Civil Engineering and Development Department

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

Monthly EM&A Report (Version 1.0)

November 2017

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 13th 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 in 1 30 November 2017.
- 2. During the reporting month, the major site activities undertaken in the reporting month included:
 - Construction of public toilet in Portion L;
 - E&M works and PD installation in Portion L;
 - Construction of retaining wall in Portions A, C, D, E, F, H, K and J;
 - Construction of subway in Portion B and I;
 - Construction of Box Culvert and Pre Bore H-piles in Portion G;
 - Construction of Pile Works in Portion N;
 - Piling Works for Bridge E in Portion M;
 - Earth and drainage works in Portions A, B and E;
 - Stream decking in Portion D;
 - Drainage Works in Portions M and P; and
 - Road works in Portion E

Environmental Monitoring Works

- 3. Environmental monitoring for the Project shall be 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 month for the Project is tabulated in **Table I**.

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

Parameter	No. of Exco	eedance		Action
	Action Level	Limit	Level	Taken
Noise	0		0	N/A

Key Information in the Reporting Month

5. Summary of key information in the reporting month is tabulated in **Table II**.

Table II Summary Table for Key Information in the Reporting Month

Table II Summary Table for Key Information in the Reporting Month					
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	

Environmental License 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)

Future Key Issues

- 7. The future key environmental issues in the coming two months include:
 - Wastewater and runoff generation on-site;
 - Regular removal of silt, mud and sand along u-channels and inside sedimentation tanks;
 - Review and implementation of temporary drainage system for the surface runoff;
 - Noise from operation of the equipment, especially for excavation works and machinery on-site;

- Dust generation from stockpiles of dusty materials, exposed site area, excavation works and other dust-generating activities;
- Water spraying for dust generating activities and on haul road;
- Proper storage of construction materials on-site;
- Storage of chemicals/fuel and chemical waste/ waste oil on-site;
- Accumulation of general refuse and construction waste on-site; and
- Protection measures for retained trees on-site.

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 and work programme are shown in **Figure 1a-1h** and **Appendix A** 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 23rd November 2016. This is the 13th Monthly EM&A Report summarizing the EM&A works for the Project from 1 30 November 2017.

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 Organizational Structure for Environmental Management is shown in **Figure 3**.

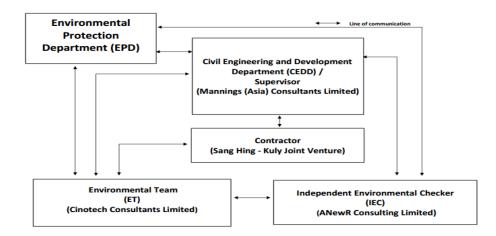


Figure 3 Organization Structure (Environmental Aspects)

1.8 The key contacts of the Project are shown in **Table 1.1**.

Table 1.1 Kev Project Contacts

1 abic 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	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	

Construction Activities undertaken during the Reporting Month

- 1.9 The major site activities undertaken in the reporting month included:
 - Construction of public toilet in Portion L;
 - E&M works and PD installation in Portion L;
 - Construction of retaining wall in Portions A, C, D, E, F, H, K and J;
 - Construction of subway in Portion B and I;
 - Construction of Box Culvert and Pre Bore H-piles in Portion G;
 - Construction of Pile Works in Portion N;

- Piling Works for Bridge E in Portion M;
- Earth and drainage works in Portions A, B and E;
- Stream decking in Portion D;
- Drainage Works in Portions M and P; and
- Road works in Portion E
- 1.10 Inter-relationship with environmental protection/mitigation measures are presented in **Table** 1.2.

Table 1.2 Construction Programme Showing the Inter-Relationship with Environmental Protection/Mitigation Measures

Construction Major Environmental		Control Measures
As mentioned in Section 1.9	Noise, dust impact, water quality and waste generation	 Sufficient watering of the works site with active dust emitting activities Properly cover the stockpiles On-site waste sorting and implementation of trip ticket system Appropriate desilting/sedimentation devices provided on site for treatment with valid Discharge License before discharge Well maintain the drainage system to prevent the spillage of wastewater during heavy rainfall Use of quiet plant and well-maintained construction plant Provide movable noise barrier Proper wheel washing for construction vehicles before leaving the site Provide sufficient mitigation measures as recommended in Approved EM&A Manual/Lease requirement

Summary of EM&A Requirements

1.11	The EM&A programme requires construction noise monitoring, air quality monitoring landscape and visual monitoring and environmental site audit. The EM&A requirements feach parameter are described in the following sections, including:
	 □ All monitoring parameters; □ Action and Limit levels for all environmental parameters; □ Event and Action Plans; □ Environmental mitigation measures, as recommended in the EIA Report Environmental Review Reports and EM&A Manuals

1.12 The advice on the implementation status of environmental protection and pollution control/mitigation measures is summarized in Section 8 of this report.

1.13 This report presents the monitoring results, observations, locations, equipment, period, methodology and QA/QC procedures of the required noise monitoring and audit works for the Project in 1-30 November 2017.

2 AIR QUALITY

Monitoring Requirements

- 2.1 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.
- 2.2 Site audits were carried out on a weekly basis to monitor and audit the timely implementation of air quality mitigation measures within the site boundaries of this Project. The summaries of site audits are attached in **Appendix G**.

3 WATER QUALITY

Monitoring Requirements

- 3.1 According to the approved EM&A Manuals for Stage 1 works and Stage 2 works in Year 2015, no water quality monitoring is required for the Project.
- 3.2 Site audits were carried out on a weekly basis to monitor and audit the timely implementation of water quality mitigation measures within the site boundaries of this Project. The summaries of site audits are attached in **Appendix G**.

4 NOISE

Monitoring Requirements

- 4.1 In accordance with approved EM&A Manuals for Stage 1 works in Year 2015, no noise impact monitoring is required for Stage 1 works of the Project.
- 4.2 According to approved EM&A Manual for Stage 2 works (Year 2015), construction noise monitoring was conducted to monitor the construction noise arising from the construction activities under the Stage 2 works of the Project. The regular monitoring frequency for each monitoring station shall be on a weekly basis and conduct one set of measurements between 0700 and 1900 hours on normal weekdays. **Appendix B** shows the established Action and Limit Levels for the environmental monitoring works.

Monitoring Locations

4.3 Noise monitoring was conducted at 6 designated monitoring stations (N1, N2, N3, N5, N6 and N7) in the reporting month. **Figures 2a – 2c** shows the locations of these stations.

Table 4.1 Noise Monitoring Stations

Monitoring Stations	Locations	Location of Measurement
N1	HKMLC Wong Chan Sook Ying Memorial School	Rooftop (about 5/F) area
N2	Bethel High School	Rooftop (about 4/F) area
N3	No. 159 Mai Po San Tsuen	G/F area
N5	Block 2, Dills Corner Garden	G/F area
N6	Home of Loving Faithfulness	Rooftop (about 3/F) area
N7	Village House in Shek Wu Wai	G/F area

Monitoring Equipment

- 4.4 Integrating Sound Level Meter was used for impact noise monitoring. The meters are Type 1 sound level meter capable of giving a continuous readout of the noise level readings including equivalent continuous sound pressure level (L_{eq}) and percentile sound pressure level (L_x) that also complied with International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1) specifications.
- **4.5** Acoustic Calibrator was used to check the accuracy of the sound level meter. The calibrators generate a continuous and highly stable sound pressure level at known frequency of 1 kHz that also complied with IEC 942: 1988 Class 1 specifications. **Table 4.2** summarizes the noise monitoring equipment in reporting period. Copies of calibration certificates are provided in **Appendix C**.

Table 4.2 Noise Monitoring Equipment

Equipment	Model No.	Qty.
Integrating Sound Level Meter	SVAN 955, SVAN 957	2
Acoustic Calibrator	SV 30A	2

Monitoring Parameters and Frequency

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

Table 4.3 Frequency and Parameters of Noise Monitoring

Monitoring Stations	Parameter	Period	Frequency	Measurement	
N1		n.) dB(A) 0700-1900 hrs n.) dB(A) on normal	Once men week	Façade	
N2	I (20:) ID(A)			Façade	
N3	L _{eq} (30 min.) dB(A) L ₁₀ (30 min.) dB(A) L ₉₀ (30 min.) dB(A)			Free Field	
N5				Once per week	Free Field
N6		weekuays		Façade	
N7				Free Field	

Monitoring Methodology and QA/QC Procedures

- 4.7 The monitoring procedures are as follows:
 - The monitoring station were normally be at a point 1m from the exterior of the sensitive receivers building façade and be at a position 1.2m above the ground.
 - For free field measurement, the meter was positioned away from any nearby reflective surfaces. All records for free field noise levels were adjusted with a correction of +3 dB (A).
 - The battery condition was checked to ensure the correct functioning of the meter.
 - Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:

Frequency weighting
Time weighting
Measurement time
: A
: Fast
: 30 minutes

- Prior to and after each noise measurement, the meter was calibrated using a
 Calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level
 before and after measurement is more than 1.0 dB, the measurement was
 considered invalid and repeat of noise measurement was required after recalibration or repair of the equipment.
- At the end of the monitoring period, the L_{eq} , L_{90} and L_{10} were recorded. In addition, noise sources were recorded on a standard record sheet.
- Noise measurement would be paused temporarily during periods of high intrusive noise if possible and observation would be recorded when intrusive noise was not avoided.
- Noise monitoring would be cancelled in the presence of fog, rain, and wind with a steady speed exceeding 5 m/s, or wind with gusts exceeding 10 m/s. supplementary monitoring would be provided to ensure sufficient data would be obtained.

Maintenance and Calibration

- 4.8 The microphone head of the sound level meter and calibrator were cleaned with a soft cloth at quarterly intervals.
- 4.9 The sound level meter and calibrator were checked and calibrated at yearly intervals.
- 4.10 Immediately prior to and following each noise measurement, the accuracy of the sound level meter was checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements may be accepted as valid only if the calibration levels from before and after the noise measurement agree to within 1.0 dB.

Results and Observations

- 4.11 All construction noise monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded. The summary of exceedance record in the reporting month is shown in **Appendix F**.
- 4.12 The baseline noise level and the Noise Limit Level at each designated noise monitoring stations are presented in **Table 4.4**.
- 4.13 Noise monitoring results and graphical presentations are shown in **Appendix E**.
- 4.14 The other noise sources identified which might affect the noise monitoring results at the designated noise monitoring stations are as follows:

Monitoring Stations	Locations	Other 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
N3	No. 159 Mai Po San Tsuen	Road traffic noise
N5	Block 2, Dills Corner Garden	Road traffic noise
N6	Home of Loving Faithfulness	Road traffic noise 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

Table 4.4 Baseline Noise Level and Noise Limit Level for Monitoring Stations

Station	Baseline Noise Level, dB (A)	Noise Limit Level, dB (A)
N1	62.2 (at 0700 – 1900 hrs on normal weekdays)	70* (at 0700 – 1900 hrs on
N2	55.2 (at 0700 – 1900 hrs on normal weekdays)	`
N3	68.8 (at 0700 – 1900 hrs on normal weekdays)	75 (at 0700 – 1900 hrs on normal weekdays)
N5 70.7 (at 0700 – 1900 hrs on normal weekdays)		75 (at 0700 – 1900 hrs on normal weekdays)
N6	72.0 (at 0700 – 1900 hrs on normal weekdays)	75 (at 0700 – 1900 hrs on normal weekdays)
M7	70.7 (at 0700 – 1900 hrs on normal weekdays)	75 (at 0700 – 1900 hrs on normal weekdays)

^(*) Noise Limit Level is 65 dB(A) during school examination periods.

5 COMPARISON OF EM&A RESULTS WITH EIA PREDICTIONS

5.1 The EM&A data was compared with the predictions in EIA Report (Year 2009) and Environmental Review Report (ERR) for Stage 2 Works (Year 2015) as summarized in **Table 5.1**.

Table 5.1 Comparison of Noise Monitoring Data with Predictions in EIA Report and ERR

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)
N1 - HKMLC Wong Chan Sook Ying Memorial School	55-62	62 ⁽¹⁾	58.4-61.9
N2 – Bethel High School	57-64	64 ⁽¹⁾	52.6-59.3
N3 – No. 159 Mai Po San Tsuen	70-73	74 ⁽²⁾	57.3-65.0
N5 – Block 2, Dills Corner Garden	73-75	75 ⁽²⁾	65.9-69.3
N6 – Home of Loving Faithfulness	64-73	74 ⁽¹⁾	67.9-68.6
N7 – Village House in Shek Wu Wai	N/A ⁽³⁾	70 ⁽²⁾	72.2-72.8

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)
- 5.2 When comparing the noise monitoring results to the predicted mitigated construction noise levels in the EIA Report, the results at N2, N3, and N5 were lower than the range of the predicted mitigated construction noise levels in the EIA Report. On the other hand, the noise monitoring results at N1 and N6 were within the range of the predicted mitigated construction noise levels in the EIA Report.
- 5.3 When comparing the noise monitoring results to the predicted mitigated worst case construction noise levels in the ERR for Stage 2 Works, the results at monitoring stations N1, N2, N3, N5 and N6 were lower than the predicted mitigated worst case construction noise levels in the ERR for Stage 2 Works. The noise monitoring result at monitoring station N7 was slightly higher than the predicted mitigated worst case construction noise levels in the ERR for Stage 2 Works.

6 ECOLOGY AND FISHERIES

- 6.1 In accordance with the EM&A Manuals for Stage 1 and Stage 2 works in Year 2015, no specific ecological or fisheries monitoring is required during the construction phase of the Project.
- 6.2 Site audits were carried out on a weekly basis to monitor and audit the timely implementation of ecology and fisheries mitigation measure. The summaries of site audits are attached in **Appendix G**.

7 LANDSCAPE AND VISUAL IMPACT

- 7.1 In accordance with the EM&A Manuals for Stage 1 and Stage 2 works in Year 2015, regular audits should be carried out to ensure all the recommended landscape and visual mitigation measures in EIA Report, Environmental Review Reports and EM&A Manuals were effectively implemented.
- 7.2 ET Site audits were carried out on a weekly basis to monitor and audit the timely implementation of landscape and visual mitigation measure. The summaries of site audits are attached in **Appendix G**.

8 ENVIRONMENTAL AUDIT

Site Audits

- 8.1 Site audit was carried out on a weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures in the Project site. The summaries of site audits are attached in **Appendix G**.
- 8.2 Site audits were conducted on 2, 8, 15, 21 and 29 November 2017 in the reporting month. IEC joint site inspection was conducted on 29 November 2017. No non-compliance was observed during the site audit.

Review of Environmental Monitoring Procedures

8.3 The monitoring works conducted by the monitoring were inspected regularly. The following observations have been recorded for the monitoring works:

Noise Monitoring

- The monitoring team recorded all observations around the monitoring stations, which might affect the monitoring result.
- Major noise sources were identified and recorded. Other intrusive noise attributing to the result was trimmed off by pausing the monitoring temporarily.

Statues of Environmental Licensing and Permitting

3.4 All permits/licenses obtained for the Project are summarized in **Table 8.1**.

Table 8.1 Summary of Environmental Licensing and Permit Status

Permit No.	Valid Period		Details	Ctatura	
refinit No.	From To		Details	Status	
Environmental Permit	Environmental Permit (EP)				
EP-450/2013/A	25/08/2015	N/A	Construction of Cycle Tracks and the Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung River – Stage 1	Valid	
EP-501/2015	02/09/2015	N/A	Construction of Cycle Tracks and the Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung River – Stage 2	Valid	
Billing Account for Cons	struction Wast	te Disposal			
A/C No.: 7025411	N/A N/A Billing Account for construction waste disposal under Waste Disposal (Charges for Disposal of Construction Waste) Regulation		Valid		
Effluent Discharge License					
WT00027672-2017 WT00027661-2017 WT00027606-2017 WT00027510-2017 WT00027509-2017 WT00027603-2017		31/3/2022	Discharge License for the discharge of wastewater from the construction site including contaminated surface run-off to the communal storm water drain	Valid	

D	Valid Period		D-4-21-	St. A	
Permit No.	From	To	Details	Status	
WT00027508-2017					
WT00027582-2017		30/6/2018			
WT00027584-2017		31/7/2019			
WT00027431-2017		30/6/2020			
WT00027605-2017		31/3/2022			
WT00027607-2017		31/3/2022			
WT00027834-2017		30/4/2022			
WT00028748-2017	17/08/2017	31/08/2022			
WT00028850-2017	14/08/2017	31/08/2022			
Registration of Chemica	Registration of Chemical Waste Producer				
No.:WPN5213-524- K3261-01		N/A	Registration of chemical waste producer for chemical waste produced during construction of Cycle Tracks and the Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung River – Stage 2		
Construction Noise Permit (CNP)					
GW-RN0702-17	5/11/17	21/1/2018	Construction Noise Permit for loading, unloading or handling of wood in San Tin Highway near Man Tin Cheung Park	Valid	

Status of Waste Management

- 8.5 The amount of wastes generated by the major site activities of this Project during the reporting month is shown in **Appendix K**.
- 8.6 In respect of the dump truck cover, the Contractor is advised to take record photos and inspection to ensure that all dump trucks have fully covered the skip before leaving the site.

Implementation Status of Environmental Mitigation Measures

- 8.7 According to the Environmental Review Reports, Environmental Permits and the EM&A Manuals of the Project, the mitigation measures detailed in the documents are recommended to be implemented during the construction phase. An updated summary of the Environmental Mitigation Implementation Schedule (EMIS) is provided in **Appendix I**.
- **8.8** During site inspections in the reporting month, no non-conformance was identified. The ET weekly site inspections were carried out during the reporting month and the observations and recommendations are summarized in **Table 8.2**.

Table 8.2 Observations and Recommendations of Site Audit

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
Water	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.
Quality 6, 11, 17, 24 October, 2, 8, 15, 21, 29 November 2017 8, 15, 21, 29 November 2017 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.	
	November	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.
	November	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.

Parameters	Date	Observations and Recommendations	Follow-up
	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.
6, 13, 19, 2 September 6, 11, 17, 2 October, 2 8, 15, 21, 2 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
	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

Implementation Status of Event and Action Plans

8.9 The Event and Action Plan for noise is presented in **Appendix H**.

Construction Noise

8.10 No Action/Limit Level exceedance was recorded in the reporting month.

Summary of Complaint, Warning, Notification of any Summons and Successful Prosecution

8.11 The summaries of environmental complaint, warning, summon and notification of successful prosecution for the Project is presented in **Appendix J**.

9 FUTURE KEY ISSUES

9.1 Major site activities undertaken for the coming two months include:

Portion A – Construction of Cycle Track, Construction of Dwarf Wall, Construction of Drainage Pipe

Portion B – Construction of Subway A, Construction of Drainage Pipe

Portion C – Construction of Retaining Wall

Portion D - Tree Felling, Construction of Drainage Pipe, Construction of Retaining Wall,

Construction of Stream Decking

Portion E – Construction of Retaining Wall, Construction of Drainage Pipe

Portion F – Site Clearance, Construction of Drainage Pipe

Portion G – Construction of Bridge C

Portion H – Construction of Retaining Wall

Portion I – Construction of Subway D

Portion J – Site Clearance, Construction of Retaining Wall

Portion K – Construction of Retaining Wall, Construction of Dwarf Wall, Construction of Drainage Pipe

Portion L – Construction of Public Toilet

Portion M – Piling Works for Bridge E, Construction of Abutment of Bridge E, Construction of Retaining Wall

Portion P – Construction of Cycle Track

Key Issues for the Coming Month

- 9.2 Key environmental issues in the coming months include:
- Wastewater and runoff generation on-site;
- Regular removal of silt, mud and sand along u-channels and inside sedimentation tanks;
- Review and implementation of temporary drainage system for the surface runoff;
- Noise from operation of the equipment, especially for excavation works and machinery on-site;
- Dust generation from stockpiles of dusty materials, exposed site area, excavation works and other dust-generating activities;
- Water spraying for dust generating activities and on haul road;
- Proper storage of construction materials on-site;
- Storage of chemicals/fuel and chemical waste/waste oil on-site;
- Accumulation of general refuse and construction waste on-site; and
- Protection measures for retained trees.
- 9.3 The tentative program of major site activities and the impact prediction and control measures for the coming months, i.e. November 2017 to December 2017, are summarized as follows:

Construction Works	Major Impact Prediction	Control Measures
As mentioned in Section 9.1	Air quality impact (dust)	(a) Frequent watering of haul road and unpaved/exposed areas;

Water quality impact (surface run-off)	 (b) Frequent watering or covering stockpiles with tarpaulin or similar means; and (c) Watering of any earth moving activities. (d) Diversion of the collected effluent to de-silting facilities for treatment in compliance with valid Discharge License prior to discharge to public storm water drains; (e) Provision of adequate de-silting facilities for treating surface run-off and other collected effluents prior to discharge; (f) Provision of perimeter protection such as sealing of hoarding footings to avoid run-off from entering the existing storm water drainage system via public road; and (g) Provision of measures to prevent discharge into the stream.
Noise impact	 (h) Scheduling of noisy construction activities if necessary to avoid persistent noisy operation; (i) Controlling the number of plants use on site; (j) Regular maintenance of machines (k) Use of quiet PMEs on-site; and (l) Use of acoustic barriers and noise enclosure if necessary.
Landscape and Visual	(m) Proper setup of precautionary area for retained trees.

Monitoring Schedule for the Next Month

9.4 The tentative environmental monitoring schedules for the next month are shown in **Appendix D**.

10 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

10.1 Environmental monitoring works were performed in the reporting month and all monitoring results were checked and reviewed.

Construction Noise Monitoring

10.2 All construction noise monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was record.

Site Audit

10.3 5 times of ET joint weekly environmental site inspections were conducted in the reporting month.

Complaint and Prosecution

- 10.4 No environmental complaints and environmental prosecution was received in the reporting month.
- 10.5 No environmental prosecution was received in the reporting month.

Recommendations

10.6 According to the environmental audit performed in the reporting month, 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

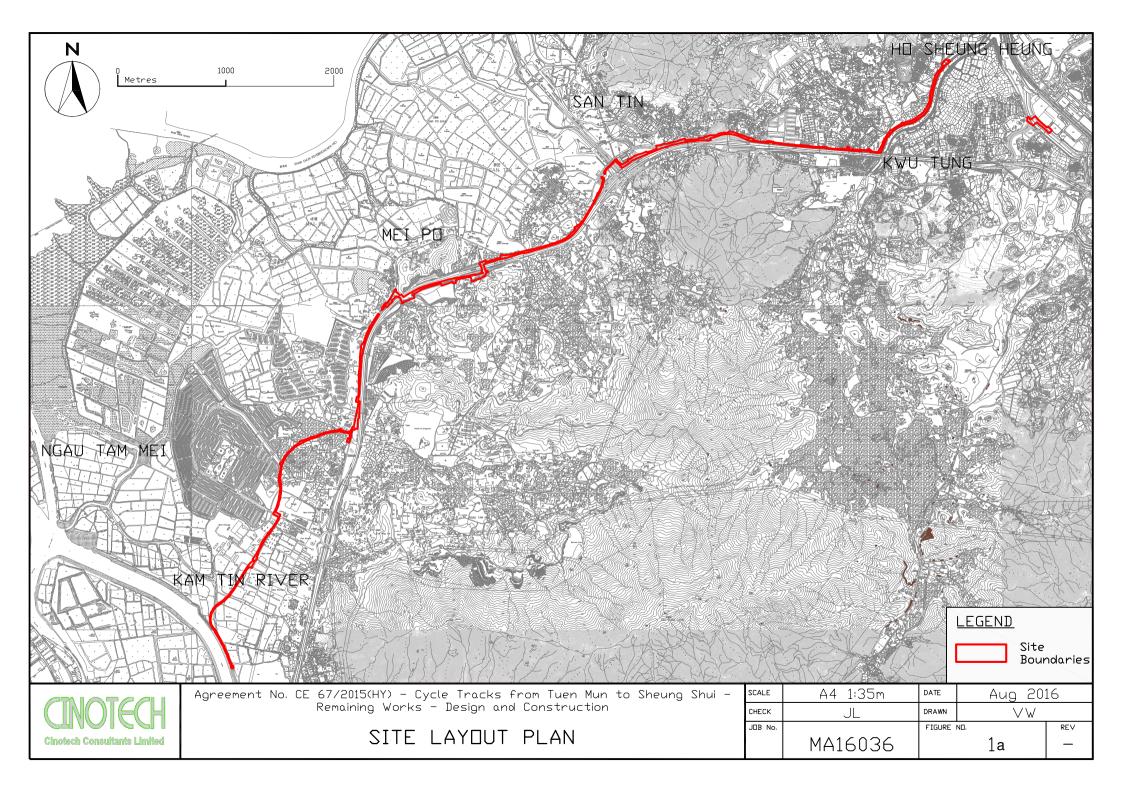
Agreement No. CE 67/2015 (HY)
Cycle Tracks from Tuen Mun to Sheung Shui –
Remaining Works – Design and Construction
Monthly EM&A Report – November 2017

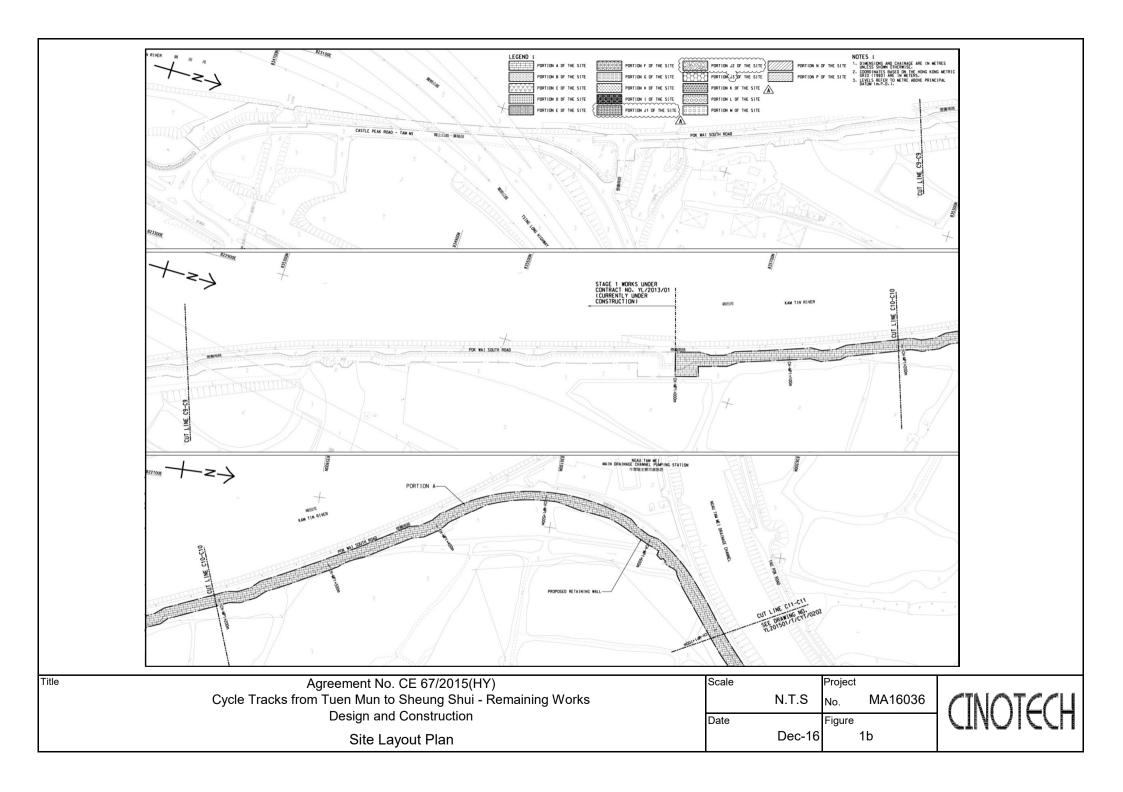
chemical waste.

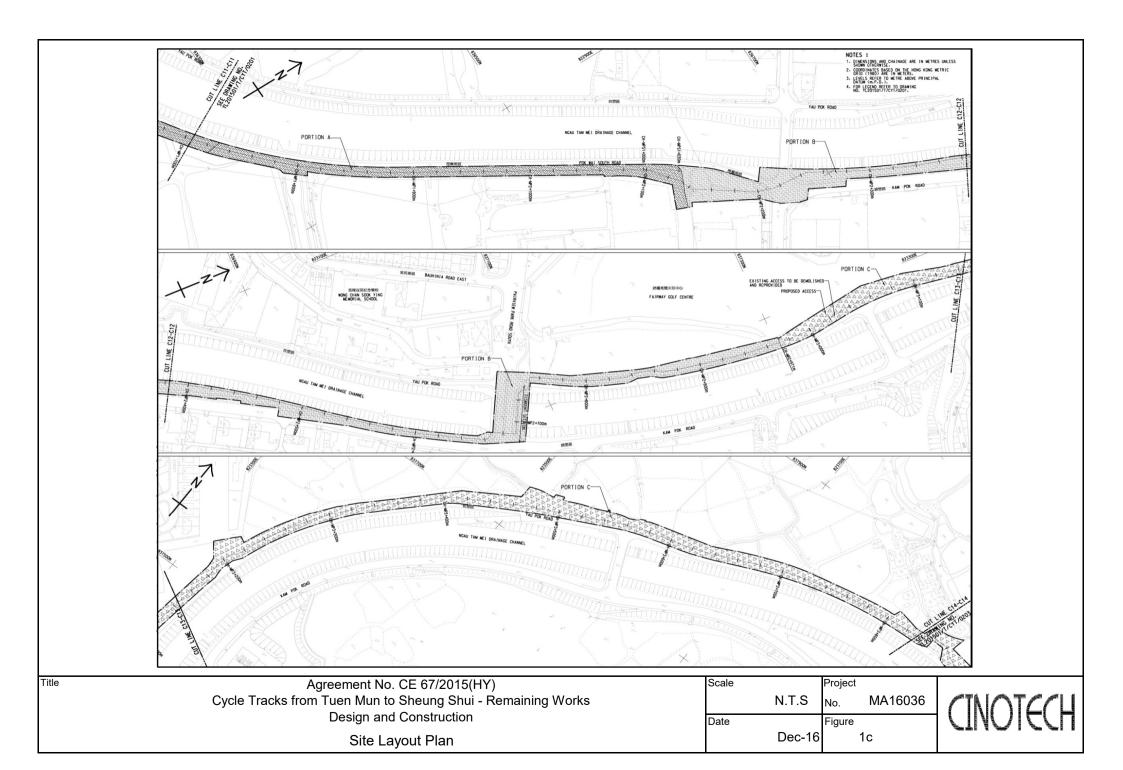
Landscape and Visual

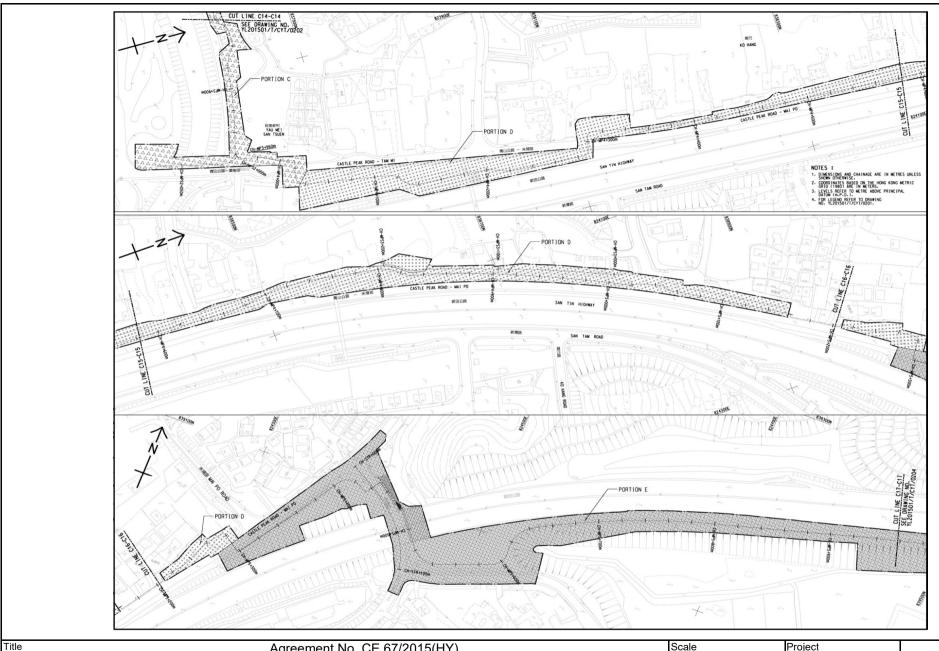
 Adequate tree protection zones should be established to protect retained and existing trees. Conspicuous signs of status of trees should be clearly shown to avoid damage from PMEs or workers.

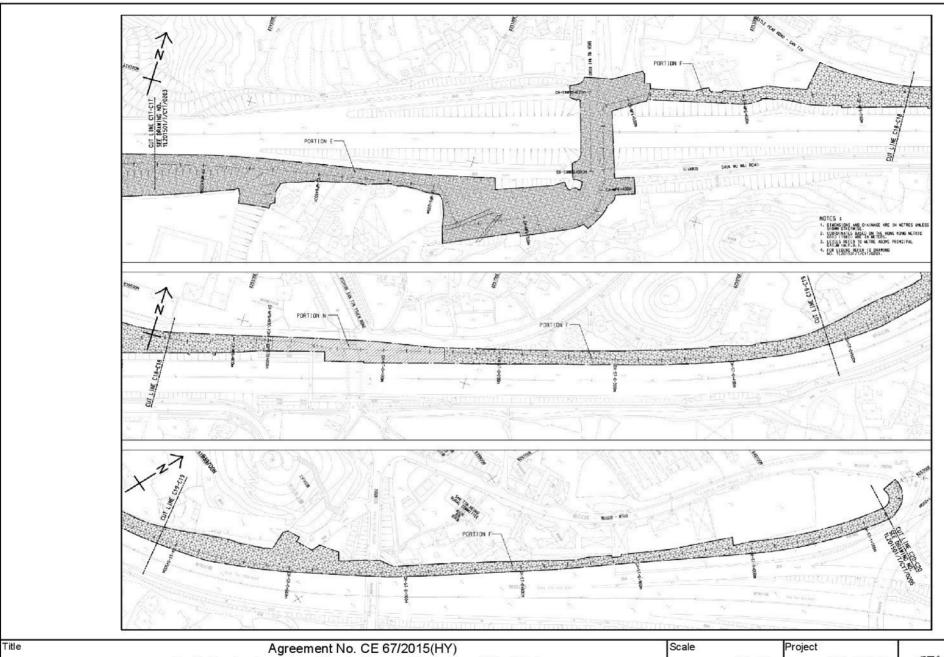
FIGURES





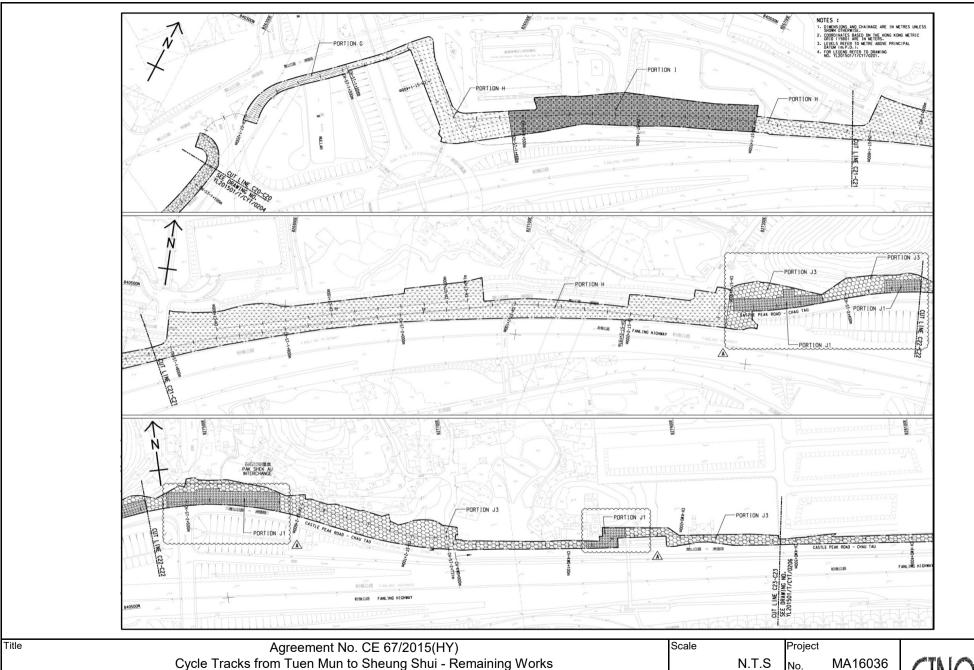






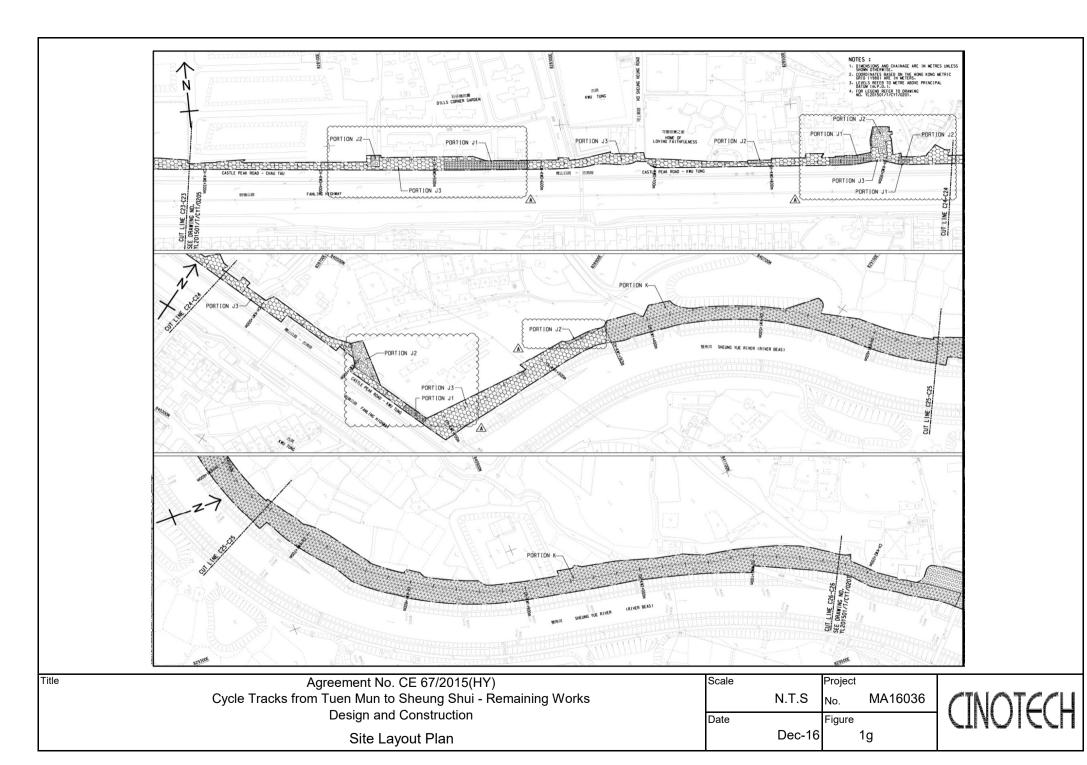
N.T.S No. MA16036

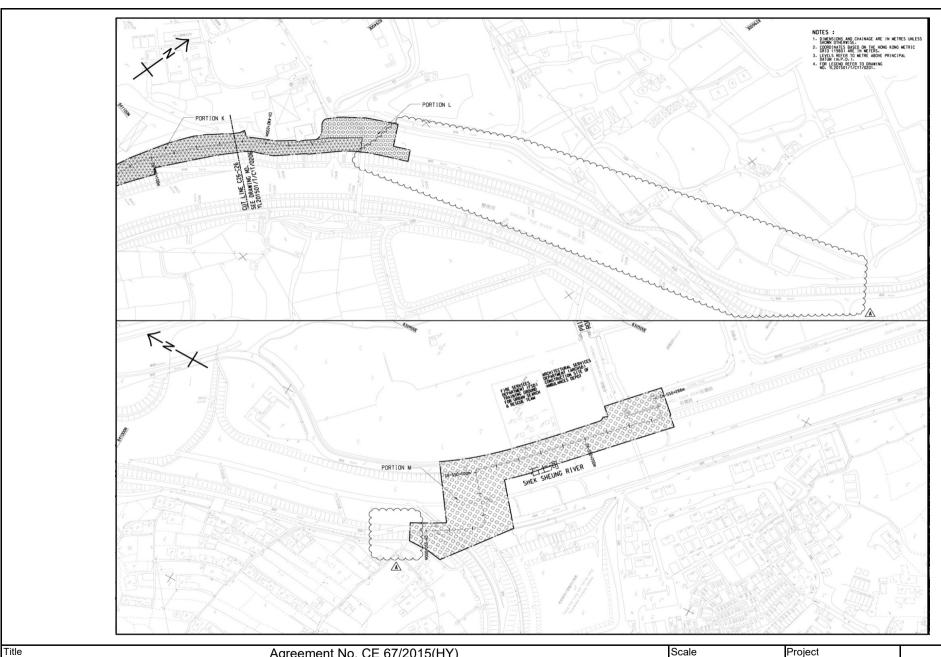
Date Figure 1e

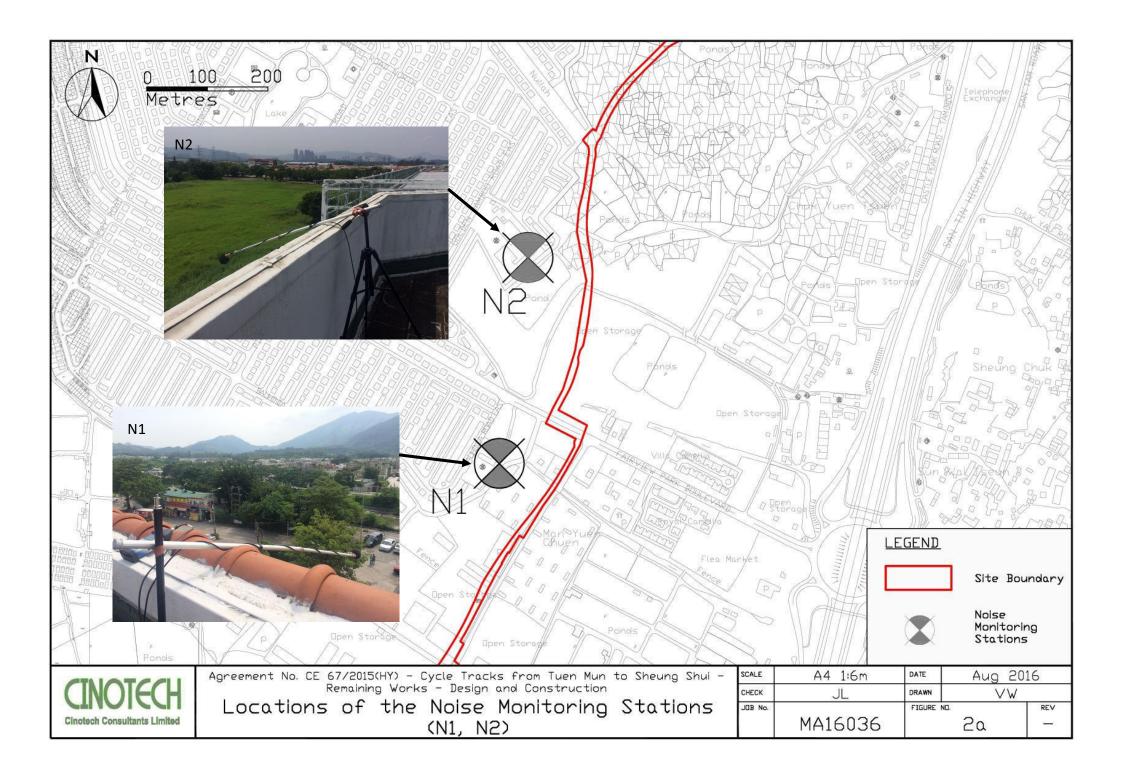


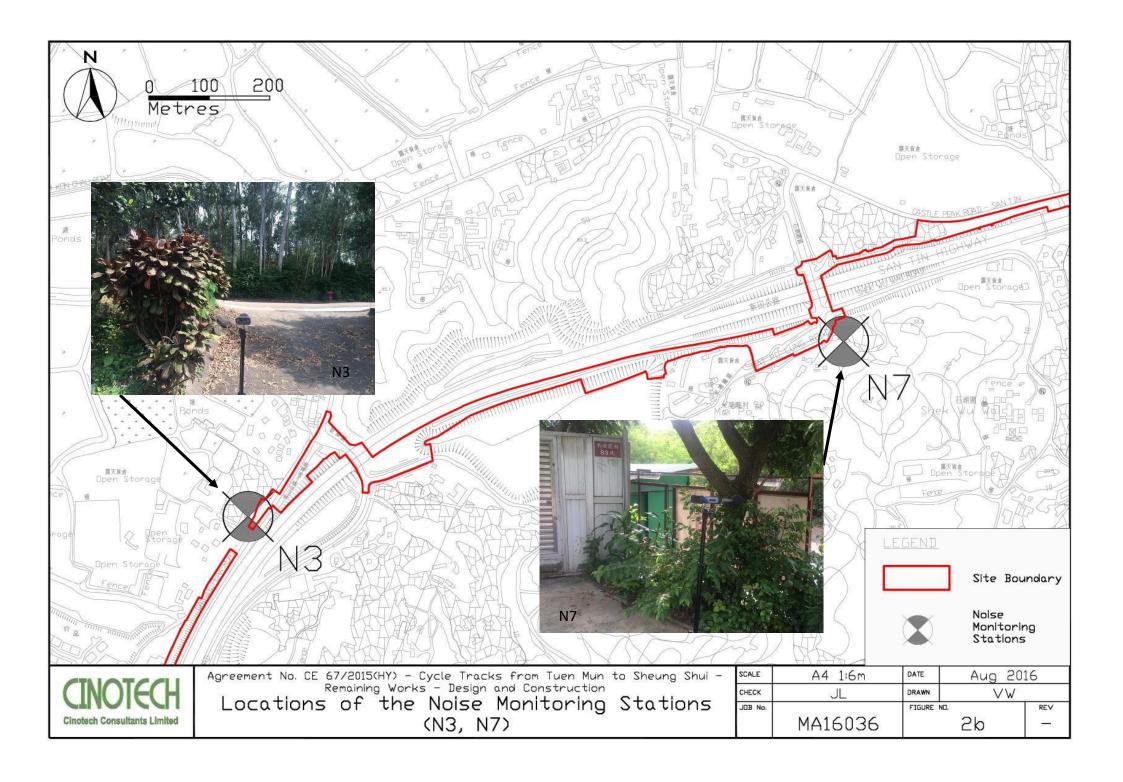
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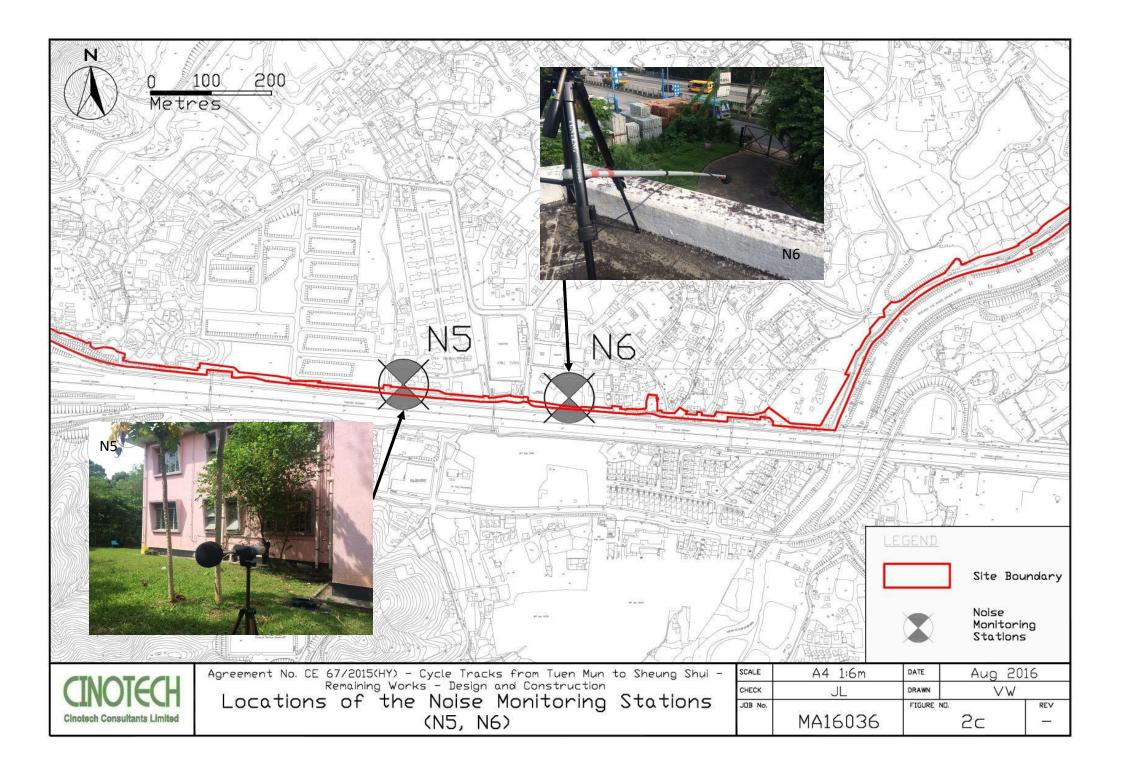
Date Dec-16 Figure 1f





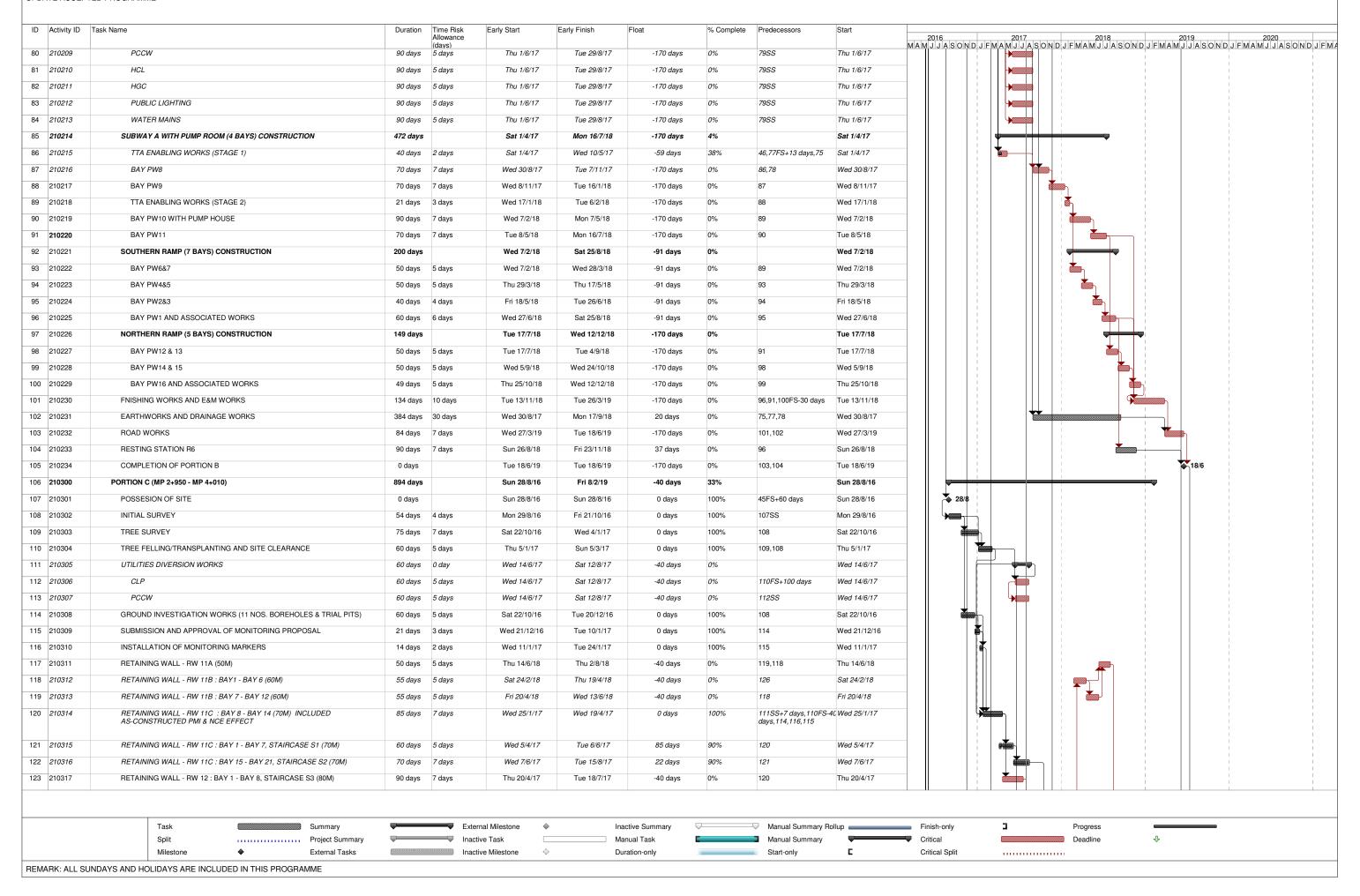




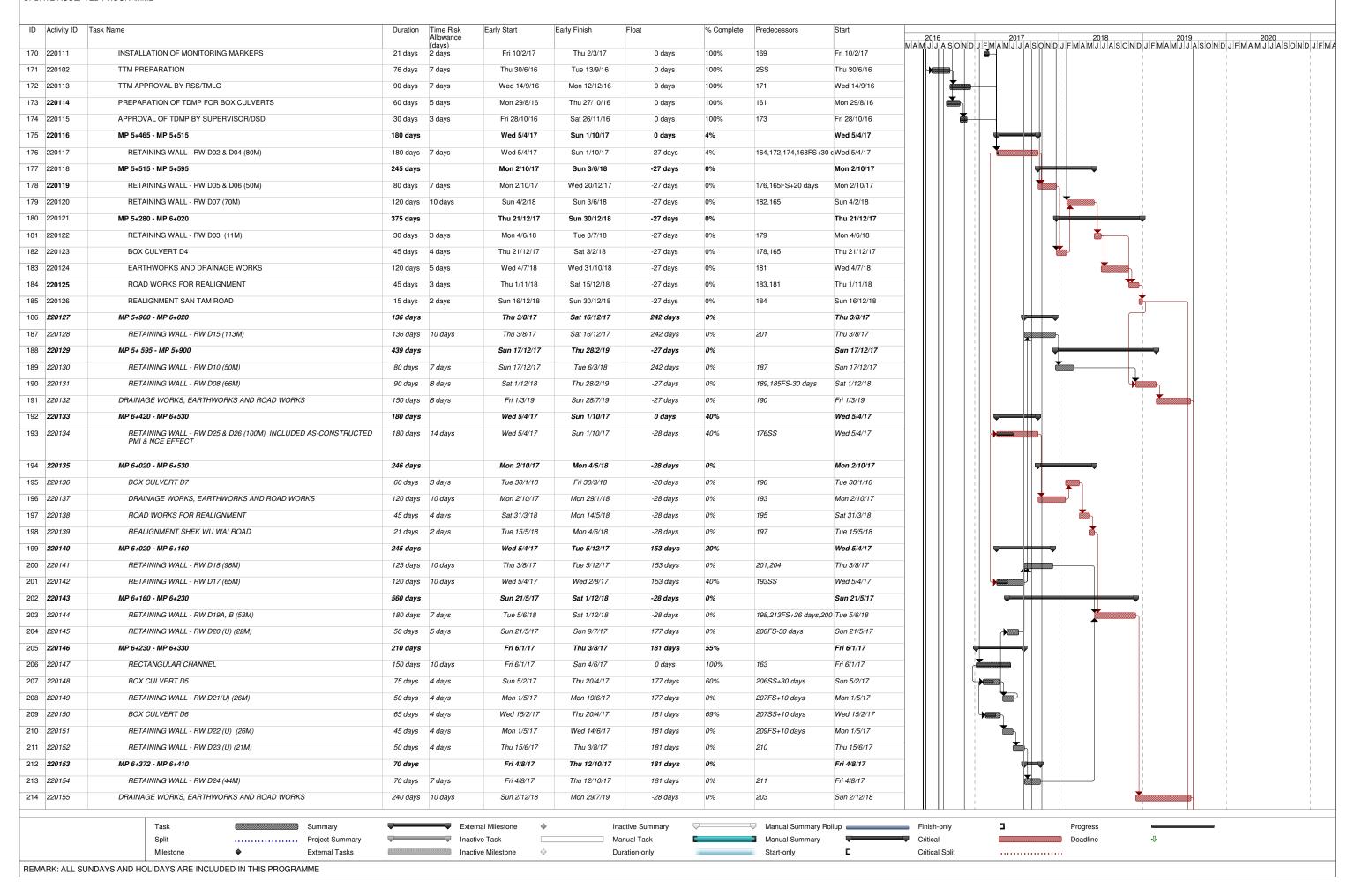


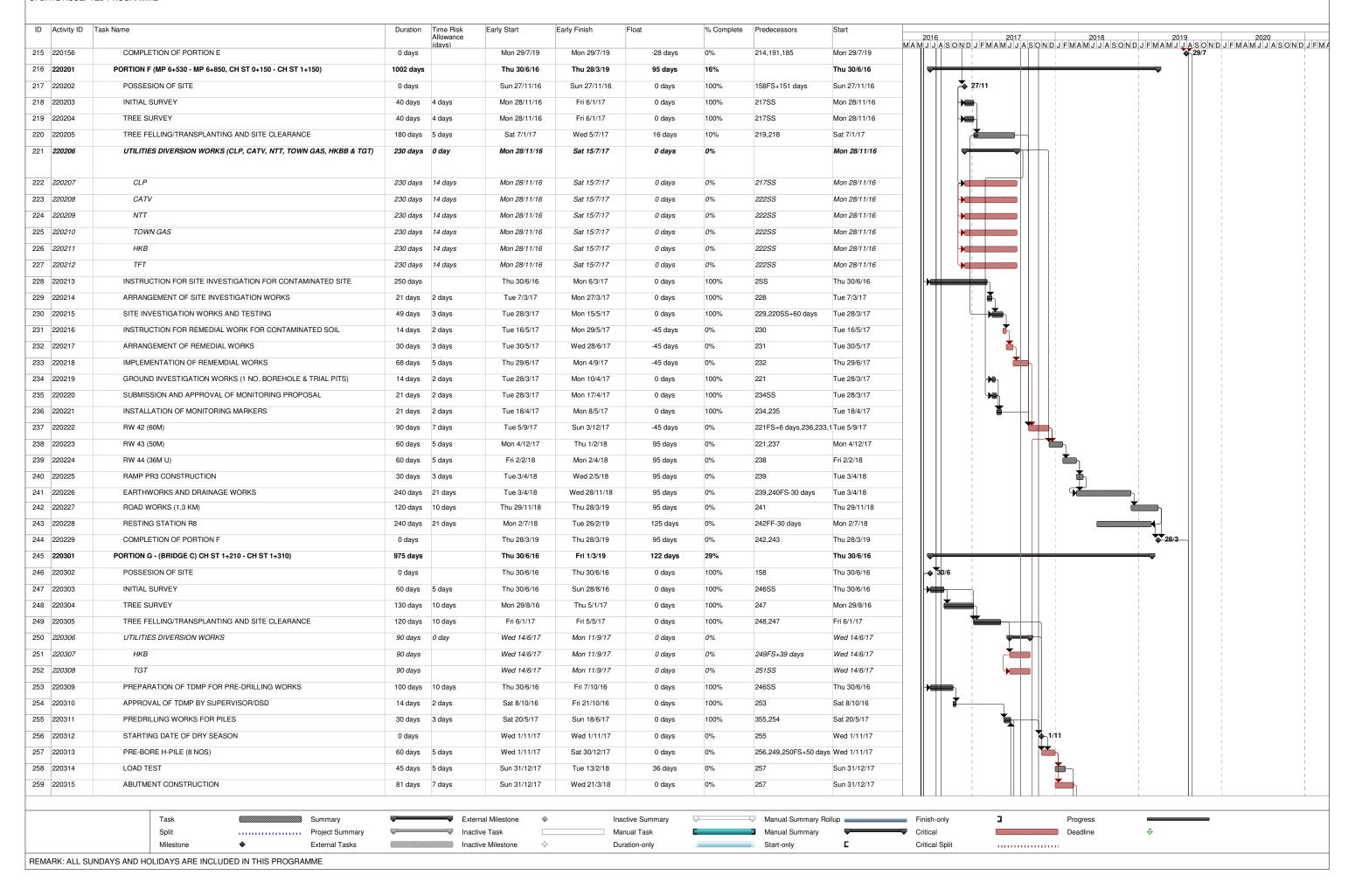
APPENDIX A WORK PROGRAMME

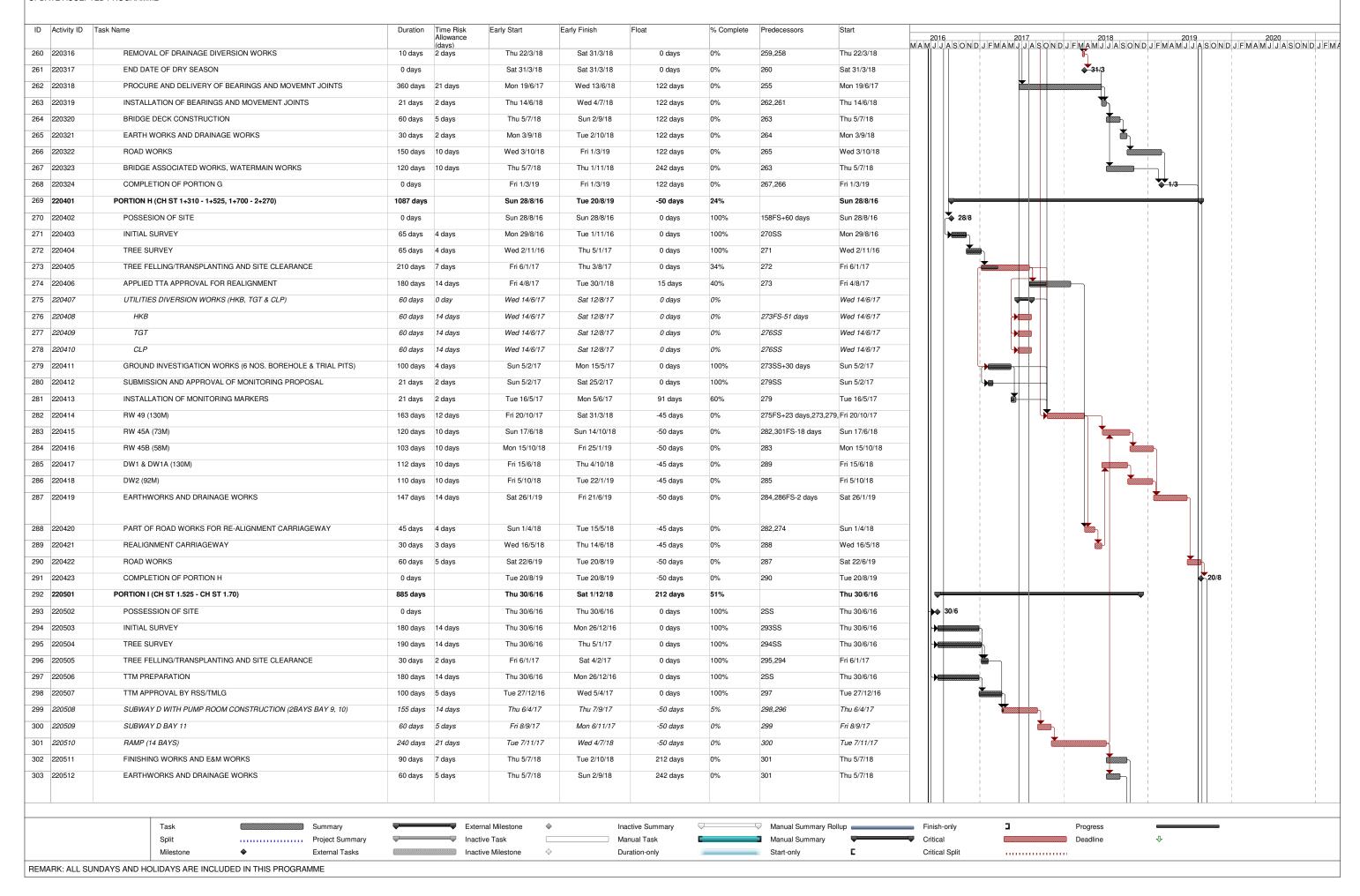
ID A	Activity ID	Task Name	Duration Time Risk Allowance (days)	Early Start	Early Finish	Float	% Complete	Predecessors	Start	2016 2017 2018 2019 2020 MAMJJASONDJEMAMJJASONDJEMAMJJASONDJEMAMJJASONDJEMAMJJASON
1 10	00001	CONTRACT DURATION (ALL WORKS EXCEPT LANDSCAPING AND ESTABLISHMENT)	1097 days	Thu 30/6/16	Mon 1/7/19	0 days	0%		Thu 30/6/16	MIAIMIJJJAGONID JEMIAMIJJJAGONID JEMIAMIJJJAGONID
2 10	00002	COMMENCEMENT OF CONTRACT	0 days	Thu 30/6/16	Thu 30/6/16	0 days	0%		Thu 30/6/16	
3 10		ACCESS DATES AND COMPLETION DATES FOR CONTRACTS	1097 days	Thu 30/6/16	Mon 1/7/19	0 days	0%		Thu 30/6/16	
42										
43 20	200001	PLANNED WORKS PROGRAMME	1147 days	Thu 30/6/16	Tue 20/8/19	-50 days	29%		Thu 30/6/16	
44 21	10001	SECTION W1 (PORTION A,B,C & D)	1084 days	Thu 30/6/16	Tue 18/6/19	-170 days	28%		Thu 30/6/16	
45 21	210002	STARTING DATE OF CONTRACT	0 days	Thu 30/6/16	Thu 30/6/16	0 days	100%	2SS	Thu 30/6/16	30/6
46 21	210003	APPLICATION FOR INDIVIDUAL EXCAVATION PERMIT FOR SECTION W1	230 days	Thu 30/6/16	Tue 14/2/17	60 days	80%	2SS	Thu 30/6/16	→
47 21	210100	PORTION A - POK WAI ROAD SOUTH (MP 1+000 - MP 2+130)	879 days	Sun 28/8/16	Thu 24/1/19	-25 days	49%		Sun 28/8/16	
48 21	210101	POSSESION OF SITE	0 days	Sun 28/8/16	Sun 28/8/16	0 days	100%	45FS+60 days	Sun 28/8/16	28/8
49 21	210102	INITIAL SURVEY	60 days 3 days	Mon 29/8/16	Thu 27/10/16	0 days	100%	48	Mon 29/8/16	
50 21	210103	TREE SURVEY	70 days 3 days	Fri 28/10/16	Thu 5/1/17	0 days	100%	49	Fri 28/10/16	
51 21	210104	TREE FELLING / TRANSPLANTING AND SITE CLEARANCE (FOR NEW DLO MEMO)	60 days 5 days	Fri 6/1/17	Mon 6/3/17	0 days	100%	50,49	Fri 6/1/17	
52 2 1	10105	UTILITIES DIVERSION WORKS	60 days 0 day	Fri 6/1/17	Mon 6/3/17	169 days	0%		Fri 6/1/17	
53 21	210106	CLP	60 days 5 days	Fri 6/1/17	Mon 6/3/17	169 days	0%	51SS	Fri 6/1/17	
54 21	210107	PCCW	60 days 5 days	Fri 6/1/17	Mon 6/3/17	169 days	0%	53SS	Fri 6/1/17	
55 21	210108	GROUND INVESTIGATION WORKS (1 NO. BOREHOLE & TRIAL PITS)	28 days 2 days	Tue 1/11/16	Mon 28/11/16	0 days	100%	49	Tue 1/11/16	
56 21	210109	SUBMISSION AND APPROVAL OF MONITORING PROPOSAL	21 days 2 days	Tue 1/11/16	Mon 21/11/16	0 days	100%	55SS	Tue 1/11/16	
57 21	210110	INSTALLATION OF MONITORING MARKERS	21 days 2 days	Tue 29/11/16	Mon 19/12/16	0 days	100%	55,56	Tue 29/11/16	
58 2	210111	RETAINING WALL - RW 8A (60M) INCLUDED AS-CONSTRUCTED PMI & NCE EFFECT	147 days 5 days	Tue 20/12/16	Mon 15/5/17	0 days	100%	57	Tue 20/12/16	
59 2	210112	RETAINING WALL - RW 8B (40M) INCLUDED AS-CONSTRUCTED PMI & NCE EFFECT	120 days 5 days	Fri 27/1/17	Fri 26/5/17	159 days	95%	56,51SS+21 days	Fri 27/1/17	
60 2	210113	EARTHWORKS AND DRAINAGE WORKS, UTILITIES LAYING BETWEEN MP1+000 TO MP 1+600 (EXCLUDING RETAINING WALL RW7, 7A & 7B)	210 days 10 days	Sun 16/4/17	Sat 11/11/17	-10 days	40%	58FS-25 days,51,52FS-45 days	Sun 16/4/17	
61 21	210114	START DATE OF DRY SEASON	0 days	Wed 1/11/17	Wed 1/11/17	0 days	0%	60,59	Wed 1/11/17	—
62 21	210115	RETAINING WALL - RW7 (20M)	30 days 4 days	Thu 2/11/17	Fri 1/12/17	0 days	0%	61	Thu 2/11/17	
63 21	210116	RETAINING WALL - RW 7A (67M)	65 days 7 days	Sat 2/12/17	Sun 4/2/18	0 days	0%	62	Sat 2/12/17	
64 21	210117	RETAINING WALL - RW 7B (20M)	30 days 3 days	Mon 5/2/18	Tue 6/3/18	0 days	0%	63	Mon 5/2/18	
65 21	210118	EARTHWORKS AND DRAINAGE WORKS BETWEEN MP1+600 TO MP 2+100	150 days 10 days	Thu 2/11/17	Sat 31/3/18	0 days	0%	61	Thu 2/11/17	
66 21	210119	STAIRCASE	30 days 3 days	Mon 1/1/18	Tue 30/1/18	60 days	0%	62SS+60 days	Mon 1/1/18	
67 21	210120	END OF DRY SEASON	0 days	Sat 31/3/18	Sat 31/3/18	0 days	0%	66,65,64FS+25 days	Sat 31/3/18	31/3
68 21	210121	START DATE OF DRY SEASON	0 days	Thu 1/11/18	Thu 1/11/18	0 days	0%	67	Thu 1/11/18	1/11
69 21	210122	ROAD WORKS	85 days 7 days	Thu 1/11/18	Thu 24/1/19	-25 days	0%	65,68	Thu 1/11/18	
70 21	210123	COMPLETION OF PORTION A	0 days	Thu 24/1/19	Thu 24/1/19	-25 days	0%	69	Thu 24/1/19	24/1
71 21	10200	PORTION B (MP 2+130 - MP 2+950)	1054 days	Sat 30/7/16	Tue 18/6/19	-170 days	16%		Sat 30/7/16	
72 21	210201	POSSESION OF SITE	0 days	Sun 27/11/16	Sun 27/11/16	0 days	100%	45FS+151 days	Sun 27/11/16	27/11
73 21	210202	INITIAL SURVEY	40 days 3 days	Mon 28/11/16	Fri 6/1/17	0 days	100%	72SS	Mon 28/11/16	
74 21	210203	TREE SURVEY	40 days 3 days	Mon 28/11/16	Fri 6/1/17	0 days	100%	72SS	Mon 28/11/16	
75 21	210204	TREE FELLING/TRANSPLANTING AND SITE CLEARANCE	45 days 4 days	Sat 7/1/17	Mon 20/2/17	0 days	100%	74,73	Sat 7/1/17	
76 21	10205	TTM PREPARATION	150 days days	Sat 30/7/16	Mon 26/12/16	0 days	100%	2SS+30 days	Sat 30/7/16	
77 21	210206	TTM APPROVAL BY SUPERVISOR/PM/TMLG	82 days 2 days	Tue 27/12/16	Sat 18/3/17	0 days	100%	76	Tue 27/12/16	
78 2	210207	UTILITIES DIVERSION WORKS	90 days 0 day	Thu 1/6/17	Tue 29/8/17	-170 days	0%		Thu 1/6/17	
79 2	210208	CLP	90 days 5 days	Thu 1/6/17	Tue 29/8/17	-170 days	0%	75FS+100 days	Thu 1/6/17	
		Task Summary Split Project Summary		rnal Milestone •		nactive Summary Manual Task	C	Manual Summary F Manual Summary	Rollup	Finish-only I Progress Critical Deadline
		Milestone ◆ External Tasks	Inac	tive Milestone 💠		Ouration-only		Start-only	С	Critical Split

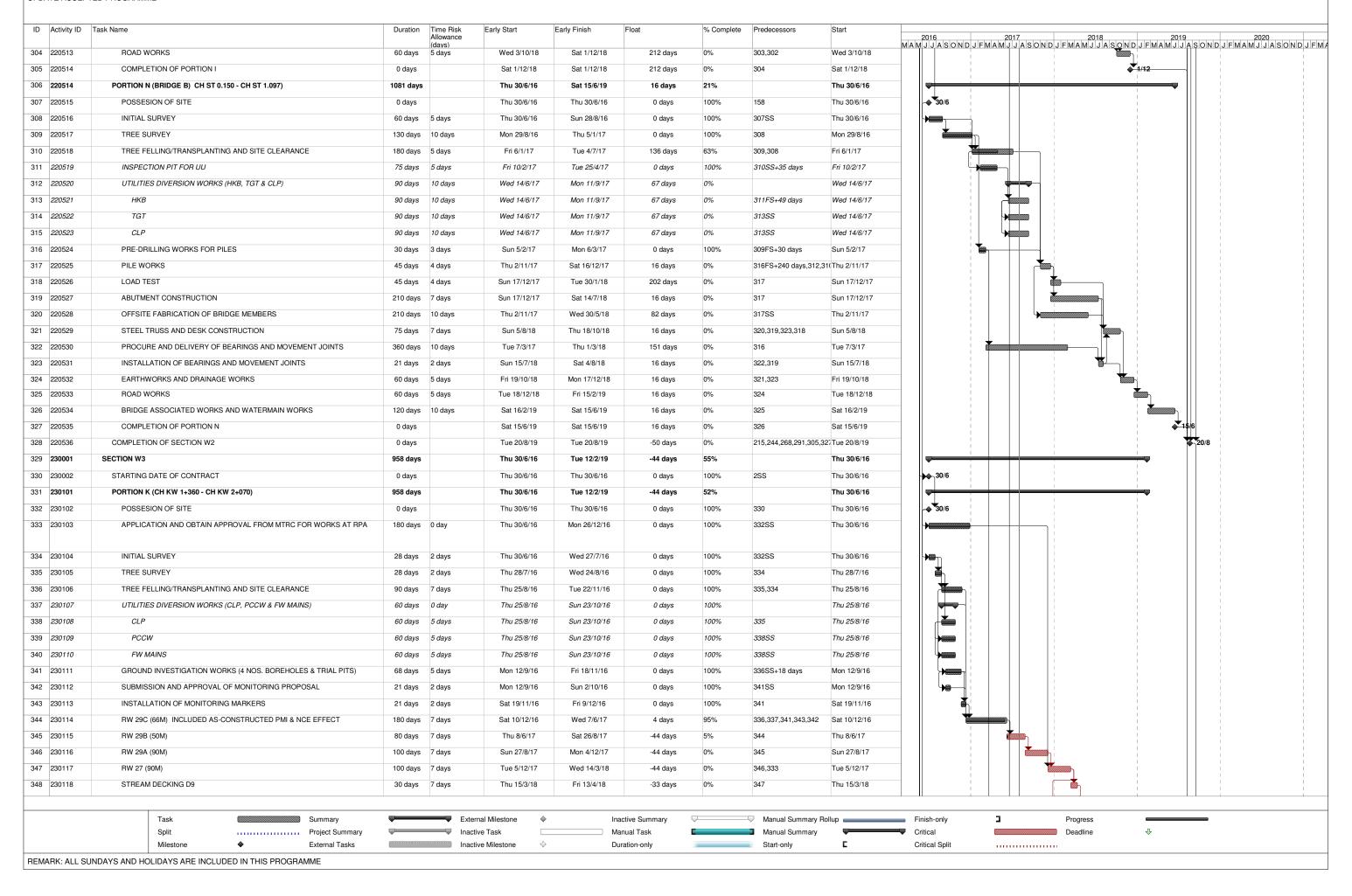


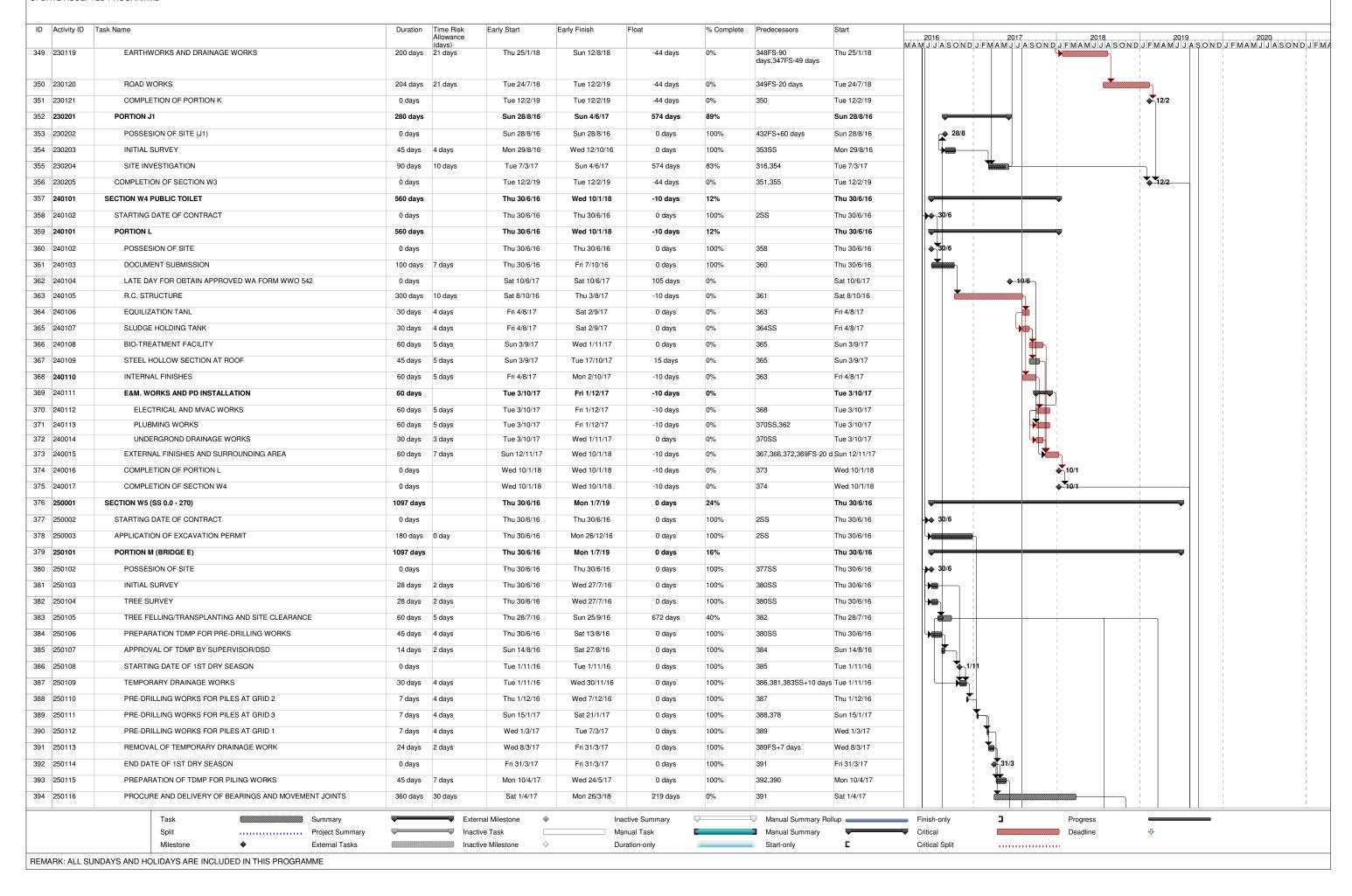
Activity ID	Task Name	Duration	Time Risk Allowance	Early Start	Early Finish	Float	% Complete	Predecessors	Start	2016 2017 2018 2019 2020
4 210318	RETAINING WALL - RW 12 : BAY 9 - BAY 16, RAMP AND STAIR - CSR1 (80M)	90 days	(days) 7 days	Wed 19/7/17	Mon 16/10/17	-40 days	0%	123,111FS-25 days	Wed 19/7/17	MAMJJASOND JEMAMJJASOND JEMAMJJASOND JEMAMJJASOND JEMAMJJASON
010010	RETAINING WALL - RW 13 (40M)	در م	E dove	T 47/40/47	Ed: 45/40/47	40 -1	00/	104 100	Tuo 17/10/17	
210319	, ,	60 days		Tue 17/10/17	Fri 15/12/17	-40 days	0%	124,122	Tue 17/10/17	
210320	RETAINING WALL - RW 14, STAIRCASE S4 (55M)	70 days	7 days	Sat 16/12/17	Fri 23/2/18	-40 days	0%	125	Sat 16/12/17	
210321	RETAINING WALL - RW 15A (7.5M)	20 days		Sat 24/2/18	Thu 15/3/18	100 days	0%	126	Sat 24/2/18	
210322	RAMP NEAR YAU POK ROAD	30 days		Fri 16/3/18	Sat 14/4/18	116 days	0%	127	Fri 16/3/18	
210323 210324	EARTHWORKS AND DRAINAGE WORKS ROAD WORKS	130 days 60 days	-	Fri 3/8/18 Tue 11/12/18	Mon 10/12/18 Fri 8/2/19	-40 days	0%	124,127,117	Fri 3/8/18 Tue 11/12/18	
210325	RESTING STATION R7	144 days		Sun 15/4/18	Wed 5/9/18	116 days	0%	128	Sun 15/4/18	
210326	COMPLETION OF PORTION C	0 days	10 days	Fri 8/2/19	Fri 8/2/19	-40 days	0%	130,131	Fri 8/2/19	8/2
210401	PORTION D (MP 4+010 - MP 5+280)	797 days		Sun 27/11/16	Sat 2/2/19	-34 days	14%	130,101	Sun 27/11/16	
210401	POSSESION OF SITE			Sun 27/11/16	Sun 27/11/16	·	100%	45FS+151 days	Sun 27/11/16	27/11
		0 days	2 days			0 days		·		\ \tag{\pi_{\text{2}} \text{2}}
210403	INITIAL SURVEY	28 days		Mon 28/11/16	Sun 25/12/16	0 days	100%	134SS	Mon 28/11/16	
210404	TREE SURVEY	40 days		Mon 28/11/16	Fri 6/1/17	0 days	100%	134SS	Mon 28/11/16	
210405	TREE FELLING/TRANSPLANTING AND SITE CLEARANCE	180 days		Sat 7/1/17	Wed 5/7/17	-34 days	27%	136,135	Sat 7/1/17	
210406	UTILITIES DIVERSION WORKS	60 days		Wed 14/6/17	Sat 12/8/17	-12 days	0%	12750 00 45	Wed 14/6/17	
210407	CLP	60 days	· ·	Wed 14/6/17	Sat 12/8/17	-12 days	0%	137FS-22 days	Wed 14/6/17	
210408	HCL	60 days		Wed 14/6/17	Sat 12/8/17	-12 days	0%	139SS	Wed 14/6/17	
210409	GROUND INVESTIGATION WORKS (3 NOS. BOREHOLE & TRIAL PITS)	21 days		Wed 15/2/17	Tue 7/3/17	0 days	100%	137SS+14 days,46	Wed 15/2/17	
210410	SUBMISSION AND APPROVAL OF MONITORING PROPOSAL	21 days		Wed 15/2/17	Tue 7/3/17	0 days	100%	141SS	Wed 15/2/17	
210411	INSTALLATION OF MONITORING MARKERS	21 days		Wed 8/3/17	Tue 28/3/17	65 days	80%	142	Wed 8/3/17	
210412	RETAINING WALL - RW 15B (40M)	70 days		Thu 6/7/17	Wed 13/9/17	-34 days	0%	143,142,137	Thu 6/7/17	
210413	RETAINING WALL - RW 15C (45M) & STAIRCASE S6	70 days	7 days	Thu 14/9/17	Wed 22/11/17	-34 days	0%	144,138FS+10 days	Thu 14/9/17	
210414	STREAM DECKING D1	30 days		Thu 23/11/17	Fri 22/12/17	-4 days	0%	145	Thu 23/11/17	
210415	STREAM DECKING D2	30 days	3 days	Sat 23/12/17	Sun 21/1/18	-4 days	0%	146	Sat 23/12/17	
210416	STREAM DECKING D3	30 days	3 days	Mon 22/1/18	Tue 20/2/18	-4 days	0%	147	Mon 22/1/18	
210417	RAMP PR1 CONSTRUCTION	80 days	7 days	Fri 23/3/18	Sun 10/6/18	-34 days	0%	148,152	Fri 23/3/18	
210418	PROVIDE SAFETY ACCESS TO RESIDENT	21 days		Mon 11/6/18	Sun 1/7/18	-34 days	0%	149	Mon 11/6/18	
210419	DEMOLITION OF EXISTING STRUCTURE	14 days	•	Mon 2/7/18	Sun 15/7/18	-34 days	0%	150	Mon 2/7/18	
210420	RW16A (80M)		10 days	Thu 23/11/17	Thu 22/3/18	-34 days	0%	76,145	Thu 23/11/17	
210424	EARTHWORKS AND DRAINAGE WORKS	262 days		Sun 18/3/18	Tue 4/12/18	-34 days	0%	151FS-120 days	Sun 18/3/18	
210425	ROAD WORKS	125 days	14 days	Mon 1/10/18	Sat 2/2/19	-34 days	0%	153FS-65 days	Mon 1/10/18	
210426	COMPLETION OF PORTION D	0 days		Sat 2/2/19	Sat 2/2/19	-34 days	0%	154	Sat 2/2/19	▼ 2/2
210427	COMPLETION OF SECTION W1	0 days		Tue 18/6/19	Tue 18/6/19	-170 days	0%	132,155,70,105	Tue 18/6/19	18/6
220001	SECTION W2 (PORTION E, F, G, H, I & N)	1147 days	days	Thu 30/6/16	Tue 20/8/19	-50 days	27%		Thu 30/6/16	
220002	STARTING DATE OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16	0 days	100%	2SS	Thu 30/6/16	♦ 30/6
220003	APPLICATION FOR INDIVIDUAL EXCAVATION PERMIT FOR SECTION W2	240 days		Thu 30/6/16	Fri 24/2/17	47 days	90%	158SS	Thu 30/6/16	
220101	PORTION E (MP 5+280 - MP 6+530)	1125 days	days	Thu 30/6/16	Mon 29/7/19	-28 days	26%		Thu 30/6/16	
220102	POSSESION OF SITE	0 days		Sun 28/8/16	Sun 28/8/16	0 days	100%	158FS+60 days	Sun 28/8/16	28/8
220103	INITIAL SURVEY	65 days		Mon 29/8/16	Tue 1/11/16	0 days	100%	161SS	Mon 29/8/16	
220104	TREE SURVEY	65 days		Wed 2/11/16	Thu 5/1/17	0 days	100%	162	Wed 2/11/16	
220105	TREE FELLING/TRANSPLANTING AND SITE CLEARANCE	50 days	5 days	Fri 6/1/17	Fri 24/2/17	0 days	100%	163,162	Fri 6/1/17	
220106	UTILITIES DIVERSION WORKS (GAS MAIN, CLP)	90 days	0 day	Wed 14/6/17	Mon 11/9/17	-27 days	0%		Wed 14/6/17	
220107	GAS MAIN	90 days	14 days	Wed 14/6/17	Mon 11/9/17	-27 days	0%	164FS+109 days	Wed 14/6/17	
220108	CLP	90 days	14 days	Wed 14/6/17	Mon 11/9/17	-27 days	0%	166SS	Wed 14/6/17	
220109	GROUND INVESTIGATION WORKS (9 NOS. BOREHOLE & TRIAL PITS)	45 days	4 days	Fri 20/1/17	Sun 5/3/17	0 days	100%	164SS+14 days	Fri 20/1/17	
220110	SUBMISSION AND APPROVAL OF MONITORING PROPOSAL	21 days	2 days	Fri 20/1/17	Thu 9/2/17	0 days	100%	168SS	Fri 20/1/17	
	Task Summary	—	Exte	rnal Milestone 🔷	- In	nactive Summary	V-	Manual Summary F	Rollup	Finish-only Progress
	Split Project Summary Milestone ♦ External Tasks			tive Task		lanual Task		Manual Summary		■ Critical Deadline →
				tive Milestone 🔷				Start-only		Critical Split











D Activity ID	Task Name	Duration Time R Allowar		Early Finish	Float	% Complete	Predecessors	Start	2016 2017 2018 2019 2020
250117	APPROVAL OF TDMP BY SUPERVISOR/DSD	50 days 2 days	Thu 25/5/17	Thu 13/7/17	110 days	0%	393	Thu 25/5/17	MAMJJASONDJEMAMJJASONDJEMAMJJASONDJEMAMJJAS
250118	STARTING DATE OF 2ND DRY SEASON	0 days	Wed 1/11/17	Wed 1/11/17	0 days	0%	395	Wed 1/11/17	
7 250119	TEMPORARY DRAINAGE WORKS (2ND DRY SEASON)	21 days 2 days	Wed 1/11/17	Tue 21/11/17	0 days	0%	396	Wed 1/11/17	
8 250120	PILING WORKS AT GRID 2	45 days 4 days	Wed 22/11/17	Fri 5/1/18	0 days	0%	397	Wed 22/11/17	
9 250121	PILE CAP AT GRID 2	30 days 3 days	Sat 6/1/18	Sun 4/2/18	0 days	0%	398	Sat 6/1/18	
0 250122	PIER CONSTRUCTION AT GRID 2	45 days 4 days	Mon 5/2/18	Wed 21/3/18	0 days	0%	399	Mon 5/2/18	
1 250123	PILING WORKS AT GRID 3		Sat 6/1/18	Mon 19/2/18		0%	398	Sat 6/1/18	
		45 days 4 days			0 days				
2 250124	PILE CAP AT GRID 3	30 days 3 days	Tue 20/2/18	Wed 21/3/18	0 days	0%	401	Tue 20/2/18	
3 250125	REMOVAL OF TEMPORARY DRAINAGE WORK	10 days 2 days	Thu 22/3/18	Sat 31/3/18	0 days	0%	402,400	Thu 22/3/18	
1 250126	END DATE OF 2ND DRY SEASON	0 days	Sat 31/3/18	Sat 31/3/18	0 days	0%	403	Sat 31/3/18	31/3
5 250127	PILING WORKS AT GRID 1 WITH ALL PILE LOAD TESTING	100 days 7 days	Thu 22/3/18	Fri 29/6/18	0 days	0%	402	Thu 22/3/18	
6 250128	PILE CAP AT GRID 1	30 days 3 days	Sat 30/6/18	Sun 29/7/18	0 days	0%	405	Sat 30/6/18	
250129	ABUTMENT AT GRID 1	94 days 7 days	Mon 30/7/18	Wed 31/10/18	0 days	0%	406,383	Mon 30/7/18	
250130	STARTING DATE OF 3RD DRY SEASON	0 days	Thu 1/11/18	Thu 1/11/18	0 days	0%	407,404FS+214 days	Thu 1/11/18	1/11
250131	BRIDGE DECK CONSTRUCTION WITH TEMPORARY DRAINAGE WORKS	141 days 10 days	Thu 1/11/18	Thu 21/3/19	0 days	0%	408,394	Thu 1/11/18	
250132	ABUTMENT AND MOVEMENT JOINT AT GRID 3	45 days 4 days	Thu 1/11/18	Sat 15/12/18	96 days	0%	409SS	Thu 1/11/18	
1 250133	REMOVAL OF TEMPORARY DRAINAGE WORK	10 days 2 days	Fri 22/3/19	Sun 31/3/19	0 days	0%	409	Fri 22/3/19	
250134	END DATE OF 3RD DRY SEASON	0 days	Sun 31/3/19	Sun 31/3/19	0 days	0%	411	Sun 31/3/19	31/3
250135	RAMP	55 days 5 days	Fri 22/3/19	Wed 15/5/19	0 days	0%	409,410,383	Fri 22/3/19	
250136	STEEL STRUCTURAL ROOF WORKS	60 days 5 days	Fri 22/3/19	Mon 20/5/19	0 days	0%	409,412FS-10 days	Fri 22/3/19	
5 250137	EARTHWORKS AND DRAINAGE WORKS	45 days 4 days	Mon 1/4/19	Wed 15/5/19	0 days	0%	411	Mon 1/4/19	
250138	ROAD WORKS	47 days 4 days	Thu 16/5/19	Mon 1/7/19	0 days	0%	415,413	Thu 16/5/19	
7 250139	BRIDGE ASSOCIATED WORKS AND WATERMAIN WORKS	72 days 7 days	Sun 21/4/19	Mon 1/7/19	0 days	0%	409FS+30 days,414F		
3 250140	COMPLETION OF PORTION M	0 days	Mon 1/7/19	Mon 1/7/19	0 days	0%	416,417	Mon 1/7/19	
9 250141	COMPLETION OF SECTION W5	0 days	Mon 1/7/19	Mon 1/7/19	0 days	0%	418	Mon 1/7/19	
						56%	7.0		
260001	SECTION W6 (TM0.0 - 960)	701 days	Thu 30/6/16	Thu 31/5/18	0 days		000	Thu 30/6/16) A 20/5
260002	STARTING DATE OF CONTRACT	0 days	Thu 30/6/16	Thu 30/6/16	0 days	100%	2SS	Thu 30/6/16	30/6
2 260003	APPLICATION OF EXCAVATION PERMIT	300 days 10 days		Tue 25/4/17	0 days	100%	421SS	Thu 30/6/16	
3 260004	APPLICATION AND OBTAIN APPROVAL FROM MTRC FOR WORKS AT RPA	300 days 10 days		Tue 25/4/17	34 days	80%	421SS	Thu 30/6/16	
260101	PORTION P	367 days	Mon 29/5/17	Thu 31/5/18	0 days	0%		Mon 29/5/17	
260102	POSSESION OF SITE	0 days	Mon 29/5/17	Mon 29/5/17	0 days	0%	421FS+334 days,423	Mon 29/5/17	29/5
3 260103	DOCUMENT SUBMISSION	60 days 5 days	Tue 30/5/17	Fri 28/7/17	0 days	0%	425,422,423	Tue 30/5/17	
260104	DRAINAGE WORKS	157 days 10 days	Sat 29/7/17	Mon 1/1/18	0 days	0%	426	Sat 29/7/17	
3 260105	ROAD WORKS	150 days 10 days	Tue 2/1/18	Thu 31/5/18	0 days	0%	427	Tue 2/1/18	
9 260106	COMPLETION OF PORTION P	0 days	Thu 31/5/18	Thu 31/5/18	0 days	0%	428	Thu 31/5/18	31/5
260107	COMPLETION OF SECTION W6	0 days	Thu 31/5/18	Thu 31/5/18	0 days	0%	429	Thu 31/5/18	♦ 31/5
270001	SECTION W7 (ST2.27 - 2.73, KW 0 - 1.35)	980 days	Thu 30/6/16	Wed 6/3/19	0 days	20%		Thu 30/6/16	
2 270002	STARTING DATE OF CONTRACT	0 days	Thu 30/6/16	Thu 30/6/16	0 days	0%	2SS	Thu 30/6/16	30/6
3 270101	PORTION J2, J3	730 days	Tue 7/3/17	Wed 6/3/19	0 days	20%		Tue 7/3/17	
		-					422		7/3
4 270102	INSTRUCTION TO EXECISE	0 days	Tue 7/3/17	Tue 7/3/17	0 days	100%	432	Tue 7/3/17	
5 270103	POSSESSION OF SITE (J2, J3)	0 days	Tue 7/3/17	Tue 7/3/17	0 days	0%	434SS,432FS+250 da		7/3
6 270104	APPLICATION OF EXCAVATION PERMIT	180 days 0 day	Tue 7/3/17	Sat 2/9/17	0 days	80%	434SS	Tue 7/3/17	
7 270105	CONDITION SURVEY FOR PERMANENT STRUCTURE ADJACENT TO 2 STORIES HEIGHT TEMP. BLDG	110 days 2 days	Tue 7/3/17	Sat 24/6/17	100 days	0%	435SS	Tue 7/3/17	
270106	INITIAL SURVEY	60 days 2 days	Tue 7/3/17	Fri 5/5/17	0 days	100%	435SS	Tue 7/3/17	
9 270107	TREE SURVEY	90 days 2 days	Tue 7/3/17	Sun 4/6/17	30 days	67%	435SS	Tue 7/3/17	
	Task Summary Split Project Summary	•	External Milestone • Inactive Task		nactive Summary Manual Task	C	Manual Summary Manual Summary	Rollup	Finish-only
	Milestone ◆ External Tasks		Inactive Milestone						

ID A	ctivity ID	Task Name	Duration	Time Risk Allowance (days)	Early Start	Early Finish	Float	% Complete	Predecessors	Start	2016 2017 2018 2019 MAMJJASONDJEMAMJJASONDJEMAMJJASONDJEMAMJJASONDJE
440 27	70108	TREE FELLING/TRANSPLANTING AND SITE CLEARANCE	60 days	3 days	Mon 5/6/17	Thu 3/8/17	30 days	0%	439,438	Mon 5/6/17	
441 27	70109	RW 46 (67M)	70 days	7 days	Wed 23/5/18	Tue 31/7/18	0 days	0%	443	Wed 23/5/18	
442 27	70110	RW 47 (83 NOS OF SOILDER PILES)	180 days		Mon 12/2/18	Fri 10/8/18	20 days	0%	444	Mon 12/2/18	
143 27	70110	RW 48 (110M)	100 days	5 days	Mon 12/2/18	Tue 22/5/18	0 days	0%	444	Mon 12/2/18	
144 27	70111	RW 24A (20M)	21 days	2 days	Mon 22/1/18	Sun 11/2/18	0 days	0%	445	Mon 22/1/18	
145 27	70112	RW 24B (18M)	21 days	2 days	Mon 1/1/18	Sun 21/1/18	0 days	0%	446	Mon 1/1/18	
446 27	70113	RW 24C (82M)	45 days	7 days	Fri 17/11/17	Sun 31/12/17	0 days	0%	447	Fri 17/11/17	
447 27	70114	RW 25 (83M)	45 days	7 days	Tue 3/10/17	Thu 16/11/17	0 days	0%	448,437	Tue 3/10/17	
148 27	70115	RW 26 (20M)	30 days	2 days	Sun 3/9/17	Mon 2/10/17	0 days	0%	438,440,436	Sun 3/9/17	
449 27	70116	STREAM DECKING D8	30 days	2 days	Wed 1/8/18	Thu 30/8/18	0 days	0%	441	Wed 1/8/18	
450 27	70117	PROVIDE SAFETY ACCESS TO RESIDENT	21 days	2 days	Mon 1/1/18	Sun 21/1/18	200 days	0%	446	Mon 1/1/18	
451 27	70118	DEMOLITION OF EXISTING STRUCTURE	21 days	3 days	Mon 22/1/18	Sun 11/2/18	200 days	0%	450	Mon 22/1/18	*
452 27	70119	EARTHWORKS AND DRAINAGE WORKS	150 days	10 days	Fri 31/8/18	Sun 27/1/19	0 days	0%	451,449,442,436	Fri 31/8/18	
453 27	70120	ROAD WORKS	90 days	7 days	Fri 7/12/18	Wed 6/3/19	0 days	0%	452FS-52 days	Fri 7/12/18	
454 27	70121	COMPLETION OF PORTION J	0 days		Wed 6/3/19	Wed 6/3/19	0 days	0%	453	Wed 6/3/19	6/3
455 27	70122	COMPLETION OF SECTION W7	0 days		Wed 6/3/19	Wed 6/3/19	0 days	0%	454,435FS+730 days	Wed 6/3/19	6/3
456 27	70123	COMPLETION FROM SECTION W1 TO SECTION W7	0 days		Tue 20/8/19	Tue 20/8/19	-50 days	0%	455,430,419,375,356,32	28 Tue 20/8/19	20/8
457											
458 30	00001	LANDSCAPING SOFTWORKS AND ESTABLISHMENT WORK	1757 days		Thu 30/6/16	Wed 21/4/21	0 days	0%		Thu 30/6/16	

APPENDIX B ACTION AND LIMIT LEVELS FOR NOISE

Appendix B - 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 C COPIES OF CALIBRATION CERTIFICATES



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

TEST REPORT

APPLICANT:

Cinotech Consultants Limited

Room 1710, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.:	C/N/170915A
Date of Issue:	2017-09-18
Date Received:	2017-09-15
Date Tested:	2017-09-15
Date Completed:	2017-09-18
Next Due Date:	2018-09-17

ATTN:

Mr. W.K. Tang

Page:

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Certificate of Calibration

Item for calibration:

Description

: 'SVANTEK' Integrating Sound Level Meter

Manufacturer

: SVANTEK

Model No.

: SVAN 955

Serial No.

: 12563

Microphone No.

: 34377

Equipment No.

: N-08-03

Test conditions:

Room Temperatre

: 22 degree Celsius

Relative Humidity

: 60%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

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

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE



WELLAB LIMITED Rms 816, 1516 & 1701, Technology Park, 18 On Lai Street, Shatin, N.T. Hong Kong. Tel: 2898 7388 Fax: 2898 7076 Website: www.wellab.com.hk

TEST REPORT

APPLICANT: Cinotech Consultants Limited

Room 1710, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.:	C/N/161128B
Date of Issue:	2016-11-30
Date Received:	2016-11-28
Date Tested:	2016-11-28
Date Completed:	2016-11-30
Next Due Date:	2017-11-29

ATTN:

Mr. W.K. Tang

Page:

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Certificate of Calibration

Item for calibration:

Description

: 'SVANTEK' Integrating Sound Level Meter

Manufacturer

: SVANTEK

Model No.

: SVAN 957

Serial No.

: 23851

Microphone No.

: 48532

Equipment No.

: N-08-12

Test conditions:

Room Temperatre

: 21 degree Celsius

Relative Humidity

: 66%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

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

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE





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

TEST REPORT

APPLICANT: Cinotech Consultants Limited

Room 1710, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.:	C/N/170929
Date of Issue:	2017-09-30
Date Received:	2017-09-29
Date Tested:	2017-09-29
Date Completed:	2017-09-30
Next Due Date:	2018-09-29

ATTN:

Mr. W.K. Tang

Page:

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Item for calibration:

Description

: Acoustical Calibrator

Manufacturer

: SVANTEK

Model No.

: SV30A

Serial No.

: 24803

Equipment No.

: N-09-03

Test conditions:

Room Temperatre

: 21 degree Celsius

Relative Humidity

: 60 %

Methodology:

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

Results:

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

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE





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

TEST REPORT

APPLICANT: Cinotech Consultants Limited

Room 1710, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.:	C/N/170929B
Date of Issue:	2017-09-30
Date Received:	2017-09-29
Date Tested:	2017-09-29
Date Completed:	2017-09-30
Next Due Date:	2018-09-29

ATTN:

Mr. W.K. Tang

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Item for calibration:

Description

: Acoustical Calibrator

Manufacturer

: SVANTEK

Model No.

: SV30A : 24780

Serial No. Equipment No.

: N-09-05

Test conditions:

Room Temperatre

: 21 degree Celsius

Relative Humidity

: 60 %

Methodology:

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

Results:

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

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

APPENDIX D ENVIRONMENTAL MONITORING SCHEDULES

Cycle Tracks from Tuen Mun to Sheung Shui - Remaining Works - Design and Construction Impact Noise Monitoring Schedule (November 2017)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1-Nov	2-Nov	3-Nov	4-Nov
5-Nov	6-Nov	7-Nov	8-Nov	9-Nov	10-Nov	11-Nov
				Noise		
12-Nov	13-Nov	14-Nov	15-Nov	16-Nov	17-Nov	18-Nov
		Noise				
		110.00				
19-Nov	20-Nov	21-Nov	22-Nov	23-Nov	24-Nov	25-Nov
19-1404	20-1101	21-1101	22-1107	23-1101	24-1107	25-1107
		Najas				
		Noise				
26-Nov	27-Nov	28-Nov	29-Nov	30-Nov		

Noise Monitoring Station

- N1 HKMLC Wong Chan Sook Ying Memorial School
- N2 Bethel High School
- N3 No. 159 Mai Po San Tsuen
- N5 Dills Corner Garden Block 2
- N6 Home of Loving Faithfulness
- N7 Village House in Shek Wu Wai

Cycle Tracks from Tuen Mun to Sheung Shui - Remaining Works - Design and Construction Tentative Impact Noise Monitoring Schedule (December 2017)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1-Dec	2-Dec
					Noise	
3-Dec	4-Dec	5-Dec	6-Dec	7-Dec	8-Dec	9-Dec
3-Dec	4-Dec	3-Dec	0-Дес	/-Dec	8-Dec	9-Dec
	Noise					
10-Dec	11-Dec	12-Dec	13-Dec	14-Dec	15-Dec	16-Dec
					Noise	
18 D	10 D	10 D	20.0	21.5	22.5	22.5
17-Dec	18-Dec	19-Dec	20-Dec	21-Dec	22-Dec	23-Dec
			Noise			
24-Dec	25-Dec	26-Dec	27-Dec	28-Dec	29-Dec	30-Dec
			Noise			
			140130			
31-Dec						

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

Noise Monitoring Station

- N1 HKMLC Wong Chan Sook Ying Memorial School
- N2 Bethel High School
- N3 No. 159 Mai Po San Tsuen
- N5 Dills Corner Garden Block 2
- N6 Home of Loving Faithfulness
- N7 Village House in Shek Wu Wai

APPENDIX E NOISE MONITORING RESULTS AND GRAPHICAL PRESENTATIONS

Appendix E - Noise Monitoring Results

(0700-1900 hrs on Normal Weekdays)

Location N1 - H	IKMLC Won	g Chan Sook `	Ying Memori	al School					
				Unit: dB (A) (30-min)					
Date	Date Time	Weather	Meas	sured Noise I	_evel	Baseline Level	Construction Noise Level		
			L _{eq}	L ₁₀	L 90	L _{eq}	L _{eq}		
9-Nov-17	11:30	Cloudy	63.7	67.4	56.8		58.4		
14-Nov-17	9:20	Cloudy	61.9	64.2	56.0	62.2	61.9 Measured ≦ Baseline		
21-Nov-17	9:30	Cloudy	64.3	67.2	57.8		60.1		

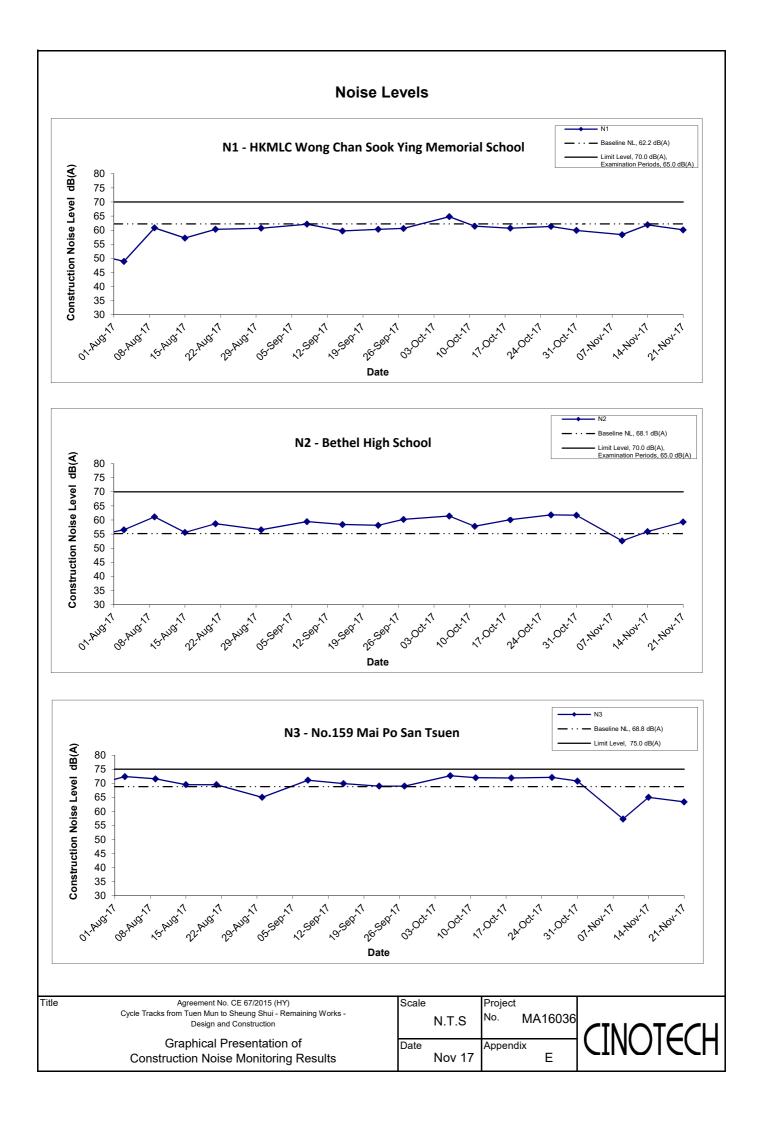
Location N2 - E	Bethel High S	School						
				Unit: dB (A) (30-min)				
Date	Time	Weather	Measured Noise Level		Baseline Level	Construction Noise Level		
			L _{eq}	L ₁₀	L 90	L _{eq}	L _{eq}	
9-Nov-17	10:45	Cloudy	57.1	59.4	51.4		52.6	
14-Nov-17	10:10	Cloudy	58.6	60.4	55.7	55.2	55.9	
21-Nov-17	10:20	Cloudy	60.7	62.1	54.7		59.3	

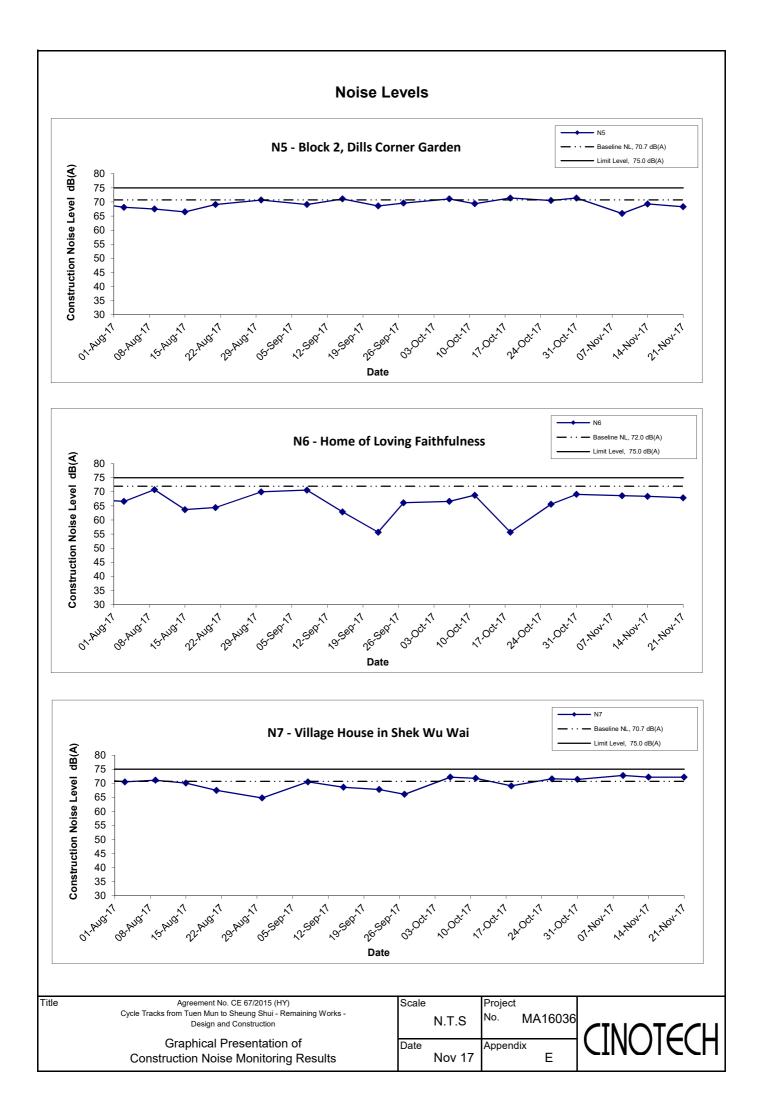
			Unit: dB (A) (30-min)				
Date	Time	Weather	Meas	sured Noise	Level	Baseline Level	Construction Noise Leve
		L _{eq}	L ₁₀	L 90	L _{eq}	L _{eq}	
9-Nov-17	15:40	Cloudy	69.1	70.8	66.9		57.3
14-Nov-17	11:05	Cloudy	70.3	72.8	68.2	68.8	65.0
21-Nov-17	11:15	Cloudy	69.9	71.6	67.2		63.4
ocation N5 - E	Block 2, Dills	Corner Garde	en				
					Unit	t: dB (A) (30-min)	
)ate Time	Time Weather	Measured Noise Level			Baseline Level	Construction Noise Leve
Date							
Date	Tillic	Wedner	L _{eq}	L ₁₀	L 90	L _{eq}	L _{eq}
Date 9-Nov-17	14:00	Cloudy	L _{eq} 65.9	L ₁₀ 67.8	L ₉₀	L _{eq}	L _{eq} 65.9 Measured ≦ Baseli
						L _{eq}	'

Location N6 - H	lome of Lovi	ing Faithfulne	ss						
				Unit: dB (A) (30-min)					
Date	Time	Weather	Meas	sured Noise I	_evel	Baseline Level	Construction Noise Level		
			L _{eq}	L ₁₀	L 90	L _{eq}	L _{eq}		
9-Nov-17	14:45	Cloudy	68.6	70.4	66.2		68.6 Measured ≦ Baseline		
14-Nov-17	14:15	Cloudy	68.4	70.6	65.7	72.0	68.4 Measured ≤ Baseline		
21-Nov-17	14:10	Cloudy	67.9	69.6	65.4		67.9 Measured ≦ Baseline		

Location N7 - V	illage House	e in Shek Wui	Wai					
				Unit: dB (A) (30-min)				
Date	Time	Weather	Measured Noise Level			Baseline Level	Construction Noise Level	
			L _{eq}	L ₁₀	L 90	L _{eq}	L _{eq}	
9-Nov-17	13:10	Cloudy	74.9	77.3	69.5		72.8	
14-Nov-17	15:15	Cloudy	74.5	77.2	69.1	70.7	72.2	
21-Nov-17	15:00	Cloudy	74.5	77.2	69.5		72.2	

MA16036/App E - Noise Cinotech





APPENDIX F SUMMARY OF EXCEEDANCE

Agreement No. CE 67/2015 (HY)

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

Appendix F – 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 month)

APPENDIX G SITE AUDIT SUMMARY

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

Contract No. YL/2015/01

Cycle Tracks from Tuen Mun to Sheung Shui - Remaining Works

Weekly Site Inspection Record Summary

Checklist Reference Number	171102
Date	2 November 2017 (Thursday)
Time	14:00-17:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-

Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
171102-F04	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.	B10 iii & 10 iv
171102-F05	The silt and sediment of the sedimentation tank at Portion A should be disposed regularly to maintain the quality of the system.	B3 iv
171102-F06	C. Air Quality The Contractor is reminded to ensure that stockpiles of dusty material at Portion A is covered with a tarpaulin sheet.	C7
171102-002	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. D. Construction Noise Impact No environmental deficiency was identified during site inspection. E. Waste / Chemical Management	C 7
171102-F03	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.	E 7
171102-001	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.	E 9
	F. Ecology and Fisheries No environmental deficiency was identified during site inspection. G. Landscape & Visual No environmental deficiency was identified during site inspection.	
	H. Permits/Licences No environmental deficiency was identified during site inspection. I. Others	
	No environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Kinson Poon	-	2 November 2017
Checked by	Dr. Priscilla Choy	N	2 November 2017

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

Contract No. YL/2015/01

Cycle Tracks from Tuen Mun to Sheung Shui - Remaining Works

Weekly Site Inspection Record Summary

Checklist Reference Number	171108
Date	8 November 2017 (Wednesday)
Time	09:30-12:30

Ref. No.	Non-Compliance	Related Item No.
	None identified	-

Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
171108-F06	Unsatisfactory water quality of Wheel Washing Bay at Portion A was found. The	B10 iii & 10
	Contractor is reminded to maintain the water quality by regular checking and cleaning.	iv
171108-F07	The silt and sediment of the sedimentation tank at Portion A should be disposed regularly to maintain the quality of the system.	B3 iv
171108-O02	Unused construction material/ rubbish was found in the channel near the box culvert	B 15
	which is in use at Portion E. The Contractor is reminded to keep rubbish away from	
	the drainage system to avoid water pollution nearby.	
	C. Air Quality	
171108-F08	The Contractor is reminded to ensure that stockpiles of dusty material at Portion A is covered with a tarpaulin sheet.	C 7
171108-F04	Dusty surface was found at Portion I. The Contractor is reminded to spray water	C 7
	before, during and after operations for the dusty material to minimize dust generation.	
	D. Construction Noise Impact	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
171108-F05	General refuse was observed on the ground and messed up with construction material	E 7
	at Portion K. The Contractor is reminded to keep the site clean and tidy.	/
171108-F03	Chemical Container was found on the ground without drip tray at Portion I. The	E 9
	Contractor is reminded to keep chemical container properly stored, treated and disposed.	~ ,
171108-O01	Chemical Container was found on the ground without drip tray at Portion B. The	E 9
	Contractor is reminded to keep chemical container properly stored, treated and disposed.	_,
	F. Ecology and Fisheries	
	No environmental deficiency was identified during site inspection.	
	G. Landscape & Visual	
	No environmental deficiency was identified during site inspection.	
	H. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
	No environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Kinson Poon	A	8 November 2017
Checked by	Dr. Priscilla Choy	WI	8 November 2017

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

Contract No. YL/2015/01

Cycle Tracks from Tuen Mun to Sheung Shui – Remaining Works

Weekly Site Inspection Record Summary

Checklist Reference Number	171115
Date	15 November 2017 (Wednesday)
Time	09:30-12:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	1

Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
171115-F08	Unsatisfactory water quality of Wheel Washing Bay at Portion A was found. The	B10 iii & 10
	Contractor is reminded to maintain the water quality by regular checking and cleaning.	iv
171115-F09	The silt and sediment of the sedimentation tank at Portion A should be disposed	B 3 iv
	regularly to maintain the quality of the system.	
171115-F04	Unused construction material/ rubbish was found in the channel near the box culvert	B 15
	which is in use at Portion E. The Contractor is reminded to keep rubbish away from	
	the drainage system to avoid water pollution nearby.	
171115-O01	A proper and well-designed wheel washing bay is needed at Portion C to wash off	B 10 ii
	dusts/ contaminated soil from vehicles.	
	C. Air Quality	
171115-F10	The Contractor is reminded to ensure that stockpiles of dusty material at Portion A is	C 7
	covered with a tarpaulin sheet.	
171115-F06	Dusty surface was found at Portion I. The Contractor is reminded to spray water	C 7
	before, during and after operations for the dusty material to minimize dust generation.	
	D. Construction Noise Impact	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
171115-F07	General refuse was observed on the ground and messed up with construction material	E 7
171113-107	at Portion K. The Contractor is reminded to keep the site clean and tidy.	E,
171115-F05	Chemical Container was found on the ground without drip tray at Portion I. The	E 9
171113-103	Contractor is reminded to keep chemical container properly stored, treated and	ь,
	disposed.	
171115-F03	Chemical Container was found on the ground without drip tray at Portion B. The	E 9
171115105	Contractor is reminded to keep chemical container properly stored, treated and	ДУ
	disposed.	
171115-O02	Chemical Container was found stored without drip tray at Portion C. The Contractor is	E 9
111110 002	reminded to keep chemical container properly stored, treated and disposed.	2,
	F. Ecology and Fisheries	
	No environmental deficiency was identified during site inspection.	
	G. Landscape & Visual	
	No environmental deficiency was identified during site inspection.	
	H. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
	No environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Kinson Poon	-A	15 November 2017
Checked by	Dr. Priscilla Choy	NA	15 November 2017

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

Contract No. YL/2015/01

Cycle Tracks from Tuen Mun to Sheung Shui - Remaining Works

Weekly Site Inspection Record Summary

Checklist Reference Number	171121
Date	21 November 2017 (Tuesday)
Time	09:30-12:30

	Non-Compliance	Related Item No.
-	None identified	-

Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
171121-F05	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.	B10 iii & 10 iv
171121-F06	The silt and sediment of the sedimentation tank at Portion A should be disposed regularly to maintain the quality of the system.	
171121-F03	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.	
171121-F02	A proper and well-designed wheel washing bay is needed at Portion C to wash off dusts/ contaminated soil from vehicles.	B 10 ii
171121-F07	C. Air Quality The Contractor is reminded to ensure that stockpiles of dusty material at Portion A is covered with a tarpaulin sheet.	
171121-F04	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.	C 7
	D. Construction Noise Impact	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
171121-001	Oil stain was found near the gully at Portion C. The Contractor is reminded to clean up properly and implement appropriate preventive measure afterwards.	E 6
	F. Ecology and Fisheries	
	No environmental deficiency was identified during site inspection.	
	G. Landscape & Visual	
	No environmental deficiency was identified during site inspection.	
	H. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
	No environmental deficiency was identified during site inspection.	

	Name	Signature	· Date
Recorded by	Kinson Poon	P	21 November 2017
Checked by	Dr. Priscilla Choy	NI	21 November 2017

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

Contract No. YL/2015/01

Cycle Tracks from Tuen Mun to Sheung Shui – Remaining Works

Weekly Site Inspection Record Summary

Checklist Reference Number	171129	
Date	29 November 2017 (Wednesday)	
Time	10:00-13:00	

Ref. No.	Non-Compliance	Related Item No.
	None identified	_

Ref. No.	Remarks/Observations	Related Item No.	
	B. Water Quality	Item 140.	
171129-F08	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.	B 10 iii & iv	
171129-F09	The silt and sediment of the sedimentation tank at Portion A should be disposed regularly to maintain the quality of the system.		
171129-F07	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.	B 15	
171129-F06	A proper and well-designed wheel washing bay is needed at Portion C to wash off dusts/ contaminated soil from vehicles.	B 10 ii	
171129-O03	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.	B 10 iii & iv	
171129-R04	The silt and sediment of the sedimentation tank at Portion I should be disposed regularly to maintain the quality of the system.	B3 iv	
171129-F10	C. Air Quality The Contractor is reminded to ensure that stockpiles of dusty material at Portion A is covered with a tarpaulin sheet.	C7	
	D. Construction Noise Impact		
	No environmental deficiency was identified during site inspection.		
	E. Waste / Chemical Management		
171129-F05	Oil stain was found near the gully at Portion C. The Contractor is reminded to clean up properly and implement appropriate preventive measure afterwards.	Е6	
171129-O01	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.	E liii	
171129-002	Chemical container was observed without drip tray at Portion I. The Contractor was reminded to provide drip tray to prevent leakage.	E 9	
	F. Ecology and Fisheries		
	No environmental deficiency was identified during site inspection.		
	G. Landscape & Visual		
	No environmental deficiency was identified during site inspection.		
	H. Permits/Licences		
	No environmental deficiency was identified during site inspection.		
	I. Others		
	No environmental deficiency was identified during site inspection.		

	Name	Signature	Date
Recorded by	Kinson Poon	F.	29 November 2017
Checked by	Dr. Priscilla Choy	WI	29 November 2017

APPENDIX H EVENT AND ACTION PLANS

Appendix H - Event and Action Plans

Event and Action Plan for Construction Noise

EVENT	ACTION					
	ET LEADER	IEC	ER	CONTRACTOR		
Action Level	1. Notify IC(E) and Contractor;	1. Review the analysed results	1. Confirm receipt of	1. Submit noise mitigation		
being	2. Carry out investigation;	submitted by the ET;	notification of failure in	proposals to IC(E);		
exceeded	3. Report the results of investigation to	2. Review the proposed remedial	writing;	2. Implement noise mitigation		
	the IC(E) and Contractor;	measures by the Contractor and	2. Notify Contractor;	proposals.		
	4. Discuss with the Contractor and	advise the ER accordingly;	3. Require Contractor to			
	formulate remedial measures;	3. Supervise the implementation	propose remedial measures			
	5. Increase monitoring frequency to	of remedial measures.	for the analysed noise			
	check mitigation effectiveness.		problem;			
			4. Ensure remedial measures			
			are properly implemented.			
Limit Level	1. Notify IC(E), ER, EPD and	1. Discuss amongst ER, ET, and	1. Confirm receipt of	1. Take immediate action to		
being	Contractor;	Contractor on the potential	notification of failure in	avoid further exceedance;		
exceeded	2. Identify source;	remedial actions;	writing;	2. Submit proposals for remedial		
	3. Repeat measurement to confirm	2. Review Contractor's remedial	2. Notify Contractor;	actions to IC(E) within 3 working		
	findings	actions whenever necessary to	3. Require Contractor to	days of notification;		
	4. Increase monitoring frequency;	assure their effectiveness and	propose remedial measures	3. Implement the agreed		
	5. Carry out analysis of Contractor's	advise the ER accordingly.	for the analysed noise	proposals;		
	working procedures to determine	3. Supervise the implementation	problem;	4. Resubmit proposal if problem		
	possible mitigation to be implemented;	of remedial measures	4. Ensure remedial measures	still not under control;		
	6. Inform IC(E), ER and EPD the		are properly implemented;	5. Stop the relevant portion of		
	causes & actions taken for the		5. If exceedance continues,	works as determined by the ER		
	exceedances;		consider what portion of the	until the exceedance is abated.		

Appendix H - Event and Action Plans

7. Assess effectiveness of	work is responsible and	
Contractor's remedial actions and	instruct the Contractor to stop	
keep IC(E), EPD and ER informed of	that portion of the work until	
the results;	the exceedance is abated.	
8. If exceedance stops, cease		
additional monitoring		

APPENDIX I ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

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

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
Construction	Air Quality		<u> </u>
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	۸
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	۸
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	۸
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	۸
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	 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 	*
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).	^

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
Table 5-7	S.4.2.19	Use of quiet plant (PME):	٨
		- 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 ² .	۸
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	۸
		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	۸
		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	^
		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	^
		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	٨
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	٨
		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,	٨
		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	^
		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	Waste Managem	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".	۸

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
S.7.4.1	S.6.2.6	• 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;	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.	٨
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

	Mitigation Measures	Status
	Site investigation and sampling works in accordance with the approved CAP. If	
0.7.0.1		NT/A
8.7.3.1	contaminated materials:	N/A
	■ General site safety shall be enforced to include basic practices such as the use of	
	· · · · · · · · · · · · · · · · · · ·	
	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.7.3.1		N/A
	<u> </u>	
	1	
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	•	
	S.7.3.1 S.7.3.1	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 identified works areas in order to avoid exposure to contaminants.

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)							
S.9.11.17 – S.9.11.19	S.8.2.4 (Stage 1) S.8.2.3 (Stage 2)	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 Tsuen Road.	٨					
S.9.11.23	S.8.2.4 (Stage 2 only)	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.	٨					
-	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	٨					

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	٨
	(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:	٨
	(Stage 1)	■ Avoid soil storage against trees;	
	S.8.2.9	■ Fence off any potentially ecologically sensitive areas;	
	(Stage 2)	 Delineation of works area to prevent encroachment onto adjacent habitats; 	
		■ Reinstatement of habitat after works;	
		■ No on-site burning of waste;	

EIA Ref.	EM&A Ref.	Mitigation Measures	Status		
		 Waste and refuse in appropriate receptacles; 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 during breaks where possible; Regular ecological checks; and Silt/ Sediment/ Oil traps for drainage to prevent site run-off 			
Cultural Heri	tage 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.					
Landscape an	d 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 Technical Circular (Works) No. 10/2013 Tree Preservation	^		
S.12.9.3	CP6	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	^		

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			I					
Table 12-11	CP1.1	o retain trees, which have high amenity or ecology value and contribute most to the indscape and visual amenity of the site and its immediate environs.						
	CP1.2	Creation of precautionary area around trees to be retained equal to half of the trees canopy diameter. Precautionary area to be fenced.	^					
	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	٨
		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	٨
		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	٨
		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
	GD / /	hoarding along the site boundary facing adjacent VSRs	
	CP4.1	Replanting of disturbed vegetation should be undertaken at the earliest possible stage	٨
	GD 4.2	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	Status
		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 J SUMMARIES OF ENVIRONMENTAL COMPLAINT, WARNING, SUMMON AND NOTIFIATION OF SUCCESSFUL PROSECUTION Agreement No. CE 67/2015 (HY)

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

 $\label{eq:linear_summary} \textbf{Appendix } \textbf{J} - \textbf{Summary of environmental complaint, warning, summon and notification of successful prosecution}$

Reporting Month: November 2017

Contract No. YL/2015/01

Cycle Tracks from Tuen Mun to Sheung Shui – Remaining Works

Log Ref.	Location	Received Date	Details of Complaint/warning/summon and prosecution	Investigation/Mitigation Action	Status
N/A	N/A	N/A	N/A	N/A	N/A

Remarks: No environmental complaint/warning/summon and prosecution were received in the reporting period.

APPENDIX K SUMMARY OF WASTE GENERATION AND DISPOSAL RECORDS Name of Department: CEDD Contract No.: YL/2015/01

Monthly Summary Waste Flow Table for 2017 (Year)

Tronging Summary (vasce 110) 1 and 101 2017 (1ear)											
	Α	Actual Quantities	of Inert C&D	Materials Gene	erated Monthl	У	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	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
Sub-total	10.1	-	-	-	10.1	0.493	0.55	0.55	0.55	-	0.21
Dec	-	-	-	-	-	-	-	-	-	-	-
Total	10.1	-	-	-	10.1	0.493	0.55	0.55	0.55	_	0.21

^{*}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 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)
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
- (4) The Contractor shall also submit the latest forecast of the total amount of C&D materials expected to be generated from the Works, together with a breakdown of the nature where the total amount of C&D materials expected to be generated from the Works is equal to or exceeding 50,000 m3. (ETWB Technical Circular PS Clause 5(4)(b) refers). [Delete Note (4) and the table above on the forecast, where inapplicable].