# Civil Engineering and Development Department

Agreement No. CE 67/2015 (HY)
Cycle Tracks from Tuen Mun
to Sheung Shui – Remaining Works
Design and Construction

Quarterly EM&A Report (Version 1.0)

November 2017 to January 2018

Approved By

(Dr. Priscilla Choy, Environmental Team/Leader)

### REMARKS:

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

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

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### **EXECUTIVE SUMMARY**

### Introduction

- 1. This is the 5<sup>th</sup> Quarterly Environmental Monitoring and Audit (EM&A) Report prepared by Cinotech Consultants Limited for the "Agreement No. CE 67/2015 (HY) Cycle Tracks from Tuen Mun to Sheung Shui Remaining Works Design and Construction" (hereinafter called "the Project"). This report documents the findings of EM&A Works conducted between 1<sup>st</sup> November 2017 and 31<sup>st</sup> January 2018.
- 2. The construction programme is presented in **Appendix A**. The construction activities undertaken in the reporting quarter were:

Portion A: Construction of Retaining Wall, Earthworks and Drainage Works;

Portion B: Construction of Subway A, Earthworks and Drainage Works;

Portion C: Construction of Retaining Wall;

Portion D: Construction of Stream Decking and Construction of Retaining Wall;

Portion E: Construction of Retaining Wall, Construction of Box Culvert, Drainage Works,

Earthworks and Road Works, Construction of Utilities Works;

Portion F: Construction of Retaining Wall, Construction of Utilities Works;

Portion G: Construction of Box Culvert, Pre-Bore H-Pile works and Abutment Construction,

Load test:

Portion H: Construction of Retaining Wall;

Portion I: Construction of Ramp, Construction of Subway D;

Portion J: Construction of Retaining Wall;

Portion K: Construction of Retaining Wall;

Portion L: E&M works and PD installation, Construction of Public Toilet;

Portion M: Drainage Works, Piling Works for Bridge E, Construction of Retaining Wall,

Construction of Piling work, Loading Test for pile;

Portion N: Pile Works and Abutment Construction, Construction of Utilities Works; and

Portion P: Construction of Drainage Work

### **Environmental Monitoring Works**

- 3. Environmental monitoring for the Project was performed in accordance with the EM&A Manual and the monitoring results were checked and reviewed. Site Inspections/Audits were conducted once per week. The implementation of the environmental mitigation measures, Event Action Plans and environmental complaint handling procedures were also checked.
- 4. Summary of the non-compliance in the reporting quarter for the Project is tabulated in Table I.

Table I Non-compliance Record for the Project in the Reporting Quarter

Danamatan	No. of Exc	Action	
Parameter	Action Level	Limit Level	Taken
November 20	November 2017		
Noise	0	0	N/A
December 2017			
Noise	0	0	N/A
January 2018			
Noise	0	0	N/A

5. No exceedance was recorded at any air quality or noise monitoring station during the reporting period.

### **Environmental Licenses and Permits**

- 6. Licenses/Permits granted to the Project include:
  - Environmental Permits (EP) for the Project,
  - EP-450/2013 issued on 30 May 2013 and EP-450/2013/A issued on 25 August 2015; and
  - EP-501/2015 issued on 2 September 2015
  - Billing Account for Waste Disposal (Acc No.: 7025411)
  - Chemical Waste Producer (No.:WPN5213-524-K3261-01)
  - Effluent Discharge Licenses
    - WT00027672-2017
    - WT00027661-2017
    - WT00027606-2017
    - WT00027510-2017
    - WT00027509-2017
    - WT00027603-2017
    - WT00027508-2017
    - WT00027582-2017
    - WT00027584-2017
    - WT00027431-2017
    - WT00027605-2017
    - WT00027607-2017 - WT00027834-2017
    - WT00027748-2017
    - WT00027850-2017
  - Construction Noise Permit (CNP) (No. GW-RN0702-17)
  - Construction Noise Permit (CNP) (No. GW-RN0852-17)

### **Key Information in the Reporting Quarter**

7. Summary of key information in the reporting quarter is tabulated in Table II.

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**Table II** Summary Table for Key Information in the Reporting Quarter

Event	Event Details		Action Taken	Status	Remark
	Number	Nature			
Complaint received	0		N/A	N/A	
Reporting Changes	0		N/A	N/A	
Notifications of any summons & prosecutions received	0		N/A	N/A	

8. Environmental monitoring works for the Project are considered effective and is generating data to categorically identify the environmental impacts from the works and influencing factors in the vicinity of monitoring stations.

### 1. INTRODUCTION

### **Background**

- 1.1 "Construction of Cycle Tracks and the Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung River" (the EIA Report) is a Schedule 2 Designated Project (DP) under Environmental Impact Assessment Ordinance (EIAO). The Environmental Impact Assessment (EIA) Report (Registered No.: AEIAR-133/2009) and the associated Environmental Monitoring and Audit (EM&A) Manual was approved on 12 March 2009.
- 1.2 Civil Engineering and Development Department (CEDD) implemented the DP in two stages, i.e. Stage 1 and Stage 2. An Environmental Permit (EP) No. EP-450/2013 has been granted for Stage 1 works on 30 May 2013. Pursuant to Section 13 of the EIAO, the Director of Environmental Protection amends the Environmental Permit (No. EP-450/2013) based on the Application No. VEP-478/2015 and the EP (Permit No. EP-450/2013/A) was issued on 25 August 2015 to CEDD as the Permit Holder.
- 1.3 An Environmental Review (ER) Report of the "Construction of Cycle Tracks and the Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung River Stage 2" had been prepared in July 2015 and the Environmental Monitoring and Audit Manual (EM&A Manual) was also included as part of the ER report in the application (Application No.: AEP-501-2015). An Environmental Permit No. EP-501/2015 was issued on 2 September 2015 for Stage 2 works to CEDD as the Permit Holder.
- 1.4 "Agreement No. CE 67/2015 (HY) Cycle Tracks from Tuen Mun to Sheung Shui Remaining Works Design and Construction" (hereinafter called the "Project") covers the Stage 1 (Part) and Stage 2 works of the DP. This Project was commissioned to Sang Hing Kuly Joint Venture (hereinafter called the "Contractor") for "Contract No.: YL/2015/01 Cycle Tracks from Tuen Mun to Sheung Shui Remaining Works". The site location is shown in **Figure 1a-1h** respectively.
- 1.5 Cinotech Consultants Ltd. was designated as the Environmental Team (ET) to undertake the Environmental Monitoring and Audit (EM&A) works for the Project. The construction commencement of the Project was on 23<sup>rd</sup> November 2016. This is the 5<sup>th</sup> Quarterly EM&A Report summarizing the EM&A works for the Project from 1<sup>st</sup> November 2017 31<sup>st</sup> January 2018.

## **Project Organizations**

- 1.6 Different parties with different levels of involvement in the project organization include:
  - Project Proponent Civil Engineering and Development Department (CEDD)
  - Supervisor Representative Mannings (Asia) Consultants Limited (Mannings)
  - Environmental Team (ET) Cinotech Consultants Limited (Cinotech)
  - Independent Environmental Checker (IEC) ANewR Consulting Limited (ANewR)
  - Contractor Sang Hing Kuly Joint Venture (SKJV)
- 1.7 The key contacts of the Project are shown in **Table 1.1**.

**Table 1.1 Key Project Contacts** 

Party	Role	Contact Person	Phone No.	Fax No.
CEDD Project Proponent		Mr. Chu Wai Lun, Thomas	2417 6370	2412 0358
Mannings	Mannings Supervisor Representative	Mr. Simon Ng	3168 2028	3168 2022
Cinotech	Environmental Team	Dr. Priscilla Choy	2151 2089	3107 1388
Cinotech		Ms. Ivy Tam	2151 2090	
ANewR Independent Environmental Checker	Mr. Adi Lee	2618 2836	3007 8648	
SKJV	Contractor	Mr. Ma Kin Man	9552 1734	2890 8205

#### 2. ENVIRONMENTAL MONITORING AND AUDIT REQUIREMENTS

The monitoring locations, equipment, period, methodology and OA/OC procedures of 2.1 the required monitoring parameters designed for the routine impact monitoring were complied with the requirements stipulated under the EM&A Manual.

### **Monitoring Parameters and Monitoring Locations**

2.2 The EM&A Manual designates locations for the ET to monitor environmental impacts in terms of air quality, noise, landscape and visual due to the Project. The Project area and monitoring locations are depicted in Figures 2a-2c. Appendix B gives details of monitoring requirements.

### **Monitoring Methodology**

2.3 Monitoring works/equipments were conducted/calibrated regularly in accordance with the EM&A Manual. Copies of calibration certificates are attached in the appendices of the Monthly EM&A Reports.

### **Environmental Quality Performance Limits (Action and Limit Levels)**

2.4 Should the environmental quality parameters exceed the Action/Limit Levels, the respective action plans would be implemented. The Action/Limit Levels for each environmental parameter are given in **Appendix C**.

# **Implementation Status of Environmental Mitigation Measures**

2.5 The Contractor has implemented environmental mitigation measures and requirements as stated in the EIA Report, the Environmental Permit and EM&A Manual. The implementation status of environmental mitigation measures (EMIS) is given in **Appendix E.** Status of required submissions under the Environmental Permit (EP) of the reporting period is presented in **Table 2.1**.

Table 2.1 Status of Required Submissions under EP

EP Condition	Submission	Submission Date	
	Monthly Environmental Monitoring & Audit Report (November 2017)	13 December 2017	
3.5	Monthly Environmental Monitoring & Audit Report (December 2017)	12 January 2018	
	Monthly Environmental Monitoring & Audit Report (January 2018)	13 February 2018	

## **Site Audit Summary**

2.6 Site audits were carried out on a weekly basis. During site inspections in the reporting period, no non-conformance was identified. The observations and recommendations made during the reporting period are summarized in **Appendix F**.

## **Status of Waste Management**

2.7 The amount of wastes generated by the major site activities of this Project during the reporting month is shown in **Appendix G**.

# 3. MONITORING RESULTS AND NON-COMPLIANCE (EXCEEDANCES) OF THE ENVIRONMENTAL QUALITY PERFORMANCE LIMITS (ACTION AND LIMIT LEVELS)

3.1 Environmental monitoring works were performed in the reporting period and all monitoring results were checked and reviewed. A summary of exceedances is attached in **Appendix H**.

### **Weather Conditions**

3.2 The detail of weather conditions for each individual monitoring session was presented in monthly EM&A report.

### **Air Quality**

3.3 According to the approved EM&A Manuals for Stage 1 works and Stage 2 works in Year 2015, no air quality monitoring is required for the Project.

### **Construction Noise**

- 3.4 All construction noise monitoring was conducted as scheduled in the reporting period. No Action and Limit Level exceedance was recorded.
- 3.5 The graphical presentations of the noise monitoring results are shown in **Appendix D**.

### **Landscape and Visual**

3.6 Site audits were carried out on a weekly basis to monitor and audit the timely implementation of landscape and visual mitigation measures of this project. No non-compliance of the landscape and visual impact was recorded in the reporting quarter.

# **Influencing Factors on the Monitoring Results**

3.7 During the reporting period, the major noise sources identified at the designated monitoring stations are as follows:

### Table 3.1 Major Noise Sources during the Monitoring in the Reporting

### Period

3.8

<b>Monitoring Stations</b>	Locations	Major Noise Source(s)		
N1	HKMLC Wong Chan Sook Ying Memorial School	Road traffic noise Noise from daily school activities		
N2	Bethel High School	Road traffic noise Noise from daily school activities		

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	N3	No. 159 Mai Po San Tsuen	Road traffic noise
	N5	Block 2, Dills Corner Garden	Road traffic noise
	N6		Road traffic noise
-		Home of Loving Faithfulness	Noise from activities at the
			premise and workshops near
			the premise
	N7	Village House in Shek Wu Wai	Road traffic noise
			Noise from activities at
			workshops near the village
			house

### Comparison of EM&A results with EIA predictions

- 3.9 According to Section 12.5.1 (viii) of the EM&A Manual, the EM&A data are compared with the EIA predictions and summarized in **Annex I**.
- 3.10 When comparing the noise monitoring results to the predicted mitigated construction noise levels in the EIA Report, the results in the reporting months at monitoring station N2, N5 were lower than the range of predicted mitigated construction noise levels in the EIA Report.
- 3.11 The results at N1 were lower than the range of predicted mitigated construction noise levels in the EIA Report in January, within the range in November and December.
- 3.12 The results at N3 were lower than the range of predicted mitigated construction noise levels in the EIA Report in November and December, higher than the range in January.
- 3.13 The results at N6 were lower than the range of predicted mitigated construction noise levels in the EIA Report in December and January, within the range in November.

# 4. COMMENTS, CONCLUSIONS AND RECOMMENDATIONS

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

4.1 No Action/Limit Level exceedance was recorded at all noise monitoring stations in the reporting quarter.

# Review of Monitoring Methodology and the Practicality and Effectiveness of EM&A Programme

4.2 The EM&A methodology has been effective in monitoring the environmental impacts of the Project and the effectiveness of the mitigation measures. The data collected were useful in determining whether the Project had caused unacceptable impacts on the sensitive receivers. Analysis of all EM&A data collected throughout the baseline and the impact periods demonstrated the environmental acceptability of the Project.

### **Effectiveness of Mitigation Measures**

- 4.3 The mitigation measures recommended in the EIA report are considered effective in minimizing environmental impacts.
- 4.4 The Contractor has implemented the recommended mitigation measures except those mitigation measures not applicable at this stage.
- 4.5 Environmental monitoring works were performed in the reporting quarter and all monitoring results were checked and reviewed. No non-compliance (exceedances) of Action/Limit Level was recorded.
- 4.6 No environmental complaints and environmental prosecution were received in the reporting quarter.
- 4.7 The effectiveness of environmental management is satisfactory given that the recommendations given in the site inspections performed in the reporting period (as shown in **Appendix F**) are met.

### Recommendations

4.8 According to the environmental audits performed in the reporting quarter, the following recommendations were made:

### Air Quality

- Water spraying should be provided frequently to unpaved and exposed area, and haul roads for dust suppression.
- Proper tarpaulin coverage should be provided to all stockpiles in the Site to prevent dust generation.

### Water Quality

- Wheel washing bays in all Portions within the Site should be maintained as far as practicable by means of removing silty water or using cleaner water in order to enhance the effectiveness of wheel washing in every portion within the Site.
- Embankment or dikes should be established at the site boundary to direct any untreated wastewater from the Site to wastewater treatment facility during rain events to perform water treatment before discharge.
- Standing or ponding water within the Site should be cleared as far as practicable.

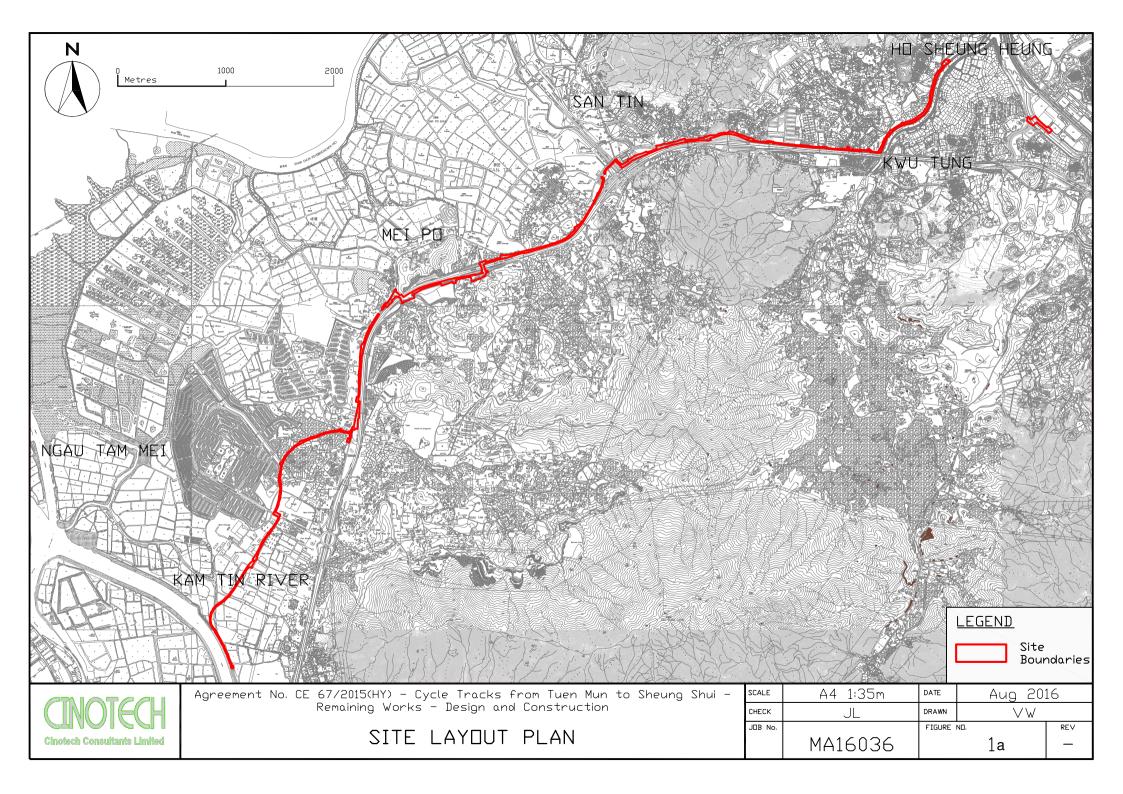
### Waste/Chemical Management

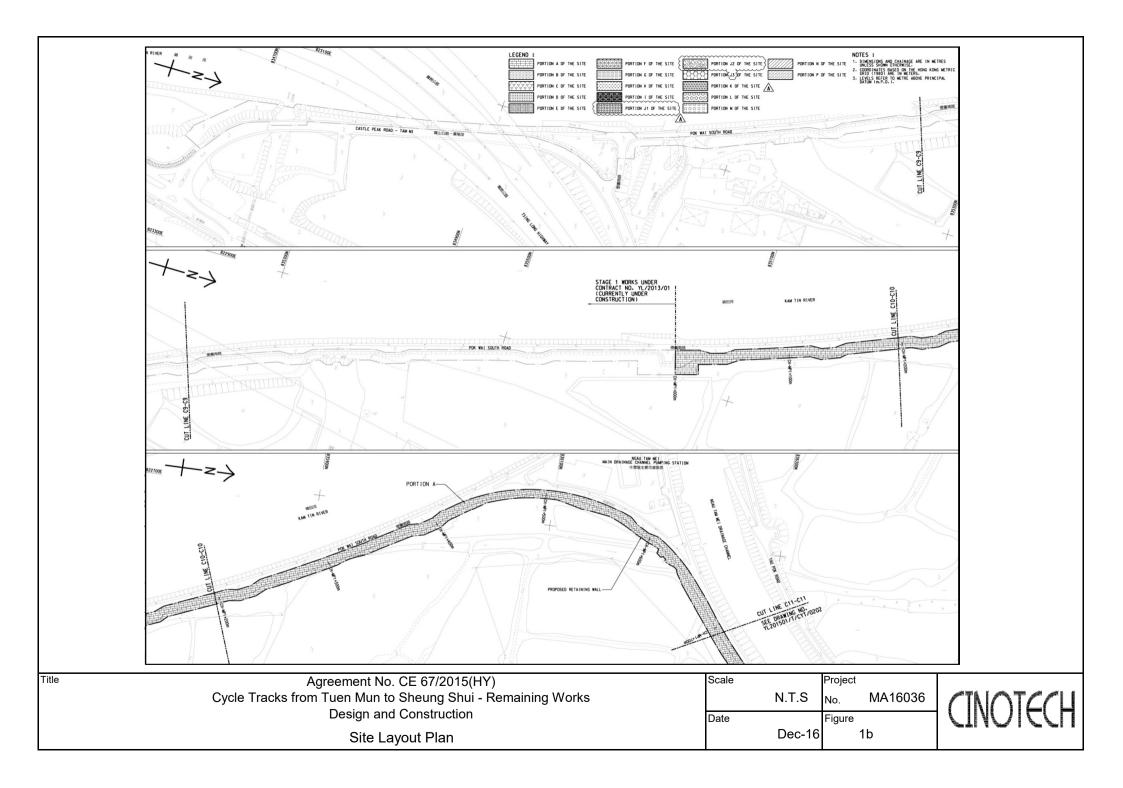
- General refuse should be removed regularly to prevent accumulation on-site.
   Proper enclosed bin should be provided with maintenance for collection of general refuse from workforce.
- Drip tray should be provided to oil/chemical containers and generator to avoid oil leakage. Any oil stain observed on ground should be properly removed as chemical waste.

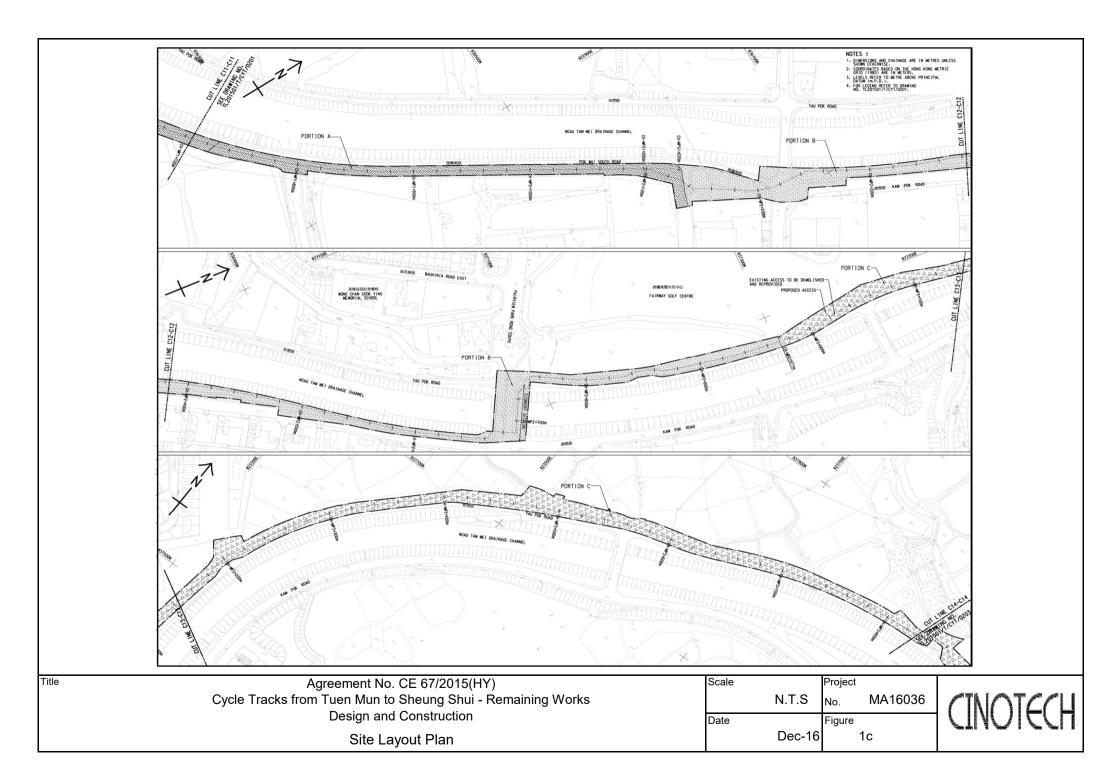
### Landscape and Visual

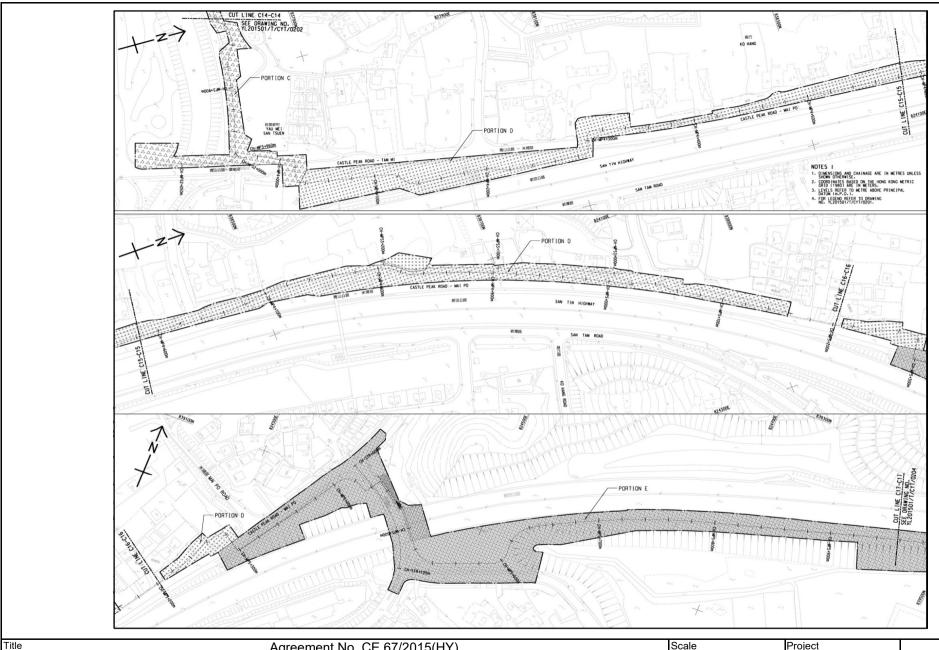
• Adequate tree protection zones should be established to protect retained and existing trees. Conspicuous signs of status of trees should be clearly shown to avoid damage from PMEs or workers.

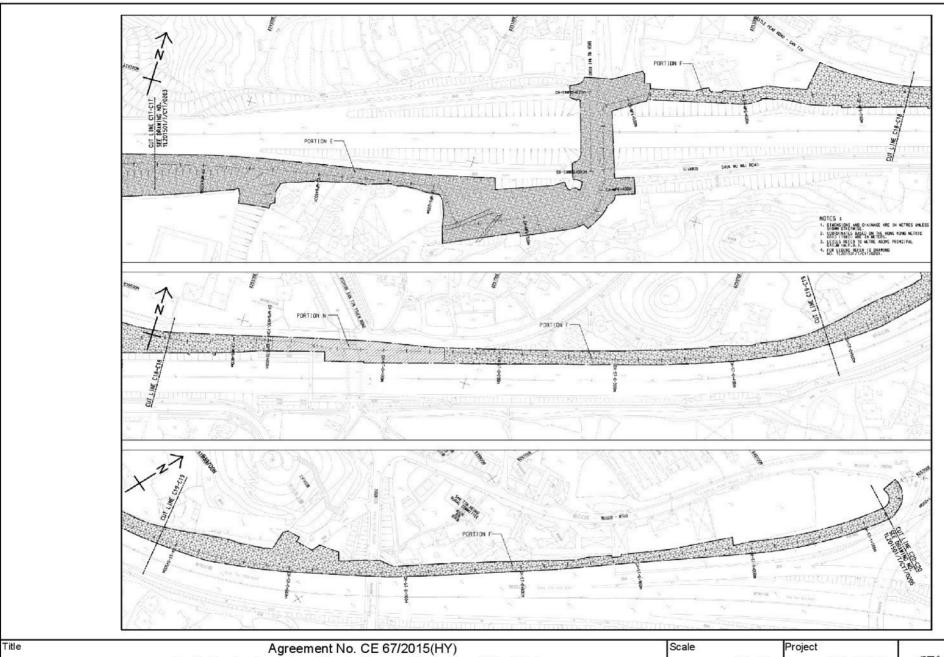
# **FIGURES**





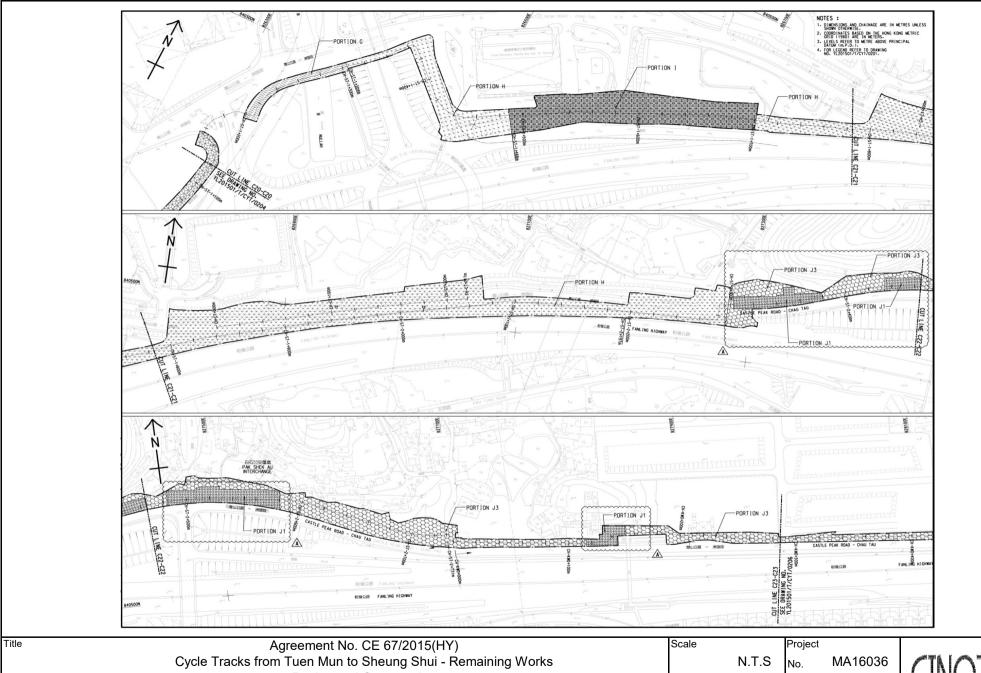






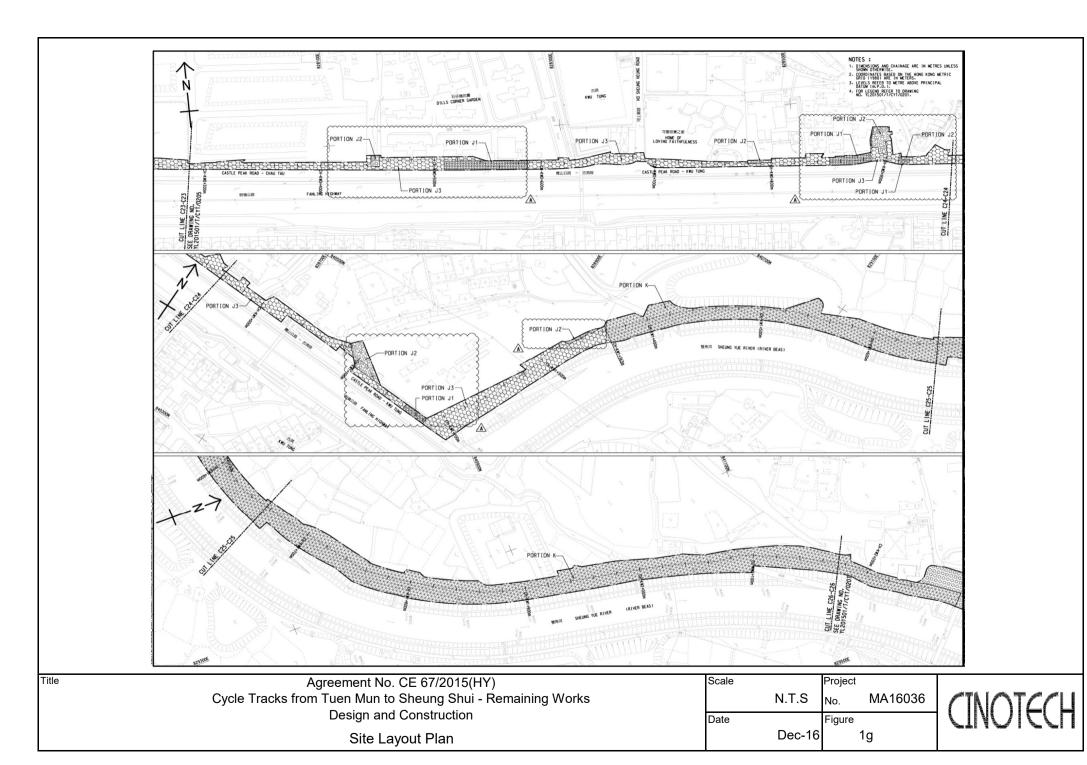
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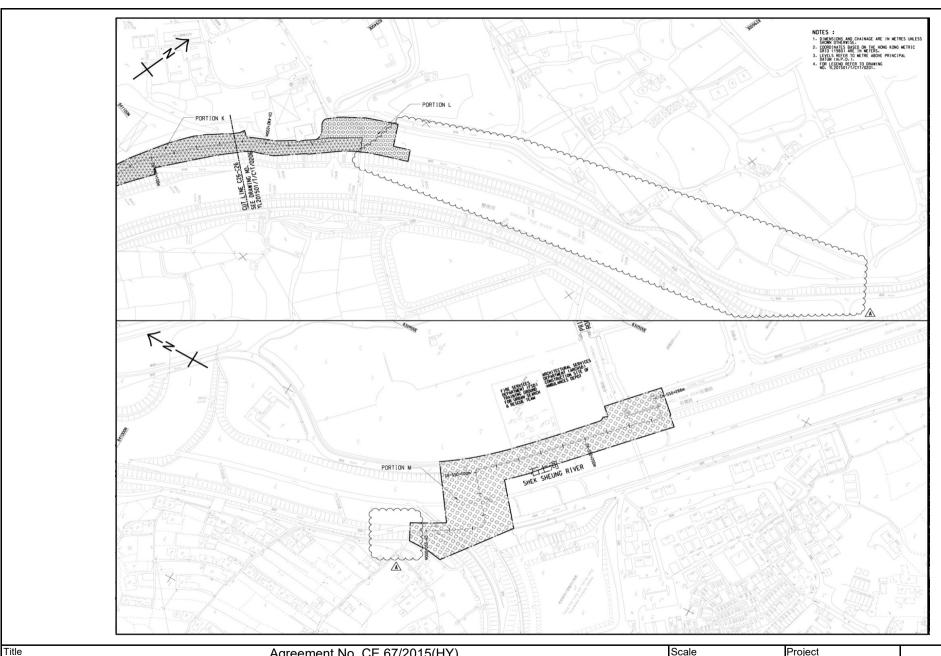
Date Figure 1e

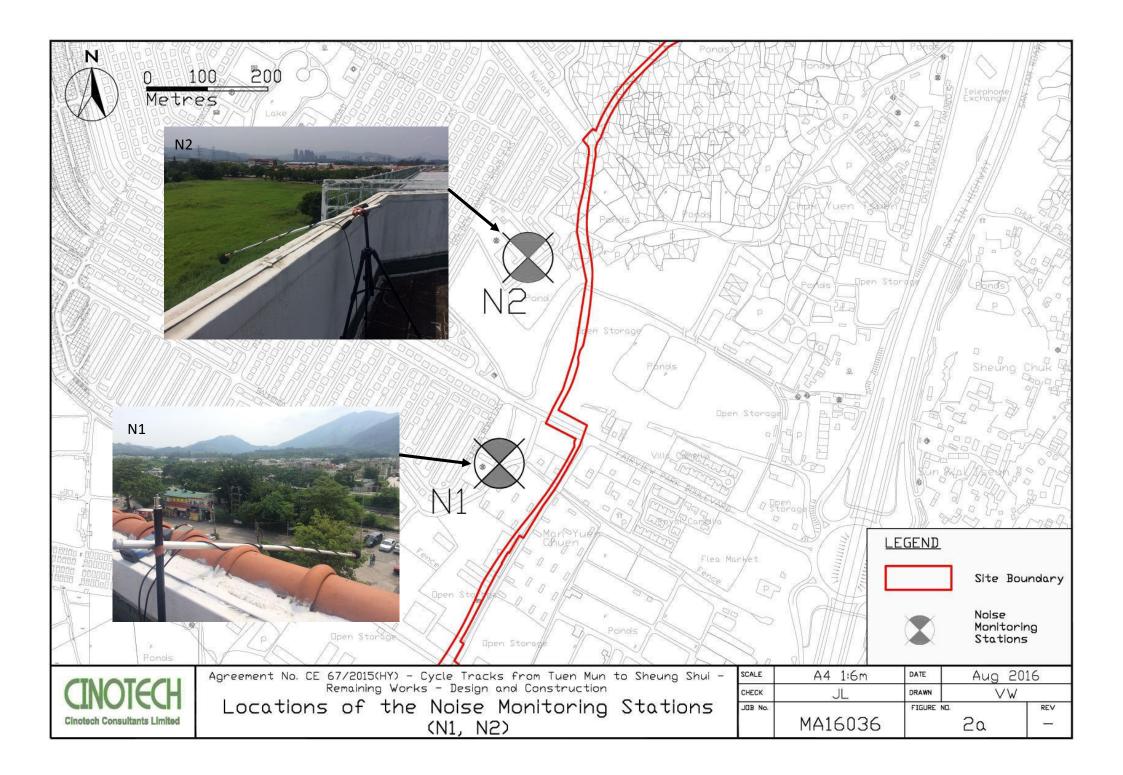


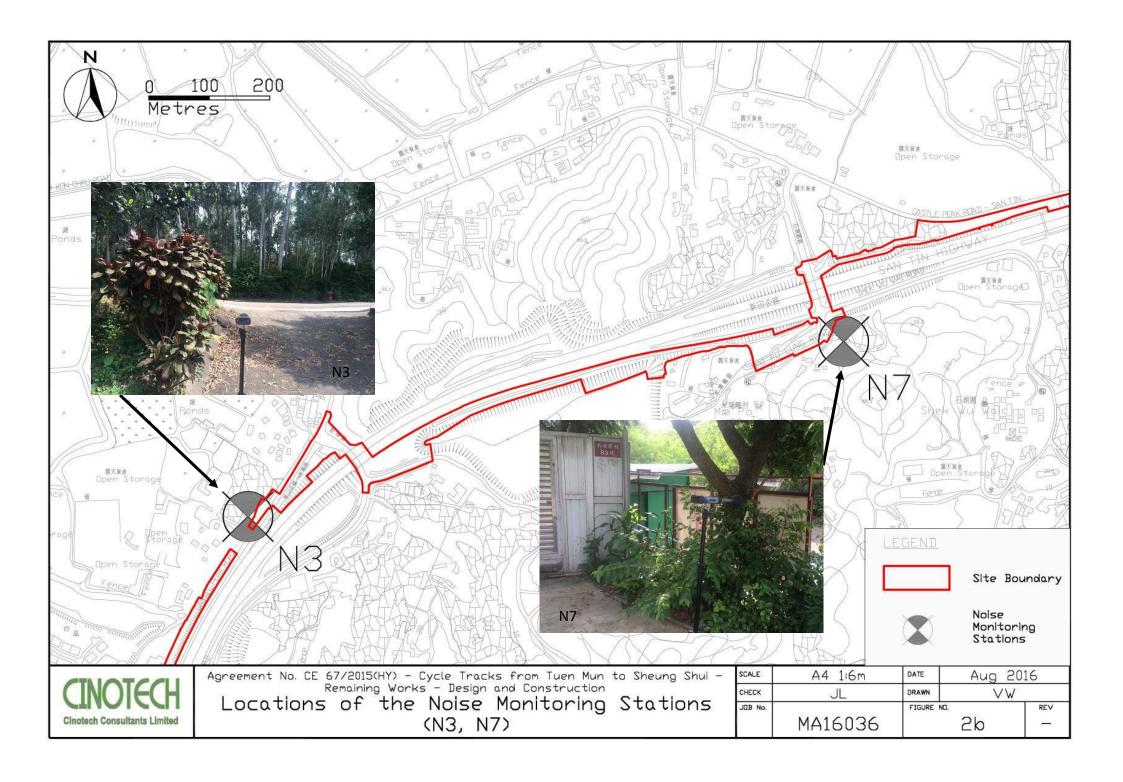
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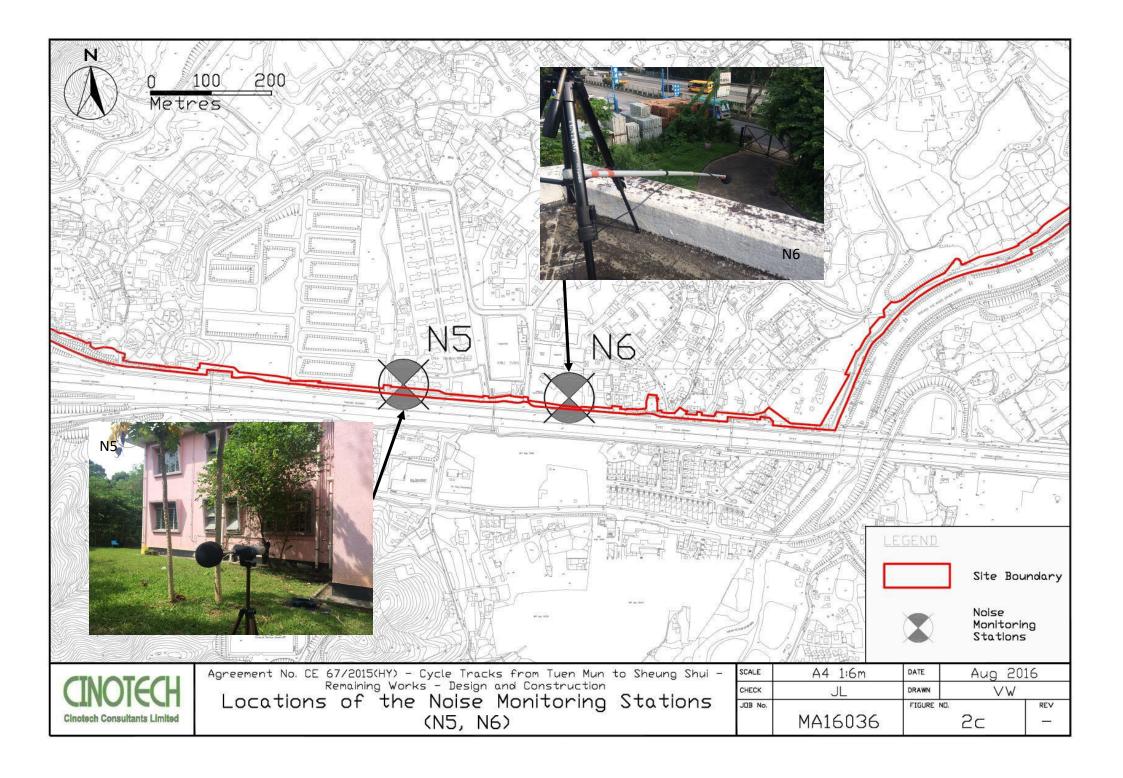
Date Dec-16 Figure 1f





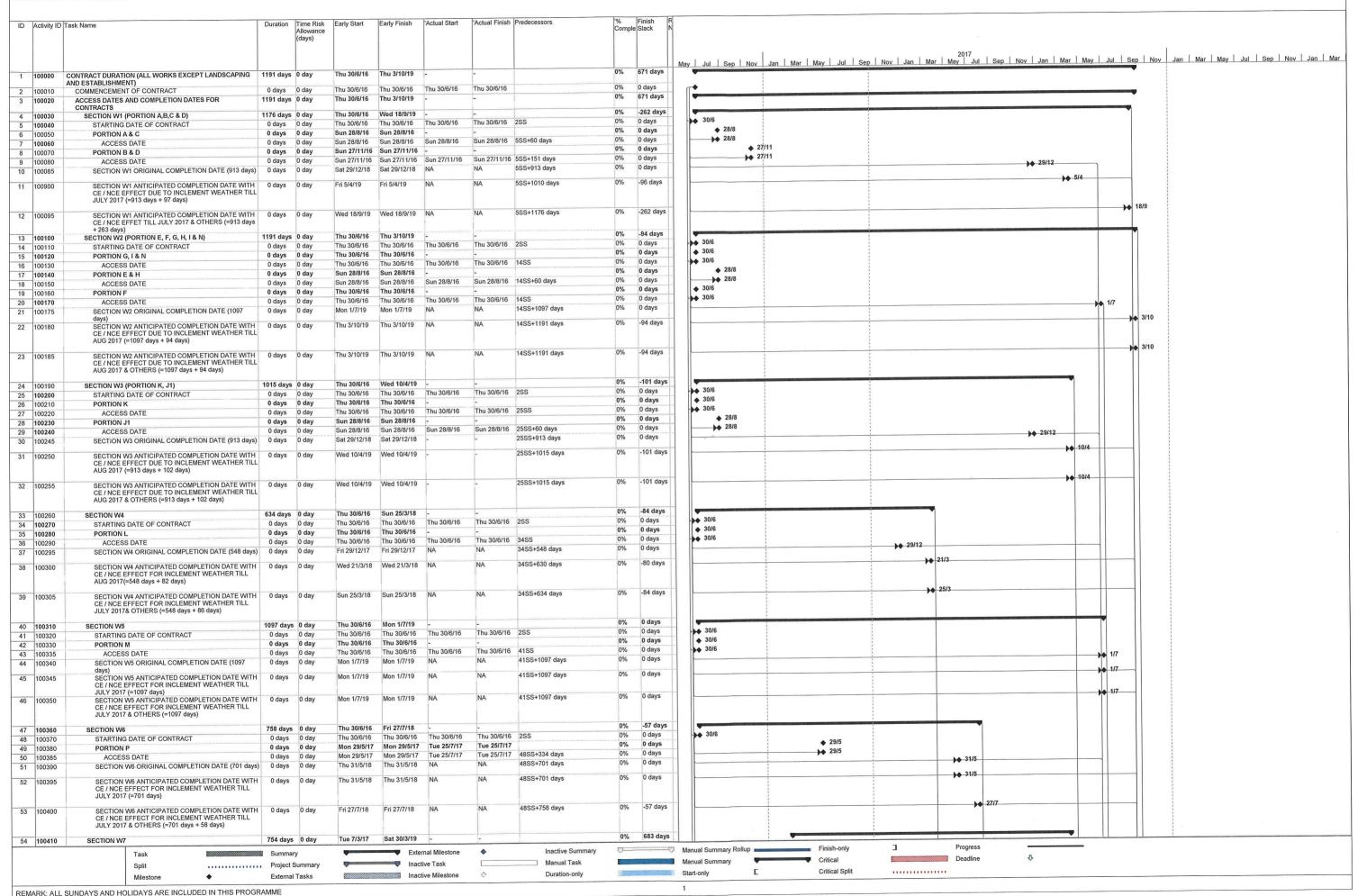




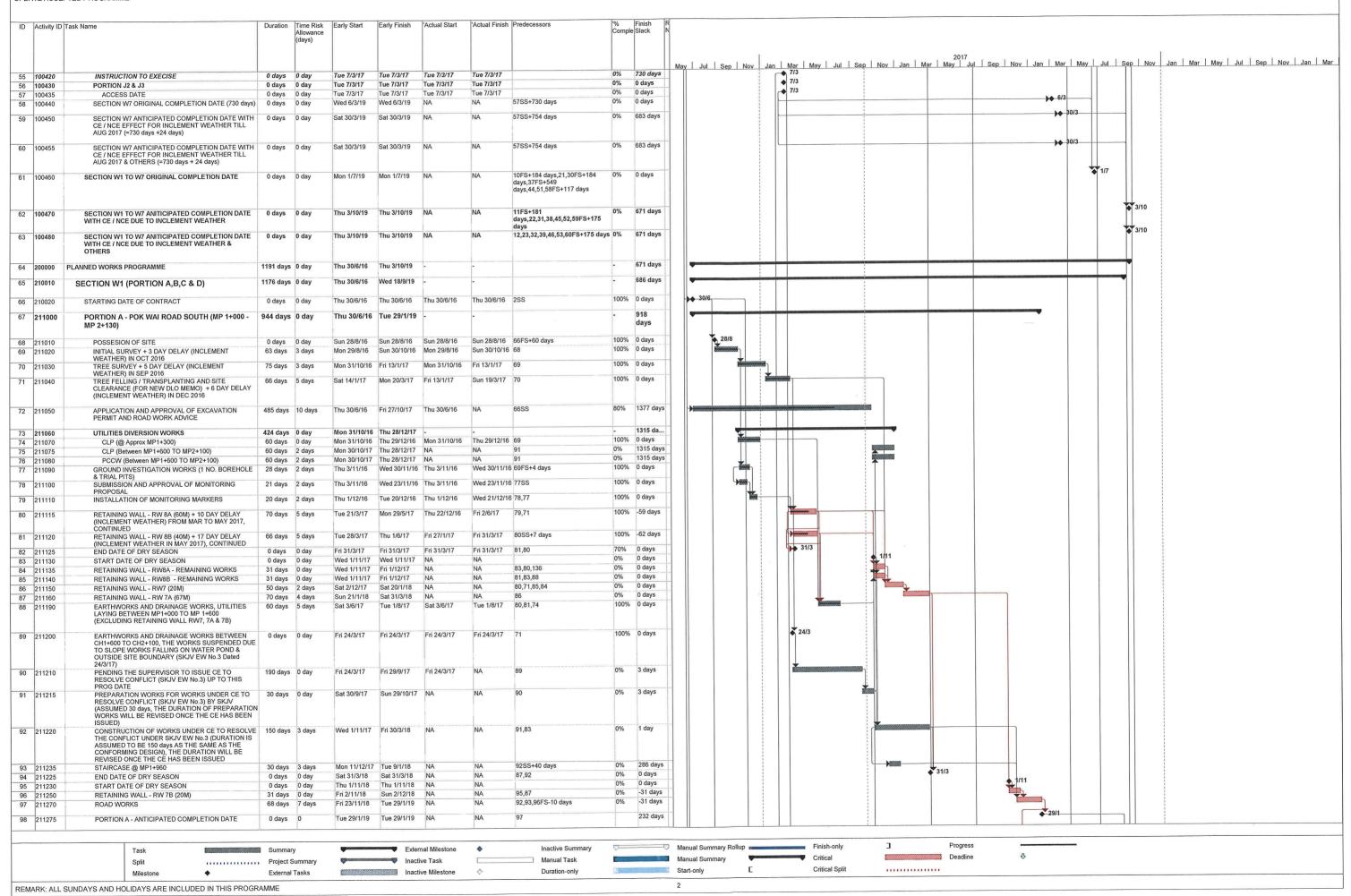


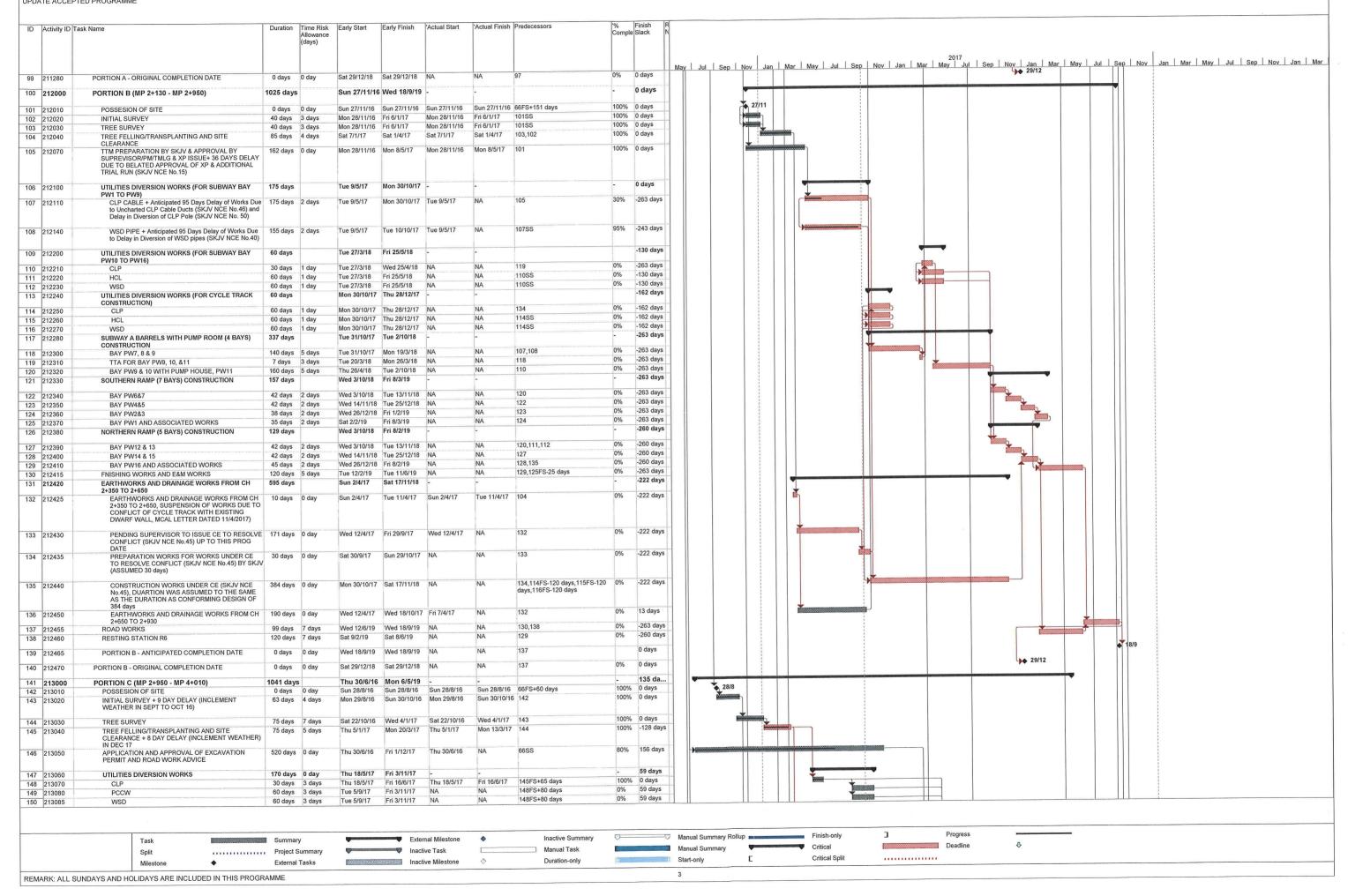
# APPENDIX A CONSTRUCTION PROGRAMME

CEDD CONTRACT NO. YL/2015/01 CYCLE TRACKS FROM TUEN MUN TO SHEUNG SHUI - REMAINING WORKS UPDATE ACCEPTED PROGRAMME

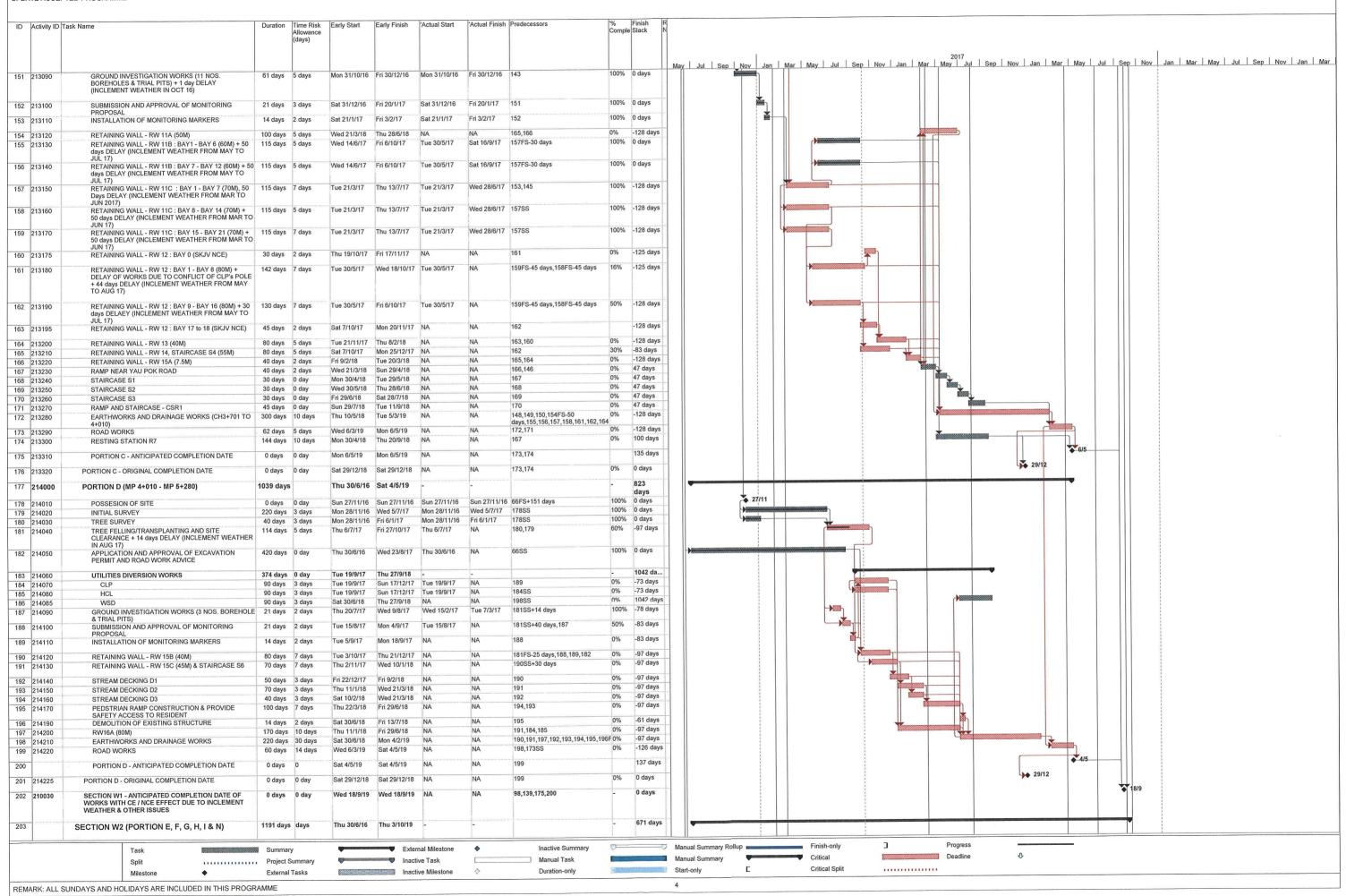


CEDD CONTRACT NO. YL/2015/01 CYCLE TRACKS FROM TUEN MUN TO SHEUNG SHUI - REMAINING WORKS LIPDATE ACCEPTED PROGRAMME

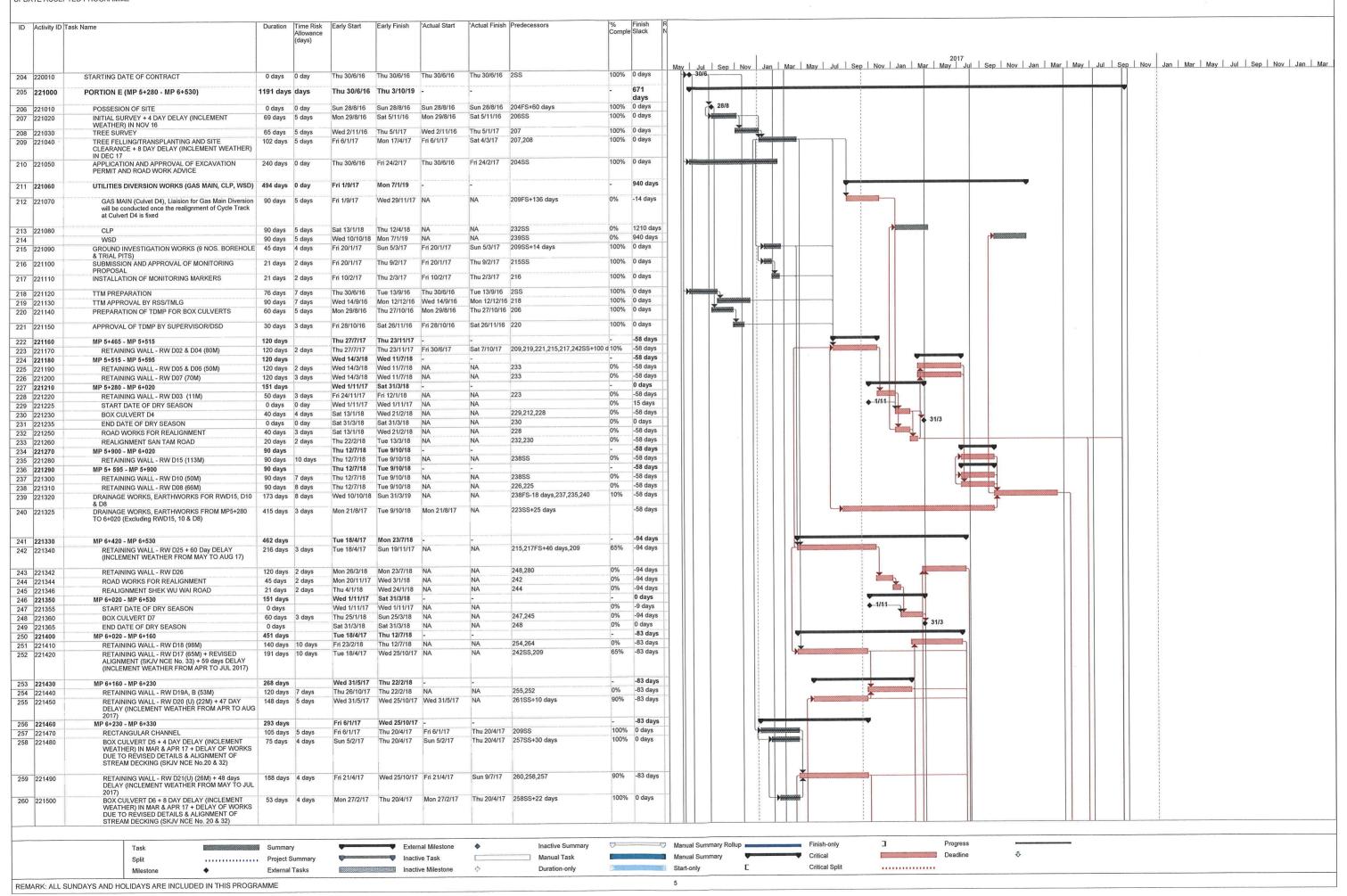


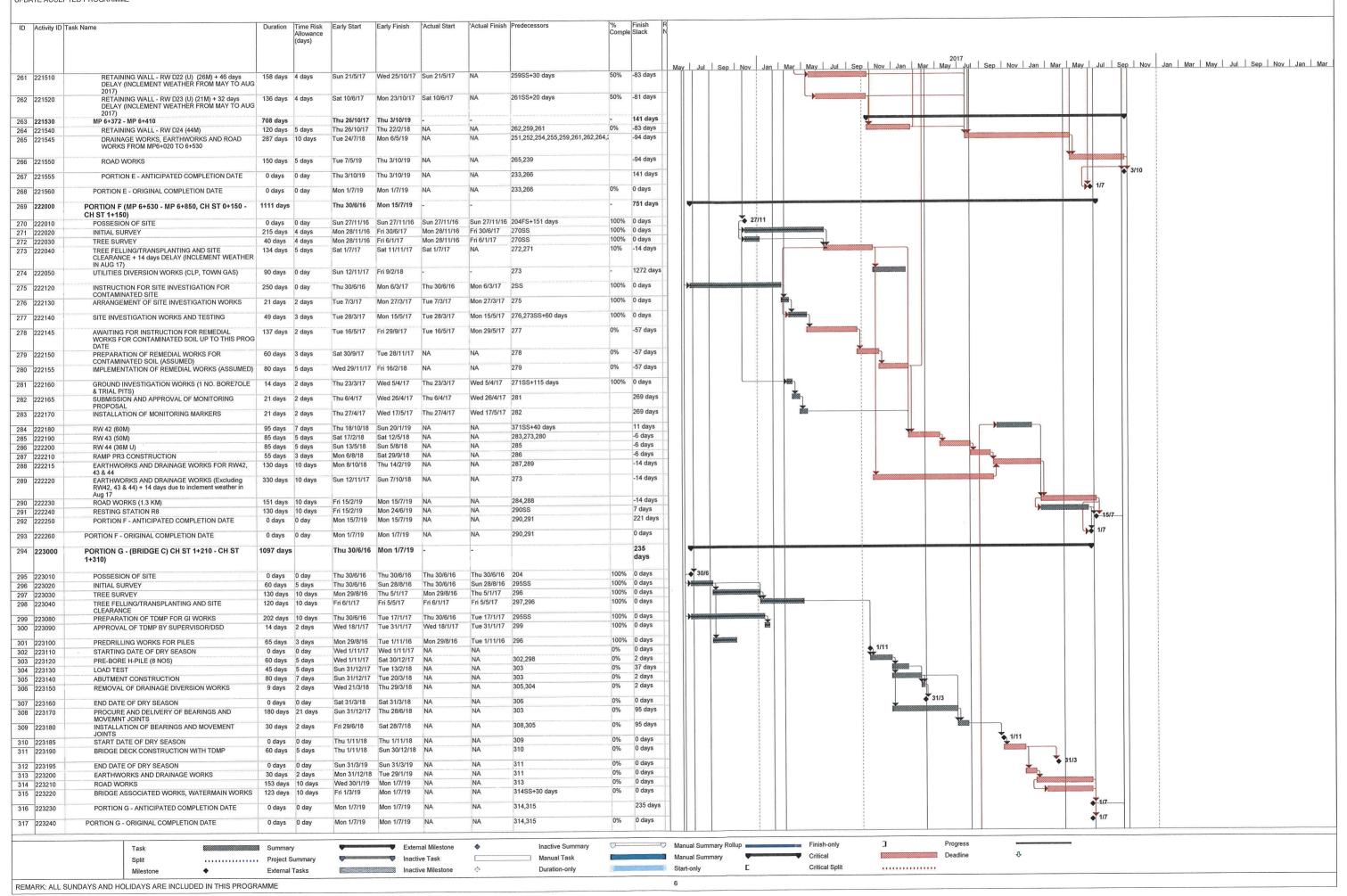


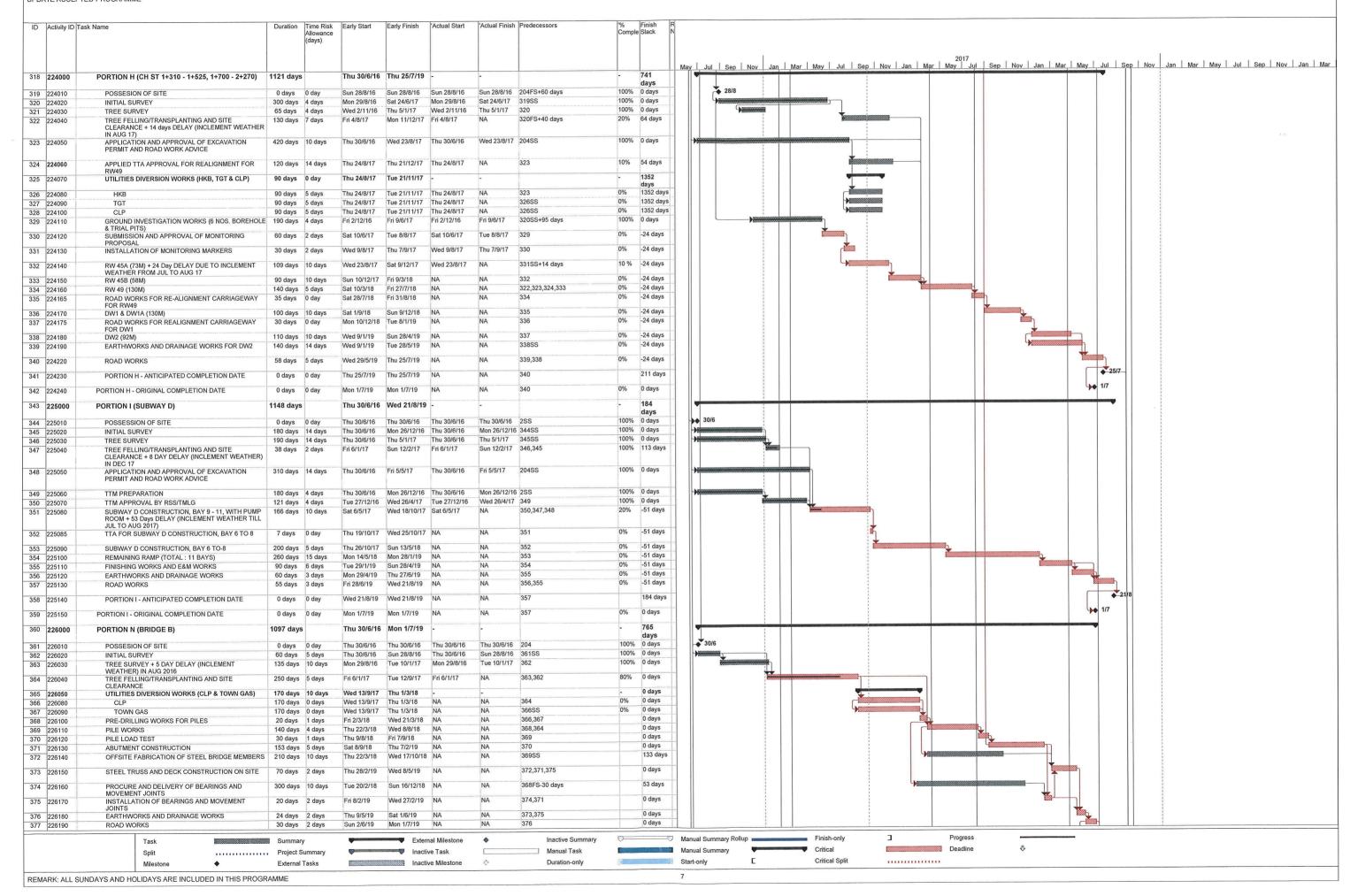
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CYCLE TRACKS FROM TUEN MUN TO SHEUNG SHUI - REMAINING WORKS
LIPDATE ACCEPTED PROGRAMME



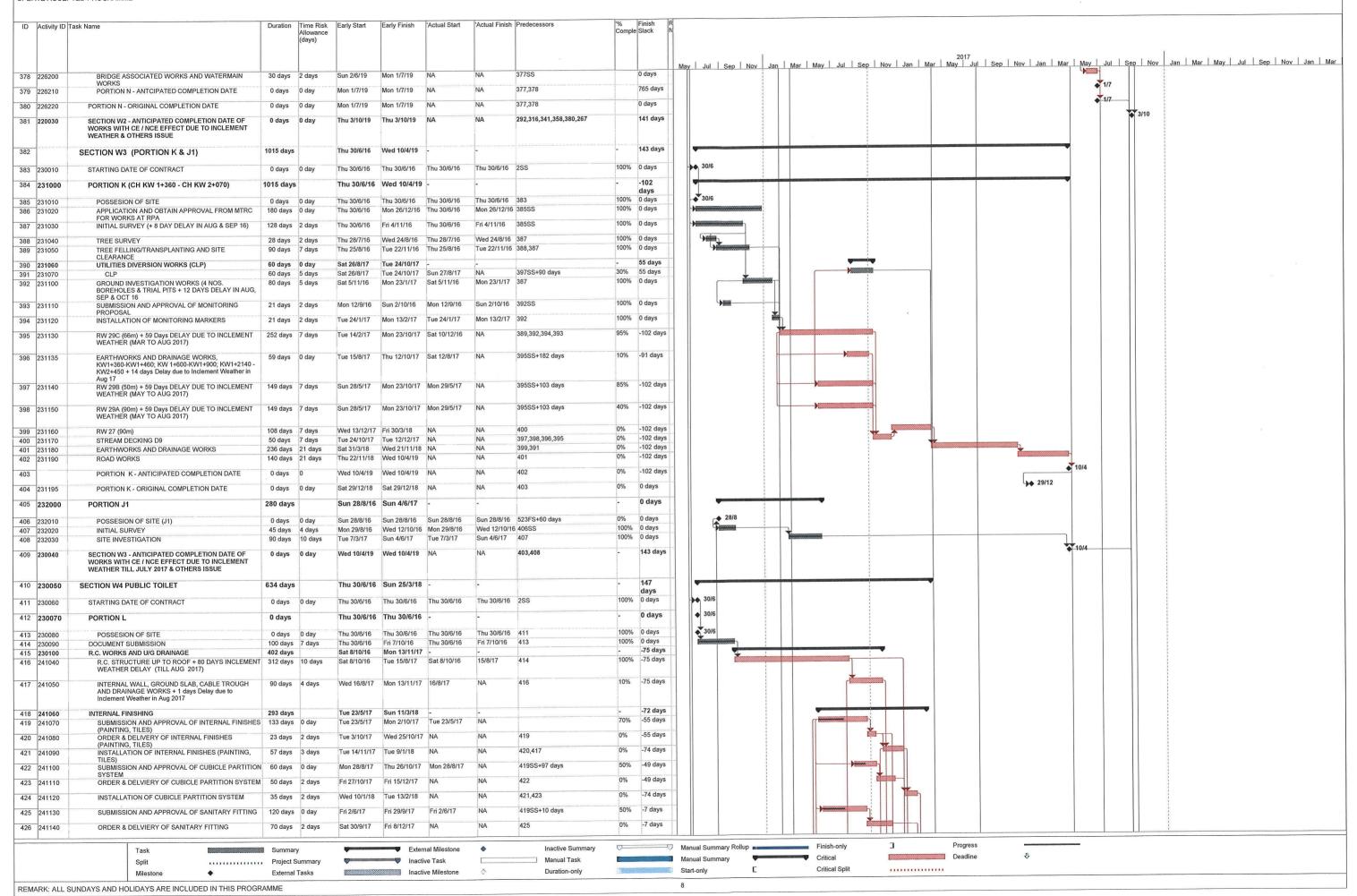
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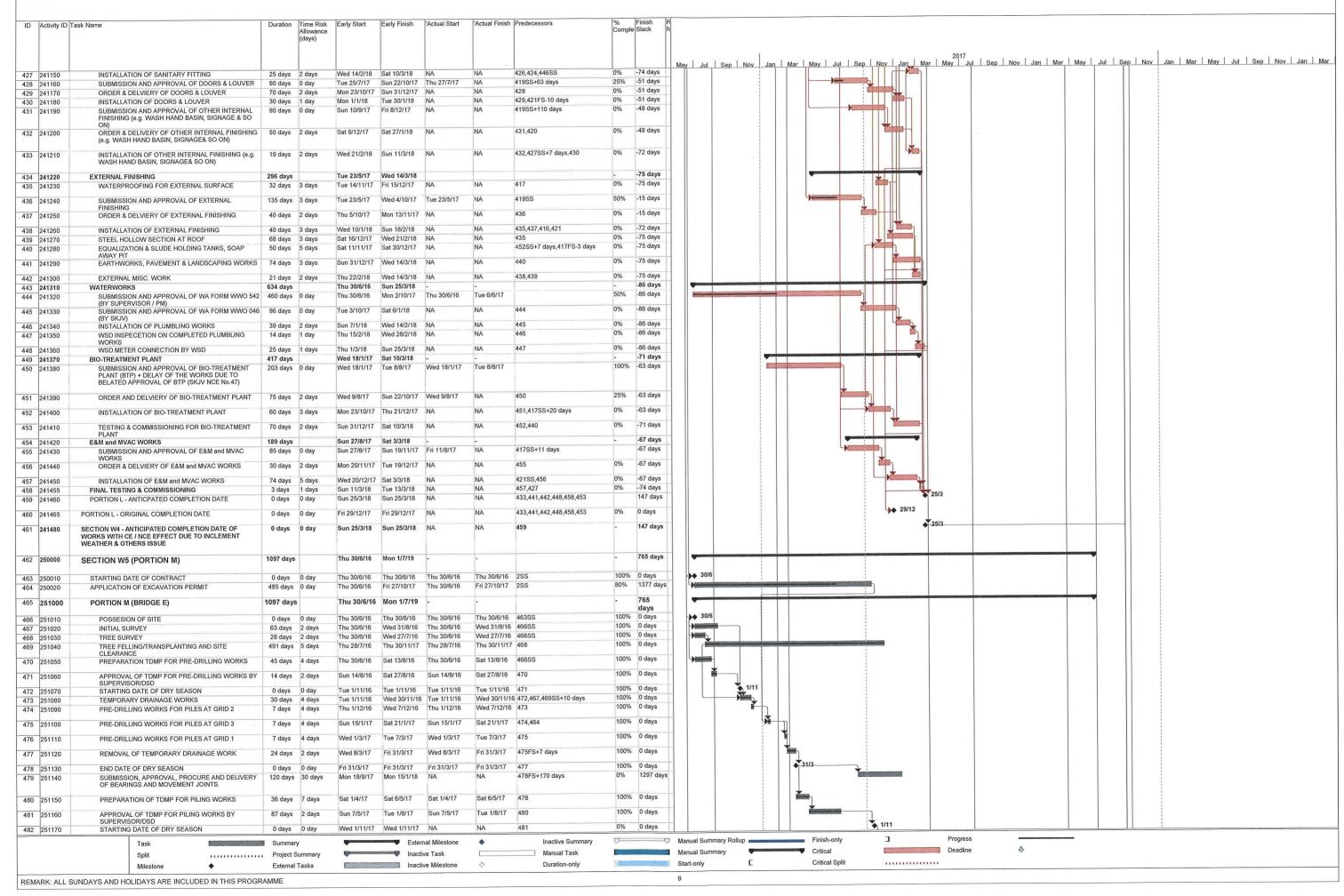


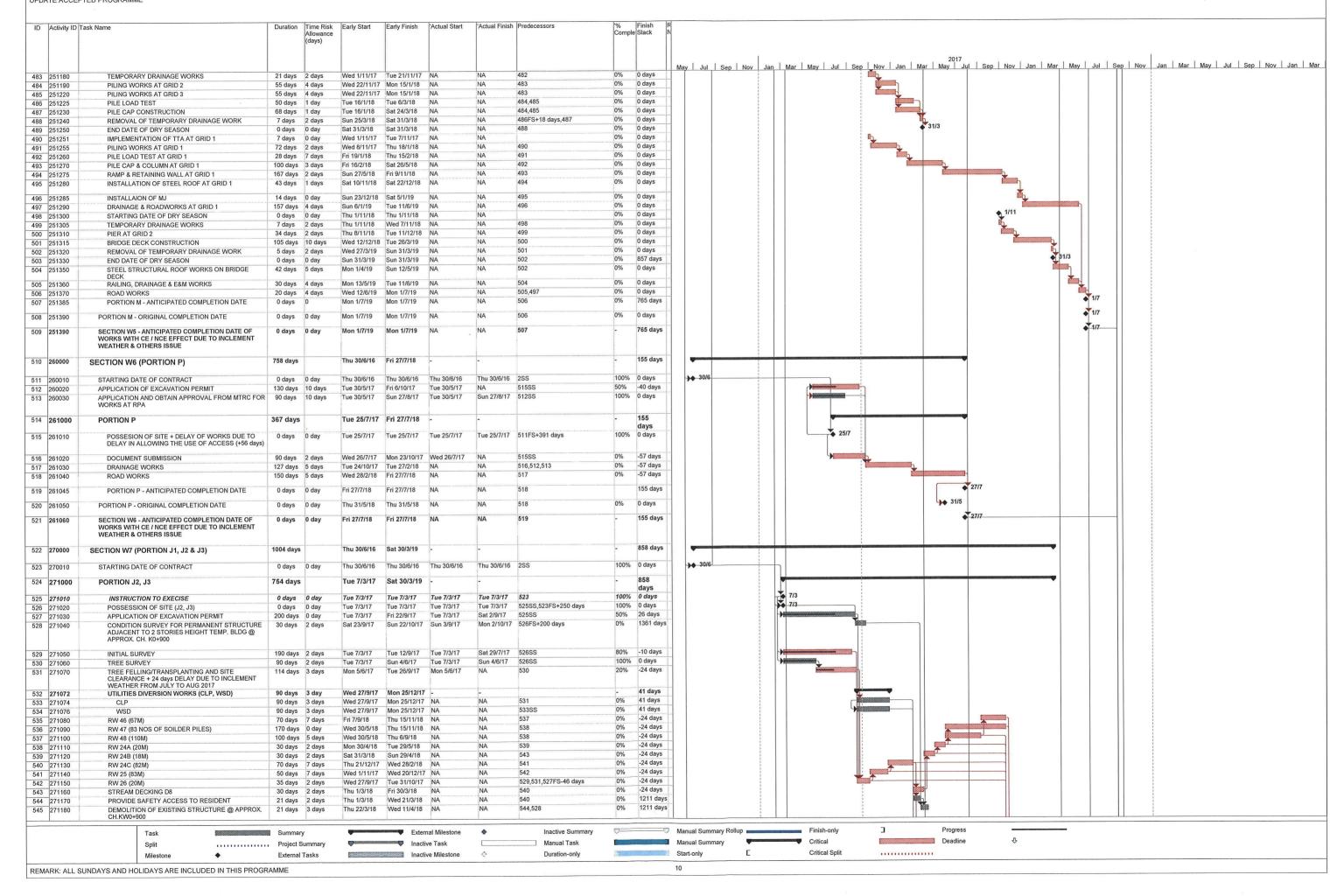


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CYCLE TRACKS FROM TUEN MUN TO SHEUNG SHUI - REMAINING WORKS
LIPDATE ACCEPTED PROGRAMME



CEDD CONTRACT NO. YL/2015/01
CYCLE TRACKS FROM TUEN MUN TO SHEUNG SHUI - REMAINING WORKS
UPDATE ACCEPTED PROGRAMME





CEDD CONTRACT NO. YL/2015/01 CYCLE TRACKS FROM TUEN MUN TO SHEUNG SHUI - REMAINING WORKS UPDATE ACCEPTED PROGRAMME

Activi	ivity ID	Task Name	Duration	Time Risk Allowance (days)	Early Start	Early Finish	'Actual Start	'Actual Finish	Predecessors	'% Finis Comple Slac
				(-2)*/						
46 2711	190	EARTHWORKS AND DRAINAGE WORKS	135 days	10 days		Sat 30/3/19		NA	535,536,537,538,539,540,541,54	
47 27120		ROAD WORKS	395 days		Thu 1/3/18	Sat 30/3/19	NA	NA	540,533,534	0% -24 0
27120		PORTON J2/J3 - ANTICIPATED COMPLETION DATE	0 days		Sat 30/3/19	Sat 30/3/19	NA	NA	547	-24 0
2712		PORTON J2/J3 - ORIGINAL COMPLETION DATE	0 days		Wed 6/3/19	Wed 6/3/19	NA	NA	546,548	0 da
550 <b>2712</b>	215	SECTION W7 - ANTICIPATED COMPLETION DATE WITH CE I NCE EFFECT DUE TO INCLEMENT WEATHER & OTHERS ISSUE	0 days	0 day	Sat 30/3/19	Sat 30/3/19	NA	NA	548	858
551 2000	010	SECTION W1 TO W7 - ANTICIPATED COMPLETION DATE OF WORKS WITH CE / NCE EFFECT DUE TO INCLEMENT WEATHER & OTHERS ISSUE	0 days	0 day	Thu 3/10/19	Thu 3/10/19	NA	NA	521,461,409,381,202,509,550	671
52 3000	000	LANDSCAPING SOFTWORKS AND ESTABLISHMENT WORK	1862 days		Thu 30/6/16	Wed 4/8/21	NA	NA	1	0 da
53 <b>3000</b>	010	ACCESS DATES AND COMPLETION DATES FOR	1332 days	3	Tue 7/3/17	Wed 28/10/20	NA	NA		0 da
54 3000		CONTRACTS SECTION W8A	172 days		Sat 30/3/19	Wed 18/9/19		NA		-172
55 3000 56 3000		ACCESS DATE COMPLETION DATE	0 days 0 days		Wed 18/9/19 Sat 30/3/19	Wed 18/9/19 Sat 30/3/19		NA NA	4 555FS+90 days	-262 0 da
57 3000		SECTION W8B	26 days		Thu 3/10/19	Tue 29/10/19		NA		0 da
58 30006		ACCESS DATE	0 days		Thu 3/10/19	Thu 3/10/19	The state of the s	NA	13	-94 (
59 3000	070	COMPLETION DATE	0 days		Tue 29/10/19			NA	558FS+120 days	0 da
60 30008		SECTION W8C	71 days		Tue 29/1/19	Wed 10/4/19		NA NA	24	-71 (
61 30009		ACCESS DATE	0 days		Wed 10/4/19	Wed 10/4/19		NA NA	24 561FS+30 days	-101 0 da
62 30010		COMPLETION DATE	0 days		Tue 29/1/19 Tue 30/1/18	Tue 29/1/19 Sun 25/3/18		NA NA	JUIFOTJU days	-54 d
63 <b>3001</b>		SECTION W8D ACCESS DATE	54 days 0 days		Sun 25/3/18	Sun 25/3/18 Sun 25/3/18		NA NA	33	-84 (
64 30012 65 30013		COMPLETION DATE	0 days	-	Tue 30/1/18	Tue 30/1/18		NA	564FS+30 days	0 da
66 30014		SECTION W8E	30 days		Mon 1/7/19	Wed 31/7/19		NA		0 da
67 30015		ACCESS DATE	0 days		Mon 1/7/19	Mon 1/7/19	NA	NA	40	0 da
68 30016		COMPLETION DATE	0 days		Wed 31/7/19	Wed 31/7/19		NA	567FS+30 days	0 da
69 30017		SECTION W8F	27 days		Sat 30/6/18		NA NA	NA NA	47	-27 d
70 30018	unammono do	ACCESS DATE	0 days		Fri 27/7/18 Sat 30/6/18	Fri 27/7/18 Sat 30/6/18	NA NA	NA NA	47 570FS+30 days	-57 d
71 30019 72 <b>3002</b> 0		COMPLETION DATE SECTION W8G	0 days 820 days		Tue 7/3/17	Tue 4/6/19	NA NA	NA NA		0 da
73 3002		ACCESS DATE	0 days	-	Tue 7/3/17	Tue 7/3/17	NA	NA	55	730
74 30022		COMPLETION DATE	0 days		Tue 4/6/19	Tue 4/6/19	NA	NA	573FS+90 days	0 da
75 30023		SECTION W9A	193 days		Wed 18/9/19			NA	554	0 da
76 30024		ACCESS DATE	0 days		Wed 18/9/19			NA NA	554 576FS+365 days	-172 0 da
77 30025		COMPLETION DATE	0 days 365 days	-	Sun 29/3/20 Tue 29/10/19	Sun 29/3/20 Wed 28/10/20		NA NA	OTOF OTOGO days	0 da
78 <b>3002</b> 6		SECTION W9B  ACCESS DATE	0 days			Tue 29/10/19		NA	557	0 da
79 3002 80 30028		COMPLETION DATE	0 days			Wed 28/10/19		NA NA	579FS+365 days	0 da
81 30029		SECTION W9C	294 days		Wed 10/4/19			NA		0 da
82 30030		ACCESS DATE	0 days		Wed 10/4/19	Wed 10/4/19	NA	NA	560	-71
83 3003		COMPLETION DATE	0 days		Wed 29/1/20			NA	582FS+365 days	0 da
84 3003		SECTION W9D	311 days		Sun 25/3/18	Wed 30/1/19		NA NA	563	0 da -54
85 3003		ACCESS DATE	0 days		Sun 25/3/18 Wed 30/1/19	Sun 25/3/18 Wed 30/1/19		NA NA	563 585FS+365 days	-54 0 0 da
86 3003 87 <b>3003</b>		COMPLETION DATE SECTION W9E	0 days 365 days			Thu 30/7/20		NA NA		0 da
88 3003		ACCESS DATE	0 days			Wed 31/7/19		NA	566	0 da
89 3003		COMPLETION DATE	0 days		Thu 30/7/20			NA	588FS+365 days	0 da
90 3003		SECTION W9F	338 days		Fri 27/7/18	Sun 30/6/19		NA		0 da
91 3003		ACCESS DATE	0 days		Fri 27/7/18	Fri 27/7/18	NA	NA	569	-27
92 3004		COMPLETION DATE	0 days		Sun 30/6/19	Sun 30/6/19	NA NA	NA NA	591FS+365 days	0 da
93 3004		SECTION W9G ACCESS DATE	365 days 0 days		Tue 4/6/19 Tue 4/6/19	Wed 3/6/20 Tue 4/6/19	NA NA	NA NA	572	0 da
94 3004: 95 3004:		ACCESS DATE  COMPLETION DATE	0 days	1	Wed 3/6/20	Wed 3/6/20	NA	NA NA	594FS+365 days	0 da
95 3004 596	700	COMMITTEE TO A DATE	o days							
97 4000	0000	PLANNED WORK PROGRAMME	1862 day	5	Thu 30/6/16	Wed 4/8/21	NA	NA		0 da
98 4000	010	SECTION W8A	1266 day	5	Thu 30/6/16	Tue 17/12/19		NA		0 da
99 4000		STARTING DATE OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16		NA	2SS	117
4000		LANDSCAPING SOFTWORKS		7 days	Thu 19/9/19 Tue 17/12/19	Tue 17/12/19 Tue 17/12/19		NA NA	202,599	0 da
601 4000 602 <b>4000</b>		COMPLETION OF SECTION W8A SECTION W8B	0 days 1311 day	5	Thu 30/6/16	Fri 31/1/20	NA	NA		141
302 4000 303 4000		STARTING DATE OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16		NA	2SS	133
604 4000		LANDSCAPING SOFTWORKS		10 days	Fri 4/10/19	Fri 31/1/20	NA	NA	603,381	141
605 4000		COMPLETION OF SECTION W8B	0 days		Fri 31/1/20	Fri 31/1/20	NA	NA	604	141
606 4000	0090	SECTION W8C	1105 day		Thu 30/6/16		NA	NA	200	143
607 4001		STARTING DATE OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16	NA NA	NA NA	2SS 409,607	115
608 4001		LANDSCAPING SOFTWORKS		7 days	Thu 11/4/19 Tue 9/7/19	Tue 9/7/19 Tue 9/7/19	NA NA	NA NA	409,607	143
609 4001 610 <b>4001</b>		COMPLETION OF SECTION W8C SECTION W8D	0 days 664 days		Thu 30/6/16			NA NA		147
310 <b>4001</b> 311 <b>4001</b>		STARTING DATE OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16		NA NA	2SS	781
612 4001		LANDSCAPING SOFTWORKS		3 days	Mon 26/3/18			NA	461,611	147
613 4001		COMPLETION OF SECTION W8D	0 days		Tue 24/4/18	Tue 24/4/18	NA	NA	612	147
614 4001	0170	SECTION W8E	30 days		Thu 30/6/16		NA	NA	200	131
315 4001		STARTING DATE OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16	and the second second second	NA NA	2SS 615	131
316 4001		LANDSCAPING SOFTWORKS		3 days	Thu 30/6/16 Fri 29/7/16	Fri 29/7/16 Fri 29/7/16	NA NA	NA NA	616	131
317 4002 318 <b>4002</b>		COMPLETION OF SECTION W8E SECTION W8F	0 days 788 days		Thu 30/6/16			NA NA	- 10	155
518 <b>4002</b> 519 4002		STARTING DATE OF CONTRACT	0 days		Thu 30/6/16			NA	2SS	913
320 4002		LANDSCAPING SOFTWORKS		3 days	Sat 28/7/18	Sun 26/8/18	NA	NA	619,521	155
321 4002		COMPLETION OF SECTION W8F	0 days			Sun 26/8/18		NA	620	155
		Task	Summa	rv	-	Exte	rnal Milestone	<b>♦</b>	Inactive Summary	0
							ive Task		Manual Task	
		Split	Project	ournmary		mac	14C 1 Q2V	L.	Hallual Lash	
		Milestone •	Externa			Inac		♦	Duration-only	Characteristics

ID Activity	D Task Name	Duration Time Risk Allowance (days)		Early Finish	'Actual Start	'Actual Finish	Predecessors	% Finish Comple Slack											
									May Jul Sep I	ov Jan Mar I	May Jul	Sep Nov Jan	2017 Mar May Ju	Sep Nov Jan	Mar   May   Ju	ıl Sep Nov	Jan Mar May	/ Jul   Sep   N	lov   Jan   Ma
622 400250	SECTION W8G	90 days	Tue 7/3/17	Sun 4/6/17	NA	NA		942 days								1			
623 400260	INSTRUCTION TO EXECISE	0 days	Tue 7/3/17	Tue 7/3/17	NA	NA	55SS	942 days		7/3									
624 400270	LANDSCAPING SOFTWORKS	90 days 7 days	Tue 7/3/17		NA	NA	623	942 days			440					i			
625 400280	COMPLETION OF SECTION W8G	0 days	Sun 4/6/17		NA	NA	624	942 days		1	4/6	1							-
626 400290	SECTION W9A	1631 days	Thu 30/6/16	Wed 16/12/20		NA		0 days				1							
627 400300	STARTING DATE OF CONTRACT	0 days	Thu 30/6/16	Thu 30/6/16		NA	2SS	1266 days	→ 30/6			-				7			
628 400310	ESTABLISHMENT WORKS	365 days 30 days		Wed 16/12/20		NA	601,627	0 days		. !						100			16/12
629 400320	COMPLETION OF SECTION W9A	0 days	Wed 16/12/20		NA	NA	628	0 days				İ							10/12
630 400330	SECTION W9B	1862 days	Thu 30/6/16		NA	NA		0 days				!							
631 400340	STARTING DATE OF CONTRACT	0 days	Thu 30/6/16	Thu 30/6/16	NA	NA	2SS	1497 days	30/6			!							
632 400350	ESTABLISHMENT WORKS	365 days 30 days	Wed 5/8/20	Trou moral	NA	NA	631,629FF+231 days,637FF+249 d	0 days										B	
633 400360	COMPLETION OF SECTION W9B	0 days	Wed 4/8/21	Wed 4/8/21	NA	NA	632	0 days											
634 400370	SECTION W9C	1470 days	Thu 30/6/16	Wed 8/7/20	NA	NA		143 days								i			
635 400380	STARTING DATE OF CONTRACT	0 days	Thu 30/6/16	Thu 30/6/16	NA	NA	2SS	1248 days	30/6			i			-				
636 400390	ESTABLISHMENT WORKS	365 days 30 days	Wed 10/7/19	Wed 8/7/20	NA	NA	609,635	143 days		1					8000			817	
637 400400	COMPLETION OF SECTION W9C	0 days	Wed 8/7/20	Wed 8/7/20	NA	NA	636	143 days		i						1		<b>4</b> 011	
638 400410	SECTION W9D	1029 days	Thu 30/6/16	Wed 24/4/19	NA	NA		147 days	-										
639 400420	STARTING DATE OF CONTRACT	0 days	Thu 30/6/16	Thu 30/6/16	NA	NA	2SS	811 days	30/6			1	<del></del>						
640 400430	ESTABLISHMENT WORKS	365 days 30 days	Wed 25/4/18	Wed 24/4/19	NA	NA	613,639	147 days							24/4				
641 400440	COMPLETION OF SECTION W9D	0 days	Wed 24/4/19	Wed 24/4/19	NA	NA	640	147 days							<b>♦ 2414</b>				
642 400450	SECTION W9E	395 days	Thu 30/6/16	Sat 29/7/17	NA	NA		1314 da	-	!	_					1			
643 400460	STARTING DATE OF CONTRACT	0 days	Thu 30/6/16	Thu 30/6/16	NA	NA	2SS	1344 days	30/6							1			
644 400470	ESTABLISHMENT WORKS	365 days 30 days	Sat 30/7/16	Sat 29/7/17	NA	NA	617,643	1314 days	Y		<b>V</b>	. 1							
645 400480	COMPLETION OF SECTION W9E	0 days	Sat 29/7/17	Sat 29/7/17	NA	NA	644	1314 days			29/7								
646 400490	SECTION W9F	1153 days	Thu 30/6/16	Mon 26/8/19	NA	NA		155 days	Annual Contraction of the last										
647 400500	STARTING DATE OF CONTRACT	0 days	Thu 30/6/16	Thu 30/6/16		NA	2SS	943 days	30/6			1		<b>\</b>					
648 400510	ESTABLISHMENT WORKS	365 days 30 days	Mon 27/8/18	Mon 26/8/19	NA	NA	621,647	155 days								26/8			
649 400520	COMPLETION OF SECTION W9F	0 days	Mon 26/8/19	Mon 26/8/19	NA	NA	648	155 days				ĺ				₩ 20/0			
650 400530	SECTION W9G	455 days	Tue 7/3/17	Mon 4/6/18	NA	NA		942 days											
651 400540	INSTRUCTION TO EXECISE	0 days	Tue 7/3/17	Tue 7/3/17	NA	NA	55SS	1032 da		7/3	7	1							
652 400550	ESTABLISHMENT WORKS	365 days 30 days	Mon 5/6/17	Mon 4/6/18	NA	NA	625,651	942 days				:	<b>Y</b>			į			
653 400560	COMPLETION OF SECTION W8A	0 days	Mon 4/6/18	Mon 4/6/18	NA	NA	652	942 days				1	<b>4/6</b>						

# APPENDIX B MONITORING REQUIREMENTS

### Appendix B - Environmental Impact Monitoring Requirements

Remarks: # The impact monitoring at these locations will only be carried out until existence of the sensitive receiver at the building.

Type of Monitoring	Parameter	Frequency	Location	Measurement Conditions
Construction Noise	L <sub>eq</sub> . L <sub>90</sub> & L <sub>10</sub> at 30 minute intervals during (0700 to 1900 on normal weekdays)	Once per week	<ul> <li>N1 - HKMLC Wong Chan Sook Ying Memorial School</li> <li>N2 - Bethel High School</li> <li>N3 - No. 159 Mai Po San Tsuen</li> <li>N5 - Block 2, Dills Corner Garden</li> <li>N6 - Home of Loving Faithfulness</li> <li>N7 - Village House in Shek Wu Wai</li> </ul>	<ul> <li>N1 – Façade measurement at Rooftop (about 5/F) area</li> <li>N2 – Façade measurement at Rooftop (about 4/F) area</li> <li>N3 – Free field measurement at G/F area</li> <li>N5 – Free field measurement at G/F area</li> <li>N6 – Façade measurement at Rooftop (about 3/F) area</li> <li>N7 – Free field measurement at G/F area</li> </ul>

APPENDIX C ACTION AND LIMIT LEVELS FOR NOISE

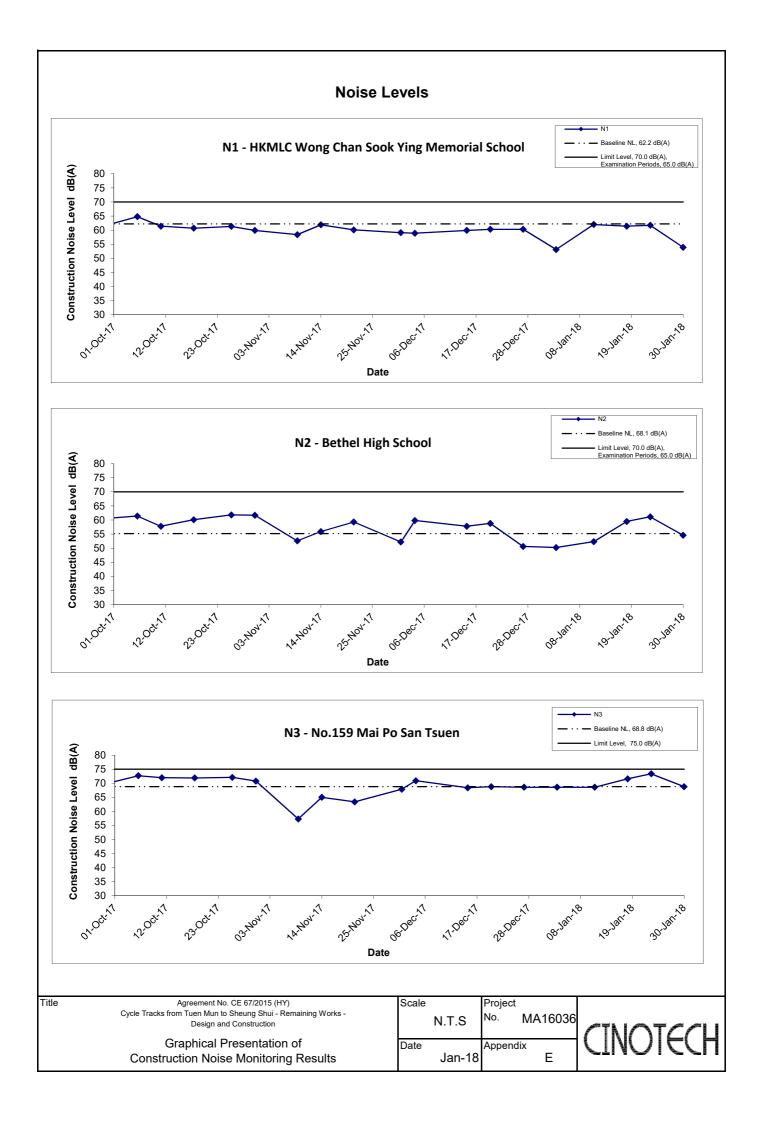
# **Appendix C - Action and Limit Levels**

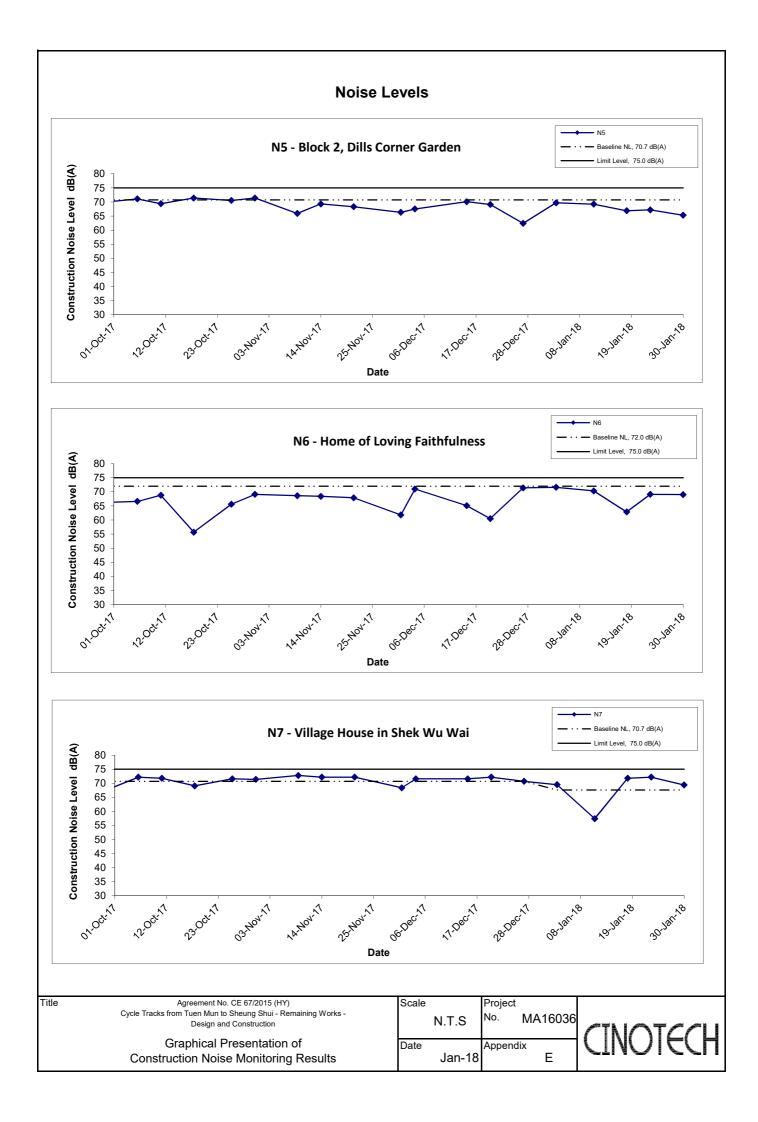
 Table B-1
 Action and Limit Levels for Construction Noise

Time Period	Action Level	Limit Level
0700-1900 hrs on normal weekdays	When one documented complaint is received	75 dB(A) 70dB(A)/65dB(A)*

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

APPENDIX D NOISE MONITORING RESULTS AND GRAPHICAL PRESENTATIONS





APPENDIX E ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

Appendix E - Summary of Implementation Schedule of Mitigation Measures for Construction Phase

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
Construction	Air Quality		
S.3.6.2	S.3.2.3	All the dust control measures as recommended in the Air Pollution Control (Construction Dust) Regulation, where applicable, should be implemented. Typical dust control measures include:	۸
S.3.6.2	S.3.2.3	• The works area for site clearance shall be sprayed with water before, during and after the operation so as to maintain the entire surface wet	٨
S.3.6.2	S.3.2.3	• Restricting heights from which materials are to be dropped, as far as practicable to minimize the fugitive dust arising from unloading/ loading	٨
S.3.6.2	S.3.2.3	• Immediately before leaving a construction site, all vehicles shall be washed to remove any dusty materials from the bodies and wheels. However, all spraying of materials and surfaces should avoid excessive water usage	۸
S.3.6.2	S.3.2.3	• Where a vehicle leaving a construction site is carrying a load of dusty materials, the load shall be covered entirely by clean impervious sheeting to ensure that the dusty materials will not leak from the vehicle	۸
S.3.6.2	S.3.2.3	• Travelling speeds should be controlled to reduce traffic induced dust dispersion and re-suspension within the site from the operating haul trucks	٨
S.3.6.2	S.3.2.3	• Erection of hoarding of not less than 2.4 m high from ground level along the site boundary, where appropriate	٨
S.3.6.2	S.3.2.3	• Any stockpile of dusty materials shall be covered entirely by impervious sheeting; and/or placed in an area sheltered on the top and 4 sides	#

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
S.3.6.2	S.3.2.3	<ul> <li>All dusty materials shall be sprayed with water or a dust suppression chemical immediately prior to any loading, unloading or transfer operation so as to maintain the dusty materials wet</li> </ul>	#
Construction	Noise Impact		
S5.5.11	S4.2.17 (Stage 1 only)	In order to prevent potential cumulative construction noise impacts to NSRs at Mai Po San Tsuen and Palm Springs, the works at the cycle track section (near CH-MP5+100m) are recommended to be scheduled to avoid works at the areas near Castle Peak Road of the Proposed Comprehensive Development at Wo Shang Wai (CDWSW) project if the works site of the CDWSW project is less than 300 m away from Castle Peak Road.	N/A
S.5.5.14	S.4.2.2 (Stage 1 only)	The contractor shall liaise with the Yuen Long and Kam Tin Sewerage and Sewage Disposal Stage 2 (YLKTSSD2) and North West New Territories Salt Water Supply (NWNTSWS) works contractors so as to avoid undertaking works concurrently with the works when they are in the close proximity as far as practicable. As a conservative approach, works for the cycle track shall be carried out when the works from the other projects are over 300 m away. The requirements shall be included in the works contracts.	N/A
N/A	N/A (Stage 2 only)	The contractor shall liaise with Yuen Long and Kam Tin Sewerage and Sewage Disposal (YLKSSD), Construction of Cycle Tracks and the associated Supporting Facilities at Nam Sang Wai, Yuen Long (NSWCT), Drainage Improvement at Northern NT - Package A – Drainage Improvement Works in San Tin (Remaining Works) - Investigation, North East New Territories New Development Areas Planning and Engineering Study (Investigation) (NENTNDA) and the Proposed Residential cum Passive Recreational Development within "Recreation" ("REC") zone and "Residential (Group C)" Zone at Various Lots in DD 104, Yuen Long, N.T. (RCPRD) contractors so as to avoid undertaking works concurrently with their works (refer to S. 4.2.2 of the EM&A Manual for Stage 2 Works).	٨

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
Table 5-7	S.4.2.19	Use of quiet plant (PME):	^
		- mini excavator	
		- mobile crane	
		- dump truck	
		- hand-held electric circular saw	
		- concrete lorry mixer	
		- lorry	
		- vibratory poker	
		- asphalt paver	
		- crane mounted auger	
		- road roller	
		- road ripper, excavator mounted	
S.5.6.2	S.4.2.19	Noise barrier in the form of site hoarding shall be used for the following PMEs	^
Table 5-8		where practicable:	
		- mini excavator	
		- mobile crane	
		- dump truck	
		- hand-held electric circular saw	
		- bar bender	
		- vibrating hammer	
		- generator	
		- concrete lorry mixer	
		- lorry	
		- vibratory poker	
		- asphalt paver	
		- compactor	
		- road roller	
		- crane mounted auger	

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
		- grout mixer	
		- grout pump	
		- drill	
		- road ripper, excavator mounted	
S.5.6.2	S.4.2.19	Noise enclosure shall be used for the following PMEs where practicable:	N/A(1)
		- air compressor	
		- hand-held breaker	
S.5.6.2	S.4.2.19	The barrier / enclosure material's surface mass shall be in excess of 7 kg/m <sup>2</sup> .	٨
S.5.6.6	S.4.2.19	Use of alternative quieter plant such as road ripper, excavator mounted instead of	٨
		handheld breaker during levelling/excavation works.	
S.5.6.8	S.4.2.19	The Contractor shall adopt the Code of Practice on Good Management Practice to	٨
		Prevent Violation of the Noise Control Ordinance (Chapter 400) (for Construction	
		Industry) published by EPD	
S.5.6.8	S.4.2.19	The Contractor shall observe and comply with the statutory and non-statutory	٨
		requirements and guidelines	
S.5.6.8	S.4.2.19	Before commencing any work, the Contractor shall submit to the project Engineer	٨
		for approval the method of working, equipment and noise mitigation measures	
		intended to be used at the site	
S.5.6.8	S.4.2.19	The Contractor shall devise and execute working methods to minimize the noise	٨
		impact on the surrounding sensitive uses, and provide experienced personnel with	
		suitable training to ensure that those methods are implemented	
S.5.6.8	S.4.2.19	Noisy equipment and noisy activities should be located as far away from the NSRs as	٨
		is practical	
S.5.6.8	S.4.2.19	Unused equipment should be turned off. PME should be kept to a minimum and the	٨
		parallel use of noisy equipment / machinery should be avoided	
S.5.6.8	S.4.2.19	Regular maintenance of all plant and equipment	٨
S.5.6.8	S.4.2.19	Material stockpiles and other structures should be effectively utilised as noise	N/A
		barriers, where practicable	

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
S.5.6.8	S.4.2.19	The Contractor shall liaise with the schools that are located near the works sites regarding their examination period and schedule the noisy works to avoid the examination period as far as possible	۸
Construction	Water Quality		
S.6.6.1	S.5.2.4	Mitigation measures should be implemented to prevent the uncontrolled discharge of wastewater from the construction site in accordance with Practice Note for Professional Persons ProPECC PN1/94 - Construction Site Drainage	٨
S.6.6.1	S.5.2.4	Surface run-off from the construction sites will be directed into storm drains via adequately designed wastewater treatment facilities such as sand traps, silt traps and sediment settling basins. This is important for works immediately along the Kam Tin River, Ngau Tam Mei Main Drainage Channel, River Beas and Shek Sheung River	#
S.6.6.1	S.5.2.4	Channels, earth bunds or sand bag barriers will be provided on-site to properly direct stormwater to the above-mentioned facilities	۸
S.6.6.1	S.5.2.4	Existing silt removal facilities, channels and manholes along roads and pedestrian walkways will be maintained and the deposited silt and grit will be removed regularly, at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times	#
S.6.6.1	S.5.2.4	Other manholes (including any newly constructed ones) will be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system	^
S.6.6.1	S.5.2.4	Open stockpiles of materials on site will be avoided or where unavoidable covered with tarpaulin or similar fabric during rainstorms. Measures will be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system	#
S.6.6.1	S.5.2.4	Where possible, works entailing soil excavation will be minimized during the rainy season (i.e. April to September);	٨
S.6.6.1	S.5.2.4	Where applicable, final earthworks surfaces/ slopes will be well compacted and	N/A

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
		hydro-seeded following completion to prevent erosion	
S.6.6.1	S.5.2.4	During construction works, chemical toilets will be provided for the use of site staff.	٨
		These will be provided by a licensed contractor, who will be responsible for	
		appropriate disposal and maintenance of the effluent	
S.6.6.1	S.5.2.4	Works adjacent to the fishponds near Mai Po San Tsuen should be avoided as far as	^
		possible during the wet season to avoid runoff into the fishponds	
S.6.6.1	S.5.2.4	Wastewater from site facilities (such as toilets) should be discharged to foul sewer,	۸
		where available. Chemical toilets will be considered where there is no foul sewer	
		connection. There is not expected to be a temporary canteen.	
S.6.6.1	S.5.2.4	All site discharges within Water Control Zones must comply with the terms and	^
		conditions of a valid discharge licence issued by EPD	
S.6.6.1	S.5.2.4	Vehicle wheel washing facilities should be provided, where applicable, at the site	#
		exit such that mud, debris, etc. deposited onto the vehicle wheels or body can be	
		washed off before the vehicles are leaving the site area	
S.6.6.1	S.5.2.4	Section of the road between the wheel washing bay and the public road should be	^
		paved with backfill to reduce vehicle tracking of soil and to prevent site run-off from	
		entering public road drains	
S.6.6.1	S.5.2.4	The project may occasionally involve the handling of fuel and generates chemical	^
		wastes. It must be ensured that all fuel tanks and chemical storage are sited on sealed	
		areas and provided with locks	
S.6.6.1	S.5.2.4	The storage areas will be surrounded by bunds with a capacity equal to 110% of the	٨
		storage capacity of the largest tank to prevent accidentally spilled oil, fuel or	
		chemicals from reaching the receiving waters	
S.6.6.1	S.5.2.4	Oil and grease removal facilities will be provided where appropriate, for example, in	N/A
		area near plant workshop/ maintenance areas	
S.6.6.1	S.5.2.4	Chemical waste arising from the site should be properly stored, handled, treated and	*
		disposed of in compliance with the requirements stipulated under the Waste Disposal	
		(Chemical Waste) (General) Regulation	

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
-	S.5.2.7 (Stage 1 only)	The construction work of cycle bridge at Shek Sheung River is not recommended to be carried out during wet seasons (April to October), and the dry weather flow will be diverted to avoid entering the works area. In order to further protect the river water quality from disturbance, the construction work especially excavation works, will be surrounded by cofferdams to ensure the works will be carried out in a dry condition to prevent water pollution to the river.	^
N/A	S.5.2.4 (Stage 2 only)	Stream decking is recommended to be carried out during dry weather condition. To prevent disturbance to the river water quality, measures will be taken to ensure the works to be carry out in a dry condition to prevent water pollution to the river, such as sandbag barriers.	^
N/A	S.5.2.6 (Stage 2 only)	Based on the current available information, the tentative programmes of some construction works for the Agreement No. CE 57/2011 (DS) Drainage Improvement at Northern NT - Package A Drainage Improvement Works in San Tin (Remaining Works) - Investigation (DIST) and the Construction of Cycle Tracks and the associated Supporting Facilities at Nam Sang Wai, Yuen Long (NSWCT) projects may overlap with Stage 2 cycle track construction works. It is recommended that the Contractor should liaise with the project contractor(s) of the DIST and the NSWCT projects to schedule the construction works and allow programme phrasing to avoid major concurrent activities to be undertaken simultaneously in the vicinity.	^
Construction	<b>Waste Managem</b>	ent	
S.7.4.1	S.6.2.1 – S.6.2.4	An on-site environmental co-ordinator employed by the Contractor should be identified at the outset of the works. Prior to commencement of Project works, the co-ordinator shall prepare a WMP in accordance with the requirements set out in the ETWB TCW No. 19/2005, Waste Management on Construction Sites, for the ER's approval. The WMP shall include monthly and yearly Waste Flow Tables ("WFT") that indicate the amounts of waste generated, recycled and disposed of (including final disposal site), and which should be regularly updated;	^
S.7.4.1	S.6.2.6	Given the potential for secondary environmental impacts (dust, noise, water quality	٨

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
		and visual impacts), mitigation measures are required to ensure proper handling, storage, transportation and disposal of materials at the outset and throughout the construction phase of the project	
S.7.4.1	S.6.2.6	The reuse/ recycling of all materials on site shall be investigated and exhausted prior to treatment/ disposal off-site	٨
S.7.4.1	S.6.2.6	• Good site practices shall be adopted from the commencement of works to avoid the generation of waste, reduce cross contamination of waste and to promote waste minimisation	#
S.7.4.1	S.6.2.6	• All waste materials shall be sorted on-site into inert and non-inert C&D materials, and where the materials can be recycled or reused, they shall be further segregated. Inert material, or public fill will comprise stone, rock, masonry, brick, concrete and soil which is suitable for land reclamation and site formation whilst non-inert materials include all other wastes generated from the construction process such as plastic packaging and vegetation (from site clearance)	^
S.7.4.1	S.6.2.6	• The Contractor shall be responsible for identifying what materials can be recycled/ reused, whether on-site or off-site. In the event of the latter, the Contractor shall make arrangements for the collection of the recyclable materials. Any remaining non-inert waste shall be collected and disposed of to the Public Filling Areas whilst any inert C&D materials shall be re-used on site as far as possible. Alternatively, if no use of the inert material can be found onsite, the materials can be delivered to a Public Fill Area or Public Fill Bank after obtaining the appropriate licence	^
S.7.4.1	S.6.2.6	• In order to monitor the disposal of C&D material and solid wastes at public filling facilities and landfills, and control fly-tipping, a trip-ticket system shall be implemented by the Contractor, in accordance with the contract and the requirements of DEVB Technical Circular (Works) No. 6/2010 "Trip Ticket System for Disposal of Construction and Demolition Material".	^

EIA Ref.	EM&A Ref.	Mitigation Measures	Status	
S.7.4.1	<ul> <li>Under the Waste Disposal (Chemical Waste) (General) Regulation, the         Contractor shall register as a Chemical Waste Producer if chemical wastes such         as spent lubricants and paints are generated on site. Only licensed chemical         waste collectors shall be employed to collect any chemical waste generated at         site. The handling, storage, transportation and disposal of chemical wastes shall         be conducted in accordance with the Code of Practice on the Packaging,         Labelling and Storage of Chemical Wastes and A Guide to the Chemical Waste         Control Scheme both published by EPD;</li> </ul>		٨	
S.7.4.1	S.6.2.6	• A sufficient number of covered bins shall be provided on site for the containment of general refuse to prevent visual impacts and nuisance to the sensitive surroundings. These bins shall be cleared daily and the collected waste disposed of to the refuse transfer station. Further to the issue of ETWB Technical Circular (Works) No. 8/2010, Enhanced Specification for Site Cleanliness and Tidiness, the Contractor is required to maintain a clean and hygienic site throughout the project works;	*	
S.7.4.1	S.6.2.6	All chemical toilets, if any, shall be regularly cleaned and the night-soil collected and transported by a licensed contractor to a Government Sewage Treatment Works facility for disposal; and		
S.7.4.1	S.6.2.6	Toolbox talks should be provided to workers about the concepts of site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycling.		
S.7.4.1	S.6.2.6	• The Contractor shall comply with all relevant statutory requirements and guidelines and their updated versions that may be issued during the course of project construction.	۸	
Land Contam	ination			
S.8.7.2 – S.8.7.3	S.7.2.2	Preparation of Contamination Assessment Plan (CAP), which should be submitted to EPD for endorsement, prior to investigation.	٨	

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
		Site investigation and sampling works in accordance with the approved CAP. If contamination is identified, Contamination Assessment Report (CAR) and	
S.8.7.5	S.7.3.1	Remediation Action Plan (RAP) shall be prepared and submitted for EPD's approval.  The following control measures should be implemented when handling identified contaminated materials:  General site safety shall be enforced to include basic practices such as the use of safety boots, hard hats, coveralls, gloves and eye protection;  Avoid skin contact, ingestion and inhalation of excavated contaminated soils. Basic personal protective equipment should be used;  Site staff and workers shall be given adequate training and instructions specific to the potential hazards, their health and safety responsibilities and safe working practice including basic personal hygiene;  Measures shall be implemented to prevent non-workers from approaching the	
S.8.7.5	S.7.3.1	<ul> <li>Measures shall be implemented to prevent non-workers from approaching the identified works areas in order to avoid exposure to contaminants.</li> <li>Management of Contaminated Soils</li> <li>Where appropriate, the use of bulk handling equipment should be maximised to reduce the potential contacts between excavated contaminated materials and associated workers;</li> <li>The plants for excavation and transportation of the material shall be cleaned prior to leaving the Site;</li> <li>All temporary stockpiles of the materials shall be completely covered with plastic/ tarpaulin sheets, particularly during heavy rainstorms. The stockpiling areas should be concrete-paved or lined with its perimeter constructed of a concrete bund where appropriate in order to avoid any leachate from migrating out of the area;</li> <li>Any vehicles transporting the material shall be suitably covered to limit potential dust emissions;</li> <li>Surface waters shall be diverted around any contaminated areas or stockpiles to</li> </ul>	

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
		contaminated water requiring disposal and suspended solids in the wastewater stream	
Ecological & 1	Fisheries Impact		
S.9.11.4	S.8.2.2	Prior to tree felling, survey inspections should be made for their suitability for roosting bats. Once these trees have been highlighted, then appropriate checks of each tree for bats should be made prior to removal as a precautionary measure.	٨
S.9.11.7	S.8.2.3 (Stage 1 only)	In situ compensation planting at the Information Kiosk and R9 should occur to provide continuing function of the bamboo and plantation (see Figure 8-1 of EM&A Manual for Stage 1 Works (Year 2015)). It is recommended that the Information Kiosk and Resting Station R9 should be designed sympathetically to the natural surroundings. Compensation planting along the Sheung Yue River and Shek Sheung	
S.9.11.17 – S.9.11.19	S.8.2.4 (Stage 1) S.8.2.3 (Stage 2)	River including at R9 and Information Kiosk could be implemented as appropriate.  For the Kam Tin section and the Long Valley section of the Project, construction works shall not be carried out during the wet season (April to October) which is considered to have no significant impact to wildlife and to avoid the breeding season of Greater Painted-snipes at Long Valley. This is also to prevent any site run-off to adjacent water channels and fishponds including those fishponds along San Tin	
S.9.11.23	S.8.2.4 (Stage 2 only)	Tsuen Road.  Construction of the section in the vicinity of Mai Po Village SSSI shall be undertaken beyond the recognised breeding seasons for ardeids in Hong Kong to prevent any potential disturbance to the nesting birds, i.e., from September to February.	
-	S.8.2.5 (Stage 1 only)	In order to avoid any adverse impact to the healthiness of the bamboo groove from dust-coating on leave next to the R9 and hence affect the breeding habitat of the very rare Dark Brown Ace, a dust barrier should be installed between the bamboo and the construct site.	N/A
-	S.8.2.6 (Stage 1 only)	For the lower Shek Sheung River, construction works should be scheduled in dry season to minimize the disturbance to the foraging ardeids and the Quiet PME shall	۸

EIA Ref. EM&A Ref.		Mitigation Measures	Status
		be implemented practicable to minimize the noise disturbance to the foraging ardeids.	
S.10.5.4	S.8.2.7	To prevent any negative impact to water quality as a result of site run-off, good site	٨
	(Stage 1)	practice must be employed at all times, particularly in the areas close to fishponds.	
	S.8.2.5	Practice Note for Professional Persons ProPECC PN1/94 – Construction Site	
	(Stage 2)	Drainage shall be implemented.	
S.10.5.4	S.8.2.8	Along Pok Wai South Road, once the final construction sequencing is known, liaison	N/A
	(Stage 1)	with local residents and aquaculturists should be implemented in order to minimise	
	S.8.2.6	temporary road blockages and to identify the best timing for works along this area.	
	(Stage 2)		
S.10.5.3	S.8.2.9	During wet seasons, surface run-off from the construction sites will need to be	^
	(Stage 1)	directed into storm drains via adequately designed wastewater treatment facilities	
	S.8.2.7	such as sand traps, silt traps, oil interceptors and sediment settling basins. Works	
	(Stage 2)	adjacent to the fishponds near NTMDC inside the Wetland Conservation Area	
		(WCA) and Mai Po San Tsuen should be avoided, as far as practicable, during the	
		wet season to avoid runoff into the fishponds.	
-	S.8.2.10	The use of signage at the Resting Stations to indicate that wildlife may be present	N/A
	(Stage 1 only)	and that noise levels and activities should be kept to a minimum could be	
		implemented. This may help to reduce any potential disturbance to wildlife from	
		human activity. At Long Valley, to mitigate against potential indirect human	
		disturbance to Greater Painted-snipe, planting could be undertaken as appropriate	
		along the proposed cycle track at meander 8 to act as screening.	
S.9.11.27	S.8.2.11	The following good work practices are recommended:	^
	(Stage 1)	<ul> <li>Avoid soil storage against trees;</li> </ul>	
	S.8.2.9	■ Fence off any potentially ecologically sensitive areas;	
	(Stage 2)	<ul> <li>Delineation of works area to prevent encroachment onto adjacent habitats;</li> </ul>	
		■ Reinstatement of habitat after works;	
		■ No on-site burning of waste;	

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
		<ul> <li>Waste and refuse in appropriate receptacles;</li> <li>Staff training/toolbox talks for site work near Long Valley and WCA – important areas for birds therefore staff should reduce amount of noise whilst working and</li> </ul>	
		during breaks where possible;	
	■ Regular ecological checks; and		
		■ Silt/ Sediment/ Oil traps for drainage to prevent site run-off	
Cultural Heri	itage Impact		
S.11.5.1	S.9.2.1	Care should be taken during the construction stage to report any signs of possible discovery of artefacts.	N/A
Landscape an	nd Visual		
Detailed Desig	gn Phase		
Table 12-11	CP1	A detailed tree survey to be carried out by the IDC Consultant during the detailed design stage. The recommendations of the preliminary tree survey shall be reviewed and confirmed during the detailed survey. Should tree felling be required, tree felling application is required in accordance with DEVB	
S.12.9.3	Technical Circular (Works) No. 10/2013 Tree Preservation  It has been agreed that the proposed landscape areas under DSD's 4215DS project which falls within the cycle track works area will be implemented by Project proponent of this Project in form of roadside amenity areas after completion of the cycle track. During the detailed design, the works programme of this Project shall be coordinated with the above-mentioned DSD project in order to avoid abortive planting works and impact on landscape resources between the interface of different public works. The proposed landscape areas under 4215DS falled within the cycle track works area shall be incorporated in the final landscape design of this Project.		^
S.12.10.1	OP1	The Design Concept Drawings and Conceptual Landscape Master Plan of cycle track and associated facilities demonstrate landscape and visual mitigation strategies and design measures including integrated design approach, amenity and compensatory	۸

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
		planting proposals and treatment of retaining structure and slopes have been recommended in the EIA. More detailed landscape and compensatory planting proposals shall be developed by IDC consultants at later stage during detailed design	
		and construction phase of this project following the completion of the detailed Tree Survey Report and approval from relevant departments at that stage	
Construction I	Phase		
Table 12-11	CP1.1	To retain trees, which have high amenity or ecology value and contribute most to the landscape and visual amenity of the site and its immediate environs.	٨
	CP1.2	Creation of precautionary area around trees to be retained equal to half of the trees canopy diameter. Precautionary area to be fenced.	٨
	CP1.3	Prohibition of the storage of materials including fuel, the movement of construction vehicles, and the refuelling and washing of equipment including concrete mixers within the precautionary area.	^
	CP1.4	Phased segmental root pruning for trees to be retained and transplanted over a suitable period (determined by species and size) prior to lifting or site formation works which affect the existing rootball of trees identified for retention. The extent of the pruning will be based on the size and the species of the tree in each case.	۸
	CP1.5	Pruning of the branches of existing trees identified for transplantation and retention to be based on the principle of crown thinning maintaining their form and amenity value.	^
	CP1.6	The watering of existing vegetation particularly during periods of excavation when the water table beneath the existing vegetation is lowered.	۸
	CP1.7	The rectification and repair of damaged vegetation following the construction phase to its original condition prior to the commencement of the works or replacement using specimens of the same species, size and form where appropriate to the design intention of the area affected	N/A
	CP1.8	All works affecting the trees identified for retention and transplantation will be carefully monitored. This includes the key stages in the preparation of the trees, the	٨

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
		implementation of protection measures and health monitoring throughout the	
		construction period	
	CP1.9	Detailed landscape and tree preservation proposals will be submitted to the relevant	N/A
		government departments for approval under the lease conditions and in accordance	
		with ETWB TCW No. 2/2004 and WB Technical Circular No. 14/2002.	
	CP2.0	The tree preservation works should be implemented by approved Landscape	٨
	Contractors and inspected and approved on site by a qualified Landscape Architect.		
		A tree protection specification would be included within the contract documents.	
	CP2.1	Topsoil disturbed during the construction phase should be tested using a standard soil	^
		testing methodology and where it is found to be worthy of retention stored for re-use.	
	CP2.2	The soil will be stockpiled to a maximum height of 2m and will be either temporarily	^
	vegetated with hydroseeded grass during construction or covered with a waterproof		
		covering to prevent erosion.	
	CP2.3	The stockpile should be turned over on a regular basis to avoid acidification and the	^
		degradation of the organic material, and reused after completion. Alternatively, if	
		this is not practicable, it should be considered for use elsewhere, including other	
		projects.	
	CP3.1	Where appropriate to the final design the landscape of these works areas should be	N/A
		restored following the completion of the construction phase.	
	CP3.2	Construction site controls should be enforced including the storage of materials, the	٨
		location and appearance of site accommodation and the careful design of site lighting	
		to prevent light spillage.	
	CP3.3	Screen the works area during the construction phase through the use of decorative	٨
		hoarding along the site boundary facing adjacent VSRs	
	CP4.1	Replanting of disturbed vegetation should be undertaken at the earliest possible stage	٨
		of the construction phase	
	CP4.2	Use of native plant species predominantly in the planting design for the buffer areas.	٨
	CP4.3	The tree planting works should be implemented by approved Landscape Contractors	٨

EIA Ref.	EM&A Ref.	Mitigation Measures	
and inspected and approved on site by a qualified Landscape Architect. A tree planting specification would be included within the contract documents		and inspected and approved on site by a qualified Landscape Architect. A tree planting specification would be included within the contract documents	
	CP5.1 The tree transplanting works should be implemented by approved Landscape Contractors and inspected and approved on site by a qualified Landscape Architect A tree protection / transplanting specification would be included within the contract documents.		۸
	CP5.2	The implementation program should reserve enough time for advance tree transplanting preparation.	٨

Remarks:	EM&A Manual for Stage 1 Works under EP-450/2013/A (App No.: VEP-478/2015)		
	EM&A Manual for Stage 2 Works under EP-501/2015 (App No.: AEP-501/2015)		
	^ Compliance of mitigation measure; X Non-compliance of mitigation measure;		
	N/A Not Applicable at this stage; N/A(1) Not observed;  • Non-compliance but rectified by the contractor;		
	* Recommendation was made during site audit but improved/rectified by the contractor. # Recommendation was made during site audit but not yet improved/rectified by the contractor.		

# APPENDIX F SITE AUDIT SUMMARY

Appendix F Summary of Observation and Recommendation Made during Site Inspection

Summary of Observations and Recommendations Made during Site Inspections in November 2017

Parameters	Date	Observations and Recommendations	Follow-up
	6, 13, 19, 27 September, 6, 11, 17, 24 October 2017	There is a disconnection between the existing wastewater discharge system and the sedimentation tank at Portion C near Fairview Park. The Contractor should review the entire wastewater treatment facility prior to discharge. The Contractor should ensure proper treatment in accordance with WPCO requirements and Discharge License for Portion C prior to discharge into the communal storm water drain.	The condition was observed to be improved/rectified by the contractor during the audit session on 2 November 2017
	6, 11, 17, 24 October, 2, 8, 15, 21, 29 November 2017	Unsatisfactory water quality of Wheel Washing Bay at Portion A was found. The Contractor is reminded to maintain the water quality by regular checking and cleaning.	Follow up actions will be reported in the next month.
Water	6, 11, 17, 24 October, 2, 8, 15, 21, 29 November 2017	The silt and sediment of the sedimentation tank at Portion A should be disposed regularly to maintain the quality of the system.	Follow up actions will be reported in the next month.
Quality	8, 15, 21, 29 November 2017	Unused construction material/ rubbish was found in the channel near the box culvert which is in use at Portion E. The Contractor is reminded to keep rubbish away from the drainage system to avoid water pollution nearby.	Follow up actions will be reported in the next month.
	15, 21, 29 November 2017	A proper and well-designed wheel washing bay is needed at Portion C to wash off dusts/contaminated soil from vehicles.	Follow up actions will be reported in the next month.
	29 November 2017	Unsatisfactory water quality of Wheel Washing bay was found at Portion I. The Contractor was reminded to maintain the water quality by regular checking and cleaning.	Follow up actions will be reported in the next month.
	29 November 2017	The silt and sediment of the sedimentation tank at Portion I should be disposed regularly to maintain the quality of the system.	Follow up actions will be reported in the next month.
Air Quality	6, 13, 19, 27 September, 6, 11, 17, 24 October, 2, 8, 15, 21, 29 November 2017	The Contractor is reminded to ensure that stockpiles of dusty material at Portion A is covered with a tarpaulin sheet.	Follow up actions will be reported in the next month.
	2, 8, 15, 21 November 2017	Dusty surface was found at Portion I. The Contractor is reminded to spray water before, during and after operations for the dusty material to minimize dust generation	The condition was observed to be improved/rectified by the contractor during the audit session on 29 November 2017
Noise	N/A	There was no observation in the reporting period.	N/A

Parameters	Date	Observations and Recommendations	Follow-up
	17, 24 October, 2, 8, 15 November 2017	General refuse was observed on the ground and messed up with construction material at Portion K. The Contractor is reminded to keep the site clean and tidy.	The condition was observed to be improved/rectified by the contractor during the audit session on 21 November 2017
Waste/ Chemical Management	2, 8, 15 November 2017	Chemical Container was found on the ground without drip tray at Portion I. The Contractor is reminded to keep chemical container properly stored, treated and disposed.	The condition was observed to be improved/rectified by the contractor during the audit session on 21 November 2017
	8, 15 November 2017	Chemical Container was found on the ground without drip tray at Portion B. The Contractor is reminded to keep chemical container properly stored, treated and disposed.	The condition was observed to be improved/rectified by the contractor during the audit session on 21 November 2017
	15 November 2017	Chemical Container was found stored without drip tray at Portion C. The Contractor is reminded to keep chemical container properly stored, treated and disposed.	The condition was observed to be improved/rectified by the contractor during the audit session on 21 November 2017
	21, 29 November 2017	Oil stain was found near the gully at Portion C. The Contractor is reminded to clean up properly and implement appropriate preventive measure afterwards.	Follow up actions will be reported in the next month.
	29 November 2017	General refuse was found on the ground. It is observed that there is no rubbish bin at Portion M. The Contractor was reminded to provide rubbish bin and avoid over-accumulating.	Follow up actions will be reported in the next month.
	29 November 2017	Chemical container was observed without drip tray at Portion I. The Contractor was reminded to provide drip tray to prevent leakage.	Follow up actions will be reported in the next month.
Ecology and Fisheries	N/A	There was no observation in the reporting period.	N/A
Landscape and Visual	N/A	There was no observation in the reporting period	N/A
Permits/ Licenses	N/A	There was no observation in the reporting period.	N/A

Parameters	Date	Observations and Recommendations	Follow-up
	6, 11, 17, 24 October, 2, 8, 15, 21, 29 November, 6, 12, 19, 27 December 2017	Unsatisfactory water quality of Wheel Washing Bay at Portion A was found. The Contractor is reminded to maintain the water quality by regular checking and cleaning.	Follow up actions will be reported in the next month.
	6, 11, 17, 24 October, 2, 8, 15, 21, 29 November, 6, 12, 19, 27 December 2017	The silt and sediment of the sedimentation tank at Portion A should be disposed regularly to maintain the quality of the system.	Follow up actions will be reported in the next month.
Water Quality	8, 15, 21, 29 November 2017	Unused construction material/ rubbish was found in the channel near the box culvert which is in use at Portion E. The Contractor is reminded to keep rubbish away from the drainage system to avoid water pollution nearby.	The condition was observed to be improved/rectified by the contractor during the audit session on 6 December 2017
	15, 21, 29 November, 6, 12, 19, 27 December 2017	A proper and well-designed wheel washing bay is needed at Portion C to wash off dusts/contaminated soil from vehicles.	Follow up actions will be reported in the next month.
	29 November 2017	Unsatisfactory water quality of Wheel Washing bay was found at Portion I. The Contractor was reminded to maintain the water quality by regular checking and cleaning.	The condition was observed to be improved/rectified by the contractor during the audit session on 6 December 2017
	29 November, 6, 12, 19 December 2017	The silt and sediment of the sedimentation tank at Portion I should be disposed regularly to maintain the quality of the system.	The condition was observed to be improved/rectified by the contractor during the audit session on 27 December 2017
Air Quality	6, 13, 19, 27 September, 6, 11, 17, 24 October, 2, 8, 15, 21, 29 November, 6 December 2017	The Contractor is reminded to ensure that stockpiles of dusty material at Portion A is covered with a tarpaulin sheet.	The condition was observed to be improved/rectified by the contractor during the audit session on 12 December 2017
	6 December 2017	Dusty surface was found at Portion I. The Contractor was reminded to spray water before, during and after operations for the dusty material to minimize dust generation.	The condition was observed to be improved/rectified by the contractor during the audit session on 12 December 2017
	12, 19, 27 December 2017	Dusty surface was observed at Portion C. The Contractor was reminded to keep spraying water for the haul road to minimize the dust generation. Keeping clean and free from dust around the site entrance near the public road is needed.	Follow up actions will be reported in the next month.
Noise	N/A	There was no observation in the reporting	N/A

Parameters	Date	Observations and Recommendations	Follow-up
		period.	
	21, 29 November 2017	Oil stain was found near the gully at Portion C. The Contractor is reminded to clean up properly and implement appropriate preventive measure afterwards.	The condition was observed to be improved/rectified by the contractor during the audit session on 6 December 2017
Waste/ Chemical Management	November, 6 December 2017	General refuse was found on the ground. It is observed that there is no rubbish bin at Portion M. The Contractor was reminded to provide rubbish bin and avoid over-accumulating.	The condition was observed to be improved/rectified by the contractor during the audit session on 12 December 2017
	29 November, 6, 12, 19, 27 December 2017	Chemical container was observed without drip tray at Portion I. The Contractor was reminded to provide drip tray to prevent leakage.	Follow up actions will be reported in the next month.
	6, 12, 19 December 2017	General refuse was observed in the storm water drain at Portion E. The Contractor was reminded to clean it up.	The condition was observed to be improved/rectified by the contractor during the audit session on 27 December 2017
	12 December 2017	The condition was observed to be improved/rectified by the contractor during the audit session on 19 December 2017	
Ecology and Fisheries	N/A	There was no observation in the reporting period.	N/A
Landscape and Visual	N/A	There was no observation in the reporting period	N/A
Permits/ Licenses	N/A	There was no observation in the reporting period.	N/A

Parameters	Date	Observations and Recommendations	Follow-up	
	6, 11, 17, 24 October, 2, 8, 15, 21, 29 November, 6, 12, 19, 27 December 2017, 3, 10, 16, 23, 31 January 2018	Unsatisfactory water quality of Wheel Washing Bay at Portion A was found. The Contractor is reminded to maintain the water quality by regular checking and cleaning.	Follow up actions will be reported in the next month.	
	6, 11, 17, 24 October, 2, 8, 15, 21, 29 November, 6, 12, 19, 27 December 2017, 3, 10, 16, 23, 31 January 2018	The silt and sediment of the sedimentation tank at Portion A should be disposed regularly to maintain the quality of the system.	Follow up actions will be reported in the next month.	
Water Quality	15, 21, 29 November, 6, 12, 19, 27 December 2017, 3 January 2018	A proper and well-designed wheel washing bay is needed at Portion C to wash off dusts/contaminated soil from vehicles.	The condition was observed to be improved/rectified by the contractor during the audit session on 10 January 2018	
Quuity	10, 16 January 2018	The sedimentation tank was not well designed near Subway A. The Contractor was asked to re-design in full compliance with the Water Discharge License.	The condition was observed to be improved/rectified by the contractor during the audit session on 23 January 2018	
	16, 23, 31 January 2018	The Contractor was reminded to avoid stagnant water at Portion M.	Follow up actions will be reported in the next month.	
	23, 31 January 2018	Stagnant water was observed accumulating behind the retaining wall at Portion C. The Contractor was reminded to remove the stagnant water regularly to prevent mosquito breeding.	Follow up actions will be reported in the next month.	
	23, 31 January 2018	The wastewater treatment facility was not properly connected before discharging to the storm water drains. The Contractor should review the connection for the entire wastewater treatment facility at Portion I according to the Discharge License and in full compliance with the WPCO.	Follow up actions will be reported in the next month.	
	23, 31 January 2018	Wheel washing bay should be in use at Portion I. The Contractor was reminded to fill water back and implement regular visual checking for the water quality.	Follow up actions will be reported in the next month.	
Air Quality	12, 19, 27 December 2017	Dusty surface was observed at Portion C. The Contractor was reminded to keep spraying water for the haul road to minimize the dust generation. Keeping clean and free from dust around the site entrance near the public road is needed.	The condition was observed to be improved/rectified by the contractor during the audit session on 3 January 2018	
	27 December 2017, 3, 10,	NRMMs were found without proper labels at Portion E regrading to the air quality	The condition was observed to be improved/rectified by the	

Parameters	Date	Observations and Recommendations	Follow-up
	16 January 2018	regulation. The Contractor was reminded to check all the NRMMs before operation.	contractor during the audit session on 23 January 2018
	16 January 2018	The Contractor was reminded to ensure the stockpiles of dusty material is cover with tarpaulin sheet at Portion M.	The condition was observed to be improved/rectified by the contractor during the audit session on 23 January 2018
	31 January 2018	Excavated dusty area should be covered by impervious material or maintained wet at Portion M.	Follow up actions will be reported in the next month.
Noise	N/A	There was no observation in the reporting period.	N/A
	29 November, 6, 12, 19, 27 December 2017	Chemical container was observed without drip tray at Portion I. The Contractor was reminded to provide drip tray to prevent leakage.	The condition was observed to be improved/rectified by the contractor during the audit session on 3 January 2018
	3, 10, 16, 23 January 2018	General refuse was found. It is observed that no bin was provided at Portion M for the general refuse to prevent visual impacts and nuisance to the sensitive surroundings.	The condition was observed to be improved/rectified by the contractor during the audit session on 31 January 2018
Waste/ Chemical Management	10, 16 January 2018	Chemical Container was found on the ground without drip tray at Portion C. The Contractor was reminded to keep chemical container properly stored, treated and disposed.	The condition was observed to be improved/rectified by the contractor during the audit session on 23 January 2018
	16 January 2018	Stagnant water was found in the drip tray at Portion I. The Contractor was reminded to clean it up.	The condition was observed to be improved/rectified by the contractor during the audit session on 23 January 2018
	16, 23, 31 January 2018	General refuse and stagnant water were found in the drip tray at Portion C. The Contractor was reminded to keep the drip tray well- maintained.	Follow up actions will be reported in the next month.
Ecology and Fisheries	N/A	There was no observation in the reporting period.	N/A
Landscape and Visual	N/A	There was no observation in the reporting period	N/A
Permits/ Licenses	N/A	There was no observation in the reporting period.	N/A

APPENDIX G MONTHLY SUMMARY WASTE FLOW TABLE Name of Department: CEDD Contract No.: YL/2015/01

# Monthly Summary Waste Flow Table for 2017 (Year)

	A	ctual Quantities	of Inert C&E	Materials Gene	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 <sup>3</sup> )	(in '000m <sup>3</sup> )	$(in '000m^3)$	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	$(in '000m^3)$	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m <sup>3</sup> )
Jan	0.04	-	-	-	0.04	0.124	0.05	0.05	0.05	-	0.06
Feb	0.02	-	-	-	0.02	-	0.05	0.05	0.05	-	0.01
Mar	1.15	-	-	-	1.15	0.369	0.05	0.05	0.05	-	0.02
Apr	0.65	-	-	-	0.65	-	0.05	0.05	0.05	-	0.02
May	0.79	-	-	-	0.79	-	0.05	0.05	0.05	-	0.01
June	1.63	-	-	-	1.63	-	0.05	0.05	0.05	-	0.02
July	1.25	-	-	-	1.25	-	0.05	0.05	0.05		0.01
Aug	1.49	-	-	-	1.49	-	0.05	0.05	0.05	-	0.01
Sep	1.15	-	-	-	1.14	0.493	0.05	0.05	0.05	-	0.01
Oct	1.19	-	-	-	1.19	-	0.05	0.05	0.05	-	0.01
Nov	0.79	-	-	-	0.76	-	0.05	0.05	0.05	-	0.03
Dec	3.09	-	-	-	3.07	-	0.05	0.05	0.05	-	0.01
Sub-total	-	-	1	-	-	-	-	-	-	-	-
Total	13.19	-	-	_	13.17	0.493	0.60	0.60	0.60	_	0.22

<sup>\*</sup>Remark: Imported Fill not taken into account of Total Quantity Generated

#Revised Figure

Name of Department: CEDD Contract No.: YL/2015/01

# Monthly Summary Waste Flow Table for 2018 (Year)

	A	ctual Quantities	of Inert C&E	Materials Gene	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 <sup>3</sup> )	(in '000m <sup>3</sup> )	$(in '000m^3)$	(in '000m <sup>3</sup> )	$(in '000m^3)$	$(in '000m^3)$	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m <sup>3</sup> )
Jan	4.37	-	-	-	4.36	-	0.05	0.05	0.05	-	0.01
Sub-total	4.37	-	-	-	4.36	-	0.05	0.05	0.05	ı	0.01
Feb	-	-	-	-	-	-	-	-	-	-	-
Mar	-	-	-	-	-	-	-	-	-	-	-
Apr	-	-	-	-	-	-	-	-	-	ı	-
May	-	-	-	-	-	-	-	-	-	-	-
June	-	-	-	-	-	-	-	-	-	-	-
July	-	-	-	-	-	-	-	1	-	1	-
Aug	-	-	-	-	ı	-	1	1	1	ı	-
Sept	-	-	-	-	-	-	-	-	-	-	-
Oct	-	-	-	-	-	-	-	-	-	-	-
Nov	-	-	-	-	-	-	-	-	-	-	-
Dec	-	-	-	_	-	-	-	-	1	-	_
	•	•			•	•				•	
		•	•	•		•	•			•	
Total	18.365	-	-	-	18.295	0.986	0.83	0.83	0.83	-	0.45

<sup>\*</sup>Remark: Imported Fill not taken into account of Total Quantity Generated

#Revised Figure

### Sang Hing – Kuly Joint Venture Environmental Management Plan for Contract No. YL/2015/01 Cycle Tracks from Tuen Mun to Sheung Shui – Remaining Works

	Forecast of Total Quantities of C&D Materials to be Generated from the Contract*										
Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse	
$(in '000m^3)$	(in '000m <sup>3</sup> )	$(in '000m^3)$	$(in '000m^3)$	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m <sup>3</sup> )	
5	2	1	1	1	10	3	3	1	1	3	

\*Remark: Figure to be revised if necessary

#### Notes:

- (1) The performance targets are given in ETWB Technical Circular PS Clause 6(14).
- (2) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- (3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material
- The Contractor shall also submit the latest forecast of the total amount of C&D materials expected to be generated from the Works, together with a breakdown of the nature where the total amount of C&D materials expected to be generated from the Works is equal to or exceeding 50,000 m3. (ETWB Technical Circular PS Clause 5(4)(b) refers). [Delete Note (4) and the table above on the forecast, where inapplicable].

# APPENDIX H SUMMARY OF EXCEEDANCES

Agreement No. CE 67/2015 (HY)

Cycle Tracks from Tuen Mun to Sheung Shui – Remaining Works – Design and Construction

# Appendix H – Summary of Exceedance

Exceedance Report for Contract No. YL/2015/01 – Cycle Tracks from Tuen Mun to Sheung Shui – Remaining Works

(A) Exceedance Report for Construction Noise (NIL in the reporting period)

ANNEX I COMPARISONS OF EM&A DATA AND EIA PREDICTIONS

# Annex I – Comparison of EM&A Data and EIA Predictions

# **Comparison of Noise Monitoring Data with EIA predictions**

Stations	Predicted Mitigated Construction Noise Levels in EIA (2009), dB(A)	Predicted Mitigated Worst Case Construction Noise Levels in ERR for Stage 2 (2015), dB(A)	Reporting Month (November 17), Leq (30min) dB(A)	Reporting Month (December 17), Leq (30min) dB(A)	Reporting Month (January 18), Leq (30min) dB(A)
N1 - HKMLC Wong		(1)	<b>7</b> 0.4.64.0		
Chan Sook Ying Memorial School	55-62	62 <sup>(1)</sup>	58.4 – 61.9	58.9 – 60.3	53.1 – 62.0
N2 – Bethel High School	57-64	64 <sup>(1)</sup>	52.6 – 59.3	50.6 – 59.8	50.2 – 61.1
N3 – No. 159 Mai Po San Tsuen	70-73	74 <sup>(2)</sup>	57.3 – 65.0	67.9 – 70.9	68.6 – 73.4
N5 – Block 2, Dills Corner Garden	73-75	75 <sup>(2)</sup>	65.9 – 69.3	62.4 – 70.1	65.3 – 69.7
N6 – Home of Loving Faithfulness	64-73	74 <sup>(1)</sup>	67.9 – 68.6	60.5 – 71.4	62.9 – 71.6
N7 – Village House in Shek Wu Wai	N/A <sup>(3)</sup>	70 <sup>(2)</sup>	72.2 – 72.8	68.4 – 72.2	57.4 – 72.2

### Remark:

- (1) With adoptions of quiet PMEs, temporary noise barrier and enclosure
- (2) With sub-grouping of construction activities
- (3) No construction noise level was predicted in EIA Report (2009)