

JOB NO.: TCS00881/18 & TCS00944/18

SITE FORMATION AND ASSOCIATED INFRASTRUCTURAL WORKS FOR DEVELOPMENT OF COLUMBARIUM, CREMATORIUM AND RELATED FACILITIES AT SANDY RIDGE CEMETERY

MONTHLY ENVIRONMENTAL MONITORING AND AUDIT Report (No.31) – February 2021

PREPARED FOR HSIN CHONG TSUN YIP JOINT VENTURE & SANG HING CIVIL CONTRACTORS CO., LTD

Date	Reference No.	Prepared By	Certified By
15 March 2021	TCS00881/18/600/R0529v2	Anh	Am

Nicola HonTam Tak Wing(Environmental Consultant)(Environmental Team Leader)

Version	Date	Remarks
1	9 March 2021	First Submission
2	15 March 2021	Amended according to the IEC's comments



Our Ref: TCS00881/18/300/L0530

Civil Engineering and Development Department 2/F, Civil Engineering and Development Building, 101 Princess Margaret Rd, Homantin, Kowloon

Attn: Mr. SHUM Ngai Hung, Steven

15 March 2021 By e-mail

Dear Sirs,

Re: Site Formation and Associated Infrastructural Works for Development of Columbarium, Crematorium and Related Facilities at Sandy Ridge Cemetery Monthly Environmental Monitoring & Audit Report (No.31) – February 2021

We confirmed that the captioned report has complied with the requirement set out in the EM&A Manual, we hereby certify the captioned report pursuant to Specific Condition 3.4 of the Environmental Permit No. FEP-01/534/2017/A and EP-534/2017/A.

Should you have any queries, please feel free to contact the undersigned at Tel: 2959-6059 or Fax: 2959-6079 or Email: twtam@fordbusiness.com.

Yours sincerely, For and on Behalf of Action-United Environmental Services & Consulting (AUES)

T. W. Tam Environmental Team Leader TW/nh

cc ARUP (RE of Contract 1) ARUP (RE of Contract 2)
. HCTY-JV (Contractor of Contract 1) Sang Hing (Contractor of Contract 2) Acuity (IEC) Mr. Steven Tang Mr. Anthony Lau Mr. Ho Man To Mr. Elvin Lam Mr. Jacky Leung by e-mail by e-mail by e-mail by e-mail

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Our ref: PL-202103029

Hsin Chong Tsun Yip Joint Venture (CV/2016/10) Hsin Chong Centre 107-109 Wai Yip Street Kwun Tong, Kowloon Hong Kong

Attention: Mr. HO Man-to

15 March 2021

Dear Sir,

Site formation and Associated Infrastructural Works for Development of Columbarium at Sandy Ridge Cemetery Monthly Environmental Monitoring and Audit Report (No. 31) February 2021

I refer to the email of the ET dated on 15/03/2021 regarding the captioned Monthly Report. According to Section 3.4 of the EP-534/2017/A and the FEP-01/534/2017/A, I hereby verify the Monthly EM&A report for February 2021 with Ref. No. TCS00881/18/600/R0529v2.

Please be reminded to address comments from EPD and IEC on the relevant EPs submission and reports for our further review.

Yours faithfully,

CH Leung

Leung CH Jacky Independent Environmental Checker

cc. CEDD-DPTL/Land Works – Mr. SHUM Steven ARUP – Mr. LEE Davis ET Leader – Mr. TAM



EXECUTIVE SUMMARY

ES.01. This is the 31st Monthly Environmental Monitoring and Audit (EM&A) Report summarizing the monitoring results and inspection findings under the Project for the period from 1st to 28th February 2021 (the Reporting Month).

ENVIRONMENTAL MONITORING AND AUDIT ACTIVITIES

ES.02. In the Reporting Month, the major construction works under the Project included Contract CV/2016/10 (hereinafter named "Contract 1") and Contract CV/2017/02 (hereinafter named "Contract 2"). Environmental monitoring activities under the EM&A programme in this Reporting Month are summarized in the following table.

Issues	Environmental Monitoring	Monitorin	Total Occasions/	
135005	Parameters / Inspection	CV/2016/10	CV/2017/02	dates
Ain Quality	1-hour TSP	ASR-1	ASR-2	54
Air Quality	24-hour TSP	ASK-1	ASR-3	15
Construction Noise	L _{eq (30min)} Daytime	CN-1 CN-2	CN-3 CN-4	16
Water Quality	In-situ measurement and Water sampling	M3	M1, M2 and M4	11
Ecology	Sensitive Habitat	Transect within site area of CV/2016/10	Transect within site area of CV/2017/02	2 nd Feb 21
Landscape & Visual	Site Inspection	Site area of CV/2016/10	Site area of CV/2017/02	22 nd Feb 21
Inspection	Environmental Team (ET) Regular Environmental Site Inspection	Site area of	Site area of	4
& Âudit	Independent Environmental Checker (IEC) Monthly Environmental Site Audit		CV/2017/02	1

 Table ES-1
 Summary of EM&A Programme in the Reporting Month

BREACH OF ACTION AND LIMIT (A/L) LEVELS

24-hour TSP

Leq_{30min}

Daytime

DO

Turbidity

SS

ES.03. In the Reporting Month, no exceedance of air quality, noise monitoring and water quality was recorded. The statistics of environmental exceedance, Notification of Exceedance (NOE) issued and investigation of exceedance are summarized in the following table.

	Table E5-2 Dicacli of Action and Limit (A/L) Levels in the Reporting Month						
Environmental Monitoring		Action Limit		Event & Action			
	Issues	Parameters	Level	Level	Investigation Findings	Corrective Actions	
		1-hour TSP	0	0	-	-	

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 Table ES-2
 Breach of Action and Limit (A/L) Levels in the Reporting Month

Note: NOE – *Notification of Exceedance*

Air Quality

Construction

Noise

Water Quality

- ES.04. Monthly ecological monitoring for sensitive habitat for area of Contract 1 and Contract 2 were undertaken on 2^{nd} *February 2021*. As advised by both Contractors, there were no vegetation clearance conducted within the site in the Reporting Month and therefore precautionary check for the presence of nesting birds was not required.
- ES.05. Landscape and visual inspection at both Contracts were undertaken on 26th February 2021. The Contractor was reminded to prevent the construction material pile within Tree Protection Zone and ensure no works is allowed within the TPZ.

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ENVIRONMENTAL COMPLAINT

ES.06. No environmental complaint was recorded or received in this Reporting Month. The statistics of environmental complaint are summarized in the following table.

Table ES-3Environmental Complaint Summaries in the Reporting Month

Reporting Month		Enviro	nmental Complaint	Statistics
		Frequency	Cumulative	Complaint Nature
1 28 Eabraine 2021	Contract 1	0	0	NA
1 – 28 February 2021	Contract 2	0	1	NA

ES.07. In addition, no complaint and emergency event relating to violation of environmental legislation for illegal dumping and landfilling was received.

NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS

ES.08. No environmental summons or successful prosecution was recorded in this Reporting Month. The statistics of summons or successful prosecutions are summarized in the following tables.

 Table ES-4
 Environmental Summons Summaries in the Reporting Month

Reporting Month		Environmental Summons Statistics		
		Frequency	Cumulative	Summons Nature
1 29 Eabraine 2021	Contract 1	0	0	NA
1 – 28 February 2021	Contract 2	0	0	NA

Table ES-5Environmental Prosecution Summaries in the Reporting Month

Reporting Month		Enviror	mental Prosecution	Statistics
		Frequency	Cumulative	Prosecution Nature
1 – 28 February 2021	Contract 1	0	0	NA
1 - 28 reducing 2021	Contract 2	0	0	NA

REPORTING CHANGE

ES.09. No reporting change was made in the Reporting Month.

SITE INSPECTION

ES.010. In the Reporting Month, joint site inspections for Contract 1 to evaluate the site environmental performance were carried out by the Resident Engineer (RE), ET and the Contractor of the Contract 1 on 4th, 10th, 18th and 25th February 2021. Moreover, joint site inspections for Contract 2 by the RE, ET and the Contractor of Contract 2 were carried out on 4th, 10th, 18th and 25th February 2021. IEC attended the both Contract joint site inspection on 18th February 2020. No non-compliance was noted during the site inspections.

FUTURE KEY ISSUES

- ES.011. The Contractors are reminded to pay special attention on water quality mitigation measures and should fully implement the measures as recommended in the EM&A Manual, in particular to prevent surface runoff and other pollutants from flowing to local stream and Conservation Area.
- ES.012. During dry season, air quality mitigation measures such as wheel wash facilities, watering of haul roads, loose soil construction surface and covering of dusty materials with tarpaulin sheet should be implemented as far as practicable.
- ES.013. Construction noise mitigation measures such as use of movable noise barriers and Quality Powered Mechanical Equipment should be properly provided to reduce construction noise impact, where appropriate.
- ES.014. The Contractors should properly maintain the cleanliness and tidiness of the site. In addition, mosquito control should be performed to prevent mosquito breeding on site.



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1. INTRODUCTION

1.1 PROJECT BACKGROUND

1.1.1 Civil Engineering and Development Department (CEDD) is the Project Proponent for the Project "Site Formation and Associated Infrastructural Works for Development of Columbarium, Crematorium and Related Facilities at Sandy Ridge Cemetery". The Project is a Designated Project to be implemented under Environmental Permit No. EP-534/2017/A and FEP-01/534/2017/A. The layout plan of the Project is shown in Appendix A. Major works to be executed under the Project shall include to the following:

A Designated Works under EP-534/2017/A

- (i) Site formation of about 8 hectares of land and associated drainage, sewerage and landscape works for development of Columbarium and Crematorium facilities at the Sandy Ridge Cemetery;
- (ii) Construction of a new road (about 600m) including a section of viaduct connecting the platform for Crematorium and Man Kam To Road and the pick-up/drop-off point at Man Kam To Road;
- (iii) Widening of about 900m of the existing Sha Ling Road;
- (iv) Widening of about 1.4km of the existing Lin Ma Hang Road; and
- (v) Improvement works to the existing barging point at Siu Lam

Non-Designated Works

- (i) Construction of a sewage detention tank complete with odour and septicity control mechanism;
- (ii) Construction of noise barriers along Sha Ling Road;
- (iii) Construction of a new Refuse Collection Point (RCP) near the junction between Man Kam To Road and Sha Ling Road;
- (iv) Landscaping works (including both hard and soft landscape works);
- (v) Associated tree felling, transplanting and compensatory planting works;
- (vi) Associated street lighting, street furniture and road marking, etc.; and
- (vii) Other works which are specified in PS of the Contract.
- 1.1.2 To facilitate the Project management, the Project works were separated into three Contracts to be executed which are described in below sub-sections.
- 1.1.3 Contract No. CV/2016/10 Site Formation and Associated Infrastructural Works for Development of Columbarium at Sandy Ridge Cemetery (hereinafter named "Contract 1"):-
 - Site formation of about 1.77 ha of land for the proposed pick-up and drop-off area for shuttle bus operation;
 - Upgrading of a section of 900m existing Sha Ling Road from 3m wide carriageway to 7.3m wide carriageway with footpath at both sides;
 - Construction of one EVA with a total length of about 160m;
 - Construction of noise barriers along Sha Ling Road;
 - Modification of junction between Man Kam To Road and Sha Ling Road;
 - Construction of a new pick up / drop off point at Man Kam To Road;
 - Relocation and construction of a new refuse collection point near junction between Man Kam To Road and Sha Ling Road;
 - Associated geotechnical works including cut and fill slopes, soil nailing works and retaining structures;
 - Associated drainage, sewerage and waterworks along Sha Ling Road; and
 - Associated landscaping works.
- 1.1.4 Contract No. CV/2017/02 Infrastructural Works at Man Kam To Road and Lin Ma Hang Road for Development of Columbarium at Sandy Ridge Cemetery (hereinafter named "Contract 2"):-
 - Construction of a new road connecting Columbarium site to Crematorium site;
 - Construction of one EVA with a total length of about 300m;
 - Widening of a section of 1.4 km long Lin Ma Hang Road (between Man Kam To Road and Ping Yuen River) from 6m wide carriageway to 7.3m with 2m width footpath on both sides;
 - Provision of a pair of lay-by at Lin Ma Hang Road;
 - Construction of a new vehicular access connecting the Sheung Shui Landmark North PTI and Lung Sum Avenue;



- Construction of covered walkway along Fanling Station Road;
- Removal of planters and central divider along Fanling Station Road and San Wan Road;
- Associated drainage, sewerage, waterworks and utility works along Man Kam To Road and Lin Ma Hang Road;
- Associated geotechnical works including cut and fill slopes, soil nailing works and retaining structures; and
- Associated landscaping works.
- 1.1.5 CEDD Contract No. (to be confirmed):-
 - Site Formation for the platform of the columbarium site;
 - Construction of two 2 at-grade access roads;
 - Construction of road junction between Man Kam To Road and the new access road;
 - Associated drainage, sewerage and waterworks along the two new access roads;
 - Associated geotechnical works including cut and fill slopes, soil nailing works and retaining structures; and
 - Associated landscaping works
- 1.1.6 Hsin Chong Tsun Yip Joint Venture (hereafter referred as "HCTYJV") has been awarded Contract 1 on 5 December 2017. According to the Contract requirement, HCTYJV shall take over the responsibility for part of the Environmental Permit No. EP-534/2017 for ease of management, therefore application for Further Environmental Permit was submitted by HCTYJV to EPD on 26 January 2018 and Further Environmental Permit No. FEP-01/534/2017 was granted to HCTYJV by EPD on 23 February 2018. Furthermore, EPD issued Environmental Permit No. FEP-01/534/2017/A on 24 December 2018.
- 1.1.7 Sang Hing Civil Contractors Company Limited (hereinafter referred as "Sang Hing") was awarded Contract 2 on 23 May 2018. The Contract Works is a Designated Project as under Environmental Permit (EP) No. EP-534/2017. Furthermore, EPD issued Environmental Permit No. EP-534/2017/A on 24 December 2018.
- 1.1.8 Action-United Environmental Services & Consulting (AUES) has been commissioned by the Contractors as an Environmental Team (ET) to implement the Environmental Monitoring and Audit (EM&A) programme in accordance with the approved EM&A Manual as well as the associated duties. As part of the EM&A programme, baseline monitoring to determine the ambient environmental conditions was completed before construction work commencement. The Baseline Monitoring Report (air, noise and water) certified by ET Leader (ETL) and verified by Independent Environmental Checker (IEC) was submitted to Environmental Protection Department (EPD) and it was approved by EPD on 25 October 2018.
- 1.1.9 Major construction work of Contract 1 and Contract 2 was commenced on 16 August 2018 and 5 November 2018 respectively.
- 1.1.10 This is the **31**st Monthly EM&A Report summarizing the monitoring results and inspection findings for the period from **1**st to **28**th February 2021.

1.2 REPORT STRUCTURE

- 1.2.1 The Monthly EM&A Report is structured into the following sections:-
 - Section 1 Introduction Section 2 **Project Organization and Construction Progress** Section 3 Summary of Monitoring Requirements Section 4 Air Quality Monitoring Results Section 5 Noise Monitoring Results Section 6 Water Quality Monitoring Results Section 7 Ecology Monitoring Results Landscape & Visual Section 8 Section 9 Waste Management Section 10 Site Inspections



Section 11 Environmental Complaints and Non-Compliance

- Section 12 Implementation Status of Mitigation Measures
- Section 13 Conclusions and Recommendation



2. PROJECT ORGANIZATION AND CONSTRUCTION PROGRESS

2.1 CONSTRUCTION CONTRACT PACKAGING

- 2.1.1 To facilitate the project management and implementation, the Project was divided by the following contracts:
 - Contract 1 (Contract No. CV/2016/10)
 - Contract 2 (Contract No. CV/2017/02)
 - Contract 3 (Contract No. TBA)
- 2.1.2 Organization structure and contact details of relevant parties with respect to on-site environmental management are shown in *Appendix B*.

2.2 CONSTRUCTION PROGRESS

2.2.1 The three-month rolling construction programme for Contract 1 and Contract 2 are enclosed in *Appendix C*. Construction activities of the Contract 1 and Contract 2 undertaken in the Reporting Month are presented below.

Contract 1 (CV/2016/10)

- General site housekeeping
- Bulk excavation
- Construction of cut slope, installation of soil nailing and construction of surface channel and planter wall
- Construction of fill slope and surface channel
- Construction of pick-up and drop-off Point near Man Kam To Road
- Construction of storm/ sewer drain
- Laying of street lighting ducts
- Laying of watermains

Contract 2 (CV/2017/02)

- Excavation permit (XP) for Sheung Shui Roadworks.
- RA application for Fanling Covered Walkway works
- Man Kam To Road DN800 DI Sewerage Pipe FM4.23-4.28 (250m)
- Man Kam To Road DN400 DI Watermain CH510-690 at North Fast Lane
- Soil Nail Works at Lin Ma Hang Road Slope C224 & C231
- Filling Works and drainage works for slope FS18 (Part A1).
- Construction of Manhole, gullies, drainage pipe at Sandy Ridge Road E CH230-300 (~70m)
- Construction of Retaining Wall 14
- Construction of Retaining Wall 12
- Fanling Station Road Covered Walkway

2.3 SUMMARY OF ENVIRONMENTAL SUBMISSIONS

2.3.1 Summary of the relevant permits, licenses, and/or notifications on environmental protection for the Project in this Reporting Month is presented in *Tables 2-1 and 2-2*.

Table 2-1 Status of Environmental Licenses and Permits for Contr	act 1
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Item	Description	License/ Permit ref no.	License/ Permit Status
1	Air Pollution Control	Ref. no. 428909	Valid
	(Construction Dust) Regulation	Acknowledged by EPD on 20/12/2017	
2	Chemical waste Producer	WPN: 5231-641-H3937-01	Valid
	Registration	Issued by EPD on 27/03/2018	
3	Water Pollution Control	License no. WT00030795-2018	Valid
	Ordinance	Issued date: 9/5/2018	
		Expire Date: 31/5/2023	
4	Billing Account for Disposal	Account no.: 7029769	Valid



Item	Description		License/ P	ermit ref no.	License/ Permit Status
	of Construction Waste				
Table 2	-2 Status of Envir	onment	al Licenses and Pe	ermits for Contract 2	
Item	Description		License/ Perr	nit ref no.	License/ Permit Status
1	Air Pollution Control (Construction Dust) Regulation		vledged by EPD on	Man Kam To Road (near Sha Ling Road to Kong Nga Po Road	Valid
		Ref. no.	. 440405 vledged by EPD on	Fanling Station Road	Valid
			vledged by EPD on	Sa Ling Road (Sandy Ridge Cemetery)	Valid
			vledged by EPD on	Lin Ma Hang Road (San Uk Ling – Muk Wu Nga Yiu)	Valid
			vledged by EPD on	Lung Sum Avenue (near Landmark North)	Valid
2	Chemical waste Producer Registration		5213-641-S4151-01 by EPD on 04/02/20)19	Valid
3	Water Pollution Control Ordinance	License WT000 Issued c	*	Man Kam To Road & Lin Ma Hang Road, Man Kam To	Valid
		Issued d	no: 33335-2019 late: 29/03/2019 Date: 31/03/2024	Columbarium at Sandy Ridge Cemetery	Valid
		License WT000 Issued c		Fanling Station Road	Valid
4	Billing Account for Disposal of Construction Waste		t no.: 7031098	·	Valid

2.4 SUMMARY OF SUBMISSION UNDER THE ENVIRONMENTAL PERMIT REQUIREMENTS

2.4.1 *Tables 2-3 to 2-4* summarized the submission status under the EP and/or FEP stipulation in the Reporting Month.

Table 2-3Status of Submission as under FEP

Item	EP and / or FEP Stipulation	Description	Status
1	Condition 2.10 of FEP	Management organization of : i) the main construction companies; ii) ET; and iii)	Submitted and no approval is required.
		IEC and the supporting team	1
2	Condition 2.11 of FEP	i) Detailed phasing programme of all construction works; and ii) Location plan of all construction works	Submitted and no approval is required.
3	Condition 2.12 of FEP	Contamination Assessment Plan (CAP)	Approved by EPD on 27 May 2019
4	Condition 2.13 of FEP	Grassland Reinstatement Plan	Pending approval
5	Condition 2.14 to 2.16 of	Vegetation Survey Report and	Approved by EPD on 12
	FEP	Vegetation Transplantation Proposal for	October 2018



Item	EP and / or FEP Stipulation	Description	Status
		Contract 1	
6	Condition 2.17 of FEP	Woodland Compensation Plan (Rev.05)	Approved by EPD on 30 Jun 2020
7	Condition 2.18 of FEP	Monitoring and Survey Plan for Golden-headed Cisticola for Contract 1 (Rev.02)	Approved by EPD on 22 Oct 2019
8	Condition 2.20 of FEP	Landscape & Visual Mitigation and Tree Preservation Plan(s) Contract 1 (Rev.04)	Pending approval
9	Condition 2.22 of FEP	Traffic Noise Mitigation Plan Contract 1 (Rev. 4)	Pending approval
10	Condition 3.3 of the FEP	Baseline Monitoring Report (Air, Noise and Water)	Approved by EPD on 25 October 2018
11	Condition 4.2 of the FEP	The Contract Internet website	Internet website address has notified EPD on 15 Jun 2018 and no approval is required.

Table 2-4	Status of Submission	as under EP

Item	EP and / or FEP Stipulation	Description	Status
1	Condition 2.10 of EP	Management organization of : i) the main construction companies; ii) ET; and iii) IEC and the supporting team	Submitted and no approval is required.
2	Condition 2.11 of EP	i) Detailed phasing programme of all construction works; and ii) Location plan of all construction works	Submitted and no approval is required.
3	Condition 2.12 of EP	Layout Plan for the proposed footpath at Lin Ma Hang Road	Pending approval
4	Condition 2.13 of EP	Contamination Assessment Plan (CAP)	Approved by EPD on 27 May 2019
5	Condition 2.14 of EP	Grassland Reinstatement Plan	Pending approval
6	Condition 2.15 to 2.17 of EP	Vegetation Survey Report and Vegetation Transplantation Proposal under Contract 2	Pending approval
7	Condition 2.18 of EP	Woodland Compensation Plan (Rev.05)	Approved by EPD on 30 Jun 2020
8	Condition 2.19 of EP	Monitoring and Survey Plan for Golden-headed Cisticola Contract 2	Pending approval
9	Condition 2.22 of EP	Landscape & Visual Mitigation and Tree Preservation Plan(s) Contract 2	Pending approval
10	Condition 2.24 of EP	Traffic Noise Mitigation Plan Contract 2	Pending approval
11	Condition 3.3 of the EP	Baseline Monitoring Report (Air, Noise and Water)	Approved by EPD on 25 October 2018
12	Condition 4.2 of the EP	The Contract Internet website	Internet website address has notified EPD on 15 June 2018 and no approval is required.



3. SUMMARY OF IMPACT MONITORING REQUIREMENT

3.1 GENERAL

- 3.1.1 The EM&A requirements are set out in the Approved EM&A Manual. Environmental issues such as air quality, construction noise, water quality and ecology were identified as the key issues during the construction phase of the Project.
- 3.1.2 A summary of construction phase EM&A requirements are presented in the sub-sections below.

3.2 MONITORING PARAMETERS

- 3.2.1 The EM&A impact monitoring shall cover the following environmental aspect:
 - Air quality;
 - Construction noise;
 - Water quality;
 - Ecology; and
 - Landscape and visual

3.2.2 A summary of the monitoring parameters is presented in *Table 3-1* below

Table 3-1Summary of EM&A Requirements

Environmental Issue	Parameters			
Air Quality	1-hour TSP;24-hour TSP			
Noise	 Leq_(30min) during normal working hours.; and Leq_(15min) during the construction works undertaken in Restricted Hours 			
Water Quality	 In-situ Measurements Dissolved Oxygen Concentration (mg/L) & Saturation (%); Temperature (°C); Turbidity (NTU); Salinity (ppm) pH unit; Water depth (m); and Stream Flow Velocity (m/sec). Laboratory Analysis Suspended Solids (mg/L) 			
Ecology	Ecologically sensitive habitats (wetland habitats and non-wetland habitats)			

3.3 MONITORING LOCATIONS

- 3.3.1 According to the Approved EM&A Manual of the Project *Site Formation and Associated Infrastructural Works for Development of Columbarium, Crematorium and Related Facilities at Sandy Ridge Cemetery*, the designated monitoring locations for air quality, noise, water quality and ecology under the monitoring programme, is shown in *Appendix D*.
- 3.3.2 Since the Project was divided into three Works Contracts and all Contracts will be commenced at different time, the construction phase impact monitoring will only be performed at the Contract-related monitoring stations upon commencement of each Contract Works.

Air Quality

3.3.3 There were three (3) designated air quality monitoring stations recommended in the Approved EM&A Manual Section 5.6.1.1. There was proposed relocation of air quality monitoring location ASR-3 in October 2018 since the landlord refused to set up the HVS at his premises and nearby Conservation Area due to noise nuisance and Muk Wu Nga Yiu House No. 2A was proposed as alternative location ASR-3a. The proposal dated on 9 November 2018 which verified by IEC was submitted to EPD for approval. Based on rationale in Section 3.3.2, the Contract-related air quality monitoring location for construction phase were summarized in *Table 3-2* and illustrated in *Appendix D*.



Location ID	Description in EM&A Manual	Location	Related Work Contract
ASR-1	Village House along Man Kam To	Sha Ling Village House No.6	Contract 1
	Road		
ASR-2	Village House at San Uk Ling	San Uk Ling Village House No.1	Contract 2
ASR-3	Village House at Muk Wu Nga Yiu	Muk Wu Nga Yiu House No.28	Contract 2
ASR-3a (#)	Village House at Muk Wu Nga Yiu	Muk Wu Nga Yiu House No.2A	Contract 2

 Table 3-2
 Designated Air Quality Monitoring Location under the Project

Remark: (#) There was proposed relocation of air quality monitoring location ASR-3 in October 2018. The proposal dated on 9 November 2018 after verified by IEC was submitted to EPD for approval.

- i) Be at the site boundary or such locations close to the major dust emission source;
- ii) Close to the sensitive receptors;
- iii) Take into account the prevailing meteorological conditions;
- iv) For monitoring location located in the vicinity of the ASRs, care shall be taken to cause minimal disturbance to the occupants during monitoring.
- v) When positioning the HVS, the following points shall be noted:
 - a. a horizontal platform with appropriate support to secure the samples against gusty wind shall be provided;
 - b. no two samplers shall be placed less than 2m apart;
 - c. the distance between the HVS and an obstacle, such as buildings, must be at least twice the height that the obstacle protrudes above the HVS;
 - d. a minimum of 2 m separation from walls, parapets and penthouses is required for HVS at the rooftop;
 - e. a minimum of 2 m separation from any supporting structure, measures horizontally is required;
 - f. no furnace or incinerator flue is nearby;
 - g. airflow around the sampler is unrestricted;
 - h. the HVS is more than 20 m from the dripline;
 - i. any wire fence and gate to protect the HVS, shall not cause any obstruction during monitoring;
 - j. permission must be obtained to set up the HVS and to obtain access to the monitoring stations; and
 - k. a secured supply of electricity is needed to operate the HVS.

Construction Noise

3.3.5 There were four (4) designated noise monitoring locations recommended in the Approved EM&A Manual Section 6.5.1.1. Based on rationale in Section 3.3.2, the Contract-related noise quality monitoring location for construction phase were summarized in *Table 3-3* and illustrated in *Appendix D*.

 Table 3-3
 Designated Construction Noise Monitoring Location under the Project

	8	0	U
Locatio n ID	Description in EM&A Manual	Location	Related Work Contract
CN-1	Village house to the west of	Village house to the west of Sha Ling	Contract 1
	Sha Ling Road	Road (free field condition)	
CN-2	Village house to the north of	Sha Ling Village House No. 25 (free	Contract 1
	Man Kam To Road	field condition)	& 3
CN-3	Village house near San Uk	San Uk Ling Village House No. 18 (free	Contract 2
	Ling	field condition)	
CN-4	Village house of Muk Wu	Muk Wu Village House No. 267 (1m	Contract 2
		façade from the building)	

^{3.3.4} If the designated monitoring location is required to relocate, alternative monitoring location shall agree with IEC and seek for EPD approval which shall meet the following criteria:



Water Quality

3.3.6 There were four (4) water quality monitoring locations recommended in the Approved EM&A Manual Section 7.6.1.2. The locations and coordinates of water quality monitoring were listed in *Table 3-4*. Based on rationale in Section 3.3.2, the Contract-related water quality monitoring location for construction phase were summarized in *Table 3-4* and illustrated in *Appendix D*.

Proposed	Co-ore	linates	Description	Related Work
Location ID	North	East	Description	Contract
M1	843 431	831 308	Midstream of Nam Hang Stream	Contract 2
M2	843 840	831 101	Downstream of Nam Hang Stream	Contract 2
M3	843 509	830 040	Wetland in the Conservation Area near Yuen Leng Chai	Contract 1
M4	843 997	831 783	Watercourse across Lin Ma Hang Road, running from east of San Uk Ling to Man Kam To Boundary Control Point	Contract 2

Table 3-4Designated Water Quality Monitoring Stations under the Project

3.4 MONITORING FREQUENCY AND PERIOD

3.4.1 The requirements of impact monitoring were stipulated in *Sections 5.8.1.1, 6.7.1.1* and *7.8.1.4* of the approved *EM&A Manual* and presented as follows.

Air Quality Monitoring

- 3.4.2 Monitoring frequency for air quality impact monitoring is as follows:
 - 1-Hour TSP 3 sets of 1-hour TSP monitoring shall be carried out once every six days during construction periods
 - 24-Hour TSP 24-hour TSP monitoring shall be carried out every six days during construction periods

Noise Monitoring

3.4.3 Noise impact monitoring shall be carried out once per week during construction periods. The noise measurement for the time period between 0700 and 1900 hours shall be measured in terms of L_{eq} (30 minutes) or 6 sets of L_{eq} (5mins).

Water Quality Monitoring

3.4.4 The monitoring frequency shall be 3 days per week during construction phase and the interval between two sets of monitoring shall not be less than 36 hours.

3.5 MONITORING EQUIPMENT

3.5.1 The monitoring equipment using for the EM&A program as proposed by the ET shall be verified by the IEC.

Air Quality Monitoring

- 3.5.2 The 24-hour and 1-hour TSP levels shall be measured by following the standard high volume sampling method as set out in the *Title 40 of the Code of Federal Regulations, Chapter 1 (Part 50), Appendix B*. If ET proposes to use a direct reading dust meter to measure 1-hour TSP levels, it shall submit sufficient information to IEC for approval.
- 3.5.3 The filter paper of 24-hour TSP measurement shall be determined by HOKLAS accredited laboratory.
- 3.5.4 All equipment used by ET for air quality monitoring is listed in *Table 3-5*.

Table 3-5	Air Quality Monitoring Equipment
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Equipment	Model
24-hour TSP	
High Volume Air Sampler (HVAS)	TISCH High Volume Air Sampler, HVS Model TE-5170
Calibration Kit	TISCH Model TE-5025A
1-Hour TSP	
Portable Dust Meter	Sibata LD-3 Laser Dust monitor Particle Mass Profiler & Counter

 $Z: \label{eq:loss} 2018 \ CV-2016-10) \ 600 \ EM\&A \ Report \ Submission \ Monthly \ Report \ 2021 \ 31st \ Month \ (Feb \ 2021) \ R0529 \ v2. \ doc \ R0529 \ v2. \ R0529 \ v2. \ doc \ R0529 \ v2. \ R0529 \ v2. \ doc \ R0529 \ r0529$



Wind Data Monitoring Equipment

- 3.5.5 According to the approved EM&A Manual, wind data monitoring equipment shall also be provided and set up for logging wind speed and wind direction near the dust monitoring locations. The equipment installation location shall be proposed by the ET and agreed with the IEC. For installation and operation of wind data monitoring equipment, the following points shall be observed:
 - 1) The wind sensors should be installed 10 m above ground so that they are clear of obstructions or turbulence caused by buildings.
 - 2) The wind data should be captured by a data logger. The data shall be downloaded for analysis at least once a month.
 - 3) The wind data monitoring equipment should be re-calibrated at least once every six months.
 - 4) Wind direction should be divided into 16 sectors of 22.5 degrees each.
- 3.5.6 ET has liaised with the premises owners/ landlords to grant the permission for the HVS installation. However, they rejected to set up wind data monitoring equipment installation in their premises.
- 3.5.7 Under this situation, the ET proposed to obtain representative wind data from the Hong Kong Observatory Ta Kwu Ling Weather Station. Ta Kwu Ling Station is located near the Project site which situated at the sea level above 15mPD and the wind data monitoring equipment is installed 10 m above the existing ground.

Noise Monitoring

- 3.5.8 Sound level meter in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications shall be used for carrying out the noise monitoring. The sound level meter shall be checked using an acoustic calibrator. The wind speed shall be checked with a portable wind speed meter capable of measuring the wind speed in ms⁻¹ before each noise monitoring event. Noise measurements should not be made in fog, rain, wind with a steady speed exceeding 5 m s⁻¹ or wind with gusts exceeding 10 m s⁻¹.
- 3.5.9 Noise monitoring equipment used for impact monitoring is listed in *Table 3-6*.

Equipment	Model
Integrating Sound Level Meter	Rion NL-52 Sound Level Meter
Calibrator	Rion NC-73 Acoustical Calibrator
Portable Wind Speed Indicator	Testo Anemometer

Table 3-6Noise Monitoring Equipment

3.5.10 Sound level meters listed above comply with the *International Electrotechnical Commission Publications 651: 1979 (Type 1)* and *804: 1985 (Type 1)* specifications, as recommended in TM issued under the NCO.

Water Quality Monitoring

3.5.11 Water quality parameters include dissolved oxygen, water temperature & depth, turbidity, salinity, pH and stream flow velocity shall be measured *in-situ*, and suspended solids shall be analyzed by a HOKLAS-accredited testing laboratory.

Dissolved Oxygen and Temperature Measurement

- 3.5.12 The dissolved oxygen (DO) measuring instruments should be portable and weatherproof. The equipment should also complete with cable and sensor, and DC power source. It should be capable of measuring:
 - A DO level in the range of 0 20 mg/L and 0 200% saturation; and
 - A temperature of 0 45 degree Celsius.
- 3.5.13 The equipment should have a membrane electrode with automatic temperature compensation complete with a cable.



3.5.14 Should salinity compensation not be built-in to the DO equipment, in-situ salinity should be measured to calibrate the DO measuring instruments prior to each measurement.

Turbidity Measurement

3.5.15 The turbidity measuring instruments should be a portable and weatherproof with DC power source. It should have a photoelectric sensor capable of measuring turbidity level between 0–1000 NTU (for example, Hach model 2100Q or an approved similar instrument).

Salinity Measurement

3.5.16 A portable salinometer capable of measuring salinity in the range of 0–40 parts per thousand (ppt) should be provided for measuring salinity of the water at each monitoring location.

<u>pH Measurement</u>

3.5.17 A portable pH meter capable of measuring a range between 0.0 and 14.0 should be provided to measure pH under the specified conditions accordingly to the APHA Standard Methods.

Water Depth Measurement

3.5.18 A portable, battery-operated echo sounder or an approved similar instrument should be used for water depths determination at each designated monitoring station.

Stream Flow Velocity Equipment

3.5.19 Since the EM&A Manuals do not specified instrument to use stream flow velocity measurement, the monitoring of stream flow velocity is therefore proposed to be conducted by using a flow probe which is a digital water velocity meter.

Water Sampling Equipment

- 3.5.20 A water sampler is required for suspended solid (SS) monitoring. A water sampler e.g. Kahlsico Water Sampler, which is a transparent PVC cylinder with capacity not less than 2 litres, will be used for water sampling if water depth over than 0.5m.
- 3.5.21 For sampling from very shallow water depths e.g. <0.5 m, water sample will be collected from water surface below 100mm using plastic bottle to avoid inclusion of bottom sediment or humus. Moreover, Teflon/stainless steel bailer or self-made sampling buckets maybe used for water sampling. The equipment used for sampling will be depended the sampling location and depth situations.

Sample Containers and Storage

- 3.5.22 Water samples for suspended solid should be stored in high density polythene bottles with no preservative added, packed in ice (cooled to 4°C without being frozen) and delivered to the laboratory within 24 hours of collection and be analyzed as soon as possible after collection.
- 3.5.23 Analysis of suspended solids should be carried out in a HOKLAS or other accredited laboratory. Water samples of about 1L should be collected at the monitoring stations for carrying out the laboratory suspended solids determination. The SS determination work should start within 24 hours after collection of the water samples. The SS analyses should follow the *APHA Standard Methods* 2540D with Limit of Reporting of 2 mg/L.
- 3.5.24 Details of the equipment used for water quality monitoring are listed in *Table 3-7* below.

Table 3-7 Water Quality Monitoring Equipment

Equipment	Model
Water Depth Detector	Tape measures
Water Sampler	A 2-litre transparent PVC cylinder with latex cups at both ends or Teflon/stainless steel bailer or self-made sampling bucket
Thermometer & DO meter	YSI Professional DSS/ YSI 550A
pH meter	AZ8685 pH meter / YSI Professional DSS



Equipment	Model
Turbidimeter	Hach 2100Q/ YSI Professional DSS
Salinometer	Atago refractometer Atago S Salinity Meter / YSI Professional DSS
Stream Flow Velocity	FP211 Global Flow Probe
Sample Container	High density polythene bottles (provided by laboratory)
Storage Container	'Willow' 33-litter plastic cool box with Ice pad

3.5.25 Furthermore, Suspended solids (SS) analysis was carried out by *ALS Technichem (HK) Pty Ltd*. Which is one a local HOKLAS-accredited laboratory

3.6 EQUIPMENT CALIBRATION

- 3.6.1 The HVAS is operated and calibrated on a regular basis in accordance with the manufacturer's instruction using Tisch Calibration Kit Model TE-5025A. Calibration would carry out at fortnightly interval. The calibration data are properly documented and the records are maintained by ET for future reference. Furthermore, Tisch Calibration Kit will be calibrated by the manufacturer in yearly basis.
- 3.6.2 The 1-hour TSP meter calibrated by a local HOKLAS-accredited laboratory would be undertaken in yearly basis. Zero response of the equipment was checked before and after each monitoring event.
- 3.6.3 The sound level meter and acoustic calibrator are calibrated and certified by a laboratory accredited under HOKLAS or any other international accreditation scheme at yearly basis.
- 3.6.4 The multi-parameter Water Quality Monitoring System is calibrated by HOKLAS accredited laboratory of three month intervals.
- 3.6.5 All updated calibration certificates of the monitoring equipment used for the impact monitoring program in this Reporting Month are attached in *Appendix E*.

3.7 DATA MANAGEMENT AND DATA QA/QC CONTROL

- 3.7.1 The impact monitoring data are handled by the ET's systematic data recording and management, which complies with in-house Quality Management System. Standard Field Data Sheets (FDS) are used in the impact monitoring program.
- 3.7.2 The monitoring data recorded in the equipment e.g. 1-hour TSP meter, noise meter and Multi-parameter Water Quality Monitoring System are downloaded directly from the equipment at the end of each monitoring day. The downloaded monitoring data are input into a computerized database properly maintained by the ET. The laboratory results are input directly into the computerized database and QA/QC checked by personnel other than those who input the data. For monitoring activities require laboratory analysis, the local laboratory follows the QA/QC requirements as set out under the HOKLAS scheme for all laboratory testing.

3.8 DETERMINATION OF ACTION/LIMIT (A/L) LEVELS

3.8.1 The baseline monitoring results form the basis for determining the environmental acceptance criteria for the impact monitoring. The air quality, construction noise and water quality criteria, namely Action and Limit levels were established according to Approved EM&A Manual, and they are listed in *Tables 3-8, 3-9* and *3-10* below.

Monitoring Station	Action	Level (µg /m ³)	Limit Level (µg/m ³)		
Monitoring Station	1-hour TSP	24-hour TSP	1-hour TSP	24-hour TSP	
ASR-1	331	181	500	260	
ASR-2	316	165	500	260	
ASR-3	307	160	500	260	

Table 3-8Action and Limit Levels for Air Quality Monitoring



Table 3-9Action and Limit Levels for Constr	ruction Noise
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Monitoring Logotion	Action Level	Limit Level in dB(A)		
Monitoring Location	Time Period: 0700-1900 hours on normal weekdays			
CN-1,CN-2, CN-3, CN-4	When one or more documented complaints are received	75 dB(A)		

Note: * Reduces to 70 dB(A) for schools and 65 dB(A) during the school examination periods.

Table 3-10 Action and Limit Levels for Water Quality

Domomotor	Performance		g Location		
Parameter	criteria	M1	M2	M3	M4
DO (mg/L)	Action Level	3.03	4.99	4.58	3.62
	Limit Level	2.97	4.90	4.49	3.52
Turbidity	Action Level	7.1	39.7	5.6	5.4
(NTU)	Limit Level	7.6	42.2	5.9	5.9
SS (mg/L)	Action Level	8.5	29.0	9.3	4.8
	Limit Level	10.1	31.0	9.5	5.0

Notes:

For DO, non-compliance of the water quality limits occurs when monitoring result is lower than the limits
For turbidity and SS, non-compliance of the water quality limits occurs when monitoring result is higher

than the limits.

3.8.2 Should non-compliance of the environmental quality criteria occurs, remedial actions will be triggered according to the Event and Action Plan enclosed in *Appendix F*.



4. AIR QUALITY

4.1 MONITORING RESULTS

- 4.1.1 In the Reporting Month, air quality monitoring was performed at all designated locations. Impact monitoring schedule provided to all relevant parties was shown in *Appendix G*.
- 4.1.2 In this Reporting Month, there were 5 sessions of 24-hour TSP and 18 sessions of 1-hour TSP undertaken at each designated station for air quality monitoring. The air quality monitoring results are summarized in *Tables 4-1* to 4-3. The database of 24-hour TSP is shown in *Appendix H* and the graphical plots of monitoring result are shown in *Appendix I*.

Table 4-1	Summary of Air (Duality Monitoring	Results at ASR-1 under	Contract 1
	Summary of the v	Zumity monitoring	itesuits at fisit i anaci	Contract 1

	24-hour	1-hour TSP (µg/m ³)				
Date	TSP (µg/m ³)	Date	Start Time	1 st hour measured	2 nd hour measured	3 rd hour measured
5-Feb-21	112	1-Feb-21	9:24	93	100	91
10-Feb-21	65	6-Feb-21	13:19	82	88	97
16-Feb-21	40	11-Feb-21	9:33	51	54	57
22-Feb-21	73	17-Feb-21	9:23	64	67	61
27-Feb-21	44	20-Feb-21	9:28	76	78	73
-	-	24-Feb-21	9:23	76	81	79
Average	67	Average 76				
(Range)	(40 - 112)	(Rang	ge)		(51 - 100)	

Table 4-2	Summary of Air Quality Monitoring Results at ASR-2 under Contract 2
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	24-hour		1-hour TSP (µg/m ³)				
Date	TSP (µg/m ³)	Date	Start Time	1 st hour measured	2 nd hour measured	3 rd hour measured	
5-Feb-21	33	1-Feb-21	9:37	78	83	80	
10-Feb-21	27	6-Feb-21	9:18	65	68	64	
16-Feb-21	28	11-Feb-21	9:27	51	48	50	
22-Feb-21	24	17-Feb-21	9:30	55	61	57	
27-Feb-21	37	20-Feb-21	9:34	66	64	61	
_	_	24-Feb-21	9:28	68	70	65	
Average	30	Average 64					
(Range)	(24 - 37)	(Range) (48 – 83)					

Table 4-3	Summary of Air Quality Monitoring Results at ASR-3a under Contract 2
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	24-hour	1-hour TSP (µg/m ³)				
Date	TSP (µg/m ³)	Date	Start Time	1 st hour measured	2 nd hour measured	3 rd hour measured
5-Feb-21	63	1-Feb-21	9:49	72	69	67
10-Feb-21	38	6-Feb-21	9:32	64	67	60
16-Feb-21	36	11-Feb-21	9:21	44	52	46
22-Feb-21	77	17-Feb-21	9:35	52	56	52
27-Feb-21	42	20-Feb-21	9:38	65	60	58
-	-	24-Feb-21	9:34	63	59	61
Average	51	Average 59				
(Range)	(36 – 77)	(Range) (44 – 72)				

4.2 AIR MONITORING EXCEEDANCE

4.2.1 As shown in *Tables 4-1 to 4-3*, the monitoring results of 24-hour and 1-hour TSP monitoring in the Reporting Month were below the Action/ Limit Level. No Notification of Exceedance (NOE) of air quality monitoring criteria was issued and therefore corrective action was not required. The meteorological data during the impact monitoring days are summarized in *Appendix J*.



5. CONSTRUCTION NOISE

5.1 MONITORING RESULTS

- 5.1.1 In the Reporting Month, noise monitoring was performed at all designated locations. Impact monitoring schedule provided to all relevant parties was shown in *Appendix G*.
- 5.1.2 In this Reporting Month, *4* sessions of noise monitoring were undertaken at each designated noise monitoring location. The sound level were set in a free field situation for CN1, CN2 and CN3 and therefore a façade correction of +3dB(A) has been added according to acoustical principles and EPD guidelines. The monitoring result of noise monitoring is show in *Tables 5-1 and 5-2* and the graphical plots are shown in *Appendix I*.

 Table 5-1
 Summary of Construction Noise Monitoring Results under Contract 1

	Construction Noise Level (L _{eq30min}), dB(A)					
Date	Start Time	CN1(*)	Start Time	CN2(*)		
1-Feb-21	11:42	64	11:04	67		
11-Feb-21	14:59	60	14:21	64		
17-Feb-21	15:28	57	14:51	62		
24-Feb-21	13:08	69	13:44	64		
Limit Level	75 dB(A)					

(*) A façade correction of +3dB(A) has been added according to acoustical principles and EPD guidelines.

	Construction Noise Level (L _{eq30min}), dB(A)					
Date	Start Time	CN3 ^(*)	Start Time	CN4		
1-Feb-21	10:23	60	9:45	60		
11-Feb-21	10:11	59	10:48	57		
17-Feb-21	10:22	60	11:00	56		
24-Feb-21	14:30	58	15:08	62		
Limit Level		7	/5 dB (A)			

(*) A façade correction of +3dB(A) has been added according to acoustical principles and EPD guidelines.

5.1.3 Prior and after noise monitoring, the accuracy of the sound level meter has been checked by an acoustic calibrator to ensure the measurement within acceptance range of ± 0.5 dB. Moreover, wind speed checked by portable wind speed meter has been performed before noise monitoring. No noise measurement was performed in fog, rain, wind with a steady speed exceeding 5 m s⁻¹ or wind with gusts exceeding 10 m s⁻¹.

5.2 NOISE MONITORING EXCEEDANCE

5.2.1 As shown in *Tables 5-1 and 5-2*, no Limit Level exceedance for noise monitoring exceedance was recorded in the Reporting Month. Moreover, no noise complaint (which triggered Action Level) was received. No Notification of Exceedance (NOE) of construction noise criterion was issued and no corrective action was therefore required.



6. WATER QUALITY

6.1 MONITORING RESULTS

- 6.1.1 In the Reporting Month, water quality monitoring was performed at all designated locations. Impact monitoring schedule provided to all relevant parties was shown in *Appendix G*.
- 6.1.2 In the Reporting Month, a total of 13 monitoring days were carried out for water quality impact monitoring. The monitoring result of key parameters including Dissolved Oxygen, Turbidity and Suspended Solids are summarized in *Tables 6-1* and 6-2. Detailed monitoring results including in-situ measurements and laboratory analysis data are shown in *Appendix H* and graphical plots for monitoring result are shown in *Appendix I*.

 Table 6-1
 Summary of Water Quality Monitoring Results – M3 under Contract 1

		Parameters	
Date	DO (Averaged) (mg/L)	Turbidity (Averaged) (NTU)	Suspended Solids (Averaged) (mg/L)
1-Feb-21	7.99	1.4	2.0
3-Feb-21	7.62	1.1	<2
5-Feb-21	7.45	1.2	<2
8-Feb-21	7.41	1.5	3.5
10-Feb-21	6.87	4.7	3.5
16-Feb-21	6.89	1.9	3.5
18-Feb-21	7.41	2.3	3.5
20-Feb-21	7.96	1.4	4.5
22-Feb-21	8.20	1.4	3.0
24-Feb-21	8.65	1.6	4.5
26-Feb-21	8.60	1.1	4.0

Table 6-2 Summary of Water Quality Monitoring	g Results (M1, M2 and M4) under Contract 2
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		Parameters							
Date	DO (Averaged) (mg/L)		Turbidity (Averaged) (NTU)			Suspended Solids (Averaged) (mg/L)			
	M1	M2	M4	M1	M2	M4	M1	M2	M4
1-Feb-21	7.94	#	7.83	1.9	#	0.9	<2	#	3.0
3-Feb-21	7.54	#	7.66	2.0	#	1.6	<2	#	3.0
5-Feb-21	6.88	#	7.55	1.0	#	0.9	2.5	#	<2
8-Feb-21	7.42	#	7.62	2.8	#	1.4	3.0	#	3.0
10-Feb-21	7.58	#	7.58	2.3	#	2.8	2.0	#	<2
16-Feb-21	7.49	#	7.80	0.9	#	1.4	3.5	#	2.0
18-Feb-21	7.49	#	7.77	1.4	#	2.7	3.5	#	2.0
20-Feb-21	8.14	#	8.52	0.9	#	0.4	3.0	#	<2
22-Feb-21	8.07	#	8.27	0.7	#	0.8	2.5	#	<2
24-Feb-21	8.71	#	8.75	1.1	#	0.9	2.5	#	<2
26-Feb-21	8.42	#	8.58	1.2	#	1.0	3.0	#	<2

Remarks: (#) During the water monitoring, the channel of M2 was observed dried up and water sampling was unable be carried out;

Note: Bold and underlined value indicated Limit Level exceedance Italic and bold value indicated Action Level exceedance.

6.1.3 During the Reporting Month, field measurements including temperature of stream water, salinity concentrations, pH values and the stream flow velocity for all monitoring locations are summarized in *Table 6-3*.

Table 6-3	Summary of Field Measurements for Water Quality
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Monitoring	Parameters of field measurements



Location	pH (Ave (un	eraged) hit)	Salinity (Averaged) (ppt)		Temp (Averaged) (°C)		Water Flow (Averaged) (m/s)	
	min	max	min	max	min	max	min	max
M1	7.5	9.7	0.05	0.1	16.2	20.9	< 0.1	< 0.1
M2	#	#	#	#	#	#	#	#
M3	7.2	9.6	0.03	0.07	17.6	20.7	< 0.1	< 0.1
M4	7.1	9.4	0.07	0.09	17.5	21.1	< 0.1	< 0.1

Remarks: (#) During the water monitoring, the channel of M2 was observed dried up and water sampling was unable be carried out;

6.2 WATER QUALITY MONITORING EXCEEDANCE

6.2.1 In this Reporting Month, No Limit Level and Action Level water quality exceedances were recorded. The non-compliance of water quality performance is summarized in *Table 6-4*.

 Table 6-4
 Action and Limit (A/L) Levels Exceedance Record

Station	D	DO Turbidity SS		Turbidity		Total Exceedance		Project Related exceedance		
~~~~~	Action	Limit	Action	Limit	Action	Limit	Action	Limit	Action	Limit
M1	0	0	0	0	0	0	0	0	0	0
M2	0	0	0	0	0	0	0	0	0	0
M3	0	0	0	0	0	0	0	0	0	0
M4	0	0	0	0	0	0	0	0	0	0

6.2.2 Notification of Exceedance (NOE) and the investigation for exceedance in the Reporting Month is summarized in *Table 6-5*.

Table 6-5	Summary of Investigation of V	Water Quality Exceedance in	n the Reporting Month
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Date of Exceedance	Exceeded Location	Cause of Water Quality Exceedance



# 7. ECOLOGY MONITORING

## 7.1 REQUIREMENT

- 7.1.1 According to approved EIA report (AEIAR-198/2016), habitat types within project boundary comprise of watercourse, grassland, upland grassland, plantation, woodland and developed area. Natural habitats were of moderate ecological value in terms of species diversity, species rarity, species abundance, ecological linkage as well as nursery. Moreover, 0.3ha of wet woodland on the northern side of Sandy Ridge was deemed habitat with high ecological value. Four types of habitats were regarded as ecologically sensitive habitats, namely wet woodland, watercourses, upland grassland and woodland. Considering human disturbance in upcoming construction and operation phases, ecologically sensitive habitats shall be monitored in accordance with EM&A Manual.
- 7.1.2 The objective of ecologically sensitive habitats monitoring is to evaluate the effectiveness of measures to minimize impacts on concerned habitats from disturbance and pollution. In order to monitor the effectiveness of the measures to the minimize impact on ecologically sensitive habitats from disturbance and pollution, monthly monitoring during construction and operation phases is required as specified in EM&A Manual. Standard faunal transect and sampling surveys cover both wetland habitats (*wet woodland and watercourse*) and non-wetland habitats (*upland grassland and woodland*).

# 7.2 METHODOLOGY

7.2.1 Wetland habitats include wet woodland and watercourses. Monitoring surveys using standardized quantitative methodology will conduct at fixed points. For seasonal watercourse, the survey will be conducted whenever the habitat appears. Measures to respond to decreases in numbers of aquatic fauna using the wetland habitats and Action/Limit levels to trigger these measures are detailed in *Table 7-1*.

Action Level	Response	Limit Level	Response				
	e	taxa diversity by	Investigate cause and if cause identified as related to the project instigate remedial action.				

 Table 7-1
 Action and Limit Levels for Wet Woodland Habitats Monitoring

Remarks: Action and Limit Levels and Responses to Evidence of Declines in Aquatic Fauna

7.2.2 Non-wetland habitats consist of upland grassland and woodland. Monthly quantitative surveys of non-aquatic fauna will be conducted using standard route transect counts. Measures to respond to decreases in numbers of non-aquatic fauna using the non-wetland habitats and Action/Limit levels to trigger these measures are detailed in *Table 7-2*.

 Table 7-2
 Action and Limit Levels for Non-Wet Woodland Habitats Monitoring

Action Level	Response	Limit Level	Response
Reduction in	Investigate cause and if cause identified as related to the project instigate remedial action to remove or reduce source of	Reduction in species diversity	Investigate cause and if cause identified as related to the project instigate remedial action.
	disturbance.		

Remarks: Action and Limit Levels and Responses to Evidence of Declines in Non-Aquatic Fauna

7.2.3 The ecological survey includes all taxa being investigated in accordance with EIA report. Schedule of faunal surveys in each year during construction phase is presented in *Table 7-3*.

# Table 7-3Schedule of Faunal Surveys in each year During Construction Phase

						J	- 0					
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mammals					$\checkmark$							$\checkmark$
Birds (day)					$\checkmark$		$\checkmark$					$\checkmark$



Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Birds (night)				$\checkmark$				$\checkmark$				
Herpetofauna												
Dragonflies				$\checkmark$				$\checkmark$				
Butterflies												
Aquatic fauna			$\checkmark$	$\checkmark$				$\checkmark$				$\checkmark$

## Mammal Survey

7.2.4 Mammal surveys will be conducted along the proposed transects (shown in Appendix D of the survey report) during both daytime and night time periods. Along with direct observations, other field signs, such as scats and tracks, will be searched and recorded if present.

## <u>Bird Survey</u>

7.2.5 Bird surveys will be conducted along the transects (shown in Appendix D of the survey report) during the surveys, species and their vocalizing individuals recorded will be enumerated and recorded according to the habitat(s) they are utilizing.

## Herpetofauna Survey

7.2.6 Reptile and amphibian surveys will be conducted along transects (shown in Appendix D of the survey report) during surveys careful searches of appropriate microhabitats and refugia for reptiles and their vocalizing individuals will be undertaken and all reptiles observed will be identified and counted.

## Dragonfly and Butterfly Survey

7.2.7 Dragonfly and Butterfly surveys will be conducted along transects (shown in Appendix D of the survey report) during surveys all dragonflies and Butterflies seen will be identified and counted as accurately as possible.

# <u>Aquatic Fauna Survey</u>

- 7.2.8 Freshwater fishes and macro-invertebrates will be recorded by direct observation. All species trapped/recorded will be enumerated and identified (to the lowest taxonomic level possible), and the species of conservation importance photographed.
- 7.2.9 After each ecological monitoring survey, a monthly report of the survey result and data collected will be provided with reference to EM&A Manual. An annual analysis of data will be carried out in order to study if there is any significant reduction in taxa diversity and abundance.

# 7.3 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 1)

7.3.1 In the Reporting Month, ecological monitoring was undertaken on 2th February 2021 at work area of Contract 1. A sunny day. The day survey covered wetland and non-wetland areas. The survey was conducted by transect and at fixed points. All species seen will be identified and counted as accurately as possible. Results of the monitoring survey are presented below:

# Monitoring Result for Contract 1

Mammal

7.3.2 There was no mammal recorded in the monitoring area

### <u>Birds</u>

7.3.3 There were a total of 55 bird individuals from 13 species recorded in the monitoring area. One species of conservation interests were recorded in the monitoring area: Milvus migrans, Black Kite,黑鳶. Golden-headed Cisticola was not observed during the bird survey.

### **Herpetofauna**

7.3.4 There was no reptile and amphibian species recorded in the monitoring area.



### **Butterfly**

7.3.5 There were a total of 6 butterfly individuals from 4 species recorded in the monitoring area.

#### **Dragonfly**

7.3.6 There was no odonate recorded in the monitoring area.

#### Aquatic Fauna Survey (Freshwater communities)

- 7.3.7 There was no freshwater community recorded in the monitoring area.
- 7.3.8 The summaries of faunal survey result are shown in *Tables 7-4 and 7-5*.

#### Table 7-4Result of Faunal Survey under Contract 1

Scientific Name	Common / Engineer Name	Chinese Name	Conservation Status	Non- wetland	Wetland
Mammal Survey					
Avifauna Survey				·	
Milvus migrans	Black Kite	黑鳶	Fellowes et al. (2002): RC; Appendix 2 of CITES	1	
Amaurornis phoenicurus	White-breasted Waterhen	白胸苦惡鳥			1
Spilopelia chinensis	Spotted Dove	珠頸斑鳩		2	1
Lanius schach	Long-tailed Shrike			Z	
		棕背伯勞			1
Parus cinereus	Cinereous Tit	蒼背山雀		2	
Pycnonotus jocosus	Red-whiskered Bulbul	紅耳鵯		2	20
Phylloscopus inornatus	Yellow-browed Warbler	黃眉柳鶯		1	
Prinia flaviventris	Yellow-bellied Prinia	黃腹鷦鶯		3	2
Orthotomus sutorius	Common Tailorbird	長尾縫葉鶯		2	
Garrulax	Masked	黑臉噪鶥			2
perspicillatus	Laughingthrush				3
Zosterops japonicus	Japanese White-eye	暗綠繡眼鳥		7	
Phoenicurus	Daurian Redstart	北紅尾鴝			1
auroreus		- 6			1
Passer montanus	Eurasian Tree Sparrow	樹麻雀		6	
<b>Reptile Survey</b>					
Amphibian Survey					
<b>Butterfly Survey</b>					
Abisara echerius	Plum Judy	蛇目褐蜆蝶		1	
Pieris canidia	Indian Cabbage White	東方菜粉蝶			1
Catopsilia pomona	Lemon Emigrant	遷粉蝶		1	
Eurema hecabe	Common Grass Yellow	寬邊黃粉蝶		1	2
<b>Odonate</b> Survey					

#### Table 7-5Result of Freshwater Communities Survey under Contract 1

 Scientific Name
 Common Name
 Chinese
 Conservation Status



	Name	Non- wetland	Wetland

### **Discussion**

7.3.9 After analysing survey results in February from 2019 to 2021, there is no drastic drop in both species richness and abundance for non-wetland and wetland habitat. Good practice during construction is required to prevent environmental contamination as well as unnecessary site clearance. Continuous monitoring is also recommended to inspect any significant decrease in species diversity.

#### 7.4 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 2)

7.4.1 In the Reporting Month, ecological monitoring was undertaken on  $2^{nd}$  February 2021 at work area of Contract 2. A sunny day. The day survey covered wetland and non-wetland areas. The survey was conducted by transect and at fixed point. All species seen will be identified and counted as accurately as possible. Results of the monitoring survey are presented below:

### Monitoring Result for Contract 2

<u>Mammal</u>

7.4.2 There was no mammal recorded in the monitoring area

#### <u>Birds</u>

7.4.3 There were total of 24 bird individuals from 10 species recorded in the monitoring area. Golden-headed Cisticola was not observed during the bird survey.

#### <u>Herpetofauna</u>

7.4.4 There was no reptile and amphibian recorded in the monitoring area.

#### **Butterfly**

7.4.5 There was total 10 butterfly individuals from 4 species recorded in the monitoring area.

#### **Dragonfly**

7.4.6 There was no total no odonate recorded in the monitoring area.

#### Aquatic Fauna Survey (Freshwater communities)

7.4.7 There were two species of freshwater fish were recorded in the monitoring area.

#### 7.4.8 The summaries of faunal survey result are shown in *Tables 7-6* and 7-7.

#### Table 7-6Result of Faunal Survey under Contract 2

Scientific Name	Common / Engineer Name	Chinese Name	Conservation Status	Non- wetland	Wetland
Mammal Survey					
Avifauna Survey					
Pycnonotus jocosus	Red-whiskered Bulbul	紅耳鵯		2	2
Pycnonotus	Sooty-headed	白喉紅臀鵯			4
aurigaster	Bulbul				4
Phylloscopus	Yellow-browed	黃眉柳鶯			1
inornatus	Warbler				1
Prinia flaviventris	Yellow-bellied Prinia	黃腹鷦鶯			1
Prinia inornata	Plain Prinia	純色鷦鶯			1
Orthotomus sutorius	Common Tailorbird	長尾縫葉鶯		2	
Zosterops japonicus	Japanese White-eye	暗綠繡眼鳥			6
Gracupica nigricollis	Black-collared Starling	黑領椋鳥		2	



Scientific Name	Common / Engineer Name	Chinese Name	Conservation Status	Non- wetland	Wetland
Copsychus saularis	Oriental Magpie Robin	鵲鴝		1	
Motacilla alba	White Wagtail	白鶺鴒		2	
<b>Reptile Survey</b>					
Amphibian Survey					
<b>Butterfly Survey</b>					
Heliophorus epicles	Purple Sapphire	斜斑彩灰蝶			1
Cupha erymanthis	Rustic	黃襟蛺蝶		2	
Pieris canidia	Indian Cabbage White	東方菜粉蝶			6
Catopsilia pomona	Lemon Emigrant	遷粉蝶		1	
<b>Odonate Survey</b>					

#### Table 7-7 Result of Freshwater Communities Survey under Contract 2

Scientific Name	Common Name	Chinese Name	Conservation Status	2-Feb-2021
Gambusia affinis	Mosquito fish	食蚊魚		+
Puntius semifasciolatus	Chinese Barb	五線無鬚鰓		+

+: Species appeared but uncountable.

### **Discussion**

- 7.4.9 After analysing survey results in February 2019 to 2021, there was no significant drop in species diversity for both non-wetland and wetland habitats, but it could be due to natural fluctuation. A good practice during construction is required to prevent environmental contamination as well as unnecessary site clearance. Moreover, continuous monitoring is required to inspect any significant reduction of species diversity.
- 7.4.10 The detailed survey reports of Contract 1 and Contract 2 are attached in Appendix K.
- 7.4.11 The tentative ecology inspection and monitoring in the next Reporting Month (March 2021) is scheduled on 9th March 2021.

#### 7.5 MONITORING OF FLORA SPECIES OF CONSERVATION INTEREST

- 7.5.1 According to the approved vegetation survey report and transplantation proposal under FEP-01/534/2017/A, an individual of flora species of conservation interest (the transplanted T-2928) was identified and transplanted to the receptor site.
- 7.5.2 According to approved vegetation survey report and transplantation proposal, post-transplantation monitoring was conducted once per week in the first three months after the transplantation in Oct 2018 and once in each of the following month in the remaining establishment period for 12 month. During the remaining construction phase of the project, the transplanted T-2928 would be monitored on quarterly basis.
- 7.5.3 A landscape sub-contractor was employed by the Contractor to monitor the health condition of transplanted species and provide advice on necessary weeding, fertilizing and pest control. The monitoring records were submitted to ET and IEC for review and record. Moreover, inspection of the transplanted T-2928 was undertaken by ET as part of the weekly site inspection. No construction activity and disturbance were observed at the location of the transplanted T-2928. The health condition of the transplanted T-2928 was fair with normal foliage color and density.



# 7.6 MEASURE FOR PROTECTION OF NESTING BIRD

- 7.6.1 Pursuant to FEP-01/534/2017/A condition 2.19 and EP-534/2017/A condition 2.20, precautionary checks for the presence of nesting birds shall be carried out in the breeding season (February to July) before vegetation clearance.
- 7.6.2 As advised by both Contractors, there were no vegetation clearance conducted within the site in the Reporting Month and therefore precautionary check for the presence of nesting birds was not required.



# 8. LANDSCAPE AND VISUAL

## 8.1 REQUIREMENT

- 8.1.1 The EIA has recommended EM&A for landscape and visual resources to be undertaken during the design, construction and operational stages of the project. The design, implementation and maintenance of landscape mitigation measures is a key aspect of this and should be checked to ensure that they are fully realized and that potential conflicts between the proposed landscape measures and any other project works let its are resolved at the earliest possible date and without compromise to the intention of the mitigation measures. In addition, implementation of the mitigation measures recommended by the EIA will be monitored through the site audit programme.
- 8.1.2 A number of mitigation measures to ameliorate the landscape and visual impacts of the Project implementation is summarized in the EMIS of *Appendix 13.1* of the EIA Report.
- 8.1.3 The landscape and visual mitigation measures proposed should be incorporated in the landscape and engineering design. Mitigation measures to be implemented during construction should be adopted from the start of construction and be in place throughout the entire construction period. Mitigation measures to be implemented during operation should be integrated into the detailed design and built as part of the construction works so that they are in place on commissioning of the Project. Tree transplantation and compensatory planting should be carried out as early as possible in the Project with transplantation carried out prior to construction starting in any particular area.
- 8.1.4 During construction phase, Landscape & Visual Monitoring of the contractor's operations should be conducted monthly and reported by ET, and countersigned by IEC.

### 8.2 FINDINGS / DEFICIENCIES DURING SITE INSPECTION IN THE REPORTING MONTH

8.2.1 In the Reporting Month, landscape & Visual inspection was carried out by the Registered Landscape Architect (RLA) for works area of Contract 1 and Contract 2 on 26th February 2021. The findings / reminders recorded during the inspection are presented in *Tables 8-1 and 8-2*.

Table 0-1	Landscape & Visual Inspection Finding for Contract 1					
Date	Findings and Reminder	Follow-Up Status				
26th February 2021	1. The Contractor is reminded to set up TPZ of proper size and with appropriate material around retain trees according to approved method statement.	• Reminder only				
	2. The Contractor is reminded to prevent the construction material pile within TPZ and ensure no works is allowed within the TPZ.	• Reminder only				
	3. Transplanted trees T2465, T2468 and T2928 were in fair health condition with normal foliage color and density. Contractor is reminded to provide proper maintenance according to approved method statement.	• Reminder only				

Table 8-1	Landscape & V	visual Inspection	Finding for Contract 1
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#### Table 8-2Landscape & Visual Inspection Finding for Contract 2

Date	Findings and Reminder	Follow-Up Status
26th	1. The Contractor is reminded to set up TPZ of proper	Reminder only
February	size and with appropriate material around retain trees	
2021	according to approved method statement. Contractor	
	should prevent any construction material pile within	
	TPZ and ensure no works is allowed within the TPZ.	

8.2.2 Inspection checklist of Landscape & Visual signed by RLA is attached in *Appendix L*.



## 9. WASTE MANAGEMENT

### 9.1 GENERAL WASTE MANAGEMENT

9.1.1 Waste management was carried out by an on-site Environmental Officer or an Environmental Supervisor from time to time in accordance with the Waste Management Plan (WMP).

### 9.2 **RECORDS OF WASTE QUANTITIES**

- 9.2.1 All types of waste arising from the construction work are classified into the following:
  - Construction & Demolition (C&D) Material;
  - Chemical Waste;
  - General Refuse; and
  - Excavated Soil.
- 9.2.2 The quantities of waste for disposal in this Reporting Month are summarized in *Table 9-1* and *9-2* and the Monthly Summary Waste Flow Table is shown in *Appendix M*. Whenever possible, materials were reused on-site as far as practicable.

	Cont	ract 1	Contract 2	
Type of Waste	Quantity	Disposal Location	Quantity	Disposal Location
Total generated C&D Materials (Inert) ('000m ³ )	2.419		672.15 (#)	
Reused in this Contract (Inert) ('000m ³ )	0.958	Within Contract area	0	
Reused in other Projects (Inert) ('000m ³ )	0		0	
Disposal as Public Fill (Inert) ('000m ³ )	0.135	Tuen Mun Area 38	672.15 (#)	Tuen Mun Area 38

## Table 9-1Summary of Quantities of Inert C&D Materials

Remark: the unit is '000kg

## Table 9-2Summary of Quantities of C&D Wastes

	Contract 1		Contract 2	
Type of Waste	Quantity	Disposal Location	Quantity	Disposal Location
Recycled Metal ('000kg)	0		0	
Recycled Paper / Cardboard Packing ('000kg)	0		0	
Recycled Plastic ('000kg)	0		0	
Chemical Wastes ('000kg)	0		0	
General Refuses ('000m ³ )	0.03	NENT Landfill	4.7 (#)	NENT Landfill

Remark: the unit is '000kg

9.2.3 Since canteen and/or kitchen are not allowed setting on the Project site, no domestic wastewater was generated from the Project.



# **10. SITE INSPECTION**

## **10.1 REQUIREMENT**

10.1.1 According to the approved EM&A Manual, environmental site inspection should be led by RE and attended by the Contractor and ET at least once per week. Regular environmental site inspections shall be carried out to assess the environmental performance.

## 10.2 FINDINGS / DEFICIENCIES DURING SITE INSPECTION IN THE REPORTING MONTH Contract 1

- 10.2.1 In the Reporting Month, joint site inspections for Contract 1 to evaluate the site environmental performance were carried out by the RE, ET and the Contractor on 4th, 10th, 18th and 25th February 2021 and IEC attended joint site inspection on 18th February 2021. No non-compliance was noted.
- 10.2.2 The findings / deficiencies that observed during the weekly site inspection are listed in *Table 10-1*.

Table 10-1Site Observations for the Works of Contract 1

Date	Findings / Deficiencies	Follow-Up Status
4 th February 2021	• No adverse environmental issue was observed.	• NA
10 th February 2021	• No adverse environmental issue was observed.	• NA
18 th February 2021	<ul> <li>Stagnant water with oil in drip tray should be removed after rainstorm and disposed properly. (FS1)</li> <li>Chemical container should be placed in drip tray to prevent leakage at FS1 slope.</li> </ul>	<ul> <li>Stagnant water in drip tray was removed.</li> <li>Chemical container was removed from FS1 slope.</li> </ul>
25 th February 2021	• Stagnant water was observed inside drip tray next to site entrance. The Contractor was advised to remove stagnant water and dispose as chemical waste.	• Stagnant water inside drip tray was cleaned and disposed as chemical waste.

### Contract 2

- 10.2.3 In the Reporting Month, joint site inspections for Contract 2 to evaluate the site environmental performance carried out by the RE, ET and the Contractor was on 4th, 10th, 18th and 25th February 2021 and IEC attended joint site inspection on 18th February 2021 non-compliance was noted.
- 10.2.4 The findings / deficiencies that observed during the weekly site inspection are listed in *Table 10-2*.

Table 10-2Site Observations for the Works of Contract 2

Date	Findings / Deficiencies	Follow-Up Status
4 th February 2021	• No adverse environmental issue was observed.	• NA.
10 th February 2021	• No adverse environmental issue was observed.	• NA.
18 th February 2021	• The Contractor was reminded to provide water spraying regularly during dry seasons. (General)	• Reminder only.
25 th February 2021	• Chemical container on the ground was observed at RW14. The Contractor was advised to provide drip tray for chemical container.	• Chemical container was placed inside drip tray.



# 11. ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE

#### 11.1 Environmental Complaint, Summons and Prosecution

11.1.1 In the Reporting Month, no environmental complaint was received for the project. No summons and prosecution was lodged for the Contract. The statistical summary table of the environmental complaint, summons and prosecution are presented in *Tables 11-1, 11-2* and *11-3*.

# Table 11-1 Statistical Summary of Environmental Complaints

Reporting Month		Environmental Complaint Statistics			
Keporting Mo	DIILII	Frequency	Cumulative	<b>Complaint Nature</b>	
1 – 28 February 2021	Contract 1	0	0	NA	
1 – 28 February 2021	Contract 2	0	1	Water	

#### Table 11-2 Statistical Summary of Environmental Summons

Reporting Month		Environmental Summons Statistics			
Reporting Mo	911111	Frequency	Cumulative	<b>Complaint Nature</b>	
1 – 28 February 2021	Contract 1	0	0	NA	
1 – 28 February 2021	Contract 2	0	0	NA	

#### Table 11-3 Statistical Summary of Environmental Prosecution

Reporting Month		Environmental Prosecution Statistics			
Keporting Mo	01111	Frequency	Cumulative	<b>Complaint Nature</b>	
1 – 28 February 2021	Contract 1	0	0	NA	
1 – 28 February 2021	Contract 2	0	0	NA	

11.1.2 In addition, no complaints received and emergency event relating to violation of environmental legislation for illegal dumping and landfilling were received.



# 12. IMPLEMENTATION STATUS OF MITIGATION MEASURES

## **12.1 GENERAL REQUIREMENTS**

- 12.1.1 The environmental mitigation measures that recommended in the Implementation Schedule for Environmental Mitigation Measures (ISEMM) in the approved EM&A Manual covered the issues of dust, noise, water and waste and they are summarized presented in *Appendix N*.
- 12.1.2 The Works of Contract 1 and Contract 2 under the Project shall be implementing the required environmental mitigation measures according to the approved EM&A Manual subject to the site condition. Environmental mitigation measures implemented in this Reporting Month is summarized in *Table 12-1*.

Issues	Environmental Mitigation Measures				
Water	• Provided efficient silt removal facilities to reduce SS level before effluent				
Quality	discharge.				
	• Provided ditches, earth bunds or sand bag barriers to minimize polluted runoff.				
	• Temporary drainage was provided to prevent runoff going through site surface				
	and minimize polluted runoff.				
	• Provided perimeter cut-off drains at site boundaries to intercept storm runoff from				
	crossing the site.				
	• Exposed slopes surface were compacted and covered with tarpaulin or similar				
	means. Provided portable chemical tailets on site				
Air Quality	<ul> <li>Provided portable chemical toilets on site.</li> <li>Maintain damp / wet surface on access road.</li> </ul>				
All Quality	<ul> <li>Maintain damp / wet surface on access road.</li> <li>Maintain low vehicular speed within the works areas.</li> </ul>				
	<ul> <li>Provided vehicle wheel washing facilities at each construction site exit;</li> </ul>				
	<ul> <li>Provided water spraying for all active works area.</li> </ul>				
	<ul> <li>Stockpiles of dusty material were covered with impervious sheeting.</li> </ul>				
	<ul> <li>Provided workers to clear dusty materials at the vehicle entrance or exit regularly.</li> </ul>				
	• Stockpile more than 20 bags of cement or dry pulverized fuel ash (PFA) has been				
	covered entirely by impervious sheeting or placed in an area sheltered on the top				
	and the 3 sides.				
Noise	• Restricted operation time of plants from 07:00 to 19:00 on any working day				
	except for Public Holiday and Sunday.				
	Keep good maintenance of plants.				
	Placed noisy plants away from residence and school.				
	• Provided noise barriers or hoarding to enclose the noisy plants or works.				
	Shut down the plants when not in used.				
Waste and	Provided on-site sorting prior to disposal.				
Chemical	Followed requirements and procedures of the "Trip-ticket System"				
Management	Predicted required quantity of concrete accurately.				
	• Collected the unused fresh concrete at designated locations in the sites for				
<b>F</b> 1	subsequent disposal.				
Ecology	• Implementing water control measures (ETWB TCW No. 5/2005) to avoid direct				
	or indirect impacts any watercourses and impact to any aquatic fauna during the construction phase.				
	<ul> <li>Demarcation fencing has been erected to prevent unauthorised encroachment into</li> </ul>				
	• Demacation relicing has been elected to prevent unautionsed encroaciment into the riparian corridor by constructions works and traffic.				
	<ul> <li>The construction work and site formation have been phased in order to reduce</li> </ul>				
	overall noise disturbance impacts in particular areas.				
	<ul> <li>Works have been restricted to daytime and any construction lighting was designed</li> </ul>				
	and positioned as to not impact on adjacent ecologically sensitive areas.				
General	• The site was generally kept tidy and clean.				

 Table 12-1
 Environmental Mitigation Measures



### **12.2** TENTATIVE CONSTRUCTION ACTIVITIES IN THE COMING MONTH

- 12.2.1 According to the information provided by HCTYJV, the forthcoming construction activities for Contract 1 are listed below:
  - General Site Housekeeping
  - Bulk Excavation
  - Construction of cut slope, installation of soil nailing and construction of surface channel and planter wall.
  - Construction of fill slope and surface channel
  - Construction of pick-up and drop-off point near Man Kam To Road
  - Construction of sewer and storm drain
  - Laying of street lighting ducts
  - Construction of watermains
  - Construction of noise barrier
- 12.2.2 According to the information provided by Sang Hing, the forthcoming construction activities for Contract 2 are listed below:
  - Construction of Manhole, gullies, drainage pipe at Lin Ma Hang Road between CH50-160 Southbound & CH780-880 Northbound & CH1345-1377 Northbound.
  - Man Kam To Road DN800 DI Sewerage Pipe FM4.23-4.28 (250m)
  - Man Kam To Road DN400 Watermain Pipe CH510-690 at North Fast Lane and CH360-510 & 690-1040 (510m) at North Slow Lane
  - Filling works for slope FS18 (Part A1)
  - Drainage Works at Road E CH200-300
  - Retaining Wall 14 backfilling
  - Construction of Retaining Wall 12
  - Soil Nail Works at Lin Ma Hang Road Slope C231 & C224
  - Fanling Station Road Covered Walkway
  - Lung Sum Avenue road surface modification works

### 12.3 KEY ISSUES FOR THE COMING MONTH

- 12.3.1 Key issues to be considered in the coming month for the works of Contract 1 include:
  - Implementation of control measures for rainstorm;
  - Regular clearance of stagnant water during wet season;
  - Implementation of dust suppression measures at all times;
  - Potential wastewater quality impact due to surface runoff;
  - Potential fugitive dust quality impact due from the dry/loose/exposure soil surface/dusty material;
  - Ensure dust suppression measures are implemented properly;
  - Sediment catch-pits and silt removal facilities should be regularly maintained;
  - Discharge of site effluent to the nearby wetland is prohibited;
  - Nearby wetland prohibited stockpiling and/or disposal of materials;
  - Follow-up of improvement on general waste management issues; and
  - Implementation of construction noise preventative control measures.
- 12.3.2 The Contractors are reminded to pay special attention on water quality mitigation measures and should fully implement the measures as recommended in the EM&A Manual, in particular to prevent surface runoff and other pollutants from flowing to local stream and Conservation Area. The implementation of water quality mitigation measures conducted by the Contractors is shown in Appendix *O*.
- 12.3.3 During dry season, special attention should be paid on the potential construction dust impact. The contractor should fully implement the construction dust mitigation measures as far as practicable.



### **13. CONCLUSIONS AND RECOMMENTATIONS**

### **13.1 CONCLUSIONS**

- 13.1.1 This is the 31st Monthly EM&A Report presenting the monitoring results and inspection findings for the period of 1st to 28th February 2021.
- 13.1.2 No 24-hour or 1-hour TSP monitoring result that triggered the Action or Limit Levels was recorded. No NOEs or the associated corrective action was therefore required.
- 13.1.3 No noise complaint (which is an Action Level exceedance) was received and no construction noise measurement result that exceeded the Limit Level was recorded in this Reporting Month. No NOEs or the associated corrective actions were therefore issued.
- 13.1.4 For water quality monitoring, no Action Level and Limit Level water quality exceedance was recorded.
- 13.1.5 Monthly ecological monitoring for sensitive habitat for area of Contract 1 and Contract 2 were undertaken on  $2^{nd}$  *February 2021*. As advised by both Contractors, there were no vegetation clearance conducted within the site in the Reporting Month and therefore precautionary check for the presence of nesting birds was not required.
- 13.1.6 Landscape and visual inspection at both Contracts were undertaken by the RLA on 26th February 2021. The Contractor was reminded to prevent the construction material pile within TPZ and ensure no works is allowed within the TPZ.
- 13.1.7 In the Reporting Month, no environmental complaint, summons and prosecution was received. In addition, no complaints received and emergency events relating to violation of environmental legislation for illegal dumping and landfilling were received.
- 13.1.8 In the Reporting Month, joint site inspections for Contract 1 to evaluate the site environmental performance were carried out by the Resident Engineer (RE), ET and the Contractor of the Contract 1 on 4th, 10th, 18th and 25th February 2021. Moreover, joint site inspections for Contract 2 by the RE, ET and the Contractor of Contract 2 were carried out on 4th, 10th, 18th and 25th February 2021. IEC attended the both Contract joint site inspection on 18th February 2021. No non-compliance was noted during the site inspections.

### **13.2 RECOMMENDATIONS**

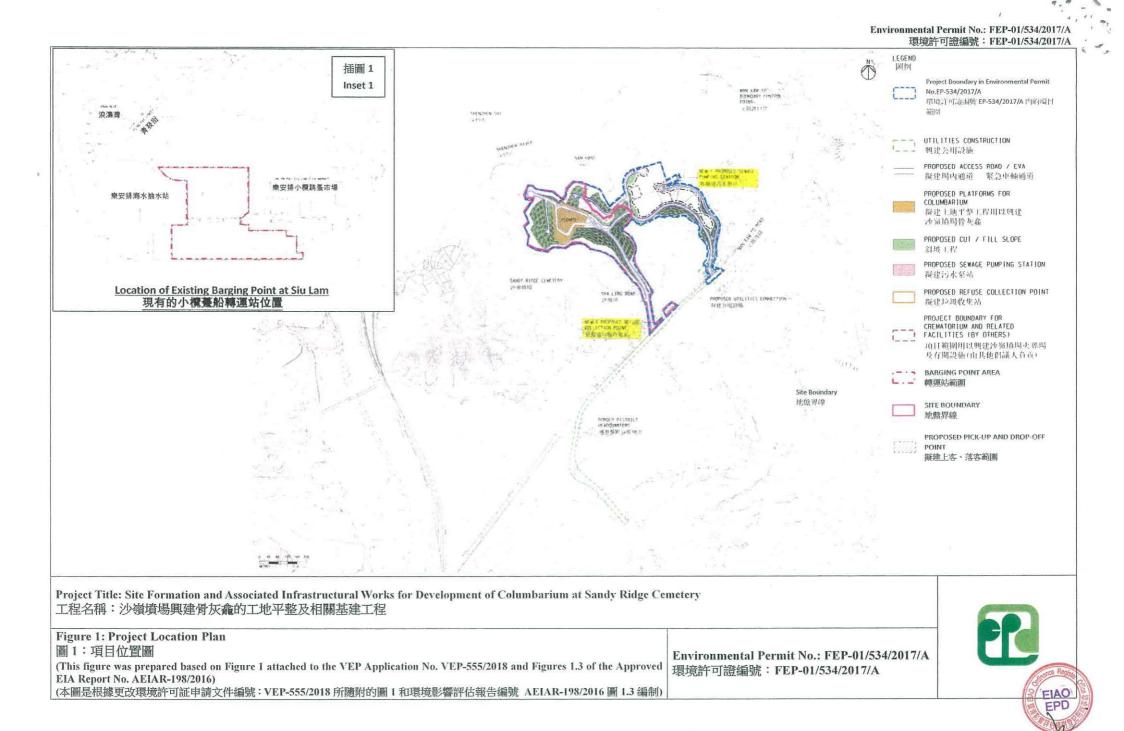
- 13.2.1 The Contractors are reminded to pay special attention on water quality mitigation measures and should fully implement the measures as recommended in the EM&A Manual, in particular to prevent surface runoff and other pollutants from flowing to local stream and Conservation Area.
- 13.2.2 During dry season, air quality mitigation measures such as wheel wash facilities, watering of haul roads, loose soil construction surface and covering of dusty materials with tarpaulin sheet should be implemented as far as practicable.
- 13.2.3 Construction noise would be a key environmental issue during construction phase of the Project. Noise mitigation measures such as using quiet plants and mobile noise barriers should be implemented in accordance with the EM&A requirement.
- 13.2.4 Since some of the construction site under the Project is located near villages, both Contractors should fully implement air quality mitigation measures to reduce construction dust emission.
- 13.2.5 Furthermore, daily cleaning and weekly tidiness shall be properly performed and maintained. In addition, mosquito control should be performed to prevent mosquito breeding on site.

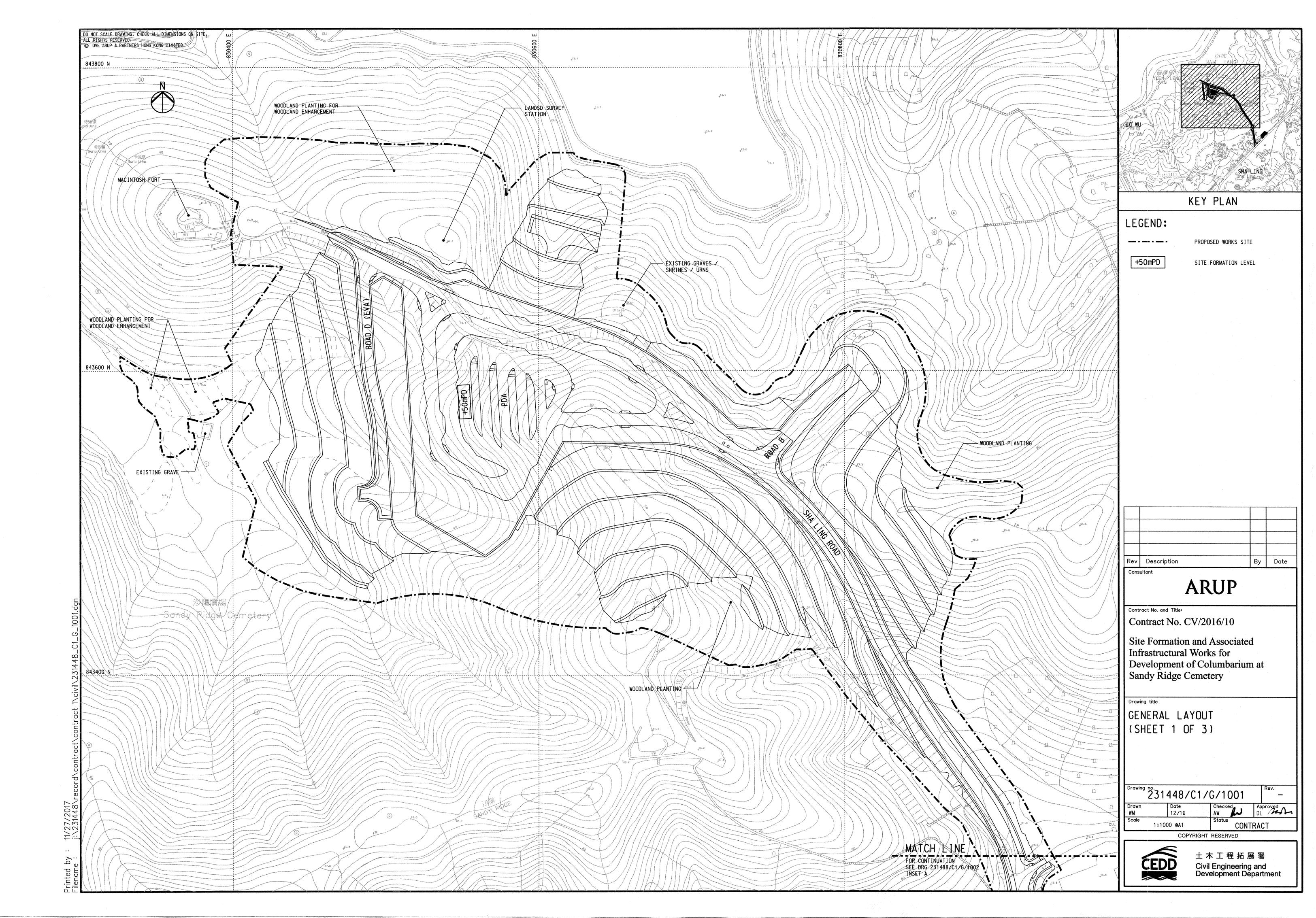


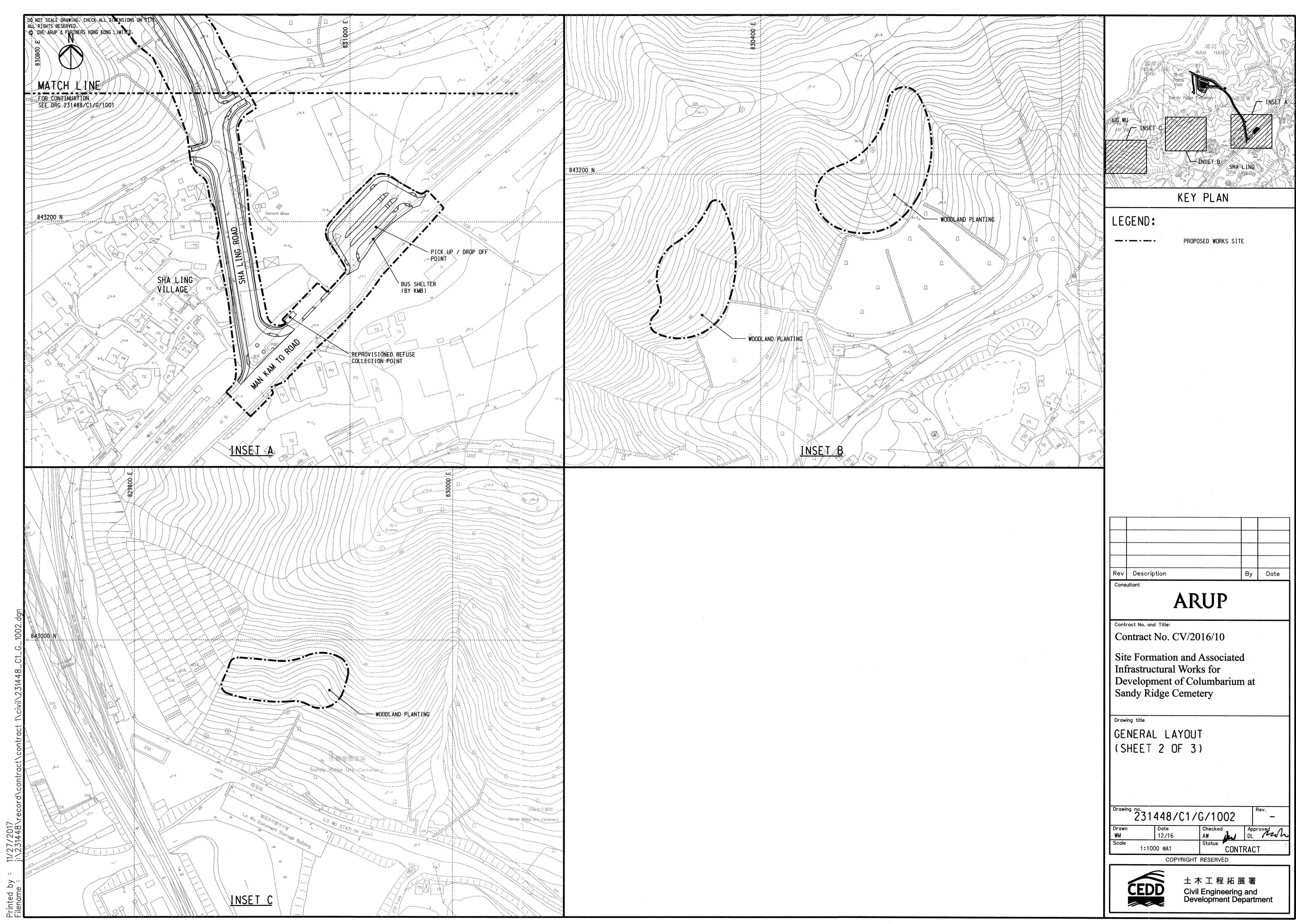
## Appendix A

## Layout Plan of the Project

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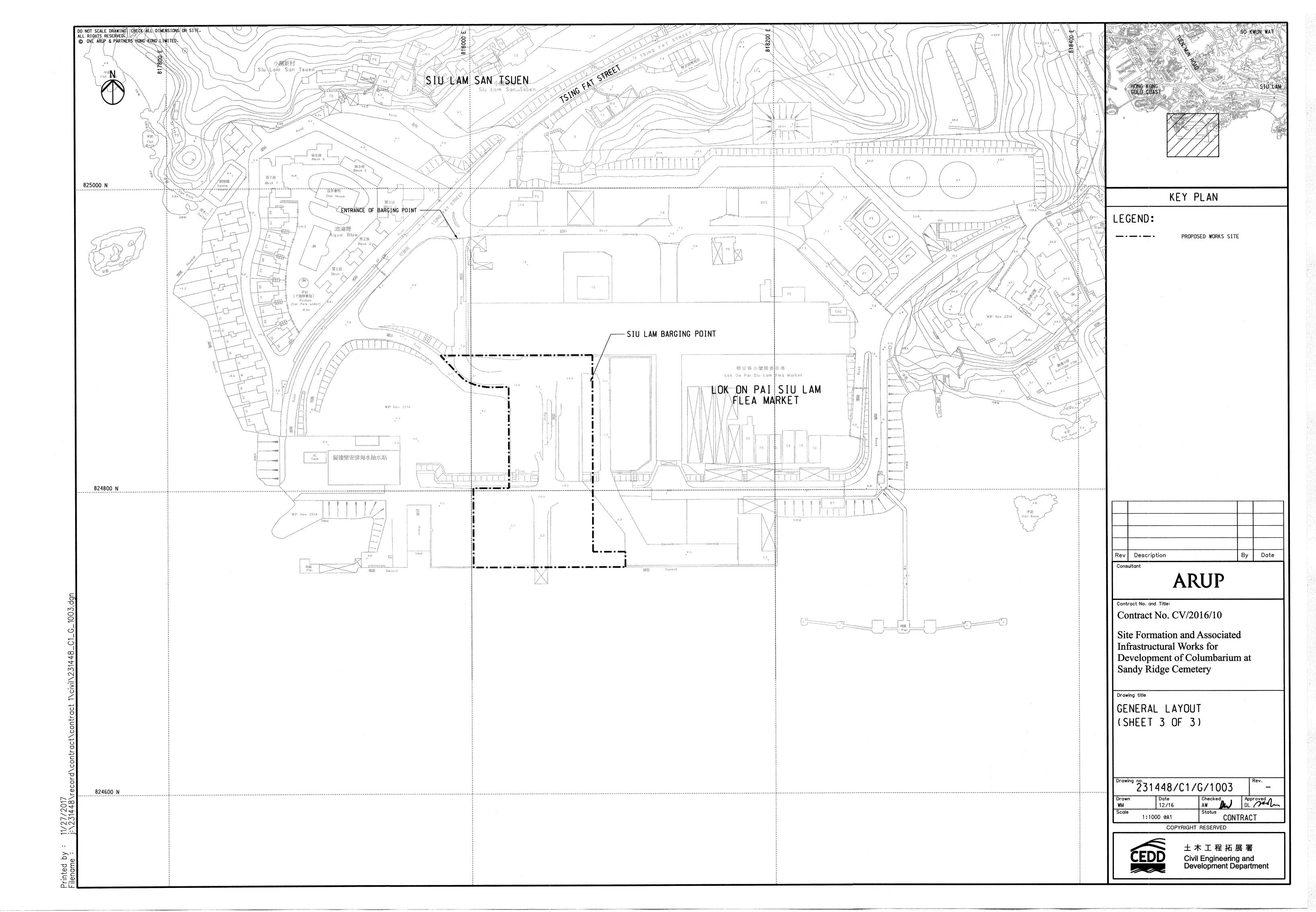






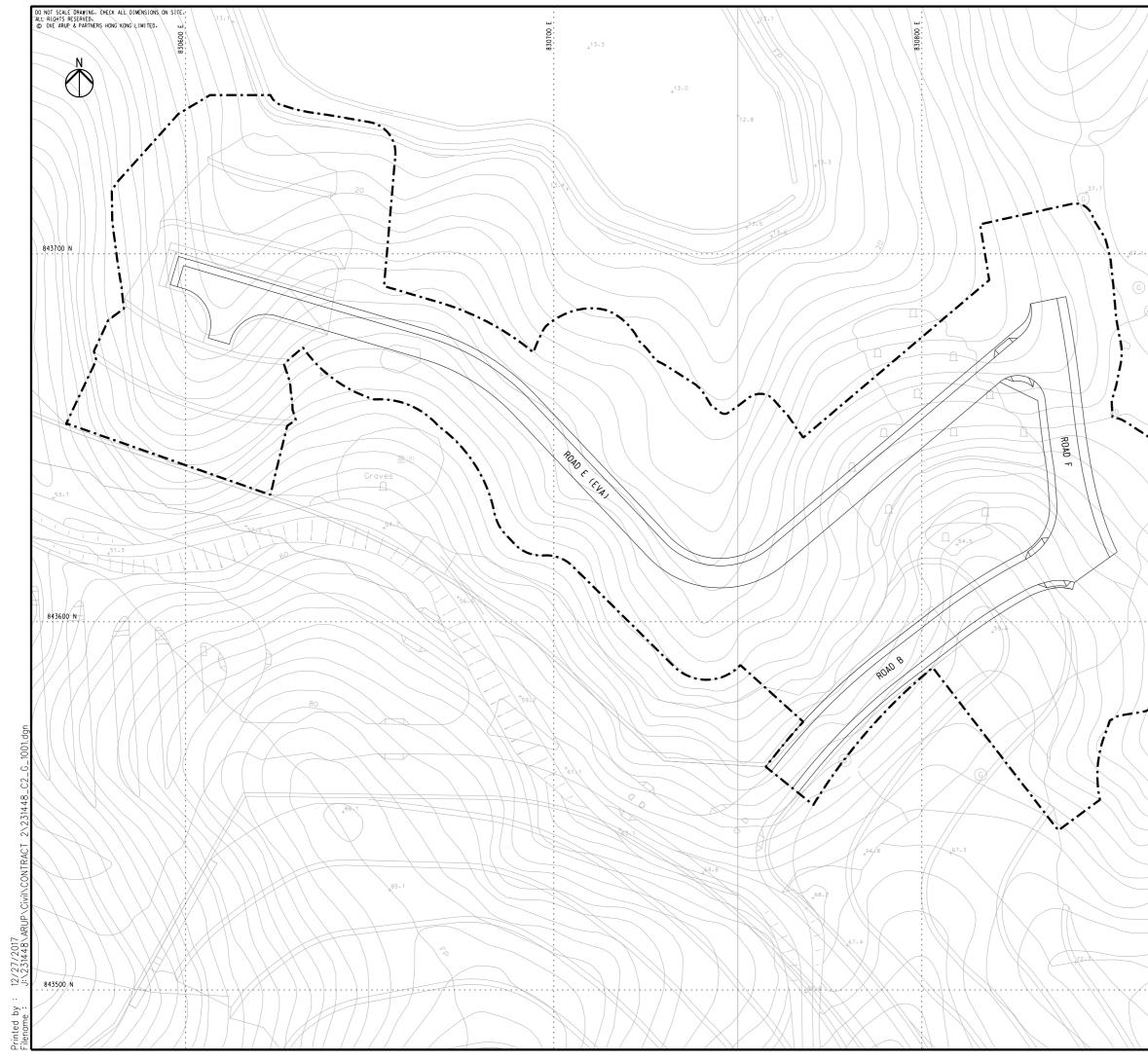
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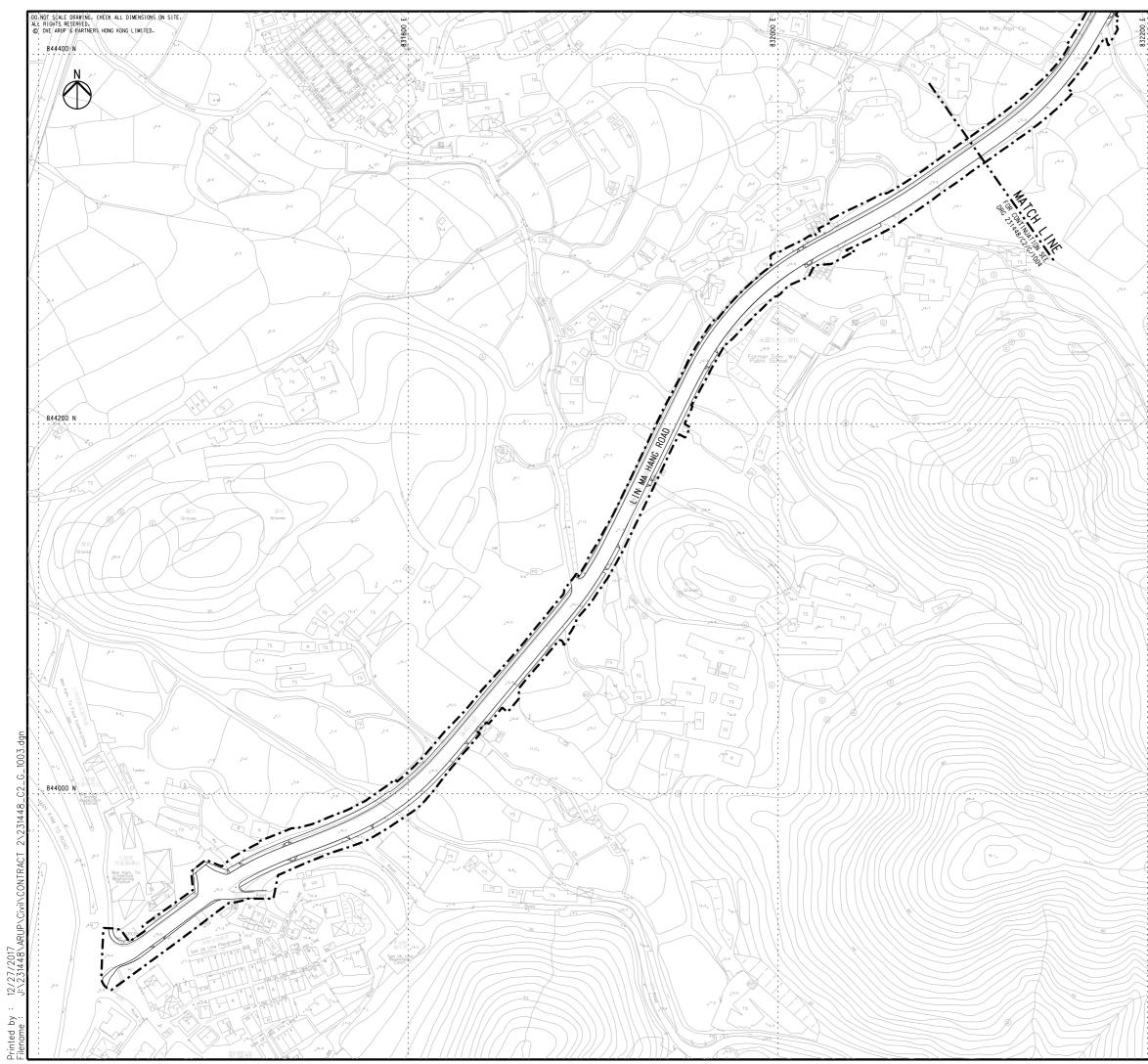


## Layout Plan of Contract CV/2016/10

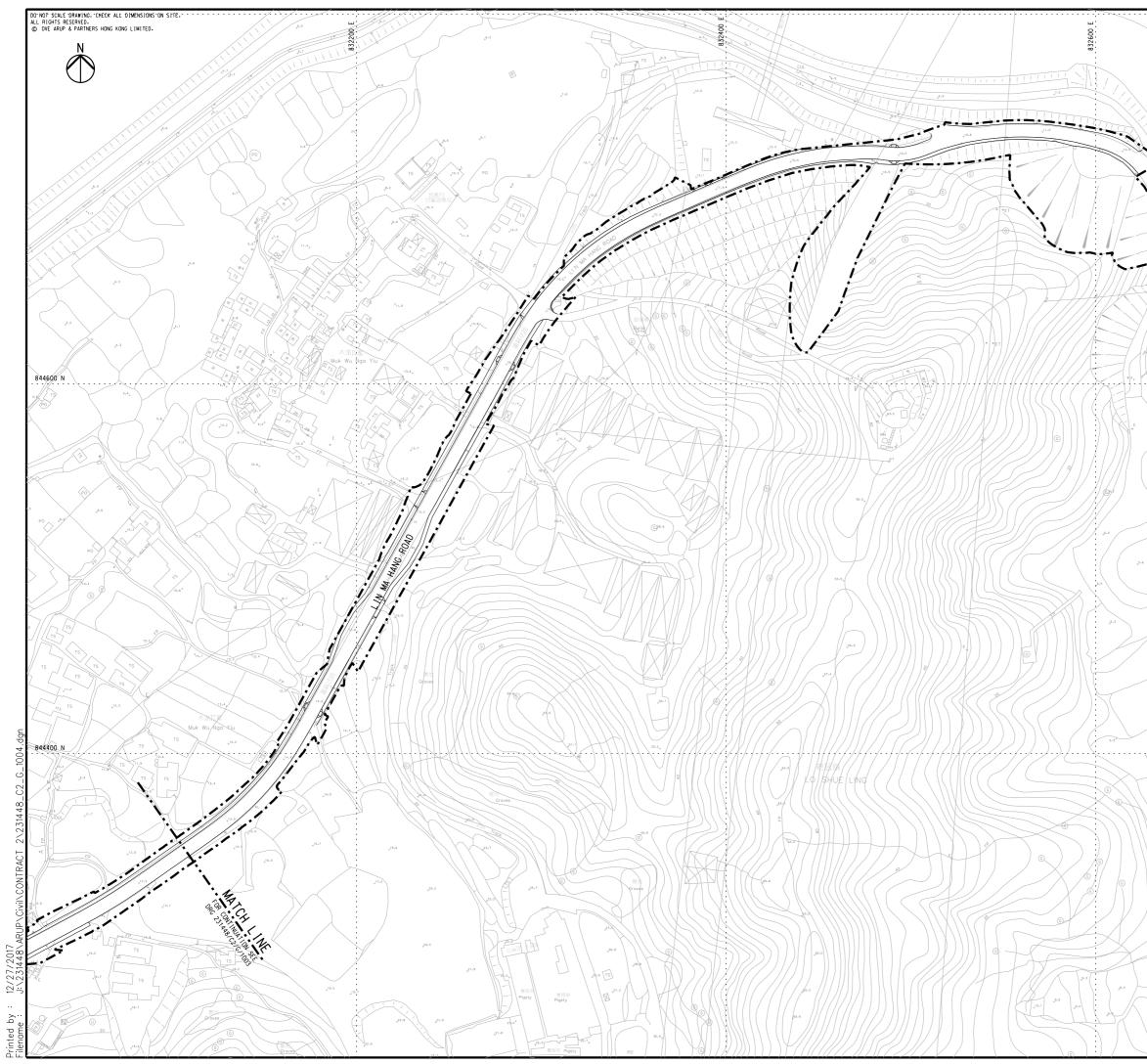


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## Layout Plan of Contract CV/2017/02

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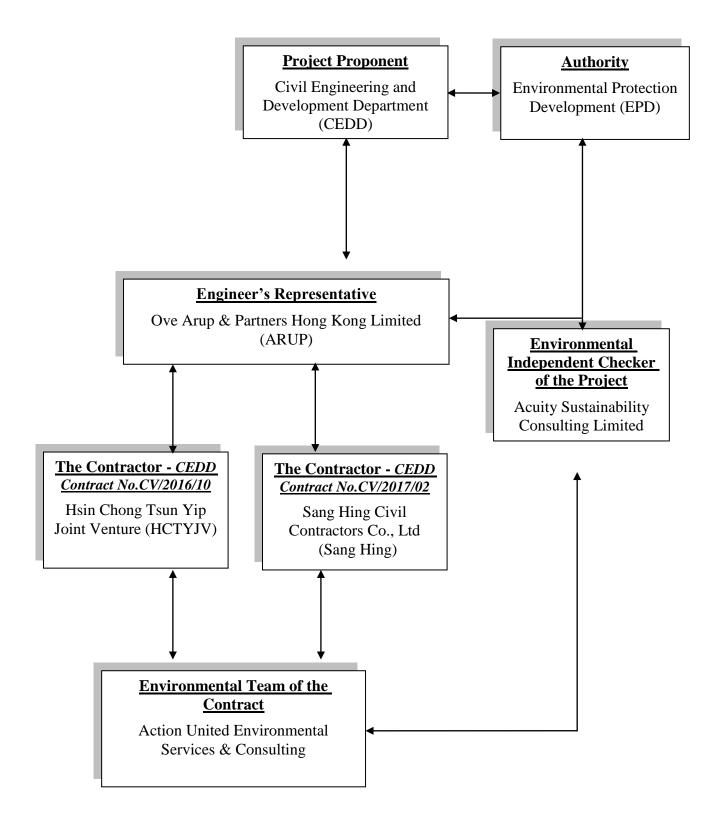


## **Appendix B**

## **Organization Structure and Contact Details of Relevant Parties**



### **The Contract's Environmental Management Organization**





Organization	Project Role	Name of Key Staff	Tel No.	Fax No.
CEDD	Employer	CHOI Wing-hing	2762-5620	2714-0695
ARUP	Engineer's Representative	Steve Tang	6190-1513	2268-3950
ACUITY	Independent Environmental Checker	Ir. Leung CH Jacky	2698-6833	2698-9383
HCTYJV	Project Director	Mr. Kan Kwok Cheung	9495-2408	2633-4691
HCTYJV	Construction Manager	Mr. Keniel Kwong	9863-0020	2633-4691
HCTYJV	Site Agent	Mr. Ho Man To	9507-9634	2633-4691
HCTYJV	Environmental Officer	Mr. Chan Ming Tai	9358-7007	2633-4691
AUES	Environmental Team Leader	Mr. T.W. Tam	2959-6059	2959-6079
AUES	Environmental Consultant	Mr. Ben Tam	2959-6059	2959-6079
AUES	Environmental Consultant	Ms. Nicola Hon	2959-6059	2959-6079
AUES	Environmental Site Inspector	Mr. Martin Li	2959-6059	2959-6079

### Contact Details of Key Personnel for CV/2016/10 (Contract 1)

### Legend:

CEDD (Employer) – Civil Engineering and Development Department

ARUP (Engineer) – Ove Arup & Partners Hong Kong Limited

HCTYJV (Main Contractor) – Hsin Chong Tsun Yip Joint Venture

ACUITY (IEC) – Acuity Sustainability Consulting Limited

AUES (ET) – Action-United Environmental Services & Consulting



Organization	Project Role	Name of Key Staff	Tel No.	Fax No.
CEDD	Employer	CHOI Wing-hing	2762-5620	2714-0695
ARUP	Engineer's Representative	Anthony Lau	6190-1513	2268-3950
ACUITY	Independent Environmental Checker	Ir. Leung CH Jacky	2698-6833	2698-9383
SANG HING	Project Director	Edwin Au	9208-7329	2403-1162
SANG HING	Construction Manager	Raymond Wong	9272-1831	2403-1162
SANG HING	Site Agent	Elvin Lam	6285-0803	2403-1162
SANG HING	Environmental Officer	Chan Ng jhon-keibi	6090-0183	2403-1162
SANG HING	Environmental Supervisor	Kenny Chan	6115-0120	2403-1162
AUES	Environmental Team Leader	Mr. T.W. Tam	2959-6059	2959-6079
AUES	Environmental Consultant	Mr. Ben Tam	2959-6059	2959-6079
AUES	Environmental Consultant	Ms. Nicola Hon	2959-6059	2959-6079
AUES	Environmental Site Inspector	Mr. Martin Li	2959-6059	2959-6079

### Contact Details of Key Personnel for CV/2017/02 (Contract 2)

### Legend:

CEDD (Employer) – Civil Engineering and Development Department

ARUP (Engineer) – Ove Arup & Partners Hong Kong Limited

Sang Hing (Main Contractor) – Sang Hing Civil Contractors Co., Ltd

ACUITY (IEC) – Acuity Sustainability Consulting Limited

AUES (ET) – Action-United Environmental Services & Consulting



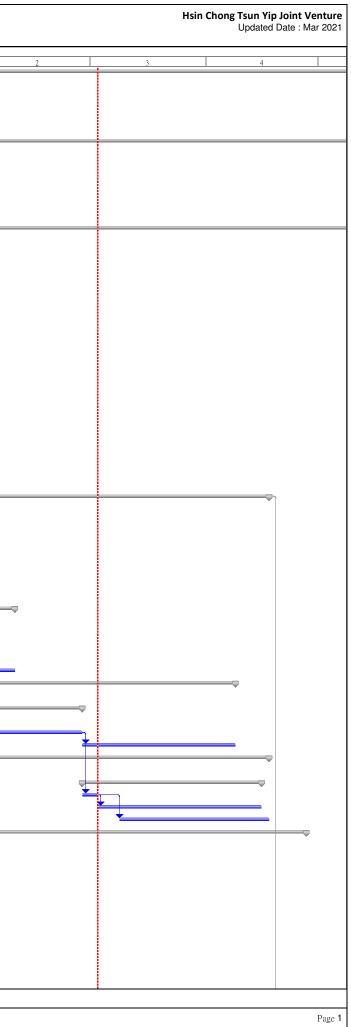
## Appendix C

## **Three Months rolling Programme**

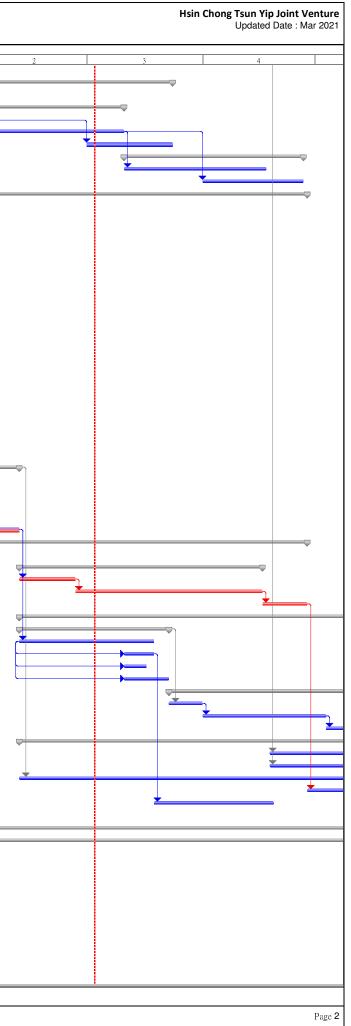


Three Months rolling Programme of Contract CV/2016/10

Name         Dates         Contract Starting Date         Contract Completion Date for Section 1         Contract Completion Date for Section 2         Contract Completion Date for Section 3         eduled Completion Date         Section 1         Section 2         Section 3         iminary Works         Submission and Approval Required at Environmental Permit for Commencement of Construction         Other Submission (Initial Survey / Tree Survey/ Condition Survey)         tion 1 of the Works (Parts A1, A2 & A3)         Ground Investigation and Geotechnical instrumentation for Commencement of Slopework         Verification Drillholes (8 Nos., VDH1, 2, 7-9,8-16) / Inspection Pits and Preliminary Results Submission         Design Review         Retaining Wall RW1         General Excavation to Formation Level         Plate Load Test and Blinding Layer for Retaining Wall Bays 1-4         Plate Load Test and Blinding Layer for Retaining Wall Bays 5-8         Plate Load Test and Blinding Layer for Retaining Wall Bays 9-13         Plate Load Test and Blinding Layer for Retaining Wall Bays 1-4         Base slab of Retaining Wall RW1 Bay 1-4         Base slab of Retaining Wall RW1 Bay 5-8         Plate Load Test and Blinding Layer for Retaining Wall Bays 14-17         Base slab of Retaining Wall RW1 Bay 1-4	Duration           1046 days           0 days           14 days           106 days           937 days           114 days           36 days           280 days           37 days           3 days           3 days           15 days           7 days	Start           Fri 15/12/17           Fri 15/12/17           Sat 11/7/20           Fri 2/7/21           Mon 4/11/19           Tue 10/12/19           Sat 29/5/21           Sat 29/5/21           Sat 29/1/22           Tue 10/12/19           Tue 20/2/18           Tue 20/3/18           Thu 29/3/18           Thu 29/3/18           Thu 29/3/18           Thu 5/7/18           Thu 16/8/18           Fri 28/9/18	Finish Fri 2/7/21 Fri 15/12/17 Sat 11/7/20 Fri 2/7/21 Mon 4/11/19 Sat 29/1/22 Sat 29/5/21 Sat 29/5/21 Sat 29/1/22 Tue 10/12/19 Wed 15/8/18 Fri 22/6/18 Sat 29/5/21 Wed 15/8/18 Wed 8/8/18 Wed 15/8/18	0%           0%           0%           0%           0%           0%           0%           0%           0%           0%           0%           0%           0%           0%           0%           0%           0%           0%           0%           100%           100%           100%           100%           100%	emaining Duration Predecessors  1046 days 0 days 0 days 0 days 0 days 0 days 13FF 0 days 13F	Notes	
Contract Starting Date Contract Completion Date for Section 1 Contract Completion Date for Section 2 Contract Completion Date for Section 3 eduled Completion Date Section 1 Section 1 Section 2 Section 3 iminary Works Submission and Approval Required at Environmental Permit for Commencement of Construction Other Submission (Initial Survey /Tree Survey/ Condition Survey) tion 1 of the Works (Parts A1, A2 & A3) Ground Investigation and Geotechnical instrumentation for Commencement of Slopework Verification Drillholes (8 Nos., VDH1, 2, 7-9,8-16) / Inspection Pits and Preliminary Results Submission Design Review Retaining Wall RW1 General Excavation to Formation Level Plate Load Test and Blinding Layer for Retaining Wall Bays 1-4 Plate Load Test and Blinding Layer for Retaining Wall Bays 1-3 Plate Load Test and Blinding Layer for Retaining Wall Bays 14-17 Base slab of Retaining Wall RW1 Bay 5-8	0 days 0 days 0 days 0 days 0 days 0 days 0 days 0 days 0 days 144 days 128 days 106 days 937 days 112 days 114 days 36 days 280 days 37 days 3 days 3 days 15 days	Fri 15/12/17           Sat 11/7/20           Fri 2/7/21           Mon 4/11/19           Tue 10/12/19           Sat 29/5/21           Sat 29/5/21           Sat 29/5/21           Sat 29/5/21           Tue 10/12/19           Tue 20/2/18           Tue 20/2/18           Thu 29/3/18           Thu 29/3/18           Thu 29/3/18           Thu 5/7/18           Thu 16/8/18	Fri 15/12/17         Sat 11/7/20         Fri 2/7/21         Mon 4/11/19         Sat 29/5/21         Sat 29/5/21         Sat 29/1/22         Tue 10/12/19         Wed 15/8/18         Fri 22/6/18         Sat 29/5/21         Wed 15/8/18         Wed 15/8/18         Wed 15/8/18         Wed 8/8/18         Wed 15/8/18	0% 0% 0% 0% 0% 0% 0% 100% 100% 100% 100	0 days 0 days 0 days 0 days 0 days 634 days 0 days 13FF 0 days 135FF 0 days 408FF 0 days 0 days 0 days 0 days 0 days 0 days		
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Contract Completion Date for Section 3 eduled Completion Date Section 1 Section 2 Section 3 iminary Works Submission and Approval Required at Environmental Permit for Commencement of Construction Other Submission (Initial Survey / Tree Survey/ Condition Survey) tion 1 of the Works (Parts A1, A2 & A3) Ground Investigation and Geotechnical instrumentation for Commencement of Slopework Verification Drillholes (8 Nos., VDH1, 2, 7-9,8-16) / Inspection Pits and Preliminary Results Submission Design Review Retaining Wall RW1 General Excavation to Formation Level Plate Load Test and Blinding Layer for Retaining Wall Bays 1-4 Plate Load Test and Blinding Layer for Retaining Wall Bays 9-13 Plate Load Test and Blinding Layer for Retaining Wall Bays 14-17 Base slab of Retaining Wall RW1 Bay 5-8	0 days 634 days 0 days 0 days 0 days 144 days 128 days 106 days 937 days 112 days 114 days 36 days 280 days 37 days 3 days 3 days 15 days	Mon 4/11/19 <b>Tue 10/12/19</b> Sat 29/5/21 Sat 29/1/22 Tue 10/12/19 <b>Tue 20/2/18</b> <b>Tue 20/2/18</b> <b>Tue 20/2/18</b> <b>Thu 29/3/18</b> <b>Thu 29/3/18</b> <b>Thu 29/3/18</b> <b>Thu 5/7/18</b> <b>Thu 16/8/18</b> <b>Thu 16/8/18</b>	Mon 4/11/19           Sat 29/1/22           Sat 29/5/21           Sat 29/1/22           Tue 10/12/19           Wed 15/8/18           Wed 15/8/18           Fri 22/6/18           Sat 29/5/21           Wed 15/8/18           Wed 15/8/18           Wed 15/8/18           Wed 15/8/18           Wed 15/8/18	0% 0% 0% 0% 100% 100% 100% 100%	0 days 634 days 0 days 13FF 0 days 135FF 0 days 408FF 0 days 0 days 0 days 408.16 days 0 days 0 days 0 days		
eduled Completion Date         Section 1         Section 2         Section 3         iminary Works         Submission and Approval Required at Environmental Permit for Commencement of Construction         Other Submission (Initial Survey /Tree Survey/ Condition Survey)         tion 1 of the Works (Parts A1, A2 & A3)         Ground Investigation and Geotechnical instrumentation for Commencement of Slopework         Verification Drillholes (8 Nos., VDH1, 2, 7-9,8-16) / Inspection Pits and Preliminary Results Submission         Design Review         Retaining Wall RW1         General Excavation to Formation Level         Plate Load Test and Blinding Layer for Retaining Wall Bays 1-4         Plate Load Test and Blinding Layer for Retaining Wall Bays 9-13         Plate Load Test and Blinding Layer for Retaining Wall Bays 9-13         Plate Load Test and Blinding Layer for Retaining Wall Bays 14-17         Base slab of Retaining Wall RW1 Bay 1-4         Base slab of Retaining Wall RW1 Bay 5-8	634 days           0 days           0 days           0 days           0 days           144 days           128 days           106 days           937 days           112 days           114 days           36 days           280 days           37 days           3 days           3 days           15 days	Tue 10/12/19           Sat 29/5/21           Sat 29/5/21           Sat 29/1/22           Tue 10/12/19           Tue 20/2/18           Tue 20/2/18           Thu 20/2/18           Thu 20/2/18           Thu 20/3/18           Thu 29/3/18           Thu 29/3/18           Thu 5/7/18           Thu 5/7/18           Thu 16/8/18	Sat 29/1/22           Sat 29/5/21           Sat 29/5/21           Tue 10/12/19           Wed 15/8/18           Wed 15/8/18           Fri 22/6/18           Sat 29/5/21           Wed 15/8/18           Wed 15/8/18           Wed 15/8/18           Wed 15/8/18	0%           0%           0%           0%           100%           100%           100%           100%           100%	634 days           0 days           13FF           0 days           135FF           0 days		
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Submission and Approval Required at Environmental Permit for Commencement of Construction Other Submission (Initial Survey / Tree Survey/ Condition Survey) tion 1 of the Works (Parts A1, A2 & A3) Ground Investigation and Geotechnical instrumentation for Commencement of Slopework Verification Drillholes (8 Nos., VDH1, 2, 7-9,8-16) / Inspection Pits and Preliminary Results Submission Design Review Retaining Wall RW1 General Excavation to Formation Level Plate Load Test and Blinding Layer for Retaining Wall Bays 1-4 Plate Load Test and Blinding Layer for Retaining Wall Bays 5-8 Plate Load Test and Blinding Layer for Retaining Wall Bays 9-13 Plate Load Test and Blinding Layer for Retaining Wall Bays 14-17 Base slab of Retaining Wall RW1 Bay 1-4 Base slab of Retaining Wall RW1 Bay 5-8	128 days 106 days 937 days 112 days 114 days 36 days 280 days 37 days 3 days 3 days 15 days	Tue 20/3/18 Tue 20/2/18 Thu 29/3/18 Thu 29/3/18 Thu 29/3/18 Thu 5/7/18 Thu 5/7/18 Thu 16/8/18	Wed 15/8/18 Fri 22/6/18 Sat 29/5/21 Wed 15/8/18 Wed 8/8/18 Wed 15/8/18	100% 100% 56% 100% 100%	0 days 0 days 408.16 days 0 days		
Other Submission (Initial Survey / Tree Survey / Condition Survey) tion 1 of the Works (Parts A1, A2 & A3) Ground Investigation and Geotechnical instrumentation for Commencement of Slopework Verification Drillholes (8 Nos., VDH1, 2, 7-9,8-16) / Inspection Pits and Preliminary Results Submission Design Review Retaining Wall RW1 General Excavation to Formation Level Plate Load Test and Blinding Layer for Retaining Wall Bays 1-4 Plate Load Test and Blinding Layer for Retaining Wall Bays 5-8 Plate Load Test and Blinding Layer for Retaining Wall Bays 9-13 Plate Load Test and Blinding Layer for Retaining Wall Bays 14-17 Base slab of Retaining Wall RW1 Bay 1-4 Base slab of Retaining Wall RW1 Bay 5-8	106 days           937 days           112 days           114 days           36 days           280 days           37 days           3 days           3 days           15 days	Tue 20/2/18 Thu 29/3/18 Thu 29/3/18 Thu 29/3/18 Thu 5/7/18 Thu 5/7/18 Thu 16/8/18 Thu 16/8/18	Fri 22/6/18 Sat 29/5/21 Wed 15/8/18 Wed 8/8/18 Wed 15/8/18	100% 56% 100% 100%	0 days 408.16 days 0 days		
tion 1 of the Works (Parts A1, A2 & A3) Ground Investigation and Geotechnical instrumentation for Commencement of Slopework Verification Drillholes (8 Nos., VDH1, 2, 7-9,8-16) / Inspection Pits and Preliminary Results Submission Design Review Retaining Wall RW1 General Excavation to Formation Level Plate Load Test and Blinding Layer for Retaining Wall Bays 1-4 Plate Load Test and Blinding Layer for Retaining Wall Bays 5-8 Plate Load Test and Blinding Layer for Retaining Wall Bays 9-13 Plate Load Test and Blinding Layer for Retaining Wall Bays 14-17 Base slab of Retaining Wall RW1 Bay 1-4 Base slab of Retaining Wall RW1 Bay 5-8	937 days           112 days           114 days           36 days           280 days           37 days           3 days           3 days           15 days	Thu 29/3/18 Thu 29/3/18 Thu 29/3/18 Thu 5/7/18 Thu 16/8/18 Thu 16/8/18	Sat 29/5/21 Wed 15/8/18 Wed 8/8/18 Wed 15/8/18	<b>56%</b> 100% 100%	<b>408.16 days</b> 0 days		
Ground Investigation and Geotechnical instrumentation for Commencement of Slopework         Verification Drillholes (8 Nos., VDH1, 2, 7-9,8-16) / Inspection Pits and Preliminary Results Submission         Design Review         Retaining Wall RW1         General Excavation to Formation Level         Plate Load Test and Blinding Layer for Retaining Wall Bays 1-4         Plate Load Test and Blinding Layer for Retaining Wall Bays 5-8         Plate Load Test and Blinding Layer for Retaining Wall Bays 9-13         Plate Load Test and Blinding Layer for Retaining Wall Bays 14-17         Base slab of Retaining Wall RW1 Bay 1-4         Base slab of Retaining Wall RW1 Bay 5-8	112 days           114 days           36 days           280 days           37 days           3 days           3 days           15 days	Thu 29/3/18           Thu 29/3/18           Thu 5/7/18           Thu 16/8/18           Thu 16/8/18	Wed 15/8/18 Wed 8/8/18 Wed 15/8/18	100% 100%	0 days		
Verification Drillholes (8 Nos., VDH1, 2, 7-9,8-16) / Inspection Pits and Preliminary Results Submission Design Review Retaining Wall RW1 General Excavation to Formation Level Plate Load Test and Blinding Layer for Retaining Wall Bays 1-4 Plate Load Test and Blinding Layer for Retaining Wall Bays 5-8 Plate Load Test and Blinding Layer for Retaining Wall Bays 9-13 Plate Load Test and Blinding Layer for Retaining Wall Bays 14-17 Base slab of Retaining Wall RW1 Bay 1-4 Base slab of Retaining Wall RW1 Bay 5-8	114 days 36 days 280 days 37 days 3 days 3 days 15 days	Thu 29/3/18 Thu 5/7/18 <b>Thu 16/8/18</b> Thu 16/8/18	Wed 8/8/18 Wed 15/8/18	100%			
Design Review Retaining Wall RW1 General Excavation to Formation Level Plate Load Test and Blinding Layer for Retaining Wall Bays 1-4 Plate Load Test and Blinding Layer for Retaining Wall Bays 5-8 Plate Load Test and Blinding Layer for Retaining Wall Bays 9-13 Plate Load Test and Blinding Layer for Retaining Wall Bays 14-17 Base slab of Retaining Wall RW1 Bay 1-4 Base slab of Retaining Wall RW1 Bay 5-8	36 days 280 days 37 days 3 days 3 days 15 days	Thu 5/7/18 <b>Thu 16/8/18</b> Thu 16/8/18	Wed 15/8/18		0 days		
Retaining Wall RW1         General Excavation to Formation Level         Plate Load Test and Blinding Layer for Retaining Wall Bays 1-4         Plate Load Test and Blinding Layer for Retaining Wall Bays 5-8         Plate Load Test and Blinding Layer for Retaining Wall Bays 9-13         Plate Load Test and Blinding Layer for Retaining Wall Bays 14-17         Base slab of Retaining Wall RW1 Bay 1-4         Base slab of Retaining Wall RW1 Bay 5-8	280 days 37 days 3 days 3 days 15 days	Thu 16/8/18 Thu 16/8/18		100%			
General Excavation to Formation Level         Plate Load Test and Blinding Layer for Retaining Wall Bays 1-4         Plate Load Test and Blinding Layer for Retaining Wall Bays 5-8         Plate Load Test and Blinding Layer for Retaining Wall Bays 9-13         Plate Load Test and Blinding Layer for Retaining Wall Bays 14-17         Base slab of Retaining Wall RW1 Bay 1-4         Base slab of Retaining Wall RW1 Bay 5-8	37 days 3 days 3 days 15 days	Thu 16/8/18	0	10078	0 days		
Plate Load Test and Blinding Layer for Retaining Wall Bays 1-4 Plate Load Test and Blinding Layer for Retaining Wall Bays 5-8 Plate Load Test and Blinding Layer for Retaining Wall Bays 9-13 Plate Load Test and Blinding Layer for Retaining Wall Bays 14-17 Base slab of Retaining Wall RW1 Bay 1-4 Base slab of Retaining Wall RW1 Bay 5-8	3 days 3 days 15 days		Sat 27/7/19	100%	0 days		
Plate Load Test and Blinding Layer for Retaining Wall Bays 5-8 Plate Load Test and Blinding Layer for Retaining Wall Bays 9-13 Plate Load Test and Blinding Layer for Retaining Wall Bays 14-17 Base slab of Retaining Wall RW1 Bay 1-4 Base slab of Retaining Wall RW1 Bay 5-8	3 days 15 days	Fri 28/9/18	Thu 27/9/18	100%	0 days		
Plate Load Test and Blinding Layer for Retaining Wall Bays 9-13 Plate Load Test and Blinding Layer for Retaining Wall Bays 14-17 Base slab of Retaining Wall RW1 Bay 1-4 Base slab of Retaining Wall RW1 Bay 5-8	15 days		Mon 1/10/18	100%	0 days		
Plate Load Test and Blinding Layer for Retaining Wall Bays 14-17 Base slab of Retaining Wall RW1 Bay 1-4 Base slab of Retaining Wall RW1 Bay 5-8	-	Tue 2/10/18	Thu 4/10/18	100%	0 days		
Base slab of Retaining Wall RW1 Bay 1-4 Base slab of Retaining Wall RW1 Bay 5-8	Zdeve	Wed 10/10/18	Fri 26/10/18	100%	0 days		
Base slab of Retaining Wall RW1 Bay 5-8	7 days	Sat 6/10/18	Sat 13/10/18	100%	0 days		
	8 days	Tue 2/10/18	Wed 10/10/18	100%	0 days		
	13 days	Mon 8/10/18	Mon 22/10/18	100%	0 days		
Base slab of Retaining Wall RW1 Bay 9-13 Base slab of Retaining Wall RW1 Bay 14-17	17 days	Mon 22/10/18 Mon 22/10/18	Fri 9/11/18 Fri 9/11/18	100%	0 days		
Wall Stem of Retaining Wall RW1 Bay1-4	17 days	Thu 25/10/18	Wed 5/12/18	100%	0 days		
Wall Stem of Retaining Wall RW1 Bay 5-8	36 days 26 days	Tue 11/12/18	Wed 9/1/19	100%	0 days 0 days		
Wall Stem of Retaining Wall RW1 Bay 10-13	30 days	Wed 14/11/18	Tue 18/12/18	100%	0 days		
Wall Stem of Retaining Wall RW1 Bay 14-17	23 days	Mon 26/11/18	Fri 21/12/18	100%	0 days		
Protective Coating / Subsoil Drain / Filter Layer	5 days	Thu 14/2/19	Tue 19/2/19	100%	0 days		
Drainage and Maintenance Access in front of RW1	75 days	Tue 26/3/19	Thu 20/6/19	100%	0 days		
Construction CP1X & CP7X	102 days	Mon 1/4/19	Sat 27/7/19	100%	0 days		
Filling Works behind Retaining Wall and Fill Slope FS1 South (Section 12 at Drawing C1/GE/1030)	605 days	Mon 1/4/19	Sat 17/4/21	38%	374.31 days		
Behind Retaining Wall RW1, Filling Stage 1 (up to +25mPD)	95 days	Mon 1/4/19	Fri 19/7/19	100%	0 days		
FS1 South , Filling (Rolling by Pass) (+25 to +27.8mPD)	10 days	Sat 20/7/19	Wed 31/7/19	100%	0 days		
FS1 South Filling Stage 2 (~2.5m, +25.0 to +27.5 mPD)	56 days	Wed 1/4/20	Thu 4/6/20	100%	0 days	3 days per SRT +9 day (CE16)	
Filling (Rolling by Pass)	1 day	Wed 1/4/20	Wed 1/4/20	100%	0 days		
Filling in 3m Zone	28 days	Thu 2/4/20	Mon 11/5/20	100%	0 days		
	3 days						
						3 days per SRT +9 day (CE16)+17day (PMI57)	
					•		
-							
						3 days per SRT. ~7.5m = 25 layers	
Filling in 3m Zone		Thu 7/1/21	Fri 26/2/21	0%			
Benching Works for Rolling by Pass Surface	3 days	Thu 7/1/21	Sat 9/1/21	0%	3 days 50,47		
Lay Rockfill Layer (7.5/1m per 5 days)	<mark>38 days</mark>	Mon 11/1/21	Fri 26/2/21	0%	38 days 52		
Drainage and Maintenance Access (+35 to +42.5mpD)	<mark>35 days</mark>	Sat 27/2/21	Thu 8/4/21	0%	35 days 53		
FS1 South Filling Stage 5 (~7.5m height, +42.5 to +50mPD)	<mark>432 days</mark>	Mon 2/12/19	Sat 17/4/21	0%	432 days	3 days per SRT, ~7.5m = 25 layers	
Construction of RW11	<mark>30 days</mark>	Mon 2/12/19	Wed 8/1/20	0%	30 days 36		
	<mark>38 days</mark>						
					-		
						140m, 4m per day	
						3 days per SBT (2/day (CE16)), 8 day (CE55)	
						0 343 9 01 0111 72 444 (OL 10) 7 7 0449 (OL 33)	
•							
Lay Filter Layer	-	Sat 29/2/20		100%	-		
Drainage and Maintenance Access ( at and below+20 mpD)	10 days	Fri 6/3/20	Tue 17/3/20	100%	0 days 67	65m, 6m per day	
FS1 middle Filling Stage 2 (~7.5m, +20.0 to +27.5 mPD)	53 days	Wed 26/2/20	Mon 4/5/20	100%	0 days	3 days per SRT +25day (CE16)	
Filling (Rolling by Pass) (~7.5m, 0.5m per day)	15 days	Wed 26/2/20	Fri 13/3/20	100%	0 days 64		
Filling in 3m Zone	23 days	Sat 14/3/20	Tue 14/4/20	100%	0 days		
Benching Works for Rolling by Pass Surface	3 days	Sat 14/3/20	Tue 17/3/20	100%	0 days 70,67		
	20 days	Wed 18/3/20	Tue 14/4/20				
	FS1 South Filling (Rolling by Pass) (+25 to +27.8 mPD)         Filling (Rolling by Pass)         Filling in 3m Zone         Benching Works for Rolling by Pass Surface         Lay Rockfill Layer (4.5/1m per 5 days)         Drainage and Maintenance Access (+25 to +27.5 mpD)         Filling (Rolling by Pass)(-7.5m, 0.5m per day)         Filling in 3m Zone         Benching Works for Rolling by Pass Surface         Lay Rockfill Layer (7.5/1m per 5 days)         Drainage and Maintenance Access (+35 to +42.5mpD)         Filling in 3m Zone         Benching Works for Rolling by Pass Surface         Lay Rockfill Layer (7.5/1m per 5 days)         Drainage and Maintenance Access (+24 to +50 mpD)         Construction of RW11         Filling in 3m Zone         Benching Works for Rolling by Pass Surface         Lay Rockfi	FS1 South, Filling (Rolling by Pass) (+25 to +27.5 mPD)10 daysFS1 South Filling Stage 2 (-2.5m, +25.0 to +27.5 mPD)56 daysFilling in 3m Zone28 daysBenching Works for Rolling by Pass Surface3 daysLay Rockfill Layer (4.5/1 m per 5 days)21 daysFilling in 3m Zone100 daysFilling in 3m Zone100 daysFilling in 3m Zone100 daysFilling (Rolling by Pass)(-7.5m, 0.5m per day)130 daysFilling in 3m Zone100 daysBenching Works for Rolling by Pass Surface3 daysDrainage and Maintenance Access (+25 to +27.5 sto p.5)28 daysFilling (Rolling by Pass)(-7.5m, 0.5m per day)130 daysBenching Works for Rolling by Pass Surface3 daysLay Rockfill Layer (7.5/1 m per 5 days)100 daysDrainage and Maintenance Access (+27.5 to +35 mpD)28 daysFilling (Rolling by Pass)(-7.5m, 0.5m per day)15 daysFilling (Rolling by Pass)(-7.5m, 0.5m per day)15 daysFilling in 3m Zone31 daysBenching Works for Rolling by Pass Surface3 daysDrainage and Maintenance Access (+25 to +42.5mpD)38 daysDrainage and Maintenance Access (+35 to +42.5mpD)432 daysConstruction of RW1130 daysFilling in 3m Zone38 daysBenching Works for Rolling by Pass Surface3 daysLay Rockfill Layer (7.5/1 m per 5 days)35 daysDrainage and Maintenance Access (+42.4 to +50 mpD)35 daysDrainage and Maintenance Access (+42.4 to +50 mpD)36 daysDrainage	FS1 South, Filling (Rolling by Pass) (+25 to +27.8 mPD)       10 days       Sat 20/7/19         FS1 South Filling Stage 2 (-2.5m, +25.0 to +27.5 mPD)       56 days       Wed 1/4/20         Filling (Rolling by Pass)       1 day       Wed 1/4/20         Filling (Rolling by Pass)       1 day       Wed 1/4/20         Benching Works for Rolling by Pass Surface       3 days       Thu 2/4/20         Darainage and Maintenance Access (+25 to +27.5 mpD)       21 days       Tue 1/2/20         FS1 South Filling Stage 3 (-7.5m height, +27.5 to +35mPD)       320 days       Sat 1/2/20         Filling (Rolling by Pass) (-7.5m, 0.5m per day)       130 days       Wed 2/9/20         Benching Works for Rolling by Pass Surface       103 days       Wed 2/9/20         Lay Rockfill Layer (7.5/1m per 5 days)       100 days       Sat 5/9/20         Drainage and Maintenance Access (+27.5 to +42.5mPD)       18 days       Wed 2/9/20         Filling (Rolling by Pass)(-7.5m, 0.5m per day)       100 days       Sat 5/9/20         Drainage and Maintenance Access (+27.5 to +42.5mPD)       18 days       Wed 2/9/20         Filling In 3m Zone       13 days       Wed 2/9/20         Filling In 3m Zone       14 days       Thu 7/1/21         Darainage and Maintenance Access (+35 to +42.5mpD)       36 days       Mon 11/1/21	FS1 South, Filling (Rolling by Pass) (+25 to +27.8 mPD)       10 days       Sat 207/19       Wed 14/20         FS1 South Filling Stage 2 (-2.5m, +25.0 to +27.5 mPD)       56 days       Wed 14/20       Wed 14/20         Filling (folling by Pass)       1 day       Wed 14/20       Wed 14/20       Wed 14/20         Benching Works for Rolling by Pass Surface       28 days       Thu 24/20       Mon 11/5/20         Benching Works for Rolling by Pass Surface       24 days       Thu 24/20       Mon 11/5/20         Drainage and Maintenance Access (+25 to +27.5 mpD)       220 days       Sat 1/220       Mon 8/221         Filling (Holling by Pass) (-7.5m, 0.5m per day)       130 days       Sat 1/220       Thu 4/6/20         Filling Norks for Rolling by Pass Surface       3 days       Wed 29/20       Fir 49/20         Lay Rockfill Layer (7.5/1m per 5 days)       100 days       Sat 59/20       Wed 6/1/21         Drainage and Maintenance Access (+27.5 to +35 mpD)       28 days       Thu 7/1/21       Med 71/21         Drainage and Maintenance Access (+27.5 to +35 mpD)       28 days       Thu 7/1/21       Med 71/21         Drainage and Maintenance Access (+27.5 to +35 mpD)       28 days       Thu 7/1/21       Med 71/21         Filling (Rolling by Pass)       Thu 67/1/21       Fill 49/20       Fil 49/20         Dra	FS1 South, Filling (Rolling by Pass), (+25 to +27.5 mPD)       10 days       Sat 207/19       Wed 317/19       100%         FS1 South Filling Stage 2 (-2.5m, +25.0 to +27.5 mPD)       56 days       Wed 11/420       Thu 4/820       100%         Filling (Rolling by Pass)       1 day       Wed 11/420       Wed 11/420       100%         Benching Works for Rolling by Pass Surface       3 days       Thu 2/420       Mon 11/5/20       100%         Lay Rockfil Layer (4.5/m per 5 days)       25 days       Thu 2/420       Mon 11/5/20       100%         Drainage and Maintenance Access (+25 to +27.5 mpD)       21 days       Tau 12/5/20       Thu 4/820       100%         Filling (Rolling by Pass), (-7.5m, 0.5m per day)       103 days       Sat 1/220       Mon 8/2/21       30%         Filling (Rolling by Pass), (-7.5m, 0.5m per day)       100 days       Sat 5/2/20       Thu 4/820       100%         Lay Rockfil Layer (-7.5m, 0.5m per day)       100 days       Sat 5/2/20       Wed 6/1/21       69%         Drainage and Maintenance Access (+27.5 to +35 mpD)       28 days       Wed 2/9/20       Fil 4/9/20       100%         Lay Rockfil Layer (-7.5m hosting t-42.5mPD)       188 days       Wed 2/9/20       Fil 4/9/20       70%         Filling (Inding by Pass), (-7.5m hosting t-42.5mPD)       188 days       Wed 2/9/2	F51 South, Filling (Nations by Pass) (A25 to 425 mPD)       16 days       Wed 11/420       100%       0 days         F51 South, Filling Stape 2 (-25m, +25.0 to 427.5 mPD)       56 days       Wed 11/420       100%       0 days         Filling In Stape 2 (-25m, +25.0 to 427.5 mPD)       16 days       Wed 11/420       Mon 11/520       100%       0 days         Benching Works for Roling by Pass Surface       26 days       Thu 2/420       Mon 11/520       100%       0 days       0 days         Darlange and Maineneance Access (+25 to +27.5 mpD)       21 days       Tot 12/20       Thu 1/420       Mon 11/520       100%       0 days       4         F81 South Filling Stape 3 (-7.5 m beight, +27.5 to +35mPD)       320 days       Sat 1/2/20       Thu 1/4/20       Mon 8/2/21       30%       52 days         F81 South Filling Stape 3 (-7.5 m beight, +27.5 to +35mPD)       320 days       Sat 1/2/20       Thu 1/4/20       Mon 8/2/21       50%       52 days         F81 South Filling Stape 4 (-7.5 m beight, +27.5 to +35mPD)       32 days       Sat 5/2/20       Wed 8/1/21       40%       52 days       44 days         Darlange and Maintenance Access (+25.5 to +35mPD)       38 days       Wed 2/2/20       Thu 2/4/20       100%       4 days       47         F81 South Filling Stape 4 (-7.5 m height, +25 to +35mPD)       38 da	FBS sourt, Filling (Finding by Fass, Urics to : 27. arXiV)Iding with weight weight (Sin : 27. arXiV)Iding with weight weig



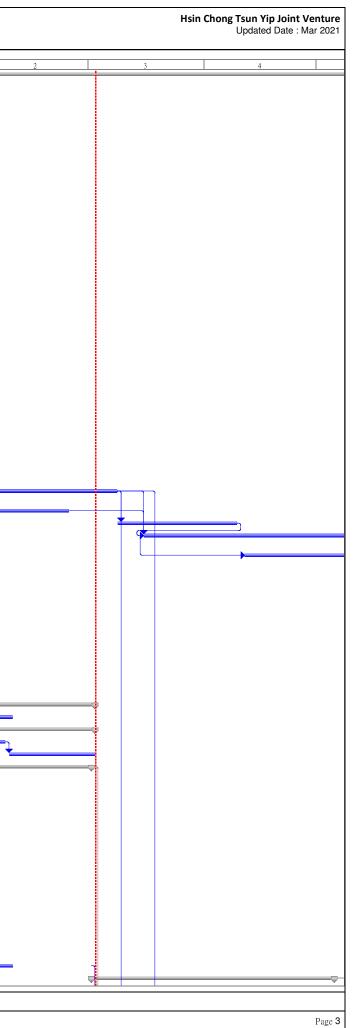
	ïask Name	Duration	Start	Finish	% Complete Re	emaining Duration Predecessors	Notes	
4	Drainage and Maintenance Access (at and below+27.5 mpD)	15 days	Wed 15/4/20	Mon 4/5/20	100%	0 days 73	60m, 6m per day	
5	FS1 middle Filling Stage 3 (~7.5m height, +27.5 to ~+35mPD)	304 days	Sat 14/3/20	Tue 23/3/21	19%	247.67 days	3 days per SRT +9 day (CE16)+17day (PMI 57)	
6	Filling (Rolling by Pass)(~7.5m, 0.5m per day)	130 days	Sat 14/3/20	Fri 21/8/20	12%	115 days 70		
7	Filling in 3m Zone	163 days	Sat 22/8/20	Wed 10/3/21	14%	140 days		
8	Benching Works for Rolling by Pass Surface	3 days	Sat 22/8/20	Tue 25/8/20	100%	0 days 76,74		
9	Lay Rockfill Layer (7.5m/1m per 5 day)	160 days	Wed 26/8/20	Wed 10/3/21	13%	140 days 78		
0	Drainage and Maintenance Access (at and below +35 mpD)	20 days	Mon 1/3/21	Tue 23/3/21	100%	0 days 78	75m, 6m per day	
1	FS1 middle Filling Stage 4 below +42.5mPD and +50mPD)	38 days	Thu 11/3/21	Tue 27/4/21	0%	38 days	3 days per SRT, ~7.4m = 25 layers	
2	Filling (Rolling by Pass)(~15m, 0.5m per day)	30 days	Thu 11/3/21	Sat 17/4/21	0%	30 days 79		
3	Slope Surface forming/ Drainage and Maintenance Access	20 days	Thu 1/4/21	Tue 27/4/21	0%	20 days 79	70m, 6m per day	
4	Fill Slope FS1 North (Section 14 at Drawing C1/GE/1030 )	831 days	Wed 11/7/18	Wed 28/4/21	69%	260.84 days		
5	CE16	264 days	Wed 11/7/18	Fri 31/5/19	38%	164 days	include 7 day Mobilization	
6	FS1 North Filling Works Stage 1 (+15 to+19.7mPD)		Sat 1/6/19	Fri 24/1/20	100%			
_		204 days				0 days 85		
7	Drainage and Maintenance Access (+15 to +20 mpD)	28 days	Sat 25/1/20	Wed 26/2/20	100%	0 days 86	+8 days (CE55)	
8	Construction of Outfall CP2X	14 days	Thu 27/2/20	Fri 13/3/20	100%	0 days 87		
9	FS1North, Filling (Rolling by Pass) (+19.7 to +22.4mPD)	20 days	Sat 14/3/20	Mon 6/4/20	100%	0 days 88		
)	FS1 North Filling Stage 2 (+20 to +27.5 mPD)	100 days	Tue 7/4/20	Fri 31/7/20	100%	0 days 87	3 days per SRT +25day (CE16)	
1	Drainage and Maintenance Access (+20 to +27.5 mpD)	65 days	Sat 1/8/20	Thu 15/10/20	100%	0 days 90	85m, 4.m per day	
	Filling in 3m Zone (below +27.5mPD)	58 days	Mon 9/3/20	Thu 21/5/20	100%	0 days		
	Benching Works for Rolling by Pass Surface	3 days	Mon 9/3/20	Wed 11/3/20	100%	0 days 91		
	Lay Filter Layer	5 days	Thu 12/3/20	Tue 17/3/20	100%	0 days 93		
	Filling by SRT (7.5m/ 3 day per 5 day)	50 days	Wed 18/3/20	Thu 21/5/20	100%	0 days 94		
7	Filling in 3m Zone (below +27.5mPD) (Rockfill)	23 days	Mon 9/3/20	Fri 3/4/20	100%	0 days		
╡	Benching Works for Rolling by Pass Surface	3 days	Mon 9/3/20	Wed 11/3/20	100%	0 days		
┥	Lay Rockfill Layer (7.5m/1m per 5 day)	20 days	Thu 12/3/20	Fri 3/4/20	100%	0 days 97		
_	Drainage and Maintenance Access	22 days	Sat 2/5/20	Wed 27/5/20	100%	0 days 98		
+	FS1 North Filling Stage 3 (+27 to +35 mPD)	171 days	Tue 26/11/19	Thu 11/6/20	100 %	0 days 90	3 days per SRT +9 day (CE16)+17day (PMI 57)	
		-					5 days per 511 +9 day (CE 10)+170ay (MM137)	
ł	Filling (Rolling by Pass)(~3m, 0.5m per day)	6 days	Tue 26/11/19	Mon 2/12/19	100%	0 days 90		
4	Filling in 3m Zone (below +27.5mPD) (Rockfill)	23 days	Sat 4/4/20	Thu 7/5/20	100%	0 days		
1	Benching Works for Rolling by Pass Surface	3 days	Sat 4/4/20	Wed 8/4/20	100%	0 days 98,101		
	Lay Rockfill Layer (7.5m/1m per 5 day)	20 days	Thu 9/4/20	Thu 7/5/20	100%	0 days 103		
	Drainage and Maintenance Access (+27.5 to +35 mpD)	30 days	Fri 8/5/20	Thu 11/6/20	100%	0 days 104	120m, 4m per day	
	FS1 North Filling Stage 4 (+35 to +42.5 mPD), Upgrading of Existing Slope Feature 3NW-C/F37	<mark>374 days</mark>	Tue 3/12/19	Wed 10/2/21	32%	252.7 days	3 days per SRT, ~7.5m = 25 layers	
ĺ	Filling (Rolling by Pass)(~3m, 0.5m per day)	<mark>15 days</mark>	Tue 3/12/19	Thu 19/12/19	100%	0 days 101		
Ť	Filling in 3m Zone (below +27.5mPD) (Rockfill)	123 days	Wed 2/9/20	Fri 29/1/21	19%	100 days		
Ť	Benching Works for Rolling by Pass Surface	3 days	Wed 2/9/20	Fri 4/9/20	100%	0 days 107,104		
7	Lay Rockfill Layer (7.5m/1m per 5 day)	120 days	Sat 5/9/20	Fri 29/1/21	17%	100 days 109		
	Drainage and Maintenance Access (+30 to +42.5 mpD)	10 days	Sat 30/1/21	Wed 10/2/21	100%	0 days 110	140m, 4m per day	
	FS1 North Filling Stage 5 (+42.5 to +50mPD), Upgrading of Existing Slope Feature 3NW-C/F37	425 days	Fri 20/12/19	Wed 28/4/21	0%	425 days	3 days per SRT, ~7.5m = 25 layers	
	Filling (Rolling by Pass)(~3m, 0.5m per day)	15 days	Fri 20/12/19	Thu 9/1/20	0%	15 days 107	5 days per 6111, 47.5m = 25 layers	
				Fri 16/4/21				
	Filling in 3m Zone (below +27.5mPD) (Rockfill)	50 days	Thu 11/2/21		0%	50 days		
5	Benching Works for Rolling by Pass Surface	10 days	Thu 11/2/21	Thu 25/2/21	0%	10 days 111		
	Lay Rockfill Layer (7.5m/1m per 5 day)	40 days	Fri 26/2/21	Fri 16/4/21	0%	40 days 115		
	Drainage and Maintenance Access (+42.5 to +50 mpD)	10 days	Sat 17/4/21	Wed 28/4/21	0%	10 days 116	130m, 4m per day	
	Civil Works for Pick-up/Drop-off area (Part A1, M011 CH020 to CH140)	75 days	Thu 11/2/21	Mon 17/5/21	0%	75 days		
Τ	Waterworks / Drainage / Sewerage/ Utilities Works	31 days	Thu 11/2/21	Mon 22/3/21	0%	31 days		
Î	Sewerage Works / Drainage Works	28 days	Thu 11/2/21	Thu 18/3/21	0%	28 days 111	~225m main drains, 8m per day	
Ť	Watermain FW1a (CH29-100)	7 days	Thu 11/3/21	Thu 18/3/21	0%	7 days 120SS+21 da	vs ~71m water mains, 10m per day	
1	Road Lighting Civil Works Provision	5 days	Thu 11/3/21	Tue 16/3/21	0%	5 days 120SS+21 da		
ł	Utilities (by others)	10 days	Thu 11/3/21	Mon 22/3/21	0%	10 days 120SS+21 da		
┥	Carriageway and Footway	44 days	Tue 23/3/21	Mon 17/5/21	0%	44 days	,, ,, ,, ,, ,, ,, ,, ,, ,, ,	
┥	Backfilling to Formation Level	8 days	Tue 23/3/21	Wed 31/3/21	0%	8 days 119	~120m, 100m per 6 day	
┦					0%		~120m, 100m per 8 day ~120m, 20m per 3 day + 6 day uchannel	
ļ	Carriageway	24 days	Thu 1/4/21	Mon 3/5/21		24 days 125		
ļ	Footpath, Road Marking and Street Furniture	12 days	Tue 4/5/21	Mon 17/5/21	0%	12 days 126	~120m, 20m per 2 day	
ļ	Landscape Works	85 days	Thu 11/2/21	Sat 29/5/21	0%	85 days		
	Shrubs Planting at RW1	30 days	Mon 19/4/21	Tue 25/5/21	0%	30 days 34		
ĺ	Woodland Planting at Site 1, 2, 3	30 days	Mon 19/4/21	Tue 25/5/21	0%	30 days 34		
Ĵ	Hydroseeding at Fill Slope	80 days	Thu 11/2/21	Mon 24/5/21	0%	80 days 106		
Î	Shrubs Planting at Pick-up/ Drop Off	10 days	Thu 29/4/21	Tue 11/5/21	0%	10 days 117		
Î	Irrigation System and Water Points (Except Water Connection)	24 days	Fri 19/3/21	Mon 19/4/21	0%	24 days 121		
Í	Tree Planting Works	10 days	Tue 18/5/21	Sat 29/5/21	0%	10 days 127		
ļ	Section 2 of the Works (Parts B1, B2, C, D, F, G1 & G2)	1222 days	Fri 15/12/17	Sat 29/1/22	52%	589.24 days	Change from 30/6 to 22/7 Due to EP delay	
t	Part B1	1091 days	Sat 28/4/18	Wed 29/12/21	61%	426.85 days		
╎	Ground Investigation and Geotechnical instrumentation for Commencement of Slopework	96 days	Sat 28/4/18	Wed 22/8/18	100%	0 days		
╉	Verification Drillholes (10 Nos., VDH3, 6, 10-15,19-20) and Preliminary Results Submission	95 days	Sat 28/4/18	Tue 21/8/18	100%	0 days		
┦	Design Review	36 days	Thu 12/7/18	Wed 22/8/18	100%	0 days		
┦								
	Cut Slopes CS1 & CS2	170 days	Fri 12/10/18	Mon 13/5/19	100%	0 days		
1	Excavation (crest to +55mPD)	4 days	Fri 12/10/18	Tue 16/10/18	100%	0 days		
4	Excavation (+55 to+50mPD)	11 days	Fri 12/10/18	Wed 24/10/18	100%	0 days		
ļ	Drainage and Maintenance Access (at +55mPD berm)	55 days	Tue 16/10/18	Tue 18/12/18	100%	0 days		
	•		-	Mon 13/5/19	100%	0 days		
	Drainage and Maintenance Access (at +55mild Denni) Drainage and Maintenance Access (+55 to +50 slope surface)	180 days	Tue 16/10/18	1011 13/3/19	100 /8			
	•	180 days <b>44 days</b>	Tue 16/10/18 Wed 4/11/20	Thu 24/12/20	0%	44 days		
	Drainage and Maintenance Access (+55 to +50 slope surface)							



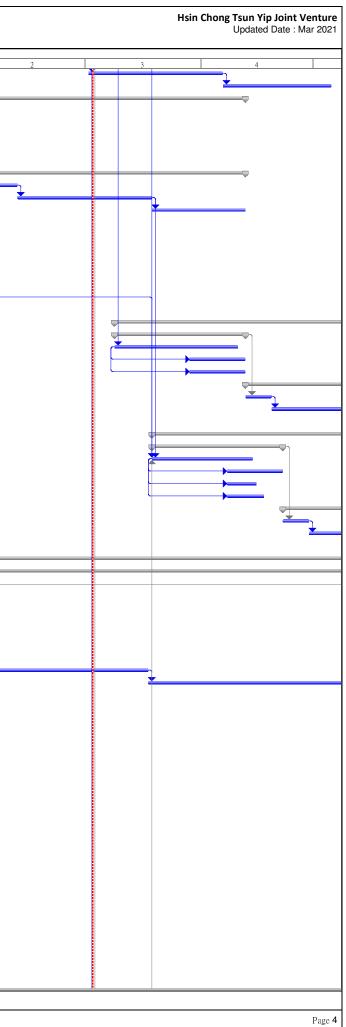
### 3 Month Rolling Programme (Feb 2021 to Apr 2021)

	ask Name	Duration	Start	Finish		maining Duration Predecessors	Notes	
3	Cut Slopes CS11, CS12 and CS13	837 days	Thu 23/8/18	Mon 21/6/21	79%	176.66 days		
)	Slope Cutting (crest to+94.5mPD)	31 days	Thu 23/8/18	Fri 28/9/18	100%	0 days		
	Drainage and Maintenance Access (at crest)	29 days	Tue 2/10/18	Mon 5/11/18	100%	0 days		
	Slope Cutting and Soil Nail (+94.5 to +87mPD, 59 nos. of Soil Nail)	40 days	Sat 6/10/18	Thu 22/11/18	100%	0 days		
2	Drainage and Maintenance Access (at +94.5mPD berm)	7 days	Fri 26/10/18	Fri 2/11/18	100%	0 days		
3	Drainage and Maintenance Access (+94.5 to +87mPD slope surface)+ GI Works	24 days	Fri 26/10/18	Thu 22/11/18	100%	0 days	Temporary stop Due to RFI22	
	Slope Cutting and Soil Nail (+87 to+79.5mPD, 84Nos. of Soil Nail)	40 days	Thu 8/11/18	Mon 24/12/18	100%	0 days		
	Drainage and Maintenance Access (at +87mPD berm)	33 days	Fri 26/10/18	Mon 3/12/18	100%	0 days		
	RFI50 (Waiting Instruction / Abortive Works / Additional Earthwork+25m Uchannel at CS13crest)	61 days	Thu 22/11/18	Mon 4/2/19	100%	0 days		
	RFI( Slope Cutting and Soil Nail - additional 24 Nos. of Soil Nail)	39 days	Fri 11/1/19	Thu 28/2/19	100%	0 days		
	RFI50(Additional Drainage and Mantenance Access (at 87mPD berm)	13 days	Fri 1/2/19	Tue 19/2/19	100%	0 days		
	Drainage and Maintenance Access (+79.5 to +87mPD slope surface)+ GI Works	10 days	Fri 8/2/19	Tue 19/2/19	100%	0 days		
	Slope Cutting and Soil Nail (+72 to +79.5,115+21Nos. of Soil Nail)	90 days	Mon 21/1/19	Wed 15/5/19	100%	0 days		
	Drainage and Maintenance Access (at +79.5mPD berm)	42 days	Fri 1/2/19	Mon 25/3/19	100%	0 days		
	Drainage and Maintenance Access (+72 to +79.5mPD slope surface, CS13 crest)+ GI Works	13 days	Thu 2/5/19	Fri 17/5/19	100%	0 days		
T	Slope Cutting and Soil Nail (+64.5 to +72 mPD, ,192 Nos. of Soil Nail)	67 days	Mon 8/4/19	Tue 2/7/19	100%	0 days		
1	Drainage and Maintenance Access (at +72mPD berm)	29 days	Sat 13/4/19	Wed 22/5/19	100%	0 days		
Ť	Drainage and Maintenance Access (+64.5 to +72mPD slope surface)+ GI Works	17 days	Wed 3/7/19	Mon 22/7/19	100%	0 days 163	~85m, 5m/day using 2 gang	
1	Slope Cutting and Soil Nail (+57 to +64.5mPD, 521 nos. of Soil Nail, 96 nos. of Raking Drain)	180 days	Tue 2/7/19	Thu 6/2/20	100%	0 days		
╡	Drainage and Maintenance Access (at +64.5mPD berm)	40 days	Tue 6/8/19	Sat 21/9/19	100%	0 days 166SS+30 days	~200m, 5m/day using 2 gang	
÷	Drainage and Maintenance Access (+57 to +64.5mPD slope surface)+ GI Works	17 days	Fri 7/2/20	Wed 26/2/20	100%	0 days 166	~85m, 5m/day using 2 gang	
┽	Slope Cutting and Soil Nail for CS11 (+57 to +49.5 mPD, 88 nos. of Soil Nail, 19 nos. of Raking Drain)	38 days	Thu 12/3/20	Wed 29/4/20	100%	0 days 193	4 nails/day & 10 drains/day using 2 rigs+14days	
		oo aayo	1110 12/0/20	1100 20/4/20	10070	o days roo	- halo, day a to draho, day doing 2 hgot 14dayo	
1	Drainage and Maintenance Access for CS11 (at +57mPD berm)	20 days	Thu 26/3/20	Wed 22/4/20	100%	0 days 169SS+12 days	~60m, 3m/day	
-	Drainage and Maintenance Access for CS11 (below57 mPD slope surface/ on RW11)+ GI Works	17 days	Sat 2/5/20	Thu 21/5/20	100%	0 days 169	~50m, 3m/day	
						-	· · ·	
	Slope Cutting and Soil Nail for CS12/CS13 (+57 to +49.5 mPD, 497 nos. of Soil Nail, 80 nos. of Raking Drair	) 85 days	Fri 7/2/20	Fri 22/5/20	100%		8 8 nails/day & 20 drains/day using 4 rigs+21days	
	Decisions and Maintenance Access for OO10/40 (st. 57-00 b)	0E -1			1000/	days	175m 5m/devusing 0	
	Drainage and Maintenance Access for CS12/13 (at +57mPD berm)	35 days	Wed 11/3/20	Fri 24/4/20	100%	0 days 172SS+28 days	~175m, 5m/day using 2 gang	
	Drainage and Maintenance Access for CS12/CS13 (+49.5 to + 57mPD slope surface)+ GI Works	20 days	Sat 23/5/20	Mon 15/6/20	100%	0 days 172	~100m, 5m/day using 2 gang	
┢	Slope Cutting and Soil Nail for CS12/CS13 (+42 to +49.5 mPD, 383 nos. of Soil Nail, 87 nos. of Raking Drair	) 170 daya	Tue 2/6/20	Tue 22/12/20	44%	06 dove 172 172 174ES 1	2 8 nails/day & 20 drains/day using 4 rigs+21days	
		) 170 days	Tue 2/6/20	Tue 22/12/20	44%	days	2 o haiis/day & 20 drains/day using 4 hgs+21days	
	Drainage and Maintenance Access for CS12/13 (at +49.5mPD berm)	42 days	Fri 3/7/20	Thu 20/8/20	100%	0 days 175SS+25 days	~210m, 5m/day using 2 gang	
	Drainage and Maintenance Access for CS12/CS13 (+42 to +49.5mPD slope surface)+ GI Works	17 days	Sat 29/8/20	Thu 17/9/20	100%	0 days 175	~85m, 5m/day using 2 gang	
		., aajo	04120/0/20		100,0	0 00,0 110	com, oneddy donig 2 gang	
	Slope Cutting and Soil Nail for CS13 (+42 to +34.5 mPD, 126 nos. of Soil Nail, 55 nos. of Raking Drain)	59 days	Wed 23/12/20	Mon 8/3/21	0%	59 days 175,176,177FS-2	0 4 nails/day & 10 drains/day using 2 rigs+21days	
						days		
	Drainage and Maintenance Access for CS13 (at +42mPD berm)	28 days	Tue 19/1/21	Tue 23/2/21	0%		~140m, 5m/day using 2 gang	
	Drainage and Maintenance Access for CS13 (+34.5 to +42mPD slope surface)+ GI Works	25 days	Tue 9/3/21	Fri 9/4/21	0%	25 days 178	~75m, 3m/day	
	Slope Cutting and Soil Nail for CS13 (+34.5 mPDto toe, 73 nos. of Soil Nail, 27 nos. of Raking Drain)	57 days	Tue 16/3/21	Wed 26/5/21	0%		9 2nails/day & 5 drains/day using 1 rigs+14 days	
_		07 10.00	Mar. 10/4/01	Thu 10/5/01	00/	days	00	
_	Drainage and Maintenance Access for CS13 (at +34.5mPD berm)	27 days	Mon 12/4/21	Thu 13/5/21	0%	27 days 181SS+20 days	~80m, 3m/day	
_	Drainage and Maintenance Access for CS13 (below+34.5 mPD slope surface)+ GI Works	21 days	Thu 27/5/21	Mon 21/6/21	0%	21 days 181	~65m, 3m/day	
	Retaining Wall RW11	98 days	Tue 12/11/19	Wed 11/3/20	100%	0 days		
L	General Excavation with ELS to Formation Level RW11 Bay 1-4	30 days	Tue 12/11/19	Mon 16/12/19	100%	0 days 166	~30day for 4 bays	
1	Plate Load Test and Blinding Layer for RW11 Bays 1-4	5 days	Tue 17/12/19	Sat 21/12/19	100%	0 days 185	5 days for each test	
	Base slab of Retaining Wall RW11 Bay 1-4	10 days	Sun 22/12/19	Mon 6/1/20	100%	0 days 186	4 to 5 days per bay	
Ē	Wall Stem of Retaining Wall RW11 Bay 1-4	20 days	Mon 13/1/20	Fri 7/2/20	100%	0 days 187	7 to 8 days per bay	
Ē	Plate Load Test and Blinding Layer for RW11 Bays 5-6	5 days	Tue 17/12/19	Sat 21/12/19	100%	0 days 185	5 days for each test	
	Base slab of Retaining Wall RW11 Bay 5-6	10 days	Sun 22/12/19	Mon 6/1/20	100%	0 days 189	4 to 5 days per bay	
-	Wall Stem of Retaining Wall RW11 Bay 5-6	20 days	Tue 7/1/20	Sat 1/2/20	100%	0 days 190	7 to 8 days per bay	
	Protective Coating / Subsoil Drain / Filter Layer	5 days	Sat 8/2/20	Thu 13/2/20	100%	0 days 188,191		
	Filling Works behind Retaining Wall RW11, (~5.8m, up to +54.8mPD)	23 days	Fri 14/2/20	Wed 11/3/20	100%	0 days 190,101	~5.8m, 0.25m per day (Rolling by Pass)	
		-					o.on, o.com por day (noiming by 1 doo)	
	Existing Slope Upgrading Works	73 days	Tue 1/12/20	Tue 2/3/21	0%	73 days		
	Existing Feature 3NW-C/C256 Rock Joint Mapping, drainage and maintenance access	60 days	Tue 1/12/20	Mon 8/2/21	0%	60 days 172SS+110 days		
	Existing Feature 3NW-C/C258 Slope Upgrading Works	56 days	Mon 28/12/20	Tue 2/3/21	0%	56 days		
	Slope Cutting and Soil Nail (Crest to To, 29 Nos. of Soil Nail)	36 days	Mon 28/12/20	Sat 6/2/21	0%		2nails/ day using 1 rig +21days	
	Drainage and Maintenance Access (Crest)	20 days	Mon 8/2/21	Tue 2/3/21	0%	20 days 197	~60m, 3m per day	
	Cut Slope CS15, CS16 and CS17	753 days	Thu 16/8/18	Mon 1/3/21	98%	17.5 days		
	Slope Cutting and Soil Nail (crest to+69.5mPD,25 nos. of Soil Nail)	36 days	Thu 16/8/18	Thu 27/9/18	100%	0 days		
	Drainage and Maintenance Access (at crest)	15 days	Mon 20/8/18	Wed 5/9/18	100%	0 days		
	Slope Cutting and Soil Nail (+62 to +69.5mPD, 99 nos. of Soil Nail, 37 nos. of Raking Drain)	62 days	Mon 3/9/18	Fri 16/11/18	100%	0 days		
	Drainage and Maintenance Access (at +69.5mPD berm)	49 days	Mon 3/9/18	Thu 1/11/18	100%	0 days		
	Drainage and Maintenance Access (+62 to +69.5mPD slope surface)+ GI Works	36 days	Fri 26/10/18	Thu 6/12/18	100%	0 days		
	Slope Cutting and Soil Nail (+54.5 to +62mPD, 237 nos. of Soil Nail, 58 nos. of Raking Drain)	66 days	Wed 7/11/18	Fri 25/1/19	100%	0 days		
_	Drainage and Maintenance Access (at +62mPD berm)	26 days	Wed 7/11/18	Thu 6/12/18	100%	0 days 0 days		
	- · · · · · · · · · · · · · · · · · · ·							
	Drainage and Maintenance Access (+54.5 to +62mPD slope surface)+ GI Works	38 days	Sat 29/12/18	Fri 15/2/19	100%	0 days		
	Slope Cutting and Soil Nail (+47 to +54.5mPD, 548 nos. of Soil Nail, 86 nos. of Raking Drain)	155 days	Mon 7/1/19	Thu 18/7/19	100%	0 days		
	Drainage and Maintenance Access (at +54.5mPD berm)	61 days	Sat 19/1/19	Wed 3/4/19	100%	0 days		
	Drainage and Maintenance Access (+54.5 to +47mPD slope surface)+ GI Works	90 days	Wed 3/4/19	Thu 25/7/19	100%	0 days		
	Slope Cutting and Soil Nail (+39.5 to +47mPD, 490 nos. of Soil Nail, 107 nos. of Raking Drain)	94 days	Mon 6/5/19	Mon 26/8/19	100%	0 days		
	Drainage and Maintenance Access (at +47mPD berm)	38 days	Tue 2/7/19	Wed 14/8/19	100%	0 days		
	Drainage and Maintenance Access (+39.5 to +47mPD slope surface)+ GI Works	23 days	Tue 27/8/19	Mon 23/9/19	100%	0 days 211	~70m, 3m/day	
-	Slope Cutting and Soil Nail (+39.5 to toe, 83 nos. of Soil Nail, 18nos. of Raking Drain)	59 days	Mon 4/5/20	Mon 13/7/20	100%	0 days 211	2nails/ day using 1 rig +14 days	
-	Drainage and Maintenance Access (at +39.5mPD berm and Slope Surface) + GI Works	30 days	Tue 5/1/21	Mon 1/3/21	32%	20.4 days	~90m, 3m/day	
		52 days	Tue 2/3/21	Wed 5/5/21	0%	52 days	, (in any	
	Fill Slope FS17							

3



Task N		Duration	Start	Finish	% Complete Re	maining Duration Predecessors	Notes
7	Drainage and Maintenance Access at toe	28 days	Tue 2/3/21	Tue 6/4/21	0%	28 days 215	110m, 4m per day
8	FS17 Filling Stage 1 (~2.5m max)	24 days	Wed 7/4/21	Wed 5/5/21	0%	24 days 217	3 days per SRT, ~2.5m = 8 layers
9	Civil Works for Sha Ling Road (M001 CH710 to CH825, MO11 CH00 to CH20, M014)	84 days	Mon 28/12/20	Mon 12/4/21	0%	84 days	
0	Waterworks / Drainage / Sewerage/ Utilities Works	27 days	Mon 28/12/20	Thu 28/1/21	0%	27 days	
1	Sewerage Works / Drainage Works	18 days	Mon 28/12/20	Mon 18/1/21	0%	18 days 140,147	~145m main drains, 8m per day
2	Watermain FW1 (CH532-637), FW1a (CH000-029) and FW2 (CH530-618)	15 days	Tue 12/1/21	Thu 28/1/21	0%	15 days 221SS+12 days	~220m water mains, 15m per day
3	Road Lighting Civil Works Provision	8 days	Tue 12/1/21	Wed 20/1/21	0%	8 days 221SS+12 days	~110m ducting, 15m per day
4	Utilities (by others)	3 days	Tue 12/1/21	Thu 14/1/21	0%	3 days 221SS+12 days	~40m ducting, 15m per day
5	Carriageway and Footway	57 days	Fri 29/1/21	Mon 12/4/21	0%	57 days	
6	Backfilling to Formation Level	11 days	Fri 29/1/21	Wed 10/2/21	0%	11 days 220	~175m, 100m per 6 day
7	Carriageway	28 days	Thu 11/2/21	Thu 18/3/21	0%	28 days 226	~175m, 20m per 3 day + 1 day uchannel
8	Footpath, Road Marking and Street Furniture	18 days	Fri 19/3/21	Mon 12/4/21	0%	18 days 227	~175m, 20m per 2 day
	Civil Works for PDA (PT04, PT05, PT06, PT07 and PT08)	190 days	Fri 5/6/20	Thu 21/1/21	5%	180.15 days	
)	Waterworks / Drainage / Sewerage/ Utilities Works	128 days	Fri 5/6/20	Fri 6/11/20	8%	117.25 days	
	Drainage Works (with Petrol Interceptor)	90 days	Fri 5/6/20	Sat 19/9/20	9%	81.6 days 440	~215m main drains, 8m per day + 15 day for Petrol Intercepter(3 nos
	Road Lighting Civil Works Provision	10 days	Tue 27/10/20	Fri 6/11/20	0%	10 days 231FS+28 days	~150m ducting, 15m per day
_	Carriageway and Footway	62 days	Sat 7/11/20	Thu 21/1/21	0%	62 days	
	Backfilling to Formation Level	13 days	Sat 7/11/20	Sat 21/11/20	0%	13 days 230	~435m, 200m per 6 day
	Carriageway	27 days	Mon 23/11/20	Wed 23/12/20	0%	27 days 234	~435m, 60m per 3 day + 5 day uchannel
	Footpath, Road Marking and Street Furniture		Thu 24/12/20	Thu 21/1/21	0%		~435m, 40m per 2 day
		22 days				22 days 235	~455m, 40m per 2 day
_	Civil Works for PDA (M011 CH140-215,M08 CH70-102)	65 days	Tue 9/3/21	Fri 28/5/21	0%	65 days	
_	Waterworks / Drainage / Sewerage/ Utilities Works	27 days	Tue 9/3/21	Mon 12/4/21	0%	27 days	
	Sewerage Works / Drainage Works	26 days	Tue 9/3/21	Sat 10/4/21	0%	26 days 178	~210m main drains, 8m per day
<u> </u>	Road Lighting Civil Works Provision	10 days	Mon 29/3/21	Mon 12/4/21	0%	10 days 239SS+17 days	~140m ducting, 15m per day
	Utilities (by others)	10 days	Mon 29/3/21	Mon 12/4/21	0%	10 days 239SS+17 days	~140m ducting, 15m per day
	Carriageway and Footway	38 days	Tue 13/4/21	Fri 28/5/21	0%	38 days	
	Backfilling to Formation Level	6 days	Tue 13/4/21	Mon 19/4/21	0%	6 days 238	~105m, 100m per 6 day
	Carriageway	21 days	Tue 20/4/21	Fri 14/5/21	0%	21 days 243	~105m, 20m per 3 day + 5 day uchannel
	Footpath, Road Marking and Street Furniture	11 days	Sat 15/5/21	Fri 28/5/21	0%	11 days 244	~105m, 20m per 2 day
	Civil Works for Sha Ling Road (M001 CH610-710)	62 days	Fri 19/3/21	Fri 4/6/21	0%	62 days	
	Waterworks / Drainage / Sewerage/ Utilities Works	27 days	Fri 19/3/21	Thu 22/4/21	0%	27 days	
	Sewerage Works / Drainage Works	20 days	Fri 19/3/21	Wed 14/4/21	0%	20 days 436,227,235,178	~160m main drains, 8m per day
	Watermain FW1 (CH433-532) and FW2 (CH433-530)	13 days	Thu 8/4/21	Thu 22/4/21	0%	13 days 248SS+14 days	~195m water mains, 15m per day
	Road Lighting Civil Works Provision	7 days	Thu 8/4/21	Thu 15/4/21	0%	7 days 248SS+14 days	~100m ducting, 15m per day
	Utilities (by others)	9 days	Thu 8/4/21	Sat 17/4/21	0%	9 days 248SS+14 days	~130m ducting, 15m per day
							· isom ducting, ism per day
	Carriageway and Footway	35 days	Fri 23/4/21	Fri 4/6/21	0%	35 days	
	Backfilling to Formation Level	6 days	Fri 23/4/21	Thu 29/4/21	0%	6 days 247	~100m, 100m per 6 day
	Carriageway	19 days	Fri 30/4/21	Mon 24/5/21	0%	19 days 253	~100m, 20m per 3 day + 4 day uchannel
	Footpath, Road Marking and Street Furniture	10 days	Tue 25/5/21	Fri 4/6/21	0%	10 days 254	~100m, 20m per 2 day
	Civil Works for Sha Ling Road (M001 CH480-610, M08 CH00-70)	471 days	Tue 3/3/20	Sat 2/10/21	22%	365.4 days	
	Sewage Detention Tank Civil and Structural Works	449 days	Tue 3/3/20	Sat 4/9/21	30%	314.49 days	
	Civil and Structural Works	74 days	Tue 3/3/20	Wed 3/6/20	80%	15 days	
	Excavation by open cut	25 days	Tue 3/3/20	Tue 31/3/20	40%	15 days	
	Blinding layer concreting	1 day	Wed 1/4/20	Wed 1/4/20	100%	0 days 259	
	Construction of base slab	7 days	Thu 2/4/20	Tue 14/4/20	100%	0 days 260	
	Construction of wall and top slab	20 days	Wed 15/4/20	Sat 9/5/20	100%	0 days 261	
	Construction of manhole	7 days	Mon 11/5/20	Mon 18/5/20	100%	0 days 262	
	Backgilling	14 days	Tue 19/5/20	Wed 3/6/20	100%	0 days 263	
	VDS and AMS for Sewage Detention Tank (Permanment Design and Submission Approval)	250 days	Mon 18/5/20	Wed 17/3/21	32%	170 days 264	
	VDS and AMS for Sewage Detention Tank	140 days	Thu 18/3/21	Sat 4/9/21	0%	140 days 265	
	-						
	Waterworks / Drainage / Sewerage/ Utilities Works	45 days	Tue 25/5/21	Sat 17/7/21	0%	45 days	
	Sewerage Works / Drainage Works	40 days	Tue 25/5/21	Mon 12/7/21	0%	40 days 258,254,244	~320m main drains, 8m per day
	Watermain FW1 and FW2 (CH310-433)	17 days	Sat 26/6/21	Fri 16/7/21	0%	17 days 268SS+27 days	~245m water mains, 15m per day
	Road Lighting Civil Works Provision	18 days	Sat 26/6/21	Sat 17/7/21	0%	18 days 268SS+27 days	~270m ducting, 15m per day
	Utilities (by others)	17 days	Sat 26/6/21	Fri 16/7/21	0%	17 days 268SS+27 days	~250m ducting, 15m per day
	Carriageway and Footway	64 days	Mon 19/7/21	Sat 2/10/21	0%	64 days	
	Backfilling to Formation Level	12 days	Mon 19/7/21	Sat 31/7/21	0%	12 days 267	~200m, 100m per 6 day
	Carriageway	32 days	Mon 2/8/21	Tue 7/9/21	0%	32 days 273	~200m, 20m per 3 day + 2 day uchannel
	Footpath, Road Marking and Street Furniture	20 days	Wed 8/9/21	Sat 2/10/21	0%	20 days 274	~200m, 20m per 2 day
	Civil Works for Sha Ling Road (M001 CH360-480)	74 days	Sat 5/6/21	Wed 1/9/21	0%	74 days	
	Waterworks / Drainage / Sewerage/ Utilities Works	37 days	Sat 5/6/21	Tue 20/7/21	0%	37 days	
	Sewerage Works / Drainage Works	28 days	Sat 5/6/21	Fri 9/7/21	0%	28 days 255	~220m main drains, 8m per day
	Watermain FW1 and FW2 (CH175-310)	18 days	Tue 29/6/21	Tue 20/7/21	0%	18 days 278SS+19 days	~270m water mains, 15m per day
	Road Lighting Civil Works Provision	15 days	Tue 29/6/21	Fri 16/7/21	0%	15 days 278SS+19 days	~220m ducting, 15m per day
	Utilities (by others)	11 days	Tue 29/6/21	Mon 12/7/21	0%	11 days 278SS+19 days	~110m ducting, 10m per day
	Carriageway and Footway	37 days	Wed 21/7/21	Wed 1/9/21	0%	37 days	
	Backfilling to Formation Level	7 days	Wed 21/7/21 Wed 21/7/21	Wed 28/7/21	0%	7 days 277	~120m, 100m per 6 day
	•						
	Carriageway	18 days	Thu 29/7/21	Wed 18/8/21	0%	18 days 283	~120m, 20m per 3 day
	Footpath, Road Marking and Street Furniture	12 days	Thu 19/8/21	Wed 1/9/21	0%	12 days 284	~120m, 20m per 2 day
		109 days	Thu 19/8/21	Wed 29/12/21	0%	109 days	
	Civil Works for Sha Ling Road (M001 CH180-360)		Thu: 10/0/01	Fri 29/10/21	0%	59 days	
	Civil Works for Sha Ling Road (M001 CH180-360) Waterworks / Drainage / Sewerage/ Utilities Works	59 days	Thu 19/8/21	11123/10/21		·	
	- · · ·	59 days 40 days	Thu 19/8/21	Wed 6/10/21	0%	40 days 216,284	~320m main drains, 8m per day
	Waterworks / Drainage / Sewerage/ Utilities Works					-	~320m main drains, 8m per day ~350m water mains, 15m per day



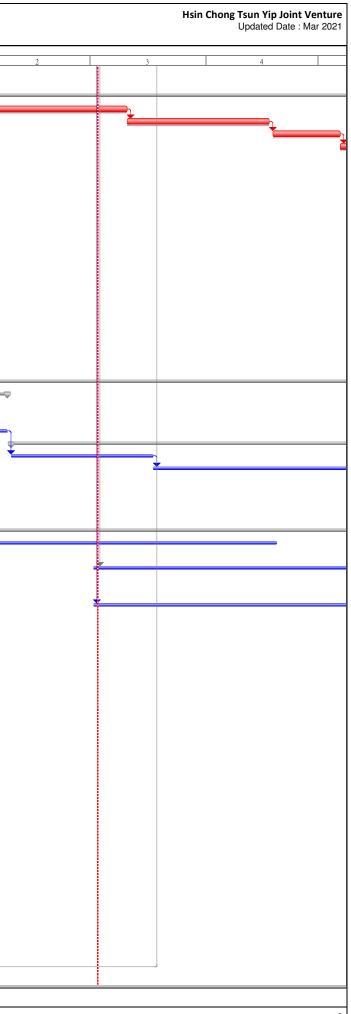
### 3 Month Rolling Programme (Feb 2021 to Apr 2021)

Develo	oment of Columbarium at Sandy Ridge Cemetery							
D 1	'ask Name	Duration	Start	Finish	% Complete	Remaining Duration Predecessors	Notes	
291	Utilities (by others)	32 days	Mon 20/9/21	Fri 29/10/21	0%	32 days 288SS+27 days	~160m ducting, 5m per day	
292	Carriageway and Footway	50 days	Sat 30/10/21	Wed 29/12/21	0%	50 days		
293	Backfilling to Formation Level	10 days	Sat 30/10/21	Wed 10/11/21	0%	10 days 287	~160m, 100m per 6 day	
294	Carriageway	24 days	Thu 11/11/21	Wed 8/12/21	0%	24 days 293	~160m, 20m per 3 day	
295	Footpath, Road Marking and Street Furniture	16 days	Thu 9/12/21	Wed 29/12/21	0%	16 days 294	~160m, 20m per 2 day	
296	Part B2, G1 and G2	1201 days	Fri 15/12/17	Wed 5/1/22	58%	506.96 days		
297	Access Date for Part G1 and G2	0 days	Tue 5/2/19	Tue 5/2/19	0%	0 days		
298	Land Decontamination Works	293 days	Tue 2/10/18	Thu 26/9/19	100%	0 days		
299	Re-appraisal and Contamination Assessment Plan (CAP) Submission to EPD	10 days	Tue 2/10/18	Fri 12/10/18	100%	0 days		
300	EPD Review and Acceptance for CAP	195 days	Fri 12/10/18 Tue 28/5/19	Wed 12/6/19	100%	0 days		
301 302	Environmental SI for Determination of Decontamination and SI Testing Contamination Assessment Report (CAR) Submission to EPD	70 days 18 days	Tue 20/8/19	Mon 19/8/19 Mon 9/9/19	100%	0 days 0 days 301		
302	EPD Review and Acceptance for CAR	14 days	Tue 10/9/19	Thu 26/9/19	100%	0 days 302		
303	Civil Works for Sha Ling Road (M001 CH40-110)	668 days	Tue 21/5/19	Tue 17/8/21	73%	180.94 days		
305	Objection from Local Village (EW16 & 18)	348 days	Tue 21/5/19	Tue 21/7/20	100%	0 days	EW No.16,18	
306	Application for Road Closure / Road Divertion	10 days	Wed 22/7/20	Sat 1/8/20	0%	10 days 305		
307	Noise Barrier Bay 5 to Bay 8	260 days	Mon 3/8/20	Fri 18/6/21	80%	52 days		
308	General Excavation with ELS to Formation Level Bay 5 to Bay 8	15 days	Mon 3/8/20	Wed 19/8/20	100%	0 days 306		
309	Base slab of Noise Barrier Bay 5 to Bay 8	30 days	Thu 20/8/20	Wed 23/9/20	100%	0 days 308		
310	Wall Stem of Noise Barrier Bay 5 to Bay 8	30 days	Thu 24/9/20	Sat 31/10/20	100%	0 days 309		
311	Protective Coating /Temp Fill	5 days	Mon 2/11/20	Fri 6/11/20	100%	0 days 310		
312	Installation of panel	20 days	Wed 26/5/21	Fri 18/6/21	0%	20 days 319		
313	Waterworks / Drainage / Sewerage/ Utilities Works	50 days	Sat 19/6/21	Tue 17/8/21	0%	50 days		
314	Sewerage Works / Drainage Works	35 days	Sat 19/6/21	Fri 30/7/21	0%	35 days 307	~140m main drains, 4m per day	
315	Watermain FW3 (CH045-105)	10 days	Sat 31/7/21	Wed 11/8/21	0%	10 days 314	~60m water mains, 6m per day	
316	Road Lighting Civil Works Provision	10 days	Sat 31/7/21	Wed 11/8/21	0%	10 days 314	~140m ducting, 15m per day	
317	Utilities (by others)	15 days	Sat 31/7/21	Tue 17/8/21	0%	15 days 314	~70m ducting, 5m per day	
318	Carriageway and Footway	59 days	Thu 13/5/21	Fri 23/7/21	0%	59 days		
319	Backfilling to Formation Level	10 days	Thu 13/5/21	Tue 25/5/21	0%	10 days 370	~70m, 100m per 10 day	
320	Carriageway	42 days	Wed 26/5/21	Thu 15/7/21	0%	42 days 319	~70m, 20m per 12 day	
321	Footpath, Road Marking and Street Furniture	7 days	Fri 16/7/21	Fri 23/7/21	0%	7 days 320	~70m, 20m per 2 day	
322	Ground Investigation and Geotechnical instrumentation for Commencement of Slopework	45 days	Fri 8/2/19	Mon 1/4/19	100%	0 days		
323	Trial Pit Excavation / Installation of Instruments and Preliminary Results Submission	45 days	Fri 8/2/19 Wed 18/8/21	Mon 1/4/19 Mon 25/10/21	100%	0 days 11,297		
324 325	Fill Slope FS13 and FS14 Drainage and Maintenance Access at toe	56 days 32 days	Wed 18/8/21 Wed 18/8/21	Fri 24/9/21	0%	<b>56 days</b> 32 days 322,313	260m, 8m per day	
32.5	FS13 and FS14 Filling Stage 1 (~2.5m max)	24 days	Sat 25/9/21	Mon 25/10/21	0%	24 days 325	3 days per SRT, ~2.5m = 8 layers	
327	Cut Slope CS14	20 days	Tue 26/10/21	Wed 17/11/21	0%	20 days		
328	Slope Cutting (crest totoe)	3 days	Tue 26/10/21	Thu 28/10/21	0%	3 days 324		
329	Drainage and Maintenance Access (at crest)	17 days	Fri 29/10/21	Wed 17/11/21	0%	17 days 328	~50m, 3m/day	
330	Civil Works for Sha Ling Road (M001 CH110-180)	143 days	Fri 16/7/21	Wed 5/1/22	0%	143 days		
331	Waterworks / Drainage / Sewerage/ Utilities Works	45 days	Fri 16/7/21	Mon 6/9/21	0%	45 days		
332	Sewerage Works / Drainage Works	30 days	Fri 16/7/21	Thu 19/8/21	0%	30 days 320	~120m main drains, 4m per day	
333	Watermain FW3 (CH105-175)	12 days	Fri 20/8/21	Thu 2/9/21	0%	12 days 332	~70m water mains, 6m per day	
334	Road Lighting Civil Works Provision	10 days	Fri 20/8/21	Tue 31/8/21	0%	10 days 332	~140m ducting, 15m per day	
335	Utilities (by others)	15 days	Fri 20/8/21	Mon 6/9/21	0%	15 days 332	~70m ducting, 5m per day	
336	Carriageway and Footway	59 days	Tue 26/10/21	Wed 5/1/22	0%	59 days 326		
337	Backfilling to Formation Level	10 days	Tue 26/10/21	Fri 5/11/21	0%	10 days 331	~70m, 100m per 10 day	
338	Carriageway	42 days	Sat 6/11/21	Fri 24/12/21	0%	42 days 337	~70m, 20m per 12 day	
339	Footpath, Road Marking and Street Furniture	7 days	Tue 28/12/21	Wed 5/1/22	0%	7 days 338	~70m, 20m per 2 day	
340	Man Kam To Road Bus Shelter (PT01, PT02 and PT03)	1090 days	Fri 15/12/17	Sat 21/8/21	62%	417.49 days		
341	Used as Temporary Site Office / Storage Area	340 days	Fri 15/12/17	Mon 11/2/19	100%	0 days 2SS		
342	Investigation for DongJiang Watermain(CE23)	82 days	Thu 10/1/19	Tue 23/4/19	100%	0 days		
343	Works Area Handing Over to WSD as Request	198 days	Mon 15/4/19	Thu 12/12/19	100%	0 days	N/05005	
344	Interface Issue with C2 (As request by Arup to delay XP application) (Including Temp. Road Diversion)	290 days	Tue 28/5/19	Tue 19/5/20	35%	188.75 days	NCE035	
345	TTA and XP Application at Man Kam To Road	14 days	Wed 20/5/20	Thu 4/6/20	0%	14 days 344		
346	Works Area Handling to WSD for DongJiang Watermain Works	37 days	Wed 25/11/20	Sat 9/1/21	0%	37 days	NCE080	
347	Waterworks / Drainage / Sewerage/ Utilities Works	90 days	Mon 11/1/21	Mon 3/5/21	0%	90 days		
348	Sewerage Work (Petrol Interceptor)	15 days	Thu 25/3/21	Wed 14/4/21	0%	15 days 349		
349	Sewerage Works / Drainage Works	60 days	Mon 11/1/21	Wed 24/3/21	0%	60 days 346	~115m main drains, 4m per day	
350	Road Lighting Civil Works Provision	11 days	Thu 25/3/21	Fri 9/4/21	0%	11 days 349	~160m ducting, 15m per day	
351	Utilities (by others)	30 days	Thu 25/3/21	Mon 3/5/21	0%	30 days 349		
352	Carriageway and Footway	92 days	Tue 4/5/21	Sat 21/8/21	0%	92 days		
353	Backfilling to Formation Level	12 days	Tue 4/5/21	Mon 17/5/21	0%	12 days 347	~185m, 100m per 6 day	
354	Carriageway	56 days	Tue 18/5/21	Sat 24/7/21	0%	56 days 353	~185m, 20m per 6 day	
355	Footpath, Road Marking and Street Furniture	19 days	Mon 26/7/21	Mon 16/8/21	0%	19 days 354	~185m, 20m per 2 day	
356	Reinstatement to existing Man Kam To Road	5 days	Tue 17/8/21	Sat 21/8/21	0%	5 days 355		
357	Civil Works for Sha Ling Road (M001 CH00-40)	985 days	Thu 30/8/18	Wed 22/12/21	42%	575.62 days		
358	TTA and XP Application at Man Kam To Road	14 days	Fri 15/1/21	Sat 30/1/21	0%	14 days 361		
359	Works Area Handling Over to WSD as Request	120 days	Mon 6/5/19	Thu 26/9/19	80%	24 days	NCE No.34	
360	Work Area Handling to Sang Hing for Turn Around	190 days	Mon 6/4/20	Tue 24/11/20	0%	190 days	NCE No.70	
	Works Area Handling to WSD for DongJiang Watermain Works	41 days	Wed 25/11/20	Thu 14/1/21	0%	<u>41 days</u> <u>360</u> 3.89 days	NCE No.80	
361	Concept from WSD for Works Near Dang ling Watermain	205 4-1-2	Thu 20/0/40					
361 362 363	Consent from WSD for Works Near Dong Jing Watermain Investigation works / Trial Pits for Watermains	325 days 150 days	Thu 30/8/18 Thu 30/8/18	Fri 4/10/19 Sat 2/3/19	99%	0 days		

Task Milestone 🔶 Summary Critical Progress 🗕

		Hsin Chong Tsun Yip Joint Venture Updated Date : Mar 2021
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364	Task Name	Duration	Start	Finish	% Complete Re	maining Duration Predecessors	Notes	
	Submission for Tempworks	104 days	Thu 21/2/19	Sat 29/6/19	100%	0 days		
365	Approval from WSD	80 days	Tue 2/7/19	Fri 4/10/19	95%	4 days 364		
366	Noise Barrier Bay 1-4	130 days	Mon 1/2/21	Tue 13/7/21	0%	130 days		
367	General Excavation with ELS to Formation Level Bay 1-4	30 days	Mon 1/2/21	Wed 10/3/21	0%	30 days 358,310,359		
368	Base slab of Noise Barrier Bay 1-4	30 days	Thu 11/3/21	Sat 17/4/21 Thu 6/5/21	0%	30 days 367		
369 370	Wall Stem of Noise Barrier Bay 1-4 Protective Coating /Temp Fill	15 days 5 days	Mon 19/4/21 Fri 7/5/21	Wed 12/5/21	0%	15 days 368 5 days 369		
371	•			Tue 13/7/21	0%	20 days 312		
372	Instal]ation of pane] Waterworks / Drainage / Sewerage/ Utilities Works (RHS + Man Kam To EB Slow Lane)	20 days 62 days	Sat 19/6/21 Thu 13/5/21	Tue 27/7/21	0%	62 days 512		
37.3	Sewerage Works / Drainage Works	54 days	Thu 13/5/21	Sat 17/7/21	0%	54 days 370	~95m main drains, 4m per day + 30day crossing watermain	
374	Watermain FW3 (CH000-045)	6 days	Mon 19/7/21	Sat 24/7/21	0%	6 days 373	~45m water mains, 6m per day	
37.5	Road Lighting Civil Works Provision	8 days	Mon 19/7/21	Tue 27/7/21	0%	8 days 373	~100m ducting, 15m per day	
376	Utilities (by others)	25 days	Thu 13/5/21	Fri 11/6/21	0%	25 days 370	i com adding, i cm por day	
377	Carriageway and Footway (RHS+ Man Kan To EB Slow Lane)	38 days	Wed 28/7/21	Thu 9/9/21	0%	38 days		
378	Backfilling to Formation Level	10 days	Wed 28/7/21	Sat 7/8/21	0%	10 days 372	~40m, 100m per 10 day	
379	Carriageway	24 days	Mon 9/8/21	Sat 4/9/21	0%	24 days 378	~40m, 20m per 12 day	
380	Footpath, Road Marking and Street Furniture	4 days	Mon 6/9/21	Thu 9/9/21	0%	4 days 379	~40m, 20m per 2 day	
381	Waterworks / Drainage / Sewerage/ Utilities Works (LHS)	52 days	Mon 6/9/21	Mon 8/11/21	0%	52 days		
382	Sewerage Works / Drainage Works	42 days	Mon 6/9/21	Wed 27/10/21	0%	42 days 379	~45m main drains, 4m per day + 30day crossing watermain	
383	Road Lighting Civil Works Provision	5 days	Thu 28/10/21	Tue 2/11/21	0%	5 days 382	~50m ducting, 15m per day	
384	Utilities (by others)	10 days	Thu 28/10/21	Mon 8/11/21	0%	10 days 382	~50m ducting, 5m per day	
385	Carriageway and Footway (LHS)	38 days	Tue 9/11/21	Wed 22/12/21	0%	38 days		
386	Backfilling to Formation Level	10 days	Tue 9/11/21	Fri 19/11/21	0%	10 days 381	~40m, 100m per 10 day	
387	Carriageway	24 days	Sat 20/11/21	Fri 17/12/21	0%	24 days 386	~40m, 20m per 12 day	
388	Footpath, Road Marking and Street Furniture	4 days	Sat 18/12/21	Wed 22/12/21	0%	4 days 387	~40m, 20m per 2 day	
389	Part C	876 days	Sat 15/12/18	Mon 29/11/21	22%	684.68 days		
390	Consent from WSD for Works Near Dong Jing Watermain	636 days	Sat 15/12/18	Sat 6/2/21	37%	399.73 days		
391	Investigation works / Trial Pits for Watermains	60 days	Sat 15/12/18	Fri 1/3/19	100%	0 days		
392	Submission for Tempworks	102 days	Sat 23/2/19	Sat 29/6/19	100%	0 days		
393	Approval from WSD (RFI No.66) & Re-design the arrangement	480 days	Tue 2/7/19	Sat 6/2/21	16%	403.5 days 392		
394	Refuse Collection Point	240 days	Mon 8/2/21	Mon 29/11/21	0%	240 days		
395	General Excavation with ELS to Formation	30 days	Mon 8/2/21	Wed 17/3/21	0%	30 days 393		<b>_</b>
396	Substructure Construction	45 days	Thu 18/3/21	Thu 13/5/21	0%	45 days 395		
397	Superstructure Construction	45 days	Fri 14/5/21	Thu 8/7/21	0%	45 days 396		
398	Pavement / Footpath reinstatment	90 days	Fri 9/7/21	Mon 25/10/21	0%	90 days 397		
399	ABWF Works	120 days	Fri 9/7/21	Mon 29/11/21	0%	120 days 397		
400	E&M and Waterworks	120 days	Fri 9/7/21	Mon 29/11/21	0%	120 days 397		
401	Landscape Works	325 days	Mon 28/12/20	Sat 29/1/22	0%	325 days		
402	at Cut Slope CS1, CS2, CS3	90 days	Mon 28/12/20	Mon 19/4/21	0%	90 days 140,145		
403	at Cut Slope CS11, CS12, CS13	90 days	Tue 22/6/21	Thu 7/10/21	0%	90 days 148		
404	at Cut Slope CS15, CS16, CS17	90 days	Tue 2/3/21	Mon 21/6/21	0%	90 days 199		
405	at Fill Slope FS13, FS14, FS17	60 days	Tue 26/10/21	Thu 6/1/22	0%	60 days 216,324		
406	Sha Ling Road and Man Kam To Road	30 days	Thu 23/12/21	Sat 29/1/22	0%	30 days 388		
407	Woodland Planting at Site 4, 7, 8, 9	170 days	Tue 2/3/21	Fri 24/9/21	0%	170 days 215		
408	Section 3 of the Works (Part E)	457 days	Thu 31/5/18	Tue 10/12/19	91%	40.56 days		
409	Ground Investigation and Geotechnical Instrumentation for Commencement of Slopework	64 days	Thu 31/5/18	Wed 15/8/18	100%	0 days		
	v i		Thu: 04/5/40					
410	Verification Drillholes (2 Nos., VDH4-5) and Preliminary Results Submission	43 days	Thu 31/5/18	Sat 21/7/18	100%	0 days		
410 411		43 days 36 days	Thu 31/5/18 Thu 5/7/18	Sat 21/7/18 Wed 15/8/18	100% 100%	0 days 0 days		
	Verification Drillholes (2 Nos., VDH4-5) and Preliminary Results Submission							
411	Verification Drillholes (2 Nos., VDH4-5) and Preliminary Results Submission Design Review	36 days	Thu 5/7/18	Wed 15/8/18	100%	0 days		
411 412	Verification Drillholes (2 Nos., VDH4-5) and Preliminary Results Submission Design Review Fill Slope FS3 (Section 17 at Drawing C1/GE/1053)	36 days 424 days	Thu 5/7/18 Wed 11/7/18	Wed 15/8/18 Tue 10/12/19	100% <b>99%</b>	0 days 4.02 days		
411 412 413	Verification Drillholes (2 Nos., VDH4-5) and Preliminary Results Submission Design Review Fill Slope FS3 (Section 17 at Drawing C1/GE/1053) Time Lag of CE16	36 days <b>424 days</b> 100 days	Thu 5/7/18 <b>Wed 11/7/18</b> Wed 11/7/18	Wed 15/8/18 Tue 10/12/19 Wed 7/11/18	100% 99% 100%	0 days <b>4.02 days</b> 0 days		
411 412 413 414	Verification Drillholes (2 Nos., VDH4-5) and Preliminary Results Submission Design Review Fill Slope FS3 (Section 17 at Drawing C1/GE/1053) Time Lag of CE16 RFI046 Outfall Location	36 days <b>424 days</b> 100 days 47 days	Thu 5/7/18 Wed 11/7/18 Wed 11/7/18 Mon 8/10/18	Wed 15/8/18 Tue 10/12/19 Wed 7/11/18 Sat 1/12/18	100% 99% 100% 100%	0 days <b>4.02 days</b> 0 days <i>0 days</i>		
411 412 413 414 415	Verification Drillholes (2 Nos., VDH4-5) and Preliminary Results Submission Design Review Fill Slope FS3 (Section 17 at Drawing C1/GE/1053 ) Time Lag of CE16 RFI046 Outfall Location Drainage, Maintenance Access at slope toe	36 days 424 days 100 days 47 days 63 days	Thu 5/7/18 Wed 11/7/18 Wed 11/7/18 Mon 8/10/18 Sat 16/2/19	Wed 15/8/18 Tue 10/12/19 Wed 7/11/18 Sat 1/12/18 Mon 6/5/19	100% 99% 100% 100%	0 days 4.02 days 0 days <i>0 days</i> 0 days		
411 412 413 414 415 416	Verification Drillholes (2 Nos., VDH4-5) and Preliminary Results Submission Design Review Fill Slope FS3 (Section 17 at Drawing C1/GE/1053 ) Time Lag of CE16 RFI046 Outfall Location Drainage, Maintenance Access at slope toe Construction of Outfall CP14X	36 days 424 days 100 days 47 days 63 days 11 days	Thu 5/7/18 Wed 11/7/18 Wed 11/7/18 Mon 8/10/18 Sat 16/2/19 Mon 7/1/19	Wed 15/8/18 Tue 10/12/19 Wed 7/11/18 Sat 1/12/18 Mon 6/5/19 Fri 18/1/19	100% 99% 100% 100% 100%	0 days <b>4.02 days</b> 0 days <i>0 days</i> 0 days 0 days 0 days		
411 412 413 414 415 416 417	Verification Drillholes (2 Nos., VDH4-5) and Preliminary Results Submission Design Review Fill Slope FS3 (Section 17 at Drawing C1/GE/1053 ) Time Lag of CE16 RFI046 Outfall Location Drainage, Maintenance Access at slope toe Construction of Outfall CP14X FS3 Filling Stage 1(~+16 to+17.6 mPD)	36 days 424 days 100 days 47 days 63 days 11 days 121 days	Thu 5/7/18 Wed 11/7/18 Wed 11/7/18 Mon 8/10/18 Sat 16/2/19 Mon 7/1/19 Thu 6/12/18	Wed 15/8/18 <b>Tue 10/12/19</b> Wed 7/11/18 Sat 1/12/18 Mon 6/5/19 Fri 18/1/19 Wed 8/5/19	100%           99%           100%           100%           100%           100%           100%	0 days 4.02 days 0 days 0 days 0 days 0 days 0 days 0 days 0 days		
411 412 413 414 415 416 417 418	Verification Drillholes (2 Nos., VDH4-5) and Preliminary Results Submission         Design Review         Fill Slope FS3 (Section 17 at Drawing C1/GE/1053 )         Time Lag of CE16         RFI046 Outfall Location         Drainage, Maintenance Access at slope toe         Construction of Outfall CP14X         FS3 Filling Stage 1(~+16 to+17.6 mPD)         CE50-No Fine at Slope Toe	36 days 424 days 100 days 47 days 63 days 11 days 121 days 12 days	Thu 5/7/18 Wed 11/7/18 Wed 11/7/18 Mon 8/10/18 Sat 16/2/19 Mon 7/1/19 Thu 6/12/18 Fri 26/4/19	Wed 15/8/18 Tue 10/12/19 Wed 7/11/18 Sat 1/12/18 Mon 6/5/19 Fri 18/1/19 Wed 8/5/19 Fri 10/5/19	100% 99% 100% 100% 100% 100% 100%	0 days 4.02 days 0 days 0 days 0 days 0 days 0 days 0 days 0 days 0 days	0.2m per day (Rolling by Pass)	
411 412 413 414 415 416 417 418 419	Verification Drillholes (2 Nos., VDH4-5) and Preliminary Results Submission         Design Review         Fill Slope FS3 (Section 17 at Drawing C1/GE/1053 )         Time Lag of CE16         RFI046 Outfall Location         Drainage, Maintenance Access at slope toe         Construction of Outfall CP14X         FS3 Filling Stage 1(~+16 to+17.6 mPD)         CE50-No Fine at Slope Toe         FS Filling (+16.9 to +27.6 mPD) (Rolling by Pass)	36 days 424 days 100 days 47 days 63 days 11 days 121 days 12 days 60 days	Thu 5/7/18 Wed 11/7/18 Wed 11/7/18 Mon 8/10/18 Sat 16/2/19 Mon 7/1/19 Thu 6/12/18 Fri 26/4/19 Thu 23/5/19	Wed 15/8/18 Tue 10/12/19 Wed 7/11/18 Sat 1/12/18 Mon 6/5/19 Fri 18/1/19 Wed 8/5/19 Fri 10/5/19 Fri 2/8/19	100% 99% 100% 100% 100% 100% 100%	0 days 4.02 days 0 days 0 days 0 days 0 days 0 days 0 days 0 days 0 days 0 days	0.2m per day (Rolling by Pass) 3 days per SRT	
411 412 413 414 415 416 417 418 419 420	Verification Drillholes (2 Nos., VDH4-5) and Preliminary Results Submission         Design Review         Fill Slope FS3 (Section 17 at Drawing C1/GE/1053 )         Time Lag of CE16         RFI046 Outfall Location         Drainage, Maintenance Access at slope toe         Construction of Outfall CP14X         FS3 Filling Stage 1(~+16 to+17.6 mPD)         CE50-No Fine at Slope Toe         FS Filling (+16.9 to +27.6 mPD) (Rolling by Pass)         FS Filling (+27.6to 30 mPD) (Rolling by Pass)	36 days 424 days 100 days 47 days 63 days 11 days 121 days 12 days 60 days 12 days	Thu 5/7/18 Wed 11/7/18 Wed 11/7/18 Mon 8/10/18 Sat 16/2/19 Mon 7/1/19 Thu 6/12/18 Fri 26/4/19 Thu 23/5/19 Sat 3/8/19	Wed 15/8/18 <b>Tue 10/12/19</b> Wed 7/11/18 Sat 1/12/18 Mon 6/5/19 Fri 18/1/19 Wed 8/5/19 Fri 10/5/19 Fri 2/8/19 Fri 16/8/19	100% 99% 100% 100% 100% 100% 100% 100%	0 days 4.02 days 0 days 19		
411           412           413           414           415           416           417           418           419           420           421	Verification Drillholes (2 Nos., VDH4-5) and Preliminary Results Submission         Design Review         Fill Slope FS3 (Section 17 at Drawing C1/GE/1053 )         Time Lag of CE16         RFI046 Outfall Location         Drainage, Maintenance Access at slope toe         Construction of Outfall CP14X         FS3 Filling Stage 1(~+16 to+17.6 mPD)         CE50-No Fine at Slope Toe         FS Filling (+16.9 to +27.6 mPD) (Rolling by Pass)         FS3 Filling Stage 1 (+16.9 to +21 mPD)	36 days 424 days 100 days 47 days 63 days 11 days 121 days 12 days 60 days 12 days 41 days	Thu 5/7/18 Wed 11/7/18 Wed 11/7/18 Mon 8/10/18 Sat 16/2/19 Mon 7/1/19 Thu 6/12/18 Fri 26/4/19 Thu 23/5/19 Sat 3/8/19 Sat 17/8/19	Wed 15/8/18 Tue 10/12/19 Wed 7/11/18 Sat 1/12/18 Mon 6/5/19 Fri 18/1/19 Wed 8/5/19 Fri 10/5/19 Fri 2/8/19 Fri 16/8/19 Sat 5/10/19	100% 99% 100% 100% 100% 100% 100% 100% 1	0 days 4.02 days 0 days 0 days 0 days 0 days 0 days 0 days 0 days 0 days 0 days 419 0 days 420	3 days per SRT	
411 412 413 414 415 416 417 418 419 420 421 422	Verification Drillholes (2 Nos., VDH4-5) and Preliminary Results Submission         Design Review         Fill Slope FS3 (Section 17 at Drawing C1/GE/1053 )         Time Lag of CE16         RFI046 Outfall Location         Drainage, Maintenance Access at slope toe         Construction of Outfall CP14X         FS3 Filling Stage 1(~+16 to+17.6 mPD)         CE50-No Fine at Slope Toe         FS Filling (+16.9 to +27.6 mPD) (Rolling by Pass)         FS3 Filling Stage 1 (+16.9 to +21 mPD)         Drainage and Maintenance Access (+21 to +28.5 mpD)	36 days 424 days 100 days 47 days 63 days 11 days 121 days 60 days 60 days 12 days 12 days 14 days 19 days	Thu 5/7/18 Wed 11/7/18 Wed 11/7/18 Mon 8/10/18 Sat 16/2/19 Mon 7/1/19 Thu 6/12/18 Fri 26/4/19 Thu 23/5/19 Sat 3/8/19 Sat 17/8/19 Tue 8/10/19	Wed 15/8/18 <b>Tue 10/12/19</b> Wed 7/11/18 Sat 1/12/18 Mon 6/5/19 Fri 18/1/19 Wed 8/5/19 Fri 10/5/19 Fri 2/8/19 <b>Fri 16/8/19</b> Sat 5/10/19 Tue 29/10/19	100% 99% 100% 100% 100% 100% 100% 100% 1	0 days 4.02 days 0 days 419 0 days 420 0 days 421	3 days per SRT 75m, 4m per day	
411 412 413 414 415 416 417 418 419 420 421 422 423	Verification Drillholes (2 Nos., VDH4-5) and Preliminary Results Submission         Design Review         Fill Slope FS3 (Section 17 at Drawing C1/GE/1053 )         Time Lag of CE16         RFI046 Outfall Location         Drainage, Maintenance Access at slope toe         Construction of Outfall CP14X         FS3 Filling Stage 1(~+16 to+17.6 mPD)         CE50-No Fine at Slope Toe         FS Filling (+16.9 to +27.6 mPD) (Rolling by Pass)         FS3 Filling Stage 1 (+16.9 to +21 mPD)         Drainage and Maintenance Access (+21 to +28.5 mpD)         FS3 Filling Stage 2 (~7.5m, 21 to +28.5 mPD)	36 days           424 days           100 days           47 days           63 days           11 days           121 days           60 days           12 days           61 days           12 days           10 days           10 days	Thu 5/7/18 Wed 11/7/18 Wed 11/7/18 Mon 8/10/18 Sat 16/2/19 Mon 7/1/19 Thu 6/12/18 Fri 26/4/19 Thu 23/5/19 Sat 3/8/19 Sat 17/8/19 Tue 8/10/19 Wed 30/10/19	Wed 15/8/18 <b>Tue 10/12/19</b> Wed 7/11/18 Sat 1/12/18 Mon 6/5/19 Fri 18/1/19 Wed 8/5/19 Fri 10/5/19 Fri 2/8/19 Fri 2/8/19 Sat 5/10/19 Tue 29/10/19 Sat 9/11/19	100% 99% 100% 100% 100% 100% 100% 100% 1	0 days 4.02 days 0 days 0 days 0 days 0 days 0 days 0 days 0 days 0 days 0 days 419 0 days 420 0 days 421 0 days	3 days per SRT 75m, 4m per day 3 days per SRT +25day (CE16)	
411 412 413 414 415 416 417 418 419 420 421 422 423 424	Verification Drillholes (2 Nos., VDH4-5) and Preliminary Results Submission         Design Review         Fill Slope FS3 (Section 17 at Drawing C1/GE/1053 )         Time Lag of CE16         RFI046 Outfall Location         Drainage, Maintenance Access at slope toe         Construction of Outfall CP14X         FS3 Filling Stage 1(~+16 to+17.6 mPD)         CE50-No Fine at Slope Toe         FS Filling (+16.9 to +27.6 mPD) (Rolling by Pass)         FS Filling Stage 1 (+16.9 to +21 mPD)         Drainage and Maintenance Access (+21 to +28.5 mpD)         FS3 Filling Stage 2 (~7.5m, 21 to +28.5 mPD)         Drainage and Maintenance Access (+28.5 to +35.5mpD)	36 days 424 days 100 days 47 days 63 days 11 days 121 days 12 days 60 days 12 days 12 days 13 days 14 days 19 days 10 days 15 days	Thu 5/7/18 Wed 11/7/18 Wed 11/7/18 Mon 8/10/18 Sat 16/2/19 Mon 7/1/19 Thu 6/12/18 Fri 26/4/19 Thu 23/5/19 Sat 3/8/19 Sat 3/8/19 Sat 17/8/19 Tue 8/10/19 Wed 30/10/19 Fri 22/11/19	Wed 15/8/18 <b>Tue 10/12/19</b> Wed 7/11/18 Sat 1/12/18 Mon 6/5/19 Fri 18/1/19 Wed 8/5/19 Fri 10/5/19 Fri 2/8/19 Fri 2/8/19 Sat 5/10/19 Tue 29/10/19 Sat 9/11/19 Mon 9/12/19	100% 99% 100% 100% 100% 100% 100% 100% 1	0 days 4.02 days 0 days 419 0 days 420 0 days 421 0 days 422 5 days 423	3 days per SRT 75m, 4m per day 3 days per SRT +25day (CE16) 85m, 4m per day	
411 412 413 414 415 416 417 418 419 420 421 422 423 423 424 425	Verification Drillholes (2 Nos., VDH4-5) and Preliminary Results Submission         Design Review         Fill Slope FS3 (Section 17 at Drawing C1/GE/1053 )         Time Lag of CE16         RFI046 Outfall Location         Drainage, Maintenance Access at slope toe         Construction of Outfall CP14X         FS3 Filling Stage 1(~+16 to+17.6 mPD)         CE50-No Fine at Slope Toe         FS Filling (+16.9 to +27.6 mPD) (Rolling by Pass)         FS Filling (+27.6to 30 mPD) (Rolling by Pass)         FS3 Filling Stage 1 (+16.9 to +21 mPD)         Drainage and Maintenance Access (+21 to +28.5 mpD)         FS3 Filling Stage 2 (~7.5m, 21 to +28.5 mPD)         Drainage and Maintenance Access (+28.5 to +35.5mpD)         FS3 Filling Stage 3 (~7.5m, +28.5 to 35.5 mPD)	36 days           424 days           100 days           47 days           63 days           11 days           121 days           12 days           60 days           12 days           41 days           19 days           15 days           17 days	Thu 5/7/18 Wed 11/7/18 Wed 11/7/18 Mon 8/10/18 Sat 16/2/19 Mon 7/1/19 Thu 6/12/18 Fri 26/4/19 Thu 23/5/19 Sat 3/8/19 Sat 17/8/19 Tue 8/10/19 Wed 30/10/19 Fri 22/11/19 Thu 21/11/19	Wed 15/8/18 <b>Tue 10/12/19</b> Wed 7/11/18 Sat 1/12/18 Mon 6/5/19 Fri 18/1/19 Wed 8/5/19 Fri 10/5/19 Fri 2/8/19 <b>Fri 16/8/19</b> Sat 5/10/19 Tue 29/10/19 Sat 9/11/19 Mon 9/12/19 Tue 10/12/19	100% 99% 100% 100% 100% 100% 100% 100% 1	0 days 4.02 days 0 days 419 0 days 420 0 days 421 0 days 422 5 days 423 0 days 432,433	3 days per SRT 75m, 4m per day 3 days per SRT +25day (CE16) 85m, 4m per day	
411       412       413       414       415       416       417       418       419       420       421       423       424       425       426	Verification Drillholes (2 Nos., VDH4-5) and Preliminary Results Submission         Design Review         Fill Slope FS3 (Section 17 at Drawing C1/GE/1053 )         Time Lag of CE16         RFI046 Outfall Location         Drainage, Maintenance Access at slope toe         Construction of Outfall CP14X         FS3 Filling Stage 1(~+16 to+17.6 mPD)         CE50-No Fine at Slope Toe         FS Filling (+16.9 to +27.6 mPD) (Rolling by Pass)         FS3 Filling Stage 1 (+16.9 to +27.1 mPD)         Drainage and Maintenance Access (+21 to +28.5 mpD)         FS3 Filling Stage 2 (~7.5m, 21 to +28.5 mPD)         FS3 Filling Stage 3 (~7.5m, +28.5 to 35.5 mPD)         Retaining Wall RW4	36 days         424 days         100 days         47 days         63 days         11 days         121 days         12 days         60 days         12 days         14 days         15 days         19 days         15 days         17 days         96 days	Thu 5/7/18 Wed 11/7/18 Wed 11/7/18 Mon 8/10/18 Sat 16/2/19 Mon 7/1/19 Thu 6/12/18 Fri 26/4/19 Thu 23/5/19 Sat 3/8/19 Sat 17/8/19 Tue 8/10/19 Wed 30/10/19 Fri 22/11/19 Thu 21/11/19 Sat 17/8/19	Wed 15/8/18 <b>Tue 10/12/19</b> Wed 7/11/18 Sat 1/12/18 Mon 6/5/19 Fri 18/1/19 Wed 8/5/19 Fri 10/5/19 Fri 10/5/19 Fri 2/8/19 <b>Fri 16/8/19</b> Sat 5/10/19 Sat 9/10/19 Sat 9/11/19 Mon 9/12/19 Tue 10/12/19 <b>Tue 10/12/19</b>	100% 99% 100% 100% 100% 100% 100% 100% 1	0 days 4.02 days 0 days 419 0 days 420 0 days 421 0 days 422 5 days 423 0 days 432,433 0.68 days	3 days per SRT 75m, 4m per day 3 days per SRT +25day (CE16) 85m, 4m per day	
411         412         413         414         415         416         417         418         419         420         421         423         424         425         426         427	Verification Drillholes (2 Nos., VDH4-5) and Preliminary Results Submission         Design Review         Fill Slope FS3 (Section 17 at Drawing C1/GE/1053 )         Time Lag of CE16         RFI046 Outfall Location         Drainage, Maintenance Access at slope toe         Construction of Outfall CP14X         FS3 Filling Stage 1(~+16 to+17.6 mPD)         CE50-No Fine at Slope Toe         FS Filling (+16.9 to +27.6 mPD) (Rolling by Pass)         FS3 Filling (+27.6to 30 mPD) (Rolling by Pass)         FS3 Filling Stage 1 (+16.9 to +21 mPD)         Drainage and Maintenance Access (+21 to +28.5 mpD)         FS3 Filling Stage 2 (~7.5m, 21 to +28.5 mPD)         Drainage and Maintenance Access (+28.5 to +35.5mpD)         FS3 Filling Stage 3 (~7.5m, +28.5 to 35.5 mPD)         Retaining Wall RW4         General Excavation to Formation Level(Bay1~2)	36 days         424 days         100 days         47 days         63 days         11 days         12 days         60 days         12 days         60 days         12 days         10 days         12 days         10 days         19 days         17 days         96 days         23 days	Thu 5/7/18 Wed 11/7/18 Wed 11/7/18 Mon 8/10/18 Sat 16/2/19 Mon 7/1/19 Thu 6/12/18 Fri 26/4/19 Thu 23/5/19 Sat 3/8/19 Sat 17/8/19 Tue 8/10/19 Wed 30/10/19 Fri 22/11/19 Thu 21/11/19 Sat 17/8/19 Sat 17/8/19	Wed 15/8/18 Tue 10/12/19 Wed 7/11/18 Sat 1/12/18 Mon 6/5/19 Fri 18/1/19 Wed 8/5/19 Fri 10/5/19 Fri 2/8/19 Fri 16/8/19 Sat 5/10/19 Tue 29/10/19 Sat 9/11/19 Mon 9/12/19 Tue 10/12/19 Tue 10/12/19 Thu 12/9/19	100% 99% 100% 100% 100% 100% 100% 100% 1	0 days           4.02 days           0 days           420           0 days           420           0 days           421           0 days           422           5 days           423           0 days           0 days           432,433           0.68 days           0 days	3 days per SRT 75m, 4m per day 3 days per SRT +25day (CE16) 85m, 4m per day 3 days per SRT +25day (CE16)	
411           412           413           414           415           416           417           418           419           420           421           422           423           424           425           426           427           428	Verification Drillholes (2 Nos., VDH4-5) and Preliminary Results Submission         Design Review         Fill Slope FS3 (Section 17 at Drawing C1/GE/1053 )         Time Lag of CE16         RFI046 Outfall Location         Drainage, Maintenance Access at slope toe         Construction of Outfall CP14X         FS3 Filling Stage 1(~+16 to+17.6 mPD)         CE50-No Fine at Slope Toe         FS Filling (+16.9 to +27.6 mPD) (Rolling by Pass)         FS Filling (+27.6to 30 mPD) (Rolling by Pass)         FS3 Filling Stage 1 (+16.9 to +21.6 mPD)         Drainage and Maintenance Access (+21 to +28.5 mpD)         FS3 Filling Stage 2 (~7.5m, 21 to +28.5 mPD)         Drainage and Maintenance Access (+28.5 to +35.5mpD)         FS3 Filling Stage 3 (~7.5m, +28.5 to 35.5 mPD)         Retaining Wall RW4         General Excavation to Formation Level(Bay1~2)         Plate Load Test and Blinding Layer for Retaining Wall Bays 3-8	36 days         424 days         100 days         47 days         63 days         11 days         121 days         12 days         60 days         12 days         10 days         12 days         10 days         12 days         10 days         19 days         10 days         17 days         96 days         23 days         5 days	Thu 5/7/18 Wed 11/7/18 Wed 11/7/18 Mon 8/10/18 Sat 16/2/19 Mon 7/1/19 Thu 6/12/18 Fri 26/4/19 Thu 23/5/19 Sat 3/8/19 Sat 17/8/19 Tue 8/10/19 Wed 30/10/19 Fri 22/11/19 Thu 21/11/19 Sat 17/8/19 Sat 17/8/19 Fri 13/9/19	Wed 15/8/18 <b>Tue 10/12/19</b> Wed 7/11/18 Sat 1/12/18 Mon 6/5/19 Fri 18/1/19 Wed 8/5/19 Fri 10/5/19 Fri 28/19 <b>Fri 16/8/19</b> Sat 5/10/19 Tue 29/10/19 Sat 9/11/19 Mon 9/12/19 <b>Tue 10/12/19</b> <b>Tue 10/12/19</b> Thu 12/9/19 Thu 12/9/19	100% 99% 100% 100% 100% 100% 100% 100% 1	0 days 4.02 days 0 days 419 0 days 420 0 days 421 0 days 421 0 days 422 5 days 423 0 days 423 0 days 423 0 days 422 0 days 42 0 d	3 days per SRT 75m, 4m per day 3 days per SRT +25day (CE16) 85m, 4m per day 3 days per SRT +25day (CE16) 5 days for each test	
411           412           413           414           415           416           417           418           419           420           421           422           423           424           425           426           427           428           429	Verification Drillholes (2 Nos., VDH4-5) and Preliminary Results Submission Design Review Fill Slope FS3 (Section 17 at Drawing C1/GE/1053 ) Time Lag of CE16 RFI046 Outfall Location Drainage, Maintenance Access at slope toe Construction of Outfall CP14X FS3 Filling Stage 1(~+16 to+17.6 mPD) CE50-No Fine at Slope Toe FS Filling (+16.9 to +27.6 mPD) (Rolling by Pass) FS3 Filling (+27.6to 30 mPD) (Rolling by Pass) FS3 Filling (+27.6to 30 mPD) (Rolling by Pass) FS3 Filling Stage 1 (+16.9 to +21 mPD) Drainage and Maintenance Access (+21 to +28.5 mpD) FS3 Filling Stage 2 (~7.5m, 21 to +28.5 mPD) Drainage and Maintenance Access (+28.5 to +35.5mpD) FS3 Filling Stage 3 (~7.5m, +28.5 to 35.5 mPD) <b>Retaining Wall RW4</b> General Excavation to Formation Level(Bay1~2) Plate Load Test and Blinding Layer for Retaining Wall Bays 3-8 Plate Load Test and Blinding Layer for Retaining Wall Bays 1-2	36 days 424 days 100 days 47 days 63 days 11 days 121 days 12 days 60 days 12 days 12 days 12 days 13 days 19 days 10 days 15 days 23 days 5 days	Thu 5/7/18 Wed 11/7/18 Wed 11/7/18 Mon 8/10/18 Sat 16/2/19 Mon 7/1/19 Thu 6/12/18 Fri 26/4/19 Thu 23/5/19 Sat 3/8/19 Sat 17/8/19 Tue 8/10/19 Wed 30/10/19 Fri 22/11/19 Thu 21/11/19 Sat 17/8/19 Fri 13/9/19 Fri 13/9/19 Fri 20/9/19	Wed 15/8/18 Tue 10/12/19 Wed 7/11/18 Sat 1/12/18 Mon 6/5/19 Fri 18/1/19 Wed 8/5/19 Fri 10/5/19 Fri 2/8/19 Fri 2/8/19 Fri 2/8/19 Tue 29/10/19 Sat 5/10/19 Sat 9/11/19 Mon 9/12/19 Tue 10/12/19 Tue 10/12/19 Thu 12/9/19 Thu 12/9/19 Wed 25/9/19	100% 99% 100% 100% 100% 100% 100% 100% 1	0 days 4.02 days 0 days 419 0 days 420 0 days 421 0 days 421 0 days 421 0 days 421 0 days 423 0 days 422 5 days 423 0 days 422 0 days 423 0 days 422 0 days 423 0 days 423 0 days 423 0 days 423 0 days 422 0 days 422 0 days 423 0 days 423 0 days 423 0 days 423 0 days 422 0 days 423 0 day	3 days per SRT 75m, 4m per day 3 days per SRT +25day (CE16) 85m, 4m per day 3 days per SRT +25day (CE16) 5 days for each test 5 days for each test	
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411           412           413           414           415           416           417           418           419           420           421           422           423           424           425           426           427           428           429           430           431	Verification Drillholes (2 Nos., VDH4-5) and Preliminary Results Submission Design Review Fill Slope FS3 (Section 17 at Drawing C1/GE/1053 ) Time Lag of CE16 RFI046 Outfall Location Drainage, Maintenance Access at slope toe Construction of Outfall CP14X FS3 Filling Stage 1(~+16 to+17.6 mPD) CE50-No Fine at Slope Toe FS Filling (+16.9 to +27.6 mPD) (Rolling by Pass) FS3 Filling Stage 1 (+16.9 to +21 mPD) Drainage and Maintenance Access (+21 to +28.5 mpD) FS3 Filling Stage 2 (~7.5m, 21 to +28.5 mpD) FS3 Filling Stage 2 (~7.5m, +28.5 to 35.5 mpD) FS3 Filling Stage 3 (~7.5m, +28.5 to 35.5 mPD) Retaining Wall RW4 General Excavation to Formation Level(Bay1~2) Plate Load Test and Blinding Layer for Retaining Wall Bays 3-8 Plate Load Test and Blinding Layer for Retaining Wall Bays 1-2 Base Slab of Retaining Wall RW4 Bay 1-4 Base Slab of Retaining Wall RW4 Bay 5-8	36 days         424 days         100 days         47 days         63 days         11 days         121 days         60 days         12 days         60 days         12 days         13 days         14 days         19 days         10 days         15 days         17 days         96 days         23 days         5 days         16 days         16 days	Thu 5/7/18 Wed 11/7/18 Wed 11/7/18 Mon 8/10/18 Sat 16/2/19 Mon 7/1/19 Thu 6/12/18 Fri 26/4/19 Thu 23/5/19 Sat 3/8/19 Sat 17/8/19 Tue 8/10/19 Wed 30/10/19 Fri 22/11/19 Thu 21/11/19 Sat 17/8/19 Sat 17/8/19 Fri 13/9/19 Fri 20/9/19 Fri 20/9/19 Thu 26/9/19	Wed 15/8/18 <b>Tue 10/12/19</b> Wed 7/11/18 Sat 1/12/18 Mon 6/5/19 Fri 18/1/19 Wed 8/5/19 Fri 2/8/19 <b>Fri 2/8/19</b> <b>Fri 2/8/19</b> <b>Fri 2/8/19</b> <b>Fri 16/8/19</b> Sat 5/10/19 <b>Tue 29/10/19</b> Sat 9/11/19 Mon 9/12/19 <b>Tue 10/12/19</b> <b>Tue 10/12/19</b> Thu 12/9/19 Thu 19/919 Wed 25/9/19 Thu 10/10/19 Wed 16/10/19	100% 99% 100% 100% 100% 100% 100% 100% 1	0 days         419         0 days         420         0 days         422         5 days         423         0 days         0 days         423         0 days         0 days         423         0 days         423         0 days         423         0 days         420         0 days         420         0 days         427         0 days         428         0 days         428         0 days         429	3 days per SRT 75m, 4m per day 3 days per SRT +25day (CE16) 85m, 4m per day 3 days per SRT +25day (CE16) 5 days for each test 5 days for each test 4 to 5 days per bay 4 to 5 days per bay	
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411           412           413           414           415           416           417           418           419           420           421           422           423           424           425           426           427           428           429           430           431           432           433	Verification Drillholes (2 Nos., VDH4-5) and Preliminary Results Submission Design Review Fill Slope FS3 (Section 17 at Drawing C1/GE/1053 ) Time Lag of CE16 RFI046 Outfall Location Drainage, Maintenance Access at slope toe Construction of Outfall CP14X FS3 Filling Stage 1(~+16 to+17.6 mPD) CE50-No Fine at Slope Toe FS Filling (+16.9 to +27.6 mPD) (Rolling by Pass) FS Filling (+27.6to 30 mPD) (Rolling by Pass) FS3 Filling Stage 1 (+16.9 to +21 mPD) Drainage and Maintenance Access (+21 to +28.5 mpD) FS3 Filling Stage 2 (~7.5m, 21 to +28.5 mPD) Drainage and Maintenance Access (+28.5 to +35.5mpD) FS3 Filling Stage 3 (~7.5m, +28.5 to 35.5 mPD) Retaining Wall RW4 General Excavation to Formation Level(Bay1~2) Plate Load Test and Blinding Layer for Retaining Wall Bays 3-8 Plate Load Test and Blinding Layer for Retaining Wall Bays 1-2 Base Slab of Retaining Wall RW4 Bay 1-4 Wall Stem of Retaining Wall RW4 Bay 5-8	36 days         424 days         100 days         47 days         63 days         11 days         121 days         60 days         12 days         60 days         12 days         13 days         14 days         15 days         10 days         15 days         17 days         96 days         23 days         5 days         5 days         16 days         16 days         20 days         20 days	Thu 5/7/18 Wed 11/7/18 Wed 11/7/18 Mon 8/10/18 Sat 16/2/19 Mon 7/1/19 Thu 6/12/18 Fri 26/4/19 Thu 23/5/19 Sat 3/8/19 Sat 17/8/19 Fri 22/11/19 Thu 21/11/19 Sat 17/8/19 Fri 13/9/19 Fri 20/9/19 Fri 20/9/19 Fri 20/9/19 Fri 20/9/19 Fri 11/10/19 Thu 17/10/19	Wed 15/8/18 <b>Tue 10/12/19</b> Wed 7/11/18 Sat 1/12/18 Mon 6/5/19 Fri 18/1/19 Wed 8/5/19 Fri 10/5/19 Fri 2/8/19 <b>Fri 2/8/19</b> <b>Fri 4/8/19</b> Sat 5/10/19 Tue 29/10/19 Sat 9/11/19 Mon 9/12/19 Tue 10/12/19 Tue 10/12/19 Thu 12/9/19 Thu 12/9/19 Thu 12/9/19 Thu 12/9/19 Thu 10/10/19 Wed 16/10/19 Thu 14/11/19 Fri 8/11/19	100% 99% 100% 100% 100% 100% 100% 100% 1	0 days           4.02 days           0 days           419           0 days           0 days           420           0 days           423           0 days           0 days           423           0 days           0 days           420           0 days           0 days           423           0 days           420           0 days           420           0 days           428           0 days           0 days           428           0 days           429           0 days           0 days           430	3 days per SRT 75m, 4m per day 3 days per SRT +25day (CE16) 85m, 4m per day 3 days per SRT +25day (CE16) 5 days for each test 5 days for each test 4 to 5 days per bay 4 to 5 days per bay 7 to 8 days per bay	
411           412           413           414           415           416           417           418           419           420           421           422           423           424           425           426           427           428           430           431           432           433           434	Verification Drillholes (2 Nos., VDH4-5) and Preliminary Results Submission Design Review Fill Slope FS3 (Section 17 at Drawing C1/GE/1053 ) Time Lag of CE16 RFI046 Outfall Location Drainage, Maintenance Access at slope toe Construction of Outfall CP14X FS3 Filling Stage 1(~+16 to+17.6 mPD) CE50-No Fine at Slope Toe FS Filling (+16.9 to +27.6 mPD) (Rolling by Pass) FS Filling (+27.6to 30 mPD) (Rolling by Pass) FS3 Filling Stage 1 (+16.9 to +21 mPD) Drainage and Maintenance Access (+21 to +28.5 mpD) FS3 Filling Stage 2 (~7.5m, 21 to +28.5 mPD) Drainage and Maintenance Access (+28.5 to +35.5mpD) FS3 Filling Stage 3 (~7.5m, +28.5 to 35.5 mPD) Retaining Wall RW4 General Excavation to Formation Level(Bay1~2) Plate Load Test and Blinding Layer for Retaining Wall Bays 3-8 Plate Load Test and Blinding Layer for Retaining Wall Bays 3-8 Plate Load Test and Blinding Layer for Retaining Wall Bays 3-8 Wall Stem of Retaining Wall RW4 Bay 1-4 Wall Stem of Retaining Wall RW4 Bay 5-8 Wall Stem of Retaining Wall RW4 Bay 5-8 Protective Coating / Subsoil Drain / Filter Layer	36 days         424 days         100 days         47 days         63 days         11 days         121 days         60 days         12 days         60 days         12 days         10 days         12 days         13 days         19 days         10 days         15 days         17 days         96 days         23 days         5 days         5 days         16 days         30 days         20 days	Thu 5/7/18 Wed 11/7/18 Wed 11/7/18 Mon 8/10/18 Sat 16/2/19 Mon 7/1/19 Thu 6/12/18 Fri 26/4/19 Thu 23/5/19 Sat 3/8/19 Sat 17/8/19 Tue 8/10/19 Wed 30/10/19 Fri 22/11/19 Thu 21/11/19 Sat 17/8/19 Fri 13/9/19 Fri 20/9/19 Fri 20/9/19 Fri 20/9/19 Fri 11/10/19 Sat 9/11/19	Wed 15/8/18 <b>Tue 10/12/19</b> Wed 7/11/18 Sat 1/12/18 Mon 6/5/19 Fri 18/1/19 Wed 8/5/19 Fri 10/5/19 Fri 10/5/19 Fri 2/8/19 <b>Fri 6/8/19</b> Sat 5/10/19 Tue 29/10/19 Sat 9/11/19 Mon 9/12/19 Tue 10/12/19 Thu 10/12/19 Thu 10/10/19 Wed 16/10/19 Thu 14/11/19 Fri 8/11/19 Thu 14/11/19	100% 99% 100% 100% 100% 100% 100% 100% 1	0 days           420           0 days           421           0 days           422           5 days           423           0 days           423           0 days           0 days           423           0 days           0 days           427           0 days           0 days           428           0 days           0 days           428           0 days           430           0 days           431           0 days	3 days per SRT 75m, 4m per day 3 days per SRT +25day (CE16) 85m, 4m per day 3 days per SRT +25day (CE16) 5 days for each test 5 days for each test 4 to 5 days per bay 4 to 5 days per bay 7 to 8 days per bay 7 to 8 days per bay	
411           412           413           414           415           416           417           418           419           420           421           422           423           424           425           426           427           428           429           430           431           432           433           434           435	Verification Drillholes (2 Nos., VDH4-5) and Preliminary Results Submission Design Review Fill Slope FS3 (Section 17 at Drawing C1/GE/1053 ) Time Lag of CE16 RFI046 Outfall Location Drainage, Maintenance Access at slope toe Construction of Outfall CP14X FS3 Filling Stage 1(~+16 to+17.6 mPD) CE50-No Fine at Slope Toe FS Filling (+16.9 to +27.6 mPD) (Rolling by Pass) FS Filling (+27.6to 30 mPD) (Rolling by Pass) FS3 Filling Stage 1 (~+1.6 to +21 mPD) Drainage and Maintenance Access (+21 to +28.5 mpD) FS3 Filling Stage 2 (~7.5m, 21 to +28.5 mPD) Drainage and Maintenance Access (+28.5 to +35.5mpD) FS3 Filling Stage 3 (~7.5m, +28.5 to 35.5 mPD) Retaining Wall RW4 General Excavation to Formation Level(Bay1~2) Plate Load Test and Blinding Layer for Retaining Wall Bays 3-8 Plate Load Test and Blinding Layer for Retaining Wall Bays 1-2 Base Slab of Retaining Wall RW4 Bay 1-4 Base Slab of Retaining Wall RW4 Bay 1-4 Wall Stem of Retaining Wall RW4 Bay 1-4 Wall Stem of Retaining Wall RW4 Bay 1-4 Wall Stem of Retaining Wall RW4 Bay 5-8 Wall Stem of Retaining Wall RW4 Bay 5-8 Protective Coating / Subsoil Drain / Filter Layer Backfilling behind RW4 and Fill Slop FS4 (~8m up to +35.5 mPD)	36 days         424 days         100 days         47 days         63 days         11 days         121 days         60 days         12 days         60 days         12 days         10 days         12 days         10 days         10 days         15 days         17 days         96 days         23 days         5 days         5 days         16 days         30 days         20 days	Thu 5/7/18 Wed 11/7/18 Wed 11/7/18 Mon 8/10/18 Sat 16/2/19 Mon 7/1/19 Thu 6/12/18 Fri 26/4/19 Thu 23/5/19 Sat 3/8/19 Sat 3/8/19 Sat 17/8/19 True 8/10/19 Wed 30/10/19 Fri 22/11/19 Thu 21/11/19 Sat 17/8/19 Fri 13/9/19 Fri 13/9/19 Fri 20/9/19 Fri 20/9/19 Fri 11/10/19 Thu 26/9/19 Fri 11/10/19 Sat 9/11/19 Fri 15/11/19	Wed 15/8/18 <b>Tue 10/12/19</b> Wed 7/11/18 Sat 1/12/18 Mon 6/5/19 Fri 18/1/19 Wed 8/5/19 Fri 10/5/19 Fri 10/5/19 Fri 16/8/19 Sat 5/10/19 Tue 29/10/19 Sat 9/11/19 Mon 9/12/19 Tue 10/12/19 Thu 12/9/19 Thu 12/9/19 Thu 12/9/19 Thu 19/9/19 Wed 25/9/19 Thu 10/10/19 Wed 16/10/19 Thu 14/11/19 Fri 8/11/19 Thu 14/11/19 Thu 14/11/19	100% 99% 100% 100% 100% 100% 100% 100% 1	0 days           420           0 days           421           0 days           422           5 days           423           0 days           0 days           420           0 days           0 days           420           0 days           0 days           428           0 days           0 days           428           0 days           0 days           430           0 days           431           0 days           1 day	3 days per SRT 75m, 4m per day 3 days per SRT +25day (CE16) 85m, 4m per day 3 days per SRT +25day (CE16) 5 days for each test 5 days for each test 4 to 5 days per bay 4 to 5 days per bay 7 to 8 days per bay 7 to 8 days per bay	

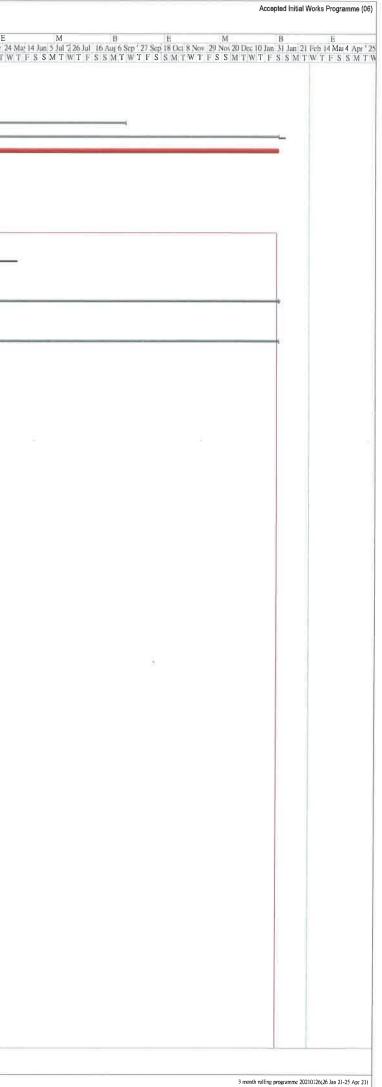


Contract No. CV/2016/10 Site Formation and Associated Infrastructural Works for Development of Columbarium at Sandy Ridge Cemetery		3 Month Rolling Programme (Feb 2021 to Apr 2021)										
ID Task Name	Duration	Start	Finish	% Complete	Remaining Duration	Predecessors	Notes				1	
438 FS2 Filling Stage 1 (~7.5m, +35.5 to +43 mPD)	20 days	Fri 8/11/19	Sat 30/11/19	100%	0 days	137	3 days per SRT, ~7.5m = 25 layers	2		3		4
439 Drainage and Maintenance Access (+43.0 to +50 mpD)	30 days	Thu 17/10/19	Wed 20/11/19	100%	0 days		75m, 4m per day					
440 FS2 Filling Stage 2 (~7.5m, +43 to +50 mPD)	18 days	Wed 20/11/19	Tue 10/12/19	100%	0 days		3 days per SRT, ~7m = 24 layers					
441 Cut Slope CS18 and CS19	235 days	Mon 25/2/19	Sat 7/12/19	100%	0 days							
442 Slope Cutting (+54.5 to crest)	30 days	Wed 27/2/19	Tue 2/4/19	100%	0 days							
443 Confirmation of Interface Details at CS18/19 (NCE29)	30 days	Wed 27/2/19	Tue 2/4/19	100%	0 days							
444 Drainage and Maintenance Access (crest)+ GI Works	8 days	Wed 3/4/19	Fri 12/4/19	100%	0 days							
445 Slope Cutting and Raking Drain (+47 to +54.5mPD, 13 nos. of Raking Drain)	113 days	Mon 25/2/19	Mon 15/7/19	100%	0 days		match with CS16/17 works					
446 Drainage and Maintenance Access (+54.5 to +62mPD slope surface/berm)+ GI Works	30 days	Thu 4/4/19	Wed 15/5/19	100%	0 days							
447 Slope Cutting and Raking Drain (+47mPD to toe, 18 nos. of Raking Drain)	110 days	Mon 6/5/19	Fri 13/9/19	100%	0 days	146FS-30 days	,211 match with CS16/17 works					
448 Drainage and Maintenance Access (below +47mPD slope surface/berm)+ GI Works	70 days	Sat 14/9/19	Sat 7/12/19	100%	0 days	147	~90m, 3m/day					
449 Landscape Works	67 days	Mon 16/9/19	Wed 4/12/19	0%	67 days							
450 at Fill Slope FS2, FS3	50 days	Tue 8/10/19	Wed 4/12/19	0%	50 days	421						
451 at Cut Slope CS18, CS19	60 days	Mon 16/9/19	Tue 26/11/19	0%	60 days	147						

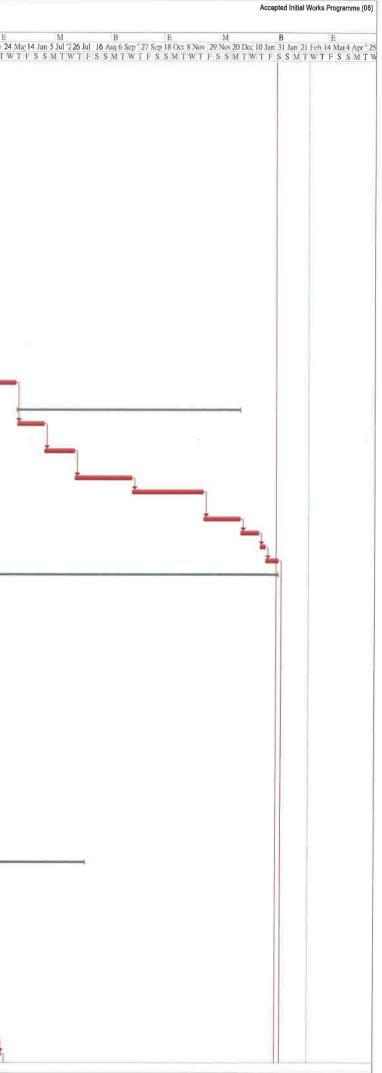


Three Months rolling Programme of Contract CV/2017/02

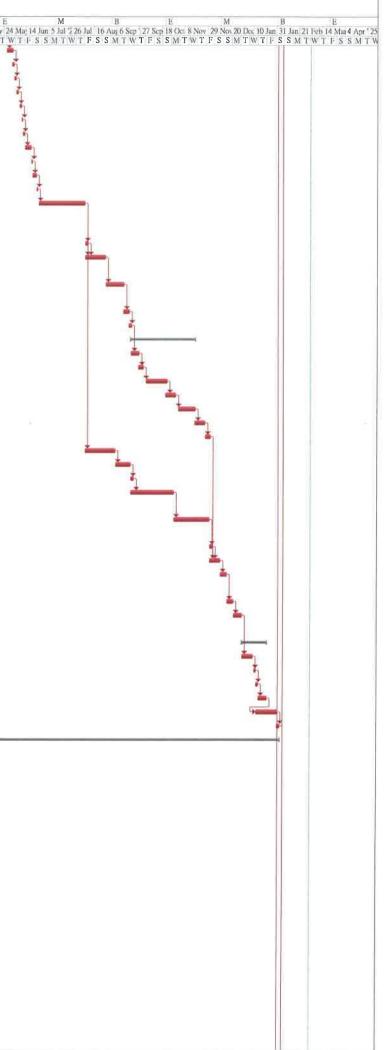
evelor	pment o	V/2017/02 f Columbarium at Sandy Ridge Cemetery I Works at Man Kam To Road and Lin Ma Hang Road	1			3 Month Rolling Programme (from 26/2/2021 to 25/5/2021)
3	WBS	Task Name	Duration	Start Date	Completion Date 2	M B E M B E M B E M B E M B B B B B M B B B B
						F S S M TW T F S
1		Letter of Acceptance	0 days	Wed 30/5/18		
2 4		Starting Date	0 days	Thu 31/5/18	Thu 31/5/18	
3 3		ET Submissions	9 days	Wed 26/9/18	Fri 5/10/18	
2 4		Applications to Government Department	27 days	Mon 4/6/18	Sat 30/6/18	
0 5		Submissions & acceptances	835 days	Mon 4/6/18	Tue 15/9/20	
14 E		Liaison with Utility Undertakers	979 days	Fri 1/6/18	Wed 3/2/21	
17 7	7.	Liaison with Contract CV/2016/01 regarding Parts A1 to A4 (refer PS Appendix A1)	979 days	Fri 1/6/18	Wed 3/2/21	
48 8	8	Liaison Meeting with Interface and associated contractors	389 days	Fri 1/6/18	Mon 24/6/19	
\$3 \$	9	Tree Survey Reporting	164 days	Fri 1/6/18	Sun 11/11/18	
58 1	10	Street Lighting Designs by the Contractor	671 days	Fri 1/6/18	Wed 1/4/20	
56	11	Provision of Project Manager's Site Accommodation (PS1.08A(b) & 1.49)	28 days	Fri 1/6/18	Thu 28/6/18	
67	12	Design of irrigation system within the Sandy Ridge Cemetery (LS/2021, 2041, 2042, W/1041,1011)	21 days	Fri 20/12/19	Fri 10/1/20	
70 1	13	Condition Survey	81 dave	Thu 23/8/18	Sun 11/11/18	
77 1		•			Wed 3/2/21	
/ 1	14	section 1 of the works - Completion of all works within Parts A1, A2 and B of the Site except Establishment works	979 days	110 31/3/10	wed 3/2/21	
78 1	14.1	Parts A1	859 days	Fri 28/9/18	Wed 3/2/21	
79 1	14.1.1	access date for section 1 (Parts A1) - not more than 120 days after the starting date	0 days	Fri 28/9/18	Fri 28/9/18	
30	14.1.2	form temporary haul road from the south side to Parts A1	14 days	Tue 2/10/18	Mon 22/10/18	
81	14.1.3	general site clearance	30 davs	Tue 23/10/18	Wed 28/11/18	
	14 1.4	initial survey			Wed 2/1/19	
1	14.1.5	construction of temporary drainage			Sat 26/1/19	
	14.1.6	Site Formation works for Cut Slope CS22 (in Parts A1)				
01	14.1.7	A1) A1) Construction of Retaining Wall RW13 (bays 1 to 5)	192 days	Mon 15/4/19	Thu 12/12/19	· · · · · · · · · · · · · · · · · · ·
02	14.1.7.1	excavation with installation of temporary soil nails work behind RW13 (bays 1 to 5)	56 days	Mon 15/4/19	Tue 25/6/19	
03	14.1.7.2	plate load tests	3 days	Wed 26/6/19	Fri 28/6/19	
04	14.1.7.3	concrete blinding layers for 5 bays	3 days	Sat 29/6/19	Wed 3/7/19	i i i i i i i i i i i i i i i i i i i
05	14.1.7.4	formwork for bases of alternative first 3 bays	2 days	Wed 3/7/19		at the second
	14.1.7.5	steel fixing for 3 bases	3 days			i i i i i i i i i i i i i i i i i i i
2.1	14.1.7.6	concrete and curing for 3 bases	5 days	Tue 9/7/19		
	14.1.7.7	remove formwork	3 days	Mon 15/7/19		
	14.1.7.8	falsework and formwork for alternative 3 walls	4 days	Thu 18/7/19		±,
12.1	14.1.7.9	steel fixing for 3 walls	9 days	Tue 23/7/19		
	14.1.7.10	close formwork for 3 walls	3 days	Fri 2/8/19	Mon 5/8/19	*
	14.1.7.11	concrete and curing for 3 walls	6 days	Mon 5/8/19	Sat 10/8/19	
	14.1.7.12	remove formwork	3 days	Sat 10/8/19		
	14 1 7 13	formwork for bases of alternative second two	2 days		Wed 14/8/19	
		bays	- 0070			
15	14.1.7.14	steel fixing for two bases	2 days	Wed 14/8/19	Thu 15/8/19	i i i i i i i i i i i i i i i i i i i
	14 1.7 15	concrete and curing for two bases	4 days		Tue 20/8/19	
	14 1 7 16	remove formwork	2 days	Tue 20/8/19		i i i i i i i i i i i i i i i i i i i
i î	14.1.7.17	falsework and formwork of alternative second two		Wed 21/8/19		
		walls				
	14 1 7 18	steel fixing for two walls	6 days	Fri 23/8/19		
	14.1_7_19	close formwork for two walls	2 days	Thu 29/8/19		1
	14 1 7 20	concrete and curing for two walls	4 days	Sat 31/8/19	Wed 4/9/19	
	14.1.7.21	remove falsework & formwork	2 days	Wed 4/9/19		1
.23	14 1.7 22	after completion of RW13 (bay 1 to 5) , backfilling & compaction behind wall to formation (A1) (Drg GE/1101)	66 days	Fri 6/9/19	Mon 2/12/19	
24	14.1.7.23	install instrument for RW13 (bay 1 to bay 5)	9 days	Tue 3/12/19	Thu 12/12/19	
	14.1.8	Site Formation works for Fill Slope FS18	•		Mon 3/2/20	
	14.1.8.1	excavate top 3.5m from the existing slope profile (extent to be directed by PM)(Drg.GE/2305)				
199	144.0.0	non an fam C En Black for the	0 -		Mad DEMO	
	14.1.8.2	prepare formation for filter blanket	2 days	Tue 7/5/19		
28	14.1.8.3	slope backfill FS18 with 2.1m filter blanket (GE/2601)	9 days	Wed 8/5/19	Sat 18/5/19	
29	14.1.8.4	backilling from top of filter blanket to formation level (including SRT tests)	126 days	Thu 16/5/19	Mon 21/10/19	<u>↓</u>
30	14.1.8.5	construction of 1.5m width maintenance berm	2 dave	Fri 18/10/10	Mon 21/10/19	
77	10.000	ACTOR ACTION OF FIGHT MIGHT HUBILICE TOTAL	r aalo			



Contract No. Development	CV/2017/02 : of Columbarium at Sandy Ridge Cemetery :al Works at Man Kam To Road and Lin Ma Hang Road	1			3 Month Rolling Programme (from 26/2/2021 to 25/5/2021)
ID WBS	Task Name	Duration	Start Date	Completion Date	
1 101 101 10		07.1	E: 40/40/40		20 Mai 10 Jun 1 Jul 1 22 Jul 12 Aug 2 Sep 23 Sep 14 Oct 4 Nov 25 Nov 16 Dec 6 Jan 27 Jan 17 Feb 10 Mai 31 Mai 21 Apr 12 Mai 2 Jun 23 Jun 14 Jul 4 Aug 25 Aug 15 Sep 6 Oct 27 Oct 17 Nov 8 Dec 29 Dec 19 Jan 9 Feb 1 Mai 22 Mai 12 Apr 3 May 24 TW T F S S M
131 14.1.8.6	construction of U channel/ stepped channel and catchpits	37 days	Fri 18/10/19	Mon 2/12/19	
132 14.1.8.7		4 days	Tue 3/12/19	Fri 6/12/19	
133 14 1 8 8	600mm width concrete maintenance staircase with handrailing boxing oul	11 days	Sal 7/12/19	Thu 19/12/19	
134 14.1.8.9	landscaping (hydroseeding)	27 days	Fri 20/12/19	Thu 23/1/20	
135 14.1.8.10	o install instrument for FS18	6 days	Fri 24/1/20	Mon 3/2/20	
136 14.1.9	CS21 - slope cutting		Fri 20/12/19		
137 14_1_10 138 14_1.11	install instrument for CS21 placement of erosion control mat/ hydroseeding	5 days 2 days	Tue 31/12/19 Tue 7/1/20	Mon 6/1/20 Wed 8/1/20	
139 14.1.12	minor cutting CS26 (Parts A1) (for Road E)	7 days	Thu 9/1/20	Thu 16/1/20	
140 14.1.13	Drainage works at Road E	43 days	Fri 17/1/20	Tue 10/3/20	
141 14.1.13	1 main pipe laying	31 days	Fri 17/1/20	Tue 25/2/20	
142 14.1.13	2 gully pipe and pots	14 davs	Mon 24/2/20	Tue 10/3/20	
143 14.1.14	0.717			Tue 14/4/20	
144 14 1 15 145 14 1.16	CS23 - slope cutting & 300U channel install instrument for CS23	17 days 5 days	Wed 11/3/20 Thu 2/4/20	Wed 1/4/20 Wed 8/4/20	
145 14.1.10	placement of erosion control mat/ hydroseeding	2 days	Thu 9/4/20 Thu 9/4/20	Tue 14/4/20	
147 14 1.18	backfilling of pipe trench to formation (including SRT		Wed 15/4/20	Sal 25/4/20	
148 14.1.19	test) 300U channel behind RW13	4 days	Mon 27/4/20	Sat 2/5/20	
149 14 1.20	300U channel and planter wall at south side of Road			Sat 6/6/20	
	E				
150 14.1.21	Roadworks of Road E (A1-ch66-243)	164 days		Wed 30/12/20	
151 14 1.21.	1 ducting for road lighting (RD/2091) & construction of irrigation system	20 days	Mon 8/6/20	Thu 2/7/20	
152 '14.1.21.		24 days	Fri 3/7/20	Thu 30/7/20	
	cross road duct (RD/2061, 2081)				
153 14 1.21 154 14 1.21		45 days	Fri 31/7/20	Mon 21/9/20 Thu 26/11/20	
139 14 1.21	4 traffic signs, directional signs, type 2 railing, emergency crash gate, beam barriers	48 days	108 22/9/20	1110 20/11/20	
155 14.1.21	5 concrete footpath	27 days	Fri 27/11/20		
156 14.1.22			Thu 31/12/20		
157 14 1.23 158 14 1.24	landscaping (hydroseeding) landscaping (shrub planting)	5 days 10 days	Mon 18/1/21 Sat 23/1/21	Fri 22/1/21 Wed 3/2/21	
159 14.2	Parts A2	•	Tue 31/12/19		
160 14.2.1	access date for section 1 (Parts A2) - not more than	0 days	Tue 31/12/19	Tue 31/12/19	
161 14.2.2	580 days after the starting date form temporary haul road to Parts A2	6 days	Thu 2/1/20	Wed 8/1/20	
162 14.2.3	general site clearance	18 days	Thu 9/1/20	Sat 1/2/20	
163 14.2.4	initial survey	12 days	Mon 3/2/20	Sat 15/2/20	
164 14.2.5	construction of temporary drainage	20 days	Mon 17/2/20		
165 :14.2.6	Site Formation works for Cut Slope CS22 (in Parts A2)	15 days	wed 11/3/20	Mon 30/3/20	
166 14.2.6.1	slope excavalion works	1 day	Wed 11/3/20	Wed 11/3/20	*
1/7			-		
167 14.2.6.2	drill, install steel bars and grout soil nails (TB01-06, TA01-07) & 3nrs. raking drain	4 days	Thu 12/3/20	Mon 16/3/20	
168 14 2.6.3		4 days	Tue 17/3/20	Fri 20/3/20	
169 14.2.6.4		2 days	Fri 20/3/20	Mon 23/3/20	
170 14.2.6.5 171 14.2.6.6		2 days 7 days	Mon 23/3/20	Tue 24/3/20 Tue 24/3/20	
J / I 14,2.0.0	300U channel, 300 stepped channel & catchpits with planter walls	7 days	wort 10/3/20	106 27/3/20	
172 14.2.67		2 days	Wed 25/3/20	Thu 26/3/20	
173 14.2.68	with handrailing	2 days	Eri 07/0/00	Mon 30/3/20	
173 14.2.68	placement of erosion control mat/ hydroseeding Construction of Retaining Wall RW13 Bay 6 to Bay 8		Fri 27/3/20 Fri 27/3/20		
175 14.2.7.1	temporary cutting for retaining wall RW13 Bay 6 to 8	2 days	Fri 27/3/20	Mon 30/3/20	
176 14.2.7.2		3 15 dave	Mon 30/3/20	Tue 21/4/20	
ALM ALMER C	Bay 6-8				
177 14.2.7.3			Wed 22/4/20		
178 14.2.7.4	· · · · · · · · · · · · · · · · · · ·	2 days	Sat 25/4/20 Tue 28/4/20		
180 14.2.7.6		2 days 3 days	Sat 2/5/20	Tue 5/5/20	
18] 14.2.7.7	base concreting & curing for bay 6 & 8	4 days	Wed 6/5/20		
182 14.2.7.6		2 days	Sat 9/5/20	Mon 11/5/20	
183 14.2.7.9 184 14.2.7.1		4 days 7 days	Tue 12/5/20 Sat 16/5/20		
189 14.2.7.1		7 days 2 days		Sat 23/5/20 Tue 26/5/20	
		,-			

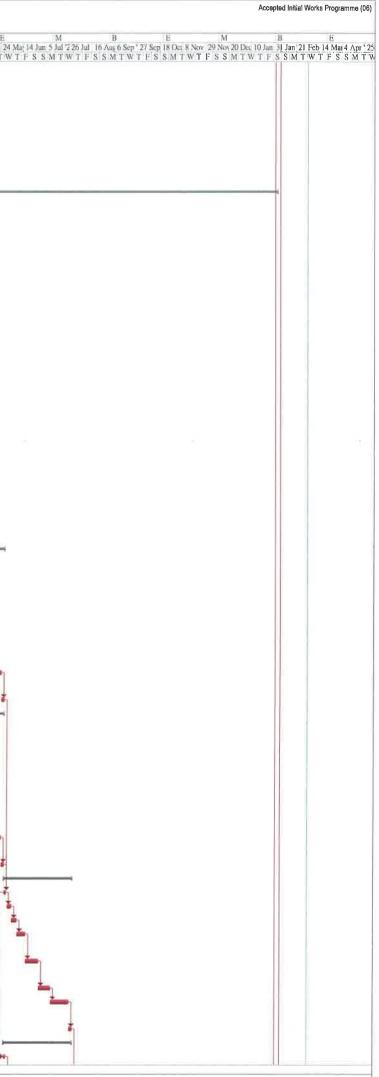


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13         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14<	
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2         12.5         useful formation for fixed 8         8.9 m         1.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0	
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214       14.22       gramma Tamo Tamo Tau but youtes (NDT YET       5 days       fm 1/1220       Vest (M1220)         215       14.24       gramma Tamo Tamo Tau but youtes (NDT YET       5 days       fm 1/1220       fm 2/1220       fm 2/12	
APRECI         Control to Routing to Routing to Support to the CON cables (DTYET)         South Routing Variance (Routing Variance Va	
20         is24         range MI by PCC volue (NDT VET         5 up         Wed 20120	
Achieles         Andrew Market         Andrew Market         Andrew Market         Andrew Market           22         1425         Standsof 87 (60) (62-00) 5.90)         19 days         Tru 31/1220         Fe 20/121           22         14252         DBM (Roudbase)         2 days         Fe 20/121         Tru 31/1220         Fe 20/121           23         14252         DBM (Roudbase)         2 days         Mod Sign (Struth Market Achie)         2 days	
22         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         122         123         123         123         123         123         123         123         123         123         123         123         123         123         123         123         123         123         123         123         124         124         124         124         124         124         124         124         124         124         124         124         124         124         124         124         124         124         124         124         124         124         124	
23       142.22       DB4 (Postbase)       2 dys       Mon 11/1/2       Tup 12/1/2         24       142.83       base course and mening source       2 dys       Wed 13/1/2       Tup 14/1/1         25       142.24       landcsping (phrty-seeding)       17 dys       Wed 13/1/2       Tup 14/1/1         25       142.24       landcsping (phrty-seeding)       17 dys       Wed 13/1/2       Mon 12/2/1         26       14.25       landcsping (phrty-seeding)       17 dys       Wed 13/1/2       Mon 12/2/1         27       14.27       landcsping (phrty-seeding)       17 dys       Wed 13/1/2       Mon 12/1/2         27       14.31       accest due for section f (Parts B) - be standing due 0 dys       Thu 31/5/18       Wed 32/21         270       14.31       accest due for section f (Parts B) - be standing due 0 dys       Fn 18/1/18       Fn 18/1/18         271       14.32       intikel Sinvey       104 dys       Fn 18/1/18       Fn 18/1/18         272       14.3       constant menoperment (TA Schere for 14/1/18       Stant/11/18       Stant/11/18         273       14.35       Phise 11.Th 15       Stady       Stant/11/18       Stant/11/18         274       14.35       Phise 11.Th 15       Stady       Stant/11/18	
247       4223       besc course and westing course       2 wig       Weid 19/12       The 11/12         257       42.26       landtscipping (fytotbaseding)       7 dig       Fi1 59/12       Fi2 20/12         276       42.26       landtscipping (fytotbaseding)       3 dig       Non 102/1       Non 102/1         277       42.27       landtscipping (fytotbaseding)       3 dig       Non 102/1       Non 102/1       Non 102/1       Non 102/1         278       120       name briefer Appandix MRT604 Appandix       979 sig       Tu 31/16       Non 202/1       Non 102/1       N	
252       4224       dracking light roadmarking & 6 dopah       7 digs       Fri 19701       Fri 29701         265       landsciping (hythreseding)       17 digs       Weid 31/21       Wan 2/21         275       Variation (hythreseding)       17 digs       Weid 31/21       Wan 2/21         278       Variation (hythreseding)       17 digs       Weid 31/21       Weid 32/21         278       Variation (hythrese hight)       3 digs       Mon 1/21       Weid 32/21         278       Variation (hythrese)       Heads (hythreseding)       100 sigs       Fri 19701         279       Variation (hythrese)       Heads (hythrese hight)       100 sigs       Fri 19718       Heads (hythrese hight)       Fri 19718         270       Variation (hythrese)       Heads       Fri 19718       Fri 19718       Fri 19718       Fri 19718         271       Variation (hythrese)       Heads       Fri 19718       Fri 19718       Fri 19718       Fri 19718         272       Variation (hythrese)       Heads       Fri 19718       Fri 19718       Fri 19718       Fri 19718         273       Variation (hythrese)       Heads       Fri 19718       Fri 19718       Fri 19718       Fri 19718         274       Variation (hytheade hight)	
225       14.23       landscaping (hydroseeding)       17 days       Wed 13/21       Wod 12/21       Wed 32/21         226       14.37       landscaping (hydroseeding)       3 days       Mn 12/21       Wed 32/21         226       14.37       mater Server Appendix (MKTRA & Appendix       97 days       Wed 32/21         226       14.3       access dele for section 1 (Parts B) - the abening del 0 days       Thu 31/6/18       Wed 32/21         237       14.32       initial Survey       104 days       Fn 16/18       Thu 41/018         231       14.33       Terryoray Taffic Arrangement/OTA Scopen for       13/40 days       Fn 16/18       Fn 11/118         237       14.35       Construction of Freeh Water Mains (DM4C0)-refer to 32/2 days       Sat 12/119       Fn 16/18       Sat 12/119         246       14.35       Phase 1:Th 15       44 days       Tue 23/119       Sat 12/119       Sat 12/119         257       14.35       Phase 1:Th 25       46 days       Yee 23/119       Sat 12/119       Sat 12/119       Sat 12/119       Yee 23/119       Yee 23	
127       14.27       Reades ping (whon planting)       3.4gs       Mon 10/21       Wed 32/21       Mon 10/21 </td <td></td>	
MKTR018           229         14.3.1         access date for section 1 (Parts B) - the starting date         0 days         Thu 31/518         Thu 31/518           220         14.3.2         Initial Survey         104 days         Fri 16/18         Thu 41/018           221         14.3.3         utilly detoction and submit reports         30 days         Fri 51/018         Fri 91/118           223         14.3.4         Temporary Taffs Arrangement (TA) Scheme for Mar Kam Road         13/4 days         Fri 16/18         Fri 91/118           225         14.3.5         Construction of Fresh Water Mains (DM00)-refer to Dawings No. MRTR ProgrammerW001 & 002         Sat 1011/18         Sat 12/119           226         14.3.5         Phase 1: TTA 1s         52 days         Sat 1011/18         Sat 12/119           226         14.3.5         Phase 2: TTA 2s         39 days         Tue 15/119         Mon 4/3/19           226         14.3.5         Phase 2: TTA 2s         39 days         Tue 15/119         Mon 4/3/19           227         14.3.5         Phase 3: TTA 15         40 days         Tue 23/4/19         Mon 4/3/19           226         14.3.5         Phase 2: TTA 2s         39 days         Tue 53/19         Tue 23/4/19           227         14.3.5         Phas	
229       14.31       access date for section 1 (Parts B) - the starting date       0 days       Thu 31/5/18       Thu 31/5/19       Thu 31/5/18       Sat 12/11/19       Sat 12/11/19       Sat 12/11/19       Sat 12/11/19       Sat 12/11/19       Sat 12/11/19       Thu 31/5/18       Sat 12/11/19       Sat 1	
231       44.3.3       utility detection and submit reports       30 days       Fri S/10/18       Si 12/11/19       Si 12/11/19       Si 12/11/19       Si 12/11/18       Si 12/11/19       Si 12/11/19       Si 12/11/19       Si 12/11/18       Si 12/11/19       Si 12/11/19       Si 12/11/19       Fri S/10/18       Fri S/10/	
23       4.3.3       utility detection and submit reports       30 days       Fi Sh10H8       Fi 9H11H8         232       14.3.4       Temporary Traffic Arrangement (TTA) Scheme for MA days       Fi 16/H8       Fi 9H11H8       Fi 9H11H8         235       14.3.5       Construction of Fresh Water Mains (DN400)-refer to DS2 days       Sal 10/11H8       Fi 17H/20         236       14.3.5       Construction of Fresh Water Mains (DN400)-refer to DS2 days       Sal 10/11H8       Fi 17H/20         237       14.3.5.1       Phase 1: TTA 1s       52 days       Sal 12/11H8       Sal 12/11P         246       14.3.5.2       Phase 1: TTA 2s       39 days       Tue 15/1/19       Mo1 4/3/19         247       14.3.5.4       Phase 2: TTA 2s       39 days       Tue 15/1/19       Mo1 4/3/19         257       14.3.5.6       Phase 2: TTA 2s       39 days       Tue 15/1/19       Mo1 4/3/19         257       14.3.5.6       Phase 2: TTA 16s       40 days       Mo1 4/3/19       Mo1 4/3/19         257       14.3.5.6       Phase 3: TTA 10s       39 days       Tue 5/3/19       Tue 23/4/19         257       14.3.5.6       Phase 3: TTA/15       39 days       Tue 5/3/19       Tue 23/4/19         257       14.3.5.6       Phase 3: TTA/15	
Man Kam Road         226       Mas Kam Road         226       Mas Kam Road         227       Mask Mains (Dv400)-refer to Drawings No. MKTR Programme/Wi001 & 002       Sal 10/11/18       Fri 17/1/20         237       Mask Mains (Dv400)-refer to Drawings No. MKTR Programme/Wi001 & 002       Sal 10/11/18       Sal 12/1/19         237       Mask Main Solution of Fresh Water Mains (Dv400)-refer to Drawings No. MKTR Programme/Wi001 & 002       Sal 12/1/19         237       Mask Main Solution of Fresh Water Mains (Dv400)-refer to Main Kam Road       Sal 12/1/19         235       Mask Main Solution of Fresh Water Mains (Dv400)-refer to Main Kam Road       Sal 12/1/19         235       Mask Main Solution of Fresh Water Mains (Dv400)-refer to Main Kam Road       Sal 12/1/19         236       Mask Mask Main Solution of Fresh Water Mains (Dv400)-refer to Main Kam Road       Mon 4/3/19         237       Mask Main Solution of Fresh Water Mains (Dv400)-refer to Main Kam Road       Mon 4/3/19         238       Mask Main Solution of Fresh Water Mains (Dv400)-refer to Main Main Main Main Main Main Main Main	
Drawings No. MKTR ProgrammeW/001 & 002         237       143.51       Phase 1: TTA 1s       52 days       Sal 10/11/18       Sal 12/11/9         246       14.35.2       Phase 1: TTA 8s       49 days       Wed 14/11/18       Sal 12/11/9         255       14.35.3       Phase 2: TTA 2s       39 days       Tue 15/11/9       Mon 4/3/19         264       43.54       Phase 2: TTA 2s       39 days       Tue 15/11/9       Mon 4/3/19         264       43.55       Phase 2: TTA 16s       40 days       Mon 4/3/19         264       43.54       Phase 2: TTA 16s       40 days       Mon 4/3/19         282       143.56       Phase 2: TTA 16s       40 days       Mon 4/3/19         281       44.354       Phase 3: TTA10s       39 days       Tue 5/3/19       Tue 23/4/19         291       43.58       Phase 3: TTA10s       39 days       Tue 5/3/19       Tue 23/4/19         300       143.58       Phase 3: TTA17s       39 days       Tue 5/3/19       Tue 23/4/19         318       43.510       Phase 4: TTA18s       42 days       Mon 29/4/19       Fri 14/6/19         336       43.512       Phase 4: TTA18s       42 days       Wed 24/4/19       Fri 14/6/19	
246       14.3.5.2       Phase 1: TTA 8s       49 days       Wed 14/11/18       Sat 12/1/19         255       14.3.5.3       Phase 1: TTA 15s       44 days       Tue 20/11/18       Sat 12/1/19         264       14.3.5.4       Phase 2: TTA 2s       39 days       Tue 15/1/19       Mon 4/3/19         264       14.3.5.5       Phase 2: TTA 2s       39 days       Tue 15/1/19       Mon 4/3/19         273       14.3.5.6       Phase 2: TTA 16s       40 days       Mon 14/1/19       Mon 4/3/19         282       14.3.5.7       Phase 3: TTA3s       39 days       Tue 23/4/19       Tue 23/4/19         300       14.3.5.8       Phase 3: TTA10s       39 days       Tue 23/4/19       Tue 23/4/19         300       14.3.5.0       Phase 3: TTA4s       38 days       Mon 29/4/19       Fri 14/6/19         318       14.3.5.10       Phase 4: TTA4s       38 days       Mon 29/4/19       Fri 14/6/19         327       14.3.5.12       Phase 4: TTA18s       42 days       Wed 24/4/19       Fri 14/6/19         336       14.3.5.12       Phase 4: TTA18s       42 days       Wed 24/4/19       Fri 14/6/19	
255       i4.3.5.3       Phase 1: TTA 15s       44 days       Tue 20/11/18       Sat 12/1/19         264       i4.3.5.4       Phase 2: TTA 2s       39 days       Tue 15/1/19       Mon 4/3/19         273       i4.3.5.5       Phase 2: TTA 16s       40 days       Mon 14/3/19         282       i4.3.5.6       Phase 2: TTA 16s       40 days       Mon 14/3/19         282       i4.3.5.7       Phase 3: TTA3s       39 days       Tue 2/3/1/9         201       i4.3.5.7       Phase 3: TTA3s       39 days       Tue 2/3/1/9         300       i4.3.5.8       Phase 3: TTA10s       39 days       Tue 2/3/1/9         300       i4.3.5.10       Phase 4: TTA4s       38 days       Mon 29/4/19         318       i4.3.5.10       Phase 4: TTA1s       38 days       Mon 29/4/19         327       i4.3.5.12       Phase 4: TTA18s       42 days       Wed 24/4/19         336       i4.3.5.12       Phase 4: TTA18s       42 days       Wed 24/4/19	
264       14.3.5.4       Phase 2: TTA 2s       39 days       Tue 15/1/19       Mon 4/3/19         273       14.3.5.5       Phase 2: TTA 9s       39 days       Tue 15/1/19       Mon 4/3/19         282       14.3.5.6       Phase 2: TTA 16s       40 days       Mon 14/3/19       Mon 4/3/19         291       14.3.5.7       Phase 3: TTA3s       39 days       Tue 23/4/19       Tue 23/4/19         300       14.3.5.8       Phase 3: TTA10s       39 days       Tue 23/4/19       Tue 23/4/19         300       14.3.5.9       Phase 3: TTA17s       39 days       Tue 23/4/19       Tue 23/4/19         318       14.3.5.10       Phase 4: TTA4s       38 days       Mon 29/4/19       Fri 14/6/19         327       14.3.5.12       Phase 4: TTA18s       42 days       Wed 24/4/19       Fri 14/6/19         336       14.3.5.12       Phase 4: TTA18s       42 days       Wed 24/4/19       Fri 14/6/19	
282       14.3.5.6       Phase 2: TTA 16s       40 days       Mon 14/1/19       Mon 4/3/19         291       14.3.5.7       Phase 3: TTA 3s       39 days       Tue 5/3/19       Tue 23/4/19         300       14.3.5.8       Phase 3: TTA 10s       39 days       Tue 5/3/19       Tue 23/4/19         309       14.3.5.9       Phase 3: TTA 17s       39 days       Tue 5/3/19       Tue 23/4/19         318       14.3.5.10       Phase 4: TTA 4s       38 days       Mon 29/4/19       Fri 14/6/19         327       14.3.5.11       Phase 4: TTA 18s       38 days       Mon 29/4/19       Fri 14/6/19         336       14.3.5.12       Phase 4: TTA 18s       42 days       Wed 24/4/19       Fri 14/6/19	
291       14.3.5.7       Phase 3: TTA3s       39 days       Tue 5/3/19       Tue 23/4/19         300       14.3.5.8       Phase 3: TTA10s       39 days       Tue 5/3/19       Tue 23/4/19         309       14.3.5.9       Phase 3: TTA17s       39 days       Tue 5/3/19       Tue 23/4/19         318       14.3.5.10       Phase 4: TTA4s       38 days       Mon 29/4/19       Fri 14/6/19         327       14.3.5.11       Phase 4: TTA1s       38 days       Mon 29/4/19       Fri 14/6/19         336       14.3.5.12       Phase 4: TTA18s       42 days       Wed 24/4/19       Fri 14/6/19	
300       14.3.5.8       Phase 3: TTA10s       39 days       Tue 5/3/19       Tue 23/4/19         309       14.3.5.9       Phase 3: TTA17s       39 days       Tue 5/3/19       Tue 23/4/19         318       14.3.5.10       Phase 4: TTA4s       38 days       Mon 29/4/19       Fri 14/6/19         327       14.3.5.11       Phase 4: TTA1s       38 days       Mon 29/4/19       Fri 14/6/19         336       14.3.5.12       Phase 4: TTA18s       42 days       Wed 24/4/19       Fri 14/6/19	
309       14.3.5.9       Phase 3: TTA17s       39 days       Tue 5/3/19       Tue 23/4/19         318       14.3.5.10       Phase 4: TTA4s       38 days       Mon 29/4/19       Fri 14/6/19         327       14.3.5.11       Phase 4: TTA11s       38 days       Mon 29/4/19       Fri 14/6/19         336       14.3.5.12       Phase 4: TTA18s       42 days       Wed 24/4/19       Fri 14/6/19	
318       14.3.5.10       Phase 4: TTA4s       38 days       Mon 29/4/19       Fri 14/6/19         327       14.3.5.11       Phase 4: TTA11s       38 days       Mon 29/4/19       Fri 14/6/19         336       14.3.5.12       Phase 4: TTA18s       42 days       Wed 24/4/19       Fri 14/6/19	
327         14.3.5.11         Phase 4: TTA11s         38 days         Mon 29/4/19         Fri 14/6/19           336         14.3.5.12         Phase 4: TTA18s         42 days         Wed 24/4/19         Fri 14/6/19	
245 14 25 42 Dhane St TTAEn A2 down Wood 70040	
345 14.3.5.13 Phase 5: TTA5s 42 days Wed 19/6/19 Wed 7/8/19	

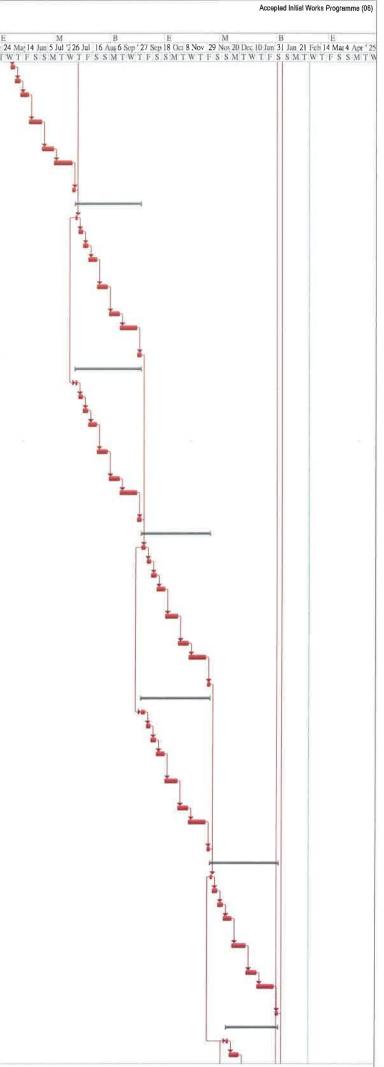


Accepted Initial Works Programme (06)

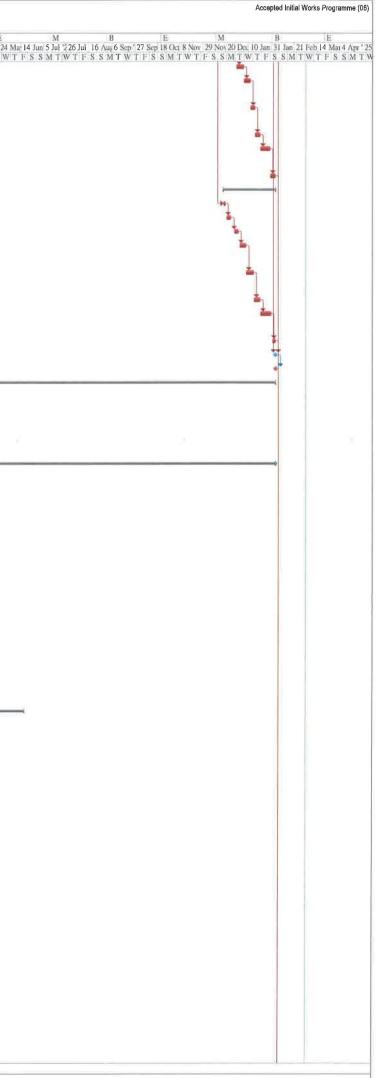
	/2017/02 Columbarium at Sandy Ridge Cemetery Works at Men Kem To Road and Lin Ma Hang Road	d			3 Month Rolling Programme (from 26/2/2021 to 25/5/2021)
D WBS	Task Name	Duration	Start Dáte	Completion Date	M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B T B 20 Mai 10 Jun 1 Jul 122 Jul 12 Aug 2 Sep 123 Sep 14 Oct 4 Nov 25 Nov 16 Dec 6 Jan 127 Jan 17 Feb 10 Mai 31 Mai 21 Apr 12 Mai 2 Jun 123 Jun 14 Jul 4 Aug. 25 Aug 15 Sep 6 Oct 127 Oct 17 Nov 8 Dec 129 Dec 19 Jan 9 Feb 11 Mar 22 Mai 12 Apr 3 May T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W
354 14.3.5.14	Phase 5: TTA12s	45 days	Sat 15/6/19	Wed 7/8/19	
363 14 3 5 15	Phase 5: TTA19s	45 days	Sat 15/6/19		
372 14.3.5 16 381 14.3.5 17	Phase 6: TTA6s Phase 6: TTA13s	46 days		Thu 3/10/19 Thu 3/10/19	
390 14 3 5 18	Phase 6: TTA13s Phase 6: TTA20s	42 days 47 days			
399 14.3 5 19	Phase 7: TTA7s	44 days		Wed 27/11/19	
408 14.3.5.20	Phase 7: TTA14s	46 days	Fri 4/10/19	Wed 27/11/19	9
417 14 3 5 21	Phase 7: additional TTA21s	29 days	Thu 24/10/19	Wed 27/11/19	9
427 14.3 5 22	additional Phase 8: additional TTA 0s			9 Fri 17/1/20	
437 14.3.6	Construction of Sewerage (DN630) - refer to Drawing No. MKTR Programme/DR/001	311 days	Sat 18/1/20		
438 14 3.6 1 439 14.3.6 1 1	Phase A: TTA 1n	50 days			
439 14.3.6.1.1	mobilisation & set up TTA saw cut existing pavement and removal	2 days 4 days	Tue 21/1/20 Thu 23/1/20		
441 143613	trial pits	4 days	Fri 31/1/20	Tue 4/2/20	
442 14 3 6 1 4	trench sheetpiling	7 days	Wed 5/2/20		
443 14 3 6 1 5	excavate trench & shoring	7 days	Thu 13/2/20	Thu 20/2/20	
444 14.3.6 1.6	pipe laying & construct manhole	9 days	Fri 21/2/20	Mon 2/3/20	
445 14.3.6 1.7	backfill trench & remove sheetpile, rail & strut	14 days			
446 14 3.6.1.8	reinstate trench & curing	3 days	Thu 19/3/20	Sat 21/3/20	
447 14.3.5.2	Phase A: TTA 7n	52 days	Sat 18/1/20	Sat 21/3/20	
448 14.3.6.2.1	mobilisation & set up TTA	2 days	Sat 18/1/20		
449 14.3.6.2.2	saw cut existing pavement and removal	4 days	Tue 21/1/20		
450 14.3.6.2.3 451 14.3.6.2.4	trial pits trench sheetpiling	4 days 7 days	Wed 29/1/20 Mon 3/2/20		
452 143625	excavate trench & shoring	9 days		Thu 20/2/20	
453 143626	-		Fri 21/2/20	Mon 2/3/20	
454 14.3.6.2.7	pipe laying & construct manhole backfill trench & remove sheetpile, rail & strut	9 days 14 days			
455 14.3.6.2.8	reinstate trench & curing	3 days	Thu 19/3/20	Sat 21/3/20	
456 14 3 6 3	Phase B: TTA 2n	52 days			
457 14 3 6.3.1	mobilisation & set up TTA	2 days	Mon 23/3/20		
458 14 3.6.3.2	saw cut existing pavement and removal			) Sat 28/3/20	
459 14 3 6 3 3	trial pits			) Thu 2/4/20	
460 '14 3.6.3.4	trench sheetpiling	7 days	Fri 3/4/20		
46] 14 3 6 3.5	excavate trench & shoring	9 days	Thu 16/4/20	Sat 25/4/20	
462         14 3.6 3.6           463         14 3.6 3.7	pipe laying & construct manhole backfill trench & remove sheetpile, rail & strut	9 days 14 days	Mon 27/4/20 Sat 9/5/20		
464 14.3.6.3.8	reinstate trench & curing	3 days	Tue 26/5/20	Thu 28/5/20	
465 14 3 6 4	Phase B: TTA 8n	52 days	Mon 23/3/20	) Thu 28/5/20	
466 14.3.6.4.1	mobilisation & set up TTA	2 days	Mon 23/3/20		
467 14 3 6 4.2	saw cut existing pavement and removal	4 days			
468         14.3.6.4.3           469         14.3.6.4.4	trial pits trench sheetpiling	4 days 7 days	Mon 30/3/20 Fri 3/4/20	) Thu 2/4/20 Wed 15/4/20	
470 143645	excavate trench & shoring	9 days	Thu 16/4/20	Sat 25/4/20	
471 14 3 6 4 6	pipe laying & construct manhole	9 days	Mon 27/4/20	Fri 8/5/20	
472 14.3.6.4.7	backfill trench & remove sheetpile, rail & strut	14 days	Sat 9/5/20	Mon 25/5/20	
473 14 3 6 4 8	reinstate trench & curing	3 days	Tue 26/5/20	Thu 28/5/20	
474 14.3.6.5	Phase C: TTA 3n	52 days			
475 14.3.6.5.1	mobilisation & set up TTA	2 days	Fri 29/5/20	Sat 30/5/20	
476 14.36.5.2	saw cut existing pavement and removal	4 days	Mon 1/6/20		
477 :14.3.6.5.3 478 14.3.6.5.4	trial pits trench sheetpiling	4 days 7 days	Fri 5/6/20 Wed 10/6/20	Tue 9/6/20 Wed 17/6/20	
478 14.3.6 5.5		-			
	excavate trench & shoring	9 days	Thu 18/6/20		
480 114 3.6.5 6 481 14 3.6 5 7	pipe laying & construct manhole backfill trench & remove sheetpile, rail & strut	9 days 14 days	Tue 30/6/20 Sat 11/7/20		
482 14.3.6.5.8	reinstate trench & curing	3 days	Tue 28/7/20	Thu 30/7/20	
483 14.3.6.6	Phase C: TTA 9n	52 days		Thu 30/7/20	
484 143661	mobilisation & set up TTA	2 days	Fri 29/5/20	Sat 30/5/20	



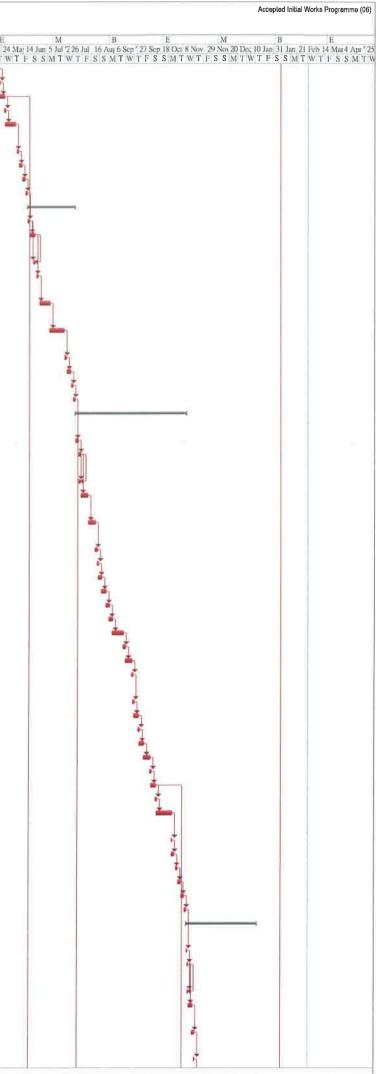
D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D         D		CV/2017/02 of Columbarium at Sandy Ridge Cemetery al Works at Man Kam To Road and Lin Ma Hang Road	ч						3 Month Rolling Pro (from 26/2/2021 to 2		
No. 1000000000000000000000000000000000000				Start Date	Completion	M B	E M	B 25 Mar 16 Day 6 Jay 1/27 Jay 1	E M B	E M B	E M B E
No. 10.0000         Number 10.						TWTFSSMTWTFSSMTV	WTFSSMTW	TFSSMTWTFSS?	M T W T F S S M T W T F S S M	TWTFSSMTWTFSSMTWTFSSMTWTFSSMTWT	F S S M T W T F S S M T W T F S S M T W
V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V											
1         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         1412         14											
0         0.00000000000000000000000000000000000	488 14366	5 excavate trench & shoring	9 days	Thu 18/6/20	Mon 29/6/20						
0.         1.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0	480 14366	6 nino laving & construct manholo	Q dave	Tue 30/6/20	Eri 10/7/20						
10         14.00         10.00         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000         10.000		PP									
10         10.10         10.10         10.10         10.10           10         10.10         10.10         10.10         10.10         10.10           10         10.10         10.10         10.10         10.10         10.10           10         10.10         10.10         10.10         10.10         10.10           10         10.10         10.10         10.10         10.10         10.10           10         10.10         10.10         10.10         10.10         10.10           10         10.10         10.10         10.10         10.10         10.10           10         10.10         10.10         10.10         10.10         10.10           10         10.10         10.10         10.10         10.10         10.10           10         10.10         10.10         10.10         10.10         10.10           10         10.10         10.10         10.10         10.10         10.10           10         10.10         10.10         10.10         10.10         10.10           10         10.10         10.10         10.10         10.10         10.10           10         10.10         1	49] 14 3 6 6.	8 reinstate trench & curing	3 days	Tue 28/7/20	Thu 30/7/20						
1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1	492 14 3 6 7	Phase D: TTA 4n	52 days	Fri 31/7/20	Tue 29/9/20						
No. Solution         No. Mark         No. Mark         No. Mark         No. Mark         No. Mark         No. Mark           No. Solution         No. Mark			2 days								
B         Late         Materia         Materia         Materia         Materia           B         Late         According to the function on table and tables         According to the function on tables         According		0									
V         Add M         Add M         Matrix         Matrix         Matrix           00         -1.457         spatially controls         -1.570         1.2290           00         -1.457         spatially controls         -1.570         1.2290           01         -1.457         spatially controls         -1.570         1.2290           01         -1.457         spatially controls         -1.570         1.2290           01         -1.457         -1.570         -1.2990         1.2990           01         -1.457         -1.570         -1.2990         1.2990           01         -1.457         -1.570         -1.2990         1.2990           01         -1.457         -1.570         -1.4990         -1.2990           01         -1.457         -1.570         -1.4990         -1.4990         -1.4990           01         -1.457         -1.570         -1.4990         -1.4990         -1.4990           01         -1.457         -1.570         -1.4990         -1.4990         -1.4990           01         -1.457         -1.570         -1.4990         -1.4990         -1.4990           01         -1.457         -1.570         -1.49900											
No. 10.15         Open No. 10.											
Image: Probability         Image:	497 14.3.6.7.	5 excavate trench & shoring	9 days	Thu 20/8/20	Sat 29/8/20						
VI MA7       Heins Hand S durig       Sign S M 2000       He 2000         VI MA7       Heiss T1 M0       Sign S M 2000       Lip 2000         VI MA7       Heiss T1 M0       Sign S M 2000       Lip 2000         VI MA7       Heiss T1 M0       Sign S M 2000       Lip 2000         VI MA7       Heiss T1 M0       Sign S M 2000       Heiss T1 M0         VI MA7       Heiss T1 M0       Sign S M 2000       Heiss T1 M0         VI MA7       Heiss T1 M0       Sign S M 2000       Heiss T1 M0         VI MA7       Heiss T1 M0       Sign S M 2000       Heiss T1 M0         VI MA7       Heiss Hand Kang M 2000       Heiss T1 M0       Heiss T1 M0         VI MA7       Heiss Hand Kang M 2000       Heiss T1 M0       Heiss T1 M0         VI MA7       Heiss Hand Kang M 2000       Heiss T1 M0       Heiss T1 M0         VI MA7       Heiss Hand Kang M 2000       Heiss T1 M0       Heiss T1 M0         VI MA7       Heiss Hand Kang M 2000       Heiss T1 M0       Heiss T1 M0         VI MA7       Heiss Hand Kang M 2000       Heiss T1 M0       Heiss T1 M0         VI MA7       Heiss Hand Kang M 2000       Heiss T1 M0       Heiss T1 M0         VI MA7       Heiss T1 M1       Heiss T1 M0       Heiss T1 M0     <	498 14.3.6.7.	6 pipe laying & construct manhole	9 days	Mon 31/8/20	Wed 9/9/20						
91       4000       90000       90000       90000       90000       90000       90000       90000       90000       90000       90000       90000       90000       90000       90000       90000       90000       90000       90000       90000       90000       90000       90000       90000       90000       90000       90000       90000       90000       90000       90000       900000       900000       900000       900000       900000       900000       900000       900000       900000       900000       900000       900000       900000       900000       900000       9000000       9000000       9000000       9000000       9000000       9000000       9000000       9000000       9000000       9000000       9000000       9000000       9000000       9000000       90000000       90000000       90000000       90000000       90000000       900000000       9000000000000000000000000000000000000	499 14 3 6 7	7 backfill trench & remove sheetpile, rail & strut	14 days	Thu 10/9/20	Fri 25/9/20						
Val.         Val. <td< th=""><td>500 14 3.67</td><td>8 reinstate trench &amp; curing</td><td>3 days</td><td>Sat 26/9/20</td><td>Tue 29/9/20</td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	500 14 3.67	8 reinstate trench & curing	3 days	Sat 26/9/20	Tue 29/9/20						
III         III.			52 days	Fri 31/7/20							
No.         Name         Targe         Appendix         Appendi											
13       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1       1.111.1		5									
No.         Name         example service         Ope         The 20000         Service           No.         Name         per unique do camble monthe du carino         Ope         Name         Name <t< th=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>											
138         1444         138         1444         1449         110.000         14200           139         1444.4         masked transfe         1449         110.000         14200           131         1444.4         masked transfe         1449         110.000         14200           131         1444.4         masked transfe         1449         14200         142000           131         1444.4         1449         110.000         142000         142000         142000           131         1444.5         masked transfe         1449         110.000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         1420000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         1420000         1420000         142000 <td>506 14.3.6.8.</td> <td>5 excavate trench &amp; shoring</td> <td>9 days</td> <td>Thu 20/8/20</td> <td>Sat 29/8/20</td> <td></td> <td>4</td> <td></td> <td>8</td> <td>1</td> <td></td>	506 14.3.6.8.	5 excavate trench & shoring	9 days	Thu 20/8/20	Sat 29/8/20		4		8	1	
138         1444         138         1444         1449         110.000         14200           139         1444.4         masked transfe         1449         110.000         14200           131         1444.4         masked transfe         1449         110.000         14200           131         1444.4         masked transfe         1449         14200         142000           131         1444.4         1449         110.000         142000         142000         142000           131         1444.5         masked transfe         1449         110.000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         1420000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         142000         1420000         1420000         142000 <td>507 14.3.6.8</td> <td>5 pipe laving &amp; construct manhole</td> <td>9 davs</td> <td>Mon 31/8/20</td> <td>Wed 9/9/20</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	507 14.3.6.8	5 pipe laving & construct manhole	9 davs	Mon 31/8/20	Wed 9/9/20						
101         1048         Parket T. Ya 6         25 cap         404 30020         404 30020           101         10489         sam childing S durig TTA         25 cap         404 30020         74 478         400 -0000         74 478         400 -0000         74 478         400 -0000         74 478         400 -0000         74 478         400 -0000         74 478         400 -0000         47 478         400 -0000         47 478         400 -0000         47 478         400 -0000         47 478         400 -0000         47 478         400 -0000         47 478         400 -0000         400 -0000         47 478         400 -0000         400 -0000         400 -0000         47 478         400 -0000         400 -0000         400 -0000         400 -0000         400 -0000         400 -0000         400 -0000         400 -0000         400 -0000         400 -0000         400 -0000         400 -0000         400 -0000         400 -0000         400 -0000         400 -0000         400 -0000         400 -0000         400 -0000         400 -0000         400 -0000         400 -0000         400 -0000         400 -0000         400 -0000         400 -0000         400 -0000         400 -0000         400 -0000         400 -0000         400 -0000         400 -0000         400 -0000         400 -0000         400 -0000         4		10 PP- 17 0 -	-								
171       148.81       modeling parent sing parent and removal       2 day       Med 3000         175       148.81       modeling parent sing parent and removal       4 day       F 9 12000         175       148.84       modeling parent sing	509 14.3.6.8	e reinstate trench & curing	3 days	Sat 26/9/20	Tue 29/9/20						
197       43892       assort called projement and removal 4 days       4 days       Min 10002         197       43894       mutch shoulpiling       7 days       Min 10002       Tuk 10002         197       43894       mutch shoulpiling       7 days       Min 10002       Tuk 10002         197       43894       mutch shoulpiling       9 days       Tuk 201020       Min 911020         197       43894       projekije & constanct merkolis       9 days       Tuk 201020       Min 911100         197       43894       projekije & constanct merkolis       9 days       Tuk 201020       Min 911100         197       43894       projekije & constanct merkolis       9 days       Tuk 201000       Wei 201020         197       43894       projekije & constanct merkolis       9 days       Tuk 201000       Wei 201020         198       43894       projekije & constanct merkolis       9 days       Tuk 201020       Wei 201020         198       43894       monalitation & a toring       9 days       Tuk 201020       Wei 201020         198       43894       Fill 101120       2 days       Mer 201020       Tuk 101020         198       45818       mutch sheepling       7 days       Mer 201020       Tuk 201020<											
137       14.36.3.4       teach theophing       7 day       Med 10020         137       14.36.3.4       teach theophing       7 day       Med 10020         137       14.36.3.5       excaveb trend & shoring       9 day       Thu 2011020         136       14.36.3.5       excaveb trend & shoring       9 day       Thu 2011020       Mod 11220         137       14.36.3.6       pbe bying & dacatanci mathule       9 day       Thu 2011020       Mod 11220         138       14.46.3.8       reinstate framed & daving       3 day       Mod 2011220         138       14.36.3.9       reinstate framed & daving       3 day       Mod 2011220         139       14.36.9.9       reinstate framed & daving       3 day       Mod 2011220         139       14.36.9.9       reinstate framed & daving       3 day       Mod 2011220         139       14.36.9.9       reinstate framed & daving       3 day       Mod 2011220         139       14.36.9.9       reinstate framed & daving       3 day       Mod 2011220         131       14.36.9.9       reinstate framed & daving       3 day       Mod 2011220         131       14.36.9.9       reinstate framed & daving       3 day       Mod 2111220         132											
315       41.85.8       exclusible breepling       7.007       Wee 14/10/20       Wee 21/10/20         315       44.85.8       gee bayleg & controt mathice       9.69       Tue 21/10/20       Mon 21/120         316       44.85.8       gee bayleg & controt mathice       9.69       Tue 21/120       Mon 21/120         316       44.85.8       gee bayleg & controt mathice       9.69       Tue 21/120       Not 21/120         316       44.85.80       gee bayleg & controt mathice       9.69       Tue 21/120       Not 21/120         316       44.85.80       method bayleg in and the print of control       3.69       Mon 20/120       Not 21/120         317       44.86.93       gee bayleg & controt mathice       9.69       Tue 21/120       Not 21/120         318       44.86.94       method bayepling       7.69       Weed 14/1020       Weed 21/1020         317       44.86.93       excervate trant & thoring       9.69       Tue 21/1020       Not 21/1020         318       44.86.94       method bayepling       7.69       Weed 14/1020       Weed 21/1020         319       44.86.93       gei ga & Controt mathice       9.69       Tue 21/1020       Not 21/1020         319       44.86.94       gei ga & Controt mathice<		<b>3</b>	-								
Site         Page laying & construct matche backill hurch & terrore sharepile, rail & ater         9 day         Tue 311/20         Full 21200           Site         43.8.9         provide backill hurch & terrore sharepile, rail & ater         9 day         Mon 301/120         Wed 308/20           Site         43.8.90         montiliagina & ator T/A         2 days         Mon 301/120         Wed 308/20           Site         43.8.10         Present: TAI Tin         2 days         Mon 301/120         Wed 308/20           Site         43.8.10         provide backill provide train terminal         4 days         First/120         Tue 311/000           Site         43.8.10         gasser direkilling powement and removal         4 days         First/120         Tue 311/000           Site         43.8.108         gassarate terch & shoring         9 days         Tue 211/020         Tue 311/020           Site         43.8.108         gassarate terch & shoring         9 days         Tue 311/020         Tue 311/020         Tue 311/020           Site         44.8.108         pipe laying & construct mathele         9 days         Tue 311/020         Tue 311/020         Tue 311/020           Site         44.8.108         gescavate terch & shoring         9 days         Mon 3011120         Mon 301120         Mon 3		+-+- F+									
317       43.587       besktilt bench & remove sheepine, all & stuut       14 days       Fil 3111/20       Sat 281120         318       14.3.58.8       reinstale brench & ouring       3 days       Mon 3011120       Wed 211220         319       14.3.58.9       Phase E: TTA 11       52 days       Wed 303200       Wed 211220         319       14.3.51.0       Phase E: TTA 11       52 days       Wed 303200       TTU 21120         321       4.3.51.0       accut clusting pavement and removel       4 days       Mon 5101020       TTU 21120         323       4.3.51.0       excavate teach heedpiling       7 days       Wed 3142020       Wed 211020         324       4.3.51.0       excavate teach heedpiling       7 days       Wed 211020         324       4.3.51.0       excavate teach heedpiling       7 days       Wed 2112020         325       4.3.51.05       excavate teach heedpiling       7 days       TTU 121120         325       4.3.51.05       plexify & construct manhole       9 days       TTU 121120         326       4.3.51.0       plexify & construct manhole       9 days       TTU 121120         326       4.3.51.1       modilasion for a far on the day 11420       Wed 3/2202         327       4.3.51.1	515 14369	5 excavate trench & shoring	9 days	Thu 22/10/20	Mon 2/11/20						
117       H 3.6.97       beckšii bench & remove sheepipin, rail & stuu       H days       Fil 3111/20       Sel 2201120         138       H 3.6.98       reinstale hench & curing       3 days       Mon 3011/120       Wed 217220         139       H 3.6.10       mobilision Se stup TTA       2 days       Wed 309200       Sel 317020         141       H 34.6.10       seu ot a killing savement and removal       4 days       Mon 511020       Thu 910200         139       H 34.6.10       seu ot a killing savement and removal       4 days       Mon 511020       Thu 910200         139       H 34.6.10       seu ot a killing savement and removal       4 days       Fin 910700       Thu 910200         139       H 34.6.10       seu ot a killing savement and removal       4 days       Fin 910700       Thu 910200         139       H 34.6.10       seu ot a killing savement and removal       H days       Thu 910200       Mon 211120         139       H 34.6.10       seu ot a killing savement and removal       H days       Thu 911200       Mod 211120         139       H 34.6.10       seu ot a killing savement and removal       H days       Thu 911200       Mod 211120         139       H 38.6.10       relative sench & stup TTA       2 days       Mod 211120       M	516 14369	6 pipe laying & construct manhole	9 days	Tue 3/11/20	Thu 12/11/20						
519       143.610       Phase E: TTA 11n       52 days       Wed 201220         520       143.610       mobilisation & set up TTA       2 days       Wed 201220         521       43.6102       gave mein and removal       4 days       Fri 91020         522       143.6103       tranch sinespilling       7 days       Wed 141020         523       143.6104       tranch sinespilling       7 days       Wed 141020         524       43.6105       excavabe thench & shoring       9 days       Thu 211120         525       44.36.106       pple laying & construct manhole       9 days       Tu 211120         526       44.36.108       remos sheetpile, rail & strut       14 days       Fri 1311120         526       44.36.108       remos sheetpile, rail & strut       14 days       Fri 1311120         526       44.36.108       remos sheetpile, rail & strut       14 days       Fri 1311120         526       44.36.114       mobilisation & set up TTA       2 days       Tu 31220         526       44.36.114       mobilisation & set up TTA       2 days       Thu 31220         537       44.36.114       mobilisation & set up TTA       2 days       Tu 31220         538       44.36.114       mobilisation	517 14.369		-								
SiP       143.610       Phase E: TA 11n       52 days       Wed 30/820       Wed 21/220         SiP       143.6101       mobilisation & set up TA       2 days       Wed 30/820       Stal 31/020         SiP       143.6101       save cutoating pavement and removal       4 days       Fri 91/020       Tue 31/020         SiP       143.6105       excavate trench sheepiling       7 days       Wed 11/120         SiP       143.6105       excavate trench sheepiling       7 days       Tue 21/120         SiP       143.6105       ppe laying & construct manhole       9 days       Tue 21/120         SiP       143.6105       renstate trench & curing       3 days       Mon 2011/20         SiP       143.6106       renstate trench & curing       3 days       Mon 2011/20         SiP       143.6106       renstate trench & curing       3 days       Mon 2011/20         SiP       143.6116       renstate trench & curing       3 days       Mon 3011/20       Wed 21/1220         SiP       143.6116       renstate trench & curing       3 days       Mon 3011/20       Wed 21/1220         SiP       143.6116       securate trench & shoring       6 days       Tue 12/1220         SiP       143.6116       rench sheepiling <th>518 14369</th> <th>8 reinstate trench &amp; curing</th> <th>3 days</th> <th>Mon 30/11/20</th> <th>Wed 2/12/20</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	518 14369	8 reinstate trench & curing	3 days	Mon 30/11/20	Wed 2/12/20						
52       14.36.102       saw cut existing pavement and removal       4 days       Mon 5/1020       Thu 8/1020         522       14.36.103       trial plis       4 days       Fig 91020       Tu 3/1020         523       14.36.104       trench sheepling       7 days       Wed 14/1020       Wed 21/1020         525       14.36.105       excavate trench & shoring       9 days       Tu 2/11/20       Mon 2/11/20         525       14.36.105       pipe laying & construct manhole       9 days       Tu 2/11/20       Thu 3/11/20         526       14.36.105       pipe laying & construct manhole       9 days       Tu 2/11/20       Sal 2/11/20         527       14.36.108       reinstate trench & curing       3 days       Mon 3/11/20       Wed 3/21/20         528       14.36.11       Phase F: TA 6n       51 days       Tu 3/12/20       Wed 3/21/20         539       14.36.11       Phase F: TA 6n       51 days       Tu 3/12/20       Wed 3/21/20         531       14.36.11       saw cut existing pavement and removal       4 days       Sal 5/12/20       Wed 3/21/20         531       14.36.11.5       excavate trench & shoring       8 days       Tu 10/12/20       Mon 14/12/20         532       14.36.11.5       trench shee		Phase E: TTA 11n									
522       14.3.6.103       trial pits       4 days       Fi 9/10/20       Tue 13/10/20         523       14.3.6.104       trench sheetpiling       7 days       Wed 14/10/20       Wed 21/10/20         524       14.3.6.105       excavate trench & shoring       9 days       Tue 21/10/20       Mon 21/120         525       14.3.6.105       backfill trench & remove sheetpile, rail & strut       14 days       Fii 13/11/20       Sat 28/11/20         526       14.3.6.107       backfill trench & remove sheetpile, rail & strut       14 days       Fii 13/11/20       Sat 28/11/20         526       14.3.6.107       backfill trench & remove sheetpile, rail & strut       14 days       Fii 13/11/20       Sat 28/11/20         526       14.3.6.107       backfill trench & remove sheetpile, rail & strut       14 days       Fii 13/11/20       Sat 28/11/20         527       14.3.6.117       Phase F: TTA 6n       51 days       Thu 31/12/20       Wed 3/12/20         538       14.3.6.113       trial pits       4 days       Sat 51/2/20       Wed 3/12/20         531       14.3.6.113       trial pits       4 days       Thu 11/12/20       Tue 22/12/20         532       14.3.6.115       trench & shoring       8 day       Wed 23/12/20       Tue 22/12/20											
52343.6104trench sheetpiling7 daysWed 14/1020Wed 21/1020524K3.6105excavate trench & shoring9 daysThu 22/10/20Mon 2/11/20525K3.6106pipe laying & construct manhole9 daysTuu 21/11/20526K3.6107backfill trench & remove sheetpile, rall & strut14 daysFri 13/11/20527K3.6108reinstate trench & curing3 daysMon 30/11/20528K4.36104reinstate trench & curing3 daysMon 30/11/20529K4.36112saw cut existing pavement and removal4 daysSat 51/220530K4.36112saw cut existing pavement and removal4 daysSat 51/220531K4.36113trial pils4 daysThu 10/1220532K4.36114trench sheetpiling7 dayTue 51/120533K4.36115excavate trench & shoring8 days534K4.36114pipe laying & construct manhole9 days535K4.36113trial pils4 days537K4.36114trench sheetpiling7 day538K4.36115excavate trench & shoring8 days537K4.36115pipe laying & construct manhole9 days538K4.36115pipe laying & construct manhole9 days539K4.36115pipe laying & construct manhole9 days530K4.36115pipe laying & construct manhole9 days531K4.36115pipe laying & construct manhole9 days532K4.3											
524       14.38.105       excevate trench & shoring       9 days       Thu 22/10/20       Mon 2/11/20         525       14.38.106       pipe laying & construct manhole       9 days       Tue 3/11/20       Thu 12/11/20         526       14.38.108       reinstate trench & curing       3 days       Mon 30/11/20       Ved 2/12/20         527       14.38.108       reinstate trench & curing       3 days       Mon 30/11/20       Ved 2/12/20         528       14.36.11       Phase F: TIA 6n       51 days       Thu 3/12/20       Ved 3/2/21         529       43.6.11       mobilisation & set up TTA       2 days       Thu 3/12/20       Ved 3/2/21         530       14.36.112       saw cut existing pavement and removal       4 days       Sa thi 1/2/20       Ved 3/12/20         531       43.6.11.4       trench sheetpiling       7 days       Tue 15/12/20       Ved 3/12/20         532       43.6.11.4       trench sheetpiling       7 days       Tue 5/12/20       Tue 2/12/20         533       43.6.11.5       excevate trench & shoring       8 days       Mon 4/1/12/1         534       43.8.11.6       pipe laying & construct manhole       9 days       Tue 5/1/21         534       43.8.11.6       pipe laying & construct manhole	- 100 et 40	0									
52514.36.106pipe laying & construct manhole9 daysTue 3/11/20Thu 12/11/2052614.36.107beckfill tench & remove sheetpile, rail & strut14 daysFri 13/11/20Sat 28/11/2052714.36.108reinstate trench & curing3 daysMon 30/11/20Wed 2/12/2052814.36.114Phase F: TTA 6n51 daysThu 3/12/20Wed 3/2/2152914.36.114mobilisation & set up TTA2 daysThu 3/12/20Wed 3/2/2153014.36.112saw cut existing pavemant and removal4 daysSat 1/2/20Wed 3/12/2053114.36.114trench sheetpiling7 daysTue 15/12/20Tue 2/21/2/2053214.36.115excavate trench & shoring8 daysWed 23/12/20Mon 4/1/2153414.36.115pipe laying & construct manhole9 daysTue 5/1/21Thu 11/1/21											
526       #43.6.107       backfill bench & remove sheetpile, rail & strut       14 days       Fri 13/11/20       Set 28/11/20         527       #43.6.108       reinstate trench & curing       3 days       Mon 30/11/20       Wed 2/12/20         528       #43.6.11       Phase F: TTA 6n       51 days       Thu 3/12/20       Wed 3/2/21         529       #43.6.11.2       saw out existing pavement and removal       4 days       Thu 10/12/20         530       #43.6.11.3       trial pits       4 days       Thu 10/12/20         531       #43.6.11.4       trench sheetpiling       7 days       Tue 21/12/20         533       #43.6.11.5       excavate trench & shoring       8 days       Wed 23/12/20         534       #43.6.11.5       pipe laying & construct manhole       9 days       Tue 51/121		jame T									
52714.35.10.8reinstate trench & curing3 daysMon 30/11/20Wed 2/12/2052814.36.11Phase F: TTA 6n51 daysThu 3/12/20Wed 3/2/2152914.36.11.1mobilisation & set up TTA2 daysThu 3/12/20Fri 4/12/2053014.36.11.2saw cut existing pavement and removal4 daysSat 5/12/20Wed 9/12/2053114.36.11.3trial pits4 daysThu 10/12/20Mon 14/12/2053214.36.11.4trench sheetpiling7 daysTue 15/12/20Tue 22/12/2053314.36.11.5excavate trench & shoring8 daysWed 23/12/20Mon 4/1/2153414.36.11.6pipe laying & construct manhole9 daysTue 5/1/12Thu 14/1/121											
52814.3.6.11Phase F: TTA 6n51 daysThu 3/12/20Wed 3/2/2152914.3.6.11.1mobilisation & set up TTA2 daysThu 3/12/20Fri 4/12/2053014.3.6.11.2saw cut existing pavement and removal4 daysSat 5/12/20Wed 9/12/2053114.3.6.11.3trial pits4 daysThu 10/12/20Mon 14/12/2053214.3.6.11.4trench sheetpilling7 daysTue 15/12/20Tue 22/12/2053314.3.6.11.5excavate trench & shoring8 daysWed 23/12/20Mon 4/1/2153414.3.6.11.6pipe laying & construct manhole9 daysTue 5/1/21Thu 14/1/21	320 14.3.6.10	backfull trench & remove sneetpile, rall & strut	14 days	Ffi 13/11/20	Sat 26/11/20						
52914.36.11.1mobilisation & set up TTA2 daysThu 3/12/20Fri 4/12/2053014.36.11.2saw cut existing pavement and removal4 daysSat 5/12/20Wed 9/12/2053114.36.11.3trial pits4 daysThu 10/12/20Mon 14/12/2053214.36.11.4trench sheetpilling7 daysTue 15/12/20Tue 22/12/2053314.36.11.5excavate trench & shoring8 daysWed 23/12/20Mon 4/1/2153414.36.11.6pipe laying & construct manhole9 daysTue 5/1/21Thu 14/1/21		5									
\$3014.36.112 \$11.3saw cut existing pavement and removal trial pits4 days 4 daysSat 5/12/20 Thu 10/12/20 Mon 14/12/20 Tue 22/12/20\$3314.36.11.4trial pits4 days 7 daysThu 10/12/20 Tue 22/12/20\$3314.36.11.5excavate trench & shoring8 daysWed 23/12/20 Won 4/1/21\$3414.36.11.6pipe laying & construct manhole9 daysTue 5/1/21 Tuu 14/1/21											
531       14.3.611.3       trial pits       4 days       Thu 10/12/20       Mon 14/12/20         532       14.3.611.4       trench sheetpiling       7 days       Tue 15/12/20       Tue 22/12/20         533       14.3.611.5       excavate trench & shoring       8 days       Wed 23/12/20       Mon 4/1/21         534       14.3.611.6       pipe laying & construct manhole       9 days       Tue 5/1/21       Thu 14/1/21		'									
532       14.36.11.4       trench sheetpilling       7 days       Tue 15/12/20       Tue 22/12/20         533       14.36.11.5       excavate trench & shoring       8 days       Wed 23/12/20       Mon 4/1/21         534       14.36.11.6       pipe laying & construct manhole       9 days       Tue 5/1/21       Thu 14/1/21											
534     14.3.6.11.6     pipe laying & construct manhole     9 days     Tue 5/1/21     Thu 14/1/21	12232 1 11 11 11 11 11 11 11 11 11 11 11 11										
	533 14.3.611	1.5 excavate trench & shoring	8 days	Wed 23/12/20	Mon 4/1/21						
	534 14.3.6.1	1.6 pipe laying & construct manhole	9 days	Tue 5/1/21	Thu 14/1/21						
	CIT-STOLE INFORMATION	PP <b>)</b> 0									
536         14.3.6.11.8         reinstate trench & curing         3 days         Mon 1/2/21         Wed 3/2/21           537         14.3.6.11.8         For July 2010         No. 1/2/21         Wed 3/2/21	- Internet and a second second	, i i i i i i i i i i i i i i i i i i i									
537         14.3.6.12         Phase F: additional TTA 12s         38 days         Fri 18/12/20         Wed 3/2/21           538         14.3.6.12.1         mobilisation & set up TTA         2 days         Fri 18/12/20         Sal 19/12/20	1 2 2022 10 2 2 2 2										
Sign Hall     Sign Hall     Sign Hall     Sign Hall     Sign Hall       Sign Hall     Sign Hall     Sign Hall     Sign Hall     Sign Hall       Sign Hall     Sign Hall     Sign Hall     Sign Hall     Sign Hall											



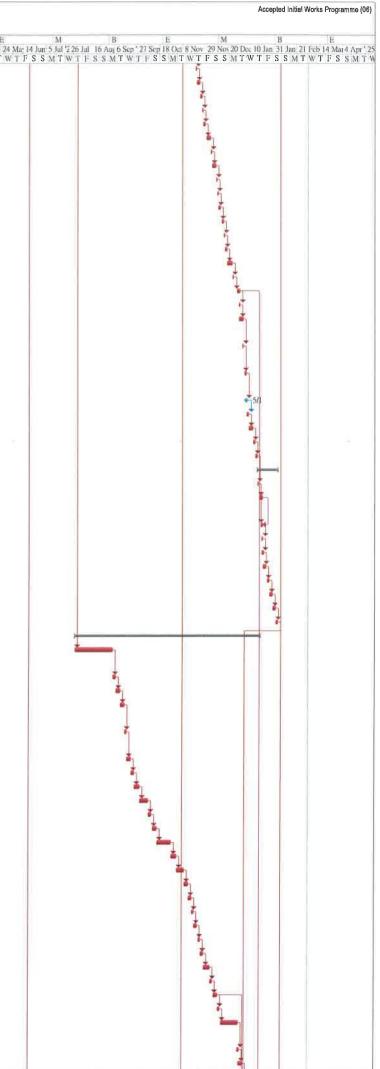
No.         No. <th>Developmen</th> <th>CV/2017/02 It of Columbarium at Sandy Ridge Cemelery Jral Works at Man Kam To Road and Lin Ma Hang Roa</th> <th>d</th> <th></th> <th></th> <th>3 Month Rolling Programme (from 26/2/2021 to 25/5/2021)</th>	Developmen	CV/2017/02 It of Columbarium at Sandy Ridge Cemelery Jral Works at Man Kam To Road and Lin Ma Hang Roa	d			3 Month Rolling Programme (from 26/2/2021 to 25/5/2021)
				Start Date	Completion Date 20	
No. 10.     No. 10.     No. 10.     No. 10.     No. 10.     No. 10.       No. 10.     No. 10.     No. 10.     No. 10.     No. 10.     No. 10.       No. 10.     No. 10.     No. 10.     No. 10.     No. 10.     No. 10.       No. 10.     No. 10.     No. 10.     No. 10.     No. 10.     No. 10.       No. 10.     No. 10.     No. 10.     No. 10.     No. 10.     No. 10.       No. 10.     No. 10.     No. 10.     No. 10.     No. 10.     No. 10.       No. 10.     No. 10.     No. 10.     No. 10.     No. 10.     No. 10.       No. 10.     No. 10.     No. 10.     No. 10.     No. 10.     No. 10.       No. 10.     No. 10.     No. 10.     No. 10.     No. 10.     No. 10.       No. 10.     No. 10.     No. 10.     No. 10.     No. 10.     No. 10.       No. 10.     No. 10.     No. 10.     No. 10.     No. 10.     No. 10.       No. 10.     No. 10.     No. 10.     No. 10.     No. 10.     No. 10.       No. 10.     No. 10.     No. 10.     No. 10.     No. 10.     No. 10.       No. 10.     No. 10.     No. 10.     No. 10.     No. 10.     No. 10.       No. 10.     No. 10.     No. 10.	540 44.00	100	C dava	Mad 20/10/20	7	WTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSM
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No. 000         Same Part Section (Section (Secticon (Sectic) (Section (Section (Sectic) (Section (Sectic) (Section	542 14.3.6	12.5 excavate trench & shoring	4 days	Tue 12/1/21	Fri 15/1/21	
Note of instructures website of the second	543 1436	12.6 pipe laving & construct manhole	4 davs	Sat 16/1/21	Wed 20/1/21	
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No.0000         And and a fact of the STA Start Star		66				
No. 14/190         Non-configuration (2019)         Non-Configuration (2019)         Non-Configuration (2019)           No. 14/190         Non-Configuration (2019)         Non-Configuration (2019)         Non-Configuration (2019)         Non-Configuration (2019)           No. 14/190         Non-Configuration (2019)         Non-Configu	11.00 million (2015) (2015)					
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No.000         No.0000         No.0000         No.00		51				
No.         Status         Status <td>550 14.3,6.</td> <td>13.4 trench sheetpiling</td> <td>5 days</td> <td>Sat 2/1/21</td> <td>Thu 7/1/21</td> <td></td>	550 14.3,6.	13.4 trench sheetpiling	5 days	Sat 2/1/21	Thu 7/1/21	
20     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     1011     10111     1011     1011     1011    <	551 1436	135 excavale trench & shoring	6 days	Fri 8/1/21	Thu 14/1/21	
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Gen       Value       Pages I (trags / scott hase (harange 1/2       Store Mark	T	(	18 days			
23:89:1-000       23:89:1-000       23:99:1-000       25:99:1-000       25:99:1-000       25:99:1-000       25:99:1-000       25:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000       26:99:1-000	1	Phase II (stage 1)-south lane (chainage 32-85)-Noise Barrier MM6 (bays 1-3) & MM7 (bays	95 days			
744       Phase II (those 4)-optimes (those 9)       68 deg       Tu 24/302       Wed 178/20         747       TA AU       Bes 139)/Adse Barris MMO (bys 1-4)       2 deg       Tu 24/322       Fin 27/320         748       TA AU       beseding       2 deg       Tu 25/322       Fin 27/320         749       Ta AU       saw of a service existing pawement       2 deg       Tu 25/322       Fin 27/320         759       Ta AU       metal sheeples       5 deg       Fin 34/20       Tu 44/402         759       Ta AU       service and instal rais and sinus       5 deg       Fin 34/20       Tu 44/402         759       Ta AU       seed faing for two bases       2 deg       Tu 94/200       Tu 94/200         759       Ta AU       seed faing for two bases       2 deg       Tu 94/200       Tu 94/200         759       Ta AU       seed faing for two bases       2 deg       Tu 94/200       Tu 94/200         759       Ta AU       seed faing for two bases       2 deg       Tu 94/200       Tu 94/200       Tu 94/200         759       Ta AU       seed faing for two bases       2 deg       Wed 718/200       Tu 94/200       Tu 94/200       Tu 94/200       Tu 94/200       Tu 94/200       Tu 94/200       Tu 94/200 <td>703 17 3 12</td> <td></td> <td>84 days</td> <td>Sat 26/10/19</td> <td>Fri 7/2/20</td> <td></td>	703 17 3 12		84 days	Sat 26/10/19	Fri 7/2/20	
BS-139.Aboos Bamer MM10 Bays 1-4)         V V           707         73.41         TTA, UU debaction         2 day         Tue 24020         Fe 273/20           707         73.43.1         TTA, UU debaction         2 day         Tue 24020         Fe 273/20           707         73.43.2         saw cdt arenove existing pavement:         2 day         Tue 24020         Fe 273/20           708         73.44.3         install sheepiles         2 day         Tue 24020         Tue 24020           708         73.45.4         excavele and install rails and strutts         5 day         S af 280/20         Tue 24020           709         73.46         excavele and install rails and strutts         5 day         Tue 14420         Worl 134/20           719         73.47         formoxic for bases         2 day         Tue 14420         Worl 134/20           719         73.48         concrete and curing for two bases         2 day         Tue 14420         Worl 134/20           719         73.44         formoxic for bases         2 day         Tue 14420         Worl 134/20           719         73.44         concrete and curing for two bases         2 day         Worl 134/20         Tue 24420           719         73.44         concrete and curing for t	T III	(	38 days	Sat 8/2/20	Mon 23/3/20	
789       17.3.14.2       tee felling       2 days       Thu 25/020       F1.273/020         790       17.3.14.3       saw cut & remove existing pavement       2 days       Thu 25/020       Thu 25/020         790       17.3.14.4       install sheetplies       5 days       F1.273/020       Thu 25/020       Thu 25/020         791       17.3.14.5       excervels end install rais and struts       5 days       F1.374/020       Thu 94/020         795       17.3.14.8       excervels end install rais and struts       5 days       Tu 94/020       Tue 144/020         795       17.3.14.8       astee filting fraveo bases       2 days       Tue 94/020       Tue 144/020         795       17.3.14.8       astee filting fraveo bases       2 days       Tue 144/020       Tue 144/020         795       17.3.14.8       astee filting fraveo bases       4 days       Tue 144/020       Tue 214/020         795       17.3.14.11       falsework for bow walls       3 days       Tue 214/020       Tue 214/020         796       17.3.14.11       falsework for bow walls       3 days       Tue 214/020       Tue 214/020         796       17.3.14.11       falsework for bow walls       3 days       Tue 214/020       Tue 214/020         796	746 17 3 1		68 days	Tue 24/3/20	Wed 17/6/20	
749       17.3.14.3       saw cut å remove existing pavement, install shedriplies       2 days       Thu 25/320       F1.27/320         751       17.2.14.4       install shedriplies       5 days       F1.2/420       Thu 24/20         751       17.2.14.5       excavate and install rails and struts       5 days       F1.9/420       Thu 94/20         752       17.2.14.5       concrete binding layers for 4 bays       2 days       Tue 14/420         753       17.2.3.4.6       concrete binding layers for 4 bays       2 days       Tue 14/420         754       17.2.3.4.8       seel (hing for two bases       4 days       Thu 14/420         754       17.2.3.4.8       seel (hing for two bases       4 days       Thu 14/420         754       17.2.3.4.8       seel (hing for two bases       4 days       Thu 21/420         754       17.2.3.4.8       seel (hing for two bases       4 days       Thu 22/420         756       17.2.3.4.1.1       falsework and formwork       2 days       Thu 24/420         758       17.2.3.4.1.1       falsework and formwork for two walls       6 days       Thu 23/420         756       17.2.3.4.1.1       falsework and formwork for two walls       4 days       Sat 2202         756       17.2.3.4.1.1						
750       77.3144       Install sheetplies       5 days       Sat 28/320       Thu 24/20         751       17.314.5       excavate and install rails and struts       5 days       Fri 34/20       Thu 94/20         753       17.314.6       concrete bilinding layers for 4 bays       2 days       Thu 94/20       Thu 94/20         754       17.314.6       concrete bilinding layers for 4 bays       2 days       Thu 94/20       Thu 94/20         754       17.314.8       steel fixing for two bases       2 days       Thu 94/20       Thu 194/20         754       17.314.8       steel fixing for two bases       2 days       Thu 194/20       Wet 154/20         754       17.314.8       steel fixing for two bases       2 days       Thu 194/20       Thu 194/20         755       17.314.8       steel fixing for two bases       4 days       Thu 194/20       Thu 214/20         755       17.314.8       steel fixing for two walls       3 days       Thu 214/20       Thu 234/20         756       17.314.8       steel fixing for two walls       3 days       Thu 234/20       Stee 294/20         756       17.314.8       concrete and curing for two walls       2 days       Stee 294/20       Stee 294/20         760       17.314.8	748 17 3 14	4.2 tree felling	2 days	Thu 26/3/20	Fri 27/3/20	
729       17.3.14.4       Install sheeplies       5 days       Sat 28/3/20       Thu 24/20         721       17.3.14.6       excavale and install rails and shuts       5 days       Fri 34/20       Thu 94/20         728       17.3.14.6       concrete binding layers for 4 bays       2 days       Thu 94/20         728       17.3.14.8       concrete binding layers for 4 bays       2 days       Thu 94/20         728       17.3.14.8       concrete binding layers for 4 bays       2 days       Thu 94/20         728       17.3.14.8       steel fixing for two bases       2 days       Thu 194/20         728       17.3.14.8       steel fixing for two bases       4 days       Thu 194/20         728       17.3.14.8       concrete and curing for two wals       3 days       Thu 214/20         729       17.3.14.8       concrete number for two wals       3 days       Thu 234/20         728       17.3.14.9       concrete and curing for two wals       3 days       Thu 234/20         728       17.3.14.8       concrete and curing for two wals       2 days       Thu 234/20         728       17.3.14.8       concrete and curing for two wals       2 days       Thu 234/20         728       17.3.14.7       seel fixing for two wals       <	749 17 3 14	4.3 saw cut & remove existing pavement	2 days	Thu 26/3/20	Fri 27/3/20	
772       17.3.14.7       concrete binding layers for 4 bays       2 days       Thu 9/4/20       Wed 15/4/20         773       17.3.14.7       formwork for bases of alternative first two bays       2 days       Tu e 14/4/20       Wed 15/4/20         775       17.3.14.8       sale fixing for two bases       2 days       Tu e 14/4/20       Wed 15/4/20         775       17.3.14.9       concrete binding layers for 4 bays       2 days       Tu e 14/4/20       Wed 15/4/20         775       17.3.14.9       concrete binding for two bases       4 days       Thu 16/4/20       Wed 15/4/20         775       17.3.14.10       remove formwork       2 days       Mon 20/4/20       Thu 21/4/20         775       77.3.14.11       falsework and formwork for two walls       3 days       Tu e 21/4/20         776       17.3.14.12       sale fixing for two walls       2 days       Wed 28/4/20       Sat 2/5/20       Wed 65/20         776       17.3.14.13       concrete and curing for two walls       2 days       Thu 18/120       Thu 18/120       Thu 18/120         776       17.3.14.15       remove formwork       2 days       Sat 2/5/20       Wed 65/20       Thu 18/5/20       Thu 18/5/20         762       17.3.14.15       formovic for bases       2 days		•	-			
733       173.14.7       formwork for bases of alternative first two bays       2 days       Tue 14/4/20       Wed 15/4/20         754       173.14.8       steel fixing for two bases       2 days       Wed 15/4/20       Thu 16/4/20         755       173.14.9       concrete and curing for two bases       4 days       Thu 16/4/20       Thu 23/4/20         756       173.14.10       remove formwork       2 days       Mon 20/4/20       Thu 23/4/20         757       173.14.11       falsework and formwork for two walls       6 days       Thu 23/4/20         758       173.14.12       steel fixing for two walls       6 days       Thu 23/4/20         768       173.14.13       close formwork for two walls       6 days       Thu 23/4/20         769       173.14.13       close formwork for two walls       6 days       Thu 23/4/20         769       173.14.14       concrete and curing for two walls       4 days       Sat 2/5/20         760       173.14.15       remove formwork       2 days       Thu 7/5/20         763       173.14.16       formwork for bases       2 days       Fri 8/5/20         763       173.14.16       concrete and curing for two bases       2 days       Sat 9/5/20         764       173.14.19	751 17.3 14	4.5 excavate and install rails and struts	5 days	Fri 3/4/20	Thu 9/4/20	
733       173.14.7       formwork for bases of alternative first two bays       2 days       Tue 14/4/20       Wed 15/4/20         754       173.14.8       steel fixing for two bases       2 days       Wed 15/4/20       Thu 16/4/20         755       173.14.9       concrete and curing for two bases       4 days       Thu 16/4/20       Mon 20/4/20         756       173.14.10       remove formwork       2 days       Won 20/4/20       Thu 23/4/20         757       173.14.11       falsework and formwork for two walls       6 days       Thu 23/4/20         758       173.14.12       steel fixing for two alls       6 days       Thu 23/4/20         758       173.14.13       close formwork for two walls       2 days       Wed 29/4/20         759       173.14.13       close formwork for two walls       2 days       Wed 29/4/20         759       173.14.14       close formwork for two walls       2 days       Wed 5/5/20         760       173.14.15       remove formwork       2 days       Thu 7/5/20         762       173.14.16       formwork for bases       2 days       Thu 7/5/20         763       173.14.16       formwork for bases       2 days       Sa 19/5/20         764       173.14.19       concrete and cur	752 17.3.14	4.6 concrete blinding layers for 4 bays	2 davs	Thu 9/4/20	Tue 14/4/20	
755       17.3.14.9       concrete and curing for two bases       4 days       Thu 16/4/20       Mon 20/4/20         756       17.3.14.10       remove formwork       2 days       Mon 20/4/20       Tue 21/4/20         757       17.3.14.11       falsework and formwork for two walls       3 days       Tue 21/4/20       Thu 23/4/20         758       17.3.14.12       steel fixing for two walls       6 days       Thu 23/4/20       Stel 29/4/20         759       17.3.14.12       steel fixing for two walls       2 days       Wed 29/4/20       Sat 2/5/20         760       17.3.14.12       concrete and curing for two walls       2 days       Sat 2/5/20         761       17.3.14.15       remove formwork       2 days       Wed 6/5/20         761       17.3.14.15       remove formwork for bases of allernative second two       2 days       Thu 7/5/20         762       17.3.14.17       steel fixing for two bases       2 days       Sat 9/5/20       Wed 13/5/20         763       17.3.14.19       concrete and curing for two bases       2 days       Sat 9/5/20       Wed 13/5/20         764       17.3.14.19       concrete and curing for two bases       2 days       Sat 9/5/20       Wed 13/5/20         765       17.3.14.19       remove formwork		· · · · · · · · · · · · · · · · · · ·				
756       tr.3.14.10       remove formwork       2 days       Mon 20/4/20       Tue 21/4/20         757       tr.3.14.11       falsework and formwork for two walls       3 days       Tue 21/4/20       Thu 23/4/20         758       tr.3.14.12       steel fixing for two walls       6 days       Thu 23/4/20       Wed 29/4/20       Sat 2/5/20         759       tr.3.14.13       close formwork for two walls       2 days       Wed 29/4/20       Sat 2/5/20         760       tr.3.14.14       concrete and curing for two walls       4 days       Sat 2/5/20       Wed 6/5/20         761       tr.3.14.15       remove formwork       2 days       Thu 7/5/20       Fit 8/5/20         762       tr.3.14.16       concrete and curing for two bases       2 days       Thu 7/5/20       Fit 8/5/20         763       tr.3.14.16       concrete and curing for two bases       2 days       Sat 9/5/20       Wed 13/5/20         764       tr.3.14.17       steel fixing for two bases       2 days       Sat 9/5/20       Wed 13/5/20       Thu 14/5/20         765       tr.3.14.19       remove formwork       2 days       Wed 13/5/20       Thu 14/5/20       Thu 14/5/20         764       tr.3.14.19       remove formwork       2 days       Wed 13/5/20 <th< td=""><td>754 17.3 14</td><td>4.8 steel fixing for two bases</td><td>-</td><td></td><td>Thu 16/4/20</td><td></td></th<>	754 17.3 14	4.8 steel fixing for two bases	-		Thu 16/4/20	
75717.3.14.11falsework and formwork for two walls3 daysTue 21/4/20Thu 23/4/2075817.3.14.12steel fixing for two walls6 daysThu 23/4/20Wed 29/4/2075917.3.14.13close formwork for two walls2 daysWed 29/4/20Sat 2/5/2076017.3.14.14concrete and curing for two walls4 daysSat 2/5/2076117.3.14.15remove formwork2 daysWed 6/5/2076217.3.14.15formwork for two bases2 daysThu 7/5/2076317.3.14.17steel fixing for two bases2 daysThu 7/5/2076417.3.14.17steel fixing for two bases2 daysSat 9/5/2076417.3.14.18concrete and curing for two bases2 daysSat 9/5/2076417.3.14.19remove formwork2 daysWed 13/5/2076517.3.14.19remove formwork2 daysWed 13/5/2076517.3.14.19remove formwork2 daysWed 13/5/20						
778       17.4 14.12       steel fixing for two walls       6 days       Thu 23/4/20       Wed 29/4/20         759       17.3 14.13       close formwork for two walls       2 days       Wed 29/4/20       Sat 2/5/20         760       17.3 14.14       concrete and curing for two walls       4 days       Sat 2/5/20       Wed 6/5/20         761       17.3 14.15       remove formwork       2 days       Wed 6/5/20       Thu 7/5/20         761       17.3 14.16       formwork for bases of alternative second two bays       2 days       Thu 7/5/20         762       17.3 14.17       steel fixing for two bases       2 days       Fri 8/5/20         763       17.3 14.18       concrete and curing for two bases       2 days       Sat 9/5/20         764       17.3 14.18       concrete and curing for two bases       4 days       Sat 9/5/20         765       17.3 14.19       remove formwork       2 days       Sat 9/5/20         765       17.3 14.19       remove formwork       2 days       Sat 9/5/20         765       17.3 14.19       remove formwork       2 days       Wed 13/5/20	and the second second		-			1
75917.3.14.13close formwork for two walls2 daysWed 29/4/20Sat 2/5/20Wed 6/5/2076017.3.14.14concrete and curing for two walls4 daysSat 2/5/20Wed 6/5/2076117.3.14.15remove formwork2 daysWed 6/5/20Thu 7/5/2076217.3.14.16formwork for bases of alternative second two bays2 daysThu 7/5/2076317.3.14.17steel fixing for two bases2 daysFri 8/5/2076417.3.14.18concrete and curing for two bases2 daysSat 9/5/2076417.3.14.19remove formwork2 daysSat 9/5/2076517.3.14.19remove formwork2 daysWed 13/5/2076517.3.14.19remove formwork2 daysWed 13/5/20						
76117.3.14.15remove formwork2 daysWed 6/5/20Thu 7/5/2076217.3.14.16formwork for bases of alternative second two bays2 daysThu 7/5/20Fri 8/5/2076317.3.14.17steel fixing for two bases2 daysFri 8/5/20Sat 9/5/2076417.3.14.18concrete and curing for two bases4 daysSat 9/5/2076517.3.14.19remove formwork2 daysWed 13/5/20	Transfer and the second					
76217.3.14.16formwork for bases of alternative second two bays2 daysThu 7/5/20Fri 8/5/2076317.3.14.17steel fixing for two bases2 daysFri 8/5/20Sat 9/5/2076417.3.14.18concrete and curing for two bases4 daysSat 9/5/20Wed 13/5/2076517.3.14.19remove formwork2 daysWed 13/5/20Thu 14/5/20						
763       17.3.14.17       steel fixing for two bases       2 days       Fri 8/5/20       Sat 9/5/20         764       17.3.14.18       concrete and curing for two bases       4 days       Sat 9/5/20       Wed 13/5/20         765       17.3.14.19       remove formwork       2 days       Wed 13/5/20       Thu 14/5/20						1
764         17.3.14.18         concrete and curing for two bases         4 days         Sat 9/5/20         Wed 13/5/20           765         17.3.14.19         remove formwork         2 days         Wed 13/5/20         Thu 14/5/20		bays				
765         17.3.14.19         remove formwork         2 days         Wed 13/5/20         Thu 14/5/20						
766 17.3.14.20 falsework and formwork for two walls 3 days Thu 14/5/20 Sat 16/5/20		data:				
	766 17.3.1		3 days	Thu 14/5/20	Sat 16/5/20	



Contract No. CV. Development of - Infrastructural V	/2017/02 Columbarium at Sandy Ridge Cemetery Norks at Man Kam To Road and Lin Ma Hang Roa	1						3 Month Rolling Pro (from 26/2/2021 to 25		
JD WBS	Task Name	Duration	Start Date	Completion Date	M B 20 Mai 10 Jun 1 Jul '1 22 Jul 12 Aus 2 Set	E 1 23 Sep 14 Oct 4 N	lov 25 Nov 16 Dec 6 Jan 1 27 Jan 1	E M B 17 Feb 10 Mai 31 Mai 21 Apr 12 Maj 2 Jun	E M B I '23 Jun 14 Jul 4 Aug 25 Aug 15 Sep 6 Oct '27 Oct 17 Nov8 Dec	i M B E * 29 Dec 19 Jan 9 Feb * 1 Mar 22 Mai 12 Apr 3 May 24
767 17.3.14.21	steel fixing for two walls	6 days	Sat 16/5/20	Fri 22/5/20	TWTFSSMTWTFSSMT	WTFSSMT	WTFSSMTWTFSS	M T W T F S S M T W T F S S M	TWTFSSMTWTFSSMTWTFSSMTWT	FSSMTWTFSSMTWTFSSMTW
768 17 3 14 22	close formwork for two walls	2 days	Fri 22/5/20	Sat 23/5/20						
769 17.3.14.23	concrete and curing for two walls	4 days	Sal 23/5/20	Wed 27/5/20						<b>4</b>
770 17 3 14.24	remove formwork	2 days	Wed 27/5/20	Thu 28/5/20						1
77] 17 3 14 25	backfill formation & SRT test	9 days	Thu 28/5/20	Sat 6/6/20						
772 17 3 14 26	lay kerb, sub-base	2 days	Mon 8/6/20	Tue 9/6/20						
773 17 3 14 27	sub-base SRT test	2 days 3 days	Wed 10/6/20	Fri 12/6/20						
774 17 3 14 28	DBM (Roadbase)	2 days	Sat 13/6/20	Mon 15/6/20						
775 17 3 14 29	base course and wearing course	2 days	Tue 16/6/20	Wed 17/6/20						
776 17 3 15	Phase II (stage 5)-south lane (chainage 138-190)	36 days								
777 17 3 15 1	TTA & UU detection	2 days	Thu 18/6/20	Fri 19/6/20						
778 17 3 15 2	tree felling	4 days	Sat 20/6/20	Wed 24/6/20						
779 17.3 15 3	saw cul & remove existing pavement	2 days	Tue 23/6/20	Wed 24/6/20						
780 17 3 15 4	excavate pipe trench and manhole(s)	2 days	Fri 26/6/20	Sat 27/6/20						
78] 17 3.15.5	lay pipes & construct manhole(s)	8 days	Mon 29/6/20	Wed 8/7/20						
782 17 3 15 6	backfill formation & SRT test	12 days	Wed 8/7/20	Tue 21/7/20						
783 17.3 15.7	lay kerb, sub-base	2 days	Wed 22/7/20							
784 17 3.15.8	sub-base SRT test	3 days	Fri 24/7/20	Mon 27/7/20						
786 17 3 15.10	DBM (Roadbase) base course and wearing course	2 days 2 days	Tue 28/7/20 Thu 30/7/20							
787 17.3.16	Phase II (stage 6)-north lane (chainage	85 days		Wed 11/11/20						
	138-190)-Noise Barrier MM10 (bays 5-9)									
788 17.3 16.1	TTA, UU detection	2 days	Sat 1/8/20	Mon 3/8/20				X		N
789 17.3.16.2	tree felling	2 days	Tue 4/8/20	Wed 5/8/20						
790 17.3.16.3	saw cut & remove existing pavement	2 days	Tue 4/8/20	Wed 5/8/20						
791 17.3.16.4	install sheetpiles	6 days	Thu 6/8/20	Wed 12/8/20						
792 17.3.16.5	excavate and install rails and struts	6 days	Thu 13/8/20	Wed 19/8/20						
793 17.3.16.6	concrete blinding layers for 5 bays	3 days	Wed 19/8/20	Fri 21/8/20						
794 17.3.16.7	formwork for bases of alternative first 3 bays	2 days	Fri 21/8/20	Sat 22/8/20						
795 17.3.16.8	steel fixing for 3 bases	3 days	Sat 22/8/20							
796 17.3.16.9	concrete and curing for 3 bases	5 days								
797 17.3.16.10 798 17.3.16.11	remove formwork falsework and formwork for 3 walls	3 days 4 days		Tue 1/9/20 Fri 4/9/20						
799 17.3.16.12	steel fixing for 3 walls	9 days		Mon 14/9/20						
800 17.3.16.13	close formwork for 3 walls	3 days		Wed 16/9/20						
801 17 3 16 14	concrete and curing for 3 walls	6 days		Tue 22/9/20						
802 17.3.16.15	formwork for bases of alternative second two bays	2 days	Tue 22/9/20	Wed 23/9/20						
803 17.3.16.16	steel fixing for two bases	2 davs	Wed 23/9/20	Thu 24/9/20						
804 17.3.16.17	concrete and curing for two bases	4 days		Mon 28/9/20						
805 17 3 16 18	remove formwork		Mon 28/9/20							
806 17.3 16 19	falsework and formwork for two walls	3 days								
807 17.3.16.20 808 17 3 16.21	steel fixing for two walls close formwork for two walls	6 days 2 days	Sat 3/10/20 Fri 9/10/20	Fri 9/10/20 Sat 10/10/20						
809 17.3.16.22	concrete and curing for two walls			Wed 14/10/20						
810 17.3.16.23	remove formwork			Thu 15/10/20						
811 17.3.16.24	backfill formation & SRT test	12 days	Thu 15/10/20	Thu 29/10/20						
812 17 3 16 25	excavate gully trench and gully pot(s)	1 day	Thu 20/10/20	Thu 29/10/20						
813 17.3.16.26	lay& connect gully pipes& construct gully pot(s)			Sat 31/10/20						
814 17.3 16.27	lay kerb, sub-base			Tue 3/11/20						
815 17.3.16.28	sub-base SRT test	3 days	Wed 4/11/20	Fri 6/11/20						
816 17.3.16.29	DBM (Roadbase)	•		Mon 9/11/20						
817 17 3 16 30 818 17 3 17	base course and wearing course Phase II (stage 7)-south lane (chainage 0-32)-Noise			Wed 11/11/20 Fri 15/1/21						
010 110 17	Barrier MM5 (bays 1-2)	oo uayo	1110 12/11/20	III ISTRET						
819 17 3 17 1	TTA, UU detection	1 day		Thu 12/11/20						
820 17 3 17 2	tree felling	1 day	Fri 13/11/20	Fri 13/11/20						
821 17.3.17.3	saw cut & remove existing pavement	1 day	Fri 13/11/20	Fri 13/11/20						
822 17 3 17 4	install sheetpiles	3 days		Tue 17/11/20						
1 E	•									
823 17 3 17 5	excavate and install rails and struts	3 days	Tue 17/11/20	Thu 19/11/20						
824 17 3 17 6	concrete blinding layers for 2 bays	1 dav	Thu 19/11/20	Thu 19/11/20						
	Contractor Surraining regions for 2 Days	,								



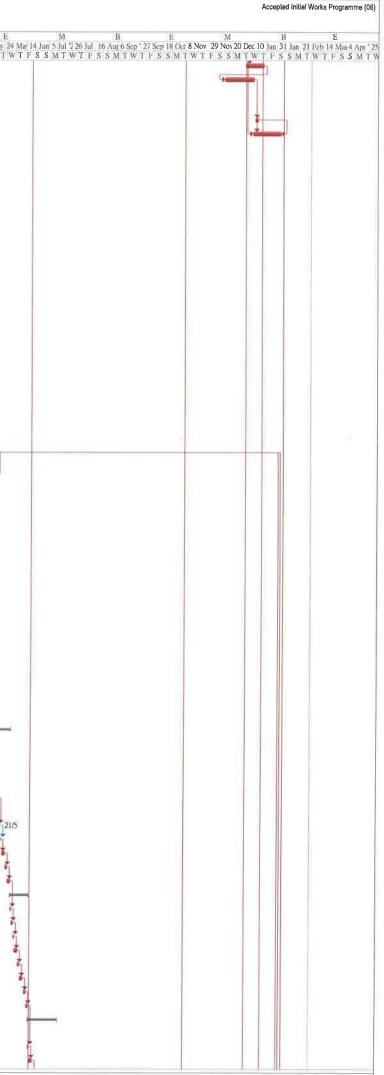
Contract No 0 Development	CV/2017/02 of Columbarium at Sandy Ridge Cemetery al Works at Man Kam To Road and Lin Ma Hang Roa	d			3 Month Rolling Programme (from 26/2/2021 to 25/5/2021)
ID WBS	Task Name	Duration	Start Date	Completion Date	M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B B E M B B B E M B B B E M B B B E M B B B B
				14	TWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFS
825 17.3 17.7 826 17.3 17.8	(diministration 2000 of the method)	1 day		Fri 20/11/20 Mon 23/11/20	
820 17.3 17.8		2 days 2 days	Tue 24/11/20		
828 17.3.17.1	•	1 day		Thu 26/11/20	
829 17.3.17.1		2 days		Sat 28/11/20	
830 17 3 17 1	2 steel fixing	4 days	Mon 30/11/20	Thu 3/12/20	
831 17,3,17,1		1 day	Fri 4/12/20	Fri 4/12/20	
832 17 3 17.1		3 days	Sat 5/12/20		
833 17 3 17 1 834 17 3 17.1		1 day 1 day		Wed 9/12/20 Thu 10/12/20	
835 17.3.17.1	•	2 days		Sat 12/12/20	
836 17.3 17 1			Mon 14/12/20		
837 17 3 17 1	9 remove formwork	1 day	Wed 16/12/20	Wed 16/12/20	
838 17.3 17.2	o falsework and formwork	2 days	Thu 17/12/20	Fri 18/12/20	
839 17 3 17 2		4 days		Wed 23/12/20	
840 17.3 17 2		1 day		Thu 24/12/20	
841 17 3 17.2 842 17.3 17 2		3 days 1 day		Wed 30/12/20 Wed 30/12/20	
842 17.3.17.2					
010 11 0111	backin formation of or the se	0 00,0	1100 00,1220	outerner	
844 17.3 17.2	excavate pipe trench and manhole(s)	1 day	Sat 2/1/21	Sat 2/1/21	
845 17 3 17 2	27 lay pipes & construct manhole(s)	2 days	Mon 4/1/21	Tue 5/1/21	
846 17 3 17 2	28 backfill formation & SRT test	0 down	Tue 5/1/21	Tue 5/1/21	
840 17 3 17 2		0 days 2 days	Wed 6/1/21	Thu 7/1/21	
848 17.3.17.		3 days	Fri 8/1/21	Mon 11/1/21	
849 :17.3 17.3		2 days	Tue 12/1/21	Wed 13/1/21	
850 17.3 17.3	22 base course and wearing course	2 days	Thu 14/1/21	Fri 15/1/21	
851 17.3.18	Phase II (stage 8)-north lane (chainage 0-32)	16 days		Wed 3/2/21	
852 17 3 18 1		1 day	Sat 16/1/21	Sat 16/1/21	
853 17 3 18 2	2 tree felling	3 days	Mon 18/1/21	Wed 20/1/21	
854 :17.3 18.3	saw cut & remove existing pavement	2 days	Tue 19/1/21	Wed 20/1/21	
855 17.3 18.4	excavate gully trench and gully pot(s)	1 day	Wed 20/1/21	Wed 20/1/21	
856 17,3 18 5	ave a lay connect gully pipes construct gully pot(s)	2 days	Wed 20/1/21	Thu 21/1/21	
857 17.3.18.6		3 days	Thu 21/1/21	Sat 23/1/21	
858 17.3.18.7		2 days			
859 17 3 18 8 860 117.3.18.9		3 days	Wed 27/1/21 Sat 30/1/21	Fri 29/1/21 Mon 1/2/21	
861 17.3.18.1		2 days 2 days	Tue 2/2/21	Wed 3/2/21	
862 17.3.19	•	140 days		Mon 18/1/21	
863 17.3.19.1	construct alternative route to close the existing	30 days	Sat 1/8/20	Fri 4/9/20	
	road				
864 17 3 19.2 865 17.3 19.3		2 days	Sat 5/9/20	Mon 7/9/20	
865 17.3 19.3	fontere enternig per enterni	4 days 3 days	Tue 8/9/20 Sat 12/9/20	Fri 11/9/20 Tue 15/9/20	
000 17 5 18.4	install sheetpiles	5 udys	3dl 12/3/20	100 10/0/20	
867 17.3.19.5	excavate and install rails and struts	2 days	Wed 16/9/20	Thu 17/9/20	
868 17 3 19 6		3 days		Mon 21/9/20	
869 17.3 19.7 870 17.3.19.8		3 days 4 days	Tue 22/9/20 Fri 25/9/20	Thu 24/9/20 Tue 29/9/20	
870 17.3.19.6		4 days 5 days			
872 17.3.19 1	•	3 days		Sat 10/10/20	
873 17.3.19.1	falsework and formwork for 2 walls	4 days		Thu 15/10/20	
874 17.3 19 1		10 days	Fri 16/10/20	Wed 28/10/20	
875 17.3.19.1		4 days		Mon 2/11/20	
876 17.3.19.1	•	6 days		Mon 9/11/20	
877 17.3.19.1 878 17.3.19.1		4 days 2 days		Fri 13/11/20 Mon 16/11/20	
879 17.3.19.1	-			Wed 18/11/20	
880 17.3 19 1				Sat 21/11/20	
881 17.3.19.	-	2 days	Mon 23/11/20	Tue 24/11/20	
882 17,3,19.2			Wed 25/11/20		
883 17.3.19.2		5 days		Thu 3/12/20	
884 17.3,19.2		2 days			
885 17.3.19.3 886 17.3.19.3	•	4 days 2 days		Thu 10/12/20 Sat 12/12/20	
887 17.3.19.				Tue 29/12/20	
		-			
888 17.3.19.2				Wed 30/12/20	
889 17.3.19.	27 sub-base SRT test	3 days	Wed 30/12/20	Set 2/1/21	
1	il Contractors Company Limited				Page 820



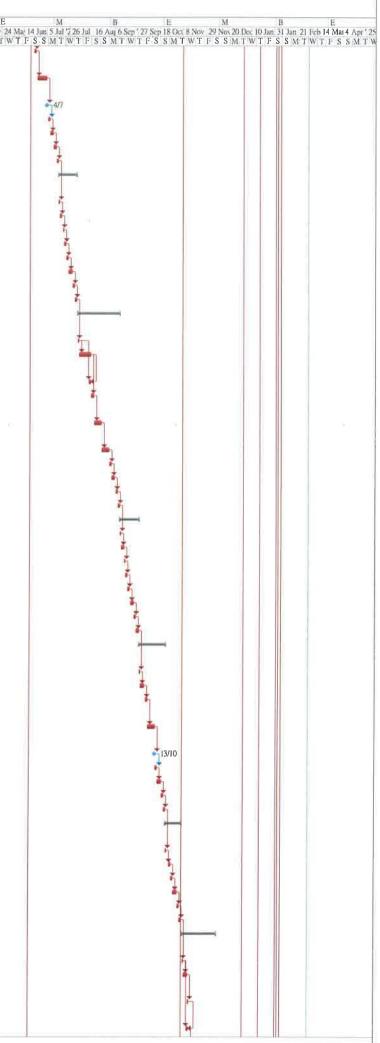
ontract No. CV evelopment of Infrastructural V	r2017/02 Columbarium at Sandy Ridge Cemetery Vorks al Man Kam To Road and Lin Ma Hang Road	ł			3 Month Rolling Programme (from 26/2/2021 to 25/5/2021)
WBS	Fask Name	Duration	Start Date	Completion Date	M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B B E M B B B B
890 17.3.19.28	concrete pavement	14 days	Sat 2/1/21	Mon 18/1/21	TWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSS
891 17.3.20	Street lighting (drawpits, abandon existing public lighting & cable, 100uPVC ducts) (ch0-435)	21 days			
892 17.3.21 893 17.3.22	tree planting Street furniture & construction of footpath (ch0-435)	3 days 22 days	Mon 11/1/21 Sat 9/1/21	Wed 13/1/21 Wed 3/2/21	
894 17.3.23	Phase Ia (stage 101)-south lane (chainage 633-685	) 20 days	Sat 10/11/18	Mon 3/12/18	
904 17.3.24	Phase Ia (stage 102)-north lane (chainage 633-685)	16 days	Tue 4/12/18	Fri 21/12/18	
914 17.3.25	Phase Ia (stage 103)-south lane (chainage 685-740				
925 17 3 26 934 17 3 27	Phase Ia (stage 104)-north lane (chainage 685-740)			Fri 15/2/19	
934 17.3.28	Phase Ia (stage 105)-south lane (chainage 740-790 Phase Ia (stage 106) north lane (chainage 740-790)			Fri 15/3/19 Thu 4/4/19	
955 17 3 29	Phase la stage 107)-south lane (chainage 790-840)			Sal 4/5/19	
966 17.3,30	Phase Ia (stage 108)-north lane (chainage 790-840)	29 days	Mon 6/5/19	Mon 10/6/19	
976 '17.3.31	Phase Ia (stage 109)-south lane (chainage 840-890			Wed 17/7/19	
988 17.3.32	Phase la (stage 110)-north lane (chainage 840-890)	•		Wed 7/8/19	
998 17.3.33 1009 17.3.34	Phase III (stage 1)-south lane (chainage 435-490) Phase III (stage 2)-north lane (chainage 435-490)	20 days 16 days		Fri 30/8/19 Thu 19/9/19	
1019 17.3.35	Phase III (stage 3)-south lane (chainage 490-540)	34 days		Thu 31/10/19	
1030 17.3.36	Phase III (stage 4)-north lane (chainage 490-540)	17 days		Wed 27/11/19	
1039 '17 3 37	Phase III (stage 5)-south lane (chainage 540-590)	29 days	Thu 28/11/19		
1049 17.3.38	Phase III (stage 6)-north lane (chainage 540-590)	22 days		Sat 1/2/20	
1059 17 3 39 1069 17 3 40	Phase III (stage 7)-south lane (chainage 590-633) Phase III (stage 8)-north lane (chainage 590-633)	29 days 25 days		Sat 7/3/20 Tue 7/4/20	
1079 17 3 41	Street lighting (drawpits, abandon existing public lighting & cable, 100uPVC ducts) (ch435-890)	7 days		Sat 18/4/20	
17 3 42 1081 :17 3 43	tree planting Street furniture & construction of footpath (ch435-890)	5 days 23 days		Sal 18/4/20 Mon 18/5/20	
1082 17.3.44	Phase IV (stage 1)-south lane (chainage 890-940)	22 days	Fri 20/9/19	Thu 17/10/19	
1093 17.3.45	Phase IV (stage 2)-north lane (chainage 890-940) Phase IV (stage 2)-north lane (chainage 890-940)	17 days			
103 17.3.46	Phase IV (stage 3)-south lane (chainage 940-983)	31 days			
113 17.3.47	Phase IV (stage 4)-north lane (chainage 940-983)	16 days	Fri 13/12/19	Fri 3/1/20	
122 17.3.48	Phase V (stage 1)-south lane (chainage 983-1035)			Thu 23/1/20	
1132 17.3.49	Phase V (stage 2)-north lane (chainage 983-1035)	16 days		Fri 14/2/20	
1141 17.3.50 1151 17.3.51	Phase V (stage 3)-south lane (chainage 1035-1087) Phase V (stage 4)-north lane (chainage 1035-1087)	•		Sat 7/3/20 Sat 21/3/20	
160 17.3 52	Phase V (stage 5)-south lane (chainage 1087-1139)				
170 17.3.53	Phase V (stage 6)-north lane (chainage 1087-1139)			Fri 8/5/20	
171 17:3:53.1	TTA & UU detection	1 day	Mon 20/4/20		1
172 17 3 53 2	saw cut & remove existing pavement	2 days			1
173 17 3 53 3 174 17 3 53 4	excavate gully trench and gully pot(s) lay& connect gully pipes& construct gully pot(s)	1 day	Thu 23/4/20 Fri 24/4/20	Thu 23/4/20 Sat 25/4/20	1
175 17.3.53.5	lay kerb, sub-base	2 days 2 days	Mon 27/4/20		
176 17,3.53.6	sub-base SRT test	3 days	Wed 29/4/20	Mon 4/5/20	
177 17.3,53,7	DBM (Roadbase)	2 days	Tue 5/5/20	Wed 6/5/20	r i i i i i i i i i i i i i i i i i i i
178 173538	base course and wearing course	2 days	Thu 7/5/20	Fri 8/5/20	में से
179 17 3.54 180 17 3 54 1	Phase V (stage 7)-south lane (chainage 1139-1190) TTA & UU detection		Sal 9/5/20 Sal 9/5/20	Mon 1/6/20 Sal 9/5/20	
181 173542	saw cut & remove existing pavement	1 day 2 days	Mon 11/5/20		
182 17 3.54.3	excavate pipe trench and manhole(s)	2 days	Wed 13/5/20		
183 -17 3 54 4	lay pipes & construct manhole(s)	6 days	Fri 15/5/20	Thu 21/5/20	
184 17 3 54 5 185 17 3 54 6	backfill formation & SRT test	0 days	Thu 21/5/20	Thu 21/5/20	
185 :17 3.54.6 186 17.3.54.7	lay kerb, sub-base sub-base SRT test	2 days 3 days	Fri 22/5/20 Mon 25/5/20	Sat 23/5/20 Wed 27/5/20	
180 17.3.54 7	DBM (Roadbase)	3 days 2 days	Thu 28/5/20	Fri 29/5/20	
188 '17 3 54 9	base course and wearing course	2 days	Sat 30/5/20	Mon 1/6/20	
189 17.3.55	Phase V (stage 8)-north lane (chainage 1139-1190)	15 days		Thu 18/6/20	
190 17.3 55 1	TTA & UU detection	1 day	Tue 2/6/20	Tue 2/6/20	
191 :17.3.55.2 192 :17.3.55.3	saw cut & remove existing pavement excavate gully trench and gully pot(s)	2 days 1 day	Wed 3/6/20 Fri 5/6/20	Thu 4/6/20 Fri 5/6/20	
192 17.3.55.4	lay& connect gully pipes& construct gully pot(s)	2 days	Sat 6/6/20	Mon 8/6/20	
194 117 3 55 5	lay kerb, sub-base	2 days	Tue 9/6/20	Wed 10/6/20	
1195 117.3.55.6	sub-base SRT test	3 days	Thu 11/6/20	Sal 13/6/20	
196 17.3.55.7	DBM (Roadbase)	2 days	Mon 15/6/20		
197 17.3.55.8 1198 17.3.56	base course and wearing course	2 days	Wed 17/6/20	Thu 18/6/20	
1110 1110 00	Phase VI (stage 1)-south lane (chainage 1190-1240	) 21 days	Fri 19/6/20	Wed 15/7/20	
1199 17.3.56.1 1200 17.3.56.2	Phase VI (stage 1)-south lane (chainage 1190-1240 TTA & UU detection saw cut & remove existing pavement	) 21 days 1 day 2 days	Fri 19/6/20 Fri 19/6/20 Sat 20/6/20	Wed 15/7/20 Fri 19/6/20 Mon 22/6/20	

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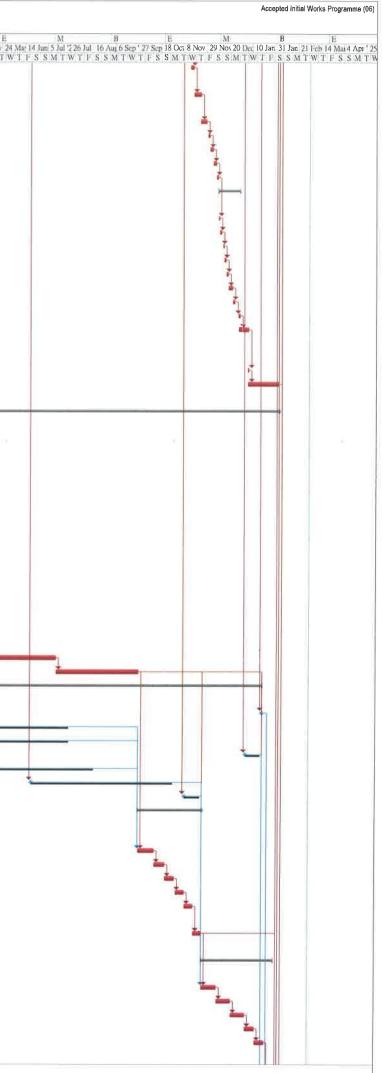


Contract No. CV Development of - Infrastructural	//2017/02 Columbarium at Sandy Ridge Cemetery Works at Man Kam To Road and Lin Ma Hang Road				3 Month Rolling Programme (from 26/2/2021 to 25/5/2021)
	Task Name	Duration	Start Date	Completion Date 2	M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E
1201 17.3.56.3	excavate pipe trench and manhole(s)	2 days	Tue 23/6/20	Wed 24/6/20	TWT FSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFS
1202 17 3 56 4	lay pipes & construct manhole(s)	7 days	Fri 26/6/20	Sat 4/7/20	
1203 17.3.56.5	backfill formation & SRT test	0 days	Sat 4/7/20	Sat 4/7/20	
1204 17.3.56.6	lay kerb, sub-base	2 days	Mon 6/7/20	Tue 7/7/20	
1205 17.3.56.7	sub-base SRT test	3 days	Wed 8/7/20	Fri 10/7/20	
1206 17.3.56.8	DBM (Roadbase)	2 days	Sat 11/7/20	Mon 13/7/20	
1207 17.3.56.9	base course and wearing course	2 days	Tue 14/7/20	Wed 15/7/20	
1208 17.3,57	Phase VI (stage 2)-north lane (chainage 1190-1240)		Thu 16/7/20	Sat 1/8/20	
1209 17.3.57.1	TTA & UU detection	1 day	Thu 16/7/20	Thu 16/7/20	
1210 17.3.57.2	saw cut & remove existing pavement	2 days	Fri 17/7/20	Sat 18/7/20	
1211 17.3.57.3	excavate gully trench and gully pot(s)	1 day	Mon 20/7/20	Mon 20/7/20	
1212 17.3.57.4	lay& connect gully pipes& construct gully pot(s)	2 days	Tue 21/7/20	Wed 22/7/20	
1213 17 3.57.5	lay kerb, sub-base	2 days	Thu 23/7/20	Fri 24/7/20	
1214 17 3.57 6	sub-base SRT test	3 days	Sat 25/7/20	Tue 28/7/20	
1215 17 3 57.7	DBM (Roadbase)	2 days	Wed 29/7/20	Thu 30/7/20	
1216 17 3 57 8	base course and wearing course	2 days	Fri 31/7/20	Sat 1/8/20	
1217 17.3.58	Phase VI (stage 3)-south lane (chainage 1240-1286)	34 days	Mon 3/8/20	Thu 10/9/20	
1218 17 3 58 1	TTA & UU detection	1 day	Mon 3/8/20	Mon 3/8/20	
1219 117 3 58 2	tree felling	10 days	Tue 4/8/20	Fri 14/8/20	
1					
1220 17.3.58 3	saw cut & remove existing pavement	2 days	Thu 13/8/20	Fri 14/8/20	
1221 17 3 58 4	excavate pipe trench and manhole(s)	2 days	Sat 15/8/20	Mon 17/8/20	
1222 17.3.58.5	lay pipes & construct manhole(s)	6 days	Tue 18/8/20	Mon 24/8/20	
1223 17.3.58.6	backfill formation & SRT test	6 days	Tue 25/8/20	Mon 31/8/20	
1223 17.3.58.7	lay kerb, sub-base	2 days	Tue 1/9/20	Wed 2/9/20	
1225 17 3.58.8	sub-base SRT test	2 days 3 days	Thu 3/9/20	Sal 5/9/20	
1225 17.3.58.9	DBM (Roadbase)		Mon 7/9/20	Tue 8/9/20	
1227 17.3.58.10	base course and wearing course	2 days	Wed 9/9/20	Thu 10/9/20	
1227 17.3.59		2 days	Fri 11/9/20	Mon 28/9/20	
1229 17.3.59.1	Phase VI (stage 4)-north lane (chainage 1240-1286) TTA & UU detection	1 days	Fri 11/9/20	Fri 11/9/20	
1230 17 3 59.2	saw cut & remove existing pavement	2 days	Sat 12/9/20	Mon 14/9/20	
1231 17.3.59.3	excavate guily trench and guily pot(s)	1 day		Tue 15/9/20	
1232 17.3.59.4	lay& connect gully pipes& construct gully pot(s)		Wed 16/9/20		
1233 17.3.59.5	lay kerb, sub-base	2 days	Fri 18/9/20	Sat 19/9/20	
1234 17.3.59.6	sub-base SRT test	3 days	Mon 21/9/20	Wed 23/9/20	
1235 17.3.59.7	DBM (Roadbase)		Thu 24/9/20	Fri 25/9/20	
1236 :17.3 59 8	base course and wearing course	2 days	Sat 26/9/20	Mon 28/9/20	
1237 17 3 60	Phase VI (stage 5)-south lane (chainage 1286-1332)				
1238 17.3.60.1	TTA BIUL detection	1 day	Tue 20/0/20	Tue 29/9/20	
1239 17.3.60.2	TTA & UU detection		Tue 29/9/20 Wed 30/9/20		
1239 17.3.60.2	saw cut & remove existing pavement				
1240 17 3 60 3	excavale pipe trench and manhole(s)	2 days	Mon 5/10/20	1000/10/20	
1241 17.3.60.4	lay pipes & construct manhole(s)	6 days	Wed 7/10/20	Tue 13/10/20	
1242 :17.3.60.5	backfill formation & SRT test	0 days	Tue 13/10/20	Tue 13/10/20	
1243 17.3.60,6	lay kerb, sub-base	2 days	Wed 14/10/20	Thu 15/10/20	
1244 17.3.60.7	sub-base SRT test	3 days	Fri 16/10/20	Mon 19/10/20	
1245 17.3.60.8	DBM (Roadbase)			Wed 21/10/20	
1246 17.3.60.9	base course and wearing course		Thu 22/10/20		
1247 17.3.61	Phase VI (stage 6) - north lane (chainage 1286 -1332)	12 days	Sat 24/10/20	Sat 7/11/20	
1248 17.3.61.1	TTA & UU detection	1 day	Sat 24/10/20	Sat 24/10/20	
1249 17.3.61.2	saw cut & remove existing pavement			Wed 28/10/20	
1250 17.3.61.3	lay kerb, sub-base		Thu 29/10/20		
1251 17.3.61.4	sub-base SRT test	3 days	Sat 31/10/20	Tue 3/11/20	
1252 17.3.61.5	DBM (Roadbase)	2 days		Thu 5/11/20	
1253 :17 3 61 6	base course and wearing course		Fri 6/11/20	Sat 7/11/20	
1254 17 3.62	Phase VI (stage 7)-south lane (chainage 1332-1377)				
1055					
1255 17 3 62 1	TTA & UU detection	1 day		Mon 9/11/20	
1256 17.3.62.2	tree felling	4 days	Tue 10/11/20	Fri 13/11/20	
1257 17.3.62.3	tree transplant	1 day	Sat 14/11/20	Sat 14/11/20	
1258 17.3.62.4	saw cut & remove existing pavement	2 days	Fri 13/11/20	Sat 14/11/20	



Accepted Initial Works Programme (06)

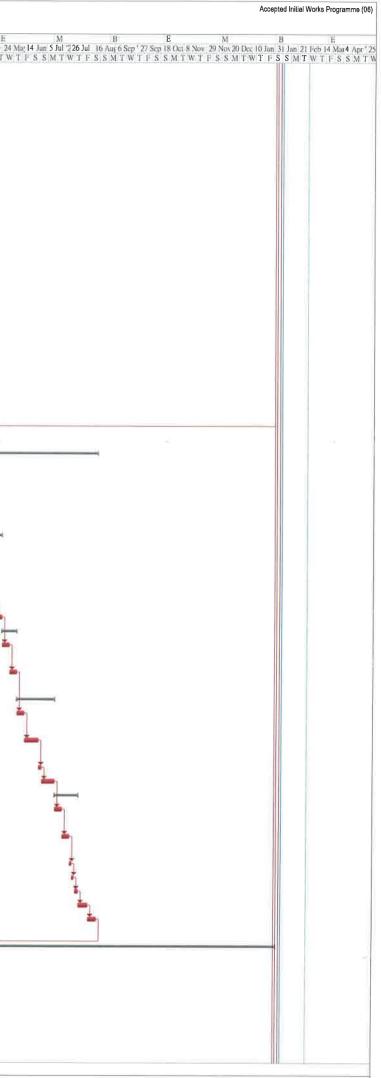
	nent of	/2017/02 Columbarium at Sandy Ridge Cemetery Vorks at Man Kam To Road and Lin Ma Hang Road				3 Month Rolling Programme (from 26/2/2021 to 25/5/2021)
ID WB		Task Name	Duration	Start Date	Completion Date	M B E M B E M B E M B
						20 Mai 10 Jun 1 Jul 1 22 Jul 12 Aug 2 Sep 12 Sep 14 Oct 4 Nov 25 Nov 16 Dec 6 Jan 127 Jun 17 Feb 10 Mai 31 Mai 21 Apr 12 Mai 2 Jun 123 Jun 14 Jul 4 Aug 25 Aug 15 Sep 6 Oct 127 Oct 17 Nov 8 Dec 19 Jan 9 Feb 1 Mar 22 Mai 12 Apr 3 May T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F
1259 17.3	3 62 5	excavate pipe trench and manhole(s)	2 days	Sat 14/11/20	Mon 16/11/20	
1260 17.3	3 62 6	lay pipes & construct manhole(s)	6 days	Tue 17/11/20	Mon 23/11/20	DÍ
1261 17.3	0.607	hashfill (secolise & ODT tool	6 dour	Mon 23/11/20	Cot 20/11/20	
1262 17.3		backfill formation & SRT test lay kerb, sub-base	•	Mon 30/11/20		
1263 17.3		sub-base SRT test	3 days	Wed 2/12/20	Fri 4/12/20	
1264 17.3		DBM (Roadbase)	2 days	Sat 5/12/20	Mon 7/12/20	
1265 17.3	3.62.11	base course and wearing course	2 days	Tue 8/12/20	Wed 9/12/20	
1266 17.3	3.63	Phase VI (stage 8)-north lane (chainage 1332-1377)	15 days	Thu 10/12/20	Tue 29/12/20	
1267 17.3	2.62.1	TTA & UU detection	1 day	Thu 10/12/20	Thu 10/12/20	
1268 17.3		saw cut & remove existing pavement	2 days		Sat 12/12/20	
1269 17.3		excavate gully trench and gully pot(s)	1 day		Mon 14/12/20	
1270 17.3	3.63.4	lay& connect gully pipes& construct gully pot(s)	2 days	Tue 15/12/20	Wed 16/12/20	0
1271 17.3	3 63 5	lay kerb, sub-base	2 days	Thu 17/12/20	Fri 18/12/20	
1272 17.3		sub-base SRT test	3 days		Tue 22/12/20	
1273 17.3		DBM (Roadbase)		Wed 23/12/20		
1274 17.3 1275 17.3		base course and wearing course	2 days	Mon 28/12/20 Tue 29/12/20	Tue 29/12/20	
1213 113	104	Street lighting (drawpits, abandon existing public lighting & cable, 100uPVC ducts) (ch890-1377)	r udys	106 23/12/20	4460 0/ II 2 I	
1276 17.3		tree planting	1 day	Wed 6/1/21	Wed 6/1/21	
1277 17.3	3.66	Street furniture & construction of footpath (ch890-1377)	25 days	Wed 6/1/21	Wed 3/2/21	
1278 17.4	4	Noise Barrier works above the concrete substructure of	674 days	Mon 29/10/18	Wed 3/2/21	
		the noise barrier (section 2 Part C1)				
1279 17.4				Mon 29/10/18		
1280 17.4	4.2	propose specialist subcontractor to PM for acceptance	0 days	Sun 26/5/19	Sun 26/5/19	
1281 17.4	4.3	acceptance of propose specialist subcontractor by	0 days	Sun 16/6/19	Sun 16/6/19	
		Project Manager	0 00,0			
1282 17.4	4.4	prepare design & liaise with designer & PM	120 days	Mon 17/6/19	Mon 14/10/19	9
1283 17.4	4.5	submit a proposal detailing the changes to PM's	14 days	Tue 15/10/19	Mon 28/10/19	9
		design, if any				
1284 17.4		submit 1st design for PM's comment	, .	Mon 28/10/19		
1285 17.4 1286 17.4		PM's comments	,	Tue 29/10/19 Tue 19/11/19		
1280 17.4		revise design re-submit design for PM's acceptance		Mon 16/12/19		
1288 :17.4			*	Tue 17/12/19		
		acceptance				
1289 17.4		PM's & relevant authorities' acceptance	0 days	Mon 13/1/20		
1290 17.4		ordering of noise barrier panel	0 days		Wed 15/1/20	
1291 17.4		fabricaling of panel and steelworks	-	Thu 16/1/20		
1292 17.4		delivery of panel and steelworks on site		Tue 14/7/20		
1293 17.4	4,15	completion of concrete curing of substructure of Nosie Barriers	463 days	Mon 14/10/19	Tue 19/1/21	
1294 17.4	4.15.1	MM5	0 days	Tue 19/1/21	Tue 19/1/21	
1295 17.4		MM6		Mon 14/10/19		
1296 17.4	4 15.3	MM7	0 days		Mon 14/10/19	
1297  17.4		MM8	0 days			
1298  17.4		MM9	0 days			
1299 17.4		MM10 (Bay 1-4)	0 days		Sun 21/6/20	
1300 17.4		MM10 (Bay 5-9)	0 days		Mon 9/11/20	
1301 17.4	4.16	construction works above the concrete substructure of the noise barrier MM6, MM7 & MM9 (app77m)	48 days	Mon 28/9/20	Wed 25/11/20	0
1302 17.4	4 16 1	fix posts with base plates to copings	11 days	Mon 28/9/20	Mon 12/10/20	
1303 17.4	4 16 2	install structural frames	9 days	Tue 13/10/20	Thu 22/10/20	0
1304 17.4		fix AI. absorption noise barrier panels		Fri 23/10/20		
1305 17.4		fix tinted transplant noise barrier panels		Mon 2/11/20		
1306 117.4	4 16 5	fix copping the end of UC member	/ days	Tue 10/11/20	Tue 17/11/20	J
1307 17.4	4 16 6	fix base sealing panel	7 days	Wed 18/11/20	Wed 25/11/20	0
1007						
1308 17.4	4_17	construction works above the concrete substructure of the noise barrier MM10 (app. 94m)	54 days	Thu 26/11/20	Sal 30/1/21	
1309 17.4	4 17 1	fix posts with base plates to copings	12 days	Thu 26/11/20	Wed 9/12/20	O
1310 17.4		install structural frames		Thu 10/12/20		
1311 17.4		fix Al. absorption noise barrier panels		Wed 23/12/20		
1312 17.4		fix linted transplant noise barrier panels	8 days			
1313 17.4	4 17 5	fix copping the end of UC member	8 days	Thu 14/1/21	Fri 22/1/21	



)evelop	t No. CV/2 ment of C ruclural W	2017/02 Columbarium at Sandy Ridge Cemetery /orks at Man Kam To Road and Lin Ma Hang Road				3 Month Rolling Programme (from 26/2/2021 to 25/5/2021)
) //	vbs 1	ask Name	Duration	Start Date	Completion Date	M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B
314 17	7.4.17.6	fix base sealing panel	7 days	Sat 23/1/21	Sat 30/1/21	TW T F S S M TW T F S S
-			0.950			
315 17	7 4 18	construction works above the concrete substructure of the noise barrier MM5 & MM8 (app. 42.322m)	10 days	Wed 20/1/21	Sat 30/1/21	
816 17	7.4.18.1	fix posts with base plates to copings	2 days	Wed 20/1/21	Thu 21/1/21	
17 17	7 4 18 2	install structural frames	2 days	Fri 22/1/21	Sat 23/1/21	
18 17	7 4.18 3	fix Al, absorption noise barrier panels	2 days	Sal 23/1/21	Mon 25/1/21	
	7 4 18 4	fix tinted transplant noise barrier panels	2 days	Mon 25/1/21	Tue 26/1/21	
320 17	7.4.18.5	fix copping the end of UC member	3 days	Tue 26/1/21	Thu 28/1/21	
21 17	7.4.186	fix base sealing panel	3 days	Thu 28/1/21	Sat 30/1/21	
22 17	7 4 19	submit as-built drawings & design calculation & 2 sets of velographs for noise barrier works	0 days	Wed 3/2/21	Wed 3/2/21	
323 17	75	access date for section 2 (Part C2)	0 days	Sun 24/2/19	Sun 24/2/19	
324 17	76	addItional site possession for areas outside site boundary {for 3NW-C/C470 (existing D-DH7), C224 (existing D-DH11) & C225 new drillholes DHA1,A2 & A3 }	0 days	Sun 24/2/19	Sun 24/2/19	•
325 17	7.7	Slope Upgrading works (section 2 Part C2)	578 days	Mon 25/2/19	Wed 3/2/21	
326 17		general site clearance		Mon 25/2/19		
327 17		Initial topographic survey		Thu 11/4/19	Sat 8/6/19	
328 .17		utility detection and submit reports		Wed 22/5/19		
329 17	1.1.4	drilling of verification boreholes DHA1,A2 & A3	ZIdays	MOI 17/0/19	Thu 11/7/19	
330 17	775	baseline monitoring for 3NW-C/C230 (DH15 & 16) & C225 (DH3 & 17) on existing drillholes & 3NW-C/C470 (existing D-DH7), C224 (existing D-DH11) & C225 proposed verification drillholes DHA1,A2 & A3	30 days	Fri 12/7/19	Thu 15/8/19	
331  17	7.7.6	submit 4 sets of initial readings of baseline monitoring and preliminary logs to the Project Manager to the Project Manager	0 days	Thu 15/8/19	Thu 15/8/19	
332 17	777	Slopeworks: 3NW-C/C470 (ch490-540S/B)	59 days	Fri 16/8/19	Sat 26/10/19	
333 17	7.7.7 1	removal of existing trees	10 days	Fri 16/8/19	Tue 27/8/19	
334 11	7772	hoarding & fencing	6 days	Wed 28/8/19	Tue 3/9/19	
335 17	7.7.7.3	slope excavation works	1 day	Wed 4/9/19	Wed 4/9/19	ř.
336 11 337 11		temporary scaffolding proposed slope stripping for mapping or rock and relict discontinuities (AS5-A,B, AS6-A,B)	5 days 8 days	Thu 5/9/19 Wed 11/9/19	Tue 10/9/19 Fri 20/9/19	
338 17	7.7.7.6	Phase I	8 days	Sal 21/9/19	Mon 30/9/19	in the second
339 17	7.7.7.6 1	install test nail PN02 & pull out test	6 days	Sat 21/9/19		
340 ·17	77762	drill, install steel bars and grout soil nails (B01-12)	2 days	Sat 28/9/19	Mon 30/9/19	
341 17	7.7.7.7	Phase II	8 days	Wed 2/10/19	Fri 11/10/19	
342 17	7.7.7.1	install test nail PN01 & pull out test	6 days	Wed 2/10/19	Wed 9/10/19	
343 17	7.7.7.2	drill, install steel bars and grout soil nails (A01-17)	2 days	Thu 10/10/19	Fri 11/10/19	
1344 17	7778	raking drains	1 day	Sat 12/10/19	Sat 12/10/19	
1345 17		TDR Test (including test & wait issue result)	2 days	Mon 14/10/19	Tue 15/10/19	
1346 13		soil nail head works			Fri 18/10/19	
1347 13 1348 13		UC & catchpit (38m & 1 nr) biodegradable erosion control mat with			Thu 24/10/19 Sat 26/10/19	
		hydroseeding	-			
.349 17 .350 17		Slopeworks: - 3NW-C/C230 (ch1240-1330S/B) removal of existing trees	•	Mon 28/10/19 Mon 28/10/19	Thu 2/4/20 Thu 7/11/19	
351 1	7.7.8.2	hoarding & fencing	9 days	Fri 8/11/19	Mon 18/11/19	
1352 11	7.7.8.3	temporary scaffolding	7 davs	Tue 19/11/19	Tue 26/11/19	
353 1	7784	proposed slope stripping for mapping or rock and				
251		relict discontinuities (AS3-A,B, AS4-A,B)				
1354 1	(.7.8.5	slope excavation works	1 day	Fri 6/12/19	Fri 6/12/19	5
1355 11 1356 11		Phase I install test nail PN22 & pull out test	25 days 6 days	Sat 7/12/19	Wed 8/1/20 Fri 13/12/19	

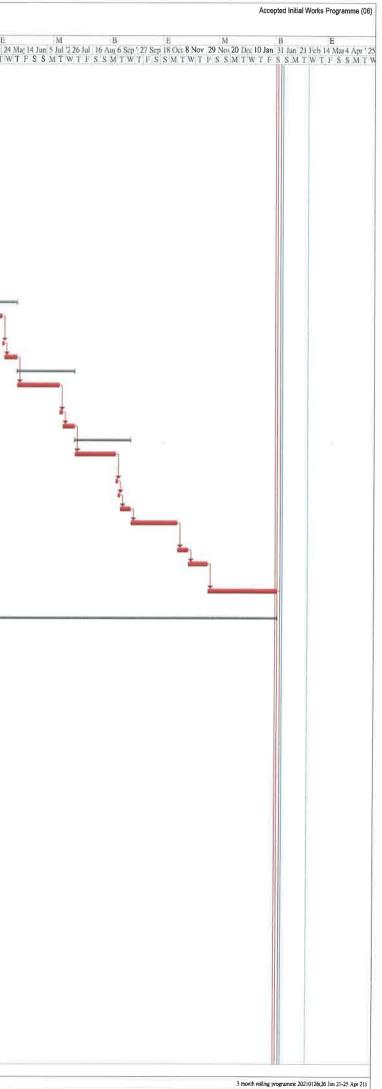


poment of	//2017/02 Columbarium at Sandy Ridge Cemetery Works at Man Kem To Road and Lin Ma Hang Roa	d			3 Month Rolling Programme (from 26/2/2021 to 25/5/2021)
WBS	Task Name	Duration	Start Date	Completion Date 21	M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B B E M B B B B
17.7.8.6.2	drill, install sleel bars and grout soil nails (K01-22, N01-05, M01-11, J01-25)	10 days	Sat 14/12/19	Fri 27/12/19	
177863	TDR Test (including test & wait issue result)	2 days	Sat 28/12/19	Mon 30/12/19	
177864	soil nail head works	7 days	Tue 31/12/19	Wed 8/1/20	
17787	Phase II	22 days	Thu 9/1/20	Thu 6/2/20	
17 7.8.7.1	install test nail PN21 & pull out test	6 days	Thu 9/1/20	Wed 15/1/20	
177872	drill, install steel bars and grout soil nails (H01-25, L01-16)	8 days	Thu 16/1/20	Fri 24/1/20	
177873	raking drains	2 days	Wed 29/1/20	Thu 30/1/20	
177874	TDR Test (including test & wait issue result)	2 days	Fri 31/1/20	Sat 1/2/20	
177875	soil nail head works	4 days	Mon 3/2/20	Thu 6/2/20	
17.788	225UC, 300SC & catchpits	21 days	Fri 7/2/20	Mon 2/3/20	
17789	600mm width concrete maintenance staircase with handrailing	9 days	Tue 3/3/20	Thu 12/3/20	
17 7 8 10	C C	6 dave	Fri 13/3/20	Thu 19/3/20	
17 7 8 10 1	soil replacement by no-fines concrete stage 1	6 days 2 days	Fri 13/3/20	Sat 14/3/20	
17 7 8 10 1 1	-	2 days 1 day	Fri 13/3/20	Fri 13/3/20	
17.7 B 10 1 2		1 day	Sat 14/3/20	Sat 14/3/20	
17 7 8 10 2	stage 2	2 days	Mon 16/3/20	Tue 17/3/20	
17.7.8 102.1	-	1 day	Mon 16/3/20	Mon 16/3/20	
17.7.8.1022		1 day	Tue 17/3/20	Tue 17/3/20	
1778103	stage 3	2 days	Wed 18/3/20	Thu 19/3/20	
17 7.8 10.3 1	Ū	1 day	Wed 18/3/20	Wed 18/3/20	1
17.7.8 10.3 2		1 day	Thu 19/3/20	Thu 19/3/20	
17.7.8.11	biodegradable erosion control mat with hydroseeding & shrub planting	12 days	Fri 20/3/20	Thu 2/4/20	
17.7.9	Slopeworks: - 3NW-C/C224 (ch1040-1120N/B)	117 days	Tue 31/3/20	Sat 22/8/20	
17.7.9.1	hoarding & fencing	10 days	Tue 31/3/20	Wed 15/4/20	· · · · · · · · · · · · · · · · · · ·
17.7.9.2	temporary scaffolding	10 days	Thu 16/4/20	Mon 27/4/20	L
17 7.9 3	slope excavation works	1 day	Tue 28/4/20	Tue 28/4/20	t t
17704	Dhave I	00 Jaure		Tue 00/5/00	
17.7.9.4	Phase I	22 days	Wed 29/4/20	Tue 26/5/20	
17.7.9.4.1	install test nail PN14 & pull out test	6 days	Wed 29/4/20	Thu 7/5/20	
17 7 9 4 2	drill, install steel bars and grout soil nails (G01-21, F01-31)	8 days	Fri 8/5/20	Sat 16/5/20	
17 7.9.4.3	TDR Test (including test & wait issue result)	2 days	Mon 19/5/20	Tue 19/5/20	
177944	soil nail head works	6 days	Wed 20/5/20		
17.7.9.5	Phase II	12 days	Wed 20/5/20 Wed 27/5/20	Tue 9/6/20	
17 7.9.5.1	install test nail PN13 & pull out test	6 days	Wed 27/5/20		
17.7.9.5.2	drill, install steel bars and grout soil nails (E01-46)	6 days	Wed 3/6/20	Tue 9/6/20	
17796	Phase III	28 dave	Wed 10/6/20	Tue 1/17/00	
17 7.9.6.1	install test nail PN12 & pull out test		Wed 10/6/20 Wed 10/6/20		
17 7 9.6.2	drill, install steel bars and grout soil nails		Wed 10/6/20		
	(D01-D51)	to days		NOT LOIVILU	
17 7 9.6.3	TDR Test (including test & wait issue result)	2 days	Tue 30/6/20	Thu 2/7/20	
177964	soil nail head works	10 days	Fri 3/7/20	Tue 14/7/20	
17797 177971	Phase IV install test nail PN11 & pull out test	19 days 6 days	Wed 15/7/20 Wed 15/7/20	Wed 5/8/20 Tue 21/7/20	
177972	drill, install steel bars and grout soil nails		Wed 22/7/20		
	(C01-26)	.,-			
177973	raking drains	2 days	Wed 29/7/20	Thu 30/7/20	
17.7.9.7 4	TDR Test (including test & wall issue result)	2 days	Fri 31/7/20	Sat 1/8/20	
177975	soil nail head works	3 days	Mon 3/8/20	Wed 5/8/20	
17 7 9 8	UC & catchpit	8 days	Thu 6/8/20	Fri 14/8/20	
17.7.9.9	75mm thick shotcrete with a layer of A252 wire mesh (380m2)	7 days	Sat 15/8/20	Sat 22/8/20	
17 7 10	Slopeworks: - 3NW-C/C225 (ch1300-1376N/B)	348 days	Tue 3/12/19	Wed 3/2/21	
17.7.10.1	tree transplant	2 days	Tue 3/12/19	Wed 4/12/19	Lat.
17.7.10.2	removal of existing trees	5 days	Thu 5/12/19	Tue 10/12/19	
17.7.10.3	hoarding & fencing	12 days	Wed 11/12/19	Tue 24/12/19	
17.7.10.4	slope excavation works	1 day	Fri 27/12/19	Fri 27/12/19	
17.7 10.4					



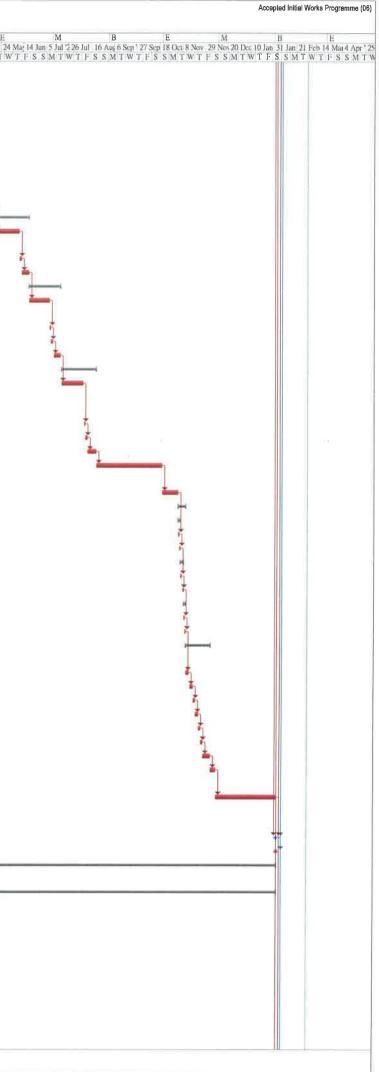
3 month rolling programme 20210126(26 Jan 21-25 Apr 21)

	umbarium at Sandy Ridge Cemetery rks at Man Kam To Road and Lin Ma Hang Road	d			3 Month Rolling Programme (from 26/2/2021 to 25/5/2021)
	k Name	Duration	Start Date	Completion Date	M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E
409 17.7 10.5	temporary scaffolding	10 days	Sat 28/12/19	Thu 9/1/20	TWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFS
410 17.7 10.6	install test nail PN31-PN33, grout & pull out tests	6 days	Fri 10/1/20	Thu 16/1/20	
411 177107	install test nail PN34-PN36, grout & pull out tests	6 days	Fri 17/1/20	Thu 23/1/20	
412 17 7 10 8	install test nail PN37-PN39, grout & pull out tests	6 days	Fri 24/1/20	Mon 3/2/20	
13 17.7 10 9	Phase I	15 days	Tue 4/2/20	Thu 20/2/20	
14 17.7.10.9.1	drill, install steel bars and grout soil nails (AJ01-18, Y01-07, AH01-18, X01-08)	8 days	Tue 4/2/20	Wed 12/2/20	
415 17.7.10.9.2	TDR Test (including test & wait issue result)	2 days	Thu 13/2/20	Fri 14/2/20	
416 17.7.10.9.3	soil nail head works	5 days	Sal 15/2/20	Thu 20/2/20	
417 17.7.10.10	Phase II	43 days	Fri 21/2/20	Wed 15/4/20	
418 17.7.10.10.1	drill, install steel bars and grout soil nails (AJ01-18, Y01-07, AH01-18, X01-08)	32 days	Fri 21/2/20	Sat 28/3/20	
1419 17 7 10 10.2	TDR Test (including test & wait issue result)	2 days	Mon 30/3/20	Tue 31/3/20	
420 17 7 10 10 3	soil nail head works	9 days	Wed 1/4/20	Wed 15/4/20	
421 17.7 10.11	Phase III		Thu 16/4/20	Mon 8/6/20	
122 17.7.10.11.1	drill, install steel bars and grout soil nails (AJ01-18, Y01-07, AH01-18, X01-08)	32 days	Thu 16/4/20	Mon 25/5/20	
423 17 7 10.11.2	TDR Test (including test & wait issue result)	2 days	Tue 26/5/20	Wed 27/5/20	
124 17.7 10.11.3	soil nail head works		Thu 28/5/20	Mon 8/6/20	
425 17 7 10.12	Phase IV	44 days	Tue 9/6/20	Fri 31/7/20	
426 17.7 10.12 1	drill, install steel bars and grout soil nails (AJ01-18, Y01-07, AH01-18, X01-08)	32 days	Tue 9/6/20	Fri 17/7/20	
427 17 7 10 12.2	TDR Test (including test & wait issue result)	2 days	Sal 18/7/20	Mon 20/7/20	
428 17.7.10 12 3 429 17 7 10.13	soil nail head works		Tue 21/7/20	Fri 31/7/20 Mon 21/9/20	
430 17 7 10 13.1	Phase V drill, install steel bars and grout soil nails (AJ01-18, Y01-07, AH01-18, X01-08)	44 days 32 days	Sat 1/8/20 Sat 1/8/20	Mon 7/9/20	
431 17.7.10.13.2	raking drains	2 days	Tue 8/9/20	Wed 9/9/20	
432 17 7 10 13.3	TDR Test (including test & wait issue result)	2 days	Thu 10/9/20	Fri 11/9/20	
133 17 7 10.13 4	soil nail head works	8 days	Sat 12/9/20	Mon 21/9/20	
434 17 7 10.14	300UC (192m), 300SC (135m) & 2 catchpit	34 days	Tue 22/9/20	Tue 3/11/20	
435 17.7.10.15	berm with handrailing C2409H	9 days	Wed 4/11/20	Fri 13/11/20	
436 17 7 10 16	600mm width concrete maintenance staircase with handralling	15 days	Sat 14/11/20	Tue 1/12/20	
437 17.7.10.17	biodegradable erosion control mat with hydroseeding (2550m2)	52 days	Wed 2/12/20	Wed 3/2/21	
438 17.7.11	Slopeworks: - 3NW-C/C231 (ch1220-1240N/B)	415 days	Thu 12/9/19	Wed 3/2/21	
439 17.7.11.1	hoarding & fencing	12 days	Thu 12/9/19	Thu 26/9/19	
1440 17 7 11.2	temporary scaffolding	14 davs	Fri 27/9/19	Tue 15/10/19	
441 17 7 11 3	proposed slope stripping for mapping or rock and relict discontinuities (AS1-A,B, AS2-A,B)				
1442 17 7 11 4	trial pits (A1, A2, A3)	8 davs	Mon 28/10/19	Tue 5/11/19	
443 17 7 11 5	slope excavation works	1 day		Wed 6/11/19	
1444 177116	Phase I		Thu 7/11/19		
1445 17 7 11 6 1	install test nails PN41-42 & pull out tests	/ days	Thu 7/11/19	i nu 14/11/19	
1446 17 7 11.6.2	drill, install steel bars and grout soil nails (BP01-08, BT01-05, BN01-08, BS01-08))	8 days	Fri 15/11/19	Sat 23/11/19	
1447 .17.7.11.6.3	TDR Test (including test & wait issue result)	2 days	Mon 25/11/19	Tue 26/11/19	
448 17.7.11 6.4	soil nail head works		Wed 27/11/19		
1449 17 7 11 7	Phase II		Sat 30/11/19		
450 17 7 11 7 1	install test nails PN43-44 & pull out tests	6 days	Sat 30/11/19	Fri 6/12/19	
1451 17,7,11,7,2	drill, install steel bars and grout soil nails (BM01-09, BR01-13, BL01-09, BQ01-22)	14 days	Sat 7/12/19	Mon 23/12/19	
1452 17 7 11 7.3		2 days	Tuo 94/19/10	Eri 07/10/40	
1452 177 117.3 1453 177 1174	TDR Test (including test & wait issue result) soil nail head works		Tue 24/12/19 Sat 28/12/19		
454 17.7.11.8	Phase III	29 days		Tue 11/2/20	
455 17.7.11.8.1	install test nails PN45-46 & pull out tests	6 days	Mon 6/1/20		
1456 177,11.8.2	drill, install steel bars and grout soil nails (BJ01-09, BK01-27, BG01-12, BH01-20)	14 days	Mon 13/1/20	Fri 31/1/20	
1457 17.7.11.8.3	TDR Test (including test & wait issue result)	2 days	Sat 1/2/20	Mon 3/2/20	
458 17.7.11.8.4	soil nail head works	7 days	Tue 4/2/20	Tue 11/2/20	
and the second se	Phase IV	A1 dave	Wed 12/2/20	Mon 30/3/20	
1459 17.7.11.9 1460 17.7.11.9.1	install test nails PN47-48 & pull out tests		Wed 12/2/20		

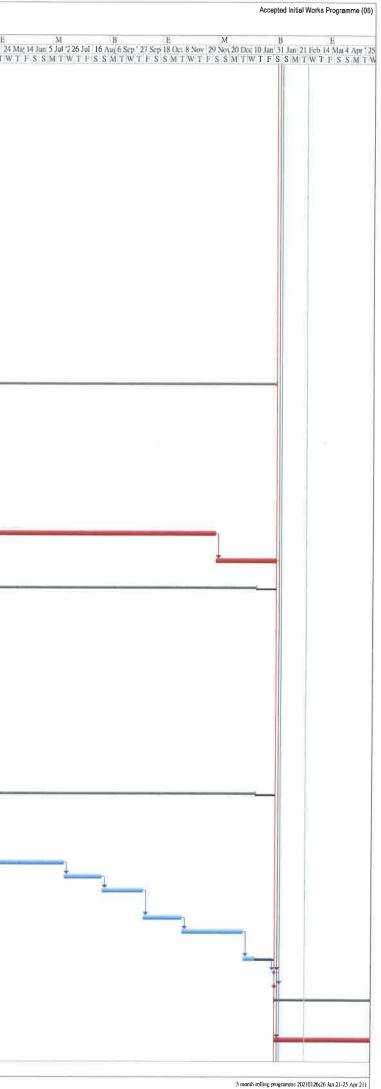


Contract No. C Development o - Infrastructura	:V/2017/02 of Columbarium at Sandy Ridge Cernetery I Works at Man Kam To Road and Lin Ma Hang Road	i			3 Month Rolling Programme (from 26/2/2021 to 25/5/2021)
D WBS	Task Name	Duration	Start Date	Completion Date 2	M B E M B E M B E M B F
146] 17.7.11.9.	2 drill, install steel bars and grout soil nails	26 days	Wed 19/2/20	Thu 19/3/20	Mat 10 Jun 1 Jul 122 Jul 12 Aug 2 Sep 12 Sep 14 Oct 4 Nov 25 Nov 16 Dec 6 Jan " 27 Jan 17 Feb 10 Mat 31 Mat 21 Apr 12 Mat 2 Jun " 23 Jun 14 Jul 4 Aug 25 Aug 15 Sep 6 Oct " 27 Oct 17 Nov 8 Dec " 29 Dec 19 Jan 9 Feb " 1 Mar 22 Mat 12 Apr 3 May 24 Mat 2 Jun " 23 Jun " 4 Jul 4 Aug 25 Aug 15 Sep 6 Oct " 27 Oct 17 Nov 8 Dec " 29 Dec 19 Jan 9 Feb " 1 Mar 22 Mat 12 Apr 3 May 24 Mat 2 Jun " 24 Jun " 4 Jul 4 Aug 25 Aug 15 Sep 6 Oct " 27 Oct 17 Nov 8 Dec " 29 Dec 19 Jan 9 Feb " 1 Mar 22 Mat 12 Apr 3 May 24 Mat 2 Jun " 14 Jul 4 Aug 25 Aug 15 Sep 6 Oct " 27 Oct 17 Nov 8 Dec " 29 Dec 19 Jan 9 Feb " 1 Mar 22 Mat 12 Apr 3 May 24 Mat 14 Jul 4 Aug 25 Aug 15 Sep 6 Oct " 27 Oct 17 Nov 8 Dec " 29 Dec 19 Jan 9 Feb " 1 Mar 22 Mat 12 Apr 3 May 24 Mat 14 Jul 4 Aug 25 Aug 15 Sep 6 Oct " 27 Oct 17 Nov 8 Dec " 29 Dec 19 Jan 9 Feb " 1 Mar 22 Mat 12 Apr 3 May 24 Mat 12 Apr 3 May 24 Mat 14 Jul 4 Aug 25 Aug 15 Sep 6 Oct " 27 Oct 17 Nov 8 Dec " 29 Dec 19 Jan 9 Feb " 1 Mar 22 Mat 12 Apr 3 May 24 Mat 14 Jul 4 Aug 25 Aug 15 Sep 6 Oct " 27 Oct 17 Nov 8 Dec " 29 Dec 19 Jan 9 Feb " 1 Mar 22 Mat 12 Apr 3 May 24 Mat 14 Jul 4 Aug 25 Aug 15 Sep 6 Oct " 27 Oct 17 Nov 8 Dec " 29 Dec 19 Jan 9 Feb " 1 Mar 22 Mat 12 Apr 3 May 24 Mat 14 Jul 4 Aug 25 Aug 15 Sep 6 Oct " 27 Oct 17 Nov 8 Dec " 29 Dec 19 Jan 9 Feb " 1 Mar 22 Mat 12 Apr 3 May 24 Mat 14 Jul 4 Aug 25 Aug 15 Sep 6 Oct " 27 Oct 17 Nov 8 Dec " 29 Dec 19 Jan 9 Feb " 1 Mar 22 Mat 12 Apr 3 May 24 Mat 14 Jul 4 Aug 25 Aug 15 Sep 6 Oct " 27 Oct 17 Nov 8 Dec " 29 Dec 19 Jan 9 Feb " 1 Mar 22 Mat 12 Apr 3 May 24 Mat 14 Jul 4 Aug 25 Aug 15 Sep 6 Oct " 27 Oct 17 Nov 8 Dec " 29 Dec 19 Jan 9 Feb " 1 Mar 22 Mat 12 Apr 3 May 24 Mat 14 Mat 14 Aug 14 Au
	(BE01-13, BF01-19, BC01-11, BD01-20)				
1462 17.7.11.9. 1463 17.7.11.9		2 days	Fri 20/3/20 Mon 23/3/20	Sal 21/3/20 Mon 30/3/20	1
464 17.7 11 10		7 days 36 days			
1465 17 7 11 10		6 days	Tue 31/3/20	Tue 7/4/20	
1466 17.7.11 10	drill, install steel bars and grout soil nails	22 days	Wed 8/4/20	Fri 8/5/20	
	(BA01-24, BB01-06, AY01-24, AZ01-06)	,			
1467 17.7.11 10 1468 17 7 11.10	· · · · · · · · · · · · · · · · · · ·	2 days	Sal 9/5/20	Mon 11/5/20	
1468 17711.10		6 days 28 days	Tue 12/5/20 Tue 19/5/20	Mon 18/5/20 Fri 19/6/20	
1470 17 7 11 11		20 days			
1471 :17.7.11.11	2 TDR Test (including test & wait issue result)	2 days	Thu 11/6/20	Fri 12/6/20	
1472 17.7.11.11	3 soil nail head works	6 days	Sat 13/6/20	Fri 19/6/20	
1473 17.7 11 12		23 days		Sat 18/7/20	
1474 17.7 11 12	drill, install steel bars and grout soil nails (AS01-18, AT01-11, AQ01-19, AR01-07)	14 days	Sat 20/6/20	Wed 8/7/20	
1475 17.7.11.12		1 day	Thu 9/7/20	Thu 9/7/20	
1476 17.7.11 12		2 days	Fri 10/7/20	Sat 11/7/20	
1477 17.7.11.12		6 days	Mon 13/7/20		
1478 17 7 11 13 1479 17 7 11 13		28 days 18 days			
1479 10.7.11.15	(AN01-15, AP01-08, AL01-15, AM01-08, AK01-18)	TO UAYS	1011 20/7/20	3at 6/6/20	
1480 17.7.11.13	3.2 raking drains	1 day	Mon 10/8/20	Mon 10/8/20	
1481 17.7.11.13		2 days	Tue 11/8/20		2 N N N N N N N N N N N N N N N N N N N
1482 17.7.11.13 1483 17.7.11.14		7 days 50 days	Thu 13/8/20 Fri 21/8/20	Thu 20/8/20 Tue 20/10/20	
1484 17.7.11.15		12 davs	Wed 21/10/20	Wed 4/11/20	
1485 17.7.11.10	<b>J J J J J J J J J J</b>	6 days		Wed 11/11/20	
1486 17.7.11.10	offige .	2 days	Thu 5/11/20	Fri 6/11/20	
1487 17.7.11.10	- 1 · · · · ·	1 day	Thu 5/11/20		
1488 17.7.11.10 1489 17.7.11.10		1 day	Fri 6/11/20 Sal 7/11/20	Fri 6/11/20 Mon 9/11/20	
1490 17.7.11.10	000.90 -	2 days 1 day	Sal 7/11/20 Sal 7/11/20		
1491 17.7.11.10		1 day		Mon 9/11/20	
1492 17.7.11 10		2 days	Tue 10/11/20	Wed 11/11/20	
1493 17.7.11.10				Tue 10/11/20	
1494 17.7 11 10 1495 17.7.11.1			Wed 11/11/20 Thu 12/11/20	Wed 11/11/20 Fri 4/12/20	
1496 17.7_11_1		3 days	Thu 12/11/20	Sal 14/11/20	
1497 '17.7.11 1	ettinge i			Wed 18/11/20	
1498 17.7.11.1			Thu 19/11/20		
1499 17.7 11 1				Mon 23/11/20	
1500 17.7.11 1 1501 17.7.11 1			Tue 24/11/20 Thu 26/11/20	Wed 25/11/20 Fri 27/11/20	
1502 17.7 11 1		2 days 6 days			
1503 17.7.11.1			Sat 5/12/20		
1504 17.7.11.1	75mm thick shotcrete with water base color paint and a layer of A252 wire mesh together with planter hole & shrub planting	s 45 days	Thu 10/12/20	Wed 3/2/21	
1505 18	Planned Completion for section 2 of the works	0 days	Wed 3/2/21	Wed 3/2/21	
1506 19	Completion Date for section 2 of the works	0 days		Wed 3/2/21	
1507 20	section 3 of the works - Completion of all works within Parts D and E of the Site	-	Thu 31/5/18		
1508 20.1	Parts D access date for section 3 (Parts D) - not more than		Mon 26/11/18		
1510 2011	access date for section 3 (Parts D) - not more than 180 days after the starting date seek specialist for design, supply and installation of				
	the covered walkway				
1511 201.3	acceptance of specialist	•	Thu 14/2/19		
1512 20.1.4	design for approval for lighting system for the covered walkway	-	Fri 15/2/19		
1513 20.1.5 1514 20.1.6	submit for approval for lighting system for the covered walkway acceptance of lighting system for the covered	0 days 0 days	Sun 14/7/19 Sun 4/8/19		
	walkway				

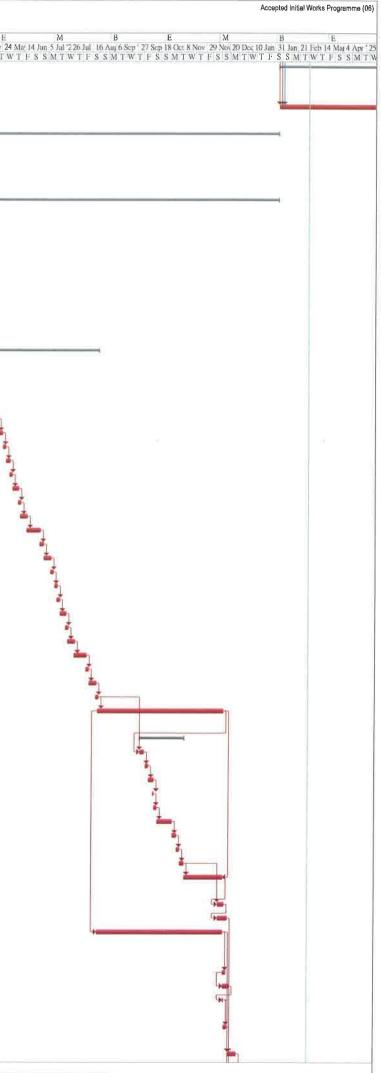
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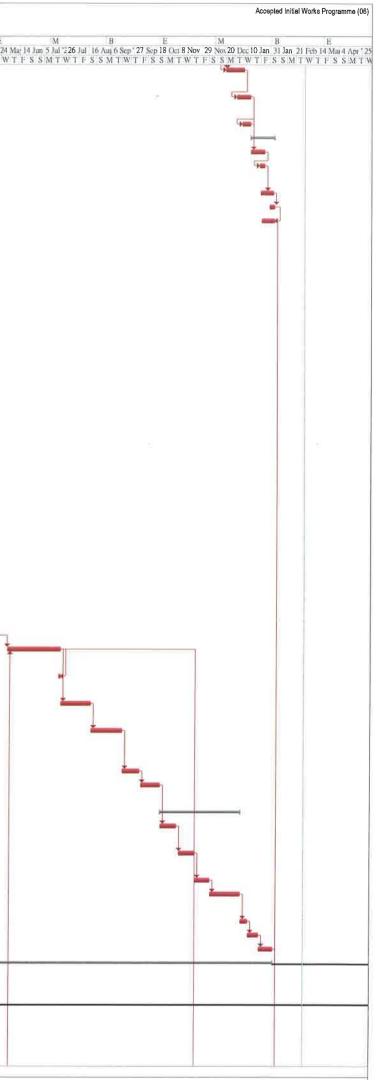
	f Columbarium at Sandy Ridge Cemelery Works at Man Kam To Road and Lin Ma Hang Road				3 Month Rolling Programme (from 26/2/2021 to 25/5/2021)
D WBS	Task Name	Duration	Start Date	Completion Date	M B E M B E M B E M B E M B E M B E M B E M B E E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M
1515 20.1.7	Coordination with CLP to obtain the electricity supply	168 days	Mon 5/8/19	Sun 19/1/20	TWT FSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFS
	for the street lighting system (Design for Road B, Road E, Road F(part), Lin Ma Hang Road and				
	Sheung Shui Landmark PTI & Lighting system for				
	the covered walkway)				
1516 20.1.8	design for glazing system of the proposed covered	150 days	Fri 15/2/19	Sun 14/7/19	
	walkway at Fanling Station Road				
1517 :2019 1518 :201.10	submission of glazing system		Sun 14/7/19	Sun 14/7/19 Sun 4/8/19	
1010 20.110	acceptance of glazing system and fall arrest system by Project Manager	0 days	Sun 4/8/19	SUIT 4/0/19	
1519 20 1 11	design for fall arrest system of the proposed covered	150 days	Fri 15/2/19	Sun 14/7/19	
	walkway at Fanling Station Road				
1520 ,20 1 12 1521 ,20 1 13	submission of fall arrest system acceptance of fall arrest system by Project Manager	0 days	Sun 14/7/19 Sun 4/8/19	Sun 14/7/19 Sun 4/8/19	
1521 20110	acceptance of fair anear system by Froject Manager	0 0035	our nor o	Cull Horio	
1522 :20 1 14	Liaison with MTRC for the works arrangement	30 days	Mon 5/8/19	Tue 3/9/19	
1523 20 1 15	general sile clearance	12 days	Wed 4/9/19	Wed 18/9/19	
1524 20 1 16 1525 20.1.17	initial survey		Thu 19/9/19		
1525 20.1.17	utility detection and submit reports Fabrication of Steelworks & glass panel	8 days 100 days	Mon 5/8/19	Mon 14/10/19 Mon 2/12/19	
1527 20.1.19	delivery steelworks & glass panel to site				
1528 20 1 20	application of XP (for Parts D)	0 days	Thu 29/11/18	Thu 29/11/18	*
1529 20 1 21	acceptance of XP (for Parts D)	0 days	Thu 30/5/19		
1530 20122	Construction of Covered Walkway at Fanling Station	390 gays	Tue 15/10/19	wed 3/2/21	
1531 20 1 22 1	construct the concrete foundation of covered	20 days	Tue 15/10/19	Wed 6/11/19	
	walkway (first 20m)				
1532 20 1.22 2	construct the concrete foundation of covered walkway (2nd 20m)	20 days	Thu 7/11/19	Fri 29/11/19	
1533 20 1 22 3	construct the concrete foundation of covered	20 davs	Sat 30/11/19	Mon 23/12/19	
	walkway (3rd 20m)				
1534 :20 1.22 4	demolished existing planter (drg.WY/1051)			Mon 23/12/19	
1535 20.1.22.5	construct the concrete foundation of covered walkway (4th 20m)	20 days	Tue 24/12/19	Sat 18/1/20	
1536 :20 1 22.6	construction of covered walkway including	265 davs	Mon 20/1/20	Wed 9/12/20	
	steelworks, glass panel and electrical works				
1537 20.1.22.7	Reinstatement of the pavement and street furniture	45 days	Thu 10/12/20	Wed 3/2/21	
1538 20.2		782 days	Thu 31/5/18	Sat 16/1/21	
1539 20.2 1	access date for section 3 (Parts E)		Thu 31/5/18		*
1540 20.2.2	application of XP (for Parts E)	0 days	Thu 30/5/19	Thu 30/5/19	**
1541 20.2.3	acceptance of XP (for Parts E)		Thu 28/11/19		
1542 20.2.4	Sheung Shui Landmark North PTI and Fanling	242 days	Fri 31/5/19	Mon 27/1/20	
	Station Road				
1543 20.2.4.1		120 days	Fri 31/5/19	Fri 27/9/19	**
1544 100 0 10	from TD and RMO	00.4-	0-1 00/01/0	Tue 00// 1//0	
1544 20 2 4 2	Comment & acceptance of TTA scheme by TD & RMO	ou days	Sat 28/9/19	rue 26/11/19	
1545 20.2.4.3	Obtain roadwork advice from RMO	60 days	Fri 29/11/19	Mon 27/1/20	
1546 120.2.5	general site clearance	12 days	Wed 29/1/20	Tue 11/2/20	
1547 20.2.6	initial Survey		Wed 12/2/20	Thu 27/2/20	
1548 20.2.7 1549 20.2.8	utility detection and submit reports Road Improvement works at Sheung Shui Landmark	14 days	Fri 28/2/20 Mon 16/3/20	Sat 14/3/20 Sat 16/1/21	
20.4.0	Road Improvement works at Sheung Shui Landmark North PTI	200 udys	WOIL TURAZU	Gal TURI/21	
1550 20.2.8.1	saw cul and remove existing pavement	10 days	Mon 16/3/20	Thu 26/3/20	
1551 ;20.2.8.2	remove existing kerb and railings	14 days	Fri 27/3/20	Thu 16/4/20	
1552 20.2.8.3	demolish existing slope planter wall	21 days	Fri 17/4/20	Wed 13/5/20	
1553 20.2.8.4 1554 20.2.8.5	construct slope planter wall construct kerb backing & lay kerb	60 days 30 days	Thu 14/5/20 Sat 25/7/20	Fri 24/7/20 Fri 28/8/20	
1555 20.2.8.6	construct concrete & bituminous pavement for	30 days	Sat 29/8/20	Mon 5/10/20	
	road and central refuge				
1556 20.2 8.7	relocate existing street lighting (DD0398)		Tue 6/10/20		
1557 20.2 8 8	install type 2 railing, traffic & directional signs	45 days	Wed 11/11/20	Tue 5/1/21	
1558 20.2.8.9	road markings	10 days	Wed 6/1/21	Sal 16/1/21	
1559 21	Planned Completion for section 3 of the works	0 days	Wed 3/2/21	Wed 3/2/21	
1560 22	Completion Date for section 3 of the works	0 days	Wed 3/2/21	Wed 3/2/21	
1561 23	section 4 of the works - Completion of Establishment works for the Landscape Softworks within Parts A1, A2 and B of the Site	1095 days	Thu 4/2/21	Sat 3/2/24	
1562 23.1	Establishment works for the Landscape Softworks within Parts A1, A2 and B of the Site	1095 days	Thu 4/2/21	Sat 3/2/24	



Contract No. CV Development of - Infrastructural \	/2017/02 Columbarium at Sandy Ridge Cemetery Norks at Man Kam To Road and Lin Ma Hang Road				3 Month Rolling Programme (from 26/2/2021 to 25/5/2021)
WBS	Task Name	Duration	Start Date	Completion Date	M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E
	section 5 of the works - Completion of Establishment works for the Landscape Softworks within Parts C1 and C2 of the Site	1095 days	Thu 4/2/21	Sat 3/2/24	TWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSM
1566 26.1	Establishment works for the Landscape Softworks within Parts C1 and C2 of the Site	1095 days	Thu 4/2/21	Sat 3/2/24	
	section 6 of the works (section Subject to Excision) - Completion of all works within Parts A3 and A4 of the Site except Establishment works. Extent of works under section 6 of the works is defined in Drawing No.: 231448/C2/G/1031	859 days	Fri 28/9/18	Wed 3/2/21	· · ·
1570 291	Parts A3	859 days	Fri 28/9/18	Wed 3/2/21	
1571 2911	access date for section 6 (Part A3) - not more than	0 days	Fri 28/9/18	Fri 28/9/18	
1572 29.1.2	120 days after the starting date The time for ordering the "section Subject to Excision" for section 6 and 7 is within 390 days	0 days	Mon 24/6/19	Mon 24/6/19	* J
1573 2913	commencing from and including the starting date form temporary haul road from the south side to	5 days	Tue 25/6/19	Sat 29/6/19	
1574 29.1.4	Parts A3 general site clearance & tree felling	12 days	Tue 2/7/19	Mon 15/7/19	
1575 29.1.5	initial survey	12 days 12 days	Tue 2/7/19	Mon 15/7/19	General
1576 29.1.6	construction of temporary drainage	14 days	Mon 15/7/19	Tue 30/7/19	· · · · · · · · · · · · · · · · · · ·
1577 29.1.7	Construction of Retaining Wall RW14 (Bay 1-Bay 6)	312 days	Fri 26/7/19	Sat 22/8/20	
1578 29 1.7 1	excavation (open cut) to formation (bays 1 to 4)	5 days	Fri 26/7/19	Wed 31/7/19	
1579 :29 1 7.2	temporary soil nails (bays 5 to 7)	23 days	Wed 31/7/19	Mon 26/8/19	
1580 29.1.7.3	predrilling for socketed H-Piling	25 days			
1581 2917.4	construction of socketed H-Pile		Tue 24/9/19		
1582 29175 1583 291.7.6	post drilling for socketed H-Piling blinding concrete for bays 1 to 7	3 days 3 days	Fri 22/5/20 Tue 26/5/20	Mon 25/5/20 Thu 28/5/20	
1584 29.1.7.7	base formwork for bay 2, 4 & 6	3 days	Fri 29/5/20	Mon 1/6/20	
1585 29.17.8	base steel fixing for bay 2, 4 & 6	3 days	Mon 1/6/20	Wed 3/6/20	
1586 29.1.7.9	base concreting & curing for bay 2, 4 & 6	5 days	Thu 4/6/20	Tue 9/6/20	
1587 29.1.7.10	remove base formwork	3 days	Tue 9/6/20	Thu 11/6/20	
1588 29.1711 1589 29.1.712	falsework and formwork for walls of bay 2, 4 & 6	6 days	Thu 11/6/20 Wed 17/6/20	Wed 17/6/20 Mon 29/6/20	
1590 29.1.7.12	steel fixing for walls of bay 2, 4 & 6 close formwork for walls of bay 2, 4 & 6	10 days 3 days	Mon 29/6/20	Thu 2/7/20	
1591 29.1.7.14	concreting and curing for walls of bay 2, 4 & 6	6 days	Fri 3/7/20	Thu 9/7/20	
1592 29 1 7 15	remove falsework and formwork for walls	3 days	Thu 9/7/20	Sat 11/7/20	
1593 29 1 7 16	base formwork for bay 1, 3 & 5	3 days		Wed 15/7/20	
1594 29 1 7 17 1595 29 1 7 18	base steel fixing for bay 1, 3 & 5	3 days	Wed 15/7/20 Sat 18/7/20	Fri 17/7/20 Thu 23/7/20	
1596 29.1.7.19	base concreting & curing for bay 1, 3 & 5 remove base formwork	5 days 3 days	Thu 23/7/20	Sat 25/7/20	
1597 29.1.7.20	falsework and formwork for walls of bay 1, 3 & 5	6 days	Sat 25/7/20	Fri 31/7/20	
1598 29.1.7.21	steel fixing for walls of bay 1, 3 & 5	10 days	Fri 31/7/20	Tue 11/8/20	
1599 291722	close formwork for walls of bay 1, 3 & 5	3 days	Tue 11/8/20	Thu 13/8/20	
1600 29 1 7.23 1601 29 1 7.24	concreting and curing for walls of bay 1, 3 & 5 remove falsework and formwork for walls	6 days 3 days	Fri 14/8/20 Thu 20/8/20	Thu 20/8/20 Sal 22/8/20	
1602 29.1.8	backfilling works behind Retaining Wall RW14 (bay1			Tue 15/12/20	
	to 6) (include SRT tests)				
1603 29.1.9	Construction of Retaining Wall RW14 Bay 7		Wed 30/9/20		
1604 29.1.9.1 1605 29.1.9.2	base formwork	2 days 3 days		Sal 3/10/20 Wed 7/10/20	
1605 29 19.2	base steel fixing base concreting & curing	3 days		Mon 12/10/20	
1607 29 1.9 4	remove base formwork	1 day		Mon 12/10/20	
1608 29.1.9.5	falsework and formwork for wall	3 days		Thu 15/10/20	
1609 29.1.9.6	steel fixing for wall	9 days		Thu 29/10/20	
1610 :29 1.9.7 1611 :29 1.9.8	close formwork for wall	2 days 3 days	Fri 30/10/20 Tue 3/11/20		
1611 29198	concreting and curing for wall remove falsework and formwork	3 days 2 days		Mon 9/11/20	
1613 29.1.10	backfilling works behind RW14 (bay 7) (include SRT tests)				
1614 29.1.11	install instrument for RW14	5 days	Fri 11/12/20	Wed 16/12/20	
1615 29.1.12	construct 300U channel & catchpit in front of RW14	8 days		Sat 19/12/20	
1616 29,1.13	site formation works for fill slope FS19 and FS20 (including in "backfilling works behind Retaining Wal RW14 (bay1 to 6)")	90 days I	Sat 22/8/20	Tue 15/12/20	
1617 29.1.14	300U channel & stepped channel for FS19 & 20		Wed 16/12/20		
1618 :29.1 15	install instrument for FS19 & FS20			Mon 21/12/20	
1619 29.1.16	minor site formation works for cut slope CS25			Wed 16/12/20	
1620 29.1.17	minor site formation works for cut slope CS26	3 days	Thu 17/12/20	Sat 19/12/20	
1621 29.1.18	install instruments for CS25 & CS26			Mon 28/12/20	

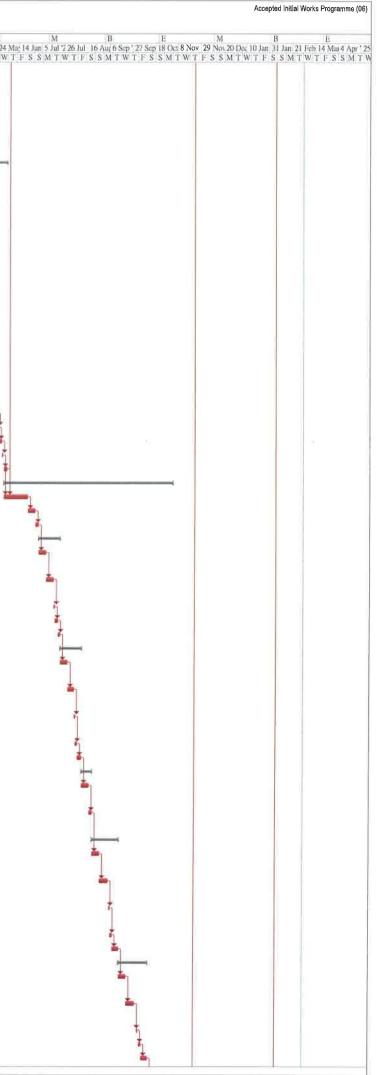


	27/2017/02 of Columbarium at Sandy Ridge Cernetery I Works at Man Kam To Road and Lin Ma Hang Road	ł			3 Month Rolling Programme (from 26/2/2021 to 25/5/2021)
WBS	Task Name	Duration	Start Date	Completion Date 2	M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B B E M B B E M B B B E M B B E M B B B E M B B B B
1622 29.1.19	waterworks at Road E	12 days	Mon 21/12/20		WIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55MIWIP55
1623 29.1.20	drainage works at Road E	10 days	Thu 31/12/20	Tue 12/1/21	
1624 29.1.21	U channels at Road E	7 days	Tue 5/1/21	Tue 12/1/21	
1625 29 1 22	Roadworks of Road E (ch20-60)	19 days			
1626 29.1 22 1	kerbing & sub-base & cross road ducts for UU	11 days	Wed 13/1/21	Mon 25/1/21	
1627 29 1.22 2	ducting for road lighting & construction of irrigation system	4 days	Thu 21/1/21	Mon 25/1/21	
1628 :29 1.22 3	concrete pavement	10 days	Fri 22/1/21	Tue 2/2/21	
1629 ,29 1 22 4	street lighting (Drg/ RD/2091)	4 days	Sat 30/1/21	Wed 3/2/21	
1630 29.1.22.5	traffic signs, directional signs, emergency crash gate, type 2 railing & footpath	10 days	Sat 23/1/21	Wed 3/2/21	
1631 29 1 23	Site Formation works for Cut Slope CS24 (include temporary cutting from top of RW12 to toe of CS24) (for RW12 bays 1-3)	4 days	Tue 17/9/19	Fri 20/9/19	
1632 29.1.24	install instrument for CS24	5 days	Mon 23/9/19	Fri 27/9/19	
1633 29.1.25	temporary soil nails between CS20 & RW12 (for RW12 bays 1-3)	30 days	Mon 23/9/19	Mon 4/11/19	
1634 :29 1.26	Construction of Retaining Wall RW12 CH 0-20	67 days	Tue 5/11/19	Fri 24/1/20	
1635 :29.1.26.1	plate load lests	3 days	Tue 5/11/19		
1636 29 1 26.2	,	2 days	Fri 8/11/19		1 T
1637 29 1 26 3	base formwork for bay 1 & 3		Mon 11/11/19		
1638 29 1.26.4	base steel fixing for bay 1 & 3		Wed 13/11/19		
1639 29.1.26.5 1640 29.1.26.6	base concreting & curing for bay 1 & 3 remove base formwork	4 days 1 day		Thu 21/11/19 Fri 22/11/19	
1641 29.1.26.7	falsework and formwork for walls of bay 1 & 3	4 days		Wed 27/11/19	
1642 29 1 26 8	steel fixing for walls of bay 1 & 3	10 days		Mon 9/12/19	
1643 29.1.26.9	close formwork for walls of bay 1 & 3	2 days	Tue 10/12/19	Wed 11/12/19	
1644 29 1 26 1	concreting & curing for walls of bay 1 & 3	4 days	Thu 12/12/19	Mon 16/12/19	
1645 29.1.26.1		2 days		Tue 17/12/19	1
1646 29.1.26.1		1 day		Wed 18/12/19	
1647 29 1 26 1	,	1 day		Thu 19/12/19	t i i i i i i i i i i i i i i i i i i i
1648 29.1.26.1 1649 29.1.26.1		2 days		Sat 21/12/19 Fri 27/12/19	
1650 29.1.26.1		3 days 1 day		Sat 28/12/19	
1651 29.1.26.1		2 days		Tue 31/12/19	
1652 29 1 26 1		7 days	Thu 2/1/20		
1653 29.1.26.1	•	2 days	Fri 10/1/20	Sat 11/1/20	
1654 29.1.26.2	concreting & curing for walls of bay 2	4 days	Mon 13/1/20	Thu 16/1/20	
1655 29.1.26.2		2 days	Fri 17/1/20	Sat 18/1/20	1
1656 29.1.26.2		5 days			
1657 29 1 27	backfilling along Retaining Wall RW12	40 days	Thu 4/6/20	Wed 22/7/20	
1658 29 1 28	Completion of Site Formation works for Cut Slope 24	5 2 days	Tue 21/7/20	Wed 22/7/20	
1659 29.1.29	Waterworks at Road F	24 days	Thu 23/7/20	Wed 19/8/20	
1660 29.1.30	Drainage works at Road F	25 days	Thu 20/8/20	Thu 17/9/20	
1661 29.1.31	planter wall for Road E and Road F in Parts A3	10 dove	Fri 18/9/20	Sat 3/10/20	
1662 29.1.31	UU-Arrange Town Gas & PCCW to lay across Road F (not yet agree)				
1661 004 00		EE dava	Eri 22/10/20	Mon 1/1/21	
1663 29.1.33 1664 29.1.33.1	Roadworks of Road F (60m) kerbing and cross road duct (RD/2061, 2081)		Fri 23/10/20 Fri 23/10/20		
1665 29.1.33.2	ducting for road lighting & construction of irrigation system	12 days	Mon 9/11/20	Mon 23/11/20	
1666 29.1.33.3	bituminous pavement	12 days	Tue 24/11/20	Mon 7/12/20	
1667 29,1.33.4			Tue 8/12/20		
1668 29.1.34	street lighting (Drg/ RD/2091)	6 days	Tue 5/1/21	Mon 11/1/21	
1669 29,1.35	landscaping (hydroseeding)	9 days			
1670 29,1.36	landscaping (shrub planting)		Fri 22/1/21		
1671 29.2	Parts A4		Mon 24/6/19		
1672 29.2.1	access date for section 6 (Parts A4) - not more than 580 days after the starting date	0 days	Tue 31/12/19	Tue 31/12/19	
1673 29.2.2	The time for ordering the "section Subject to Excision" for section 6 and 7 is within 390 days commencing from and including the starting date	0 days	Mon 24/6/19	Mon 24/6/19	
1674 29.2.3	general site clearance	15 days		Sal 18/1/20	
1675 29.2.4	initial survey	11 days	Sat 11/1/20	Thu 23/1/20	

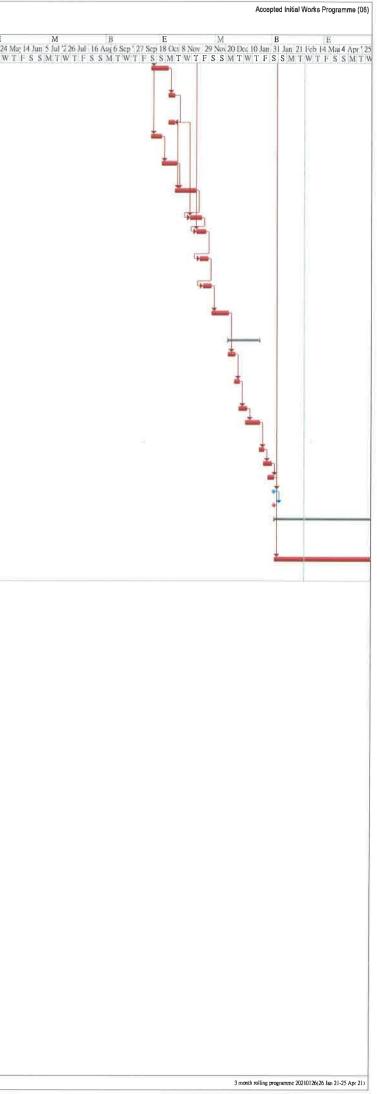


³ month rolling programme 20210126(26 Jan 21-25 Apr 21)

Developme	o, CV/2017/02 int of Columbarium at Sandy Ridge Cemetery tural Works at Man Kam To Road and Lin Ma Hang Road	d			3 Month Rolling Programme (from 26/2/2021 to 25/5/2021)
ID WBS	Task Name	Duration	Start Date	Completion Date	M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E 20 Ma; 10 Jun 1 Jul 1 22 Jul 12 Aug 2 Sep ' 23 Sep 14 Oct 4 Nov 25 Nov 16 Dec 6 Jan ' 27 Jan 17 Feb 10 Mar 31 Mar 21 Apr 12 Mar 2 Jun ' 23 Jun 14 Jul 4 Aug 25 Aug 15 Sep 6 Oct ' 27 Oct 17 Nov 8 Dec ' 29 Dec 19 Jan 9 Feb ' 1 Mar 22 Mar 12 Apr 3 May 24 M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F
1676 29.2.5	construction of temporary drainage	15 days	Thu 16/1/20	Wed 5/2/20	
1677 29.2.6	Site Formation works for Cut Slope CS24 (include temporary cutting from top of RW12 to toe of CS24) (for RW12 bays 4-6)	7 days	Wed 29/1/20	Wed 5/2/20	
1678 2927 1679 2928		3 days 35 days	Thu 6/2/20 Thu 6/2/20	Sal 8/2/20 Tue 17/3/20	
1680 29.2.9	•	58 days		Wed 3/6/20	
1681 29.2 9 1682 29.2 9		3 days 2 days	Wed 18/3/20 Mon 23/3/20	Fri 20/3/20 Tue 24/3/20	
1683 29.2.9	· · · · · · · · · · · · · · · · · · ·	2 days 2 days	Wed 25/3/20	Thu 26/3/20	i i i i i i i i i i i i i i i i i i i
1684 29.2		4 days	Fri 27/3/20	Wed 1/4/20	
1685 29.2.9	0	3 days	Thu 2/4/20	Mon 6/4/20	
1686 29.2.9		1 day	Tue 7/4/20	Tue 7/4/20	
1687 29.2.9	a.7 falsework and formwork for walls of bay 4 & 6	3 days	Wed 8/4/20	Tue 14/4/20	· · · · · · · · · · · · · · · · · · ·
1688 29.2.9	e.8 steel fixing for walls of bay 4 & 6	8 days	Wed 15/4/20	Fri 24/4/20	
1689 29.2 9		2 days		Mon 27/4/20	
1690 29.2.9	• • •	4 days		Mon 4/5/20	•
1691 29.23		2 days		Tue 5/5/20	1
1692 ;29 2 1 1693 ;29 2 1		1 day 1 day	Wed 6/5/20 Thu 7/5/20	Wed 6/5/20 Thu 7/5/20	
1693 29.23		1 day 2 days		Sat 9/5/20	
1695 29.2	<b>-</b>	3 days			
1696 29.2		1 day	Thu 14/5/20	Thu 14/5/20	t i
1697 29.2		2 days	Fri 15/5/20	Sat 16/5/20	A CONTRACT OF
1698 :29 2	9.18 steel fixing for walls of bay 5	7 days	Mon 18/5/20	Mon 25/5/20	· · · · · · · · · · · · · · · · · · ·
1699 29.2	9.19 close formwork for walls of bay 5	1 day	Tue 26/5/20	Tue 26/5/20	E Contraction of the second
1700 29.2		3 days			
1701 29.2.		1 day	Sat 30/5/20	Sat 30/5/20	1 · · · · · · · · · · · · · · · · · · ·
1702 29.2		3 days		Wed 3/6/20 Tue 3/11/20	
1703 29.2.		125 days 19 days		Mon 22/6/20	
1704 29.2.		5 days			
1706 29.2		2 days		Thu 2/7/20	
1707 29.2.		17 days		Wed 22/7/20	
1708 29.2.	10.4.1 install test nail PN03 & pull out test	6 days		Thu 9/7/20	
1709 29.2	10.4.2 drill, install steel bars and grout soil nails (RL01, RK01-06, RJ01-10)	6 days	Fri 10/7/20	Thu 16/7/20	
1710 29.2.	10.4.3 raking drains	1 day	Fri 17/7/20	Fri 17/7/20	
1711 29.2.		2 days		Mon 20/7/20	
1712 29.2		2 days			
1713 .29.2 1714 29.2		17 days 6 days		Tue 11/8/20 Wed 29/7/20	
1714 23.2	10.5.2 drill, install steel bars and grout soil nails	5 days			
1716 29.2	(RH01-12, RG01-12, SF01-04) 10.5.3 raking drains	1 day	Wed 5/8/20	Wed 5/8/20	
	-				
1717 29.2 1718 29.2	- SNA	2 days 3 days		Fri 7/8/20 Tue 11/8/20	
1718 29.2		3 days 9 days			
1720 29.2		6 days			
1721 29.2	10.6.2 drill, install steel bars and grout soil nails (RF01-13, SE01-07)	3 days	Wed 19/8/20	Fri 21/8/20	
1722 29.2	10.7 Phase IV	21 days	Sat 22/8/20		
1723 29.2	10.7.1 install test nail PN04 & pull out test	6 days	Sat 22/8/20	Fri 28/8/20	
1724 29.2	10.7.2 drill, install steel bars and grout soil nails (RE01-14, SD01-08, RC01-15, SC01-03)	7 days	Sat 29/8/20	Sat 5/9/20	
1725 29.2	10.7.3 raking drains	1 day	Mon 7/9/20	Mon 7/9/20	
1726 29.2		2 days		Wed 9/9/20	
1727 29.2		5 days			
1728 29.2 1729 29.2		20 days		Mon 12/10/20 Tue 22/9/20	
1129 292	.10.8.1 install test nail PN01 & pull out test	6 days	weu 10/9/20	105 22/3/20	
1730 29.2	(RB01-16, SB01-02, RA01-18)	7 days		Wed 30/9/20	
1731 29.2	5	1 day 2 days		Sat 3/10/20 Tue 6/10/20	
1732 29.2	· · · · · · · · · · · · · · · · · · ·	2 days 4 days		Mon 12/10/20	
and the Parks					4.1



Develo	opment of	//2017/02 f Columbarium al Sandy Ridge Cemetery Works at Man Kam To Road and Lin Ma Hang Road	l			3 Month Rolling Programme (from 26/2/2021 to 25/5/2021)
		Task Name	Duration	Start Date		M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B B B
1734	29.2.10.9	300U channel, 300 stepped channel & catchpits	11 days	Tue 13/10/20	Wed 28/10/20	
1735	29.2 10 10	600mm width concrete maintenance staircase with handrailing	4 days	Thu 29/10/20	Tue 3/11/20	
1736	29.2.10.11	install instrument for CS20	4 days	Thu 29/10/20	Tue 3/11/20	
1737	29.2.11	Site Formation works for Cut Slope CS26 (A4)	8 days	Tue 13/10/20	Thu 22/10/20	
1738	29.2.12	Site Formation works for Cut Slope CS25 (A4)	9 days	Fri 23/10/20	Thu 5/11/20	
1739	29.2 13	complete the construction of U channel at CS 25 and 26	15 days	Wed 4/11/20	Mon 23/11/20	
1740	29.2.14	planter wall	10 days	Wed 18/11/20	Sat 28/11/20	
	29.2 15	Waterworks at Road B	8 days	Tue 24/11/20	Wed 2/12/20	
1742	29 2 16	Sewerage works at Road B	7 days	Fri 27/11/20	Fri 4/12/20	
1743	29.2.17	Drainage works at Road B	7 days	Mon 30/11/20	Mon 7/12/20	
1744	29.2.18	UU - Arrange Town Gas & PCCW to lay cables (not agreed yet)	14 days	Tue 8/12/20	Wed 23/12/20	
1745	29 2 19	Roadworks of Road B (A4-ch90-130)	23 days	Wed 23/12/20	Thu 21/1/21	
1746	29 2 19 1	kerbing, sub-base & cross road ducl (RD/2061, 2081)	4 days	Wed 23/12/20	Tue 29/12/20	
1747	29.2 19 2	ducting for road lighting & construction of irrigation system	4 days	Tue 29/12/20	Sat 2/1/21	
1748	29.2.19.3	bituminous pavement	7 days	Sat 2/1/21	Sat 9/1/21	
1749	29.2 19 4	traffic signs, directional signs, type 2 railing & footpath	12 days	Fri 8/1/21	Thu 21/1/21	
1750	29.2.20	street lighting (Drg/ RD/2091)	4 days	Thu 21/1/21	Mon 25/1/21	
1751	29.2.21	landscaping (hydroseeding)	7 days	Mon 25/1/21	Mon 1/2/21	
1752	29.2.22	landscaping (shrub planting)	5 days	Fri 29/1/21	Wed 3/2/21	
1753	30	Planned Completion for section 6 of the works	0 days	Wed 3/2/21	Wed 3/2/21	
1754	31	Completion Date for section 6 of the works	0 days	Wed 3/2/21	Wed 3/2/21	
1755	32	section 7 of the works (section Subject to ExcIsion) - Completion of Establishment works for the Landscape Softworks within Parts A3 and A4 of the	1095 days	5 Thu 4/2/21	Sat 3/2/24	
1756	32.1	Site Establishment works for the Landscape Softworks within Parts A3 and A4 of the Site	1095 days	s Thu 4/2/21	Sat 3/2/24	



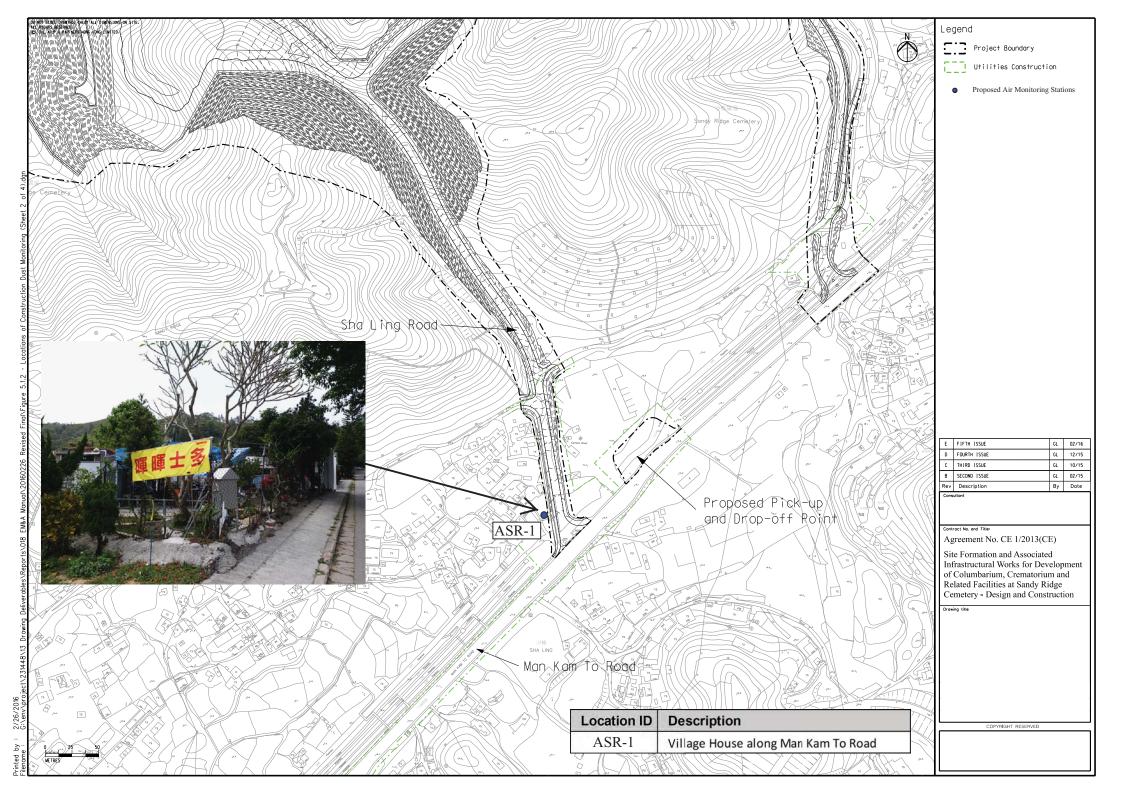


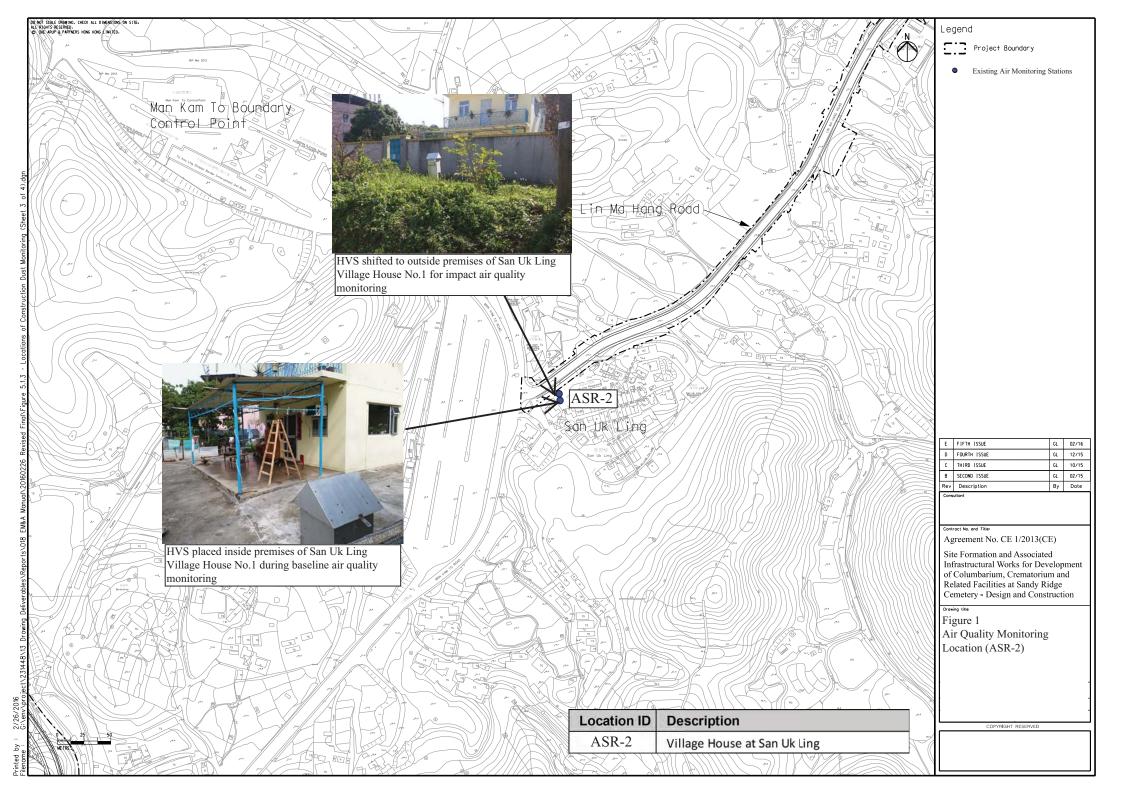
# **Appendix D**

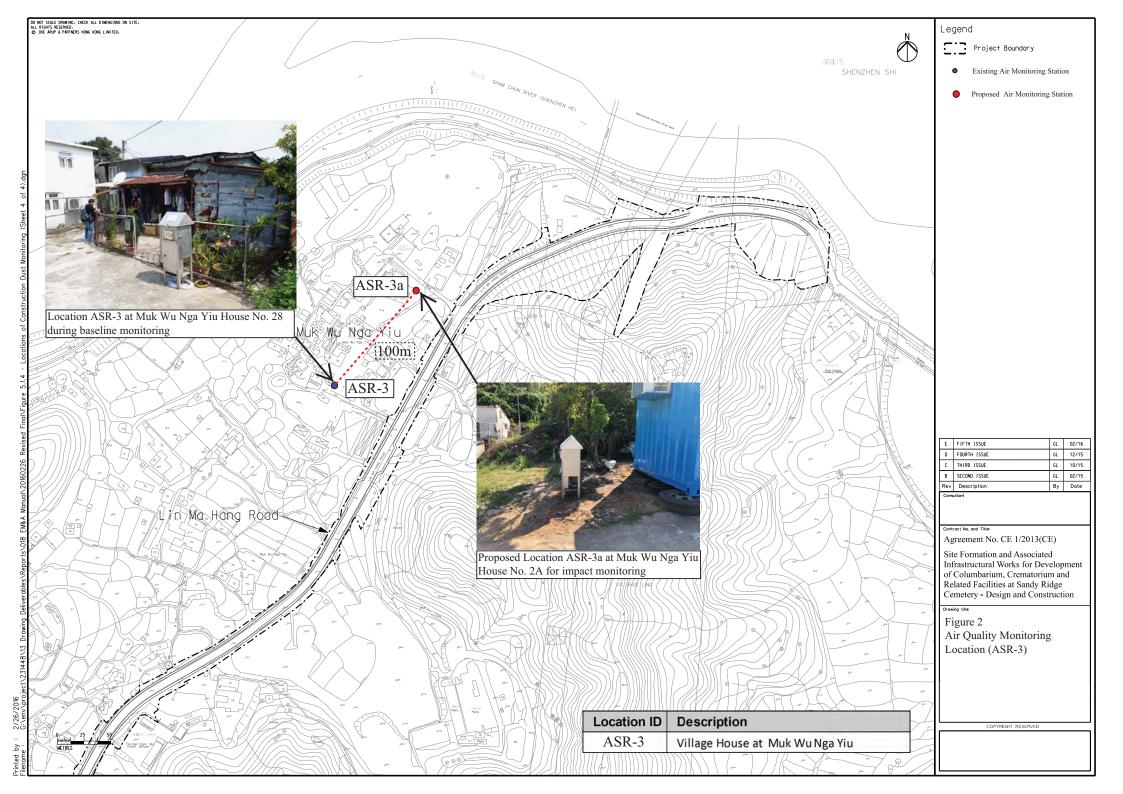
# **Monitoring Locations**



# Air Quality Monitoring Location





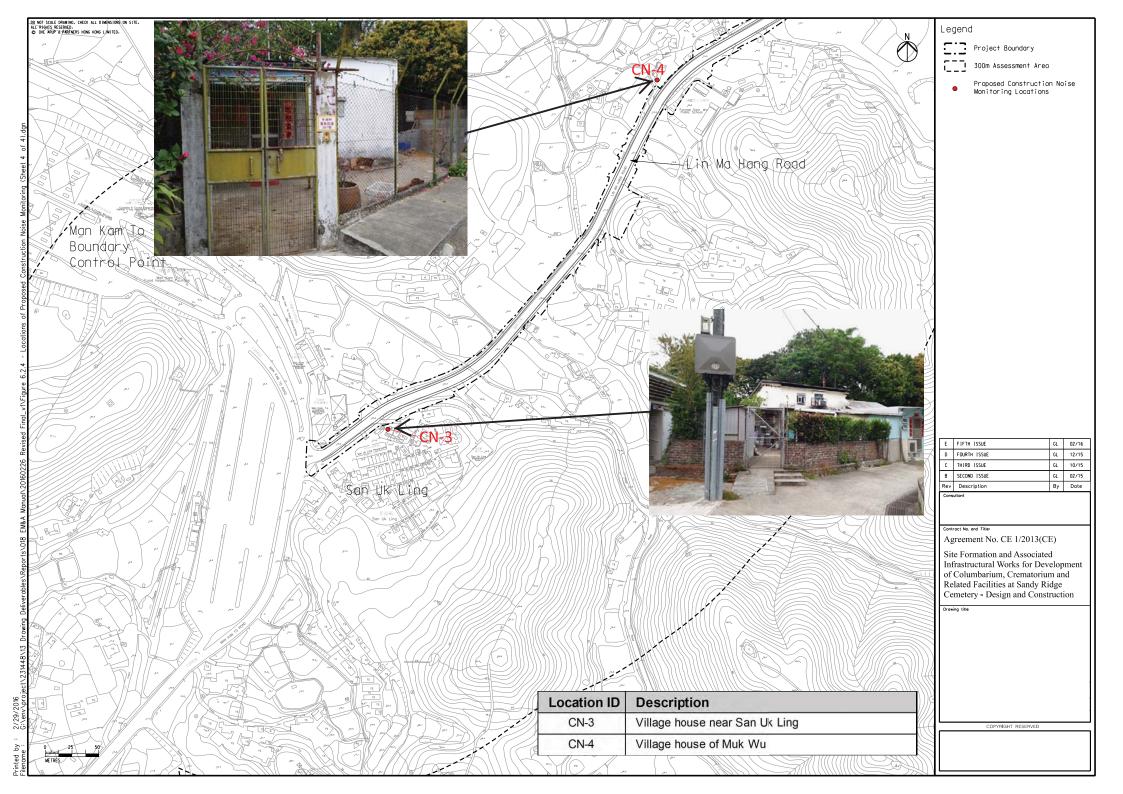




**Noise Monitoring Location** 

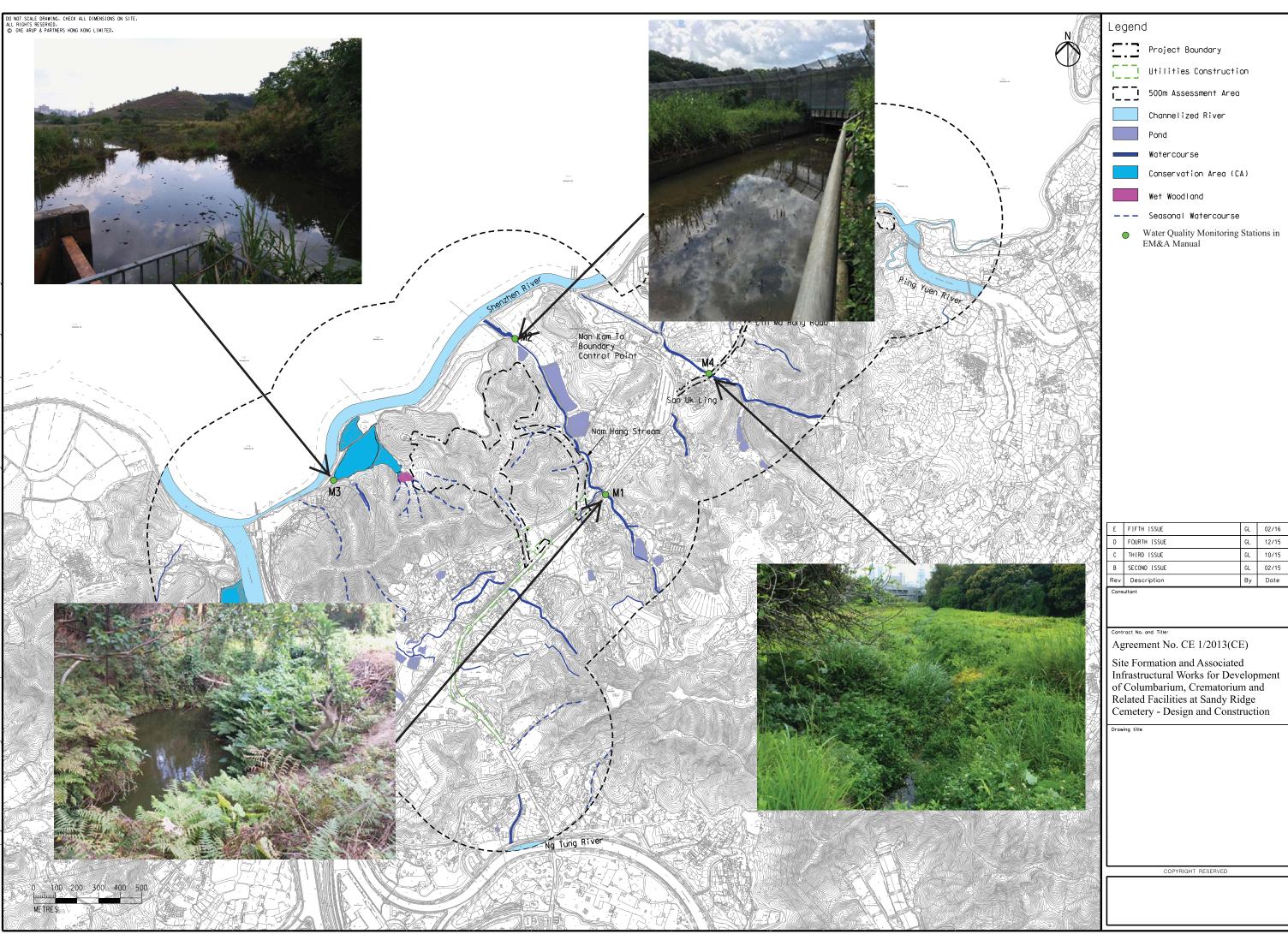








# Water Quality Monitoring Station



Ε	FIFTH ISSUE	GL	02/16
D	FOURTH ISSUE	GL	12/15
С	THIRD ISSUE	GL	10/15
В	SECOND ISSUE	GL	02/15
Rev	Description	By	Date
Cons	ultant		



# Appendix E

## Calibration Certificate of Monitoring Equipment and Laboratory Certificate



#### CALIBRATION CERTIFICATES FOR MONITORING EQUIPMENT USED IN THE REPORTING MONTH

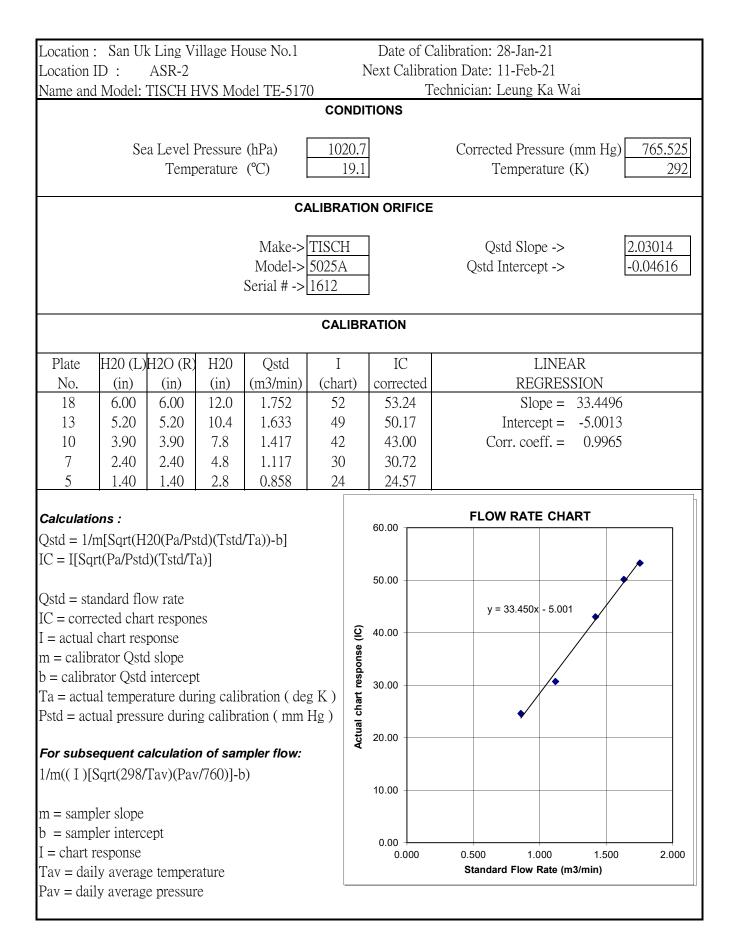
Items	Aspect	Description of Equipment	Date of Calibration	Date of Next Calibration
1		TISCH High Volume Air Sampler, HVS Model TE-5170 TSP Sampler Calibration Spreadsheet for ASR-1	28 Jan 21	11 Feb 21
1a		TISCH High Volume Air Sampler, HVS Model TE-5170 TSP Sampler Calibration Spreadsheet for ASR-1	11 Feb 21	25 Feb 21
1b		TISCH High Volume Air Sampler, HVS Model TE-5170 TSP Sampler Calibration Spreadsheet for ASR-1	26 Feb 21	12 Mar 21
2		TISCH High Volume Air Sampler, HVS Model TE-5170 TSP Sampler Calibration Spreadsheet for ASR-2	28 Jan 21	11 Feb 21
2a		TISCH High Volume Air Sampler, HVS Model TE-5170 TSP Sampler Calibration Spreadsheet for ASR-2	11 Feb 21	25 Feb 21
2b		TISCH High Volume Air Sampler, HVS Model TE-5170 TSP Sampler Calibration Spreadsheet for ASR-2	26 Feb 21	12 Mar 21
3		TISCH High Volume Air Sampler, HVS Model TE-5170 TSP Sampler Calibration Spreadsheet for ASR-3a	28 Jan 21	11 Feb 21
3a	Air	TISCH High Volume Air Sampler, HVS Model TE-5170 TSP Sampler Calibration Spreadsheet for ASR-3a	11 Feb 21	25 Feb 21
3b		TISCH High Volume Air Sampler, HVS Model TE-5170 TSP Sampler Calibration Spreadsheet for ASR-3a	26 Feb 21	12 Mar 21
4		Calibration Kit TISCH Model TE-5025A Orifice ID 1941 and Rootsmeter S/N 438320	19 Jan 21	19 Jan 22
6		Laser Dust Monitor, Model LD-3B (Serial No. 366407) – EQ107	16 Mar 20	16 Mar 21
7		Laser Dust Monitor, Model LD-3B (Serial No. 366418) – EQ108	16 Mar 20	16 Mar 21
8		Laser Dust Monitor, Model AM510 (Serial No. 11008060) – EQ101	6 Jul 20	6 Jul 21
9		Laser Dust Monitor, Model LD-3B (Serial No. 3Y6501) – EQ111	16 Mar 20	16 Mar 21
10		Laser Dust Monitor, Model LD-3B (Serial No. 456662) – EQ118	16 Mar 20	16 Mar 21
11		Rion NL- 52 Sound Level Meter (Serial No. 00921191) – EQ013	11 Aug 20	11 Aug 21
12	Noise	Rion NL- 52 Sound Level Meter (Serial No. 00142581) – EQ015	30 Sep 20	30 Sep 21
13		Rion NC - 73 Acoustical Calibrator (Serial No. 10655561) – EQ085	10 Mar 20	10 Mar 21
14	<b>X</b> <i>I</i> . :	YSI Pro DSS (Serial No.17B102764)	15 Dec 20	15 Mar 21
15	Water	Global Water FP211 Flow Meter (Serial No. 1449006330)	2 Sep 20	2 Sep 21

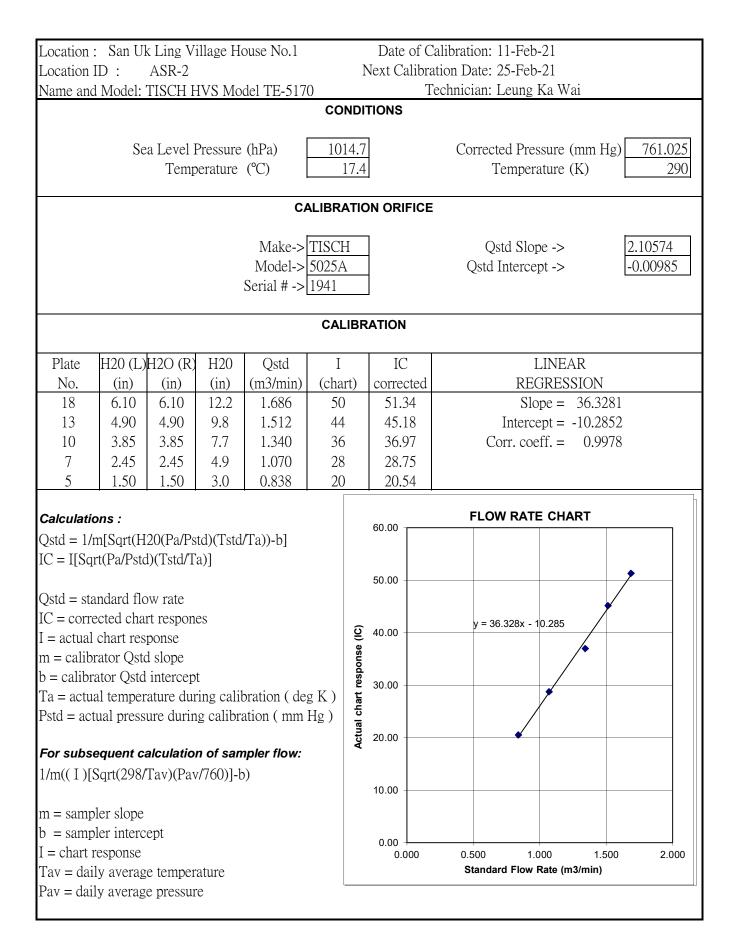
Location :	: Sha Lin	g Village	e House	No.6			Date	e of Ca	Calibration: 11-Feb-21			
Location 1	ID:	ASR-1				Ν	Next C	alibra	ation Date: 25-Feb-21			
Name and	l Model: '	TISCH H	IVS Mo	del TE-517					Fechnician: Leung Ka Wai			
					CO	NDI.	TIONS					
	G		2		101	=	1			2		
	Se	a Level I		. ,		<u>14.7</u>			Corrected Pressure (mm Hg) 761.02	-		
		Temp	erature	(°C)	]	17.4			Temperature (K) 29	90		
				C		ATIC	ON OR	IFICE				
					i		7					
				Make->					Qstd Slope -> 2.10574			
				Model->		1			Qstd Intercept -> -0.00985			
				Serial # ->	1941							
					CAL	.IBR		1				
Plate	U20 (T)	H2O (R)	H20	Oatd	I		I	7	LINEAR			
No.	(in)	(in)	(in)	Qstd (m3/min)	(chai	rt)	corre		REGRESSION			
18	6.10	6.10	12.2	1.686	53		54.		Slope = 35.7329			
13	4.95	4.95	9.9	1.519	44		45.18		Intercept = -7.3896			
10	3.90	3.90	7.8	1.349	40		41.		Corr. coeff. = 0.9927			
7	2.60	2.60	5.2	1.102	30		30.					
5	1.60	1.60	3.2	0.866	24		24.					
	•				ſ			÷	•			
Calculatio			· 1) (TP - 1						FLOW RATE CHART			
Qstd = 1/r				/Ta))-b]			60.00 T					
IC = I[Squ	rt(Pa/Pstc	1)(1 std/1	a)]									
Oatal ata	and and fla											
Qstd = sta IC = corre			26				50.00 -					
I = actual		-	68			ប			y = 35.733x - 7.390			
m = calibr		-				se (I	40.00		<b>*</b>			
b = calibra	-	-	t			uod	40.00 - 30.00 - 20.00 -					
	-	-		oration ( de	σK)	t res	20.00					
	_		_	ation ( mm		char	30.00 -					
i sta uot	aur press	ure durin			115 /	tual			<ul> <li>✓</li> </ul>			
For subse	equent ca	alculatio	n of san	pler flow:		Act	20.00					
1/m((I)[S	-			-								
							10.00					
m = samp												
b = samp		ept										
I = chart r	-						+ 0.00 0.0	00	0.500 1.000 1.500 2.00	oo		
Tav = dai		-							Standard Flow Rate (m3/min)			
Pav = dail	ly averag	e pressur	e		L							

Location :	: Sha Lin	g Village	e House	No.6			Date c	of Calib	pration: 28-Jan-21		
Location 1	ID:	ASR-1				N	Vext Cal	ibratior	n Date: 11-Feb-21		
Name and	l Model: '	TISCH H	HVS Mo	del TE-517	0			Tech	nician: Leung Ka Wa	ai	
					со	NDI.	TIONS				
							7			<b></b>	
	Se	a Level I	Pressure	(hPa)		20.7	_		Corrected Pressure (		
		Temp	perature	(°C)		19.1			Temperature (	(K) <u>292</u>	
				C	ALIBR/	ATIC	ON ORIF	ICE			
					mra ar	-	1		0 1 21	2 0 0 0 1 /	
				Make->					Qstd Slope ->	2.03014	
				Model->		1			Qstd Intercept ->	-0.04616	
				Serial # ->	1612						
					CAL		ATION				
					CAL						
Plate	H20 (L)	H2O (R)	H20	Qstd	I		IC		LINEA	AR	
No.	(in)	(in)	(in)	(m3/min)	(cha	rt)	correct	ed	REGRES		
18	6.60	6.60	13.2	1.837	54	-	55.29		Slope = 32.3345		
13	5.20	5.20	10.4	1.633	48		49.15	5	Intercept =		
10	3.80	3.80	7.6	1.399	41		41.98	3	Corr. coeff. =		
7	2.60	2.60	5.2	1.161	33		33.79	)			
5	1.60	1.60	3.2	0.916	25		25.60	)			
	-							· · · · · · · · · · · · · · · · · · ·			
Calculatio	ons :								FLOW RATE CHA	RT	
Qstd = 1/r	n[Sqrt(H	20(Pa/Ps	std)(Tstd	/Ta))-b]			60.00				
IC = I[Squ	rt(Pa/Pstc	l)(Tstd/T	'a)]				00.00				
Qstd = sta							50.00		y = 32.334x - 3	762	
IC = correction		-	es						y = 02.004X 0		
I = actual		-				e (IC	40.00			<b>*</b>	
m = calibr	-	-				suoc					
b = calibration	-	_			· IZ )	resp			<b>*</b>		
	_		_	oration ( de		hart	30.00				
Psid = aci	ual press	ure durin	ig canor	ation ( mm	пg)	al c	40.00		•		
Forsubs	oquent c	alculatio	n of san	pler flow:		Actu	20.00				
1/m((I)[S	-			-							
1/111(( 1 )[,	5q11(290/	1 av /(1 av	///00)]-t	))							
m = samp	ler slone						10.00				
b = samp		ent									
I = chart r		- 1- 1					0.00				
Tav = dai	-	e temper	ature				0.000	)	0.500 1.000 Standard Flow Rate (m	1.500 2.000 <b>3/min)</b>	
Pav = dai		-								,	
	,	r-200041									

I

Location :	: Sha Lin	g Village	e House	No.6					libration: 26-F			
Location 1		ASR-1				l	Next (		ion Date: 12-N			
Name and	l Model: '	TISCH H	HVS Mo	del TE-517					chnician: Leur	ng Ka Wa	i	
					CC	)NDI	TION	S				
	C	T 1	D	(1 D )	10	00.0	T		C (1)		TT \	757.05
	Se	a Level 1		. ,		09.8			Corrected F			
		Temp	perature	$(\mathcal{C})$		22.3	ļ		Temp	erature (I	()	295
				C	ALIBR	ATIC	on of	RIFICE				
				Make->	TISC	H	T		Qstd S	lope ->		2.10574
				Model->			Ì		Qstd Inter			-0.00985
				Serial # ->	1941		I					
					CA	LIBR	ΑΤΙΟ	N				
Plate	H20(L)	H2O (R)	H20	Qstd	Ι		I	C		LINEA	R	
No.	(in)	(in)	(in)	(m3/min)	(cha			ected	Я	EGRESS		
18	6.20	6.20	12.4	1.682	52			2.38		Slope = $\frac{1}{2}$		)
13	4.90	4.90	9.8	1.496	44			.32		ercept =		
10	3.90	3.90	7.8	1.335	39	)	39	.29		coeff. =		
7	2.60	2.60	5.2	1.091	30	)	30	0.22				
5	1.50	1.50	3.0	0.830	24	1	24	.18				
Calculatio	nne r				Ē						-	
Qstd = $1/r$		$2 \Omega (P_2/P_2)$	td)(Tetd	/Ta))_h]					FLOW RA			
IC = I[Squ				(1 <i>a))</i> -0]		6	60.00 -					
10 – 1[04		1)(1500/1	u)]									
Qstd = sta	undard flo	ow rate				Ę	50.00 -					•
IC = correction			es									
I = actual		-				(j			y = 33.17	8x - 4.601		
m = calibr	rator Qsto	d slope				use 7	40.00 -			1	•	
b = calibr	ator Qstd	intercep	t			odsə						
	-		-	oration ( de		art	30.00 -					
Pstd = act	ual press	ure durin	ng calibra	ation ( mm	Hg)	al ch						
For subs	equent ca	alculatio	n of san	pler flow:		Actu	40.00 - 30.00 - 20.00 -					
1/m((I)[S	Sqrt(298/	Tav)(Pav	v/760)]-t	))								
						1	10.00 -					
m = samp												
b = samp		ept					0.00 -					
I = chart I	-							000		1.000	1.500	2.000
Tav = dai									Standard Flo	w Rate (m3/	min)	
Pav = dail	iy averag	e pressui	re									

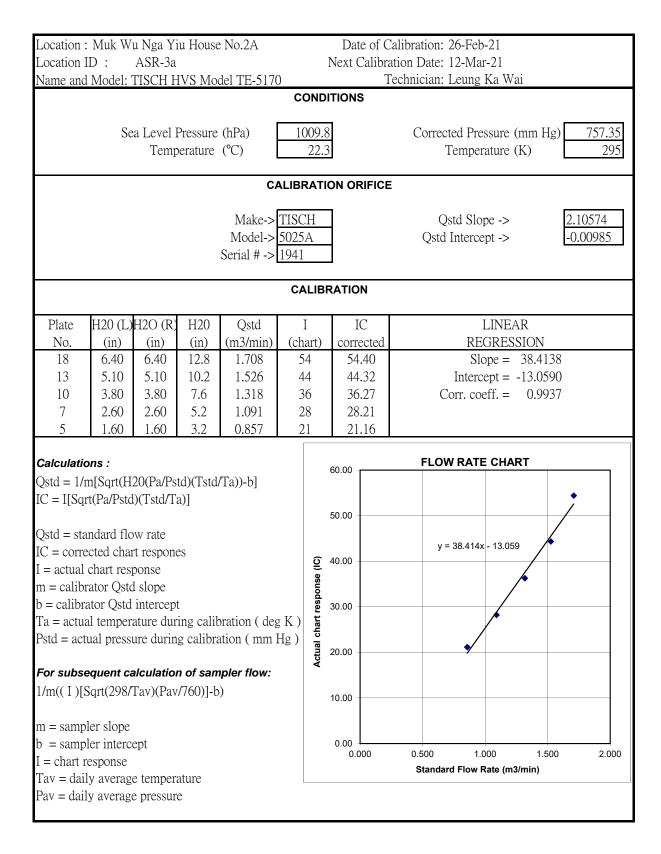




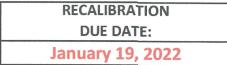
Location :			illage H	ouse No.1				alibration: 26-Fe			
Location 1		ASR-2				]		tion Date: 12-M			
Name and	Model:	TISCH H	IVS Mo	del TE-517				echnician: Leun	<u>g</u> Ka Wai		
					00	IUN	TIONS				
	Se	a Level I	Pressure	(hPa)	10	09.8	1	Corrected P	ressure (mi	m Hø)	757.35
	50		berature	. ,		22.3	1		erature (K)		295
		Tomp	, er ut dir e	( 0)	·		1	Tomp	0144410 (11)	, <u> </u>	
				C	ALIBR	ΑΤΙΟ	ON ORIFICE				
					r		т			·	
				Make->			+	Qstd SI			0574
				Model->		ł	-	Qstd Inter	cept ->	-0.0	00985
				Serial # ->	1941		1				
					CAI	LIBR	ATION				
Plate	H20 (L)	H2O (R)	H20	Qstd	I		IC		LINEAR		
No.	(in)	(in)	(in)	(m3/min)	(cha	rt)	corrected	R	EGRESSIC		
18	6.10	6.10	12.2	1.668	51	L	51.38	S	Slope = $35$	5.6583	
13	4.90	4.90	9.8	1.496	44	1	44.32		rcept = -8		
10	3.90	3.90	7.8	1.335	37		37.27	Corr. c	coeff. = (	0.9975	
7	2.50	2.50	5.0	1.070	29		29.21				
5	1.50	1.50	3.0	0.830	21		21.16				
Calculatio	ons:							FLOW RA	TE CHART		
Qstd = 1/r		20(Pa/Ps	td)(Tstd	/Ta))-bl			60.00				
IC = I[Squ				, 10, , , 0]							
	,		/ ]				50.00			<b>^</b>	
Qstd = sta	ndard flo	w rate									
IC = corrections	ected char	rt respon	es			æ		y = 35.658x	( - 8.955	1	
I = actual	-					e (IC	40.00				
m = calibi	-	-				suod					
b = calibra	_	-				Actual chart response (IC)	30.00		_		
	-		-	oration ( de ation ( mm		char					
$r \sin - a \cos \theta$	uai piess		ig canor		11g )	tual	20.00		/		
For subse	equent ca	alculatio	n of san	npler flow:		Ac	20.00				
1/m((I)[S	- Sqrt(298/	Tav)(Pav	/760)]-t	)							
			, -				10.00				
m = samp	ler slope										
b = samp		ept					0.00				
I = chart r	-						0.000		1.000	1.500	2.000
Tav = dai								Standard Flow	v Rate (m3/mi	in)	
Pav = dail	ly average	e pressui	re								
1											

Location : Location I		u Nga Yi ASR-3a	u House	No.2A		N			ration: 28- Date: 11-			
			IVS Mo	del TE-517	C	1	Next Call			ung Ka Wa	ai	
					CC	DNDI	TIONS					
	Se	a Level I Temp	Pressure perature	. ,	10	)20.7 19.1				Pressure ( nperature (		765.525 292
				CA	ALIBR	RATIC	ON ORIFI	CE				
				Make-> Model-> Serial # ->	5025	А			-	Slope -> ercept ->		03014 0.04616
					CA	LIBR	ATION					
Plate No.	H20 (L) (in)	H2O (R) (in)	H20 (in)	Qstd (m3/min)	I (cha	-	IC correcte	b		LINEA REGRESS		
18 13	6.10 5.20	6.10 5.20	12.2 10.4	1.767 1.633	5: 4	2	53.24 49.15			Slope = tercept =	31.4622	
10 7 5	3.60 2.60 1.30	3.60 2.60 1.30	7.2 5.2 2.6	1.363 1.161 0.828	4) 3. 2:	4 34.81			Corr	. coeff. =	0.9996	
Calculatio		1.50	2.0	0.020	L.				FLOW F	RATE CHA	RT	
Qstd = 1/r IC = I[Sqr	n[Sqrt(H			/Ta))-b]			60.00					*
Qstd = sta							50.00			24.462% - 2.4	42	
IC = correct I = actual	chart resp	ponse	es			se (IC)	40.00		y =	31.462x - 2.1	43	
m = calibr b = calibra Ta = actua	ator Qstd	intercept		oration ( deg	σK)	art response (IC)	30.00					
Pstd = act	ual press	ure durin	g calibra	ation ( mm		Actual cha	20.00			•		
<b>For subse</b> 1/m(( I )[S	-			pler flow: )			10.00					
m = samp	-	ont					0.00					
b = sample I = chart r		ερι					0.00		0.500 Standard F	1.000 How Pate (m)	1.500 3/min)	2.000
Tav = dail		_							Standard F	Flow Rate (m	ərmin)	
Pav = dail	y average	e pressur	e									

Location : Location I		u Nga Yi ASR-3a		No.2A		1			ration: 11-] Date: 25-]				
				del TE-517(	)				nician: Leu		i		
					CC	ONDI	TIONS						
	Se	ea Level I Temp	Pressure perature	. ,	10	)14.7 17.4			Corrected Tem	Pressure ( perature (		761.025 290	
				CA	LIBR	RATIO	ON ORIF	ICE					
				Make-> Model-> Serial # ->	5025				Qstd ( Qstd Inte	Slope -> ercept ->		10574 .00985	
					СА	LIBR	ATION						
Plate No.	H20 (L) (in)	H2O (R) (in)	H20 (in)	Qstd (m3/min)	I (cha	-	IC correcte	ad		LINEA REGRESS			
18	6.45	6.45	12.9	1.734	5		53.40			Slope =			
13	5.10	5.10	10.2	1.542	4		45.18		Intercept = $-12.9391$				
10	3.85	3.85	7.7	1.340	3		36.97		Corr.	coeff. =	0.9986		
7	2.65	2.65	5.3	1.113	2		28.75						
5	1.60	1.60	3.2	0.866	2	0	20.54						
Calculatio	ons :						~~~~		FLOW R		RT		
Qstd = 1/r	n[Sqrt(H	20(Pa/Ps	td)(Tstd	/Ta))-b]			60.00						
IC = I[Sqn	t(Pa/Pstc	l)(Tstd/T	a)]									•	
							50.00						
Qstd = sta IC = corre	cted char	rt respone	ës			G	40.00		y = 37	.836x - 12.93	9		
I = actual		_				response (IC)							
m = calibration b = calibration calibration b = calibration	-	_	t			spor	30.00				, 		
	-	_		oration ( deg	gK)	12	30.00			/			
				ation ( mm		Actual cha	20.00						
	-			pler flow:		4							
1/m(( I )[S	Sqrt(298/	Tav)(Pav	/760)]-b	)			10.00						
m = samp	_												
b = samp		ept					0.00		0.500	1.000	1.500	2.000	
I = chart r	-	a tamme -	oture							low Rate (m3			
Tav = dail Pav = dail		_											
i av – udli	y averag	e pressui											







n m e n t a l Dertificate of Calibration

			Calibration	Certificatio	on Informat	ion			
Cal. Date:	January 19	, 2021	Roots	meter S/N:	438320	Ta:	294	°К	
Operator:	Jim Tisch					Pa:	755.1	mm Hg	
Calibration	Model #:	TE-5025A	Calil	brator S/N:	1941				
		Vol. Init	Vol. Final	ΔVol.	ΔTime	ΔΡ	ΔН		
	Run	(m3)	(m3)	(m3)	(min)	(mm Hg)	(in H2O)		
	1	1	2	1	1.4830	3.2	2.00		
	2	3	4	1	1.0420	6.4	4.00		
	3	5	6	1	0.9290	8.0	5.00		
	4	7	8	1	0.8840	8.8	5.50		
	5	9	10	1	0.7340	12.9	8.00		
			[	Data Tabula	tion				
	Vstd	Qstd	$\sqrt{\Delta H \left(\frac{Pa}{Pstd}\right)}$	<u>)(Tstd</u> )		Qa	$\sqrt{\Delta H (Ta/Pa)}$		
	(m3)	(x-axis)	(y-ax		Va	(x-axis)	(y-axis)		
	1.0029	0.6762	1.41		0.9958	0.6715	0.8824		
	0.9986	0.9583	2.00	1	0.9915	0.9516	1.2479		
	0.9965	1.0726	2.24		0.9894	1.0650	1.3952		
	0.9954	1.1260 1.3487	2.35		0.9883	1.1180	1.4633		
	0.9699	1.3467 <b>m=</b>	2.833 <b>2.105</b>	1	0.9829	1.3391 <b>m</b> =	1.7648 <b>1.31858</b>		
	QSTD	b=	-0.00		QA	b=	-0.00612		
	4510	r=	0.999		QA	r=	0.99992		
				Calculatio	าร				
	Vstd=	$\Delta Vol((Pa-\Delta P))$	/Pstd)(Tstd/Ta	a)	Va=	ΔVol((Pa-Δl	P)/Pa)		
	Qstd=	Vstd/∆Time			Qa=	Va/∆Time			
			For subsequ	ent flow rat	te calculatio	ns:			
	Qstd=	1/m ((	Pa Pstd / Tstd Ta	-))-b)	Qa=	$1/m\left(\sqrt{\Delta H}\right)$	l(Ta/Pa))-b)		
		Conditions							
Tstd:				l l		RECA	LIBRATION		
Pstd:	1	mm Hg			LIS FPA reco	nmends a	onual recalibratio	n ner 1009	
AH: calibrat		<b>(ey</b> ter reading (i	n H2O)		US EPA recommends annual recalibration per 1998 40 Code of Federal Regulations Part 50 to 51,				
		eter reading					-	-	
		perature (°K)			Appendix B to Part 50, Reference Method for the Determination of Suspended Particulate Matter in				
	Contraction of the local data and the local data an	ressure (mm	Hg)				ere, 9.2.17, page		
b: intercept							, public		
m: slope									

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# ALS Technichem (HK) Pty Ltd

#### **ALS Laboratory Group**

ANALYTICAL CHEMISTRY & TESTING SERVICES





CONTACT	: MR BEN TAM	WORK ORDER HK2012980
CLIENT	ACTION UNITED ENVIRONMENT	
	SERVICES AND CONSULTING	
ADDRESS	: RM A 20/F., GOLD KING IND BLDG, NO. 35-41	SUB-BATCH : 1
	TAI LIN PAI ROAD, KWAI CHUNG, N.T. HONG	DATE RECEIVED : 6-APR-2020
	KONG	DATE OF ISSUE : 7-APR-2020
PROJECT	:	NO. OF SAMPLES : 1
		CLIENT ORDER

#### **General Comments**

- Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in ambient condition. The result(s) related only to the item(s) tested.
- Sample information (Project name, Sample ID, Sampling date/time, etc., if any) is provided by client.
- Calibration was subcontracted to and analysed by Action United Enviro Services.

#### Signatories

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

Signatories	Position
Kichard Jong .	
Richard Fung	Managing Director

This is the Final Report and supersedes any preliminary report with this batch number.

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

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

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

CLIENT

PROJECT

: HK2012980

¹ ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING : ____



ALS Lab ID	Client's Sample ID	Sample Type	Sample Date	External Lab Report No.
HK2012980-001	S/N: 366407	AIR	06-Apr-2020	S/N: 366407

# **Equipment Verification Report (TSP)**

## **Equipment Calibrated:**

Туре:	Laser Dust monitor
Manufacturer:	Sibata LD-3B
Serial No.	366407
Equipment Ref:	EQ107
Job Order	HK2012980

### **Standard Equipment:**

Higher Volume Sampler
AUES office (calibration room)
HVS 018
9 March 2020

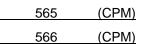
# **Equipment Verification Results:**

Verification Date:

13 March 2020

Hour	Time	Mean Temp °C	Mean Pressure (hPa)	Concentration in mg/m ³ (Standard Equipment)	Total Count (Calibrated Equipment)	Count/Minute (Total Count/60min)
2hr	09:20 ~ 11:20	21.4	1015.7	0.044	2247	18.7
2hr01min	11:25 ~ 13:26	21.4	1015.7	0.045	2518	20.9
2hr01min	13:42 ~ 15:43	21.4	1015.7	0.046	2699	22.4

Sensitivity Adjustment Scale Setting (Before Calibration) Sensitivity Adjustment Scale Setting (After Calibration)



y = 0.0022x + 0.0005  $R^2 = 0.9892$ 

20

25

0.06 0.05 0.04 0.03 0.02

0.01

0

0

5

10

15

## Linear Regression of Y or X

Slope (K-factor):	
Correlation Coefficient (R)	
Date of Issue	

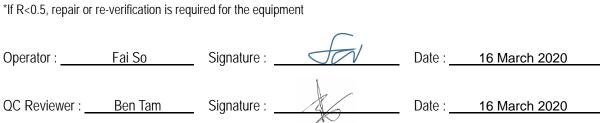
0.0022
0.9946
16 March 2020

#### Remarks:

#### 1. Strong Correlation (R>0.8)

2. Factor 0.0022 should be apply for TSP monitoring

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



# TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location : Gold King Industrial Building, K Location ID : Calibration Room	wai Ch	ung	Date of Calibration: 9-Mar-20 Next Calibration Date: 9-Jun-20		
	COND	ITIONS			
Sea Level Pressure (hPa) Temperature (°C)	1008.5 23.4		Corrected Pressure (mm Hg) 756.375 Temperature (K) 296		
CAL	IBRATI	ON ORIFICE			
Model-> 50	SCH 25A eb-20		Qstd Slope ->2.03014Qstd Intercept ->-0.04616Expiry Date->7-Feb-21		
	CALIB	RATION			
No.         (in)         (in)         (in)         (m3/min)         (cl           18         6.1         6.1         12.2         1.744         2           13         4.9         4.9         9.8         1.565         4           10         3.8         3.8         7.6         1.381         4           8         2.4         2.4         4.8         1.102         2	I hart) 55 49 42 32 22	IC corrected 55.02 49.01 42.01 32.01 22.01	LINEAR <u>REGRESSION</u> Slope = 36.8508 Intercept = -8.9222 Corr. coeff. = 0.9997		
Calculations : Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b] IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)] Qstd = standard flow rate IC = corrected chart respones I = actual chart response m = calibrator Qstd slope b = calibrator Qstd intercept Ta = actual temperature during calibration ( deg K ) Pstd = actual pressure during calibration ( mm Hg ) For subsequent calculation of sampler flow: 1/m(( I )[Sqrt(298/Tav)(Pav/760)]-b) m = sampler slope b = sampler intercept I = chart response Tav = daily average temperature	00 90 90 90 90 90 90 90 90 90 90 90 90 9	.00 .00 .00 .00 .00 .00 .00 .00 .00	FLOW RATE CHART		

								ALIBRATION
							D	UE DATE:
					)		Febru	uary 7, 202
nvir	o n m	ent	al	- Construction of the Article				
	Ø		2 .		0	0.0	<b>6</b> •	
	0e	rtifa	çate	01	Oal	ibra	tion	
			Calibration	Certificatio	on Informat	ion		
Cal. Date:	February 7	2020	Roots	meter S/N:	438320	Ta:	295	°К
Operator:	Jim Tisch					Pa:	745.5	mm Hg
Calibration	Model #:	TE-5025A	Calil	prator S/N:	1612			
		Vol. Init	Vol. Final	ΔVol.	ΔTime	ΔΡ	ΔΗ	]
	Run	(m3)	(m3)	(m3)	(min)	(mm Hg)	(in H2O)	
	1	1	2	1	1.3730	3.2	2.00	
	2	3	4	1	0.9820	6.4	4.00	-
	3	5	6	1	0.8780	8.0	5.00	-
	4	7	8	1	0.8340	8.8	5.50	
	5	9	10	1	0.6900	12.8	8.00	
			[	Data Tabula	tion			]
	Vstd	Qstd	$\sqrt{\Delta H \left(\frac{Pa}{Pstd}\right)}$	)( <u>Tstd</u> )		Qa	√∆H(Ta/Pa)	
	(m3)	(x-axis)	(y-ax		Va	(x-axis)	(y-axis)	
	0.9866	0.7186	1.40		0.9957	0.7252	0.8896	-
	0.9824	1.0004	1.99	09	0.9914	1.0096	1.2581	-
	0.9802	1.1165	2.22	59	0.9893	1.1267	1.4066	
	0.9792	1.1741	2.33	45	0.9882	1.1849	1.4753	-
	0.9739	1.4114	2.81		0.9828	1.4244	1.7792	-
	OCTD		2.030		0.4		1.27124	
	QSTD	b= r=	-0.04		QA	b= r=	-0.02917 0.99995	
		1-	0.555			1	0.33333	]
	Vstd=	AVol((Pa-AP)	/Pstd)(Tstd/Ta	Calculation	va=	-		
		Vstd/ATime	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Qa=	-		
			For subsequ	ient flow rat	rate calculations:			
	Qstd=	1/m (( _ \[ \[ \] \[ \] \[ \] H (	Pa \/ Tstd	-))-b)	Qa=			
[	Standard Conditions				$\mathbf{Qa=1/m}\left(\left(\sqrt{\Delta H(Ta/Pa)}\right)-b\right)$			
Tstd:					RECALIBRATION			
Pstd:		mm Hg						
	ŀ	(ey					nnual recalibrati	
	tor manometer reading (in H2O) leter manometer reading (mm Hg)						Regulations Part	
							, Reference Met	
	osolute temperature (°K) arometric pressure (mm Hg)						ended Particulat	
		cooure (min			th	e Atmosphe	ere, 9.2.17, page	30
b: intercept			1	1				1

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# ALS Technichem (HK) Pty Ltd

## **ALS Laboratory Group**

ANALYTICAL CHEMISTRY & TESTING SERVICES





CONTACT	: MR BEN TAM	WORK ORDER HK2012985
CLIENT	ACTION UNITED ENVIRONMENT	
	SERVICES AND CONSULTING	
ADDRESS	: RM A 20/F., GOLD KING IND BLDG, NO. 35-41	SUB-BATCH : 1
	TAI LIN PAI ROAD, KWAI CHUNG, N.T. HONG	DATE RECEIVED : 6-APR-2020
	KONG	DATE OF ISSUE : 7-APR-2020
PROJECT	:	NO. OF SAMPLES : 1
		CLIENT ORDER +

#### **General Comments**

- Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in ambient condition. The result(s) related only to the item(s) tested.
- Sample information (Project name, Sample ID, Sampling date/time, etc., if any) is provided by client.
- Calibration was subcontracted to and analysed by Action United Enviro Services.

### Signatories

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

Signatories	Position
Kichard Jung.	
Richard Fung	Managing Director

This is the Final Report and supersedes any preliminary report with this batch number.

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

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

CLIENT

PROJECT

: HK2012985

¹ ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING : ____



ALS Lab ID	Client's Sample ID	Sample Type	Sample Date	External Lab Report No.
HK2012985-001	S/N: 366418	AIR	06-Apr-2020	S/N: 366418

# **Equipment Verification Report (TSP)**

## **Equipment Calibrated:**

Туре:	Laser Dust monitor
Manufacturer:	Sibata LD-3B
Serial No.	366418
Equipment Ref:	EQ108
Job Order	HK2012985

### **Standard Equipment:**

Higher Volume Sampler
AUES office (calibration room)
HVS 018
9 March 2020

# **Equipment Verification Results:**

Verification Date:

13 March 2020

Hour	Time	Mean Temp °C	Mean Pressure (hPa)	Concentration in mg/m ³ (Standard Equipment)	Total Count (Calibrated Equipment)	Count/Minute (Total Count/60min)
2hr	09:20 ~ 11:20	21.4	1015.7	0.044	2297	19.1
2hr01min	11:25 ~ 13:26	21.4	1015.7	0.045	2498	20.7
2hr01min	13:42 ~ 15:43	21.4	1015.7	0.046	2647	21.9

Sensitivity Adjustment Scale Setting (Before Calibration) Sensitivity Adjustment Scale Setting (After Calibration)

#### Linear Regression of Y or X

Slope (K-factor): Correlation Coefficient (R) Date of Issue

0.9975	
16 March 2020	

0.0022

#### Remarks:

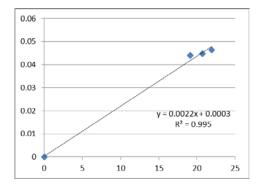
1. Strong Correlation (R>0.8)

2. Factor 0.0022 should be apply for TSP monitoring

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



<u>685 (CPM)</u> 685 (CPM)



# TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location : Gold King Industrial Building, K Location ID : Calibration Room	wai Ch	ung	Date of Calibration: 9-Mar-20 Next Calibration Date: 9-Jun-20
	COND	ITIONS	
Sea Level Pressure (hPa) Temperature (°C)	1008.5 23.4		Corrected Pressure (mm Hg) 756.375 Temperature (K) 296
CAL	IBRATI	ON ORIFICE	
Model-> 50	SCH 25A eb-20		Qstd Slope ->2.03014Qstd Intercept ->-0.04616Expiry Date->7-Feb-21
	CALIB	RATION	
No.         (in)         (in)         (in)         (m3/min)         (cl           18         6.1         6.1         12.2         1.744         2           13         4.9         4.9         9.8         1.565         4           10         3.8         3.8         7.6         1.381         4           8         2.4         2.4         4.8         1.102         2	I hart) 55 49 42 32 22	IC corrected 55.02 49.01 42.01 32.01 22.01	LINEAR <u>REGRESSION</u> Slope = 36.8508 Intercept = -8.9222 Corr. coeff. = 0.9997
Calculations : Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b] IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)] Qstd = standard flow rate IC = corrected chart respones I = actual chart response m = calibrator Qstd slope b = calibrator Qstd intercept Ta = actual temperature during calibration ( deg K ) Pstd = actual pressure during calibration ( mm Hg ) For subsequent calculation of sampler flow: 1/m(( I )[Sqrt(298/Tav)(Pav/760)]-b) m = sampler slope b = sampler intercept I = chart response Tav = daily average temperature	00 90 90 90 90 90 90 90 90 90 90 90 90 9	.00 .00 .00 .00 .00 .00 .00 .00 .00	FLOW RATE CHART

								ALIBRATION
							D	UE DATE:
					)		Febru	uary 7, 202
nvir	o n m	ent	al	- Construction of the Article				
	0		2 .		O	0.0	<b>6</b> •	
	0e	rtifa	çate	01	Oal	ibra	tion	
			Calibration	Certificatio	on Informat	ion		
Cal. Date:	February 7	2020	Roots	meter S/N:	438320	Ta:	295	°К
Operator:	Jim Tisch					Pa:	745.5	mm Hg
Calibration	Model #:	TE-5025A	Calil	prator S/N:	1612			
		Vol. Init	Vol. Final	ΔVol.	ΔTime	ΔΡ	ΔΗ	]
	Run	(m3)	(m3)	(m3)	(min)	(mm Hg)	(in H2O)	
	1	1	2	1	1.3730	3.2	2.00	
	2	3	4	1	0.9820	6.4	4.00	-
	3	5	6	1	0.8780	8.0	5.00	-
	4	7	8	1	0.8340	8.8	5.50	
	5	9	10	1	0.6900	12.8	8.00	
			[	Data Tabula	tion	]		
	Vstd	Qstd	$\sqrt{\Delta H \left(\frac{Pa}{Pstd}\right)}$	)( <u>Tstd</u> )		Qa	√∆H(Ta/Pa)	
	(m3)	(x-axis)	(y-ax		Va	(x-axis)	(y-axis)	
	0.9866	0.7186	1.40		0.9957	0.7252	0.8896	-
	0.9824	1.0004	1.99	09	0.9914	1.0096	1.2581	-
	0.9802	1.1165	2.22	59	0.9893	1.1267	1.4066	
	0.9792	1.1741	2.33	45	0.9882	1.1849	1.4753	-
	0.9739	1.4114	2.81		0.9828	1.4244	1.7792	-
	OCTD		2.030		0.4		1.27124	
	QSTD	b= r=	-0.04		QA	b= r=	-0.02917 0.99995	
		1-	0.555			1	0.33333	]
	Vstd=	AVol((Pa-AP)	/Pstd)(Tstd/Ta	Calculation		ΔVol((Pa-Δl	P)/Pa)	-
		Vstd/ATime	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			Va/ATime	,,,	-
			For subsequ	ient flow rat	te calculatio			1
	Qstd=	1/m (( _ \[ \[ \] \[ \] \[ \] H (	Pa (Tstd Pstd Ta	-))-b)		11	н(Та/Ра))-b)	
[		Conditions	rstu /\ la	///		// V	· // /	]
Tstd:				Г		RECA	LIBRATION	1
Pstd:		mm Hg						
	ŀ	(ey					nnual recalibrati	
ΔH: calibrate							Regulations Part	
ΔP: rootsme		eter reading perature (°K)					, Reference Met	
		essure (mm					ended Particulat	
		cooure (min			th	e Atmosphe	ere, 9.2.17, page	30
b: intercept			1	1				1

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# ALS Technichem (HK) Pty Ltd

# ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

### SUB-CONTRACTING REPORT



CONTACT	: MR BEN TAM		WORK ORDER	HK2025133
CLIENT	: ACTION UNITED ENVIRONMENT			
	SERVICES AND CONSULTING			
ADDRESS	: RM A 20/F., GOLD KING IND BLDG, NO	D. 35-41	SUB-BATCH	: 1
	TAI LIN PAI ROAD, KWAI CHUNG, N.T.	HONG	DATE RECEIVED	: 7-JUL-2020
	KONG		DATE OF ISSUE	: 14-JUL-2020
PROJECT	:		NO. OF SAMPLES	: 1
			CLIENT ORDER	÷

#### General Comments

- Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in ambient condition. The result(s) related only to the item(s) tested.
- Sample information (Project name, Sample ID, Sampling date/time, etc., if any) is provided by client.
- Calibration was subcontracted to and analysed by Action United Enviro Services.

### Signatories

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

Signatories	Position	
Kidard Jong.		
Richard Fung	Managing Director	

This is the Final Report and supersedes any preliminary report with this batch number.

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

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

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

WORK ORDER SUB-BATCH

CLIENT PROJECT : HK2025133

: 1 ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING : ----



ALS Lab	Client's Sample ID	Sample	Sample Date	External Lab Report No.
ID		Туре		
HK2025133-001	S/N: 11008060	AIR	07-Jul-2020	S/N: 11008060

# **Equipment Verification Report (TSP)**

### **Equipment Calibrated:**

Туре:	Laser Dust monitor	
Manufacturer:	TSI AM510	
Serial No.	11008060	
Equipment Ref:	EQ101	
Work Order:	HK2025133	

### **Standard Equipment:**

Higher Volume Sampler (TSP)
Calibration Room
HVS 018
30 June 2020

## **Equipment Verification Results:**

Testing Date:

30 June 2020

Hour	Time	Mean Temp °C	Mean Pressure (hPa)	Concentration in mg/m ³ (Standard Equipment)	Concentration in mg/m ³ (Calibrated Equipment)	Tolerance (mg/m ³ )
2hr02min	09:14 ~ 11:16	30.7	1004.6	0.013	0.016	+0.003
2hr02min	11:20 ~ 13:22	30.7	1004.6	0.010	0.013	+0.003
2hr02min	13:25 ~ 15:27	30.7	1004.6	0.006	0.009	+0.003

#### Linear Regression of Y or X

Slope (factor):	0.8273
Correlation Coefficient (R)	0.9948
Date of Issue	6 July 2020

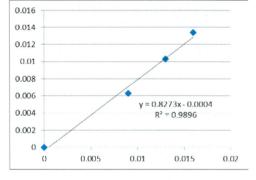
Remarks:

1. **Strong** Correlation (R>0.8)

2. Factor 0.8273 should be apply for TSP monitoring

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





# TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location : Gold King Industria Location ID : Calibration Room	Date of Calibration: 30-Jun-20 Next Calibration Date: 30-Sep-20			
	COND	DITIONS		
Sea Level Pressure (hF Temperature (°C			Corrected Pressure (mm Hg) 753.45 Temperature (K) 304	
	CALIBRAT	ION ORIFICE		
N	Make-> TISCH Iodel-> 5025A Date-> 7-Feb-20		Qstd Slope ->2.03014Qstd Intercept ->-0.04616Expiry Date->7-Feb-21	
	CALIB	RATION		
No.         (in)         (in)         (in)         (m)           18         6.4         6.4         12.8         12         12           13         4.9         4.9         9.8         12         12	Qstd         I           3/min)         (chart)           1.761         56           1.544         49	IC corrected 55.23 48.33	LINEAR REGRESSION Slope = 38.2549 Intercept = -10.8486	
8         2.4         2.4         4.8         2.4           5         1.5         1.5         3.0         0	1.344         43           1.087         32           0.864         21	42.41 31.56 20.71	Corr. coeff. = 0.9947	
Calculations : Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta) IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)] Qstd = standard flow rate IC = corrected chart respones I = actual chart response m = calibrator Qstd slope b = calibrator Qstd intercept Ta = actual temperature during calibrate Pstd = actual pressure during calibration For subsequent calculation of sample 1/m((I)[Sqrt(298/Tav)(Pav/760)]-b) m = sampler slope b = sampler intercept I = chart response Tav = daily average temperature Pav = daily average pressure	ion ( deg K ) n ( mm Hg ) <b>r flow:</b> 10	0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00	FLOW RATE CHART	



RECALIBRATION DUE DATE: February 7, 2021

Certificate of Calibration

			Calibration	Certificatio	on Informat	ion		
Cal. Date:	February 7	, 2020	Rootsr	meter S/N:	438320	Ta:	295	°К
Operator:	Jim Tisch					Pa:	mm Hg	
Calibration	Model #:	TE-5025A	Calib	orator S/N:	1612			
		Vol. Init	Vol. Final	ΔVol.	ΔTime	ΔP	ΔH	1
	Run	(m3)	(m3)	(m3)	(min)	(mm Hg)	(in H2O)	
	1	1	2	1	1.3730	3.2	2.00	
	2	3	4	1	0.9820	6.4	4.00	
	3	5	6	1	0.8780	8.0	5.00	-
	4	7	8	1	0.8340	8.8	5.50	4
	5	9	10	1	0.6900	12.8	8.00	4
			C	Data Tabula	tion			]
	Vstd	Qstd	$\sqrt{\Delta H \left(\frac{Pa}{Pstd}\right)}$	)( <u>Tstd</u> )		Qa	√∆H(Ta/Pa)	
	(m3)	(x-axis)	(y-ax		Va	(x-axis)	(y-axis)	
	0.9866	0.7186	1.407		0.9957	0.7252	0.8896	
	0.9824	1.0004	1.990		0.9914	1.0096	1.2581	
	0.9802	1.1165	2.225	59	0.9893	1.1267	1.4066	
	0.9792	1.1741	2.334	45	0.9882	1.1849	1.4753	
	0.9739	1.4114	2.81	55	0.9828	1.4244	1.7792	1
		m=	2.030	14		m=	1.27124	1
	QSTD	b=	-0.046		QA	b=	-0.02917	
		r=	0.999	95		r=	0.99995	
				Calculatio	ns			
	and the second s		)/Pstd)(Tstd/Ta	а)	Va=	∆Vol((Pa-∆	P)/Pa)	]
	Qstd=	Vstd/∆Time			Qa=	Va/∆Time		]
			For subsequ	ent flow ra	te calculatio	ns:		
	Qstd=	$1/m\left(\sqrt{\Delta H}\right)$	Pa Pstd Tstd	-b)	Qa=	$1/m\left(\sqrt{\Delta H}\right)$	H(Ta/Pa))-b)	
	Standard	Conditions						-
Tstd:	298.15	°К				RECA	LIBRATION	
Pstd:		mm Hg			110 504	1	1 11	
Alle and the st		(ey	1120)				nnual recalibrati	
		ter reading (i eter reading					Regulations Part	
		perature (°K)					, Reference Met	
		ressure (mm					ended Particulat	
b: intercept					th	e Atmosphe	ere, 9.2.17, page	30
m: slope					L			

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<u>www.tisch-env.cc</u> TOLL FREE: (877)263-761 FAX: (513)467-90

# ALS Technichem (HK) Pty Ltd

## **ALS Laboratory Group**

ANALYTICAL CHEMISTRY & TESTING SERVICES





CONTACT	: MR BEN TAM	WORK ORDER HK2012986				
CLIENT	ACTION UNITED ENVIRONMENT					
	SERVICES AND CONSULTING					
ADDRESS	: RM A 20/F., GOLD KING IND BLDG, NO. 35-41	SUB-BATCH : 1				
	TAI LIN PAI ROAD, KWAI CHUNG, N.T. HONG	DATE RECEIVED : 6-APR-2020				
	KONG	DATE OF ISSUE : 7-APR-2020				
PROJECT	:	NO. OF SAMPLES : 1				
		CLIENT ORDER ÷				

#### **General Comments**

- Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in ambient condition. The result(s) related only to the item(s) tested.
- Sample information (Project name, Sample ID, Sampling date/time, etc., if any) is provided by client.
- Calibration was subcontracted to and analysed by Action United Enviro Services.

### Signatories

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

Signatories	Position
Kichard Jong.	
Richard Fung	Managing Director

This is the Final Report and supersedes any preliminary report with this batch number.

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

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

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

CLIENT

PROJECT

: HK2012986

¹ ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING : ____



ALS Lab ID	Client's Sample ID	Sample Type	Sample Date	External Lab Report No.
HK2012986-001	S/N: 3Y6501	AIR	06-Apr-2020	S/N: 3Y6501

# **Equipment Verification Report (TSP)**

## **Equipment Calibrated:**

Туре:	Laser Dust monitor
Manufacturer:	Sibata LD-3B
Serial No.	3Y6501
Equipment Ref:	EQ111
Job Order	HK2012986

### **Standard Equipment:**

Standard Equipment:	Higher Volume Sampler
Location & Location ID:	AUES office (calibration room)
Equipment Ref:	HVS 018
Last Calibration Date:	9 March 2020
Last Calibration Date.	

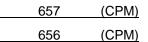
## **Equipment Verification Results:**

Verification Date:

13 March 2020

Hour	Time	Mean Temp °C	Mean Pressure (hPa)	Concentration in mg/m ³ (Standard Equipment)	Total Count (Calibrated Equipment)	Count/Minute (Total Count/60min)
2hr	09:20 ~ 11:20	21.4	1015.7	0.044	2250	18.8
2hr01min	11:25 ~ 13:26	21.4	1015.7	0.045	2711	22.5
2hr01min	13:42 ~ 15:43	21.4	1015.7	0.046	2311	19.2

Sensitivity Adjustment Scale Setting (Before Calibration) Sensitivity Adjustment Scale Setting (After Calibration)



#### 0.06 0.05 0.04 0.03 y = 0.0022x + 0.0009 0.02 $R^2 = 0.9693$ 0.01 0

5

10

15

20

25

0

4

# Linear Regression of Y or X

Slope (K-factor):
Correlation Coefficient (R)
Date of Issue

0.0022
0.9845
16 March 2020
10 March 2020

0 0022

## Remarks:

#### 1. Strong Correlation (R>0.8)

2. Factor 0.0022 should be apply for TSP monitoring

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



# TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location : Gold King Industrial Building, K Location ID : Calibration Room	Date of Calibration: 9-Mar-20 Next Calibration Date: 9-Jun-20		
	COND	ITIONS	
Sea Level Pressure (hPa) Temperature (°C)	1008.5 23.4		Corrected Pressure (mm Hg) 756.375 Temperature (K) 296
CAL	IBRATI	ON ORIFICE	
Model-> 50	SCH 25A eb-20		Qstd Slope ->2.03014Qstd Intercept ->-0.04616Expiry Date->7-Feb-21
	CALIB	RATION	
No.         (in)         (in)         (in)         (m3/min)         (cl           18         6.1         6.1         12.2         1.744         2           13         4.9         4.9         9.8         1.565         4           10         3.8         3.8         7.6         1.381         4           8         2.4         2.4         4.8         1.102         2	I hart) 55 49 42 32 22	IC corrected 55.02 49.01 42.01 32.01 22.01	LINEAR <u>REGRESSION</u> Slope = 36.8508 Intercept = -8.9222 Corr. coeff. = 0.9997
Calculations : Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b] IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)] Qstd = standard flow rate IC = corrected chart respones I = actual chart response m = calibrator Qstd slope b = calibrator Qstd intercept Ta = actual temperature during calibration ( deg K ) Pstd = actual pressure during calibration ( mm Hg ) For subsequent calculation of sampler flow: 1/m(( I )[Sqrt(298/Tav)(Pav/760)]-b) m = sampler slope b = sampler intercept I = chart response Tav = daily average temperature	00 90 90 90 90 90 90 90 90 90 90 90 90 9	.00 .00 .00 .00 .00 .00 .00 .00 .00	FLOW RATE CHART

								ALIBRATION
							D	UE DATE:
					)		Febru	uary 7, 202
nvir	o n m	ent	al	- Construction of the Article				
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	0e	rtifa	çate	01	Oal	ibra	tion	
			Calibration	Certificatio	on Informat	ion		
Cal. Date:	February 7	2020	Roots	meter S/N:	438320	Ta:	295	°К
Operator:	Jim Tisch					Pa:	745.5	mm Hg
Calibration	Model #:	TE-5025A	Calil	prator S/N:	1612			
		Vol. Init	Vol. Final	ΔVol.	ΔTime	ΔΡ	ΔΗ	]
	Run	(m3)	(m3)	(m3)	(min)	(mm Hg)	(in H2O)	
	1	1	2	1	1.3730	3.2	2.00	
	2	3	4	1	0.9820	6.4	4.00	-
	3	5	6	1	0.8780	8.0	5.00	-
	4	7	8	1	0.8340	8.8	5.50	
	5	9	10	1	0.6900	12.8	8.00	
			[	Data Tabula	tion			]
	Vstd	Qstd	$\sqrt{\Delta H \left(\frac{Pa}{Pstd}\right)}$	)( <u>Tstd</u> )		Qa	√∆H(Ta/Pa)	
	(m3)	(x-axis)	(y-ax		Va	(x-axis)	(y-axis)	
	0.9866	0.7186	1.40		0.9957	0.7252	0.8896	-
	0.9824	1.0004	1.99	09	0.9914	1.0096	1.2581	-
	0.9802	1.1165	2.22	59	0.9893	1.1267	1.4066	
	0.9792	1.1741	2.33	45	0.9882	1.1849	1.4753	-
	0.9739	1.4114	2.81		0.9828	1.4244	1.7792	-
	OCTD		2.030		0.4		1.27124	
	QSTD	b= r=	-0.04		QA	b= r=	-0.02917 0.99995	
		1-	0.555			1	0.33333	]
	Vstd=	AVol((Pa-AP)	/Pstd)(Tstd/Ta	Calculation		ΔVol((Pa-Δl	P)/Pa)	-
		Vstd/ATime	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			Va/ATime	,,,	-
			For subsequ	ient flow rat	te calculatio			1
	Qstd=	1/m (( _ \[ \[ \] \[ \] \[ \] H (	Pa (Tstd Pstd Ta	-))-b)		11	н(Та/Ра))-b)	
[		Conditions	rstu /\ la	///		// V	· // /	]
Tstd:				Г		RECA	LIBRATION	]
Pstd:		mm Hg						
	ŀ	(ey					nnual recalibrati	
ΔH: calibrate							Regulations Part	
ΔP: rootsme		eter reading perature (°K)					, Reference Met	
		essure (mm					ended Particulat	
		cooure (min			th	e Atmosphe	ere, 9.2.17, page	30
b: intercept			1	1				1

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# ALS Technichem (HK) Pty Ltd

## **ALS Laboratory Group**

ANALYTICAL CHEMISTRY & TESTING SERVICES





CONTACT	: MR BEN TAM	WORK ORDER HK2012997
CLIENT	ACTION UNITED ENVIRONMENT	
	SERVICES AND CONSULTING	
ADDRESS	: RM A 20/F., GOLD KING IND BLDG, NO. 35-41	SUB-BATCH : 1
	TAI LIN PAI ROAD, KWAI CHUNG, N.T. HONG	DATE RECEIVED : 6-APR-2020
	KONG	DATE OF ISSUE : 7-APR-2020
PROJECT	:	NO. OF SAMPLES : 1
		CLIENT ORDER

#### **General Comments**

- Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in ambient condition. The result(s) related only to the item(s) tested.
- Sample information (Project name, Sample ID, Sampling date/time, etc., if any) is provided by client.
- Calibration was subcontracted to and analysed by Action United Enviro Services.

#### Signatories

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

Signatories	Position
Kichard Jong.	
Richard Fung	Managing Director

This is the Final Report and supersedes any preliminary report with this batch number.

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

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

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

CLIENT

PROJECT

: HK2012997

¹ ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING : .....



ALS Lab ID	Client's Sample ID	Sample Type	Sample Date	External Lab Report No.
HK2012997-001	S/N: 456662	AIR	06-Apr-2020	S/N: 456662

# **Equipment Verification Report (TSP)**

## **Equipment Calibrated:**

Туре:	Laser Dust monitor
Manufacturer:	Sibata LD-3B
Serial No.	456662
Equipment Ref:	EQ118
Job Order	HK2012997

### **Standard Equipment:**

Higher Volume Sampler
AUES office (calibration room)
HVS 018
9 March 2020

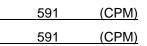
## Equipment Verification Results:

Verification Date:

9 March 2020

Hour	Time	Mean Temp °C	Mean Pressure (hPa)	Concentration in mg/m ³ (Standard Equipment)	Total Count (Calibrated Equipment)	Count/Minute (Total Count/60min)
2hr01min	09:17 ~ 11:18	23.4	1008.5	0.037	2011	16.7
2hr	11:22 ~ 13:22	23.4	1008.5	0.045	2471	20.6
2hr01min	13:27 ~ 15:28	23.4	1008.5	0.028	1807	15.0

Sensitivity Adjustment Scale Setting (Before Calibration) Sensitivity Adjustment Scale Setting (After Calibration)



## Linear Regression of Y or X

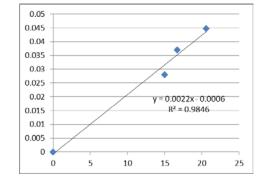
0.0022
0.9923
16 March 2020

## Remarks:

## 1. Strong Correlation (R>0.8)

2. Factor 0.0022 should be apply for TSP monitoring

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





# TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location : Gold King Industrial Building, K Location ID : Calibration Room	wai Ch	ung Date of Calibration: 9-Mar-20 Next Calibration Date: 9-Jun-20			
	COND	ITIONS			
Sea Level Pressure (hPa) Temperature (°C)	1008.5 23.4		Corrected Pressure (mm Hg) 756.375 Temperature (K) 296		
CAL	IBRATI	ON ORIFICE			
Model-> 50	SCH 25A eb-20		Qstd Slope ->2.03014Qstd Intercept ->-0.04616Expiry Date->7-Feb-21		
	CALIB	RATION			
No.         (in)         (in)         (in)         (m3/min)         (cl           18         6.1         6.1         12.2         1.744         2           13         4.9         4.9         9.8         1.565         4           10         3.8         3.8         7.6         1.381         4           8         2.4         2.4         4.8         1.102         2	I         IC           nart)         corrected           55         55.02           49         49.01           42         42.01           32         32.01           22         22.01		LINEAR REGRESSION Slope = 36.8508 Intercept = -8.9222 Corr. coeff. = 0.9997		
Calculations : Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b] IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)] Qstd = standard flow rate IC = corrected chart respones I = actual chart response m = calibrator Qstd slope b = calibrator Qstd intercept Ta = actual temperature during calibration ( deg K ) Pstd = actual pressure during calibration ( mm Hg ) For subsequent calculation of sampler flow: 1/m(( I )[Sqrt(298/Tav)(Pav/760)]-b) m = sampler slope b = sampler intercept I = chart response Tav = daily average temperature	00 90 90 90 90 90 90 90 90 90 90 90 90 9	.00 .00 .00 .00 .00 .00 .00 .00 .00	FLOW RATE CHART		

								ALIBRATION
							D	UE DATE:
					)		Febru	uary 7, 202
nvir	o n m	ent	al	- Construction of the Article				
	0		2 .		0	0.0	<b>6</b> •	
	0e	rtifa	çate	01	Oal	ibra	tion	
			Calibration	Certificatio	on Informat	ion		
Cal. Date:	February 7	2020	Roots	meter S/N:	438320	Ta:	295	°К
Operator:	Jim Tisch					Pa:	745.5	mm Hg
Calibration	Model #:	TE-5025A	Calil	prator S/N:	1612			
		Vol. Init	Vol. Final	ΔVol.	ΔTime	ΔΡ	ΔΗ	]
	Run	(m3)	(m3)	(m3)	(min)	(mm Hg)	(in H2O)	
	1	1	2	1	1.3730	3.2	2.00	
	2	3	4	1	0.9820	6.4	4.00	-
	3	5	6	1	0.8780	8.0	5.00	-
	4	7	8	1	0.8340	8.8	5.50	
	5	9	10	1	0.6900	12.8	8.00	
			[	Data Tabula	tion			]
	Vstd	Qstd	$\sqrt{\Delta H \left(\frac{Pa}{Pstd}\right)}$	)( <u>Tstd</u> )		Qa	√∆H(Ta/Pa)	
	(m3)	(x-axis)	(y-ax		Va	(x-axis)	(y-axis)	
	0.9866	0.7186	1.40		0.9957	0.7252	0.8896	-
	0.9824	1.0004	1.99	09	0.9914	1.0096	1.2581	-
	0.9802	1.1165	2.22	59	0.9893	1.1267	1.4066	
	0.9792	1.1741	2.33	45	0.9882	1.1849	1.4753	-
	0.9739	1.4114	2.81		0.9828	1.4244	1.7792	-
	OCTD		2.030		0.4		1.27124	
	QSTD	b= r=	-0.04		QA	b= r=	-0.02917 0.99995	
		1-	0.555			1	0.33333	]
	Vstd=	AVol((Pa-AP)	/Pstd)(Tstd/Ta	Calculation		ΔVol((Pa-Δl	P)/Pa)	-
		Vstd/ATime	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			Va/ATime	,,,	-
			For subsequ	ient flow rat	te calculatio			1
	Qstd=	1/m (( _ \[ \[ \] \[ \] \[ \] H (	Pa (Tstd Pstd Ta	-))-b)		11	н(Та/Ра))-b)	
[		Conditions	rstu /\ la	///		// V	· // /	]
Tstd:				Г		RECA	LIBRATION	]
Pstd:		mm Hg						
	ŀ	(ey					nnual recalibrati	
$\Delta H:$ calibrate							Regulations Part	
ΔP: rootsme		eter reading perature (°K)					, Reference Met	
		essure (mm					ended Particulat	
		cooure (min		the Atmosphere, 9.2.17, page 30			30	
b: intercept			1	1				1

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

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Sun Creation Engineering Limited

Calibration & Testing Laboratory

# Certificate of Calibration 校正證書

Certificate No. : C204359 證書編號

ITEM TESTED / 送檢马	百百	(Job No. / 序引編號:IC20-1324)	Date of Receipt / 收件日期: 30 July 2020
Description / 儀器名稱	:	Sound Level Meter (EQ013)	
Manufacturer / 製造商	:	Rion	
Model No. / 型號	:	NL-52	
Serial No. / 編號	:	00921191	
Supplied By / 委託者	:	Action-United Environmental Services and Co	onsulting
		Unit A, 20/F., Gold King Industrial Building,	
		35-41 Tai Lin Pai Road, Kwai Chung, N.T.	

#### TEST CONDITIONS / 測試條件

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

#### TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 5 August 2020

#### TEST RESULTS / 測試結果

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

The test equipment used for calibration are traceable to National Standards via :

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- The Bruel & Kjaer Calibration Laboratory, Denmark
- Agilent Technologies / Keysight Technologies
- Fluke Everett Service Center, USA

Tested By 測試

K P Cheuk

Assistant Engineer

K C Lee Engineer

Certified By 核證 Date of Issue 簽發日期 :

11 August 2020

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

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

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



Sun Creation Engineering Limited

Calibration & Testing Laboratory

# Certificate of Calibration 校正證書

Certificate No. : C204359 證書編號

- 1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- 2. Self-calibration was performed before the test.
- 3. The results presented are the mean of 3 measurements at each calibration point.
- 4. Test equipment :

Equipment ID	Description	Certificate No.
CL280	40 MHz Arbitrary Waveform Generator	C200258
CL281	Multifunction Acoustic Calibrator	CDK1806821

- 5. Test procedure : MA101N.
- 6. Results :
- 6.1 Sound Pressure Level
- 6.1.1 Reference Sound Pressure Level

	UUT	Setting		Applie	d Value	UUT	IEC 61672
Range	Function	Frequency	Time	Level	Freq.	Reading	Class 1 Spec.
(dB)		Weighting	Weighting	(dB)	(kHz)	(dB)	(dB)
30 - 130	L _A	Α	Fast	94.00	1	93.6	± 1.1

#### 6.1.2 Linearity

	UU	Г Setting	Applie	d Value	UUT	
Range	Function	Frequency	Time	Level	Freq.	Reading
(dB)		Weighting	Weighting	(dB)	(kHz)	(dB)
30 - 130	L _A	А	Fast	94.00	1	93.6 (Ref.)
				104.00		103.6
				114.00		113.6

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

#### 6.2 Time Weighting

UUT Setting				Applied Value		UUT	IEC 61672
Range	Function	Frequency	Time	Level	Freq.	Reading	Class 1 Spec.
(dB)		Weighting	Weighting	(dB)	(kHz)	(dB)	(dB)
30 - 130	L _A	А	Fast	94.00	1	93.6	Ref.
			Slow			93.6	± 0.3

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



Certificate of Calibration 校正證書

Certificate No. : C204359 證書編號

#### 6.3 Frequency Weighting

#### 6.3.1 A-Weighting

		Setting		Applied Value		UUT	IEC 61672
Range	Function	Frequency	Time	Level	Freq.	Reading	Class 1 Spec.
(dB)		Weighting	Weighting	(dB)		(dB)	(dB)
30 - 130	$L_A$	A	Fast	94.00	63 Hz	67.3	$-26.2 \pm 1.5$
					125 Hz	77.4	$-16.1 \pm 1.5$
					250 Hz	84.9	$-8.6 \pm 1.4$
					500 Hz	90.3	$-3.2 \pm 1.4$
					1 kHz	93.6	Ref.
					2 kHz	94.8	$+1.2 \pm 1.6$
					4 kHz	94.6	$+1.0 \pm 1.6$
					8 kHz	92.5	-1.1 (+2.1 ; -3.1)
					12.5 kHz	89.1	-4.3 (+3.0 ; -6.0)

#### 6.3.2 C-Weighting

	UUT	Setting		Appli	ed Value	UUT	IEC 61672
Range	Function	Frequency	Time	Level	Freq.	Reading	Class 1 Spec.
(dB)		Weighting	Weighting	(dB)		(dB)	(dB)
30 - 130	L _C	С	Fast	94.00	63 Hz	92.8	$-0.8 \pm 1.5$
					125 Hz	93.4	$-0.2 \pm 1.5$
					250 Hz	93.6	$0.0 \pm 1.4$
					500 Hz	93.6	$0.0 \pm 1.4$
					1 kHz	93.6	Ref.
					2 kHz	93.4	$-0.2 \pm 1.6$
					4 kHz	92.8	$-0.8 \pm 1.6$
					8 kHz	90.6	-3.0 (+2.1 ; -3.1)
					12.5 kHz	87.2	-6.2 (+3.0 ; -6.0)

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



# Certificate of Calibration 校正證書

Certificate No. : C204359 證書編號

Remarks : - UUT Microphone Model No. : UC-59 & S/N : 12910

- Mfr's Spec. : IEC 61672 Class 1

- Uncertainties of Applied Value :	94 dB :	63 Hz - 125 Hz	: ± 0.35 dB
			$\pm 0.30 \text{ dB}$
		1 kHz	$\pm 0.20 \text{ dB}$
		2 kHz - 4 kHz	$\pm 0.35 \text{ dB}$
		8 kHz	$\pm 0.45 \text{ dB}$
		12.5 kHz	$\pm 0.70 \text{ dB}$
	104 dB :	1 kHz	$\pm 0.10 \text{ dB}$ (Ref. 94 dB)
	114 dB :	1 kHz	$\pm 0.10 \text{ dB}$ (Ref. 94 dB)

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

Note :

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

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

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



Sun Creation Engineering Limited Calibration & Testing Laboratory

Calibration & lesting Laboratory

# Certificate of Calibration 校正證書

Certificate No. : C205469 證書編號

ITEM TESTED / 送檢項目	(Job No. / 序引編號: IC20-1324) Date of Receipt / 收件日期: 22 September 2020
Description / 儀器名稱 :	Sound Level Meter (EQ015)
Manufacturer / 製造商 :	Rion
Model No. / 型號 :	NL-52
Serial No. / 編號 :	00142581
Supplied By / 委託者 :	Action-United Environmental Services and Consulting
	Unit A, 20/F., Gold King Industrial Building,
	35-41 Tai Lin Pai Road, Kwai Chung, N.T.

#### TEST CONDITIONS / 測試條件

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

#### TEST SPECIFICATIONS / 測試規範

Calibration

DATE OF TEST / 測試日期 : 29 September 2020

### TEST RESULTS / 測試結果

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

The test equipment used for calibration are traceable to National Standards via :

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

- Agilent Technologies / Keysight Technologies
- Fluke Everett Service Center, USA
- The Bruel & Kjaer Calibration Laboratory, Denmark

Tested By 測試

K P Cheuk Assistant Engineer

Certified By 核證

Un H C Chan Engineer

Date of Issue 簽發日期 ÷

30 September 2020

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

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

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



Sun Creation Engineering Limited

Calibration & Testing Laboratory

# Certificate of Calibration 校正證書

Certificate No. : C205469 證書編號

- 1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- 2. Self-calibration using the internal standard (After Adjustment) was performed before the test 6.1.1.2 to 6.3.2.
- 3. The results presented are the mean of 3 measurements at each calibration point.
- 4. Test equipment :

Equipment ID	Description	Certificate No.
CL280	40 MHz Arbitrary Waveform Generator	C200258
CL281	Multifunction Acoustic Calibrator	CDK1806821

- 5. Test procedure : MA101N.
- 6. Results :
- 6.1 Sound Pressure Level
- 6.1.1 Reference Sound Pressure Level
- 6.1.1.1 Before Adjustment

	UUT Setting					UUT	IEC 61672
Range	Function	Frequency	Time	Level	Freq.	Reading	Class 1 Spec.
(dB)		Weighting	Weighting	(dB)	(kHz)	(dB)	(dB)
30 - 130	L _A	Α	Fast	94.00	1	* 92.4	$\pm 1.1$
* Out of IEC	61672 Class	1 Spec					

* Out of IEC 61672 Class 1 Spec.

#### 6.1.1.2 After Adjustment

	UUT Setting				Applied Value		IEC 61672
Range	Range Function Frequency Time				Freq.	Reading	Class 1 Spec.
(dB)	(dB) Weighting Weighting				(kHz)	(dB)	(dB)
30 - 130	L _A	А	Fast	94.00	1	94.0	± 1.1

#### 6.1.2 Linearity

	UU	Г Setting	Applie	d Value	UUT	
Range	Function	Frequency Time		Level	Freq.	Reading
(dB)		Weighting	Weighting	(dB)	(kHz)	(dB)
30 - 130	L _A	Α	Fast	94.00	1	94.0 (Ref.)
				104.00		104.0
				114.00		114.2

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

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



Sun Creation Engineering Limited

Calibration & Testing Laboratory

# Certificate of Calibration 校正證書

Certificate No. : C205469 證書編號

## 6.2 Time Weighting

	UU	Γ Setting		Applied Value		UUT	IEC 61672
Range	Function	Function Frequency Time		Level	Freq.	Reading	Class 1 Spec.
(dB)	) Weighting Weighting		(dB)	(kHz)	(dB)	(dB)	
30 - 13	0 L _A	A	Fast	94.00	1	94.0	Ref.
			Slow			94.0	± 0.3

## 6.3 Frequency Weighting

#### 6.3.1 A-Weighting

		Setting		Appl	ied Value	UUT	IEC 61672
Range	Function	Frequency	Time	Level	Freq.	Reading	Class 1 Spec.
(dB)		Weighting	Weighting	(dB)		(dB)	(dB)
30 - 130	L _A	А	Fast	94.00	63 Hz	67.7	$-26.2 \pm 1.5$
					125 Hz	77.8	$-16.1 \pm 1.5$
					250 Hz	85.3	$-8.6 \pm 1.4$
					500 Hz	90.7	$-3.2 \pm 1.4$
					1 kHz	94.0	Ref.
					2 kHz	95.2	$+1.2 \pm 1.6$
					4 kHz	95.0	$+1.0 \pm 1.6$
					8 kHz	93.0	-1.1 (+2.1 ; -3.1)
					12.5 kHz	89.6	-4.3 (+3.0 ; -6.0)

#### 6.3.2 C-Weighting

	UUT Setting				ed Value	UUT	IEC 61672
Range	Function	Frequency	Time	Level	Freq.	Reading	Class 1 Spec.
(dB)		Weighting	Weighting	(dB)	_	(dB)	(dB)
30 - 130	L _C	С	Fast	94.00	63 Hz	93.1	$-0.8 \pm 1.5$
					125 Hz	93.8	$-0.2 \pm 1.5$
					250 Hz	94.0	$0.0 \pm 1.4$
					500 Hz	94.0	$0.0 \pm 1.4$
					1 kHz	94.0	Ref.
					2 kHz	93.8	$-0.2 \pm 1.6$
					4 kHz	93.2	$-0.8 \pm 1.6$
					8 kHz	91.1	-3.0 (+2.1 ; -3.1)
					12.5 kHz	87.6	-6.2 (+3.0 ; -6.0)

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



Sun Creation Engineering Limited Calibration & Testing Laboratory

# Certificate of Calibration 校正證書

Certificate No. : C205469 證書編號

Remarks : - UUT Microphone Model No. : UC-59 & S/N : 15585

- Mfr's Spec. : IEC 61672 Class 1

- Uncertainties of Applied Value :	250 Hz - 500 Hz 1 kHz 2 kHz - 4 kHz 8 kHz 12.5 kHz 104 dB : 1 kHz	: ± 0.20 dB : ± 0.35 dB : ± 0.45 dB : ± 0.70 dB : ± 0.10 dB (Ref. 94 dB)
	114 dB : 1 kHz	$\pm 0.10 \text{ dB} (\text{Ref. 94 dB})$

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

Note :

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

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

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



Sun Creation Engineering Limited

Calibration & Testing Laboratory

# Certificate of Calibration 校正證書

Certificate No. : C201348 證書編號

ITEM TESTED / 送檢項	目目	(Job No. / 序引編號:IC19-1098)	Date of Receipt / 收件日期: 27 February 2020
Description / 儀器名稱	:	Sound Level Calibrator (EQ085)	
Manufacturer / 製造商	:	Rion	
Model No. / 型號	:	NC-73	
Serial No. / 編號	:	10655561	
Supplied By / 委託者	:	Action-United Environmental Services a	nd Consulting
		Unit A, 20/F., Gold King Industrial Build	ding,
		35-41 Tai Lin Pai Road, Kwai Chung, N	.Т.

#### TEST CONDITIONS / 測試條件

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

#### TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 7 March 2020

#### TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.

The results do not exceed manufacturer's specification & user's specified acceptance criteria. The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- The Bruel & Kjaer Calibration Laboratory, Denmark
- Agilent Technologies / Keysight Technologies
- Fluke Everett Service Center, USA

Tested By 測試

H T Wong

Technical Officer

K C Lee Engineer

2

Certified By 核證

Date of Issue 簽發日期 ÷

10 March 2020

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

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

Sun Creation Engineering Limited – Calibration & Testing Laboratory c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong 輝創工程有限公司 - 校正及檢測實驗所 c/o 香港新界屯門與安里—號四樓 Tel/電話: (852) 2927 2606 Fax/傳真: (852) 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com Page 1 of 2



Sun Creation Engineering Limited

Calibration & Testing Laboratory

# Certificate of Calibration 校正證書

Certificate No. : C201348 證書編號

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

Equipment ID CL130 CL281 TST150A Description Universal Counter Multifunction Acoustic Calibrator Measuring Amplifier

<u>Certificate No.</u> C193756 CDK1806821 C201309

- 4. Test procedure : MA100N.
- 5. Results :
- 5.1 Sound Level Accuracy

UUT	Measured Value	Mfr's Spec.	Uncertainty of Measured Value
Nominal Value	(dB)	(dB)	(dB)
94 dB, 1 kHz	94.2	$\pm 0.5$	± 0.2

#### 5.2 Frequency Accuracy

UUT Nominal Value	Measured Value	User's	Uncertainty of Measured Value
(kHz)	(kHz)	Spec.	(Hz)
1	0.958	1 kHz ± 6 %	± 1

Remarks : - The user's specified acceptance criteria (user's spec.) is a customer pre-defined operating tolerance of the UUT, suitable for one's own intended use.

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

Note :

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

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

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



ALS Technichem (HK) Pty Ltd 11/F, Chung Shun Knitting Centre 1-3 Wing Yip Street, Kwai Chung N.T., Hong Kong T: +852 2610 1044 | F: +852 2610 2021

# REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT: CLIENT:	BEN TAM ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING	WORK ORDER:	HK2047209
ADDRESS:	RM A 20/F., GOLD KING IND BLDG, NO. 35-41 TAI LIN PAI ROAD, KWAI CHUNG, N.T. HONG KONG	SUB-BATCH: LABORATORY: DATE RECEIVED: DATE OF ISSUE:	0 HONG KONG 07-Dec-2020 16-Dec-2020

# SPECIFIC COMMENTS

Equipment information (Brand name, Model No., Serial No. and Equipment No.) is provided by client. The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

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

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

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

Equipment Type:	Multifunctional Meter
Service Nature:	Performance Check
Scope:	Conductivity, Dissolved Oxygen, pH Value, Turbidity, Salinity and Temperature
Brand Name/ Model No.:	YSI Professional DSS
Serial No./ Equipment No.:	17B102764/17B100758 (EQW019)
Date of Calibration:	15-December-2020

# **GENERAL COMMENTS**

This is the Final Report and supersedes any preliminary report with this batch number.

Ms. Lin Wai Yu, Iris Assistant Manager - Inorganic

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# REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

WORK ORDER:	HK2047209			ALS
SUB-BATCH: DATE OF ISSUE: CLIENT:	0 16-Dec-2020 ACTION UNITED ENVIRONMEN	T SERVICES AND CONSULTING		( · · /
Equipment Type:	Multifunctional Meter			
Brand Name/ Model No.:	YSI Professional DSS			
Serial No./ Equipment No.:	17B102764/17B100758 (EQW	019)		
Date of Calibration:	15-December-2020	Date of Next Calibration:	15-March-2021	

PARAMETERS:

Conductivity

Method Ref: APHA (21st edition), 2510B

Expected Reading (µS/cm)	Displayed Reading (µS/cm)	Tolerance (%)		
146.9	147.3	+0.3		
6667	6742	+1.1		
12890	13050	+1.2		
58670	54437	-7.2		
	Tolerance Limit (%)	±10.0		

## Dissolved Oxygen

### en Method Ref: APHA (21st edition), 45000: G

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)		
3.77	3.71	-0.06		
5.63	5.51	-0.12		
8.18	8.22	+0.04		
	Tolerance Limit (mg/L)	±0.20		

pH Value

#### Method Ref: APHA (21st edition), 4500H: B

Expected Reading (pH unit)	Displayed Reading (pH unit)	Tolerance (pH unit)		
4.0	4.07	+0.07		
7.0	7.12	+0.12		
10.0	10.01	+0.01		
	Tolerance Limit (pH unit)	±0.20		

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

Ms. Lin Wai Yu, Iris Assistant Manager - Inorganic

### REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

WORK ORDER:	HK2047209			ALS
SUB-BATCH: DATE OF ISSUE: CLIENT:	0 16-Dec-2020 ACTION UNITED ENVIRONMEN	T SERVICES AND CONSULTING		
Equipment Type:	Multifunctional Meter			
Brand Name/ Model No.:	YSI Professional DSS			
Serial No./ Equipment No.:	17B102764/17B100758 (EQW	019)		
Date of Calibration:	15-December-2020	Date of Next Calibration:	15-March-2021	

PARAMETERS:

Turbidity

Method Ref: APHA (21st edition), 2130B

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.18	
4	4.08	+2.0
40	42.18	+5.5
80	79.02	-1.2
400	412.86	+3.2
800	793.47	-0.8
	Tolerance Limit (%)	±10.0

Salinity

#### Method Ref: APHA (21st edition), 2520B

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.00	
10	10.86	+8.6
20	21.69	+8.5
30	32.83	+9.4
	Tolerance Limit (%)	±10.0

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

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Ms. Lin Wai Yu, Iris Assistant Manager - Inorganic

### REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

WORK ORDER:	HK2047209		ALS	
SUB-BATCH: DATE OF ISSUE: CLIENT:	0 16-Dec-2020 ACTION UNITED ENVIRONMENT	SERVICES AND CONSULTING		
Equipment Type:	Multifunctional Meter			
Brand Name/ Model No.:	YSI Professional DSS			
Serial No./ Equipment No.:	17B102764/17B100758 (EQW0	19)		
Date of Calibration:	15-December-2020	Date of Next Calibration:	15-March-2021	
PARAMETERS:				
Temperature	Method Ref: Section 6 of International Accreditation New Zealand Technical			
	Guide No. 3 Second edition Marc	h 2008: Working Thermometer Cal	ibration Procedure.	
	Even $a$ to d Dooding $(^{0}C)$	Displaying Decision $(^{0}C)$	$T_{oloropoo}$	

Expected Reading (°C)	Displayed Reading ( ^o C)	Tolerance (°C)
10.5	10.3	-0.2
20.0	20.1	+0.1
39.5	39.4	-0.1
	Tolerance Limit (°C)	±2.0

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

Ms. Lin Wai Yu, Iris Assistant Manager - Inorganic



ALS Technichem (HK) Pty Ltd 11/F, Chung Shun Knitting Centre 1-3 Wing Yip Street, Kwai Chung N.T., Hong Kong T: +852 2610 1044 | F: +852 2610 2021

### **REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION**

CONTACT: CLIENT:	MR BEN TAM ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING	WORK ORDER: SUB-BATCH:	HK2035809 ⁰
ADDRESS:	RM A 20/F., GOLD KING IND BLDG,	LABORATORY:	HONG KONG
	NO. 35-41 TAI LIN PAI ROAD,	DATE RECEIVED:	18-Sep-2020
	KWAI CHUNG, N.T. HONG KONG	DATE OF ISSUE:	05-Oct-2020

### SPECIFIC COMMENTS

The calibration of flow rate performed by AUES staff on 02 September 2020.

Scope of Test:	Flow rate
Equipment Type:	Flow Meter
Brand Name:	Global Water
Model No.:	FP211
Serial No.:	1449006330
Equipment No.:	
Calibration Factor:	314
Date of Calibration:	02 September, 2020

### **GENERAL COMMENTS**

This is the Final Report and supersedes any preliminary report with this batch number.

Mr. Fung Lim Chee, Richard Managing Director, Life Sciences Hong Kong

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### **REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION**

Work Order:	HK2035809
Sub-batch:	0
Date of Issue:	05-Oct-2020
Client:	ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING

#### **Reference Equipment:**

Model: SonTek IQ Standard Serial Number : IQ1217004

#### Equipment to be calibrated:

Equipment Type:	Flow Meter
Brand Name:	Global Water
Model No.:	FP211
Serial No.:	1449006330
Equipment No.:	
Calibration Factor:	314

Date of Calibration: 02 September, 2020

Parameters: The calibration of flow meter is verified with standard flow meter on site by AUES Staff.

#### Flow rate

Trial	<b>Reading of Reference</b> <b>Equipment (m/s)</b> SonTek IQ Standard Serial No: IQ1217004	Reading of Equipment to be calibrated (m/s) Global Water FP211 Serial No. 1449006330		
	0.09	0.1		
2	0.22	0.2		
3	0.43	0.4		
5	0.98	1.0		
6	1.13	1.1		

Mr. Fung Lim Cheer Richard Managing Director, Life Sciences Hong Kong



Hong Kong Accreditation Service 香港認可處

### **Certificate of Accreditation**

認可證書

This is to certify that 特此證明

### ALS TECHNICHEM (HK) PTY LIMITED

11/F., Chung Shun Knitting Centre, 1-3 Wing Yip Street, Kwai Chung, New Territories, Hong Kong 香港新界葵涌永業街1-3號忠信針織中心11樓

has been accepted by the HKAS Executive, on the recommendation of the Accreditation Advisory Board, as a 為香港認可處執行機關根據認可諮詢委員會建議而接受的

**HOKLAS Accredited Laboratory** 

「香港實驗所認可計劃」認可實驗所

This laboratory meets the requirements of ISO / IEC 17025 : 2005 – General requirements for the competence 此實驗所符合ISO / IEC 17025 : 2005 –《測試及校正實驗所能力的通用規定》所訂的要求, of testing and calibration laboratories and it has been accredited for performing specific tests or calibrations as 獲認可進行載於香港實驗所認可計劃《認可實驗所名冊》內下述測試類別中的指定 listed in the HOKLAS Directory of Accredited Laboratories within the test category of 測試或校正工作

### Environmental Testing 環境測試

This laboratory is accredited in accordance with the recognised International Standard ISO / IEC 17025 : 2005. 本實驗所乃根據公認的國際標準 ISO / IEC 17025 : 2005 獲得認可。 This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory 這項認可資格演示在指定範疇所需的技術能力及實驗所質量管理體系的運作 quality management system (see joint IAF-ILAC-ISO Communiqué). (見國際認可論壇、國際實驗所認可合作組織及國際標準化組織的聯合公報)。

The common seal of the Hong Kong Accreditation Service is affixed hereto by the authority of the HKAS Executive 香港認可處根據認可處執行機關的權限在此蓋上通用印章

CHAN Sing Sing, Terence, Executive Administrator 執行幹事 陳成城 Issue Date : 5 May 2009 簽發日期:二零零九年五月五日

Registration Number : HCKLAS 066 註冊號碼:



Date of First Registration : 15 September 1995 首次註冊日期:一九九五年九月十五日

# ∟ 000552



## Appendix F

### Event and Action Plan of Air Quality, Noise and Water Quality

### **Event and Action Plan for air quality**

<b>F</b> =4		Actio		
Event	ET	IEC	ER	Contractor
Action level exceedance for one sample	<ol> <li>Identify source, investigate the causes of exceedance and propose remedial measures;</li> <li>Inform IEC and ER;</li> <li>Repeat measurement to confirm finding;</li> <li>Increase monitoring frequency to daily.</li> </ol>	<ol> <li>Check monitoring data submitted by ET;</li> <li>Check Contractor's working method.</li> </ol>	1. Notify Contractor	<ol> <li>Rectify any unacceptable practice;</li> <li>Amend working methods if appropriate.</li> </ol>
Action level exceedance for two or more consecutive samples	<ol> <li>Identify source;</li> <li>Inform IEC and ER;</li> <li>Advise the ER on the effectiveness of the proposed remedial measures;</li> <li>Repeat measurements to confirm findings;</li> <li>Increase monitoring frequency to daily;</li> <li>Discuss with IEC and Contractor on remedial actions required;</li> <li>If exceedance continues, arrange meeting with IEC and ER;</li> <li>If exceedance stops, cease additional monitoring.</li> </ol>	<ol> <li>Check monitoring data submitted by ET;</li> <li>Check Contractor's working method;</li> <li>Discuss with ET and Contractor on possible remedial measures;</li> <li>Advise the ET on the effectiveness of the proposed remedial measures;</li> <li>Supervise Implementation of remedial measures.</li> </ol>	<ol> <li>Confirm receipt of notification of failure in writing;</li> <li>Notify Contractor;</li> <li>Ensure remedial measures properly implemented.</li> </ol>	working days of notification; 2. Implement the agreed proposals; 3. Amend proposal if appropriate.
Limit level exceedance for one sample	<ol> <li>Identify source, investigate the causes of exceedance and propose remedial measures;</li> <li>Inform ER, Contractor and EPD;</li> <li>Repeat measurement to confirm finding;</li> <li>Increase monitoring frequency to daily;</li> <li>Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results.</li> </ol>	<ol> <li>Check monitoring data submitted by ET;</li> <li>Check Contractor's working method;</li> <li>Discuss with ET and Contractor on possible remedial measures;</li> <li>Advise the ER on the effectiveness of the proposed remedial measures;</li> <li>Supervise implementation of remedial measures.</li> </ol>	<ol> <li>Confirm receipt of notification of failure in writing;</li> <li>Notify Contractor;</li> <li>Ensure remedial measures properly implemented.</li> </ol>	<ol> <li>Take immediate action to avoid further exceedance;</li> <li>Submit proposals for remedial actions to IEC within 3 working days of notification;</li> <li>Implement the agreed proposals;</li> <li>Amend proposal if appropriate.</li> </ol>
Limit level exceedance for two or more consecutive samples	<ol> <li>Notify IEC, ER, Contractor and EPD;</li> <li>Identify source;</li> <li>Repeat measurement to confirm findings;</li> <li>Increase monitoring frequency to daily;</li> <li>Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented;</li> <li>Arrange meeting with IEC and ER to discuss the remedial actions to be taken;</li> <li>Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results;</li> <li>If exceedance stops, cease additional monitoring.</li> </ol>	<ol> <li>Discuss amongst ER, ET, and Contractor on the potential remedial actions;</li> <li>Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly;</li> <li>Supervise the implementation of remedial measures.</li> </ol>	<ol> <li>Confirm receipt of notification of failure in writing;</li> <li>Notify Contractor;</li> <li>In consultation with the IEC, agree with the Contractor on the remedial measures to be implemented;</li> <li>Ensure remedial measures properly implemented;</li> <li>If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.</li> </ol>	<ol> <li>Take immediate action to avoid further exceedance;</li> <li>Submit proposals for remedial actions to IEC within 3 working days of notification;</li> <li>Implement the agreed proposals;</li> <li>Resubmit proposals if problem still not under control;</li> <li>Stop the relevant portion of works as determined by the ER until the exceedance is abated.</li> </ol>

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

### **Event and Action Plan for Construction Noise**

Event	Action			
Event	ET	IEC	ER	Contractor
Action Level Exceedance	<ol> <li>Notify IEC, ER and Contractor;</li> <li>Carry out investigation;</li> <li>Report the results of investigation to the IEC, ER and Contractor;</li> <li>Discuss with the Contractor and formulate remedial measures;</li> <li>Increase monitoring frequency to check mitigation effectiveness</li> </ol>	3. Supervise the implementation of	<ul><li>failure in writing;</li><li>2. Notify Contractor;</li><li>3. Require Contractor to propose remedial measures for the analyzed</li></ul>	<ol> <li>Submit noise mitigation proposals to IEC and ER;</li> <li>Implement noise mitigation proposals</li> </ol>
Limit Level Exceedance	<ol> <li>Identify source;</li> <li>Inform IEC, ER, EPD and Contractor;</li> <li>Repeat measurements to confirm findings;</li> <li>Increase monitoring frequency;</li> <li>Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented;</li> <li>Inform IEC, ER and EPD the causes and actions taken for the exceedances;</li> <li>Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results;</li> <li>If exceedance stops, cease additional monitoring.</li> </ol>	actions; 2. Review Contractors remedial actions whenever necessary to assure their	<ol> <li>Confirm receipt of notification of failure in writing;</li> <li>Notify Contractor;</li> <li>Require Contractor to propose remedial measures for the analyzed noise problem;</li> <li>Ensure remedial measures properly</li> </ol>	<ol> <li>Take immediate action to avoid further exceedance;</li> <li>Submit proposals for remedial actions to IEC within 3 working days of notification;</li> <li>Implement the agreed proposals;</li> <li>Resubmit proposals if problem still not under control;</li> <li>Stop the relevant portion of works as determined by the ER until the exceedance is abated.</li> </ol>

Note:

ET – Environmental Team

*IEC – Independent Environmental Checker* 

ER – Engineer's Representative

#### **Event and Action Plan for Water Quality**

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

Note: ET - Environmental Team IEC - Independent Environmental Checker ER - Engineer's Representative Each step of actions required shall be implemented within 1 working day unless otherwise specified or agreed with EPD.



## Appendix G

Monitoring Schedules of the Reporting Month and Coming Month



	Data	Noise Menitoring	Air Qualit	y Monitoring	Water Onelite
	Date	Noise Monitoring	1-Hour TSP	24-Hour TSP	Water Quality
Mon	1-Feb-21	✓	$\checkmark$		$\checkmark$
Tue	2-Feb-21				
Wed	3-Feb-21				$\checkmark$
Thu	4-Feb-21				
Fri	5-Feb-21			✓	$\checkmark$
Sat	6-Feb-21		✓		
Sun	7-Feb-21				
Mon	8-Feb-21				$\checkmark$
Tue	9-Feb-21				
Wed	10-Feb-21			✓	$\checkmark$
Thu	11-Feb-21	✓	√		
Fri	12-Feb-21				
Sat	13-Feb-21				
Sun	14-Feb-21				
Mon	15-Feb-21				
Tue	16-Feb-21			✓	$\checkmark$
Wed	17-Feb-21	✓	√		
Thu	18-Feb-21				$\checkmark$
Fri	19-Feb-21				
Sat	20-Feb-21		√		$\checkmark$
Sun	21-Feb-21				
Mon	22-Feb-21			✓	√
Tue	23-Feb-21				
Wed	24-Feb-21	✓	√		$\checkmark$
Thu	25-Feb-21				
Fri	26-Feb-21				$\checkmark$
Sat	27-Feb-21			✓	
Sun	28-Feb-21				

Remark: There will be no construction activity during Chinese New Year on 12 to 15 Feb 2021.

✓	Monitoring Day
	Sunday or Public Holiday



	D (		Air Quality	Water Ovelite		
	Date	Noise Monitoring	1-Hour TSP	24-Hour TSP	Water Quality	
Mon	1-Mar-21				$\checkmark$	
Tue	2-Mar-21	✓	$\checkmark$			
Wed	3-Mar-21				√	
Thu	4-Mar-21					
Fri	5-Mar-21			✓	✓	
Sat	6-Mar-21					
Sun	7-Mar-21					
Mon	8-Mar-21	✓	✓		$\checkmark$	
Tue	9-Mar-21					
Wed	10-Mar-21				√	
Thu	11-Mar-21			✓		
Fri	12-Mar-21				√	
Sat	13-Mar-21		✓			
Sun	14-Mar-21					
Mon	15-Mar-21				$\checkmark$	
Tue	16-Mar-21					
Wed	17-Mar-21			✓	√	
Thu	18-Mar-21					
Fri	19-Mar-21	✓	✓		√	
Sat	20-Mar-21					
Sun	21-Mar-21					
Mon	22-Mar-21				√	
Tue	23-Mar-21			✓		
Wed	24-Mar-21				$\checkmark$	
Thu	25-Mar-21	✓	$\checkmark$			
Fri	26-Mar-21				$\checkmark$	
Sat	27-Mar-21					
Sun	28-Mar-21					
Mon	29-Mar-21			✓	$\checkmark$	
Tue	30-Mar-21					
Wed	31-Mar-21	✓	$\checkmark$		$\checkmark$	

✓	Monitoring Day
	Sunday or Public Holiday



## Appendix H

### **Monitoring Data**

- 24-hour TSP Air Quality
- Noise
- Water Quality



Air Quality (24-hour TSP)



	24-Hour TSP Monitoring Data for ASR-1														
DATE	SAMPLE NUMBER				CHA	RT REA	DING	AVG TEMP	AVG AIR PRESS	STANDARD FLOW RATE	AIR	FILTER W	EIGHT (g)	DUST WEIGHT COLLECTED	24-Hr TSP $(\mu g/m^3)$
		INITIAL	FINAL	(min)	MIN	MAX	AVG	(°C)	(hPa)	(m ³ /min)	(std m ³ )	INITIAL	FINAL	(g)	
5-Feb-21	26741	26741 23600.72 23624.72 1440.00 42 42 42.0		16.4	1019.5	1.44	2071	2.7459	2.9772	0.2313	112				
10-Feb-21	26720	23624.72	23648.72	1440.00	42	43	42.5	16.9	1019	1.45	2092	2.7898	2.9257	0.1359	65
16-Feb-21	26805	23648.72	23672.73	1440.60	41	42	41.5	17.4	1017.8	1.41	2029	2.6887	2.7690	0.0803	40
22-Feb-21	26854	23672.73	23696.73	1440.00	40	41	40.5	17.3	1018.5	1.38	1985	2.7950	2.9393	0.1443	73
27-Feb-21	26859			40	41	40.5	18	1017.8	1.38	1982	2.8110	2.8983	0.0873	44	

	24-Hour TSP Monitoring Data for ASR-2														
DATE	SAMPLE NUMBER	EL	APSED TI	ME	CHART READING			AVG TEMP	AVG AIR PRESS	STANDARD FLOW RATE		FILTER W	<i>(U)</i>	DUST WEIGHT COLLECTED	24-Hr TSP $(\mu g/m^3)$
		INITIAL	FINAL	(min)	MIN	MAX	AVG	(°C)	(hPa)	(m ³ /min)	(std m ³ )	INITIAL	FINAL	(g)	
5-Feb-21	26742	21005.30 21029.31 1440.60 35 36 35.5 16.4		1019.5	1.23	1772	2.7611	2.8200	0.0589	33					
10-Feb-21	26719	21029.31	21053.31	1440.00	35	36	35.5	16.9	1019	1.23	1769	2.7766	2.8238	0.0472	27
16-Feb-21	26806	21053.31	21077.32	1440.60	35	36	35.5	17.4	1017.8	1.26	1818	2.7113	2.7619	0.0506	28
22-Feb-21	26855	21077.32	21101.32	1440.00	34	35	34.5	17.3	1018.5	1.23	1777	2.8160	2.8580	0.0420	24
27-Feb-21	26856	21101.32	21125.32	1440.00	34	35	34.5	18	1017.8	1.23	1775	2.8154	2.8804	0.0650	37

	24-Hour TSP Monitoring Data for ASR-3a														
DATE	SAMPLE NUMBER		APSED TI	ME	CHART READING			AVG TEMP	ELOW			FILTER W	(U)	DUST WEIGHT COLLECTED	24-Hr TSP $(\mu g/m^3)$
		INITIAL	FINAL	(min)	MIN	MAX	AVG	(°C)	(hPa)	(m ³ /min)	(std m ³ )	INITIAL	FINAL	(g)	
5-Feb-21	26717	14796.69	14820.47	1426.80	34	35	34.5	16.4	1019.5	1.18	1690	2.7730	2.8795	0.1065	63
10-Feb-21	26743	14820.47	14844.47	1440.00	34	35	34.5	16.9	1019	1.18	1704	2.7606	2.8255	0.0649	38
16-Feb-21	26807	14844.47	14867.94	1408.20	34	35	34.5	17.4	1017.8	1.25	1763	2.7034	2.7675	0.0641	36
22-Feb-21	26862	14867.94	14891.66	1423.20	34	35	34.5	17.3	1018.5	1.25	1782	2.7975	2.9350	0.1375	77
27-Feb-21	26887	14891.66	14915.07	1404.60	34	35	34.5	18	1017.8	1.25	1757	2.7703	2.8435	0.0732	42



Noise

	Noise Measurement Results (dB(A)) of CN-1																				
Date	Start Time	1 st Leq _{5min}	L10	L90	2 nd Leq _{5min}	L10	L90	3 nd Leq _{5min}	L10	L90	4 th Leq _{5min}	L10	L90	5 th Leq _{5min}	L10	L90	6 th Leq _{5min}	L10	L90	Leq _{30min}	Façade Collection (*)
1-Feb-21	11:42	60.6	62.5	57.2	64.6	65.9	57.4	58.3	61.8	55.1	59.2	62.9	56.1	59	62.2	56.5	60	63.1	57.6	61	64
11-Feb-21	14:59	58.7	58.1	54.5	56.2	58.8	53.6	56.2	57.9	53.1	55.1	55.9	52.5	58.5	58.8	54.7	57.2	57.3	53.8	57	60
17-Feb-21	15:28	50.5	51.3	49.1	50	50.7	49	55.9	55.2	49.4	58.2	53.7	49.4	50.3	51.1	49.1	52.6	52.9	49.3	54	57
24-Feb-21	13:08	67.5	69.9	63.1	67.2	69.4	62	65.4	67.7	61.6	66.1	68.1	63.5	65.5	67.3	63.2	66.7	68.3	64.5	66	69

(*) A façade correction of +3dB(A) has been added according to acoustical principles and EPD guidelines.

	Noise Measurement Results (dB(A)) of CN-2																				
Date	Start Time	1 st Leq _{5min}	L10	L90	2 nd Leq _{5min}	L10	L90	3 nd Leq _{5min}	L10	L90	4 th Leq _{5min}	L10	L90	5 th Leq _{5min}	L10	L90	6 th Leq _{5min}	L10	L90	Leq _{30min}	Façade Collection (*)
1-Feb-21	11:04	64.5	67.3	48.8	65.6	68.1	50.7	64.2	66.3	50.6	64.1	67	49.3	63.1	66.4	50.1	61.4	64	47.4	64	67
11-Feb-21	14:21	60.4	62.9	49.3	59.6	63.8	49	59.4	63.7	49.4	61.4	65.8	48	61.7	66.5	45	63	67.4	50.3	61	64
17-Feb-21	14:51	57.8	60.3	52.8	60.6	61.2	54.7	59.3	61.5	55.5	60	62.6	54	58	61.8	52	57.5	60.7	53	59	62
24-Feb-21	13:44	60.8	61.8	59.7	62	62.9	60.9	61.3	62	60.5	61.6	62.9	60.5	60.4	61.1	59.5	61.3	62.1	60.5	61	64

(*) A façade correction of +3dB(A) has been added according to acoustical principles and EPD guidelines.

								Noi	se Meas	urement	Results (	<b>dB</b> (A)) o	of CN-3								
Date	Start Time	1 st Leq _{5min}	L10	L90	2 nd Leq _{5min}	L10	L90	3 nd Leq _{5min}	L10	L90	4 th Leq _{5min}	L10	L90	5 th Leq _{5min}	L10	L90	6 th Leq _{5min}	L10	L90	Leq _{30min}	Façade Collection (*)
1-Feb-21	10:23	55.9	56.1	50.1	59.2	60.7	51.5	56.5	57.5	50.4	55.4	56.2	49.6	57.4	56.2	51.5	57.5	59.1	51.5	57	60
11-Feb-21	10:11	57.8	61.2	46.1	56.5	61.8	46.7	55.4	60	46.2	57.5	61.3	46	55.8	60.9	46.3	51.2	56.3	46	56	59
17-Feb-21	10:22	55.9	60.3	50.5	53	56.1	49.7	55	60.5	51.5	55.2	59.8	51.6	56	60.9	50.9	60.2	61	51.1	57	60
24-Feb-21	14:30	56.1	56.8	55.2	55.3	57.7	53.1	54	55.4	52.4	54.6	55.5	53.6	56.9	58.1	54.7	54.2	55.6	52.3	55	58

(*) A façade correction of +3dB(A) has been added according to acoustical principles and EPD guidelines.

								Noi	se Meas	urement	Results (	dB(A)) o	of CN-4							
Date	Start Time	1 st Leq _{5min}	L10	L90	2 nd Leq _{5min}	L10	L90	3 nd Leq _{5min}	L10	L90	4 th Leq _{5min}	L10	L90	5 th Leq _{5min}	L10	L90	6 th Leq _{5min}	L10	L90	Leq _{30min}
1-Feb-21	9:45	58.5	62.7	42	58	62.6	42.3	59.7	63.9	42.1	62	67.9	43	61	66.8	43.4	60.4	63.9	44.6	60
11-Feb-21	10:48	55.7	60.1	40.5	56.2	60.7	38.8	59.1	60.5	39.8	54.1	57.6	38.2	57.5	61.3	39.2	56.6	60.1	38.2	57
17-Feb-21	11:00	55.7	59.5	43	58.5	60.7	42	53.2	56.1	39.7	56.5	58.2	39.5	53.1	56.1	40.1	53.1	57.1	40.2	56
24-Feb-21	15:08	63.8	63.6	61.5	61	62.1	59.9	61	62.1	59.7	60.2	61.6	58.9	60.5	61.5	59.6	62.4	63.4	60.8	62



Water Quality



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### Water Quality Impact Monitoring Result for M1

Date	1-Feb-21																	
Location	Time	Depth (m)	Temp	(oC)	Flow V	elocity (m/s)	DO (I	ng/L)	DO	(%)	Turbidi	ty (NTU)	p]	H	Sali	nity	SS(1	ng/L)
M1	0.40	0.12	16.5	16.5	< 0.1	<0.1	7.93	7.94	89.7	89.9	1.94	1.0	7.54	75	0.06	0.06	<2	~2
1111	9:40	0.15	16.5	16.5	< 0.1	<0.1	7.95	7.94	90.0	89.9	1.81	1.9	7.54	1.5	0.06	0.00	<2	<2

Date	3-Feb-21																	
Location	Time	Depth (m)	Temp	(oC)	Flow V	elocity (m/s)	DO (1	ng/L)	DO	(%)	Turbidi	ty (NTU)	р	H	Sali	nity	SS(1	mg/L)
M1	0.40	0.12	17.1	171	< 0.1	<0.1	7.51	754	86.8	86.9	2.16	2.0	7.67	77	0.06	0.06	<2	-2
IVI I	9:40	0.15	17.1	1/.1	< 0.1	<0.1	7.56	7.34	86.9	80.9	1.77	2.0	7.67	1.1	0.06	0.06	<2	<2

Date	5-Feb-21																	
Location	Time	Depth (m)	Temp	(oC)	Flow V	elocity (m/s)	DO (r	ng/L)	DO	(%)	Turbidi	ty (NTU)	p	H	Sali	nity	SS(1	mg/L)
M1	9:45	0.13	17.4	174	< 0.1	<0.1	6.79	6.88	78.5	79.6	1.06	1.0	7.52	75	0.06	0.06	3	2.5
MI	9.45	0.15	17.4	17.4	< 0.1	<0.1	6.97	0.88	80.6	79.0	0.88	1.0	7.52	7.5	0.06	0.00	2	2.5

Date	8-Feb-21																	
Location	Time	Depth (m)	Temp	) (oC)	Flow V	elocity (m/s)	DO (1	ng/L)	DO	(%)	Turbidi	ty (NTU)	р	H	Sali	nity	SS(1	ng/L)
M1	0.45	0.12	17.8	17.0	< 0.1	<0.1	7.41	7 40	85.6	057	2.94	20	7.69	77	0.06	0.06	3	3.0
MI	9:45	0.15	17.8	17.8	< 0.1	<0.1	7.43	1.42	85.7	83.7	2.67	2.0	7.69	1.1	0.06	0.06	3	5.0

Date	10-Feb-21																	
Location	Time	Depth (m)	Temp	(oC)	Flow V	elocity (m/s)	DO (1	ng/L)	DO	(%)	Turbidi	ty (NTU)	p	H	Sali	nity	SS(1	ng/L)
M1	0.20	0.14	17.3	17.2	< 0.1	<0.1	7.56	7.58	84.6	84.8	2.04	2.2	7.63	76	0.06	0.06	2	2.0
111	9:30	0.14	17.3	17.5	< 0.1	<0.1	7.59	7.38	84.9	04.0	2.47	2.5	7.63	/.0	0.06	0.06	2	2.0

Date	16-Feb-21																	
Location	Time	Depth (m)	Temp	(oC)	Flow V	elocity (m/s)	DO (I	ng/L)	DO	(%)	Turbidi	ty (NTU)	p	Н	Sali	nity	SS(1	mg/L)
M1	14.15	0.12	20.9	20.9	< 0.1	<0.1	7.4	7.49	83.2	84.2	0.98	0.9	8.84	00	0.10	0.10	4	2.5
1/11	14:15	0.15	20.9	20.9	< 0.1	<0.1	7.57	7.49	85.2	84.2	0.9	0.9	8.84	0.0	0.10	0.10	3	5.5

Date	18-Feb-21																	
Location	Time	Depth (m)	Temp	(oC)	Flow V	elocity (m/s)	DO (r	ng/L)	DO	(%)	Turbidi	ty (NTU)	p	H	Sali	nity	SS(1	ng/L)
M1	14.15	0.12	20.1	20.1	< 0.1	<0.1	7.48	7.49	84.4	84.5	1.38	1 4	8.18	0 <b>1</b>	0.05	0.05	3	25
IVI 1	14:15	0.15	20.1	20.1	< 0.1	<0.1	7.49	7.49	84.5	64.3	1.51	1.4	8.18	0.2	0.05	0.05	4	5.5



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Date	20-Feb-21																	
Location	Time	Depth (m)	Temp	(oC)	Flow V	elocity (m/s)	DO (1	ng/L)	DO	(%)	Turbidi	ty (NTU)	р	Н	Sali	nity	SS(1	mg/L)
M1	0.05	0.12	19.6	19.6	< 0.1	<0.1	8.14	0.14	89.7	89.7	0.86	0.9	8.51	05	0.05	0.05	4	3.0
MI	9:05	0.15	19.6	19.0	< 0.1	<0.1	8.13	0.14	89.6	89.7	1.02	0.9	8.51	8.3	0.05	0.05	2	5.0

Date	22-Feb-21																	
Location	Time	Depth (m)	Temp	( <b>oC</b> )	Flow V	elocity (m/s)	DO (1	ng/L)	DO	(%)	Turbidi	ty (NTU)	p	H	Sali	nity	SS(1	mg/L)
M1	0.40	0.12	16.2	16.0	< 0.1	<0.1	8.04	8.07	89.5	89.8	0.71	07	8.56	96	0.06	0.06	3	2.5
MI	9:40	0.15	16.2	16.2	< 0.1	<0.1	8.09	8.07	90.1	69.6	0.73	0.7	8.56	8.6	0.06	0.00	2	2.3

Date	24-Feb-21																	
Location	Time	Depth (m)	Temp	(oC)	Flow V	elocity (m/s)	DO (r	ng/L)	DO	(%)	Turbidi	ty (NTU)	р	H	Sali	nity	SS(1	mg/L)
<b>M</b> 1	0.20	0.12	18.6	10 6	< 0.1	-0.1	8.7	0.71	98.6	00.7	1.07	1 1	9.67	0.7	0.06	0.00	3	2.5
MI	9:30	0.15	18.6	18.6	< 0.1	<0.1	8.71	8.71	98.7	98.7	1.05	1.1	9.67	9.7	0.06	0.06	2	2.5

Date	26-Feb-21																	
Location	Time	Depth (m)	Temp	) (oC)	Flow V	elocity (m/s)	DO (1	ng/L)	DO	(%)	Turbidi	ty (NTU)	р	H	Sali	nity	SS(1	mg/L)
M1	9:30	0.12	18.4	10 /	< 0.1	<0.1	8.43	0 10	97.4	07.2	1.18	1.0	9.47	0.5	0.07	0.07	4	2.0
111	9:50	0.15	18.4	18.4	< 0.1	<0.1	8.4	0.42	97.1	97.5	1.15	1.2	9.47	9.5	0.07	0.07	2	3.0



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#### Water Quality Impact Monitoring Result for M2

Date	1-Feb-21																	
Location	Time	Depth (m)	Temp	o (oC)	Flow V	velocity (m/s)	<b>DO</b> (1	mg/L)	DO	(%)	Turbidi	ty (NTU)	p	H	Sali	nity	SS()	mg/L)
M2	10:35	0.00 (#)		-				-										

Date	3-Feb-21									
Location	Time	Depth (m)	Temp (oC)	Flow Velocity (m/s)	DO (mg/L)	DO (%)	Turbidity (NTU)	pН	Salinity	SS(mg/L)
M2	10:15	0.00 (#)								

Date	5-Feb-21																	
Location	Time	Depth (m)	Temp	) (oC)	Flow V	velocity (m/s)	DO (I	ng/L)	DO	(%)	Turbidi	ty (NTU)	pl	H	Sali	nity	SS(r	ng/L)
M2	10:30	0.00 (#)																

Date	8-Feb-21																	
Location	Time	Depth (m)	Temp	(oC)	Flow V	velocity (m/s)	DO (r	ng/L)	DO	(%)	Turbidi	ty (NTU)	pl	H	Sali	nity	SS(1	ng/L)
M2	10:35	0.00 (#)																

Date	10-Feb-21									
Location	Time	Depth (m)	Temp (oC)	Flow Velocity (m/s)	DO (mg/L)	DO (%)	<b>Turbidity</b> (NTU)	pН	Salinity	SS(mg/L)
M2	10:10	0.00 (#)								

Date	16-Feb-21									
Location	Time	Depth (m)	Temp (oC)	Flow Velocity (m/s)	DO (mg/L)	DO (%)	<b>Turbidity (NTU)</b>	pН	Salinity	SS(mg/L)
M2	9:45	0.00 (#)								

Date	18-Feb-21																	
Location	Time	Depth (m)	Temp	(oC)	Flow V	velocity (m/s)	DO (1	ng/L)	DO	(%)	Turbidi	ty (NTU)	p	H	Sali	nity	SS(1	ng/L)
M2	10:15	0.00 (#)																

### Site Formation and Associated Infrastructural Works for Development of Columbarium, Crematorium and Related Facilities at Sandy Ridge Cemetery



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Date	20-Feb-21																
Location	Time	Depth (m)	Temp (oC	Flow	Velocity (m/s)	DO (n	ıg/L)	DO	(%)	Turbidi	ty (NTU)	pl	H	Sali	nity	SS(1	ng/L)
M2	10:00	0.00 (#)			_												

Date	22-Feb-21									
Location	Time	Depth (m)	Temp (oC)	Flow Velocity (m/s)	DO (mg/L)	DO (%)	Turbidity (NTU)	pН	Salinity	SS(mg/L)
M2	10:20	0.00 (#)								

Date	24-Feb-21									
Location	Time	Depth (m)	Temp (oC)	Flow Velocity (m/s)	DO (mg/L)	DO (%)	Turbidity (NTU)	рН	Salinity	SS(mg/L)
M2	14:20	0.00 (#)								

Date	26-Feb-21																	
Location	Time	Depth (m)	Temp	(oC)	Flow V	elocity (m/s)	<b>DO</b> (1	mg/L)	DO	(%)	Turbidi	ty (NTU)	p	H	Sali	nity	SS(1	mg/L)
M2	10:15	0.00 (#)																

*Remarks: (#) During the water monitoring, the channel of M2 was observed dried up and water sampling was unable be carried out* 



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#### Water Quality Impact Monitoring Result for M3

Date	1-Feb-21																	
Location	Time	Depth (m)	Temp	) (oC)	Flow V	/elocity (m/s)	DO (I	ng/L)	DO	(%)	Turbidi	ity (NTU)	p	H	Sali	nity	SS(1	ng/L)
M3	10:45	2.45	18.1 18.1	18.1	<0.1	<0.1	7.98 7.99	7.99	90.0 90.1	90.1	1.5 1.32	1.4	7.39 7.39	7.4	0.05	0.05	2 2	2.0

Date	3-Feb-21																	
Location	Time	Depth (m)	Temp	(oC)	Flow V	elocity (m/s)	DO (1	ng/L)	DO	(%)	Turbidi	ity (NTU)	р	H	Sali	nity	SS(r	ng/L)
M3	10:25	2.45	18.2 18.2	18.2	<0.1 <0.1	<0.1	7.61 7.62	7.62	88.0 88.1	88.1	1.06 1.15	1.1	7.37 7.37	7.4	0.04 0.04	0.04	<2 <2	<2

Date	5-Feb-21																	
Location	Time	Depth (m)	Temp	(oC)	Flow V	elocity (m/s)	DO (I	ng/L)	DO	(%)	Turbidi	ty (NTU)	р	H	Sali	nity	SS(1	ng/L)
M3	10:40	2.45	18.1	18.1	<0.1	< 0.1	7.45	7.45	86.5	86.4	1.07	1.2	7.61	7.6	0.04	0.04	<2	<2
M3	10:40	2.45		18.1	<0.1	< 0.1		7.45	86.3	86.4		1.2		7.6	0.04		0.04	0.04 < <2 < <2

Date	8-Feb-21																	
Location	Time	Depth (m)	Temp	(oC)	Flow V	elocity (m/s)	DO (I	mg/L)	DO	(%)	Turbidi	ty (NTU)	p	H	Sali	nity	SS(1	mg/L)
M3	10:45	2.45	19.7 19.7	19.7	<0.1 <0.1	<0.1	7.4 7.41	7.41	86.2 86.3	86.3	1.37 1.66	1.5	7.24 7.24	7.2	0.04	0.04	4 3	3.5

Date	10-Feb-21																	
Location	Time	Depth (m)	Temp	( <b>oC</b> )	Flow V	elocity (m/s)	DO (r	ng/L)	DO	(%)	Turbidi	ty (NTU)	p	H	Sali	nity	SS(1	ng/L)
M3	10:20	2.45	17.6	176	< 0.1	<0.1	6.85	6.87	72.0	72.1	4.9	47	8.05	0 1	0.05	0.05	3	2.5
IVI 5	10:20	2.45	17.6	17.0	< 0.1	<0.1	6.88	0.87	72.2	72.1	4.49	4./	8.05	0.1	0.05	0.05	4	5.5

Date	16-Feb-21																	
Location	Time	Depth (m)	Temp	(oC)	Flow V	elocity (m/s)	DO (I	ng/L)	DO	(%)	Turbidi	ity (NTU)	р	H	Sali	nity	SS(1	mg/L)
M3	9:55	2.45	20.7 20.7	20.7	<0.1 <0.1	<0.1	6.87 6.9	6.89	77.6 77.9	77.8	1.96 1.77	1.9	8.59 8.59	8.6	0.03	0.03	3 4	3.5

Date	18-Feb-21																	
Location	Time	Depth (m)	Temp	(oC)	Flow V	elocity (m/s)	DO (I	ng/L)	DO	(%)	Turbidi	ty (NTU)	p	H	Sali	nity	SS(1	mg/L)
M3	10:25	2.45	19.7 19.7	19.7	<0.1 <0.1	<0.1	7.4 7.42	7.41	83.3 83.6	83.5	2.47 2.07	2.3	7.90 7.90	7.9	0.03	0.03	4 3	3.5



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Date	20-Feb-21																	
Location	Time	Depth (m)	Temp	( <b>oC</b> )	Flow V	elocity (m/s)	DO (1	ng/L)	DO	(%)	Turbidi	ity (NTU)	p	H	Sali	nity	SS(1	mg/L)
M3	10:10	2.45	20.2 20.2	20.2	<0.1 <0.1	<0.1	7.99 7.93	7.96	88.4 88.1	88.3	1.48 1.4	1.4	8.46 8.46	8.5	0.03	0.03	5 4	4.5

Date	22-Feb-21																	
Location	Time	Depth (m)	Temp	) (oC)	Flow V	elocity (m/s)	DO (I	ng/L)	DO	(%)	Turbidi	ty (NTU)	р	H	Sali	nity	SS(1	mg/L)
M3	10:30	2.45	18.8 18.8	18.8	<0.1 <0.1	< 0.1	8.24 8.16	8.20	91.5 90.7	91.1	1.47 1.39	1.4	8.28 8.28	8.3	0.07	0.07	3 3	3.0

Date	24-Feb-21																	
Location	Time	Depth (m)	Temp	) (oC)	Flow V	elocity (m/s)	DO (I	ng/L)	DO	(%)	Turbidi	ty (NTU)	р	H	Sali	nity	SS(1	mg/L)
M3	14:30	2.45	19.3	10.3	< 0.1	<0.1	8.66	9 65	98.8	98.7	1.59	1.6	9.64	0.6	0.03	0.02	4	15
1015	14:50	2.45	19.3	19.5	< 0.1	<0.1	8.64	8.65	98.6	96.7	1.54	1.6	9.64	9.6	0.03	0.03	5	4.3

Date	26-Feb-21																	
Location	Time	Depth (m)	Temp	) (oC)	Flow V	elocity (m/s)	DO (I	ng/L)	DO	(%)	Turbidi	ty (NTU)	p	H	Sali	nity	SS(1	mg/L)
M3	10.25	2.45	19.6	19.6	< 0.1	#DIV/0!	8.61	8.60	99.5	99.4	1.09	1 1	9.09	0.1	0.04	0.04	4	4.0
M3	10:25	2.45	19.6	19.0	< 0.1	#DIV/0!	8.59	0.00	99.3	99.4	1.14	1.1	9.09	9.1	0.04	0.04	4	4.0

< 0.1



3

Monthly Environmental Monitoring & Audit Report (No.31) - February 2021

18.3

#### Water Quality Impact Monitoring Result for M4

Date	1-Feb-21																	
Location	Time	Depth (m)	Temp	o (oC)	Flow Velo	city (m/s)	DO (1	mg/L)	DO	(%)		oidity TU)	p]	H	Sali	nity	SS(1	mg/L)
M4	11:00	0.41	18 18	18.0	<0.1 <0.1	<0.1	7.82 7.83	7.83	88.6 88.7	88.7	0.9 0.8	0.9	7.10 7.10	7.1	0.08	0.08	3 3	3.0
Date	3-Feb-21																	
Location	Time	Depth (m)	Temp	• (oC)	Flow Velo	city (m/s)	DO (1	mg/L)	DO	(%)		oidity TU)	p]	H	Sali	nity	SS(1	mg/L)
M4	10:40	0.43	18.3	18.3	<0.1	< 0.1	7.65	7.66	88.6	88.7	1.6	1.6	7.19	7.2	0.08	0.08	3	3.0

Date	5-Feb-21																	
Location	Time	Depth (m)	Temp	• (oC)	Flow Velo	city (m/s)	DO (1	mg/L)	DO	(%)		bidity TU)	p]	H	Sali	nity	SS(n	ng/L)
M4	11:00	0.42	18 18	18.0	<0.1 <0.1	<0.1	7.42 7.67	7.55	86.3 89.1	87.7	1.1 0.7	0.9	7.30 7.30	7.3	0.09 0.09	0.09	<2 <2	<2

88.7

1.7

7.19

0.08

7.66

Date	8-Feb-21																	
Location	Time	Depth (m)				city (m/s)	DO (I	mg/L)	DO	(%)		bidity TU)	pl	H	Sali	nity	SS(1	mg/L)
M4	11:00	0.43	19.9 19.9	19.9	<0.1 <0.1	<0.1	7.61 7.62	7.62	88.2 88.4	88.3	1.6 1.2	1.4	7.06 7.06	7.1	0.08 0.08	0.08	3 3	3.0

Date	10-Feb-21																	
Location	Time	Depth (m)	Depth (m) Temp (oC)			city (m/s)	DO (1	ng/L)	DO	(%)		bidity TU)	<b>p</b> ]	H	Sali	nity	SS(r	ng/L)
M4	10:40	0.44	17.5 17.5	17.5	<0.1 <0.1	<0.1	7.55 7.61	7.58	84.1 84.8	84.5	2.6 3.0	2.8	7.47 7.47	7.5	0.08 0.08	0.08	<2 <2	<2

Date	16-Feb-21																	
Location	Time	Depth (m)	Temp	o (oC)	Flow Veloc	city (m/s)	DO (I	ng/L)	DO	(%)		bidity TU)	pl	H	Sali	nity	SS(1	mg/L)
M4	14:40	0.44	21.1 21.1	21.1	<0.1 <0.1	< 0.1	7.74 7.85	7.80	87.6 88.8	88.2	1.4 1.4	1.4	8.02 8.02	8.0	0.07 0.07	0.07	2 2	2.0



Monthly Environmental Monitoring & Audit Report (No.31) - February 2021

Date	18-Feb-21																	
Location	Time	Depth (m)	Temp	) (oC)	Flow Veloc	city (m/s)	DO (1	mg/L)	DO	(%)		bidity TU)	<b>p</b> ]	H	Sali	nity	SS(1	mg/L)
M4	14.40	0.45	20.5	20.5	< 0.1	<0.1	7.76	7 77	87.4	075	2.5	27	7.30	72	0.07	0.07	2	2.0
M4	14:40	0.45	20.5	20.5	< 0.1	<0.1	7.77	1.11	87.5	87.5	2.9	2.1	7.30	7.5	0.07	0.07	2	2.0

Date	20-Feb-21																	
Location	Time	Depth (m)	Temp	o (oC)	Flow Veloc	city (m/s)	DO (I	ng/L)	DO	(%)		bidity TU)	p]	H	Sali	nity	SS(1	mg/L)
M4	0.25	0.42	19.9	10.0	< 0.1	<0.1	8.5	0 50	94.4	94.6	0.4	0.4	8.03	8.0	0.09	0.00	<2	2
1 <b>V1</b> 4	9:25	0.43	19.9	19.9	< 0.1	< 0.1	8.54	0.32	94.8	94.0	0.5	0.4	8.03	8.0	0.09	0.09	<2	<2

Date	22-Feb-21																	
Location	Time	Depth (m)	Temp	• ( <b>o</b> C)	Flow Veloc	city (m/s)	DO (I	ng/L)	DO	(%)		bidity TU)	p]	H	Sali	nity	SS(r	ng/L)
M4	10.50	0.42	19.1	10.1	< 0.1	-0.1	8.34	0.07	92.6	01.0	0.8	0.0	8.01	0.0	0.08	0.00	<2	-2
M4	10:50	0.42	19.1	19.1	< 0.1	<0.1	8.2	8.27	91.1	91.9	0.8	0.8	8.01	8.0	0.08	0.08	<2	<2

Date	24-Feb-21																	
Location	Time	Depth (m)	Temp	o (oC)	Flow Veloc	city (m/s)	DO (I	ng/L)	DO	(%)		bidity TU)	p]	H	Sali	nity	SS(r	ng/L)
M4	9:50	0.45	18.8	18.8	< 0.1	< 0.1	8.75	o 75	99.9	99.9	0.8	0.9	9.37	0.4	0.09	0.09	<2	2
114	9.30	0.43	18.8	10.0	< 0.1	<0.1	8.74	8.75	99.8	99.9	0.9	0.9	9.37	9.4	0.09	0.09	<2	<2

Date	26-Feb-21																	
Location	Time	Depth (m)	Temp	o (oC)	Flow Veloc	city (m/s)	DO (I	ng/L)	DO	(%)		bidity TU)	pl	H	Sali	nity	SS(r	ng/L)
M4	10:40	0.43	19.8 19.8	19.8	<0.1 <0.1	<0.1	8.59 8.57	8.58	99.4 99.1	99.3	1.0 1.0	1.0	8.76 8.76	8.8	0.08 0.08	0.08	<2 <2	<2

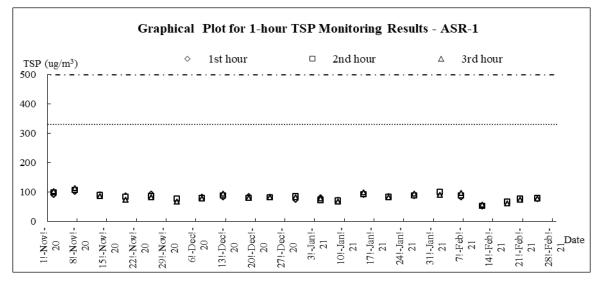


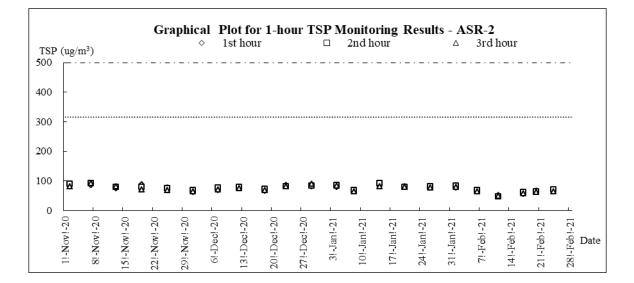
### Appendix I

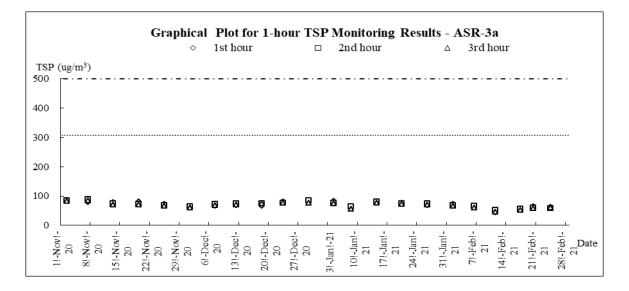
### Graphical Plots of Air Quality, Noise and Water Quality



#### Air Quality Impact Monitoring – 1-hour TSP

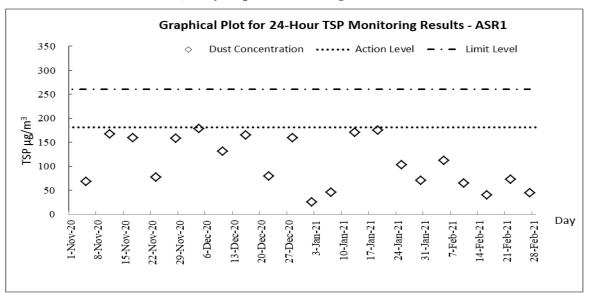


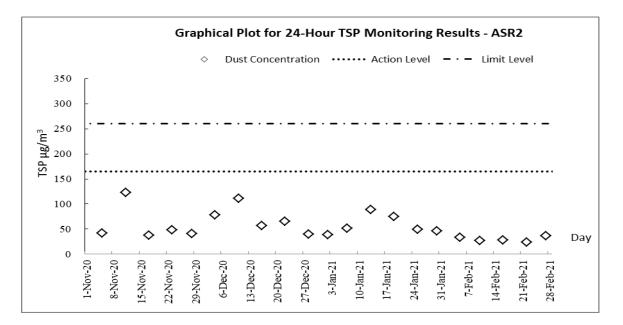


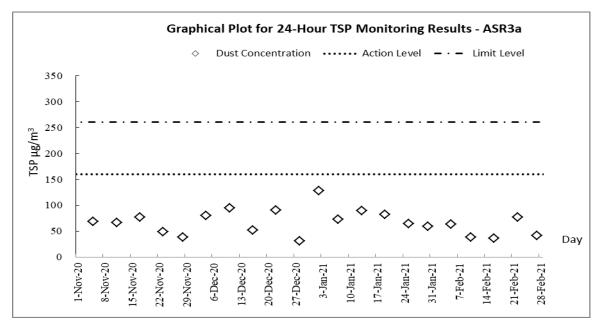




#### Air Quality Impact Monitoring – 24-hour TSP

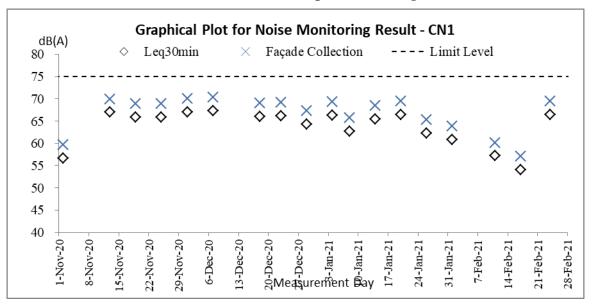


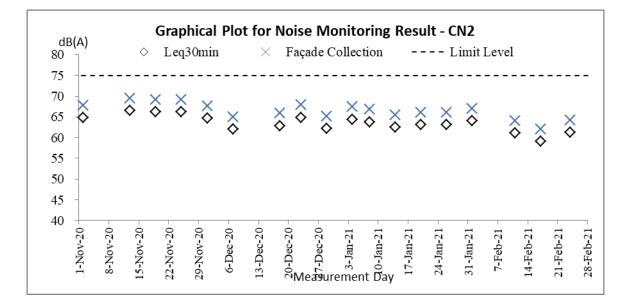


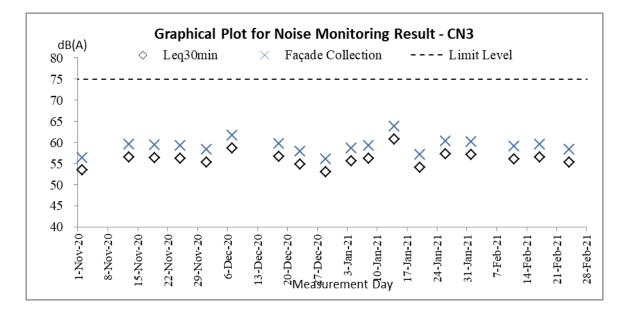




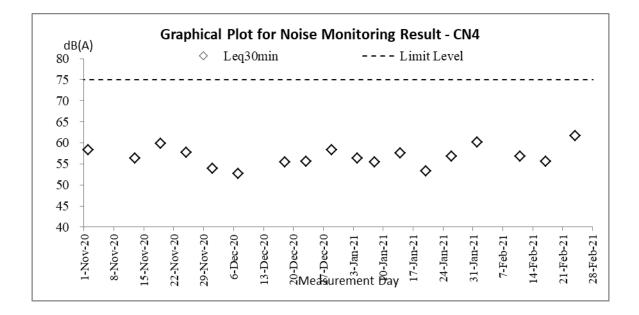
#### **Construction Noise Impact Monitoring**





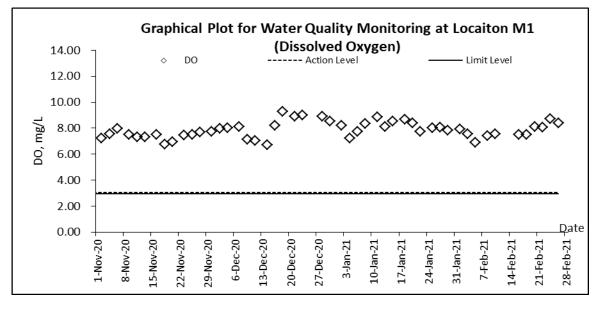


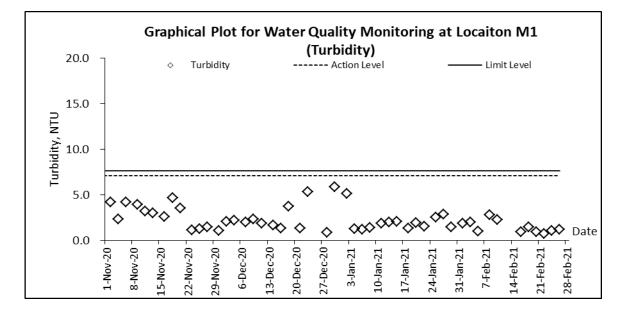


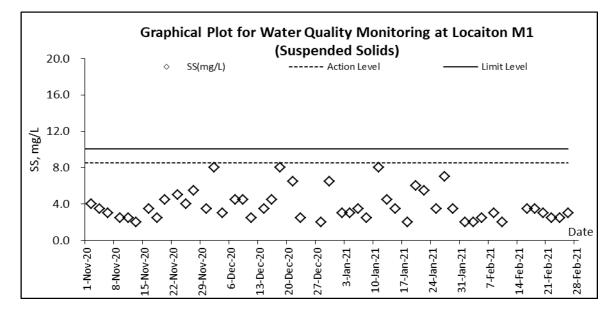




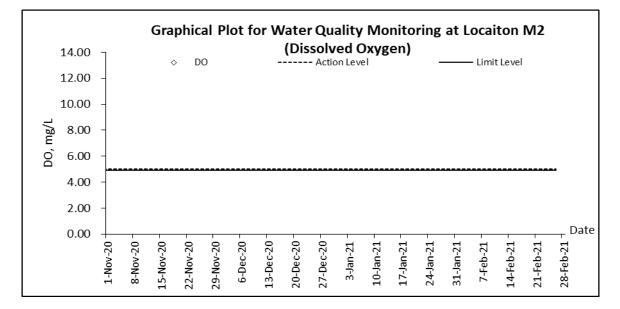
#### Water Quality Impact Monitoring

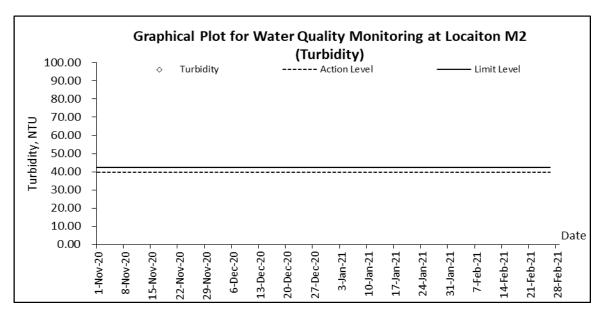


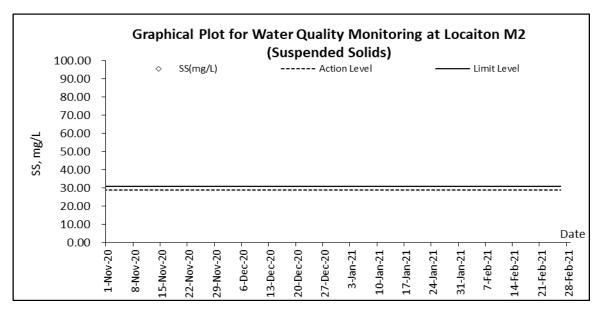




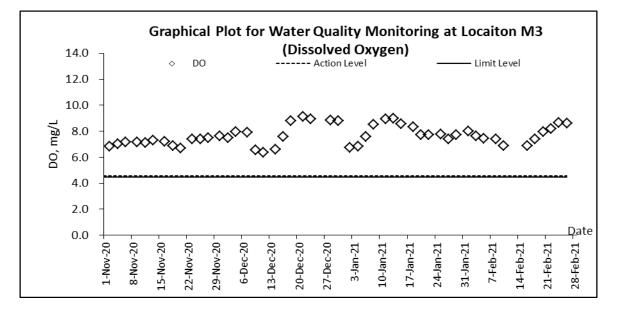


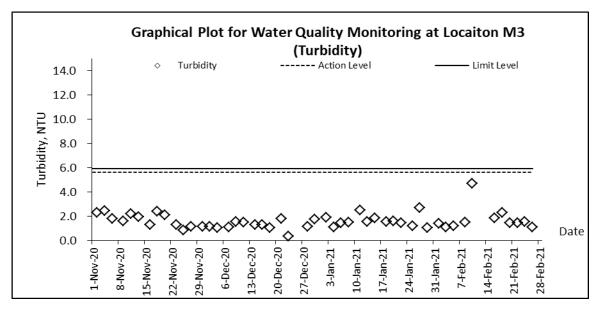


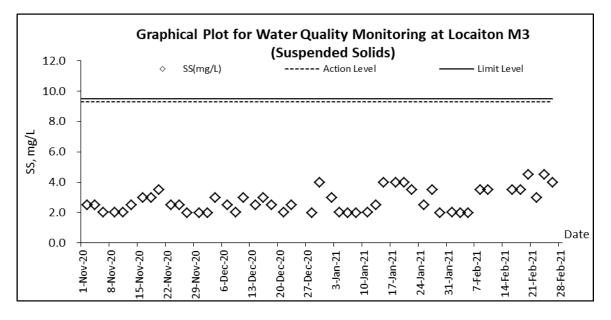




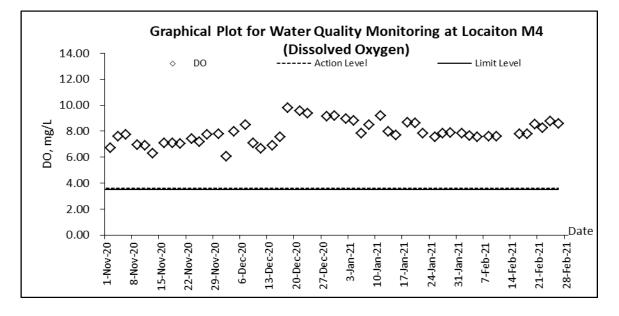


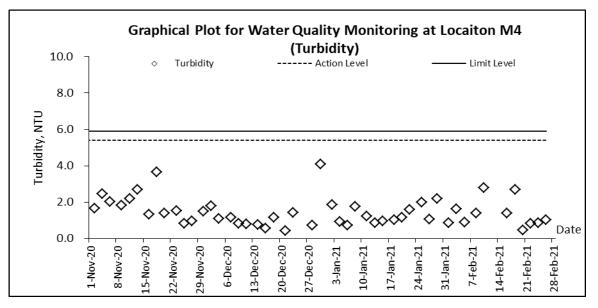


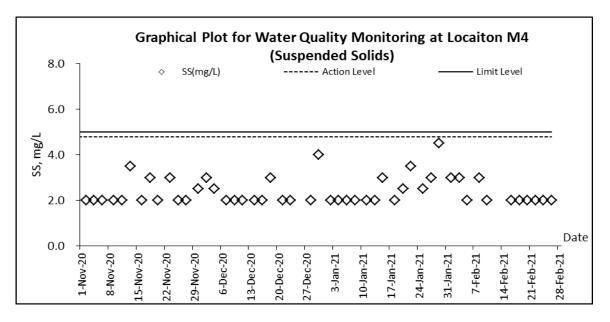














## Appendix J

### Meteorological Data of the Reporting Month

 $Z: \label{eq:loss} 2018 \ CV-2016-10) \ 600 \ EM\&A \ Report \ Submission \ Monthly \ Report \ 2021 \ 31st \ Month \ (Feb \ 2021) \ R0529 \ v2. doc \ R0529 \ v2. \ And \ And$ 



Date				r	Га Kwu	Ling Statior	ı
		Weather	Total Rainfall (mm)	Mean Air Temp. (°C)	Wind Speed (km/h)	Mean Relative Humidity (%)	Wind Direction
1-Feb-21	Mon	Fine. Dry in the afternoon.	0	18.7	7	73.7	E
2-Feb-21	Tue	Moderate to fresh easterly winds.	0	21	11.2	66	N/NW
3-Feb-21	Wed	Moderate easterly winds, fresh offshore at first.	0	19.9	13.2	58	Е
4-Feb-21	Thu	Fine, dry and warm. Moderate easterly winds.	0	19.9	6.7	65	Е
5-Feb-21	Fri	Fine. Warm and dry in the afternoon.	0	21	9	62.5	E/SE
6-Feb-21	Sat	Moderate easterly winds.	0	19.6	8.5	61.5	E/SE
7-Feb-21	Sun	Warm with sunny periods in the afternoon.	0	18.6	8	58.7	E/SE
8-Feb-21	Mon	Moderate to fresh easterly winds	0	20	8.7	72.2	E/SE
9-Feb-21	Tue	Fresh to strong north to northeasterly winds	Trace	18.3	10	71.0	E/SE
10-Feb-21	Wed	Cloudy with rain.	32.2	16.2	14.5	84.2	N/NW
11-Feb-21	Thu	Mainly cloudy. Sunny periods in the afternoon.	0	16.7	7.5	93.5	N/NW
12-Feb-21	Fri	Moderate north to northeasterly winds.	0	16.9	10.5	91	N/NE
13-Feb-21	Sat	Moderate to fresh northerly winds, becoming easterlies later.	0	17.8	8.2	87.5	E/SE
14-Feb-21	Sun	Cloudy periods tonight	0	18.3	7.5	72	E/SE
15-Feb-21	Mon	Moderate easterly winds.	0	19.6	8	60.2	E/SE
16-Feb-21	Tue	Fine and dry in the afternoon.	0	20.5	10.7	64.7	E/SE
17-Feb-21	Wed	Fine and dry.	0	19.2	11.2	68.5	N/NE
18-Feb-21	Thu	Fine and dry. Cool tomorrow morning	0	16.9	7.5	62	E/SE
19-Feb-21	Fri	Mainly fine.Light winds.	0	Maintenan ce	6.2	Maintenan ce	E/SE
20-Feb-21	Sat	Fine and warm. Light winds.	0	18.1	6.7	71	Е
21-Feb-21	Sun	Becoming moderate easterlies later, fresh offshore.	0	18.1	7.5	69	Е
22-Feb-21	Mon	Cloudy periods tonight	0	20.2	6	65.5	NW
23-Feb-21	Tue	Moderate easterly winds.	0	20.7	8.7	70	Е
24-Feb-21	Wed	Mainly fine.Light winds.	Trace	20.6	16.5	71.7	E/SE
25-Feb-21	Thu	Light winds, becoming moderate to fresh north to northeasterlies tonight.	1.8	21.6	10.7	77	E/SE
26-Feb-21	Fri	Mainly cloudy. A few rain patches tonight	14.7	22.4	6.2	83.5	E/SE
27-Feb-21	Sat	Fine and dry.	13.4	18	7.5	81	E/SE
28-Feb-21	Sun	Moderate easterly winds.	Trace	20.2	8.7	73.2	E/SE



# Appendix K

# **Ecological Survey Report**



Ecological Survey Report for Contract CV/2016/10



# Contract No. CV/2016/10 Site Formation and Associated Infrastructural Works for Development of Columbarium, Crematorium and Related Facilities at Sandy Ridge Cemetery

# Monthly Report of Ecologically Sensitive Habitats Monitoring – February 2021

Revision Date of issue	0 28 Feb 2021	
Prepared by	Alan Lam	A
Reviewed by	Edwina Yeung	and a second
Verified by	Mike Leung	A



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# **1 INTRODUCTION**

## 1.1 <u>BACKGROUND</u>

- 1.1.1 The main objective of the proposed site formation and associated infrastructural works for development of columbarium, crematorium (C&C) and related facilities at Sandy Ridge Cemetery is to increase the public cremation services and supply of public niches to meet the future demand.
- 1.1.2 The project includes site formation and associated works for development of C&C facilities at the Sandy Ridge Cemetery, road works within Sandy Ridge Cemetery, widening a section of Lin Ma Hang Road (from 6.5m to 7.3m), provision of off-site pick-up/drop-off points for shuttle buses as well as barging point at Siu Lam, Lok On Pai.
- 1.1.3 The Environmental Impact Assessment (EIA) report, including Environmental Monitoring and Audit Manual (EM&A Manual), was approved with conditions on 8 August 2016 (Register No.: AEIAR-198/2016). EPD issued an Environmental Permit (EP) for the Project (EP-534/2017) on 7 April 2017. A Further Environment Permit (FEP) for the Project (FEP-01/534/2017) was issued on 23 February 2018, variation of EP (EP-534/2017/A) and variation of FEP (FEP-01/534/2017/A) were issued on 24 December 2018.
- 1.1.4 According to Clause 3.1 of the FEP (FEP-01/534/2017/A), "The Permit Holder shall implement the EM&A programme in accordance with the procedures and requirements as set out in the EM&A Manual. Any changes to the programme shall be justified by the ET Leader and verified by the IEC as conforming to the information and requirements contained in the EM&A Manual before submission to the Director for approval".
- 1.1.5 This Ecologically Sensitive Habitats Monitoring Methodology articulates the protocol of monitoring the ecology of concerned habitats as specified in EM&A Manual.

### 1.2 <u>OBJECTIVE</u>

- 1.2.1 According to approved EIA report (AEIAR-198/2016), habitat types within project boundary comprise of watercourse, grassland, upland grassland, plantation, woodland and developed area. Natural habitats were of moderate ecological value in terms of species diversity, species rarity, species abundance, ecological linkage as well as nursery. Moreover, 0.3ha of wet woodland on the northern side of Sandy Ridge was deemed habitat with high ecological value. Four types of habitats were regarded as ecologically sensitive habitats, namely wet woodland, watercourses, upland grassland and woodland. Considering human disturbance in upcoming construction and operation phases, ecologically sensitive habitats shall be monitored in accordance with EM&A Manual.
- 1.2.2 The objective of ecologically sensitive habitats monitoring is to evaluate the effectiveness of measures to minimize impacts on concerned habitats from disturbance and pollution.



# 2 ECOLOGICALLY SENSITIVE HABITATS

## 2.1 DESCRIPTION OF HABITATS

2.1.1 In order to monitor the effectiveness of the measures to the minimise impact on ecologically sensitive habitats from disturbance and pollution, monthly monitoring during construction and operation phases is required as specified in EM&A Manual. Standard faunal transect and sampling surveys cover both wetland and non-wetland habitats:

Wetland habitats	Non-wetland habitats
Wet Woodland	Upland Grassland
Watercourses	Woodland

- 2.1.2 Wet woodland is small patch present on northwest of the project boundary, and is confined by the marsh area to the north and the secondary woodland to the east, south and south-west parts. A number of mature trees *Cleistocalyx nervosum* and *Acronychia pedunculata* form the tree canopy, with other self-sown shrubs (including *Psychotria asiatica, Ligustrum sinense* and *Glochidion lanceolarium*) and trees (*Aporosa dioica* and *Litsea monopetala*). Whilst botanically it comprises of naturally regenerated secondary woodland and ground level are a series of small braided streams and weep points which even during the dry season remain wet. This creates a rather uncommon habitat in Hong Kong offering suitable conditions for a good assemblage of common wetland species. The wet woodland provides a good assemblage of micro-habitats, which is relatively undisturbed and has good linkages to other natural habitats. Several species of conversation importance were recorded in EIA report from this habitat: East Asian Porcupine, Leopard Cat, Red Muntjac, Two-striped Grass Frog, Small Snakehead, *Somanniathelphusa zanklon*, Dancing Shadow-emerald.
- 2.1.3 Seasonal watercourse running west to east in the eastern part of the area inside the Project boundary is shallower in gradient than those running off the hillside. This seasonal watercourse is heavily vegetated with wetland-associated herbs including *Commelina diffusa*, *Polygonum chinense*, *Colocasia esculenta* and *Dracaena sanderiana*. A mature tree of *Aquilaria sinensis* was recorded at the bank of the seasonal watercourse to the west of the Sandy Ridge Cemetery Office. Seasonal watercourses are restricted to the steeper slopes within the project boundary and are characterised by being entirely dry for much of the dry season. However, endemic crab *S. zanklon* population is supported by ephemeral watercourses close to the project boundary.
- 2.1.4 Upland grassland is the major habitat within the project boundary. The semi-natural habitat is dominated by typical upland grassland species: fern *Dicranopteris pedata*, grass *Neyraudia reynaudiana*, *Miscanthus floridulus*, climbing vines *Smilax china*, *Smilax glabra*, and shrubs such as *Rhodomyrtus tomentosa*, *Breynia fruticosa* and *Helicteres angustifolia*. Approximately 30 flowering spikes of two orchid species Bamboo Orchid and Toothed Habenaria were recorded near the hill top in the northern part of this upland grassland. Golden-headed Cisticola, which is considered as Local Concern by Fellowes *et al.* (2002), was also recorded in upland grassland on Sandy Ridge, including a proved breeding record of fledged young in September 2013. In addition, numerous species of conservation interest were recorded in EIA report, such as East Asian Porcupine, Leopard Cat, Red Muntjac, Great Swift, Tamil Grass Dart, Small Three-ring and Small Grass Yellow.



2.1.5 Scattered patches of woodland are present throughout the assessment area, with the largest contiguous block located immediately to the east of the project boundary. These woodlands are relatively young with single-layered of canopy dominants ( $\sim 10 - 15$ m tall) including *A. dioica, Bridelia tomentosa, Cinnamomum burmannii, Daphniphyllum calycinum, Litsea glutinosa, Rhus succedanea,* and *Zanthoxylum avicennae*. Such areas comprise secondary woodland which is largely derived from natural regeneration and colonisation of trees as a result of seed dispersal by birds and/or bats. A mature tree of *A. sinensis* is located at the woodland edge at the central part of the Project according to EIA report.

### 2.2 MONITORING MEASURES OF WETLAND HABITATS

- 2.2.1 Wetland habitats include wet woodland and watercourses. Monitoring surveys using standardised quantitative methodology will be conducted at fixed points. For seasonal watercourse, survey shall be conducted whenever the habitat appears.
- 2.2.2 Measures to respond to decreases in numbers of aquatic fauna using the wetland habitats and action and limit levels to trigger these measures are detailed in Table 1.

Action Level	Response	Limit Level	Response
Reduction in	Investigate cause and if	Reduction	Investigate cause and if
taxa diversity	cause identified as related	in taxa	cause identified as related
by 30%	to the project instigate	diversity	to the project instigate
	remedial action to remove	by 50%	remedial action.
	or reduce source of		
	disturbance.		

Table 1 Action and Limit Levels and Responses to Evidence of Declines in Aquatic Fauna

## 2.3 MONITORING MEASURES OF NON-WETLAND HABITATS

- 2.3.1 Non-wetland habitats consist of upland grassland and woodland. Monthly quantitative surveys of non-aquatic fauna will be conducted using standard route transect counts.
- 2.3.2 Measures to respond to decreases in numbers of non-aquatic fauna using the non-wetland habitats and action and limit levels to trigger these measures are detailed in Table 2.

Action Level	Response	Limit Level	Response
Reduction in	Investigate cause and if	Reduction	Investigate cause and if
species diversity	cause identified as related	in species	cause identified as related
by 30%	to the project instigate	diversity by	to the project instigate
	remedial action to remove	50%	remedial action.
	or reduce source of		
	disturbance.		

Table 2 Action and Limit Levels and Responses to Evidence of Declines in Non-Aquatic Fauna



# **3** METHODOLOGY

The ecological survey includes all taxa being investigated in EIA report. Table 3 summarizes schedule of faunal surveys.

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mammals	$\checkmark$											
Birds (day)			$\checkmark$		$\checkmark$	$\checkmark$						
Birds (night)				$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$			
Herpetofau na				$\checkmark$								
Dragonflies			$\checkmark$									
Butterflies			$\checkmark$									
Aquatic fauna	$\checkmark$	√	$\checkmark$									

Table 3 Survey Schedule

### 3.1 MAMMAL SURVEY

3.1.1 Mammal surveys will be conducted along the transects shown in Appendix 1 during both daytime and night time periods. Along with direct observations, other field signs, such as scats and tracks, will be searched and recorded if present.

### **3.2 BIRD SURVEY**

3.2.1 Bird surveys will be conducted along the transects shown in Appendix 1 during the surveys, species and their vocalizing individuals recorded will be enumerated and recorded according to the habitat(s) they are utilising.

### **3.3 HERPETOFAUNA SURVEY**

3.3.1 Reptile and amphibian surveys will be conducted along transects shown in Appendix 1 during surveys careful searches of appropriate microhabitats and refugia for reptiles and their vocalizing individuals will be undertaken and all reptiles observed will be identified and counted.

### **3.4 DRAGONFLY SURVEY**

3.4.1 Dragonfly surveys will be conducted along transects shown in Appendix 1 during surveys all dragonflies seen will be identified and counted as accurately as possible.



### **3.5 BUTTERFLY SURVEY**

3.5.1 Butterfly surveys will be conducted along transects shown in Appendix 1 during surveys all dragonflies seen will be identified and counted as accurately as possible.

### 3.6 AQUATIC FAUNA SURVEY

3.6.1 Freshwater fishes and macro-invertebrates will be recorded by direct observation. All species trapped/recorded will be enumerated and identified (to the lowest taxonomic level possible), and the species of conservation importance photographed.



# 4 RESULT

This monitoring survey started on 2nd February 2021. A sunny day. The day survey covered wetland and non-wetland areas. The survey was conducted by transect and at fixed points. All species seen will be identified and counted as accurately as possible.

### Mammal

There was no mammal recorded in the monitoring area.

#### Bird

There were a total of 55 bird individuals from 13 species recorded in the monitoring area. One species of conservation interests were recorded in the monitoring area: *Milvus migrans*, Black Kite,黑鳶.

#### Herpetofauna

There was no reptile species recorded in the monitoring area. There was no amphibian species recorded in the monitoring area.

■ Butterfly

There was a total of 6 butterfly individuals from 4 species recorded in the monitoring area.

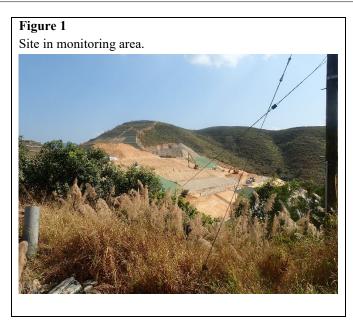
■ Dragonfly

There was no odonate found in the monitoring area.

#### Freshwater communities

There was no freshwater community recorded in the monitoring area.





**Figure 2** Wetland in monitoring area.





## Table 4Result of mammal in survey

Scientific Name	English Name	Chinese	Conservation	2-2	2-2-2021		
Scientific Ivanie	English Malit	Name	Status	Non- wetland	Wetland		
N/A							

## Table 5Result of Avifauna in survey

Scientific Name	English Name	Chinese			-2-2021	
		Name	Status	Non-wetland	Wetland	
Milvus migrans	Black Kite	黑鳶	Fellowes et al. (2002): RC; Appendix 2 of CITES	1		
Amaurornis phoenicurus	White-breasted Waterhen	白胸苦惡鳥			1	
Spilopelia chinensis	Spotted Dove	珠頸斑鳩		2	1	
Lanius schach	Long-tailed Shrike	棕背伯勞			1	
Parus cinereus	Cinereous Tit	蒼背山雀		2		
Pycnonotus jocosus	Red-whiskered Bulbul	紅耳鵯		2	20	
Phylloscopus inornatus	Yellow-browed Warbler	黃眉柳鶯		1		
Prinia flaviventris	Yellow-bellied Prinia	黃腹鷦鶯		3	2	
Orthotomus sutorius	Common Tailorbird	長尾縫葉鶯		2		
Garrulax perspicillatus	Masked Laughingthrush	黑臉噪鶥			3	
Zosterops japonicus	Japanese White-eye	暗綠繡眼鳥		7		



Phoenicurus auroreus	Daurian Redstart	北紅尾鴝		1
Passer montanus	Eurasian Tree Sparrow	樹麻雀	6	

### Table 6Result of reptile in survey

Scientific Name	Common Nama		2-2	2-2-2021	
Scientific Name	Common Name	Chinese Name	Non-wetland	Wetland	
		N/A			

### Table 7Result of amphibian in survey

Scientific Name	Common Name	Chinese Name	Conservation Status	2-2-	2021	
				Non- wetland	Wetland	
N/A						

### Table 8Result of butterfly in survey

Scientific Name	Common Name	Chinese Name	2-2	2-2-2021		
			Non-wetland	Wetland		
Abisara echerius	Plum Judy	蛇目褐蜆蝶	1			
Pieris canidia	Indian Cabbage White	東方菜粉蝶		1		
Catopsilia pomona	Lemon Emigrant	遷粉蝶	1			
Eurema hecabe	Common Grass Yellow	寬邊黃粉蝶	1	2		

### Table 9Result of Odonate in survey

Scier	ntific Name	Common Name	Chinese Name	Conservation Status	2-2-2	2021
					Non- wetland	Wetland
	N/A					

### Table 10Result of freshwater communities in survey

		ommon Name Chinese Name	Conservation Status	2-2-2021		
Scientific Name Com	Common Name			Non- wetland	Wetland	
N/A						



# **5 DISUSSION**

Data analysis was carried out to compare with the biodiversity within the site boundary in the same month over years. General description of the ecological conditions is first revealed in terms of abundance as well as species richness, following by statistical analysis of the existing database. The result is considered as significant whenever the drop of diversity indexes exceeds the percentages mentioned in previous sections 2.2 and 2.3.

5.1

Total abundances and species richness in November over years were compared to show the trend. Figures 1 and 2 indicate total species richness and total abundance with the site boundary respectively.

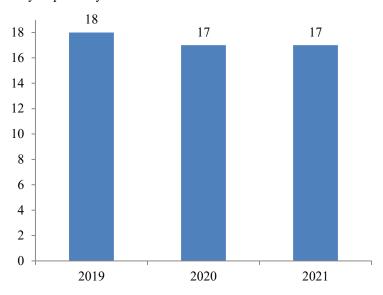


Figure 1: bar chart showing the total species richness within site boundary from 2019 to 2021 (Actual quantity annotated at the top of each bar)

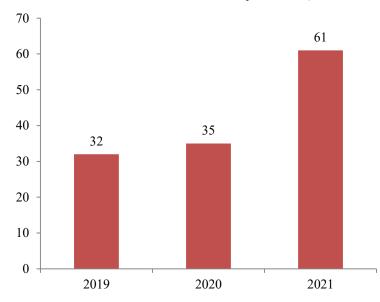
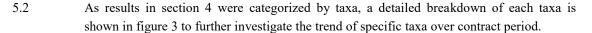
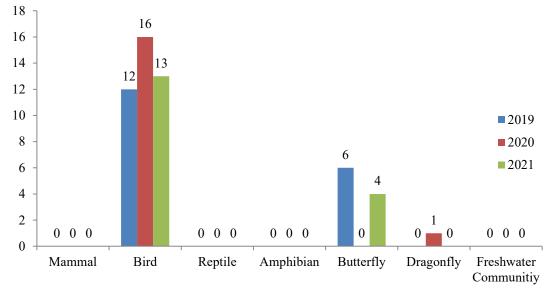
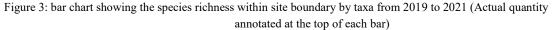


Figure 2: bar chart showing the total abundance within site boundary from 2019 to 2021 (Actual quantity annotated at the top of each bar)



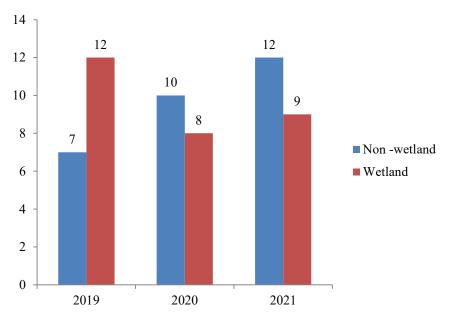


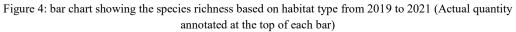




5.3

According to EM&A Manual, monitoring measures was determined by the species diversity of types of sensitive habitats, i.e. non-wetland and wetland habitats. Abundance and species richness by habitat type in February over years were compared in figures 4 and 5.







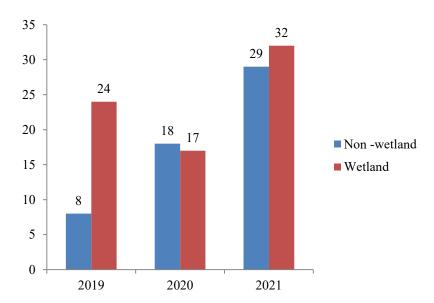
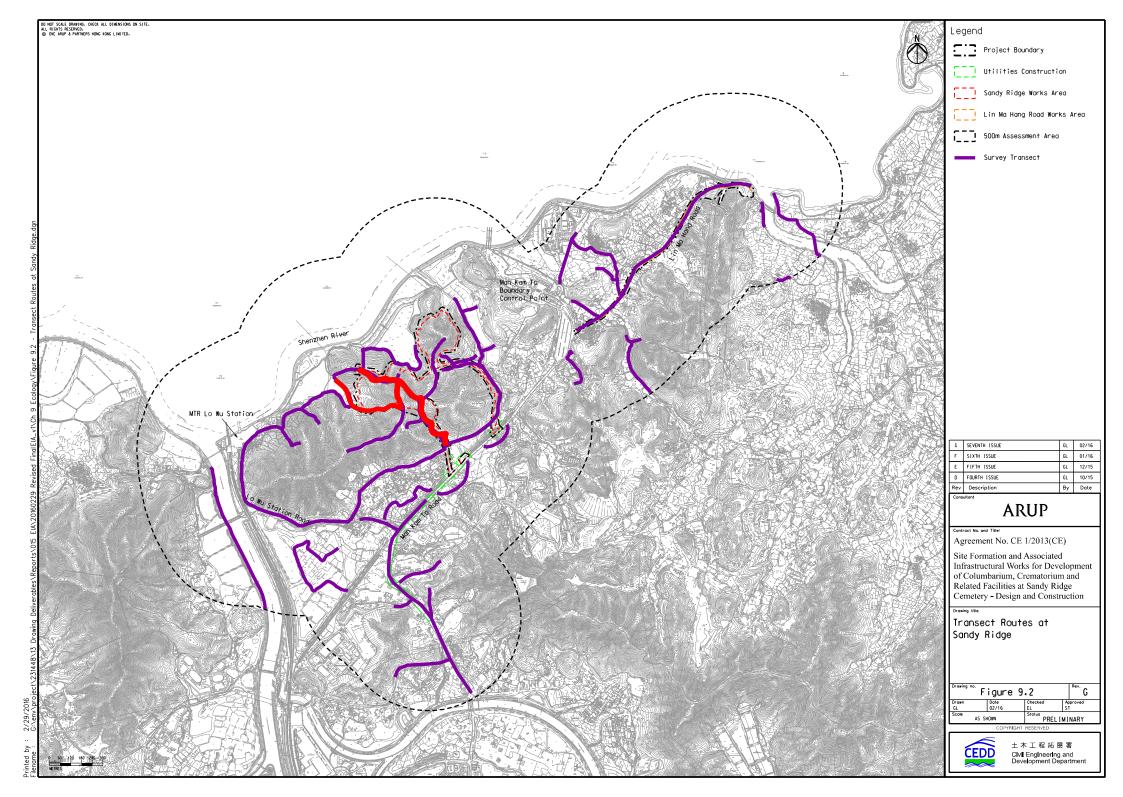


Figure 5: bar chart showing the abundance based on habitat type from 2019 to 2021 (Actual quantity annotated at the top of each bar)

5.4

After analysing survey results in February from 2019 to 2021, there is no drastic drop in both species richness and abundance for non-wetland and wetland habitat. Good practice during construction is required to prevent environmental contamination as well as unnecessary site clearance. Continuous monitoring is also recommended to inspect any significant decrease in species diversity.

# Appendix I – Transect Routes for Contract CV/2016/10





Ecological Survey Report for Contract CV/2017/02



# Contract No. CV/2017/02

Development of Columbarium at Sandy Ridge Cemetery – Infrastructural Works at Man Kam To Road and Lin Ma Hang Road

# Monthly Report of Ecologically Sensitive Habitats Monitoring – February 2021

Revision Date of issue	0 28 Feb 2021	
Prepared by	Alan Lam	汞
Reviewed by	Edwina Yeung	Juin 3
Verified by	Mike Leung	A



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	2018 to 2020



# **1 INTRODUCTION**

## 1.1 <u>BACKGROUND</u>

- 1.1.1 The main objective of the proposed site formation and associated infrastructural works for development of columbarium, crematorium (C&C) and related facilities at Sandy Ridge Cemetery is to increase the public cremation services and supply of public niches to meet the future demand.
- 1.1.2 The project includes site formation and associated works for development of C&C facilities at the Sandy Ridge Cemetery, road works within Sandy Ridge Cemetery, widening a section of Lin Ma Hang Road (from 6.5m to 7.3m), provision of off-site pick-up/drop-off points for shuttle buses as well as barging point at Siu Lam, Lok On Pai.
- 1.1.3 The Environmental Impact Assessment (EIA) report, including Environmental Monitoring and Audit Manual (EM&A Manual), was approved with conditions on 8 August 2016 (Register No.: AEIAR-198/2016). EPD issued an Environmental Permit (EP) for the Project (EP-534/2017) on 7 April 2017, variation of EP (EP-534/2017/A) were issued on 24 December 2018.
- 1.1.4 According to Clause 3.1 of the EP (EP-534/2017/A), "The Permit Holder shall implement the EM&A programme in accordance with the procedures and requirements as set out in the EM&A Manual. Any changes to the programme shall be justified by the ET Leader and verified by the IEC as conforming to the information and requirements contained in the EM&A Manual before submission to the Director for approval".
- 1.1.5 This Ecologically Sensitive Habitats Monitoring Methodology articulates the protocol of monitoring the ecology of concerned habitats as specified in EM&A Manual.

### 1.2 <u>OBJECTIVE</u>

- 1.2.1 According to approved EIA report (AEIAR-198/2016), habitat types within project boundary comprise of watercourse, grassland, upland grassland, plantation, woodland and developed area. Natural habitats were of moderate ecological value in terms of species diversity, species rarity, species abundance, ecological linkage as well as nursery. Moreover, 0.3ha of wet woodland on the northern side of Sandy Ridge was deemed habitat with high ecological value. Four types of habitats were regarded as ecologically sensitive habitats, namely wet woodland, watercourses, upland grassland and woodland. Considering human disturbance in upcoming construction and operation phases, ecologically sensitive habitats shall be monitored in accordance with EM&A Manual.
- 1.2.2 The objective of ecologically sensitive habitats monitoring is to evaluate the effectiveness of measures to minimize impacts on concerned habitats from disturbance and pollution.



# 2 ECOLOGICALLY SENSITIVE HABITATS

## 2.1 DESCRIPTION OF HABITATS

2.1.1 In order to monitor the effectiveness of the measures to the minimise impact on ecologically sensitive habitats from disturbance and pollution, monthly monitoring during construction and operation phases is required as specified in EM&A Manual. Standard faunal transect and sampling surveys cover both wetland and non-wetland habitats:

Wetland habitats	Non-wetland habitats
Wet Woodland	Upland Grassland
Watercourses	Woodland

- 2.1.2 Wet woodland is small patch present on northwest of the project boundary, and is confined by the marsh area to the north and the secondary woodland to the east, south and south-west parts. A number of mature trees *Cleistocalyx nervosum* and *Acronychia pedunculata* form the tree canopy, with other self-sown shrubs (including *Psychotria asiatica, Ligustrum sinense* and *Glochidion lanceolarium*) and trees (*Aporosa dioica* and *Litsea monopetala*). Whilst botanically it comprises of naturally regenerated secondary woodland and ground level are a series of small braided streams and weep points which even during the dry season remain wet. This creates a rather uncommon habitat in Hong Kong offering suitable conditions for a good assemblage of common wetland species. The wet woodland provides a good assemblage of micro-habitats, which is relatively undisturbed and has good linkages to other natural habitats. Several species of conversation importance were recorded in EIA report from this habitat: East Asian Porcupine, Leopard Cat, Red Muntjac, Two-striped Grass Frog, Small Snakehead, *Somanniathelphusa zanklon*, Dancing Shadow-emerald.
- 2.1.3 Seasonal watercourse running west to east in the eastern part of the area inside the Project boundary is shallower in gradient than those running off the hillside. This seasonal watercourse is heavily vegetated with wetland-associated herbs including *Commelina diffusa*, *Polygonum chinense*, *Colocasia esculenta* and *Dracaena sanderiana*. A mature tree of *Aquilaria sinensis* was recorded at the bank of the seasonal watercourse to the west of the Sandy Ridge Cemetery Office. Seasonal watercourses are restricted to the steeper slopes within the project boundary and are characterised by being entirely dry for much of the dry season. However, endemic crab *S. zanklon* population is supported by ephemeral watercourses close to the project boundary.
- 2.1.4 Upland grassland is the major habitat within the project boundary. The semi-natural habitat is dominated by typical upland grassland species: fern *Dicranopteris pedata*, grass *Neyraudia reynaudiana*, *Miscanthus floridulus*, climbing vines *Smilax china*, *Smilax glabra*, and shrubs such as *Rhodomyrtus tomentosa*, *Breynia fruticosa* and *Helicteres angustifolia*. Approximately 30 flowering spikes of two orchid species Bamboo Orchid and Toothed Habenaria were recorded near the hill top in the northern part of this upland grassland. Golden-headed Cisticola, which is considered as Local Concern by Fellowes *et al.* (2002), was also recorded in upland grassland on Sandy Ridge, including a proved breeding record of fledged young in September 2013. In addition, numerous species of conservation interest were recorded in EIA report, such as East Asian Porcupine, Leopard Cat, Red Muntjac, Great Swift, Tamil Grass Dart, Small Three-ring and Small Grass Yellow.



2.1.5 Scattered patches of woodland are present throughout the assessment area, with the largest contiguous block located immediately to the east of the project boundary. These woodlands are relatively young with single-layered of canopy dominants (~10 – 15m tall) including *A. dioica, Bridelia tomentosa, Cinnamomum burmannii, Daphniphyllum calycinum, Litsea glutinosa, Rhus succedanea,* and *Zanthoxylum avicennae*. Such areas comprise secondary woodland which is largely derived from natural regeneration and colonisation of trees as a result of seed dispersal by birds and/or bats. A mature tree of *A. sinensis* is located at the woodland edge at the central part of the Project according to EIA report.

### 2.2 MONITORING MEASURES OF WETLAND HABITATS

- 2.2.1 Wetland habitats include wet woodland and watercourses. Monitoring surveys using standardised quantitative methodology will be conducted at fixed points. For seasonal watercourse, survey shall be conducted whenever the habitat appears.
- 2.2.2 Measures to respond to decreases in numbers of aquatic fauna using the wetland habitats and action and limit levels to trigger these measures are detailed in Table 1.

Action Level	Response	Limit Level	Response
Reduction in	Investigate cause and if	Reduction	Investigate cause and if
taxa diversity	cause identified as related	in taxa	cause identified as related
by 30%	to the project instigate	diversity	to the project instigate
	remedial action to remove	by 50%	remedial action.
	or reduce source of		
	disturbance.		

Table 1 Action and Limit Levels and Responses to Evidence of Declines in Aquatic Fauna

## 2.3 MONITORING MEASURES OF NON-WETLAND HABITATS

- 2.3.1 Non-wetland habitats consist of upland grassland and woodland. Monthly quantitative surveys of non-aquatic fauna will be conducted using standard route transect counts.
- 2.3.2 Measures to respond to decreases in numbers of non-aquatic fauna using the non-wetland habitats and action and limit levels to trigger these measures are detailed in Table 2.

Action Level	Response	Limit Level	Response
Reduction in	Investigate cause and if	Reduction	Investigate cause and if
species diversity	cause identified as related	in species	cause identified as related
by 30%	to the project instigate	diversity by	to the project instigate
	remedial action to remove	50%	remedial action.
	or reduce source of		
	disturbance.		

Table 2 Action and Limit Levels and Responses to Evidence of Declines in Non-Aquatic Fauna



# **3 METHODOLOGY**

The ecological survey includes all taxa being investigated in EIA report. Table 3 summarizes schedule of faunal surveys.

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mammals		$\checkmark$										
Birds (day)			$\checkmark$		$\checkmark$	$\checkmark$						
Birds (night)				$\checkmark$								
Herpetofau na				$\checkmark$								
Dragonflies			$\checkmark$									
Butterflies			$\checkmark$									
Aquatic fauna	$\checkmark$	√	$\checkmark$									

Table 3 Survey Schedule

### 3.1 MAMMAL SURVEY

3.1.1 Mammal surveys will be conducted along the transects shown in Appendix 1 during both daytime and night time periods. Along with direct observations, other field signs, such as scats and tracks, will be searched and recorded if present.

### **3.2 BIRD SURVEY**

3.2.1 Bird surveys will be conducted along the transects shown in Appendix 1 during the surveys, species and their vocalizing individuals recorded will be enumerated and recorded according to the habitat(s) they are utilising.

### **3.3 HERPETOFAUNA SURVEY**

3.3.1 Reptile and amphibian surveys will be conducted along transects shown in Appendix 1 during surveys careful searches of appropriate microhabitats and refugia for reptiles and their vocalizing individuals will be undertaken and all reptiles observed will be identified and counted.

### **3.4 DRAGONFLY SURVEY**

3.4.1 Dragonfly surveys will be conducted along transects shown in Appendix 1 during surveys all dragonflies seen will be identified and counted as accurately as possible.



### **3.5 BUTTERFLY SURVEY**

3.5.1 Butterfly surveys will be conducted along transects shown in Appendix 1 during surveys all dragonflies seen will be identified and counted as accurately as possible.

### 3.6 AQUATIC FAUNA SURVEY

3.6.1 Freshwater fishes and macro-invertebrates will be recorded by direct observation. All species trapped/recorded will be enumerated and identified (to the lowest taxonomic level possible), and the species of conservation importance photographed.



# 4 RESULT

This monitoring survey started on 2nd February 2021. A sunny day. The day survey covered wetland and non-wetland areas. The survey was conducted by transect and at fixed point. All species seen will be identified and counted as accurately as possible.

- Mammal There was no mammal recorded in the monitoring area.
- Bird There were total of 24 bird individuals from 10 species recorded in the monitoring area.

### Herpetofauna

There was no reptile recorded in the monitoring area. There was no amphibian recorded in the monitoring area.

- Butterfly There was total 10 butterfly individuals from 4 species recorded in the monitoring area.
- Dragonfly

There was no total no odonate recorded in the monitoring area.

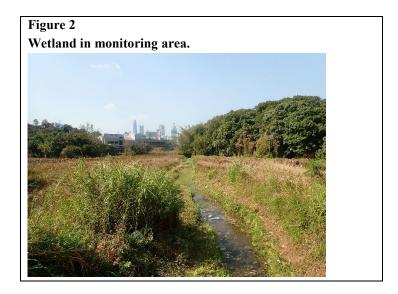
### ■ Freshwater communities

There were two species of freshwater fish recorded in the monitoring area.



## Figure 1 The engineering site in monitoring area.







## Table 4Result of mammal in survey

Scientific Name	Name English Name Ch	Chinese Name	Conservation Status	2-Feb-2021		
Scientific Manie				Non-	Wetland	
				wetland	wettanu	
N/A						

## Table 5Result of Avifauna in survey

Saiontifia Nomo	English Name	Chinese Name	Conservation	2-Feb-2021		
Scientific Name		Chinese Name	Status	Non- wetland	Wetland	
Pycnonotus jocosus	Red-whiskered Bulbul	紅耳鵯		2	2	
Pycnonotus aurigaster	Sooty-headed Bulbul	白喉紅臀鵯			4	
Phylloscopus inornatus	Yellow-browed Warbler	黃眉柳鶯			1	
Prinia flaviventris	Yellow-bellied Prinia	黃腹鷦鶯			1	
Prinia inornata	Plain Prinia	純色鷦鶯			1	
Orthotomus sutorius	Common Tailorbird	長尾縫葉鶯		2		
Zosterops japonicus	Japanese White-eye	暗綠繡眼鳥			6	
Gracupica nigricollis	Black-collared Starling	黑領椋鳥		2		
Copsychus saularis	Oriental Magpie Robin	鵲鴝		1		
Motacilla alba	White Wagtail	白鶺鴒		2		

### Table 6Result of reptile in survey

Scientific Name	Common Name	Chinese Name	2-Feb-2021		
			Non-wetland	Wetland	
N/A					



### Table 7Result of amphibian in survey

Scientific Name	Common Name	Chinese Name	Conservation Status	2-Feb-2021			
				Non- wetland	Wetland		
N/A							

## Table 8Result of butterfly in survey

Scientific Name	Common Name	Chinese Name	2-Fe	2-Feb-2021		
Scientific Ivallie	Common Ivanie	Chinese Name	Non-wetland	Wetland		
Heliophorus epicles	Purple Sapphire	斜斑彩灰蝶		1		
Cupha erymanthis	Rustic	黃襟蛺蝶	2			
Pieris canidia	Indian Cabbage White	東方菜粉蝶		6		
Catopsilia pomona	Lemon Emigrant	遷粉蝶	1			

### Table 9Result of Odonate in survey

Scientific Name	Common Name	Chinese Name	Conservation Status	2-Feb-2021		
				Non- wetland	Wetland	
	•	N/A				

### Table 10Result of freshwater communities in survey

Scientific Name	Common Name	Chinese Name	Conservation Status	2-Feb-2021
Gambusia affinis	Mosquito fish	食蚊魚		+
Puntius semifasciolatus	Chinese Barb	五線無鬚舥		+

+:

Species appeared but uncountable



# **5** DISUSSION

Data analysis was carried out to compare with the biodiversity within the site boundary in the same month over years. General description of the ecological conditions is first revealed in terms of abundance as well as species richness, following by statistical analysis of the existing database. The result is considered as significant whenever the drop of diversity indexes exceeds the percentages mentioned in previous sections 2.2 and 2.3.

5.1

Total abundances and species richness in February over years were compared to show the trend. Figures 1 and 2 indicate total species richness and total abundance with the site boundary respectively.

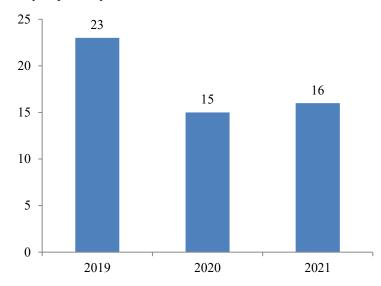


Figure 1: bar chart showing the total species richness within site boundary from 2019 to 2021 (Actual quantity annotated at the top of each bar)

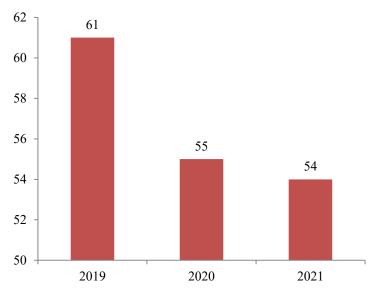
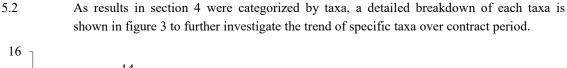


Figure 2: bar chart showing the total abundance within site boundary from 2019 to 2021 (Actual quantity annotated at the top of each bar)





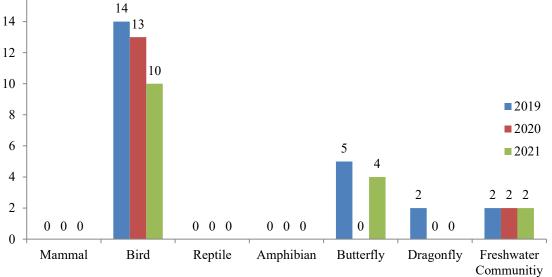


Figure 3: bar chart showing the species richness within site boundary by taxa from 2019 to 2021 (Actual quantity annotated at the top of each bar)

5.3 According to EM&A Manual, monitoring measures was determined by the species diversity of types of sensitive habitats, i.e. non-wetland and wetland habitats. Abundance and species richness by habitat type in February over years were compared in figures 4 and 5.

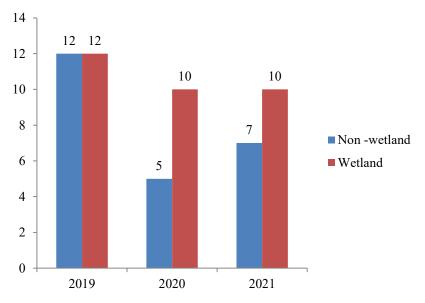


Figure 4: bar chart showing the species richness based on habitat type from 2019 to 2021 (Actual quantity annotated at the top of each bar)



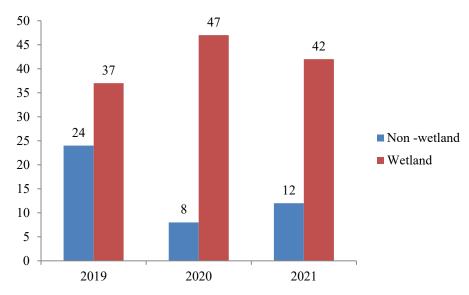
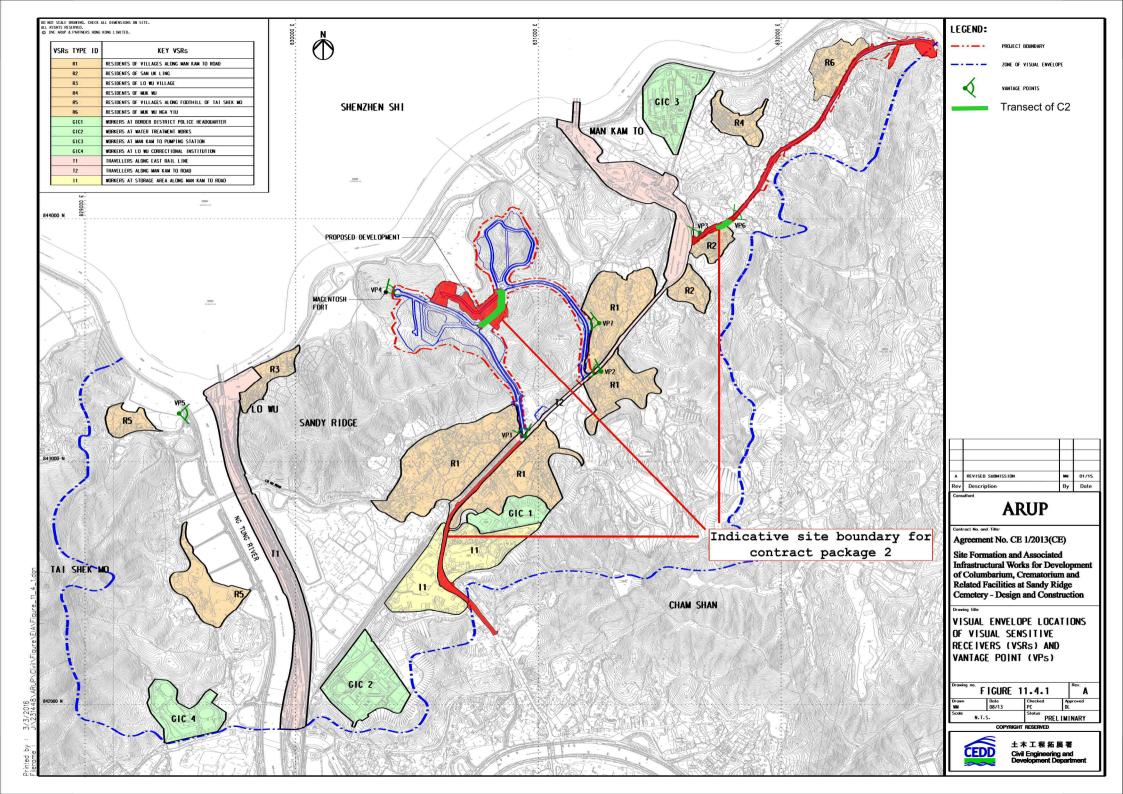


Figure 5: bar chart showing the abundance based on habitat type from 2019 to 2021 (Actual quantity annotated at the top of each bar)

5.4 After analysing survey results in February 2019 to 2021, there was no significant drop in species diversity for both non-wetland and wetland habitats, but it could be due to natural fluctuation. A good practice during construction is required to prevent environmental contamination as well as unnecessary site clearance. Moreover, continuous monitoring is required to inspect any significant reduction of species diversity.



# Appendix I – Transect Routes for Contract CV/2017/02





# Appendix L

# Landscape & Visual Inspection Checklist



#### Contract No. CV/2016/10

Site Formation and Associated Infrastructural Works for Development of Columbarium, Crematorium and Related Facilities at Sandy Ridge Cemetery Landscape and Visual Impact Assessment Checklist for Site Audit

# Date/ Time: <u>26/2/2021 15:30</u> Weather: <u>Fine/ Overcast/ Rain/ Windy</u>

Item	Mitigation Measures	Im	olemer	itation	Actions/ Remarks	
	8	Yes	No	N/A	1	
1	Landscape and Visual					
1.1	Is the construction period become shortened?			$\checkmark$	Under review.	
1.2	Is the work site confined within site boundaries and without encroaching into the landscape resources offsite?	~				
1.3	Is the site kept clean and tidy (E.g. storage of materials, location and appearance of site accommodation being well positioned)	~				
1.4	Is the construction site screened properly by hoardings or noise barriers in visually unobstructed colours?	~				
1.5	Is the erosion and dust control for exposed soil well performed during excavation work? (E.g. Exposed soil shall be covered or "camouflaged" and watered frequently. Areas that are expected to be left with bare soil for a long period of time should be hydro seeded and / or covered with suitable protective fabrics.)	~				
1.6	Are the woodland, plantation and other vegetation being protected and preserved in accordance with DEVB TC(W) No. 07/2015(E.g. Set up Tree Protection Zone)?	~				
1.7	Are the trees which are in direct conflict with the development proposal being transplanted as far as practical in accordance with and DEVB TC(W) No. 07/2015?	~				
1.8	Are compensatory planting for trees being provided to compensate the trees felled in accordance with DEVB TC(W) No. 07/2015?			~	Tree planting works have not yet been commenced.	
1.9	Are precautionary control measures to protect natural streams and rivers from adverse impact being implemented in accordance with ETWWB TCW No. 5/2005? (E.g. Construction debris and spoil should be covered up and properly disposed)	~				
1.10	Is light and glare control such as hooding being implemented during construction and operation to minimize light pollution and night time glare? (E.g. All security floodlights for construction sites should be equipped with adjustable shield, frosted diffusers and reflective covers)	~				

#### **Summary / Remarks:**

Follow up actions taken by Contractor for previous comments:

N/A

## New observation:

N/A

## **Reminders:**

- 1. Contractor is reminded to set up TPZ of proper size and with appropriate material around retain trees according to approved method statement.
- 2. Contractor is reminded to prevent the construction material pile within TPZ and ensure no works is allowed within the TPZ.
- 3. Transplanted trees T2465, T2468 and T2928 were in fair health condition with normal foliage color and density. Contractor is reminded to provide proper maintenance according to approved method statement.

## **Photo Record:**

General view (1)

General view (2)

Tree Protection Zone











Transplanted tree (T-2465)

Fig F.



Transplanted tree (T-2468)



Tree protection zone (T-2468)



Transplanted tree (T-2928)



Contract No. CV/2017/02

Site Formation and Associated Infrastructural Works for Development of Columbarium, Crematorium and Related Facilities at Sandy Ridge Cemetery Development of Columbarium at Sandy Ridge Cemetery – Infrastructural Works at Man Kam To Road and Lin Ma Hang Road Landscape and Visual Impact Assessment Checklist for Site Audit

#### Date/ Time: 26/2/2021 16:30 Weather: Fine/ Overcast/ Rain/ Windy

Item	Mitigation Measures	Im	pleme	ntation	Actions/ Remarks
		Yes	No	N/A	_
1	Landscape and Visual				1
1.1	Is the construction period become shortened?			$\checkmark$	Under review
1.2	Is the work site confined within site boundaries and without encroaching into the landscape resources offsite?	~			
1.3	Is the site kept clean and tidy (E.g. storage of materials, location and appearance of site accommodation being well positioned)	~			
1.4	Is the construction site screened properly by hoardings or noise barriers in visually unobstructed colours?	~			
1.5	Is the erosion and dust control for exposed soil well performed during excavation work? (E.g. Exposed soil shall be covered or "camouflaged" and watered frequently. Areas that are expected to be left with bare soil for a long period of time should be hydro seeded and / or covered with suitable protective fabrics.)	~			
1.6	Are the woodland, plantation and other vegetation being protected and preserved in accordance with DEVB TC(W) No. 07/2015(E.g. Set up Tree Protection Zone)?	~			
1.7	Are the trees which are in direct conflict with the development proposal being transplanted as far as practical in accordance with and DEVB TC(W) No. 07/2015?			~	Tree transplanting works have not yet been commenced
1.8	Are compensatory planting for trees being provided to compensate the trees felled in accordance with DEVB TC(W) No. 07/2015?			~	
1.9	Are precautionary control measures to protect natural streams and rivers from adverse impact being implemented in accordance with ETWWB TCW No. 5/2005? (E.g. Construction debris and spoil should be covered up and properly disposed)			~	
1.10	Is light and glare control such as hooding being implemented during construction and operation to minimize light pollution and night time glare? (E.g. All security floodlights for construction sites should be equipped with adjustable shield, frosted diffusers and reflective covers)			~	

## Summary / Remarks:

# Follow up actions taken by Contractor for previous comments:



N/A

## **New Observation:**

N/A

## **Reminders:**

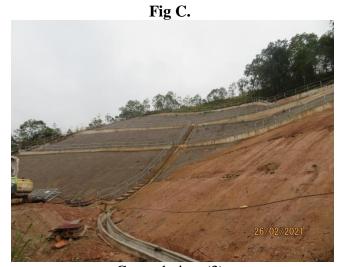
1. Contractor is reminded to set up TPZ of proper size and with appropriate material around retain trees according to approved method statement. Contractor should prevent any construction material pile within TPZ and ensure no works is allowed within the TPZ.

## **Photo Record:**



General view (1)

General view (2)



General view (3)



# Signature:

		Signature Registration Board	Date
Recorded by	Registered Landscape Architect	LARB Sullar But BLAZ	1 Mar 2021
Checked by	Environmental Team Leader	· 孝港園境師強 ·	12 Mar 2021
	Independent Environmental Checker	h	15 Mar 2021



# Appendix M

# Monthly Summary Waste Flow Table

# Monthly Summary Waste Flow Table for February 2021

 Department:
 Civil Engineering and Development Department
 Contract No.:
 CV/2016/10

 Contract Title:
 Site Formation and Associated Infrastructural Works for Development of Columbarium at Sandy Ridge Cemetery

 Commencement Date:
 15-Dec-2017
 Estimated completion Date
 22-Dec-2023
 Estimated Contract Sum:
 780M

		Actual Quantitie	s of Inert C&D N	faterials Generated	l Monthly			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 '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³ )
Jan	3.044	0.000	0.525	0.000	0.119	2.400	0.000	0.000	0.000	0.000	0.022
Feb	2.419	0.000	0.958	0.000	0.135	1.326	0.000	0.000	0.000	0.000	0.030
Mar											
Apr											
May											
June											
Sub-total	5.463	0.000	1.483	0.000	0.254	3.726	0.000	0.000	0.000	0.000	0.052
July											
Aug											
Sept											
Oct											
Nov											
Dec											
Total	5.463	0.000	1.483	0.000	0.254	3.726	0.000	0.000	0.000	0.000	0.052

Notes: (1) The waste flow table should cover the whole construction period of the Contract.

(2) The original estimates of the C&D materials should be the estimates at contract commencement and should not be altered during construction.

(3) Inert C&D materials that are specified in the Contract to be imported for use at the Site shall be separately indicated.

(4) The yearly estimates of the C&D materials should be updated as appropriate taking into account the latest works programme etc.

(5) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.

(6) Broken concrete for recycling into aggregates

Contract No. CV/2017/02 Particular Specification Appendix H3

Name of Department: CEDD

	A	ctual Quantities	of Inert C&D N	Iaterials Gener	rated Monthl	у	Actual Q	uantities of C	C&D Wastes	s 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	Chemical Waste	Others, e.g. general refuse
	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)
JAN	741.560	0.000	0.000	0.000	741.56	0.000	0.000	0.000	0.000	0.000	8.770
FEB	672.150	0.000	0.000	0.000	672.15	0.000	0.000	0.000	0.000	0.000	4.700
MAR											
APRIL											
MAY											
JUN											
Sub Total	1413.710	0.000	0.000	0.000	1413.710	0.000	0.000	0.000	0.000	0.000	13.470
JUL											
AUG											
SEP											
OCT											
NOV											
DEC											
Total	1413.710	0.000	0.000	0.000	1413.710	0.000	0.000	0.000	0.000	0.000	13.470

# Monthly Summary Waste Flow Table for 2021

Notes: * estimated quantity (pending from EPD NENT (soil) to update the actual quantity)

#### Name of Department: CEDD

	Forecast of Total Quantities of C&D Materials to be Generated from the Contract (see Note 4)										
Total Quantity Generated	Hard Rocks and Large Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fill	Imported Fill	Metal	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 )	
0	0	0	0	0	0	0	0	0	1	0	

Notes:

(1) The performance targets are given in PS clause 6(14) above.

(2) The waste flow table shall also include C&D materials that are specified in the Contractor to be imported for use at the Site.

(3) Plastic 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

- Hard Rocks and Large Broken Concrete = Cannot be defined at this stage
- Imported Fill = Estimated by the Contractor
- Metal = Estimated by the Contractor
- Paper/cardboard packaging = Estimated by the Contractor
- Plastics = Estimated by the Contractor

- Chemical Waste = Estimated by the Contractor (Spent lubricating oil, assume density 0.9kg/L)

- Other, e.g. general refuse = Estimated by the Contractor



# Appendix N

# **Implementation Schedule for Environmental Mitigation Measures**

Note: Chapters 1 to 3 of the EIA report present the background information of the Project, identified concurrent projects, objectives and scope for various environmental aspects, and description on alternative options and construction description. Chapters 4 to 12 of the EIA report present the EIA findings and mitigation measures are described below with cross-reference to the EIA report. Chapters 13 to 15 describe the environmental monitoring requirements and conclusion.

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
Common Mitig	ation Measures (Applicable to ALL Project Components, including D	Ps and Non-DPS)				
Construction D	ust Impact					
S4.4.5.2	The contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction Dust) Regulation	Minimise dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction phase	APCO     To control the dusi impact to meet HKAQO and TM-EIAC criteria
S4.4.5.3	Water spraying every hour for all active works area.	Minimise dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction phase	APCO     To control the dust impact to meet HKAQO and TM-EIAO criteria
S4.4.5.2	<ul> <li>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;</li> <li>Any dusty materials remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads;</li> <li>A stockpile of dusty material should not be extended beyond the pedestrian barriers, fencing or traffic cones;</li> <li>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;</li> <li>Vehicle wheel washing facilities should be provided at each construction</li> </ul>	Minimise dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction phase	APCO     To control the dust impact to meet HKAQO and TM-EIAO criteria

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
	site exit. Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels;					
	• When there are open excavation and reinstatement works, hoarding of not less than 2.4m high should be provided as far as practicable along the site boundary. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are properly maintained throughout the construction period;					
	• The portion of any road leading only to construction site that is within 30m of a vehicle entrance or exit should be kept clear of dusty materials;					
	• Surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operation takes place should be sprayed with water or a dust suppression chemical continuously;					
	• Any area that involves demolition activities should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet;					
	• Any skip hoist for material transport should be totally enclosed by impervious sheeting;					
	• Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides;					
	• Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system;					
	• 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.					

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
S4.4.5.1	Implement regular dust monitoring under EM&A programme during the construction stage.	Monitoring of dust impact	Contractor	Selected representative dust monitoring station	Construction phase	• TM-EIAO
S4.4.5.3	<ul> <li>All road surface within the barging facilities will be paved.</li> <li>Dust enclosures will be provided for the loading ramp, installation of 3-sided screen with top cover and the provision of water sprays at the discharge point would be provided.</li> <li>Vehicles will be required to pass through designated wheel wash facilities.</li> <li>Continuous water spray at the loading point.</li> </ul>	Minimise dust impact at the nearby sensitive receivers	Contractor	Barging point at Siu Lam	Construction phase	• TM-EIAO

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
Construction Noise						
\$5.5.5.3	<ul> <li>Implement the following good site management practices:</li> <li>only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme;</li> <li>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;</li> <li>plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs;</li> <li>silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works;</li> <li>mobile plant should be sited as far away from NSRs as possible and practicable;</li> <li>material stockpiles, mobile container site office and other structures should be effectively utilised, where practicable, to screen noise from onsite construction activities.</li> </ul>	Control construction noise	Contractor	All construction sites	Construction phase	• Annex 5, TM-EIAO
S5.5.5.5	Adopt quiet plants during the construction of viaduct, widening of Sha Ling Road, construction of platform for crematorium and widening of Lin Ma Hang Road. The quiet plants should be made reference to the PME listed in the TM or the QPME/ other commonly used PME listed in EPD web pages or taken from BS5228: Part 1: 2009 Noise Control on Construction and Open Sites as far as possible.	Reduce the noise levels of plant items	Contractor	Works area for construction of viaduct, widening of Sha Ling Road, construction of platform for crematorium and widening of Lin Ma Hang Road		• Annex 5, TM-EIAO

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
S5.5.5.6	Install temporary noise barriers (in the form of site hoardings, 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 screening.	Contractor	All construction sites where practicable	Construction phase	• Annex 5, TM-EIAO
S5.5.5.7 – S5.5.5.12	Install movable noise barriers (typical design is wooden framed barrier with a small-cantilevered upper portion of superficial density no less than $7 \text{kg/m}^2$ on a skid footing with 25mm thick internal sound absorptive lining), acoustic mat or full enclosure, screen the noisy plants including air compressors, generators etc.	Screen the noisy plant items to be used at all construction sites	Contractor	All construction sites where practicable	Construction phase	• Annex 5, TM-EIAO
\$5.5.5.13	Sequencing operation of construction plants where practicable.	Operate sequentially within the same work site to reduce the construction noise	Contractor	All construction sites where practicable	Construction phase	• Annex 5, TM-EIAO
S13.2.1.1 – S13.4.1.2	Implement a noise monitoring under EM&A programme.	Monitor the construction noise levels at the selected representative locations	Contractor	Selected representativ e noise monitoring station	Construction phase	• TM-EIAO
Operational Noise (Road	d Traffic Noise)			1	L	
S5.6.6.4	<ul> <li>Provide a series of noise mitigation measures including absorptive noise barriers and low noise road surfacing materials along Lin Ma Hang Road and Sha Ling Road before operation of the proposed project for existing and planned representative NSRs. Locations of noise mitigation measures are stated as following:</li> <li><i>For existing representative NSRs</i></li> <li>Approx. 12m of absorptive noise barrier 2.5m above road level along Sha Ling Road (MM1);</li> <li>Approx. 92m of absorptive noise barrier 2.5m above road level along Sha Ling Road (MM2);</li> </ul>	Reduce operation noise from road traffic	Contractor	Refer to Figures 5.6.9 – 5.6.13 of the EIA Report	Prior to operation of the Project for existing representative NSRs. While for barriers to protect planned representative NSRs, it should constructed before intake of planned representative NSRs.	

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
	• Approx. 28m of absorptive noise barrier 3m above road level along Project Road near Sha Ling Road (MM3);					
	• Approx. 51m of absorptive noise barrier 3m above road level along Project Road near Sha Ling Road (MM4);					
	• Approx. 25m of absorptive noise barrier 4m above road level along Lin Ma Hang Road near San Uk Ling (MM5);					
	<ul> <li>Approx. 21m of absorptive noise barrier 4m above road level along Lin Ma Hang Road near San Uk Ling (MM6);</li> </ul>					
	• Approx. 14m of absorptive noise barrier 4m above road level along Lin Ma Hang Road near San Uk Ling (MM7);					
	<ul> <li>Approx. 18m of absorptive noise barrier 3m above road level along Lin Ma Hang Road near San Uk Ling (MM8);</li> </ul>					
	• Approx. 42m of absorptive noise barrier 3m above road level along temporary pullover space opposite San Uk Ling (MM9);					
	<ul> <li>Approx. 93m of absorptive noise barrier 3m above road level along Lin Ma Hang Road opposite San Uk Ling (MM10);</li> </ul>					
	• Approx. 185m of low noise surfacing materials along Lin Ma Hang Road near San Uk Ling (MM11);					
	For planned representative NSRs					
	<ul> <li>Approx. 36m of absorptive noise barrier 5m above road level along Lin Ma Hang Road near Muk Wu Nga Yiu (MM12);</li> </ul>					
	<ul> <li>Approx. 47m of absorptive noise barrier 5m above road level along Lin Ma Hang Road near Muk Wu Nga Yiu (MM13);</li> </ul>					
	<ul> <li>Approx. 31m of absorptive noise barrier 5m above road level along Lin Ma Hang Road near Muk Wu Nga Yiu (MM14);</li> </ul>					
	<ul> <li>Approx. 31m of absorptive noise barrier 5m above road level along Lin Ma Hang Road near Muk Wu Nga Yiu (MM15);</li> </ul>					
	<ul> <li>Approx. 41m of absorptive noise barrier 5m above road level along Lin Ma Hang Road near Muk Wu Nga Yiu (MM16);</li> </ul>					

EIA Ref.	Recommended Mitigation Measures	ObjectivesoftheRecommendedMeasures &Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
	• Approx. 340m of low noise surfacing materials along Lin Ma Hang Road near Muk Wu Nga Yiu (MM17).					

EIA Ref.	Recommended Mitigation Measures	ObjectivesoftheRecommendedMeasures&Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved				
Water Quality (Construc	ater Quality (Construction Phase)									
S6.4.4.1 – S6.4.4.3	<ul> <li>In accordance with the Practice Note for Professional Persons on Construction Site Drainage, Environmental Protection Department, 1994 (ProPECC PN1/94), construction phase mitigation measures shall include the following:</li> <li>General Site Operation</li> <li>At the start of site establishment, perimeter cut-off drains to direct offsite 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 facilities. The design of the temporary on-site drainage system will be undertaken by the contractor prior to the commencement of construction;</li> <li>Diversion of natural stormwater should be avoided as far as possible. The design of temporary on-site drainage should prevent runoff going through site surface, construction machinery and equipment in order to avoid or minimise polluted runoff. Sedimentation tanks with sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8 m³ capacities, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal. The system capacity shall be flexible and able to handle multiple inputs from a variety of sources and suited to applications where the influent is pumped;</li> <li>The dikes or embankments for flood protection should be implemented around the boundaries of earthwork areas. Temporary ditches should be incorporated in the permanent drainage channels to enhance deposition rates;</li> <li>The design of efficient silt removal facilities should be based on the</li> </ul>	To minimise water quality impact from construction site runoff and general construction activities	Contractor	All construction sites where applicable	Construction phase	• Water Pollution Control Ordinance • ProPECC PN1/94 • TM-EIAO • TM-DSS				
	guidelines in Appendix A1 of ProPECC PN 1/94. The detailed design of									

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
	the sand/silt traps shall be undertaken by the contractor prior to the commencement of construction;					
	• Construction works should be programmed to minimise surface excavation works during the rainy seasons (April to September). All exposed earth areas should be completed and vegetated as soon as possible after earthworks have been completed. If excavation of soil cannot be avoided during the rainy season, or at any time of year when rainstorms are likely, exposed slope surfaces should be covered by tarpaulin or other means;					
	• If the excavation of trenches in wet periods is necessary, it should be dug and backfilled in short sections wherever practicable. Water pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities;					
	• All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rainstorms. Deposited silt and grit should be removed regularly and disposed of by spreading evenly over stable, vegetated areas;					
	• All open stockpiles of construction materials (for example, aggregates, sand and fill material) of more than 50m ³ should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system;					
	• Manholes (including newly constructed ones) should always be covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and storm runoff being directed into foul sewers;					
	• Precautions 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 summarised in Appendix A2 of ProPECC PN 1/94. Particular attention should be paid to the control of silty surface runoff during storm events, especially for areas located near steep slopes;					

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
	<ul> <li>All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing facilities should be provided at every construction site exit where practicable. Washwater 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;</li> <li>Oil interceptors should be provided in the drainage system downstream of any oil/fuel pollution sources. The oil interceptors should be emptied and cleaned regularly to prevent the release of oil and grease into the storm water drainage system after accidental spillage. A bypass should be provided for the oil interceptors to prevent flushing during heavy rain;</li> <li>Construction solid waste, debris and rubbish on site should be collected, handled and disposed of properly to avoid water quality impacts;</li> <li>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;</li> <li>Regular environmental audit on the construction site should be carried out in order to prevent any malpractices. Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the water bodies, marsh and ponds;</li> <li>Adopt best management practices.</li> </ul>					
S6.4.4.4 – S6.4.4.5	<ul> <li>Sewage from workforce</li> <li>Portable chemical toilets and sewage holding tanks are recommended for handling the construction sewage generated by the workforce. A licensed contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance;</li> </ul>	To minimise water quality from sewage effluent	Contractor	All construction sites where practicable	Construction phase	Water Pollution Control Ordinance     TM-DSS

Environmental Mitigation Implementation Sc	chedule – Sandy Ridge
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EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
	<ul> <li>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;</li> <li>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.</li> </ul>					
S6.4.4.6	<ul> <li>Operation of Barging Point at Siu Lam</li> <li>All barges should be fitted with tight bottom seals to prevent leakage of materials during transport;</li> <li>Barges or hoppers should not be filled to a level that will cause overflow of materials or polluted water during loading or transportation;</li> <li>All vessels should be sized so that adequate clearance is maintained between vessels and the seabed in all tide conditions, to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash; and</li> <li>Loading of barges and hoppers should be controlled to prevent splashing of material into the surrounding water.</li> <li>Mitigation measures for land-based activities as outlined in Section 6.4.4 should be applied to minimise water quality impacts from site runoff and open stockpile spoils at the proposed barging facilities where appropriate.</li> </ul>	To minimise water quality from operation of barging point at Siu Lam	Contractor	All construction sites where practicable	Construction phase	Water Pollution Control Ordinance     TM-DSS
Water Quality (Operat	tional Phase)					
S6.5.4.1 – S6.5.4.6	<ul> <li>The following mitigation measures during operational phase are recommended:</li> <li>Sewage and wastewater discharge should be connected to foul sewerage system;</li> <li>Proper drainage systems with silt traps and oil interceptors should be installed;</li> </ul>	To minimise the road runoff, wastewater discharge and erosion of seasonal watercourse during the operational phase	Highways Department / Contractors	Whole alignment	Construction / Operational Phase	Water Pollution Control Ordinance     TM-DSS

EIA Ref.	Recommended Mitigation Measures	ObjectivesoftheRecommendedMeasures&Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
	<ul> <li>The design of road gullies with silt traps should be incorporated especially for the catchment leading to the existing wet woodland area located at the north of the site;</li> <li>The silt traps and oil interceptors should be cleaned and maintained regularly, especially before peak seasons of the visitors in Ching Ming Festival and Chung Yeung Festival;</li> <li>Energy dissipaters should be installed at the seasonally wet watercourses to reduce the magnitude of the first flush in order to minimise the erosion impact to the wet woodland.</li> </ul>					

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved				
Waste Management	aste Management (Construction Waste)									
\$7.3.3.8	Construction & Demolition Material Management Plan (C&DMMP)	To enhance the management of	Contractor	All	Construction phase	Project				
	• A C&DMMP shall be submitted to the Public Fill Committee for approval in the case of C&D materials disposal exceeding 50,000m ³ .	construction and demolition (C&D) material including rock in public works projects		construction sites		Administrative Handbook for Civil Engineering Works, 2012 Edition				
\$7.3.4.2	Good Site Practice	Minimise waste generation	Contractor	All	Construction phase	• Waste Disposal				
	The following good site practices are recommended throughout the construction activities:	during construction		construction sites		Ordinance				
	• nomination of an approved personnel, such as a site manager, to be responsible for the implementation of good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site;									
	<ul> <li>training of site personnel in site cleanliness, appropriate waste management procedures and concepts of waste reduction, reuse and recycling;</li> </ul>									
	• provision of sufficient waste disposal points and regular collection for disposal;									
	• appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers;									
	• regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors;									
	• a Waste Management Plan (WMP) should be prepared by the contractor and submitted to the Engineer for approval.									
\$7.3.4.3	Waste Reduction Measures	Reduce waste generation	Contractor	All	Construction phase	• Waste Disposal				
	Waste reduction is best achieved at the planning and design phase, as well as by ensuring the implementation of good site practices. The following recommendations are proposed to achieve reduction:			construction sites		Ordinance				
	• segregate and store different types of waste in different containers, skip or stockpiles to enhance reuse or recycling of materials and their proper disposal;									

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
	<ul> <li>proper storage and site practices to minimise the potential for damage and contamination of construction materials;</li> <li>plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste;</li> <li>sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable portions (i.e. soil, broken concrete, metal etc.);</li> <li>provide training to workers on the importance of appropriate waste management procedures, including waste reduction, reuse and recycling.</li> </ul>					
S7.3.4.5	Storage of Waste         The following recommendation should be implemented to minimise the impacts:         • non-inert C&D materials 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;	Good site practice to minimise the waste generation and recycle the C&D materials as far as practicable so as to reduce the amount for final disposal	Contractor	All construction sites	Construction phase	<ul> <li>Land (Miscellaneous Provisions) Ordinance</li> <li>Waste Disposal Ordinance</li> <li>ETWB TCW No. 19/2005</li> </ul>
\$7.3.4.6	Collection and Transportation of Waste         The following recommendation should be implemented to minimise the impacts:         • remove waste in timely manner;         • employ the trucks with cover or enclosed containers for waste transportation;         • obtain relevant waste disposal permits from the appropriate authorities; and         • disposal of waste should be done at licensed waste disposal facilities.	Minimise waste impacts from storage	Contractor	All construction sites	Construction phase	• Waste Disposal Ordinance
S7.3.4.8 – S7.3.4.15	<ul> <li><u>Excavated and C&amp;D Materials</u></li> <li>Wherever practicable, C&amp;D materials should be segregated from other wastes to avoid contamination and ensure acceptability at public filling areas or reclamation sites. The following mitigation measures should be implemented in handling the excavated and C&amp;D materials:</li> <li>maintain temporary stockpiles and reuse excavated fill material for</li> </ul>	Minimise waste impacts from excavated and C&D materials	Contractor	All construction sites	Construction phase	Land (Miscellaneous Provisions) Ordinance Waste Disposal Ordinance

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
	backfilling;					• ETWB TCW No.
	• carry out on-site sorting;					19/2005
	• make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate; and					Project     Administrative
	• implement a recording system for the amount of waste generated, recycled and disposed of for checking.					Handbook for Civil Engineering Works,
	The recommended C&D materials handling should include:					2012 Edition
	• On-site sorting of C&D materials;					
	• Reuse of C&D materials; and					
	• Use of Standard Formwork and Planning of Construction Materials purchasing.					
S7.3.4.17 – S7.3.4.18	Chemical Waste	Control the chemical waste and	Contractor	All	Construction phase	• Waste Disposal
	If chemical wastes are produced at the construction site, the Contractors should register with EPD as chemical waste producer. Chemical wastes should be stored in appropriate containers and collected by a licensed chemical waste Contractor. Chemical wastes (e.g. spent lubricant oil) should be recycled at an appropriate facility as far as possible, while the chemical waste that cannot be recycled should be disposed of at either the Chemical Waste Treatment Centre, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	ensure proper storage, handling and disposal.		construction sites		<ul> <li>(Chemical Waste) General) Regulation</li> <li>Code of Practice on the Packaging, Labelling and Storage of Chemical Waste</li> </ul>
\$7.3.4.19	<ul> <li><u>General Refuse</u></li> <li>General refuse should be stored in enclosed bins separately from construction and chemical wastes. Recycling bins should also be placed to encourage recycling.</li> <li>Preferably enclosed and covered areas should be provided for general refuse collection and routine cleaning for these areas should also be implemented to keep areas clean.</li> <li>A reputable waste collector should be employed to remove general refuse on a daily basis.</li> </ul>	Minimise production of the general refuse and avoid odour, pest and litter impacts	Contractor	All construction sites	Construction phase	• Waste Disposal Ordinance
\$7.3.4.20	<ul> <li>Sewage</li> <li>The WMP should document the locations and number of portable chemical toilets depending on the number of workers, land availability,</li> </ul>	Minimise production of sewage impacts	Contractor	All construction sites	Construction phase	• Waste Disposal Ordinance

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
	<ul> <li>site condition and activities.</li> <li>Regularly collection by licensed collectors should be arranged to minimise potential environmental impacts.</li> </ul>					
Waste Management (Opera	ational Waste)					
S7.4.4.1	General Refuse A reputable waste collector should be employed to remove general refuse on a daily basis.	Remove general refuse during routine road cleaning activities on the roads network and avoid odour, pest and litter impacts	Contractor	Roads network for the C&C facilities and Lin Ma Hang Road	Operational phase	• Waste Disposal Ordinance

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
Land Contamination						
S8.9.1.1	Re-appraisal of the potentially contaminated site (SRC-1)	Identify any hot spots for SI within the southeast and western portions of SRC-1	• •	Potentially contaminated site (SRC-1)	Once the works area for the Project is confirmed and site access is available (e.g. after land resumption)	• Annex 19 of the TM- EIAO, Guidelines for Assessment of Impact On Sites of Cultural Heritage and Other Impacts (Section 3 : Potential Contaminated Land Issues);
						Guidance Manual for Use of Risk-Based Remediation Goals (RBRGs) for Contaminated Land Management;
						• Guidance Notes for Contaminated Land Assessment and Remediation; and
						• Practice Guide for Investigation and Remediation of Contaminated Land
						• Recommendations in Health Risk Assessment
S8.11.1.1	Preparation and submission of Contamination Assessment Plan (CAP) to EPD for review and approval, if required	Present the findings of the re- appraisal and strategy of the recommended SI, if required		Potentially contaminated site (SRC-1)	After land resumption and prior to the construction phase	Ditto
\$8.11.1.2	Preparation and submission of Contamination Assessment Report (CAR) to EPD for review and approval, if required	Present the findings of SI, if any, and evaluate the level and extent of potential contamination	Project Proponent / Detailed Design Consultant	Potentially contaminated site (SRC-1)	Prior to the construction phase	Ditto

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
S8.11.1.2	Preparation and submission of Remediation Action Plan (RAP) to EPD for review and approval if contamination is identified	Recommend appropriate mitigation measures for the contaminated soil and groundwater identified in the assessment if remediation is required	Detailed Design Consultant	Potentially contaminated site (SRC-1)	Prior to the construction phase	Ditto
S8.11.1.2	Preparation and submission of Remediation Report (RR) to EPD for review and approval following the completion of any necessary remediation works	Demonstrate that the decontamination work is adequate and is carried out in accordance with the endorsed CAR and RAP	Detailed Design	Potentially contaminated site (SRC-1)	Prior to the construction phase	Ditto

Environmental Mitigation Implementatio	n Schedule – Sandy Ridge
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EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
Ecology (Construction	Phase)					
\$9.7.2.3	Preparation and submission of Upland Grassland Reinstatement Plan to EPD for agreement.	An Upland Grassland Reinstatement Plan will be prepared by a qualified ecologist/botanist with full details of the findings of a baseline grassland survey, the practical details and methodology of the physical excavation, transport and storage or turves/topsoil and their subsequent reinstatement once the receptor sites have been established, along with an implementation programme of reinstatement, post- reinstatement monitoring and maintenance programme. A contingency plan should be proposed in the Grassland Reinstatement Plan so as to describe the action and limit levels and the action plan if certain performance criteria (such as area of preferred habitat) are not met during the monitoring and maintenance period.	Project Proponent/ Detailed Design Consultant (qualified ecologist/ botanist) for Upland Grassland Reinstatement Plan	Engineered slopes of Crematorium Indicative locations for Grassland Reinstatement should be referred to <b>Figure 9.11</b> of the EIA Report	Prior to construction phase	<ul> <li>Reinstatement and establishment</li> <li>requirements to be detailed in Upland Grassland</li> <li>Reinstatement Plan</li> <li>TM-EIAO</li> </ul>
S9.7.2.5 – S9.7.2.6	Preparation and submission of a Vegetation Survey Report and Transplantation Proposal (if needed as concluded in the Vegetation Survey Report) to EPD for agreement.	The Vegetation Survey will report the presence, as well as update the conditions, number, locations and habitat types of any identified floral species of conservation importance to be impacted by the development,	Project Proponent/ Detailed Design Consultant (qualified ecologist/ botanist) for	Within the Project Area where applicable	Prior to construction phase	• Survey findings and transplantation methodology to be detailed in Vegetation Survey Report and Transplantation Plan

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
		and evaluate suitability and/or practicality of transplantation. The Transplantation Proposal will recommend locations of the receptor site(s), transplantation methodology, implementation programme of transplantation and post-transplantation monitoring and maintenance programme.	Vegetation Survey Report and Transplantation Proposal.			respectively. • TM-EIAO.
\$9.7.5.3 – \$9.7.5.5, \$9.8.1.6	Preparation and submission of Enhancement Woodland Proposal to EPD for agreement.	Recommend appropriate enhancement planting programme, planting and post-transplantation monitoring methodology, action plan for monitoring the enhancement planting and maintenance programme.	Project Proponent/ Detailed Design Consultant (qualified ecologist/ botanist) for Wooded Area Proposal.	Filled slope west of the platform, and north west of the platform in the valley below MacIntosh Fort Indicative locations for Enhancement Woodland should be referred to <b>Figure 9.11</b> of the EIA Report	Prior to construction phase	<ul> <li>Enhancement planting and establishment requirements to be detailed in Wooded Enhancement Proposal.</li> <li>TM-EIAO</li> </ul>
S9.7.3.1 – S9.7.3.3	Indirect impacts due to potential changes in water quality, hydrology and sedimentation could occur to a series of downstream watercourses and wetland systems (including the wet woodland, marsh and mitigation ponds) during both the construction (for the Platform and LMHR widening works) and operational stages. Generally, indirect water impact to any aquatic fauna during the construction phase should easily be avoided by implementing water control measures (ETWB TCW No. 5/2005) to avoid direct or indirect impacts any watercourses and good site practices (further details are discussed in Section 6 of the EIA Report).	Minimise the indirect impacts to Water Quality and Hydrology	Contractor /detailed design consultant.	On the edge of any active works area, 30m from the watercourse	Prior to commencement and during construction phase	• ETWB TCW No. 5/2005 • TM-EIAO

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
	In addition, construction phase impacts on the watercourses, riparian corridor and fauna using these areas will be minimised by erection of a 2m high, solid, dull green site boundary fence on the edge of any active works area, 30m from the watercourse. Where this is not practicable due to site constraints, demarcation fencing will need to be erected to prevent unauthorised encroachment into the riparian corridor by constructions works and traffic. Detailed mitigation measures will be designed at the detailed design stage.					
S9.7.3.4 – S9.7.3.6	Mitigation for noise disturbance (details refer to \$5.5.5 to \$5.6.6 of this table). Site formation and construction are tentatively proposed to cover a 65-month period from mid 2017 to late 2022. As a precautionary approach, consideration should be given at the detailed design stage to avoid the use of highly reflective materials in the design and implementing the use of opaque materials, fritting, breaking up external reflections with stickers or plastic wrap and/or any other bird-friendly design for noise barriers. Works will be restricted to daytime and any construction lighting should be designed and positioned as to not impact on adjacent ecologically sensitive areas.	The construction work and site formation will be phased in order to reduce overall noise disturbance impacts in particular areas. Collisions usually occurs as a result of birds perceiving a clear path through an object that is transparent or appears to be transparent at some distance, or if the noise barrier is highly reflective which would appear to be composed of the adjacent natural vegetation. Furthermore, mitigation measures to control noise disturbance during this phase will involve the selection of quieter plant, use of movable noise barriers and erection of hoarding and fencing to demarcate the site boundary	Contractor Project Proponent	All construction sites	Prior to commencement and during construction phase	• TM-EIAO.

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
S.9.7.3.7	<ul> <li>In order to demonstrate ecological awareness and to minimise the risk of indirect impacts from water pollution and hill fires, a series of good site practices should be adopted by site staff throughout the construction phase at each works site. These are as follows:</li> <li>Put up signs to alert site staff about any locations which are ecologically sensitive and measures to prevent accidental impacts;</li> <li>Erection of temporary geotextile silt or sediment fences/oil traps around any earth-moving works to trap any sediments and prevent them from entering watercourses;</li> <li>Prohibition of soil storage against trees or close to waterbodies;</li> <li>Delineation of works site to prevent encroachment onto adjacent habitats and fence off areas which have some ecological value;</li> <li>No smoking, hot works or sources of fire close to upland grassland;</li> <li>No on-site burning of waste; and</li> <li>Waste and refuse in appropriate receptacles.</li> </ul>	Minimise impacts on hydrological condition and water quality of hillside watercourses and reduce chances of hillfires.	Contractor	All construction sites	Prior to commencement and during construction phase	• TM-EIAO.
S.9.7.3.9	Precautionary checks by a suitably experienced ecologist of the vegetation for the presence of nesting birds should be carried out in the breeding season (February to July) before vegetation clearance. These impacts can be avoided by conducting vegetation clearance during the non-breeding season (tentatively August-January) and phased through the project period to minimise impacts.	Minimise the impacts to breeding birds within the works areas.	Contractor	All construction sites	Prior to site clearance	• TM-EIAO • WAPO

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
\$9.7.2	Establishment, maintenance and monitoring of a Upland Grassland Reinstatement Area	Reinstatement of upland grassland and to maintain connectivity in Sandy Ridge.	Project Proponent / Contractor / Maintenance Authority	Engineered slopes of Crematorium Indicative locations for Grassland Reinstatement should be referred to <b>Figure 9.11</b> of the EIA Report	Operational phase	<ul> <li>Monitoring methodology and successfulness of survival of upland grassland should follow Upland Grassland Reinstatement Plan.</li> <li>TM-EIAO.</li> </ul>
S9.7.5.3 – S9.7.5.6	Establishment, maintenance and monitoring of an enhancement woodland	Recommend appropriate enhancement planting programme, planting and post- transplantation monitoring methodology, action plan for monitoring the enhancement planting and maintenance programme.	Project Proponent/ Detailed Design Consultant (qualified ecologist/ botanist) for Wooded Area Proposal.	Filled slope west of the platform, and north west of the platform in the valley below MacIntosh Fort Indicative locations for Enhancement Woodland should be referred to <b>Figure 9.11</b> of the EIA Report	Operational phase	<ul> <li>Enhancement planting and establishment requirements to be detailed in Wooded Area Proposal.</li> <li>TM-EIAO.</li> </ul>
S9.7.4.1 – S9.7.4.5	<ul> <li>Mitigation for Impacts to Water Quality and Hydrology (Operational Phase)</li> <li>Stormwater drainage system will be further developed in detailed design stage to collect dusty materials from water collected from the platform and associated road system. Silt traps will be installed to ensure removal of dusty materials. Regular cleaning will be conducted to avoid debris entering downstream rivers during first flush; and</li> <li>The proposed small diameter bore pile system at the foundation of the proposed platform structure.</li> </ul>	Specific mitigation measures will be implemented to prevent indirect impacts wetland habitats and fauna. Mitigation measures are to be further developed in the detailed design stage to address any water quality impacts due to the drainage from the proposed platform, and any erosion issues due to the drainage from the	Detailed Design Consultant	Wet woodland (and further down the marsh and mitigation ponds) and the seasonal watercourse to the east of the Project boundary	Detailed Design phase/Operational phase	• TM-EIAO

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
		proposed platform. The surface runoff collected on the platform will be captured by a stormwater drainage system, which will be further developed at the detailed design stage The proposed small diameter bore pile system at the foundation of the proposed platform structure would allow a notional free area of about 87 – 91% for groundwater to pass through				
\$9.7.4.6 – \$9.7.4.7	<ul> <li><u>Minimise the potential indirect light disturbance on the Street Lighting on</u> <u>fireflies surrounding the Project Site during operational phase</u></li> <li>It is considered that at the detailed design stage, street lighting of similar lux/light intensity as to what is currently present is utilised. Furthermore, as a precautionary measure, it is suggested that deflectors are fixed to the back of the street lights to prevent additional light reaching the marsh and causing adverse impacts to fireflies.</li> </ul>	Reduce light pollution and impact on the nearby habitats and their associated wildlife groups, particularly nocturnal fireflies.	Detailed Design/ Consultant/ Operator	The whole Project area	Detailed Design phase/Operational phase	• TM-EIAO
S9.7.4.9 – S9.7.4.9	The increase in visitors to the columbarium allows greater public access to the upland grassland of Sandy Ridge and in turn, the potential for hill fires is also increased. Fires may emanate from discarded cigarettes and from specific practices during festivals or grave-sweeping. In order to reduce the risk of hill fires, sufficient educational signage should be displayed throughout the columbarium warning people of the risks of fire and strictly prohibits practices that could cause hill fires. This will require input in the detailed design phase.	Minimise the risk of hill fires.	Detailed Design/ Consultant/ Operator	The whole Project area	Detailed Design phase/Operational phase	• TM-EIAO

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation	Location / Timing	Implementation	Requirements and / or standards to be achieved
Fisheries						
S10.5.1.1	No loss of fish ponds is anticipated and no <i>in situ</i> mitigation is required. However, mitigation measures for water quality (S6.4.4 – S6.5.4 in this table) proposed are also pertinent in ensuring that fisheries impacts of the Project do not occur downstream of the Project area either locally or in Inner Deep Bay.	-	-	-	-	-

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
Landscape & Visual						
S11.8.1.3, Table 11.9	CM1 – The construction area and contractor's temporary works areas should be minimised to avoid impacts on adjacent landscape, and the reliance on off-site construction.	Minimise landscape impact and visual impact	Funded by CEDD and implemented by Contractor	Work site/ during construction	Construction phase	-
S11.8.1.3, Table 11.9	CM3 – Screening of construction works by hoardings/noise barriers around works area in visually unobtrusive colours and to screen construction works. It is proposed that screening be compatible with the surrounding environment and non-reflective, recessive colours be used. Hoarding should be taken down at the end of the construction period.	Minimise visual impact	Funded by CEDD and implemented by Contractor	Work site/ during construction	Construction phase	-
S11.8.1.3, Table 11.9	CM4 – Dust and Erosion Control for Exposed Soil - Excavation works and demolition of existing building blocks shall be well planned with precautions to suppress dust. Exposed soil shall be covered or watered often. Areas that are expected to be left with bare soil for a long period of time after excavation shall be properly covered with suitable protective fabric. Suitable drainage shall be provided around construction sites to avoid discharge of contaminants and sediments into sensitive water-based habitat.	Minimise indirect landscape impact	Funded by CEDD and implemented by Contractor	Work site/ during construction	Construction phase	-
S11.8.1.3, Table 11.9	CM5 – Control night-time lighting and glare by hooding all lights.	Minimise visual impact	Funded by CEDD and implemented by Contractor	Work site/ during construction	Construction phase	-

Environmental Mitigation Implementation S	Schedule – Sandy Ridge
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EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
S11.8.1.3, Table 11.9	CM6 – Tree Protection and Preservation – Woodland, plantation and other vegetation within the Study Area will be protected and preserved as far as possible in accordance with ETWB TCW No. 29/2004 - Registration of Old and Valuable Trees, and Guidelines for their Preservation and DEVB TCW No.07/2015 – Tree Preservation. Detailed Design Considerations are made to avoid impacts to trees, e.g. proper viaduct/ bridge design routing to avoid majority of the woodland, locating the columbarium buildings in areas with less trees and ensuring design of the buildings has as small a footprint as practical.	Minimise landscape impact and visual impact	Funded by CEDD and implemented by Contractor	Work site/ during construction	Construction phase	<ul> <li>DEVB TC(W) 07/2015</li> <li>Latest recommended horticultural practices from Greening, Landscape and Tree Management (GLTM) Section, DevB</li> </ul>
S11.8.1.3, Table 11.9	CM7 – Tree Transplantation – Tree(s) will be affected according to the Tree Preservation and Removal Proposal to be carried out in a later stage. Established trees of value are to be re-located where practically feasible.	Minimise landscape and visual impact	Funded by CEDD and implemented by Contractor	Work site/ during construction	Design and Construction phase	<ul> <li>'Guidelines for Tree Risk Management and Assessment Arrangement on an Area Basis and on a Tree Basis', issued January 2011, Greening, Landscape and Tree Management (GLTM) Section, DevB</li> <li>Latest recommended horticultural practices from GLTM Section, DevB</li> </ul>

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
S11.8.1.3, Table 11.9	CM8 - Implementing precautionary control measures during construction stage accordingly to ETWB TCW No. 5/2005 – Protection of natural streams/rivers from adverse impacts arising from construction works to avoid direct or indirect impacts any watercourses and good site practices.	Minimize landscape impact	Funded by CEDD and implemented by Contractor	Work site/ during construction	Design and Construction phase	• ETWB TCW No. 5/2005 – Protection of natural streams/rivers from adverse impacts arising from construction works
S11.8.1.3, Table 11.9	OM1 – Compensatory Woodland Planting - The arrangement of compensatory planting (e.g. areas of woodland to be compensated and space to be allowed within the Project Site) will be subject to detailed engineering design, landscape design and planting plan, and is recommended to be implemented prior to the construction activities as far as practical.	Compensate the loss of landscape greenery and enhance the overall visual value of the site.	Funded by CEDD and implemented by Contractor	Within Project Site	Prior to Construction phase	<ul> <li>DEVB TC(W) 07/2015 – Tree Preservation</li> <li>Latest recommended horticultural practices from Greening, Landscape and Tree Management (GLTM) Section, DevB</li> <li>DEVB TCW No. 06/2015 – Maintenance of Vegetation and Hard Landscape Features</li> </ul>

EIA Ref.	Recommended Mitigation Measures	ObjectivesoftheRecommendedMeasures&Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
S11.8.1.3, Table 11.9	OM2 – Compensatory Tree Planting for Plantation and Other Vegetated Areas - Compensatory planting should be provided in accordance with DEVB TCW No. 07/2015 to compensate for those trees felled. According to the preliminary design, compensatory trees will be planted on the cut/fill slopes, along new roads and in car parks. The selection of planting species shall be made with reference to the species identified in the future Detailed Tree Survey and be native to Hong Kong or the South China region.	Compensate the loss of landscape greenery and enhance the overall visual value of the site.	Funded by CEDD and implemented by Contractor	Within Project Site	Construction phase	<ul> <li>DEVB TC(W) 07/2015 – Tree Preservation</li> <li>Latest recommended horticultural practices from Greening, Landscape and Tree Management (GLTM) Section, DevB</li> <li>DEVB TCW No. 06/2015 – Maintenance of Vegetation and Hard Landscape Features</li> </ul>
S11.8.1.3, Table 11.9	OM3 – Amenity Planting and aesthetic streetscape design of hard landscaping for Pedestrian Walkway, Roadside - Roadside amenity planting should be provided along Sha Ling Road, Lin Ma Hang Road, as well as the internal road within Sandy Ridge columbarium and crematorium site; to enhance the landscape quality of the existing and proposed transport routes. Climbers are proposed to cover vertical, hard surfaces of the piers of the proposed viaducts, and also the newly formed retaining wall within the site. Shade tolerant plants will be planted, where light is sufficient, to improve aesthetic value of areas under viaducts.	Minimise visual impact and also enhance landscape.	Funded by CEDD and implemented by Contractor	Within Project Site	Construction phase	<ul> <li>Guidelines on Greening of Noise Barriers, issued April 2012, GLTMS, DevB</li> <li>DEVB TCW No. 06/2015 – Maintenance of Vegetation and Hard Landscape Features</li> </ul>
S11.8.1.3, Table 11.9	OM4 – Greening Works and Contour Grading Works on Cut/ Fill Slopes - Greening works such as hydroseeding/ terraces of shrub or tree planting will be provided where slope gradient allows, according to Geotechnical Engineering Office (GEO) Publication No.1/2011 Technical Guidelines on Landscape Treatment for Slopes.	Minimise landscape and visual impact	Funded by CEDD and implemented by Contractor	Within Project Site	Construction phase	Geotechnical Engineering Office (GEO) Publication No.1/2011 Technical Guidelines on Landscape Treatment for Slopes.

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
S11.8.1.3, Table 11.9	OM5 – Landscape design treatment to be provided by relevant government department.	Mitigate the loss of greenery and enhance the overall landscape and visual value	Funded by FEHD and implemented by Contractor	Within Project Site	After handover to the relevant department	-
S11.8.1.3, Table 11.9	OM6 – Architectural and chromatic treatment of the hard architectural and engineering structures and facilities.	Mitigate the loss of greenery and enhance the overall landscape and visual value	Funded by FEHD and implemented by Contractor	Within Project Site	After handover to the relevant department	-
S11.8.1.3, Table 11.9	OM7 – Aesthetic design of the proposed noise barriers.	Mitigate the visual impact	Funded by CEDD and implemented by Contractor	Along Sha Ling Road and Lin Ma Hang Road	Construction phase	• WBTC No. 36/2004 - ACABAS - submission is required to ACABAS for approval of any bridges and associated structures within the public highway system.
S11.8.1.3, Table 11.9	OM8 - Silt traps should also be incorporated into design of road gullies for the natural water stream(s).	Minimise the landscape impact on natural stream	Funded by CEDD and implemented by Contractor	Within Project Site	Construction Phase	

Notes:

(a) A detailed Tree Survey Report showing all identified valuable trees and OVT will be undertaken in a separate Tree Preservation and Removal Proposal.

(b) Wood resulting from tree removal should be recycled as mulch or soil conditioner for re-use within the Project or in other projects as far as possible e.g. for the construction of soft landscape work, were practical.

(c) Contractor is responsible for landscaping during the agreed establishment and maintenance period. Other designated management and maintenance agents to take up maintenance and management of landscaping after end of agreed period.

(d) Highways Department (HyD) is responsible for maintenance and management of landscaping of public road side slope, Leisure and Cultural Services Department (LCSD) is responsible for the management and maintenance of soft landscapes along non-expressway public roads outside Country Park and Food and Environmental Hygiene Department (FEHD) is responsible for maintenance and management of landscaping of other areas allocated to FEHD.

- (e) The landscape mitigation treatment of the future development site shall follow the below frameworks:
  - Buffer planting shall be provided to soften the edge of the site.
  - Aesthetic landscape treatment including both soft and hard landscape features shall be provided.
  - Vertical greening shall be provided as far as practicable.
  - At-grade tree planting shall be provided as far as possible while planting space is allowed, to enhance the overall environment.
  - Architectural design shall blend in with the surrounding environment.
  - Overall greening ratio shall comply with TC(W) No.3/2012 Site coverage of Greenery for Government Building Projects.

Recommended Mitigation Measures     Recommended Measures & Main Concerns to address     Agent     Timing     Stage     / or standards to be achieved
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The compensatory woodland planting shall be included woodland mixed whips, seeding, and shrubs. The principle of the location shall be the extension of the existing woodland, as well as the original lost woodland location. The proposal will be agreed with AFCD, the woodland enhancement planting shall refer to Chapter 9.

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
EM&A Project						
S13.1.1.1, S13.2.1.2	An Independent Environmental Checker needs to be employed as per the EM&A Manual.	Control EM&A Performance	Highways Department	All construction sites	Construction phase	<ul> <li>• EIAO Guidance</li> <li>Note No.4/2010</li> <li>• TM-EIAO</li> </ul>
S13.2.1.1 – S13.4.1.2	<ol> <li>An Environmental Team needs to be employed as per the EM&amp;A Manual.</li> <li>Prepare a systematic Environmental Management Plan to ensure effective implementation of the mitigation measures.</li> <li>An environmental impact monitoring needs to be implementing by the Environmental Team to ensure all the requirements given in the EM&amp;A Manual are fully complied with.</li> </ol>	Perform environmental monitoring & auditing	Highways Department / Contractor	All construction sites	Construction phase	<ul> <li>• EIAO Guidance Note No.4/2010</li> <li>• TM-EIAO</li> </ul>



# Appendix O

## Implementation of Water Quality Mitigation Measures

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### Water Quality Mitigation Measures under CV/2016/10 (Contract 1)



### Water Quality Mitigation Measures under CV/2016/10 (Contract 1)



## Water Quality Mitigation Measures under CV/2016/10 (Contract 1)



Hydro-seeding was applied on the slope to minimize muddy runoff.



