roads and Drains between Kwu Tung North New Development and Shek Wu Hui

Weekly Site Inspection Record Summary

Checklist Reference Number	201111
Date	11 November 2020 (Wednesday)
Time	9:30-11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
201111-R01	• Stockpile of dusty materials should cover entirely by impervious sheeting.	B2
	<i>C. Construction Noise Impact</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>E. Waste / Chemical Management</i>	
201111-R02	• Chemical waste/oil should be stored properly in designated area.	E2
	<i>F. Cultural Heritage</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>G. Landscape and Visual</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>H. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Permits/Licences</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>L. Others</i>	
	• Follow-up on previous audit section (Ref. No.:201104), all identified environmental deficiencies were observed improved/rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Ella Ho		11 November 2020
Checked by	Dr. Priscilla Choy		11 Novmeber 2020

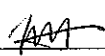
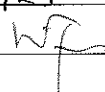
Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

ND/2019/02 – Kwu Tung North New Development Area, Phase 1: Roads and Drains between Kwu Tung North New Development and Shek Wu Hui

Weekly Site Inspection Record Summary

Checklist Reference Number	201120
Date	20 November 2020 (Friday)
Time	14:30-15:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Construction Noise Impact	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
201120-R01	• Contractor was reminded to enhance water control measure to prevent any discharge of wastewater into nearby watercourse.	D6
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Cultural Heritage	
	• No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	H. Ecology	
	• No environmental deficiency was identified during site inspection.	
	I. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	L. Others	
	• Follow-up on previous audit section (Ref. No.:201111), all identified environmental deficiencies were observed improved/rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Ella Ho		23 November 2020
Checked by	Dr. Priscilla Choy		23 Novmeber 2020



Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

ND/2019/02 – Kwu Tung North New Development Area, Phase 1: Roads and Drains between Kwu Tung North New Development and Shek Wu Hui

Weekly Site Inspection Record Summary

Checklist Reference Number	201125
Date	25 November 2020 (Wednesday)
Time	9:30-11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
201125-R01	B. Air Quality • Slope should cover entirely by impervious sheeting.	B2
	C. Construction Noise Impact • No environmental deficiency was identified during site inspection.	
	D. Water Quality • No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management • No environmental deficiency was identified during site inspection.	
	F. Cultural Heritage • No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual • No environmental deficiency was identified during site inspection.	
	H. Ecology • No environmental deficiency was identified during site inspection.	
	I. Permits/Licences • No environmental deficiency was identified during site inspection.	
	L. Others • Follow-up on previous audit section (Ref. No.:201120), all identified environmental deficiency was observed improved/rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Ella Ho		27 November 2020
Checked by	Dr. Priscilla Choy		27 Novmeber 2020

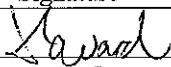

Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

ND/2019/03 – Kwu Tung North New Development Area, Phase 1: Development of Long Valley Nature Park

Weekly Site Inspection Record Summary

Checklist Reference Number	201106
Date	6 November 2020 (Friday)
Time	10:00-11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
201106-R01	• Stockpile of dusty materials should be covered by impervious materials.	B2
	<i>C. Construction Noise Impact</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>E. Waste / Chemical Management</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>F. Landscape & Visual</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>G. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>H. Permits/Licences</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Others</i>	
	• Follow-up on previous audit section (Ref. No.:201030), all environmental deficiency was rectified by the contractor.	

	Name	Signature	Date
Recorded by	Howard Chan		9 November 2020
Checked by	Dr. Priscilla Choy		9 November 2020

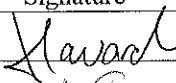

Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

ND/2019/03 – Kwu Tung North New Development Area, Phase 1: Development of Long Valley Nature Park

Weekly Site Inspection Record Summary

Checklist Reference Number	201113
Date	13 November 2020 (Friday)
Time	10:00-11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
201113-R01	• Stockpile of dusty materials should be covered by impervious materials.	B2
	C. Construction Noise Impact	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Landscape & Visual	
	• No environmental deficiency was identified during site inspection.	
	G. Ecology	
	• No environmental deficiency was identified during site inspection.	
	H. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	I. Others	
	• Follow-up on previous audit section (Ref. No.:201106), all environmental deficiency was rectified by the contractor.	

	Name	Signature	Date
Recorded by	Howard Chan		16 November 2020
Checked by	Dr. Priscilla Choy		16 November 2020

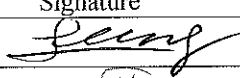

Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

ND/2019/03 – Kwu Tung North New Development Area, Phase 1: Development of Long Valley Nature Park

Weekly Site Inspection Record Summary

Checklist Reference Number	201117
Date	17 November 2020 (Tuesday)
Time	14:00 – 15:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Construction Noise Impact	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Landscape & Visual	
	• No environmental deficiency was identified during site inspection.	
	G. Ecology	
	• No environmental deficiency was identified during site inspection.	
	H. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	I. Others	
	• Follow-up on previous audit section (Ref. No.:201113), all environmental deficiency was rectified by the contractor.	

	Name	Signature	Date
Recorded by	Kenneth Leung		20 November 2020
Checked by	Dr. Priscilla Choy		20 November 2020

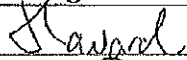

Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

ND/2019/03 – Kwu Tung North New Development Area, Phase 1: Development of Long Valley Nature Park

Weekly Site Inspection Record Summary

Checklist Reference Number	201127
Date	27 November 2020 (Friday)
Time	10:00 – 11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Construction Noise Impact	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Landscape & Visual	
	• No environmental deficiency was identified during site inspection.	
	G. Ecology	
	• No environmental deficiency was identified during site inspection.	
	H. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	I. Others	
	• Follow-up on previous audit section (Ref. No.:201117), no major environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Howard Chan		27 November 2020
Checked by	Dr. Priscilla Choy		27 November 2020


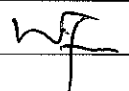
Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

ND/2019/05 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section between Shung Him Tong to Kau Lung Hang

Weekly Site Inspection Record Summary

Checklist Reference Number	201102
Date	2 November 2020 (Monday)
Time	14:00-15:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>C. Noise</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
201102-R01	• Contractor was reminded to review and ensure surface runoff would not be discharged to nearby watercourse.	D6
	<i>E. Waste / Chemical Management</i>	
201102-R02	• Contractor was reminded to store chemical properly in designated area.	E2i
	<i>F. Cultural Heritage</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>G. Landscape and Visual</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>H. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Permits/Licences</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>J. Others</i>	
	• Follow-up on previous audit section (Ref. No.: 201127), no environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Kimmy Lui		2 November 2020
Checked by	Dr. Priscilla Choy		2 November 2020

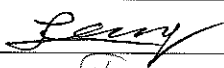

Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

ND/2019/05 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section between Shung Him Tong to Kau Lung Hang

Weekly Site Inspection Record Summary

Checklist Reference Number	201111
Date	11 November 2020 (Wednesday)
Time	14:00-15:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Cultural Heritage	
	• No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	H. Ecology	
	• No environmental deficiency was identified during site inspection.	
	I. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	J. Others	
	• Follow-up on previous audit section (Ref. No.: 201102), all identified environmental deficiency was observed improved/rectified by Contractor.	

	Name	Signature	Date
Recorded by	Kenneth Leung		12 November 2020
Checked by	Dr. Priscilla Choy		12 November 2020

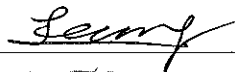
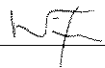
Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

ND/2019/05 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section between Shung Him Tong to Kau Lung Hang

Weekly Site Inspection Record Summary

Checklist Reference Number	201116
Date	16 November 2020 (Monday)
Time	14:00-15:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Cultural Heritage	
	• No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	H. Ecology	
	• No environmental deficiency was identified during site inspection.	
	I. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	J. Others	
	• Follow-up on previous audit section (Ref. No.: 201111), no environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Kenneth Leung		16 November 2020
Checked by	Dr. Priscilla Choy		16 November 2020



Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

ND/2019/05 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section between Shung Him Tong to Kau Lung Hang

Weekly Site Inspection Record Summary

Checklist Reference Number	201123
Date	23 November 2020 (Monday)
Time	14:00-15:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
201123-R02	• Contractor was reminded to cover the manhole at Portion 11.	D 9
	E. Waste / Chemical Management	
201123-001	• Drip trays should be provided for chemical storage at Portion 11.	E 14
	F. Cultural Heritage	
	• No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	H. Ecology	
	• No environmental deficiency was identified during site inspection.	
	I. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	J. Others	
	• Follow-up on previous audit section (Ref. No.: 201116), no environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Kenneth Leung		25 November 2020
Checked by	Dr. Priscilla Choy		25 November 2020

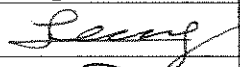
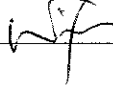
Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

ND/2019/05 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section between Shung Him Tong to Kau Lung Hang

Weekly Site Inspection Record Summary

Checklist Reference Number	201130
Date	30 November 2020 (Monday)
Time	14:00-15:15

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
201130-001	• Drip trays should be provided for chemical storage at Portion 11.	E 14
	F. Cultural Heritage	
	• No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	H. Ecology	
	• No environmental deficiency was identified during site inspection.	
	I. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	J. Others	
	• Follow-up on previous audit section (Ref. No.: 201123), item 201123-001 was remarked as 201130-001. Follow-up action is needed to be reviewed. Other item was observed improved/rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Kenneth Leung		1 December 2020
Checked by	Dr. Priscilla Choy		1 December 2020

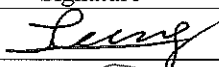

Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

ND/2019/06 – Fanling North New Development Area, Phase 1: Reprovisioning of North District Temporary Wholesale Market for Agricultural Products

Weekly Site Inspection Record Summary

Checklist Reference Number	201105
Date	5 November 2020 (Thursday)
Time	10:00 – 10:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>C. Noise</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>E. Waste / Chemical Management</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>F. Landscape and Visual</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>G. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>H. Permits/Licences</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Others</i>	
	• Follow-up on previous audit section (Ref. No.: 201029), no major environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Kenneth Leung		6 November 2020
Checked by	Dr. Priscilla Choy		6 November 2020

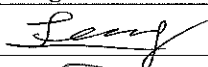
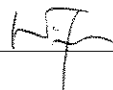
Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

ND/2019/06 – Fanling North New Development Area, Phase 1: Reprovisioning of North District Temporary Wholesale Market for Agricultural Products

Weekly Site Inspection Record Summary

Checklist Reference Number	201109
Date	9 November 2020 (Monday)
Time	14:00 – 14:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	G. Ecology	
	• No environmental deficiency was identified during site inspection.	
	H. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	I. Others	
	• Follow-up on previous audit section (Ref. No.: 201105), no major environmental deficiency was identified during site inspection.	

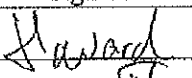
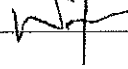
	Name	Signature	Date
Recorded by	Kenneth Leung		9 November 2020
Checked by	Dr. Priscilla Choy		9 November 2020

Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas
ND/2019/06 – Fanling North New Development Area, Phase 1: Reprovisioning of North District Temporary Wholesale Market for Agricultural Products

Weekly Site Inspection Record Summary

Checklist Reference Number	201119
Date	19 November 2020 (Thursday)
Time	10:00 – 10:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	G. Ecology	
	• No environmental deficiency was identified during site inspection.	
	H. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	I. Others	
	• Follow-up on previous audit section (Ref. No.: 201109), no major environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Howard Chan		19 November 2020
Checked by	Dr. Priscilla Choy		19 November 2020

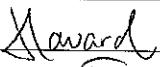

Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

ND/2019/06 – Fanling North New Development Area, Phase 1: Reprovisioning of North District Temporary Wholesale Market for Agricultural Products

Weekly Site Inspection Record Summary

Checklist Reference Number	201126
Date	26 November 2020 (Thursday)
Time	10:00 – 10:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	G. Ecology	
	• No environmental deficiency was identified during site inspection.	
	H. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	I. Others	
	• Follow-up on previous audit section (Ref. No.: 201119), no major environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Howard Chan		26 November 2020
Checked by	Dr. Priscilla Choy		26 November 2020

APPENDIX M
ENVIRONMENTAL MITIGATION
IMPLEMENTATION SCHEDULE (EMIS)

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
Construction Dust Impact							
S3.8	D1	Mitigation measures in form of regular watering under a good site practice should be adopted. Watering once per hour on exposed worksites and haul road is proposed to achieve dust removal efficiency of 92.1%. While the above watering frequencies are to be followed, the extent of watering may vary depending on actual site conditions but should be sufficient to maintain an equivalent intensity of no less than 1.7 L/m ² to achieve the respective dust removal efficiencies	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction phase	*
S3.8	D2	The Contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction Dust) Regulation.	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction phase	*
S3.8	D3	<p>Following dust suppression measures should also be incorporated by the Contractor 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 extend beyond the pedestrian barriers, fencing or traffic cones; 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 	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction phase	<p>*</p> <p>*</p> <p>^</p> <p>*</p> <p>^</p>

		<p>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;</p> <ul style="list-style-type: none">• 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;• 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 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;• Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally						^	
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									N/A
									N/A
									N/A

		<p>enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system; and</p> <ul style="list-style-type: none"> Exposed earth should be properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shortcrete 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. 					^
S3.8	D4	Implement regular dust monitoring under EM&A programme during the construction stage.	Monitoring of dust impact	Contractor	Selected representative dust monitoring station	Construction phase	^
Noise Impact (Construction Phase)							
S4.9	N1	<p>Implement the following 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; Material stockpiles, mobile container site office and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities. 	Control construction airborne noise	Contractor	All construction sites	Construction phase	^ ^ ^ ^ ^
S4.9	N2	Install temporary site hoarding (approx 2.4m high) located on the site boundaries between noisy construction activities and NSRs. The conditions of the hoardings shall be properly maintained throughout the construction period.	Reduce the construction noise levels at low-level zone of NSRs through partial	Contractor	All construction sites where practicable	Construction phase	^

			screening.				
S4.9	N3	Install movable noise barriers and full enclosure and acoustic mat, screen the noisy plants including air compressor and generator.	Screen the noisy plant items to be used at all construction sites	Contractor	All construction sites where practicable	Construction phase	^
S4.9	N4	Use of "Quiet" Plant and Working Methods	Reduce the noise levels of plant items	Contractor	All construction sites where practicable	Construction phase	N/A
S4.9	N5	Sequencing operation of construction plants where practicable.	Operate sequentially within the same work site to reduce the construction airborne noise	Contractor	All construction sites where practicable	Construction phase	^
S4.9	N6	Implement a noise monitoring under EM&A programme.	Monitor the construction noise levels at the selected representative locations	Contractor	Selected representative noise monitoring stations	Construction phase	^

Water Quality Impact (Construction Phase)

S5.7	W1	<p><u>Construction Runoff and Site Drainage</u></p> <p>In accordance with the Practice Note for Professional Persons on Construction Site Drainage, Environmental Protection Department, 1994 (ProPECC PN 1/94), construction phase mitigation measures should be provided and the Storm Water Pollution Control Plan is given below.</p> <p>where appropriate, should include the following:</p> <p>Stormwater Pollution Control Plan</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 and erosion and sedimentation control facilities implemented. Channels (both temporary and permanent drainage pipes and culverts), earth bunds or sand bag barriers should be provided on site to direct stormwater to silt removal 	Control construction runoff	Contractor	All construction sites	Construction phase	*
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		<p>facilities. The design of the temporary on-site drainage system will be undertaken by the Contractor prior to the commencement of construction.</p> <ul style="list-style-type: none"> • 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 equipments in order to avoid or minimize polluted runoff. Sedimentation tanks with sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8m³ 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 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. • 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 minimize 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 					<p>^</p> <p>^</p> <p>^</p> <p>N/A</p>
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		<p>means.</p> <ul style="list-style-type: none"> All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rainstorms. Deposited silt and grit should be removed regularly and disposed of by spreading evenly over stable, vegetated areas. Measures should be taken to minimise the ingress of site drainage into excavations. If the excavation of trenches in wet 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) of more than 50m³ 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 control of silty surface runoff during storm events. 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 					<p>^</p> <p>^</p> <p>*</p> <p>*</p> <p>^</p> <p>^</p>
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		<p>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.</p> <ul style="list-style-type: none"> 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. 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. 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 meander, wetlands and fish ponds. 					N/A
S5.7	W2	<p><u>Stream Diversion</u></p> <ul style="list-style-type: none"> In order to prevent sediment transport during riverbank works, deployment of silt curtain should be implemented, 	Minimize water quality impact due to stream diversion	Contractor	All streams that required diversion	Construction phase	N/A

		especially when construction works encroach or occur in close distance to water body. It is recommended to carry out all the riverbank works and diversion works within a cofferdam or diaphragm wall and the work areas on riverbed should be kept in dry condition.					
S5.7	W3	<p><u>Groundwater from Contaminated Area</u></p> <ul style="list-style-type: none"> For other inaccessible sites, site investigation is required when they are resumed and handed over to the Project Proponent to identify if contaminated groundwater is found. If the investigation results indicated that the groundwater to be generated from construction works would be contaminated, the contaminated groundwater should be either discharged into recharged wells, or properly treated in compliance with the requirements of Technical Memorandum on Standards for Effluents Discharged into Drainage on Sewerage Systems, Inland and Coastal Waters. If recharged well method were used, the groundwater quality in the recharged well should not be affected by recharging operation, i.e. the pollution levels of the recharged groundwater should not be higher than that in the recharging wells. If treatment and discharge method were used, the design of wastewater treatment facilities, such as active carbon and petrol interceptor, should be submitted to the EPD and a discharge license should be obtained under the 	Minimize water quality impact due to potential groundwater from contaminated area	Contractor	All identified groundwater-contaminated areas	Construction phase	<p>N/A</p> <p>N/A</p> <p>N/A</p> <p>N/A</p>

		WPCO through the Regional Offices of EPD.					
S5.7	W4	<p><u>Sewage from Workforce</u></p> <p>Portable chemical toilets and sewage holding tanks should be provided 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.</p> <p>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. It is anticipated that sewage generation during the construction phase of the Project would not cause water quality impact after undertaking all required measures.</p>	Handling of site sewage	Contractor	All construction sites	Construction Phase	^
Waste Management (Construction Waste)							
S7.6	WM1	<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; 	Reduce waste generation	Contractor	All construction sites where practicable	Prior to the commencement of construction	^

		<ul style="list-style-type: none"> proper storage and site practices to minimize the potential for damage and contamination of construction materials; plan and stock construction materials carefully to minimize 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); provide training to workers on the importance of appropriate waste management procedures, including waste reduction, reuse and recycling. 					^ ^ N/A ^
S7.6	WM2	Prepare Waste Management Plan and submit to the Engineer for approval	Minimize waste generation during construction	Contractor	All construction sites	Construction phase	N/A
S7.6	WM3	<u>Good Site Practice</u> The following good site practices are recommended throughout the construction activities: <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 	Minimize waste generation during construction	Contractor	All construction sites	Construction phase	^ ^ ^ ^

		dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; <ul style="list-style-type: none"> Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors; 					^
S7.6	WM4	<u>Storage of Waste</u> The following recommendation should be implemented to minimize the impacts: <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; Different locations should be designated to stockpile each material to enhance reuse; 	Minimize waste impacts from storage	Contractor	All construction sites	Construction phase	^ ^ ^
S7.6	WM5	<u>Collection and Transportation of Waste</u> The following recommendation should be implemented to minimize the impacts: <ul style="list-style-type: none"> Remove waste in timely manner; Employ the trucks with cover or enclosed containers for waste transportation; Obtain relevant waste disposal permits from the appropriate authorities; and Disposal of waste should be done at licensed waste disposal facilities. 	Minimize waste impact from storage	Contractor	All construction sites	Construction phase	^ ^ ^ ^

S7.6	WM6	<p><u>Excavated and C&D Material</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 areas 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 excavated fill material for backfilling; • Carry out on-site sorting; • Deliver surplus artificial hard materials to Tuen Mun Area 38 recycling plant or its successor for recycling into subsequent useful products; • Make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate; and • Implement a recording system for the amount of waste generated, recycled and disposed of for checking; <p>Standard formwork should be used as far as practicable in order to minimize the arising of C&D waste. The use of more durable formwork (e.g. metal hoarding) or plastic facing should be encouraged in order to enhance the possibility of recycling. The purchasing of construction materials should be carefully planned in order to avoid over ordering and wastage.</p> <p>Wheel wash facilities have to be provided at the site entrance before the trucks leaving the works area.</p>	Minimize waste impacts from excavated and C&D material	Contractor	All construction sites	Construction phase	<p>^</p> <p>^</p> <p>N/A</p> <p>N/A</p> <p>N/A</p> <p>^</p> <p>N/A</p> <p>^</p>
S7.6	WM7	<p><u>Contaminated Soil</u></p> <p>As a precaution, it is recommended that standard good site</p>	Remediate contaminated soil	Contractor	All construction sites where	Construction phase	<p>^</p>

		practice should be implemented during the construction phase to minimize any potential exposure to contaminated soils or groundwater. The details of mitigation measures to minimize the potential environmental implications arising from the handling of contaminated materials refer to Land Contamination Section.			applicable		
S7.6	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 producers. Chemical wastes should be stored in appropriate containers and collected by a licensed chemical waste Contractor. 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	Construction phase	*
S7.6	WM9	<p><u>General Waste</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 	Minimize production of the general refuse and avoid odour, pest and litter impacts	Contractor	All construction sites	Construction phase	<p>N/A</p> <p>^</p> <p>N/A</p>

		general refuse on a daily basis.					
S7.6	WM10	<u>Sewage</u> <ul style="list-style-type: none"> The WMP should document the locations and number of portable chemical toilets depending on the number of workers, land availability, site condition and activities. Regularly collection by licensed collectors should be arranged to minimize potential environmental impacts. 	Minimize production of sewage impacts	Contractor	All construction sites	Construction phase	N/A
S7.6	WM11	Topsoil reuse – Topsoil, where identified, should be stripped and stored for re-use in the construction of the soft landscape works, where practical. This is considered a general measure for good site practice.	Good site practice	Contractor/ Project Proponent	Onsite	Construction phase	N/A
Land Contamination							
S 8.4	LC2	Detailed site investigation (SI) for all inaccessible potentially contaminated sites in 2 NDAs	Verify the land contamination potential before the commencement of construction	Project Proponent Detailed Design Consultant Contractor	All inaccessible potentially contaminated sites in 2 NDAs as listed in the CAP	After the land is resumed and handed over to the Project Proponent	N/A
S 8.5	LC3	Preparation and submission of supplementary Contamination Assessment Report (CAR) and Remediation Action Plan (RAP) for all inaccessible potentially contaminated sites in 2 NDAs to EPD for agreement if land contamination is confirmed	Present the findings of SI and evaluate the potential environmental and human health impacts Recommend appropriate mitigation measures for the contaminated soil and	Project Proponent/ Detailed Design Consultant	All inaccessible potentially contaminated sites in 2 NDAs as listed in the CAP	Prior to the commencement of any proposed construction works if land contamination	N/A

			groundwater identified in the assessment if remediation is required			is confirmed and remediation is required	
S 8.5	LC4	Preparation and submission of Remediation Report to EPD for agreement	Demonstrate that the decontamination work is adequate and is carried out in accordance with the endorsed supplementary CAR and RAP	Project Proponent/ Detailed Design Consultant	All inaccessible potentially contaminated sites in 2 NDAs as listed in the CAP	Prior to the commencement of any proposed construction works if land contamination is confirmed and remediation is required	N/A
S 8.6	LC5	Re-appraisal of surveyed sites (if they become part of the land requirement for NDA development) that were not identified as potentially contaminated or could not be accessed for visual inspection during the site survey	Verify the land contamination potential due to potential change of land uses before the commencement of construction	Project Proponent/ Detailed Design Consultant	All surveyed sites (if they become part of the land requirement for NDA development (that were not identified as potentially contaminated or could not be accessed for visual inspection	After the land is resumed and handed over to the Project Proponent.	N/A

					during the site survey as listed in the CAP		
S 8.7.2 and Appendix 8.4	LC6	Treatment of arsenic-containing soil “Solidification/Stabilization” (S/S) treatment method was proposed for the treatment of arsenic-containing soil. Toxicity Characteristic Leaching Procedure (TCLP) test should be undertaken after S/S in order to ensure that the contaminant will not leach to the environment. Unconfined Compressive Strength (UCS) test should be conducted, and not less than 1MPa should be met prior to the backfilling or stockpiled for future reuse within the study area.	To treat the arsenic containing soil	Government Developer/ Contractor	KTN NDA	Prior to commencement of construction works within KTN NDA	N/A
S 8.7.2 and Appendix 8.4	LC7	Excavation and Transportation <ul style="list-style-type: none"> Excavation profiles must be properly designed and executed with attention to the relevant requirements for environment, health and safety; In case the soil to be excavated is situated beneath the groundwater table, it may be necessary to lower the groundwater table; Excavation should be carried out during dry season as far as possible to minimize runoff from excavated soils; Stockpiling site(s) should be lined with impermeable sheeting and banded. Stockpiles should be properly covered by impermeable sheeting to reduce dust emission during dry season or contaminated run-off during rainy season. Watering should be avoided on stockpiles of soil to minimize runoff; 	To minimize the potential environmental impacts arising from the handling of contaminated materials	Contractor	KTN NDA	Prior to commencement of construction works within KTN NDA	N/A

		<ul style="list-style-type: none"> Supply of suitable backfill material after excavation, if require; Vehicles containing any excavated materials should be suitably covered to limit potential dust emissions or run-off, and truck bodies and tailgates should be sealed to prevent any discharge during transport or during wet season; Speed control for the trucks carrying excavated materials should be enforced; and Vehicle wheel washing facilities at the site's exit points should be established and used. 					
S 8.7.2 and Appendix 8.4	LC8	<p>Solidification/Stabilization</p> <ul style="list-style-type: none"> The loading, unloading, handling, transfer or storage of cement should be carried out in an enclosed system; Mixing process and other associated material handling activities should be properly scheduled to minimize potential noise impact and dust emission; The mixing facilities should be sited as far apart as practicable from the nearby noise sensitive receivers; Mixing of soil and cement / water / other additive(s) should be undertaken at a solidification plant to minimize the potential for leaching; Runoff from the solidification / stabilization area should be prevented by constructing a concrete bund along the perimeter of the solidification / stabilization area; If stockpile of treated soil is required, the stockpiling site(s) should be lined with impermeable sheeting and bunded. Stockpiles should be properly covered by impermeable sheeting to reduce dust emission during dry season or site run-off during rainy season; and 	To minimize the potential environmental impacts arising from the handling of contaminated materials	Contractor	KTN NDA	The course of treatment	<p>N/A</p> <p>^</p> <p>^</p> <p>^</p> <p>^</p> <p>^</p>

		If necessary, there should be clear and separated areas for stockpiling of untreated and treated materials.					
S 8.7.2 and Appendix 8.4	LC9	<u>Safety Measures</u> <ul style="list-style-type: none"> Set up a list of safety measures for site workers; Provide written information and training on safety for site workers; Keep a log-book and plan showing the zones requiring treatment and clean zones; Maintain a hygienic working environment; Avoid dust generation; Provide face and respiratory protection gear to site workers if necessary; Provide personal protective clothing (e.g. chemical resistant jackboot, liquid tight gloves) to site workers if necessary; Provide first aid training and materials to site worker; Bulk earth moving equipment should be utilized as much as possible to minimize worker <p>Eating, drinking and smoking should not be allowed in the excavation areas and treatment area to avoid inadvertent ingestion of arsenic containing soil.</p>	To minimize the potential adverse effects on health and safety of construction workers	Contractor	KTN NDA	The course of treatment	N/A
Landfill Gas Hazard							
S10.6	LFG1	<ul style="list-style-type: none"> Underground rooms or void should be avoided as far as practicable in the proposed developments within the Consultation Zone and should be avoided totally in the proposed developments within the MTLL. 	To minimize the risk of LFG hazards to occupants within MTLL and its 250m Consultation Zone	Government / Developer/ Detailed Design	Buildings within MTLL and its 250m Consultation Zone	Detailed design phase	N/A

		<ul style="list-style-type: none"> Buildings or structures within the MTLL should be at ground level with raised floor slabs which are less prone to gas ingress. For the high risk category, the use of active control of gas, including barriers and detection systems are recommended. These measures include the control of gas by mechanical means e.g. ventilation of spaces with air to dilute gas, or extraction of gas using fans or blowers. For the low risk category, the provision of barriers to the movement of gas is recommended. Measures recommended include the use of membranes in floors or walls, or in trenches, coupled with high permeability vents such as no-fines gravel in trenches or voids/permeable layers below structures. The need and practicality of incorporating such measures should be reviewed in the detailed Qualitative LFG Hazards Assessment (QLFGHA) during the detailed design stage for developments within the 250m Consultation Zone and within MTLL. Recommendations on the detailed precautionary and protection measures to be adopted should be given in the QLFGHA. The design and construction method of the proposed development within MTLL (i.e. the proposed recreational area in site E1-1) should be provided to EPD for agreement in the design stage to ensure compatibility with the landfill restoration facilities and aftercare works within MTLL, such that these facilities and works will not be 		Consultant within MTLL and its 250m Consultation Zone			
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		affected by the construction or operation of the proposed development.					
S10.6	LFG2	<ul style="list-style-type: none"> During all works, safety procedures should be implemented to minimize the risks of fires and explosions, asphyxiation of workers (especially in confined space) and toxicity effects resulting from contact with contaminated soils and groundwater. Safety officers, specifically trained with regard to LFG and leachate related hazards and the appropriate actions to take in adverse circumstances, should be present on all worksites throughout the works. All personnel who work on site and all visitors to the site should be made aware of the possibility of ignition of gas in the vicinity of the works, the possible presence of contaminated water and the need to avoid physical contact with it. Those staff who work in, or have responsibility for "at risk" areas, including bore pilling and excavation works, should receive appropriate training on working in areas susceptible to LFG. Enhanced personal hygiene practices including washing thoroughly after working and eating only in "clean" areas should be adopted where contact may have been made with any groundwater which is thought to be contaminated with leachate. Any offices / quarters set up on site should take precautions against LFG ingress, such as being raised off 	To minimize the risk of LFG hazards to the staff and visitors within MTLL and its 250m Consultation Zone	Contractor	Construction sites within MTLL and its 250m Consultation Zone	Construction phase	<p>^</p> <p>^</p> <p>^</p> <p>^</p> <p>^</p>

		<p>the ground. Other storage premises, e.g. shipping containers, where this is not possible should be well ventilated prior to entry.</p> <ul style="list-style-type: none"> • Adequate precautions to prevent the accumulation of LFG under site buildings and within storage shed should be taken by raising buildings off the ground where appropriate and “airing” storage containers prior to entry by personnel and ensuring adequate ventilation at all times. • Smoking and naked flames should be prohibited within confined spaces. “No Smoking” and “No Naked Flame” notices in Chinese and English should be posted prominently around the construction site. Safety notices should be posted warning of the potential hazards. • Welding, flame-cutting or other hot works may only be carried out in confined spaces when controlled by a “permit to work” procedure, properly authorized by the Safety Officer. The permit to work procedure should set down clearly the requirements for continuous monitoring of methane, carbon dioxide and oxygen throughout the period during which the hot works are in progress. The procedure should also require the presence of an appropriately qualified person who shall be responsible for reviewing the gas measurements as they are made, and who shall have executive responsibility for suspending the work in the event of unacceptable or hazardous conditions. Only those workers who are appropriately 					<p>^</p> <p>^</p> <p>N/A</p>
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		<p>trained and fully aware of the potentially hazardous conditions which may arise should be permitted to carry out hot works in confined areas.</p> <ul style="list-style-type: none"> During the construction works, adequate fire extinguishers and breathing apparatus sets should be made available on site and appropriate training given in their use. Ongoing gas monitoring should be considered for offices, stores etc set up on site. 					<p>^</p> <p>^</p>
S10.6	LFG3	<p>Utility Companies</p> <ul style="list-style-type: none"> The developers should make the utility companies aware of the location and features of the site within the Consultation Zone during the respective detailed design stage as part of the QLFGHA. The utilities companies should have a responsibility to train and ensure their staff to take appropriate precautions at all times when entering enclosed spaces or plant rooms. Should utility installation be required in site E1-1, the developers should make the utility companies aware of the potential constraints imposed by the landfill restoration facilities and aftercare works to ensure these facilities and works will remain unaffected. Appropriate precautionary measures against landfill gas should also be taken should utility installation be required within the MTLL. <p>Building Management</p> <ul style="list-style-type: none"> The management committee of the building estate will hold a special responsibility to ensure that the occupants 	To minimize the risk of LFG hazards to the occupants, maintenance personnel, visitors and other users within MTLL and its 250m Consultation Zone	Government / Developer within MTLL and its 250m Consultation Zone	Buildings within MTLL and its 250m Consultation Zone	Operation phase	N/A

		<p>of the building, its staff and maintenance workers are protected from LFG and that visitors to the site are also made aware as to the dangers and the precautions required to be taken.</p> <ul style="list-style-type: none"> • Of primary importance to satisfactorily upholding this responsibility will be to ensure that strict procedures for maintaining control over all temporary and /or permanent works proposed at the site are reviewed with regard to the LFG hazard. This needs to be accompanied by a comprehensive contingency plan in case of incidents, including liaison with EPD officers, Fire Services Department, Landfill Restoration Contractors and others, as necessary. • All construction and maintenance (including utilities) personnel working at the site should be made aware of the hazards of LFG and its possible presence on site. This should be achieved through a combination of posting warning signs in prominent places and also by access to detailed information on LFG hazards and the designs and procedural means by which these hazards are being minimized on site. In addition, entry to confined spaces such as refuse/store rooms, drainage manholes etc. should be preceded by a period of "airing" the space by opening the door widely allowing fresh air to enter. Where appropriate, monitoring of gas should also precede entry. • Any proposed modifications or additions to the building structure should be subject to a further assessment of 					
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		<p>LFG hazard, particularly in areas where a gas membrane has been installed. Any penetrations of the membrane must be repaired as soon as possible after detection or works completion using similar products.</p> <ul style="list-style-type: none"> The building management company should also make arrangement with Landfill Restoration Contractor so that they are advised of all situations which may potentially threaten the safety of the building occupants resulting from any accidents or failures at the landfill site. The building management company should also have available suitable gas monitoring equipment for any ad hoc investigations necessary relating to LFG and be in a position to undertake any future routine monitoring of gas which may be considered necessary soloing completion of the defects correction period. To ensure that all the above protection and precautionary measures and issues pertaining to LFG are properly and consistently addressed by future users and owners of the site, it is recommended that a comprehensive LFG hazard management system be developed by the owner of the building or its property management agency. The system should be developed by the developers of the sites as part of the QLFGHA before the occupation of the building and implemented during its operational phase. 					
Cultural Heritage (Pre-construction Phase)							
S11.6.1	CH1	<u>Undertaking Further Archaeological Survey to Cover the Outstanding Areas</u>	To confirm and verify the findings of the EIA	Project Proponent/	In the not-yet-surveyed-areas	After land resumption but	N/A

		Further archaeological surveys to cover the outstanding areas of the not-yet-surveyed-area with medium archaeological potential located in the areas with proposed development as presented in Figure 11.9 should be implemented after land resumption to confirm and verify the findings of the EIA. The survey should be conducted by a professional archaeologist and prior to fieldwork commencement, the archaeologist should obtain a Licence to Excavate and Search for Antiquities from the Authority under the AM Ordinance. It should be noted that the scope of further archaeological survey is based on the current proposed alignment. Any additional works areas which have not been covered by the current archaeological impact assessment should be covered as soon as possible. Subject to the findings of the archaeological survey to be conducted after land resumption, additional mitigation measures would be designed and implemented before the commencement of construction works to mitigate the adverse impact.		Contractor/ Qualified Archaeologist	with medium archaeological potential located in the areas within Areas D1-11, A3- 5, A3-6, B1-1, and B1-7,	before construction	
S11.6.1	CH2	<u>Undertaking Survey-cum-Rescue Excavation</u> A Survey-cum-Rescue Excavation should be conducted after land resumption and before the commencement of construction works to define the precise archaeological deposits extent and to preserve the archaeological resources by record. The excavation should be conducted by a professional archaeologist and prior to fieldwork commencement, the archaeologist should obtain a Licence to Excavate and Search for Antiquities from the Authority under the AM Ordinance.	To define the precise archaeological deposits extent and to preserve the archaeological resources as far as possible	Project Proponent/ Contractor/ Qualified Archaeologist	In KTN NDA, for Site 3 and In FLN NDA for Site 5.	After land resumption but before construction commencement of the zone	N/A

S11.6.1	CH3	<p><u>Undertaking Preservation in-situ for Site 7</u></p> <p>Preservation in-situ of the cultivation deposits in Site 7 is proposed. If disturbance to the site by the design of the Central Park is unavoidable, further archaeological survey should be conducted after land resumption prior to the pre-construction stage to assess the feasibility to incorporate Site 7 into the design of the development plan of the proposed zone.</p> <p>Appropriate followup actions, including preservation of the significant archaeological deposits in-situ in the Central Park, would then be considered with the consent of AMO.</p> <p>The recommended mitigation measure of preservation in-situ with further archaeological survey should be conducted by a professional archaeologist and prior to fieldwork commencement, the archaeologist should obtain a Licence to Excavate and Search for Antiquities from the Authority under the AM Ordinance.</p>	To preserve the archaeological resources as far as possible.	Project Proponent/ Contractor/ Qualified Archaeologist	Site 7 in FLN NDA	After land resumption prior to preconstruction stage of the proposed Central Park (Area C2-8, Zoning O)	N/A
S11.6.1	CH4	<p><u>Undertaking Induction Training</u></p> <p>Induction training should be provided to the construction Contractor before the commencement of the excavation works in Spots A, D, F to H. An induction will be conducted as part of the environmental health and safety induction programme to all site staff before they are deployed on site. The induction will include an introduction on the historical development of the Site, the possible archaeological remains that may be encountered during ground excavation works as well as the reporting procedures in case suspected archaeological remains are</p>	To preserve the archaeological resources as far as possible	Project Proponent/ Contractor/ Qualified Archaeologist	Spots A, D, F to H	Before the commencement of the excavation works and before site staff are deployed on site	N/A

		identified. A set of the presentation material (in the form of power point presentation) with content details will be prepared by an archaeologist and submitted to AMO for reference and record purpose. The first induction briefing will be video recorded and it will be used as induction briefing material for new site staff.					
S11.6.1	CH5	<p><u>Undertaking Archaeological Impact Assessment before Construction at A1</u></p> <p>It is recommended that an Archaeological Impact Assessment to be conducted in the impacted area in Area B1-8 and B1-9 at A1 (Sheung Shui Wa Shan Site of Archaeological Interest) after land resumption and before construction when detail construction work information is available to determine the need for further archaeological follow up actions.</p>	To define the precise archaeological deposits extent and to preserve the archaeological resources as far as possible	Project Proponent/ Contractor/ Qualified Archaeologist	Area B1-8 and B1-9 zoned as R4 and R3 in A1	After land resumption but before construction	N/A
S11.6.1	CH6	<p><u>Undertaking Archaeological Impact Assessment before Construction within A1 but except Area B1-8 and B1-9</u></p> <p>Should there be any development work within the Sheung Shui Wa Shan Site of Archaeological Interest, it is recommended that an Archaeological Impact Assessment is required after land resumption and before construction when detail construction work information is available to determine the need for further archaeological follow up actions.</p>	To define the precise archaeological deposits extent and to preserve the archaeological resources as far as possible.	Project Proponent/ Contractor/ Qualified Archaeologist	Area within A1 except Area B1-8 and B1-9 in R4 & R3 zoning	After land resumption but before construction	N/A

S11.6.2	CH7	<p><u>Undertaking baseline condition survey and baseline vibration impact assessment</u></p> <p>In case any potential vibration impact on any nearby built heritage features are identified during the pre-construction stage of the Project, prior to commencement of construction works, a baseline condition survey and baseline vibration impact assessment should be conducted by a qualified building surveyor or a qualified structural engineer to define the vibration limit (a vibration limit at 7.5mm/s could be adopted for graded historic buildings) and to evaluate if construction vibration monitoring and structural strengthening measures are required during construction phase so as to ensure the construction performance meets with the vibration standard stated in the EIA report. The condition survey of graded historic building should be submitted to AMO for information.</p>	To minimize the vibration impacts during preconstruction stage on any identified potential vibration impacted built heritage features	Project Proponent/ Contractor	G303 and G308	Preconstruction stage before commencement of construction works during Schedule 3 study	N/A
S11.6.2	CH8	<p><u>Undertaking baseline condition survey and baseline vibration impact assessment</u></p> <p>In case any potential vibration impact on any nearby built heritage features are identified during the pre-construction stage of the Project, prior to commencement of construction works, a baseline condition survey and baseline vibration impact assessment should be conducted by a qualified building surveyor or a qualified structural engineer to define the vibration limit (a vibration limit at 7.5mm/s and 15mm/s could be adopted for graded historic buildings and historic buildings respectively) and to evaluate if construction vibration monitoring and structural strengthening measures are required during</p>	To minimize the vibration impacts during preconstruction stage on any identified potential vibration impacted built heritage features	Project Proponent/ Contractor	KT57, FL05, FL18, and FL2	Preconstruction stage before commencement of construction works	N/A

		construction phase so as to ensure the construction performance meets with the vibration standard stated in the EIA report. The condition survey of graded historic building should be submitted to AMO for information.					
S11.6.2	CH9	<p><u>Conducting Photographic and Cartographic Records Prior to Removal/Relocation of Impacted Built Heritages</u></p> <p>Prior to removal/relocation of the directly impacted historical buildings and cultural/historical landscape features, photographic and cartographic records should be conducted to preserve them by record. Liaison with and obtaining agreement from the descendants of these features will be carried out the Project Proponent.</p>	To preserve the directly impacted sites by record prior to their removal / relocation	Project Proponent/ Contractor	Ancillary structures of G303, HKT01, HKT02, Entrance Gate of HKT03, HKT04, KT01 to KT10, KT13, KT36, KT39, KT40, KT41, KT43, KT45, KT47, KT50, KT54, KT62 to KT63, KT69, FL01, FL16, and FL35	Prior to Removal / Relocation of features before commencement of construction works during Schedule 3 study	N/A
S11.6.2	CH10	<p><u>Conducting Photographic and Cartographic Records Prior to Removal/Relocation of Impacted Built Heritages</u></p> <p>Prior to removal/relocation of the directly impacted historical buildings and cultural/historical landscape features, photographic and cartographic records should be conducted to preserve them by record. Liaison with and obtaining agreement from the descendants of these features will be carried out by the Project Proponent.</p>	To preserve the directly impacted sites by record prior to their removal / relocation	Project Proponent/ Contractor	KT12 and KT61	Prior to Removal / Relocation of features before commencement of construction works	N/A

S11.6.2	CH11	Relocation of Built Heritages Relocation of built heritages to a reasonable location nearby may be required.	To preserve the directly impacted sites by relocation	Project Proponent/ Contractor	HKT01, HKT02, Entrance Gate of HKT03	After the photographic and cartographic records and before commencement of construction works	N/A
S11.6.2	CH12	Drainage System and Access Route Design For the retained built heritage items in developable area, drainage system and access route would be designed to prevent the persevered flooding and maintain the accessibility to the built heritage.	To prevent the persevered flooding and maintain the accessibility to the built heritage	Contractor /Detailed Design consultant	The retained built heritage items	Pre-construction phase	N/A
Cultural Heritage (Construction Phase)							
S11.6.1	CH13	<u>Inform Upon Archaeological Discovery</u> Pursuant to the Antiquities and Monuments Ordinance, the construction Contractor should inform the AMO immediately in case of discovery of antiquities or supposed antiquities in the course of excavation works in construction phase.	Special attention should be given to areas evaluated to have archaeological potential or significance.	Contractor	All soil excavation works	Immediately upon discovery during excavation works	N/A
S11.6.2	CH14	<u>Watertable Monitoring</u> Since the construction works and development activities may induce change in the watertable. It is recommended the Contractor should ensure that the change of watertable induced by the construction works and development activities will not result in settlement of built heritage.	To minimize the potential impacts to the built heritage items by the change of watertable induced by the works during the Construction phase	Contractor	Within NDAs	Construction phase	N/A
S11.6.2	CH15	<u>Conducting Construction Vibration Monitoring and Structural Strengthening Measures</u> Construction vibration monitoring and structural strengthening measures should be conducted during Construction phase based on the assessment result of baseline condition survey and	To minimize the potential impacts during Construction phase on any identified potential vibration impacted built heritage features	Contractor	Identified potential vibration impacted built heritage features	Construction phase, with details specified in baseline condition survey and	N/A

		baseline vibration impact assessment, so as to ensure the construction performance meets with the vibration standard stated in the EIA report.				baseline vibration impact assessment	
<i>Landscape and Visual Impact (Detailed Design, Prior to Construction, Construction and Operation Phases)</i>							
S.12.9	LV1	General Good Practice Measures - For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to. With regard to topsoil, where identified, it should be stripped, treated appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.		Detailed design consultant/ Contractor	Throughout NDAs,	Prior to Construction, Construction & for all planting, this should be installed as the areas become available, to achieve early establishment	N/A
S.12.9 MM1	LV2	Minimum Topographical Change –To minimize landscape and visual impacts, the footprint and elevation of such elements should be optimized to reduce topographical/ landform changes, as well as reduce land take and interference with natural terrain. Where there is a need to significantly cut into the existing landform, retaining walls should be considered as well as cut slopes, to minimize landform changes and land resumption, while also considering visual amenity. Earthworks and engineered slopes should be designed to be a visually interesting landform, compatible with the surrounding landscape and to mimic the natural contouring and terrain e.g. introduction and continuation of natural features such as spurs and ridges where appropriate, to support assimilation with the hillside setting.	Reduce topographical changes and minimize land resumption	Government / Detailed Design Consultant/ Contractor	Throughout NDAs, particularly for reservoirs	Prior to Construction	N/A

S.12.9 MM2	LV3	<p>Detailed Design (Visual) –The footprint and massing of development components and the works area should also be kept to a practical minimum and the detailed design of development components for Construction phase should follow the Sustainable Building Design Guidelines. The form, textures, finishes and colours of the proposed development components should aim to be compatible with the existing surroundings. To improve visual amenity designs should be aesthetically pleasing and treatment of structures also improve visual amenity. For example, natural building materials such as stone and timber, should be considered for architectural features, and light earthy tone colours such as shades of green, shades of grey, shades of brown and off-white should also be considered to reduce the visibility of the development components, including all roadwork, buildings and noise barriers. In addition, the design of structures should consider green roofs were feasible, following stated guidelines. All Noise barriers, particularly noise barriers but also any barriers proposed for ecological impact mitigation, should be kept to a practical minimum, and be of such a designed as to integrate as well as possible into the surrounding visual context and be as low as practical to minimize blocking views. Noise barrier design, including vertical, cantilever or curved, and noise enclosures including semi-enclosure and full enclosure, at grade and/ or elevated, should follow the guidelines stated. Construction time frame should also be considered and</p>	<p>Improve visual amenity of the new buildings, NDAs in general and integrate as best possible into the surrounding landscape</p>	<p>Detailed Design Consultant</p>	<p>Throughout NDAs</p>	<p>Prior to Construction</p>	<p>N/A</p>
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		designs seek to keep it to a practical minimum.					
S12.9 MM14.4	LV 4	<p>Avoid affecting Watercourses – In the detailed design, consideration should be made of watercourses, to minimize any impacts e.g. at new bridge crossings, viaducts, road alignment etc. Guidelines stated should be followed.</p> <p>For example, for the stream at Siu Hang San Tsuen in FLN NDA, much of the stream is located underneath the viaduct for the proposed Fanling Bypass. In order to avoid impacts to the stream, the detailed final design of the viaduct should follow guidelines and ensure that no viaduct footings or other structures are placed in the stream.</p> <p>Bridges and box culverts should also be used to minimize the necessity of watercourse modification and protect the watercourses where necessary.</p>	Avoid direct impacts to watercourses	Detailed Design Consultant/ Contractor	All watercourses, particularly the stream at Siu Hang San Tsuen that will flow under the Fanling Bypass Eastern Section	Prior to Construction and Construction Phase	N/A
Landscape and Visual (Construction)							
S.12.9 MM3	LV5	Open Space Provision - the principles adopted in the RODP planning ensure that public open space systems are incorporated. All requirements for open space areas stipulated in the planning documents for the formulation of the Preliminary Layout Plan should be adhered to.	<p>Reprovision of open space.</p> <p>Enhance visual amenity of the area and improve the overall landscape character</p>	Government Developer/ Detailed Design Consultant/ Contractor/	Onsite as stipulated in the planning documents for the formulation of the Preliminary Layout Plan	Prior to Construction and Construction Phas	N/A
S.12.9 MM4	LV6	Tree Protection & Preservation – Existing trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004.	Protect and Preserve Trees	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction and Construction Phase	N/A

		<p>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>					
S.12.9 MM5	LV7	<p>Tree Transplantation – 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 Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme.</p> <p>A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC 2/2004 and 3/2006 and final locations of transplanted trees should be agreed prior to commencement of the work.</p>	Transplant Trees where suitable for transplantation	Government / Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

		For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted, HyD HQ/GN/13 'Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit' should be referred to.					
S.12.9 MM6	LV8	<p>Slope Landscaping – Site formation should be reduced as far as possible. Seeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape resources and character. Woodland tree seedlings and/ or shrubs should be planted where slope gradient and site conditions allow.</p> <p>In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.</p>	<p>To avoid substantial slope cutting and fill slopes.</p> <p>To prevent erosion and subsequent loss of landscape resources and character.</p> <p>To ensure man-made slopes are as visually amenable as possible.</p>	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.9 MM7	LV9	<p>Compensatory Planting – Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under ETWBTC 3/2006.</p> <p>Compensatory planting is proposed at the potential open areas such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development</p>	Compensate for trees and shrubs lost due to the Project.	Government / Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

		lots. Compensatory planting for shrubs should be considered in suitable locations. Native species such as <i>Melastoma malabathricum</i> , <i>Diospyros vaccinioides</i> , <i>Gardenia jasminoides</i> , <i>Ixora chinensis</i> , <i>Ligustrum sinense</i> , <i>Litsea rotundifolia</i> , <i>Melastoma dodecandrum</i> , <i>Atalantia buxifolia</i> , <i>Rhodomyrtus tomentosa</i> , <i>Rhaphiolepis indica</i> , and <i>Rhododendron simsii</i> are suggested.					
S.12.9 MM8	LV10	<p>Woodland Compensatory Planting –Specific Woodland compensatory planting is proposed for any areas of quality woodland that are unavoidably affected by the Project. The location and design of the woodland compensatory planting will principally be within habitats of lower value such as upland grassland. The proposed locations are identified, for example, on the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in KTN NDA; along Fanling Bypass; and a small area in the northern FLN NDA.</p> <p>The intention of the compensatory woodland will be to recreate areas of quality woodland, not necessarily to compensate for loss of trees on a like for like basis (See E18 & E27 also).</p> <p>Native tree species are suggested for planting in the appropriate locations, including <i>Ailanthus fordii</i>, <i>Bischofia javanica</i>, <i>Castanopsis fissa</i>, <i>Celtis sinensis</i>, <i>Cinnamomum burmannii</i>, <i>Cinnamomum camphora</i>, <i>Xanthoxylum</i></p>					N/A

		<p><i>avicennae</i>, <i>Hibiscus tiliaceus</i>, <i>Liquidambar formosana</i>, <i>Sapium discolor</i>, <i>Schefflera heptaphylla</i> and <i>Ilex rotunda</i>. In addition some understory vegetation may be planted including shrubs such as <i>Atalantia buxifolia</i>, <i>Diospyros vaccinioides</i>, <i>Gardenia jasminoides</i>, <i>Ixora chinensis</i>, <i>Ligustrum sinense</i>, <i>Litsea rotundifolia</i>, <i>Melastoma malabathricum</i>, <i>Melastoma dodecandrum</i>, <i>Rhodomyrtus tomentosa</i>, <i>Rhaphiolepis indica</i>, and <i>Rhododendron simsii</i>.</p> <p>The area allocated for compensatory woodland planting allows in part for the fact that it will take some time for the compensatory planting to achieve the landscape and ecological function and value of the area to be lost. In addition, it allows for the fact that not all of the areas identified for planting will prove to be plantable, by virtue of topography and ground conditions and, especially, because though the areas identified are largely grassland it is inevitable that these areas will already support some patches of trees and shrubs which would be inappropriate for further planting.</p>					
S.12.9 MM9	LV11	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. building edges, piers).	Soften hard surfaces and facilities	Government / Developer/ Detailed Design Consultant/ Contractor	On appropriate structures	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

App M - IMPLEMENTATION SCHEDULE AND RECOMMENDED MITIGATION MEASURES

November 2020

S.12.9 MM10	LV12	Green Roof – Roof greening where appropriate should be established on proposed buildings as per the guidelines stated. These guidelines provide further details including information regarding structural loading, design, maintenance, etc. considerations as well as providing information on what types of plants might be suitable.	Reduce exposure to untreated concrete surfaces and particularly mitigate visual impact to VSRs at high levels. Provide greening.	Government / Developer/ Detailed Design Consultant/ Contractor	On appropriate buildings	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.9 MM11	LV13	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Government / Detailed Design Consultant/ Contractor	Along roads, around suitable built structures, or around VSRs to contain their view out to the NDA structures.	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

S.12.9 MM12	LV14	<p>Road Greening –For viaducts, soft landscaping should be provided to soften the hard, straight edges (for climbers used to cover the vertical, hard surfaces of the piers – see MM9 Vertical Greening) and shade tolerant plants should be planted, where light is sufficient, to improve aesthetic value of areas under viaducts. Both at grade planting and use of elevated planters should be considered for the soft landscaping of viaducts, taking into account the preference to minimize the overall viaduct bulk and integrate architectural forms and textural finishes which improve aesthetics.</p> <p>For at grade roads, planting should be considered along central dividers and on road islands e.g. in the middle of roundabouts. (Roadside planting i.e. at the road edge and not in the central divider or road island, is considered part of Screen Planting)</p>	To soften the hard, straight edges and provide greening along roads.	Government / Developer/ Detailed Design Consultant/ Contractor	On viaducts or along roads	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.9 MM13 & EIA Annex 13	LV15	<p>Marsh/Wetland Compensation –The proposed Long Valley Nature Park (LVNP) will be designed and implemented to enhance on- wetland areas within the LVNP. (See E4,E15 and E25 also)</p> <p>Also see LV16, LV17, and LV18 as wetland planting should be provided along the embankments and beds of modified/ reprovisioned watercourses.</p>	Compensate for Marsh/ Wetland lost due to the Project.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

S.12.9 MM14.1	LV16	<p>Reprovision of Natural Stream – Where natural streams are unavoidably affected along some of their length, they can be diverted to avoid the proposed new developments and retain the integrity of the whole stream. Detailed design of any stream diversion should follow the Guidelines in ETWB Technical Circular (Works) No. 5/2005 (Protection of natural streams/rivers from adverse impacts arising from construction works) and appropriate construction methods should be used.</p> <p>Two short stretches of the Ma Tso Lung Stream will be affected by Project in the KTN NDA; by the LMC Eastern Connection Road on the western border of Site F1-3 and further upstream by Site E-2.</p> <p>At both these locations, the stream will be reprovisioned and maintain the flow between unaffected sections of the stream. The reprovisioned stream will be provided with a natural bed and banks, as well as having an area of marsh/ pool next to it and trees and shrubs further from the banks. (See E2, E14 and E24 also)</p>	Achieve a natural stream, similar to existing, including wetland planting provision for embankments	Government / Developer/ Detailed Design Consultant/ Contractor	Streams and channelized watercourses e.g. a Ma Tso Lung and Siu Han San Tsuen	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S12.9 MM14.2	LV17	<p>Stream Buffer Planting –Providing a minimum 10 m buffer with planting (where there is a general presumption against any development taking place) along streams where they flow close to developments, confers a degree of protection to the stream course and its associated vegetation.</p> <p>For the stream at Ma Tso Lung in KTN NDA, the middle and</p>	Protect natural streams	Government / Developer/ Detailed Design Consultant/ Contractor	Streams and channelized watercourses e.g. a Ma Tso Lung and Siu Han San Tsuen	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

		<p>upper sections will be designated as Green Belt zone where there is a general presumption against development as buffer to the stream.</p> <p>For the stream at Siu Hang San Tsuen in FLN NDA, within the NDA boundary much of the stream would be located underneath the viaduct for the proposed Fanling Bypass. To the south of the viaduct the stream flows through an Open Space area D1-3. In this Open Space zone a 10m buffer is proposed in which natural vegetation will be retained and enhanced and human activities will be limited in order to avoid direct impacts to the stream bed and to minimize potential indirect impacts to the stream and riparian corridor. (See E3 also)</p>					
S12.9 MM14.3	LV18	<p>Enhancement Planting along Embankment - For channelized watercourses, if these are modified, the Drainage Services Department Practice Note No.1/2005 – Guidelines on Environmental Considerations for River Channel Design, should be considered and appropriate mitigation measures included ensuring the new watercourses match the existing as far as possible. Measures can include enhancement planting to upgrade the channels as appropriate, including consideration of wetland planting along embankments where appropriate; as well as consideration of the best materials for the channel lining (e.g. gabion). All measures must also ensure any necessary maintenance work can be carried out and that the channel meets all its requirements for water flow, etc.</p>	<p>Minimize the necessity of watercourse modification, protect watercourses where possible and enhance channelized watercourses</p>	<p>Government / Developer/ Detailed Design Consultant/ Contractor</p>	<p>Channelized watercourse, particularly the Ma Wat River Channel Diversion</p>	<p>Prior to Construction, Construction Phase & Maintenance in Operation Phase</p>	N/A

		For example, a stretch of the Ma Wat River Channel in the south of FLN NDA will have to be diverted for the construction of the Fanling Bypass Eastern Section. This measure will be particularly relevant in this area.					
S12.9 MM15	LV19	<p>Pond Replacement –Principles adopted in the design of the NDAs ensure that they incorporate ponds within the RODPs.</p> <p>All requirements for ponds stipulated in the planning documents for the formulation of the Preliminary Layout Plan (e.g. at Fung Kong Shan Park in E1-7 of KNT ND) should be adhered to.</p>	Reprovision for ponds lost due to the Project.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	E1-7 and C1-9 (LVNP) in KNT NDA and generally throughout NDA	Prior to Construction, Construction Phase Maintenance in Operation Phase	N/A
S.12.9 MM16	LV20	<p>Screen Hoarding –Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, non- reflective, recessive colours be used.</p> <p>Any works areas near the ecological sensitive areas should erect 2m high dull green site boundary fence. Details can refer to the ecological impact assessment (Chapter 13 of the EIA report).</p>	To screen undesirable views of the works site.	Contractor	Throughout NDAs	Construction Phase	N/A
S.12.9 MM17	LV21	<p>Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase.</p> <p>Street and night time lighting shall also be controlled to minimize</p>	To minimize glare impact to adjacent VSRs	Government / Developer/ Contractor	Throughout NDAs	Construction and Operation Phases	N/A

		glare impact to adjacent VSRs during the operation phase.					
Ecology (Prior to Construction Phase or throughout the project)							
S. 13.9	E1	Egretry Habitat Creation & Management Plan (EHCMP) and Woodland Planting and Management Plan (WPMP)	Compensate for loss of Man Kam To Road egretry. Compensate for loss of secondary woodland and hillside plantation of ecological significance.	Project Proponent/ Detailed Design Consultant (EHCMP and WPMP).	FLN area A1-7 (egretry compensation). KTN areas E1-8 and G1-3 (woodland compensation).	Detailed design phase	N/A
S. 13.9	E2	Detailed design of development along lower reaches of Ma Tso Lung Stream and Ma Tso Lung San Tsuen Stream in OU zones F1-2 and F1-3 and detailed design of LMC Loop Eastern Connection Road with restoration of diverted stream and riparian corridor, permanent barrier and underpass on the at-grade section Compensation for the loss of seasonally wet grassland at Ma Tso Lung by habitat restoration and enhancement along diverted section of Ma Tso Lung Stream	Minimize impacts on Ma Tso Lung Stream and Ma Tso Lung San Tsuen Stream and riparian corridor of importance to species of conservation significance.	Project Proponent/ Detailed Design Consultant. (design of Ma Tso Lung Stream diversion and buffer zone habitat restoration measures)	KTN areas F1-2 and F1-3 and LMC Loop Eastern Connection Road.	Detailed design and construction phases.	N/A

S13.9	E3	Detailed design, implementation and management of Siu Hang San Tsuen Stream to have 10m wide vegetated buffer in Open Space zone D1-3, Fanling Bypass to cross stream on viaduct.	Minimize impacts on Siu Hang San Tsuen Stream and stream fauna.	PlanD, Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	FLN area D1-3.	Detailed design, construction and operation phases.	N/A
S.13.9	E4	Long Valley Nature Park (LVNP) designation, design and implementation. Enhancement of non-wetland habitats in LVNP. Planning for the advanced provision of alternative foraging habitat along main river channels for large waterbirds.	Compensate for wetland loss arising from the project and protection of Long Valley from adverse ecological impacts including provision of additional/alternative habitat for large waterbirds using Ng Tung, Sheung Yue and Shek Sheung River channels.	Project Proponent/ Detailed Design Consultant (Long Valley Nature Park Habitat Creation & Management Plan)	Long Valley KTN area C1-9 and any suitable areas to be identified during the planning stage	Detailed design phase	N/A
S13.9	E5	Stringent planning control requirements in Long Valley north and west of Sheung Yue River, including Ho Sheung Heung egrettry.	Protect these wetland areas from indirect impacts to habitats and fauna especially breeding ardeids foraging in these areas and utilizing flight-lines from Ho Sheung Heung egrettry. Avoid habitat loss and disturbance to fauna of	PlanD.	KTN areas C2-1 and C2-2 , Ho Sheung Heung egrettry and areas north of Long Valley along the Ng Tung River to the Shenzhen River	Detailed design phase	N/A

			<p>conservation significance, especially nesting ardeids</p> <p>Maintenance of ecological linkages with Deep Bay ecosystem and avoidance of severance of these linkages, especially for waterbirds</p>				
S13.9	E6	Planning for creation of Green Corridors along the Sheung Yue, Ng Tung and Shek Sheung Rivers, retention and provision of screen plantings where feasible; and detailed design of Open Space areas and development areas along river corridors.	<p>Minimize disturbance to large waterbirds using Ng Tung, Sheung Yue and Shek Sheung River channels.</p> <p>Maintain ecological linkages within NDA Project Area and between Project Area and Deep Bay ecosystem, especially for Long Valley and waterbirds.</p>	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	Area along Ng Tung, Sheung Yue and Shek Sheung River	Detailed design, construction and operational phases.	N/A
S13.9	E7	Building setback and mounding in locations near Long Valley. KTN area B3-12 (30m setback from road D3) and KTN area C1-1 (15m setback and mounding along northern and northeastern boundaries).	Minimization of disturbance impacts to fauna using Long Valley.	PlanD	KTN area B3-12 (30m setback from road D3) and KTN area C1-1 (15m setback and mounding along northern and northeastern	Detailed design phase	N/A

					boundaries.		
S13.9	E8	<p>Preparation and implementation of Guidelines for building design measures to minimize mortality and light and glare impacts to fauna. Guidelines to address the following measures:</p> <p>Use opaque, non-transparent, non-reflective noise barriers for all developments associated with the Project.</p> <p>Measures to include the following:</p> <ul style="list-style-type: none"> • Fritting, or the placement of ceramic lines or dots on glass, which creates a visual barrier to birds and reduces air conditioning loads by lowering heat gain, while still allowing light transmission for interior spaces. It is most successful when the frits are applied on the outside surface. Frosted glass has similar effects; • Angled glass to be used only for smaller panes in buildings with a limited amount of glass; • The use of glass that reflects UV light (primarily visible to birds, but not to humans) to reduce collisions; • Film and art treatment allow glass surfaces to be used a medium of expression, often related to the nature and use of the building, as well indicating to birds their impenetrability; • Lightweight external screens can be added to windows or become a façade element of larger buildings, and are suitable where non-operable windows are prevalent, which is often the case in modern buildings in HK 	Minimize mortality and disturbance impacts on fauna, especially mammals and birds.	PlanD/ Project Proponent/ Developer/ Detailed Design Consultant	Near Long Valley	Detailed design phase	N/A

	E9	Not used					N/A
S13.8	E10	Review development footprint and layout of proposed developments in KTN areas D1-11a and G1-5 to avoid/minimize direct and indirect impacts on secondary woodland at Ho Sheung Heung and shrubland at Crest Hill.	Minimize loss of secondary woodland and shrubland of ecological value.	Project Proponent/Detail ed Design Consultant	KTN areas D1-11a and G1-5 to avoid/minimize direct and indirect impacts on secondary woodland at Ho Sheung Heung and Crest Hill	Detailed design phase	N/A
S13.9	E11	<p>No construction during ardeid breeding season (1 March to 31 July) along Sheung Yue River north or east of KTN D1-5 and east of D1-9 and C2-3, construction hours restricted to 09.00 to 17.30 during 1 March to 31 July on new pedestrian bridge over the Sheung Yue River, new pedestrian bridge over the tidal section of the Ng Tung River and existing bridge between KTN areas C2-2 and C1-8.</p> <p>Review Design and construction methods for all bridges especially those on the Sheung Yue and tidal Ng Tung Rivers and adopt methods which minimize impacts on Long Valley and the rivers, and disturbance and fragmentation impacts on fauna.</p> <p>No overlap in construction of bridges over main river channels. Measures to ensure no hydrological disruption to Long Valley Watercourse and water supply to Long Valley to be designed at</p>	Minimize disturbance impacts (including cumulative impacts with cycle track project) to flight-lines of breeding ardeids.	Project Proponent/ Detailed Design Consultant Contractor	Along and within Sheung Yue and Ng Tung Rivers, Long Valley, Long Valley and watercourse upstream areas including KTN area B3-12	Detailed design/ construction phase.	N/A

		the detailed design stage for the rechannelisation of the Long Valley Watercourse and the development of areas through which it passes, including KTN area B3-12. Contingency plan to address any disruption to be included in LVNP HCMP. Avoid removal or interference with screen planting undertaken under the Construction of Cycle Tracks and Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung project.					
Ecology (Construction Phase)							
S13.9	E12	Compensatory egret habitat provision and establishment. Review condition and location of egrets before commencement of works. Formulate and implement additional mitigation measures as appropriate. Phasing of works near and within Man Kam To Road Egret outside breeding season	Compensate for loss of Man Kam To Road egret habitat. Avoid mortality of breeding egrets	Project Proponent/ Detailed Design Consultant/ Contractor	FLN area A1-7 500m from Man Kam To Road Egret.	Construction phase.	N/A
S13.9	E13	Review design and construction methods for bridges, especially those on the Sheung Yue and tidal Ng Tung Rivers, and adopt measures which minimize impacts on rivers and disturbance and fragmentation impacts on fauna. No construction during ardeid breeding season (1 March to 31 July) along Sheung Yue River north and east of KTN area D1-5 and east of D1-9 and C2-3 and restriction of working hours on new pedestrian bridges over the Sheung Yue River and tidal Ng Tung River to 09.00 to 17.30 during the ardeid breeding season	Minimize impacts on rivers and disturbance and fragmentation impacts on fauna	Project Proponent/ Detailed Design Consultant/ Contractor	Along and within the Sheung Yue, Ng Tung and Shek Sheung Rivers	Detailed design and construction phases.	N/A

		(1 March to 31 July) Provision of alternative foraging habitat along main river channels for large waterbirds.					
S13.9	E14	<p>Buffer zone of 15-30m as appropriate on both sides (not less than 45m total width) of Ma Tso Lung Stream north of the point where it is crossed by the LMC Loop Eastern Connection Road, and Ma Tso Lung Stream diversion during construction of the LMC Loop Eastern Connection Road; development along lower reaches of Ma Tso Lung Stream and Ma Tso Lung San Tsuen Stream in OU zones in KTN areas F1-2 and F1-3 to be set back beyond buffer.</p> <p>Construction and maintenance of permanent 1.2m high solid faunal barrier at all at-grade sections of LMC Loop eastern connection Road north of junction with road D4 within 15-30m as appropriate of Ma Tso Lung Stream buffer and construction of faunal underpass beneath road.</p> <p>Compensation for the loss of seasonally wet grassland at Ma Tso Lung by habitat restoration and enhancement along diverted section of Ma Tso Lung Stream.</p>	Minimize impacts direct and indirect impacts of habitat loss, disturbance, pollution and fragmentation on Ma Tso Lung Stream and marsh and riparian corridor of importance to species of conservation significance.	PlanD/ Project Proponent/ Developer/ Detailed Design Consultant/ Contractor. (Design of Ma Tso Lung Stream diversion and buffer zone habitat restoration measures)	KTN areas H1-1, F12 and F1-3 and Lok Ma Chau Loop Eastern Connection Road.	Detailed design and construction phases.	N/A

S.13.9	E15	Creation and enhancement of proposed Long Valley Nature Park and creation and enhancement of wetland and buffer planting within LVNP.	Compensate for wetland loss arising from the project	Project Proponent/ Contractor (LVNP Detailed Habitat Creation & Management Plan)	Long Valley, (KTN area C1-9).	Construction phase.	N/A
S13.9	E16	Creation of Green Corridors along the Sheung Yue, Ng Tung and Shek Sheung Rivers, retention and provision of screen plantings where feasible; provision of Open Space areas and development areas along river corridors; Design and erection of 2m high solid dull green site barrier fence between river channel and any active works area along or adjacent to Ng Tung, Sheung Yue and Shek Sheung Rivers. Ng Tung, Sheung Yue and Shek Sheung Rivers screen planting.	Minimize disturbance to waterbirds using Ng Tung, Sheung Yue and Shek Sheung River channels.	Detailed Design Consultant/ Contractor	Ng Tung, Sheung Yue and Shek Sheung Rivers	Detailed design and Construction phases.	N/A
S13.9	E17	Design and erection of 2m high solid dull green site barrier fence between active works areas and all areas/habitats of ecological importance on edge of development areas, including along any roads adjacent to or penetrating into areas/habitats of ecological importance. Erection of a 2m high dull green site barrier fence at the edge of the works area or 30m from Ma Tso Lung Stream and	Minimize dust, disturbance, mortality and other adverse ecological impacts on habitats, flora and fauna. Measures to minimize flight-line impacts to birds, especially breeding ardeids.	Contractor	Interface between areas/habitats/ fauna/ flora of ecological importance (e.g. KTN areas B1-3, C1-5, C1- 6, C1-	Construction phase.	N/A

		tributaries, whichever distance is the greater.			9, C2-2, C2-4, C2-5, D1-8, E1-8, G1- 3, H1-1, Ma Tso Lung Stream and tributaries; FLN areas A1-3, A1-7 and A1-9) and works areas; and around any works areas north of the Fanling Bypass and north of the Ng Tung River west of the western terminus of the Fanling Bypass. Riparian corridor of Ma Tso Lung Stream and tributaries.		
S13.9	E18	Compensatory woodland planting, management and maintenance.	Compensate for loss of secondary woodland and hillside plantation of ecological significance.	Project Proponent/ Contractor	KTN areas E1-8 and G1-3.	Construction phase.	N/A

S13.9	E19	Use opaque, non-transparent, non-reflective noise barriers for all construction sites. Unnecessary lighting should be avoided.	Minimize mortality impacts on birds.	Contractor	All construction sites	Construction phase.	N/A
S13.9	E20	<p>Pre-site clearance check for presence of flora or fauna of conservation significance and bat roosts. If any are found, measures should be proposed and implemented to avoid, minimize and/or compensate for impacts; including adjustments to design, timing of works, transplantation and translocation. Seek agreement of relevant authorities including AFCD in respect of proposed measures, then implement.</p> <p>Pre-site clearance check on all construction sites and pre – works commencement check on watercourses to be physically and/or hydrologically impacted by construction activities for presence of protected plant species/specimens of conservation significance. If any are found consider adjustments to avoid, minimize and/or compensate for impacts; including adjustments to design, timing of works,</p> <p>Pre-site clearance of construction sites in Crest Hill area, KTN areas D1-7, D1-11 and G1-5 (where Eurasian Hobby was recorded) and on Cheung Po Tau, FLN area A3-1 (where Grey Nightjar was recorded) for presence of any breeding birds/breeding sites. If any are found consider adjustments to avoid, minimize and/or compensate for impacts; including adjustments to design, timing of works, transplantation and</p>	Minimize impacts to flora and fauna of conservation significance. Minimize impacts to protected fauna and flora species. Formulate and implement mitigation measures to avoid, minimize and/or compensate for impacts; including adjustments to design, timing of works, transplantation and translocation.	Government/ Developer/ Contractor/ Ecologist	All construction sites.	Prior to clearance of vegetation and structures.	N/A

		translocation. Seek agreement of relevant authorities including AFCD in respect of proposed measures, then implement. Pre-site clearance check on all construction sites for presence of Chinese Bullfrog, translocation to suitable areas including LVNP.					
S13.9	E21	<p>Pre-works commencement check on watercourses to be physically and/or hydrologically impacted by construction activities for presence of flora or fauna of conservation significance and bat roosts. If any are found consider adjustments to avoid, minimize and/or compensate for impacts; including adjustments to design, timing of works, transplantation and translocation. Seek agreement of relevant authorities including AFCD in respect of proposed measures, then implement.</p> <p>Pre-site clearance check on all construction sites for presence of reptile species of conservation significance, capture and translocate to receptor site; review translocation options in respect to species in Ma Tso Lung area and determine whether release locally or elsewhere is appropriate. Seek agreement of relevant authorities including AFCD in respect of proposed measures then implement</p> <p>Pre-works commencement check on watercourses to be physically and/or hydrologically impacted by construction activities for presence of Small Snakehead and <i>Sommaniathephusa zanklon</i>. Capture any <i>Sommaniathephusa zanklon</i> found and translocate to Ma Tso Lung Stream/ other</p>	Minimize impacts to flora and fauna of conservation significance. Minimize impacts to protected fauna and flora species. Consider and implement adjustments to avoid, minimize or compensate for impacts; including adjustments to design, timing of works, transplantation and translocation	Government/ Developer/ Contractor/ Ecologist	All construction sites.	Prior to clearance of vegetation and structures.	N/A

		suitable areas including LVNP					
S13.9	E22	Prevention of dust, run-off and pollutants impacting Deep Bay catchment area and areas of ecological importance.	Avoid increase to pollution entering ecologically sensitive Deep Bay ecosystem.	Contractor	All construction sites.	Construction	N/A
Specific Mitigation Measures for Designated Projects							
DP2- Castle Peak Road Diversion (Major Improvement)							
Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)							
S.12.A9	LV1-DP2	General Good Practice Measures - For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to. With regard to topsoil, where identified, it should be stripped, treated appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.		Detailed Design Consultant/ Contractor	Throughout NDAs,	Prior to Construction, Construction & for all planting, this should be installed as soon as the areas become available, to achieve early establishment	N/A
S.12.A9 MM14.4	LV4-DP2	Avoid affecting Watercourses – In the detailed design, consideration should be made of watercourses, to minimize any impacts e.g. at new bridge crossings, viaducts, road alignment etc.	Avoid direct impacts to watercourses	Detailed Design Consultant/ Contractor	All watercourses, particularly the stream at Siu	Prior to Construction and Construction	N/A

		<p>Guidelines stated should be followed.</p> <p>For example, for the stream at Siu Hang San Tsuen in FLN NDA, much of the stream is located underneath the viaduct for the proposed Fanling Bypass. In order to avoid impacts to the stream, the detailed final design of the viaduct should follow guidelines and ensure that no viaduct footings or other structures are placed in the stream. Bridges and box culverts should also be used to minimize the necessity of watercourse modification and protect the watercourses where necessary.</p>			<p>Hang San Tsuen that will flow under the Fanling Bypass Eastern Section</p>	Phase	
S.12.A9 MM4	LV5- DP2	<p>Tree Protection & Preservation – Existing trees to be retained within the Project Site should be carefully protected during construction.</p> <p>In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification.</p> <p>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>	Protect and Preserve Trees	Government/ Detailed Design Consultant/ Contractor	Onsite	Prior to Construction and Construction Phase	N/A
S.12.A9 MM5	LV6- DP2	<p>Tree Transplantation – Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be</p>	Transplant Trees where suitable for transplantation	Government Detailed	<i>Onsite where possible,</i>	Prior to Construction,	N/A

		<p>transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme.</p> <p>A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC 2/2004 and 3/2006 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, HyD HQ/GN/13 „Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit" should be referred to.</p>		<p>Design Consultant/ Contractor</p>	<p><i>otherwise consider offsite locations</i></p>	<p>Construction Phase & Maintenance in Operation Phase</p>	
S.12.A9 MM6	LV7- DP2	<p>Slope Landscaping – Site formation should be reduced as far as possible. Seeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape resources and character. Woodland tree seedlings and/ or shrubs should be planted where slope gradient and site conditions allow. In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.</p>	<p>To avoid substantial slope cutting and fill slopes.</p> <p>To prevent erosion and subsequent loss of landscape resources and character.</p> <p>To ensure man-made slopes are as visually amenable as possible.</p>	<p>Government Detailed Design Consultant/ Contractor</p>	<p><i>Onsite</i></p>	<p>Prior to Construction, Construction Phase & Maintenance in Operation Phase</p>	<p>N/A</p>
S.12.A9 MM8	LV9- DP2	<p>Woodland Compensatory Planting –Specific Woodland compensatory planting is proposed for any areas of quality woodland that are unavoidably affected by the Project. The</p>	<p>Reprovide areas of woodland to compensate for</p>	<p>Project Proponent/ Detailed</p>	<p><i>In areas identified in the EIA</i></p>	<p>Prior to Construction, Construction</p>	<p>N/A</p>

	<p>location and design of the woodland compensatory planting will principally be within habitats of lower value such as upland grassland. The proposed locations are identified, for example, on the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in KTN NDA; along Fanling Bypass; and a small area in the northern FLN NDA.</p> <p>The intention of the compensatory woodland will be to recreate areas of quality woodland, not necessarily to compensate for loss of trees on a like for like basis (See E18 & E27 also).</p> <p>Native tree species are suggested for planting in the appropriate locations, including <i>Ailanthus fordii</i>, <i>Bischofia javanica</i>, <i>Castanopsis fissa</i>, <i>Celtis sinensis</i>, <i>Cinnamomum burmannii</i>, <i>Cinnamomum camphora</i>, <i>Xanthoxylum avicennae</i>, <i>Hibiscus tiliaceus</i>, <i>Liquidambar formosana</i>, <i>Sapium discolor</i>, <i>Schefflera heptaphylla</i> and <i>Ilex rotunda</i>. In addition some understory vegetation may be planted including shrubs such as <i>Atalantia buxifolia</i>, <i>Diospyros vaccinioides</i>, <i>Gardenia jasminoides</i>, <i>Ixora chinensis</i>, <i>Ligustrum sinense</i>, <i>Litsea rotundifolia</i>, <i>Melastoma malabathricum</i>, <i>Melastoma dodecandrum</i>, <i>Rhodomyrtus tomentosa</i>, <i>Rhaphiolepis indica</i>, and <i>Rhododendron simsii</i>.</p> <p>The area allocated for compensatory woodland planting allows in part for the fact that it will take some time for the compensatory planting to achieve the landscape and ecological function and value of the area to be lost. In addition, it allows for the fact that not all of the areas identified for planting will prove to be plantable, by virtue of topography and ground conditions and, especially, because though the areas identified are largely grassland it is</p>	those areas of quality woodland lost.	Design Consultant/ Contractor/ Maintenance Authority	<i>Landscape Mitigation Plans and as agreed with AFCD</i>	Phase & Maintenance in Operation Phase	
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		inevitable that these areas will already support some patches of trees and shrubs which would be inappropriate for further planting.					
S.12.A9 MM9	LV10- DP2	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. viaduct piers, noise barriers).	Soften hard surfaces and facilities	Government Detailed Design Consultant/ Contractor	<i>On appropriate structures</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9 MM11	LV11- DP2	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Government Detailed Design Consultant/ Contractor	<i>Along roads, around suitable built structures, or around VSRs to contain their view out to the NDA structures.</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9 MM12	LV12- DP2	Road Greening –For viaducts, soft landscaping should be provided to soften the hard, straight edges (for climbers used to cover the vertical, hard surfaces of the piers – see MM9 Vertical Greening) and shade tolerant plants should be planted, where light is sufficient, to improve aesthetic value of areas under viaducts. Both at grade planting and use of elevated planters should be considered for the soft landscaping of viaducts, taking into account the preference to minimize the overall viaduct bulk and integrate	To soften the hard, straight edges and provide greening along roads.	Government Detailed Design Consultant/ Contractor	<i>On viaducts or along roads.</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

		architectural forms and textural finishes which improve aesthetics. For at grade roads, planting should be considered along central dividers and on road islands e.g. in the middle of roundabouts. (Roadside planting i.e. at the road edge and not in the central divider or road island, is considered part of Screen Planting)					
S.12.A9 MM13 & EIA Annex 13	LV13- DP2	Marsh/Wetland Compensation –The proposed Long Valley Nature Park (LVNP) will be designed and implemented to enhance onwetland areas within the LVNP. (See E4,E15 and E25 also) Also see LV16, LV17, and LV18 as wetland planting should be provided along the embankments and beds of modified/ reprovisioned watercourses.	Compensate for Marsh/ Wetland lost due to the Project.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	<i>Onsite where possible. Otherwise consider offsite locations</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9 MM14.3	LV14- DP2	Enhancement Planting along Embankment - For channelized watercourses, if these are modified, the Drainage Services Department Practice Note No.1/2005 – Guidelines on Environmental Considerations for River Channel Design, should be considered and appropriate mitigation measures included ensuring the new watercourses match the existing as far as possible. Measures can include enhancement planting to upgrade the channels as appropriate, including consideration of wetland planting along embankments where appropriate; as well as consideration of the best materials for the channel lining (e.g. gabion). All measures must also ensure any necessary maintenance work can be carried out and that the channel meets all its requirements for water flow, etc. For example, a stretch of the Ma Wat River Channel in the south	Minimize the necessity of watercourse modification, protect watercourses where possible and enhance channelized watercourses	Government / Detailed Design Consultant/ Contractor	<i>Channelized watercourse, particularly the Ma Wat River Channel Diversion</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

		of FLN NDA will have to be diverted for the construction of the Fanling Bypass Eastern Section. This measure will be particularly relevant in this area.					
S.12.A9 MM15	LV15- DP2	Pond Replacement –Principles adopted in the design of the NDAs ensure that they incorporate ponds within the RODPs. All requirements for ponds stipulated in the planning documents for the formulation of the Preliminary Layout Plan (e.g. at Fung Kong Shan Park in E1-7 of KNT ND) should be adhered to.	Reprovision for ponds lost due to the Project.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	<i>E1-7 and C1-9 (LVNP) in KNT NDA and generally throughout NDA</i>	Prior to Construction, Construction Phase Maintenance in Operation Phase	N/A
Landscape and Visual (Construction)							
S.12.A9 MM16	LV16- DP2	Screen Hoarding –Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, nonreflective, recessive colours be used. Any works areas near the ecological sensitive areas should erect 2m high dull green site boundary fence. Details can refer to the ecological impact assessment (Chapter 13 of the EIA report).	To screen undesirable views of the works site.	Contractor	<i>Throughout NDAs</i>	Construction Phase	N/A
S.12.A9 MM17	LV17- DP2	Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.	To minimize glare impact to adjacent VSRs	Government / Contractor	<i>Throughout NDAs</i>	Construction and Operation Phases	N/A
Ecology (Detailed Design, Construction and Operational Phases)							
S13.9	E2-DP2	Use opaque, non-transparent, non-reflective noise barriers.	Minimize mortality impacts	Detailed	Within NDA.	Detailed	^

		Unnecessary lighting should be avoided.	on birds.	Design Consultant/ Contractor/ Maintenance Authority		design phase, Construction phase and Operation phase.	
Ecology (Construction Phase)							
S.13.9	E3-DP2	Design and erection of 2m high solid dull green site barrier fence between active works areas and all areas/habitats of ecological importance.	Minimize dust, disturbance, mortality and other adverse ecological impacts on habitats, flora and fauna.	Contractor.	Interface between areas/habitats of ecological importance (KTN area B1-3) and works areas.	Construction phase.	N/A
S13.9	E4-DP2	Compensatory native woodland planting.	Compensate for loss of plantation of ecological significance.	Project Proponent / Contractor	KTN NDA areas E1-8 and G1-3.	Construction phase.	N/A
Cultural Heritage (Construction Phase)							
S11.6.2	CH5-DP2	Conducting Construction Vibration Monitoring and Structural Strengthening Measures Construction vibration monitoring and structural strengthening measures should be conducted during Construction phase based on the assessment result of baseline condition survey and baseline vibration impact assessment, so as to ensure the construction performance meets with the vibration standard stated in the EIA report.	To minimize the potential impacts during Construction phase on any identified potential vibration impacted built heritage features	Project Proponent/ Contractor	Identified potential vibration impacted built heritage features	Construction phase, with details specified in baseline condition survey and baseline vibration impact	N/A

						assessment,	
DP3- KTN NDA Road P1 and P2 (New Road) and associated new Kwu Tung Interchange (New Road) and Pak Shek Au Interchange Improvement (Major Improvement)							
Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)							
S.12.A9	LV1-DP3	<p>General Good Practice Measures - For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to.</p> <p>With regard to topsoil, where identified, it should be stripped, treated appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.</p>		Detailed Design Consultant/ Contractor	Throughout NDAs,	Prior to Construction, Construction & for all planting, this should be installed as soon as the areas become available, to achieve early establishment	^
S.12.A9 MM14.4	LV4-DP3	<p>Avoid affecting Watercourses – In the detailed design, consideration should be made of watercourses, to minimize any impacts e.g. at new bridge crossings, viaducts, road alignment etc. Guidelines stated should be followed.</p> <p>For example, for the stream at Siu Hang San Tsuen in FLN NDA, much of the stream is located underneath the viaduct for the proposed Fanling Bypass. In order to avoid impacts to the stream, the detailed final design of the viaduct should follow guidelines and ensure that no viaduct footings or other structures are placed in the stream.</p> <p>Bridges and box culverts should also be used to minimize the necessity of watercourse modification and protect the watercourses where necessary.</p>	Avoid direct impacts to watercourses	Detailed Design Consultant/ Contractor	All watercourses, particularly the stream at Siu Hang San Tsuen that will flow under the Fanling Bypass Eastern Section	Prior to Construction and Construction Phase	N/A

S.12.A9 MM4	LV5- DP3	<p>Tree Protection & Preservation – Existing trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. 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>	Protect and Preserve Trees	Government Detailed Design Consultant/ Contractor	<i>Onsite</i>	Prior to Construction and Construction Phase	N/A
S.12.A9 MM5	LV6- DP3	<p>Tree Transplantation – 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. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme.</p> <p>A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC 2/2004 and 3/2006 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</p>	Transplant Trees where suitable for transplantation	Government Detailed Design Consultant/ Contractor	<i>Onsite where possible. Otherwise consider offsite locations.</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

		highways, that are unavoidably affected and should be transplanted, HyD HQ/GN/13 „Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit" should be referred to.					
S.12.A9 MM6	LV7- DP3	<p>Slope Landscaping – Site formation should be reduced as far as possible. Seeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape resources and character. Woodland tree seedlings and/ or shrubs should be planted where slope gradient and site conditions allow.</p> <p>In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.</p>	<p>To avoid substantial slope cutting and fill slopes.</p> <p>To prevent erosion and subsequent loss of landscape resources and character.</p> <p>To ensure man-made slopes are as visually amenable as possible.</p>	Government Detailed Design Consultant/ Contractor	<i>Onsite</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9 MM7	LV8- DP3	<p>Compensatory Planting – Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under ETWBTC 3/2006.</p> <p>Compensatory planting is proposed at the potential open areas such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots.</p> <p>Compensatory planting for shrubs should be considered in suitable locations. Native species such as <i>Melastoma malabathricum</i>, <i>Diospyros vaccinioides</i>, <i>Gardenia jasminoides</i>,</p>	Compensate for trees and shrubs lost due to the Project.	Government Detailed Design Consultant/ Contractor	<i>Onsite where possible. Otherwise consider offsite locations</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

		<i>Ixora chinensis</i> , <i>Ligustrum sinense</i> , <i>Litsea rotundifolia</i> , <i>Melastoma dodecandrum</i> , <i>Atalantia buxifolia</i> , <i>Rhodomyrtus tomentosa</i> , <i>Rhaphiolepis indica</i> , and <i>Rhododendron simsii</i> are suggested..					
S.12.A9 MM8	LV9- DP3	<p>Woodland Compensatory Planting –Specific Woodland compensatory planting is proposed for any areas of quality woodland that are unavoidably affected by the Project. The location and design of the woodland compensatory planting will principally be within habitats of lower value such as upland grassland. The proposed locations are identified, for example, on the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in KTN NDA; along Fanling Bypass; and a small area in the northern FLN NDA.</p> <p>The intention of the compensatory woodland will be to recreate areas of quality woodland, not necessarily to compensate for loss of trees on a like for like basis (See E18 & E27 also).</p> <p>Native tree species are suggested for planting in the appropriate locations, including <i>Ailanthus fordii</i>, <i>Bischofia javanica</i>, <i>Castanopsis fissa</i>, <i>Celtis sinensis</i>, <i>Cinnamomum burmannii</i>, <i>Cinnamomum camphora</i>, <i>Xanthoxylum avicennae</i>, <i>Hibiscus tiliaceus</i>, <i>Liquidambar formosana</i>, <i>Sapium discolor</i>, <i>Schefflera heptaphylla</i> and <i>Ilex rotunda</i>. In addition some understory vegetation may be planted including shrubs such as <i>Atalantia buxifolia</i>, <i>Diospyros vaccinioides</i>, <i>Gardenia jasminoides</i>, <i>Ixora chinensis</i>, <i>Ligustrum sinense</i>, <i>Litsea rotundifolia</i>, <i>Melastoma malabathricum</i>, <i>Melastoma dodecandrum</i>, <i>Rhodomyrtus tomentosa</i>, <i>Rhaphiolepis indica</i>, and <i>Rhododendron simsii</i>.</p> <p>The area allocated for compensatory woodland planting allows in</p>	Reprovide areas of woodland to compensate for those areas of quality woodland lost.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	<i>In areas identified in the EIA Landscape Mitigation Plans and as agreed with AFCD</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

		part for the fact that it will take some time for the compensatory planting to achieve the landscape and ecological function and value of the area to be lost. In addition, it allows for the fact that not all of the areas identified for planting will prove to be plantable, by virtue of topography and ground conditions and, especially, because though the areas identified are largely grassland it is inevitable that these areas will already support some patches of trees and shrubs which would be inappropriate for further planting.					
S.12.A9 MM9	LV10- DP3	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. viaduct piers, noise barriers).	Soften hard surfaces and facilities	Government Detailed Design Consultant/ Contractor	<i>On appropriate structures</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9 MM11	LV11- DP3	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Government Detailed Design Consultant/ Contractor	<i>Along roads, around suitable built structures, or around VSRs to contain their view out to the NDA structures.</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9 MM12	LV12- DP3	Road Greening –For viaducts, soft landscaping should be provided to soften the hard, straight edges (for climbers used to cover the	To soften the hard, straight edges and provide	Government Detailed	<i>On viaducts or along roads.</i>	Prior to Construction,	N/A

		vertical, hard surfaces of the piers – see MM9 Vertical Greening) and shade tolerant plants should be planted, where light is sufficient, to improve aesthetic value of areas under viaducts. Both at grade planting and use of elevated planters should be considered for the soft landscaping of viaducts, taking into account the preference to minimize the overall viaduct bulk and integrate architectural forms and textural finishes which improve aesthetics. For at grade roads, planting should be considered along central dividers and on road islands e.g. in the middle of roundabouts. (Roadside planting i.e. at the road edge and not in the central divider or road island, is considered part of Screen Planting)	greening along roads.	Design Consultant/ Contractor		Construction Phase & Maintenance in Operation Phase	
S.12.A9 MM13 EIA Annex 13	LV13- DP3	Marsh/Wetland Compensation –The proposed Long Valley Nature Park (LVNP) will be designed and implemented to enhance onwetland areas within the LVNP. (See E4,E15 and E25 also) Also see LV16, LV17, and LV18 as wetland planting should be provided along the embankments and beds of modified/ reprovisioned watercourses.	Compensate for Marsh/ Wetland lost due to the Project.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	<i>Onsite where possible. Otherwise consider offsite locations</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9 MM14.3	LV14- DP3	Enhancement Planting along Embankment - For channelized watercourses, if these are modified, the Drainage Services Department Practice Note No.1/2005 – Guidelines on Environmental Considerations for River Channel Design, should be considered and appropriate mitigation measures included ensuring the new watercourses match the existing as far as possible. Measures can include enhancement planting to upgrade the channels as appropriate, including consideration of wetland	Minimize the necessity of watercourse modification, protect watercourses where possible and enhance channelized watercourses	Government / Detailed Design Consultant/ Contractor	<i>Channelized watercourse, particularly the Ma Wat River Channel Diversion</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

		<p>planting along embankments where appropriate; as well as consideration of the best materials for the channel lining (e.g. gabion). All measures must also ensure any necessary maintenance work can be carried out and that the channel meets all its requirements for water flow, etc.</p> <p>For example, a stretch of the Ma Wat River Channel in the south of FLN NDA will have to be diverted for the construction of the Fanling Bypass Eastern Section. This measure will be particularly relevant in this area.</p>					
S.12.A9 MM15	LV15- DP3	<p>Pond Replacement –Principles adopted in the design of the NDAs ensure that they incorporate ponds within the RODPs.</p> <p>All requirements for ponds stipulated in the planning documents for the formulation of the Preliminary Layout Plan (e.g. at Fung Kong Shan Park in E1-7 of KNT ND) should be adhered to.</p>		<p>Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority</p>	<p><i>E1-7 and C1-9 (LVNP) in KNT NDA and generally throughout NDA</i></p>	<p>Prior to Construction, Construction Phase Maintenance in Operation Phase</p>	N/A
Landscape and Visual (Construction)							
S.12.A9 MM16	LV16- DP3	<p>Screen Hoarding –Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, nonreflective, recessive colours be used.</p> <p>Any works areas near the ecological sensitive areas should erect 2m high dull green site boundary fence. Details can refer to the ecological impact assessment (Chapter 13 of the EIA report).</p>	<p>To screen undesirable views of the works site.</p>	Contractor	<p><i>Throughout NDAs</i></p>	Construction Phase	N/A

S.12.A9 MM17	LV17- DP3	Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.	To minimize glare impact to adjacent VSRs	Government / Contractor	Throughout NDAs	Construction and Operation Phases	N/A
Ecology (Detailed Design, Construction and Operational Phases)							
S13.9	E3-DP3	Use opaque, non-transparent, non-reflective noise barriers. Unnecessary lighting should be avoided.	Minimize mortality impacts on birds.	Detailed Design Consultant/ Contractor Maintenance Authority.	Throughout.	Detailed design, Construction and Operation phases.	^
Ecology (Construction Phase)							
S.13.9	E4-DP3	Creation of proposed Long Valley Nature Park and creation and enhancement of wetland and woodland areas and buffer planting within LVNP.	Compensate for wetland loss arising from the project.	Project Proponent/ Contractor (LVNP Detailed Habitat Creation & Management Plan).	Long Valley	Construction phase.	N/A
S.13.9	E5-DP3	Design and erection of 2m high solid dull green site barrier fence between active works areas and all areas/habitats of ecological importance on edge of development areas, including along any roads adjacent to or penetrating into areas/habitats of ecological importance.	Minimize dust, disturbance, mortality and other adverse ecological impacts on habitats, flora and fauna.	Contractor.	Interface between areas/habitats of ecological importance (KTN	Construction phase.	N/A

			Measures to minimize flightline impacts to birds,		areas B1-3, H1-1) and works areas.		
S13.9	E6-DP3	Compensatory native woodland planting.	Compensate for loss of plantation of ecological significance.	Project Proponent / Contractor	KTN areas E1-8 and G1-3.	Construction phase.	N/A
DP4- KTN NDA Road D1 to D5 (New Road)							
Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)							
S.12.A9	LV1-DP4	General Good Practice Measures - For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to. With regard to topsoil, where identified, it should be stripped, treated appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.		Detailed Design Consultant/ Contractor	<u>Throughout NDAs,</u>	Prior to Construction, Construction & for all planting, this should be installed as soon as the areas become available, to achieve early establishment	N/A
S.12.A9 MM1	LV2-DP4	Minimum Topographical Change –To minimize landscape and visual impacts, the footprint and elevation of such elements should be optimized to reduce topographical/ landform changes, as well as reduce land take and interference with natural terrain. Where there is a need to significantly cut into the existing landform, retaining walls should be considered as well as cut slopes, to minimize landform changes and land resumption, while also considering visual amenity. Earthworks and engineered slopes should be designed to be a visually	Reduce topographical changes and minimize land resumption	Government / Detailed Design Consultant/ Contractor/	<u>Throughout NDAs,</u> <u>particularly for</u> <u>reservoirs</u>	Prior to Construction	N/A

		interesting landform, compatible with the surrounding landscape and to mimic the natural contouring and terrain e.g. introduction and continuation of natural features such as spurs and ridges where appropriate, to support assimilation with the hillside setting.					
S.12.A9 MM2	LV3- DP4	<p>Detailed Design (Visual) –The footprint and massing of development components and the works area should also be kept to a practical minimum and the detailed design of development components for Construction phase should follow the Sustainable Building Design Guidelines. The form, textures, finishes and colours of the proposed development components should aim to be compatible with the existing surroundings. To improve visual amenity designs should be aesthetically pleasing and treatment of structures also improve visual amenity. For example, natural building materials such as stone and timber, should be considered for architectural features, and light earthy tone colours such as shades of green, shades of grey, shades of brown and off-white should also be considered to reduce the visibility of the development components, including all roadwork, buildings and noise barriers. In addition, the design of structures should consider green roofs were feasible, following stated guidelines.</p> <p>All Noise barriers, particularly noise barriers but also any barriers proposed for ecological impact mitigation, should be kept to a practical minimum, and be of such a designed as to integrate as well as possible into the surrounding visual context and be as low as practical to minimize blocking views. Noise</p>	Improve visual amenity of the new buildings, NDAs in general and integrate as best possible into the surrounding landscape	Detailed Design Consultant/	Throughout NDAs	Prior to Construction	N/A

		<p>barrier design, including vertical, cantilever or curved, and noise enclosures including semi-enclosure and full enclosure, at grade and/ or elevated, should follow the guidelines stated.</p> <p>Construction time frame should also be considered and designs seek to keep it to a practical minimum.</p>					
S.12.A9 MM4	LV4- DP4	<p>Tree Protection & Preservation – Existing trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. 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>	Protect and Preserve Trees	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction and Construction Phase	*
S.12.A9 MM5	LV5- DP4	<p>Tree Transplantation – 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. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary</p>	Transplant Trees where suitable for transplantation	Government / Detailed Design Consultant/ Contractor	Onsite possible. Consider locations where Otherwise offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

		<p>tree root and crown preparation periods shall be allowed in the project programme.</p> <p>A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC 2/2004 and 3/2006 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, HyD HQ/GN/13 „Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit' should be referred to.</p>					
S.12.A9 MM6	LV6- DP4	<p>Slope Landscaping – Site formation should be reduced as far as possible. Seeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape resources and character. Woodland tree seedlings and/ or shrubs should be planted where slope gradient and site conditions allow.</p> <p>In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.</p>	<p>To avoid substantial slope cutting and fill slopes.</p> <p>To prevent erosion and subsequent loss of landscape resources and character.</p> <p>To ensure man-made slopes are as visually amenable as possible.</p>	<p>Government Detailed Design Consultant/ Contractor</p>	Onsite	<p>Prior to Construction, Construction Phase & Maintenance in Operation Phase</p>	N/A
S.12.A9 MM7	LV7- DP4	<p>Compensatory Planting – Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process</p>	<p>Compensate for trees and shrubs lost due to the Project.</p>	<p>Government Detailed Design Consultant/ Contractor</p>	<p>Onsite where possible. Otherwise consider offsite locations</p>	<p>Prior to Construction, Construction Phase & Maintenance in</p>	N/A

		<p>under ETWBTC 3/2006.</p> <p>Compensatory planting is proposed at the potential open areas such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots. Compensatory planting for shrubs should be considered in suitable locations. Native species such as <i>Melastoma malabathricum</i>, <i>Diospyros vaccinioides</i>, <i>Gardenia jasminoides</i>, <i>Ixora chinensis</i>, <i>Ligustrum sinense</i>, <i>Litsea rotundifolia</i>, <i>Melastoma dodecandrum</i>, <i>Atalantia buxifolia</i>, <i>Rhodomyrtus tomentosa</i>, <i>Raphiolepis indica</i>, and <i>Rhododendron simsii</i> are suggested..</p>				Operation Phase	
S.12.A9 MM8	LV8- DP4	<p>Woodland Compensatory Planting –Specific Woodland compensatory planting is proposed for any areas of quality woodland that are unavoidably affected by the Project. The location and design of the woodland compensatory planting will principally be within habitats of lower value such as upland grassland. The proposed locations are identified, for example, on the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in KTN NDA; along Fanling Bypass; and a small area in the northern FLN NDA.</p> <p>The intention of the compensatory woodland will be to recreate areas of quality woodland, not necessarily to compensate for loss of trees on a like for like basis (See E18 & E27 also).</p> <p>Native tree species are suggested for planting in the appropriate locations, including <i>Ailanthus fordii</i>, <i>Bischofia javanica</i>, <i>Castanopsis fissa</i>, <i>Celtis sinensis</i>, <i>Cinnamomum burmannii</i>, <i>Cinnamomum camphora</i>, <i>Xanthoxylum avicennae</i>, <i>Hibiscus</i></p>	Reprovide areas of woodland to compensate for those areas of quality woodland lost.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	In areas identified in the EIA Landscape Mitigation Plans and as agreed with AFCD	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

		<p>tiliaceus, Liquidambar formosana, Sapium discolor, Schefflera heptaphylla and Ilex rotunda. In addition some understory vegetation may be planted including shrubs such as Atalantia buxifolia, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma malabathricum, Melastoma dodecandrum, Rhodomyrtus tomentosa, Rhapsiolepis indica, and Rhododendron simsii. The area allocated for compensatory woodland planting allows in part for the fact that it will take some time for the compensatory planting to achieve the landscape and ecological function and value of the area to be lost. In addition, it allows for the fact that not all of the areas identified for planting will prove to be plantable, by virtue of topography and ground conditions and, especially, because though the areas identified are largely grassland it is inevitable that these areas will already support some patches of trees and shrubs which would be inappropriate for further planting.</p>					
S.12.A9 MM9	LV9- DP4	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. viaduct piers, noise barriers).	Soften hard surfaces and facilities	Government / Detailed Design Consultant/ Contractor	On appropriate structures	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9 MM11	LV10- DP4	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the	Government / Detailed Design Consultant/ Contractor	Along roads, around suitable built structures , or around VSRs to	Prior to Construction, Construction Phase &	N/A

			surrounding environment and create a pleasant pedestrian environment		contain their view out to the NDA structures.	Maintenance in Operation Phase	
S.12.A9 MM12	LV11- DP4	Road Greening –For viaducts, soft landscaping should be provided to soften the hard, straight edges (for climbers used to cover the vertical, hard surfaces of the piers – see MM9 Vertical Greening) and shade tolerant plants should be planted, where light is sufficient, to improve aesthetic value of areas under viaducts. Both at grade planting and use of elevated planters should be considered for the soft landscaping of viaducts, taking into account the preference to minimize the overall viaduct bulk and integrate architectural forms and textural finishes which improve aesthetics. For at grade roads, planting should be considered along central dividers and on road islands e.g. in the middle of roundabouts. (Roadside planting i.e. at the road edge and not in the central divider or road island, is considered part of Screen Planting)	To soften the hard, straight edges and provide greening along roads.	Government Detailed Design Consultant/ Contractor	On viaducts or along roads.	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9 MM13 & EIA Annex 13	LV12- DP4	Marsh/Wetland Compensation –The proposed Long Valley Nature Park (LVNP) will be designed and implemented to enhance on-wetland areas within the LVNP. (See E4,E15 and E25 also) Also see LV16, LV17, and LV18 as wetland planting should be provided along the embankments and beds of modified/ re-provisioned watercourses.	Compensate for Marsh/ Wetland lost due to the Project.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9 MM15	LV13- DP4	Pond Replacement –Principles adopted in the design of the NDAs ensure that they incorporate ponds within the RODPs. All requirements for ponds stipulated in the planning documents	Reprovision for ponds lost due to the Project.	Project Proponent/ Detailed Design	E1-7 and C1-9 (LVNP) in KNT NDA and generally	Prior to Construction, Construction	N/A

		for the formulation of the Preliminary Layout Plan (e.g. at Fung Kong Shan Park in E1-7 of KNT ND) should be adhered to.		Consultant/ Contractor/ Maintenance Authority	throughout NDA	Phase Maintenance in Operation Phase	
Landscape and Visual (Construction)							
S.12.A9 MM16	LV14- DP4	Screen Hoarding –Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, non-reflective, recessive colours be used. Any works areas near the ecological sensitive areas should erect 2m high dull green site boundary fence. Details can refer to the ecological impact assessment (Chapter 13 of the EIA report).	To screen undesirable views of the works site.	Contractor			N/A
S.12.A9 MM17	LV15- DP4	Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.	To minimize glare impact to adjacent VSRs	Government / Contractor	<u>Throughout NDAs</u>	Construction and Operation Phases	N/A
Ecology (Prior to Detailed Design Prior to Construction Phase)							
S. 13.9	E1- DP4	Egretry Habitat Creation & Management Plan (EHCMP) and Woodland Planting and Management Plan (WPMP)	Compensate for loss of Man Kam To Road egretry. Compensate for loss of secondary woodland and hillside plantation of ecological significance.	Project Proponent/ Detailed Design Consultant (EHCMP and WPMP).	FLN area A1-7 (egretry compensation). KTN areas E1-8 and G1-3 (woodland	Detailed design phase.	N/A

					compensation).		
Ecology (Detailed Design, Construction and Operational Phases)							
S13.9	E2-DP4	Use opaque, non-transparent, non-reflective noise barriers. Unnecessary lighting should be avoided.	Minimize mortality impacts on birds.	Detailed Design Consultant/ Contractor Maintenance Authority.	Throughout.	Throughout.	N/A
Ecology (Construction Phase)							
S.13.9	E3-DP4	Design and erection of 2m high solid dull green site barrier fence between active works areas and all areas/habitats of ecological importance.	Minimize dust, disturbance, mortality and other adverse ecological impacts on habitats, flora and fauna.	Contractor.	Interface between areas/habitats of ecological importance (KTN areas B1-3, E1-8, G1-3 and H1-1) and works areas	Construction phase.	N/A
S13.9	E4-DP4	Compensatory native woodland planting.	Compensate for loss of plantation of ecological significance.	Project Proponent / Contractor	KTN areas E1-8 and G1-3.	Construction phase.	N/A
S13.8	E5-DP4	Maintenance of compensatory native woodland planting.	Compensate for loss of plantation of ecological significance.	Maintenance Authority.	KTN areas E1-8 and G1-3.	Operation phase	N/A
Cultural Heritage (Pre-construction Phase)							
S11.6.1	CH1-DP4	<u>Undertaking Survey-cum-Rescue Excavation</u> A Survey-cum-Rescue Excavation should be conducted after land resumption and before the commencement of construction works to define the precise archaeological deposits extent and to preserve the archaeological resources by record. The	To define the precise archaeological deposits extent and to preserve the archaeological resources as far as possible.	Project Proponent / Contractor/ Qualified Archaeologist	In KTN NDA, for Site 1	After land resumption but before Construction commencement of	N/A

		excavation should be conducted by a professional archaeologist and prior to fieldwork commencement, the archaeologist should obtain a Licence to Excavate and Search for Antiquities from the Authority under the AM Ordinance.				the zones	
S11.6.1	CH2-DP4	<p><u>Undertaking Further Archaeological Survey to Cover the Outstanding Areas</u></p> <p>Further archaeological surveys to cover the outstanding areas of the not-yet-surveyed-area with medium archaeological potential located with areas with proposed development as presented in Figure 11.9 should be implemented after land resumption to confirm and verify the findings of the EIA. The survey should be conducted by a professional archaeologist and prior to fieldwork commencement, the archaeologist should obtain a Licence to Excavate and Search for Antiquities from the Authority under the AM Ordinance. It should be noted that the scope of further archaeological survey is based on the current proposed alignment. Any additional works areas which have not been covered by the current archaeological impact assessment should be covered as soon as possible. Subject to the findings of the archaeological survey to be conducted after land resumption, additional mitigation measures would be designed and implemented before the commencement of construction works to mitigate the adverse impact.</p>	To confirm and verify the findings of the EIA	Project Proponent/ Contractor/ Qualified Archaeologist	In the not-yet-surveyed- areas with medium archaeological potential located within the work extent of DP4	After land resumption but before construction	N/A
S11.6.1	CH3-DP4	<p><u>Undertaking Induction Training</u></p> <p>Induction training should be provided to the construction Contractor before the commencement of the excavation works in Spot E. An induction will be conducted as part of the</p>	To preserve the archaeological resources as far as possible	Project Proponent/ Contractor/ Qualified	Spot E	Before the commencement of the excavation works and before	N/A

		environmental health and safety induction programme to all site staff before they are deployed on site. The induction will include an introduction on the historical development of the Site, the possible archaeological remains that may be encountered during ground excavation works as well as the reporting procedures in case suspected archaeological remains are identified. A set of the presentation material (in the form of power point presentation) with content details will be prepared by an archaeologist and submitted to AMO for reference and record purpose. The first induction briefing will be video recorded and it will be used as induction briefing material for new site staff.		Archaeologist		site staff are deployed on site	
S11.6.2	CH4-DP4	<u>Conducting Photographic and Cartographic Records Prior to Removal/Relocation of Impacted Built Heritages</u> Prior to removal/relocation of the directly impacted historical buildings and cultural/historical landscape features, photographic and cartographic records should be conducted to preserve them by record. Liaison with and obtaining agreement from the descendants of these features will be carried out by the Project Proponent.	To preserve the directly impacted sites by record prior to their removal / relocation	Project Proponent/ Contractor	Entrance Gate of HKT03, KT16, KT17 and KT18	Prior to Removal / Relocation of features before commencement of construction works	N/A
S11.6.2	CH5-DP4	<u>Undertaking baseline condition survey and baseline vibration impact assessment</u> In case any potential vibration impact on any nearby built heritage features are identified during the pre-construction stage of the Project, prior to commencement of construction works, a baseline condition survey and baseline vibration impact assessment should be conducted by a qualified building surveyor or a qualified structural engineer to define the vibration	To minimize the vibration impacts during preconstruction stage on any identified potential vibration impacted built heritage features	Project Proponent/ Contractor	HKT03 (Main Building) and G308	Preconstruction stage before commencement of construction works	N/A

		limit (a vibration limit at 15mm/s could be adopted for historic buildings) and to evaluate if construction vibration monitoring and structural strengthening measures are required during construction phase so as to ensure the construction performance meets with the vibration standard stated in the EIA report.					
S11.6.2	CH6-DP4	<u>Relocation of Built Heritages</u> Relocation of built heritages to a reasonable location nearby may be required.	To preserve the directly impacted sites by relocation	Project Proponent/ Contractor	Entrance Gate of HKT03	After the photographic and cartographic records and before commencement of construction works	N/A
<i>Cultural Heritage (Construction Phase)</i>							
S11.6.2	CH7-DP4	<u>Conducting Construction Vibration Monitoring and Structural Strengthening Measures</u> Construction vibration monitoring and structural strengthening measures should be conducted during Construction phase based on the assessment result of baseline condition survey and baseline vibration impact assessment, so as to ensure the construction performance meets with the vibration standard stated in the EIA report.	To minimize the potential impacts during Construction phase on any identified potential vibration impacted built heritage features	Contractor	Identified potential vibration impacted built heritage features	Construction phase, with details specified in baseline condition survey and baseline vibration impact assessment,	N/A
<i>DP5- New sewage pumping stations (SPSs) in KTN NDA</i>							
<i>Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)</i>							
S.12.B9	S.12.B9	General Good Practice Measures - For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to try and restore these to their former state		Detailed Design Consultant/	Throughout NDAs,	Prior to Construction, Construction &	N/A

		to suit future land use, should be adhered to. With regard to topsoil, where identified, it should be stripped, treated appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.		Contractor/		for all planting, this should be installed as soon as the areas become available, to achieve early establishment	
S.12.B9 MM1	LV2- DP5	<ul style="list-style-type: none"> Minimum Topographical Change –To minimize landscape and visual impacts, the footprint and elevation of such elements should be optimized to reduce topographical/landform changes, as well as reduce land take and interference with natural terrain. Where there is a need to significantly cut into the existing landform, retaining walls should be considered as well as cut slopes, to minimize landform changes and land resumption, while also considering visual amenity. Earthworks and engineered slopes should be designed to be a visually interesting landform, compatible with the surrounding landscape and to mimic the natural contouring and terrain e.g. introduction and continuation of natural features such as spurs and ridges where appropriate, to support assimilation with the hillside setting. 	Reduce topographical changes and minimize land resumption	Government / Detailed Design Consultant/ Contractor/	Throughout NDAs, particularly for reservoirs	Prior to Construction	N/A
S.12.B9 MM2	LV3- DP5	Detailed Design (Visual) –The footprint and massing of development components and the works area should also be kept to a practical minimum and the detailed design of development components for Construction phase should follow the Sustainable	Improve visual amenity of the new buildings, NDAs in general and integrate as best possible into the	Detailed Design Consultant/	Throughout NDAs	Throughout NDAs	N/A

		<p>Building Design Guidelines. The form, textures, finishes and colours of the proposed development components should aim to be compatible with the existing surroundings. To improve visual amenity designs should be aesthetically pleasing and treatment of structures also improve visual amenity. For example, natural building materials such as stone and timber, should be considered for architectural features, and light earthy tone colours such as shades of green, shades of grey, shades of brown and off-white should also be considered to reduce the visibility of the development components, including all roadwork, buildings and noise barriers. In addition, the design of structures should consider green roofs were feasible, following stated guidelines.</p> <ul style="list-style-type: none"> • All Noise barriers, particularly noise barriers but also any barriers proposed for ecological impact mitigation, should be kept to a practical minimum, and be of such a designed as to integrate as well as possible into the surrounding visual context and be as low as practical to minimize blocking views. Noise barrier design, including vertical, cantilever or curved, and noise enclosures including semi-enclosure and full enclosure, at grade and/ or elevated, should follow the guidelines stated. • Construction time frame should also be considered 	surrounding landscape				
S.12.B9 MM4	LV4- DP5	<p>Tree Protection & Preservation – Existing trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection</p>	Protect and Preserve Trees	Government Detailed Design Consultant/	Onsite	Prior to Construction and Construction	^

		<p>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		Phase	
S.12.B9 MM5	LV5- DP5	<p>Tree Transplantation – 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. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme.</p> <p>• A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC 2/2004 and 3/2006 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</p>	Transplant Trees where suitable for transplantation	Government Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite location.	Prior to Construction,, Construction Phase & Maintenance in Operation Phase	N/A

		highways, that are unavoidably affected and should be transplanted, HyD HQ/GN/13 „Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit" should be referred to.					
S.12.B9 MM6	LV6- DP5	<p>Slope Landscaping – Site formation should be reduced as far as possible. Seeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape resources and character. Woodland tree seedlings and/ or shrubs should be planted where slope gradient and site conditions allow.</p> <p>• In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.</p>	<p>To avoid substantial slope cutting and fill slopes.</p> <p>To prevent erosion and subsequent loss of landscape resources and character.</p> <p>To ensure man-made slopes are as visually amenable as possible.</p>	Government/ Detailed Design Consultant/	Onsite	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.B9 MM7	LV7- DP5	<p>Compensatory Planting – Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under ETWBTC 3/2006.</p> <p>Compensatory planting is proposed at the potential open areas such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots.</p>	Compensate for trees and shrubs lost due to the Project.	Government/ Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

		<ul style="list-style-type: none"> Compensatory planting for shrubs should be considered in suitable locations. Native species such as <i>Melastoma malabathricum</i>, <i>Diospyros vaccinioides</i>, <i>Gardenia jasminoides</i>, <i>Ixora chinensis</i>, <i>Ligustrum sinense</i>, <i>Litsea rotundifolia</i>, <i>Melastoma dodecandrum</i>, <i>Atalantia buxifolia</i>, <i>Rhodomyrtus tomentosa</i>, <i>Raphiolepis indica</i>, and <i>Rhododendron simsii</i> are suggested.. 					
S.12.B9 MM8	LV8- DP5	<p>Woodland Compensatory Planting –Specific Woodland compensatory planting is proposed for any areas of quality woodland that are unavoidably affected by the Project. The location and design of the woodland compensatory planting will principally be within habitats of lower value such as upland grassland. The proposed locations are identified, for example, on the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in KTN NDA; along Fanling Bypass; and a small area in the northern FLN NDA.</p> <p>The intention of the compensatory woodland will be to recreate areas of quality woodland, not necessarily to compensate for loss of trees on a like for like basis (See E18 & E27 also).</p> <p>Native tree species are suggested for planting in the appropriate locations, including <i>Ailanthus fordii</i>, <i>Bischofia javanica</i>, <i>Castanopsis fissa</i>, <i>Celtis sinensis</i>, <i>Cinnamomum burmannii</i>, <i>Cinnamomum camphora</i>, <i>Xanthoxylum avicennae</i>, <i>Hibiscus tiliaceus</i>, <i>Liquidambar formosana</i>, <i>Sapium discolor</i>, <i>Schefflera heptaphylla</i> and <i>Ilex rotunda</i>. In addition some understory</p>	Reprovide areas of woodland to compensate for those areas of quality woodland lost.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	In areas identified in the EIA Landscape Mitigation Plans and as agreed with AFCD	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

		<p>vegetation may be planted including shrubs such as <i>Atalantia buxifolia</i>, <i>Diospyros vaccinioides</i>, <i>Gardenia jasminoides</i>, <i>Ixora chinensis</i>, <i>Ligustrum sinense</i>, <i>Litsea rotundifolia</i>, <i>Melastoma malabathricum</i>, <i>Melastoma dodecandrum</i>, <i>Rhodomyrtus tomentosa</i>, <i>Rhaphiolepis indica</i>, and <i>Rhododendron simsii</i>.</p> <ul style="list-style-type: none"> • The area allocated for compensatory woodland planting allows in part for the fact that it will take some time for the compensatory planting to achieve the landscape and ecological function and value of the area to be lost. In addition, it allows for the fact that not all of the areas identified for planting will prove to be plantable, by virtue of topography and ground conditions and, especially, because though the areas identified are largely grassland it is inevitable that these areas will already support some patches of trees and shrubs which would be inappropriate for further planting. 					
S.12.B9 MM9	LV9- DP5	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. viaduct piers, noise barriers).	Soften hard surfaces and facilities	Government / Detailed Design Consultant/ Contractor	<i>On appropriate structures</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.B9 MM10	LV10- DP5	<ul style="list-style-type: none"> • Green Roof – Roof greening where appropriate should be established on proposed buildings as per the guidelines stated. These guidelines provide further details including information regarding structural loading, design, 	Reduce exposure to untreated concrete surfaces and particularly mitigate	Government / Detailed Design Consultant/	<i>On appropriate buildings</i>	Prior to Construction, Construction Phase &	N/A

		maintenance, etc. considerations as well as providing information on what types of plants might be suitable.	visual impact to VSRs at high levels. Provide greening.	Contractor		Maintenance in Operation Phase	
S.12.B9 MM11	LV11- DP5	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Government / Detailed Design Consultant/ Contractor	<i>Along roads, around suitable built structures, or around VSRs to contain their view out to the NDA structures.</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.B9 MM14.3	LV12- DP5	Enhancement Planting along Embankment - For channelized watercourses, if these are modified, the Drainage Services Department Practice Note No.1/2005 – Guidelines on Environmental Considerations for River Channel Design, should be considered and appropriate mitigation measures included ensuring the new watercourses match the existing as far as possible. Measures can include enhancement planting to upgrade the channels as appropriate, including consideration of wetland planting along embankments where appropriate; as well as consideration of the best materials for the channel lining (e.g. gabion). All measures must also ensure any necessary maintenance work can be carried out and that the channel meets all its requirements for water flow, etc. • For example, a stretch of the Ma Wat River Channel in the	Minimize the necessity of watercourse modification, protect watercourses where possible and enhance channelized watercourses	Government / Detailed Design Consultant/ Contractor	<u>Channelized watercourse, particularly the Ma Wat River Channel Diversion</u>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

		south of FLN NDA will have to be diverted for the construction of the Fanling Bypass Eastern Section. This measure will be particularly relevant in this area.					
Landscape and Visual (Construction)							
S.12.B9 MM16	LV13- DP5	<p>Screen Hoarding –Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, nonreflective, recessive colours be used.</p> <ul style="list-style-type: none"> Any works areas near the ecological sensitive areas should erect 2m high dull green site boundary fence. Details can refer to the ecological impact assessment (Chapter 13 of the EIA report). 	To screen undesirable views of the works site.	Contractor	<i>Throughout NDAs</i>	Construction Phase	N/A
S.12.B9 MM17	LV14- DP5	<p>Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase.</p> <ul style="list-style-type: none"> Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase. 	To minimize glare impact to adjacent VSRs	Government / Contractor	<i>Throughout NDAs</i>	Construction and Operation Phases	^
Ecology (Construction Phase)							
S.13.9	E1-DP5	Design and erection of 2m high solid dull green site barrier fence between active works areas and all areas/habitats of ecological importance.	Minimize dust, disturbance, mortality and other adverse	Contractor.	<i>Interface between areas/habitats of ecological</i>	Construction phase.	N/A

			ecological impacts on habitats, flora and fauna.		importance and works areas (all sides of KTN area F1-2).		
DP7-Utilization of Treated Sewage Effluent (TSE) from Shek Wu Hui Sewage Treatment Works (SWHSTW)							
Landscape and Visual (Construction Phase and Operational Phase)							
S.12.9 MM4	LV1- DP7	<p>Tree Protection & Preservation – Existing trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. 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>	Protect and Preserve Trees	Government / Detailed Design Consultant/ Contractor	<u>Onsite</u>	Prior to Construction and Construction Phase	N/A
S.12.9 MM9	LV2- DP7	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. building edges, piers).	Soften hard surfaces and facilities	Government / Detailed Design Consultant/ Contractor	<u>On appropriate structures</u>	Prior to Construction, Construction Phase & Maintenance	N/A

						in Operation Phase	
S.12.9 MM10	LV3- DP7	Green Roof – Roof greening where appropriate should be established on proposed buildings as per the guidelines stated. These guidelines provide further details including information regarding structural loading, design, maintenance, etc. considerations as well as providing information on what types of plants might be suitable.	Reduce exposure to untreated concrete surfaces and particularly mitigate visual impact to VSRs at high levels. Provide greening.	Government / Detailed Design Consultant/ Contractor	<u>On appropriate buildings</u>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
DP10- Fanling Bypass Eastern Section (New Road)							
Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)							
S.12.D9	LV1- DP10	General Good Practice Measures - For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to. With regard to topsoil, where identified, it should be stripped, treated appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.		Detailed Design Consultant/ Contractor	<u>Throughout NDAs.</u>	Prior to Construction, Construction & for all planting, this should be installed as soon as the areas become available, to achieve early establishment	^
S.12.D9 MM1	LV2- DP10	Minimum Topographical Change –To minimize landscape and visual impacts, the footprint and elevation of such elements should be optimized to reduce topographical/ landform changes, as well as reduce land take and interference with natural terrain. Where there is a need to significantly cut into the existing landform, retaining walls should be considered as well as cut	Reduce topographical changes and minimize land resumption	Government/ Detailed Design Consultant/ Contractor	<u>Throughout NDAs.</u> <u>particularly for reservoirs</u>	Prior to Construction	N/A

		slopes, to minimize landform changes and land resumption, while also considering visual amenity. Earthworks and engineered slopes should be designed to be a visually interesting landform, compatible with the surrounding landscape and to mimic the natural contouring and terrain e.g. introduction and continuation of natural features such as spurs and ridges where appropriate, to support assimilation with the hillside setting.					
S.12.D9 MM4	LV3- DP10	<p>Tree Protection & Preservation – Existing trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. 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>	Protect and Preserve Trees	Government/ Detailed Design Consultant/ Contractor	<u>Onsite</u>	Prior to Construction and Construction Phase	^
S.12.D9 MM5	LV4- DP10	Tree Transplantation – 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	Transplant Trees where suitable for transplantation	Government/ Detailed Design Consultant/	<u>Onsite where possible. Otherwise</u>	Prior to Construction, Construction	N/A

		<p>temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme.</p> <p>A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC 2/2004 and 3/2006 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, HyD HQ/GN/13 'Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit' should be referred to.</p>		Contractor	<u>consider offsite locations</u>	Phase & Maintenance in Operation Phase	
S.12.D9 MM6	LV5- DP10	<p>Slope Landscaping – Site formation should be reduced as far as possible. Seeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape resources and character. Woodland tree seedlings and/ or shrubs should be planted where slope gradient and site conditions allow.</p> <p>In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.</p>	<p>To avoid substantial slope cutting and fill slopes.</p> <p>To prevent erosion and subsequent loss of landscape resources and character.</p> <p>To ensure man-made slopes are as visually amenable as possible.</p>	Government/ Detailed Design Consultant/ Contractor	<u>Onsite</u>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.D9 MM7	LV6- DP10	Compensatory Planting – Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant	Compensate for trees and shrubs lost due to the	Government/ Detailed Design	<u>Onsite where possible.</u>	Prior to Construction,	N/A

		<p>Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under ETWBTC 3/2006.</p> <p>Compensatory planting is proposed at the potential open areas such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots. Compensatory planting for shrubs should be considered in suitable locations. Native species such as <i>Melastoma malabathricum</i>, <i>Diospyros vaccinioides</i>, <i>Gardenia jasminoides</i>, <i>Ixora chinensis</i>, <i>Ligustrum sinense</i>, <i>Litsea rotundifolia</i>, <i>Melastoma dodecandrum</i>, <i>Atalantia buxifolia</i>, <i>Rhodomyrtus tomentosa</i>, <i>Rhaphiolepis indica</i>, and <i>Rhododendron simsii</i> are suggested.</p>	Project.	Consultant/ Contractor	<u>Otherwise</u> <u>consider offsite</u> <u>locations</u>	Construction Phase & Maintenance in Operation Phase	
S.12.D9 MM8	LV7- DP10	<p>Woodland Compensatory Planting –Specific Woodland compensatory planting is proposed for any areas of quality woodland that are unavoidably affected by the Project. The location and design of the woodland compensatory planting will principally be within habitats of lower value such as upland grassland. The proposed locations are identified, for example, on the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in KTN NDA; along Fanling Bypass; and a small area in the northern FLN NDA.</p> <p>The intention of the compensatory woodland will be to recreate areas of quality woodland, not necessarily to compensate for loss of trees on a like for like basis (See E18 & E27 also).</p> <p>Native tree species are suggested for planting in the appropriate</p>	Reprovide areas of woodland to compensate for those areas of quality woodland lost.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	<u>In areas identified</u> <u>in the EIA</u> <u>Landscape</u> <u>Mitigation Plans</u> <u>and as agreed</u> <u>with AFCD</u>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

		<p>locations, including <i>Ailanthus fordii</i>, <i>Bischofia javanica</i>, <i>Castanopsis fissa</i>, <i>Celtis sinensis</i>, <i>Cinnamomum burmannii</i>, <i>Cinnamomum camphora</i>, <i>Xanthoxylum avicennae</i>, <i>Hibiscus tiliaceus</i>, <i>Liquidambar formosana</i>, <i>Sapium discolor</i>, <i>Schefflera heptaphylla</i> and <i>Ilex rotunda</i>. In addition some understory vegetation may be planted including shrubs such as <i>Atalantia buxifolia</i>, <i>Diospyros vaccinioides</i>, <i>Gardenia jasminoides</i>, <i>Ixora chinensis</i>, <i>Ligustrum sinense</i>, <i>Litsea rotundifolia</i>, <i>Melastoma malabathricum</i>, <i>Melastoma dodecandrum</i>, <i>Rhodomyrtus tomentosa</i>, <i>Rhaphiolepis indica</i>, and <i>Rhododendron simsii</i>. The area allocated for compensatory woodland planting allows in part for the fact that it will take some time for the compensatory planting to achieve the landscape and ecological function and value of the area to be lost. In addition, it allows for the fact that not all of the areas identified for planting will prove to be plantable, by virtue of topography and ground conditions and, especially, because though the areas identified are largely grassland it is inevitable that these areas will already support some patches of trees and shrubs which would be inappropriate for further planting.</p>					
S.12.D9 MM9	LV8- DP10	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. viaduct piers, noise barriers).	Soften hard surfaces and facilities	Government/ Detailed Design Consultant/ Contractor	<u>On appropriate structures</u>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.D9	LV9-	Screen Planting – Tall screen/buffer trees and shrubs should be	To screen proposed	Government/	<u>Along roads.</u>	Prior to	N/A

MM11	DP10	planted. This measure may additionally form part of the compensatory planting.	structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Detailed Design Consultant/ Contractor	<u>around suitable built structures. or around VSRs to contain their view out to the NDA structures.</u>	Construction, Construction Phase & Maintenance in Operation Phase	
S.12.D9 MM12	LV10- DP10	Road Greening –For viaducts, soft landscaping should be provided to soften the hard, straight edges (for climbers used to cover the vertical, hard surfaces of the piers – see MM9 Vertical Greening) and shade tolerant plants should be planted, where light is sufficient, to improve aesthetic value of areas under viaducts. Both at grade planting and use of elevated planters should be considered for the soft landscaping of viaducts, taking into account the preference to minimize the overall viaduct bulk and integrate architectural forms and textural finishes which improve aesthetics. For at grade roads, planting should be considered along central dividers and on road islands e.g. in the middle of roundabouts. (Roadside planting i.e. at the road edge and not in the central divider or road island, is considered part of Screen Planting)	To soften the hard, straight edges and provide greening along roads.	Government/ Detailed Design Consultant/ Contractor	<u>On viaducts or along roads.</u>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.D9 MM14.3	LV11- DP10	Enhancement Planting along Embankment - For channelized watercourses, if these are modified, the Drainage Services Department Practice Note No.1/2005 – Guidelines on Environmental Considerations for River Channel Design, should be considered and appropriate mitigation measures included ensuring the new watercourses match the existing as far as possible. Measures can include enhancement planting to	Minimize the necessity of watercourse modification, protect watercourses where possible and enhance channelized watercourses	Government/ Detailed Design Consultant/ Contractor	<u>Channelized watercourse. particularly the Ma Wat River Channel Diversion</u>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

		<p>upgrade the channels as appropriate, including consideration of wetland planting along embankments where appropriate; as well as consideration of the best materials for the channel lining (e.g. gabion). All measures must also ensure any necessary maintenance work can be carried out and that the channel meets all its requirements for water flow, etc.</p> <p>For example, a stretch of the Ma Wat River Channel in the south of FLN NDA will have to be diverted for the construction of the Fanling Bypass Eastern Section. This measure will be particularly relevant in this area.</p>					
Landscape and Visual (Construction)							
S.12.D9 MM16	LV12- DP10	<p>Screen Hoarding –Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, non-reflective, recessive colours be used.</p> <p>Any works areas near the ecological sensitive areas should erect 2m high dull green site boundary fence. Details can refer to the ecological impact assessment (Chapter 13 of the EIA report).</p>	To screen undesirable views of the works site.	Contractor	<u>Throughout NDAs</u>	Construction Phase	^
S.12.D9 MM17	LV13- DP10	<p>Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase.</p> <p>Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.</p>	To minimize glare impact to adjacent VSRs	Government / Contractor	<u>Throughout NDAs</u>	Construction and Operation phases	^
Ecology (Detailed Design, Construction and Operational Phases)							
S13.8	E1-	Use opaque, non-transparent, non-reflective noise barriers.	Minimize mortality impacts	Detailed Design	<u>Throughout NDAs</u>	Detailed design,	^

	DP10	Unnecessary lighting should be avoided.	on birds.	Consultant/ Contractor Maintenance Authority.		construction and Operation phases.	
Ecology (Construction Phase)							
S13.9	E3- DP10	Lower reaches of Siu Hang San Tsuen Stream to have 10m wide vegetated buffer in Open Space Zone D1-3 and Fanling Bypass to cross stream on viaduct.	Minimize impacts on Siu Hang San Tsuen Stream and stream fauna.	Contractor.	<u>FLN area D1-3.</u>	Construction phase.	N/A
S.13.9	E4- DP10	Design and erection of 2m high solid dull green site barrier fence between active works areas and all areas/habitats of ecological importance.	Minimize dust, disturbance, mortality and other adverse ecological impacts on habitats, flora and fauna. Measures to minimize flight-line impacts to birds, especially breeding ardeids.	Contractor.	<u>Interface between areas/habitats of ecological importance and works areas (all of the north side of the Bypass works areas west of interchange with Sha Tau Kok Road).</u>	Construction phase.	N/A
Cultural Heritage (Construction Phase)							
S11.6.2	CH4- DP10	<u>Conducting Construction Vibration Monitoring and Structural Strengthening Measures</u> Construction vibration monitoring and structural strengthening measures should be conducted during Construction phase based on the assessment result of baseline condition survey and baseline vibration impact assessment, so as to ensure the construction performance meets with the vibration standard	To minimize the potential impacts during Construction phase on any identified potential vibration impacted built heritage features	Contractor.	<u>Identified potential vibration impacted built heritage features</u>	Construction phase, with details specified in baseline condition survey and baseline vibration impact	N/A

		stated in the EIA report.				assessment,	
DP12-Reprovision of temporary wholesale market in FLN NDA							
Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)							
S.12.D9	LV1- DP12	General Good Practice Measures - For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to. With regard to topsoil, where identified, it should be stripped, treated appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.		Detailed design consultant/ Contractor	Throughout NDAs,	Prior to Construction, Construction & for all planting, this should be installed as soon as the areas become available, to achieve early establishment	N/A
S.12.D9 MM1	LV2- DP12	Minimum Topographical Change –To minimize landscape and visual impacts, the footprint and elevation of such elements should be optimized to reduce topographical/ landform changes, as well as reduce land take and interference with natural terrain. Where there is a need to significantly cut into the existing landform, retaining walls should be considered as well as cut slopes, to minimize landform changes and land resumption, while also considering visual amenity. Earthworks and engineered slopes should be designed to be a visually interesting landform, compatible with the surrounding landscape and to mimic the natural contouring and terrain e.g. introduction and continuation of natural features such as spurs and ridges where appropriate, to support assimilation with the hillside setting.	Reduce topographical changes and minimize land resumption	Government / Detailed Design Consultant/ Contractor	Throughout NDAs, particularly for reservoirs	Prior to Construction	N/A

S.12.D9 MM2	LV3- DP12	<p>Detailed Design (Visual) –The footprint and massing of development components and the works area should also be kept to a practical minimum and the detailed design of development components for Construction phase should follow the Sustainable Building Design Guidelines. The form, textures, finishes and colours of the proposed development components should aim to be compatible with the existing surroundings. To improve visual amenity designs should be aesthetically pleasing and treatment of structures also improve visual amenity. For example, natural building materials such as stone and timber, should be considered for architectural features, and light earthy tone colours such as shades of green, shades of grey, shades of brown and off-white should also be considered to reduce the visibility of the development components, including all roadwork, buildings and noise barriers. In addition, the design of structures should consider green roofs were feasible, following stated guidelines.</p> <p>All Noise barriers, particularly noise barriers but also any barriers proposed for ecological impact mitigation, should be kept to a practical minimum, and be of such a designed as to integrate as well as possible into the surrounding visual context and be as low as practical to minimize blocking views. Noise barrier design, including vertical, cantilever or curved, and noise enclosures including semi-enclosure and full enclosure, at grade and/ or elevated, should follow the guidelines stated.</p>	<p>Improve visual amenity of the new buildings, NDAs in general and integrate as best possible into the surrounding landscape</p>	<p>Detailed Design Consultant</p>	<p>Throughout NDAs</p>	<p>Prior to Construction</p>	<p>N/A</p>
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		Construction time frame should also be considered and designs seek to keep it to a practical minimum.					
S.12.D9 MM4	LV4- DP12	<p>Tree Protection & Preservation – Existing trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. 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>	Protect and Preserve Trees	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction and Construction Phase	N/A
S.12.D9 MM5	LV5- DP12	Tree Transplantation – 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. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the	Transplant Trees where suitable for transplantation	Government / Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

		<p>project programme.</p> <p>A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC 2/2004 and 3/2006 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, HyD HQ/GN/13 'Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit' should be referred to.</p>					
S.12.D9 MM6	LV6- DP12	<p>Slope Landscaping – Site formation should be reduced as far as possible. Seeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape resources and character. Woodland tree seedlings and/ or shrubs should be planted where slope gradient and site conditions allow.</p> <p>In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.</p>	<p>To avoid substantial slope cutting and fill slopes.</p> <p>To prevent erosion and subsequent loss of landscape resources and character.</p> <p>To ensure man-made slopes are as visually amenable as possible.</p>	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.D9 MM7	LV7- DP12	Compensatory Planting – Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of	Compensate for trees and shrubs lost due to the Project.	Government / Detailed Design Consultant/	Onsite where possible. Otherwise	Prior to Construction, Construction	N/A

		<p>compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under ETWBTC 3/2006.</p> <p>Compensatory planting is proposed at the potential open areas such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots.</p> <p>Compensatory planting for shrubs should be considered in suitable locations. Native species such as <i>Melastoma malabathricum</i>, <i>Diospyros vaccinioides</i>, <i>Gardenia jasminoides</i>, <i>Ixora chinensis</i>, <i>Ligustrum sinense</i>, <i>Litsea rotundifolia</i>, <i>Melastoma dodecandrum</i>, <i>Atalantia buxifolia</i>, <i>Rhodomyrtus tomentosa</i>, <i>Rhaphiolepis indica</i>, and <i>Rhododendron simsii</i> are suggested.</p>		Contractor	consider offsite locations	Phase & Maintenance in Operation Phase	
S.12.D9 MM11	LV8- DP12	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Government / Detailed Design Consultant/ Contractor	Along roads, around suitable built structures, or around VSRs to contain their view out to the NDA structures.	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
Landscape and Visual (Construction)							

S.12.D9 MM16	LV9- DP12	<p>Screen Hoarding –Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, nonreflective, recessive colours be used.</p> <p>Any works areas near the ecological sensitive areas should erect 2m high dull green site boundary fence. Details can refer to the ecological impact assessment (Chapter 13 of the EIA report).</p>	To screen undesirable views of the works site.	Contractor	Throughout NDAs	Construction Phase	N/A
S.12.D9 MM17	LV10- DP12	<p>Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase.</p> <p>Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.</p>	To minimize glare impact to adjacent VSRs	Government / Contractor	Throughout NDAs	Construction and Operation Phases	N/A

- Implementation status:**
- ^ Mitigation measure was fully implemented
 - * Observation/reminder was made during site audit but improved/rectified by the contractor
 - # Observation/reminder was made during site audit but not yet improved/rectified by the contractor
 - X Non-compliance of mitigation measure
 - Non-compliance but rectified by the contractor
- N/A Not Applicable at this stage as no such site activities were conducted in the reporting period

APPENDIX N
WASTE GENERATION IN THE
REPORTING MONTH

Name of Department: Civil Engineering and Development Department

Monthly Summary Waste Flow Table for 2020

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 '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
January	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
February	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
March	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.065
April	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.351
May	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.793
June	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.202
Sub-total	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.411
July	5.907	0.000	5.907	0.000	0.000	0.000	0.000	0.000	1.780	0.000	0.455
August	0.027	0.000	0.024	0.000	0.003	0.000	0.000	0.086	0.000	0.000	0.327
September	0.145	0.000	0.145	0.000	0.000	0.000	0.003	0.059	0.000	0.000	0.503
October	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.717
November	3.024	0.000	0.000	0.101	2.923	0.000	38.540	0.009	0.000	0.000	0.744
December											
Total	9.103	0.000	6.076	0.101	2.926	0.000	38.543	0.154	1.780	0.000	4.157

Forecast of Total Quantities of C&D Materials to be Generated from the Contract*										
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 '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
1,310.619	300.000	1,010.619	0.000	0.000	0.000	20.000	10.000	20.000	0.500	10.000

- Notes: (1) The performance target are given in PS Clause 1.115(14)
(2) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
(3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material
(4) The Contractor shall also submit the latest forecast of the amount of C&D materials expected to be generated from the Works, together with a break down of the nature where the total amount of C&D materials expected to be generated from the Works is equal to or exceeding 50,000m³.
(5) Conversion factors for reporting purpose:
in-situ: rock = 2.5 tonnes/m³; soil = 2.0 tonnes/m³
excavated: rock = 2.0 tonnes/m³; soil = 1.8 tonnes/m³
broken concrete and bitumen = 2.4 tonnes/m³
C&D Waste = 0.9 tonnes/m³
Non-inert C&D material: 6.5m³/dump truck
(6) Numbers are rounded off to the nearest three decimal places
* Forecast

Waste Flow Table

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	Reused in the Contract	Reused in other Projects	Disposed as Public Fill*	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse#
	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)
Jan	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17
June	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sub-total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17
July	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug	7.99	0.00	0.00	0.00	7.99	0.00	0.00	0.01	0.00	0.00	0.00
Sept	12.55	0.00	0.00	0.00	12.55	0.00	0.00	0.00	0.00	0.00	0.00
Oct	1,499.49	0.00	0.00	0.00	1,499.49	0.00	0.00	0.00	0.00	0.00	9.10
Nov	449.84	0.00	0.00	0.00	449.84	0.00	3.85	0.00	0.00	0.00	28.47
Dec											
Sub-total	1,969.87	0.00	0.00	0.00	1,969.87	0.00	3.85	0.01	0.00	0.00	37.57
Total	1,969.87	0.00	0.00	0.00	1,969.87	0.00	3.85	0.01	0.00	0.00	37.74

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.

Forecast of Total Quantities of C&D Materials to be Generated from the ND/2009/02											
Forecast Made at the End of the Project	Total Quantity Generated	Hard Rock & Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics	Chemicals Waste	Others, e.g. general refuse
									(see Note 2)		
	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)
Total:	29,000	8,400	0	25,000	4,000	0	100	0.5	3	0.5	200

Sang Hing – Kuly Joint Venture

Contract No.: ND/2019/03

Kwu Tung North and Fanling North New Development Areas, Phase 1:

Development of Long Valley Nature Park

Name of Department: CEDD

Contract No.: ND/2019/03

Monthly Summary Waste Flow Table for 2019 (Year)

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 '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
Jan	–	–	–	–	–	–	–	–	–	–	–
Feb	–	–	–	–	–	–	–	–	–	–	–
Mar	–	–	–	–	–	–	–	–	–	–	–
Apr	–	–	–	–	–	–	–	–	–	–	–
May	–	–	–	–	–	–	–	–	–	–	–
June	–	–	–	–	–	–	–	–	–	–	–
July	–	–	–	–	–	–	–	–	–	–	–
Aug	–	–	–	–	–	–	–	–	–	–	–
Sept	–	–	–	–	–	–	–	–	–	–	–
Oct	–	–	–	–	–	–	–	–	–	–	–
Nov	–	–	–	–	–	–	–	–	–	–	–
Dec	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0

*Remark: Imported Fill not taken into account of Total Quantity Generated

#Revised Figure

Sang Hing – Kuly Joint Venture

Contract No.: ND/2019/03

Kwu Tung North and Fanling North New Development Areas, Phase 1:

Development of Long Valley Nature Park

Name of Department: CEDD

Contract No.: ND/2019/03

Monthly Summary Waste Flow Table for 2020 (Year)

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 '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
Jan	0	0	0	0	0	0	0	0	0	0	0
Feb	0	0	0	0	0	0	0	0	0	0	0.01
Mar	0	0	0	0	0	0	0	0	0	0	0.004
Apr	0	0	0	0	0	0	0	0	0	0	0.038
May	0	0	0	0	0	0	0	0	0	0	0.004
Jun	0	0	0	0	0	0	0	0	0	0	0.015
Sub-Total	0	0	0	0	0	0	0	0	0	0	0.071
Jul	0	0	0	0	0.1	0	0	0	0	0	0
Aug	0	0	0	0	0	0	0	0	0	0	0.03
Sep	0	0	0	0	0	0	0	0	0	0	0
Oct	0	0	0	0	0.08	0	0	0	0	0	0.038
Nov	0	0	0	0	0.08	0	0	0	0	0	0.1
Dec	–	–	–	–	–	–	–	–	–	–	–
Total	0	0	0	0	0.26	0	0	0	0	0	0.239

*Remark: Imported Fill not taken into account of Total Quantity Generated

#Revised Figure

Sang Hing – Kuly Joint Venture

Contract No.: ND/2019/03

Kwu Tung North and Fanling North New Development Areas, Phase 1:

Development of Long Valley Nature Park

Forecast of Total Quantities of C&D Materials to be Generated from the Contract*										
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 '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
2.5	1	2	0	0.5	5	1	0.2	0.2	1	3

***Remark:** Figure to be revised if necessary

Notes:

- (1) The performance targets are given in ETWB Technical Circular PS Clause 6(14).
 - (2) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
 - (3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material
 - (4) The Contractor shall also submit the latest forecast of the total amount of C&D materials expected to be generated from the Works, together with a breakdown of the nature where the total amount of C&D materials expected to be generated from the Works is equal to or exceeding 50,000 m3. (ETWB Technical Circular PS Clause 5(4)(b) refers).
[Delete Note (4) and the table above on the forecast, where inapplicable].
-

Monthly Summary Waste Flow Table for 2020 (year)

Name of Person completing the record: Pan Fong (EO)

Project : Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shung Him Tong to Kau Lung Hang)

Contract No.: ND/2019/05

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)	Yard Waste	Chemical Waste	Others, e.g. general refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000 ton)
Jan												
Feb												
Mar	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Apr	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
May	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
Jun	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.030	0.000	0.000	0.000	0.000
Sub-total	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.030	0.000	0.000	0.000	0.002
Jul	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.020	0.000	0.000	0.000	0.009
Aug	1.327	0.000	0.035	0.000	1.327	0.000	0.000	0.020	0.001	21.250	0.000	0.272
Sep	0.313	0.000	0.000	0.000	0.313	0.000	0.001	0.039	0.003	34.290	0.000	0.048
Oct	0.076	0.000	0.000	0.000	0.076	0.000	0.001	0.020	0.001	59.400	0.000	0.042
Nov	0.855	0.000	0.238	0.000	0.855	0.000	0.001	0.020	0.000	54.370	0.000	0.071
Dec												
Total	2.571	0.000	0.273	0.000	2.571	0.000	0.003	0.149	0.005	169.310	0.000	0.444

Monthly Summary Waste Flow Table
(PS Clauses 1.101 & 1.102)

Name of Department: CEDD

Contract No.:ND/2019/06

Monthly Summary Waste Flow Table for 2019 (year)

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 the other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastic (see Note 3)	Chemical Waste	Others, e.g. general refuse
	in '000m3	in '000m3	in '000m3	in '000m3	in '000m3	in '000m3	in '000kg	in '000kg	in '000kg	in '000kg	in '000m3
Jan											
Feb											
Mar											
Apr											
May											
June											
Sub-total											
July											
Aug											
Sept											
Oct											
Nov	0	0	0	0	0.927	0	0	0	0	0	0.008
Dec	0	0	0	0	0.428	0	0	0	0	0	0.071
Total	0	0	0	0	1.355	0	0	0	0	0	0.079

Monthly Summary Waste Flow Table for 2020 (year)

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 the other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastic (see Note 3)	Chemical Waste	Others, e.g. general refuse
	in '000m3	in '000m3	in '000m3	in '000m3	in '000m3	in '000m3	in '000kg	in '000kg	in '000kg	in '000kg	in '000m3
Jan	0	0	0	0	1.558	0	0	0	0	0	0.038
Feb	0	0	0	0	0.548	0	0	0	0	0	0.011
Mar	0	0	0	0	0.145	0	0	0	0	0	0.022
Apr	0	0	0	0	1.741	0	0	0	0	0	0.043
May	0	0	0	0	0.063	0	0	0	0	0	0.035
June	0	0	0	0	0.008	0	0	0	0	0	0.014
Sub-total	0	0	0	0	4.062	0	0	0	0	0	0.162
July	0	0	0	0	1.562	0	0	0	0	0	0.025
Aug	0	0	0	0	1.448	0	0	0	0	0	0.010
Sept	0	0	0	0	1.171	0	0	0	0	0	0.010
Oct	0	0	0	0	1.000	0	0	0	0	0	0.043
Nov	0	0	0	0	3.597	0	0	0	0	0	0.086
Dec											
Total	0.000	0.000	0.000	0.000	12.840	0.000	0.000	0.000	0.000	0.000	0.335

- Notes: (1) The performance targets are given in PS Clause 1.102(14).
(2) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
(3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material
*(4) The *Contractor* shall also submit the latest forecast of the total amount of C&D materials expected to be generated from the *works*, together with a breakdown of the nature where the amount of C&D materials expected to be generated from the works is equal to or exceeding 50,000m3. [Delete Note (4) and the table above on the forecast, where inapplicable].

APPENDIX O
COMPLAINT LOG

Appendix O - Complaint Log

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
COM-2020-11-01	Portion 4 and Portion 7 near Dills Corner Garden (ND/2019/01)	11 th November 2020	The EPD inspection at Portion 4 on 11 November 2020 was to respond the complaint regarding the dust problem near Dills Corner Garden referred by a District Council Member. No construction activities was carried out and no obvious dust emission was observed. EPD advised BKRWJV (the Contractor) to increase the height of temporary water barrier and install sprinklers on bare ground. Another EPD inspection was conducted on 26 November 2020 at Portion 7 for the dust complaint. During inspection, no obvious dust emission was observed and potential dust may generate from top soil which appear to be dry. EPD advised the Contractor to install sprinklers on top soil for dust suppression.	The height of temporary water barrier was increased at Portion 4. Sprinklers were installed on bare ground at Portion 4 and on top soil at Portion 7. Manual water spraying were provided regularly. Hydroseeding will be provided on soil surface at Portion 4 for long-term measures. Proper implementation of dust mitigation measures will be continuously reviewed and monitored to avoid potential dust impact on site.	Closed
COM-2020-11-02	Works Area A & B (ND/2019/05)	27 th November 2020	The complainant complained about the noise generated from the alarm of scissors platform during works for PM's site accommodation on Sunday and called the police force. Police officer has checked that Construction Noise Permit has been applied for the	Permit-to-Work system was properly implemented for works at restricted hours. The PME used have been checked in compliance with the valid Construction Noise Permit (CNP No.: GW-RN0788-20). Acoustics mats were erected between works area and noise sensitive receivers.	On-going

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
			construction work. Also, the complainant complained about the reflective blue color of roof material of site office.	Scissor platform or noisy work activities will be arranged and minimized to be used on Sunday or evening time on weekdays. Specific training for the quieter works arrangement was provided to workers. Also, the blue roof will be covered by non-reflective green roof material.	

APPENDIX P
SUMMARY OF SUCCESSFUL
PROSECUTION

Appendix P - Summary of Successful Prosecution

Date of Successful Prosecution	Details of the Successful Prosecution	Status	Follow Up
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**APPENDIX Q
SUMMARY TABLE FOR REQUIRED
SUBMISSION UNDER
ENVIRONMENTAL PERMIT**

DP2	EP-466/2013	Castle Peak Road Diversion				
CEDD Contract No. ND/2019/01 - Site Formation and Infrastructural Works at KTN NDA						
Construction commencement date		12-Aug-20				
Operation commencement date		tbc				
EP Condition		Requirements and Submissions			Submission Status	Remarks
		Period	Action	Timeframe		
1.12	Commencement date of construction	Before construction	Notify in writing	no later than 8 weeks prior to the commencement of construction	Notified 2 March 2020	
2.1	Establish of ET	Before construction	Establish - An ET & IEC of at least 7 years of experience in EM&A or environmental management.	no later than 6 weeks before the commencement of construction	Established 5 March 2020	Pre-construction ET
					Established 23 January 2020	Construction Phase ET
2.2	Employment of IEC				Established 11 March 2020	Pre-construction IEC
					Established 20 February 2020	Construction Phase IEC
2.3	Update EM&A Manual	Before construction	Deposit	at least 4 weeks before the commencement of construction	Latest submitted on 4 September 2020 by Pre-construction ET	
2.4	Management organization of the main construction companies	Before construction	Inform in writing	no later than 2 weeks before the commencement of construction	Deposited 27 July 2020	
2.5	Layout Plan	Before construction	Deposit	no later than 2 weeks before the commencement of construction	Deposited 27 July 2020	EPD Approved 25 August 2020
2.6	Cultural Heritage Impact -- Baseline condition survey and baseline vibration impact assessment	Before construction	To Conduct - A baseline condition survey and baseline vibration impact assessment by a qualified building surveyor or a qualified structural engineer Note: The baseline condition survey and baseline vibration impact assessment shall be included in and form part of the Baseline Monitoring Report to be submitted under Condition 3.3	prior to the commencement of construction	*	
2.7	Cultural Heritage Impact -- Photographic and Cartographic Records/ Proposals on relocation of any building	Others	A copy of Photographic and cartographic records of directly impacted historical buildings at HKT08 and the entrance gate of HKT03	prior to the commencement of the respective removal or relocation works	*	
		Others	For Approval - Proposals on relocation of any built heritages	prior to commencement of the respective relocation work	*	
2.8	Landscape Plan	Others	Deposit	at least 6 weeks before the commencement of the corresponding parts of landscape and visual mitigation measures of the Project	*	
2.10	Traffic Noise Mitigation Measure (implement)	Before operation	Implement-- all noise mitigation measures as shown in Figure 4 of this Permit	before commencement of operation	*	
3.3	Baseline Monitoring Report	Before construction	Submit	at least 2 weeks before the commencement of construction	Submitted by Pre-Construction ET	
3.4	Monthly EM&A Report	During construction	Submit	within 2 weeks after the end of each reporting month throughout the entire construction period	Submitted by ET Monthly	
4.2	Dedicated website	During construction	Set up and Notify in writing -- the internet address	in place within one month after the commencement of construction of the Project.	Notified 22 April 2020	cover all EPs
		During construction and operation	Upload -- All environmental monitoring results described in Condition 4.1 and all submissions required by this Permit	in the shortest time practicable, and in no event later than 2 weeks after the relevant environmental monitoring data are collected or become available	N/A	
			Maintain	entire construction period and during the first 3-year of operation	N/A	

Remarks:
tbc:To be confirmed
DP: Designated Project
*tentative submission date will be supplemented once available

DP3	EP-467/2013/A	Kwu Tung North New Development Area Road P1 and P2 and Associated New Kwu Tung Interchange and Pak Shek Au Interchange Improvement				
CEDD Contract No. ND/2019/01 - Site Formation and Infrastructural Works at KTN NDA						
Construction commencement date			12-Aug-20			
Operation commencement date			tbc			
EP Condition		Requirements and Submissions			Submission Status	Remarks
		Period	Action	Timeframe		
1.12	Commencement date of construction	Before construction	Notify in writing	no later than 8 weeks prior to the commencement of construction	Notified 2 March 2020	
2.1	Establish of ET	Before construction	Establish - An ET & IEC of at least 7 years of experience in EM&A or environmental management.	no later than 6 weeks before the commencement of construction	Established 5 March 2020	Pre-construction ET
					Established 23 January 2020	Construction Phase ET
2.2	Employment of IEC				Established 11 March 2020	Pre-construction IEC
					Established 20 February 2020	Construction Phase IEC
2.3	Update EM&A Manual	Before construction	Deposit	at least 4 weeks before the commencement of construction	Latest submitted on 4 September 2020 by Pre-construction ET	
2.4	Management organization of the main construction companies	Before construction	Inform in writing	no later than 2 weeks before the commencement of construction	Deposited 27 July 2020	
2.5	Layout Plan	Before construction	Deposit	no later than 2 weeks before the commencement of construction	Deposited 27 July 2020	EPD Approved 25 August 2020
2.6	Traffic Noise Mitigation Plan	Before construction	For Approval	no later than 1 month before the commencement of construction	Deposited 31 July 2019	EPD Approved 9 August 2019
2.7	Cultural Heritage Impact -- Photographic and Cartographic Records	Others	Deposit - A copy of Photographic and cartographic records of directly impacted historical buildings and cultural/historical lanscape features at Locatoins KT38, KT44 and KT52	prior to the commencement of the respective removal or relocation works	*	
2.8	Landscape Plan	Others	Deposit	at least 6 weeks before the commencement of the corresponding parts of landscape and visual mitigation measures of the Project	*	
3.3	Baseline Monitoring Report	Before construction	Submit	at least 2 weeks before the commencement of construction	Submitted by Pre-Construction ET	
3.4	Monthly EM&A Report	During construction	Submit	within 2 weeks after the end of each reporting month throughout the entire construction period	Submitted by ET Monthly	
4.2	Dedicated website	During construction	Set up and Notify in writing -- the internet address	in place within one month after the commencement of construction of the Project.	Notified 22 April 2020	cover all EPs
		During construction and operation	Upload -- All environmental monitoring results described in Condition 4.1 and all submissions required by this Permit	in the shortest time practicable, and in no event later than 2 weeks after the relevant environmental monitoring data are collected or become available	N/A	
			Maintain	entire construction period and during the first 3-year of operation	N/A	

Remarks:
 tbc:To be confirmed
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DP4	EP-468/2013/A	Kwu Tung North New Development Area Road D1 to D5				
CEDD Contract No. ND/2019/01 - Site Formation and Infrastructural Works at KTN NDA						
Construction commencement date		1-Jun-20				
Operation commencement date		tbc				
EP Condition		Requirements and Submissions			Submission Status	Remarks
		Period	Action	Timeframe		
1.12	Commencement date of construction	Before construction	Notify in writing	no later than 8 weeks prior to the commencement of construction	Notified 2 March 2020	
2.1	Establish of ET	Before construction	Establish - An ET & IEC of at least 7 years of experience in EM&A or environmental management.	no later than 6 weeks before the commencement of construction	Established 5 March 2020	Pre-construction ET
2.2	Employment of IEC				Established 23 January 2020	Construction Phase ET
					Established 11 March 2020	Pre-construction IEC
					Established 20 February 2020	Construction Phase IEC
2.3	Update EM&A Manual	Before construction	Deposit	at least 4 weeks before the commencement of construction	Latest submitted on 4 September 2020 by Pre-construction ET	
2.4	Management organization of the main construction companies	Before construction	Inform in writing	no later than 2 weeks before the commencement of construction	Deposited 14 May 2020	
2.5	Layout Plan	Before construction	Deposit	no later than 2 weeks before the commencement of construction	Deposited 14 May 2020	Pending approval
2.6	Cultural Heritage Impact -- Baseline condition survey and baseline vibration impact assessment	Before construction	To Conduct - A baseline condition survey and baseline vibration impact assessment by a qualified building surveyor or a qualified structural engineer <u>Note:</u> The baseline condition survey and baseline vibration impact assessment shall be included in and form part of the Baseline Monitoring Report to be submitted under Condition 3.3	prior to the commencement of construction	*	
2.7	Cultural Heritage Impact -- Photographic and Cartographic Records/ Proposals on relocation of any building	Others	A copy of Photographic and cartographic records of directly impacted historical buildings and cultural/historical landscape features at locations HKT03, KT16, KT17 and KT18	prior to the commencement of the respective removal or relocation works	*	
		Others	For Approval - Proposals on relocation of any built heritages	prior to commencement of the respective relocation work	*	
2.8	Compensatory Tree Planting Plan	Before construction	For Approval	prior to the commencement of construction	*	
2.9	Habitat Creation and Management Plan	Others	For Approval	prior to the commencement of construction of relevant part of the Project	Submitted 20 October 2020	EPD approved 4 November 2020
2.10	Traffic Noise Mitigation Plan	Before construction	For Approval	no later than 1 month before commencement of construction	Submitted 31 July 2019	EPD approved 9 August 2019
3.3	Baseline Monitoring Report	Before construction	Submit	at least 2 weeks before the commencement of construction	Submitted by Pre-Construction ET	
3.4	Monthly EM&A Report	During construction	Submit	within 2 weeks after the end of each reporting month throughout the entire construction period	Submitted by ET Monthly	
4.2	Dedicated website	During construction	Set up and Notify in writing -- the internet address	in place within one month after the commencement of construction of the Project.	Notified 22 April 2020	cover all EPs
		During construction and operation	Upload -- All environmental monitoring results described in Condition 4.1 and all submissions required by this Permit	in the shortest time practicable, and in no event later than 2 weeks after the relevant environmental monitoring data are collected or become available	N/A	
			Maintain	entire construction period and during the first 3-year of operation	N/A	

Remarks:
tbc:To be confirmed
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DP7	EP-470/2013	Utilization of Treated Sewage Effluent (TSE) from Shek Wu Hui Sewage Treatment Works				
CEDD Contract No. ND/2019/01 - Site Formation and Infrastructural Works at KTN NDA						
Construction commencement date		23-Mar-20				
Operation commencement date		tbc				
EP Condition		Requirements and Submissions			Submission Status	Remarks
		Period	Action	Timeframe		
1.12	Commencement date of construction	Before construction	Notify in writing	no later than 8 weeks prior to the commencement of construction	Notify 22 January 2020	
2.1	Establish of ET	Before construction	Establish - An ET & IEC of at least 7 years of experience in EM&A or environmental management.	no later than 6 weeks before the commencement of construction	Established 5 March 2020	Pre-construction ET
					Established 23 January 2020	Construction Phase ET
2.2	Employment of IEC				Established 11 March 2020	Pre-construction IEC
		Established 20 February 2020			Construction Phase IEC	
2.3	Update EM&A Manual	Before construction	Deposit	at least 4 weeks before the commencement of construction	Latest submitted on 4 September 2020 by Pre-construction ET	
2.4	Management organization of the main construction companies	Before construction	Inform in writing	no later than 2 weeks before the commencement of construction	Deposited 14 May 2020	
2.5	Layout Plan	Before construction	Deposit	no later than 2 weeks before the commencement of construction	Deposited 14 May 2020	Pending approval
3.3	Baseline Monitoring Report	Before construction	Submit	at least 2 weeks before the commencement of construction	Submitted by Pre-Construction ET	
3.4	Monthly EM&A Report	During construction	Submit	within 2 weeks after the end of each reporting month throughout the entire construction period	Submitted by ET Monthly	
4.2	Dedicated website	During construction	Set up and Notify in writing -- the internet address	in place within one month after the commencement of construction of the Project.	Notified 22 April 2020	cover all EPs
		During construction and operation	Upload -- All environmental monitoring results described in Condition 4.1 and all submissions required by this Permit	in the shortest time practicable, and in no event later than 2 weeks after the relevant environmental monitoring data are collected or become available	N/A	
			Maintain	entire construction period and during the first 3-year of operation	N/A	

Remarks:

tbc:To be confirmed

DP: Designated Project

*tentative submission date will be supplemented once available

DP5	EP-469/2013	Sewage Pumping Stations in Kwu Tung North New Development Area				
CEDD Contract No. ND/2019/02 - Kwu Tung North New Development Area, Phase 1: Roads and Drains between Kwu Tung North New Development Area and Shek Wu Hui						
Construction commencement date		28-Oct-20				
Operation commencement date		tbc				
EP Condition		Requirements and Submissions			Submission Status	Remarks
		Period	Action	Timeframe		
1.12	Commencement date of construction	Before construction	Notify in writing	no later than 8 weeks prior to the commencement of construction	Notify 14 October 2020	
2.1	Establish of ET	Before construction	Establish - An ET & IEC of at least 7 years of experience in EM&A or environmental management.	no later than 6 weeks before the commencement of construction	Established 5 March 2020	Pre-construction ET
					Established 23 January 2020	Construction Phase ET
2.2	Employment of IEC				Established 11 March 2020	Pre-construction IEC
					Established 20 February 2020	Construction Phase IEC
2.3	Update EM&A Manual	Before construction	Deposit	at least 4 weeks before the commencement of construction	Latest submitted on 4 September 2020 by Pre-construction ET	
2.4	Management organization of the main construction companies	Before construction	Inform in writing	no later than 2 weeks before the commencement of construction	Deposited 17 September 2020	
2.5	Location Plans	Before construction	Deposit	no later than 2 weeks before the commencement of construction	Deposited 15 October 2020	
2.6	Landscape Plan	Before construction	Deposit	at least 6 weeks before the commencement of th corresponding parts of landscape and visual mitigation measures		
3.1	Change in EM&A requirements/ programme	Others	Seek prior approval from the Director -- justified by ET leader and verified by IEC	before implementation		
3.3	Baseline Monitoring Report	Before construction	Submit	at least 2 weeks before the commencement of construction	Submitted by Pre-construction ET	by Fugro
3.4	Monthly EM&A Report	During construction	Submit	within 2 weeks after the end of each reporting month throughout the entire construction period	Submitted by ET Monthly	
4.2	Dedicated website	During construction	Set up and Notify in writing-- the internet address	in place within one month after the commencement of construction of the Project.	Notified 22 April 2020	cover all EPs
		During construction and operation	Upload -- All environmental monitoring results described in Condition 4.1 and all submissions required by this Permit	in the shortest time practicable, and in no event later than 2 weeks after the relevant environmental monitoring data are collected or become available	N/A	
			Maintain	entire construction period and during the first 3-year of operation	N/A	

Remarks:

tbc: To be confirmed

DP: Designated Project

*tentative submission date will be supplemented once available

DP4	EP-468/2013/A	Kwu Tung North New Development Area Road D1 to D5				
CEDD Contract No. ND/2019/03 - Development of Kwu Tung North and Fanling North New Development Areas, Phase 1: Development of Long Valley Nature Park						
Construction commencement date		3-Jul-20				
Operation commencement date		tbc				
EP Condition		Requirements and Submissions			Submission Status	Remarks
		Period	Action	Timeframe		
1.12	Commencement date of construction	Before construction	Notify in writing	no later than 8 weeks prior to the commencement of construction	Notified 28 April 2020	
2.1	Establish of ET	Before construction	Establish - An ET & IEC of at least 7 years of experience in EM&A or environmental management.	no later than 6 weeks before the commencement of construction	Established 5 March 2020	Pre-construction ET
					Established 23 January 2020	Construction Phase ET
2.2	Employment of IEC				Established 11 March 2020	Pre-construction IEC
					Established 20 February 2020	Construction Phase IEC
2.3	Update EM&A Manual	Before construction	Deposit	at least 4 weeks before the commencement of construction	Latest submitted on 4 September 2020 by Pre-construction ET	
2.4	Management organization of the main construction companies	Before construction	Inform in writing	no later than 2 weeks before the commencement of construction	Deposited 18 June 2020	
2.5	Layout Plan	Before construction	Deposit	no later than 2 weeks before the commencement of construction	Deposited 18 June 2020	EPD Approval 29 June 2020
2.6	Cultural Heritage Impact -- Baseline condition survey and baseline vibration impact assessment	Before construction	To Conduct - A baseline condition survey and baseline vibration impact assessment by a qualified building surveyor or a qualified structural engineer Note: The baseline condition survey and baseline vibration impact assessment shall be included in and form part of the Baseline Monitoring Report to be submitted under Condition 3.3	prior to the commencement of construction	*	
2.7	Cultural Heritage Impact -- Photographic and Cartographic Records/ Proposals on relocation of any building	Others	Deposit - A copy of Photographic and cartographic records of directly impacted historical buildings and cultural/historical landscape features at locations HKT03, KT16, KT17 and KT18	prior to the commencement of the respective removal or relocation works	N/A	
		Others	For Approval - Proposals on relocation of any built heritages	prior to commencement of the respective relocation work	N/A	
2.8	Compensatory Tree Planting Plan	Before construction	For Approval	prior to the commencement of construction	N/A	
2.9	Habitat Creation and Management Plan	Others	For Approval	prior to the commencement of construction of relevant part of the Project	Submitted 20 October 2020	EPD approved 4 November 2020
2.10	Traffic Noise Mitigation Plan	Before construction	For Approval	no later than 1 month before commencement of construction	Submitted 31 July 2019	EPD approved 9 August 2019
3.3	Baseline Monitoring Report	Before construction	Submit	at least 2 weeks before the commencement of construction	Submitted by Pre-Construction ET	
3.4	Monthly EM&A Report	During construction	Submit	within 2 weeks after the end of each reporting month throughout the entire construction period	Submitted by ET Monthly	
4.2	Dedicated website	During construction	Set up and Notify in writing -- the internet address	in place within one month after the commencement of construction of the Project.	Notified 22 April 2020	cover all EPs
		During construction and operation	Upload -- All environmental monitoring results described in Condition 4.1 and all submissions required by this Permit	in the shortest time practicable, and in no event later than 2 weeks after the relevant environmental monitoring data are collected or become available	N/A	
			Maintain	entire construction period and during the first 3-year of operation	N/A	

Remarks:

tbc: To be confirmed

DP: Designated Project

*tentative submission date will be supplemented once available

DP10	EP-473/2013/A	Fanling Bypass Eastern Section				
CEDD Contract No. ND/2019/03 - Development of Kwu Tung North and Fanling North New Development Areas, Phase 1: Development of Long Valley Nature Park						
Construction commencement date		6-Oct-20				
Operation commencement date		tbc				
EP Condition		Requirements and Submissions			Submission Status	Remarks
		Period	Action	Timeframe		
1.12	Commencement date of construction	Before construction	Notify in writing	no later than 8 weeks prior to the commencement of construction	Notified 10 August 2020	
2.1	Establish of ET	Before construction	Establish - An ET & IEC of at least 7 years of experience in EM&A or environmental management.	no later than 6 weeks before the commencement of construction	Established 5 March 2020	Pre-construction ET
					Established 23 January 2020	Construction Phase ET
2.2	Employment of IEC				Established 11 March 2020	Pre-construction IEC
					Established 20 February 2020	Construction Phase IEC
2.3	Update EM&A Manual	Before construction	Deposit	at least 4 weeks before the commencement of construction	Latest submitted on 4 September 2020 by Pre-construction ET	
2.4	Management organization of the main construction companies	Before construction	Inform in writing	no later than 2 weeks before the commencement of construction	Deposited 18 September 2020	
2.5	Location Plans	Before construction	Deposit	no later than 2 weeks before the commencement of construction	Deposited 18 September 2020	
2.6	Relocation Plan for Rose Bitterling	Before construction	Approval	before the commencement of construction	Submitted 5 November 2020	EPD approved 9 November 2020
2.7	Egrettry Habitat Creation and Management Plan	Before construction	Approval	before the commencement of construction	Submitted 20 October 2020	EPD approved 4 November 2020
2.8	Detailed Design of Siu Hang San Tsuen Stream	Before construction	Deposit	before the commencement of construction	N/A	
2.9	Traffic Noise Mitigation Plan	Before construction	Approval	no later than 1 month before the commencement of construction	N/A	
2.10	Cultural Heritage Impact -- Baseline condition survey and baseline vibration impact assessment	Before construction	To Conduct - A baseline condition survey and baseline vibration impact assessment by a qualified building surveyor or a qualified structural engineer Note: The baseline condition survey and baseline vibration impact assessment shall be included in and form part of the Baseline Monitoring Report to be submitted under Condition 3.3	prior to the commencement of construction	N/A	
2.11	Cultural Heritage Impact -- Photographic and Cartographic Records/ Proposals on relocation of any building	Others	Deposit - A copy of Photographic and cartographic records of directly impacted historical buildings and cultural/historical landscape features at FL19	prior to the commencement of the respective removal or relocation works	N/A	
		Others	For Approval - Proposals on relocation of any built heritages	prior to commencement of the respective relocation work	N/A	
3.1	Change in EM&A requirements/ programme	Others	Seek prior approval from the Director -- justified by ET leader and verified by IEC	before implementation		
3.3	Baseline Monitoring Report	Before construction	Submit	at least 2 weeks before the commencement of construction	Submitted by Pre-Construction ET	by Fugro
3.4	Monthly EM&A Report	During construction	Submit	within 2 weeks after the end of each reporting month throughout the entire construction period	Submitted by ET Monthly	
4.2	Dedicated website	During construction	Set up and Notify in writing -- the internet address	in place within one month after the commencement of construction of the Project.	Notified 22 April 2020	cover all EPs
		During construction and operation	Upload -- All environmental monitoring results described in Condition 4.1 and all submissions required by this Permit	in the shortest time practicable, and in no event later than 2 weeks after the relevant environmental monitoring data are collected or become available	N/A	
			Maintain	entire construction period and during the first 3-year of operation	N/A	

Remarks:

tbc: To be confirmed

DP: Designated Project

*tentative submission date will be supplemented once available

DP10	EP-473/2013/A	Fanling Bypass Eastern Section				
CEDD Contract No. ND/2019/05 - Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shung Him Tong to Kau Lung Hang)						
Construction commencement date		1-Aug-20				
Operation commencement date		tbc				
EP Condition		Requirements and Submissions			Submission Status	Remarks
		Period	Action	Timeframe		
1.12	Commencement date of construction	Before construction	Notify in writing	no later than 8 weeks prior to the commencement of construction	Notified 15 June 2020	
2.1	Establish of ET	Before construction	Establish - An ET & IEC of at least 7 years of experience in EM&A or environmental management.	no later than 6 weeks before the commencement of construction	Established 5 March 2020	Pre-construction ET
					Established 23 January 2020	Construction Phase ET
2.2	Employment of IEC				Established 11 March 2020	Pre-construction IEC
					Established 20 February 2020	Construction Phase IEC
2.3	Update EM&A Manual	Before construction	Deposit	at least 4 weeks before the commencement of construction	Latest submitted on 4 September 2020 by Pre-construction ET	
2.4	Management organization of the main construction companies	Before construction	Inform in writing	no later than 2 weeks before the commencement of construction	Deposited 28 May 2020	
2.5	Layout Plan	Before construction	Deposit	no later than 2 weeks before the commencement of construction	Deposited 28 May 2020	EPD Approval 29 June 2020
2.6	Relocation Plan for Rose Bitterling	Before construction	Approval	before the commencement of construction	N/A	
2.7	Egretty Habitat Creation and Management Plan	Before construction	Approval	before the commencement of construction	N/A	
2.8	Detailed Design of Siu Hang San Tsuen Stream	Before construction	Deposit	before the commencement of construction	N/A	
2.9	Traffic Noise Mitigation Plan	Before construction	Approval	no later than 1 month before the commencement of construction	Submitted 11 September 2020	EPD Approved 8 October 2020
2.10	Cultural Heritage Impact -- Baseline condition survey and baseline vibration impact assessment	Before construction	To Conduct - A baseline condition survey and baseline vibration impact assessment by a qualified building surveyor or a qualified structural engineer Note: The baseline condition survey and baseline vibration impact assessment shall be included in and form part of the Baseline Monitoring Report to be submitted under Condition 3.3	prior to the commencement of construction	Submitted 1 September 2020	Pending Approval
2.11	Cultural Heritage Impact -- Photographic and Cartographic Records/ Proposals on relocation of any building	Others	Deposit - A copy of Photographic and cartographic records of directly impacted historical buildings and cultural/historical landscape features at FL19	prior to the commencement of the respective removal or relocation works	-	
		Others	For Approval - Proposals on relocation of any built heritages	prior to commencement of the respective relocation work	-	
3.3	Baseline Monitoring Report	Before construction	Submit	at least 2 weeks before the commencement of construction	Submitted by Pre-construction ET Submitted 1 September 2020	for EP Condition 2.10
3.4	Monthly EM&A Report	During construction	Submit	within 2 weeks after the end of each reporting month throughout the entire construction period	Submitted by ET monthly	
4.2	Dedicated website	During construction	Set up and Notify in writing -- the internet address	in place within one month after the commencement of construction of the Project	Notified 22 April 2020	cover all EPs
		During construction and operation	Upload -- All environmental monitoring results described in Condition 4.1 and all submissions required by this Permit	in the shortest time practicable, and in no event later than 2 weeks after the relevant environmental monitoring data are collected or become available	N/A	
			Maintain	entire construction period and during the first 3-year of operation	N/A	

Remarks:

tbc: To be confirmed

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DP12	EP-475/2013/A	Reprovision of temporary Wholesale Market in Fanling North New Development Area				
Contract No. ND/2019/06 - Fanling North New Development Area, Phase 1: Reprovisioning of North District Temporary Wholesale Market for Agricultural Products						
Construction commencement date			29-Oct-19			
Operation commencement date			tbc			
EP Condition		Requirements and Submissions			Submission Status	Remarks
		Period	Action	Timeframe		
1.12	Commencement date of construction	Before construction	Notify in writing	no later than 8 weeks prior to the commencement of construction	Notified 15 October 2019	
2.1	Establish of ET	Before construction	Establish - An ET & IEC of at least 7 years of experience in EM&A or environmental management.	no later than 6 weeks before the commencement of construction	Established 5 March 2020	Pre-construction ET
					Established 23 January 2020	Construction Phase ET
2.2	Employment of IEC				Established 11 March 2020	Pre-construction IEC
		Established 20 February 2020			Construction Phase IEC	
2.3	Update EM&A Manual	Before construction	Deposit	at least 4 weeks before the commencement of construction	Latest submitted on 4 September 2020 by Pre-construction ET	
2.4	Management organization of the main construction companies	Before construction	Inform in writing	no later than 2 weeks before the commencement of construction	Deposited 14 October 2019	
2.5	Layout Plan	Before construction	Deposit	no later than 2 weeks before the commencement of construction	Deposited 14 October 2019	
2.6	Landscape Plan	Others	Deposit	at least 6 weeks before the commencement of the corresponding parts of landscape and visual mitigation measures of the Project	*	
3.3	Baseline Monitoring Report	Before construction	Submit	at least 2 weeks before the commencement of construction	Submitted by Pre-construction ET	
3.4	Monthly EM&A Report	During construction	Submit	within 2 weeks after the end of each reporting month throughout the entire construction period	Submitted by ET monthly	
4.2	Dedicated website	During construction	Set up and Notify in writing-- the internet address	in place within one month after the commencement of construction of the Project.	Notified 22 April 2020	cover all EPs
		During construction and operation	Upload -- All environmental monitoring results described in Condition 4.1 and all submissions required by this Permit	in the shortest time practicable, and in no event later than 2 weeks after the relevant environmental monitoring data are collected or become available	N/A	
			Maintain	entire construction period and during the first 3-year of operation	N/A	

Remarks:

tbc: To be confirmed

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