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 August 2020

(Version 1.0)

Certified By	Dr. Friscilla Choy (Environmental Team Leader)
	J

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)

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Monthly Environmental Monitoring and Audit Report No. 10 (August 2020)

14 September 2020 BY EMAIL

Dear Sir,

We refer to email of 11 September 2020 attaching the Monthly Environmental Monitoring and Audit Report No. 10 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

Thomas Clim

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c.c. AECOM Wellab Ltd.

Mr. Chris Ho Dr. Priscilla Choy/ Ms. Ivy Tam chris.ho@aecom.com priscilla.choy@wellab.com.hk ivy.tam@wellab.com.hk

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EXECUTIVE SUMMARY

Introduction

- 1. This is the 10th 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 August 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	he Reporting Month Commencement		
	Permit No.	Designated Project (DP)	date of construction	
	EP-466/2013	Castle Peak Road Diversion	12 th August 2020	
Contract No. ND/2019/01 - Kwu Tung North New Development Area, Phase 1: Site Formation and	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	
Site Formation and Infrastructure Works	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/2019/03 - Kwu Tung North New Development Area, Phase 1: Development of Long Valley Nature Park	EP-468/2013/A	Kwu Tung North New Development Area Road D1 to D5	3 rd July 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	EP-475/2013/A	Reprovision of temporary Wholesale Market in Fanling North New Development Area	29 th October 2019
Market for Agricultural Products			

Environmental Monitoring and Audit Progress

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

]	EM&A Activities	Works Contracts					
Ī		ND/2019/01	ND/2019/03	ND/2019/05	ND/2019/06		
1-hr Total Suspended Particulates (TSP)		4 th ,10 th ,14 th ,2	0 th ,26 th August	$6^{\text{th}}, 12^{\text{th}}, 18^{\text{th}},$	N/A		
Monitoring		20	020	24 th ,28 th			
				August 2020			
24-hr TSP M	Monitoring	4 th ,10 th ,14 th ,20 th ,26 th August		5 th ,11 th ,17 th ,	N/A		
		2020		21 st ,27 th			
				August 2020			
24-hr RSP (Ambient Arsenic) Monitoring		3 rd ,7 th ,13 th ,19 th	,25 th ,31 st August	N/A	N/A		
for Land Co	ontamination	2020					
Noise Monitoring			6 th August 2020	6 th ,12 th ,18 th ,2	4 th August 2020		
Landfill Gas		19 th August 2020 N/A		N/A	N/A		
Monitoring							
	Monitoring of Measures to	N/A*	3 rd ,11 th ,18 th ,25 th ,	N/A*	N/A*		
	Minimise Disturbance to		31 st August 2020				
	Water Birds on Sheung Yue						
	River, and Long						
	Valley						
Ecological Monitoring of Measures to		21 st August 2020		N/A*	N/A*		
Survey Minimise impacts to Ma							
Sarvey	Tso Lung Stream	cthe outher		e other			
	Monitoring of Measures to	6 th , 28 th August	N/A*	28 th August	N/A*		
	Minimise Impacts on	2020		2020			
	Ecological Sensitive						
	Habitats from Disturbance						
	and Pollution	44 4 44 4 04	- the sector of the sector		the set and set		
Environmer	ntal Site Inspection	4 th ,11 th ,18 th ,27 th	7 th ,14 th ,18 th ,28 th	3 rd ,12 th ,17 th ,24 th	6 th ,13 th ,20 th ,27 th		
		August 2020	August 2020	,31 st August 2020	August 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)

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	Table III	Summary	Table for	Events	Recorded	in the	Reporting Month
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Environmental Monitoring	Parameter	No. of non- project related Exceedances		Total No. of non-project related	Contract		Total No. of Exceedance related to the Construction
		Action Level	Limit Level	Exceedances	Action Level	Limit Level	Works of the Contract
	1-hr TSP	0	0	0	0	0	0
	24-hr TSP	0	0	0	0	0	0
Air Quality	24-hr RSP (Ambient Arsenic)	0	0	0	0	0	0
Noise	Leq(30min)	0	0	0	0	0	0
Landfill Gas	O ₂ CH ₄	0	0	0	0	0	0
	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. No Action/Limit Level exceedance was recorded.

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. No environmental complaint was received in the reporting month.

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.**

Contract No.	Site Activities (September and October 2020)				
	(a)	Ground Investigation in Portion 1f;			
	(b)	Site Clearance, Ground Investigation, Construct temporary road in Portion 2			
	(c)	Tree Survey, Site Clearance in Portion 3			
	(d)	Sampling and testing for site trial for In-situ cement mixing (ICM) for soil treatment works, construct temporary noise barrier, construct open channel in Portion 4			
	(e)	Site Clearance, Ground Investigation, cut slope and temporary soil nailing works in Portion 5			
	(f)	Site Clearance, Ground Investigation, cut slope and temporary soil nailing works in Portion 6			
ND/2019/01	(g)	Completion of Soil Treatment Facility, Pilot trial for Ex-situ cement mixing (ECM) for soil treatment, provide soil treatment for HAC soil by ECM in Portion 6b;			
	(h)	Site Clearance, Tree felling, Construction of temporary road for alternative Po Lau Road, Land contamination assessment in Area T1, T2 & T3 in Portion 7;			
	(i)	Ground Investigation, Construction of Retaining Wall, cut slope and soil nailing works in Portion 8a;			
	(j)	Tree Survey, Site Clearance, Ground Investigation in Portion 9b&9d			
	(k)	Stockpile of soil in Portion 9c;			
	(1)	Site Clearance, Tree felling, Excavation in Portion 10a; and			
	(m)	Site Clearance in 10b			
	(a)	Road and Drainage work, Soil Replacing in Portion 1;			
	(b)	Initial Restoration Work at Long Valley, Geotechnical Works in Long Valley (Trail Pits and Drill Hole), Demolition of existing structure in handed over area in Portion 2 to 20;			
ND/2019/03	(c)	Erection of Permanent Boundary Structure, Installation of Lockable Gate, Construction of Irrigation Channel at Portion 18			
	(d)	Construction works of storage shed and Type 2 Storage House			
	(e)	Pre-relocation survey in Portion 23 and 24			
	(a)	Site Clearance			
NID/2010/05	(b)	Establishment of Temporary Site			
ND/2019/05	(c)	Tree Felling			
	(d)	Trial Pits			

	 (e) Installation of site hoarding, fencing and temp. facilities (f) Construction of PM's Site Accommodation (g) Ground Investigation/Pre-drilling
ND/2019/06	 (a) Construction of Management Office Building; (b) Breaking up the concrete surface and disposal of C&D material off site at Portion 3 (c) Construction of footings of steel canopy of final stage market (d) Tree felling at Portion 3 and 6 (e) Fabrication of Container type toilets for relocation of public toilet

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 10th EM&A Report which summarises the key findings of the EM&A programme in August 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 to Ma Tso Lung Stream and Siu Hang San Tsuen Stream, 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 and monitoring schedule for the next three 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 egretry sites in the FLN NDA and enhancement works to an existing egretry 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**.

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**.

Project Organization

- 2.5 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)
- 2.6 The key personnel contact names and numbers are summarised in **Table 2.2**.

Table 2.2	Key Contacts of	of the Project
	itey contacts c	i the i reject

Party	Role	Contact Person	Phone No.	Fax No.	
Civil Engineering and Development Department, HKSAR (CEDD)	Project Proponent	Mr. Felix Fan	3152 3551	3547 1658	
Supervisor / Supervisor's Representative (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 –	Site Agent	Mr. Ivan Leung	9640 8340		
Richwell Engineering Joint Venture.)	Environmental Officer	Mr. Daniel Sin 9777 210			
	Site Agent	Mr. Tang Wing Kai	9300 7037		
Contract No. ND/2019/03 Contractor (Sang Hing Kuly Joint Venture)	Environmental Officer	Mr. Chow Ka Wing	9184 6351		
	Environmental Supervisor	Mr. Ken Kwok	9732 4360		
Contract No. ND/2019/05 Contractor (CRCC – Paul Y.	Site Agent	gent Mr. Francis Suen 6672 03			
Joint Venture)	Environmental Officer	Mr. Pan Fong	9436 9435		
	Site Agent	Mr. Anson Chan	9349 1320		
Contract No. ND/2019/06 Contractor (New Concepts Engineering Development	Environmental Officer	Mr. Alex Choy	9409 9608	2363 2162	
Ltd.)	Environmental Coordinator	Ms. Mildred Hung	9460 2745		

Summary of Construction Works Undertaken During Reporting Month

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

Contract No.	Site Activities (August 2020)	
	(a) Site Clearance in Portion 1f	
	(b) Site clearance, Ground Investigation in Portion 2	
	(c) Construct temporary drainage system, cast blinding for tempora barrier in Portion 4	ry noise
	(d) Site Clearance, Ground Investigation, forming haul road in Portion	15
	(e) Site Clearance, Ground Investigation in Portion 6a	
ND/2019/01	(f) Set up Soil Treatment Facility, Site trial for ex-situ cement mixing for soil treatment works in Portion 6b	g (ECM)
	(g) Site Clearance, Ground Investigation, Construction & alternative Road in Portion 7	Po Lau
	(h) Site Clearance, Construction of Retaining Wall in Portion 8a	
	(i) Site Clearance, Ground Investigation, stockpile of soil in Portion 9	С
	(j) Site Clearance in Portion 10a	
	(k) Site Clearance in Portion 10b	
	(a) Road and Drainage work in Portion 1	
ND/2019/03	(b) Initial Restoration Work at Long Valley, Construction works of sta shed and Type 2 Storage House, construction of metal wire railing clearance in Portion 2 to 20	-
	(c) Pre-relocation survey in Portion 23 and 24	
	(a) Site Clearance	
	(d) Establishment of Temporary Site	
	(e) Tree Felling	
ND/2019/05	(f) Trial Pits	
	(g) Installation of site hoarding, fencing and temp. facilities	
	(h) Construction of PM's Site Accommodation	
	(i) Ground Investigation/Pre-drilling	
	(a) Construction of Management Office Building	
ND/2019/06	(b) Breaking up the concrete surface and disposal of C&D material o Portion 3 is in progress	ff site at
	(c) Construction of footings of steel canopy of final stage market is in	progress

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

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**.

		Valid Period			
Contract No.	Permit / License No.	From	То	Status	
Environmental Pe	rmit (EP)				
	EP-466/2013	21/11/2013	N/A	Valid	
ND/2019/01	EP-467/2013/A	27/01/2017	N/A	Valid	
IND/2019/01	EP-468/2013/A	27/01/2017	N/A	Valid	
	EP-470/2013	21/11/2013	N/A	Valid	
ND/2019/03	EP-468/2013/A	27/01/2017	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 Nois	e Permit (CNP) GW-RN0378-20	16/06/2020	15/09/2020	Valid	
ND/2019/01	GW-RN0359-20	09/06/2020	08/08/2020	Expired during reporting month	
ND/2019/01	GW-RN0353-20	08/06/2020	07/09/2020	Valid	
	GW-RN0540-20	29/07/2020	16/01/2021	Valid	
ND/2010/05	GW-RN0578-20	11/08/2020	03/02/2021	Valid	
ND/2019/05	GW-RN0591-20	17/08/2020	16/02/2021	Valid	
	GW-RN0113-20	25/02/2020	24/08/2020	Expired during reporting month	
ND/2019/06	GW-RN0507-20	25/07/2020	24/01/2021	Valid	
Notification pursu	ant to Air Pollution Cor	ntrol (Constructio	n Dust) Regulatio	n	
ND/2019/01	451792	11/12/2019	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 fo	r Disposal of Constructi	on Waste			
ND/2019/01	7036265	17/01/2020	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 Ch	emical Waste Producer				
ND/2019/01	5213-545-B2578-01	10/01/2020	N/A	Valid	
ND/2019/03	5213-623-\$4231-01	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 Discharg	e License under Water I	Pollution Control	Ordinance		
	WT00036071-2020	22/06/2020	30/06/2025	Valid	

Table 2.4	Status of Environmental Licenses, Notifications and Domits
Table 2.4	Status of Environmental Licences, Notifications and Permits

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	<u>Kepon – August 2020</u>			
	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/2019/03	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
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.

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

Table 3.1Location for Air Quality Monitoring Locations

Remark:

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).

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**.

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

Table 3.2Air Quality Monitoring Equipment

- 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
1 abic 5.5	impact Dust Monitoring Laraneters, 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 ±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 ±3°C; the RH should be < 50% and not vary by more than ±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 3.4Summary Table of 1-hour TSP Monitoring Results during the
Reporting Month

Kepot ing Month					
Monitoring	Concentration (µg/m3)		Action Level, Limit Lev µg/m ³ µg/m ³	Limit Level,	
Station	Average	Range	μg/m°	µg/m ⁵	
KTN-DMS4	53.8	20.5 - 85.8	297	500	
FLN -DMS1	68.8	41.7 - 86.7	303	500	
FLN -DMS3	77.3	53.9 - 103.5	301	500	

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

Monitoring Station		centration 1g/m3)	Action Level, Limit Level, Limi	Limit Level,
Station	Average	Range	μg/m*	µg/m
KTN-DMS4	77.3	60.4 - 100.3	192	260
FLN -DMS1	39	30 - 59	150	260
FLN -DMS3	38	29 - 58	165	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	
KTN-DMS4	Excavation, Road traffic	
FLN -DMS1	Road traffic	
FLN -DMS3	Road traffic	

Table 3.6Observation at Dust Monitoring Stations

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.

Contract No.	Monitoring Station(s)	Location(s)
ND/2019/01	CP-KTN-NMS2	Residential Buildings at Ma Tso
ND/2019/03		Lung
	CP-KTN-NMS3	Fung Kong Garden
ND/2019/01	CP-KTN-NMS5	N/A
ND/2019/05	CP-FLN-NMS2 Scattered Village Hous Hang	
ND/2019/06	CP-FLN-NMS1	Belair Monte

Table 4.1Location of Noise Monitoring Stations

Remark:

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).

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		
'SVANTEK' Integrating Sound Level Meter	SVANTEK	SVAN 977	1		
Sound & Vibration Analyser	BSWA	BSWA 801	1		
	Brüel & Kjær	4231	2		
Acoustical Calibrator	SVANTEK	SV30A	1		

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 4.5 Noise Womtoring Latameters, Duration and Frequency						
Contract No.	Monitoring Stations	Parameter	Duration	Frequency	Measurement	
ND/2019/01	CP-KTN NMS2					
ND/2019/03	CP-KTN NMS3	L_{1} (20 min) $d\mathbf{B}(\mathbf{A})$		Once per week	Free-field ^[1]	
ND/2019/01	CP-KTN NMS5		0700-1900 hrs on normal weekdays			
ND/2019/06	CP-FLN-NMS1	L _{eq, 5min} readings)			Façade	
ND/2019/05	CP-FLN-NMS2				raçaue	

Table 4.3 Noise Monitoring Parameters, Duration and Frequency

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.

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 facade 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
 time weighting
 time measurement
 Leq(30 min.) dB(A)
 (as six consecutive Leq, 5min 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 summarised 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
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Contract No.	Monitoring Station	Noise Level Leq (30 min), dB(A)	Baseline Level, dB(A)	Limit Level, dB(A)
ND/2019/01	CP-KTN-NMS2	52.9-56.8	58.6	
ND/2019/01	CP-KTN-NMS3	54.7-59.2	51.6	75

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ND/2019/01	CP-KTN-NMS5	53.5-62.2	57.2	
ND/2019/06	CP-FLN-NMS1	67.6-69.2	69.9	
ND/2019/05	CP-FLN-NMS2	57.1-69.2	59.6	

- 4.9 All noise monitoring was conducted as scheduled in the reporting month. No complaint was received during the reporting. No Action/Limit Level exceedance was recorded. 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:

Table 4.5Observation at Noise Monitoring Stations

Contract No.	Monitoring Station	Location	Major Noise Source
ND/2019/01 ND/2019/03	CP-KTN-NMS2	Residential Buildings at Ma Tso Lung (Existing)	Road Traffic near Ma Tso Lung
	CP-KTN-NMS3	Fung Kong Garden (Existing)	Road Traffic near Fung Kong Garden
ND/2019/01	CP-KTN-NMS5	N/A	Other construction site
ND/2019/06	CP-FLN-NMS1	Belair Monte (Existing)	Road Traffic at Ma Sik Road
ND/2019/05	CP-FLN-NMS2	Scattered Village House in Tong Hang (Existing)	Road Traffic near Tong Hang

Event and Action Plan

4.11 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 QUALTY 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.

Parameters, unit	Depth	Frequency
 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) 	 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

 Table 5.1
 Water Quality Monitoring Parameters and Frequency

Results and Observations

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

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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 preweighting 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 1O-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	ND/2019/01		
EP-468/2013/A		KTN-DMS-4A ^[1]	Temporary Structure at Pak Shek Au
EP-468/2013/A	ND/2019/03		

Notes:

[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 (TE6070)) 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 ±3°C; the relative humidity (RH) was < 50% and not vary by more than ±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 preweighed 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 ±3 °C; the relative humidity (RH) was < 50% and not variable by more than ±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 6.4Summary 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)
03/08/2020	KTN-DMS-4A	0.15	9.36	11.7
07/08/2020		0.91		
13/08/2020		0.56		
19/08/2020		0.30		
25/08/2020		1.08		
31/08/2020		3.09		

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 6
 - Manholes and Chambers:
 - Relocation of monitoring wells:
 - Any other Confined Spaces:

Portion 6b N/A N/A Containers in Portion 6b

Monitoring Equipment

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

Table 7.1Landfill 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 5 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.

Date of avifauna monitoring: 3rd, 11th, 18th, 25th, 31st August 2020

Monitoring Location

- 8.5 The avifauna monitoring was carried out at Sheung Yue River and Long Valley in Reporting Month according to construction works. The transect routes in the Reporting Month were as follows:
 - T3. Sheung Yue River
 - T5. Long Valley

For Sheung Yue River, only one bank of the river was followed as the waterbirds utilizing the river channel were easily visible.

8.6 The location of Transects 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, 51 species of birds were recorded during the bird surveys within assessment area. Among the recorded birds, there were 18 species of waterbirds. The detailed list of waterbirds and all recorded birds are shown in **Appendix H1i and H1j** respectively.
- 8.11 Among the two transects, the transect T5 had higher species diversity and abundance due to its diverse habitat types within Long Valley. Species such as *Hirundo rustica* and *Passer montanus* were commonly found flying and foraging at wetland habitats such as agricultural land and riverbank.
- 8.12 Along the transect T5 in Long Valley, species with conservation interest such as *Himantopus himantopus* which is a passage migrant species of conservation interest was also commonly observed in shallow water habitat. Grass cutting was noted in agricultural farmland in Long Valley.
- 8.13 Transect T3 was conducted along the Sheung Yue River. Bird species such as *Acridotheres tristis, Acridotheres cristatellus* and *Egretta garzetta* were commonly noted. Fishing activities were observed along the river during the survey.
- 8.14 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

- 8.15 As required under Section 12.3.2.14 of Updated EM&A Manual, aquatic faunal monitoring should be carried out during the construction phase.
- 8.16 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 kicknetting 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

8.17 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.

Date of aquatic fauna monitoring: 21st August 2020

Monitoring Location

- 8.18 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
- 8.19 The location of Monitoring Stations shown in **Figure 8** for reference.

Monitoring Parameters

- 8.20 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
- 8.21 Other information at the time of survey such as weather condition and noticeable natural or anthropogenic activities would be recorded.

Monitoring Result

- 8.22 In the survey of aquatic fauna, total 22 aquatic invertebrate species were found, including worms, snails and insects, were recorded in Ma Tso Lung Stream. 4 fish species were recorded including *Oreochromis niloticus* and *Tilapia zillii*. No aquatic macroinvertebrate species of conservation importance were recorded.
- 8.23 Aquatic faunal monitoring in construction phase was conducted during the Reporting Month and the results are attached in **Appendix H2 to H3**.

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

Monitoring Requirements and Protocol

- 8.24 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.
- 8.25 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

- 8.26 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 form the field signs observed.
- 8.27 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)

- 8.28 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.
- 8.29 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)

8.30 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

8.31 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: 6th , 28th August 2020

Monitoring Location

- 8.32 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;
 - 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
- 8.33 The location of Transects is shown in Figure 9 for reference.

Monitoring Parameters

- 8.34 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

- 8.35 During the survey, total 4 mammal species were recorded from transects T1, T4, T5 and T6. Domestic cat, *Felis catus* and Domestic dog, *Canis lupus familiaris*, were found at T1 where associated with human settlements. Eurasian Wild Pig, *Sus scrofa* was also recorded in T5.
- 8.36 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.
- 8.37 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)

8.38 Along the transects, total 10 herpetofauna species were observed. Species including toad, frog and gecko were noted near wetland habitats and watercourse. Transect T1 has higher species diversity and abundance than other transects.

Insects (Butterfly and Dragonfly)

- 8.39 During the insect survey, total 28 butterflies species and 14 odonata species were recorded from transects. Transect T1 had higher butterfly species diversity than other transects. Rare species such as Cornelian, *Deudorix epijarbas* and Green Skirt Baron, *Cynitia whiteheadi* were recorded in transect T1. Uncommon species such as Yellow Rajah, *Charaxes marmax* and Gaudy Baron, *Euthalia lubentina* were also found in transect T1.
- 8.40 Transect T1, T5 and T6 had higher dragonfly species diversity than T4. Most of the dragonfly

species recorded were also common and abundant in Hong Kong.

8.41 Ecological sensitive receivers such as mammals, insects (butterflies and dragonflies), and herptofauna monitoring in construction phase was conducted during the reporting month and the results are attached in **Appendix H4 to H7**.

Results and Observation

Details of the Influencing Factors

Major Activities

- 8.42 During the survey of Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley, anthropogenic activities such as grass cutting in Long Valley and fishing at the river banks were observed.
- 8.43 During the survey of Monitoring of Measures to Minimise Impacts to Ma Tso Lung Stream and Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution, no major anthropogenic disturbances were observed. No major environmental pollution was found during the monitoring. However, litter such as tissue paper was found in the monitoring station MS_07.

Weather Conditions

- 8.44 During the Monitoring of avifauna on 18th August 2020, typhoon signal no. 1 was hoisted during high tide and typhoon signal no. 3 was hoisted during low tide respectively. According to the observation during survey, temperature and the rain flow record in the Reporting Month (Reference: http://www.weather.gov.hk/wxinfo/pastwx/metob202008.htm), weather condition might pose influence towards the monitoring result.
- 8.45 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.
- 8.46 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

Table 9.1Summary of Site Audit

Environmental Site	Works Contracts			
Inspection	ND/2019/01	ND/2019/03	ND/2019/05	ND/2019/06
Weekly site audit	4 th ,11 th ,18 th ,27 th	7 th ,14 th ,18 th ,28 th	3 rd ,12 th ,17 th ,24 th ,31 st	6 th ,13 th ,20 th ,27 th
with representative of	August 2020	August 2020	August 2020	August 2020
the Supervisor's				
Representative and				
the Contractor				
Joint Site Audit with	11 th August 2020	18 th August 2020	12 th August 2020	13th August 2020
representative of the				
Supervisor's				
Representative, the				
Contractor and IEC				

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**.

le	Table 9.2 Observations and Recommendations of Site Audit					
Parameters	Date	Observations and Recommendations	Follow-up			
Contract No.: ND/						
Air Quality	04/08/2020	Dusty stockpile was reminded to be covered by impervious materials. (Portion 4)	Improvement/Rectification was observed during follow-up audit session on 11 August 2020.			
Water Quality	28/07/2020	Contractor was reminded to clear the ponding water at Portion 6.	Improvement/Rectification was observed during follow-up audit session on 4 August 2020.			
	04/08/2020	Exposed slope surface was reminded to be covered by impervious materials. (Portion 8)	Improvement/Rectification was observed during follow-up audit session on 11 August 2020.			
Waste/ Chemical Management	28/07/2020	Contractor was reminded to dispose general refuse regularly to avoid accumulation at Portion 6.	Item was remarked as 200804-R01. Follow-up action is needed to be reviewed.			
	04/08/2020	Drip trays should be provided for chemical storage. (Portion 6)	Improvement/Rectification was observed during follow-up audit session on 4 August 2020.			
	11/08/2020	Waste should be disposed of regularly and properly.	Improvement/Rectification was observed during follow-up audit session on 18 August 2020.			
	11/08/2020	Chemical container should be stored properly in designated area.	Improvement/Rectification was observed during follow-up audit session on 18 August 2020.			
Ecology	28/07/2020	Hoarding erection is still processing, hoarding will be kept checking.	Item was remarked as 200728-R01. Follow-up action is needed to be reviewed.			
	04/08/2020	Hoarding erection is still processing, hoarding will be kept checking.	Item was remarked as 200804-R01. Follow-up action is needed to be reviewed.			
	11/08/2020	Hoarding erection is still processing, hoarding will be kept checking.	Item was remarked as 200811-R03. Follow-up action is needed to be reviewed.			
	18/08/2020	Hoarding erection is still processing, hoarding will be kept checking.	Improvement/Rectification was observed during follow-up audit session on 27 August 2020.			

Contract No.: ND	Contract No.: ND/2019/03					
Air Quality	28/08/2020	Stockpile of dusty materials should be covered by impervious sheeting or sprayed with water.	Follow-up action is needed to be reported in the following month.			
Waste / Chemical	07/08/2020	Waste should be disposed of regularly and properly.	Improvement/Rectification was observed during follow-up audit session on 14 August 2020.			
Management	14/08/2020	General refuse should be disposed of properly at Portion 18.	Improvement/Rectification was observed during follow-up audit session on 18 August 2020.			
Contract No.: ND	/2019/05	1				
	03/08/2020	Water should be cleared regularly.	Improvement/Rectification was observed during follow-up audit session on 12 August 2020.			
Water Quality	17/08/2020	Regular clear the channel at the site exit so that the wheel washing can be directed to silt removal facilities.	Improvement/Rectification was observed during follow-up audit session on 24 August 2020.			
Waste / Chemical Management	31/08/2020	Chemical waste should be stored properly in designated area.	Follow-up action is needed to be reported in the following month.			
Landscape & Visual	17/08/2020	Uncharted trees should be carefully protected.	Improvement/Rectification was observed during follow-up audit session on 24 August 2020.			
Contract No.: ND	/2019/06					
Air Quality	13/08/2020	Contractor was reminded to cover the stockpile of dusty materials when not in use.	Improvement/Rectification was observed during follow-up audit session on 20 August 2020.			
Waste / Chemical	30/07/2020	Stagnant water in drip tray should be cleared properly.	Improvement/Rectification was observed during follow-up audit session on 6 August 2020.			
Management	27/08/2020	Chemical waste, waste oil should be stored properly in designated area.	Follow-up action is needed to be reported in the following 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.

n	Table 9.3	Photographic Records and Implementation Status of Measur	. C3
EP No.	Condition	Photographic Record	Implementation Status
<u>EP-</u> <u>475/2013/</u> <u>A</u>	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.(Figure 10)	∧ [1]
<u>ЕР-</u> <u>468/2013/</u> <u>А</u>	2.11	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 11)	∧ [1]
Implementa	tion status:	 Mitigation measure was fully implemented * Observation/reminder was made during site audit but improved/rectified by the c 	
[1]		 # Observation/reminder was made during site audit but not yet improved/ rectified 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 period 	

Table 9.3	Photographic Records and Implementation Status of Measures
	I notographic records and implementation status of measures

[1]: Barrier fences might be subjected to change according to phasing plan designed at detailed design stage

Solid and Liquid Waste Management Status

- 9.4 Waste generated from Contract No. ND/2019/01, ND/2019/03, ND/2019/05 and ND/2019/06 include inert construction and demolition (C&D) materials and non-inert C&D wastes.
- 9.5 The amount of wastes generated by the construction works of the Contract No. ND/2019/01, ND/2019/03, ND/2019/05 and Contract No. ND/2019/06 during the reporting month is shown in Appendix N.
- 9.6 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 No exceedance of Action and Limit Levels of air quality, construction noise, ambient arsenic and landfill gas monitoring in the reporting month. The summary of exceedance record in reporting month is shown in **Appendix K**.
- 10.2 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.
- 10.3 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

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

Summary of Environmental Complaint

10.5 No environmental complaints was 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

10.6 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 for the coming two months are shown in **Table 11.1**.

Table 11.1 Summary Table for Site Activities in the coming Two Mon
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Contract No.		Site Activities in the coming 1 wo Months Site Activities (September and October 2020)
ND/2019/01	(a)	Ground Investigation in Portion 1f;
	(b)	Site Clearance, Ground Investigation, Construct temporary road in Portion 2
	(c)	Tree Survey, Site Clearance in Portion 3
	(d)	Sampling and testing for site trial for In-situ cement mixing (ICM) for soil treatment works, construct temporary noise barrier, construct open channel in Portion 4
	(e)	Site Clearance, Ground Investigation, cut slope and temporary soil nailing works in Portion 5
	(f)	Site Clearance, Ground Investigation, cut slope and temporary soil nailing works in Portion 6
	(g)	Completion of Soil Treatment Facility, Pilot trial for Ex-situ cement mixing (ECM) for soil treatment, provide soil treatment for HAC soil by ECM in Portion 6b;
	(h)	Site Clearance, Tree felling, Construction of temporary road for alternative Po Lau Road, Land contamination assessment in Area T1, T2 & T3 in Portion 7;
	(i)	Ground Investigation, Construction of Retaining Wall, cut slope and soil nailing works in Portion 8a;
	(j)	Tree Survey, Site Clearance, Ground Investigation in Portion 9b&9d
	(k)	Stockpile of soil in Portion 9c;
	(1)	Site Clearance, Tree felling, Excavation in Portion 10a; and
	(m)	Site Clearance in 10b
ND/2019/03	(a)	Road and Drainage work, Soil Replacing in Portion 1;
	(b)	Initial Restoration Work at Long Valley, Geotechnical Works in Long Valley (Trail Pits and Drill Hole), Demolition of existing structure in handed over area in Portion 2 to 20;
	(c)	Erection of Permanent Boundary Structure, Installation of Lockable Gate, Construction of Irrigation Channel at Portion 18
	(d)	Construction works of storage shed and Type 2 Storage House
	(e)	Pre-relocation survey in Portion 23 and 24

ND/2019/05	(a) Site Clearance
	(b) Establishment of Temporary Site
	(c) Tree Felling
	(d) Trial Pits
	(e) Installation of site hoarding, fencing and temp. facilities
	(f) Construction of PM's Site Accommodation
	(g) Ground Investigation/Pre-drilling
ND/2019/06	(a) Construction of Management Office Building;
	(b) Breaking up the concrete surface and disposal of C&D material off site at Portion 3
	(c) Construction of footings of steel canopy of final stage market
	(d) Tree felling at Portion 3 and 6
	(e) Fabrication of Container type toilets for relocation of public toilet

Monitoring Schedule for the Next Month

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

Construction Programme for the Next Month

11.3 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 August 2020 in accordance with Updated EM&A Manual.
- 12.2 No Action/Limit Level exceedance were recorded for air quality, construction noise, ambient arsenic, and landfill gas monitoring.

Contract No. ND/2019/01

12.3 Environmental site inspection were conducted on 4th, 11th, 18th, 27th August 2020 by ET in the reporting month.

Contract No. ND/2019/03

12.4 Environmental site inspection were conducted on 7th ,14th ,18th ,28th August 2020 by ET in the reporting month.

Contract No. ND/2019/05

12.5 Environmental site inspections were conducted on 3rd ,12th ,17th ,24th ,31st August 2020 by ET in the reporting month.

Contract No. ND/2019/06

- 12.6 Environmental site inspections were conducted on 6th ,13th ,20th ,27th August 2020 by ET in the reporting month.
- 12.7 There were no environmental complaints, no notification of summons or successful prosecutions received in the reporting month.
- 12.8 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

12.9 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.

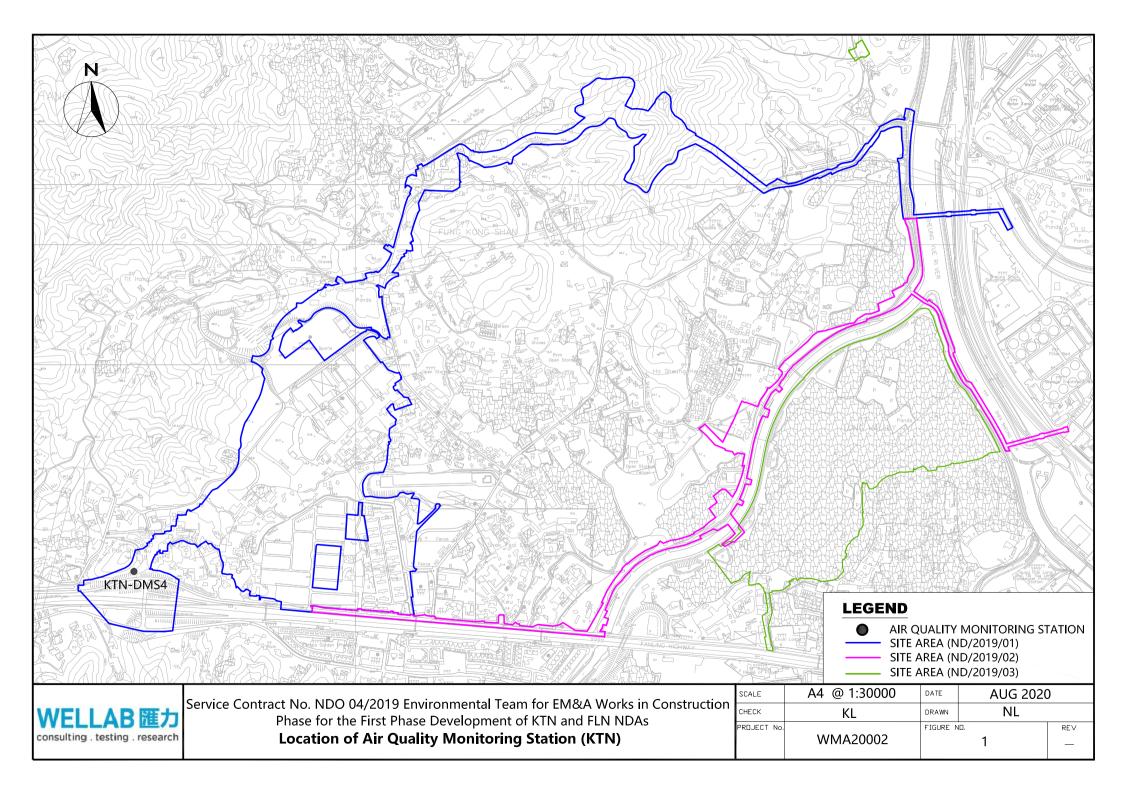
Landfill Gas Hazard

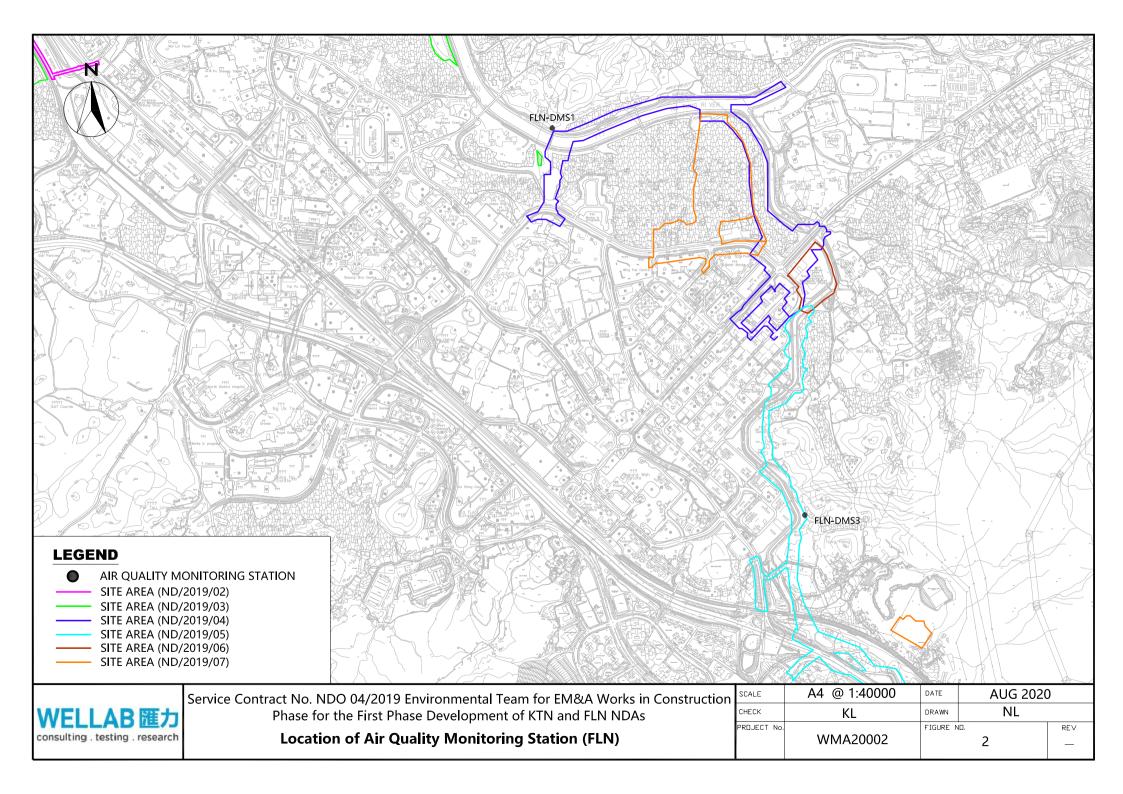
• "No Smoking" and "No Naked Flame" notices in Chinese and English should be posted prominently around the construction site.

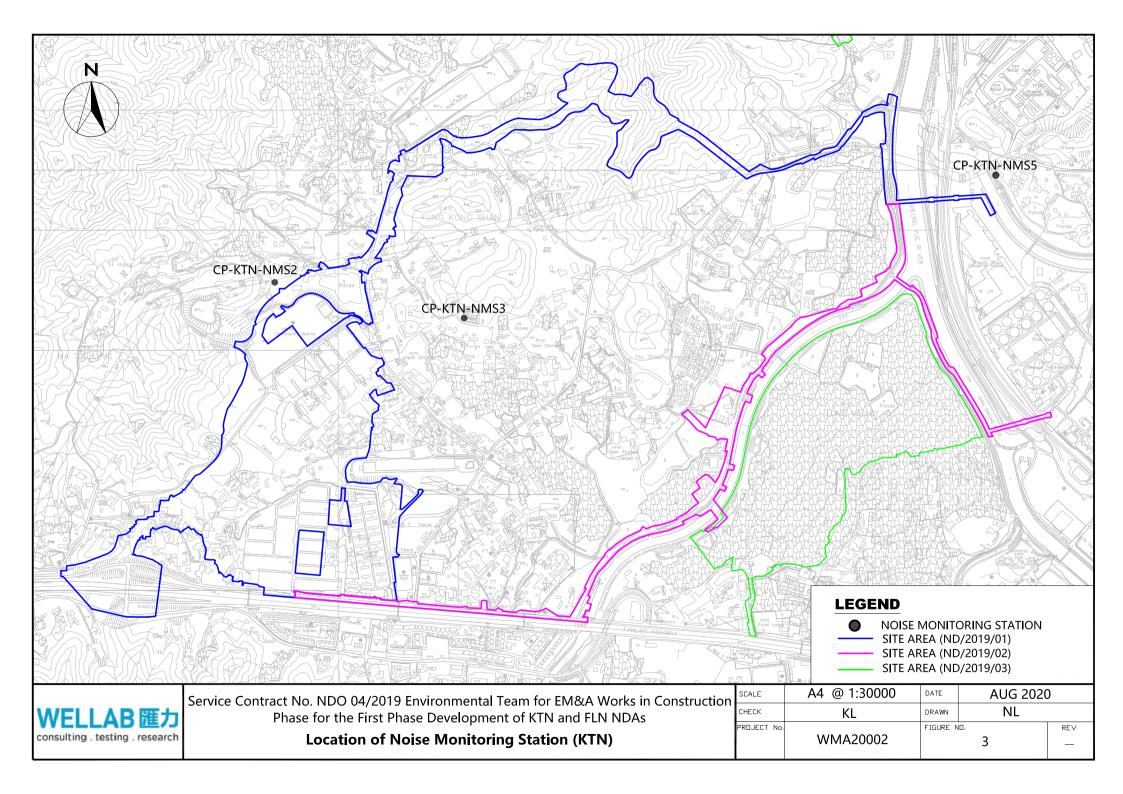
DRAWING(S)

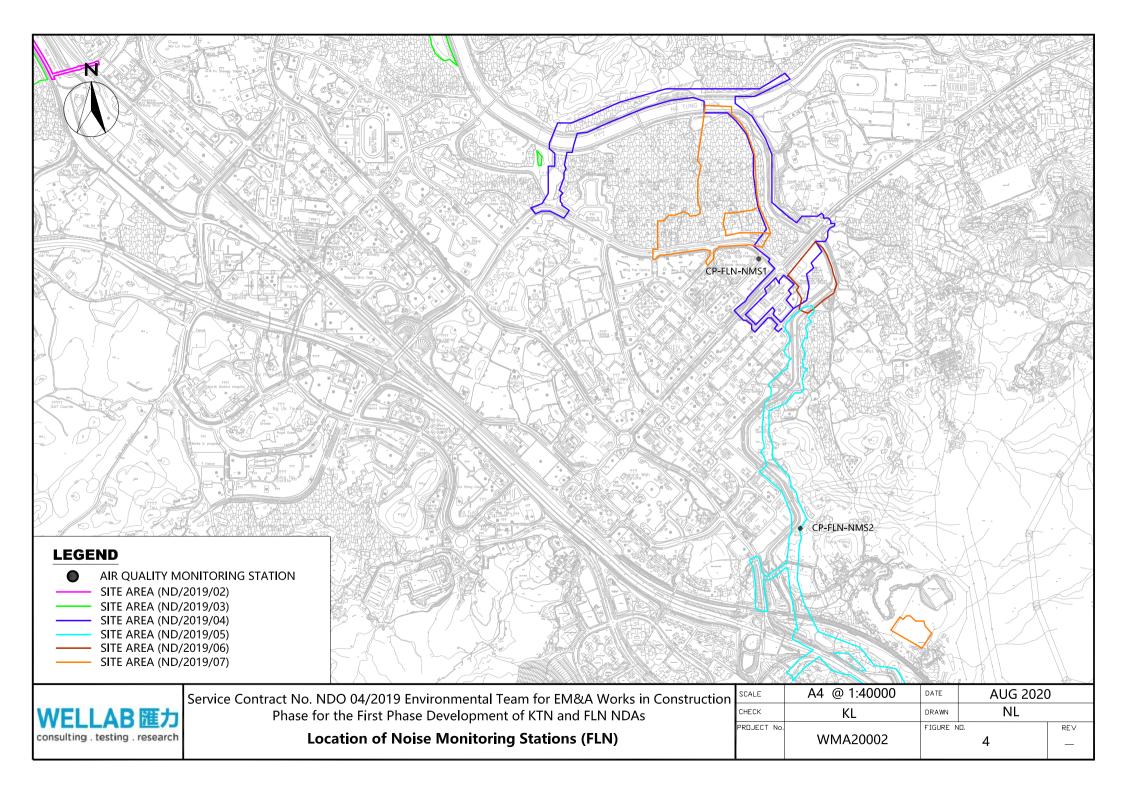
ND/2019/0 ND/2019/0 ND/2019/0 ND/2019/0 ND/2019/0 ND/2019/0 ND/2019/0 ND/2019/0 ND/2019/0	FUNDA Project Boundary Di (Contract 1) Di (Contract 5A) Di (Contract 5B) Di (Contract 5B) Di (Contract 6) Di (Contract 7)				
WELLAB 匯力 consulting . testing . research	Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction Phase for the First Phase Development of KTN and FLN NDAs Project Boundary for the Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas	SCALE CHECK Project No.	A4 @ 1:80000 KL WMA20002	DATE DRAWN Drawing No	July 2020 ML 1 REV -

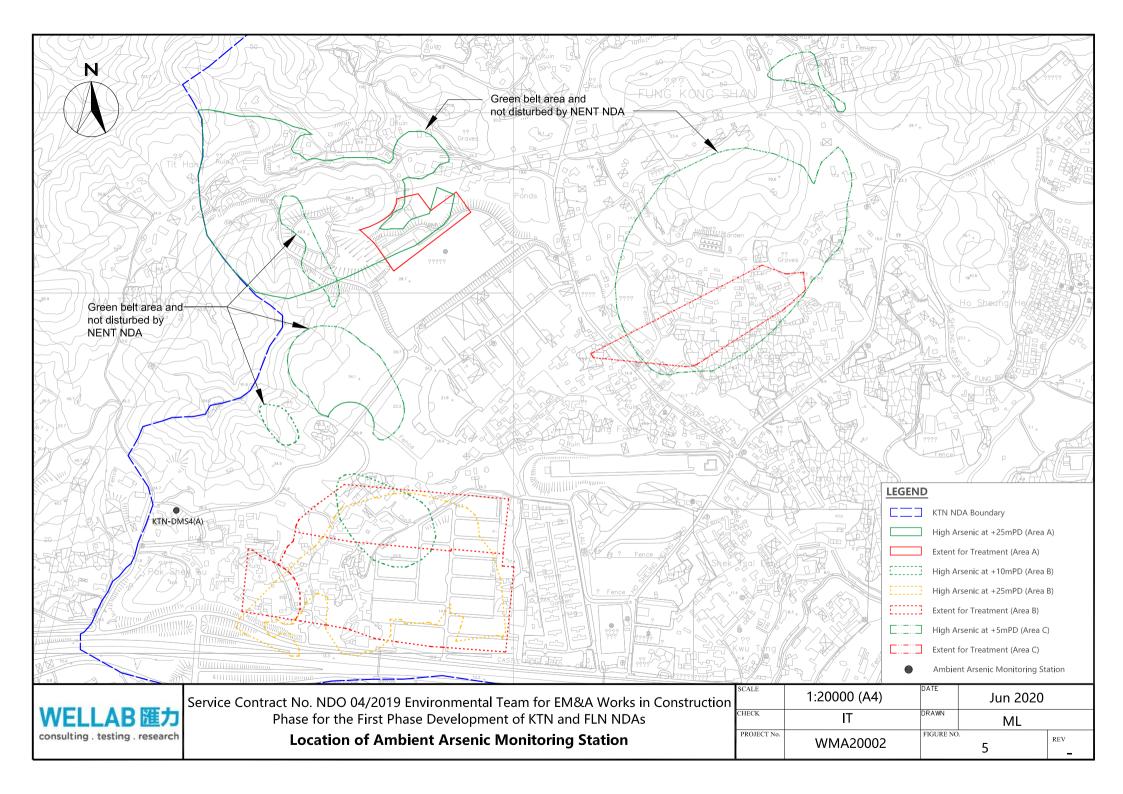
FIGURE(S)

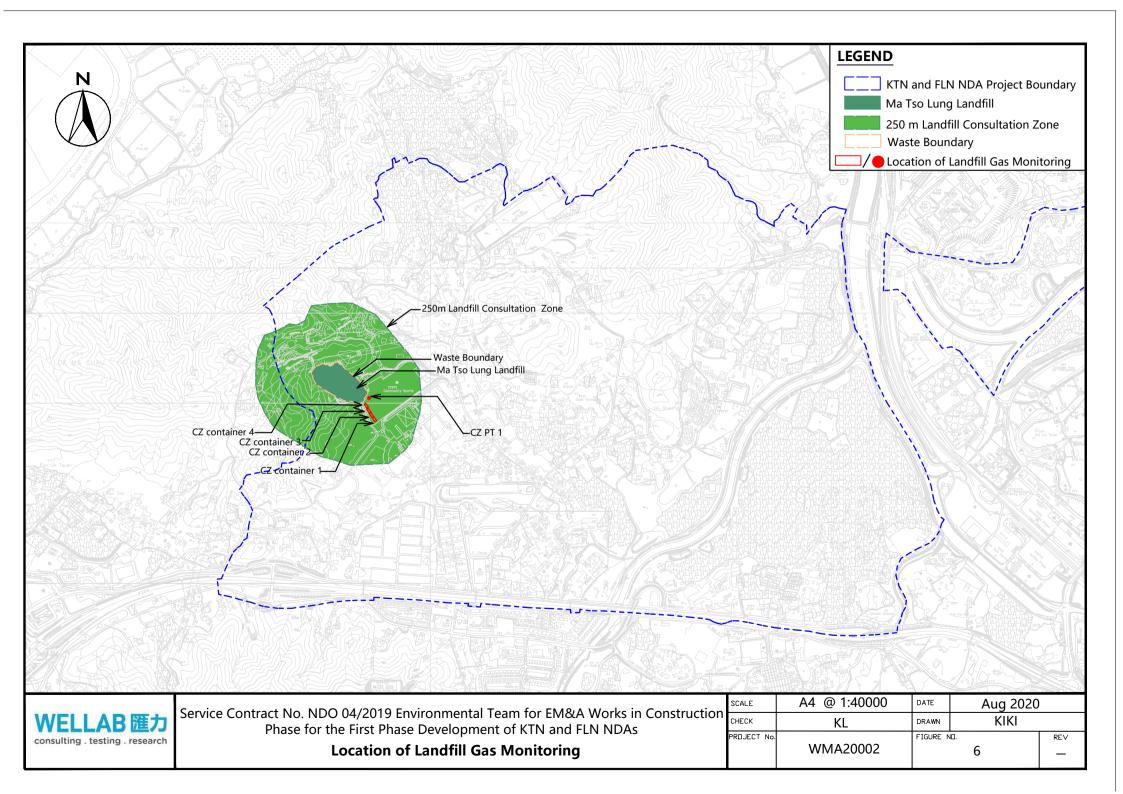


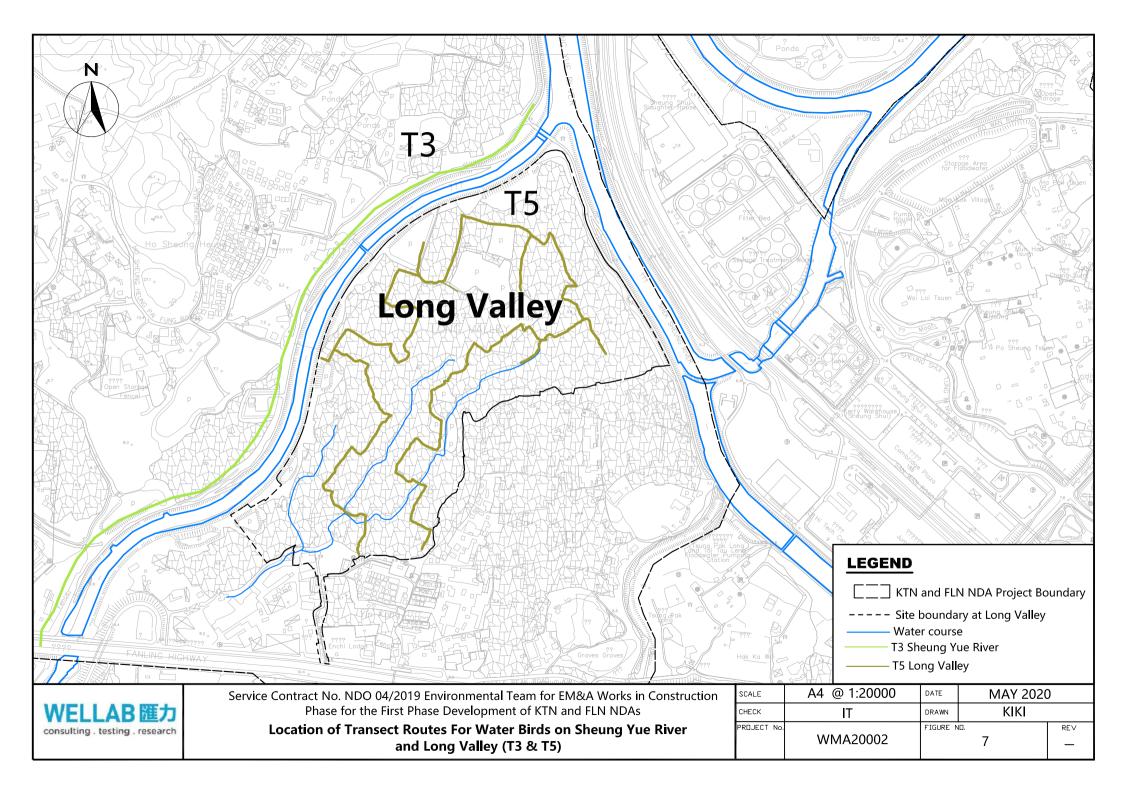


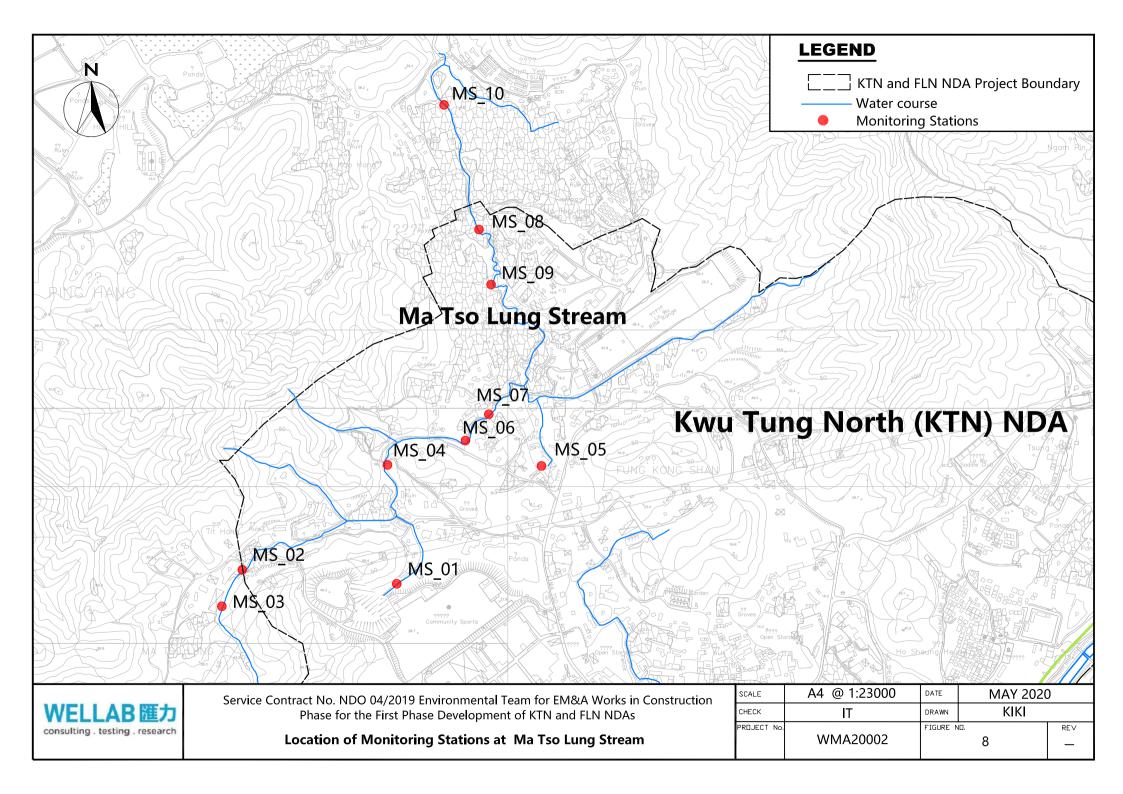


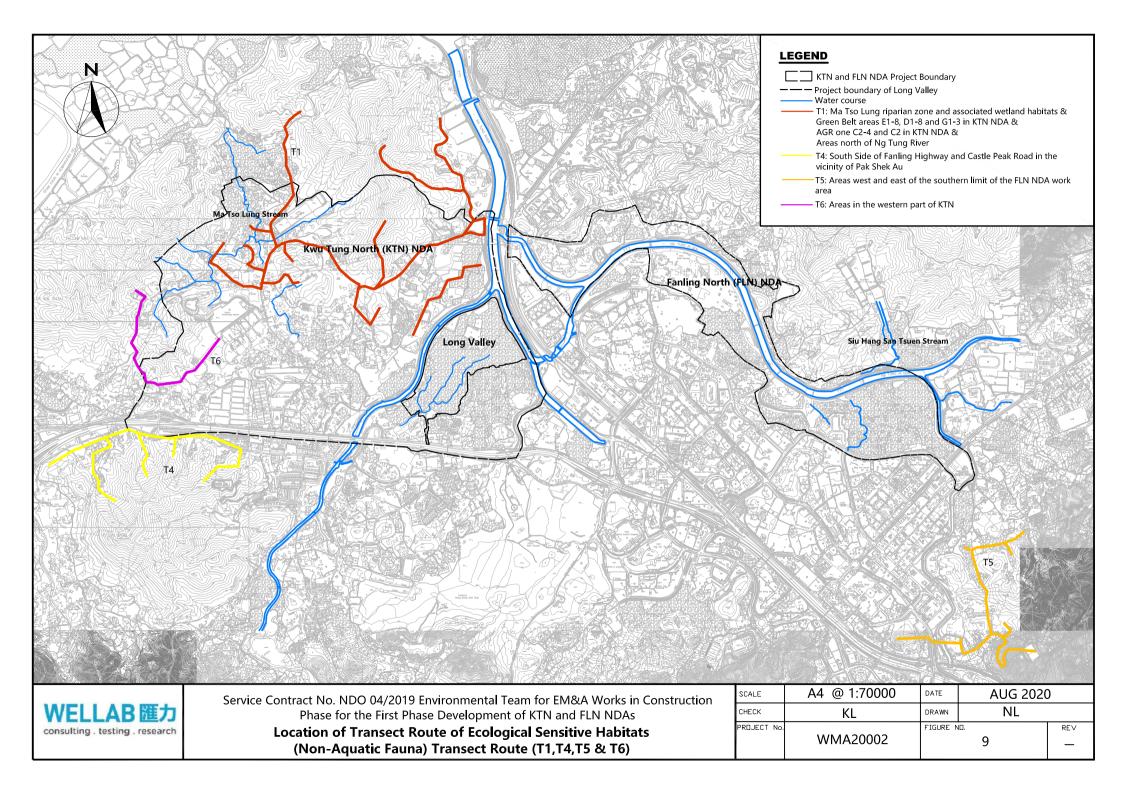


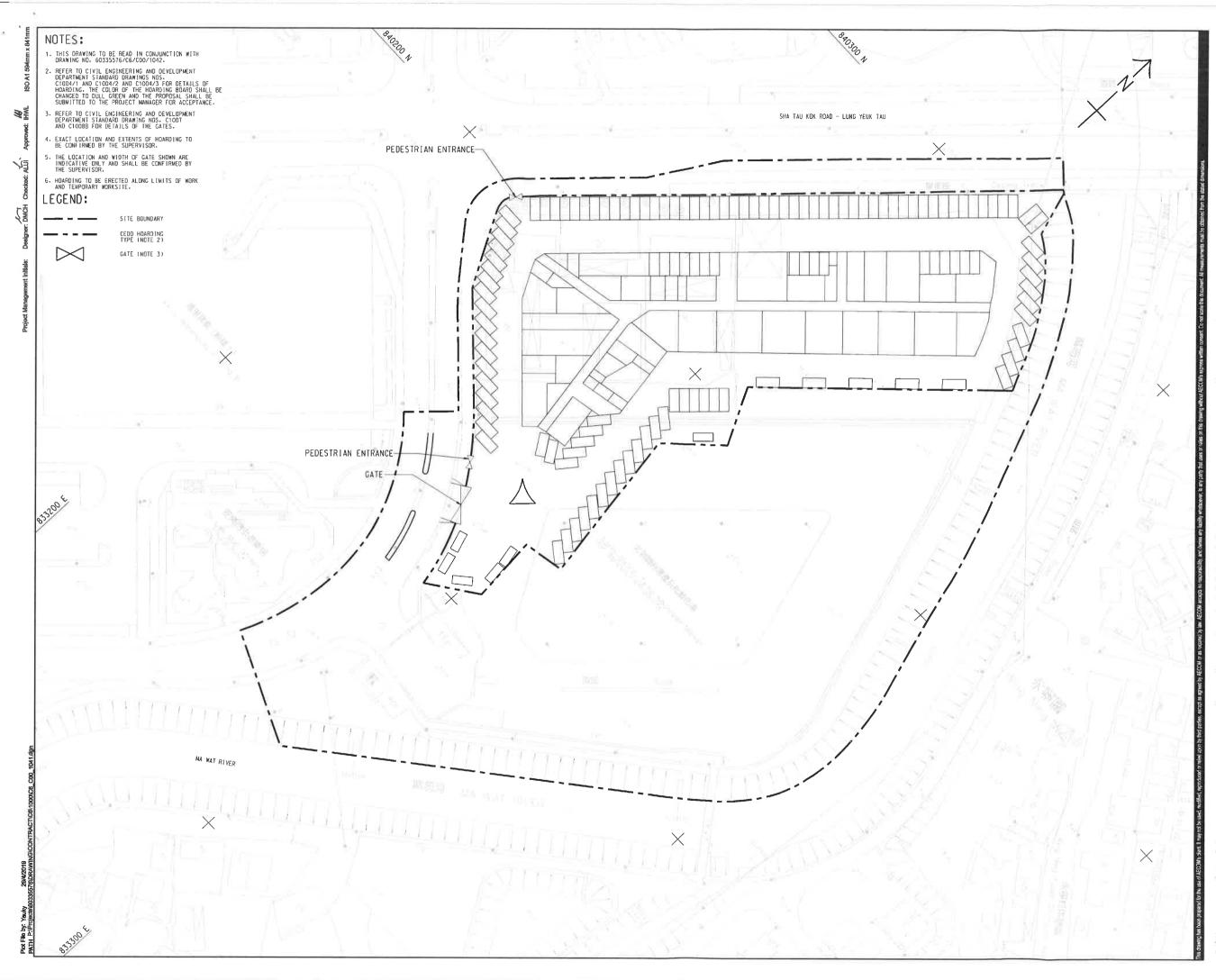














PROJECT

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

全体工程拓展署 Civil Engineering and Development Department

AECOM Asia Company Ltd.

SUB-CONSULTANTS

ISSUE/REVISION

FEB-19	TENDER DRAWING DESCRIPTION 內容損要	ALUI
		6.

STATUS

SCALE

DIMENSION UNIT

A1 1:500

METRES

KEY PLAN *케티

Figure 10.1 Hoarding Plan of EP-475/2013/A

(ND/2019/06)

PROJECT NO.

60335576

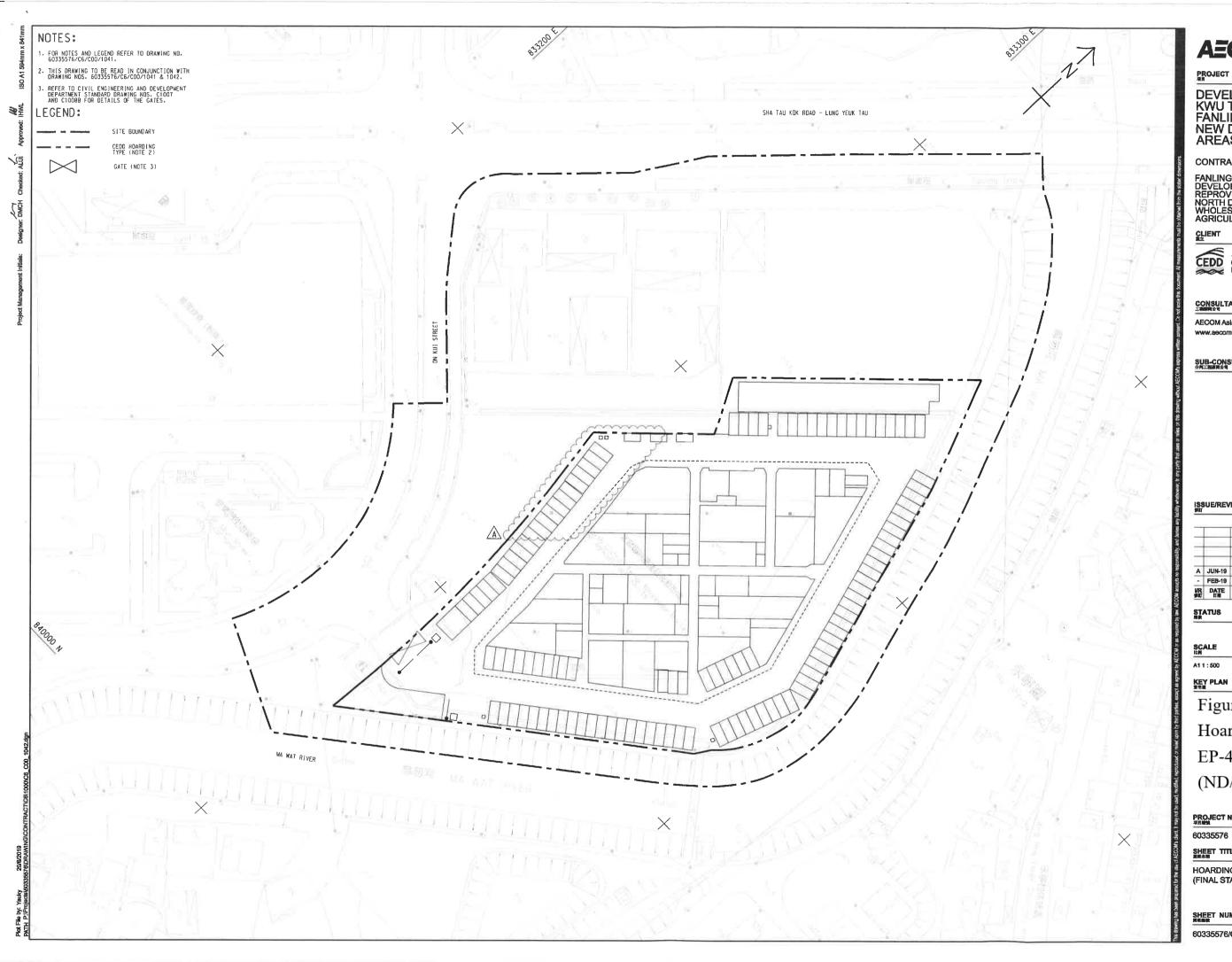
ND/2019/06

SHEET TITLE

HOARDING PLAN (INTERIM STAGE)

SHEET NUMBER

60335576/C6/C00/1041





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

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A	JUN-19	TENDER ADDENDUM NO. 2	ALU
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DIMENSION UNIT

METRES

KEY PLAN

Figure 10.2

Hoarding Plan of

EP-475/2013/A

(ND/2019/06)

PROJECT NO.

CONTRACT NO.

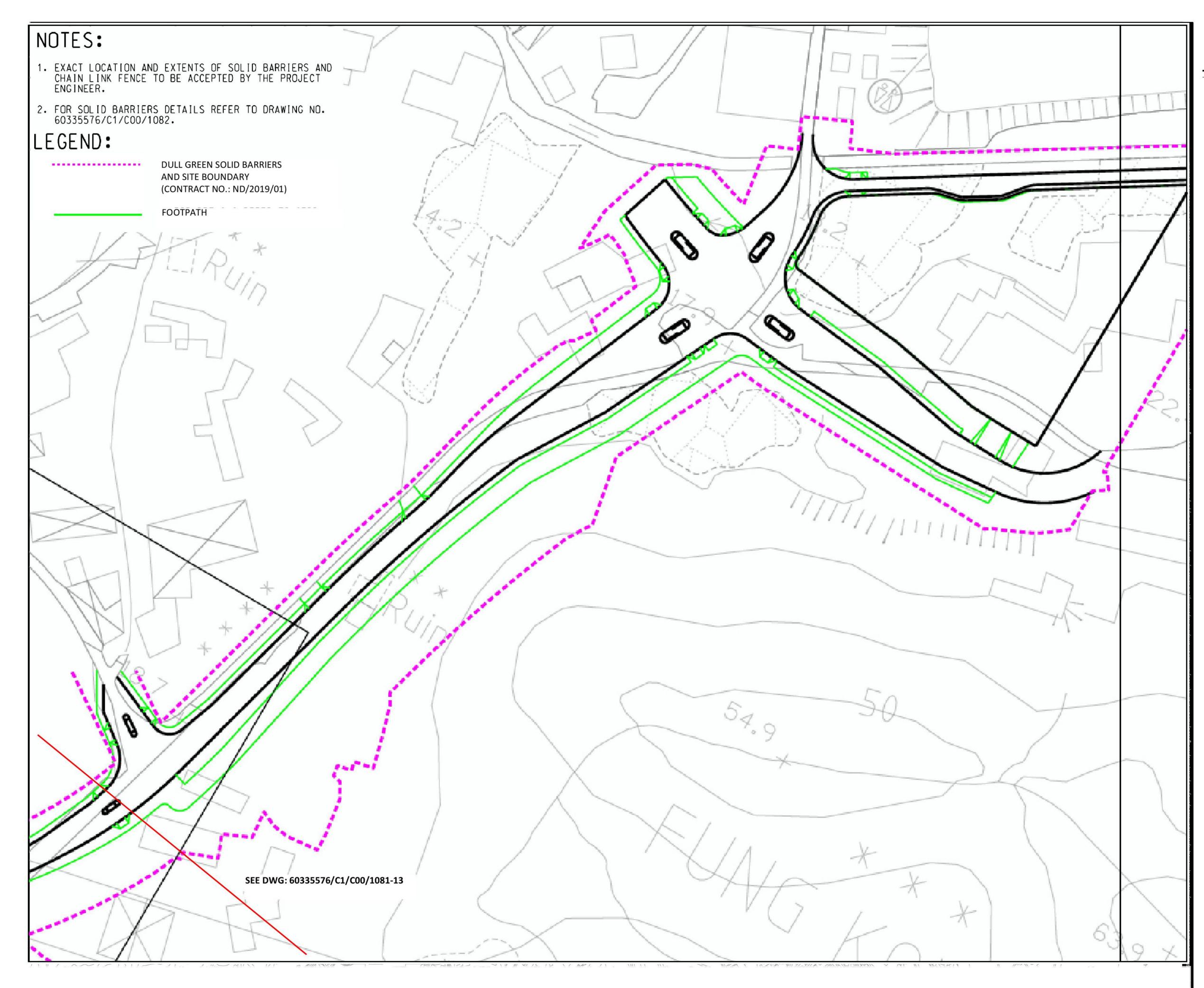
ND/2019/06

SHEET TITLE

HOARDING PLAN (FINAL STAGE)

SHEET NUMBER

60335576/C6/C00/1042A



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**

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Figure 11.1 Hoarding Plan of EP-468/2013/A (ND/2019/01)

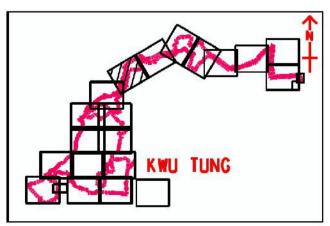
STATUS 階段

SCALE 比例 A3 1:1000

DIMENSION UNIT ^{尺寸單位}

METRES

KEY PLAN _{家引國}



PROJECT NO. 項目編號

CONTRACT NO. ^{合約編號}

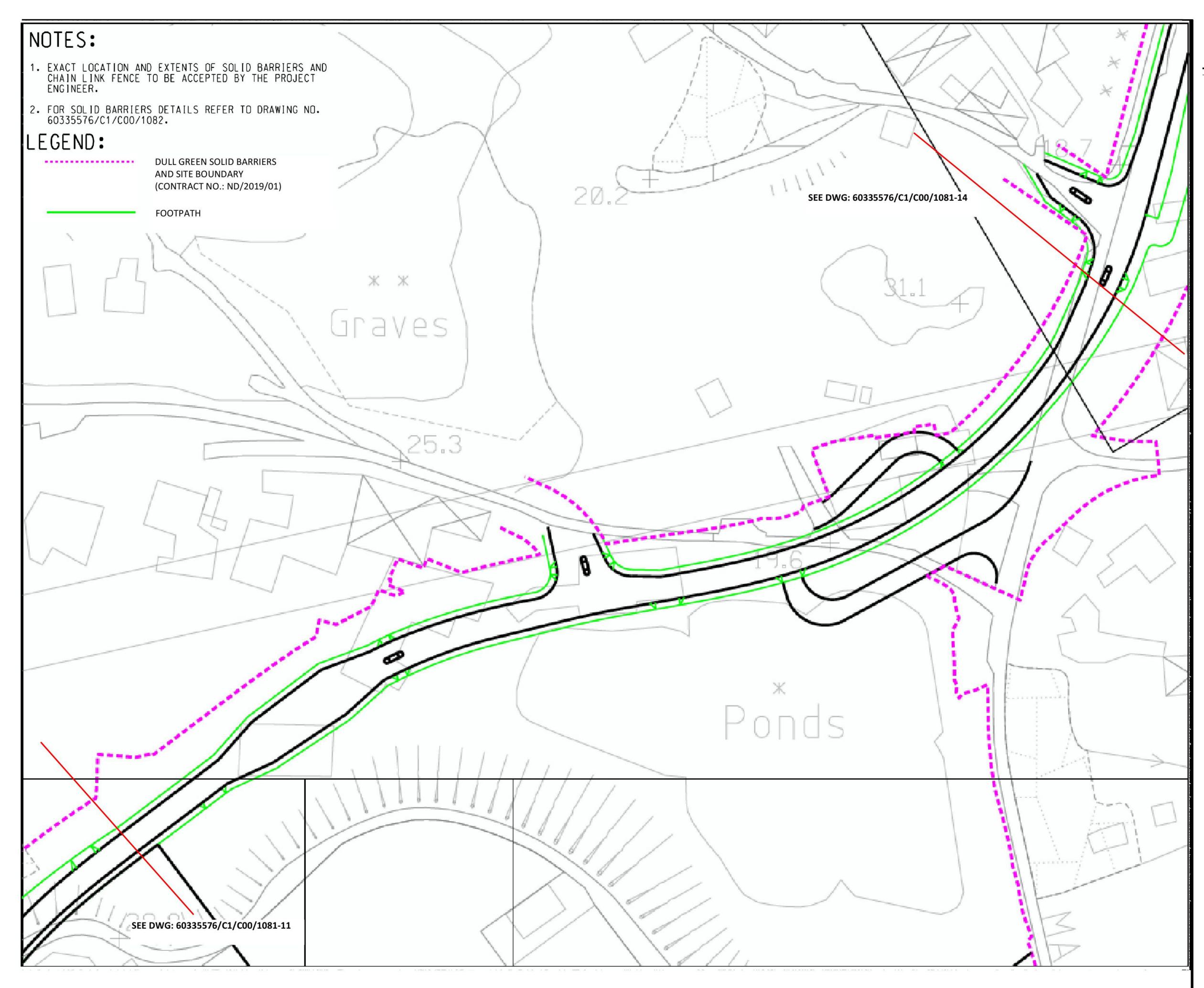
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ND/2019/01

SHEET TITLE 圖紙名稱

DULL GREEN SOLID BARRIERS LAYOUT

SHEET NUMBER ^{國紙編號}



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**

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Figure 11.2 Hoarding Plan of EP-468/2013/A (ND/2019/01)

STATUS 階段

SCALE 比例 A3 1:1000

DIMENSION UNIT ^{尺寸單位} METRES

KEY PLAN 索引圖

KWU TUNG

PROJECT NO. 項目編號

CONTRACT NO. ^{合約編號}

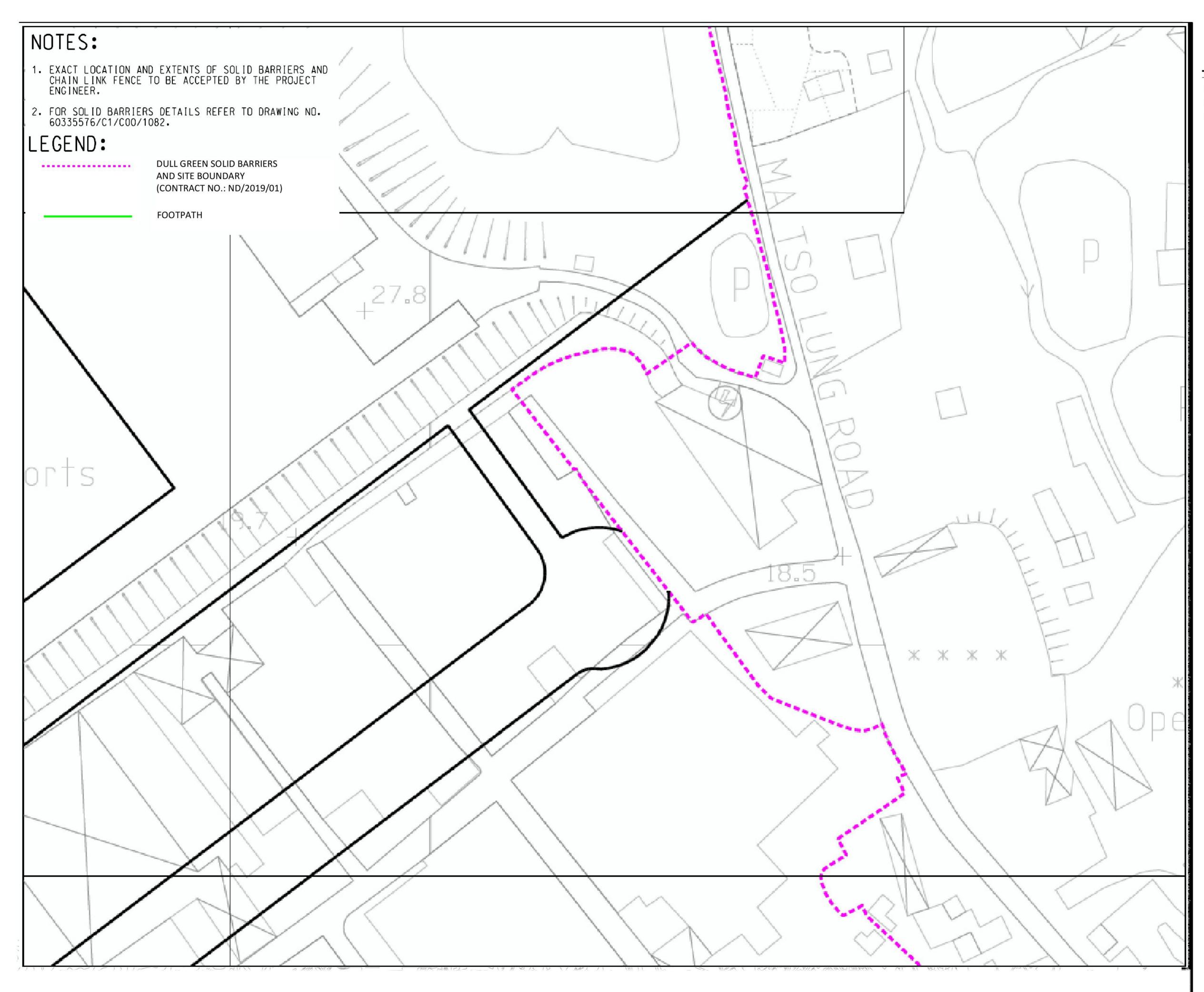
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ND/2019/01

SHEET TITLE 圖紙名稱

DULL GREEN SOLID BARRIERS LAYOUT

SHEET NUMBER 國紙編號



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

CONTRACT TITLE:

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Figure 11.3 Hoarding Plan of EP-468/2013/A (ND/2019/01)

STATUS 階段

SCALE 比例 DIMENSION UNIT ^{尺寸單位}

METRES

A3 1:1000

KEY PLAN _{家引國} KWU TUNG

PROJECT NO. _{項目编號}

CONTRACT NO. ^{合約編號}

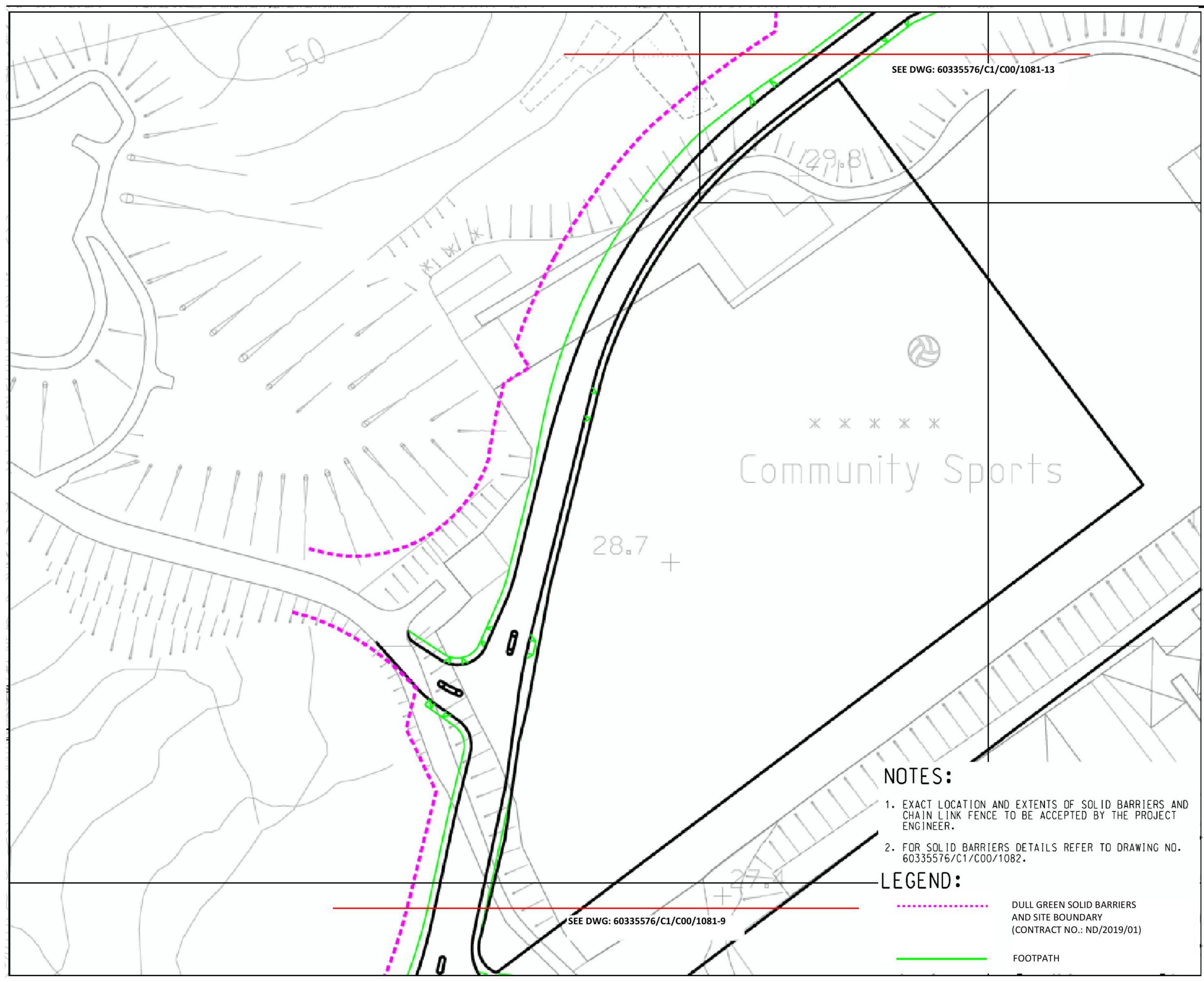
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ND/2019/01

SHEET TITLE 圖紙名稱

DULL GREEN SOLID BARRIERS LAYOUT

SHEET NUMBER 國紙編號



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**

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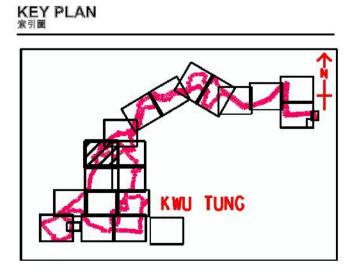
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Figure 11.4 Hoarding Plan of EP-468/2013/A (ND/2019/01)

STATUS 階段





PROJECT NO. 項目編號

CONTRACT NO. ^{合約編號}

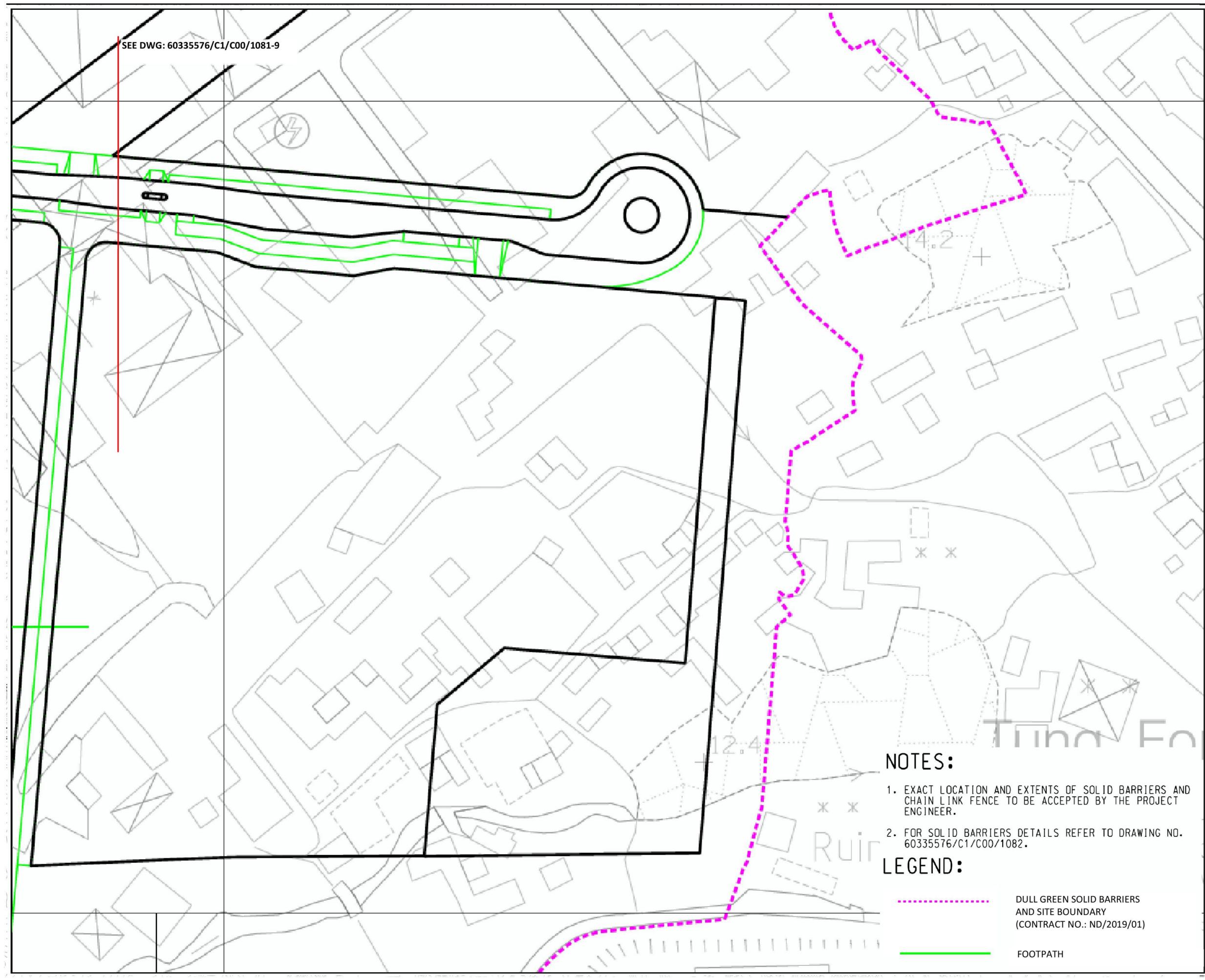
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ND/2019/01

SHEET TITLE 圖紙名稱

DULL GREEN SOLID BARRIERS LAYOUT

SHEET NUMBER 國紙編號



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**

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Figure 11.5 Hoarding Plan of EP-468/2013/A (ND/2019/01)

STATUS 階段

SCALE 比例 DIMENSION UNIT ^{尺寸單位} A3 1:1000 METRES

KEY PLAN _{家引國} **KWU TUNG** 57 LY.

PROJECT NO. _{項目编號}

CONTRACT NO. ^{合約編號}

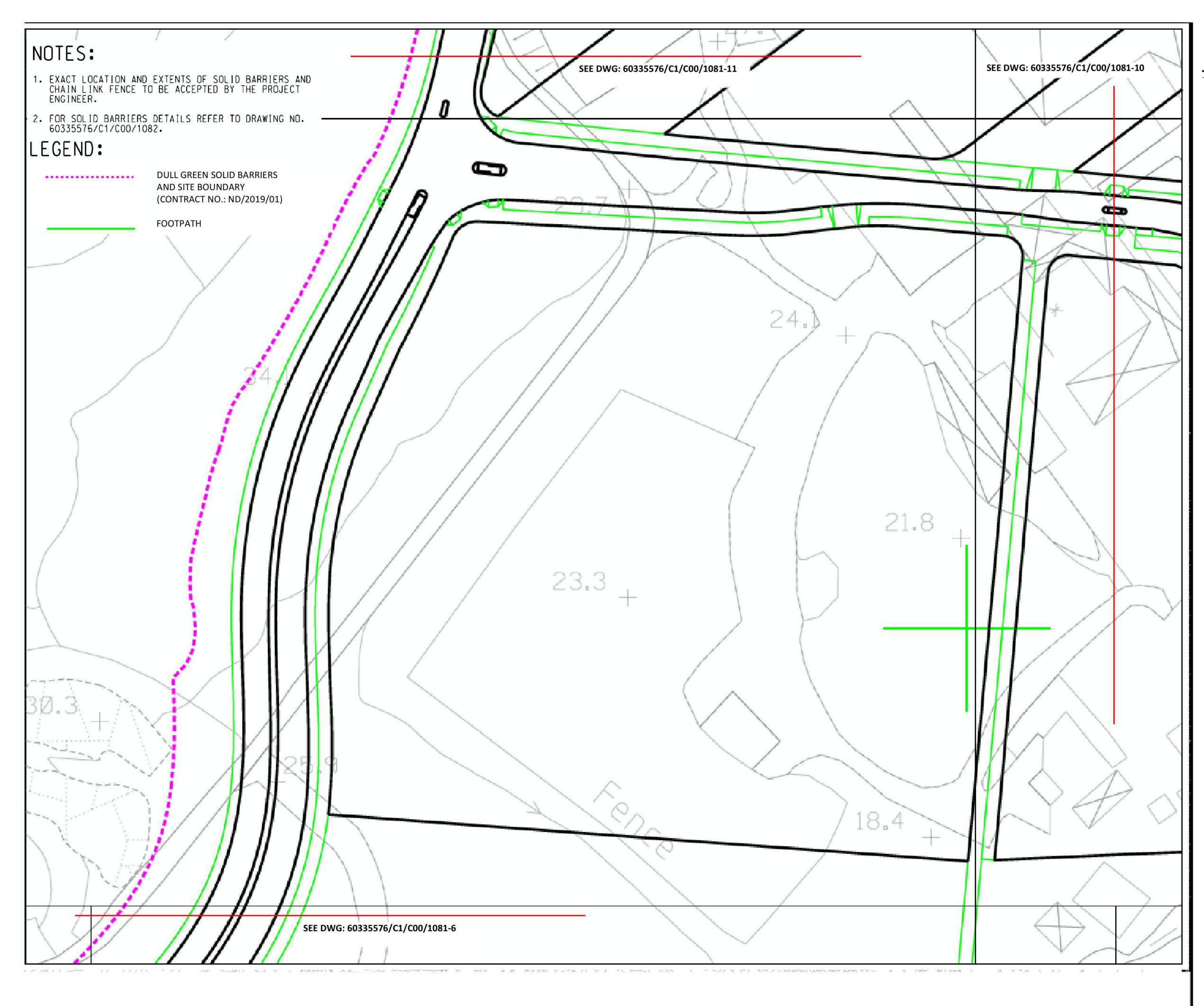
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ND/2019/01

SHEET TITLE 圖紙名稱

DULL GREEN SOLID BARRIERS LAYOUT

SHEET NUMBER 圖紙編號



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**

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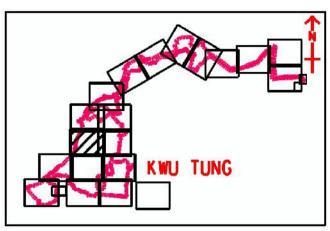
Figure 11.6 Hoarding Plan of EP-468/2013/A (ND/2019/01)

STATUS 階段

SCALE 比例 DIMENSION UNIT 尺寸單位 A3 1:1000

METRES

KEY PLAN _{家引國}



PROJECT NO. _{項目编號}

CONTRACT NO. ^{合約編號}

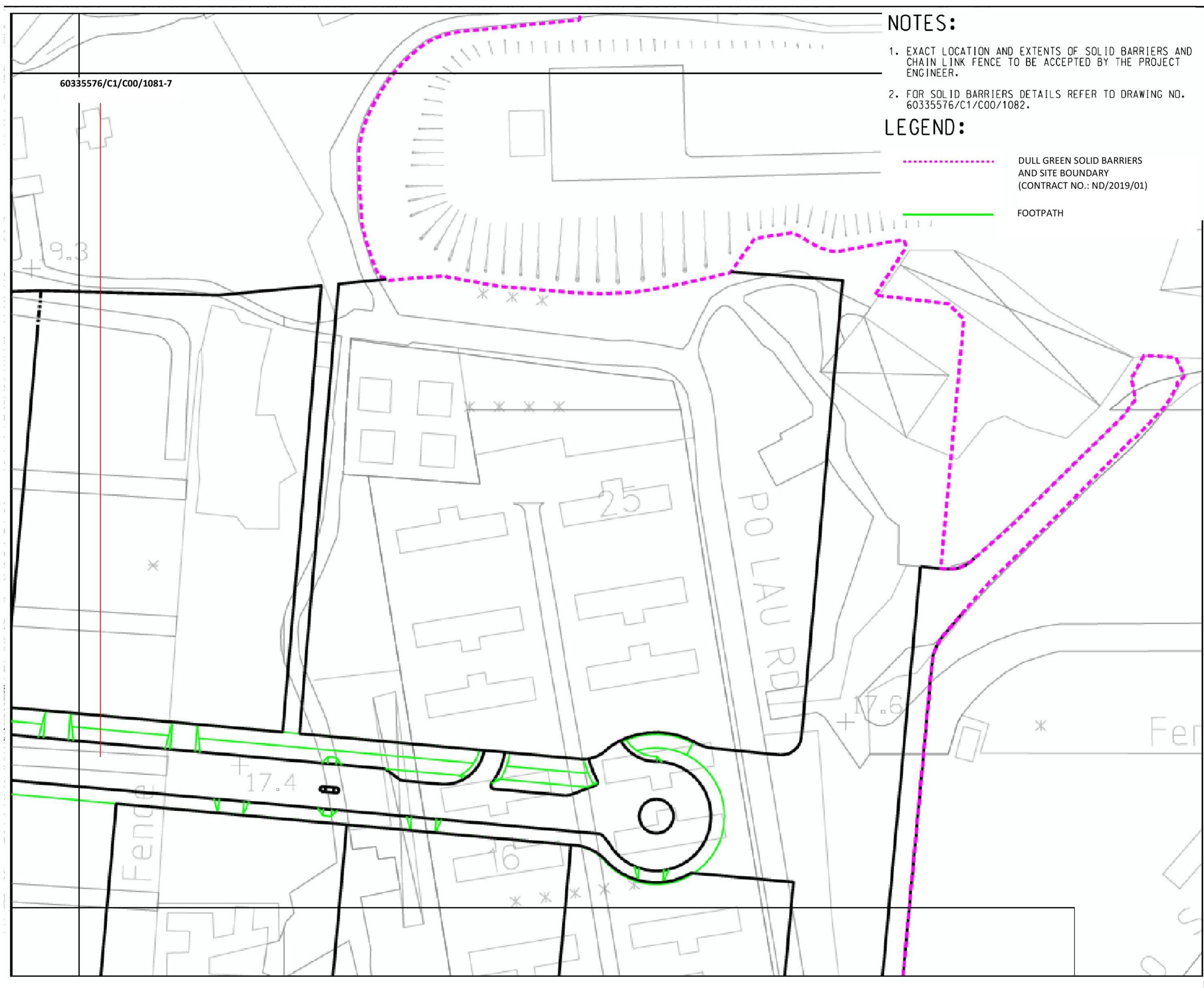
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ND/2019/01

SHEET TITLE 圖紙名稱

DULL GREEN SOLID BARRIERS LAYOUT

SHEET NUMBER 圖紙編號



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**

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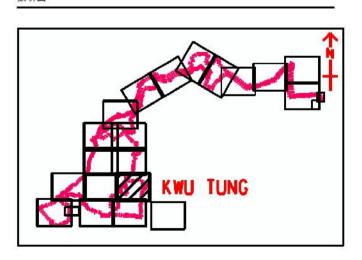
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Figure 11.7 Hoarding Plan of EP-468/2013/A (ND/2019/01)

STATUS 階段

SCALE 比例 DIMENSION UNIT 尺寸單位 METRES

A3 1:1000 KEY PLAN _{家引國}



PROJECT NO. 項目編號

CONTRACT NO. ^{合約編號}

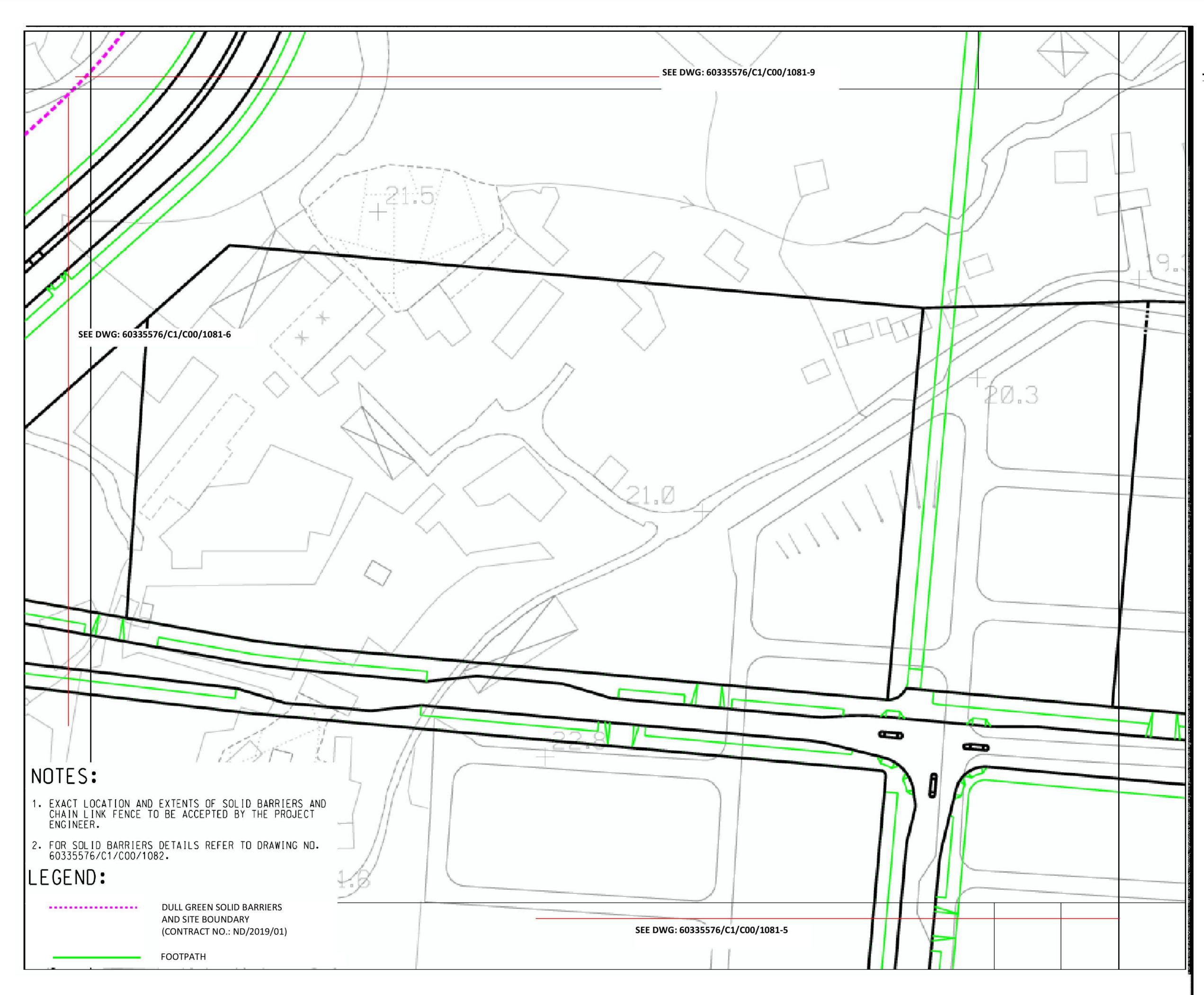
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ND/2019/01

SHEET TITLE 圖紙名稱

DULL GREEN SOLID BARRIERS LAYOUT

SHEET NUMBER 國紙編號



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**

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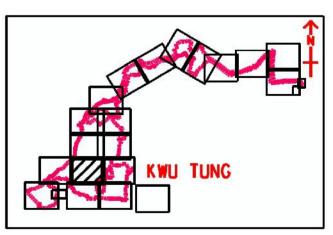
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Figure 11.8 Hoarding Plan of EP-468/2013/A (ND/2019/01)

STATUS 階段



KEY PLAN _{家引國}



PROJECT NO. _{項目編號}

CONTRACT NO. ^{合約編號}

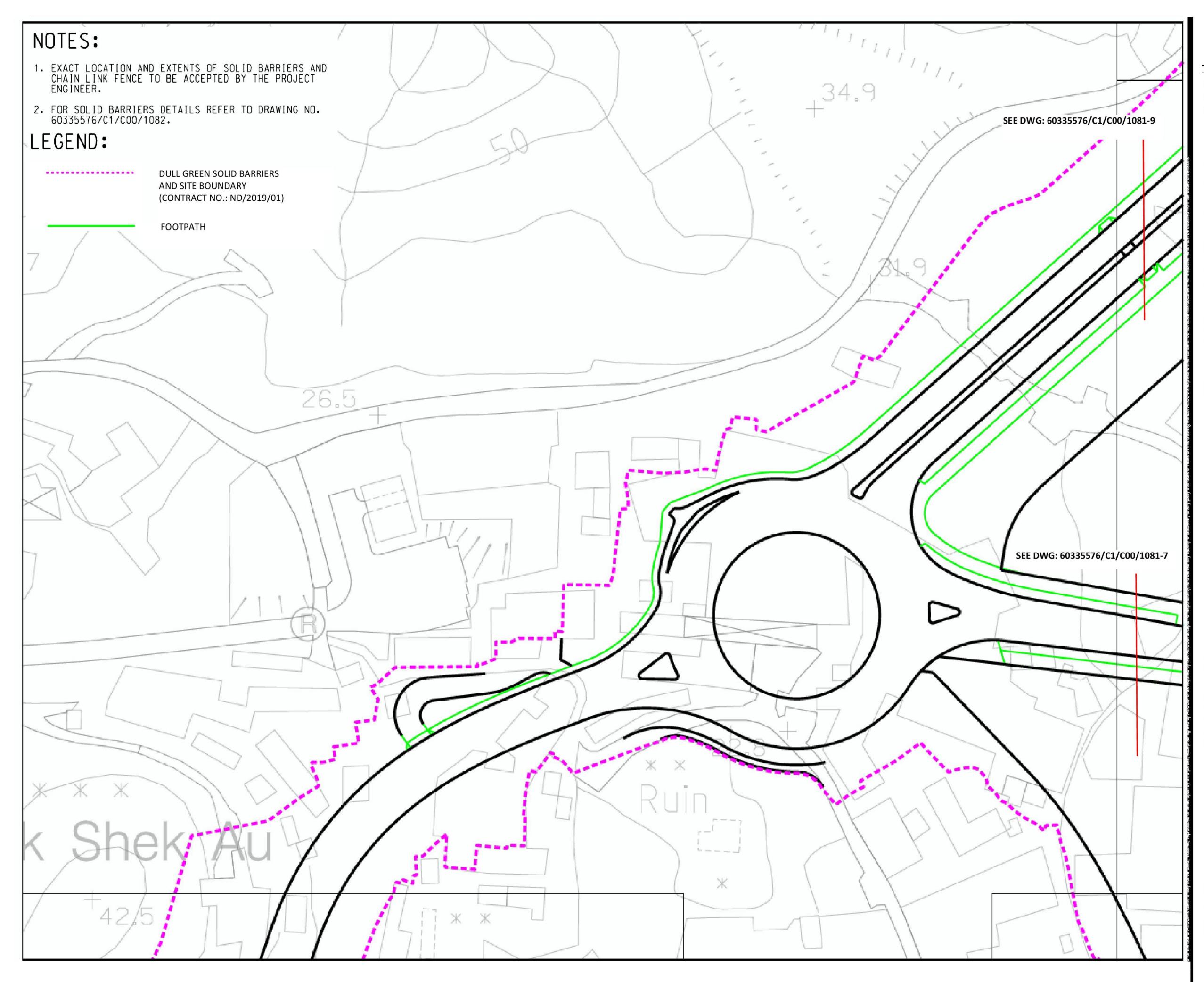
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ND/2019/01

SHEET TITLE 圖紙名稱

DULL GREEN SOLID **BARRIERS LAYOUT**

SHEET NUMBER 圖紙編號



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 業主



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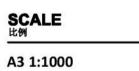
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Figure 11.9 Hoarding Plan of EP-468/2013/A (ND/2019/01)

STATUS 階段



DIMENSION UNIT ^{尺寸單位}

METRES

KEY PLAN 索引圖 KWU TUNG

PROJECT NO. 項目編號

CONTRACT NO. ^{合約編號}

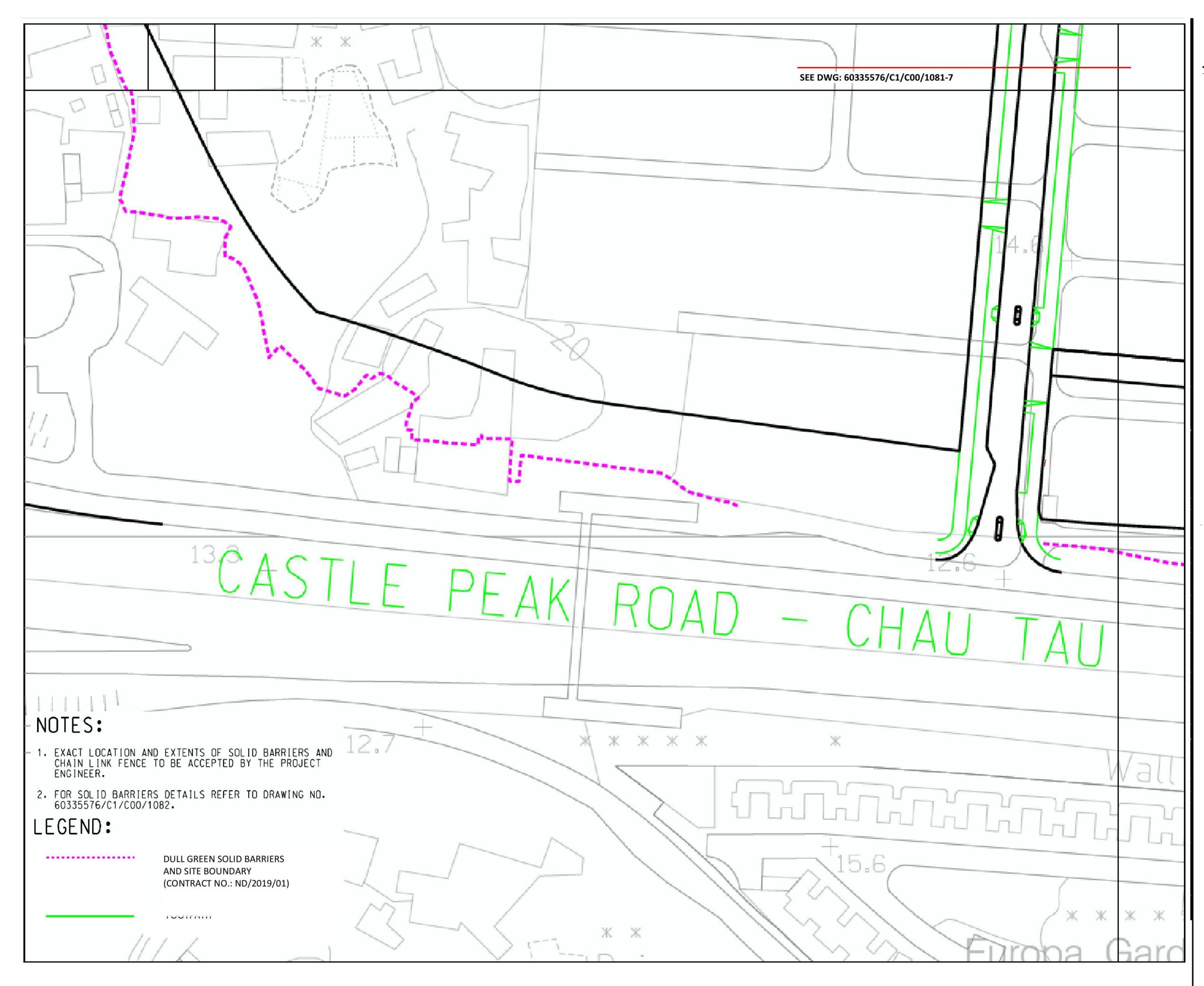
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SHEET TITLE 圖紙名稱

DULL GREEN SOLID BARRIERS LAYOUT

SHEET NUMBER ^{圖紙編號}



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 _{業主}



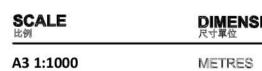
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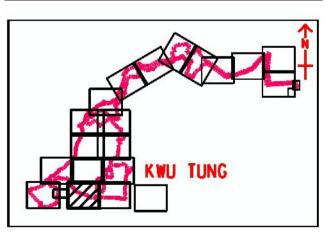
Figure 11.10 Hoarding Plan of EP-468/2013/A (ND/2019/01)

STATUS 階段



DIMENSION UNIT 尺寸單位

KEY PLAN _{家引國}



PROJECT NO. 項目編號

CONTRACT NO. ^{合約編號}

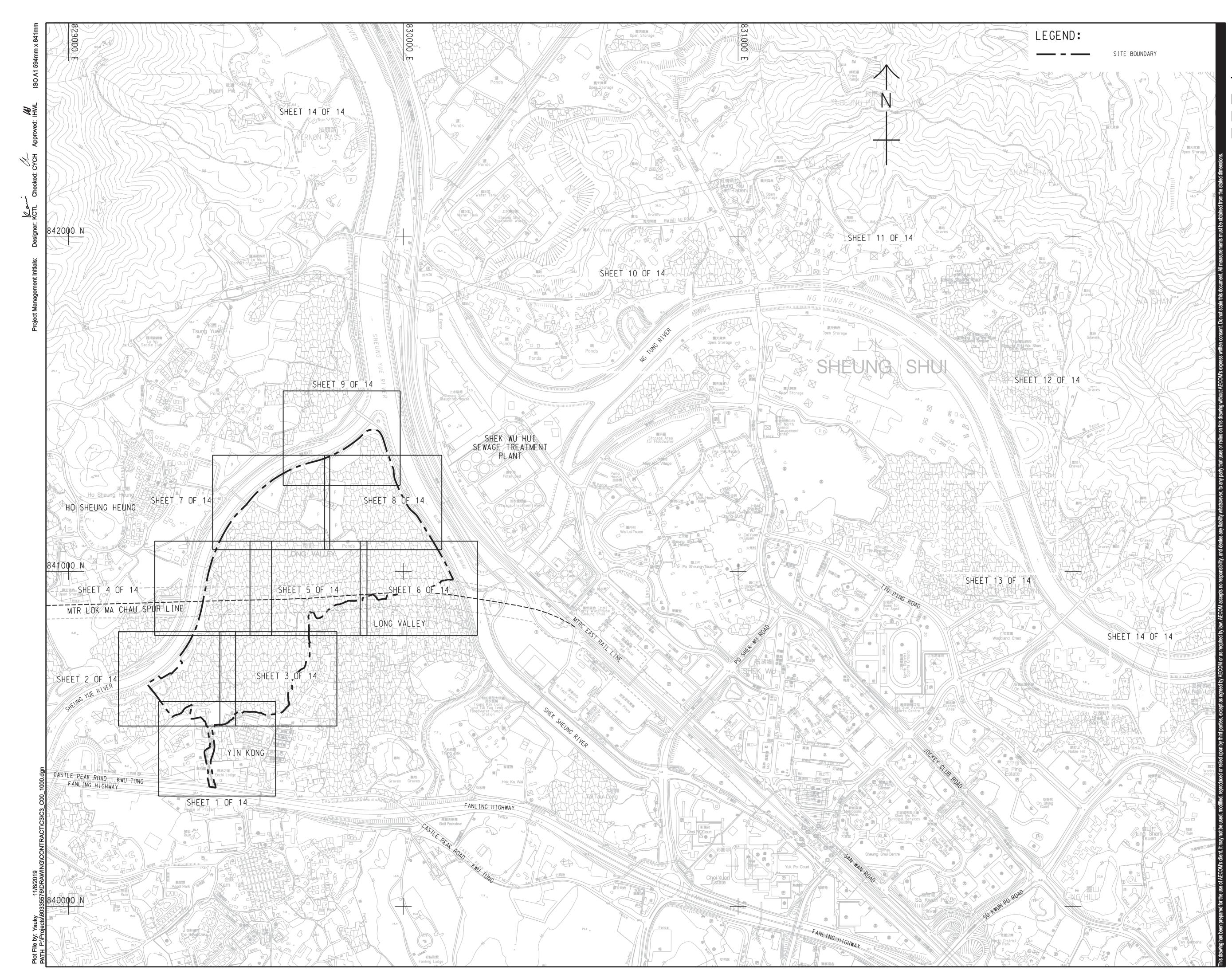
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SHEET TITLE 圖紙名稱

DULL GREEN SOLID **BARRIERS LAYOUT**

SHEET NUMBER 圖紙編號



Sang Hing - Kuly Venture

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

CLIENT 業主



住木工程拓展署
 Civil Engineering and
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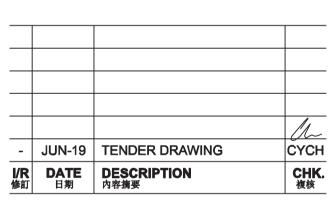
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Figure 11.11 Hoarding Plan of EP-468/2013/A (ND/2019/03)

ISSUE/REVISION 修訂



STATUS 階段

SCALE	DIMENSION UNIT
比例	^{尺寸單位}
A1 1 : 5000	METRES

KEY PLAN 索引圖

PROJECT NO. _{項目編}號

60335576

CONTRACT NO. 合約編號

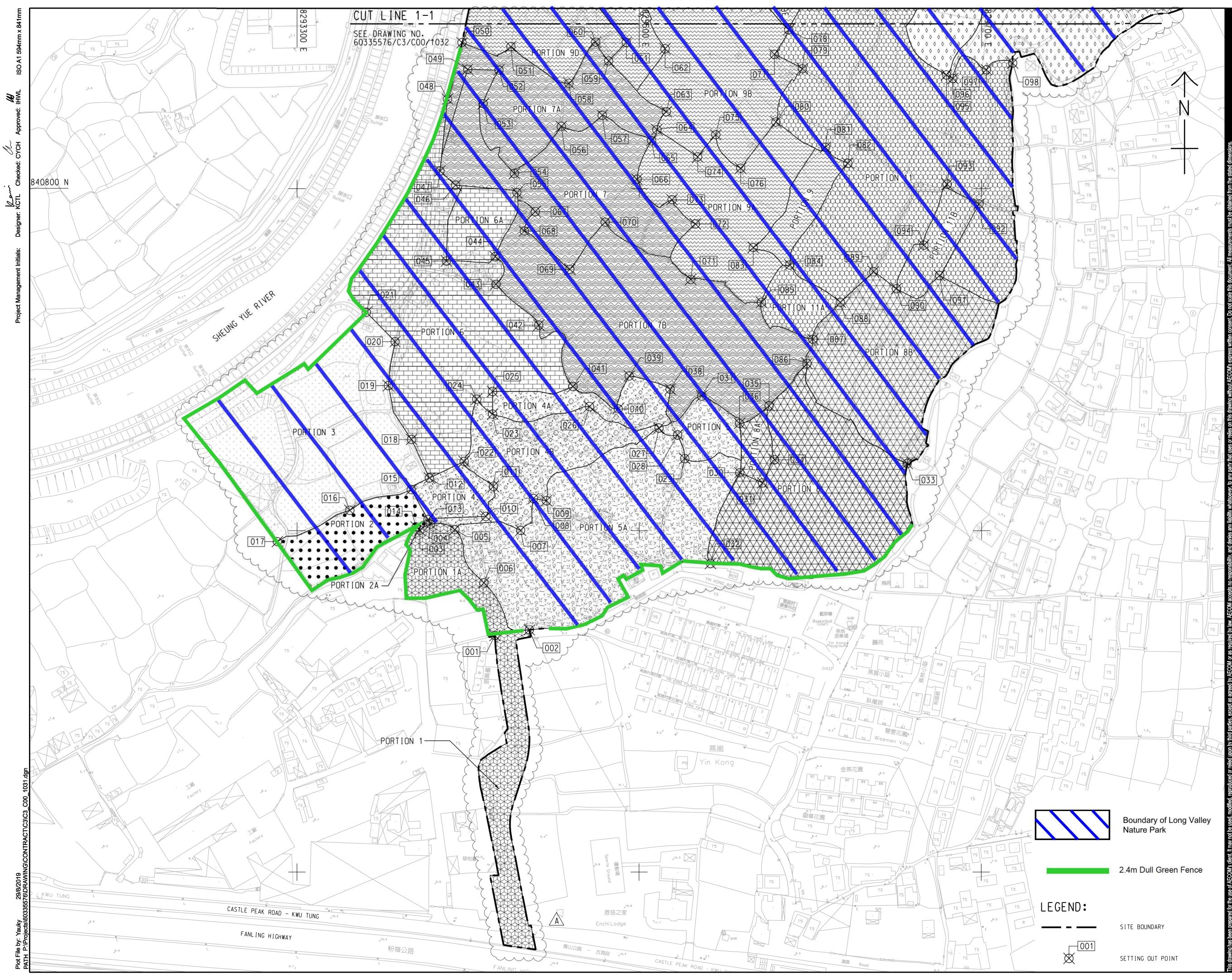
ND/2019/03

SHEET TITLE 圖紙名稱

KEY PLAN OF GENERAL LAYOUT

SHEET NUMBER 圖紙編號

60335576/C3/C00/1000



Sang Hing - Kuly Joint Venture

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

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Figure 11.12 Hoarding Plan of EP-468/2013/A (ND/2019/03)

ISSUE/REVISION 修訂

I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 複核
-	JUN-19	TENDER DRAWING	СҮСН
Α	AUG-19	TENDER ADDENDUM NO. 3	Сүсн
			the

STATUS _{階段}

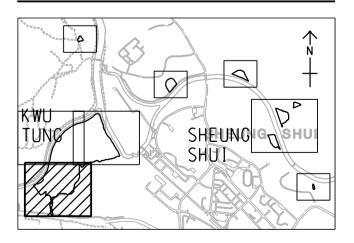
SCALE 比例

DIMENSION UNIT ^{尺寸單位}

A1 1 : 1000

METRES

KEY PLAN A1 1 : 40000 家引國



PROJECT NO. _{項目編}號

60335576

CONTRACT NO. ^{合約編號}

ND/2019/03

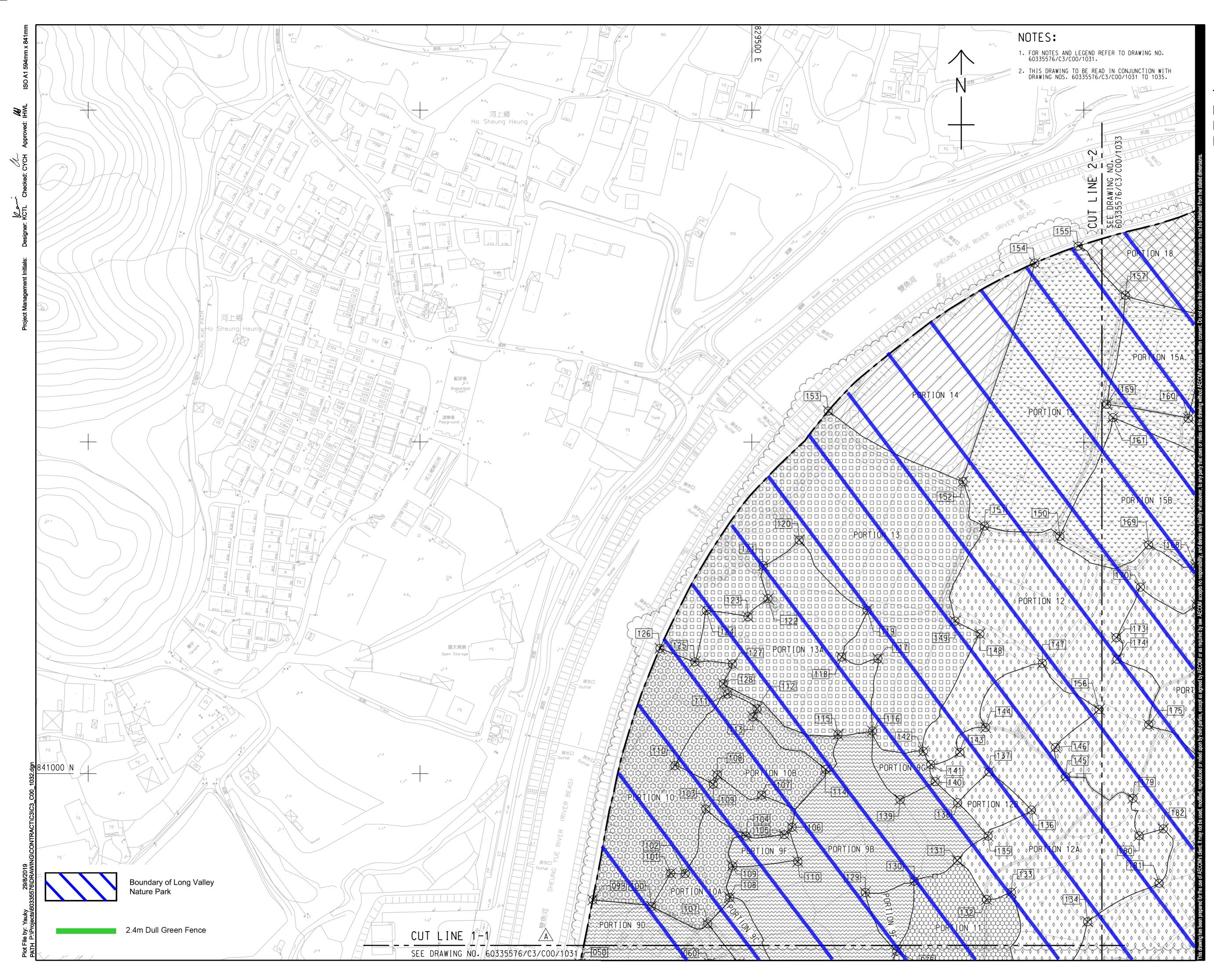
SHEET TITLE ^{圖紙名稱}

PORTION OF SITE

SHEET 1 OF 5

SHEET NUMBER ^{國紙編號}

60335576/C3/C00/1031A



Sang Hing - Kuly Joint Venture

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

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 Civil Engineering and
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Figure 11.13 Hoarding Plan of EP-468/2013/A (ND/2019/03)

ISSUE/REVISION ^{依訂}



STATUS _{階段}

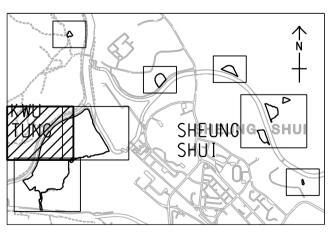
SCALE 比例

DIMENSION UNIT ^{尺寸單位}

A1 1 : 1000

METRES

KEY PLAN A1 1 : 40000 *家*引蜀



PROJECT NO. _{項目編號}

CONTRACT NO. ^{合約編號}

ND/2019/03

60335576

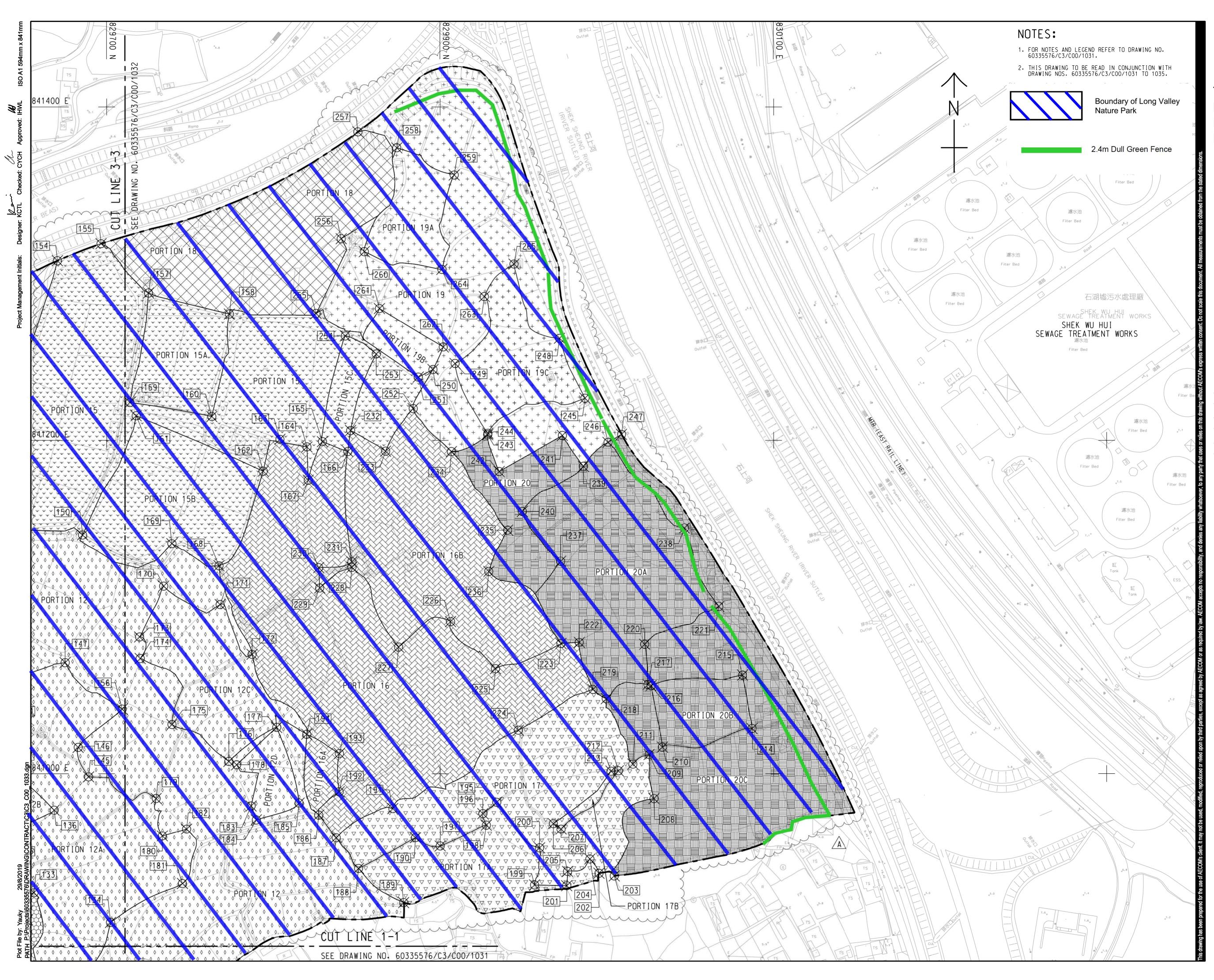
SHEET TITLE 圖紙名稱

PORTION OF SITE

SHEET 2 OF 5

SHEET NUMBER ^{圖紙編號}

60335576/C3/C00/1032A



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

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Figure 11.14 Hoarding Plan of EP-468/2013/A (ND/2019/03)

ISSUE/REVISION 修訂



STATUS 階段

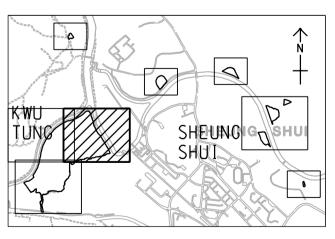
SCALE 比例

DIMENSION UNIT ^{尺寸單位}

A1 1 : 1000

METRES

KEY PLAN A1 1 : 40000 家引圖



PROJECT NO. _{項目編號}

60335576

CONTRACT NO. ^{合約編號}

ND/2019/03

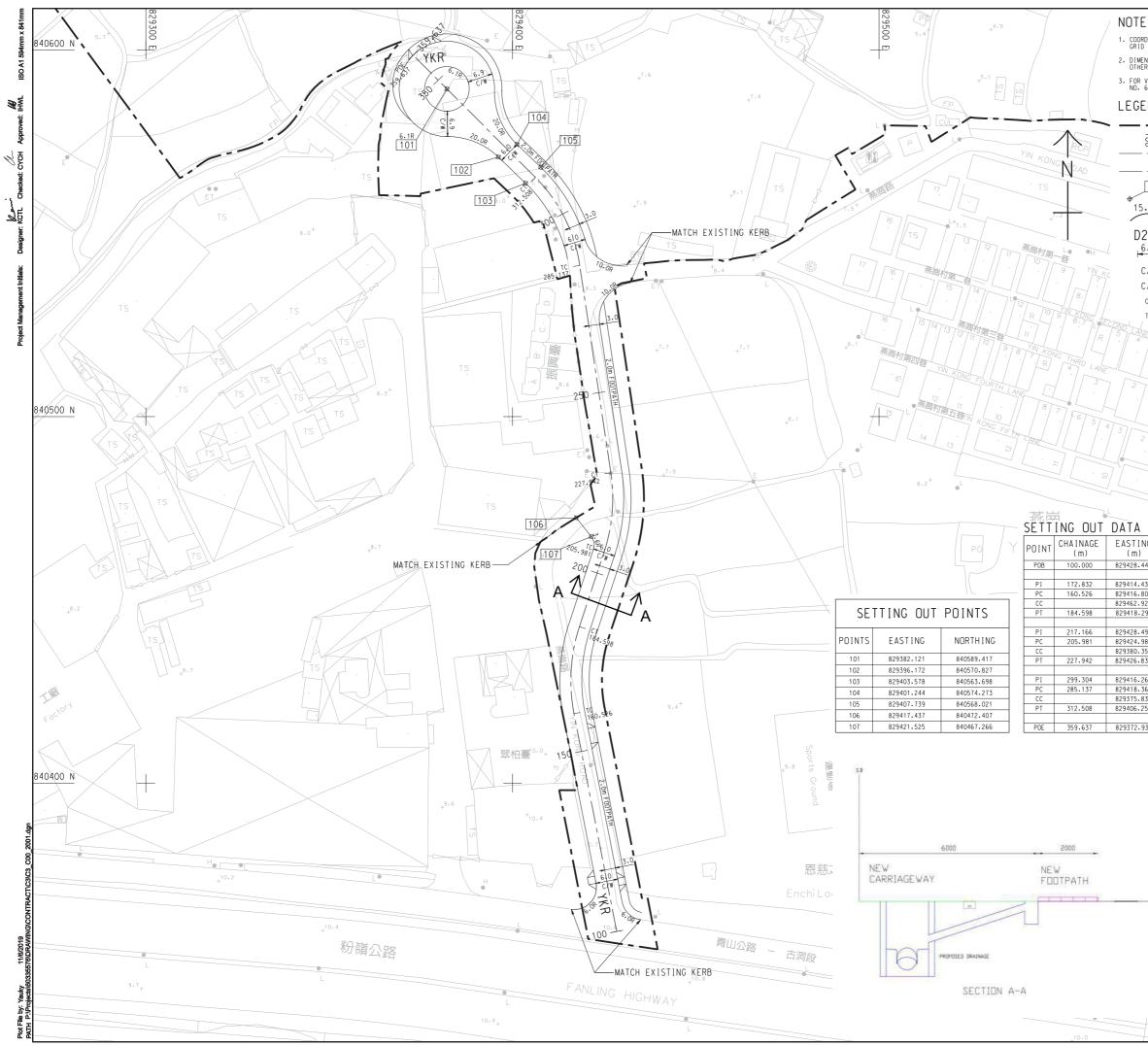
SHEET TITLE 圖紙名稱

PORTION OF SITE

SHEET 3 OF 5

SHEET NUMBER 圖紙編號

60335576/C3/C00/1033A



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Sang Hing - Kuly Venture

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



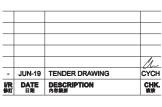
CONSULTANT 工程展開公司

AECOM Asia Company Ltd. www.aecom.com

SUB-CONSULTANTS

Figure 11.15 Hoarding Plan of EP-468/2013/A (ND/2019/03)

ISSUE/REVISION



STATUS

SCALE								
A3	1:1000							

DIMENSION UNIT

METRES

KEY PLAN A1 1 : 40000 京河田

PROJECT NO. 项目编辑

CONTRACT NO. ND/2019/03

60335576

SHEET TITLE

YIN KONG ROAD -ROAD SETTING OUT PLAN

SHEET NUMBER

60335576/C3/C00/2001

APPENDIX A CONSTRUCTION PROGRAMME



Joint Venture

Summary LOE Critical

ND/2019/01 - Kwu Tung North New Development Area, Phase 1:Site Formation and Infrastructure Works

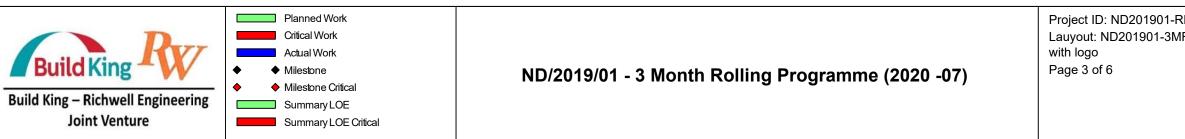
tivity ID	Activity Name	Remaining Start Duration	Finish	Total Float	Calendar		July 202 05 12	19	26	02	Au 09	gust 2020 16	23	30	06	September 2020 13
	ramme (2020-07-30) Final Critical Path															
2.0 - Site Acce	ess Date															
AD-1160	Poriton 9b - (Late Possession from 6 Jul 2020)	0 31-Jul-20*		-25		-					Possession from 6 Ju					
AD-1180	Poriton 9d - (Late Possession from 6 Jul 2020)	0 31-Jul-20*		-25		-					Possession from 6 Ju	ul 2020)				
AD-1270 AD-1030	Portion 16 Portion 1d - (Late Possession from 6 Jul 2020)	0 02-Aug-20* 0 31-Jul-20*		-25	- (-)					 Portion 16 Portion 1d - (Late) 	Possession from 6 Ju	1 2020)				
AD-1030	Portion 3 - (Late Possession from 6 Apr 2020)	0 31-Jul-20*		-25		-				 Portion 1d - (Late P Portion 3 - (Late P 		,				
AD-1210	Protion 11a	0 31-Jul-20*		-25						 Protion 11a 		. 202 07				
4.0 - Key Date																
4.1 Key Date	Completion															
KD0-1020	KD3 320 days after starting date	0	21-Oct-20*	0	CD (7d)	/										
KD0-1040	KD5 305 days after starting date	0	06-Oct-20*	0	CD (7d)											
	Key Date Completion															
KD-1020	KD3 320 days after starting date	0	10-Oct-20*	11	CD (7d)											
5.0 - Ordering																
OD-1020	Order for Section 19A (subject to excision, within 244 days from starting date inclusive)	0	05-Aug-20*	0	- (-)	-					der for Section 19A (-	-		
OD-1030 OD-1040	Order for Section 19B (subject to excision, within 244 days from starting date inclusive) Order for Section 19C (subject to excision, within 244 days from starting date inclusive)	0	05-Aug-20*	0	- (-)						der for Section 19B (der for Section 19C (
		0	05-Aug-20*	0	CD (70)					▼ 010	del Iol Section 190 (subject to excision, v	/101111 244 Udy5 110111	starting date indust	(6)	
	aries and General Requirements															
6.1 - Prelimin																
PRE-1020	Baseline Ecological Monitoring Works (by ET) (from 3/7/19 to 2/7/20)	0 28-Nov-19 A	31-Jul-20	2351						1						
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)	-										
PRE-1030	Provision of Waste Water Treatment Facilities	0 01-Feb-20 A	10-Feb-20 A		CD (7d)											
6.2 - General						4										
GS-1200	Acceptance of Details for Project Manager's Site Accommodation	0 30-May-20 A	23-Jun-20 A		CD (7d)	·										
GS-1040 GS-1060	Submission of Draft Construction Health and Safety Plan Submission of Draft Environmental Management Plan	0 28-Nov-19 A 0 28-Nov-19 A	06-Dec-19 A 06-Dec-19 A		CD (7d) CD (7d)											
GS-1080 GS-1180	Submission of Emergency Unit	0 26-Dec-19 A	17-Dec-19 A		CD (7d) CD (7d)	-										
GS-1070	Submission of Environmental Management Plan	0 28-Nov-19 A	31-Dec-19 A		CD (7d)	· · ·										
GS-1100	Submission of Interface Management Plan	21 15-Oct-20*	04-Nov-20	306		-										
GS-1230	Submission of Major Method Statements	42 06-Dec-19 A	10-Sep-20	2309	CD (7d)	,										
GS-1080	Submission of Site Traffic Safety Management Plan	2 06-Dec-19 A	01-Aug-20*	31		-										
GS-1160	Submission of Subcontractor Management Plan	0 28-Nov-19 A	06-Dec-19 A		CD (7d	_						_				
GS-1240	Temporary Traffic Management Scheme and XP application (Extension of application du	16 04-Feb-20 A	15-Aug-20	-37	CD (7d)											
6.3 - Subletti																
SP-1270	Building Information Modelling (BIM)	0 06-Jun-20 A	07-Jul-20 A		CD (7d	-										
SP-1111	Civil Provisions for STF (TSPS & MBR)	120 04-Aug-20	01-Dec-20	36		-										
SP-1260	Condition Survey	0 22-Feb-20 A	17-Apr-20 A		CD (7d)											
SP-1280 SP-1150	Construction Video Film Production Construction works for Temporary Noise Barrier (same as SP-1230)	0 23-Apr-20 A 94 10-Jun-20 A	29-May-20 A 01-Nov-20	63	CD (7d) CD (7d)	-										
SP-1290	Demolition of Small Building	0 04-Jun-20 A	17-Jul-20 A	05	CD (7d))										
SP-1190	Design, Supply and Construct Community Liaison Centre by MiC Method	14 17-Jun-20 A	13-Aug-20	0												
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-1070	Ground Investigation and Laboratory Testing	0 20-Jan-20 A	24-Mar-20 A		CD (7d)	1										
SP-1030	In dependent Checking Engineer Services	0 14-Feb-20 A	17-Apr-20 A		CD (7d											
SP-1250	Interim Community Liaison Centre	0 22-Feb-20 A	24-Mar-20 A		CD (7d											
SP-1230	Panel Installation for Permanent Noise Barriers (same as SP-1150)	304 10-Jun-20 A	30-May-21	33												
SP-1090	Piling Works	88 10-Jul-20 A	26-Oct-20	152												
SP-1220 SP-1010	Pipeworks of District Cooling System (DCS) Project Manager's Site Accommodation	60 06-Aug-20 50 31-Mar-20 A	04-Oct-20 18-Sep-20	-17		_										
SP-1112	RC Works for Reservoirs (same as SP-1110)	404 11-Jun-20 A	07-Sep-21	128												
SP-1110	RC Works for Retaining Wall (same as SP-1112)	34 11-Jun-20 A	02-Sep-20	1	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)	32 03-Jun-20 A	31-Aug-20	73	CD (7d											
SP-1140	Road Lighting Works	80 08-Jun-20 A	18-Oct-20	25	CD (7d)	/										
SP-1040	Security System for the site	0 07-Dec-19 A	08-Jan-20 A		CD (7d											
SP-1020	Site Hoarding	0 05-Mar-20 A	20-Apr-20 A		CD (7d											
SP-1200	Slope Works - Sol Nailing	34 02-Jun-20 A	02-Sep-20	1	CD (7d)	- :								_		
SP-1300	Testing Laboratory (for Arsenic containing soil)	30 15-May-20 A	29-Aug-20	-20												
SP-1240 SP-1060	Traffic Consultant Tree Survey	0 14-Feb-20 A 0 20-Jan-20 A	09-Apr-20 A 24-Mar-20 A		CD (7d) CD (7d)											
SP-1060 SP-1121	Trenchless Works	120 20-May-20 A	01-Dec-20	289		_										
SP-1132	Watermain Laying Works (Stage 2 for Remaining Whole Site)	120 10-Aug-20*	07-Dec-20	272		-										
7.0 - CONSTR						1										
Section 1																
Buil	Critical Work	(<u>רוע</u> /2	019/01	- 3 Mont	h Rolli	ing P	rogram	ume (2)	120 -07	7)	La vi	-	ND20190 ID201901- 6
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Activity ID	Activity Name	Remaining Start Duration	Finish	Total Float	Calendar	28 05	July 2020 12	19 26	August 2020	September 2020
Portion 10a in A	rea H, H1, H2 (Soil Treatment & Provision of Site Acce			Tiout			12	13 20		00 00 10
	rk/Tree Survey/Site Clearance/Gl	,								
S1P10a-1031	Additional tree felling due to increase in total nos. of trees to be felled at Portions 7 & 10a	36 21-Aug-20	03-Oct-20	-95	WD (6d)	1				
S1P10a-1020	Approval and acceptance of tree felling application	0 30-May-20 A	31-Jul-20	-120	CD (7d)					
S1P10a-1070	Arsenic Treatment Plan	15 26-May-20 A	17-Aug-20	-56	WD (6d)					
S1P10a-1060 S1P10a-1030	Prepare Arsenic Assessment Report Tree felling, transplant and protection	15 26-May-20 A 18 31-Jul-20	17-Aug-20 20-Aug-20	-56	WD (6d) WD (6d)					
	rk/Tree Survey/Site Clearance/Gl at Late Possession Area		207/0g 20	30	11D (00)					
S1P10a-1160	Arsenic Treatment Plan	15 26-May-20 A	17-Aug-20	-56	WD (6d)					
S1P10a-1100	Late Possession of Site of Part of Portions 7 and 10a (in Area H, H1, T1, T2 & T3) (CNE №	0 31-Jul-20		-73	CD (7d)				Late Possession of Site of Part of Portions 7 and 10a (in Area H, H1, T1, T2 & T3)	(CNE No. 001)
S1P10a-1150	Prepare Arsenic Assessment Report	15 26-May-20 A	17-Aug-20	-56	WD (6d)					
S1P10a-1130	Site clearance	20 31-Jul-20	22-Aug-20	-61	WD (6d)					
Soil Treatment										
S1K1-1010	Remove soil (original assumed 29975m3) (7 / 7 E GI completed, interim soil to be excavate	96 05-Oct-20*	28-Jan-21	-95	WD (6d)					
Smart Road Lig	ghtings System Installation	00 40 0-100	40 1 04	05	00 (74)	4				
Section 2A	Submissions of smart road lighting system design and shop drawing s	90 19-Oct-20	16-Jan-21	25	CD (7d)					
	- C4 (Call Transforment & Interference with UDIa Combination	-)								
	a C1 (Soil Treatment & Interface with HD's Contractors	5)				-				
· · ·	rk/Tree Survey/Site Clearance/Gl		04.1.1.00	007	00 (7 1)					
S2AP 5-1015 S2AP 5-1030	Approval & Acceptance of Tree Felling Application Environmental ground investigation and laboratory test (11 EGI)	0 20-Jun-20 A 63 14-May-20 A	31-Jul-20 14-Oct-20	307 238	CD (7d) WD (6d)					
S2AP 5-1000	Late Possession of Site of Part of Portion 5 (in Area C1) (CNE No. 004)	0 31-Jul-20	14 00120	307	CD (7d)				◆ Late Possession of Site of Part of Portion 5 (in Area C1) (CNE No. 004)	
S2AP 5-1040	Prepare Arsenic Assessment Report	28 15-Oct-20	17-Nov-20	238	WD (6d)					
S2AP 5-1020	Site Clearance	27 26-Feb-20 A	31-Aug-20	238	WD (6d)					
S2AP 5-1010	Tree survey and prepare tree felling and transplant report	0 08-Apr-20 A	04-Jun-20 A		WD (6d)					
Section 3										
Portion 7 in Area	a E (Soil Treatment & Interface with HKHS's Contractor	nrs)								
Preparation wo	rk/Tree Survey/Site Clearance/Gl									
S3P7-1015	Approval & Acceptance of Tree Felling Application	0 30-May-20 A	31-Jul-20	313	CD (7d)					
S3P7-1030	Environmental ground investigation and lab test (3 EGI) (another 1 EGI in other portion re	0 21-May-20 A	13-Jun-20 A	040	WD (6d)	-				
S3P7-1040 S3P7-1020	Prepare Arsenic Assessment Report Site Clearance	36 29-Sep-20* 27 06-Apr-20 A	12-Nov-20 31-Aug-20	219 243	WD (6d) WD (6d)					
S3P7-1010	Tree survey and prepare tree felling and transplant report	0 06-Apr-20 A	31-Jul-20	243	WD (6d)					
Interface with H	KHS's contractor to carry out GI									
S3P7-3010	HKHS Contractor to carry out GI in Area E	24 31-Aug-20	26-Sep-20	292	WD (6d)					
Section 5										
Portion 4 in Area	a I (Soil Treatment & Complete Temp. Noise Barriers a	long Castle Peak Road	d)							
Preparation wo	rk/Tree Survey/Site Clearance/Gl									
S5P4-1050	Arsenic Treatment Plan	0 30-Apr-20 A	18-May-20 A		WD (6d)					
S5P4-1030	Environmental ground investigation and laboratory test (1 EGI)	0 14-Apr-20 A	29-Apr-20 A		WD (6d)					
S5P4-1040	Prepare Arsenic Assessment Report Site Clearance	0 30-Apr-20 A	18-May-20 A 13-Apr-20 A		WD (6d) WD (6d)	-				
S5P4-1020 S5P4-1010	Tree survey and prepare tree felling and transplant report	0 05-Mar-20 A 0 17-Apr-20 A	11-May-20 A		WD (6d) WD (6d)					
Soil Treatment										
S5P4-2020	Backfilling to the formation levels	50 12-Sep-20	12-Nov-20	0	WD (6d)					
S5P4-2010	Remove soil (original assumed 5354m3) (1 / 1 EGI completed, interim soil to be excavated	30 08-Aug-20*	11-Sep-20	0	WD (6d)					
Section 7 (Subje	ct to excision)									
Portion 14 in An	ea K (Complete TSPS with Associated Sewerage)									
KD2 - Complete	Temporary Sewage Pumping Station and associated ris	ing mains and sewers,	and conne	ct						
Design and Civ	vil Construction									
S7P14-2010	Design and approval of Temporary Sewage Pumping Station (TSPS)	44 04-Jun-20 A	12-Sep-20	7	CD (7d)					
E&M Works										
S7P14-3010	Submission and Approval of E&M plants & materials for TSPS	110 13-Sep-20	31-Dec-20	7	CD (7d)					
KD2 - Portion 11	Ib in Area K (Complete Temp. Noise Barriers along Cas	stle Peak Road)								
Preparation wo										
S7P1 1b-1000	Early Access to Portion 11b Area K for KD-2 works	0	24-Aug-20*	197	CD (7d)				Early Access to	Portion 11b Area K for KD-2 works
S7P1 1b-1010	Site Clearance	18 24-Aug-20	12-Sep-20	160	WD (6d)					
Sewerage Work		294 14-Sep-20	09-Sep-21	160	WD (ea)	1				
	Laying of sewage rising mains from TSPS and connect to existing tank of MBR plant a K (Complete Temp. Noise Barriers along Castle Peal	J	03-0ep-21	160	WD (6d)					
		Ttoduj								
Preparation wor S7P4-1010	rk Site Clearance	0 05-Mar-20 A	13-Apr-20 A		WD (6d)	1				
Siperage Work		U UD-IVIAI-ZU A	13-Api-20 A		44D (00)					
S7P4-2010	Laying of sewage rising mains from TSPS and connect to existing tank of MBR plant	294 14-Sep-20	09-Sep-21	160	WD (6d)	1				
Section 8										
·	a A (Soil Treatment & Construction of Pak Shek Au Ju	nction)								
Build	🔶 Milestone Crit			N	ID/2	019/01 - 3 N	lonth	Rolling P	rogramme (2020 -07)	Project ID: ND201901-R Lauyout: ND201901-3M with logo Page 2 of 6
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vity ID	Activity Name	Remaining Start Duration	Finish	Total Float	Calendar	July 2020 28 05 12 19 2	August 2020 26 02 09 16 23	30 06	September 2020
Preparation w	ork/Tree Survey/Site Clearance/Gl								
S8P2-0015	Approval & Acceptance of Tree Felling Application	30 23-Jul-20 A	29-Aug-20	-37	CD (7d)				
S8P2-1040	Arsenic Treatment Plan	30 24-Oct-20	28-Nov-20	-32	WD (6d)				
S8P2-1020	Environmental ground investigation and laboratory test (1 EGI)	15 07-Oct-20	23-Oct-20	-32	WD (6d)				
S8P2-0020	Implement of Stage 1 TTA	12 17-Aug-20	29-Aug-20	-32	WD (6d)				
S8P2-1030	Prepare Arsenic Assessment Report	30 24-Oct-20	28-Nov-20	-32	WD (6d)				
S8P2-1010 S8P2-0010	Site clearance / Tree Felling	30 31-Aug-20 0 19-Jun-20 A	06-Oct-20 21-Jul-20 A	-32	WD (6d)				
	Tree Survey and prepare tree felling and transplant report	0 19-Jun-20 A	21-JUI-20 A		WD (6d)				
	rea A (Soil Treatment, Drainage & Roadwork)								
	ork/Tree Survey/Site Clearance/Gl								
S8P3-1000	Assumed Handover Date of Portion 3 (Late Possession)	0 31-Jul-20*		575	CD (7d)		 Assumed Hando ver Date of Portion 3 (Late Possession) 		
S8P3-1020	Environmental ground investigation and laboratory test (1 EGI)	15 12-Oct-20	29-Oct-20	468	WD (6d)				
S8P3-1030	Prepare Arsenic Assessment Report	36 30-Oct-20	10-Dec-20	468	WD (6d)				
S8P3-1010	Site clearance	60 31-Jul-20	10-Oct-20	468	WD (6d)				
	rea A (Soil Treatment, Bored Pile Wall (CSD), Drainage &	Roadwork)							
	ork/Tree Survey/Site Clearance/Gl								
S8P5-1050	Arsenic Treatment Plan	36 29-Sep-20	12-Nov-20	206	WD (6d)				
S8P5-1030	Environmental ground investigation and laboratory test (4 EGI)	15 23-Jul-20 A	17-Aug-20	15	WD (6d)				
S8P5-1040	Prepare Arsenic Assessment Report	36 18-Aug-20	28-Sep-20	206	WD (6d)				
S8P5-1010 S8P5-1020	Site clearance	0 26-Jun-20 A 43 23-Jul-20 A	24-Jul-20 A 18-Sep-20	-13	WD (6d) WD (6d)				
	Site investigation (ground investigation)	43 Z3-JUI-20 A	10-Sep-20	-13	WD (60)				
	according to CSD for Alternative on Bored Pile Wall	(10) (10.0							
S8P5-2010	Slope cutting and temporary soil nal installation (concurrent with S8P6a-2010)	100 19-Sep-20	20-Jan-21	-13	WD (6d)				
Portion 6a in A	Area A (Soil Treatment, Bored Pile Wall, Drainage & Road	dwork)							
Preparation w	ork/Tree Survey/Site Clearance/Gl								
S8P6a-1050	Arsenic Treatment Plan	36 19-Oct-20	30-Nov-20	86	WD (6d)				
S8P6a-1030	Environmental ground investigation and laboratory test (6 EGI)	30 23-Apr-20 A	03-Sep-20	0	WD (6d)				
S8P6a-1001	Pending Relocation of Existing 4 Nos. of EPD Monitoring Points at Portion 6a & 6b (EWN	0 31-Jul-20*	31-Jul-20	35	CD (7d)				
S8P6a-1040	Prepare Arsenic Assessment Report	36 04-Sep-20	17-Oct-20	86	WD (6d)				
S8P6a-1010	Site clearance	14 15-Feb-20 A	15-Aug-20	16	WD (6d)				
S8P6a-1020	Site investigation (ground investigation)	0 08-Apr-20 A	20-Jul-20 A		WD (6d)				
	according to CSD for Alternative on Bored Pile Wall								
S8P6a-2010	Slope cutting and temporary soil nal installation (concurrent with S8P5-2010)	100 19-Sep-20	20-Jan-21	-13	WD (6d)				
Portion 9b & 9	d in Area A (Soil Treatment, Slope, Retaining Wall, Drain	age & Roadwork)							
Preparation w	ork/Tree Survey/Site Clearance/Gl								
S8P9b-1020	Environmental ground investigation and laboratory test (9 EGI)	40 25-Sep-20	13-Nov-20	-21	WD (6d)				
S8P9b-0005	Late Possession of Site of Portions 9b & 9d (CNE No.007) (EWN No. 011)	0	31-Jul-20	-24	CD (7d)		Late Possession of Site of Portions 9b & 9d (CNE No. 007) (EWN No. 011)		
S8P9b-0010	Liasion with HKPF and submit proposal of protective measures for works near Lo Wu Firir	0 10-Feb-20 A	04-Mar-20 A		CD (7d)				
S8P9b-1010	Site clearance	48 31-Jul-20	24-Sep-20	-21	WD (6d)				
Civil Work									
S8P9b-3020	Form the access to service reservoirs	48 25-Sep-20	23-Nov-20	544	WD (6d)				
Portion 8a in A	Area A (Soil Treatment, Reservoirs, Slope, Drainage & Ro	badwork)							
S8P8a-1100	Assumed resumption date of fresh and flushing reservoirs construction due to CNE No. 0(0 31-Jul-20		-79	CD (7d)		Assumed resumption date of fresh and flushing reservoirs construction due to		
Preparation w	ork/Tree Survey/Site Clearance/Gl								
S8P8 a-1004	Approval & Acceptance of Tree Felling Application	0 27-Jun-20 A	31-Jul-20	358	WD (6d)				
S8P8a-1015	Site clearance	30 09-Apr-20 A	03-Sep-20	24	WD (6d)				
Forming Site	Access and Site Formation								
Stage 1									
S8P8a-1150	Form haul road to Flesh Water Service Reservoir	150 31-Jul-20	28-Jan-21	-66	WD (6d)				
S8P8a-1110	Form site access to Flushing Water Service Reservoir	0 06-Jan-20 A	08-Apr-20 A		WD (6d)				
S8P8a-1140	General excavation for area surrounding Flushing Water Service Reservoir	300 31-Jul-20	03-Aug-21	-36	WD (6d)				
S8P8a-1120	General excavation for New Feature KS45 and adjacent road	150 31-Jul-20	28-Jan-21	-36	WD (6d)				
S8P8a-1130	General excavation for New Feature KS46 and adjacent road	300 31-Jul-20	03-Aug-21	-36	WD (6d)				
S8P8a-1160	General excavation for remaining of Road W1	359 11-Jun-20 A	13-Oct-21	49	WD (6d)				
	vil Work in Portion 8a Area A								
S8P8 a-3046	Construction of retaining wall (7397 m3, 3 gang)	623 07-Jul-20 A	03-Sep-22	506	WD (6d)				
S8P8a-3045	Excavation for retaining wall (14665m3, 2 gang)	213 11-Jun-20 A	19-Apr-21	886	WD (6d)				
S8P8a-3010	Slope works for new feature KS27 (with about 50 nos. of soil nails)	30 08-Sep-20*	14-Oct-20	745	WD (6d)				
	Area A (Soil Treatment & Install Watermains by Trenchles	ss / Open Trench Me	thod)						
Preparation w	ork/Tree Survey/Site Clearance/Gl								
S8P8b-1010	Site Clearance	90 17-Aug-20	02-Dec-20	34	WD (6d)				
Section 10A									
Portion 4 in Ar	rea J (Soil Treatment & Temp. Noise Barriers along Castl	le Peak Road)							
	ork/Tree Survey/Site Clearance/Gl	0 00 4 00 1	10.14- 00.1		M/D (2 "				
S10AP4-0050 S10AP4-0030	Arsenic Treatment Plan	0 30-Apr-20 A	18-May-20 A		WD (6d)				
S10AP4-0030 S10AP4-0040	Environmental ground investigation and lab test (3 EGI) (another 2 EGI in other portion re Prepare Arsenic Assessment Report	0 14-Apr-20 A 0 30-Apr-20 A	29-Apr-20 A 18-May-20 A		WD (6d) WD (6d)				
S10AP4-0040	Site clearance	0 05-Mar-20 A	09-Apr-20 A		WD (6d) WD (6d)				
S10AP4-0020	Tree survey and prepare tree felling and transplant report	0 05-Wai-20 A	11-May-20 A		WD (6d) WD (6d)				
		5 pi 2011							

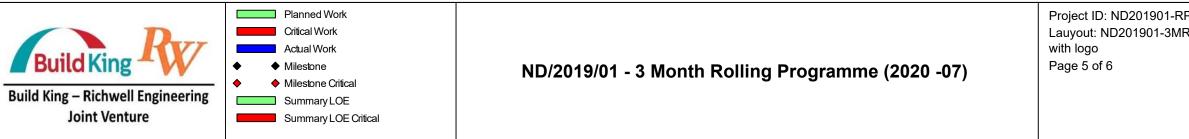


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ctivity ID	Activity Name	Remaining Start	Finish	Total Float	Calendar	20	05	July 2020	10	00			ugust 2020	~	12	20		September 2020
Section 11		Duration		Fioat		28	05	12	19	26	02	09	16	23		30	06	13
	a B (Soil Treatment & Operation of HAC Soil Treatme	ent Plant)																
S11P6b-1000	Planned completion of KD4 - Portion 6b	0	07-Aug-20	121	CD (7d)						•	Plann ed comple	tion of KD4 - Port	on 6b				
S11P6b-1050	k/Tree Survey/Site Clearance/GI	24 31-Jul-20	27-Aug-20	1345	WD (6d)													
S11P6b-1040	Prepare Arsenic Assessment Report	0 05-May-20 A	31-Jul-20	1345														
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 Pending Relocation of Existing 4 Nos. of EPD Monitoring Points at Portion 6a & 6b (EWN		31-Jul-20	-20	CD (7d)						Pending Relocation	n of Existing 4 Nos	of EPD Monitori	na Points at Porti	ion 6a & 6h (F	WN No. 0.10)		
S11P6b-2010	Set up, testing and commissioning high arsenic-containing soil treatment plant (KD4)	7 05-May-20 A	07-Aug-20	-20							- Tending Relocate							
Operation and D	ismantling of the Soil Treatment Plant																	
S11P6b-3010	Provide treatment to high arsenic-containing soil	1073 08-Aug-20	19-Mar-24	-24	WD (6d)													
Section 12A																		
	rea L1 (Soil Treatment, Drainage & Roadwork)																	
S12P 10b-1035	k/Tree Survey/Site Clearance/GI Environmental ground investigation and laboratory test (2 of 2 EGI)	0 19-May-20 A	29-May-20 A		WD (6d)													
S12P 10b-1005	Resumption date from suspension of works at Portion 10b (EWN 13)	0	31-Jul-20	789	CD (7d)						Resumption date t	rom suspension of	works at Portion	10b (EWN 13)				
S12P 10b-1020 S12P 10b-1010	Site Clearance Tree survey and prepare tree felling and transplant report	48 25-Sep-20 48 20-Jul-20 A	23-Nov-20 24-Sep-20	594 594														
Section 13	Thee survey and prepare thee relining and transplant report	40 20-Jui-20 A	24-5ep-20	594	WD (60)													
	N (Soil Treatment, Slope, Drainage & Pak Shek Au Ju	unction)																
	k/Tree Survey/Site Clearance/Gl	unouony																
S13P2-1012	Approval & Acceptance of Tree Felling Application	30 23-Jul-20 A	29-Aug-20	383	CD (7d)													
S13P2-1040	Environmental ground investigation and laboratory test (3 EGI)	30 07-Oct-20	11-Nov-20	240									·····					
S13P2-1020 S13P2-1016	Implement TTMS Late Possession of remaining part of Portion 2 for soil nail works (CNE No. 008) (EWN Nc	12 17-Aug-20 0 31-Jul-20	29-Aug-20 31-Jul-20	240 413							1							
S13P2-1030	Site clearance	60 31-Aug-20	11-Nov-20	240	WD (6d)										(
S13P2-1018 S13P2-1010	Site clearance for existing slope feature 2SE-B/CR148	60 31-Aug-20	11-Nov-20	312											[
	Tree survey and prepare tree felling and transplant report N (Soil Treatment, Drainage & Roadwork)	0 12-Mar-20 A	21-Jul-20 A		WD (6d)													
	k/Tree Survey/Site Clearance/Gl																	
S13P7-1005	Approval & Acceptance of Tree Felling Application	0 30-May-20 A	31-Jul-20	868	CD (7d)						I							
S13P7-1040	Arsenic Treatment Plan	36 27-Aug-20	09-Oct-20	664	. ,										_			
S13P 7-1030 S13P 7-1010	Prepare Arsenic Assessment Report Site clearance	23 16-Jul-20 A 17 06-Apr-20 A	26-Aug-20 19-Aug-20	664 706	. ,										_			
Soil Treatment																		
S13P7-2010	Remove soil (original assumed 316m3) (3 / 3 EGI completed, interim soil to be excavated		14-Nov-20	664	WD (6d)													
	Area N (Soil Treatment, Noise Barrier, Drainage & Ro	oadwork)																
S13P6a-1040	k/Tree Survey/Site Clearance/GI Arsenic Treatment Plan	36 11-Sep-20	24-Oct-20	877	WD (6d)													
S13P6a-1020	Environmental ground investigation and laboratory test (1 EGI)	0 15-Jun-20 A	27-Jul-20 A	011	WD (6d) WD (6d)													
S13P6a-1025	Pre-drilling for Noise Barriers	0 17-Jun-20 A	08-Jul-20 A		WD (6d)													
S13P6a-1030 S13P6a-1010	Prepare Arsenic Assessment Report Site clearance	36 31-Jul-20 0 15-Feb-20 A	10-Sep-20 31-Jul-20 A	877	WD (6d) WD (6d)													
S13P6a-1026	Trial pit for Dongjiang watermains	0 18-Jun-20 A	29-Jun-20 A		WD (6d)													
Soil Treatment																		
S13P6a-2010 Civil Work	Remove soil (original assumed 566m3) (1 / 1 EGI completed, interim soil to be excavated	30 27-Oct-20*	30-Nov-20	877	WD (6d)													
S13P6a-3010	Noise barrier NB08 foundation (revised according to CSD) (12 nos. pre-bored H-pile)	110 27-Oct-20	10-Mar-21	857	WD (6d)													
Section 14																		
Portion 10a in Ar	ea H1 (Soil Treatment, UU Diversion & Construction	Access to MWSC)																
KD5 - Provision	of construction access in Area H1 and between Area H1	and Multi-Welfare Se	rvices Com															
S14K5-1001	Late Possession of Site of Part of Portions 7 and 10a (in Area H, H1, T1, T2 & T3) (CNE N	0 31-Jul-20	31-Jul-20	-50	CD (7d)						I							
Soil Treatment	Dest/directe the formation laurie	42 01 Cap 00	12 Nev 20	61	MD (64)													
S14K5-1020 S14K5-1010	Backfilling to the formation levels Remove soil (original assumed 2143m3) (1 / 1 EGI completed, interim soil to be excavated	43 21-Sep-20 24 24-Aug-20*	12-Nov-20 19-Sep-20	-61 -61														
Civil Works		· · ·																
S14K5-2010	Divert temporary watermain in Area H for MWSC site and Area P	22 17-Oct-20	12-Nov-20	-61	WD (6d)													
	ea H2 (Soil Treatment & Construction Access to MW																	
	of construction access in Area H2 and between Area H2	and Multi-Welfare Se	rvices Com															
Soil Treatment	Remove soil (original assumed 2827m3) (2 / 2 EG1 completed, in terim soil to be excavate	24 05-Oct-20*	02-Nov-20	-71	WD (6d)													
	 Coil Treatment & KD3 - Tree Felling, General Site (SZ 1107-20	-/ 1	110 (00)													
	g, general site clearance (including the berm removal / le		site															
S14P7P-1000	Planned completion date of KD3	0	10-Oct-20	11	CD (7d)													
Preparation wo																		
S14P7P-1021	Additional site clearance due to increase in total nos. of trees to be felled at Portions 7 & 1	30 04-Sep-20	10-Oct-20	9	WD (6d)													
	Planned Wo	rk		_				_							_	Pro	iect ID· N	ND201901-RI
	Critical Work																	D201901-3MF
	Actual Work																logo	5201001 000
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Buildi	Milestone Cri	itical		Ń	ND/2	U19/0'	1 - 3 M	onth	KOIII	ng Pi	ogram	me (2	U2U -(J7)			,5 , 0, 0	
Build King - Ri	ichwall Engineering																	
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				Planned completion	uate of KD3	
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ID	Activity Name	Remaining Start Duration	Finish	Total Float	Calendar	July 2020	August 2020 Septemb 26 02 09 16 23 30 06 1
S14P7P-1006	Approval and acceptance of tree felling application	0 30-May-20 A	31-Jul-20	11			
S14P7P-1020	General site clearance (tree felling and remaining dearance)	30 31-Jul-20	03-Sep-20	9	WD (6d)		
Ground Investiga S14P7P-1130		00 04 4	45.0 00	4047			
S14P7P-1130 S14P7P-1120	Arsenic Treatment Plan Prepare Arsenic Assessment Report	20 24-Aug-20 20 31-Jul-20	15-Sep-20 22-Aug-20	1217 1217	WD (6d) WD (6d)		
	S3 (Soil Treatment & Operation of HAC Soil Treatme		22-Aug-20	1217	WD (00)		
		ni riani,					
S14P7S3-1015	/Tree Survey/Site Clearance/Gl	0 20 Mar 20 A	31-Jul-20	40	CD (7d)		
S14P7S3-1015 S14P7S3-1050	Approval & Acceptance of Tree Felling Application Arsenic Treatment Plan	0 30-May-20 A 20 12-Sep-20	07-Oct-20	-19 1194	WD (6d)		
S14P 7S3-1030	Environmental ground investigation and lab test (3 EGI) (another 2 EGI in other portion re	0 09-May-20 A	28-May-20 A	1134	WD (6d) WD (6d)		
S14P7S3-1040	Prepare Arsenic Assessment Report	20 20-Aug-20	11-Sep-20	1194	WD (6d)		
S14P7S3-1020	Site Clearance	1 06-Apr-20 A	19-Aug-20	-16	WD (6d)		
CD4 - Setting up a	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 20-Aug-20*	14-Nov-20	-16	WD (6d)		
ortion 16 in Area	a Q (Soil Treatment & Construction of CLC)						
	he construction works of Community Liaison Centre in	Area Q					
S14P 16-3020	Approval of design for construction of CLC	60 01-Oct-20	29-Nov-20	0	CD (7d)		
S14P 16-3010	Design submission for construction of Community Liaison Centre (CLC) using MiC method		30-Sep-20	0	CD (7d)		
S14P16-1010	Site Clearance	60 03-Aug-20	13-Oct-20	9	WD (6d)		
S14P 16-1020	Site Formation for CLC construction	50 14-Oct-20	11-Dec-20	9	WD (6d)		
ortion 7 in Area	T1, T2, T3 (Soil Treatment & Temp. Noise Barrier alo	ng Castle Peak Road)					
	/Tree Survey/Site Clearance/Gl						
S14P7T-1022	Approval & Acceptance of Tree felling Application	30 04-Sep-20	03-Oct-20	-127	CD (7d)		
S14P7T-1001	Late Possession of Site of Part of Portions 7 and 10a (in Area H, H1, T1, T2 & T3) (CNE M	0 31-Jul-20*		-149	CD (7d)		Late Possession of Site of Part of Portions 7 and 10a (in Area H, H1, T1, T2 & T3) (CNE No. 001)
S14P7T-1020	Site Clearance	30 31-Jul-20	03-Sep-20	-120	WD (6d)		
S14P7T-1024	Tree felling works	15 05-Oct-20	21-Oct-20	-105	WD (6d)		
S14P7T-1010	Tree survey and prepare tree felling and transplant report	30 31-Jul-20	03-Sep-20	-105	WD (6d)		
Arsenic Assessn	nent						
S14P7T-1050	Arsenic Treatment Plan	36 27-Oct-20	07-Dec-20	1359	WD (6d)		
S14P7T-1030	Environmental ground investigation and lab test (2 EGI) (another 1 EGI in other portion re	30 07-Aug-20	10-Sep -20	-51	WD (6d)		
S14P7T-1040	Prepare Arsenic Assessment Report	36 11-Sep-20	24-Oct-20	1359	WD (6d)		
	tion Assessment						
S14P7T-1062 S14P7T-1061	Laboratory testing	12 18-Sep-20	03-Oct-20	-120			
S14P7T-1063	Site investigation (SI) (inspection pits, boreholes and sampling) Submit and acceptance of Contamination Assessment Report (CAR) & Remediation Actic	36 07-Aug-20 30 05-Oct-20	17-Sep-20 09-Nov-20	-120	WD (6d) WD (6d)		
	a S2 (Soil Treatment)	30 03-0CF20	09-1100-20	-120	WD (00)		
S14P6a-1020	/Tree Survey/Site Clearance/GI	40 02 0-4 00*	00 Nov 00	4024			
S14P6a-1020 S14P6a-1010	Site Clearance Tree survey and prepare tree felling and transplant report	48 03-Oct-20* 0 14-Apr-20 A	28-Nov-20 08-Jun-20 A	1234	WD (6d) WD (6d)		
	a S2 (Soil Treatment)	0 14-Api-20 A	00-301-20 A		WD (00)		
	/Tree Survey/Site Clearance/Gl	0 10 1 00 1	04.1.100	4500	00 (7 1)		
S14P6b-1015 S14P6b-1020	Approval & Acceptance of Tree Felling Application Site Clearance	0 16-Jun-20 A	31-Jul-20 28-Nov-20	1582 1234	CD (7d) WD (6d)		
S14P6b-1020	Tree survey and prepare tree felling and transplant report	48 03-Oct-20* 0 14-Apr-20 A	03-Jun-20 A	1234	WD (6d) WD (6d)		
	R (Soil Treatment & Construction of Interim CLC &		00 001 20 77		TTD (ou)		
		Nodu A I)					
S14P1f-1015	/Tree Survey/Site Clearance/Gl	0.04 1-100 4	21 1-1-00	4404	00 (7.5		
S14P1f-1015 S14P1f-1050	Approval & Acceptance of Tree Felling Application Arsenic Treatment Plan	0 21-Jul-20 A 36 24-Oct-20	31-Jul-20 05-Dec-20	1484 1203	CD (7d) WD (6d)		
S14P 1f-1050	Environmental ground investigation and laboratory test (2 EGI)	15 24-Oct-20	05-Dec-20 09-Sep-20	1203	WD (6d) WD (6d)		
S14P 1f-1040	Prepare Arsenic Assessment Report	36 10-Sep-20	23-Oct-20	1203	WD (6d)		
S14P 1f-1020	Site Clearance	20 06-Jan-20 A	22-Aug-20	1203	WD (6d)		
S14P 1f-1010	Tree survey and prepare tree felling and transplant report	0 22-May-20 A	20-Jul-20 A		WD (6d)		
Interim Communi	ity Liaison Centre (CLC)						
S14P 1f-2020	Construction of interim CLC	0 14-Apr-20 A	18-May-20 A		WD (6d)		
S14P 1f-2030	Occupation of interim CLC	281 18-May-20 A	07-May-21	1243	CD (7d)		
S14P 1f-2010	Submissions and approval for proposed interim CLC	0 09-Mar-20 A	18-Mar-20 A		CD (7d)		
	a S1 (Soil Treatment)						
Preparation work	/Tree Survey/Site Clearance/Gl						
S14P9c-1030	Environmental ground investigation and laboratory test (3 EGI)	0 02-Jul-20 A	21-Jul-20 A		WD (6d)		
S14P9c-1020	Forming site a coess and site de arance	60 17-Jun-20 A	10-Oct-20	-41	WD (6d)		
S14P9c-1040	Prepare Arsenic Assessment Report	36 16-Oct-20	27-Nov-20	1297	WD (6d)		
S14P9c-1010	Tree survey and prepare tree felling and transplant report	24 31-Jul-20 A	27-Aug-20	-5	WD (6d)		
action dE							
ection 15	Presevation and protection of tree	1648 06-Dec-19 A	02-Feb-25	338	CD (7d)		
15-1000							
	ct to excision)						
15-1000	Ct to excision) Part of Portion 2 Occupied by YL/2015/01 (EWN No. 016)	0 31-Jul-20		167	CD (7d)		Part of Portion 2 Occupied by YL/2015/01 (EWN No. 016)
¹⁵⁻¹⁰⁰⁰ ection 20 (Subjec	Part of Portion 2 Occupied by YL/2015/01 (EWN No. 016)	0 31-Jul-20		167	CD (7d)		◆ Part of Portion 2 Occupied by YL/2015/01 (EWN No. 016)



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tivity ID	Activity Name	Remaining		Finish	Total	Calendar	·		July 2020				A	ugust 2020				September 20	20
		Duration			Float		28	05	12	19	26	02	09	16	23	30	06	13	
Preparation w	ork																		
S21P 1d-0010	Demolition of existing Community Liaison Centre (CLC)	0	27-May-20 A	05-Jun-20 A		WD (6d)													
S21P 1d-0005	Late Possession of Site of Portions 1d (CNE No. 009)	0		31-Jul-20	1627	CD (7d)						Late Possession	of Site of Portions 1	d (CNE No. 009)					
Portion 11a in	Area M (Soil Treatment)																		
Preparation w	ork																		
S21P11a-10005	Late Possession of Site of Portions 11a (CNE No. 009)	0		31-Jul-20	1621	CD (7d)						 Late Possession 	of Site of Portions 1	1a (CNE No. 009)					
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)	60	31-Jul-20*	10-Oct-20	1849	WD (6d)													
9.0 - Major EWN	I / CNE																		
EC-1009	Cancellation of TMLG Meeting on 14 May 2020 by Transportation Department (EWN No.	0	14-May-20 A	16-Jul-20 A		CD (7d))												
EC-1007	Late Possession of remaining part of Portion 2 for soil nail works (CNE No. 008) (EWN Nc	0	06-Jan-20 A	31-Jul-20	413	CD (7d)						l -							
EC-1004	Late Possession of Site of Part of Portion 5 (in Area C1) (CNE No. 004)	0	06-Apr-20 A	31-Jul-20	307	CD (7d))					1							
EC-1001	Late Possession of Site of Part of Portions 7 and 10a (in Area H, H1, T1, T2 & T3) (CNE M	0	06-Apr-20 A	31-Jul-20	-149	CD (7d)						l .							
EC-1005	Late Possession of Site of Portion 3 (CNE No. 005)	0	06-Apr-20 A	31-Jul-20	575	CD (7d)						l							
EC-1015	Late Possession of Site of Portions 1d & 11a (CNE No. 009)	0	06-Jul-20 A	31-Jul-20	1621	CD (7d)						l .							
EC-1013	Late Possession of Site of Portions 9b & 9d (CNE No. 007) (EWN No. 011)	0	06-Jul-20 A	31-Jul-20	-24	CD (7d)						l .							
EC-1008	No Access to Part of Portion 8b near Sheung Shui Slaughter House (EWN No. 007)	0	06-May-20 A	31-Jul-20	168	CD (7d))					l							
EC-1014	Part of Portion 2 Occupied by YL/2015/01 (EWN No. 016)	0	23-Dec-19 A	31-Jul-20	167	CD (7d)						l							
EC-1011	Pending Relocation of Existing 4 Nos. of EPD Monitoring Points at Portion 6a & 6b (EWN	0	16-May-20 A	31-Jul-20	-20	CD (7d)						I							
EC-1017	Short of Accredited Laboratory for TCLP Test of Arsenic (EWN No. 014)	0	10-Jul-20 A	31-Jul-20	10	CD (7d)						I							
EC-1006	Strong Objection on the Construction of Service Reservoirs at Portions 8a & 8b (CNE No.	0	18-Mar-20 A	31-Jul-20	-79	CD (7d)						I							
EC-1016	Suspension of Works at Portion 10b (EWN No. 013)	0	02-Jul-20 A	31-Jul-20	789	CD (7d)						1							



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Contract No. ND/2019/03

Kwu Tung North and Fanling North New Development Areas, Phase 1 : Development of Long Valley Nature Park 3 Months Rolling Programme (Aug 2020)

	Task Name	Duration	Start	Finish	August 2020 September 2020 Octo
0			Sun 18/10/20	Sun 18/10/20	August 2020 September 2020 Octo 23 26 29 1 4 7 10 13 16 19 22 25 28 31 3 6 9 12 15 18 21 24 27 30
	Portions 8B, 9, 9B, 9D, 10, 11, 12, 12B, 13, 14 Section 4	0 days 0 days	Sun 18/10/20 Thu 17/9/20	Thu 17/9/20	
	2. Preliminary works	646 days	Fri 20/12/19	Sat 25/9/21	
	Set up Project Manager's Accommodation in Portion 3	14 days	Sun 19/7/20	Sat 1/8/20	
-	Prepare, submit & Approve G.I. Contractor	90 days	Wed 15/7/20	Mon 12/10/20	
	Design/submission/approval of Lodging Facilities	180 days	Tue 30/6/20	Sat 26/12/20	
	Design/submission/approval of E&M works for Facilities	180 days	Wed 30/9/20	Sun 28/3/21	
	Design/submission/approval of Plumbing works for Facilities	240 days	Mon 31/8/20	Tue 27/4/21	
	Design/submission/approval and supply of Lighting	180 days	Tue 30/6/20	Sat 26/12/20	
	Design/submission/approval and supply of park facilities	180 days	Sun 30/8/20	Thu 25/2/21	
	Design / submission / approval of Fire Services System	360 days	Thu 20/8/20	Sat 14/8/21	
	Tree survey and submission	450 days	Wed 13/5/20	Thu 5/8/21 🛛 💼	
	Tree felling / Site clearance	450 days	Fri 12/6/20	Sat 4/9/21 🛛 🔤	
	Design/submission/approval of Entrance gantry signages	180 days	Mon 29/6/20	Fri 25/12/20 📩	
	Design/submission/approval of Irrigation system for landscape softworks	180 days	Tue 30/6/20	Sat 26/12/20	
	Design/submission/approval of Irrigation Channel and other associated facilities	180 days	Wed 10/6/20	Sun 6/12/20 💼	
-	3. Section 1 of the works (Portions 1 and 1A)	818 days	Sat 18/1/20	Fri 15/4/22 🛛 💻	
	Design/submission/approval and supply of Road Lighting System along Yin Kong Road	180 days	Tue 30/6/20	Sat 26/12/20	
	Application of Traffic Advice and Road Work Advice	30 days	Wed 29/7/20	Thu 27/8/20	
	Submission of Utilities Detection Report	30 days	Wed 29/7/20	Thu 27/8/20	
	Relocation of Utilities (by Others)	170 days	Sun 1/3/20	Mon 17/8/20 -	
	Relocation of CLP Pole at Yin Kong Road	170 days	Sun 1/3/20	Mon 17/8/20 💻	
	Outage and Diversion of Underground Cable	50 days	Mon 29/6/20	Mon 17/8/20	
	Site Works (under Portion 1)	610 days	Thu 16/4/20	Thu 16/12/21 💻	
	Remove existing fencing and site clearance	30 days	Fri 28/8/20	Sat 26/9/20	
	Road widening	220 days	Sun 27/9/20	Tue 4/5/21	
	Site Works (under Portion 1A)	510 days	Sun 19/7/20	Fri 10/12/21 💻	
	General site clearance / demolition work / Removal of Asbesto Containing Material & Dioxin Contaminated	120 days	Sun 19/7/20	Sun 15/11/20 💼	
	4. Section 2 of the works (Portions 2 and 2A)	822 days	Sat 18/7/20	Tue 18/10/22 💻	
	General site clearance / demolition work / Removal of Asbesto Containing Material	60 days	Sun 19/7/20	Wed 16/9/20 💼	
	Construction of lodging facility & associated facilities	762 days	Thu 17/9/20	Tue 18/10/22	v
	Excavation and formation preparation	120 days	Thu 17/9/20	Thu 14/1/21	
1	5. Section 3 of the works (Portions 3, 4, 4A, 4B, 5, 5A, 6 & 6A)	1003 days	Fri 20/12/19	Sat 17/9/22 🚥	
	General site clearance / demolition work / Removal of Asbesto Containing Material	150 days	Wed 11/3/20	Fri 7/8/20 💼	
1	Construction of water treatment wetland	790 days	Sun 19/7/20	Fri 16/9/22 💻	
	Excavation for sedimentation pond	120 days	Sun 19/7/20	Sun 15/11/20 💼	A MULTER PROVIDER AND A CONTRACT AND
	Construction of birdhide	654 days	Sun 19/7/20	Tue 3/5/22 💻	
	Excavation and formation preparation	21 days	Sun 19/7/20	Sat 8/8/20 🗾	
	Construction of base slab	45 days	Sun 9/8/20	Tue 22/9/20	🐝 ta se de la sectore en la companya de la sectore de la companya de la
	Installation of steel structural frame	60 days	Wed 23/9/20	Sat 21/11/20	
	Construction of farmer's forum / open area	1003 days	Fri 20/12/19	Sat 17/9/22 💻	
	Construction of Pai Lau	793 days	Fri 20/12/19	Sat 19/2/22 💻	
	Instruction from PM	300 days	Fri 20/12/19	Wed 14/10/20 🚞	
	Design/Submission/approval	180 days	Thu 15/10/20	Mon 12/4/21	
	7. Section 4 of the works (Portion 18)	133 days	Thu 7/5/20	Thu 17/9/20 💻	
	General maintenance to exisitng wetland	80 days	Thu 28/5/20	Sat 15/8/20	
	Construction of Storage Shed	77 days	Fri 3/7/20	Thu 17/9/20 💼	
	Construction of Irrigation Channel	77 days	Fri 3/7/20	Thu 17/9/20 💼	an fan in ser werken in tie fan de fan werken.
	Construction of Metal Wire Railing	77 days	Fri 3/7/20	Thu 17/9/20	
	Completion of Section 4 of the works	0 days	Thu 17/9/20	Thu 17/9/20	*
	8. Section 5 of the works (Portion 14)	60 days	Sun 18/10/20	Thu 17/12/20	
	Site Access in Portion 14	0 days	Sun 18/10/20	Sun 18/10/20	
	General site clearance / demolition work / Removal of Asbesto	60 days	Mon 19/10/20		
	Containing Material			Wed 2/12/20	
	Containing Material General maintenance to exisiting wetland	45 days	Mon 19/10/20		
	Containing Material General maintenance to exisiting wetland Soiling work around the existing Pond	45 days	Mon 19/10/20	Wed 2/12/20	
	Containing Material General maintenance to exisiting wetland	-			
	Containing Material General maintenance to exisiting wetland Soiling work around the existing Pond 9. Section 6 of the works (Portions 8,8A,8B and 9,9A~9G) Site Access in Portions 8B, 9, 9B, 9D	45 days 452 days	Mon 19/10/20 Sat 18/1/20 Sun 18/10/20	Wed 2/12/20 Wed 14/4/21 Sun 18/10/20	Solit Manual Summany Pollun
	Containing Material General maintenance to exisiting wetland Soiling work around the existing Pond 9. Section 6 of the works (Portions 8,8A,8B and 9,9A~9G) Site Access in Portions 8B, 9, 9B, 9D	45 days 452 days	Mon 19/10/20 Sat 18/1/20 Sun 18/10/20	Wed 2/12/20 Wed 14/4/21 Sun 18/10/20 Rolled Up Task	
	Containing Material General maintenance to exisiting wetland Soiling work around the existing Pond 9. Section 6 of the works (Portions 8,8A,8B and 9,9A~9G) Site Access in Portions 8B, 9, 9B, 9D Task Trask Critical Task	45 days 452 days	Mon 19/10/20 Sat 18/1/20 Sun 18/10/20	Wed 2/12/20 Wed 14/4/21 Sun 18/10/20 Rolled Up Task Rolled Up Critical Task	External Tasks Inactive Summary Manual Summary
	Containing Material General maintenance to exisiting wetland Soiling work around the existing Pond 9. Section 6 of the works (Portions 8,8A,8B and 9,9A~9G) Site Access in Portions 8B, 9, 9B, 9D Task mme: July 2020	45 days 452 days	Mon 19/10/20 Sat 18/1/20 Sun 18/10/20	Wed 2/12/20 Wed 14/4/21 Sun 18/10/20 Rolled Up Task	



Contract No. ND/2019/03

Kwu Tung North and Fanling North New Development Areas, Phase 1 : Development of Long Valley Nature Park 3 Months Rolling Programme (Aug 2020)

ID	Task Name	Duration	Start	Finish	August 2020 September 2020 October 23 26 29 1 4 7 10 13 16 19 22 25 28 31 3 6 9 12 15 18 21 24 27 30 3	
206	General site clearance / demolition work / Removal of Asbesto Containing Material & Dioxin Contaminated	150 days	Fri 3/7/20	Sun 29/11/20	23 26 29 <u>1</u> 4 7 <u>10</u> <u>13</u> 16 <u>19</u> <u>22</u> 25 28 <u>31</u> <u>3</u> 6 <u>9</u> <u>12</u> <u>15</u> <u>18</u> <u>21</u> <u>24</u> <u>27</u> <u>30</u> <u>3</u>	3
207	Wetland Restoration / Wetland Creation	274 days	Thu 9/7/20	Thu 8/4/21		
207	Excavation	274 days	Thu 9/7/20	Tue 6/10/20		
		90 days				
209 219	Backfilling	90 days	Fri 28/8/20	Wed 25/11/20	•	
19	10. Section 7 of the works (Portions 10,10A,10B, 13,13A and 16,16A,16B)	539 days	Sat 18/1/20	Sat 10/7/21		
221	Site Access in Portions 10, 13	0 days	Sun 18/10/20	Sun 18/10/20		
223	General site clearance / demolition work / Removal of Asbesto Containing Material & Dioxin Contaminated	300 days	Tue 14/4/20	Sun 7/2/21		
224	Wetland Restoration / Wetland Creation	367 days	Thu 9/7/20	Sat 10/7/21		
225	Excavation	330 days	Thu 9/7/20	Thu 3/6/21		1039
26	Backfilling	320 days	Tue 25/8/20	Sat 10/7/21		
228	Construction of storage sheds	300 days	Fri 28/8/20	Wed 23/6/21		_
229	Construction of concrete structure	240 days	Fri 28/8/20	Sat 24/4/21		
237	11. Section 8 of the works (Portions 7,7A,7B, 17,17A,17B, 19,19A,19B,19C, 20,20A,20B&20C)	567 days	Sat 18/1/20	Sat 7/8/21		_
242	General site clearance / demolition work / Removal of Asbesto Containing Material & Dioxin Contaminated	350 days	Mon 24/2/20	Sun 7/2/21		
243	Wetland Restoration / Wetland Creation	325 days	Thu 9/7/20	Sat 29/5/21		
44	Excavation	250 days	Thu 9/7/20	Mon 15/3/21		9453 B
45	Backfilling	280 days	Sun 23/8/20	Sat 29/5/21		
47	Construction of Type 2 storage house	299 days	Sat 8/8/20	Wed 2/6/21		
48	Excavation and formation preparation	233 days 21 days	Sat 8/8/20	Fri 28/8/20		
49	Construction of base slab	21 days 28 days	Sat 29/8/20	Fri 25/9/20		
49 50	Construction of walls and roof	2	Sat 29/0/20 Sat 26/9/20			
54	Construction of storage sheds	40 days	Mon 7/9/20	Wed 4/11/20 Sat 7/8/21		
55	Construction of concrete structure	335 days 100 days	Mon 7/9/20	Tue 15/12/20		
63	12. Section 9 of the works (Portions 11,11A,11B, 12,12A~12D, and		Sat 18/1/20	Tue 26/10/21	P	
20	15,15A~15C)	047 uays	Sat 10/1/20	10020/10/21		
66	Site Access in Portions 11, 12, 12B	0 days	Sun 18/10/20	Sun 18/10/20		
68	General site clearance / demolition work / Removal of Asbesto Containing Material & Dioxin Contaminated	320 days	Wed 25/3/20	Sun 7/2/21		1915-
59	Wetland Restoration / Wetland Creation	415 days	Thu 9/7/20	Fri 27/8/21		
70 💷	Excavation	330 days	Thu 9/7/20	Thu 3/6/21		
71	Backfilling	360 days	Sun 23/8/20	Tue 17/8/21		
96	14. Section 11 of the works (Portions 22, 23, 24 and remainder	989 days	Tue 31/12/19	Wed 14/9/22		
99	works) Egretray Site Protion 23 & 24	870 days	Tue 18/2/20	Wed 6/7/22		
04	Approval of Methodology for Translocation	40 days	Mon 27/7/20	Fri 4/9/20		
05	Translocation works	40 days 30 days	Sat 5/9/20	Sun 4/10/20		
06	Ditch construction at A1-7FLN Egretray Site (Portion 23)	120 days	Mon 5/10/20	Mon 1/2/21		1
09	Landscaping work at existing Ho Sheung Heung Egretry Site (Portion 22)	120 days 150 days	Wed 30/9/20	Fri 26/2/21		
17	16. Section 12 of the works (Portions 25, 26 and 27)	240 days	Wed 18/3/20	Fri 13/11/20		
20	Preparation for translocation works	90 days	Fri 17/7/20	Wed 14/10/20		THE R
21	Collection site C1 (Portion 25)	30 days	Sat 5/9/20	Sun 4/10/20		
22	Collection site C2 (Portion 26)	30 days	Thu 15/10/20	Fri 13/11/20		a ()
23	Collection site C3 (Portion 27)	30 days	Thu 15/10/20	Fri 13/11/20	i i	

	Task		Rolled Up Task	C	Split		Inactive Milestone	Manual Summary Rollup	р 🔶
Revised Programme: July 2020	Critical Task		Rolled Up Critical Task		External Tasks		Inactive Summary	 Manual Summary	•
Data Date : 2020-7-3	Milestone	•	Rolled Up Milestone	\diamond	Project Summary	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Manual Task	Start-only	
	Summary	v	Rolled Up Progress		Group By Summary	v	Duration-only	 Finish-only	Ŷ
					P	age 2			

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020 6 9 12 15 18 21 24	November 2020 4 27 30 2 5 8 11 14
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External Tasks	
External Milestone Progress	
Deadline 🕴	

D	Activity Name	Rem Dur	% Compl	Early Start	Early Finish	Total Float	
D/2019/05 ·	- 3-month Rolling Programme (Jul 2020)	I	ł			<u> </u>	
Preliminary V							
Submissions	3						
PRE-210	MTRC - Obtain Consent to Commence Work For MTRC Protected Zones	0	100%	19-May-20 A	22-Jul-20 A		MTRC - Obtain Consent to Commence Work For MTRC Protected Zones
Alternative D	Design	, i					
ACABAS S	bubmission						
AD-131	ACABAS Submission PM Review	0	100%	01-Jul-20 A	30-Jul-20 A		ACABAS Submission PM Review
AD-132	ACABAS Submission Approval	120	0%	01-Aug-20	28-Nov-20	30	
Bridge C2							
AD-051	Bridge C2 Alternative Design Preparation	98	0%	07-Sep-20	13-Dec-20	3	
Bridge C3							
AD-041	Bridge C3 Alternative Design Preparation	76	22.45%	16-Jul-20 A	15-Oct-20	78	Bridge
AD-042	Bridge C3 Alternative Design ICE	18	0%	16-Oct-20	02-Nov-20	78	
AD-043	Bridge C3 Alternative Design Approval	54	0%	16-Oct-20	08-Dec-20	78	
Bridge C4							
AD-032	Bridge C4 Alternative Design ICE	0	100%	17-Jul-20 A	31-Jul-20 A		Bridge C4 Alternative Design ICE
AD-033	Bridge C4 Alternative Design Approval	18	66.67%	17-Jul-20 A	18-Aug-20	103	Bridge C4 Alternative Design Approval
Bridge D1							
AD-091	Bridge D1 Alternative Design Preparation	61	37.76%	06-Jul-20 A	30-Sep-20	142	
AD-092	Bridge D1 Alternative Design ICE	18	0%	01-Oct-20	18-Oct-20	142	
AD-093	Bridge D1 Alternative Design Approval	54	0%	01-Oct-20	23-Nov-20	142	
Bridge D2							
AD-101	Bridge D2 Alternative Design Preparation	0	100%	10-Mar-20 A	15-Jul-20 A		Bridge D2 Alternative Design Preparation
AD-102	Bridge D2 Alternative Design ICE	6	66.67%	17-Jul-20 A	06-Aug-20	76	Bridge D2 Alternative Design ICE
AD-103	Bridge D2 Alternative Design Approval	24	55.56%	17-Jul-20 A	24-Aug-20	76	Bridge D2 Alternative Design Approval
Bridge E1							
AD-111	Bridge E1 Alternative Design Preparation	61	37.76%	06-Jul-20 A	30-Sep-20	3	Bridge E1 Alternative De
AD-112	Bridge E1 Alternative Design ICE	18	0%	01-Oct-20	18-Oct-20	468	
AD-113	Bridge E1 Alternative Design Approval	54	0%	01-Oct-20	23-Nov-20	468	3
Bridge E2							
AD-071	Bridge E2 Alternative Design Preparation	0	100%	10-Mar-20 A	15-Jul-20 A		Bridge E2 Alternative Design Preparation
AD-072	Bridge E2 Alternative Design ICE	6	66.67%	17-Jul-20 A	06-Aug-20	11	
AD-073	Bridge E2 Alternative Design Approval	24	55.56%	17-Jul-20 A	24-Aug-20	11	
Bridge E3							
AD-081	Bridge E3 Alternative Design Preparation	84	14.29%	10-Jul-20 A	23-Oct-20	16	
AD-082	Bridge E3 Alternative Design ICE	18	0%	24-Oct-20	10-Nov-20	16	<u> </u>
AD-083	Bridge E3 Alternative Design Approval	54	0%	24-Oct-20	16-Dec-20	16	
Bridge E4							
AD-121	Bridge E4 Alternative Design Preparation	75	0%	01-Oct-20	14-Dec-20	576	
Noise Barri	ier						
AD-300	Confirmation of Design Memorandum	18	0%	07-Sep-20	24-Sep-20	81	Confirmation of Design Memor
AD-310	Noise Barrier Alternative Design Preparation	72	0%	25-Sep-20	05-Dec-20	81	
Segment Ere	ection Design and Calculation						
Geometry (Control						
AD-135	MS Geometry Control for Segment Casting Preparation	24	80.65%	31-Mar-20 A	24-Aug-20	3	MS Geometry Control for Segment Casting Preparation
AD-136	MS Geometry Control for Segment Casting ICE	18	0%	25-Aug-20	11-Sep-20	3	MS Gebmetry Control for Segment Casting IC
AD-137	MS Geometry Control for Segment Casting PM Review	36	0%	25-Aug-20	29-Sep-20	3	MS Geometry Control for
AD-150	Geometry Control for Segment Erection	84	0%	25-Aug-20	16-Nov-20	3	
	Remaining Level of Ef	ntreat NID /2/	10/05	FDF6 (9)	а U:m Т	te V-	Proj ID : 3MRP_05
Pau					-	e de la companya de la company	Lavout : ND201905 3MRP Date Revision Checked A
	Joint Venture Remaining Work 3-	Month R	lolling	g Progra	mme - A	Augu	Just 2020 Date : Page 1 of 6 01-Aug-20 Aug 2020
国铁建 🥢			C			0	

)	Activity Name	Rem Dur	% Compl	Early Start	Early Finish	Total Float	8 05	July 2020 12 19	26	02	August 202	_		eptember 2020 13 20	27		ober 2020	
Site Establish	ment Works						00	12 19	20			2	30 00	13 20		04		
Portion I & IA S									 	·								
01-011	Portion I & IA - Site Clearance, Tree Felling and Demolition Works	38	9.52%	02-Jul-20 A	14-Sep-20	-12				· · · · · · · · · · · · · · · · · · ·				Portion I &	& IA - Site	Clearance,	Tree Fell	lling
01-012	Portion I & IA - Site Hoarding	38	0%	01-Aug-20	14-Sep-20	-12				 						Hoarding		
01-013	Portion I & IA - Temporary Facilities	24	0%	18-Aug-20	14-Sep-20	0								Portion 1 8	& IA - Ten	porary Faci	ities	
01-014	Portion I & IA - Wheel Washing	24	0%	18-Aug-20	14-Sep-20	-12								Portion I 8				
Portion IV Site	-		0,10															
04-102	Portion IV - Site Clearance, Tree Felling and Demolition Works	24	0%	07-Sep-20	06-Oct-20	103				·						Portio	n IV - Site	te C
04-102	Portion IV - Site Hoarding	24	0%	07-Sep-20	06-Oct-20	103								- +			n IV - Site	
04-104	Portion IV - Temporary Facilities	12	0%	21-Sep-20	06-Oct-20	103										· · · · · · · · · · · · · · · · · · ·	n IV - Ter	
04-105	Portion IV - Haul Road and Wheel Washing	12	0%	21-Sep-20 21-Sep-20	06-Oct-20	103				+							n IV - Ha	
	-	12	0 /8	21-3ep-20	00-001-20	103				· · · · · · · · · · · · · · · · · · ·							п v - па.	.ur i
Portion VI Site	Portion VI - Site Clearance, Tree Felling and Demolition Works	40	09/	01 Aug 20	18 Cap 20	50				 				Dorti			Trolo Fo	 - Ilia
06-102		42	0%	01-Aug-20	18-Sep-20	58				1 I 						e Clearaince		300
06-104	Portion VI - Site Hoarding	42	0%	01-Aug-20	18-Sep-20	58				· · · · · · · · · · · · · · · · · · ·						e Hoarding		
06-105	Portion VI - Temporary Facilities	18	0%	29-Aug-20	18-Sep-20	58										mporary Fa	1	
06-106	Portion VI - Haul Road and Wheel Washing	18	0%	29-Aug-20	18-Sep-20	58								Portic	on VI - Ha	ul Road an	Wheel	Wa
Portion X Site																		
10-102	Portion X - Site Clearance, Tree Felling and Demolition Works	24	0%	01-Aug-20	28-Aug-20	760								ite Clearance, Tr	ee Felling	gand Demo	li on Wor	iks
10-104	Portion X - Site Hoarding	24	0%	01-Aug-20	28-Aug-20	760				 			Portion X - S					
10-105	Portion X - Temporary Facilities	12	0%	15-Aug-20	28-Aug-20	760			¦ 					emporary Faciliti	es	· · ·		
10-106	Portion X - Haul Road	12	0%	15-Aug-20	28-Aug-20	760							Portion X - H	aul Road				
Portion XI Site									1 1 1									
Pier E2-02/E2	2-03 Site Set-up								}									
11-102	Portion XI Pier E2-02/E2-03 - Tree Surveys & Peports	0	100%	19-Jun-20 A	22-Jul-20 A				ortion X	l Pier E2-0	2/E2-03 - Tr	ee Survey	s & Reports					
11-103	Portion XI Pier E2-02/E2-03 - WSD and MTRC Consent	24	50%	22-Jun-20 A	28-Aug-20	9			_	1 1			Portion XI Pi	er E2-02/E2-03	WSDar	d MTRC Co	nsent	
11-104	Portion XI Pier E2-02/E2-03 - Site Clearance, Tree Felling and Demolition Works	30	16.67%	08-Jul-20 A	11-Sep-20	9	╘╼━							Portion XI Pie	er <mark>E</mark> 2-02/	E2-03 - Site	Clearano	зe,
11-107	Portion XI Pier E2-02/E2-03 - Site Hoarding	30	16.67%	21-Jul-20 A	04-Sep-20	15		-		1 1			Porti	on XI Pier E2-02	/E2-03 - 3	Site Hoardin	g	
11-108	Portion XI Pier E2-02/E2-03 - Haul Road and Wheel Washing	18	0%	15-Aug-20	04-Sep-20	15					-		+Porti	on XI Pier E2-02	/E2-03 - I	Haul Road a	nd Whee	el V
11-109	Portion XI Pier E2-02/E2-03 - Temporary Facilities	18	0%	22-Aug-20	11-Sep-20	9			·					Portion XI Pi€				acil
Bridge D2 Sit	te Set-up								·									
11-202	Portion XI Pier D2-02 - Tree Surveys & Reports	0	100%	08-Jul-20 A	22-Jul-20 A			Pc	ortion X	l Pier D2-0	2 Tree Sur	veysℜ	ports					
11-203	Portion XI Pier D2-02 - Site Clearance, Tree Felling and Demolition Works	24	0%	01-Aug-20	28-Aug-20	40				· · · · · · · · · · · · ·			Portion XI Pi	er D2-02 - Site C	learance	, Tree Felling	and De	; mc
11-207	Portion XI Pier D2-02 - Site Hoarding	24	0%	01-Aug-20	28-Aug-20	40							Portion XI Pi	er D2-02 - Site ⊢	loarding			
11-208	Portion XI Pier D2-02 - Haul Road and Wheel Washing	36	0%	29-Aug-20	12-Oct-20	40											Portion	XI
11-209	Portion XI Pier D2-02 - Temporary Facilities	12	0%	26-Sep-20	12-Oct-20	40											Portion)	хī
Tai Wo Servio	ce Road East Site Set-up	I																
11-320	Portion XI TWSR East - Tree Surveys & Reports	0	100%	24-Jun-20 A	22-Jul-20 A			Po	ortion X	I TWSR Ea	st - Tree Su	irvevs & R	eports					
11-330	Portion XI TWSR East - Site Clearance, Tree Felling and Demolition Works	18	0%	01-Aug-20	21-Aug-20	0			····t -	1 I F				st - Site Clearan	ce. Tree F	elling and [emolition	n W
	ce Road West Site Set-up																	
11-420	Portion XI TWSR West - Tree Surveys & Reports	0	100%	22-Jun-20 A	22-Jul-20 A			Pr	ortion X	I TWSR W	est - Tree S	invevs & F	enorts					
11-430	Portion XI TWSR West - Site Clearance, Tree Felling and Demolition Works	36	0%	01-Aug-20	11-Sep-20	16								Portion XI TV	VSR Wes	t'- Site Clea	rance Tre	ree
Portion XII Site	-		0,0	017 kg 20	11 000 20	10												
12-100	Portion XII - Access Date (sd+147d)	0	100%	28-Jul-20 A						tion VII ' /	orace Data	(d. 147d						
	Portion XII - Access Date (sd+147d) Portion XII - Site Surveys and Records Including Tree Surveys	9	25%	28-Jul-20 A 28-Jul-20 A	11-Aug-20	34		[ccess Date			ecords Including	Tran C	Vave		
12-110										÷; f ,								
12-120	Portion XII - Site Clearance, Tree Felling and Demolition Works	15	0%	12-Aug-20	28-Aug-20	34	· · · · · · · · · · · · · · · · · · ·		·	÷			Portion XII -					
12-125	Portion XII - Site Hoarding and Haul Road	30	0%	12-Aug-20	15-Sep-20	34				4 						loarding an	· · · · · · · · ·	
12-130	Portion XII - Wheel Washing and Temporary Facilities	15	0%	29-Aug-20	15-Sep-20	34						⊢ '► [Portion >	(II Whe	el Washing	and Temp	Jor
Portion XVI									1									
	Remaining Level of Ef					4 17		. .	Droi	ID : 3MRF	05				ЗN	IRP		
Paul				FBES (Shun	0	-	U	0.	5		_05 .905 3MRP		Da	te	Revision		Checked	A
	Joint Venture	Ionth R	Colling	g Progra	mme - A	Augn	st 202	0		: Page 2 c				g-20 Aug 2020)			Γ
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	Activity Name	Rem Dur	% Compl	Early Start	Early Finish	Total Float	8 05	July 2020 12 19 26		August 202			Septemb		27		tober 202)20 18
16-110	Portion XVI - Site Surveys and Records Including Tree Surveys	0	100%	02-Jul-20 A	22-Jul-20 A				XVI - Site Su							U 4		
16-120	Portion XVI - Site Clearance and Tree Felling	48	0%	01-Aug-20	25-Sep-20	292							000109		Portion	XVI - Site	Cearan	
Portion XIX		10	0,0	017.0320	20 000 20	202		$\begin{vmatrix} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 $								++		
19-100	Portion XIX - Access Date (sd+od)	0	0%	01-Aug-20		170		, , , , , , , , , , , , , , , , , , ,	Portion)	(IX - Access	Date (sd	dd)						
		10		-	01 Aug 00			E										
19-110	Portion XIX - Site Surveys, Records and Tree Surveys	18	0%	01-Aug-20	21-Aug-20	139					Portion	XIX - Site				1		
19-120	Portion XIX - Site Clearance, Tree Felling and Demolition Works	30	0%	22-Aug-20	25-Sep-20	139										XIX - Site	Gearan	iCe,
Portion XX			(00)															
20-110	Portion XX - Site Surveys, Records and Tree Surveys	0	100%	16-Jun-20 A	22-Jul-20 A				XX - Site Su									
20-120	Portion XX - Site Clearance, Tree Felling and Demolition Works	30	0%	01-Aug-20	04-Sep-20	157			-			Po	ortion XX	Site Clea	rance, Ti	ee Felling a ¦¦	and Dem	noli
Work Area A								 										
21-120	Work Area A - Proposed PMAccomodation Construction	49	2%	30-Jun-20 A	26-Sep-20*	3			i						Work	Area A - Pi	or <mark>osed</mark>	PN
Segment Stor	age Facilities																	
Work Area C	i1 and C2							T										
WA-1000	Worka Area C1 & C2 - Access Dates	0	0%	01-Aug-20		227		T	🔶 Worka A	rea C1 & C	2 Access	Dates						
Bridge Consti	ruction		J J															
Launching Ga									-									
LG-100	LG Design Specifications	18	57.14%	26-Mar-20 A	21-Aug-20	3	· ¦	· · · · · · · · · · · · · · · · · · ·			LG Des	ign Specifi	cations					
LG-101	LG Procurement	136	11.69%	14-Jul-20 A	13-Jan-21	3		· · · · · · · · · · · · · · · · · · ·	- +					+		++		
Lifter		100				, , , , , , , , , , , , , , , , , , ,		+										
LF-100	Lifter Design Specifications	15	65%	26-Mar-20 A	18-Aug-20	3		i i +			ifter Desig	n Specifica	tione					
LF-101	Lifter Procurement	127	2.31%	14-Jul-20 A	02-Jan-21	3	 	· · · · · · · · · · · · · · · · · · ·	- -			in Specifica						
		127	2.0176	14-301-20 A	02-0411-21	5		· · · · · · · · · · · · · · · · · · ·								 + 		
Segment Fabr								· · · · · · · · · · · · · · · · · · ·								· · · · · · · · · · · · · · · · · · ·		
Off-Site Fab																		
Preparatio			I . I															
OSF-13		48	0%	24-Oct-20	19-Dec-20	1		· · · · · · · · · · · · · · · · · · ·									-	
OSF-13		78	0%	24-Oct-20	27-Jan-21	37		· · · · · · · · · · · · · · · · · · ·								· · · · · · · · · · · · · · · · · · ·		
On-Site Fab								 +								· · · · · · · · · · · · · · · · · · ·		
	k Design and Method Statement		11		1			 +								· · · · · · · · · · · · · · · · · · ·		
OSF-21	10 Method Statement and Temp Work for Long Casting Bed Preparation	78	0%	28-Sep-20	04-Jan-21	26										1 I 1		-
Bridge B1																		
Substructure	e Portion I and 1A																	
Preparatio	n Works																	
B1-032	Portion I & IA - TTA Approval / Endorsement	0	100%	18-Jun-20 A	03-Jul-20 A		Portion	& IA - TTA Approval /	Endorseme	nt								
B1-033	Portion I & IA - TTA Implementation	6	60%	04-Jul-20 A	07-Aug-20	-22	l •	+	- P	ortion I & A	- TTA Imp	lementatio	n				-	
B1-041	Portion I & IA - Utility Detection/Trial Pits	18	0%	08-Aug-20	28-Aug-20	-22		+				Portion 18	IA - Uțilit	y Detectior	n/Trial Pit	\$		
B1-042	Portion I & IA - Utility Diversion/Protection	36	0%	29-Aug-20	12-Oct-20	-22		+	-		-	·				÷÷	Portion	nla
Piling									-									
B1-1110	BB1 - Pier RW1 Pre-drilling	24	0%	29-Aug-20	25-Sep-20	-22								· · · · · · · · · · · · · · · · · · ·	+BB1 - I	Pier RW1 F	re drilling	ng
B1-1120		12	0%	26-Sep-20	12-Oct-20	-22		 								++	- BB1 - F	
B1-1131		48	0%	13-Oct-20	08-Dec-20	-22		 								F	- #	
Pier		10	070	10 001 20	00 200 20												- 4	
B1-1141	BB1 - Pier RW1/C1 Method Statement Preparation	60	0%	13-Oct-20	22-Dec-20	152											- 4	
		00	0 /8	13-001-20	22-060-20	152		· · · · · · · · · · · · · · · · · · ·									- 4	
Substructur								 									- #	
Preparatio			001	00.0				· · · · · · · · · · · · · · · · · · ·									- #	
B1-111	Portion II - TTA Scheme Preparation	24	0%	30-Oct-20	26-Nov-20	52		· · · · · · · · · · · · · · · · · · ·	-								-#	
Bridge C1																	- #	
Foundation								 +								 +	- #	
Preparatio	n Works																	
	Domaining Louglet Et		40/05 -				. -				-				3M	RP		
Paul	CRCC - Paul Y.	ontract ND/20	019/05 - I	FBES (Shun	ig Hím Tong	g to Kai	ı Lung H	Ianc/	j ID : 3MRP out : ND201				Date	F	Revision		Checke	d l
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Activity ID	Activity Name	Rem Dur	% Compl	Early Start	Early Finish	Total Float		July 20					st 2020	_			otember				ober 202	
C1-111	Portion III - TTA Scheme Preparation	24	0%	30-Oct-20	26-Nov-20	130	80	5 12	19	26	02	09	16	23	30	06	13	20	27	04	11	18 25
	Pontion III - TTA Scheme Preparation	24	0%	30-001-20	26-1100-20	130																
Bridge C2																						
Foundation	lade																					
Preparation W		4	00 4 99/	19 Jun 20 A	05 444 20	61							/ -	Cohomo	Proper	ation						
C2-111	Portion IV - TTA Scheme Preparation	4	90.48%	18-Jun-20 A	05-Aug-20	61							/-IA	\$cheme	1	1						
C2-112	Portion IV - TTA Approval / Endorsement	18	0%	06-Aug-20	26-Aug-20	61									2011ion 		Approv	al / Endor TTA Imple	rsement			
C2-113	Portion IV - TTA Implementation	9	0%	27-Aug-20	05-Sep-20	61									÷ {		on 1V -			+		
C2-121	Portion IV - Utility Detection/Trial Pits	18	0%	07-Sep-20	26-Sep-20	61			¦									-+	Ροπο	n IV - Utility		on/ Irial Pi
C2-122	Portion IV - Utility Diversion/Protection	36	0%	28-Sep-20	11-Nov-20	61														+		
C2-211	Portion V - TTA Scheme Preparation	24	0%	30-Oct-20	26-Nov-20	114			¦											+		
Bridge C3									¦¦-						¦					+		
Pier									¦			¦ 										
Preparation W									¦			¦ 	 		¦			- <u></u>				
C3-1205	Portion VI - Utility Detection/Trial Pits	12	0%	19-Sep-20	05-Oct-20	124			¦			¦ 			¦			• -+		Portior	n VI -¦Uti	ility Detecti
C3-1206	Portion VI - Utility Diversion/Protection	36	0%	06-Oct-20	17-Nov-20	124			¦			¦			¦							
Bridge C4									¦			¦			¦							
Preparation Wo									¦						¦							
C4-111	Portion VI - TTA Scheme Preparation	4	86.67%	02-Jul-20 A	05-Aug-20	36					F	Portion V	I - TA	\$cheme		1	_					
C4-112	Portion VI - TTA Approval / Endorsement	18	0%	06-Aug-20	26-Aug-20	36					└┣┏							al / Endor				
C4-113	Portion VI - TTA Implementation	6	0%	27-Aug-20	02-Sep-20	36										Portion		Impleme	entation			
C4-121	Portion VI - Utility Detection/Trial Pits	12	0%	03-Sep-20	16-Sep-20	36														Detection/		
C4-122	Portion VI - Utility Diversion/Protection	24	0%	17-Sep-20	16-Oct-20	36						<u>.</u>										ortion VI - I
Pier												<u>.</u>				<u> </u>						
C4-1247	C4 Pier Footing ELS Design - Preparation	9	50%	16-Jul-20 A	11-Aug-20	67							Pier F	ooting E	4-4	2						
C4-1248	C4 Pier Footing ELS Design - ICE	18	0%	12-Aug-20	01-Sep-20	67									📫 c	4 Pier F	ooting	ELS Desig	ġn - ICE			
C4-5620	C4 Pier Footing ELS Design - ICE	24	0%	12-Aug-20	08-Sep-20	67		, , ,				╎┺┫	1		;		4 Pier I	ooting El	LS Desig	n - ICE	-	
C4-01																1		1				
C4-1200	Pier C4-01 S/B ELS	36	0%	17-Oct-20	28-Nov-20	36										}		1			-	
C4-1250	Pier C4-01 NB ELS	36	0%	17-Oct-20	28-Nov-20	36										}		1				
Bridge D2																						
Foundation																						
Preparation W	/orks														}							
D2-211	Pier D2-02 - Cycle Track & TTA Scheme Preparation	4	86.67%	02-Jul-20 A	05-Aug-20	18			· · · ·		F	Pier D2-0	2 - Cyc	de Track	& TTA S	Scheme	Prepar	ation				
D2-212	Pier D2-02 - Cycle Track & TTA Scheme Approval / Endorsement	18	0%	06-Aug-20	26-Aug-20	18					►			F		02 - Cyc		& TTA S	cheme A	pproval / E	ndorser	nent
D2-213	Pier D2-02 - Implement TTA for Site Access	18	0%	27-Aug-20	16-Sep-20	18												Pier D2-0)2 - Imp	ement TTA	for Site	Access
D2-214	Pier D2-02 - Cycle Track Diversion Implementation	18	0%	27-Aug-20	16-Sep-20	18												Pier D2-0)2 - Cycle	Track Div	ersionli	mplement
D2-221	Pier D2-02 - Utility Detection/Trial Pits	18	0%	17-Sep-20	09-Oct-20	18									1-1							2 Utility De
D2-222	Pier D2-02 - Utility Diversion/Protection	36	0%	10-Oct-20	21-Nov-20	18														►		
D2-421	Pier D2-03 - TTA Scheme Preparation for Foundation Work	4	87.5%	29-Jun-20 A	05-Aug-20	8		;			F			Scheme				dation Wo	ork			
D2-422	Pier D2-03 - TTA Approval / Endorsement for Foundation Work	54	0%	06-Aug-20	09-Oct-20	8					-										er D2-03	3 TTA App
D2-431	Abutment D2-04M - TTA Scheme Preparation for Foundation Work	54	0%	06-Aug-20	09-Oct-20	417									i-1						outment	D2-04M -
D2-433	Abutment D2-04M - TTA Approval / Endorsement for Foundation Work	60	0%	10-Oct-20	19-Dec-20	417						i		-	1-1 					>		
Portion XI]								i		-	111							
Pier D2-02																						
D2-1150	2020 Dry Season Onset	0	0%	03-Oct-20*		6						i		-	;		-		•	2020 Dry	Season	Onset
D2-1154	Pier D2-02 Temporary Works Design Preparation	9	50%	16-Jul-20 A	11-Aug-20	13						Pi	∋r D2-0	2 Tempo	orany Wo	orks Des	ig n Pre	paration				
D2-1155	Pier D2-02 Temporary Works Design ICE	18	0%	12-Aug-20	01-Sep-20	19							 		⊹-! ⊢ −	ier D2-0	2 Temp	orary Wo	rks Desio	nlQE		
D2-1157		30	0%	12-Aug-20	15-Sep-20	19		$ \frac{1}{1}$ $ -$											2	rary Works	Designl	PM Reviev
				Ŭ,			i	1	· · ·						· II	1	<u>- 1:</u>				9 -	
Paul Y	CRCC - Paul Y. Remaining Level of Ef Contract	et ND/20	19/05 - 1	FBES (Shun	g Him Tong	g to Kau	Lun	g Hang)	-	D : 3M it : ND2	RP_05 201905 :	3MRP		-	Date	e	F	3MI Revision		Checke	d Approv
		nth R	olling	g Progra	mme - A	Augu	st 2	020		-	Page					01-Aug	-20 A	ug 2020				
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D	Activity Name	Rem Dur	% Compl	Early Start	Early Finish	Total Float	8 05	July 20	20 19 26	02	August 20		30	Septer 06	nber 2020 13) 20 27		ctober 2020
D2-11	58 Pier D2-02 DIA and DSD Consent	36	0%	12-Aug-20	22-Sep-20	13		-									-02 DIA and	
D2-11	60 Pier D2-02 Temporary Access and Platform	24	0%	03-Oct-20	31-Oct-20	6												
Bridge E2																		
Foundation																		
Preparation) Works												<u></u> -					
E2-121	Portion XI Pier E2-02/E2-03 - Utility Detection/Trial Pits	18	0%	01-Aug-20	21-Aug-20	73						Portion	YI Pior F	2-02/F2		ty Detectio	n/Trial Pits	
E2-121	Portion XI Pier E2-02/E2-03 - Utility Diversion/Protection	42	0%	22-Aug-20	12-Oct-20	73												Portion X
E2-321	Pier E2-01 - Prepare submission for MTRC Consent	24	0%	15-Oct-20	12-00-20	36												
	Pier E2-01 - Piepare submission for MTRC Consent	24	0%	15-001-20	12-1100-20	30												
Portion XI	~									-								
Pier E2-									¦ 									
	55 E2-02 Temporary Access and Platform	24	0%	15-Aug-20	11-Sep-20	9			¦		·						cess and Pla	atform:
E2-11	64 E2-02 Pre-drilling (6 nos)	15	0%	25-Aug-20	10-Sep-20	10			¦						2-02 Pre-	drilling (6		
E2-11	65 E2-02 Bored Piling Set-up and founding Level Approval	12	0%	12-Sep-20	25-Sep-20	9											02 Bored Pili	ng Set⊦up ar
E2-11	71 E2-02 Bored Piling (6 nos)	72	0%	26-Sep-20	22-Dec-20	9												i
Pier E2-	03																	
E2-12	201 E2-03M Temporary Access and Platform	24	0%	12-Sep-20	12-Oct-20	37												E2-03MT
E2-12	211 E2-03M Pre-drilling (6 nos)	24	0%	13-Oct-20	10-Nov-20	37											-	
Bridge E3						1				-								
Foundation								· - 1	 									
Pier E3-01	M (Portion XI)																	
E3-1010		24	0%	24-Oct-20	21-Nov-20	235												
Pier E3-02	(Portion XII)									-								
E3-1250		24	0%	24-Oct-20	21-Nov-20	283												
Pier E3-03			0,0	1.00.10									{-					
E3-1050		9	0%	05-Sep-20	15-Sep-20	34									 3_03		ent TTA for Fo	undation W
E3-1055		9	0%	16-Sep-20	25-Sep-20	34								;E			03 Utility Dete	
	-				· ·											- [
E3-1058	E3-03 Utility Diversion and/or Protection	30	0%	26-Sep-20	03-Nov-20	34		-+										
E3-1060		18	0%	24-Oct-20	14-Nov-20	12								·				
	ray Associated Works																	
	Road East (TWSR-East)										 							
TWSR-East H	IKY FB Extension																	
Lift and Sta	irs Foundation																	
FBE-101	5 TWSR East TTA Stage 1 Approval/Endorsement	0	100%	19-Jun-20 A	17-Jul-20 A		!	_	TWSR East T		1 Approval/	Endorseme	ht	1		1		
FBE-102	0 TWSR-East TTA Stage 1 Implementation	12	20%	18-Jul-20 A	14-Aug-20	4		-	· ·	1	TW	SR-East TT		1 Implem	entation			
FBE-102	5 HKY LT1/PO2/AB1 Utility Detection/Trial Pit	24	0%	15-Aug-20	11-Sep-20	4					►	· · · · Þ · · · · · · · · · · · · · · ·			KY LT1/I	PO2/AB1	Utility Detecti	on/Trial Pit
FBE-103	0 Submit/Approve H-pile Method Statement	18	25%	15-Jul-20 A	21-Aug-20	4						Submit	/Approve	H-pile M	ethod St	atement		
FBE-103	5 HKY LT1/PO2/AB1 Pre-drilling	18	0%	22-Aug-20	11-Sep-20	4						►	•	━━╋┦	KY LT1/I	PO2/AB1	Pre-drilling	
FBE-104	0 HKY LT1/PO2/AB1 H-pile Set-up	12	0%	12-Sep-20	25-Sep-20	4			 	-						HK)	/ LT1/PQ2/AI	B1 H-pile Se
FBE-105	0 HKY LT1/PO2/AB1 H-pile Installation (14 nos)	48	0%	26-Sep-20	24-Nov-20	4				-								
Lift Installa				•					 									
FBE-127		40	38.46%	02-Jul-20 A	16-Sep-20	3									HKY	/ FB Lift - I	Procurement	
FBE-127		240	0%	17-Sep-20	16-Jul-21	3										·		
	1) Adjacent to Cycle Track		0,0			Ŭ												
Box Culver										-								
	1	00	00/	15 Car 00	20 0+ 00	E			 					·····				
TSE-201		36	0%	15-Sep-20	29-Oct-20	5			1 1 1 1 4						+			
TSE-202		18	0%	30-Oct-20	19-Nov-20	5												
TWSR-East N											· · · · · · · · · · · · · · · · · · ·							
Noise Barri	er NB71, NB72 and NB73													1				
	Remaining Level of Ef		010/0=		II. –		T) D	j ID : 3M	20.05						BMRP	
	CRCC - Paul Y.	Contract ND/2	019/05 - 1	FBES (Shun	ig Him Ton	g to Kai	i Lung	Hang	/	-	XP_05 201905 3MF	P		Date		Revisi		Checked
		3-Month R	Rolling	g Progra	mme - /	Augu	st 20	20	-				01	I-Aug-20	Aug 2	020		
中国铁建	Joint Venture	3-Month F	Kolling	g Progra	amme - A	Augu	st 20	20	Dat	te : Page :	5 of 6			0.	01-Aug-20	01-Aug-20 Aug 2	01-Aug-20 Aug 2020	01-Aug-20 Aug 2020

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		Activity Name	Rem Dur	% Compl	Early Start	Early Finish	Total Float	July 2020 8 05 12 19	26	Augus 02 09	st 2020 16 23	September 2020 30 06 13 20	27	04	October 2	18
	TSE-1010	TWSR East TTA Stage 1A Preparation	24	0%	26-Sep-20	27-Oct-20	15									
	TSE-1015	TWSR East TTA Stage 1A Approval/Endorsement	24	0%	28-Oct-20	24-Nov-20	15							· 		L.
	TSE-1040	Existing DN1200 Watermain Trial Pits and Diversion Scheme	48	0%	26-Sep-20	24-Nov-20	0		<mark>-</mark>					·;;		
	TSE-1050	Existing DN600 Watermain Trial Pits and Diversion Scheme	12	66.67%	22-Jun-20 A	14-Aug-20	6		-¦ <mark>-</mark> ¦	·····	Existing DN600	Watermain Trial Pits and Div	ersion Scl	neme ;		
	TSE-1055	Existing DN600 Watermain Diversion Work	78	0%	22-Aug-20	24-Nov-20	0		<mark>-</mark>	·		<u>.</u>		·;;		
Tai W	Vo Service Ro	ad West (TWSR-West)							<mark>-</mark>					++		
		Stage 1 - Existing Noise Barrier Removal														
	TSW-1005	TWSR-West TTA Stages Preparation	4	93.33%	26-May-20 A	05-Aug-20	12	· · · · · · · · · · · · · · · · · · ·		TWSR-W	est TTA Stages	Preparation				
_	TSW-1010	TWSR-West TTA Stage 1 Approval/Endorsement	24	0%	06-Aug-20	02-Sep-20	12	· · · · · · · · · · · · · · · · · · ·	<mark>-</mark>					/al/Endor	sement	
	TSW-1015	TWSR-West TTA Stage 1 Implementation	12	0%	03-Sep-20	16-Sep-20	12		<mark>-</mark>							ntation
_	TSW-1015	Existing NB77 Remove Noise Panels and Steel Frames	12	0%	17-Sep-20	30-Sep-20	12							xisting N		
	TSW-1020	Existing NB77 Demolish Footing	30	0%	03-Oct-20	07-Nov-20	12		<mark>-</mark>					-xisting n		
									<mark>-</mark>			· · · · · · · · · · · · · · · · · · ·				
	TSW-1030	Existing NB77 Utility Detection and Trial Pits	12	0%	17-Sep-20	30-Sep-20	12			· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		: U	xisting N		
	TSW-1035	Existing NB77 Utility Diversion and/or Protection	30	0%	03-Oct-20	07-Nov-20	12			<u></u>				+		·
	TSW-1040	Prepare TTA Scheme for Existing Sign Gantry ADS-21 Removal (night work)	4	87.5%	30-Jun-20 A	05-Aug-20	8			Prepare 1	TA Scheme for	Existing Sign Gantry ADS-21		++		
	TSW-1045	Approve TTA Scheme for Existing Sign Gantry ADS-21 Removal (night work)	54	0%	06-Aug-20	09-Oct-20	8							· _ ·	Approve	
	TSW-1050	Implement TTA for Existing Sign Gantry ADS-21 Removal (night work)	10	0%	10-Oct-20	21-Oct-20	8							; └⊳[ln 📃
	TSW-1055	Demolish Existing Sign Gantry ADS-21	18	0%	22-Oct-20	12-Nov-20	8									
	TSW-1065	Prepare TTA Scheme for Pier D2-03 Construction	4	87.5%	30-Jun-20 A	05-Aug-20	36		· · · · · · · ·			Fier D2-03 Construction				
	TSW-1070	Approve TTA Scheme for Pier D2-03 Construction	54	0%	06-Aug-20	09-Oct-20	36								Approve	TTA S
ТМ	VSR-West TTA	Stage 2												· · · · · · · · · · · · · · · · · · ·		
	Stage 2A - Slop	e Works for New Feature FS04							<mark>-</mark>	·ii		i		·;;		
	TSW-1100	TWSR-West TTA Stage 2A Approval/Endorsement	24	0%	03-Sep-20	30-Sep-20	198					╢╾		WSR-W	st TTA S	Stage 2
	Stage 2B - Ho K	a Yuen FB Extension							<mark>-</mark>			Ύαματικα τη		·;;		
	TSW-3000	TWSR-West TTA Stage 2B Approval/Endorsement	24	0%	03-Sep-20	30-Sep-20	135		<mark>-</mark>		·····			WSR-W	st TTA	Stage 2
	Stage 2C - NB67				•				<mark>-</mark>					++		
		TWSR-West TTA Stage 2C Approval/Endorsement	24	0%	03-Sep-20	30-Sep-20	82		<mark>-</mark>					WSR-W	est TTA S	stage 2
lock	ey Club Road								<mark>-</mark>							
	eparation Work								<mark>-</mark>							
	10-121	Jockey Club Road TTA Stage 1 Approval/endorsement	0	100%	19-Jun-20 A	17-Jul-20 A		Jockey	Club Boa	d TTA Stage 1	Approval/endor	sement				
	10-122	Jockey Club Road TTA Stage 1 Implementation	15	0%	01-Aug-20	18-Aug-20	745					lb Road TTA Stage 1 Implem	entation			
	10-125	Jockey Club Road Utility Detection/Trial Pits	0	100%	09-Jun-20 A	18-Jul-20 A	7.40		v Club Bo	ad Utility Detec						
	10-125	Jockey Club Road Utility Diversion / Protection	48	0%			745					· · · · · · · · · · · · · · · · · · ·		, , , , , , , , , , , , , , , , , , ,		ookov (
		Jockey Glub Road Otility Diversion / Protection	40	0%	19-Aug-20	15-Oct-20	745		<mark>-</mark>					·+		ockey (
	Ivance Works		40	00/	45.4 00	00 A 00	700		<mark>-</mark>					·		
	JCR-1000	Temporary Road	12	0%	15-Aug-20	28-Aug-20	760		<mark>-</mark>	·		Temporary Road		; ; ; ;		
	JCR-1010	Site Clearance	24	0%	29-Aug-20	25-Sep-20	760		<mark>.</mark>				Site C	earance		
	JCR-1020 JCR-1030	Slope Works (New Feature FS05)	42	0%	16-Oct-20	04-Dec-20	745							· · · ·		
		Existing Featur 3SW-C/F63 - Excavate Loose Fill	42	0%	16-Oct-20	04-Dec-20	745		i i		ì		i l	i i	· · •	



1 2 3 4 5 6 7	Task Mode	ND/2019/06 Contract Period				1	Aug	Sep	D Oct 1	Qtr 1, 20 Iov Dec Jan	Feb Mar	Apr May	Qtr 3, 2		4 N. T. T. T.	I Dala Mon Am	
3 4 5	-	ND/2013/00 Contract I chou	1048 days	Fri 27/9/19	Tue 9/8/22	0 days								Aug Sep Oc	t Nov Dec Jar	I FED MAI AP	i iviay Jun
4 5		Starting Date		Fri 27/9/19		1015 days			27/9				_				
5		Preliminaries	944 days	Fri 27/9/19	Wed 27/4/22	104 days			I				-				
5 6 7		Project Manager and Supervisor's site accommodation	944 days	Fri 27/9/19	Wed 27/4/22	104 days			I								
6 7		Refurnishing the existing site office and provision of furniture and equipment	30 days	Fri 27/9/19	Sat 26/10/19	985 days							_				
7		Provision of regular service to the accommodation (up to completion of DLP)	944 days	Fri 27/9/19	Wed 27/4/22	71 days											
		Contractor's site accommodation	59 days	Fri 27/9/19	Sun 24/11/19	989 days			1				_				
8		Searching and rental arrangement		Fri 27/9/19	Sun 10/11/19												
9		Set up of site office	,		9 Sun 24/11/19	,											
10		Maintenance of land traffic flow	-	Fri 27/9/19	Tue 27/4/21												7
11 12	-9	Arrangement of TMLG in different stages		Fri 27/9/19	Thu 23/4/20												
13		Application of TTA/ XP Implementation of TTA/ XP in different stages	-	Fri 27/9/19		0 days						\downarrow					_
14	->	Maintenance of traffic flow in interim construction stage		Fri 27/9/19		436 days 0 days						5					
15		Maintenance of traffic flow in final construction stage		Sun 29/3/20								÷					
16		Provision of insurances		Fri 27/9/19	Mon 25/11/1					-							
17	-7	Third party insurance		Fri 27/9/19	Sat 26/10/19												
18	-	PII for the works		Fri 27/9/19	Mon 25/11/19												
19		Land transport for the use of the Project Manager and Supervisor		Fri 27/9/19	Wed 27/4/22				·				_				
20	-4	Provision of vehicles	30 days	Fri 27/9/19	Sat 26/10/19												
21		Provision of transportation service with drivers (including DLP)	914 days	Sun 27/10/19	Wed 27/4/22	71 days											
22		Miscellaneous items	579 days	Fri 27/9/19	Tue 27/4/21	469 days							_				7
23		Contract computer facilities for the Project Manager and Supervisor	60 days	Fri 27/9/19	Mon 25/11/19	955 days							_				
24		Provision of progress photographs	579 days	Fri 27/9/19	Tue 27/4/21	436 days											
25		Installation of security system for the site	45 days	Fri 27/9/19	Sun 10/11/19	970 days							_				
26		Interface management and public relation works		Fri 27/9/19		436 days											
27		BIM works		Fri 27/9/19		436 days											
28 29	-9	Upkeep of the employer's store		Fri 27/9/19		436 days											
30	->	Emergency unit and weather protection scheme General site clearance	-	Fri 27/9/19	Tue 27/4/21												
31		Hoadings, temporary fences and signboards		Fri 27/9/19 Sun 17/11/19	Thu 17/10/19	994 days 703 days											
32		Hoadings, temporary fences and signboards at Interim stage			Tue 31/12/19												
33		Hoadings, temporary fences and signboards at Final stage		Fri 7/8/20	Sat 5/9/20	670 days				1				_			
34		Environmental management, mitigation and monitoring		Fri 27/9/19	Tue 27/4/21				J				_	^			
35		Environmental management measures		Fri 27/9/19		436 days											
36		Environmental mitigation measures		Fri 27/9/19	Tue 27/4/21	436 days											
37	-5	Environmental monitoring measures	579 days	Fri 27/9/19	Tue 27/4/21	436 days											
38		Site Management plan for trip ticket system	21 days	Fri 27/9/19	Thu 17/10/19	994 days				_			_				
39		Air pollution abatement	579 days	Fri 27/9/19	Tue 27/4/21	436 days											
40		Noise pollution abatement	579 days	Fri 27/9/19		436 days											
41		Wastewater pollution abatement		Fri 27/9/19	Tue 27/4/21												
42 43		Waste Management	-	Fri 27/9/19	Tue 27/4/21												
43	-9	Monitoring the use of ultra low sulphur diesel Temporarory drainage management plan	-	Fri 27/9/19	Tue 27/4/21												
45		Survey of the Site		Fri 27/9/19	Sat 26/10/19												
46	->	Initial survey	-	Fri 27/9/19 Fri 27/9/19	Tue 27/4/21 Sat 26/10/19	-											
47		Conditional survey	-	Fri 27/9/19	Sat 26/10/19												
		Monitoring survey			Tue 27/4/21	,											
	-	As-build survey			Tue 27/4/21												
50	-5	Section 1 of the Works	-	Fri 27/9/19	Mon 2/8/21				I	-			_	_			
51		Works for Portion 4	-	Fri 27/9/19	Wed 7/7/21	-				-			_				
52		General for Portion 4	68 days	Fri 27/9/19	Tue 3/12/19	438 days				<u> </u>			_	_			
53		Access date of Portion 4	0 days	Fri 27/9/19	Fri 27/9/19	0 days			• 27/9								
54		Site clearance and tree felling	30 days	Fri 27/9/19	Sat 26/10/19	0 days											
55		Breaking up existing paving	20 days	Sun 27/10/19	Fri 15/11/19	0 days											
56		Excavation for management office building				0 days											
57		Management Office Building	-	Fri 27/9/19	Wed 7/7/21	-								_			
58		Civil and structural works	-			457 days											
59 60	->	Construction of foundation from G.L. E-H / 1-3	-	Wed 4/12/19		920 days											
	-9	Idling due to COVID-9 infection Construction of foundation from G.L. A-E / 1-3		Sat 1/2/20		0 days							1				
62	-			Sun 31/5/20		0 days									_		
63		Construction for G/F slabs from G.L. A-E/1-3		Sun 14/6/20		0 days											
64		Construction for G/F to R/F columns and wall from G.L. A-E/1-3 Construction for R/F slabs and beams from G.L. A-E/1-3		Sun 5/7/20 Sun 26/7/20	Sat 25/7/20 Sat 8/8/20	0 days 0 days											
65		Construction for R/F to UR/F columns and walls at G.L. B-C/1-3		Sun 26/7/20 Sun 9/8/20	Sat 8/8/20 Sat 22/8/20	0 days 0 days											
66	->	Construction for UR/F slabs and beams at G.L. B-C/1-3	-	Sun 9/8/20 Sun 23/8/20		0 days 0 days											
	-9																
roject: ND/		Task Summary	Inactive Milesto			on-only			Start-or	-			l Milestone	 ♦ ↓ 	Critical Split		Slack
ate: Wed 10	0/6/20	Split Project Summary Milestone Inactive Task	Inactive Summa Manual Task	цу		d Summary Rollu d Summary	P		Finish- Externa	-		Deadli Critica		▼	Progress Manual Progress		

	Otr 3.	2021		Otr 4.	2021		Otr 1	2022		Otr 2.	2022		Otr 3, 2	022	
n	Jul	2021 Aug	Sep	Oct	2021 Nov	Dec	Jan	Feb	Mar	Apr	2022 May	Jun	Qtr 3, 2 Jul	Aug	Sep
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	er:	00 4 XY		la.	V 24 - 1 - 2		isioning of North Di		Wholesale Market fo		10				
0	Task Mode	Task Name		Start	Finish	Float	019 Aug Sep	Qtr 4, 2019 Oct Nov	Qtr 1, 2020 Dec Jan Feb	Qtr 2, 2020 Mar Apr May	Utr 3, 2020 Jun Jul Aug S	Pri 2020 Pri	/ Dec Jan	2021 Qtr 2, 2021 Qtr 3, 2021 Qtr 4, 2021 Qtr 1, 2022 Qtr 2, 20 Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr	022 Qtr 3, 2 May Jun Jul
	-9	Construction of columns and walls from G/F to R/F for G.L. E-H/1-3			Sat 13/6/20	0 days					↓				
_		Construction of slabs and beams for R/F for G.L. E-H/1-3		Sun 14/6/20		0 days					`↓				
_	-9	Construction of water tanks at R/F from G.L. E-H/1-3		Sun 28/6/20		0 days					Ì Ì ↓				
	-9	Construction of R/F to UR/F columns and walls from G.L. C-H/1-3		Sun 26/7/20		0 days									
_		Construction of UR/F beams and slabs from G.L. C-H/1-3		Sun 9/8/20	Sat 22/8/20	14 days									
	-9	Construction of Parapet walls	,	Sun 6/9/20	Sat 19/9/20										
3	-9	Roofing works			Sat 26/12/20	•									
5		Cememt sand screeding on roof slab			Sat 10/10/20							1			
		Waterproofing works for roof	-) Sat 31/10/20										
6		Construction of 40mm insulation layer			Sat 21/11/20								Ĵ		
17	-,	Construction of 40mm cement sand rendering) Sat 12/12/20								` ↓		
/8		300 x 300mm roofing concrete tiles) Sat 26/12/20										
79		External walls and internal walls	-) Tue 20/10/2	-									
80		External wall block work and finishing			Tue 20/10/20							ן			
31		Internal wall block and finishing	45 days	Wed 15/7/20	Fri 28/8/20	0 days					├ → h				
32		Installation of windows and doors	98 days	Sat 29/8/20	Fri 4/12/20	613 days									
33		Installation of external windows and doors	45 days	Wed 21/10/2	0 Fri 4/12/20	613 days									
4		Installation of internal doors	45 days	Sat 29/8/20	Mon 12/10/2	0 666 days									
5		Interior fitting-out, finishes and fixtures	90 days	Wed 21/10/2	20 Mon 18/1/2	L 547 days									
6		Erection of interior fitting-out and finishes	60 days	Wed 21/10/2	0 Sat 19/12/20	0 days							l		
37		Installation of fixtures	30 days	Sun 20/12/20) Mon 18/1/21	0 days							້ 1		
38	-,	Handrail installation for MOB	21 days	Tue 19/1/21	Mon 8/2/21	547 days							•		
39	-,	Building services works for Wholesale Market	650 days	Fri 27/9/19	Wed 7/7/21	398 days					<u>; </u>				
90	÷	Submissions of BS equipment and materials (including BS items of Wholesale Market)	180 days	Fri 27/9/19	Tue 24/3/20	0 days]					
01		Approval for BS equipment and materials	21 days	Wed 25/3/20	Tue 14/4/20	0 davs				+ ,					
92	-	Submissions of CBWD and CSD drawings			Fri 29/5/20	0 days				+ 5					
93		Approval for CBWD and CSD drawings			Fri 19/6/20	0 days				· · · · · · · · · · · · · · · · · · ·					
94		Approval and confirmed all construction drawings		Sat 20/6/20		0 days									
95		Production of BIM model		Sat 11/7/20		0 days									
96		Submission of BIM model			Thu 8/10/20										
07		Approval for BIM model		Fri 9/10/20	Thu 29/10/20							+ ⊥_			
98		Production and delivery of BS equipment (including BS items of Wholesa				40 days				+					
	~	Market)	uuys												
99		Installation of BS equipment	150 davs	Sun 23/8/20	Tue 19/1/21	0 days							٦		
00		Installation of switch panel			Tue 26/1/21								+		
01		Installation of emergency generator			Tue 2/2/21	0 days								↓	
02	-5	Testing and commissioning of BS equipment		Wed 3/2/21		0 days									
03	-5	Inspection of BS installations inclunding Fire Services by Authorities			Wed 2/6/21								· · · ·		
04	-	Remedial works after inspection			Wed 23/6/21									↓ ↓	
05		Re-insepction of BS installations by Authorities			Wed 7/7/21									+	
06		Transformer Room	,		Sat 19/12/20	,							— I		
07		Coordination with CLP for power supply and cable entry	-		Sun 31/5/20	-			•	_					
08		Construction for power supply and cable entry			Sun 31/3/20					-					
09		Interior finishing for transformer room			Sat 26/9/20	,						₩			
10		Fitting-out and E&M works			Sat 3/10/20							₩			
11	-> 	Installation of power panel			Sat 3/10/20 Sat 10/10/20							↓			
12	÷	Installation of power panel			Sat 10/10/20 Sat 17/10/20										
13		Inform CLP for inspection) Sat 31/10/20							₩			
14	÷	Inspection for transformer room			Sat 31/10/20 Sat 7/11/20							\mathbf{H}			
15	-> 	Cable testing CLP			Sat 7/11/20 Sat 21/11/20							↓_	ļ		
16		-			Sat 21/11/20 Sat 5/12/20								↓ _		
17	÷	Installation of power meter by CLP											↓ ↓		
18	÷	Power feeding by CLP			Sat 19/12/20									1	
19	-	Works for Portion 3	-			-		T		_					
20		Idling due to COVID-9 infection		Sat 1/2/20	Fri 15/5/20					1					
20	-3	General for Portion 3		Tue 7/7/20	Tue 11/8/20	-					 				
		Access date of Portion 3 (184 days after starting date)		Tue 7/7/20	Tue 7/7/20	0 days					7/7				
22		Site clearance and tree felling		Wed 8/7/20		0 days					↓ ´				
23 24	-9	Construction for fencing to the final stage			Tue 28/7/20						[] 				
7	->	Construction for ground investigation according to drawing no. 60335576/C6/C00/7501	14 days	wed 29/7/20	Tue 11/8/20	728 days					↑				
5		Site formation	-) Fri 18/12/20								1		
6		Breaking up existing paving			Fri 4/9/20										
27	-3	Excavation for underground drainage and pipeline construction	123 days	Tue 18/8/20	Fri 18/12/20	449 days									
28		FMH-1.03 -> FMH-1.04 and FMH-1.02 - > FMH-1.01	21 days	Tue 18/8/20	Mon 7/9/20	701 days					🔺 -				
29		C6_1.5 -> C6_2.2 -> C6_2.3 -> C6_2.4	21 days	Tue 18/8/20	Mon 7/9/20	0 days					<u> </u>				
		T. 1 A -	T					0. · · ·	-	¥* · · ·	<u> </u>	-	20.10.22	0.1	
	0/2019/06	Task Summary Split Project Summary	Inactive Milestor Inactive Summar			tion-only		Start-only Finish-only	- C	External M Deadline	Ailestone 🔷		ritical Split	Slack	
ate: Wed	10/6/20	Split Project Summary Milestone Inactive Task	Inactive Summar Manual Task	Ly I		al Summary Rollup 🔹 al Summary		Finish-only External Tasks		Deadline Critical	*		rogress Ianual Progress		
		V Hactive Lask			Ividili	J	-			Critical		111			

1 Task Mode	Task Name	Duration Start Finish Float 019 Qtr 4, 2019 Qtr 1, 2020 Qtr 2, 2020 Qtr 3, 2020 Qtr 4, 2020 Qtr 1, 2021 Qtr 2, 2021 Qtr 3, 2021 Qtr 4, 2021 Qtr 3, 2021 Qtr 3, 2021 Qtr 4, 2021 Qtr 3, 2021 Qtr 3, 2021 Qtr 4, 2021 Qtr 3, 2021 Qtr 3, 2021 Qtr 4, 2021 Qtr 3, 2021	21 Qtr 1, 2022 Qtr 2, 2022 Q Nov Dec. Jap Feb Mar Δpr May Lym
) Mode	FMH-2.06 -> FMH-2.05 -> FMH-2.04	21 days Wed 26/8/20 Tue 15/9/20 0 days	Nov Dec Jali Feb Iviai Api Iviay Juli
1 📑	C6_1.4 -> C6_1.3 -> C6_1.2	21 days Sun 30/8/20 Sat 19/9/20 0 days	
2	FMH-2.04 -> FMH-2.03 -> FMH-2.02 -> FMH-2.01	21 days Wed 2/9/20 Tue 22/9/20 686 days	
33	C6_1.2 -> C6_1.1B -> C6_1.1 -> C6_1.1A	21 days Sun 20/9/20 Sat 10/10/20 668 days	
34 - 4 35 - 5	DP2.21 -> C6_2.1 -> C6_2.1A -> C6_1.1A	21 days Wed 14/10/20 Tue 3/11/20 0 days	
	DP2.21 with U-channel construction near MOB	45 days Wed 4/11/20 Fri 18/12/20 599 days	
36 - 37 -	C6_2.4 -> C6_2.5 Excavation for footing construction	21 days Tue 8/9/20 Mon 28/9/20 0 days 73 days Wed 29/7/20 Fri 9/10/20 0 days	
38	F5 -> F4 -> F3 -> F2 -> F1	73 days Wed 29/7/20 Fri 9/10/20 0 days 10 days Wed 29/7/20 Fri 7/8/20 0 days	
39	F11 and F10 -> F17 and F16	8 days Sat 8/8/20 Sat 15/8/20 0 days	
40	F28	7 days Sun 16/8/20 Sat 22/8/20 0 days	
41	F27 -> F26 - > F25 -> F24	10 days Sun 23/8/20 Tue 1/9/20 0 days	
42	F9 -> F8 -> F7	8 days Wed 2/9/20 Wed 9/9/20 0 days	
43 🗾	F16 -> F15 -> F14 -> F13	8 days Thu 10/9/20 Thu 17/9/20 0 days	
44 🗾	F22 -> F21 -> F20 -> F19	8 days Fri 18/9/20 Fri 25/9/20 0 days	
45 🗾	F6 -> F12 -> F18 -> F23	14 days Sat 26/9/20 Fri 9/10/20 0 days	
46 🗾	Underground drainage construction	231 days Tue 29/9/20 Mon 17/5/21 449 days	
47	Remaining U-channel and drainage construction	210 days Tue 29/9/20 Mon 26/4/21 0 days	
48	Connection to the existing manhole	21 days Tue 27/4/21 Mon 17/5/21 449 days	
49 – – – – – – – – – –	Footing construction	73 days Sun 2/8/20 Tue 13/10/20 0 days	
7	Vertical blinding and blind layers construction	67 days Sun 2/8/20 Wed 7/10/20 0 days	
51	F5 -> F4 -> F3 -> F2 -> F1 F11 and F10 -> F17 and F16	10 days Sun 2/8/20 Tue 11/8/20 0 days 8 days Wed 12/8/20 Wed 19/8/20 0 days	
53	F11 and F10 -> F17 and F16	8 days Wed 12/8/20 Wed 19/8/20 0 days 4 days Sun 23/8/20 Wed 26/8/20 0 days	
54	F27 -> F26 - > F25 -> F24	8 days Thu 27/8/20 Thu 3/9/20 0 days	
55	F9 -> F8 -> F7	6 days Sun 6/9/20 Fri 11/9/20 0 days	
56	F16 -> F15 -> F14 -> F13	8 days Mon 14/9/20 Mon 21/9/20 0 days	
57	F22 -> F21 -> F20 -> F19	8 days Tue 22/9/20 Tue 29/9/20 0 days	
58 🗾	F6 -> F12 -> F18 -> F23	8 days Wed 30/9/20 Wed 7/10/20 0 days	
59 🗾	Steel fixing for footings	67 days Tue 4/8/20 Fri 9/10/20 0 days	
60	F5 -> F4 -> F3 -> F2 -> F1	10 days Tue 4/8/20 Thu 13/8/20 0 days	
61	F11 and F10 -> F17 and F16	8 days Fri 14/8/20 Fri 21/8/20 0 days	
62	F28	4 days Tue 25/8/20 Fri 28/8/20 0 days	
63 - 5 64 - 5	F27 -> F26 -> F25 -> F24	8 days Sat 29/8/20 Sat 5/9/20 0 days	
	F9 -> F8 -> F7	6 days Tue 8/9/20 Sun 13/9/20 0 days	
65 -	F16 -> F15 -> F14 -> F13	8 days Wed 16/9/20 Wed 23/9/20 0 days	
60	F22 -> F21 -> F20 -> F19 F6 -> F12 -> F18 -> F23	8 days Thu 24/9/20 Thu 1/10/20 0 days 8 days Fri 2/10/20 Fri 9/10/20 0 days	
68	Formwork erection for footings	67 days Thu 6/8/20 Sun 11/10/20 0 days	
69	F5 -> F4 -> F3 -> F2 -> F1	10 days Thu 6/8/20 Sat 15/8/20 0 days	
70	F11 and F10 -> F17 and F16	8 days Sun 16/8/20 Sun 23/8/20 0 days	
71 🗾	F28	4 days Thu 27/8/20 Sun 30/8/20 0 days	
72 🗾	F27 -> F26 - > F25 -> F24	8 days Mon 31/8/20 Mon 7/9/20 0 days	
73 🗾	F9 -> F8 -> F7	6 days Thu 10/9/20 Tue 15/9/20 0 days	
74	F16 -> F15 -> F14 -> F13	8 days Fri 18/9/20 Fri 25/9/20 0 days	
75 📑	F22 -> F21 -> F20 -> F19	8 days Sat 26/9/20 Sat 3/10/20 0 days	
76	F6 -> F12 -> F18 -> F23	8 days Sun 4/10/20 Sun 11/10/20 0 days	
77	Casting concrete for footings	61 days Fri 14/8/20 Tue 13/10/20 0 days	
78 – 5 79 – 5	F5 -> F4 -> F3 -> F2 -> F1	4 days Fri 14/8/20 Mon 17/8/20 0 days	
80	F11 and F10 -> F17 and F16 F28	2 days Mon 24/8/20 Tue 25/8/20 0 days 1 day Tue 1/9/20 Tue 1/9/20 0 days	
81	F20 F27 -> F26 - > F25 -> F24	2 days Tue 8/9/20 Wed 9/9/20 10 days	
82	F9 -> F8 -> F7	2 days Wed 16/9/20 Thu 17/9/20 691 days	
83	F16 -> F15 -> F14 -> F13	2 days Sat 26/9/20 Sun 27/9/20 681 days	
84	F22 -> F21 -> F20 -> F19	2 days Sun 4/10/20 Mon 5/10/20 673 days	
85 🗾	F6 -> F12 -> F18 -> F23	2 days Mon 12/10/20 Tue 13/10/20 0 days	
86	Construction for Steel Canopy	496 days Fri 27/9/19 Wed 3/2/21 127 days	
87	Searching for steel fabricator	120 days Fri 27/9/19 Fri 24/1/20 0 days	
88	Preparation for shop drawing of steel canopy	45 days Sat 25/1/20 Mon 9/3/20 0 days	
89	Shop drawing submission for approval	21 days Tue 10/3/20 Mon 30/3/20 80 days	
90 📰 록 91 💼	Idling due to COVID-9 infection	70 days Sat 1/2/20 Fri 10/4/20 0 days	
-9	Change of steel fabricator	14 days Sat 11/4/20 Fri 24/4/20 0 days	
92 - 93 -	Re-preparation for shop drawing of steel canopy Re-Shop drawing submission for approval	55 days Sat 25/4/20 Thu 18/6/20 0 days 21 days Fri 19/6/20 Thu 9/7/20 0 days	
94 5	Approval of shop drawings	21 days Fri 19/6/20 Thu 30/7/20 0 days	
95	Material preparation for steel canopy	30 days Sun 19/7/20 Mon 17/8/20 0 days	
7			
oject: ND/2019/06	Task Summary	Inactive Milestone Duration-only Start-only E External Milestone Critical Split Slack Inactive Summary Manual Summary Rollup Finish-only Deadline Progress	—
te: Wed 10/6/20	Split Project Summary Milestone \blacklozenge Inactive Task	Inactive Summary Manual Summary Rollup Finish-only Deadline Progress Manual Task Manual Summary External Tasks Critical Manual Progress	
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A	Task Mode	Task Name	Duration Start Finish Float	019 Qtr 4, 2019 Qtr 1, 2020 Qtr 2, 2020 Qtr 3, 2020 Qtr 4, 2021 Qtr 2, 2021 Qtr 4, 2021 <t< th=""></t<>
	Mode	Fabrication and delivery for steel colum	30 days Tue 18/8/20 Wed 16/9/20 0 days	Aug sep Oct Nov Dec Jan Feo Mar Apr May Jun Jul Aug sep Oct Nov Dec Jan Feo Mar Apr May Jun Jul Aug sep Oct Nov Dec Jan Feo Mar Apr May Jun Jul
	-,	Fabrication and delivery for lower roof steel frame and truss	60 days Wed 2/9/20 Sat 31/10/20 0 days	
		Fabrication and delivery for upper roof steel frame	60 days Wed 23/9/20 Sat 21/11/20 0 days	
		Fabrication for skylight	30 days Sun 22/11/20 Mon 21/12/20 0 days	
		Installation for steel column	87 days Fri 11/9/20 Sun 6/12/20 0 days	
		Area 1 - F5, F4, F3, F11, F10, F9	12 days Fri 11/9/20 Tue 22/9/20 0 days	
		Area 2 - F17, F16, F28	8 days Wed 23/9/20 Wed 30/9/20 0 days	
		Area 3 -F1, F2, F6, F7, F8	10 days Thu 1/10/20 Sat 10/10/20 31 days	
		Area 4 -F12, F13, F14, F15	8 days Wed 11/11/20 Wed 18/11/20 0 days	
5		Area 5 - F18, F19, F20, F21, F22	10 days Thu 19/11/20 Sat 28/11/20 0 days	
5		Area 6 - F23, F24, F25, F26, F27	8 days Sun 29/11/20 Sun 6/12/20 611 days	
7		Installation for lower roof steel frame and truss	84 days Wed 23/9/20 Tue 15/12/20 0 days	
18		Area 1 - F5, F4, F3, F11, F10, F9	14 days Wed 23/9/20 Tue 6/10/20 0 days	
9		Area 2 - F17, F16, F28	14 days Wed 7/10/20 Tue 20/10/20 0 days	
0		Area 3 -F1, F2, F6, F7, F8	14 days Wed 21/10/20 Tue 3/11/20 0 days	
1		Area 4 -F12, F13, F14, F15	14 days Wed 4/11/20 Tue 17/11/20 0 days	
2	-5	Area 5 - F18, F19, F20, F21, F22	14 days Wed 18/11/20 Tue 1/12/20 0 days	
3		Area 6 - F23, F24, F25, F26, F27	14 days Wed 2/12/20 Tue 15/12/20 581 days	
4	-5	Installation for upper roof steel frame	84 days Wed 7/10/20 Tue 29/12/20 0 days	
5	-5	Area 1 - F5, F4, F3, F11, F10, F9	14 days Wed 7/10/20 Tue 20/10/20 0 days	
5	-4	Area 2 - F17, F16, F28	14 days Wed 21/10/20 Tue 3/11/20 0 days	
7	-,	Area 3 -F1, F2, F6, F7, F8	14 days Wed 4/11/20 Tue 17/11/20 0 days	
8	-,	Area 4 -F12, F13, F14, F15	14 days Wed 18/11/20 Tue 1/12/20 0 days	
9		Area 5 - F18, F19, F20, F21, F22	14 days Wed 2/12/20 Tue 15/12/20 0 days	
0		Area 6 - F23, F24, F25, F26, F27	14 days Wed 16/12/20 Tue 29/12/20 0 days	
1		Installation for skylight system	60 days Sun 6/12/20 Wed 3/2/21 16 days	
2		Construction for steel staircase	180 days Fri 10/7/20 Tue 5/1/21 581 days	
3		Design for steel staircase	30 days Fri 10/7/20 Sat 8/8/20 0 days	
4		Submission for steel staircase	14 days Sun 9/8/20 Sat 22/8/20 0 days	
5		Approval for steel staircase	21 days Sun 23/8/20 Sat 22/9/20 0 days	
.6		Fabrication for steel staircase	21 days Sun 13/9/20 Sat 12/3/20 66 days	
7		Delivery for steel staircase	14 days Wed 9/12/20 Tue 22/12/20 595 days	
8		Installation for steel staircase		
9		Design issues for roof of steel canopy	21 days Wed 16/12/20 Tue 5/1/21 0 days 137 days Fri 19/6/20 Mon 2/11/20 76 days	
0		Skylight secondary steelwork members design and their fixing	30 days Fri 19/6/20 Sat 18/7/20 0 days	
1		Submission for skylight secondary steelwork members design and their fixing		
2		Approval for the desing of skylight secondary steelwork members and their fixing	21 days Sun 2/8/20 Sat 22/8/20 91 days	
3	-4	Design for glazing panel with Aluminum frame	30 days Fri 31/7/20 Sat 29/8/20 0 days	
4	-5	Submission for glazing panel with Aluminum frame	14 days Sun 30/8/20 Sat 12/9/20 0 days	
5	-4	Approval for design for glazing panel with Aluminum frame	21 days Sun 13/9/20 Sat 3/10/20 675 days	
6		Design for Purlin cleat and layout drawing	30 days Fri 31/7/20 Sat 29/8/20 0 days	
7		Submission for Purlin cleat and layout drawing	7 days Sun 30/8/20 Sat 5/9/20 0 days	
8		Approval for design for Purlin cleat and layout drawing	21 days Sun 6/9/20 Sat 26/9/20 0 days	
9	-,	Design for metal roof cladding system and PMMA skylight system design calculation and shop drawing	30 days Fri 31/7/20 Sat 29/8/20 0 days	
	->	Submission for metal roof cladding system and PMMA skylight system design calculation and shop drawing	7 days Sun 30/8/20 Sat 5/9/20 0 days	
	÷	Approval for metal roof cladding system and PMMA skylight system design calculation and shop drawing		
2		Design for sliding roof hatch or hydraulic swing hatch door	30 days Fri 31/7/20 Sat 29/8/20 0 days	
		Submission for sliding roof hatch or hydraulic swing hatch door	14 days Sun 30/8/20 Sat 12/9/20 0 days	
4	-,	Approval for sliding roof hatch or hydraulic swing hatch door	21 days Sun 13/9/20 Sat 3/10/20 100 days	
5		Design for guardrail for roof	30 days Sun 30/8/20 Mon 28/9/20 0 days	
5		Submission for guardrail for roof	14 days Tue 29/9/20 Mon 12/10/20 0 days	
7		Approval for guardrail for roof	21 days Tue 13/10/20 Mon 2/11/20 192 days	
3		Design for solar pannel and the steel supporting frame	30 days Fri 31/7/20 Sat 29/8/20 0 days	
		Submission for solar pannel and the steel supporting frame	14 days Sun 30/8/20 Sat 12/9/20 0 days	
		Approval for solar pannel and the steel supporting frame	21 days Sun 13/9/20 Sat 3/10/20 120 days	
	-,	Construction for roof of steel canopy	310 days Sun 27/9/20 Mon 2/8/21 34 days	
2	-,	Fabrication and delivery for glazing panel with Aluminum frame	21 days Tue 22/12/20 Mon 11/1/21 0 days	
3	-,	Installation for glazing panel with Aluminum frame	30 days Tue 5/1/21 Wed 3/2/21 552 days	
1		Materials preparation and delivery for Purlin cleat, rockwood insulation, skylight PMMA Pannel	229 days Sun 27/9/20 Thu 13/5/21 0 days	
		Purlin cleat steel raw	15 days Sun 27/9/20 Sun 11/10/20 625 days	
ant. NT	1010/07	Task Summary	Inactive Milestone Duration-only	Start-only E External Milestone I Critical Split
	0/2019/06		Inactive Summary Manual Summary Rollup	
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Index Description Num 12 (2016) M 12 / 10 / 40 / 10 / 10 / 10 / 10 / 10 / 10			Prepare fabrication drawing	15 days	Sun 27/9/20	Sun 11/10/20	0 days	Aug Sep	Oct	Nov Dec Jan	Feb Mar	Apr May J	un Jul	Aug Se	p Oct N	lov Dec Jar	an Fo	eb
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Fund Partial P		-,	Top Liner (Coil)	60 days	Mon 15/3/21	Thu 13/5/21	0 days										, II'	
 			Skylight PMMA Panel	210 days	Mon 12/10/2	0 Sun 9/5/21	0 days										H۲.	
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Installation for siding root hatch or hydraulic weig batch door 21 days Tee 13/721 Mon 12/821 372 days Rebutation for side supporting frame for solar panel 20 days Mon 12/721 Stat 20/721			Installation of guardrail for roof	21 days	Tue 13/7/21	Mon 2/8/21	372 days											
Image: Production for steel supporting frame (for solar pannel) 20 days Mon 2//21 Solar 20 days Image: Production for steel supporting frame 21 days Solar 20 days Days Image: Production for steel supporting frame 21 days Solar 20 days Days Image: Production for steel supporting frame 21 days Solar 20 days Days Image: Production for steel supporting frame 21 days Solar 20 days Days Image: Production for steel supporting frame 21 days Solar 20 days Days Image: Production for steel supporting frame 21 days Solar 20 days Days Image: Production for steel supporting frame (lighting system 21 days Solar 20 days Days Image: Production for steel supporting frame 21 days Solar 20 days Days Days Image: Production for steel supporting frame 21 days Solar 20 days Days Solar 20 days Days Image: Production for steel supporting frame 21 days Solar 20 days Solar 20 days Days Days Image: Production for steel supporting frame 20 days Solar 20 days			Fabrication and delivery for sliding roof hatch or hydraulic swing hatch door	20 days	Tue 12/1/21	Sun 31/1/21	0 days											
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 Design for hanging fan and lighting system 21 days SumiXion for hanging fan and lighting system 21 days Sur A/10/20 0 days Approval for hanging fan and lighting system 21 days Sur A/10/20 0 days Minetion filting-out, finiches and fibrites 10 days Sur A/10/20 10 minetion filting-out, finiches and fibrites 10 days 10 minetion fibrites 10 days <li< td=""><td>2</td><td></td><td>Installation for solar pannel and the steel supporting frame</td><td>21 days</td><td>Tue 13/7/21</td><td>Mon 2/8/21</td><td>0 days</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></li<>	2		Installation for solar pannel and the steel supporting frame	21 days	Tue 13/7/21	Mon 2/8/21	0 days											
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Approval for hanging fan and lighting system 21.0 kps Sun 25/10/20 Sart 41/12.1 00 days Sun 25/10/20 Med 34/21.2 00 days Sun 25/11/21 Wed 34/21.2 00 days Sun 25/11/21 Wed 34/21.2 00 days Sun 25/11/21 Sun 14/21.2 Med 34/21.2 00 days Sun 25/11/21 Sun 14/21.2 Med 34/21.2 M	ł	-,	Design for hanging fan and lighting system	21 days	Sun 13/9/20	Sat 3/10/20	0 days											
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	/																	
	3		Casting concrete for on-grade slab and carriagewway	150 days	Wed 30/12/2	0 Fri 28/5/21	0 days											
t: ND/2019/06 Task Summary Inactive Milestone Duration-only Start-only E External Milestone Critical Split			Task Summary	Inactive Milesto	-	n	ion only		01.1	nlv E		Enter 124	lastor			Critical Split	_	-

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		Orignal Completion date of Section 1 of the Works			Fri 16/7/21 Fri 2/7/21	389 days O days	Aug Se,	p Oct Nov	Dec Jan Feb Mar	Apr May Jun	Juu Aug Sep	UCT NOV Dec Jan	reo Mar Apr
		Construction for Street furniture as per drawing no. 60335576/C6/C00/1202 Road marking as per drawing no. 60335576/C6/C00/1602 Orignal Completion date of Section 1 of the Works Revised completion date of Section 1 of the Works Section 2 of the Works	35 days 14 days 0 days	Sat 29/5/21		-							
		Road marking as per drawing no. 60335576/C6/C00/1602 Orignal Completion date of Section 1 of the Works Revised completion date of Section 1 of the Works Section 2 of the Works	14 days 0 days		1112/7/21	0 days							
		Orignal Completion date of Section 1 of the Works Revised completion date of Section 1 of the Works Section 2 of the Works	0 days	Sat 3/7/21							1.1.1		
		Orignal Completion date of Section 1 of the Works Revised completion date of Section 1 of the Works Section 2 of the Works	0 days	Jal 3/1/21	Fri 16/7/21	389 days	_						
		Revised completion date of Section 1 of the Works Section 2 of the Works			Mon 26/4/21	,							
		Section 2 of the Works	U davs										
				Mon 2/8/21									
		Works for Portion 6			Fri 16/7/21								
				Fri 27/9/19	Fri 16/7/21								
		General for Portion 6	90 days	Fri 27/9/19	Wed 25/12/1	19 389 days							
	5	Access date of Portion 6	0 days	Fri 27/9/19	Fri 27/9/19	1048 days		• 27/9					
	5	Site clearance and tree felling	20 days	Fri 27/9/19	Wed 16/10/1	19 0 days							
	5	Construction for geotechnical instrumentation (D57 and D37)	21 days	Thu 17/10/19	9 Wed 6/11/19	0 davs							
		Construction for ground investigation (7 nos.) according to drawing no.		Thu 7/11/19									
	\$	60335576/C6/C00/7501	45 aays	1110 7/11/15	Wed 25/12/1	5 0 days							
	\$	Slope and landscape works	151 dave	Sun 1/11/20	Wed 21/2/21	1 280 dave							
	2												
	_	Trail pit construction as per drawing no. I/ND/2019/06/60335576/C6/C00/7501	14 uays	Sun 1/11/20	3at 14/11/20	U uays						-	
			24				_					¥	
	2			Sun 15/11/20									
	-			Sun 6/12/20									
	-	Replace the loose fill to rockfill	102 days	Sun 20/12/20	Wed 31/3/21	0 days							
	-	Landscape works	88 days	Sun 3/1/21	Wed 31/3/21	0 days							
	4	FW2 and road works	165 days	Tue 2/2/21	Fri 16/7/21	389 days						r	1
	4	Backfilling to the bottom of FW2 for construction	14 days	Tue 2/2/21	Mon 15/2/21	0 days							—
	7	Blinding concrete casting for FW2	2 days		Wed 17/2/21								K
	7		45 days	Thu 18/2/21		0 days							*
	2			Sun 4/4/21	Tue 18/5/21		_						
-	-		45 days				_						
	-		45 days	Wed 19/5/21		0 days							
	-	Construction of fence with footing	45 days	Wed 2/6/21		2 days							
	-	Construction of steel vehicle parapet and thrie bear	21 days	Fri 18/6/21	Thu 8/7/21	397 days		1					
- 7	-	Road marking as per drawing no. 60335576/C6/C00/1601	14 days	Sat 3/7/21	Fri 16/7/21	0 days							
T	-	Road works construction at On Kui Street	572 days	Mon 16/12/1	19 Fri 9/7/21	396 days							
	5	TTA and XP granted	0 days	Mon 16/12/1	9 Mon 16/12/1	19 0 days			16/12				
	2			Mon 16/12/19				1	+				
	-			Tue 14/4/20									
	2	-						1					
-	•	Re-construction the shoulder as per drawing no. 60335576/C6/C00/1001	14 days	Tue 28/4/20	Mon 11/5/20	0 days		1					
	_			T 10/5/00		100.1				±			
->	->	Construction for street furniture as per drawing no. 60335576/C6/C00/1201	11 days	Tue 12/5/20	Fri 22/5/20	406 days							
	_		7 .1	6-1-2/7/24	5:0/7/24	200 1		1					
->	-		7 days		Fri 9/7/21	396 days		1					
->	•			Tue 7/7/20				1					L
	÷	General for Portion 5	90 days	Tue 7/7/20	Mon 5/10/20	J 470 days		1					
···	-	Access date of Portion 5 (184 days after starting date)	0 days	Tue 7/7/20	Tue 7/7/20	0 days	r				▶ 1 7/7		
	5	Site clearance and tree felling	30 days	Wed 8/7/20	Thu 6/8/20	0 days		1					
-4	4	Earthworks	60 days	Fri 7/8/20	Mon 5/10/20	0 days		1				h	
							_	1				r	L
	-		33 days			-					- i	*	
	-	Construction for Street furniture as per drawing no. 60335576/C6/C00/1202					— I					*	
	-9	construction for street furniture as per drawing no. 00555570/c0/C00/1202	110 0045	5411 0/ 11/ 20		0 0045							
		Pood marking as not drawing no. 6022EE76/66/600/4602	60 do:	Eri 26/2/24	Mon 26/4/24	1 470 days	— I						+
-		Road marking as per drawing no. 60335576/C6/C00/1602			Mon 26/4/21		_						
	-		0 days		Mon 26/4/21								A
->	-		1 day	Fri 16/7/21	Fri 16/7/21								
	-			Fri 27/9/19	Tue 14/7/20	-				î	- L ++		
	-	Works at Portion 1	278 days	Fri 27/9/19	Tue 30/6/20	56 days		╷╟───┼──┼			B		
	-	General for Portion 1	58 days	Fri 27/9/19	Sat 23/11/19	56 days		, ()	L				
	-	Access date of Portion 1	0 days	Fri 27/9/19	Fri 27/9/19	0 days	(27/9					
	-		, 21 days		9 Sat 16/11/19								
		_	21 days		Thu 17/10/19								
	-		7 days		 Sat 23/11/19 		-	🛓	<u>,</u>				
	2			Fri 18/10/19			_						
->	•	works	107 uays	11 10/10/19	Sat 1/2/20	920 days				î			
	_		20 1-	F.: 40/40/15	Cat 4 C /a a /a -								
->	-				Sat 16/11/19								
->	-		21 days		9 Sat 7/12/19								
	-	Manhole construction	14 days	Sun 8/12/19	Sat 21/12/19	0 days							
	-	Backfilling to the drainage area	21 days		9 Sat 11/1/20								
->	-	Connection to the existing manhole	7 days	Sun 12/1/20	Sat 18/1/20	0 days			F				
	-	Connection of fresh water supply	7 days		Sat 25/1/20				š				
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Qtr 3, 20 Jul	21 Qtr 4, 2021 Qtr 1, 3 Aug Sep Oct Nov Dec Jan	2022 Qtr 2, 2022 Q Feb Mar Apr May Jun	2tr 3, 2022 Jul Aug Sep
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0	Task Mode	Task Name	Duration	Start	Finish	Float	019 Qtr 4, 2019 Qtr 1, 2020 Qtr 2, 2020 Qtr 3, 2020 Qtr 4, 2020 Qtr 1, 2021 Qtr 2, 2021 Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May
78	Mode	Connection of power supply	7 days	Sun 26/1/20	Sat 1/2/20	920 days	Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr Ma
79		Payments and road marking to the ground for interim stage		Sat 1/2/20	Sun 5/4/20	114 days	
80		Idling due to COVID-9 infection	-	Sat 1/2/20	Sun 1/3/20	0 days	
		100m bituminous materials on compacted backfill			Sun 22/3/20		
		Installation of street furniture according to drawing no.	7 days		Sun 29/3/20		
	->	60335576/C6/C00/1201	7 uays	1011 23/3/20	Sull 29/3/20	U uays	
3	÷	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	856 days	
4		Temporary lighting installation for Portion 1 and Portion 2	215 days	Fri 27/9/19	Tue 28/4/20	56 days	
5		Temporary lighting design	120 days	Fri 27/9/19	Fri 24/1/20	0 days	
36		Temporary lighting design submission	14 days	Sat 25/1/20	Fri 7/2/20	0 days	
37		Temporary lighting apprvoal	30 days	Sat 8/2/20	Sun 8/3/20	0 days	
8		Materials preparation for temporary lighting	14 days	Mon 9/3/20	Sun 22/3/20	0 days	
9		Idling due to COVID-9 infection		Mon 23/3/20			
0	-4	Temporary lighting installation	9 days		Tue 28/4/20		
1		Rain Shelter Construction		Sat 25/1/20			
2		Desgin submission for foldable rain shelter	-	Sat 25/1/20		-	
3	-	5					
4	÷	Approval for design submission for foldable rain shelter		Mon 24/2/20			
	->	Idling due to COVID-9 infection	-	Mon 24/2/20			
5		Material preparation for foldable rain shelter		Wed 29/4/20			
5		Construction for foldable rain shelter	14 days		Tue 26/5/20		
7 📰		PMI for changing part of foldable rain shelter to fixed rain shelter	0 days	Mon 6/4/20	Mon 6/4/20	0 days	● 6/4
3	-5	Design submission for fixed rain shelter	30 days	Mon 6/4/20	Tue 5/5/20	0 days	
)		Approval for design submission for fixed rain shelter	21 days	Wed 6/5/20	Tue 26/5/20	0 days	
0		Materials preparation for fixed rain shelter	14 days	Wed 27/5/20	Tue 9/6/20	0 days	
1	-4	Construction for fixed rain shelter	21 days	Wed 10/6/20	Tue 30/6/20	0 davs	
2	-	Works at Portion 2		Tue 25/2/20			
3		General for Portion 2	7 days		Mon 2/3/20	-	
4		Access date for Portion 2 (152 days after starting date)		Tue 25/2/20		-	♦ 25/2
5	-		0 days		Tue 25/2/20		
16	->	Site clearance and tree felling	7 days	Tue 25/2/20	Mon 2/3/20		
17		Underground drainage works		Tue 3/3/20	Thu 26/3/20		
	-5	Excavation for underground drainage	7 days	Tue 3/3/20	Mon 9/3/20		
8		Underground drainage pipelaying	7 days	Tue 10/3/20	Mon 16/3/20	0 days	
19		Construction of manhole	7 days	Tue 17/3/20	Mon 23/3/20	0 days	
0		Connection to the existing manhole	3 days	Tue 24/3/20	Thu 26/3/20	0 days	Τ Γ Γ Γ Γ Γ Γ Γ Γ Γ Γ Γ Γ Γ Γ Γ Γ Γ Γ Γ
1		Road marking as per drawing no. 60335576/C6/C00/1601	2 days	Fri 27/3/20	Sat 28/3/20	864 days	₹ <u></u>
2		Container office - Modification works	91 days	Wed 15/4/20	Tue 14/7/20	756 days	
3		PMI for container office modification works	0 days		Wed 15/4/20	-	15/4
4	-	Desgin submission for contanier office modification works		Wed 15/4/20			→ · · · · · · · · · · · · · · · · · · ·
5	-	Design approval for container office modification works		Fri 15/5/20			
6							
7	-9	Material preparation for contanier office modification works		Fri 5/6/20	Thu 11/6/20		
		Construction of container offices modification works			Tue 14/7/20		
8	-3	Change of Market Stage	-	Sat 1/2/20	Thu 6/8/20	56 days	
9		From Existing Stage to Iterim Stage Arrangement		Sat 1/2/20	Tue 7/7/20	0 days	
0	-,	Idling due to COVID-9 infection	88 days	Sat 1/2/20	Tue 28/4/20	56 days	
1	-5	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	
2		Relocation of stall traders from existing NDTWM to Interim Market	7 days	Wed 1/7/20	Tue 7/7/20	0 days	
3		Original Key Date completion of interim North District Temporary Wholesale Market for Agricultural Products	0 days	Sat 28/3/20	Sat 28/3/20	832 days	◆ 28/3
.4	-\$	Revised Key Date completion of interim North District Temporary Wholesale Market for Agricultural Products	0 days	Tue 7/7/20	Tue 7/7/20	763 days	• 77
25	-5	Completion of Reinstatement of interim NDTWM	30 days	Wed 8/7/20	Thu 6/8/20	733 days	│
6	-,	Carrying out reinstatement works	30 days	Wed 8/7/20	Thu 6/8/20	700 days	
7	-	Maintenance Period (12 months of DLP)	-	Fri 27/9/19		0 days	
8		Outstanding works and defects		Tue 10/8/21		0 days	
9		Completion of outstanding works	-	Tue 10/8/21		185 days	
0		Rectification of defects		Tue 10/8/21		0 days	
	-	Landscape works	-				
	->		-	Fri 27/9/19		683 days	
2 3	->	Establishment works			Fri 25/9/20	683 days	
	-5	Final handover of the site	-		Mon 9/8/21		
1		Pre-handover inspection	7 days	Tue 3/8/21	Mon 9/8/21	0 days	
5		Handover of the Site	7 days	Tue 3/8/21	Mon 9/8/21	365 days	
-							

Project: ND/2019/06 Date: Wed 10/6/20	Task Split Milestone		Summary Project Summary Inactive Task	Inactive Milestone Inactive Summary Manual Task	\$ [Duration-only Manual Summary Rollup Manual Summary	Start-only Finish-only External Tasks	C 3	External Milestone Deadline Critical	\$ \$	Critical Split Progress Manual Progress	 Slack
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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)
KTN-DMS4	297	
FLN-DMS1	303	500
FLN-DMS3	301	

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

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

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⁾
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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	20 mg/L or 99 percentile of
	or 120% of upstream control	baseline data or 130% of
	station.	upstream control station.
Turbidity in NTU (depth averaged)*^	95 percentile of baseline data	99 percentile of baseline data
	or 120% of upstream control	or 130% of upstream control
	station.	station.
Unionized ammonia in mg/L	95 percentile of baseline data	0.021mg/L or 99 percentile of
(depth averaged)*~	or 120% of upstream control	baseline data or 130% of
	station.	upstream control station.
Nitrate nitrogen in mg/L	95 percentile of baseline data	99 percentile of baseline data
(depth averaged)*^	or 120% of upstream control	or 130% of upstream control
	station.	station.
Orthophosphate in mg/L (depth	95 percentile of baseline data	99 percentile of baseline data

		Monthly Eliter (Report
averaged)*^	or 120% of upstream control	or 130% of upstream control
	station.	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			KTN-CS1				
Parameter	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	Location KTN-IS1								
Parameter	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				

Civil Engineering and Development Department

				WIOIIUII	y EMAA Report
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/m3 – 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-6Action 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 CH4 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.

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

Monthly EM&A Re	port
-----------------	------

and adjust LVNP	triggered.	related to Project
management measures to)	consider and
improve conditions for		implement additional
affected species.		mitigation measures.

* 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.
Operational Phase			
Reduction in species such that Action Level response is triggered.	Investigate cause and if cause identified as related to Project review and adjust LVNP management measures to improve conditions for affected species.	Reduction in taxa diversity response is triggered.	Investigate cause and if cause identified as related to Project consider and implement additional mitigation measures.

* 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 WELLAB 匯力 consulting.testing.research WELLAB LIMITED Room 1701, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 7076 Website: www.wellab.com.hk

TEST REPORT

Certificate of Calibration

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

33783
2020-07-09
2020-07-07
2020-07-07
2020-07-09
2020-09-08
1 of 1

ATTN: Mr. W

Mr. W. K. Tang

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)	1.167

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

PATRICK TSE General Manager

WELLAB 匯力 consulting.testing.research WELLAB LIMITED Room 1701, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 7076 Website: www.wellab.com.hk

TEST REPORT

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

Test Report No.:	33678D
Date of Issue:	2020-06-22
Date Received:	2020-06-19
Date Tested:	2020-06-19
Date Completed:	2020-06-22
Next Due Date:	2020-08-21
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:	۵.
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)	1.180
*****	******

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

PATRICK TSE General Manager



WELLAB LIMITED Rms 1214, 1502, 1516, 1701 & 1716, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 7076 Website: www.weilab.com.hk

TEST REPORT

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

Test Report No .:	32049A
Date of Issue:	2019-09-16
Date Received:	2019-09-13
Date Tested:	2019-09-13
Date Completed:	2019-09-16
Next Due Date:	2020-09-15
Page:	1 of 1

ATTN:

Mr. W. K. Tang

Certificate of Calibration

Item for calibration:

Description Manufacturer Model No. Serial No. Microphone No. Equipment No. : 'SVANTEK' Integrating Sound Level Meter : SVANTEK : SVAN 977 : 45482 : 63626 : N-08-14

Test conditions:

Room Temperatre Relative Humidity : 17-22 degree Celsius : 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



WELLAB LIMITED Rms 1214, 1502, 1516, 1701 & 1716, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 7076 Website: www.wellab.com.hk

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

: BSWA

Item for calibration:

Description	
Manufacturer	
Model No.	
Serial No.	
Equipment No.	

Test conditions:

Room Temperatre Relative Humidity : BSWA 801 : 35924 : N-13-01

: Sound & Vibration Analyser

: 17-22 degree Celsius : 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



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TEST REPORT

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

Test Report No.:	31951
Date of Issue:	2019-08-20
Date Received:	2019-08-16
Date Tested:	2019-08-16
Date Completed:	2019-08-20
Next Due Date:	2020-08-19
Page:	1 of 1

ATTN:

Mr. W. K. Tang

Certificate of Calibration

Item for Calibration:

Description	: Acoustical Calibrator
Manufacturer	: Brüel & Kjær
Model No.	: 4231
Serial No.	: 2412367
Equipment No.	: N-02-03
Test Conditions:	
Room Temperatre	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Methodology:

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

Results:

Sound Pressure Level (1kHz)	Measured SPL	Tolerance
At 94 dB SPL	94.0	$94.0 \pm 0.1 \text{dB}$
At 114 dB SPL	114.0	$114.0 \pm 0.1 \mathrm{dB}$

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

PATRICK TSE Laboratory Manager



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

Test Report No.:	33963
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

TEST REPORT

Item for Calibration:

Description Manufacturer Model No. Serial No. Equipment No.

Test Conditions:

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

: Acoustical Calibrator

: Brüel & Kjær

: 4231

: 2412367

: N-02-03

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	$94.0 \pm 0.1 \text{dB}$
At 114 dB SPL	114.0	114.0 ± 0.1 dB

Remark: This report supersedes the one dated 2019-08-20 with certificate number 31951.

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

PATRICK TSE General Manager

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WELLAB LIMITED Rms 1214, 1502, 1516, 1701 & 1716, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 7076 Website: www.wellab.com.hk

TEST REPORT

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

Test Report No .:	32243A
Date of Issue:	2019-09-30
Date Received:	2019-09-27
Date Tested:	2019-09-27
Date Completed:	2019-09-30
Next Due Date:	2020-09-29
Page:	1 of 1

ATTN: Mr. W. K. Tang

Certificate of Calibration

Item for calibration:

Description Manufacturer Model No. Serial No. Equipment No.

Test conditions:

Room Temperatre Relative Humidity : Acoustical Calibrator : SVANTEK : SV30A : 24780 : N-09-05

: 17-22 degree Celsius : 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.

PA TRICK TSE

General Manager

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High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET

						File No.	WMA20002/20/()001	
Station	FLN-DMS1 - Scattere	ed Village Houses Nor	th of Proposed Potentia	ıl Ecopark	_	Operator:	WK		
Date:	4-Aug-20				Next	Due Date:	3-Oct-20		
Equipment No .:	WA-12-20					Serial No.	3223		
- 1. 1									
			Ambient (Condition	e na segui de la segui de l Na segui de la s	음리가 많은 33 	a an tha tha an tha Tha an tha an		
Temperat	ure, Ta (K)	302	Pressure, Pa	a (mmHg)		754	4.8		
	ALCER ACLESSED	neter All Alegranish (Drifice Transfer Sta	indard Informat		NEC NUMBER	(egeberarie terree) 	a a Bassa	
Seria	al No.	2896	Slope, mc	0.0588	Intercept,		-0.02681		
Last Calib	ration Date:	18-Feb-20							
Next Calib	oration Date:	18-Feb-21		Qstd = {[∆H	x (Pa/760) x (298	//Ta)] ^{1/2} -be	}/mc		
		•							
		, 지난 동안 이 한 동안 전 (1993) 	Calibration of	TSP Sampler	이는 사람 37,47 원인한 1		성원은 2017년 10월 10일 - 		
Calibration		Orf	ice	· . · · ·		<u> </u>	/S	3	
Point	ΔH (orifice),	[ΔH x (Pa/76	0) x (298/Ta)] ^{1/2}	Qstd (CFM)	ΔW (HVS), in.	 [∆W x (Pa	/760) x (298/Ta)] ^{1/2}	Y-axis	
	in. of water			X - axis	of water				
1	12.9		3.56	60.93	12.1		3.44		
2	9.5		3.05	52.35	10.3		3.18	<u></u>	
3	7.8		2.76	47.48	8.4	2.87			
4	5.0		2.21	38.10	6.4		2.50		
5	3.0		1.71	29.62	4.3	l	2.05		
-	ession of Y on X			.					
Slope , mw =	0.0448			Intercept, bw :	0.7615	·			
	coefficient* =		958						
*If Correlation C	Coefficient < 0.990, o	check and recalibrate	3.						
n papasa na panab	weather a fail fragma weather a literat	A FILL SAME A AN						en da	
				alculation					
	eld Calibration Curv	-							
From the Regres	sion Equation, the "	Y" value according f	0						
		mw x	Qstd + bw = $[\Delta W]$	x (Pa/760) x (298	[/Ta)] ^{1/2}				
					<i>,</i> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
Therefo	re, Set Point; W = ($mw \ge Qstd + bw)^2$	x (760 / Pa) x (Ta /	/ 298) =	7.38				
					-				
Remarks:							····		
			1 -				A A 2 2		
Conducted by:	<u> </u>	Signature:	<u> </u>			Date:	4 Aug 2020		
Checked by:	LEE Man DES-	Signature:	her.			Date:	4-8-2020		

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High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET

						File No.	WMA20002/17/0001
Station	FLN-DMS3 - Hou	se near Tong Hang				Operator:	
Date:	4-Aug-20				Next	Due Date:	
Equipment No.:	WA-12-17					Serial No.	
	· · · · · · · · · · · · · · · · · · ·		A subtant	Condition		전 1일 : 전 12 전 13	
Temperati	ure, Ta (K)	302.2	Pressure, P			754	4
			110000000, 1		I	101	
		(Drifice Transfer St	andard Informat	ion		
Seria	al No.	2896	Slope, mc	0.0588	Intercept,		-0.02681
Last Calib	ration Date:	18-Feb-20		mc x Qstd +]	bc = [ΔH x (Pa/7	60) x (298/T	a)] ^{1/2}
Next Calib	ration Date:	18-Feb-21	RV11.001.001.001.001	Qstd = {[∆H	x (Pa/760) x (298	B/Ta)] ^{1/2} -bc}	/ mc
		•					
			Calibration of	TSP Sampler			
Calibration		Orfi	ce			HV	<u>′S</u>
Point	∆H (orifice), in. of water	[ΔH x (Pa/76	0) x (298/Ta)] ^{1/2}	Qstd (CFM) X - axis	∆W (HVS), in. of water	[ΔW x (Pa/	/760) x (298/Ta)] ^{1/2} Y-axis
1	15.8	:	3,93	67.34	11.7		3.38
2	12.5		3.50	59.95	9.7		3.08
3	9.5		3.05	52,32	7.7		2.75
4	6.1		2,44	42.01	5.6		2.34
5	3.5		1.85	31.94	3.3		1.80
Slope , mw =	ession of Y on X 0.0442 coefficient* =		983	Intercept, bw	0.4278	1	
-II Correlation C	0 = 11 = 0.990, 0	check and recalibrate					
			Set Point (alculation			
From the TSP Fig	eld Calibration Curv	ve, take Qstd = 43 C					
		Y" value according t					
	,	C C					
		mw x	$Qstd + bw = [\Delta W]$	x (Pa/760) x (298	/Ta)] ^{1/2}		
Thoras	ra Sat Daint: W($mw \ge Qstd + bw)^2$	· (760 / Do) - (To	(208) =			
Increto	re, set Point; w = ($mw \propto Qsta + bw)$	(/ou/Pa)x(1a	7 298)=	5.54		
Remarks:							
-							· · · · · · · · · · · · · · · · · · ·
-							
Conducted by:	WK. Tenz	Signature:	1/mai			Date:	4 Aug 2020
Conducted by: Checked by:	USTE MAN click	Signature:	he	1		Date:	4 Ary 2020 4+ 8-2020
÷ -		· · ·				_	· •

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<u>RSP - Respirable Suspended Particulates Sampler (PM 10)</u> <u>Field Calibration Report</u>

		File No.	WMA20002/17/0001
Station	KTN-DMS4A - Temporary Structure at Pak Shek Au	Operator:	WK
Date:	18-Jun-20	Next Due Date:	17-Aug-20
Equipment No.:	A-11-17	Serial No.	3225

		Ambient Condition	
Temperature, Ta (K)	307	Pressure, Pa (mmHg)	758.3

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

			Cali	ibration of RSP S	ampler				
Calibration	ORIFICE						HVS		
Point	$\Delta H(\text{orifice}),$ 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	_ ` ` ` `		
1	9.1	8.81	50.95	52.60	1.49	11.1	2.22		
2	7	6.78	44.74	46.19	1.31	9.9	2.10		
3	5.4	5.23	39.35	40.63	1.15	8.8	1.98		
4	3.5	3.39	31.77	32.80	0.93	7.4	1.81		
5	2.1	2.03	24.71	25.51	0.72	6.3	1.67		
By Linear Regr Slope , mw =				Intercep	t, bw =	1.1	493		
Correlation co			0.999	-	-		<u></u>		
	= ΔH x (Pa/76	-	×1/2 · · · ·						
	∆H x (Pa/760)	• •	- ,	. ,					
(3) Qa = Qsta	1 x (Ta / Pa) x	k (760 / 298)	(m3/min)						

*If Correlation Coefficient < 0.990, check and recalibrate.

		Set	Point Calculation		
Set Point Flow F	Rate., SFR				
SFR = 1.13 x	(760/Pa) x (Ta/298))	41.23		
<u>^</u>	Type Manometer Set x SFR + bw) ² x Pa		8.92		
Remarks:]
Conducted by: Checked by: Jo Lu	w.k. Tanı Al	Signature: Signature:	Muri Uu	Date: <u>19/1</u> Date: 19/1	5/2020



<u>RSP - Respirable Suspended Particulates Sampler (PM 10)</u> <u>Field Calibration Report</u>

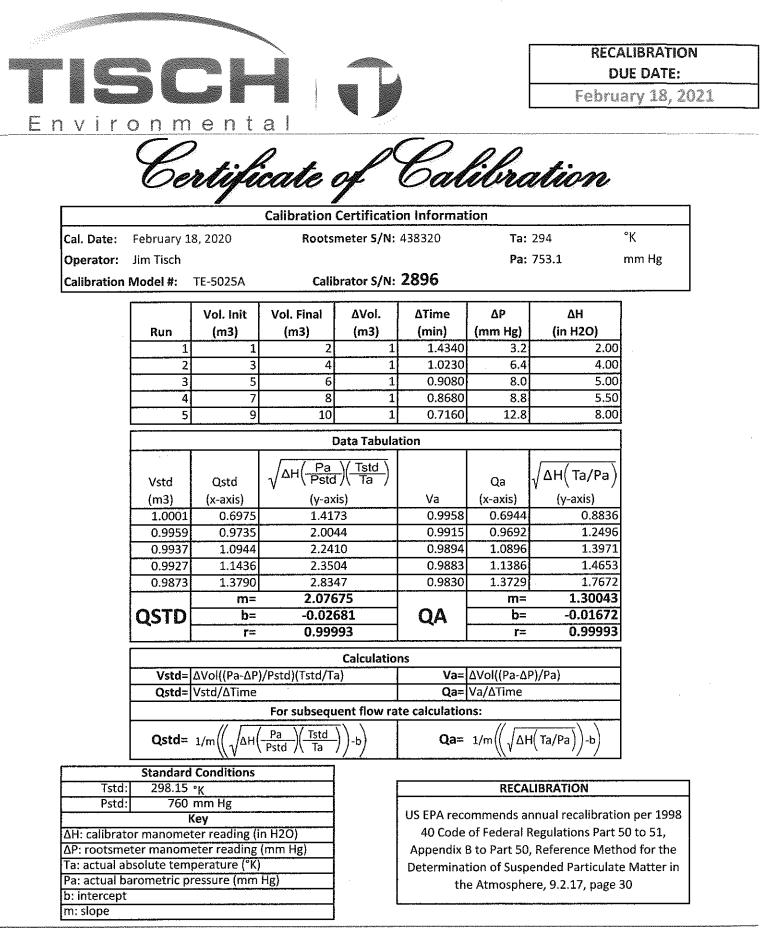
		File No.	WMA20002/03/0001
Station	KTN-DMS4A - Temporary Structure at Pak Shek Au	Operator:	WK
Date:	18-Aug-20	Next Due Date:	17-Oct-20
Equipment No.:	WA-11-03	Serial No.	3225

		Ambient Condition	
Temperature, Ta (K)	298.9	Pressure, Pa (mmHg)	756.2

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

			Cali	bration of RSP S	impler			
Calibration			ORIF	ICE		HVS		
Point	Δ H(orifice), in. of water	Del Hc ⁽¹⁾	Qstd ⁽²⁾ (CFM)	Qa ⁽³⁾ (CFM) X -axis	Qa ⁽³⁾ (m ³ /min) X -axis	∆W (HVS), in. of water	$\begin{bmatrix} \Delta W x (Ta + 30) / Pa \end{bmatrix}^{1/2}$ Y-axis	
1	8.7	8.63	50.42	50,83	1.44	9.9	2.08	
2	6.8	6.75	44.63	44.99	1.27	8.8	1.96	
3	5.6	5.56	40.54	40.87	1.16	7.5	1.81	
4	3.4	3.37	31.69	31,95	0.90	6.3	1.66	
5	2.0	1.98	24.41	24.61	0.70	5.1	1.49	
By Linear Reg Slope , mw =				Intercep	t, bw =	0.9	368	
Correlation co	oefficient* =		0.995	2	-			
(2) Qstd = $\{[A = A]\}$	= ДН x (Pa/76 ДН x (Pa/760) d x (Ta / Pa) x) x (298/Ta)	· ·					
*If Correlation (Coefficient < ().990, check	and recalibi	ate.				

	Set	Point Calculatio	on		
Set Point Flow Rate., SFR					
SFR = 1.13 x (760/Pa) x (Ta/298))=	40.25			
Sampler Well - Type Manometer Se					
$SSP = [(mw x SFR + bw)^2 x Pa]$	[] / (Ta + 30) =		7.72		
					I
Remarks:					
Conducted by: W.K. Tan	Signature:	Kwai		Date:	18/8/2020 18-8-2020
Conducted by: <u>N.K. Thy</u> Checked by: <u>LEC. MAN NOT</u>	Signature:	her-		Date:	18-8-2020



Tisch Environmental, Inc.

145 South Miami Avenue

Village of Cleves, OH 45002

<u>www.tisch-env.com</u> TOLL FREE: (877)263-7610 FAX: (513)467-9009



Calibration Certificate

Number: CCP/80000

Customer:HeContact Person:MDetector Model:RISerial Number:E0

Hong Kong Landfill Restoration Group Limited rson: Mr. Stanley Cheng odel: RKI Eagle ber: 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
02	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 (August 2020)

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

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 ND/2019/03	Ihr TSP and 24hr TSPKTN-DMS4 -Temporary Structurenear Fanling Highway(near Pak Shek Au)24hr RSP (Arsenic)KTN-DMS4A -Temporary Structure atPak Shek Au	 CP-KTN-NMS2 - Residential Buildings at Ma Tso Lung CP-KTN-NMS3 -Fung Kong Garden
EP-470/2013	ND/2019/01		CP-KTN-NMS5 - N/A
EP-473/2013/A	ND/2019/05	Ihr TSP and 24hr TSP 1. FLN-DMS1 - Scattered Village Houses North of Proposed Potential Ecopark 2. FLN-DMS3 - House near Tong Hang	CP-FLN-NMS2 - Scattered Village Houses in Tong Hang
EP-475/2013/A	ND/2019/06		CP-FLN-NMS1 - Belair Monte

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

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1-Aug
2-Au	ig 3-Aug	4-Aug	5-Aug	6-Aug	7-Aug	8-Aug
					,	
	$\underline{T3^{(1)}, T5^{(1)}}$			Monitoring of Measures to Minimise Impacts on Ecological		
	High tide: Start time: 10:00			Sensitive Habitats from		
	Low tide:			Disturbance and Pollution		
	Start time: 15:00			<u>T1, T6</u>		
9-Au	ig 10-Aug	11-Aug	12-Aug	13-Aug	14-Aug	15-Aug
		<u>T3⁽¹⁾, T5⁽¹⁾</u>				
		High tide:				
		Start time: 14:00 Low tide:				
		Start time: 09:00				
	ig 17-Aug	18-Aug	19-Aug	20-Aug	21-Aug	22-Aug
		(1)		-		
		High tide: <u>T3⁽¹⁾, T5⁽¹⁾</u>			Monitoring of Measures to	
		Start time: 09:00			Minimise Impacts to Ma Tso Lung Stream	
		Low tide: Start time: 14:00				
		Start tille. 11.00			<u>MS 01 - MS 10</u>	
23-Aı	ig 24-Aug	25-Aug	26-Aug	27-Aug	28-Aug	29-Aug
23-AU	ig 24-Aug	25-Aug	20-Aug	27-Aug	28-Aug	29-Aug
		T3 ⁽¹⁾ , T5 ⁽¹⁾			Monitoring of Measures to	
		High tide: Start time: 14:00			Minimise Impacts on Ecological Sensitive Habitats from	
		Low tide:			Disturbance and Pollution	
		Start time: 09:00				
					<u>T4, T5</u>	
30-Au	ig 31-Aug					
	High tide: <u>T3⁽¹⁾, T5⁽¹⁾</u>					
	Start time: 09:00					
	Low tide: Start time: 14:00					

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

Item	Activity	Monitoring Stations/Transects
1	Monitoring of Measures to Minimise Disturbance to Water Birds on Sheung Yue River, and Long Valley	T3. Sheung Yue River T5. Long Valley
2	Monitoring of Measures to Minimise Impacts to Ma Tso Lung Stream	MS_01, MS_02, MS_03, MS_04, MS_05, MS_06, MS_07, MS_08, MS_09, MS_10
3	Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution	 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. Areas north of Ng Tung River 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 T6. Areas in the western part of KTN

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 August 2020

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Sunday	wonday	Tucoday	tt cullestiay	Thursday	1 11000 y	1-Aug
						1 744
2-Aug	3-Aug	4-Aug	5-Aug	6-Aug	7-Aug	8-Aug
8					8	
	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01)		Site Inspection (ND/2019/06)	Site Inspection (ND/2019/03)	
9-Aug	10-Aug	11-Aug	12-Aug	13-Aug	14-Aug	15-Aug
		Site Inspection (ND/2019/01)	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/06)	Site Inspection (ND/2019/03)	
16-Aug	17-Aug	18-Aug	19-Aug	20-Aug	21-Aug	22-Aug
	S' (1. 1 (ND/2010/05)	S' L		S'		
	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01) AM		Site Inspection (ND/2019/06)		
		Site Inspection (ND/2019/03) PM				
23-Aug	24 Aug	25-Aug	26-Aug	27-Aug	28-Aug	29-Aug
23-Aug	24-Aug	23-Aug	20-Aug	27-Aug	28-Aug	29-Aug
	Site Inspection (ND/2019/05)			Site Inspection (ND/2019/06) AM	Site Inspection (ND/2019/03)	
	r () i i i i i i i i i i i i i i i i i i			r i i i i i i i i i i i i i i i i i i i		
				Site Inspection (ND/2019/01) PM		
20.4	01 4					
30-Aug	31-Aug					
	Site Inspection (ND/2019/05)					
		1				1

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

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 (September 2020)

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

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)	 CP-KTN-NMS2 - Residential Buildings at Ma Tso Lung CP-KTN-NMS3 -Fung Kong
EP-468/2013/A	ND/2019/03	24hr RSP (Arsenic) KTN-DMS4A - Temporary Structure at Pak Shek Au	Garden
EP-470/2013	ND/2019/01		CP-KTN-NMS5 - N/A
EP-473/2013/A	ND/2019/05	Ihr TSP and 24hr TSP 1. FLN-DMS1 - Scattered Village Houses North of Proposed Potential Ecopark 2. FLN-DMS3 - House near Tong Hang	CP-FLN-NMS2 - Scattered Village Houses in Tong Hang
EP-475/2013/A	ND/2019/06		CP-FLN-NMS1 - Belair Monte

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 (September 2020)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1-Sep	2-Sep	3-Sep	4-Sep	5-Sep
6-Sep	7-Sep	8-Sep	9-Sep	10-Sep	11-Sep	12-Sep
		T3 ⁽¹⁾ , T5 ⁽¹⁾ High tide: Start time: 14:00 Low tide: Start time: 09:00				
13-Sep	14-Sep	15-Sep	16-Sep	17-Sep	18-Sep	19-Sep
		T3 ⁽¹⁾ , T5 ⁽¹⁾ High tide: Start time: 10:00 Low tide: Start time: 14:00			Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution <u>T1, T6</u>	
20-Sep	21-Sep	22-Sep	23-Sep	24-Sep	25-Sep	26-Sep
		Low tide: Start time: 09:00	Monitoring of Measures to Minimise Impacts to Ma Tso Lung Stream <u>MS_01 - MS_10</u>		Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution <u>T4, T5</u>	
27-Sep	28-Sep	29-Sep	30-Sep			
The schedule may be showed due t		High tide: Start time: 10:00 Low tide: Start time: 14:00				

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

Item	Activity	Monitoring Stations/Transects
1	Monitoring of Measures to Minimise Disturbance to Water Birds on Sheung Yue River, and Long Valley	T3. Sheung Yue River T5. Long Valley
2	Monitoring of Measures to Minimise Impacts to Ma Tso Lung Stream	MS_01, MS_02, MS_03, MS_04, MS_05, MS_06, MS_07, MS_08, MS_09, MS_10
3	Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution	 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. Areas north of Ng Tung River 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 T6. Areas in the western part of KTN

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 September 2020

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	·	1-Sep	-		4-Sep	5-Sep
		Site Inspection (ND/2019/01)		Site Inspection (ND/2019/06)	Site Inspection (ND/2019/03)	
6-Sep	7-Sep	8-Sep	9-Sep	10-Sep	11-Sep	12-Sep
0-Sep	7-3ep	0-3ep	9-3ep	10-Sep	11-Sep	12-Sep
	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01)		Site Inspection (ND/2019/06)	Site Inspection (ND/2019/03)	
13-Sep	14-Sep	15-Sep	16-Sep	17-Sep	18-Sep	19-Sep
	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01)		Site Inspection (ND/2019/06)	Site Inspection (ND/2019/03)	
20-Sep	21-Sep	22-Sep	23-Sep	24-Sep	25-Sep	26-Sep
	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01)		Site Inspection (ND/2019/06)	Site Inspection (ND/2019/03)	
27-Sep	28-Sep	29-Sep	30-Sep			
	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01)	<u> </u>			

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 T	SP Monitoring	Results
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Date	Time	Weather	Particulate Concentration (μ g/m ³)
6-Aug-20	9:00	Cloudy	69.0
6-Aug-20	10:00	Cloudy	41.7
6-Aug-20	11:00	Cloudy	45.3
12-Aug-20	9:00	Rainy	59.9
12-Aug-20	10:00	Rainy	57.2
12-Aug-20	11:00	Rainy	63.6
18-Aug-20	9:00	Cloudy	72.5
18-Aug-20	10:00	Cloudy	77.8
18-Aug-20	11:00	Cloudy	82.3
24-Aug-20	8:30	Sunny	71.7
24-Aug-20	9:30	Sunny	65.1
24-Aug-20	10:30	Sunny	79.2
28-Aug-20	8:30	Fine	78.9
28-Aug-20	9:30	Fine	86.7
28-Aug-20	10:30	Fine	81.0
		Average	68.8
	Γ	Maximum	86.7
		Minimum	41.7

ocation FLN-D	MS3 - Hous	e near Tong Han	g
Date	Time	Weather	Particulate Concentration (µg/m ³)
6-Aug-20	13:00	Sunny	82.0
6-Aug-20	14:00	Sunny	70.7
6-Aug-20	15:00	Sunny	83.3
12-Aug-20	14:00	Rainy	53.9
12-Aug-20	15:00	Rainy	57.3
12-Aug-20	16:00	Rainy	58.8
18-Aug-20	13:00	Rainy	81.8
18-Aug-20	14:00	Rainy	87.9
18-Aug-20	15:00	Rainy	92.4
24-Aug-20	13:00	Sunny	59.6
24-Aug-20	14:00	Sunny	66.3
24-Aug-20	15:00	Sunny	71.7
28-Aug-20	13:35	Fine	91.5
28-Aug-20	14:35	Fine	103.5
28-Aug-20	15:35	Fine	98.4
		Average	77.3
		Maximum	103.5
		Minimum	53.9

Date	Time	Weather	Particulate Concentration (μ g/m ³)
4-Aug-20	8:45	Rainy	35.9
4-Aug-20	9:45	Rainy	20.5
4-Aug-20	10:45	Rainy	25.0
10-Aug-20	9:00	Cloudy	80.2
10-Aug-20	10:00	Cloudy	70.7
10-Aug-20	11:00	Cloudy	75.8
14-Aug-20	9:00	Sunny	29.3
14-Aug-20	10:00	Sunny	25.8
14-Aug-20	11:00	Sunny	20.9
20-Aug-20	13:00	Cloudy	75.3
20-Aug-20	14:00	Cloudy	72.5
20-Aug-20	15:00	Cloudy	85.8
26-Aug-20	8:00	Sunny	72.8
26-Aug-20	9:00	Sunny	60.3
26-Aug-20	10:00	Sunny	56.1
		Average	53.8
	ī	Maximum	85.8
		Minimum	20.5

Location KTN-E	OMS4 - Tem	porary Structure	near Fanling Highway
Date	Time	Weather	Particulate Concentration (µg/m³)
4-Aug-20	8:45	Rainy	100.3
10-Aug-20	9:00	Cloudy	60.4
14-Aug-20	8:00	Sunny	63.8
20-Aug-20	10:30	Cloudy	78.5
26-Aug-20	8:00	Sunny	83.6
		Minimum	60.4
		Maximum	100.3
		Average	77.3

Appendix E - 24-hour TSP Monitoring Results

Appendix E - 24-hour TSP Monitoring Results Location FLN-DMS1 - Scattered Village Houses North of Proposed Potential Ecopark

Start Date	Weather	Air	Filter W	eight (g)	Particulate	Elapse	e Time	Sampling	Flow Rate	e (m ³ /min.)	Av. flow	Total vol.	Conc.
Start Date	Condition	Temp. (K)	Initial	Final	weight (g)	Initial	Final	Time(hrs.)	Initial	Final	(m ³ /min)	(m ³)	(µg/m ³)
5-Aug-20	Cloudy	298.6	3.4504	3.5055	0.0551	3371.9	3395.9	24.0	1.23	1.24	1.23	1777.8	31.0
11-Aug-20	Cloudy	301.3	3.4853	3.5566	0.0713	3395.9	3419.9	24.0	1.22	1.23	1.23	1764.4	40.4
17-Aug-20	Cloudy	300.0	3.2789	3.3318	0.0529	3419.9	3443.9	24.0	1.23	1.24	1.23	1772.0	29.9
21-Aug-20	Sunny	300.4	3.2420	3.3079	0.0659	3443.9	3467.9	24.0	1.23	1.23	1.23	1771.6	37.2
27-Aug-20	Sunny	299.5	3.5028	3.6063	0.1035	3467.9	3491.9	24.0	1.23	1.23	1.23	1765.4	58.6
												Min	30
												Max	59
												Average	39

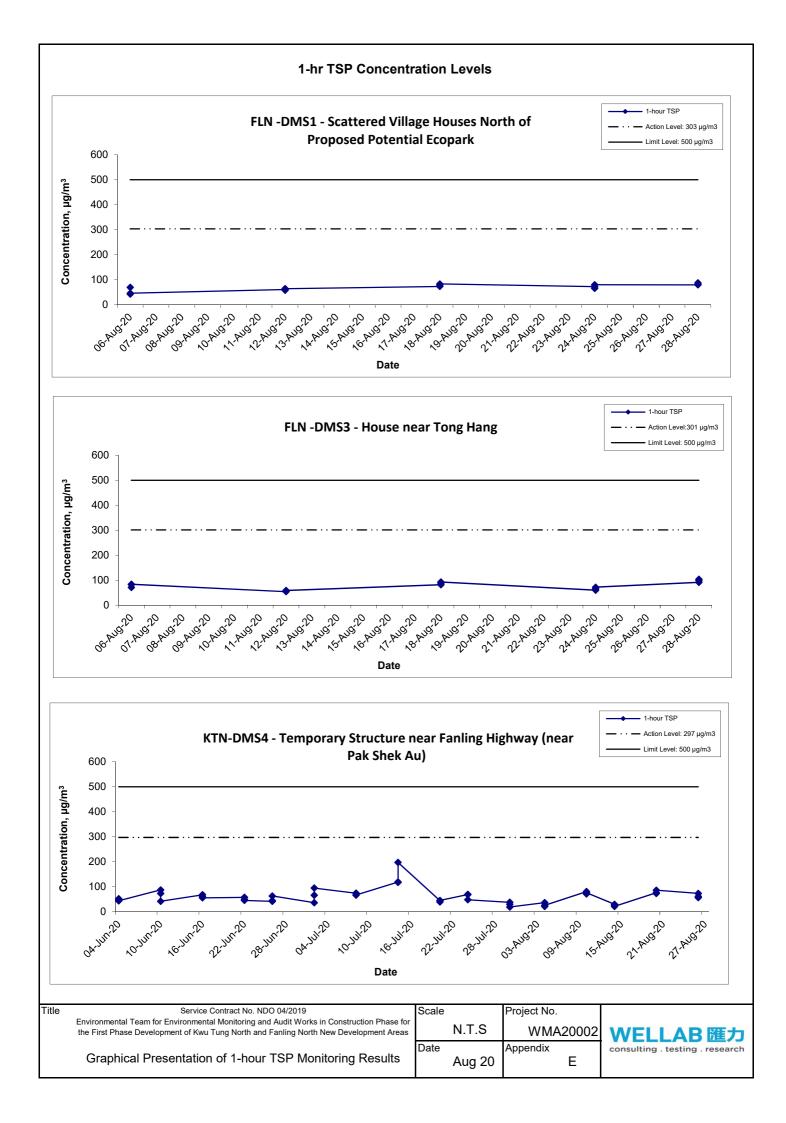
Location FLN-DMS3 - House near Tong Hang

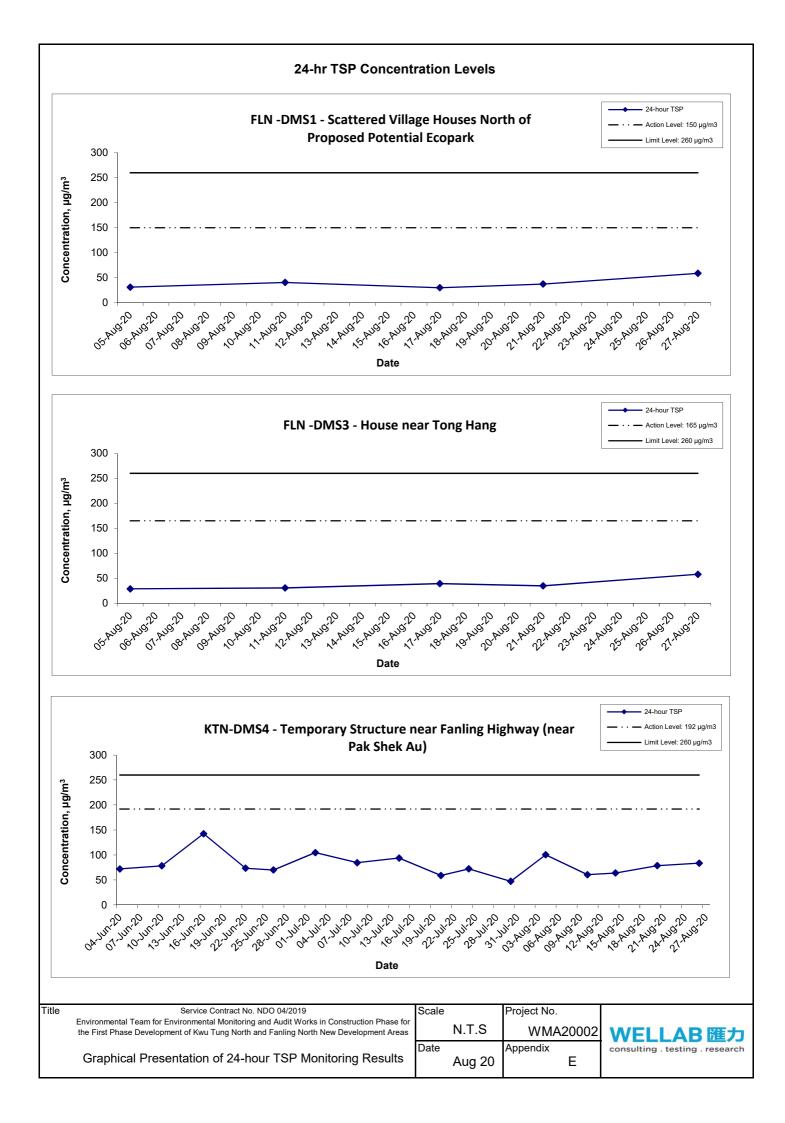
Start Date	Weather	Air	Filter W	eight (g)	Particulate	Elapse	e Time	Sampling	Flow Rate	(m ³ /min.)	Av. flow	Total vol.	Conc.
Start Date	Condition	Temp. (K)	Initial	Final	weight (g)	Initial	Final	Time(hrs.)	Initial	Final	(m ³ /min)	(m ³)	(µg/m ³)
5-Aug-20	Cloudy	298.7	3.2997	3.3503	0.0506	4413.0	4437.0	24.0	1.22	1.23	1.22	1763.8	28.7
11-Aug-20	Cloudy	301.3	3.4942	3.5479	0.0537	4437.0	4461.0	24.0	1.22	1.22	1.22	1752.8	30.6
17-Aug-20	Cloudy	299.9	3.2543	3.3232	0.0689	4461.0	4485.0	24.0	1.22	1.23	1.22	1759.6	39.2
21-Aug-20	Sunny	300.3	3.3036	3.3645	0.0609	4485.0	4509.0	24.0	1.22	1.22	1.22	1759.1	34.6
27-Aug-20	Sunny	299.6	3.4505	3.5520	0.1015	4509.0	4533.0	24.0	1.22	1.22	1.22	1753.0	57.9
												Min	29

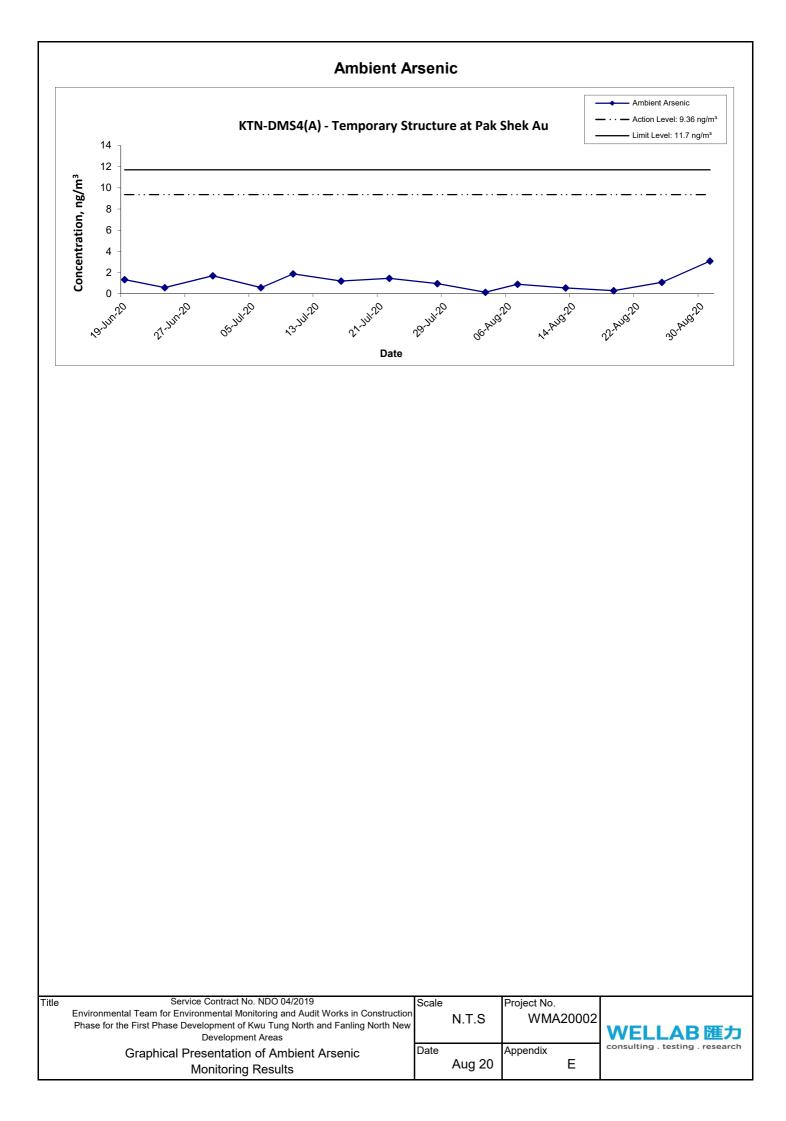
		29
	Max	58
	Average	38
1		

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)		
3-Aug-20	0.25	1633.8	0.15		
7-Aug-20	1.50	1641.1	0.91		
13-Aug-20	0.91	1626.3	0.56		
19-Aug-20	0.49	1634.9	0.30		
25-Aug-20	1.80	1660.8	1.08		
31-Aug-20	5.10	1649.0	3.09		







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



Table I - Ambient Arsenic Concentration on 3rd August 2020

Parameter	Monitoring Station	Arsenic (Refer to Report No.: 33864)	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	0.25 µg	1633.8 m ³	0.15 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/m³ the highest ambient arsenic concentration predicted during the construction phase with mitigation measures implemented

Name	Signature	Date
Meiling Tang	the: 62-	20 August 2020
Ivy Tam	Ind	20 August 2020
	Meiling Tang	Meiling Tang Meily



TEST REPORT

APPLICANT:	Wellab	(EM&A)	Report No.:	33864
	RM 180	8, Technology Park,	Date of Issue:	2020-08-11
	18 On I	Lai Street,	Date Received:	2020-08-04
	Shatin,	N.T., Hong Kong	Date Tested:	2020-08-11
			Date Completed:	2020-08-11
ATTN:	Ms Ivy	Tam	Page:	1 of 1
Sample Descr	iption :	1 sample as received from customer s	aid to be quartz filter	
Laborato	ry No. :	33864		

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	200615/014	
Sample No.	33864-1	
Arsenic (µg)	0.25	

Remarks: 1) \leq = less than

2) Results for the test material reported as received

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



TEST REPORT

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

Report No.:	QC33864
Date of Issue:	2020-08-11
Date Received:	2020-08-04
Date Tested:	2020-08-11
Date Completed:	2020-08-11
Page:	1 of 2

Ms Ivy Tam

QC report: Method Blank

ATTN:

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

Filter Lot Blank

Parameter	Filter Lot Blank	Acceptance
Arsenic (µg)	0.07	N/A

Laboratory control spike/ Method QC

Parameter	MQC	Acceptance
Arsenic (%)	98	80-120

Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	93	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 (%)	103	70-130

Remarks: 1) \leq = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 33864

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

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TEST REPORT

Report No.:	QC33864
Date of Issue:	2020-08-11
Date Received:	2020-08-04
Date Tested:	2020-08-11
Date Completed:	2020-08-11
Dage.	2 of 2

Page:

2 of 2

QC report: Matrix Snike

watrix Spike		
Parameter	Matrix Spike	Acceptance
Arsenic (%)	112	75-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance	
Arsenic (%)	3	RPD <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 33864

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

Station:	KTN-DMS4A - Temporary Struct			
Sampling Date &	Time: From: <u>3/8/2=20</u>	(⊕0 : ₀ ०)	Collection Date: 4.8.2022	
Operators:	Ka Chim	Weather Sunny Cloudy Wind: Strong Mild	Windy Rainy Calm	
T	tich Mahana Camalan	Model no.	GMW-PM10	
High Volume Sampler		Blower Motor Serial no.	3,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	

Equipment	No. A-11-1	<i>f</i>	Set Point	Qar
Slope, n		- 	Intercept. b	1.1495
		Initial, I		Final, f
Ambient Pressure	(mmHg), Pa	786.6		756.5
Ambient Tempera	ture (K), Ta	LAP.S		299.4
Delta (in. of Wate		89		8.9
Y = [W x (Ta+30)])/Pa] ^{1/2}	1.960		7.969
Standard flow, Qs	$td (m^3/min) = (Y - b)*0.0283/m$	L.133	~	1.137
Elapsed Timer Inc	licator (Hours), T	11417.00		1441.00
Filter Identificatio	n no.		200618/014	
Weight of Filter (g)		4.1328	www.eee.r	. 2576
Weight of Particulate (g)		0-0249		
Mean Standard Fl	· .	1.135		
$Qstd_{avg} = (Qstd_i + $	$-\text{Qstd}_{f})/2$			
Total Time, Total Time = (Tf ·	- Ti) x 60	1440.00		
Standard Volume, Vstd (m [°]) = Qstd _a		1633.9		
Particulate Conc	entration (µg/m ³)		15.2	
Observed Construction	Main Construction Site	NIA		
Activities	Other Construction Site	N/A Alla		

_				1	
	A 4	(\mathbf{N}_1)		///	
Conducted by:	Yp_	K M	Signature:	Mm	Date: 4.6.202
Checked by:	v	Mely Tong	Signature:	me:ly	Date: 101812020
	<i></i>				

Project No. WMA20002



Table I - Ambient Arsenic Concentration on 7th August 2020

Parameter	Monitoring Station	Arsenic (Refer to Report No.: 33886)	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	1.5 μg	1641.1 m ³	0.91 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/m³ the highest ambient arsenic concentration predicted during the construction phase with mitigation measures implemented

	Name	Signature	Date
Prepared by:	Meiling Tang	Mu: by	20 August 2020
Checked by:	Ivy Tam	Jud	20 August 2020



TEST REPORT

APPLICANT:	Wellab (EM&A)	Report No.:	33886
	RM 1808, Technology Park,	Date of Issue:	2020-08-14
	18 On Lai Street,	Date Received:	2020-08-10
	Shatin, N.T., Hong Kong	Date Tested:	2020-08-13
		Date Completed:	2020-08-14
ATTN:	Ms Ivy Tam	Page:	1 of 1

Sample Description	:	1 sample as received from customer said to be quartz filter
Laboratory No.	:	33886
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	200615/015	
Sample No.	33886-1	
Arsenic (µg)	1.5	

Remarks: 1) \leq = less than

2) Results for the test material reported as received

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

QC33886
2020-08-14
2020-08-10
2020-08-13
2020-08-14
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)	0.07	N/A

Laboratory control spike/ Method QC

Parameter	MQC	Acceptance
Arsenic (%)	106	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) \leq = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 33886

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

ELLAB 匯: consulting . testing . research

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TEST REPORT

Report No.:	QC33886
Date of Issue:	2020-08-14
Date Received:	2020-08-10
Date Tested:	2020-08-13
Date Completed:	2020-08-14
Page	2 of 2

Page:

2 of 2

QC report: Matuir Snike

viatrix Spike		
Parameter	Matrix Spike	Acceptance
Arsenic (%)	91	75-125

Filter Duplicate

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

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	101	90-110

Remarks: 1) < = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 33886

Contract No. NDO 04/2019	WELLA
Advance and First Stage Works of	consulting . testin
Kwu Tung North and Fanling North New Dev	velopment Areas
24-hr RSP Air Quality Monitoring (Project No.: WMA200	002)
Field Operation Data Log Sheet	

Station: KTN-DMS4A - Temporary Structure at Pak Shek Au						
Sampling Date & Time:	From: 7-8-2020	(مد: ٥٥)		Collec	tion Date: 10. P. 2000	
Operators:	Ka lle	Weather <u>(Supry</u> Wind: <u>Strong</u>	Cloudy Mild	Windy (Calm)	Rainy	
High Volu	ume Sampler	Model no.			GMW-PM10	
		Blower Motor Serial	no.	L	3225	
	RSP - Respirable S	uspended Particulate	s Sampler	r		
Equipment No.	A-11-17			Point	8.92	
Slope, m	17.0204		Interc		1.1493	
		Initial, I			Final, f	
Ambient Pressure (mmHg)), Pa	760.2			758.1	
Ambient Temperature (K)	, Та	3010			301-6	
Delta (in. of Water), W		8.9			8,9	
$Y = [W x (Ta+30)/Pa]^{1/2}$		1.969	1-969 (.97		(.973	
Standard flow, Qstd $(m^3/min) = (Y - b)*0.0283/m$		1.136			1,143	
Elapsed Timer Indicator (Hours), T		11441,00		119	165,07	
Filter Identification no.		200	615/018	5	111-11-11-11-11-11-11-11-11-11-11-11-11	
Weight of Filter (g)		4.232	l_		f= 2846	
Weight of Particulate (g)		_	0,0	525		
Mean Standard Flow,						
$Qstd_{avg} = (Qstd_i + Qstd_f)/2$	2	1.140				
Total Time, Total Time = (Tf - Ti) x 60	0	1440.00				
Standard Volume, Vstd $(m^3) = Qstd_{avg} x$ Total Time		1641.1				
Particulate Concentratio	-		32.			
Observed N Construction	Aain Construction Site	N/A				
Activities Other Construction Site		NIA				
Remarks: Road	traffic					

Conducted by:	He Ka An	_Signature:	Date: 7-8.212-
Checked by:	Mily Tony	_Signatur <u>e: Mu:Ly</u>	Date: >>/&/ >>/

Project No. WMA20002

B匯力

ig . research



Table I - Ambient Arsenic Concentration on 13th August 2020

Parameter	Monitoring Station	Arsenic (Refer to Report No.: 33926)	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	0.91 µg	1626.3 m ³	0.56 ng/m ³	No

Table II - Action and Limit Levels for Ambient Arsenic Monitoring

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

Date	Signature	Name	
26 August 2020	meitz	Meiling Tang	Prepared by:
26 August 2020	1 Jun	Ivy Tam	Checked by:
	I Jung	Ivy Tam	Checked by:



TEST REPORT

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

Report No.:	33926
Date of Issue:	2020-08-20
Date Received:	2020-08-15
Date Tested:	2020-08-20
Date Completed:	2020-08-20
Page:	1 of 1

ATTN: Ms Ivy Tam

Sample Description	:	1 sample as received from customer said to be quartz filter
Laboratory No.	:	33926
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:

200615/010	
33926-1	
0.91	
-	33926-1

Remarks: 1) \leq = less than

2) Results for the test material reported as received

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



TEST REPORT

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

Report No.:	QC33926
Date of Issue:	2020-08-20
Date Received:	2020-08-15
Date Tested:	2020-08-20
Date Completed:	2020-08-20
Page:	1 of 2

Ms Ivy Tam

QC report: Method Blank

ATTN:

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

Filter Lot Blank

Parameter	Filter Lot Blank	Acceptance
Arsenic (µg)	0.07	N/A

Laboratory control spike/ Method QC

Parameter	MQC	Acceptance
Arsenic (%)	99	80-120

Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	96	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 (%)	101	70-130

Remarks: 1) < = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 33926

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

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TEST REPORT

Report No.:	QC33926
Date of Issue:	2020-08-20
Date Received:	2020-08-15
Date Tested:	2020-08-20
Date Completed:	2020-08-20
Page:	2 of 2

QC report:

Matrix Spike		
Parameter	Matrix Spike	Acceptance
Arsenic (%)	102	75-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	6	RPD≤20%

Serial dilution check

Parameter	Serial dilution check	Acceptance	
Arsenic (%)	106	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 33926

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

Station:	KTN-DMS4A - Temporary Structu		
Sampling Date &	Time: From: <u>13 - } - 20 20</u>	(06 : ceo)	Collection Date: 1-2020
Operators:	Ka Chin	Weather Sunny Cloudy Wind: Strong Mild	Windy Rainy Calm
r.	ligh Volume Sampler	Model no.	GMW-PM10
		Blower Motor Serial no.	3225

	~	RSP - Respirable St	uspended Particula	ites Samplei	r	-
Equipment	No.	A-11-17	}	Set I	Point	8.92
Slope, n	n	40,00	· · ·	Interc	ept. b	1.1493
			Initial,	I		Final, f
Ambient Pressure	(mmHg), I	Pa	761.9			7607
Ambient Tempera	ature (K), T	'a	200.5			299.9
Delta (in. of Wate			-89	L		P 8
Y = [W x (Ta+30))/Pa] ^{1/2}		1.96	ji L		1.965
Standard flow, Qs	std (m ³ /min) = (Y - b)*0.0283/m	1.123	+		1.131
Elapsed Timer Inc	dicator (Ho	urs), T	11465.00		114	19.00
Filter Identificatio	on no.		200615/010			
Weight of Filter (g)		4.2869		4.	3494	
Weight of Particulate (g)		0.0625				
Mean Standard Fl	-		1.129			
$Qstd_{avg} = (Qstd_i +$	-Qstd _f)/2		1.129			
Total Time, Total Time = (Tf	- Ti) x 60		1440.00			
Standard Volume, Vstd (m ²) = Qstd _a		Time	16263			
Particulate Conc	entration	(μg/m ³)		38.	Y	
Observed Construction	Ma	in Construction Site	NA			······································
Activities	Oth	er Construction Site	NA			
Remarks:	Road	traff.ic				

• * <u>*</u>

-	Λ.	*****	Λ	
Conducted by:	Ho ka lle	_Signature:	Uhn	Date: 14-8-2000
Checked by:	Milto Tong	Signature:	Mily	Date: 17/8/22
Project No. WN	- () MA20002			

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Table I - Ambient Arsenic Concentration on 19th August 2020

Parameter	Monitoring Station	Arsenic (Refer to Report No.: 33934)	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	0.49 µg	1634.9 m ³	0.30 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/m³ the highest ambient arsenic concentration predicted during the construction phase with mitigation measures implemented

	Name	Signature	Date
Prepared by:	Meiling Tang	Heilow	27 August 2020
Checked by:	Ivy Tam	Yup	27 August 2020



TEST REPORT

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

Report No.:	33934
Date of Issue:	2020-08-26
Date Received:	2020-08-20
Date Tested:	2020-08-26
Date Completed:	2020-08-26
Page:	1 of 1

ATTN: Ms Ivy Tam

Sample Description	:	1 sample as received from customer said to be quartz filter
Laboratory No.	:	33934
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	200615/016	
Sample No.	33934-1	
Arsenic (µg)	0.49	

Remarks: 1) \leq = less than

2) Results for the test material reported as received

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

TRICK TSE General Manager



TEST REPORT

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

Report No.:	QC33934
Date of Issue:	2020-08-26
Date Received:	2020-08-20
Date Tested:	2020-08-26
Date Completed:	2020-08-26
Page:	1 of 2

Ms Ivy Tam

QC report: Method Blank

ATTN:

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

Filter Lot Blank

Parameter	Filter Lot Blank	Acceptance
Arsenic (µg)	0.07	N/A

Laboratory control spike/ Method QC

Parameter	MQC	Acceptance		
Arsenic (%)	101	80-120		

Calibration check

Parameter	CCV	Acceptance		
Arsenic (%)	109	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 (%)	97	70-130		

Remarks: 1) < = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 33934

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

WELLAB 匯力 consulting . testing . research WELLAB LIMITED Room 1701, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 7076 Website: www.wellab.com.hk

TEST REPORT

Report No .:	QC33934
Date of Issue:	2020-08-26
Date Received:	2020-08-20
Date Tested:	2020-08-26
Date Completed:	2020-08-26
Page:	2 of 2

QC report: Matrix Snike

Matrix Spike		
Parameter	Matrix Spike	Acceptance
Arsenic (%)	84	75-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance		
Arsenic (%)	13	RPD <20%		

Serial dilution check

Parameter	Serial dilution check	Acceptance		
Arsenic (%)	110	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 33934

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

Station:	KTN-DMS4A - Temporary Structure at Pak Shek Au							
Sampling Date & Time: From: 19 /8 /20			(00 : 00)			Collection Date: 20/8/2020		
Operators:		W.K. Tang	_Weather_ Wind: _	Sunny Strong	Cloudy Mild	Windy Çalın	Rainy	
			Model no	•			GMW-PM	10
High Volume Sampler		Blower Motor Serial no.			3225			

		RSP - Respirable Su	spended Particula	tes Sample	r	
Equipment	No.	INA-11-03		Set	Point	1.72
Slope, m	L	0.000		Interc	cept. b	1.9368
		· · · · · · · · · · · · · · · · · · ·	Initial,	I		Final, f
Ambient Pressure	(mmHg), Pa		736.	ν		719.6
Ambient Tempera	ture (K), Ta		298-1)		2994
Delta (in. of Wate			<u> </u>			<u> </u>
Y = [W x (Ta+30)/Pa] ^{1/2}		1.82	8		1.827
Standard flow, Qs	$td (m^3/min) = ($	Y - b)*0.0283/m	1.13	Ĩ		1.135
Elapsed Timer Inc	licator (Hours),	Т	114	89-04	(1513.04
Filter Identification no.		200615/016				
Weight of Filter (g)		4.2862 4.3338				
Weight of Particulate (g)		0.0476				
Mean Standard Flo	-		1.135			
$Qstd_{avg} = (Qstd_i +$	$Qstd_f)/2$					
Total Time, Total Time = (Tf.	. Ti) v 60		1440.00			
Total Time = (Tf - Ti) x 60 Standard Volume, Vstd (m ²) = Qstd _{avg} x Total Time			1634.9			
Particulate Conc	entration (µg/i	n ³)		2	9.1	
Observed Main Co.		onstruction Site	r ng		,	
Activities	Other C	onstruction Site	MA			
Remarks:	<i>k</i> _M		'ej		<u></u>	

Conducted by:	W.K. Tany	Signature:	Knie	Date: 20 /8 /2020
Checked by:	Meiling Tang	Signature:	Meily	Date: 2118 (Joh

.

Project No. WMA20002

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Table I - Ambient Arsenic Concentration on 25th August 2020

Parameter	Monitoring Station	Arsenic (Refer to Report No.: 33980)	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,	KTN-DMS4(A) - Temporary Structure at Pak	1.8 µg	1660.8 m ³	1.08 ng/m ³	No
ng/m ³	Shek Au				

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/m³ the highest ambient arsenic concentration predicted during the construction phase with mitigation measures implemented

	Name	Signature	Date
Prepared by:	Meiling Tang	Milm	31 August 2020
Checked by:	Ivy Tam	Tun	31 August 2020



TEST REPORT

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

Report No.:	33980
Date of Issue:	2020-08-31
Date Received:	2020-08-26
Date Tested:	2020-08-28
Date Completed:	2020-08-31
Page:	1 of 1

ATTN: Ms Ivy Tam

Sample Descripti	on :	1 sample as received from customer said to be quartz filter
Laboratory N	Jo. :	33980
Project N	No. :	WMA 20002
Project Tit	le:	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	200615/017	
Sample No.	33980-1	
Arsenic (µg)	1.8	

Remarks: 1) \leq = less than

2) Results for the test material reported as received

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

QC33980
2020-08-31
2020-08-26
2020-08-28
2020-08-31
1 of 2

Ms Ivy Tam

QC report: Method Blank

ATTN:

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

Filter Lot Blank

Parameter	Filter Lot Blank	Acceptance
Arsenic (µg)	0.07	N/A

Laboratory control spike/ Method QC

Parameter	MQC	Acceptance
Arsenic (%)	97	80-120

Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	102	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 (%)	97	70-130

Remarks: 1) \leq = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 33980

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

SI

WELLAB 進力 consulting . testing . research WELLAB LIMITED Room 1701, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 7076 Website: www.wellab.com.hk

TEST REPORT

Report No.:	QC33980
Date of Issue:	2020-08-31
Date Received:	2020-08-26
Date Tested:	2020-08-28
Date Completed:	2020-08-31
Page:	2 of 2

QC report:

Matrix Spike		
Parameter	Matrix Spike	Acceptance
Arsenic (%)	103	75-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance	
Arsenic (%)	9	RPD <u><</u> 20%	

Serial dilution check

Parameter	Serial dilution check	Acceptance	
Arsenic (%)	101	90-110	

Remarks: 1) < = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 33980

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

Station:	ation: KTN-DMS4A - Temporary Structure at Pak Shek Au						
Sampling Date &	Time:	From: 4-8-202	(Ծն	0:00~)		Collec	tion Date: <u>26-f-202</u>
Operators:	ţh	U-	Weather	Suppy	Cloudy Milel	Windy Calm	Rainy
High Volume Sampler		Model no.			GMW-PM10		
		Blower Motor Serial no.		no.		3225	

		RSP - Respirable St	uspended Particulate	s Sampler	
Equipment	t No. [NA-11-0]			Set Point	7.72
Slope, m	l	0.0222		Intercept. b	0.9368
			Initial, I		Final, f
Ambient Pressure	(mmHg), Pa		- <u>-</u>		7553
Ambient Tempera	ture (K), Ta		302.8		303.0
Delta (in. of Wate	er), W		F.F.		7.7
Y = [W x (Ta+30)/Pa] ^{1/2}		1.841		1.843
Standard flow, Qs	$td(m^3/min) = c$	(Y - b)*0.0283/m	1.152		(1155
Elapsed Timer Ind	licator (Hours)	, T	11813.04		1157.04
Filter Identificatio	n no.		200615/017		
Weight of Filter (g	g)		4.2719		4.3213
Weight of Particul	197		0.0494		
Mean Standard Flo			1.153		
$Qstd_{avg} = (Qstd_i + $	Qstd _f)/2		(18)		
Total Time, Total Time = (Tf -	- Ti) x 60		1440.00		
Standard Volume, Vstd (m ²) = Qstd _a	_{/g} x Total Time	e	1660.8		
Particulate Conc	entration (µg/	m ³)	29.7		
Observed Construction	Construction Main Construction Site		in.		
Activities			NA MA		
Remarks:	Road Cu	Alic			

	M		
Conducted by:	6 billion	Signature:	Date: 26 - 8 - 2020
Checked by:	theby Tang	Signature: Meils	Date: 17 (8 (2020
	Ĵ		

Project No. WMA20002



Table I - Ambient Arsenic Concentration on 31st August 2020

Parameter	Monitoring Station	Arsenic (Refer to Report No.: 34008)	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	5.1 µg	1649.0 m ³	3.09 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/m³ the highest ambient arsenic concentration predicted during the construction phase with mitigation measures implemented

	Name	Signature	Date
Prepared by:	Meiling Tang	Meila	8 September 2020
Checked by:	Ivy Tam	- Aud	8 September 2020



TEST REPORT

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

Report No.:	34008
Date of Issue:	2020-09-04
Date Received:	2020-09-01
Date Tested:	2020-09-04
Date Completed:	2020-09-04
Page:	1 of 1

ATTN: Ms Ivy Tam

Sample Description	:	1 sample as received from customer said to be quartz filter
Laboratory No.	:	34008
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	200615/018	
Sample No.	34008-1	
Arsenic (µg)	5.1	

Remarks: 1) \leq = less than

2) Results for the test material reported as received

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

ATRICK TSE General Manager



TEST REPORT

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

Report No .:	QC34008
Date of Issue:	2020-09-04
Date Received:	2020-09-01
Date Tested:	2020-09-04
Date Completed:	2020-09-04
Page:	1 of 2

Ms Ivy Tam

QC report: Method Blank

ATTN:

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

Filter Lot Blank

Parameter	Filter Lot Blank	Acceptance
Arsenic (µg)	0.07	N/A

Laboratory control spike/ Method QC

Parameter	MQC	Acceptance
Arsenic (%)	98	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 (%)	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 34008

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

WELLAB 匯力 consulting . testing . research WELLAB LIMITED Room 1701, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 7076 Website: www.wellab.com.hk

TEST REPORT

Report No.:	QC34008
Date of Issue:	2020-09-04
Date Received:	2020-09-01
Date Tested:	2020-09-04
Date Completed:	2020-09-04
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≤20%	

Serial dilution check

Parameter	Serial dilution check	Acceptance	
Arsenic (%)	94	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 34008

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**

Station:	KTN-DMS4A - Temporary Structur	e at Pak Sh	ek Au				
Sampling Date &	Time: From: 31/8/2020	(0	0:00)	ł	Collec	tion Date:	1/9/2070
Operators:	W.K. Thy	_Weather_ Wind:	Sunny Strong	Cloudy Mild	Windy Calim	Rainy	
	ligh Volume Sampler	Model no	•			GMW-PM	10
		Blower M	lotor Seria	ıl no.		3222	

]	RSP - Respirable St	uspended Particulat	es Sampler				
Equipment	No.	WA-11-03		Set Po	oint	272		
Slope, n	n	4050.0		Interce	pt. b	0.9368		
			Initial, I			Final, f		
Ambient Pressure	(mmHg), Pa		728.1			757-4		
Ambient Tempera	ature (K), Ta		301.0	8-106 6.108				
Delta (in. of Wat	er), W		7.7					
Y = [W x (Ta+30))/Pa] ^{1/2}		1.834 1.837					
Standard flow, Qa	std (m^3/min) = (Y	- b)*0.0283/m	1.143			(.147		
Elapsed Timer Ind	dicator (Hours), 7		11537,<	<u>54</u>	11561.04			
Filter Identification	on no.		200615 /018					
Weight of Filter (g)	41	4.3300			.4040		
Weight of Particu	(0)		0.0731					
Mean Standard Fl	5		1.145					
$Qstd_{avg} = (Qstd_i +$	- Qstd _f)/2							
Total Time, Total Time = (Tf	- Ti) v 60		1440.00					
Standard Volume.						、		
Vstd (m') = Qstd _a	_{vg} x Total Time	when the second s		16	49.0			
Particulate Conc	entration (µg/m	³)		4	4.3			
Observed Construction	Main Cor	struction Site	NA					
Activities	Other Co	nstruction Site	Nng					
Remarks:	Road tr	Affic, Maze						
Conducted by:	WK. Th	nj	Signature: KA	~~~~	Date:	1/9/2020		

Weily Jan Signature: Mr: Ly Date: 21912020 Checked by: Project No. WMA20002

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APPENDIX F NOISE MONITORING RESULTS AND GRAPHICAL PRESENTATION

Appendix F - Noise Monitoring Results

Location CP-FLN-NMS1 - Belair Monte (Existing)									
Date	Weather	Time	Un	it: dB (A) (5-n	nin)	Average	Baseline Level		
			L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}		
		9:40	68.3	71.9	60.6				
		9:45	70.8	73.4	57.9				
6-Aug-20	Cloudy	9:50	68.8	72.3	57.6	68.9			
0-Aug-20	Cloudy	9:55	67.4	71.5	59.1	00.5			
		10:00	68.3	72.7	57.7	-			
		10:05	69.2	72.4	58.6				
		10:20	68.4	72.1	55.9		69.9		
		10:25	68.2	72.4	58.8				
12-Aug-20	Cloudy	10:30	70.5	73.9	57.2	69.2			
12-Aug-20	Cloudy	10:35	67.9	71.8	58.2	03.2			
		10:40	70.2	72.8	61.4				
		10:45	69.4	73.1	59.9				
		9:50	67.5	70.9	57.5				
		9:55	68.3	71.9	56.1				
18-Aug-20	Cloudy	10:00	66.9	70.9	58.2	67.9			
16-Aug-20	Cloudy	10:05	68.7	72.1	56.9	07.9			
		10:10	68.1	71.6	56.9				
		10:15	67.9	71.5	56.8				
		10:15	67.7	70.3	57.3		1		
		10:20	68.5	71.9	55.7				
24 Aug 20	Cuppy	10:25	66.2	70.3	59.0	07.0			
24-Aug-20	Sunny	10:30	66.6	70.9	56.8	67.6			
		10:35	68.0	71.8	57.5				
		10:40	68.3	70.2	58.1				

Location CP-FLN-NMS2 - Scattered Village House in Tong Hang (Existing)									
Date	Weather	Time	e Unit: dB (A) (5-min)		Unit: dB (A) (5-min)		Baseline Level		
			L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}		
		14:30	58.1	59.2	57.3				
		14:35	58.6	59.2	57.1				
6-Aug-20	Sunny	14:40	58.0	58.8	57.1	58.2			
0-Aug-20	Sunny	14:45	58.0	58.8	57.1	50.2			
		14:50	58.2	59.3	57.1		59.6		
		14:55	58.0	58.9	57.0				
		14:55	63.9	64.8	63.1	63.3			
		15:00	63.8	64.7	63.1				
12-Aug-20	Cloudy	15:05	63.4	63.9	62.6				
12-Aug-20	Cloudy	15:10	63.1	63.9	62.2				
		15:15	62.6	63.3	62.0				
		15:20	62.5	62.9	61.9				
		13:00	68.4	72.1	55.9				
		13:05	68.2	72.4	58.8				
18-Aug-20	Cloudy	13:10	70.2	73.9	57.2	69.2			
16-Aug-20	Cloudy	13:15	67.9	71.8	58.2	09.2			
		13:20	70.2	72.8	61.4				
		13:25	69.4	73.1	59.9				
		13:15	55.2	56.3	52.0				
		13:20	55.4	55.7	52.6				
24-Aug-20	Sunny	13:25	56.7	61.3	54.1	57.1			
24-7.0y-20	Sunny	13:30	56.6	57.5	55.5				
		13:35	57.1	57.8	56.0				
		13:40	59.7	61.3	56.4				

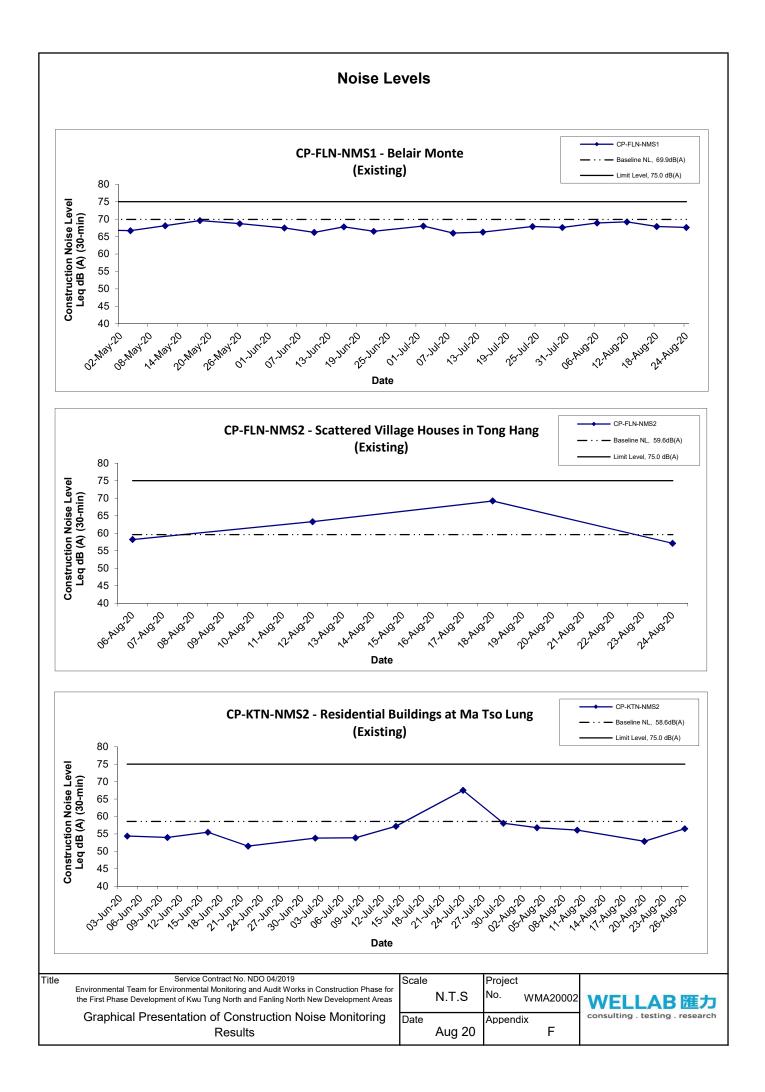
Appendix F - Noise Monitoring Results

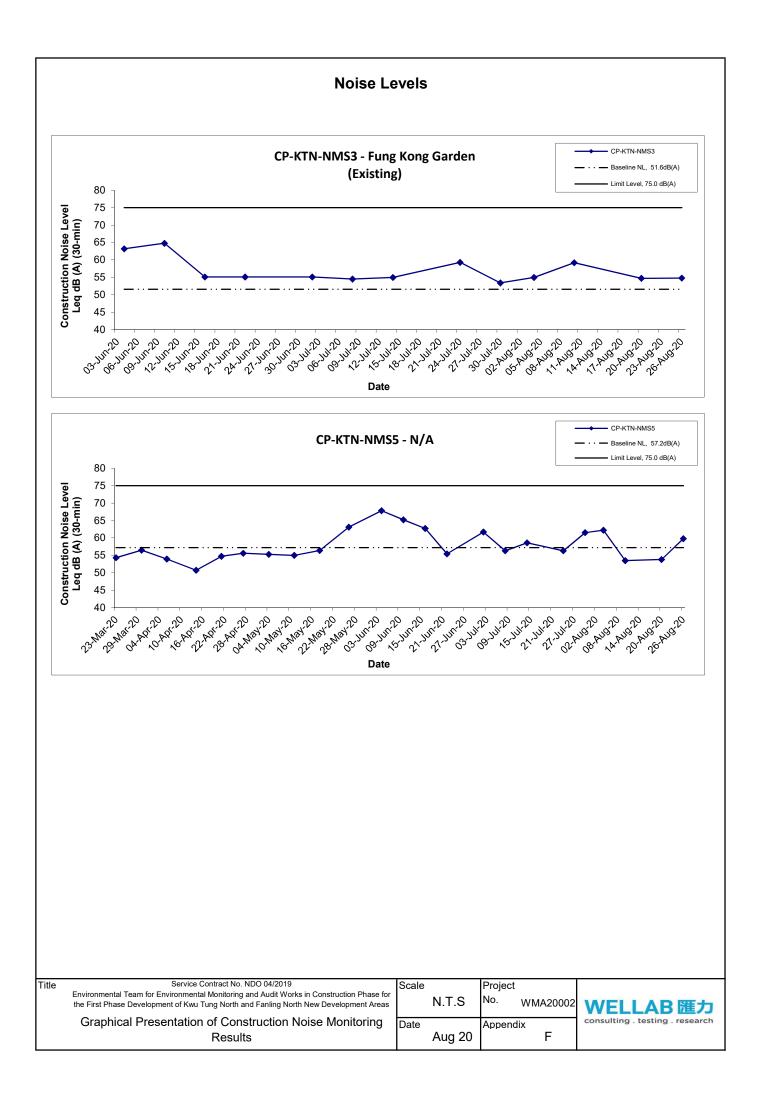
Location CP-KTN-NMS2 - Residential Buildings at Ma Tso Lung (Existing)									
Date	Weather	Time	Un	it: dB (A) (5-r	nin)	Average	Baseline Level		
			L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}		
		10:50	57.4	59.2	54.9				
		10:55	56.6	57.5	55.2				
4-Aug-20	Sunny	11:00	57.5	59.0	56.3	56.8			
4-Aug-20	Sunny	11:05	56.6	57.4	55.1	50.0			
		11:10	56.8	57.7	55.3				
		11:15	55.7	56.8	52.0				
		14:00	57.4	57.3	54.9		58.6		
		14:05	55.6	56.4	54.8	56.1			
10-Aug-20	Sunny	14:10	56.5	57.3	54.4				
10-Aug-20	Sunny	14:15	55.5	56.4	54.4				
		14:20	56.2	56.6	54.3				
		14:25	55.2	55.9	54.1				
		11:30	56.2	57.6	45.0				
		11:35	48.8	52.8	44.2				
20 444 20	Sunny	11:40	50.9	51.7	44.6	52.9			
20-Aug-20	Sunny	11:45	52.3	54.1	45.6	52.9			
		11:50	51.9	53.2	45.0				
		11:55	53.7	55.8	47.5				
		13:00	57.4	59.2	54.9				
		13:05	56.5	59.7	55.6				
26-Aug-20	Sunny	13:10	56.6	57.5	55.2	50.5			
20-Aug-20	Sunny	13:15	55.7	56.8	53.4	56.5			
		13:20	56.8	57.7	55.3				
		13:25	55.4	58.7	54.2				

Location CP-KTN-NMS3 - Fung Kong Garden (Existing)									
Date	Weather	Time	Un	it: dB (A) (5-r	nin)	Average	Baseline Level		
			L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}		
		11:30	54.3	56.7	53.2				
		11:35	54.9	56.9	53.5				
4-Aug-20	Sunny	11:40	53.8	56.0	52.6	55.0			
4-Aug-20	Sunny	11:45	54.6	56.6	54.4	00.0			
		11:50	54.8	56.7	53.9				
		11:55	56.8	58.7	55.6				
		14:45	49.7	50.1	44.7	59.2	51.6		
		14:50	53.6	54.6	44.5				
10-Aug-20	Sunny	14:55	64.1	72.0	52.1				
10-Aug-20	Suriny	15:00	60.1	61.9	52.5				
		15:05	53.9	54.3	52.2				
		15:10	58.9	59.6	52.4				
		9:15	55.5	56.5	54.3				
		9:20	56.2	57.8	54.1				
20-Aug-20	Sunny	9:25	54.2	56.2	47.6	54.7			
20-Aug-20	Suriny	9:30	53.8	55.1	46.5	34.7			
		9:35	54.1	56.2	47.5				
		9:40	53.8	55.5	46.7				
		14:00	54.3	57.0	53.6		1		
		14:05	55.5	57.9	53.8				
26 Aug 20	Suppy	14:10	54.6	57.0	53.8	E1 0			
26-Aug-20	Sunny	14:15	55.0	56.7	53.6	54.8			
		14:20	54.9	57.2	53.6				
		14:25	54.6	56.9	53.7				

Appendix F - Noise Monitoring Results

Location CP-KTN-NMS5 - N/A							
Date	Weather	Time	Unit: dB (A) (5-min)			Average	Baseline Level
			L _{eq}	L ₁₀	L 90	L _{eq}	L _{eq}
4-Aug-20	Sunny	10:00	62.7	65.6	59.8	62.2	57.2
		10:05	63.4	65.8	61.8		
		10:10	60.9	66.4	59.7		
		10:15	59.4	65.3	60.7		
		10:20	61.6	66.7	61.4		
		10:25	63.6	66.0	61.1		
10-Aug-20	Sunny	13:00	55.0	58.5	44.1	53.5	
		13:05	50.7	50.3	43.4		
		13:10	53.2	54.8	43.1		
		13:15	54.3	59.4	45.2		
		13:20	53.3	54.9	43.8		
		13:25	53.4	55.8	43.7		
20-Aug-20	Sunny	10:45	53.8	55.1	50.0	53.8	
		10:50	53.1	54.9	46.7		
		10:55	53.5	54.9	45.4		
		11:00	54.2	57.3	46.9		
		11:05	53.8	56.1	47.3		
		11:10	54.5	57.1	49.4		
26-Aug-20	Sunny	11:00	60.9	66.4	59.7	59.8	
		11:05	59.4	66.0	58.8		
		11:10	56.3	57.9	49.2		
		11:15	59.4	65.8	60.7		
		11:20	56.7	57.8	55.6		
		11:25	62.7	66.4	59.8		





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 & Infrastucture works

堆填區附近區域(Consultation Zone)每月氣體監察記錄

			氧氣 O2	甲烷 CH4	二氧化碳 CO2
日期及時間	位置	氣體及安全標 準	>19%	<10% LEL	<0.5%
19-08-2020 8:30	CZ PT 1		20.9	0	0
19-08-2020 8:40	CZ container 1		20.9	0	0
19-08-2020 8:43	CZ container 2		20.9	0	0
19-08-2020 8:46	CZ container 3		20.9	0	0
19-08-2020 8:49	CZ container 4		20.9	0	0

Prepared by : Matthew Cheng (Safety Officer)

Date : 29-08-2020

APPENDIX H ECOLOGICAL MONITORING RESULT

	ina Species Recorded for				Date		3/	8/2020			
					Weather	Condition	n R	ainy			
					Tidal Co	ondition	Н	igh			
			** **		Tide Le	vel (m)	2.	7			
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start Ti	me	1():10			
			Status	Status	Abunda	nce					
					Transec	t Walk					
					Т3	T5	T				
Barn Swallow	Hirundo rustica		DM Sy			WAL	DAL	SWH	Р	Heard	Flight 15
		家燕	PM, Sv								13
Black Drongo	Dicrurus macrocercus	黑卷尾	Sv			2					
Black-necked Starling	Sturnus nigricollis	黑領椋鳥	R			7	14			5	
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	РМ	RC				5			
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)		3	1				2
Common Greenshank	Tringa nebularia	青腳鷸	PM, WV	RC				2			
Common Koel	Eudynamys scolopacea	噪鵑	R				2				
Common Moorhen	Gallinula chloropus	黑水雞	R					1			
Common Tailorbird	Orthotomus sutorius	長尾縫葉鶯	R			1					
Crested Bulbul	Pycnonotus jocosus	紅耳鵯	R							2	
Crested Myna	Acridotheres cristatellus	八哥	R			1	3			2	3
Domestic Pigeon	Columba livia	原鴿	R			1	12				
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	R, PM	(LC)			1				
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R			2	38				
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)	2						

					Date			3/8/2020			
						r Conditio		Rainy			
						ondition		tigh			
					Tide Le			11g11 2.7			
Common Name	Spacias Nama	Chinese Name	Hong Kong	Conservation	Start Ti	. /		.0:10			
Common Name	Species Name	Chinese Name	Status	Status				0:10			
					Abunda						
					Transec						
					T3	T5	DAI	CIVIT	D	TT 1	T 1' 1 /
		褐翅鴉鵑	D		1	WAL	DAL	SWH	Р	Heard	Flight
Greater Coucal	Centropus sinensis		R	(VU)	1						
Green Sandpiper	Tringa ochropus	白腰草鷸	UPM, WV					2			
House Swift	Apus nipalensis	小白腰雨燕	SpM, R								1
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)	5						3
Little Ringed Plover	Charadrius dubius	金眶鴴	WV, PM	LC		15					
Long-tailed Shrike	Lanius schach	棕背伯勞	R				2				
Magpie Robin	Copsychus saularis	鵲鴝	R				2				
Masked Laughing	Garrulax	黑臉噪鶥	R			1				3	
Thrush	perspicillatus										
Red-billed Blue	Urocissa	紅咀藍鵲	R								1
Magpie	erythrorhyncha										
Plain Prinia	Prinia inornata	純色鷦鶯	R			2					
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R		1	4	9				1
Spotted Munia	Lonchura punctulata	斑文鳥	R			5					9
White Wagtail	Motacilla alba	白鶺鴒	PM, WV			4	4				2
White-breasted	Amaurornis	白胸苦惡鳥	R			1				2	
Waterhen	phoenicurus										
White-throated	Halcyon smyrnensis	白胸翡翠	R	(LC)	1						
Kingfisher											

					Date		3/3	8/2020			
					Weath	er Conditio	n Ra	uny			
					Tidal C	Condition	Hi	gh			
					Tide L	evel (m)	2.7	7			
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start T	ime	10	:10			
			Status	Status	Abund	ance					
					Transe	ct Walk					
					T3	Т5					
						WAL	DAL	SWH	Р	Heard	Flight
Wood Sandpiper	Tringa glareola	林鷸	WV, PM	LC				16			
Yellow-bellied Prinia	Prinia flaviventris	黃腹鷦鶯	R				2			4	
Yellow-browed Warbler	Phylloscopus inornatus	黃眉柳鶯	WV, SpM							1	
Total No. of Species					5	14	12	5	0	7	9
Total No. of Conserv	ation Interest Species				4	2	2	3	0	0	2
Sv – Summer Visitor; UI Status was decided accor Cap. 170: All bird specie	ter visitor; PM – Passage migra R – Uncommon resident; SWV ding to AFCD biodiversity web as are under protection of Wild A becies of Animals and Plants Or Data Book Status	– Scarce winter visitor osite (www.hkbiodiver Animals Protection Ore	sity.net)	; CaM - Common	autumn m	iigrant; USV	' - Uncom	mon Summ	er visitor	; SpM – Sprir	ig migrant:

VU: Vulnerable in IUCN Red List Status

(VU): Vulnerable in China Red Data Book Status

RC=Regional Concern; LC=Local Concern; PRC=Potential Regional 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

					Date		3/	8/2020			
					Weathe	er Conditio	on Ra	ainy			
					Tidal C	Condition	L	ow			
					Tide Le	evel (m)	1.	06			
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start T	ime	15	5:00			
			Status	Status	Abunda	ance					
					Transe	et Walk					
					T3	T5					-
						WAL	DAL	SWH	Р	Heard	Flight
Barn Swallow	Hirundo rustica	家燕	PM, Sv								1
Black-necked Starling	Sturnus nigricollis	黑領椋鳥	R			1	6			6	
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC		1		4			
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	2	5	2				2
Common Greenshank	Tringa nebularia	青腳鷸	PM, WV	RC		2					
Common Koel	Eudynamys scolopacea	噪鵑	R				3				
Common Moorhen	Gallinula chloropus	黑水雞	R					1			
Common Myna	Acridotheres tristis	家八哥	UR		17						
Crested Bulbul	Pycnonotus jocosus	紅耳鵯	R				3				
Crested Myna	Acridotheres cristatellus	八哥	R		7		6				2
Domestic Pigeon	Columba livia	原鴿	R			5				7	
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R				3				5
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)	3						

	ina species Recorded io		6/		Date		3	/8/2020			
					Weathe	r Condition	n R	ainy			
					Tidal C	ondition	L	ow			
					Tide Le	vel (m)	1	.06			
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start Ti	me	1	5:00			
			Status	Status	Abunda	nce					
					Transec	t Walk					
					Т3	T5					
						WAL	DAL	SWH	Р	Heard	Flight
Greater Coucal	Centropus sinensis	褐翅鴉鵑	R	(VU)			1				
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)	9	1	1				2
Little Ringed Plover	Charadrius dubius	金眶鴴	WV, PM	LC		6		2			
Long-tailed Shrike	Lanius schach	棕背伯勞	R			1					
Magpie	Pica pica	喜鵲	R				1				
Magpie Robin	Copsychus saularis	鵲鴝	R				3				1
Plain Prinia	Prinia inornata	純色鷦鶯	R				1				
Red-billed Blue Magpie	Urocissa erythrorhyncha	紅咀藍鵲	R				2				
Sooty-headed Bulbul	Pycnonotus aurigaster	白喉紅臀鵯	UR			2					
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R			3	3				1
Spotted Munia	Lonchura punctulata	斑文鳥	R				12				
White Headed Munia	Lonchura maja	白頭文鳥	R								30
White Wagtail	Motacilla alba	白鶺鴒	PM, WV			5	6			1	3
White-breasted	Amaurornis	白胸苦惡鳥	R			3		2		3	
Waterhen	phoenicurus					-					
Wood Sandpiper	Tringa glareola	林鷸	WV, PM	LC		11		13			

					Date		3/8	/2020			
					Weathe	r Conditio	n Ra	iny			
		Species Passage migrant; UPM – Uncommon esident; SWV – Scarce winter visitor odiversity website (www.hkbiodivers ction of Wild Animals Protection Ord s and Plants Ordinance k Status rn; PRC=Potential Regional Concern.			Tidal C	ondition	Lo	W			
					Tide Le	evel (m)	1.0	6			
Common Name	Species Name	Chinese Name	Hong Kong	Conservation	Start Ti	me	15:	:00			
			Status	Status	Abunda	ince					
					Transec	t Walk					
					Т3	T5					
						WAL	DAL	SWH	Р	Heard	Flight
Total No. of Species					5	13	15	5	0	4	9
Total No. of Conservation	on Interest Species				3	6	3	3	0	0	2
Sv – Summer Visitor; UR – Status was decided according Cap. 170: All bird species an Cap.586 : Endangered Specie CR: Rare in China Red Data VU: Vulnerable in IUCN Re (VU): Vulnerable in China R RC=Regional Concern; LC=	Uncommon resident; SWV – S g to AFCD biodiversity websit e under protection of Wild An es of Animals and Plants Ordin Book Status d List Status Local Concern; PRC=Potentia ccurrence (Fellowes et al. (200 d	Scarce winter visitor e (www.hkbiodivers imals Protection Oro nance l Regional Concern	sity.net) linance								

	Ina Species Recorded to			1 11ugust 2020	, ingli I	luc					
					Date		1	1/8/2020			
					Weathe	er Conditio	n C	Cloudy with	showers		
					Tidal C	Condition	H	ligh			
					Tide L	evel (m)	1	.71			
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start T	ime	1	4:30			
			Status	Status	Abunda	ance					
					Transe	ct Walk					
					Т3	T5					
						WAL	DAL	SWH	Р	Heard	Flight
Barn Swallow	Hirundo rustica	家燕	PM, Sv			9					14
Black-necked Starling	Sturnus nigricollis	黑領椋鳥	R		4		5			2	
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC	1	4		10			1
Chestnut Munia	Lonchura atricapilla	栗腹文鳥	R				3				
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	6	6	1	2			1
Common Greenshank	Tringa nebularia	青腳鷸	PM, WV	RC				2			
Common Moorhen	Gallinula chloropus	黑水雞	R					1			
Common Myna	Acridotheres tristis	家八哥	UR		4		11				
Common Sandpiper	Actitis hypoleucos	磯鷸	WV, PM		2			1			
Common Tailorbird	Orthotomus sutorius	長尾縫葉鶯	R				3				
Crested Bulbul	Pycnonotus jocosus	紅耳鵯	R		4						
Crested Myna	Acridotheres cristatellus	八哥	R		23		7			1	1
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R		3		67				
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)	4	1					
Hair-crested Drongo	Dicrurus hottentottus	髮冠卷尾	PM, SV				1				
Japanese White-eye	Zosterops japonicus	暗綠繡眼鳥	R				5				

Appendix HIC. Avitat	ina Species Recorded to	r water birus i	nonitoring, 1	I August 2020,	<u>, nigii 1</u>	lue					
					Date		1	1/8/2020			
					Weathe	r Conditio	n C	loudy with	showers		
					Tidal C	ondition	Н	ligh			
					Tide Le	vel (m)	1	.71			
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start Ti	me	1	4:30			
			Status	Status	Abunda	nce					
					Transec	t Walk					
					T3	T5			_		
						WAL	DAL	SWH	Р	Heard	Flight
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)	21	2		2			
Little Ringed Plover	Charadrius dubius	金眶鴴	WV, PM	LC			6				
Magpie Robin	Copsychus saularis	鵲鴝	R							1	
Masked Laughing	Garrulax	黑臉噪鶥	R		3		1				
Thrush	perspicillatus										_
Red-Rumped Swallow	Hirundo daurica	金腰燕	UPM								2
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R		7	14				4	
Spotted Munia	Lonchura punctulata	斑文鳥	R			14	50				6
White Wagtail	Motacilla alba	白鶺鴒	PM, WV			3	2			1	3
White-breasted	Amaurornis	白胸苦惡鳥	R				1	1			
Waterhen	phoenicurus										_
White-throated	Halcyon smyrnensis	白胸翡翠	R	(LC)			1				
Kingfisher		1174									
Wood Sandpiper	Tringa glareola	林鷸	WV, PM	LC		8		9			<u> </u>
Yellow-bellied	Prinia flaviventris	黃腹鷦鶯	R		1		1			3	
Prinia											
Total No. of Species					13	9	16	8	0	6	7
Total No. of Conservati	on Interest Species				4	5	3	5	0	0	2

					Date		11/	8/2020			
					Weather	Condition	n Clo	oudy with s	showers		
				Tidal Co	ondition	Hig	gh				
			~ .	Tide Lev	vel (m)	1.7	1				
Common Name		Hong Kong Status									
			Status	Status	Abundar	nce					
					Transect	Walk					
					T3	T5					
						WAL	DAL	SWH	Р	Heard	Flight

Note:

R-Resident; WV-Winter visitor; PM-Passage migrant; UPM-Uncommon passage migrant; CaM - Common autumn migrant; USV - Uncommon Summer visitor; SpM-Spring migrant;

Sv - Summer Visitor; UR - Uncommon resident; SWV - Scarce winter visitor

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

CR: Rare in China Red Data Book Status

VU: Vulnerable in IUCN Red List Status

(VU): Vulnerable in China Red Data Book Status

RC=Regional Concern; LC=Local Concern; PRC=Potential Regional 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

	Ina Species Recorded to			I Mugust 2020	Í	luc					
					Date		1	1/8/2020			
					Weathe	er Conditio	n C	loudy with	showers		
					Tidal C	Condition	L	ow			
					Tide Le	evel (m)	1				
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start Ti	ime	10	0:00			
			Status	Status	Abunda	ance					
					Transee	ct Walk					
					Т3	T5					
						WAL	DAL	SWH	Р	Heard	Flight
Barn Swallow	Hirundo rustica	家燕	PM, Sv				1				3
Black-necked Starling	Sturnus nigricollis	黑領椋鳥	R		1		19			4	1
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC	3			12			
Black Kite	Milvus migrans	黑鳶	R, WV	(RC), Cap.586							1
Chestnut Munia	Lonchura atricapilla	栗腹文鳥	R				2				
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	12	1	3	1			1
Common Greenshank	Tringa nebularia	青腳鷸	PM, WV	RC	3						
Common Moorhen	Gallinula chloropus	黑水雞	R					1			
Common Sandpiper	Actitis hypoleucos	磯鷸	WV, PM		3						
Crested Bulbul	Pycnonotus jocosus	紅耳鵯	R				3			8	
Crested Myna	Acridotheres cristatellus	八哥	R				2			2	
Domestic Pigeon	Columba livia	原鴿	R				4				
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	R, PM	(LC)	1						
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R			76					

					Date		11	/8/2020			
						r Conditio		oudy with	showers		
					Tidal Co		Lo				
					Tide Le	vel (m)	1				
Common Name	Species Name	Chinese Name	Hong Kong	Conservation	Start Ti	me	10	:00			
			Status	Status	Abunda	nce					
					Transec	t Walk					
					T3	T5					
						WAL	DAL	SWH	Р	Heard	Flight
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)	5						
Green Sandpiper	Tringa ochropus	白腰草鷸	UPM, WV		2						
Hair-crested Drongo	Dicrurus hottentottus	髮冠卷尾	PM, SV				1				
House Swift	Apus nipalensis	小白腰雨燕	SpM, R								1
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)	23	1	1	1			5
Little Ringed Plover	Charadrius dubius	金眶鴴	WV, PM	LC		4					
Long-tailed Shrike	Lanius schach	棕背伯勞	R				2				
Magpie	Pica pica	喜鵲	R				1				
Magpie Robin	Copsychus saularis	鵲鴝	R				1				
Masked Laughing	Garrulax	黑臉噪鶥	R				2				
Thrush	perspicillatus										
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R		1		15	1			1
Spotted Munia	Lonchura punctulata	斑文鳥	R				12				
White Headed	Lonchura maja	白頭文鳥	R				60				
Munia											
White Wagtail	Motacilla alba	白鶺鴒	PM, WV		3	1	9				2
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R				2	3			

	inu species necoraca io		,,, ,,,,	_ ,	,						
					Date		11	/8/2020			
					Weather	r Condition	Cl	oudy with	showers		
					Tidal Co	ondition	Lo	OW			
					Tide Le	vel (m)	1				
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start Ti	me	10):00			
			Status	Status	Abunda	nce					
					Transec	t Walk					
					T3	T5					
						WAL	DAL	SWH	Р	Heard	Flight
White-throated Kingfisher	Halcyon smyrnensis	白胸翡翠	R		1						
Wood Sandpiper	Tringa glareola	林鷸	WV, PM	LC		14					
Yellow-bellied Prinia	Prinia flaviventris	黃腹鷦鶯	R							1	
Total No. of Species					12	6	18	6	0	4	8
Total No. of Conservation	on Interest Species				6	4	2	3	0	0	3
Sv – Summer Visitor; UR – U Status was decided according Cap. 170: All bird species are Cap.586 : Endangered Specie CR: Rare in China Red Data VU: Vulnerable in IUCN Red (VU): Vulnerable in China R RC=Regional Concern; LC=	d List Status ed Data Book Status Local Concern; PRC=Potentia ccurrence (Fellowes et al. (200 1	carce winter visitor e (www.hkbiodivers mals Protection Ord nance l Regional Concern.	ity.net) inance			-					

					Date		18/8	/2020			
						Condition			howers T	yphoon sig	mal No 1
					Tidal Co		High	•	nowers, r	yphoon sig	
					Tide Le		2.73				
Common Name	Species Name	Chinese Name	Hong Kong	Conservation	Start Ti	. ,	10:0				
	Species Ivanie	Chinese Ivanie	Status	Status	Abunda		10.0	0			
					Transec						
					T3	T5					
					15	WAL	DAL	SWH	Р	Heard	Flight
Barn Swallow	Hirundo rustica	家燕	PM, Sv				DILL	D (11	-	Incura	8
Black-necked Starling	Sturnus nigricollis	黑領椋鳥	R				15			3	
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	РМ	RC				7			
Black Kite	Milvus migrans	黑鳶	R, WV	(RC), Cap.586							1
Chestnut Munia	Lonchura atricapilla	栗腹文鳥	R				1				
Chinese Bulbul	Pycnonotus sinensis	白頭鵯	R				1				
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	8	4	6	1			4
Collared Crow	Corvus torquatus	白頸鴉	UR	LC, VU			1				
Common Greenshank	Tringa nebularia	青腳鷸	PM, WV	RC		2					
Common Kingfisher	Alcedo atthis	普通翠鳥	R					1			
Common Koel	Eudynamys scolopacea	噪鵑	R				2			1	
Common Moorhen	Gallinula chloropus	黑水雞	R					1			
Common Myna	Acridotheres tristis	家八哥	UR		2						
Common Sandpiper	Actitis hypoleucos	磯鷸	WV, PM		1						

			<u> </u>							
				Date		18/8/	2020			
				Weathe	er Condition	Clou	dy with sh	lowers, T	yphoon sig	nal No.1
				Tidal C	ondition	High				
				Tide Le	evel (m)	2.73				
Species Name	Chinese Name			Start Ti	me	10:00	0			
		Status	Status	Abunda	ance					
				Transec	ct Walk					
				T3	T5		_	_		
					WAL	DAL	SWH	Р	Heard	Flight
Orthotomus sutorius	長尾縫葉鶯	R				4				
Pycnonotus jocosus	紅耳鵯	R			5					
Acridotheres cristatellus	八哥	R		3	11					
Columba livia	原鴿	R			2					
Bubulcus coromandus	牛背鷺	R, PM	(LC)	1						
Passer montanus	樹麻雀	R				22				3
Ardea alba	大白鷺	R, WV	PRC(RC)	4			1	1		
Centropus sinensis	褐翅鴉鵑	R	(VU)						1	
Tringa ochropus	白腰草鷸	UPM, WV					1			
Dicrurus hottentottus	髮冠卷尾	PM, SV			2					
Apus nipalensis	小白腰雨燕	SpM, R								2
Zosterops japonicus	暗綠繡眼鳥	R			2					
Corvus macrorhynchus	大嘴烏鴉	R							3	
Egretta garzetta	小白鷺	R	PRC(RC)	28	1	1	1			22
	Species NameOrthotomus sutoriusPycnonotus jocosusAcridotheres cristatellusColumba liviaBubulcus coromandusPasser montanusArdea albaCentropus sinensisTringa ochropusDicrurus hottentottusApus nipalensisZosterops japonicusCorvus macrorhynchus	Species NameChinese NameOrthotomus sutorius長尾縫葉鶯Pycnonotus jocosus紅耳鵯Acridotheres cristatellus八哥Columba livia原鴿Bubulcus coromandus牛背鷺Passer montanus樹麻雀Ardea alba大白鷺Centropus sinensis褐翅鴉鵑Tringa ochropus白腰草鷸Dicrurus hottentottus髮冠卷尾Apus nipalensis小白腰雨燕Zosterops japonicus暗綠繡眼鳥Corvus macrorhynchus上白鷺	Species Name Chinese Name Hong Kong Status Orthotomus sutorius 長尾縫葉鶯 R Pycnonotus jocosus 紅耳鵯 R Acridotheres 八哥 R cristatellus 原鴿 R Columba livia 原鴿 R Bubulcus coromandus 牛背鷺 R, PM Passer montanus 樹麻雀 R Ardea alba 大白鷺 R, WV Centropus sinensis 档翅鴉鵑 R Tringa ochropus 白腰草鷸 UPM, WV Dicrurus hottentottus 髮冠卷尾 PM, SV Apus nipalensis 小白腰雨燕 SpM, R Zosterops japonicus 暗綠繡眼鳥 R Corvus 大嘴鳥鴉 R	Species Name Chinese Name Hong Kong Status Conservation Status Orthotomus sutorius 長尾縫葉鶯 R	Species Name Chinese Name Hong Kong Status Date Weather Tidal C Tide Le Start Ti Abunda Transee T3 Orthotomus sutorius 長尾縫葉鶯 R Conservation Status Start Ti Abunda Transee T3 Orthotomus sutorius 長尾縫葉鶯 R Pycnonotus jocosus 紅耳鵯 R Acridotheres T3 Acridotheres 八哥 R 3 3 Columba livia 原鴿 R 3 Bubulcus coromandus 牛背鷺 R, PM (LC) 1 1 Passer montanus 樹麻雀 R 4 Ardea alba 大白鷺 R, WV PRC(RC) 4 4 Centropus sinensis 楢翅聯龍 R (VU) 1 Tringa ochropus 白腰草鷸 UPM, WV 5 Dicrurus hottentottus 髮冠卷尾 PM, SV 4 Apus nipalensis 小白腰雨燕 R 2 5 Corvus 大嘴鳥鴉 R 5 5 Maintelle R 5 5 5 Katus 小白腰雨燕 R 5 5 5 Corvus 大嘴鳥鴉 R 5 5 Apus nipalensis 小白腰雨燕 R 5 5 5 <	Species Name Chinese Name Hong Kong Status Conservation Status Weather Condition Tidal Contion Status Orthotomus sutorius 長尾縫葉鶯 R Image: Conservation Status Start Time Abundance Transeet Walk Orthotomus sutorius 長尾縫葉鶯 R Image: Conservation Status Start Time Abundance Pycnonotus jocosus 紅耳鵯 R Image: Conservation Status Start Time Abundance Columba livia 原鴿 R Image: Conservation Status Start Time Abundance Passer montanus 樹麻雀 R Image: Conservation Status Image: C	Species Name Chinese Name Hong Kong Status Date 18/8, Weather Condition 18/8, Weather Condition Species Name Chinese Name Hong Kong Status Conservation Status Conservation Status Conservation Status Conservation Status Time 10:00 Advandance Transect Walk Transect Walk Transect Walk DAL Orthotomus sutorius 長尾縫葉鶯 R 4 4 Pycnonotus jocosus 紅耳鵯 R 5 4 Acridotheres cristatellus 八哥 R 3 11 Columba livia 原鴿 R 2 2 Bubulcus coromandus 牛背鷺 R, PM (LC) 1 2 Passer montanus 樹麻雀 R 22 2 Ardea alba 大白鷺 R, WV PRC(RC) 4 2 Dicrurus hottentottus 髮冠卷尾 PM, SV 2 2 Apus nipalensis 小白腰雨燕 SpM, R 2 2 Apus nipalensis 小白腰雨燕 R 2 2	Species Name Chinese Name Hong Kong Status Date 18/8/2020 Weather Condition Cloudy with sh Tidal Condition High Tide Level (m) 2.73 Species Name E E E E E E Orthotomus sutorius E <td< td=""><td>Species Name Chinese Name Hong Kong Status Date 18/8/2020 Verther Condition High Cloudy with showers, T Tidal Condition High Tide Level (m) 2.73 Status St</td><td>Species Name Chinese Name Hong Kong Status Date 18/8/2020 Mong Kong Status Hong Kong Status Conservation Status Cloudy with showers, Typhoon sig Tidal Condition High Species Name Hong Kong Status Conservation Status High 10:00 Species Name E R 10:00 10:00 Abundance Transact Walk Transact Walk P Heard Orthotomus sutorius E R 5 0 0 Acridotheres Cili R 5 0 0 0 Columba livia D R, PM (LC) 1 0 0 0 Passer montanus Mim & R 0 0 0 0 0 0 Ardea alba 大白鹭 R 0 <t< td=""></t<></td></td<>	Species Name Chinese Name Hong Kong Status Date 18/8/2020 Verther Condition High Cloudy with showers, T Tidal Condition High Tide Level (m) 2.73 Status St	Species Name Chinese Name Hong Kong Status Date 18/8/2020 Mong Kong Status Hong Kong Status Conservation Status Cloudy with showers, Typhoon sig Tidal Condition High Species Name Hong Kong Status Conservation Status High 10:00 Species Name E R 10:00 10:00 Abundance Transact Walk Transact Walk P Heard Orthotomus sutorius E R 5 0 0 Acridotheres Cili R 5 0 0 0 Columba livia D R, PM (LC) 1 0 0 0 Passer montanus Mim & R 0 0 0 0 0 0 Ardea alba 大白鹭 R 0 <t< td=""></t<>

				<u></u>	<u>,</u>						
					Date		18/8/	2020			
					Weather	r Condition	Clou	dy with sh	lowers, Ty	phoon sig	nal No.1
					Tidal C	ondition	High				
					Tide Le	vel (m)	2.73				
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start Ti	me	10:00)			
			Status	Status	Abunda	ince					
					Transec	t Walk					
					T3	T5		T	T		
						WAL	DAL	SWH	Р	Heard	Flight
Little Ringed Plover	Charadrius dubius	金眶鴴	WV, PM	LC		21					
Long-tailed Shrike	Lanius schach	棕背伯勞	R				1				
Magpie Robin	Copsychus saularis	鵲鴝	R			1	5	1			
Masked Laughing Thrush	Garrulax perspicillatus	黑臉噪鶥	R		3	5					
Sooty-headed Bulbul	Pycnonotus aurigaster	白喉紅臀鵯	UR			5					
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R		3	29	5		1		
Spotted Munia	Lonchura punctulata	斑文鳥	R		2						80
White Headed Munia	Lonchura maja	白頭文鳥	R			92					
White Wagtail	Motacilla alba	白鶺鴒	PM, WV		1	2				1	2
White-throated Kingfisher	Halcyon smyrnensis	白胸翡翠	R				2				
Wood Sandpiper	Tringa glareola	林鷸	WV, PM	LC	2			3			
Yellow-bellied Prinia	Prinia flaviventris	黃腹鷦鶯	R			1				4	
Total No. of Species	al No. of Species				12	16	13	9	2	6	8
Total No. of Conservati	of Conservation Interest Species					4	3	5	1	1	3

					Date		18/8/2	2020			
		ies Name Chinese Name Hong Kong Status Hong Kong Status $Prime Prime Pr$	n Cloud	ly with sh	owers, Ty	phoon sig	nal No.1				
					Tide Lev	vel (m)	-				
Common Name	Species Name	Chinese Name				. ,	10:00)			
	1		Status	Status	Abunda	nce					
							DAL	SWH	Р	Heard	Flight
Note:								~==	-		8
R – Resident; WV – Winter	visitor; PM – Passage migrant;	UPM – Uncommon	passage migrant;	CaM - Common a	autumn mig	grant; USV	- Uncomm	non Summe	r visitor; S	pM – Sprin	g migrant;
	Uncommon resident; SWV - S										
	g to AFCD biodiversity websit										
	e under protection of Wild An		linance								
	es of Animals and Plants Ordin	nance									
CR: Rare in China Red Data	Book Status										
VU: Vulnerable in IUCN Re											
(VU): Vulnerable in China F											
	Local Concern; PRC=Potentia		. Letters in parent	theses indicate that	t the assess	ment is on	the basis o	of restricted	ness in bre	eding and/c	or roosting
	ccurrence (Fellowes et al. (200	2)									
WAL: Wet Agricultural Lan											
DAL: Dry Agricultural Land											
SWH: Shallow Water Habita	at										
P: Pond											

					Date			18/8/2020			
					Weathe	er Conditic		Windy, cloue Typhoon sig	•		
					Tidal C	Condition		Low			
Common Name	Species Name	Chinese Name	Hong Kong	Conservation	Tide L	evel (m)		0.88			
Common Name	species Manie	Chinese Name	Status	Status	Start T	ime		15:00			
					Abund	ance					
					Transe	ct Walk					
					T3	T5	1		1		
						WAL	DAI	L SWH	Р	Heard	Flight
Barn Swallow	Hirundo rustica	家燕	PM, Sv								3
Black-necked Starling	Sturnus nigricollis	黑領椋鳥	R			2	2			4	
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC				4			
Chinese Bulbul	Pycnonotus sinensis	白頭鵯	R				3				
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	2	1	1	2			1
Common Greenshank	Tringa nebularia	青腳鷸	PM, WV	RC				1			
Common Moorhen	Gallinula chloropus	黑水雞	R					2			
Common Sandpiper	Actitis hypoleucos	磯鷸	WV, PM		2						
Crested Bulbul	Pycnonotus jocosus	紅耳鵯	R				1				
Crested Myna	Acridotheres cristatellus	八哥	R				1				
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R				9				16
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)	4						
Jungle Crow	Corvus macrorhynchus	大嘴烏鴉	R		1						
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)	26	3	1				

					Date		1	8/8/2020						
					Weather	r Conditio	n V	vindy, cloud	cloudy with showers, n signal No.3					
								•	•	Heard 1 Heard 1 				
					Tidal C	ondition	L	ow						
	G ' N		Hong Kong	Conservation	Tide Le	vel (m)	0	.88						
Common Name	Species Name	Chinese Name	Status	Status	Start Ti	me	1	5:00						
					Abunda	nce								
					Transec	t Walk								
					T3	T5	1		T	1				
						WAL	DAL	SWH	Р	Heard	Flight			
Little Ringed Plover	Charadrius dubius	金眶鴴	WV, PM	LC		11								
Magpie Robin	Copsychus saularis	鵲鴝	R				1							
Masked Laughing Thrush	Garrulax perspicillatus	黑臉噪鶥	R				4							
Red-Rumped Swallow	Hirundo daurica	金腰燕	UPM								2			
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R				8							
Spotted Munia	Lonchura punctulata	斑文鳥	R				5							
White Wagtail	Motacilla alba	白鶺鴒	PM, WV		1						2			
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R			1								
Wood Sandpiper	Tringa glareola	林鷸	WV, PM	LC		3								
Yellow-bellied Prinia	Prinia flaviventris	黃腹鷦鶯	R							1				
Total No. of Species	otal No. of Species				6	6	11	4	0	2	5			
Total No. of Conservati	on Interest Species			3	4	2	3	0	0	1				

Appendix IIII. Av	nauna Species Recorded	1 IOI WATEL DILUS IN	Tomtoring, 10	5 August 2020,							
					Date		18/	8/2020			
					Weather	Condition	n Wi	ndy, cloud	y with s	howers,	
							Ty	phoon sign	al No.3		
					Tidal Co	ondition	Lo	W			
			Hong Kong	Conservation	Tide Lev	vel (m)	0.8	8			
Common Name	Species Name	Chinese Name	Status	Status	Start Tir	ne	15:	00			
					Abundar	nce					
					Transect	Walk					
					T3	T5					
						WAL	DAL	SWH	Р	Heard	Flight
Note:											
	nter visitor; PM – Passage migr R – Uncommon resident; SWV			; CaM - Common a	autumn mig	grant; USV	- Uncomn	non Summe	r visitor;	SpM – Sprii	ng migrant;
	rding to AFCD biodiversity we										
	es are under protection of Wild										
	pecies of Animals and Plants (
CR: Rare in China Red	-										
VU: Vulnerable in IUC	N Red List Status										
(VU): Vulnerable in Ch	ina Red Data Book Status										
RC=Regional Concern;	LC=Local Concern; PRC=Pote	ential Regional Concern	Letters in paren	theses indicate that	t the assess	ment is on	the basis c	of restricted	ness in br	eeding and/	or roosting
	ral occurrence (Fellowes et al.	(2002)									
WAL: Wet Agricultural											
DAL: Dry Agricultural											
SWH: Shallow Water H	abitat										

P: Pond

	ina species Recorded in		, iointoi ing, i		,	Iuc					
					Date		2:	5/8/2020			
					Weathe	r Condition	n S	unny			
					Tidal C	ondition	Н	igh			
					Tide Le	evel (m)	1.	86			
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start Ti	me	1:	5:00			
			Status	Status	Abunda	ance					
					Transeo	ct Walk					
					T3	T5					
						WAL	DAL	SWH	Р	Heard	Flight
Barn Swallow	Hirundo rustica	家燕	PM, Sv				6				6
Black-necked Starling	Sturnus nigricollis	黑領椋鳥	R		1		27			2	3
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC	6	14					9
Chinese Bulbul	Pycnonotus sinensis	白頭鵯	R				1				
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	1	2					1
Common Greenshank	Tringa nebularia	青腳鷸	PM, WV	RC		1					
Common Kingfisher	Alcedo atthis	普通翠鳥	R								1
Common Koel	Eudynamys scolopacea	噪鵑	R				1				
Common Myna	Acridotheres tristis	家八哥	UR		2	3					
Crested Bulbul	Pycnonotus jocosus	紅耳鵯	R				2				
Crested Myna	Acridotheres cristatellus	八哥	R		1		24				
Domestic Pigeon	Columba livia	原鴿	R				3				
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	R, PM	(LC)	1						

	lina Species Recorded to		, <u></u> ,			lue		51012020			
					Date			25/8/2020			
					Weather	Condition	n S	Sunny			
					Tidal Co	ondition	ŀ	ligh			
					Tide Le	vel (m)	1	.86			
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start Ti	ne	1	5:00			
			Status	Status	Abunda	nce					
					Transec	t Walk					
					Т3	T5					
						WAL	DAL	SWH	Р	Heard	Flight
Eastern Yellow	Motacilla	東黃鶺鴒	PM, WV				1				
Wagtail	tschutschensis		,								
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R				6				
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)					1		
Green Sandpiper	Tringa ochropus	白腰草鷸	UPM, WV		2	1					
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)	12	2					
Long-tailed Shrike	Lanius schach	棕背伯勞	R			1					
Magpie	Pica pica	喜鵲	R		1						
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R		7	5	9	1			4
Spotted Munia	Lonchura punctulata	斑文鳥	R		2	6					
White Headed	Lonchura maja	白頭文鳥	R				40				
Munia											_
White Wagtail	Motacilla alba	白鶺鴒	PM, WV			1	3				2
Wood Sandpiper	Tringa glareola	林鷸	WV, PM	LC		7					
Yellow-bellied Prinia	Prinia flaviventris	黃腹鷦鶯	R							2	
Total No. of Species	l No. of Species					11	12	1	1	2	7
Total No. of Conservation	of Conservation Interest Species						0	0	1	0	2

					Date		25/8	8/2020			
					-	Condition					
					Tidal Co	ondition	Hig	h			
					Tide Lev	vel (m)	1.80	5			
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start Tin	ne	15:0	00			
			Status	Status	Abundar	nce					
					Transect	Walk					
					Т3	T5					
						WAL	DAL	SWH	Р	Heard	Flight
Note:											

R - Resident; WV - Winter visitor; PM - Passage migrant; UPM - Uncommon passage migrant; CaM - Common autumn migrant; USV - Uncommon Summer visitor; SpM - Spring migrant; Sv - Summer Visitor; UR - Uncommon resident; SWV - Scarce winter visitor

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

CR: Rare in China Red Data Book Status

VU: Vulnerable in IUCN Red List Status

(VU): Vulnerable in China Red Data Book Status

RC=Regional Concern; LC=Local Concern; PRC=Potential Regional 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

	una species Recorded R	i water biras i	10mr01mg, 2	e magase zozo	,	ue					
					Date		2	25/8/2020			
					Weather	r Conditio	n S	Sunny			
					Tidal Co	ondition	Ι	LOW			
					Tide Le	vel (m)	0).75			
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start Ti	me	1	0:00			
			Status	Status	Abunda	nce					
					Transec	t Walk					
					T3	T5			1		1
						WAL	DAL	SWH	Р	Heard	Flight
Barn Swallow	Hirundo rustica	家燕	PM, Sv				2				
Black Kite	Milvus migrans	黑鳶	R, WV	(RC), Cap.586							1
Black-necked Starling	Sturnus nigricollis	黑領椋鳥	R				2			3	
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	РМ	RC		9		3			
Chinese Bulbul	Pycnonotus sinensis	白頭鵯	R				2				
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	9			1			1
Collared Crow	Corvus torquatus	白頸鴉	UR	LC, VU	2						
Common Kingfisher	Alcedo atthis	普通翠鳥	R			1					
Common Koel	Eudynamys scolopacea	噪鵑	R							1	
Common Moorhen	Gallinula chloropus	黑水雞	R					3			
Crested Bulbul	Pycnonotus jocosus	紅耳鵯	R				1			4	
Crested Myna	Acridotheres cristatellus	八哥	R				1				
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	R, PM	(LC)	1						

	ina species Recorded io		10111011115, 20									
					Date		25	5/8/2020				
					Weather	Condition	n Su	unny				
					Tidal Condition Tide Level (m)		L	Low				
			XX X				0.	0.75				
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start Ti	ne	10):00				
				2	Abunda	nce						
					Transec	t Walk						
					T3 T5	T5	r		y SWH P Heard F 2 6 1 1 2 6 1 1 3 2 1 3 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
						WAL	DAL	SWH	Р	Heard	Flight	
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R				9					
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)	5							
Green Sandpiper	Tringa ochropus	白腰草鷸	UPM, WV		3							
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)	24	2	1	2			6	
Magpie	Pica pica	喜鵲	R								1	
Magpie Robin	Copsychus saularis	鵲鴝	R				1					
Masked Laughing Thrush	Garrulax perspicillatus	黑臉噪鶥	R				2					
Plain Prinia	Prinia inornata	純色鷦鶯	R		2							
Sooty-headed Bulbul	Pycnonotus aurigaster	白喉紅臀鵯	UR				3					
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R		2		9			3	2	
Spotted Munia	Lonchura punctulata	斑文鳥	R		5							
White Headed Munia	Lonchura maja	白頭文鳥	R				50					
White-throated Kingfisher	Halcyon smyrnensis	白胸翡翠	R	(LC)		1						
Wood Sandpiper	Tringa glareola	林鷸	WV, PM	LC		4		3				

Appendix H1n. Aviiat	and species Recorded R	i water birus i	1011101 mg, 2	5 August 2020		luc					
					Date		25	5/8/2020			
					Weathe	er Conditio	on Su	inny			
					Tidal C	Condition	Lo	ow			
					Tide L	evel (m)	0.	75			
Common Name	Species Name	Chinese Name	Hong Kong	Conservation	Start T	ime	10	10:00			
			Status	Status	Abunda						
					Transe	ct Walk					
					Т3	T5					
			r		WAL	DAL	SWH	Р	Heard	Flight	
Yellow-bellied Prinia	Prinia flaviventris	黃腹鷦鶯	R							4	
Total No. of Species		·			9	5	12	5	0	5	5
Total No. of Conservation	on Interest Species				5	4	1	4	0	0	3
Sv – Summer Visitor; UR – U Status was decided according Cap. 170: All bird species are Cap.586 : Endangered Specie CR: Rare in China Red Data VU: Vulnerable in IUCN Red (VU): Vulnerable in China R RC=Regional Concern; LC=	d List Status ed Data Book Status Local Concern; PRC=Potentia ccurrence (Fellowes et al. (200 d	Scarce winter visitor e (www.hkbiodivers imals Protection Orc nance al Regional Concern.	ity.net) linance								

	The species Recorded to			I Mugust 2020,		uc						
					Date			31/8/2020				
					Weather	r Conditio	n (Cloudy			Flight 14 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
					Tidal Condition		H	High				
			11 17		Tide Le	vel (m)	2	2.4				
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start Ti	me	1	0:00				
					Abunda	nce					14 2 1	
					Transec	t Walk						
					T3	T5					-	
						WAL	DAL	SWH	Р	Heard	Flight	
Asian Dowitcher	Limnodromus semipalmatus	半蹼鷸	PM	NT, (RC), CR				2				
Barn Swallow	Hirundo rustica	家燕	PM, Sv		1		2				14	
Black-necked Starling	Sturnus nigricollis	黑領椋鳥	R				7			3	2	
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC		3		12				
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	4	9	2	2			1	
Common Greenshank	Tringa nebularia	青腳鷸	PM, WV	RC	2							
Common Moorhen	Gallinula chloropus	黑水雞	R					1				
Common Myna	Acridotheres tristis	家八哥	UR				6					
Common Sandpiper	Actitis hypoleucos	磯鷸	WV, PM		1							
Common Tailorbird	Orthotomus sutorius	長尾縫葉鶯	R				2					
Crested Bulbul	Pycnonotus jocosus	紅耳鵯	R		3		2					
Crested Myna	Acridotheres cristatellus	八哥	R				1				4	
Domestic Pigeon	Columba livia	原鴿	R				3					

			8,		Date		3	1/8/2020					
					Weathe	r Conditio	n C	Cloudy					
					Tidal C	ondition	H	High					
			Hong Kong	Conservation	Tide Le	vel (m)	2	.4					
Common Name	Species Name	Chinese Name	Status	Status	Start Ti		1	0:00					
					Abunda								
					Transec								
					T3	T5 WAL	DAL	SWH	Р	Heard	Flight		
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R			WAL	2	5 1011	1		1		
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)				1					
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)	3			1			1		
Long-tailed Shrike	Lanius schach	棕背伯勞	R				2						
Magpie	Pica pica	喜鵲	R				1						
Magpie Robin	Copsychus saularis	鵲鴝	R				2						
Masked Laughing Thrush	Garrulax perspicillatus	黑臉噪鶥	R		3		1				1		
Oriental Turtle Dove	Streptopelia orientalis	山斑鳩	PM, WV				1						
Plain Prinia	Prinia inornata	純色鷦鶯	R			2	2						
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R		5		17			1	2		
Spotted Munia	Lonchura punctulata	斑文鳥	R		1								
White-throated Kingfisher	Halcyon smyrnensis	白胸翡翠	R	(LC)			2						
Wood Sandpiper	Tringa glareola	林鷸	WV, PM	LC		3	1	2					

Appendix H1h. Avifauna S	species Recorded for Water Birds M	Ionitoring, 31 August 2020, High Tide

Appenuix IIII. Avnat	ina Species Recorded to	r water birus r	violintoring, 5	I August 2020	<u>, mgn 1</u>	lue						
					Date		31	/8/2020				
					Weathe	r Conditio	n Cl	oudy				
					Tidal C	ondition	Hi	gh				
					Tide Le	evel (m)	2.4	1				
Common Name	Species Name	Chinese Name	Hong Kong	Conservation	Start Time 10:00							
	L		Status	Status	Abunda	ince	<u> </u>					
					Transec							
					T3	T5						
					15	WAL	DAL	SWH	Р	Heard	Flight	
Yellow-bellied Prinia	Prinia flaviventris	黄腹鷦鶯	R		1		DILL	5,011	1	3	Tight	
	T Tinia jiaviveniris		K		1	4	10	7	0	-	0	
Total No. of Species					10	4	18	7	0	3	8	
Total No. of Conservation	on Interest Species				3	3	3	6	0	0	2	
Note:								G		a) (a ;		
	visitor; PM – Passage migrant; Uncommon resident; SWV – S			CaM - Common a	utumn mi	grant; USV	- Uncomi	non Summe	er visitor;	SpM – Sprin	ig migrant;	
	g to AFCD biodiversity websit											
	e under protection of Wild Ani	,	• /									
	es of Animals and Plants Ordin											
CR: Rare in China Red Data												
VU: Vulnerable in IUCN Red	d List Status											
NT: Near Threatened in IUC	N Red List Status											
(VU): Vulnerable in China R												
RC=Regional Concern; LC=Local Concern; PRC=Potential Regional 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												

					Date			31/8/2020			
					Weather	r Conditic	n	A shower fol	lowed b	y sunny wea	ather
					Tidal C	Tidal Condition		Low			
			Tide Level (m)					0.7			
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start Ti	me		15:00			
					Abunda						
					Transec						
					T3	T5		CW/II	D	II1	El: 14
Asian Dowitcher	Limnodromus semipalmatus	半蹼鷸	PM	NT, (RC), CR		WAL	DAL	2 <u>SWH</u> 1	Р	Heard	Flight
Barn Swallow	Hirundo rustica	家燕	PM, Sv								9
Black Drongo	Dicrurus macrocercus	黑卷尾	Sv			1					
Black-necked Starling	Sturnus nigricollis	黑領椋鳥	R				4			7	2
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC		3		15			1
Chinese Bulbul	Pycnonotus sinensis	白頭鵯	R				1				
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	8	1		2			
Collared Crow	Corvus torquatus	白頸鴉	UR	LC, VU	1						
Common Greenshank	Tringa nebularia	青腳鷸	PM, WV	RC				1			
Common Myna	Acridotheres tristis	家八哥	UR				4				3
Common Sandpiper	Actitis hypoleucos	磯鷸	WV, PM		3						
Domestic Pigeon	Columba livia	原鴿	R				1				
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)	3			1			

	una species Recorded to	i water birds i	10mt01mg, 5	i August 2020,		uc						
					Date		3	1/8/2020			ather	
					Weather	Weather Condition		shower fol	lowed by	sunny wea	ather	
					Tidal Condition Tide Level (m)		L	Low				
							0.	0.7				
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start Ti	me	1.	5:00				
			Stutus	Status	Abunda	nce						
					Transec	t Walk						
					T3	T5	1					
						WAL	DAL	SWH	Р	Heard	Flight	
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)	25			2			1	
Little Ringed Plover	Charadrius dubius	金眶鴴	WV, PM	LC		1	1					
Magpie	Pica pica	喜鵲	R				1					
Magpie Robin	Copsychus saularis	鵲鴝	R				1					
Masked Laughing Thrush	Garrulax perspicillatus	黑臉噪鶥	R				5					
Pintail Snipe	Gallinago stenura	針尾沙錐	РМ				1					
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R		11		17					
White Headed Munia	Lonchura maja	白頭文鳥	R				90					
White Wagtail	Motacilla alba	白鶺鴒	PM, WV			2						
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R				1					
White-throated Kingfisher	Halcyon smyrnensis	白胸翡翠	R	(LC)			1					
Wood Sandpiper	Tringa glareola	林鷸	WV, PM	LC				4				
Yellow-bellied Prinia	Prinia flaviventris	黃腹鷦鶯	R				2			3		

			g , _		Date		31	/8/2020			
						er Conditio			lowed h	y sunny wea	ather
						Condition			lowed b	y sunny wee	
			Hong Kong	Conservation	-	evel (m)	0.7				
Common Name	Species Name	Chinese Name	Status	Status	Start Time 15:00						
					Abund	ance					
					Transe	ct Walk					
					T3	T5					
						WAL	DAL	SWH	Р	Heard	Flight
Total No. of Species					6	5	14	7	0	2	5
Total No. of Conservation	on Interest Species				4	3	2	7	0	0	2
Note:	on interest opecies				1 -	5	2	/	U	U	2
R – Resident; WV – Winter v	visitor; PM – Passage migran	t; UPM – Uncommon	passage migrant	; CaM - Common a	autumn m	igrant; USV	- Uncom	non Summe	er visitor;	SpM – Sprin	ng migrant;
Sv – Summer Visitor; UR –	Uncommon resident; SWV -	Scarce winter visitor				•					
Status was decided according											
Cap. 170: All bird species ar			linance								
Cap.586 : Endangered Specie		linance									
CR: Rare in China Red Data											
VU: Vulnerable in IUCN Re NT: Near Threatened in IUC											
(VU): Vulnerable in China R											
RC=Regional Concern; LC=		ial Regional Concern	Letters in paren	theses indicate that	t the asses	ssment is on	the basis	of restricted	lness in h	reeding and/	or roosting
sites rather than in general or			. Letters in purch	inebes maleute that	e une usset	Sinche 15 on	the ousis	01 105010000		recard und	or roosting
WAL: Wet Agricultural Land											
DAL: Dry Agricultural Land											
SWH: Shallow Water Habita											
P: Pond	P: Pond										

Appendix H1i. Waterbirds recorded in August 2020

Common Name	Species Name	Chinese Name	Conservation Status	Recorded habitat from the survey	Distribution in Hong Kong*
Asian Dowitcher	Limnodromus semipalmatus	半蹼鷸	NT, (RC), CR	T5: Shallow Water Habitat	Common passage migrant. Found in Deep Bay area.
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	RC	T5: Wet Agricultural Land, Shallow Water Habitat, In flight	Common passage migrant. Found in Deep Bay area, Long Valley, Kam Tin.
Chinese Pond Heron	Ardeola bacchus	池鷺	PRC(RC)	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.
Collared Crow	Corvus torquatus	白頸鴉	LC, VU	T3: River bank T5: Dry Agricultural Land	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	Tringa nebularia	青腳鷸	RC	T3: River bed T4: Wet Agricultural Land, Shallow Water Habitat	Common passage migrant and winter visitor. Widely distributed in wetland area throughout Hong Kong.
Common Kingfisher	Alcedo atthis	普通翠鳥		T5: Wet Agricultural Land, Shallow Water Habitat, In flight	Common passage migrant and winter visitor. Widely distributed in wetland habitat throughout Hong Kong.
Common Moorhen	Gallinula chloropus	黑水雞		T5: Shallow Water Habitat	Common resident. Found in Deep Bay area, Shuen Wan, Starling Inlet.
Common Sandpiper	Actitis hypoleucos	磯鷸		T3: River bank T5: Wet Agricultural Land, Shallow Water Habitat	Common passage migrant and winter visitor. Widely distributed in wetland area throughout Hong Kong.
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	(LC)	T3: River bank T5: Dry Agricultural Land	Resident and common passage migrant. Widely distributed in Hong Kong.
Eastern Yellow Wagtail	Motacilla tschutschensis	東黃鶺鴒		T5: Dry Agricultural Land	Common passage migrant and winter visitor. Widely distributed in agricultural fields and marsh edges throughout Hong Kong.
Great Egret	Ardea alba	大白鷺	PRC(RC)	T3: River bank, River bed T5: Wet Agricultural Land, Shallow Water Habitat, Pond	Common resident and winter visitor. Widely distributed in Hong Kong.

Appendix H1i. Waterbirds recorded in August 2020

Common Name	Species Name	Chinese	Conservation	Recorded habitat from the	Distribution in Hong Kong*
		Name	Status	survey	
Green Sandpiper	Tringa ochropus	白腰草鷸		T3: River bed T5: Wet Agricultural Land, Shallow Water Habitat	Uncommon passage migrant and winter visitor. Found in Deep Bay area, Shuen Wan, Long Valley, Kam Tin, Shek Kong, Ho Chung.
Little Egret	Egretta garzetta	小白鷺	PRC(RC)	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 Ringed Plover	Charadrius dubius	金眶鴴	LC	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.
Pintail Snipe	Gallinago stenura	針尾沙錐		T5: Dry Agricultural Land	Common passage migrant. Found in Long Valley, Chau Tau, Ha Tsuen.
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥		T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat, Heard	Common resident. Widely distributed in wetland throughout Hong Kong.
White-throated Kingfisher	Halcyon smyrnensis	白胸翡翠	(LC)	T3: River bank T5: Wet Agricultural Land, Dry Agricultural Land	Common resident. Widely distributed in coastal areas throughout Hong Kong.
Wood Sandpiper	Tringa glareola	林鷸	LC	T3: River bank, River bed T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat	Common passage migrant and winter visitor. Widely distributed in wetland area throughout Hong Kong.

Appendix H1i. Waterbirds recorded in August 2020

Common Name	Species Name	Chinese	Conservation	Recorded habitat from the	Distribution in Hong Kong*
		Name	Status	survey	
Note:					
R - Resident; WV - Win	nter visitor; PM – Pa	ssage migrant; UP	M – Uncommon pas	sage migrant; CaM - Common autumn	migrant; USV - Uncommon Summer visitor; SpM -
Spring migrant; Sv – Su	mmer Visitor; UR –	Uncommon reside	nt; SWV – Scarce w	inter visitor	
Status was decided accord	rding to AFCD biodi	versity website (w	ww.hkbiodiversity.n	et)	
Cap. 170: All bird specie	es are under protectio	on of Wild Animal	s Protection Ordinan	ce	
Cap.586 : Endangered S	pecies of Animals an	d Plants Ordinanc	e		
CR: Rare in China Red I	Data Book Status				
VU: Vulnerable in IUCN	NRed List Status				
NT: Near Threatened in					
(VU): Vulnerable in Chi	na Red Data Book S	tatus			
RC=Regional Concern;	LC=Local Concern;	PRC=Potential Re	gional Concern. Lett	ers in parentheses indicate that the asso	essment is on the basis of restrictedness in breeding
and/or roosting sites rath	er than in general oc	currence (Fellowe	s et al. (2002)		
WAL: Wet Agricultural	Land				
DAL: Dry Agricultural I	Land				
SWH: Shallow Water Ha	abitat				
P: Pond					
*Source: Hong Kong Bi	odiversity Database,	AFCD (https://ww	w.afcd.gov.hk/Engl	ish/conservation/hkbiodiversity/databa	se/search.php)

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status
Asian Dowitcher	Limnodromus semipalmatus	半蹼鷸	PM	NT, (RC), CR
Barn Swallow	Hirundo rustica	家燕	PM, Sv	
Black Drongo	Dicrurus macrocercus	黑卷尾	Sv	
Black-necked Starling	Sturnus nigricollis	黑領椋鳥	R	
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC
Black Kite	Milvus migrans	黑鳶	R, WV	(RC), Cap.586
Chestnut Munia	Lonchura atricapilla	栗腹文鳥	R	
Chinese Bulbul	Pycnonotus sinensis	白頭鵯	R	
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)
Collared Crow	Corvus torquatus	白頸鴉	UR	LC, VU
Common Greenshank	Tringa nebularia	青腳鷸	PM, WV	RC
Common Koel	Eudynamys scolopacea	噪鵑	R	
Common Kingfisher	Alcedo atthis	普通翠鳥	R	
Common Moorhen	Gallinula chloropus	黑水雞	R	
Common Myna	Acridotheres tristis	家八哥	UR	
Common Sandpiper	Actitis hypoleucos	磯鷸	WV, PM	
Common Tailorbird	Orthotomus sutorius	長尾縫葉鶯	R	
Crested Bulbul	Pycnonotus jocosus	紅耳鵯	R	
Crested Myna	Acridotheres cristatellus	八哥	R	
Domestic Pigeon	Columba livia	原鴿	R	

Appendix H1j. Birds recorded in August 2020

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	R, PM	(LC)
Eastern Yellow Wagtail	Motacilla tschutschensis	東黃鶺鴒	PM, WV	
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R	
Greater Coucal	Centropus sinensis	褐翅鴉鵑	R	(VU)
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)
Green Sandpiper	Tringa ochropus	白腰草鷸	UPM, WV	
Hair-crested Drongo	Dicrurus hottentottus	髮冠卷尾	PM, SV	
House Swift	Apus nipalensis	小白腰雨燕	SpM, R	
Japanese White-eye	Zosterops japonicus	暗綠繡眼鳥	R	
Jungle Crow	Corvus macrorhynchus	大嘴烏鴉	R	
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)
Little Ringed Plover	Charadrius dubius	金眶鴴	WV, PM	LC
Long-tailed Shrike	Lanius schach	棕背伯勞	R	
Magpie	Pica pica	喜鵲	R	
Magpie Robin	Copsychus saularis	鵲鴝	R	
Masked Laughing Thrush	Garrulax perspicillatus	黑臉噪鶥	R	
Oriental Turtle Dove	Streptopelia orientalis	山斑鳩	PM, WV	
Pintail Snipe	Gallinago stenura	針尾沙錐	PM	
Plain Prinia	Prinia inornata	純色鷦鶯	R	

Appendix H1j. Birds recorded in August 2020

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status
Red-billed Blue Magpie	Urocissa erythrorhyncha	紅咀藍鵲	R	
Red-Rumped Swallow	Hirundo daurica	金腰燕	UPM	
Sooty-headed Bulbul	Pycnonotus aurigaster	白喉紅臀鵯	UR	
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R	
Spotted Munia	Lonchura punctulata	斑文鳥	R	
White Headed Munia	Lonchura maja	白頭文鳥	R	
White Wagtail	Motacilla alba	白鶺鴒	PM, WV	
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R	
White-throated Kingfisher	Halcyon smyrnensis	白胸翡翠	R	(LC)
Wood Sandpiper	Tringa glareola	林鷸	WV, PM	LC
Yellow-bellied Prinia	Prinia flaviventris	黃腹鷦鶯	R	
Yellow-browed Warbler	Phylloscopus inornatus	黃眉柳鶯	WV, SpM	

Appendix H1j. Birds recorded in August 2020

Note:

R-Resident; WV-Winter visitor; PM-Passage migrant; UPM-Uncommon passage migrant; CaM - Common autumn migrant; USV - Uncommon Summer visitor; SpM-

Spring migrant; Sv - Summer Visitor; UR - Uncommon resident; SWV - Scarce winter visitor

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

CR: Rare in China Red Data Book Status

VU: Vulnerable in IUCN Red List Status

NT: Near Threatened in IUCN Red List Status

(VU): Vulnerable in China Red Data Book Status

RC=Regional Concern; LC=Local Concern; PRC=Potential Regional 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

			Date: 21/	•			<u> </u>					
			Weather:	Sunny								
Common Name	Scientific Name	Conservation Status	Methods	Kick-netti	ng, sweep	netting and	direct obse	ervation				
Apple SnailBladder SnailBlood WormCaddisflyCaddisflyChinese River SnailDamselflyFreshwater SnailGolden Freshwater ClamLeechMarshglider DragonflyRam's Horn SnailRed-rimmed		Status	Abundan	ce								
			MS_01	MS_02	MS_03	MS_04	MS_05	MS_06	MS_07	MS_08	MS_09	MS_10
Apple Snail	Pomacea canaliculate	-								++	+	
Bladder Snail	Physella acuta	-	+++									
Blood Worm	Chironomidae	-	+	+	+			+	+	++	++	+
Coddiafly	Hydroptila sp.	-			++							
Caudisity	Lepidostomatidae	-			+							
Chinese River Snail	Sinotaia guangdungensis	-		+					+			++
Damselfly	<i>Copera</i> sp.	-							+			
Erachwatar Spail	Radix plicatulus	-	+++									
Freshwater Shall	Tricula sp.	-			+					++		+
Golden Freshwater Clam	Corbicula fluminea	-								+		
Leech	Hirudinea	-	+							+		
Marshglider Dragonfly	Trithemis sp.	-				+						
Ram's Horn Snail	Gyraulus convexiusculus	-			+					+	+	++
Red-rimmed Melania	Melanoides Tuberculate	-			+					+		
River Snail	Sinotaia quadrata	-		+	+			+		+		
Saddlebag Glider	Tramea virginia	-		+								
Skimmer Dragonfly	Orthetrum sp.	-		+								

Appendix H2. Freshwater Macroinvertebrate Species Recorded for Aquatic Fauna Monitoring

			Date: 21	/8/2020										
			Weather	Sunny										
Common Name	Scientific Name	Conservation Status	Methods	: Kick-netti	ing, sweep	netting and	direct obse	ervation						
		Status	Abundan	ice										
			MS_01	MS_02	MS_03	MS_04	MS_05	MS_06	MS_07	MS_08	MS_09	MS_10		
Water Beetle	Enochms sp.	_			+									
Water Scavenger Beetle	Hydrophilidae	-							+					
	Metrocoris sp.	-		++				+	+					
Water Strider	Microvelia sp.	-				++						+		
	Ptilomera tigrina	-						+						
Total No. of specie	s		4	6	8	2	0	4	5	8	3	5		
Total No. of Conse	rvation Interest Specie	s	0	0	0	0	0	0	0	0	0	0		
++: species commonly +++: most abundant sp Remarks:	thin the study area (no. of in recorded within the study a ecies recorded within the s ervation on the date of survey	area (no. of individ tudy area (no. of in	uals from 11 dividuals fro	om 21 and al		http://www.w	eather.gov.hk	/wxinfo/past	wx/metob202	2007.htm), the	e survey result	t was		

Appendix H2. Freshwater Macroinvertebrate Species Recorded for Aquatic Fauna Monitoring

			Date: 21/	/8/2020									
			Weather:	Sunny									
Common Name	Scientific Name	Conservation Status	Methods: Kick-netting, sweep netting and direct observation										
		Status	Abundan	Abundance									
			MS_01	MS_02	MS_03	MS_04	MS_05	MS_06	MS_07	MS_08	MS_09	MS_10	
Mosquito Fish	Gambusia affinis	-			+					+			
Nichols' Minnow	Nicholsicypris normalis	-							+				
Nile Tilapia	Oreochromis niloticus	-				+		++	++				
Redbelly Tilapia	Tilapia zillii	-				+		++	++				
Total No. of species	5		0	0	1	2	0	2	3	1	0	0	
Total No. of Conser	vation Interest Species	3	0	0	0	0	0	0	0	0	0	0	
Note: VU: Vulnerable in China Red Data Book Status +: species recorded within the study area (no. of individuals from 1-10) ++: species commonly recorded within the study area (no. of individuals from 11-20) +++: most abundant species recorded within the study area (no. of individuals from 21 and above) Remarks: [1] According to the observation on the date of survey and the rain flow record in the Reporting Month (Reference: http://www.weather.gov.hk/wxinfo/pastwx/metob202007.htm), the survey result was observed affected by the weather condition.													

Appendix H3. Freshwater Fish Species Recorded for Aquatic Fauna Monitoring

Common Name	Species Name	Chinese Name	Local	Conservation	Date: 6/8/2	2020 , 28/8/2	2020	
			Restrictedness	Status	Relative A	bundance		
					Transect V	Valk		
					T1	T4	T5	T6
Domestic Cat	Felis catus	野貓	Uncommon		+	+	+	
Domestic Dog	Canis lupus familiaris	野狗	Common		+	+	+	+
Eurasian Wild Pig	Sus scrofa	野豬	Very Common				+	
Short-nosed Fruit Bat	Cynopterus sphinx	短吻果蝠	Very Common	Cap. 170	++	+	++	+
Total No. of species					3	3	4	2
Total No. of Conserv	ation Interest Species				1	1	1	1
Note:								
Cap. 170: Species under pro	otection of Wild Animals Protec	tion Ordinance (Cap. 17	(0)					
+: species recorded withi	n transect routes							
++: species commonly re	corded within transect route	8						
+++: dominant species w	ithin transect routes							

Appendix H4. Mammal Species Recorded for Ecologically Sensitive Habitat Monitoring

					/2020 , 28/8/20)20	
		Chinese	Conservation	Relative	Abundance		
Common Name	Species Name	Name	Status	Transect	Walk		
				T1	T4	T5	T6
Amphibian							
Asian Common Toad	Bufo melanostictus	黑眶蟾蜍	-	+	+	++	+
Asiatic Painted Frog	Kaloula pulchra pulchra	花狹口蛙	-	+	+		
Brown Tree Frog	Polypedates megacephalus	斑腿泛樹蛙	-	+			
Greenhouse Frog	Eleutherodactylus planirostris	溫室蟾	-	+	+	+	+
Gunther's Frog	Hylarana guentheri	沼蛙	-	+			
Spotted Narrow-mouthed Frog	Kalophrynus interlineatus	花細狹口蛙		+			
Reptile						ł	ł
Bowring's Gecko	Hemidactylus bowringii	原尾蜥虎	-	+	+	+	
Changeable Lizard	Calotes versicolor	變色樹蜥	-	+			+
Chinese gecko	Gekko chinensis	中國壁虎	-	+			
Long-tailed Skink	Eutropis longicaudata	長尾南蜥	-	+		+	+
Total No. of species				10	4	4	4
Total No. of Conservat	ion Interest Species			0	0	0	0
Note: +: species recorded within t ++: species commonly reco							
+++: dominant species with							

Appendix H5. Herpetofauna Species Recorded for Ecologically Sensitive Habitat Monitoring

					Date: 6/8/2	020 , 28/8/2	020	
Common Name	Species Name	Chinese Name	Local	Conservation	Relative Ab	oundance		
	Species Manie	Chinese Ivanie	Restrictedness	Status	Transect W	alk	-	
					T1	T4	T5	T6
Angled Castor	Ariadne ariadne	波蛺蝶	Common	-	+	+	+	
Blue-spotted Crow	Euploea midamus	藍點紫斑蝶	Very common	-	+		+	+
Colour Sergeant	Athyma nefte	相思帶蛺蝶	Common	-		+		
Common Five-ring	Ypthima baldus	矍眼蝶	Very common	-			+	
Common Grass Yellow	Eurema hecabe	寬邊黃粉蝶	Very common	-	+	++	++	+
Common Indian Crow	Euploea core	幻紫斑蝶	Common	#	+			
Common Mormon	Papilio polytes	玉帶鳳蝶	Very common	-	++	+	+	+
Common Sailer	Neptis hylas	中環蛺蝶	Very Common	-	+		+	
Cornelian	Deudorix epijarbas	玳灰蝶	Rare	-	+			
Dark Brand Bush Brown	Mycalesis mineus	小眉眼蝶	Very Common	-	+	+		+
Formosan Swift	Borbo cinnara	秈弄蝶	Common	-	+	+	+	
Gaudy Baron	Euthalia lubentina	紅斑翠蛺蝶	Uncommon	-	+			
Glassy Tiger	Parantica aglea	鋦斑蝶	Common	-	+			
Great Egg-fly	Hypolimnas bolina	幻紫斑蛺蝶	Common	-	++	+	+	+
Great Mormon	Papilio memnon	美鳳蝶	Very common	-	+	+	+	+
Green Skirt Baron	Cynitia whiteheadi	綠裙蛺蝶	Rare	-			+	

Appendix H6. Butterfly Species Recorded Ecologically Sensitive Habitat Monitoring

					Date: 6/	8/2020 , 28/	8/2020	
Common Nomo	Secolar Nome	Chinese Name	Local	Conservation	Relative	Abundance		
Common Name	nitePieris canialamon EmigrantCatopsilia pomonang-tailed BlueLampides boeticusle Grass BluePseudozizeeria maharis PeacockPapilio parisum JudyAbisara echeriusnchinelloZemeros flegyasuthern SulliedNeptis cliniailerPapilio protenoranglePapilio protenorinf SergeantAthyma selenophoraansparentNacaduba kuravallow RajahCharaxes marmaxtal No. of Speciestal No. of Conservation Interest Species	Chinese Name	Restrictedness	Status	Transect	Walk		
					T1	T4	T5	T6
Indian Cabbage White	Pieris canidia	東方菜粉蝶	Very common	-	+	+	+	+
Lemon Emigrant	Catopsilia pomona	遷粉蝶	Common	-	+			
Long-tailed Blue	Lampides boeticus	亮灰蝶	Common	-			+	
Pale Grass Blue	Pseudozizeeria maha	酢漿灰碟	Very common	-	++	+	+	++
Paris Peacock	Papilio paris	巴黎翠鳳蝶	Very common	-			+	
Plum Judy	Abisara echerius	蛇目褐蜆蝶	Very Common	-	+			
Punchinello	Zemeros flegyas	波蜆蝶	Common	-		+	+	
Southern Sullied Sailer	Neptis clinia	珂環蛺蝶	Common	-	+			
Spangle	Papilio protenor	藍鳳蝶	Very common	-	+		+	+
Staff Sergeant	Athyma selenophora	新月帶蛺蝶	Common	-	+			
Transparent 6-line Blue	Nacaduba kurava	古樓娜灰蝶	Common	-	+			
Yellow Rajah	Charaxes marmax	螯蛺蝶	Uncommon	-	+			
Total No. of species					22	11	16	9
Total No. of Conser	vation Interest Species				0	0	0	0
Note:								
LC: listed as Local Cond	cern by Fellowes et al (2002)							
#: Least concern in IUC	N Red List Status							
+: species recorded with								
	recorded within transect route	S						
+++: dominant species v	within transect routes							

Appendix H6. Butterfly Species Recorded Ecologically Sensitive Habitat Monitoring

					Date: 6/8/2	020 , 28/8/2	020	
Common Name	Species Name	Chinese Name	Local	Conservation	Relative Ab	undance		
Common Name	Species Maine	Chinese Name	Restrictedness	Status	Transect W	alk		
					T1	T4	T5	T6
Black-kneed Featherlegs	Pseudocopera ciliata	毛蛺扇蟌	Common	-	+		+	+
Black Threadtail	Prodasineura autumnalis	烏微橋原蟌	Abundant	-	+		+	+
Common Blue Skimmer	Orthetrum glaucum	黑尾灰蜻	Abundant	-	+			+
Common Red Skimmer	Orthetrum pruinosum	赤褐灰蜻	Abundant	-	+	+		+
Crimson Darter	Crocothemis servilia	紅蜻	Abundant	-	+			+
Crimson Dropwing	Trithemis aurora	曉褐蜻	Abundant	-	+			+
Green Skimmer	Orthetrum sabina	狹腹灰蜻	Abundant	-	+		+	+
Marsh Skimmer	Orthetrum luzonicum	呂宋灰蜻	Abundant	-	+		+	
Orange-tailed Sprite	Ceriagrion auranticum	翠胸黃蟌	Abundant	-	+		+	
Red-faced Skimmer	Orthetrum chrysis	華麗灰蜻	Abundant	-	+	+		+
Russet Percher	Neurothemis fulvia	網脈蜻	Common	-	+		+	
Variegated Flutterer	Rhyothemis variegata arria	斑麗翅蜻	Common	-			+	
Wandering Glider	Pantala flavescens	黄蜻	Abundant	-	+	++	++	+
Yellow Featherlegs	Copera marginipes	黃狹扇蟌	Abundant	-	+			+
Total No. of species					10	3	8	9
Total No. of Conserv	ation Interest Species				0	0	0	0

Appendix H7. Odonata Species Recorded for Ecologically Sensitive Habitat Monitoring

					Date: 6/8/2	te: 6/8/2020, 28/8/2020		
Common Name	Species Name	Chinese Name	Local	Conservation	Relative Abundance			
Common Name	Species Name	Chinese Name	Restrictedness	Status	Transect W	alk		
					T1	T4	T5	T6
Note:								
LC: listed as Local Conce	ern by Fellowes et al (2002)							
#: Least concern in IUCN	Red List Status							
+: species recorded within	+: species recorded within transect routes							
++: species commonly recorded within transect routes								
+++: dominant species w	ithin transect routes							

Appendix H7. Odonata Species Recorded for Ecologically Sensitive Habitat Monitoring

APPENDIX I WEATHER CONDITION

APPENDIX I – GENERAL WEATHER CONDITIONS DURING THE MONITORING PERIOD

Date	Mean Air Temperature (°C)	Mean Relative Humidity (%)	Precipitation (mm)
1 Aug 2020	27.7	87	28.3
2 Aug 2020	27.5	89	25.6
3 Aug 2020	26.5	93	46.9
4 Aug 2020	27.5	87	4.7
5 Aug 2020	27.8	88	53.3
6 Aug 2020	29.1	85	1.7
7 Aug 2020	30.1	80	0.2
8 Aug 2020	30.5	76	-
9 Aug 2020	29.9	76	-
10 Aug 2020	30	76	-
11 Aug 2020	30.3	78	0.6
12 Aug 2020	27.8	88	29.4
13 Aug 2020	28.1	86	16.5
14 Aug 2020	29.3	80	9.3
15 Aug 2020	29.8	76	-
16 Aug 2020	30.1	76	Trace

	Monthly EM&A Report – August 20					
Date	Mean Air Temperature (°C)	Mean Relative	Precipitation			
		Humidity (%)	(mm)			
17 Aug 2020	28.2	84	16.6			
18 Aug 2020	27.3	85	52.7			
19 Aug 2020	26.6	91	119.5			
20 Aug 2020	29	83	Trace			
21 Aug 2020	29.8	77	_			
22 Aug 2020	29.7	77	_			
23 Aug 2020	29.8	77				
24 Aug 2020	30.2	76	_			
25 Aug 2020	30.6	77	1.1			
26 Aug 2020	29.7	81	12.3			
27 Aug 2020	28.5	83	3.1			
28 Aug 2020	28.9	82	22.6			
29 Aug 2020	29.9	77	3.2			
30 Aug 2020	29.6	80	0.6			
31 Aug 2020	29.8	76	0.2			

* 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

	ACTION					
EVENT	ET	IEC	ER	CONTRACTOR		
ACTION LEVE	L					
1. Exceedance for one sample	 Identify source, investigate the causes of exceedance and propose remedial measures; Inform IEC,ER and Contractor; Repeat measurement to confirm finding; and Increase monitoring frequency to daily. 	 Check monitoring data submitted by ET; Check Contractor's working method; and Review and advise the ET and ER on the effectiveness of the proposed remedial measures. 	1. Notify Contractor.	 Identify source, investigate the causes of exceedance and propose remedial measures Rectify any unacceptable practice and implement remedial measures; and 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	 Check monitoring data submitted by ET; Check Contractor's working method; Discuss with ET and Contractor on possible remedial measures; Advise the ET and ER on the effectiveness of the proposed remedial measures; and Supervise 	 Confirm receipt of notification of failure in writing; Notify Contractor; and Supervise and ensure remedial measures properly implemented. 	 Identify source, investigate the causes of exceedance and propose remedial measures Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification; Implement the 		

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	to confirm findings;	Implementation of		agreed proposals;
	5. Increase monitoring	remedial measures.		and
	frequency to daily;			4. Amend proposal if
	6. Discuss with IEC,			appropriate.
	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.			
	<u> </u>	<u> </u>	I	
LIMIT LEVEL			Ι	
1.Exceedance	Identify source,	1. Check monitoring	1. Confirm receipt of	1. Identify source,
for one	investigate the causes	data submitted by	notification of failure	investigate the causes
sample	of exceedance and	ET;	in writing;	of exceedance and
	propose remedial	2. Check	2. Notify Contractor;	propose remedial
	measures;	Contractor's	and	measures;
	2. Inform ER, Contractor,	working method;	3. Supervise and ensure	2. Take immediate action
	IEC and EPD;	3. Discuss with ET,	remedial measures	to avoid
	3. Repeat measurement to	ER and Contractor	properly	further exceedance;
	confirm finding;	on possible	implemented.	3. Submit proposals for
	4. Increase monitoring	remedial		remedial actions to ER
	frequency to daily;	measures;		with a copy to ET
	5. Assess effectiveness of	4. Advise the ER and		and IEC within 3
	Contractor's remedial	ET on the		working days of
	actions and keep IEC,	effectiveness of		notification;
	EPD and ER informed	the proposed		4. Implement the agreed
	of the results.	remedial		proposals; and
		measures;		5. Amend proposal if
		5. Supervise		appropriate.
		implementation of		
		remedial		

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		measures.		
2.Exceedance	1. Notify IEC, ER,	1. Check monitoring	1. Confirm receipt of	1. Identify source,
for two or	Contractor and EPD;	data submitted by	notification of failure	investigate the causes
more	2. Identify source;	ET;	in writing;	of exceedance and
consecutive	3. Repeat measurement to	2. Check	2. Notify Contractor;	propose remedial
samples	confirm findings;	Contractor's	3. In consultation with	measures;
	4. Increase monitoring	working method;	the ET and IEC,	2. Take immediate action
	frequency to daily;	3. Discuss amongst	agree with the	to avoid
	5. Carry out analysis of	ER, ET, and	Contractor on the	further exceedance;
	Contractor's working	Contractor on the	remedial measures to	3. Submit proposals for
	procedures to	potential remedial	be implemented;	remedial actions to El
	determine possible	actions;	4. Supervise and ensure	with a copy to ET
	mitigation to be	4. Review	remedial measures	and IEC within 3
	implemented;	Contractor's	properly	working days of
	6. Arrange meeting with	remedial actions	implemented;and	notification;
	IEC, Contractorand ER	whenever	5.	4. Implement the agreed
	to discuss the remedial	necessary to	If exceedancecontinu	proposals;
	actions to be taken;	assure their	es, consider what	5. Resubmit proposals if
	7. Assess effectiveness of	effectiveness and	portion of the work is	problem still not unde
	Contractor's remedial	advise the ER	responsible and	control;
	actions and keep IEC,	accordingly;and	instruct the	6. Stop the relevant
	EPD and ER informed	5. Supervise the	Contractor to stop	portion of works as
	of the results;	implementation of	that portion of work	determined by the ER
	8. If exceedancestops,	remedial	until	until the exceedance is
	cease additional	measures.	the exceedanceis	abated.
	monitoring.		abated.	

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

EVENT	ACTION				
	ЕТ	IEC	ER	CONTRACTOR	
Action Level	1. Notify IEC, ER and	1. Review the monitoring	1. Confirm receipt of	1. Submit noise	
	Contractor;	data submitted by the	notification of failure	mitigation proposals	

EVENT		ACTIO	N	
	ET	IEC	ER	CONTRACTOR
	 Carry out investigation; Report the results of investigation to the IEC, ER and Contractor; Discuss jointly with the Contractor and formulate remedial measures; Increase monitoring frequency to check mitigation effectiveness. 	 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. 	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	to ER and copy to the IEC and ET; 2. Implement noise mitigation proposals.
Limit Level	 Identify source; Inform IEC, ER and Contractor; Repeat measurements to confirm findings; Increase the monitoring frequency; Carry out analysis of Contractor's working procedures with the ER and Contractor to determine possible mitigation to be implemented; Inform IEC, ER and Contractor the causes and actions taken for the exceedances; Assess effectiveness of Contractor's remedial actions and keep IEC 	 Discuss amongst the ER, ET, and Contractor on the potential remedial actions; Review the Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; Supervise the implementation of remedial measures. 	 Confirm receipt of notification of exceedance in writing; Notify the Contractor; Require the Contractor to propose remedial measures for the analysed noise problem; Ensure remedial measures are properly implemented; 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 	 Take immediate action to avoid further exceedance; Submit proposals for remedial actions to the ER and copy to the ET and IEC within 3 working days of notification; Implement the agreed proposals; Resubmit proposals if problems still not under control; Stop the relevant portion of works as determined by the ER until the exceedance is

EVENT	ACTION				
	ET	IEC	ER	CONTRACTOR	
	informed of the results; 8. If exceedance stops, cease additional monitoring.		abated.	abated.	

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

EVENT	ACTION				
	ET	IEC	ER	CONTRACTOR	
Action level	1. Inform IEC, Contractor	1. Discuss with ET, ER and	1. Discuss with IEC, ET and	1. Identify source(s) of	
being	and ER;	Contractor on the	Contractor on the	impact;	
exceeded by one	2. Check monitoring	implemented mitigation	Implemented mitigation	2. Inform the ER and	
sampling	data, all plant, equipment and	measures;	measures;	confirm notification of the noncompliance in	
day	Contractor's working methods; and	2. Review proposals on remedial measures	2. Make agreement on	writing;	
	3. Discuss remedial	submitted by Contractor	the remedial measures to be implemented;	3. Rectify unacceptable	
	measures with IEC and	and advise the ER	3. Supervise the	practice;	
	Contractor and ER.	accordingly; and	implementation of agreed	4. Check all plant and	
		3. Review and advise the ET	remedial measures.	equipment;	
		and ER on the Effectiveness		5. Consider changes of	
		of the implemented mitigation measures.		working methods;	
		intigation measures.		6. Discuss with ER, ET and IEC and	
				purpose remedial	
				measures to IEC and	
				ER; and	
				7. Implement the	
				agreed mitigation measures.	
Action level	1. Repeat in-situ	1. Discuss with ET,	1. Discuss with ET, IEC and	1. Identify source(s) of	
being	measurement on next day of	Contractor and ER on	Contractor on the	impact;	
exceeded	exceedance to confirm	the implemented	proposed mitigation	2. Inform the ER and	

Table J-3: Event / Action Plan for Water Quality

EVENT		ACTIO	N	
	ЕТ	IEC	ER	CONTRACTOR
by more than one consecutive sampling days	 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 	 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. 	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.	 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	 Repeat measurement next day of exceedance to confirm findings; Inform IEC, Contractor and ER; Rectify unacceptable practice; Check monitoring data, all plant, equipment and Contractor's working methods; Consider changes of working 	 Discuss with ET, Contractor and ER on the implemented mitigation measures; Review the proposed remedial measures submitted by Contractor and advise the ER accordingly; and Review and advise the ET 	 Discuss with ET, IEC and Contractor on the implemented remedial measures; Request Contractor to critically review the working methods; Make agreement on the remedial measures to be implemented; and 	 Identify source(s) of impact; Inform the ER and confirm notification of the noncompliance in writing; Rectify unacceptable practice; Check all plant and equipment and consider changes of

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

EVENT	ACTION				
	ET	IEC	ER	CONTRACTOR	
				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	n the e	vent of LFG	heing detected
I abic J-4. Actions	n une e		being activitie

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 CH4 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

	ACTION				
EVENT	ET	IEC	ER	CONTRACTOR	
ACTION LEVE	L				
1. Exceedance for one sample	 Identify source, investigate the causes of exceedance and propose remedial measures; Inform IEC,ER and Contractor; Repeat measurement to confirm finding; and Increase monitoring frequency to daily. 	 Check monitoring data submitted by ET; Check Contractor's working method; and Review and advise the ET and ER on the effectiveness of the proposed remedial measures. 	1. Notify Contractor.	 Rectify any unacceptable practice; Amend working methods if appropriate 	
2. Exceedance	1. Identify source, investigate	1. Check monitoring	1. Confirm receipt	1. Submit proposals for	

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				<u> </u>
for two or more consecutive samples	the causes of exceedance and propose remedial measures;2. Inform IEC,ER and	data submitted by ET; 2. Check Contractor's working method;	2. Notify	remedial actions to ER with a copy to ET and IEC within working days of notification;
	 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 actions required; 7. If exceedance continues, arrange meeting with IEC and ER; and 8. If exceedance stops, cease 	 Discuss with ET and Contractor on possible remedial measures; Advise the ET and ER on the effectiveness of the proposed remedial measures; and Supervise Implementation of remedial measures. 	3. Supervise and ensure remedial measures properly implemented.	 notification; 2. Implement the agreed proposals; and 3. Amend proposal if appropriate.
LIMIT LEVEL	additional monitoring.			
1.Exceedance for one sample	 Identify source, investigate the causes of exceedance and propose remedial measures; Inform ER, Contractor, IEC and EPD; Repeat measurement to confirm finding; Increase monitoring 	 Check monitoring data submitted by ET; Check Contractor's working method; Discuss with ET, ER and Contractor on possible remedial measures; Advise the ER and 	notification of failure in writing; 2. Notify Contractor; and 3. Supervise and ensure remedial measures properly	 Identify source, investigate the causes of exceedance and propose remedial measures; Take immediate action to avoid further exceedance; Submit proposals for remedial actions to ER
	frequency to daily;	ET on the effectiveness of the		with a copy to ET and IEC within 3

2.Exceedance for two or more consecutive samples	 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results. 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 EP informed 	 proposed remedial measures; 5. Supervise implementation of remedial measures. 1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures 	 Confirm receipt of notification of failure in writing; Notify Contractor; In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented; Supervise and ensure remedial measures properly implemented; and If exceedance continues, consider what portion of the 	 working days of notification; 4. Implement the agreed proposals; and 5. Amend proposal if appropriate. 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; 3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.
	 6. Arrange meeting with IEC, Contractor and ER to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial 	3. Supervise the implementation of	ensure remedial measures properly implemented; and 5. If exceedance continues,	 problem still not under control; 5. Stop the relevant portion of works as determined by the ER until the exceedance is

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

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

 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

* 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 Res	ponses to Evidence of Declines in Aquatic Fauna
Tuble J 012 Methon and Emile Devels and Res	source of Decimes in Aquatie I adna

Action Level Response		Limit Level	Response			
Construction Phase						
Reduction in species	Investigate cause and if	Reduction in taxa diversity	Investigate cause and if			

diversity such that Action	cause identified as related	such that Limit Level	caused identified as related
Level response is triggered.	to Project instigate remedial	response is trggered.	to Project instigate remedial
	action to remove or reduce		action.
	source of disturbance.		

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

* 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
	1-hr TSP	0	0	0	0
Air Quality	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		the Construct	lance related to ion Activities of ontract
wontoring		Action Level	Limit Level	Action Level	Limit Level
Noise	$L_{eq(30 min.)} dB(A)$	0	0	0	0

(C) Exceedance Report for Landfill Gas

Environmental Monitoring	Parameter	No. of non-project related Exceedance		No. of Exceedance related the Construction Activities this Contract	
Womtoring		Action Level	Limit Level	Action Level	Limit Level
Landfill Gas	$\begin{array}{c} O_2(\%v/v)\\ CH_4(\%LEL)\\ CO_2(\%v/v) \end{array}$	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	200804
Date	4 August 2020 (Tuesday)
Time	9:30-11:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
		Related
Ref. No.	Remarks/Observations	Item No.
	B. Air Quality	
200804-R03	• Dusty stockpile was reminded to be covered by impervious materials. (Portion 4)	B2
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
200804-R02	• Exposed slope surface was reminded to be covered by impervious materials. (Portion 8)	D7
· · ·	E. Waste / Chemical Management	
200804-004	Drip trays should be provided for chemical storage. (Portion 6)	E14
	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	
200804-R01	Hoarding erection is still processing, hoarding will be kept checking.	J1
	K. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	L. Others	
	• Follow-up on previous audit section (Ref. No.:200728), item 200728-R03 was remarked as 200804-R01. Follow-up action is needed to be reviewed. Other items were rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Kenneth Leung	Lenny	5 August 2020
Checked by	Dr. Priscilla Choy	NI	5 August 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	200811
Date	11 August 2020 (Tuesday)
	9:30-10:30

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	
200811-R01	Waste should be disposed of regularly and properly.	E1iii
200811-R02	Chemical container should be stored properly in designated area.	E2i
	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	
200811-R03	Hoarding erection is still processing, hoarding will be kept checking.	J1
	K. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	L. Others	
	• Follow-up on previous audit section (Ref. No.:200804), item 200804-R01 was remarked as 200811-R03. Follow-up action is needed to be reviewed. Other items were rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Kimmy Lui	in	11 August 2020
Checked by	Dr. Priscilla Choy	NE	11 August 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	200818
Date	18 August 2020 (Tuesday)
Time	9:30-11:00

Non-Compliance None identified Remarks/Observations	Item No. - Related
	Related
Remarks/Abservations	
	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	
Hoarding erection is still processing, hoarding will be kept checking.	J 1
K. Permits/Licences	
No environmental deficiency was identified during site inspection.	
L. Others	
200818-R01. Follow-up action is needed to be reviewed. Other items were rectified by the	
	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. 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. I. Landscape and Visual • No environmental deficiency was identified during site inspection. I. Londscape and Visual • No environmental deficiency was identified during site inspection. I. Ecology • Hoarding erection is still processing, hoarding will be kept checking. K. Permits/Licences • No environmental deficiency was identified during site inspection. I. Others • Follow-up on previous audit section (Ref. No.:200811), item 200811-R03 wa

	Name	Signature	Date
Recorded by	Kenneth Leung	Lenny	19 August 2020
Checked by	Dr. Priscilla Choy	NI	19 August 2020
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ND/2019/01 – Kwu Tung North New Development Area, Phase 1: Site Formation and Infrastructure Work

Checklist Reference Number	200827
Date	27 August 2020 (Thursday)
Time	14:00-15:30

		Related
Ref. No.	Non-Compliance	Item No.
-	None identified	-
D.C.N.	Deve autor (Observers times	Related Item No
Ref. No.	Remarks/Observations	Item No
	 B. Air Quality No environmental deficiency was identified during site inspection. 	
	• 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.:200818), item 200818-R01 was improved/rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Kimmy Lui	his	27 August 2020
Checked by	Dr. Priscilla Choy	NI	27 August 2020
	· · · · · · · · · · · · · · · · · · ·		•

ND/2019/03 – Kwu Tung North New Development Area, Phase 1: Development of Long Valley Nature Park

Checklist Reference Number	200807
Date	7 August 2020 (Friday)
Time	10:00-10:45

Def Me	Non Compliance	Related
Ref. No.	Non-Compliance	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	1
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
200807-R01	Waste should be disposed of regularly and properly.	E1iii
	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.:200731), no environmental deficiency was identified during site inspection	

	Name	Signature	Date
Recorded by	Kimmy Lui	an	7 August 2020
Checked by	Dr. Priscilla Choy	LET-	7 August 2020

ND/2019/03 – Kwu Tung North New Development Area, Phase 1: Development of Long Valley Nature Park

Checklist Reference Number	200814
Date	14 August 2020 (Friday)
Time	10:00-11:00

		Related
Ref. No.	Non-Compliance	Item No
-	None identified	-
		Related
Ref. No.	Remarks/Observations	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	
200814-R01	General refuse should be disposed of properly at Portion 18.	E1iii
	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.:200807), all environmental deficiency was rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Howard Chan	Lawand	14 August 2020
Checked by	Dr. Priscilla Choy	NF	14 August 2020
			· · · · · · · · · · · · · · · · · · ·

ND/2019/03 – Kwu Tung North New Development Area, Phase 1: Development of Long Valley Nature Park

Checklist Reference Number	200818
Date	18 August 2020 (Tuesday)
Time	14:00-15:00

D.C.N.		Related
Ref. No.	Non-Compliance	Item No
-	None identified	
D 4 M		Related
Ref. No.	Remarks/Observations	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.:200814), all environmental deficiency was rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Kenneth Leung	Serry	19 August 2020
Checked by	Dr. Priscilla Choy	WI	19 August 2020

ND/2019/03 – Kwu Tung North New Development Area, Phase 1: Development of Long Valley Nature Park

Checklist Reference Number	200828
Date	28 August 2020 (Friday)
Time	10:00-11:15

Ref. No.	Non-Compliance	Related Item No.
	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
200828-R01	• Stockpile of dusty materials should be covered by impervious sheeting or sprayed with water.	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.:200818), no major environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Kimmy Lui	1 hrs	28 August 2020
Checked by	Dr. Priscilla Choy	NI	28 August 2020
	·····		

Checklist Reference Number	200803
Date	3 August 2020 (Monday)
Time	14:00-14:45

		Related
Ref. No.	Non-Compliance	Item No.
-	None identified	-
		Related
Ref. No.	Remarks/Observations	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	
200803-R01	Water should be cleared regularly.	D12iv
	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	
	• No environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Kimmy Lui	Cis	3 August 2020
Checked by	Dr. Priscilla Choy	INF	3 August 2020
		· · · · · · · · · · · · · · · · · · ·	-

Checklist Reference Number	200812
Date	12 August 2020 (Wednesday)
Time	9:30-10:00

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.: 200803), all identified environmental deficiency was observed improved/rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Kimmy Lui	Cz	12 August 2020
Checked by	Dr. Priscilla Choy	NÍ	12 August 2020
			- I

Checklist Reference Number	200817	
Date	17 August 2020 (Monday)	
Time	14:00-15:00	

		Related
Ref. No.	Non-Compliance	Item No.
-	None identified	-
		Related
Ref. No.	Remarks/Observations	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	
200817-R01	• Regular clear the channel at the site exit so that the wheel washing water can be directed to silt removal facilities.	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	
200817-R02	Uncharted trees should be carefully protected.	G1
	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.: 200812), no major environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Kimmy Lui	(in	17 August 2020
Checked by	Dr. Priscilla Choy	NI	17 August 2020
		·]	

Checklist Reference Number	200824
Date	24 August 2020 (Monday)
Time	14:00-14:40

		Related
Ref. No.	Non-Compliance	Item No.
-	None identified	-
		Related
Ref. No.	Remarks/Observations	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.: 200817), all identified environmental	
	deficiency was observed improved/rectified by Contractor.	

Name	Signature	Date
Kimmy Lui	Cin	24 August 2020
Dr. Priscilla Choy	NF	24 August 2020
	Kimmy Lui	Kimmy Lui

Checklist Reference Number	200831
Date	31 August 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	
200831-R01	Chemical waste should be stored properly in designated area.	E2i
	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.: 200824), no major environmental deficiency was identified during the site inspection.	

	Name	Signature	Date
Recorded by	Kimmy Lui		31 August 2020
Checked by	Dr. Priscilla Choy	NIL	31 August 2020

Checklist Reference Number	200806
Date	6 August 2020 (Thursday)
Time	14:00 - 14:30

Ref. No.	Non Compliance	Related
NCI. 190.	Non-Compliance None identified	Item No
-	None identified	-
		Related
Ref. No.	Remarks/Observations	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.: 200730), all identified environmental	
	deficiency was observed improved/rectified by the Contractor.	

	Name	· Signature	Date
Recorded by	Kenneth Leung	Lary	7 August 2020
Checked by	Dr. Priscilla Choy	NI	7 August 2020

Checklist Reference Number	200813
Date	13 August 2020 (Thursday)
Time	14:00 - 14:30

Ref. No.	Non-Compliance	Related Item No.
Kel. 140.	None identified	Item 140.
-		Related
Ref. No.	Remarks/Observations	Item No.
Kel. Ivo.		item ivo.
200012 001	B. Air Quality	
200813-R01	Contractor was reminded to cover the stockpile of dusty materials when not in use.	B2
	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.: 200806), no environmental deficiency was identified during sit inspection.	

	Name	Signature	Date
Recorded by	Kenneth Leung	Jean	14 August 2020
Checked by	Dr. Priscilla Choy	hit	14 August 2020

Checklist Reference Number	200820
Date	20 August 2020 (Thursday)
Time	10:00 - 10:30

р-с м -	New Compliance	Related Item No.
Ref. No.	Non-Compliance	1011110.
-	None identified	Related
Ref. No.	Remarks/Observations	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.	0.00
	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.: 200813), all identified environmental deficiency was observed improved/rectified by the Contractor.	
	denciency was observed improved neutriced by the Contractor.	

	Name	Signature	Date
Recorded by	Kenneth Leung	Loury	20 August 2020
Checked by	Dr. Priscilla Choy	LE	20 August 2020
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Checklist Reference Number	200827
Date	27 August 2020 (Thursday)
Time	10:00 - 10:30

Ref. No.	Non-Compliance	Related Item No.
	None identified	Item No.
-		-
Ref. No.	Remarks/Observations	Related
INCI. 140.		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	
200827-R01	Chemcial waste, waste oil should be stored properly in designated area.	E2i
	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.: 200820), no major environmental deficiency was identified during site inspection. 	

	Name	Signature	Date	
Recorded by	Kimmy Lui	in	27 August 2020	
Checked by	Dr. Priscilla Choy	NT	27 August 2020	
		· · · · · · · · · · · · · · · · · · ·		

APPENDIX M ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation		
	Log	(What Measures)	recommended	implement	measures	Implement the	Status		
	Ref		Measures & Main	the	(Where)	measures?			
			Concerns to address	measures?		(When)			
			(What Requirements)	(Who)					
Construc	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/m2 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	 Following dust suppression measures should also be incorporated by the Contractor to control the dust nuisance throughout the construction Phase 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	* * ^		

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	pressure water jet should be provided at every discernible	٨
	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;	٨
	When there are open excavation and reinstatement works,	Λ
	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	٨
	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,	٨
	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	۸
	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,	٨
	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	N/A
	enclosed by impervious sheeting;	
	Every stock of more than 20 bags of cement or dry	
	pulverised fuel ash (PFA) should be covered entirely by	N/A
	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	N/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	N/A
	cement or dry PFA should be carried out in a totally	

		 enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system; and Exposed earth should be properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, 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. 					N/A
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	٨
Noise In	npact (Con	struction Phase)					
S4.9	N1	 Implement the following good site management practices: 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	л л л л
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	Λ

			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	Λ
		Use of "Quiet" Plant and Working Methods			•		
S4.9	N4		Reduce the noise levels of	Contractor	All construction	Construction	N/A
			plant items		sites where	phase	
					practicable		
S4.9	N5	Sequencing operation of construction plants where practicable.	Operate sequentially within	Contractor	All construction	Construction	٨
			the same work site to reduce		sites where	phase	
			the construction airborne		practicable		
			noise				
S4.9	N6	Implement a noise monitoring under EM&A programme.	Monitor the construction	Contractor	Selected	Construction	٨
			noise levels at the selected		representative	phase	
			representative locations		noise monitoring		
					stations		
Water Q	uality Impac	ct (Construction Phase)				I	1
S5.7	W1	Construction Runoff and Site Drainage 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. where appropriate, should include the following: Stormwater Pollution Control Plan • 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	*

		facilities. The design of the temporary on-site drainage			
		system will be undertaken by the Contractor prior to the			
		commencement of construction.			
	•	Diversion of natural stormwater should be provided as far			٨
		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			٨
		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			٨
		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			N/A
		surface excavation works during the rainy seasons (April			
		to September). All exposed earth areas should be			
		completed and vegetated as soon as possible after			
		earthworks have been completed. If excavation of soil			
		cannot be avoided during the rainy season, or at			
		any time of year when rainstorms are likely, exposed			
		slope surfaces should be covered by tarpaulin or other			

		means.			
	•	All drainage facilities and erosion and sediment control			٨
		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			۸
		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.			٨
	•	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.			٨
	•	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			۸
		construction site to ensure no earth, mud, debris and the			
		like is deposited by them on roads. An adequately			

		designed and sited wheel washing facilities should be					
		provided at every construction site exit where practicable.					
		Wash-water should have sand and silt settled out and					
		removed at least on a weekly basis to ensure the					
		continued efficiency of the process. The section of					
		access road leading to, and exiting from, the wheel-wash					
		bay to the public road should be paved with sufficient					
		backfall toward the wheel-wash bay to prevent vehicle					
		tracking of soil and silty water to public roads and drains.					
		Oil interceptors should be provided in the drainage					N/A
		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.					٨
		Construction solid waste, debris and rubbish on site					A
		should be collected, handled and disposed of properly to					
		avoid water quality impacts.					٨
		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					۸
		should be carried out in order to prevent any					A
		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.					
S5.7	W2	Stream Diversion	Minimize water quality	Contractor	All streams that	Construction	
		In order to prevent sediment transport during riverbank	impact due to stream		required diversion	phase	N/A
		works, deployment of silt curtain should be implemented,	diversion				

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		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	Groundwater from Contaminated Area	Minimize water quality	Contractor	All identified	Construction	
		For other inaccessible sites, site investigation is required	impact due to potential		groundwater-	phase	N/A
		when they are resumed and handed over to the Project	groundwater from		contaminated		
		Proponent to identify if contaminated groundwater is	contaminated area		areas		
		found.					
		If the investigation results indicated that the groundwater					N/A
		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					N/A
		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					N/A
		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					
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		WPCO through the Regional Offices of EPD.					
S5.7	W4	Sewage from Workforce	Handling of site sewage	Contractor	All construction	Construction	
		Portable chemical toilets and sewage holding tanks should be			sites	Phase	
		provided for handling the construction sewage generated by the					٨
		workforce. A licensed Contractor should be employed to provide					
		appropriate and adequate portable toilets and be responsible for					
		appropriate disposal and maintenance.					
		Notices should be posted at conspicuous locations to remind the					
		workers not to discharge any sewage or wastewater into the					
		nearby environment during the construction phase of the Project.					
		Regular environmental audit on the construction site should be					
		conducted in order to provide an effective control of any					
		malpractices and achieve continual improvement of					
		environmental performance on site. It is anticipated that sewage					
		generation during the construction phase of the Project would not					
		cause water quality impact after undertaking all required					
		measures.					
Waste Ma	nagement	(Construction Waste)			-		
S7.6	WM1	Waste Reduction Measures	Reduce waste generation	Contractor	All construction	Prior to the	
		Waste reduction is best achieved at the planning and design			sites where	commencement of	
		phase, as well as by ensuring the implementation of good site practices. The following recommendations are proposed to			practicable	construction	
		achieve reduction:					
		segregate and store different types of waste in different					٨
		containers, skip or stockpiles to enhance reuse or recycling					
		of materials and their proper disposal;					

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		proper storage and site practices to minimize the potential					۸
		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					۸
		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,					N/A
		reuse and recycling.					
							۸
S7.6	WM2	Prepare Waste Management Plan and submit to the Engineer	Minimize waste generation	Contractor	All construction	Construction	N/A
		for approval	during construction		sites	phase	
S7.6	WM3	Good Site Practice	Minimize waste generation	Contractor	All construction	Construction	
		The following good site practices are recommended throughout the construction activities:	during construction		sites	phase	
		Nomination of an approved personnel, such as a site					٨
		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					٨
		waste management procedures and concepts of waste					
		reduction, reuse and recycling;					
		Provision of sufficient waste disposal points and regular					۸

		 collection for disposal; Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors; 					Λ Λ
S7.6	WM4	 <u>Storage of Waste</u> The following recommendation should be implemented to minimize the impacts: 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	Λ Λ
S7.6	WM5	 <u>Collection and Transportation of Waste</u> The following recommendation should be implemented to minimize the impacts: Remove waste in timely manner; Employ the trucks with cover or enclosed containers for waste transportation; 	Minimize waste impact from storage	Contractor	All construction sites	Construction phase	Λ

		 Obtain relevant waste disposal permits from the appropriate authorities; and Disposal of waste should be done at licensed waste disposal facilities. 					۸
S7.6	WM6	Excavated and C&D Material	Minimize waste impacts from	Contractor	All construction	Construction	
		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:	excavated and C&D material		sites	phase	۸
		Maintain temporary stockpiles and reuse excavated fill					۸
		material for backfilling;					
		Carry out on-site sorting;					N/A
		Deliver surplus artificial hard materials to Tuen Mun Area					N/A
		38 recycling plant or its successor for recycling into					
		subsequent useful products;					
		Make provisions in the Contract documents to allow and					N/A
		promote the use of recycled aggregates where					
		appropriate; and					
		Implement a recording system for the amount of waste					۸
		generated, recycled and disposed of for checking;					
		Standard formwork should be used as far as practicable in order					N/A
		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.					

		Wheel wash facilities have to be provided at the site entrance	·		ŢŢ		
		·					٨
		before the trucks leaving the works area.	<u> </u>]	 	<u> </u>	<u> </u>	<u>л</u>
S7.6	WM7	Contaminated Soil	Remediate contaminated soil	Contractor	All construction	Construction	
		As a precaution, it is recommended that standard good site			sites where	phase	٨
		practice should be implemented during the construction phase			applicable		
I		to minimize any potential exposure to contaminated soils or					
l		groundwater. The details of mitigation measures to minimize					
1		the potential environmental implications arising from the					
I		handling of contaminated materials refer to Land					
1		Contamination Section.					
S7.6	WM8	Chemical Waste	Control the chemical waste	Contractor	All construction	Construction	
1		If chemical wastes are produced at the construction site, the	and ensure proper storage,		sites	phase	*
l		Contractors should register with EPD as chemical waste	handling and disposal				
1		producers. Chemical wastes should be stored in appropriate					
1		containers and collected by a licensed chemical waste					
l		Contractor. Chemical wastes (e.g. spent lubricant oil) should be					
1		recycled at an appropriate facility as far as possible, while the					
1		chemical waste that cannot be recycled should be disposed of					
1		at either the Chemical Waste Treatment Centre, or another					
1		licensed facility, in accordance with the Waste Disposal					
1		(Chemical Waste) (General) Regulation.					
S7.6	WM9	General Waste	Minimize production of the	Contractor	All construction	Construction	
1		General refuse should be stored in enclosed bins	general refuse and avoid		sites	phase	N/A
1		separately from construction and chemical wastes.	odour, pest and litter impacts				
1		Recycling bins should also be placed to encourage					
1		recycling.					
1		 Preferably enclosed and covered areas should be 					٨
L		· Fleiciably choloscu and covered areas should be	<u> </u>	<u> </u>		<u> </u>	

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		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					N/A
		general refuse on a daily basis.					
S7.6	WM10	Sewage	Minimize production of	Contractor	All construction	Construction	
		The WMP should document the locations and number of	sewage impacts		sites	phase	N/A
		portable chemical toilets depending on the number of					
		workers, land availability, site condition and activities.					
		Regularly collection by licensed collectors should be					N/A
		arranged to minimize potential environmental impacts.					
S7.6	WM11	Topsoil reuse - Topsoil, where identified, should be stripped and	Good site practice	Contractor/	Onsite	Construction	N/A
		stored for re-use in the construction of the soft landscape works,		Project		phase	
		where practical. This is considered a general measure for good		Proponent			
		site practice.					
Land Con	tamination	1					
S 8.4	LC2	Detailed site investigation (SI) for all inaccessible potentially	Verify the land	Project	All inaccessible	After the land	*
		contaminated sites in 2 NDAs	contamination potential	Proponent	potentially	is resumed	
			before the commencement	Detailed	contaminated	and handed	
			of construction	Design	sites in	over to the	
				Consultant	2 NDAs as listed	Project	
				Contractor	in	Proponent	
					the CAP		
·	,	· · · · · · · · · · · · · · · · · · ·		·	,,,,,,,		-

S 8.5 LC4 Preparation and submission of Remediation Report to EPD for all inaccessible potential production of Remediation Report to EPD for all inaccessible potential production is confirmed and evaluate the potential environmental and human health impacts Proponent/ Design potentially contaminated commencement of any proposed S 8.5 LC4 Preparation and submission of Remediation Report to EPD for agreement Demonstruction to remediation is required Project All inaccessible potentially All inaccessible ontaminated and remediation is required N/A S 8.5 LC4 Preparation and submission of Remediation Report to EPD for agreement Demonstruction the assessment if remediation is required Project All inaccessible potentially contaminated and remediation is confirmed N/A S 8.5 LC4 Preparation and submission of Remediation Report to EPD for agreement Demonstrate that the remover the the contaminated out in accorded out in accorded out in accorded out in accorded out in accorded supplementary CAR and RAP Project All inaccessible consultant Prior to the remediation is required N/A		1						
Ball all inaccessible potentially contaminated sites in 2 NDAs to EPD for greement if land contamination is confirmed in accompany to the assessment if the assessment if the assessment if the assessment if the assessment if the assessment if the assessment if Detailed Design contaminated sites in 2 NDAs of any proposed S 8.5 LC4 Proparation and submission of Remediation Report to EPD for agreement Default of the assessment if the as	S 8.5	LC3	Preparation and submission of supplementary Contamination	Present the findings of SI	Project	All inaccessible	Prior to the	*
S 8.5 LC4 Preparation and submission of Remediation Report to EPD for agreement if land contaminated on and submission of Remediation Report to EPD for agreement Design All inaccessible Consultant All inaccessible oonstruction S 8.5 LC4 Preparation and submission of Remediation Report to EPD for agreement Demonstrate that the decontamination visits and is carried out in accordance with the assessment if in accordance with the indication with adequate and is carried out in accordance with the ondorsed supplementary in accordance with the ordersed supplementary in accordance with the indication with adequate and is carried out in accordance with the ordersed supplementary in accordance with the ordersed supplementary in accordance with the ordersed supplementary in accordance with the indication with addition the adequate and is carried out in accordance with the ordersed supplementary in accordance with the ordersed supplementary in accordance with the indication with addition the addition addition the addition addite addition addition addition addition addite addition addite addi			Assessment Report (CAR) and Remediation Action Plan (RAP) for	and evaluate the potential	Proponent/	potentially	commencement	
S.8.5LC4Preparation and submission of Remediation Report to EPD for agreementRecommend appropriate mitigation measures for the contaminated soil and groundwater identified in the assessment if remediation is requiredOnsultant mediation is continued and remediation is confirmed and remediation is confirmed ortaminatedPrior to the non-to- the assessment if are remediation is requiredAll inaccessible potentially ortaminated ortamination ortamination ortaminatedPrior to the ortaminated ortaminated ortaminatedN/AS.8.5LC4Preparation and submission of Remediation Report to EPD for agreementDemonscripte that the decontamination work is adequate and is carried out in accordance with the endorsed supplementary CAR and RAPProjectAll inaccessible potentially contaminated ortaminated in the CAPPrior to the ortaminated contamination works if land contamination is confirmed and remediation is confirmed and rem			all inaccessible potentially contaminated sites in 2 NDAs to EPD	environmental and human	Detailed	contaminated	of any	
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					identified as		
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					could not be		
					accessed for		
					visual inspection		
					during the site		
					survey as listed		
					in the CAP		
S 8.7.2	LC6	Treatment of arsenic-containing soil	To treat the arsenic	Government	KTN NDA	Prior to	N/A
and		"Solidification/Stabilization" (S/S) treatment method was proposed	containing	Developer/		commencement	
Appendix		for the treatment of arsenic-containing soil. Toxicity Characteristic	soil	Contractor		of construction	
8.4		Leaching Procedure (TCLP) test should be undertaken after S/S in				works within	
		order to ensure that the contaminant will not leach to the				KTN NDA	
		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.					
S 8.7.2	LC7	Excavation and Transportation	To minimize the potential	Contractor	KTN NDA	Prior to	N/A
and		Excavation profiles must be properly designed and executed	environmental impacts			commencement	
Appendix		with attention to the relevant requirements for environment,	arising from the handling of			of construction	
8.4		health and safety;	contaminated materials			works within	
		In case the soil to be excavated is situated beneath the				KTN NDA	
		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					

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		and bunded. 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;					
		• 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	LC8	Solidification/Stabilization	To minimize the potential	Contractor	KTN NDA	The course of	N/A
and		The loading, unloading, handling, transfer or storage of	environmental impacts			treatment	
Appendix		cement should be carried out in an enclosed system;	arising from the handling of				
8.4		Mixing process and other associated material handling	contaminated materials				
		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;					
	-	·	•				

S 8.7.2 and Appendix 8.4	LC9	 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 If necessary, there should be clear and separated areas for stockpiling of untreated and treated materials. <u>Safety Measures</u> 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; 	To minimize the potential adverse effects on health and safety of construction workers	Contractor	KTN NDA	The course of treatment	N/A
		 Provide first aid training and materials to site worker; Bulk earth moving equipment should be utilized as much as possible to minimize worker Eating, drinking and smoking should not be allowed in the excavation areas and treatment area to avoid inadvertent ingestion of arsenic containing soil. 					
Landfill Ga		1	To estimize the side of LEO	0	Dudi dia any addition	Detelled	N/A
S10.6	LFG1	Underground rooms or void should be avoided as far as	To minimize the risk of LFG	Government /	Buildings within	Detailed	N/A

	practicable in the proposed developments within the	hazards to occupants within	Developer/	MTLL	design phase
	Consultation Zone and should be avoided totally in the	MTLL and its 250m	Detailed	and its 250m	
	proposed developments within the MTLL.	Consultation Zone	Design	Consultation Zone	
	Buildings or structures within the MTLL should be at		Consultant		
	ground level with raised floor slabs which are less prone to		within MTLL		
	gas ingress.		and its 250m		
•	For the high risk category, the use of active control of gas,		Consultation		
	including barriers and detection systems are		Zone		
	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 nofines 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				

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			agreement in the design stage to ensure compatibility with				1	
			the landfill restoration facilities and aftercare works within				1	
		1	MTLL, such that these facilities and works will not be				1	
			affected by the construction or operation of the proposed			'	1	
			development.	<u> </u>			<u> </u>	
S10.6	LFG2	·	During all works, safety procedures should be	To minimize the risk of LFG	Contractor	Construction sites	Construction	N/A
			implemented to minimize the risks of fires and explosions,	hazards to the staff and		within MTLL and	phase	
			asphyxiation of workers (especially in confined space) and	visitors within MTLL and its		its	1	
			toxicity effects resulting from contact with contaminated	250m Consultation Zone		250m Consultation	1	
			soils and groundwater.			Zone	1	
		•	Safety officers, specifically trained with regard to LFG and				1	
			leachate related hazards and the appropriate actions to			'	1	
			take in adverse circumstances, should be present on all				1	
			worksites throughout the works.				1	
		•	All personnel who work on site and all visitors to the site			'	1	
			should be made aware of the possibility of ignition of gas				1	
			in the vicinity of the works, the possible presence of			'	1	
			contaminated water and the need to avoid physical				1	
			contact with it.			'	1	
		•	Those staff who work in, or have responsibility for "at risk"				1	
			areas, including bore pilling and excavation works, should			'	1	
			receive appropriate training on working in areas				1	
			susceptible to LFG.			'	1	
		•	Enhanced personal hygiene practices including washing				1	
			thoroughly after working and eating only in "clean" areas			'	1	
			should be adopted where contact may have been made				1	
			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			
	the ground. Other storage premizes, e.g. shipping			
	containers, where this is not possible should be well			
	ventilated prior to entry.			
•	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			

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			who shall have executive responsibility for suspending the					
			work in the event of unacceptable or hazardous					
			conditions. Only those workers who are appropriately					
			trained and fully aware of the potentially hazardous					
			conditions which may arise should be permitted to carry					
			out hot works in confined areas.					
		•	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.					
S10.6	LFG3		Utility Companies	To minimize the risk of LFG	Government /	Buildings within	Operation	N/A
		•	The developers should make the utility companies aware	hazards to the occupants,	Developer	MTLL	phase	
			of the location and features of the site within the	maintenance personnel,	within MTLL	and its 250m		
			Consultation Zone during the respective detailed design	visitors and other users	and its 250m	Consultation Zone		
			stage as part of the QLFGHA.	within MTLL and its 250m	Consultation			
		•	The utilities companies should have a responsibility to	Consultation Zone	Zone			
			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.					

Building Management The management committee of the building estate will hold a special responsibility to ensure that the occupants 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. 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 aite. 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 Definition of 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 Definition of posting Definiti	 	 	-	r
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 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 	required to be taken.			
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 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 	including liaison with EPD officers, Fire Services			
 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 	Department, Landfill Restoration Contractors and others,			
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	as necessary.			
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	All construction and maintenance (including utilities)			
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	personnel working at the site should be made aware of the			
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	hazards of LFG and its possible presence on site. This			
detailed information on LFG hazards and the designs and procedural means by which these hazards are being	should be achieved through a combination of posting			
procedural means by which these hazards are being	warning signs in prominent places and also by access to			
	detailed information on LFG hazards and the designs and			
minimized on site. In addition, entry to confined spaces	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.	such as refuse/store rooms, drainage manholes etc.			
should be preceded by a period of "airing" the space by	should be preceded by a period of "airing" the space by			
opening the door widely allowing fresh air to enter. Where	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			
			LFG hazard, particularly in areas where a gas membrane			
			has been installed. Any penetrations of the membrane			
ļ			must be repaired as soon as possible after detection or			
			works completion using similar products.			
		•	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.			
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Cultural H	leritage (P	re-construction Phase)					
S11.6.1	CH1	Undertaking Further Archaeological Survey to Cover the	To confirm and verify the	Project	In the not-yet-	After land	N/A
		Outstanding Areas	findings of the EIA	Proponent/	surveyed-areas	resumption but	
		Further archaeological surveys to cover the outstanding areas of		Contractor/	with medium	before construction	
		the not-yet-surveyed-area with medium archaeological potential		Qualified	archaeological		
		located in the areas with proposed development as presented in		Archaeologist	potential located		
		Figure 11.9 should be implemented after land resumption to			in the areas within		
		confirm and verify the findings of the EIA. The survey should			Areas D1-11, A3-		
		be conducted by a professional archaeologist and prior to			5, A3-6, B1-1, and		
		fieldwork commencement, the archaeologist should obtain a			B1-7,		
		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.					
S11.6.1	CH2	Undertaking Survey-cum-Rescue Excavation	To define the precise	Project	In KTN NDA, for	After land	N/A
		A Survey-cum-Rescue Excavation should be conducted after	archaeological deposits	Proponent/	Site 3 and In FLN	resumption but	
		land resumption and before the commencement of construction	extent and to preserve the	Contractor/	NDA for Site 5.	before construction	
		works to define the precise archaeological deposits extent and	archaeological resources as	Qualified		commencement	
		to preserve the archaeological resources by record. The	far as possible	Archaeologist		of the zone	
		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.					
S11.6.1	СНЗ	Undertaking Preservation in-situ for Site 7	To preserve the	Project	Site 7 in FLN NDA	After land	N/A
011.0.1	0110	Preservation in-situ of the cultivation deposits in Site 7 is	archaeological resources as	Proponent/		resumption prior to	14/74
		proposed. If disturbance to the site by the design of the Central	far as possible.	Contractor/		preconstruction	
		Park is unavoidable, further archaeological survey should be		Qualified		stage of the	
		conducted after land resumption prior to the pre-construction		Archaeologist		proposed Central	
		stage to assess the feasibility to incorporate Site 7 into the				Park (Area C2-8,	
		design of the development plan of the proposed zone.				Zoning O)	
		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.					
		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.					
S11.6.1	CH4	Undertaking Induction Training	To preserve the	Project	Spots A, D, F to	Before the	N/A
		Induction training should be provided to the construction	archaeological resources as	Proponent/	н	commencement of	
		Contractor before the commencement of the excavation works	far as possible	Contractor/		the excavation	
		in Spots A, D, F to H. An induction will be conducted as part of		Qualified		works and before	
		the environmental health and safety induction programme to all		Archaeologist		site staff are	
		site staff before they are deployed on site. The induction will				deployed on site	

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		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.					
S11.6.1	CH5	Undertaking Archaeological Impact Assessment before	To define the precise	Project	Area B1-8 and	After land	N/A
		Construction at A1	archaeological deposits	Proponent/	B1-9 zoned as R4	resumption but	
			extent and to preserve the	Contractor/	and R3 in A1	before construction	
		It is recommended that an Archaeological Impact Assessment to	archaeological resources as	Qualified			
		be conducted in the impacted area in Area B1-8 and B1-9 at A1	far as possible	Archaeologist			
		(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.					
S11.6.1	CH6	Undertaking Archaeological Impact Assessment before	To define the precise	Project	Area within A1	After land	N/A
		Construction within A1 but except Area B1-8 and B1-9	archaeological deposits	Proponent/	except Area B1-8	resumption but	
		Should there be any development work within the Sheung Shui	extent and to preserve the	Contractor/	and B1-9 in R4	before construction	
		Wa Shan Site of Archaeological Interest, it is recommended that	archaeological resources as	Qualified	&R3 zoning		
		an Archaeological Impact Assessment is required after land	far as possible.	Archaeologist			
		resumption and before construction when detail construction					
		work information is available to determine the need for further					

		archaeological follow up actions.					
S11.6.2	CH7	Undertaking baseline condition survey and baseline vibration	To minimize the vibration	Project	G303 and G308	Preconstruction	N/A
		impact assessment	impacts during	Proponent/		stage before	
		In case any potential vibration impact on any nearby built	preconstruction stage on any	Contractor		commencement of	
		heritage features are identified during the pre-construction stage	identified potential vibration			construction works	
		of the Project, prior to commencement of construction works, a	impacted built heritage			during Schedule 3	
		baseline condition survey and baseline vibration impact	features			study	
		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.					
S11.6.2	CH8	Undertaking baseline condition survey and baseline vibration	To minimize the vibration	Project	KT57, FL05,	Preconstruction	N/A
		impact assessment	impacts during	Proponent/	FL18, and FL2	stage before	
		In case any potential vibration impact on any nearby built	preconstruction stage on any	Contractor		commenceme nt of	
		heritage features are identified during the pre-construction stage	identified potential vibration			construction works	
		of the Project, prior to commencement of construction works, a	impacted built heritage				
		baseline condition survey and baseline vibration impact	features				
		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					
		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	Conducting Photographic and Cartographic Records Prior to	To preserve the directly	Project	Ancillary	Prior to Removal /	N/A
		Removal/Relocation of Impacted Built Heritages	impacted sites by record	Proponent/	structures of	Relocation of	
		Prior to removal/relocation of the directly impacted historical	prior to their removal /	Contractor	G303, HKT01,	features before	
		buildings and cultural/historical landscape features,	relocation		HKT02, Entrance	commenceme nt of	
		photographic and cartographic records should be conducted to			Gate of HKT03,	construction works	
		preserve them by record. Liaison with and obtaining			HKT04, KT01 to	during Schedule 3	
		agreement from the descendants of these features will be			KT10, KT13,	study	
		carried out the Project Proponent.			KT36, KT39,		
					KT40, KT41,		
					KT43, KT45,		
					KT47, KT50,		
					KT54, KT62 to		
					KT63, KT69,		
					FL01, FL16, and		
					FL35		
S11.6.2	CH10	Conducting Photographic and Cartographic Records Prior to	To preserve the directly	Project	KT12 and KT61	Prior to Removal /	N/A
		Removal/Relocation of Impacted Built Heritages	impacted sites by record	Proponent/		Relocation of	
		Prior to removal/relocation of the directly impacted historical	prior to their removal /	Contractor		features before	
		buildings and cultural/historical landscape features,	relocation			commencement of	

		photographic and cartographic records should be conducted to				construction works	
		preserve them by record. Liaison with and obtaining agreement					
		from the descendants of these features will be carried out by the					
		Project Proponent.					
S11.6.2	CH11	Relocation of Built Heritages Relocation of built heritages to a	To preserve the directly	Project	HKT01, HKT02,	After the	N/A
		reasonable location nearby may be required.	impacted sites by relocation	Proponent/	Entrance Gate of	photographic and	
				Contractor	НКТ03	cartographic	
I						records and before	
I						commencement of	
I						construction works	
S11.6.2	CH12	Drainage System and Access Route Design For the retained	To prevent the persevered	Contractor	The retained built	Pre-construction	N/A
I		built heritage items in developable area, drainage system and	flooding and maintain the	/Detailed Design	heritage items	phase	
I		access route would be designed to prevent the persevered	accessibility to the built	consultant			
		flooding and maintain the accessibility to the built heritage.	heritage				
Cultural H	leritage (C	onstruction Phase)		L			
S11.6.1	CH13	Inform Upon Archaeological Discovery	Special attention should be	Contractor	All soil excavation	Immediately upon	
		Pursuant to the Antiquities and Monuments Ordinance, the	given to areas evaluated to		works	discovery during	N/A
		construction Contractor should inform the AMO immediately in	have archaeological			excavation works	
		case of discovery of antiquities or supposed antiquities in the	potential or significance.				
		course of excavation works in construction phase.					
S11.6.2	CH14	Watertable Monitoring	To minimize the potential	Contractor	Within NDAs	Construction	
		Since the construction works and development activities may	impacts to the built heritage			phase	N/A
		induce change in the watertable. It is recommended the	items by the change of				
		Contractor should ensure that the change of watertable induced	watertable induced by the				
		by the construction works and development activities will not	works during the				
		result in settlement of built heritage.	Construction phase				
S11.6.2	CH15	Conducting Construction Vibration Monitoring and Structural	To minimize the potential	Contractor	Identified potential	Construction	

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		Strengthening Measures	impacts during Construction		vibration impacted	phase, with details	N/A
		Construction vibration monitoring and structural strengthening	phase on any identified		built heritage	specified in	
		measures should be conducted during Construction phase based	potential vibration impacted		features	baseline condition	
		on the assessment result of baseline condition survey and	built heritage features			survey and	
		baseline vibration impact assessment, so as to ensure the				baseline vibration	
		construction performance meets with the vibration standard				impact assessment	
		stated in the EIA report.					
Landsca	pe and Visi	ual Impact (Detailed Design, Prior to Construction, Construction	n and Operation Phases)				
S.12.9	LV1	General Good Practice Measures - For areas unavoidably		Detailed design	Throughout	Prior to	
		disturbed by the Project on a short term basis e.g. works areas,		consultant/	NDAs,	Construction,	
		the general principle to try and restore these to their former state		Contractor		Construction & for	N/A
		to suit future land use, should be adhered to.				all planting, this	
		With regard to topsoil, where identified, it should be stripped,				should be installed	
		treated appropriately, and where suitable and practical stored for				as the areas	
		re-use in the construction of the soft landscape works such as				become available,	
		roadside amenity strips, and open space sites.				to achieve early	
						establishment	
S.12.9	LV2	Minimum Topographical Change -To minimize landscape and	Reduce topographical	Government /	Throughout	Prior to	N/A
MM1		visual impacts, the footprint and elevation of such elements	changes and minimize land	Detailed Design	NDAs, particularly	Construction	
		should be optimized to reduce topographical/ landform changes,	resumption	Consultant/	for reservoirs		
		as well as reduce land take and interference with natural terrain.		Contractor			
		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 torrain a guintraduction and continuation					
		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.12.9	LV3	Detailed Design (Visual) -The footprint and massing of	Improve visual amenity of	Detailed Design	Throughout NDAs	Prior to	N/A
MM2		development components and the works area should also be	the new buildings, NDAs in	Consultant		Construction	
		kept to a practical minimum and the detailed design of	general and integrate as				
		development components for Construction phase should	best possible into the				
		follow the Sustainable Building Design Guidelines. The	surrounding landscape				
		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					
L	1			1	1		1

		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	'	1			
		designs seek to keep it to a practical minimum.	'	'			
S12.9	LV 4	Avoid affecting Watercourses - In the detailed design,	Avoid direct impacts to	Detailed Design	All watercourses,	Prior to	N/A
MM14.4		consideration should be made of watercourses, to minimize	watercourses	Consultant/	particularly the	Construction and	
		any impacts e.g. at new bridge crossings, viaducts, road	'	Contractor	stream at Siu	Construction	
		alignment etc. Guidelines stated should be followed.		1	Hang San Tsuen	Phase	
I		For example, for the stream at Siu Hang San Tsuen in FLN		1	that will flow under		
l		NDA, much of the stream is located underneath the viaduct		'	the Fanling		
l		for the proposed Fanling Bypass. In order to avoid impacts	'	1	Bypass Eastern		
l		to the stream, the detailed final design of the viaduct should	'	1	Section		
l		follow guidelines and ensure that no viaduct footings or other					
l		structures are placed in the stream.					
I		Bridges and box culverts should also be used to minimize the					
l		necessity of watercourse modification and protect the					
l		watercourses where necessary.	'	'			
Landscap	e and Visu	ual (Construction)		·		<u></u>	
S.12.9	LV5	Open Space Provision - the principles adopted in the RODP	Reprovision of open space.	Government	Onsite as	Prior to	N/A
ММЗ		planning ensure that public open space systems are	Enhance visual amenity of	Developer/	stipulated in the	Construction and	
		incorporated. All requirements for open space areas	the area and improve the	Detailed Design	planning	Construction Phas	
		stipulated in the planning documents for the formulation of	overall landscape character	Consultant/	documents for the		
		the Preliminary Layout Plan should be adhered to.		Contractor/	formulation of the		
				'	Preliminary		
			'		Layout Plan		
S.12.9	LV6	Tree Protection & Preservation – Exiting trees to be retained	Protect and Preserve Trees	Government /	Onsite	Prior to	N/A

							
MM4		within the Project Site should be carefully protected during		Detailed Design		Construction and	
		construction. In particular OVTs will be preserved		Consultant/		Construction	
		according to ETWB Technical Circular (Works) No. 29/2004.		Contractor		Phase	
		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.					
		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					
S.12.9	LV7	Tree Transplantation - Trees unavoidably affected by the	Transplant Trees where	Government /	Onsite where	Prior to	N/A
MM5		Project works should be transplanted where practical. Trees	suitable for transplantation	Detailed Design	possible.	Construction,	
		should be transplanted straight to their final receptor site and		Consultant/	Otherwise	Construction	
		not held in a temporary nursery as far as possible.		Contractor	consider offsite	Phase &	
					locations	Maintenance in	
		A detailed Tree Transplanting Specification shall be provided				Operation Phase	
		in the Contract Specification, where applicable. Sufficient					
		time for necessary tree root and crown preparation periods					
		shall be allowed in the project programme.					
		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.					
		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	LV8	Slope Landscaping – Site formation should be reduced as far	To avoid substantial slope	Government /	Onsite	Prior to	N/A
MM6		as possible. Seeding of modified slopes should be done as	cutting and fill slopes.	Detailed Design		Construction,	
		soon as grading works are completed to prevent erosion and	To prevent erosion and	Consultant/		Construction	
		subsequent loss of landscape resources and character.	subsequent loss of	Contractor		Phase &	
		Woodland tree seedlings and/ or shrubs should be planted	landscape resources and			Maintenance in	
		where slope gradient and site conditions allow.	character.			Operation Phase	
			To ensure man-made slopes				
		In addition, landscape planting should be provided for the	are as visually amenable as				
		retaining structures associated with modified slopes where	possible.				
		conditions allow. All slope landscaping works should					
		comply with GEO Publication No. 1/2011-Technical					
		Guidelines on Landscape Treatment for Slopes.					
S.12.9	LV9	Compensatory Planting - Compensatory tree planting for	Compensate for trees and	Government /	Onsite where	Prior to	N/A
MM7		felled trees shall be provided to the satisfaction of relevant	shrubs lost due to the	Detailed Design	possible.	Construction,	
		Government departments. Required numbers and locations	Project.	Consultant/	Otherwise	Construction	
		of compensatory trees shall be determined and agreed		Contractor	consider offsite	Phase &	
		separately with Government during the Tree Removal			locations	Maintenance in	
		Application process under ETWBTC 3/2006.				Operation Phase	

r	T		 		
		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 Melastoma			
		malabathricum, Diospyros vaccinioides, Gardenia			
		jasminoides, Ixora chinensis, Ligustrum sinense, Litsea			
		rotundifolia, Melastoma dodecandrum, Atalantia buxifolia,			
		Rhodomyrtus tomentosa, Rhaphiolepis indica, and			
		Rhododendron simsii are suggested.			
S.12.9	LV10	Woodland Compensatory Planting -Specific Woodland			N/A
MM8		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.			
		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).			
		Native tree species are suggested for planting in the			

6	appropriate locations, including Ailanthus fordii, Bischofia			
j	javanica, Castanopsis fissa, Celtis sinensis, Cinnamomum			
	burmannii, Cinnamomum camphora, Xanthoxlyum			
i	avicennaeHibiscus tiliaceus, Liquidambar formosana,			
	Sapium discolor, Schefflera heptaphylla and llex rotunda. In			
á	addition some understory vegetation may be planted			
i	including shrubs such as Atalantia buxifolia, Diospyros			
	vaccinioides, Gardenia jasminoides, Ixora chinensis,			
	Ligustrum sinense, Litsea rotundifolia, Melastoma			
	malabathricum, Melastoma dodecandrum, Rhodomyrtus			
t	tomentosa, Rhaphiolepis indica, and Rhododendron simsii.			
-	The area allocated for compensatory woodland planting			
á	allows in part for the fact that it will take some time for the			
	compensatory planting to achieve the landscape and			
e	ecological function and value of the area to be lost. In			
á	addition, it allows for the fact that not all of the areas identified			
f	for planting will prove to be plantable, by virtue of topography			
a	and ground conditions and, especially, because though the			
4	areas identified are largely grassland it is inevitable that these			
a	areas will already support some patches of trees and shrubs			
X	which would be inappropriate for further planting.			

S.12.9	LV11	Vertical Greening - Planting of climbers to grow up vertical	Soften hard surfaces and	Government /	On appropriate	Prior to	N/A
MM9		surfaces were appropriate (e.g. building edges, piers).	facilities	Developer/	structures	Construction,	
				Detailed Design		Construction	
				Consultant/		Phase &	
				Contractor		Maintenance in	
						Operation Phase	
S.12.9	LV12	Green Roof - Roof greening where appropriate should be	Reduce exposure to	Government /	On appropriate	Prior to	N/A
MM10		established on proposed buildings as per the guidelines	untreated concrete surfaces	Developer/	buildings	Construction,	
		stated. These guidelines provide further details including	and particularly mitigate	Detailed Design		Construction	
		information regarding structural loading, design,	visual impact to VSRs at	Consultant/		Phase &	
		maintenance, etc. considerations as well as providing	high levels. Provide	Contractor		Maintenance in	
		information on what types of plants might be suitable.	greening.			Operation Phase	
S.12.9	LV13	Screen Planting – Tall screen/buffer trees and shrubs should be	To screen proposed	Government /	Along roads,	Prior to	N/A
MM11		planted. This measure may additionally form part of the	structures such as roads and	Detailed Design	around suitable	Construction,	
		compensatory planting.	buildings. Improve	Consultant/	built structures, or	Construction	
			compatibility with the	Contractor	around VSRs to	Phase &	
			surrounding environment		contain their view	Maintenance in	
			and create a pleasant		out to the NDA	Operation Phase	
			pedestrian environment		structures.		

S.12.9	LV14	Road Greening – For viaducts, soft landscaping should be	To soften the hard, straight	Government /	On viaducts or	Prior to	N/A
MM12		provided to soften the hard, straight edges (for climbers used to	edges and provide greening	Developer/	along roads	Construction,	
		cover the vertical, hard surfaces of the piers – see MM9 Vertical	along roads.	Detailed Design		Construction	
		Greening) and shade tolerant plants should be planted, where		Consultant/		Phase &	
		light is sufficient, to improve aesthetic value of areas under		Contractor		Maintenance in	
		viaducts. Both at grade planting and use of elevated planters				Operation Phase	
		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)					
S.12.9	LV15	Marsh/Wetland Compensation –The proposed Long Valley	Compensate for Marsh/	Project	Onsite where	Prior to	N/A
MM13 &		Nature Park (LVNP) will be designed and implemented to	Wetland lost due to the	Proponent/	possible.	Construction,	
EIA Annex		enhance on- wetland areas within the LVNP. (See E4,E15 and	Project.	Detailed Design	Otherwise	Construction	
13		E25 also)		Consultant/	consider offsite	Phase &	
		Also see LV16, LV17, and LV18 as wetland planting should be		Contractor/	locations	Maintenance in	
		provided along the embankments and beds of modified/		Maintenance		Operation Phase	
		reprovisioned watercourses.		Authority			

S.12.9	LV16	Reprovision of Natural Stream – Where natural streams are	Achieve a natural stream,	Government /	Streams and	Prior to	N/A
MM14.1		unavoidably affected along some of their length, they can be	similar to existing, including	Developer/	channelized	Construction,	
		diverted to avoid the proposed new developments and retain the	wetland planting provision	Detailed Design	watercourses	Construction	
		integrity of the whole stream. Detailed design of any stream	for embankments	Consultant/	e.g. a Ma Tso	Phase &	
		diversion should follow the Guidelines in ETWB Technical		Contractor	Lung and Siu Han	Maintenance in	
		Circular (Works) No. 5/2005 (Protection of natural streams/rivers			San Tsuen	Operation Phase	
		from adverse impacts arising from construction works) and					
		appropriate construction methods should be used.					
		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.					
		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)					
S12.9	LV17	Stream Buffer Planting – Providing a minimum 10 m buffer with	Protect natural streams	Government /	Streams and	Prior to	N/A
MM14.2		planting (where there is a general presumption against any		Developer/	channelized	Construction,	
		development taking place) along streams where they flow close		Detailed Design	watercourses	Construction	
		to developments, confers a degree of protection to the stream		Consultant/	e.g. a Ma Tso	Phase &	
		course and its associated vegetation.		Contractor	Lung and Siu Han	Maintenance in	
					San Tsuen	Operation Phase	
		For the stream at Ma Tso Lung in KTN NDA, the middle and					

r	1				T		1
		upper sections will be designated as Green Belt zone where					
		there is a general presumption against development as buffer to					
		the stream.					
		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)					
S12.9	LV18	Enhancement Planting along Embankment - For channelized	Minimize the necessity of	Government /	Channelized	Prior to	N/A
MM14.3		watercourses, if these are modified, the Drainage Services	watercourse modification,	Developer/	watercourse,	Construction,	
		Department Practice Note No.1/2005 – Guidelines on	protect watercourses where	Detailed Design	particularly the Ma	Construction	
		Environmental Considerations for River Channel Design, should	possible and enhance	Consultant/	Wat River	Phase &	
		be considered and appropriate mitigation measures included	channelized watercourses	Contractor	Channel Diversion	Maintenance in	
		ensuring the new watercourses match the existing as far as				Operation Phase	
		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					
		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	LV19	Pond Replacement - Principles adopted in the design of the	Reprovision for ponds lost	Project	E1-7 and C1-9	Prior to	N/A
MM15		NDAs ensure that they incorporate ponds within the RODPs.	due to the Project.	Proponent/	(LVNP) in KNT	Construction,	
				Detailed Design	NDA and	Construction	
		All requirements for ponds stipulated in the planning documents		Consultant/	generally	Phase	
		for the formulation of the Preliminary Layout Plan (e.g. at Fung		Contractor/	throughout NDA	Maintenance in	
		Kong Shan Park in E1-7 of KNT ND) should be adhered to.		Maintenance		Operation Phase	
				Authority			
S.12.9	LV20	Screen Hoarding –Screen hoarding shall be erected along areas	To screen undesirable views	Contractor	Throughout NDAs	Construction	N/A
MM16		of the construction works site boundary where the works site	of the works site.			Phase	
		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).					
S.12.9	LV21	Light Control – Construction day and night time lighting should	To minimize glare impact to	Government /	Throughout NDAs	Construction and	N/A
MM17		be controlled to minimize glare impact to adjacent VSRs during	adjacent VSRs	Developer/		Operation Phases	
		the Construction phase.		Contractor			
		Street and night time lighting shall also be controlled to minimize					

		glare impact to adjacent VSRs during the operation phase.					
Ecology (Prior to Co	onstruction 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	Minimize impacts on Siu	PlanD, Project	FLN area D1-3.	Detailed design,	N/A
		San Tsuen Stream to have 10m wide vegetated buffer in Open	Hang San Tsuen Stream and	Proponent/		construction and	
		Space zone D1-3, Fanling Bypass to cross stream on viaduct.	stream fauna.	Detailed Design		operation phases.	
				Consultant/			
				Contractor/			
				Maintenance			
				Authority			
S.13.9	E4	Long Valley Nature Park (LVNP) designation, design and	Compensate for wetland loss	Project	Long Valley KTN	Detailed design	N/A
		implementation.	arising from the project and	Proponent/	area C1-9 and	phase	
			protection of Long Valley	Detailed Design	any suitable areas		
			from adverse ecological	Consultant	to be identified		
		Enhancement of non-wetland habitats in LVNP. Planning for the	impacts including provision	(Long Valley	during the		
		advanced provision of alternative foraging habitat along main	of additional/alternative	Nature Park	planning stage		
		river channels for large waterbirds.	habitat for large waterbirds	Habitat Creation			
			using Ng Tung, Sheung Yue	& Management			
			and Shek Sheung River	Plan)			
			channels.				
S13.9	E5	Stringent planning control requirements in Long Valley north and	Protect these wetland areas	PlanD.	KTN areas C2-1	Detailed design	N/A
		west of Sheung Yue River, including Ho Sheung Heung egretry.	from indirect impacts to		and C2-2 , Ho	phase	
			habitats and fauna especially		Sheung Heung		
			breeding ardeids foraging in		egretry and areas		
			these areas and utilizing		north of Long		
			flight-lines from Ho Sheung		Valley along the		
			Heung egretry.		Ng Tung River to		
					the Shenzhen		
			Avoid habitat loss and		River		
			disturbance to fauna of				

			1				
			conservation significance,				
			especially nesting ardeids				
			Maintenance of ecological				
			linkages with Deep Bay				
			ecosystem and avoidance of				
			severance of these linkages,				
			especially for waterbirds				
S13.9	E6	Planning for creation of Green Corridors along the Sheung Yue,	Minimize disturbance to	Project	Area along Ng	Detailed design,	N/A
		Ng Tung and Shek Sheung Rivers, retention and provision of	large waterbirds using Ng	Proponent/	Tung, Sheung Yue	construction and	
		screen plantings where feasible; and detailed design of Open	Tung, Sheung Yue and Shek	Detailed Design	and Shek Sheung	operational	
		Space areas and development areas along river corridors.	Sheung River channels.	Consultant/	River	phases.	
				Contractor/			
			Maintain ecological linkages	Maintenance			
			within NDA Project Area and	Authority			
			between Project Area and				
			Deep Bay ecosystem,				
			especially for Long Valley				
			and waterbirds.				
S13.9	E7	Building setback and mounding in locations near Long Valley.	Minimization of disturbance	PlanD	KTN area B3-12	Detailed design	N/A
			impacts to fauna using Long		(30m setback	phase	
		KTN area B3-12 (30m setback from road D3) and KTN area C1-	Valley.		from road D3) and		
		1 (15m setback and mounding along northern and northeastern			KTN area C1-1		
		boundaries).			(15m setback and		
					mounding along		
					northern and		
					northeastern		
	-						

					boundaries.		
S13.9	E8	Preparation and implementation of Guidelines for building	Minimize mortality and	PlanD/ Project	Near Long Valley	Detailed design	N/A
		design measures to minimize mortality and light and glare	disturbance impacts on	Proponent/		phase	
		impacts to fauna. Guidelines to address the following measures:	fauna, especially mammals	Developer/			
		Use opaque, non-transparent, non-reflective noise barriers for	and birds.	Detailed Design			
		all developments associated with the Project.		Consultant			
		Measures to include the following:					
		• 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					

	E9	Not used					N/A
S13.8	E10	Review development footprint and layout of proposed	Minimize loss of secondary	Project	KTN areas D1-11a	Detailed design	N/A
		developments in KTN areas D1-11a and G1-5 to avoid/minimize	woodland and shrubland of	Proponent/Detail	and G1-5 to	phase	
		direct and indirect impacts on secondary woodland at Ho	ecological value.	ed Design	avoid/minimize		
		Sheung Heung and shrubland at Crest Hill.		Consultant	direct and indirect		
					impacts on		
					secondary		
					woodland at Ho		
					Sheung Heung		
					and		
					Crest Hill		
S13.9	E11	No construction during ardeid breeding season (1 March to 31	Minimize disturbance	Project	Along and within	Detailed design/	N/A
		July) along Sheung Yue River north or east of KTN D1-5 and	impacts (including	Proponent/	Sheung Yue and	construction	
		east of D1-9 and C2-3, construction hours restricted to 09.00 to	cumulative impacts with	Detailed Design	Ng Tung Rivers,	phase.	
		17.30 during 1 March to 31 July on new pedestrian bridge over	cycle track project) to flight-	Consultant	Long Valley, Long		
		the Sheung Yue River, new pedestrian bridge over the tidal	lines of breeding ardeids.	Contractor	Valley and		
		section of the Ng Tung River and existing bridge between KTN			watercourse		
		areas C2-2 and C1-8.			upstream areas		
					including KTN		
		Review Design and construction methods for all bridges			area B3-12		
		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.					
		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					

S13.9 E12 Compensatory egretry habitat provision and location of egretries before commencement of works. Formulate and implement additional mitigation measures as appropriate. Compensatory egretry habitat provision and establishment. Compensator for deal or d		T		T				
Image: state in the 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.Image: state s	l		the detailed design stage for the rechannelisation of the Long					
address any disruption to be included in LVNP HOMP. 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.June Shee Sheung Sheu			Valley Watercourse and the development of areas through which					
Image: bit is a construction of cycle Tracks and Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung project.Image: bit is a construction of cycle Tracks and Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung project.Image: bit is a construction of cycle Tracks and Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung project.Image: bit is a construction of cycle Tracks and Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung project.Image: bit is a construction of cycle Tracks and Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung project.Image: bit is a construction of cycle Tracks and Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung project.Image: bit is a construction of cycle Tracks and Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung project.Image: bit is a construction of cycle Tracks and Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung project.Image: bit is a construction of cycle Tracks and Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung Proponent/ <br< td=""><td></td><td></td><td>it passes, including KTN area B3-12. Contingency plan to</td><td></td><td></td><td></td><td></td><td></td></br<>			it passes, including KTN area B3-12. Contingency plan to					
Image: series of the construction of Cycle Tracks and Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung project.Image: series of tracks and Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung project.Image: series of tracks and Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung project.Image: series of tracks and Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung project.Image: series of tracks and Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung project.Image: series of tracks and Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung project.Image: series of tracks and Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung project.Image: series of tracks and Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung project.Image: series of tracks and Associated Support for S			address any disruption to be included in LVNP HCMP. Avoid					
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Ecology (Construction Phase) E12 Compensatory egretry habitat provision and establishment. Compensate for loss of Man Kam To Road egretry Project Proponent/ FLN area A1-7 Construction N/A S13.9 E12 Compensatory egretry habitat provision and establishment. Compensate for loss of Man Kam To Road egretry Project FLN area A1-7 Construction Detailed Design Review condition and location of egretries before commencement of works. Formulate and implement additional mitigation measures as appropriate. Avoid mortality of breeding egrets Contractor Fun area A1-7 Consultant/ Egretry. S13.9 E13 Review design and construction methods for bridges, especially those on the Sheung Yue and tidal Ng Tung Rivers, and adopt and fragmentation impacts on fivers and disturbance and fragmentation impacts on fauna. Minimize impacts on rivers fauna Project fauna Along and within the Sheung Consultant/ Detailed design and construction phases. N/A			the Construction of Cycle Tracks and Associated Supporting					
S13.9E12Compensatory egretry habitat provision and establishment. Review condition and location of egretries before commencement of works. Formulate and implement additional mitigation measures as appropriate.Compensate for loss of Man Kam To Road egretry habitat.ProjectFLN area A1-7 Detailed Design Kam To Road Egretry.ConstructionN/AS13.9E12Compensatory egretry habitat provision and location of egretries before commencement of works. Formulate and implement additional mitigation measures as appropriate.Compensate for loss of Man Kam To Road egretry avoid mortality of breeding egretsProjectFLN area A1-7 Proponent/ S00m from Man Consultant/ConstructionS13.9E13Review design and construction methods for bridges, especially those on the Sheung Yue and tidal Ng Tung Rivers, and adopt and fragmentation impacts on rivers and fragmentation impacts on fauna.Minimize impacts on rivers faunaProjectAlong and within the Sheung Yue Ng Tung and Shek Sheung RiversDetailed design phases.N/A	ı		Facilities from Sha Po Tsuen to Shek Sheung project.					
S13.9E13Review condition and location of egretrices before commencement of works. Formulate and implement additional mitigation measures as appropriate.Kam To Road egretry habitat. Avoid mortality of breeding egretsProponent/ Detailed Design500m from Man Kam To Road Egretry.phase.\$13.9E13Review 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 fragmentation impacts on fauna.Minimize impacts on rivers faunaProject ProjectAlong and within the Sheung Yue, and construction the Sheung Ng Tung and Shew Sheung RiversN/A	Ecology (Construc	tion Phase)					
Review condition and location of egretries before commencement of works. Formulate and implement additional mitigation measures as appropriate.habitat.Detailed Design Consultant/ Noid mortality of breeding egretsKam To Road Egretry.Egretry.\$13.9E13Review 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 fragmentation impacts on fauna.Minimize impacts on rivers and disturbance faunaProject Proponent/ ContractorAlong and within the Sheung Yue, and construction phases.N/A	S13.9	E12	Compensatory egretry habitat provision and establishment.	Compensate for loss of Man	Project	FLN area A1-7	Construction	N/A
S13.9E13Review design and construction methods for bridges, especially those on the Sheung Yue and tidal Ng Tung Rivers, and disturbance and fragmentation impacts on rivers and fragmentation impacts on fixersMinimize impacts on rivers and disturbance fragmentation impacts on fraunaProject Consultant/ Consultant/ Consultant/ ContractorAlong and within the Sheung Yue, and construction phases.N/A				Kam To Road egretry	Proponent/	500m from Man	phase.	
Image: Noise of the section of the			Review condition and location of egretries before	habitat.	Detailed Design	Kam To Road		
Bit A contractionA			commencement of works. Formulate and implement additional		Consultant/	Egretry.		
Phasing of works near and within Man Kam To Road Egretry outside breeding seasonPhasing of works near and within Man Kam To Road Egretry outside breeding seasonImage: Constant is and construction within man kam to Road Egretry outside breeding seasonImage: Constant is and construction within man kam to Road Egretry outside breeding seasonMinimize impacts on rivers and disturbance and fragmentation impacts on riversProjectAlong and within the Sheung Yue, and constructionDetailed design and constructionN/AS13.9E13Review 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.Minimize impacts on rivers and disturbance and fragmentation impacts on faunaProponent/ Detailed Design Shek Sheung Consultant/Ng Tung and Shek Sheung Sheungphases.			mitigation measures as appropriate.	Avoid mortality of breeding	Contractor			
S13.9E13Review 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.Minimize impacts on rivers and disturbance faunaAlong and within the Sheung Yue, Ng Tung and Shek SheungDetailed design and construction phases.N/AS13.9E13Review 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.Minimize impacts on rivers and disturbance faunaProponent/ Detailed Design Consultant/Detailed design Ng Tung and Shek SheungN/A	l			egrets				
S13.9E13Review 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.Minimize impacts on rivers and disturbance and fragmentation impacts on faunaProjectAlong and within the Sheung Yue, and construction measures which minimize impacts on rivers and disturbance and fragmentation impacts on fauna.Minimize impacts on rivers fragmentation impacts on faunaProjectAlong and within the Sheung Yue, and construction phases.N/AShek Sheung ContractorImpacts<			Phasing of works near and within Man Kam To Road Egretry					
those on the Sheung Yue and tidal Ng Tung Rivers, and adopt and disturbance and Proponent/ the Sheung Yue, and construction measures which minimize impacts on rivers and disturbance fragmentation impacts on Detailed Design Ng Tung and phases. and fragmentation impacts on fauna. fauna Consultant/ Shek Sheung Shek Sheung Contractor Rivers Rivers Rivers Rivers Rivers			outside breeding season					
measures which minimize impacts on rivers and disturbancefragmentation impacts onDetailed DesignNg Tung andphases.and fragmentation impacts on fauna.faunaConsultant/Shek SheungLong tractorRiversRivers	S13.9	E13	Review design and construction methods for bridges, especially	Minimize impacts on rivers	Project	Along and within	Detailed design	N/A
and fragmentation impacts on fauna. fauna Consultant/ Shek Sheung Contractor Rivers			those on the Sheung Yue and tidal Ng Tung Rivers, and adopt	and disturbance and	Proponent/	the Sheung Yue,	and construction	
Contractor Rivers			measures which minimize impacts on rivers and disturbance	fragmentation impacts on	Detailed Design	Ng Tung and	phases.	
			and fragmentation impacts on fauna.	fauna	Consultant/	Shek Sheung		
No construction during ardeid breeding season (1 March to 31					Contractor	Rivers		
			No construction during ardeid breeding season (1 March to 31					
July) along Sheung Yue River north and east of KTN area D1-5			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			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			new pedestrian bridges over the Sheung Yue River and tidal Ng					
Tung River to 09.00 to 17.30 during the ardeid breeding season			Tung River to 09.00 to 17.30 during the ardeid breeding season					

		(1 March to 31 July)					
		Provision of alternative foraging habitat along main river channels for large waterbirds.					
S13.9	E14	Buffer zone of 15-30m as appropriate on both sides (not less	Minimize impacts direct and	PlanD/ Project	KTN areas H1-1,	Detailed design	N/A
		than 45m total width) of Ma Tso Lung Stream north of the point	indirect impacts of habitat	Proponent/	F12 and F1-3 and	and construction	
		where it is crossed by the LMC Loop Eastern Connection Road,	loss, disturbance, pollution	Developer/	Lok Ma Chau	phases.	
		and Ma Tso Lung Stream diversion during construction of the	and fragmentation on Ma	Detailed Design	Loop Eastern		
		LMC Loop Eastern Connection Road; development along lower	Tso Lung Stream and marsh	Consultant/	Connection Road.		
		reaches of Ma Tso Lung Stream and Ma Tso Lung San Tsuen	and riparian corridor of	Contractor.			
		Stream in OU zones in KTN areas F1-2 and F1-3 to be set back	importance to species of	(Design of Ma			
		beyond buffer.	conservation significance.	Tso Lung			
				Stream diversion			
		Construction and maintenance of permanent 1.2m high solid		and buffer zone			
		faunal barrier at all at-grade sections of LMC Loop eastern		habitat			
		connection Road north of junction with road D4 within 15-30m		restoration			
		as appropriate of Ma Tso Lung Stream buffer and construction of		measures)			
		faunal underpass beneath road.					
		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.					

S.13.9	E15	Creation and enhancement of proposed Long Valley Nature	Compensate for wetland loss	Project	Long Valley, (KTN	Construction	N/A
		Park and creation and enhancement of wetland and buffer	arising from the project	Proponent/	area C1-9).	phase.	
		planting within LVNP.		Contractor			
				(LVNP Detailed			
				Habitat Creation			
				& Management			
				Plan)			
S13.9	E16	Creation of Green Corridors along the Sheung Yue, Ng Tung	Minimize disturbance to	Detailed Design	Ng Tung, Sheung	Detailed design	N/A
		and Shek Sheung Rivers, retention and provision of screen	waterbirds using Ng Tung,	Consultant/	Yue and Shek	and Construction	
		plantings where feasible; provision of Open Space areas and	Sheung Yue and Shek	Contractor	Sheung Rivers	phases.	
		development areas along river corridors;	Sheung River channels.				
		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.					
S13.9	E17	Design and erection of 2m high solid dull green site barrier fence	Minimize dust, disturbance,	Contractor	Interface	Construction	N/A
		between active works areas and all areas/habitats of ecological	mortality and other adverse		between	phase.	
		importance on edge of development areas, including along any	ecological impacts on		areas/habitats/		
		roads adjacent to or penetrating into areas/habitats of ecological	habitats, flora and fauna.		fauna/ flora of		
		importance.	Measures to minimize flight-		ecological		
			line impacts to birds,		importance (e.g.		
		Erection of a 2m high dull green site barrier fence at the edge of	especially breeding ardeids.		KTN areas B1-3,		
		the works area or 30m from Ma Tso Lung Stream and			C1-5, C1- 6, C1-		

					0.000.004		
		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	Compensate for loss of	Project	KTN areas E1-8	Construction	N/A
		maintenance.	secondary woodland and	Proponent/	and G1-3.	phase.	
			hillside plantation of	Contractor			
			ecological significance.				
			ecological significance.				

S13.9	E19	Use opaque, non-transparent, non-reflective noise barriers for	Minimize mortality impacts	Contractor	All construction	Construction	N/A
		all construction sites.	on birds.		sites	phase.	
		Unnecessary lighting should be avoided.					
S13.9	E20	Pre-site clearance check for presence of flora or fauna of	Minimize impacts to flora	Government/	All construction	Prior to clearance	N/A
		conservation significance and bat roosts. If any are found,	and fauna of conservation	Developer/	sites.	of vegetation and	
		measures should be proposed and implemented to avoid,	significance. Minimize	Contractor/		structures.	
		minimize and/or compensate for impacts; including adjustments	impacts to protected fauna	Ecologist			
		to design, timing of works, transplantation and translocation.	and flora species. Formulate				
		Seek agreement of relevant authorities including AFCD in	and implement mitigation				
		respect of proposed measures, then implement.	measures to avoid, minimize				
			and/or compensate for				
		Pre-site clearance check on all construction sites and pre -	impacts; including				
		works commencement check on watercourses to be physically	adjustments to design,				
		and/or hydrologically impacted by construction activities for	timing of works,				
		presence of protected plant species/specimens of conservation	transplantation and				
		significance. If any are found consider adjustments to avoid,	translocation.				
		minimize and/or compensate for impacts; including adjustments					
		to design, timing of works,					
		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					
		avoid, minimize and/or compensate for impacts, including					

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		adjustments to design, timing of works, transplantation and					
		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	Pre-works commencement check on watercourses to be	Minimize impacts to flora	Government/	All construction	Prior to clearance	N/A
		physically and/or hydrologically impacted by construction	and fauna of conservation	Developer/	sites.	of vegetation and	
		activities for presence of flora or fauna of conservation	significance. Minimize	Contractor/		structures.	
		significance and bat roosts. If any are found consider	impacts to protected fauna	Ecologist			
		adjustments to avoid, minimize and/or compensate for impacts;	and flora species. Consider				
		including adjustments to design, timing of works, transplantation	and implement adjustments				
		and translocation. Seek agreement of relevant authorities	to avoid, minimize or				
		including AFCD in respect of proposed measures, then	compensate for impacts;				
		implement.	including adjustments to				
			design, timing of works,				
		Pre-site clearance check on all construction sites for presence of	transplantation and				
		reptile species of conservation significance, capture and	translocation				
		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					
		Pre-works commencement check on watercourses to be					
		physically and/or hydrologically impacted by construction					
		activities for presence of Small Snakehead and					
		Sommaniathelphusa zanklon. Capture any Sommaniathelphusa					
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		<i>zanklon</i> found and translocate to Ma Tso Lung Stream/ other 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 Mitigati	ion Measures for Designate	ed Projects			
		DP2- Castle Peak	k Road Diversion (Major Im	provement)			
Landscap	e and Visu	ual (Detailed Design, Prior to Construction, Construction and Op	perational Phases)	. <u></u>			
S.12.A9	LV1-	General Good Practice Measures - For areas unavoidably		Detailed	Throughout	Prior to	N/A
	DP2	disturbed by the Project on a short term basis e.g. works areas,		Design	NDAs,	Construction,	
		the general principle to try and restore these to their former state		Consultant/		Construction &	
		to suit future land use, should be adhered to.		Contractor		for all planting,	
		With regard to topsoil, where identified, it should be stripped,				this should be	
		treated appropriately, and where suitable and practical stored for				installed as	
		re-use in the construction of the soft landscape works such as				soon as the	
		roadside amenity strips, and open space sites.				areas become	
						available, to	
						achieve early	
						establishment	
S.12.A9	LV4-	Avoid affecting Watercourses - In the detailed design,	Avoid direct impacts to	Detailed	All	Prior to	N/A
MM14.4	DP2	consideration should be made of watercourses, to minimize any	watercourses	Design	watercourses,	Construction	
		impacts e.g. at new bridge crossings, viaducts, road alignment		Consultant/	particularly the	and	
		etc.		Contractor	stream at Siu	Construction	

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		Guidelines stated should be followed.			Hang	Phase	
		For example, for the stream at Siu Hang San Tsuen in FLN NDA,			San Tsuen that		
		much of the stream is located underneath the viaduct for the			will		
		proposed Fanling Bypass. In order to avoid impacts to the			flow under the		
		stream, the detailed final design of the viaduct should follow			Fanling Bypass		
		guidelines and ensure that no viaduct footings or other			Eastern Section		
		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.					
S.12.A9	LV5-	Tree Protection & Preservation – Exiting trees to be retained	Protect and Preserve	Government/	Onsite	Prior to	N/A
MM4	DP2	within the Project Site should be carefully protected during	Trees	Detailed		Construction	
		construction.		Design		and	
		In particular OVTs will be preserved according to ETWB		Consultant/		Construction	
		Technical Circular (Works) No. 29/2004. Detailed Tree Protection		Contractor		Phase	
		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.					
		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.					
S.12.A9	LV6-	Tree Transplantation – Trees unavoidably affected by the Project	Transplant Trees where	Government	Onsite where	Prior to	N/A
MM5	DP2	works should be transplanted where practical. Trees should be	suitable for transplantation	Detailed	possible,	Construction,	

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		transplanted straight to their final receptor site and not held in a		Design	otherwise	Construction	
		temporary nursery as far as possible. A detailed Tree Transplanting		Consultant/	consider offsite	Phase &	
		Specification shall be provided in the Contract Specification, where		Contractor	locations	Maintenance	
		applicable. Sufficient time for necessary tree root and crown				in Operation	
		preparation periods shall be allowed in the project programme.				Phase	
		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.					
		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.A9	LV7-	Slope Landscaping – Site formation should be reduced as far as	To avoid substantial slope	Government	Onsite	Prior to	N/A
MM6	DP2	possible. Seeding of modified slopes should be done as soon as	cutting and fill slopes.	Detailed		Construction,	
		grading works are completed to prevent erosion and subsequent	To prevent erosion and	Design		Construction	
		loss of landscape resources and character. Woodland tree	subsequent loss of	Consultant/		Phase &	
		seedlings and/ or shrubs should be planted where slope gradient	landscape resources and	Contractor		Maintenance in	
		and site conditions allow. In addition, landscape planting should be	character.			Operation	
		provided for the retaining structures associated with modified slopes	To ensure man-made			Phase	
		where conditions allow. All slope landscaping works should comply	slopes are as visually				
		with GEO Publication No. 1/2011-Technical Guidelines on	amenable as possible.				
		Landscape Treatment for Slopes.					
S.12.A9	LV9-	Woodland Compensatory Planting –Specific Woodland	Reprovide areas of	Project	In areas identified	Prior to	N/A
MM8	DP2	compensatory planting is proposed for any areas of quality	woodland to compensate	Proponent/	in	Construction,	
		woodland that are unavoidably affected by the Project. The	for	Detailed	the EIA	Construction	
	-						

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	location and design of the woodland compensatory planting will	those areas of quality	Design	Landscape	Phase &
	principally be within habitats of lower value such as upland	woodland lost.	Consultant/	Mitigation Plans	Maintenance
	grassland. The proposed locations are identified, for example, on		Contractor/	and	in Operation
	the foothills of Tai Shek Mo, and on the higher ground of Fung		Maintenance	as agreed with	Phase
	Kong Shan in KTN NDA; along Fanling Bypass; and a small area		Authority	AFCD	
	in the northern FLN NDA.				
	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).				
	Native tree species are suggested for planting in the appropriate				
	locations, including Ailanthus fordii, Bischofia javanica,				
	Castanopsis fissa, Celtis sinensis, Cinnamomum burmannii,				
	Cinnamomum camphora, Xanthoxlyum avicennaeHibiscus				
	tiliaceus, Liquidambar formosana, Sapium discolor, Schefflera				
	heptaphylla and llex 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, Rhaphiolepis 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.					
S.12.A9	LV10-	Vertical Greening – Planting of climbers to grow up vertical	Soften hard surfaces and	Government	On appropriate	Prior to	N/A
MM9	DP2	surfaces were appropriate (e.g. viaduct piers, noise barriers).	facilities	Detailed	structures	Construction,	
				Design		Construction	
				Consultant/		Phase &	
				Contractor		Maintenance	
						in Operation	
						Phase	
S.12.A9	LV11-	Screen Planting - Tall screen/buffer trees and shrubs should be	To screen proposed	Government	Along roads,	Prior to	N/A
MM11	DP2	planted. This measure may additionally form part of the	structures such as roads	Detailed	around	Construction,	
		compensatory planting.	and	Design	suitable built	Construction	
			buildings. Improve	Consultant/	structures, or	Phase &	
			compatibility with the	Contractor	around	Maintenance	
			surrounding environment		VSRs to contain	in Operation	
			and create a pleasant		their view out to	Phase	
			pedestrian environment		the		
					NDA structures.		
S.12.A9	LV12-	Road Greening –For viaducts, soft landscaping should be provided	To soften the hard, straight	Government	On viaducts or	Prior to	N/A
MM12	DP2	to soften the hard, straight edges (for climbers used to cover the	edges and provide	Detailed	along	Construction,	
		vertical, hard surfaces of the piers – see MM9 Vertical Greening)	greening	Design	roads.	Construction	
		and shade tolerant plants should be planted, where light is	along roads.	Consultant/		Phase &	
		sufficient, to improve aesthetic value of areas under viaducts. Both		Contractor		Maintenance	
		at grade planting and use of elevated planters should be				in Operation	
		considered for the soft landscaping of viaducts, taking into account				Phase	
		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)					
S.12.A9	LV13-	Marsh/Wetland Compensation –The proposed Long Valley Nature	Compensate for Marsh/	Project	Onsite where	Prior to	N/A
MM13 &	DP2	Park (LVNP) will be designed and implemented to enhance	Wetland lost due to the	Proponent/	possible.	Construction,	
EIA		onwetland areas within the LVNP. (See E4,E15 and E25 also)	Project.	Detailed	Otherwise	Construction	
Annex 13		Also see LV16, LV17, and LV18 as wetland planting should be		Design	consider offsite	Phase &	
		provided along the embankments and beds of modified/		Consultant/	locations	Maintenance	
		reprovisioned watercourses.		Contractor/		in Operation	
				Maintenance		Phase	
				Authority			
S.12.A9	LV14-	Enhancement Planting along Embankment - For channelized	Minimize the necessity of	Government /	Channelized	Prior to	N/A
MM14.3	DP2	watercourses, if these are modified, the Drainage Services	watercourse modification,	Detailed	watercourse,	Construction,	
		Department Practice Note No.1/2005 - Guidelines on	protect watercourses	Design	particularly the	Construction	
		Environmental Considerations for River Channel Design, should be	where	Consultant/	Ма	Phase &	
		considered and appropriate mitigation measures included ensuring	possible and enhance	Contractor	Wat River	Maintenance	
		the new watercourses match the existing as far as possible.	channelized watercourses		Channel	in Operation	
		Measures can include enhancement planting to upgrade the			Diversion	Phase	
		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					

, I	of FLN NDA will have to be diverted for the construction of the					
· .	Fanling Bypass Eastern Section. This measure will be particularly					
ļ						
]	relevant in this area.					
_						N/A
DP2	ensure that they incorporate ponds within the RODPs.	due to the Project.	Proponent/	(LVNP) in KNT	Construction,	
, I	All requirements for ponds stipulated in the planning documents		Detailed Design	NDA	Construction	
, I	for the formulation of the Preliminary Layout Plan (e.g. at Fung		Consultant/	and generally	Phase	
1	Kong Shan Park in E1-7 of KNT ND) should be adhered to.		Contractor/	throughout NDA	Maintenance	
, I	1		Maintenance		in Operation	
, I	1		Authority		Phase	
and Visua	I (Construction)					
LV16-	Screen Hoarding -Screen hoarding shall be erected along areas of	To screen undesirable	Contractor	Throughout	Construction	N/A
DP2	the construction works site boundary where the works site borders	views		NDAs	Phase	
, I	publically accessible routes and/or is close to visually sensitive	of the works site.				
, I	receivers (VSRs). It is proposed that the screening be compatible					
, I	with the surrounding environment and where possible, nonreflective,					
, I	recessive colours be used.					
, I	Any works areas near the ecological sensitive areas should erect					
, I	2m high dull green site boundary fence. Details can refer to the					
, I	ecological impact assessment (Chapter 13 of the EIA report).					
LV17-	Light Control – Construction day and night time lighting should be	To minimize glare impact	Government /	Throughout	Construction	N/A
DP2	controlled to minimize glare impact to adjacent VSRs during the	to	Contractor	NDAs	and Operation	
, I	Construction phase.	adjacent VSRs			Phases	
, I	Street and night time lighting shall also be controlled to minimize					
1	glare impact to adjacent VSRs during the operation phase.					
etailed De:	sign, Construction and Operational Phases)				I	
E2-DP2	Use opaque, non-transparent, non-reflective noise barriers.	Minimize mortality impacts	Detailed	Within NDA.	Detailed	٨
	LV16- DP2 LV17- DP2	LV15- Pond Replacement –Principles adopted in the design of the NDAs DP2 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. Kong Shan Park in E1-7 of KNT ND) should be adhered to. and Visual (Construction) LV16- Screen Hoarding –Screen hoarding shall be erected along areas of DP2 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). LV17- Light Control – Construction day and night time lighting should be DP2 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.	LV15- Pond Replacement –Principles adopted in the design of the NDAs ensure that they incorporate ponds within the RODPs. Reprovision for ponds lost due to the Project. DP2 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. To screen undesirable and Visual (Construction) EV16- Screen Hoarding –Screen hoarding shall be erected along areas of 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. 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Proponent/ Detailed Design Consultant/ and Visual Construction) Contractor/ Maintenance Authority Contractor/ Maintenance Authority 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. To screen undesirable views of the works site. Contractor LV17- LV17- LV17- LV17- LV17- LV17- 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 testeled Design. 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Project E1-7 and C1-9 Prior to Construction, DP2 All requirements for ponds sipulated 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. Detailed Design, Construction NDA Construction, and Visual Construction Maintenance Authority Maintenance Authority Maintenance in Operation Maintenance in Operation Phase and Visual Construction 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. To minimize glare impact Any works areas near the ecological sensitive areas should erect 2m high duil green site boundary tence. 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		Unnecessary lighting should be avoided.	on birds.	Design		design phase,	
				Consultant/		Construction	
				Contractor/		phase and	
				Maintenance		Operation	
				Authority		phase.	
Ecology (Constructio	on Phase)					
S.13.9	E3-DP2	Design and erection of 2m high solid dull green site barrier fence	Minimize dust,	Contractor.	Interface	Construction	N/A
		between active works areas and all areas/habitats of ecological	disturbance,		between	phase.	
		importance.	mortality and other		areas/habitats of		
			adverse		ecological		
			ecological impacts on		importance (KTN		
			habitats, flora and fauna.		area B1-3) and		
					works areas.		
S13.9	E4-DP2	Compensatory native woodland planting.	Compensate for loss of	Project	KTN NDA areas	Construction	N/A
			plantation of ecological	Proponent /	E1-	phase.	
			significance.	Contractor	8 and G1-3.		
Cultural H	leritage (Co	nstruction Phase)					
S11.6.2	CH5-	Conducting Construction Vibration Monitoring and Structural	To minimize the potential	Project	Identified	Construction	N/A
	DP2	Strengthening Measures	impacts during	Proponent/	potential	phase, with	
		Construction vibration monitoring and structural strengthening	Construction	Contractor	vibration	details	
		measures should be conducted during Construction phase based	phase on any identified		impacted	specified in	
		on the assessment result of baseline condition survey and	potential vibration		built heritage	baseline	
		baseline vibration impact assessment, so as to ensure the	impacted		features	condition	
		construction performance meets with the vibration standard stated	built heritage features			survey and	
		in the EIA report.				baseline	
						vibration	
						impact	
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		<u> </u>				assessment,	
	DP3	- - KTN NDA Road P1 and P2 (New Road) and associated new Kwu Tu	ung Interchange (New Road)	and Pak Shek Au	Interchange Impro	vement (Major Impro	ovement)
Landscap	e and Visu	al (Detailed Design, Prior to Construction, Construction and Operati	ional Phases)				
S.12.A9	LV1-	General Good Practice Measures - For areas unavoidably		Detailed	Throughout	Prior to	٨
	DP3	disturbed by the Project on a short term basis e.g. works areas,		Design	NDAs,	Construction,	
		the general principle to try and restore these to their former state		Consultant/		Construction &	
		to suit future land use, should be adhered to.		Contractor		for all planting,	
		With regard to topsoil, where identified, it should be stripped,				this should be	
		treated appropriately, and where suitable and practical stored for				installed as	
		re-use in the construction of the soft landscape works such as				soon as the	
		roadside amenity strips, and open space sites.				areas become	
						available, to	
						achieve early	
						establishment	
S.12.A9	LV4-	Avoid affecting Watercourses – In the detailed design,	Avoid direct impacts to	Detailed	All watercourses,	Prior to	N/A
MM14.4	DP3	consideration should be made of watercourses, to minimize any	watercourses	Design	particularly the	Construction	
		impacts e.g. at new bridge crossings, viaducts, road alignment etc.		Consultant/	stream at Siu	and	
		Guidelines stated should be followed.		Contractor	Hang	Construction	
		For example, for the stream at Siu Hang San Tsuen in FLN NDA,			San Tsuen that	Phase	
		much of the stream is located underneath the viaduct for the			will		
		proposed Fanling Bypass. In order to avoid impacts to the stream,			flow under the		
		the detailed final design of the viaduct should follow guidelines and			Fanling Bypass		
		ensure that no viaduct footings or other structures are placed in the			Eastern Section		
		stream.					
		Bridges and box culverts should also be used to minimize the					
		necessity of watercourse modification and protect the watercourses					
		where necessary.					

S.12.A9	LV5-	Tree Protection & Preservation – Exiting trees to be retained within	Protect and Preserve	Government	Onsite	Prior to	N/A
MM4	DP3	the Project Site should be carefully protected during construction.	Trees	Detailed		Construction	
		In particular OVTs will be preserved according to ETWB Technical		Design		and	
		Circular (Works) No. 29/2004. Detailed Tree Protection		Consultant/		Construction	
		Specification shall be provided in the Contract Specification. Under		Contractor		Phase	
		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.					
		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.					
S.12.A9	LV6-	Tree Transplantation – Trees unavoidably affected by the Project	Transplant Trees where	Government	Onsite where	Prior to	N/A
MM5	DP3	works should be transplanted where practical. Trees should be	suitable for transplantation	Detailed	possible.	Construction,	
		transplanted straight to their final receptor site and not held in a		Design	Otherwise	Construction	
		temporary nursery as far as possible. A detailed Tree Transplanting		Consultant/	consider offsite	Phase &	
		Specification shall be provided in the Contract Specification, where		Contractor	locations.	Maintenance	
		applicable. Sufficient time for necessary tree root and crown				in Operation	
		preparation periods shall be allowed in the project programme.				Phase	
		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.					
		For trees associated with highways e.g. roadside planting along					

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		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	LV7-	Slope Landscaping – Site formation should be reduced as far as	To avoid substantial slope	Government	Onsite	Prior to	N/A
MM6	DP3	possible. Seeding of modified slopes should be done as soon as	cutting and fill slopes.	Detailed		Construction,	
		grading works are completed to prevent erosion and subsequent	To prevent erosion and	Design		Construction	
		loss of landscape resources and character. Woodland tree	subsequent loss of	Consultant/		Phase &	
		seedlings and/ or shrubs should be planted where slope gradient	landscape resources and	Contractor		Maintenance	
		and site conditions allow.	character.			in Operation	
		In addition, landscape planting should be provided for the	To ensure man-made			Phase	
		retaining structures associated with modified slopes where	slopes				
		conditions allow. All slope landscaping works should comply with	are as visually amenable				
		GEO Publication No. 1/2011-Technical Guidelines on Landscape	as				
		Treatment for Slopes.	possible.				
S.12.A9	LV8-	Compensatory Planting – Compensatory tree planting for felled	Compensate for trees and	Government	Onsite where	Prior to	N/A
MM7	DP3	trees shall be provided to the satisfaction of relevant Government	shrubs lost due to the	Detailed	possible.	Construction,	
		departments. Required numbers and locations of compensatory	Project.	Design	Otherwise	Construction	
		trees shall be determined and agreed separately with Government		Consultant/	consider offsite	Phase &	
		during the Tree Removal Application process under ETWBTC		Contractor	locations	Maintenance	
		3/2006.				in Operation	
		Compensatory planting is proposed at the potential open areas				Phase	
		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 Melastoma					
		malabathricum, Diospyros vaccinioides, Gardenia jasminoides,					

		Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma					
		dodecandrum, Atalantia buxifolia, Rhodomyrtus tomentosa,					
		Rhaphiolepis indica, and Rhododendron simsii are suggested					
S.12.A9	LV9-	Woodland Compensatory Planting –Specific Woodland	Reprovide areas of	Project	In areas identified	Prior to	N/A
							IN/A
MM8	DP3	compensatory planting is proposed for any areas of quality	woodland to compensate	Proponent/	in	Construction,	
		woodland that are unavoidably affected by the Project. The	for	Detailed	the EIA	Construction	
		location and design of the woodland compensatory planting will	those areas of quality	Design	Landscape	Phase &	
		principally be within habitats of lower value such as upland	woodland lost.	Consultant/	Mitigation Plans	Maintenance	
		grassland. The proposed locations are identified, for example, on		Contractor/	and	in Operation	
		the foothills of Tai Shek Mo, and on the higher ground of Fung		Maintenance	as agreed with	Phase	
		Kong Shan in KTN NDA; along Fanling Bypass; and a small area		Authority	AFCD		
		in the northern FLN NDA.					
		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).					
		Native tree species are suggested for planting in the appropriate					
		locations, including Ailanthus fordii, Bischofia javanica,					
		Castanopsis fissa, Celtis sinensis, Cinnamomum burmannii,					
		Cinnamomum camphora, Xanthoxlyum avicennaeHibiscus					
		tiliaceus, Liquidambar formosana, Sapium discolor, Schefflera					
		heptaphylla and llex 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, Rhaphiolepis indica, and Rhododendron simsii.					
		The area allocated for compensatory woodland planting allows in					

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		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	LV10-	Vertical Greening – Planting of climbers to grow up vertical	Soften hard surfaces and	Government	On appropriate	Prior to	N/A
MM9	DP3	surfaces were appropriate (e.g. viaduct piers, noise barriers).	facilities	Detailed	structures	Construction,	
				Design		Construction	
				Consultant/		Phase &	
				Contractor		Maintenance	
						in Operation	
						Phase	
S.12.A9	LV11-	Screen Planting - Tall screen/buffer trees and shrubs should be	To screen proposed	Government	Along roads,	Prior to	N/A
MM11	DP3	planted. This measure may additionally form part of the	structures such as roads	Detailed	around	Construction,	
		compensatory planting.	and	Design	suitable built	Construction	
			buildings. Improve	Consultant/	structures, or	Phase &	
			compatibility with the	Contractor	around	Maintenance	
			surrounding environment		VSRs to contain	in Operation	
			and create a pleasant		their view out to	Phase	
			pedestrian environment		the		
					NDA structures.		
S.12.A9	LV12-	Road Greening –For viaducts, soft landscaping should be provided	To soften the hard, straight	Government	On viaducts or	Prior to	N/A
MM12	DP3	to soften the hard, straight edges (for climbers used to cover the	edges and provide	Detailed	along roads.	Construction,	

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		vertical, hard surfaces of the piers – see MM9 Vertical Greening)	greening along roads.	Design		Construction	
		and shade tolerant plants should be planted, where light is		Consultant/		Phase &	
		sufficient, to improve aesthetic value of areas under viaducts. Both		Contractor		Maintenance in	
		at grade planting and use of elevated planters should be considered				Operation Phase	
		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)					
S.12.A9	LV13-	Marsh/Wetland Compensation –The proposed Long Valley Nature	Compensate for Marsh/	Project	Onsite where	Prior to	N/A
MM13	DP3	Park (LVNP) will be designed and implemented to enhance	Wetland lost due to the	Proponent/	possible.	Construction,	
EIA		onwetland	Project.	Detailed	Otherwise	Construction	
Annex 13		areas within the LVNP. (See E4,E15 and E25 also)		Design	consider offsite	Phase &	
		Also see LV16, LV17, and LV18 as wetland planting should be		Consultant/	locations	Maintenance	
		provided along the embankments and beds of modified/		Contractor/		in Operation	
		reprovisioned		Maintenance		Phase	
		watercourses.		Authority			
S.12.A9	LV14-	Enhancement Planting along Embankment - For channelized	Minimize the necessity of	Government /	Channelized	Prior to	N/A
MM14.3	DP3	watercourses, if these are modified, the Drainage Services	watercourse modification,	Detailed	watercourse,	Construction,	
		Department Practice Note No.1/2005 – Guidelines on	protect watercourses	Design	particularly the	Construction	
		Environmental Considerations for River Channel Design, should be	where	Consultant/	Ма	Phase &	
		considered and appropriate mitigation measures included ensuring	possible and enhance	Contractor	Wat River	Maintenance	
		the new watercourses match the existing as far as possible.	channelized watercourses		Channel	in Operation	
		Measures can include enhancement planting to upgrade the			Diversion	Phase	
		channels as appropriate, including consideration of wetland					

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		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					
		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	LV15-	Pond Replacement Principles adopted in the design of the NDAs		Project	E1-7 and C1-9	Prior to	N/A
MM15	DP3	ensure that they incorporate ponds within the RODPs.		Proponent/	(LVNP) in KNT	Construction,	
		All requirements for ponds stipulated in the planning documents for		Detailed	NDA	Construction	
		the formulation of the Preliminary Layout Plan (e.g. at Fung Kong		Design	and generally	Phase	
		Shan Park in E1-7 of KNT ND) should be adhered to.		Consultant/	throughout NDA	Maintenance	
				Contractor/		in Operation	
				Maintenance		Phase	
				Authority			
Landscape	e and Visua	l (Construction)		·	·		
S.12.A9	LV16-	Screen Hoarding –Screen hoarding shall be erected along areas of	To screen undesirable	Contractor	Throughout	Construction	N/A
MM16	DP3	the construction works site boundary where the works site borders	views		NDAs	Phase	
		publically accessible routes and/or is close to visually sensitive	of the works site.				
		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).					

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S.12.A9	LV17-	Light Control – Construction day and night time lighting should be	To minimize glare impact	Government /	Throughout	Construction	N/A
MM17	DP3	controlled to minimize glare impact to adjacent VSRs during the	to	Contractor	NDAs	and Operation	
		Construction phase.	adjacent VSRs			Phases	
		Street and night time lighting shall also be controlled to minimize					
		glare impact to adjacent VSRs during the operation phase.					
Ecology (Detailed De	sign, Construction and Operational Phases)	·		•	·	
S13.9	E3-DP3	Use opaque, non-transparent, non-reflective noise barriers.	Minimize mortality impacts	Detailed	Throughout.	Detailed	٨
		Unnecessary lighting should be avoided.	on birds.	Design		design,	
				Consultant/		Construction	
				Contractor		and Operation	
				Maintenance		phases.	
				Authority.			
Ecology (Constructio	n Phase)					
S.13.9	E4-DP3	Creation of proposed Long Valley Nature Park and creation and	Compensate for wetland	Project	Long Valley	Construction	N/A
		enhancement of wetland and woodland areas and buffer planting	loss arising from the	Proponent/		phase.	
		within LVNP.	project.	Contractor			
				(LVNP			
				Detailed			
				Habitat			
				Creation &			
				Management			
				Plan).			
S.13.9	E5-DP3	Design and erection of 2m high solid dull green site barrier fence	Minimize dust, disturbance,	Contractor.	Interface	Construction	N/A
		between active works areas and all areas/habitats of ecological	mortality and other		between	phase.	
		importance on edge of development areas, including along any	adverse ecological impacts		areas/habitats of		
		roads adjacent to or penetrating into areas/habitats of ecological	on habitats, flora and		ecological		
		importance.	fauna.		importance (KTN		
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			Measures to minimize		areas B1-3, H1-		
			flightline		1)		
			impacts to birds,		and works areas.		
S13.9	E6-DP3	Compensatory native woodland planting.	Compensate for loss of	Project	KTN areas E1-8	Construction	N/A
			plantation of ecological	Proponent /	and	phase.	
			significance.	Contractor	G1-3.		
		DP4- KTN	NDA Road D1 to D5 (New F	Road)			
Noise Im	pacts (Ope	rational Phase)					
S4.9	N1-	Provide noise barrier before operation of the proposed project	Control operational airborne	Project	Refer to Appendix	Prior to	N/A
	DP4	and locations of barriers are stated as following:	noise due to road traffic	Proponent	<u>5-1</u>	operation of the	
		KTN-NB04: Approx. 35m long, 3m high NB;		/Contractor		Project	
		KTN-NB05: Approx. 40m long, 3m high NB;					
		KTN-NB06: Approx. 65m long CNB;					
		KTN-NB07: Approx. 65m long CNB;					
		KTN-NB08: Approx. 105m long CNB;					
		KTN-NB09: Approx. 60m long, 3m high NB;					
		KTN-NB10: Approx. 90m long, 3m high NB;					
		KTN-NB19: Approx. 30m long, 3m high NB;					
		KTN-NB20: Approx. 70m long, 5m high NB;					
		KTN-NB23: Approx. 80m long, 5m high NB;					
		KTN-NB24: Approx. 95m long, 7m vertical barrier with 3m					
		cantilevered arm;					
		KTN-NB25: Approx. 30m long CNB;					
		KTN-NB35: Approx. 40m long CNB;					
		KTN-NB37: Approx. 80m long CNB;					
		KTN-NB38: Approx. 100m long, 3m high NB;					
		KTN-NB69: Approx. 120m long, 5m high NB;					

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ļ	'	• KTN-NB70: Approx. 30m long, 7m vertical barrier with 3m			1	1	1
ļ	'	cantilevered arm;			1	1	1
ļ	'	KTN-NB73: Approx. 75m long CNB;			1	1	1
	'	KTN-NB75: Approx. 45m long, 3m high NB;					1
ļ	'	KTN-NB76: Approx. 40m long, 3m high NB;			1	1	1
	'	KTN-NB82: Approx. 45m long, 3m high NB;					1
	'	KTN-SE03: Approx. 75m long SE with opening to					1
 	'	northwestern direction;			1	1	1
	'	KTN-SE05: Approx. 80m long SE with opening to south					1
	'	direction;			1	1	1
	'	KTN-SE07: Approx. 95m long SE with opening to			1	1	1
	'	southeastern direction;			1	1	1
	'	KTN-FE02: Approx. 130m long FE	<u> </u>				1
Water Qua	ality Impac	cts (Operational Phase)					
S5.7	W1-	Road runoff	Control water quality impact	Project	All road works	Detailed design	*
	DP4	In order to ensure the sand/silt traps removal efficiencies, the		Proponent /	1	stage, Operation	
	'	following measures should be implemented:		Detailed	1	phase	
	'	Vehicle dust, tyre scraps and oils might be washed away		Design	1	1	
	'	from the road surface / open areas to the nearby water		Consultant,/	1	1	
	'	courses by surface runoff or road surface cleaning.		Maintenance	1	1	
	'	Subject to detailed design and requirement of relevant		Authority	1	1	
	'	government departments, the capacities of road drainage			1	1	
	'	system shall cater the runoff from 50 year-return-period					
	'	rainstorm. Proper drainage systems with silt traps and oil			1	1	
	<u> </u>	interceptors should be installed	<u> </u>	<u> </u>	<u> </u>	<u> </u>	1
Landscap	e and Visu	ual (Detailed Design, Prior to Construction, Construction and Op	perational Phases)		<u>.</u>	<u>.</u>	
0 10 40	LV1-	General Good Practice Measures - For areas unavoidably	1	Detailed Design	Throughout NDAs,	Prior to	N/A
S.12.A9			l			ļ,	l

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	DP4	disturbed by the Project on a short term basis e.g. works areas,		Consultant/		Construction,	
		the general principle to try and restore these to their former state		Contractor		Construction & for	
		to suit future land use, should be adhered to.				all planting, this	
		With regard to topsoil, where identified, it should be stripped,				should be installed	
		treated appropriately, and where suitable and practical stored for				as soon as the	
		re-use in the construction of the soft landscape works such as				areas become	
		roadside amenity strips, and open space sites.				available, to	
						achieve early	
						establishment	
S.12.A9	LV2-	Minimum Topographical Change – To minimize landscape and	Reduce topographical	Government /	Throughout NDAs,	Prior to	N/A
MM1	DP4	visual impacts, the footprint and elevation of such elements	changes and minimize land	Detailed Design	particularly for	Construction	
		should be optimized to reduce topographical/ landform changes,	resumption	Consultant/	reservoirs		
		as well as reduce land take and interference with natural terrain.		Contractor/			
		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.					
S.12.A9	LV3-	Detailed Design (Visual) - The footprint and massing of	Improve visual amenity of	Detailed	Throughout NDAs	Prior to	N/A
MM2	DP4	development components and the works area should also be	the new buildings, NDAs	Design		Construction	
		kept to a practical minimum and the detailed design of	in general and integrate as	Consultant/			
		development components for Construction phase should follow	best possible into the				

		the Sustainable Building Design Guidelines. The form, textures,	surrounding landscape				
		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 designs					
		seek to keep it to a practical minimum.					
S.12.A9	LV4-	Tree Protection & Preservation – Exiting trees to be retained	Protect and Preserve Trees	Government /	Onsite	Prior to	*
MM4	DP4	within the Project Site should be carefully protected during		Detailed Design		Construction and	
		construction. In particular OVTs will be preserved according to		Consultant/		Construction	
		ETWB Technical Circular (Works) No. 29/2004. Detailed Tree		Contractor		Phase	

		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.					
		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.					
S.12.A9	LV5-	Tree Transplantation – Trees unavoidably affected by the Project	Transplant Trees where	Government /	Onsite possible.	Prior to	N/A
MM5	DP4	works should be transplanted where practical. Trees should be	suitable for transplantation	Detailed Design	Consider locations	Construction,	
		transplanted straight to their final receptor site and not held in a		Consultant/	where Otherwise	Construction	
		temporary nursery as far as possible. A detailed Tree		Contractor	offsite locations	Phase &	
		Transplanting Specification shall be provided in the Contract				Maintenance in	
		Specification, where applicable. Sufficient time for necessary				Operation Phase	
		tree root and crown preparation periods shall be allowed in the					
		project programme.					
		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.					
		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					
L	I			1		1	1

		Transplanting Works under Highways Department's Vegetation		,		· · · · · · · · · · · · · · · · · · ·	,,
		Maintenance Ambit' should be referred to.			1		1
S.12.A9	LV6-	Slope Landscaping – Site formation should be reduced as far as	To avoid substantial slope	Government	Onsite	Prior to	N/A
MM6	DP4	possible. Seeding of modified slopes should be done as soon as	cutting and fill slopes.	Detailed Design		Construction,	1
11		grading works are completed to prevent erosion and subsequent	To prevent erosion and	Consultant/	1	Construction	1
		loss of landscape resources and character. Woodland tree	subsequent loss of	Contractor	1	Phase &	1
		seedlings and/ or shrubs should be planted where slope	landscape resources and		1	Maintenance in	1
		gradient and site conditions allow.	character.		1	Operation Phase	1
		In addition, landscape planting should be provided for the	To ensure man-made slopes		1		1
ł		retaining structures associated with modified slopes where	are as visually amenable as		1		1
ł		conditions allow. All slope landscaping works should comply with	possible.		1		1
1		GEO Publication No. 1/2011-Technical Guidelines on Landscape	,		1		1
l		Treatment for Slopes.			1		1
S.12.A9	LV7-	Compensatory Planting – Compensatory tree planting for felled	Compensate for trees and	Government	Onsite where	Prior to	N/A
MM7	DP4	trees shall be provided to the satisfaction of relevant	shrubs lost due to the	Detailed Design	possible.	Construction,	1
1		Government departments. Required numbers and locations of	Project.	Consultant/	Otherwise	Construction	1
1		compensatory trees shall be determined and agreed separately		Contractor	consider offsite	Phase &	1
1		with Government during the Tree Removal Application process			locations	Maintenance in	1
1		under ETWBTC 3/2006.			1	Operation Phase	1
1		Compensatory planting is proposed at the potential open areas			1		1
1		such as open spaces, amenity areas, open areas of the					1
1		streetscapes, as well as the open areas within development lots.			1		1
1		Compensatory planting for shrubs should be considered in			1		1
1		suitable locations. Native species such as Melastoma			1		1
1		malabathricum, Diospyros vaccinioides, Gardenia jasminoides,					1
1		Ixora chinensis, Ligustrum sinense, Litsea rotundifolia,					1
1		Melastoma dodecandrum, Atalantia buxifolia, Rhodomyrtus			1		1

		tomentosa, Rhaphiolepis indica, and Rhododendron simsii are					
		suggested					
S.12.A9	LV8-	Woodland Compensatory Planting –Specific Woodland	Reprovide areas of	Project	In areas identified	Prior to	N/A
MM8	DP4	compensatory planting is proposed for any areas of quality	woodland to compensate for	Proponent/	in the EIA	Construction,	
		woodland that are unavoidably affected by the Project. The	those areas of quality	Detailed Design	Landscape	Construction	
		location and design of the woodland compensatory planting will	woodland lost.	Consultant/	Mitigation Plans	Phase &	
		principally be within habitats of lower value such as upland		Contractor/	and as agreed	Maintenance in	
		grassland. The proposed locations are identified, for example,		Maintenance	with AFCD	Operation Phase	
		on the foothills of Tai Shek Mo, and on the higher ground of		Authority			
		Fung Kong Shan in KTN NDA; along Fanling Bypass; and a					
		small area in the northern FLN NDA.					
		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).					
		Native tree species are suggested for planting in the appropriate					
		locations, including Ailanthus fordii, Bischofia javanica,					
		Castanopsis fissa, Celtis sinensis, Cinnamomum burmannii,					
		Cinnamomum camphora, Xanthoxlyum avicennaeHibiscus					
		tiliaceus, Liquidambar formosana, Sapium discolor, Schefflera					
		heptaphylla and llex 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, Rhaphiolepis 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					

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		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	LV9-	Vertical Greening – Planting of climbers to grow up vertical	Soften hard surfaces and	Government /	On appropriate	Prior to	N/A
MM9	DP4	surfaces were appropriate (e.g. viaduct piers, noise barriers).	facilities	Detailed Design	structures	Construction,	
				Consultant/		Construction	
				Contractor		Phase &	
						Maintenance in	
						Operation Phase	
S.12.A9	LV10-	Screen Planting – Tall screen/buffer trees and shrubs should be	To screen proposed	Government /	Along roads,	Prior to	N/A
MM11	DP4	planted. This measure may additionally form part of the	structures such as roads	Detailed Design	around suitable	Construction,	
		compensatory planting.	and buildings. Improve	Consultant/	built structures,	Construction	
			compatibility with the	Contractor	or around VSRs to	Phase &	
			surrounding environment		contain their view	Maintenance in	
			and create a pleasant		out to the NDA	Operation Phase	
			pedestrian environment		structures.		
S.12.A9	LV11-	Road Greening For viaducts, soft landscaping should be	To soften the hard, straight	Government	On viaducts or	Prior to	N/A
MM12	DP4	provided to soften the hard, straight edges (for climbers used to	edges and provide greening	Detailed Design	along roads.	Construction,	
		cover the vertical, hard surfaces of the piers - see MM9 Vertical	along roads.	Consultant/		Construction	
		Greening) and shade tolerant plants should be planted, where		Contractor		Phase &	
		light is sufficient, to improve aesthetic value of areas under				Maintenance in	
		viaducts. Both at grade planting and use of elevated planters				Operation Phase	

		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)					
S.12.A9	LV12-	Marsh/Wetland Compensation –The proposed Long Valley	Compensate for Marsh/	Project	Onsite where	Prior to	N/A
MM13 &	DP4	Nature Park (LVNP) will be designed and implemented to	Wetland lost due to the	Proponent/	possible.	Construction,	
EIA		enhance on-wetland areas within the LVNP. (See E4,E15 and	Project.	Detailed Design	Otherwise	Construction	
Annex		E25 also)		Consultant/	consider offsite	Phase &	
13		Also see LV16, LV17, and LV18 as wetland planting should be		Contractor/	locations	Maintenance in	
		provided along the embankments and beds of modified/ re-		Maintenance		Operation Phase	
		provisioned watercourses.		Authority			
S.12.A9	LV13-	Pond Replacement – Principles adopted in the design of the	Reprovision for ponds lost	Project	E1-7 and C1-9	Prior to	N/A
MM15	DP4	NDAs ensure that they incorporate ponds within the RODPs.	due to the Project.	Proponent/	(LVNP) in KNT	Construction,	
		All requirements for ponds stipulated in the planning documents		Detailed Design	NDA and generally	Construction	
		for the formulation of the Preliminary Layout Plan (e.g. at Fung		Consultant/	throughout NDA	Phase	
		Kong Shan Park in E1-7 of KNT ND) should be adhered to.		Contractor/		Maintenance in	
				Maintenance		Operation Phase	
				Authority			
Landscap	e and Visu	ual (Construction)					
S.12.A9	LV14-	Screen Hoarding –Screen hoarding shall be erected along areas	To screen undesirable views	Contractor			N/A
MM16	DP4	of the construction works site boundary where the works site	of the works site.				
		borders publically accessible routes and/or is close to visually					
		sensitive receivers (VSRs). It is proposed that the screening be		ĺ			

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I		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).					
S.12.A9	LV15-	Light Control – Construction day and night time lighting should	To minimize glare impact to	Government /	Throughout NDAs	Construction and	N/A
MM17	DP4	be controlled to minimize glare impact to adjacent VSRs during	adjacent VSRs	Contractor		Operation Phases	
		the Construction phase.					
		Street and night time lighting shall also be controlled to minimize					
1		glare impact to adjacent VSRs during the operation phase.					
Ecology (Prior to D	Detailed Design Prior to Construction Phase)					
S. 13.9	E1-	Egretry Habitat Creation & Management Plan (EHCMP) and	Compensate for loss of Man	Project	FLN area A1-7	Detailed design	N/A
l	DP4	Woodland Planting and Management Plan (WPMP)	Kam To Road egretry.	Proponent/	(egretry	phase.	
l			Compensate for loss of	Detailed Design	compensation).		
l			secondary woodland and	Consultant	KTN areas E1-8		
l			hillside plantation of	(EHCMP and	and G1-3		
l			ecological significance.	WPMP).	(woodland		
l					compensation).		
Ecology (Detailed D	Design, Construction and Operational Phases)					
S13.9	E2-	Use opaque, non-transparent, non-reflective noise barriers.	Minimize mortality impacts	Detailed Design	Throughout.	Throughout.	N/A
	DP4	Unnecessary lighting should be avoided.	on birds.	Consultant/			
l				Contractor			
l				Maintenance			
L				Authority.			
Ecology (Construct	tion Phase)				·	
S.13.9	E3-	Design and erection of 2m high solid dull green site barrier fence	Minimize dust, disturbance,	Contractor.	Interface between	Construction	N/A
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	DP4	between active works areas and all areas/babitate of acalegical	mortality and other adverse		areas/habitats of	phasa	
		between active works areas and all areas/habitats of ecological	-			phase.	
		importance.	ecological impacts on		ecological		
			habitats, flora and fauna.		importance (KTN		
					areas B1-3, E1-8,		
					G1-3 and H1-1)		
					and works areas		
S13.9	E4-	Compensatory native woodland planting.	Compensate for loss of	Project	KTN areas E1-8	Construction	N/A
	DP4		plantation of ecological	Proponent /	and G1-3.	phase.	
			significance.	Contractor			
S13.8	E5-	Maintenance of compensatory native woodland planting.	Compensate for loss of	Maintenance	KTN areas E1-8	Operation	N/A
	DP4		plantation of ecological	Authority.	and G1-3.	phase	
			significance.				
Cultural H	leritage (P	Pre-construction Phase)					
S11.6.1	CH1-	Undertaking Survey-cum-Rescue Excavation	To define the precise	Project	In KTN NDA, for	After land	N/A
	DP4	A Survey-cum-Rescue Excavation should be conducted after	archaeological deposits	Proponent /	Site 1	resumption but	
		land resumption and before the commencement of construction	extent and to preserve the	Contractor/		before	
		works to define the precise archaeological deposits extent and	archaeological resources as	Qualified		Construction	
		to preserve the archaeological resources by record. The	far as possible.	Archaeologist		commencement of	
		excavation should be conducted by a professional archaeologist				the zones	
		and prior to fieldwork commencement, the archaeologist should					
		obtain a Licence to Excavate and Search for Antiquities from the					
		Authority under the AM Ordinance.					
S11.6.1	CH2-	Undertaking Further Archaeological Survey to Cover the	To confirm and verify the	Project	In the not-yet-	After land	N/A
	DP4	Outstanding Areas	findings of the EIA	Proponent/	surveyed- areas	resumption but	
		Further archaeological surveys to cover the outstanding areas of		Contractor/	with medium	before	
		the not-yet-surveyed-area with medium archaeological potential		Qualified	archaeological	construction	
		located with areas with proposed development as presented in		Archaeologist	potential located		

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		Figure 11.9 should be implemented after land resumption to			within the work		
		confirm and verify the findings of the EIA. The survey should be			extent of DP4		
		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.					
S11.6.1	CH3-	Undertaking Induction Training	To preserve the	Project	Spot E	Before the	N/A
	DP4	Induction training should be provided to the construction	archaeological resources as	Proponent/		commencement of	
		Contractor before the commencement of the excavation works	far as possible	Contractor/		the excavation	
		in Spot E. An induction will be conducted as part of the		Qualified		works and before	
		environmental health and safety induction programme to all site		Archaeologist		site staff are	
		staff before they are deployed on site. The induction will include				deployed on site	
		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					

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		purpose. The first induction briefing will be video recorded and it					
		will be used as induction briefing material for new site staff.					
S11.6.2	CH4-	Conducting Photographic and Cartographic Records Prior to	To preserve the directly	Project	Entrance Gate of	Prior to Removal /	N/A
	DP4	Removal/Relocation of Impacted Built Heritages	impacted sites by record	Proponent/	HKT03, KT16,	Relocation of	
		Prior to removal/relocation of the directly impacted historical	prior to their removal /	Contractor	KT17 and KT18	features before	
		buildings and cultural/historical landscape features,	relocation			commencement of	
		photographic and cartographic records should be conducted to				construction	
		preserve them by record. Liaison with and obtaining agreement				works	
		from the descendants of these features will be carried out by the					
		Project Proponent.					
S11.6.2	CH5-	Undertaking baseline condition survey and baseline vibration	To minimize the vibration	Project	HKT03 (Main	Preconstruction	N/A
	DP4	impact assessment	impacts during	Proponent/	Building) and	stage before	
		In case any potential vibration impact on any nearby built	preconstruction stage on	Contractor	G308	commencement of	
		heritage features are identified during the pre-construction stage	any identified potential			construction works	
		of the Project, prior to commencement of construction works, a	vibration impacted built				
		baseline condition survey and baseline vibration impact	heritage features				
		assessment should be conducted by a qualified building					
		surveyor or a qualified structural engineer to define the vibration					
		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-	Relocation of Built Heritages	To preserve the directly	Project	Entrance Gate of	After the	N/A
	DP4	Relocation of built heritages to a reasonable location nearby	impacted sites by relocation	Proponent/	НКТ03	photographic and	
		may be required.		Contractor		cartographic	

DP4 Strengthening Measures impacts during Construction Construction vibration monitoring and structural strengthening phase on any identified built heritage measures should be conducted during Construction phase potential vibration impacted baseline condition based on the assessment result of baseline condition survey built heritage features survey and and baseline vibration impact assessment, so as to ensure the construction performance meets with the vibration standard impact stated in the EIA report. DP7-Utilization of Treated Sewage Effluent (TSE) from Shek Wu Hui Sewage Treatment Works (SWHSTW) Landscape and Visual (Construction Phase and Operational Phase)	
Cultural Heritage (Construction Phase) Confinencement of construction works S11.6.2 CH7- Conducting Construction Vibration Monitoring and Structural strengthening measures should be conducted during Construction phase To minimize the potential impacts during Construction Contractor Identified potential Construction N/A DP4 Strengthening Measures To minimize the potential Contractor Identified potential Construction phase, with details specified in baseline condition baseline condition baseline condition baseline vibration baseline vibration impact assessment, so as to ensure the construction performance meets with the vibration standard stated in the EIA report. DP7-Utilization of Treated Sewage Effluent (TSE) from Shek Wu Hui Sewage Treatment Works (SWHSTW) Enterties Site on struction and construction and construction and construction and construction. In particular OVTs will be preserved according to enstruction. 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 Protect and Preserve Trees Government / Construction and Construction and Construction Construction	
Initial Initial Integration Initial Integration <thi< td=""><td></td></thi<>	
Cultural H=ritage (Construction Phase) Conducting Construction Vibration Monitoring and Structural Strengthening Measures To minimize the potential impacts during Construction Contractor Identified potential vibration impacted Construction N/A DP4 Strengthening Measures Construction vibration monitoring and structural strengthening measures should be conducted during Construction phase phase on any identified potential vibration impacted Identified potential vibration impacted Construction phase, with details specified in baseline condition Survey and baseline vibration impact baseline condition and baseline vibration impact stated in the EIA report. DP7-Utilization of Treated Sewage Effluent (TSE) from Shek Wu Hui Sewage Treatment Works (SWHSTW) Quisite Prior to N/A S11.9.9 LV1- Tree Protection & Preservation – Exiting trees to be retained construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protecton Specification shall be provided in the Contract Prior to Construction Onstruction and Construction Construction Phase	
S11.6.2 CH7- Conducting Construction Vibration Monitoring and Structural Strengthening Measures To minimize the potential impacts during Construction phase on any identified potential vibration impacted 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 N/A S11.6.2 CH7- Construction vibration wind the 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. Construction Treated Sewage Effluent (TSE) from Shek Wu Hui Sewage Treatment Works (SWHSTW) Survey and baseline vibration impact S.12.9 LV1- Tree Protection & Preservation – Exiting trees to be retained 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 Protect and Preserve Trees Construction Government / Detailed Design Prise the point of Construction Phase Phase	
DP4 Strengthening Measures impacts during Construction impacts during Construction phase on any identified phase on any identified public heritage baseline condition measures should be conducted during Construction phase potential vibration impacted potential vibration impacted pase on any identified pease on any identified public heritage baseline condition baseline condition and baseline vibration impact assessment, so as to ensure the construction performance meets with the vibration standard built heritage features built heritage impact impact Strengthering Measures DP7-Utilization of Treated Sewage Effluent Features baseline vibration impact Strengthering Measures DP7-Utilization of Treated Sewage Effluent Features Vibration impact Strengthering Measures DP7-Utilization of Treated Sewage Effluent Features Sewestrestrestrestrestrestrestrestrestrestr	
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And baseline vibration impact assessment result of baseline condition survey 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.potential vibration impact assessment, so as to ensure the construction performance meets with the vibration standard stated in the EIA report.featuresbaseline condition survey and baseline vibration impact assessment,DP7-Utilization of Treated Sewage Effluent (TSE) from Shek Wu Hui Sewage Treatment Works (SWHSTW Construction Phase and Operational Phase)S.12.9LV1-Tree Protection & Preservation – Exiting trees to be retained construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection shall be provided in the ContractPotect and Preserve Trees Consultant/Government / DesignOnsite ConstructionMM4DP7within 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 ContractPotent and Preserve Trees Consultant/Government / Consultant/Onstruction Phase	
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And baseline vibration impact assessment, so as to ensure the construction performance meets with the vibration standard stated in the EIA report. baseline vibration impact	
Image: construction performance meets with the vibration standard stated in the EIA report. image: construction performance meets with the vibration standard stated in the EIA report. image: construction performance meets with the vibration standard stated in the EIA report. image: construction performance meets with the vibration standard stated in the EIA report. image: construction performance meets with the vibration standard stated in the EIA report. image: construction performance meets with the vibration standard stated in the EIA report. image: construction Performance meets with the vibration standard stated state	
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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 LV1- Tree Protection & Preservation – Exiting trees to be retained Protect and Preserve Trees Government / Onsite Prior to N/A MM4 DP7 within the Project Site should be carefully protected during Protect and Preserve Trees Government / Onsite Construction and N/A ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Consultant/ Design Consultant/ Phase Protection Specification shall be provided in the Contract Contractor Contractor Contractor Phase	
Landscape and Visual (Construction Phase and Operational Phase) S.12.9 LV1- Tree Protection & Preservation – Exiting trees to be retained Protect and Preserve Trees Government / Onsite Prior to N/A MM4 DP7 within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to Detailed Construction and Construction Construction ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Consultant/ Consultant/ Phase	
S.12.9 LV1- Tree Protection & Preservation – Exiting trees to be retained Protect and Preserve Trees Government / Onsite Prior to N/A MM4 DP7 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 Protect and Preserve Trees Government / Onsite Prior to N/A Protect and Preserve Trees Consultant/ Detailed Construction Construction Prior to N/A	
MM4 DP7 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 Detailed Consultant/ Construction Protection Specification shall be provided in the Contract Constructor Constructor Phase	
construction. In particular OVTs will be preserved according to Design Construction ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Consultant/ Phase Protection Specification shall be provided in the Contract Contractor Contractor	N/A
ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Consultant/ Phase Protection Specification shall be provided in the Contract Contractor	
Protection Specification shall be provided in the Contract Contractor	
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.	
A detailed tree survey will be carried out for the Tree Removal	
Application (TRA) process which will be carried out at the later	

	Т						
		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.					
S.12.9	LV2-	Vertical Greening – Planting of climbers to grow up vertical	Soften hard surfaces and	Government /	<u>On appropriate</u>	Prior to	N/A
MM9	DP7	surfaces were appropriate (e.g. building edges, piers).	facilities	Detailed	<u>structures</u>	Construction,	
				Design		Construction	
I				Consultant/		Phase &	
I				Contractor		Maintenance	
I						in Operation	
L						Phase	
S.12.9	LV3-	Green Roof – Roof greening where appropriate should be	Reduce exposure to	Government /	<u>On appropriate</u>	Prior to	N/A
MM10	DP7	established on proposed buildings as per the guidelines stated.	untreated concrete surfaces	Detailed	<u>buildings</u>	Construction,	
		These guidelines provide further details including information	and particularly mitigate	Design		Construction	
		regarding structural loading, design, maintenance, etc.	visual impact to VSRs at	Consultant/		Phase &	
I		considerations as well as providing information on what types of	high levels. Provide	Contractor		Maintenance	
		plants might be suitable.	greening.			in Operation	
						Phase	
		DP10- Fanling	Bypass Eastern Section (N	ew Road)			
Landscap	e and Visu	al (Detailed Design, Prior to Construction, Construction and Op	perational Phases)				
S.12.D9	LV1-	General Good Practice Measures - For areas unavoidably		Detailed Design	Throughout NDAs,	Prior to	٨
	DP10	disturbed by the Project on a short term basis e.g. works areas,		Consultant/		Construction,	
		the general principle to try and restore these to their former state		Contractor		Construction & for	
		to suit future land use, should be adhered to.				all planting, this	
		With regard to topsoil, where identified, it should be stripped,				should be installed	
I		treated appropriately, and where suitable and practical stored for				as soon as the	
		re-use in the construction of the soft landscape works such as				areas become	

		roadside amenity strips, and open space sites.				available, to	
						achieve early	
						establishment	
S.12.D9	LV2-	Minimum Topographical Change –To minimize landscape and	Reduce topographical	Government/	Throughout NDAs,	Prior to	N/A
MM1	DP10	visual impacts, the footprint and elevation of such elements	changes and minimize land	Detailed Design	particularly for	Construction	
		should be optimized to reduce topographical/ landform changes,	resumption	Consultant/	<u>reservoirs</u>		
		as well as reduce land take and interference with natural terrain.		Contractor			
		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.					
S.12.D9	LV3-	Tree Protection & Preservation – Exiting trees to be retained	Protect and Preserve Trees	Government/	<u>Onsite</u>	Prior to	٨
MM4	DP10	within the Project Site should be carefully protected during		Detailed Design		Construction and	
		construction. In particular OVTs will be preserved according to		Consultant/		Construction	
		ETWB Technical Circular (Works) No. 29/2004. Detailed Tree		Contractor		Phase	
		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.					

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		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.					
S.12.D9	LV4-	Tree Transplantation – Trees unavoidably affected by the Project	Transplant Trees where	Government/	Onsite where	Prior to	N/A
MM5	DP10	works should be transplanted where practical. Trees should be	suitable for transplantation	Detailed Design	possible.	Construction,	
		transplanted straight to their final receptor site and not held in a		Consultant/	<u>Otherwise</u>	Construction	
		temporary nursery as far as possible. A detailed Tree		Contractor	consider offsite	Phase &	
		Transplanting Specification shall be provided in the Contract			locations	Maintenance in	
		Specification, where applicable. Sufficient time for necessary				Operation Phase	
		tree root and crown preparation periods shall be allowed in the					
		project programme.					
		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.					
		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.D9	LV5-	Slope Landscaping – Site formation should be reduced as far as	To avoid substantial slope	Government/	<u>Onsite</u>	Prior to	N/A
MM6	DP10	possible. Seeding of modified slopes should be done as soon as	cutting and fill slopes.	Detailed Design		Construction,	
		grading works are completed to prevent erosion and subsequent	To prevent erosion and	Consultant/		Construction	
		loss of landscape resources and character. Woodland tree	subsequent loss of	Contractor		Phase &	

	1		1	I			
		seedlings and/ or shrubs should be planted where slope gradient	landscape resources and			Maintenance in	
		and site conditions allow.	character.			Operation Phase	
		In addition, landscape planting should be provided for the	To ensure man-made slopes				
		retaining structures associated with modified slopes where	are as visually amenable as				
		conditions allow. All slope landscaping works should comply with	possible.				
		GEO Publication No. 1/2011-Technical Guidelines on Landscape					
		Treatment for Slopes.					
S.12.D9	LV6-	Compensatory Planting – Compensatory tree planting for felled	Compensate for trees and	Government/	Onsite where	Prior to	N/A
MM7	DP10	trees shall be provided to the satisfaction of relevant	shrubs lost due to the	Detailed Design	possible.	Construction,	
		Government departments. Required numbers and locations of	Project.	Consultant/	<u>Otherwise</u>	Construction	
		compensatory trees shall be determined and agreed separately		Contractor	consider offsite	Phase &	
		with Government during the Tree Removal Application process			locations	Maintenance in	
		under ETWBTC 3/2006.				Operation Phase	
		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 Melastoma					
		malabathricum, Diospyros vaccinioides, Gardenia jasminoides,					
		Ixora chinensis, Ligustrum sinense, Litsea rotundifolia,					
		Melastoma dodecandrum, Atalantia buxifolia, Rhodomyrtus					
		tomentosa, Rhaphiolepis indica, and Rhododendron simsii are					
		suggested.					
S.12.D9	LV7-	Woodland Compensatory Planting –Specific Woodland	Reprovide areas of	Project	In areas identified	Prior to	N/A
MM8	DP10	compensatory planting is proposed for any areas of quality	woodland to compensate for	Proponent/	in the EIA	Construction,	
		woodland that are unavoidably affected by the Project. The	those areas of quality	Detailed Design	Landscape_	Construction	
		location and design of the woodland compensatory planting will	woodland lost.	Consultant/	Mitigation Plans	Phase &	

principally be within habitats of lower value s	uch as upland	Contractor/	and as agreed	Maintenance in	
grassland. The proposed locations are identi	•	Maintenance	with AFCD	Operation Phase	
the foothills of Tai Shek Mo, and on the high	• •	Authority			
Kong Shan in KTN NDA; along Fanling Bypa		,			
area in the northern FLN NDA.					
The intention of the compensatory woodland	will be to recreate				
areas of quality woodland, not necessarily to					
loss of trees on a like for like basis (See E18					
Native tree species are suggested for plantin					
locations, including Ailanthus fordii, Bischofia					
Castanopsis fissa, Celtis sinensis, Cinnamor					
Cinnamomum camphora, Xanthoxlyum avice					
tiliaceus, Liquidambar formosana, Sapium di					
heptaphylla and llex rotunda. In addition som	ne understory				
vegetation may be planted including shrubs	such as Atalantia				
buxifolia, Diospyros vaccinioides, Gardenia j	asminoides, Ixora				
chinensis, Ligustrum sinense, Litsea rotundii	folia, Melastoma				
malabathricum, Melastoma dodecandrum, R	lhodomyrtus				
tomentosa, Rhaphiolepis indica, and Rhodoo	dendron simsii.				
The area allocated for compensatory woodla	and planting allows				
in part for the fact that it will take some time	for the				
compensatory planting to achieve the landso	ape and ecological				
function and value of the area to be lost. In a	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 in	lentified are largely				
grassland it is inevitable that these areas wil	l already support				

	some patches of trees and shrubs which would be inappropriate					
1.1/8-		Soften hard surfaces and	Government/	On appropriate	Prior to	N/A
						N/A
DITO	surfaces were appropriate (e.g. viaduel piers, noise barriers).	racintics	_	<u>structures</u>	,	
			Contractor			
11/0						
						N/A
DP10			-			
	compensatory planting.	and buildings. Improve	Consultant/		Construction	
		compatibility with the	Contractor	around VSRs to	Phase &	
		surrounding environment		contain their view	Maintenance in	
		and create a pleasant		out to the NDA	Operation Phase	
		pedestrian environment		structures.		
LV10-	Road Greening –For viaducts, soft landscaping should be	To soften the hard, straight	Government/	On viaducts or	Prior to	N/A
DP10	provided to soften the hard, straight edges (for climbers used to	edges and provide greening	Detailed Design	along roads.	Construction,	
	cover the vertical, hard surfaces of the piers - see MM9 Vertical	along roads.	Consultant/		Construction	
	Greening) and shade tolerant plants should be planted, where		Contractor		Phase &	
	light is sufficient, to improve aesthetic value of areas under				Maintenance in	
	viaducts. Both at grade planting and use of elevated planters				Operation Phase	
	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.					
		DP10 surfaces were appropriate (e.g. viaduct piers, noise barriers). LV9- Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting. LV10- 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	International contentInternational contentInternational contentLV8- DP10Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. viaduct piers, noise barriers).Soften hard surfaces and facilitiesLV9- DP10Screen 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 environmentLV10- DP10Road 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, laking 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	for further planting.Image: Constraint of the surfaces were appropriate (e.g. viaduct piers, noise barriers).Soften hard surfaces and facilitiesGovernment/ Detailed Design Consultant/ ContractorLV9- DP10Screen 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 environmentGovernment/ Detailed Design Consultant/ ContractorLV10- DP10Road 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 centralTo soften the hard, straight along roads.Government/ Contractor	InternationalInternationalInternationalInternationalLV8- DP10Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. viaduct piers, noise barriers).Soften hard surfaces and facilitiesGovernment/ Detailed Design Consultant/ ContractorOn appropriate StructuresLV9- DP10Screen 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 environmentGovernment/ around Sultable.Along roads. around Sultable.LV10- DP10Road Greening –For viaducts, soft landscaping should be 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 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 centralGovernment/ consultant/ Consultant/ Consultant/ Consultant/ Consultant/ consulta	International internatene in international international international intern

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		(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.D9	LV11-	Enhancement Planting along Embankment - For channelized	Minimize the necessity of	Government/	<u>Channelized</u>	Prior to	N/A
MM14.3	DP10	watercourses, if these are modified, the Drainage Services	watercourse modification,	Detailed Design	watercourse,	Construction,	
		Department Practice Note No.1/2005 – Guidelines on	protect watercourses where	Consultant/	particularly the Ma	Construction	
		Environmental Considerations for River Channel Design, should	possible and enhance	Contractor	Wat River Channel	Phase &	
		be considered and appropriate mitigation measures included	channelized watercourses		<u>Diversion</u>	Maintenance in	
		ensuring the new watercourses match the existing as far as				Operation Phase	
		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					
		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.					
Landscap	e and Visu	ual (Construction)					
S.12.D9	LV12-	Screen Hoarding –Screen hoarding shall be erected along areas	To screen undesirable views	Contractor	Throughout NDAs	Construction	٨
MM16	DP10	of the construction works site boundary where the works site	of the works site.			Phase	
		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					

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		erect 2m high dull green site boundary fence. Details can refer to					
		the ecological impact assessment (Chapter 13 of the EIA report).					
S.12.D9	LV13-	Light Control – Construction day and night time lighting should	To minimize glare impact to	Government /	Throughout NDAs	Construction	۸
MM17	DP10	be controlled to minimize glare impact to adjacent VSRs during	adjacent VSRs	Contractor		and Operation	
		the Construction phase.				phases	
		Street and night time lighting shall also be controlled to minimize					
		glare impact to adjacent VSRs during the operation phase.					
Ecology (Detailed D	esign, Construction and Operational Phases)					
S13.8	E1-	Use opaque, non-transparent, non-reflective noise barriers.	Minimize mortality impacts	Detailed Design	Throughout NDAs	Detailed design,	٨
	DP10	Unnecessary lighting should be avoided.	on birds.	Consultant/		construction and	
				Contractor		Operation phases.	
				Maintenance			
				Authority.			
Ecology (Construct	ion Phase)					
S13.9	E3-	Lower reaches of Siu Hang San Tsuen Stream to have 10m wide	Minimize impacts on Siu	Contractor.	<u>FLN area D1-3.</u>	Construction	N/A
	DP10	vegetated buffer in Open Space Zone D1-3 and Fanling Bypass	Hang San Tsuen Stream			phase.	
		to cross stream on viaduct.	and stream fauna.				
S.13.9	E4-	Design and erection of 2m high solid dull green site barrier fence	Minimize dust, disturbance,	Contractor.	Interface between	Construction	N/A
	DP10	between active works areas and all areas/habitats of ecological	mortality and other adverse		areas/habitats of	phase.	
		importance.	ecological impacts on		ecological		
			habitats, flora and fauna.		importance and		
			Measures to minimize flight-		works areas (all of		
			line impacts to birds,		the north side of		
			especially breeding ardeids.		the Bypass works		
					areas west of		
					interchange with		
					<u>Sha Tau Kok</u>		

					<u>Road).</u>		
Cultural H	leritage (C	Construction Phase)		I	L	<u> </u>	
S11.6.2	CH4-	Conducting Construction Vibration Monitoring and Structural	To minimize the potential	Contractor.	Identified potential	Construction	N/A
	DP10	Strengthening Measures	impacts during Construction		vibration impacted	phase, with details	
		Construction vibration monitoring and structural strengthening	phase on any identified		<u>built heritage</u>	specified in	
		measures should be conducted during Construction phase	potential vibration impacted		<u>features</u>	baseline condition	
		based on the assessment result of baseline condition survey and	built heritage features			survey and	
		baseline vibration impact assessment, so as to ensure the				baseline vibration	
		construction performance meets with the vibration standard				impact	
		stated in the EIA report.				assessment,	
		DP12-Reprovision of	temporary wholesale mark	ket in FLN NDA			
Landscap	e and Visi	ual (Detailed Design, Prior to Construction, Construction and Op	perational Phases)				
S.12.D9	LV1-	General Good Practice Measures - For areas unavoidably		Detailed design	Throughout	Prior to	N/A
	DP12	disturbed by the Project on a short term basis e.g. works areas,		consultant/	NDAs,	Construction,	
		the general principle to try and restore these to their former state		Contractor		Construction & for	
		to suit future land use, should be adhered to.				all planting, this	
		With regard to topsoil, where identified, it should be stripped,				should be installed	
		treated appropriately, and where suitable and practical stored for				as soon as the	
		re-use in the construction of the soft landscape works such as				areas become	
l		roadside amenity strips, and open space sites.				available, to	
						achieve early	
						establishment	
S.12.D9	LV2-	Minimum Topographical Change – To minimize landscape and	Reduce topographical	Government /	Throughout	Prior to	N/A
MM1	DP12	visual impacts, the footprint and elevation of such elements	changes and minimize land	Detailed Design	NDAs, particularly	Construction	
		should be optimized to reduce topographical/ landform changes,	resumption	Consultant/	for reservoirs		
		as well as reduce land take and interference with natural terrain.		Contractor			
		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.	
S.12.D9 LV3- Detailed Design (Visual) – The footprint and massing of Improve visual amenity of Detailed Design Throughout NDAs Prior to	N/A
MM2 DP12 development components and the works area should also be the new buildings, NDAs in Consultant Construction	
kept to a practical minimum and the detailed design of general and integrate as	
development components for Construction phase should follow best possible into the	
the Sustainable Building Design Guidelines. The form, surrounding landscape	
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.	

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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 enclosures including semi-enclosure and full enclosure, at grade
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
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
and be as low as practical to minimize blocking views. Noise barrier design, including vertical, cantilever or curved, and 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 designs
seek to keep it to a practical minimum.
S.12.D9 LV4- Tree Protection & Preservation – Exiting trees to be retained Protect and Preserve Trees Government / Onsite Prior to N/A
MM4 DP12 within the Project Site should be carefully protected during Detailed Design Construction and
construction. In particular OVTs will be preserved according to Consultant/ Construction
ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Contractor Phase
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.
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

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		those trees to be retained.					
S.12.D9	LV5-	Tree Transplantation – Trees unavoidably affected by the Project	Transplant Trees where	Government /	Onsite where	Prior to	N/A
MM5	DP12	works should be transplanted where practical. Trees should be	suitable for transplantation	Detailed Design	possible.	Construction,	
		transplanted straight to their final receptor site and not held in a		Consultant/	Otherwise	Construction	
		temporary nursery as far as possible. A detailed Tree		Contractor	consider offsite	Phase &	
		Transplanting Specification shall be provided in the Contract			locations	Maintenance in	
		Specification, where applicable. Sufficient time for necessary				Operation Phase	
		tree root and crown preparation periods shall be allowed in the					
		project programme.					
		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.					
		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.D9	LV6-	Slope Landscaping – Site formation should be reduced as far as	To avoid substantial slope	Government /	Onsite	Prior to	N/A
MM6	DP12	possible. Seeding of modified slopes should be done as soon	cutting and fill slopes.	Detailed Design		Construction,	
		as grading works are completed to prevent erosion and	To prevent erosion and	Consultant/		Construction	
		subsequent loss of landscape resources and character.	subsequent loss of	Contractor		Phase &	
		Woodland tree seedlings and/ or shrubs should be planted	landscape resources and			Maintenance in	
		where slope gradient and site conditions allow.	character.			Operation Phase	
			To ensure man-made slopes				

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. possible. possible. Prior to N/A S.12.D9 LV7- Compensatory Planting - Compensatory tree planting for felled Compensate for trees and Government / Onsite where Prior to N/A MM7 DP12 trees shall be provided to the satisfaction of relevant Shrubs lost due to the Detailed Design possible. Construction, 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. Compensatory planting is proposed at the potential open areas of the streetscapes, as well as the open areas of the streetscapes, as well as the open areas within development lots. Compensatory planting for shrubs should be considered in LV7.
S.12.D9 LV7- Compensatory Planting – Compensatory tree planting for felled Compensate for trees and Government / Onsite where Prior to N/A MM7 DP12 trees shall be provided to the satisfaction of relevant Shrubs lost due to the Detailed Design possible. Construction, Government departments. Required numbers and locations of Project. Consultant/ Otherwise Construction, under ETWBTC 3/2006. 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 lot Operation Phase Operation Phase
Image: structure structur
Image: construction in the set of the s
S.12.D9 LV7- Compensatory Planting – Compensatory tree planting for felled Compensate for trees and shrubs lost due to the Government / Onsite where Prior to N/A MM7 DP12 trees shall be provided to the satisfaction of relevant Shrubs lost due to the Detailed Design Donsite where Prior to N/A 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. Construction process Contractor Contractor Consider offsite Phase & 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. Image: Streetscapes and the potential open areas within development lots. Image: Streetscape and the potential open areas and the potential open areas and the streetscapes areas within development lots. Image: Streetscape and the potential open areas and the potential open areas and the streetscapes areas and the potential open areas and the streetscapes areas and the potential open areas and the streetscapes areas and the potential open areas and the streetscapes areas and the streetscapes areas and the potential open areas and the streetscapes areas and the streetscapes areas and the potential open areas and the potentis and the potential ope
MM7DP12trees 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.Detailed Design Project.possible.Construction, ConstructorCompensatory 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.Shrubs lost due to the Project.Detailed Designpossible.Construction, Consultant/Compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under ETWBTC 3/2006.Compensatory trees shall be determined and agreed separately and the potential open areas such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots.Detailed Design Project.possible.Construction, Consultant/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.Shrub Site and Site an
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. Project. Consultant/ Otherwise Construction 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. Project. Consultant/ Otherwise Construction
compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under ETWBTC 3/2006.Contractorconsider offsitePhase & Maintenance in Operation PhaseCompensatory 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.Contractorconsider offsitePhase & Maintenance in Operation Phase
with Government during the Tree Removal Application process under ETWBTC 3/2006. Iocations Maintenance in Operation Phase 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. Iocations Maintenance in Operation Phase
under ETWBTC 3/2006. Operation Phase 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. Image: Compensatory planting is proposed at the potential open areas
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.
such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots.
such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots.
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</i>
malabathricum, Diospyros vaccinioides, Gardenia jasminoides,
Ixora chinensis, Ligustrum sinense, Litsea rotundifolia,
Melastoma dodecandrum, Atalantia buxifolia, Rhodomyrtus
tomentosa, Rhaphiolepis indica, and Rhododendron simsii are
suggested.
S.12.D9 LV8- Screen Planting – Tall screen/buffer trees and shrubs should be To screen proposed Government / Along roads, Prior to N/A
MM11 DP12 planted. This measure may additionally form part of the structures such as roads and Detailed Design around suitable Construction,
compensatory planting buildings. Improve Consultant/ built structures, or Construction
compatibility with the Contractor around VSRs to Phase &

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		1	1		•	•	
			surrounding environment		contain their view	Maintenance in	
			and create a pleasant		out to the NDA	Operation Phase	
			pedestrian environment		structures.		
Landscap	e and Visu	ual (Construction)					
S.12.D9	LV9-	Screen Hoarding –Screen hoarding shall be erected along areas	To screen undesirable views	Contractor	Throughout NDAs	Construction	N/A
MM16	DP12	of the construction works site boundary where the works site	of the works site.			Phase	
		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).					
S.12.D9	LV10-	Light Control – Construction day and night time lighting should	To minimize glare impact to	Government /	Throughout NDAs	Construction and	N/A
MM17	DP12	be controlled to minimize glare impact to adjacent VSRs during	adjacent VSRs	Contractor		Operation Phases	
		the Construction phase.					
		Street and night time lighting shall also be controlled to minimize					
		glare impact to adjacent VSRs during the operation phase.					
			•				

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

	Actu	al Quantities	of Inert C&D) Materials G	enerated Mo	nthly	Actual	Quantities of	C&D Wastes	Generated	Monthly
Month	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
Мау	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	0.000	0.000	5.907	0.000	0.000	0.000	0.000	0.000	17.800	0.000	0.455
August	0.000	0.000	0.024	0.000	0.003	0.000	0.000	0.086	0.000	0.000	0.327
September											
October											
November											
December											
Total	0.000	0.000	5.931	0.000	0.003	0.000	0.000	0.086	17.800	0.000	2.193

		Foreca	ast of Total Qu	uantities of C8	D Materials to	be Generate	d from the Co	ntract*		
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

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

	Actual Quantities of Inert C&D Materials Generated Monthly Actual Quantities of C&D Wastes Generated Monthly												
	А	ctual Quantities	of Inert C&D	Materials Gene	erated Monthl	у	Actu	al Quantities o	of C&D Wastes	Generated M	onthly		
Month	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		

Monthly Summary Waste Flow Table for <u>2019</u> (Year)

*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

	Actual Quantities of Inert C&D Materials Generated Monthly Actual Quantities of C&D Wastes Generated Monthly												
	A	ctual Quantities	of Inert C&D	Materials Gene	erated Monthl	у	Actu	al Quantities o	f C&D Wastes	Generated Mo	onthly		
Month	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		
June	0	0	0	0	0	0	0	0	0	0	0.015		
July	0	0	0	0	0.1	0	0	0	0	0	0		
August	0	0	0	0	0.1	0	0	0	0	0	0.03		
Sub-Total	0	0	0	0	0	0	0	0	0	0	0.101		
Sep	-	_	_	_	_	_	_	-	_	_	-		
Oct	-	-	—	-	-	_	-	-	_	-	-		
Nov	_	_	—	—	_	_	—	_	_	-	-		
Dec	-	—	-	—	_	—	—	_	_	-	-		
Total	0	0	0	0	0.1	0	0	0	0	0	0.101		

Monthly Summary Waste Flow Table for 2020 (Year)

*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

				f Total Quanti	ities of C&D Mate	erials to be G	enerated from the	e 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 <u>2020</u> (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

		Actual Quanti	ties of Inert C&I	D Materials Gen	erated Monthly			Actual Qu	antities of C&D	Wastes Genera	ated Monthly	
Month	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)	Tree Trunk/Branch	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	13.110	0.000	0.267
Sep												
Oct												
Nov												
Dec												
Total	1.327	0.000	0.035	0.000	1.327	0.000	0.000	0.070	0.001	13.110	0.000	0.278

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 <u>2019</u> (year)

	Ac	tual Quantities	of Inert C&D Mat	erials Generate	ed Monthly		Actu	al Quantities	of C&D Wastes	Generated N	Ionthly
Month	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	0	-	0	-	
Dec	0	0	0	0	01120	0	0	0	0	0	
Total	0	0	0	0	1.355	0	0	0	0	0	0.079

Monthly Summary Waste Flow Table for 2020 (year)

	Act	tual Quantities	of Inert C&D Mate	erials Generate	ed Monthly		Actu	al Quantities	of C&D Wastes	Generated N	1onthly
Month	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											
Oct											
Nov											
Dec											
Total	0.0	0.0	0.0	0.0	11.134	0.0	0.0	0.0	0.0	0.0	0.359

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

APPENDIX P SUMMARY OF SUCCESSFUL PROSECUTION

Appendix P - Summary of Successful Prosecution

Date of Successful Prosecution	Details of the Successful Prosecution	Status	Follow Up