## 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)

February 2019

Approved By

Mr. KS Lee

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 28<sup>th</sup> 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 February 2019.
- 2. During the reporting month, the major site activities undertaken in the reporting month included:

Portion A	- Construction of Cycle Track, Installation of Bicycle Parapet
Portion B	- Construction of Subway A, Construction of Cycle Track, Parapet Footing
Portion C	- Construction of Retaining Wall RW 11B, 11C, 12, 13 & 14, 15A
	Resting Station R7, Parapet Footing, Construction of U-Channel,
	Laying Bituminous for Cycle Track
Portion D	- Construction of Drainage Pipe, Construction of RW 15B, 15C, 15D,15E,
	16A Stream Decking D1, D2 & D3, Realignment of San Tam Road
Portion E	- Construction of Retaining Wall RW D3, D4, D17, D18, D19, D20, D21,
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	- Construction of RW 46, 47, 48, 24, 25, 26, Construction of Stream Decking D8, Construction near Dills Corner Garden
	<ul> <li>Construction of RW 46, 47, 48, 24, 25, 26, Construction of Stream Decking D8, Construction near Dills Corner Garden</li> <li>Laying Bituminous for Cycle Track, Construction of U-Channel,</li> </ul>
Portion K	<ul> <li>Construction of RW 46, 47, 48, 24, 25, 26, Construction of Stream Decking D8, Construction near Dills Corner Garden</li> <li>Laying Bituminous for Cycle Track, Construction of U-Channel, Construction of DSD's Access Road, Installation of Bicycle Parapet</li> </ul>

## **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 Exceedance		Action Taken
	Action Level	Limit Level	
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	Event Details				Relation			
Event	Number	Location	Received Date	Nature	Action Taken	to Project	Status	Remark
Complaint received	1	Mai Po San Tsuen (Portion D)	21 <sup>st</sup> Dec 2018	The complaint is filed against site effluent being pumped and discharge into the nearby surface channel.	<ul> <li>Cover the temporary cut slopes by tarpaulin before any excavation works commence</li> <li>3 weirs have been installed at the downstream</li> <li>A filter with aggregate is placed at the side channel</li> <li>Water and wastewater filtration system is installed to treat the site effluent.</li> </ul>	Project related	CIR was submitted in February.	
Reporting Changes	0				N/A	N/A	N/A	
Notifications of any summons & prosecutions received	0				N/A	N/A	N/A	

<sup>\*</sup>One complaint was received in the previous reporting month (December 2018), no complaint was received in this reporting month.

#### **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)
  - Discharge License
    - WT00028748-2017, WT00027672-2017, WT00027661-2017, WT00027606-2017, WT00027510-2017, WT00027509-2017, WT00027603-2017, WT00027508-2017, WT00027834-2017, WT00028431-2017, WT00027584-2017, WT00027607-2017, WT00028850-2017, WT00030236-2018
  - Chemical Waste Producers
    - No.:WPN5213-524-K3261-01
  - Construction Noise Permit
    - GW-RN0748-18

## **Future Key Issues**

- 7. The future 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 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 23<sup>rd</sup> November 2016. This is the 28<sup>th</sup> Monthly EM&A Report summarizing the EM&A works for the Project from February 2019.

## **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)

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

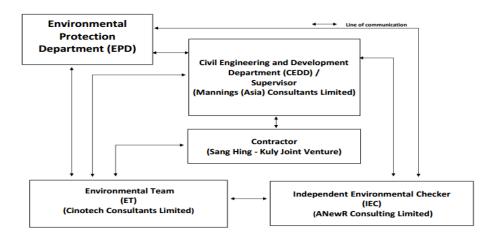


Figure 3 Organization Structure (Environmental Aspects)

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

**Table 1.1 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	Mr. KS Lee	2151 2091	3107 1388
Cinotecn		Ms. Betty Choi	2151 2072	
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:

Portion A	- Construction of Cycle Track, Installation of Bicycle Parapet
Portion B	- Construction of Subway A, Construction of Cycle Track, Parapet
	Footing
Portion C	- Construction of Retaining Wall RW 11B, 11C, 12, 13 & 14, 15A
	Resting Station R7, Parapet Footing, Construction of U-Channel,
	Laying Bituminous for Cycle Track
Portion D	- Construction of Drainage Pipe, Construction of RW 15B, 15C,
	15D,15E, 16A Stream Decking D1, D2 & D3, Realignment of San Tam
	Road

Portion E	Construction of Retaining Wall RW D3, D4, D17, D18, D19, D20, D21, D22, D23, D24, D25 & D26A,B,C Construction of Drainage Pipe, Construction of Boundary Wall				
<b>5</b>	· · · · · · · · · · · · · · · · · · ·				
Portion F	- Construction of Retaining wall RW 43, Construction of Boundary Wall				
Portion H	- Construction of Retaining Wall RW 45A, 49, DW1 & DW2				
	Construction of Drainage				
Portion I	- Construction of Subway D, Construction of Drainage Pipe				
Portion J	- Construction of RW 46, 47, 48, 24, 25, 26, Construction of Stream				
	Decking D8, Construction near Dills Corner Garden				
Portion K	- Laying Bituminous for Cycle Track, Construction of U-Channel,				
	Construction of DSD's Access Road, Installation of Bicycle Parapet				
Portion M	- Construction of RW 30A, 30B, Construction of Bridge E, Construction				
	of Access Road				

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

## **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 for each 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 Reports, 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 February 2019.

## 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** 

<b>Monitoring Stations</b>	Locations	<b>Location of Measurement</b>
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**

- 4.2 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.
- **4.3** 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/ Sound & Vibration Analyser	SVAN 979, SVAN957, SVAN959	3
Acoustic Calibrator	SV30A, B&K 4231	2

## **Monitoring Parameters and Frequency**

4.4 **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	L <sub>eq</sub> (30 min.) dB(A) L <sub>10</sub> (30 min.) dB(A) L <sub>90</sub> (30 min.) dB(A)		Once nor week	Fa çade	
N2				Fa çade	
N3		0700-1900 hrs on		Free Field	
N5			normal weekdays	Once per week	Free Field
N6				Fa çade	
N7				Free Field	

## Monitoring Methodology and QA/QC Procedures

- 4.5 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 re-calibration 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**

- 4.6 The microphone head of the sound level meter and calibrator were cleaned with a soft cloth at quarterly intervals.
- 4.7 The sound level meter and calibrator were checked and calibrated at yearly intervals.
- 4.8 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**

- 4.9 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**.
- 4.10 The baseline noise level and the Noise Limit Level at each designated noise monitoring stations are presented in **Table 4.5**.
- 4.11 Noise monitoring results and graphical presentations are shown in **Appendix E**.
- 4.12 The other noise sources identified which might affect the noise monitoring results at the designated noise monitoring stations are as follows:

Table 4.4 Other Noise Sources Identified Which Might Affect the Noise Monitoring Results

<b>Monitoring Stations</b>	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 4.5** 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)	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)
N7	70.7 (at 0700 – 1900 hrs on normal weekdays)	75 (at 0700 – 1900 hrs on normal weekdays)

<sup>(\*)</sup> 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 (February 19), $L_{eq~(30min)}~dB(A)$
N1 - HKMLC Wong Chan Sook Ying Memorial School	55-62	62 <sup>(1)</sup>	59.3 - 61.8
N2 – Bethel High School	57-64	64 <sup>(1)</sup>	45.0 - 54.9
N3 – No. 159 Mai Po San Tsuen	70-73	74 <sup>(2)</sup>	65.3 – 70.3
N5 – Block 2, Dills Corner Garden	73-75	75 <sup>(2)</sup>	62.4 – 70.7
N6 – Home of Loving Faithfulness	64-73	74 <sup>(1)</sup>	55.7 – 68.4
N7 – Village House in Shek Wu Wai N/A <sup>(3)</sup>		70 <sup>(2)</sup>	64.8 – 69.4

#### 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 and N5 were lower than the range of the predicted mitigated construction noise levels in the EIA Report. The results at N1, N3 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, N6 and N7 were lower 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 4, 14, 20 and 27 February 2019 in the reporting month. IEC joint site inspection was conducted on 14 February 2019. 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**

8.4 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	Status
refinit No.	From	To	Details	Status
<b>Environmental Permit</b>	( <b>EP</b> )			
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 Construction Waste 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	28/3/2017	31/3/2022	Discharge License for the	
WT00027661-2017	28/3/2017	<u> </u>		Valid
WT00027606-2017	27/3/2017			v and
WT00027510-2017	27/3/2017	31/3/2022	contaminated surface run-off to	

Downsid No	Valid	Period	Dataila	Status
Permit No.	From	To	- Details	
WT00027509-2017	20/3/2017	31/3/2022	the communal storm water drain	
WT00027603-2017	27/3/2017	31/3/2022		
WT00027508-2017	20/3/2017	31/3/2022		
WT00027584-2017	27/3/2017	31/7/2019		
WT00027605-2017	27/3/2017	31/3/2022		
WT00027607-2017	27/3/2017	31/3/2022		
WT00027834-2017	13/4/2017	30/4/2022		
WT00028431-2017	22/6/2017	30/6/2020		
WT00028748-2017	17/08/2017	31/08/2022		
WT00028850-2017	14/08/2017	31/08/2022		
WT00030236-2018	7/02/2018	28/02/2022		
<b>Registration of Chemica</b>	l Waste Produ	icer		
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	Valid
<b>Construction Noise Perm</b>	nit (CNP)		,	
GW-RN0446-17	24/12/2018	23/02/2019	Shek Sheung River nearby Choi Shun Street	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**. Refer to **Appendix G** for the site inspection checklists in the reporting month.

Table 8.2 Observations and Recommendations of Site Audit

Parameters	Date	Observations and Recommendations	Follow-up
	8, 16, 22, 30 Jan 2019	At Portion E, the wheel washing facility should be cleaned up.	The condition was observed to be improved/rectified by the contractor during the audit session on 4 Feb 2019.
Water Quality  16, 22, 30 Jan 2019  4, 14 Feb 2019  20, 27 Feb 2019		At Portion B, water should pass through sedimentation tank prior to discharge.	The condition was observed to be improved/rectified by the contractor during the audit session on 4 Feb 2019.
	4, 14 Feb 2019	At Portion N, the catchpit should be covered.	The condition was observed to be improved/rectified by the contractor during the audit session on 20 Feb 2019.
	20, 27 Feb 2019	At Portion D, Standing water should be avoided.	Follow up actions will be reported in the next month.
Air Quality	16 Jan - 20 Feb 2019	At Subway A, public road should be cleaned. Mitigation measures such as watering should be implemented.	The condition was observed to be improved/rectified by the contractor during the audit session on 27 Feb 2019.
	22 Jan – 27 Feb 2019	At Portion J, mitigation measure for dust suppressing (e.g. watering) should be implemented at entrance area. Water should be collected and passed through sedimentation tank before discharge.	Follow up actions will be reported in the next month.
	22 Jan – 27 Feb 2019	At Portion A, mitigation measure for dust suppressing (e.g. watering) should be implemented at exposed area and public road.	Follow up actions will be reported in the next month.
	30 Jan – 27 Feb 2019	At Portion M, the stockpile should be covered by impervious materials or maintained wet.	Follow up actions will be reported in the next month.

D	D-4-	Observations and	E-11
Parameters	Date	Recommendations	Follow-up
	4,14 Feb 2019	At Portion B, the pedestrian public road should be cleaned.	The condition was observed to be improved/rectified by the contractor during the audit session on 20 Feb 2019.
Noise	N/A	There was no observation in the reporting period.	N/A
	26 Jul 2018 – 27 Feb 2019	Clear the oil stains as chemical waste at	Follow up actions will be reported in the next month.
	2, 8, 16, 22, 30 Jan 2019	WA3.  At Subway A, rubbish should be removed and site should be kept clean.	The condition was observed to be improved/rectified by the contractor during the audit session on 4 Feb 2019.
	22, 30 Jan ,4 Feb 2019	At Portion D, public drainage should be kept clean and free of oil.	The condition was observed to be improved/rectified by the contractor during the audit session on 14 Feb 2019.
Waste/ Chemical	30 Jan, 4,14 Feb 2019	At Portion B, rubbish pile should be removed.	The condition was observed to be improved/rectified by the contractor during the audit session on 20 Feb 2019.
Management	30 Jan, 4 Feb 2019	At Portion D, the side channel should be cleaned regularly to avoid site run-off from entering the drainage system.	The condition was observed to be improved/rectified by the contractor during the audit session on 14 Feb 2019.
	4, 14, 20 Feb 2019	At Portion D, accumulation of rubbish should be avoided.	The condition was observed to be improved/rectified by the contractor during the audit session on 27 Feb 2019.
	4, 14, 20 Feb 2019	At Portion N, piles of rubbish should be removed.	The condition was observed to be improved/rectified by the contractor during the audit session on 27 Feb 2019.
	14, 20, 27 Feb 2019	Rubbish pile under the bridge E should be removed at Portion M.	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	26 Jul 2018 – 27 Feb 2019	To set up a proper tree protection zone at WA3.	Follow up actions will be reported in the next month.
	5 Dec 2018 - 30 Jan 2019	A proper tree protection zone should be provided for the retained trees for preservation at Portion D and Subway D.	The condition was observed to be improved/rectified by the contractor during the audit session on 4 Feb 2019.
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.

# Record of Complaint, Warning, Notification of any Summons and Successful Prosecution

8.11 The record of all environmental complaints, warnings, summons and notifications of successful prosecution for the Project is presented in **Appendix J**.

#### 9 FUTURE KEY ISSUES

9.1 Major site activities undertaken for the coming months include:

Portion A	- Construction of Cycle Track, Installation of Bicycle Parapet, Installation of Light Pole.
Portion B	- Construction of Subway A, Construction of Cycle Track
Portion C	- Construction of Retaining Wall RW 11A, 11B, 11C, 12, 13 & 14, 15A
1 of tion C	Resting Station R7, Construction of Drainage Works, Laying
<b>D D</b>	Bituminous for Cycle Track
Portion D	- Construction of Drainage Pipe, Construction of RW 15B, 15C,15D,
	15E, 16A Stream Decking D1, D2 & D3
Portion E	- Construction of Retaining Wall RW D2, D4, D5, D7, D17, D18, D19,
	D20, D21, D22, D23, D24& D25,D26, D26ABC Construction of
	Drainage Pipe, Construction of Boundary Wall, Realignment of Mai Po
	Lung Road
Portion F	<u>e</u>
Portion F	- Construction of Drainage Pipe, Construction of Retaining wall RW 43,
	Soil Treatment for RAP, Construction of Boundary Wall, Relocation of
	Existing Bus Stop
Portion G	- Remaining Works for Box Culvert C
Portion H	- Construction of Retaining Wall RW 45A, 49, DW1 & DW2
	Construction of Drainage
Portion I	- Construction of Subway D, Construction of Drainage
Portion J	· · · · · · · · · · · · · · · · · · ·
LOITIOH 1	- Construction of RW 46, 47, 48, 24, 25, 26, Construction of Stream
	Decking D8

Installation of Bicycle Parapet, Construction of DSD's Access Road,

Construction of RW 30A, 30B, Construction of Bridge E

9.2 Key environmental issues in the coming months include:

Tree and Shrub Planting

• Wastewater and runoff generation on-site;

Portion K

Portion M

- 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 onsite:
- 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. March to April 2019, are summarized as follows:

Construction Works	Major Impact Prediction	Control Measures
As mentioned in Section 9.1	Air quality impact (dust)  Water quality impact (surface run-off)	<ul> <li>(a) Frequent watering of haul road and unpaved/exposed areas;</li> <li>(b) Frequent watering or covering stockpiles with tarpaulin or similar means; and</li> <li>(c) Watering of any earth moving activities.</li> <li>(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;</li> <li>(e) Provision of adequate de-silting facilities for treating surface run-off and other collected effluents prior to discharge;</li> <li>(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</li> <li>(g) Provision of measures to prevent discharge into the stream.</li> </ul>
	Noise impact	<ul> <li>(h) Scheduling of noisy construction activities if necessary to avoid persistent noisy operation;</li> <li>(i) Controlling the number of plants use on site;</li> <li>(j) Regular maintenance of machines</li> <li>(k) Use of quiet PMEs on-site; and</li> <li>(l) Use of acoustic barriers and noise enclosure if necessary.</li> </ul>
	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 4 times of ET joint weekly environmental site inspections were conducted in the reporting month.

## Complaint and Prosecution

- 10.4 No environmental complaints were received in this 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 chemical

waste.

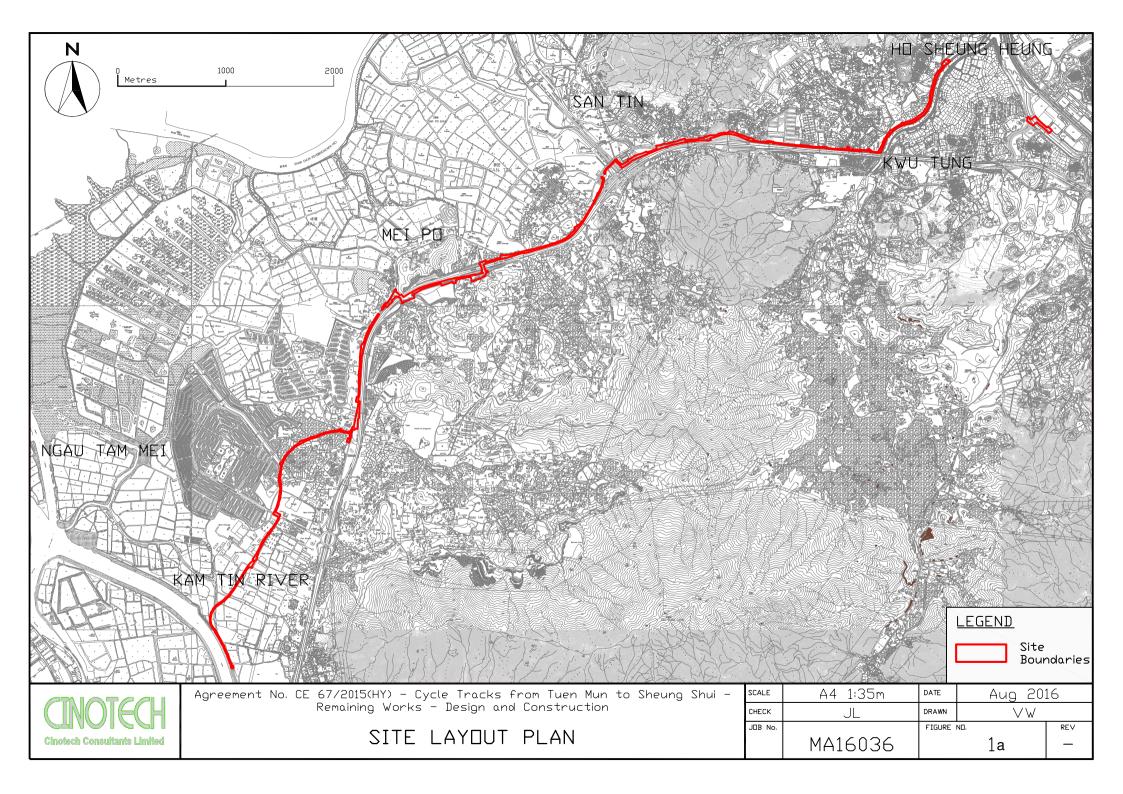
## Landscape and Visual

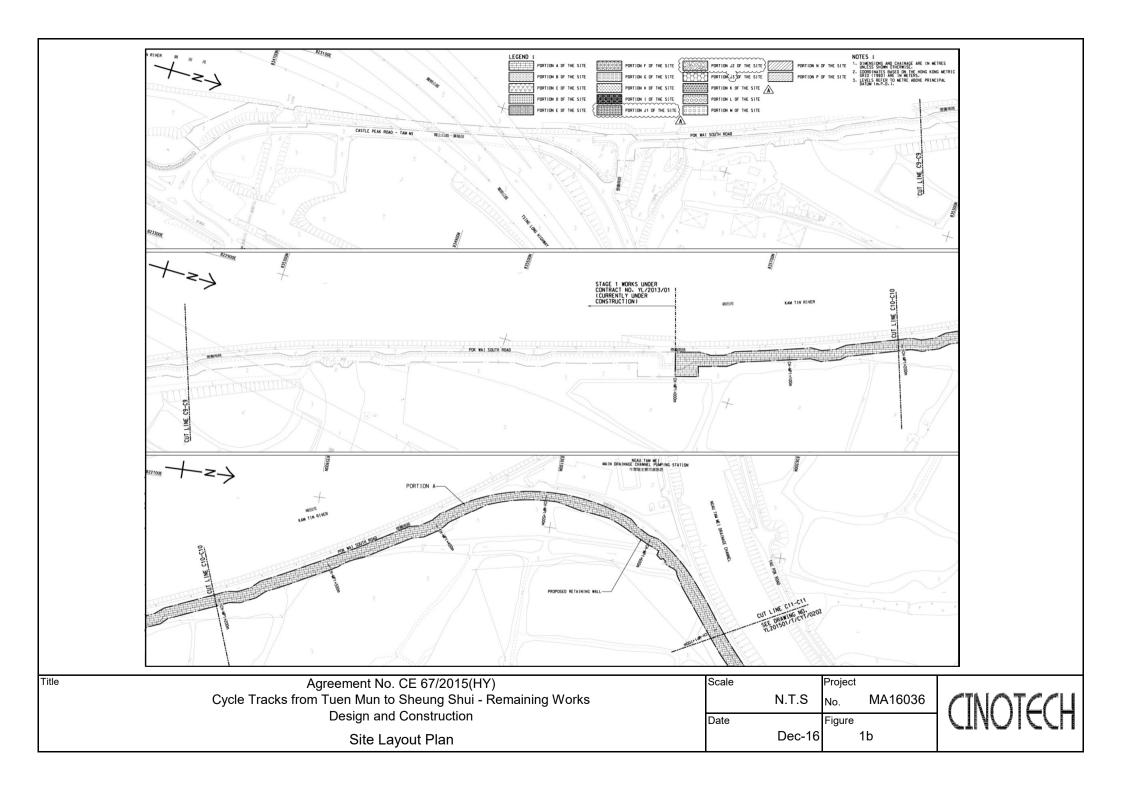
 Adequate tree protection zones should be established to protect retained and existing trees. Conspicuous signs of status of trees should be clearly shown to avoid damage from PMEs or workers.

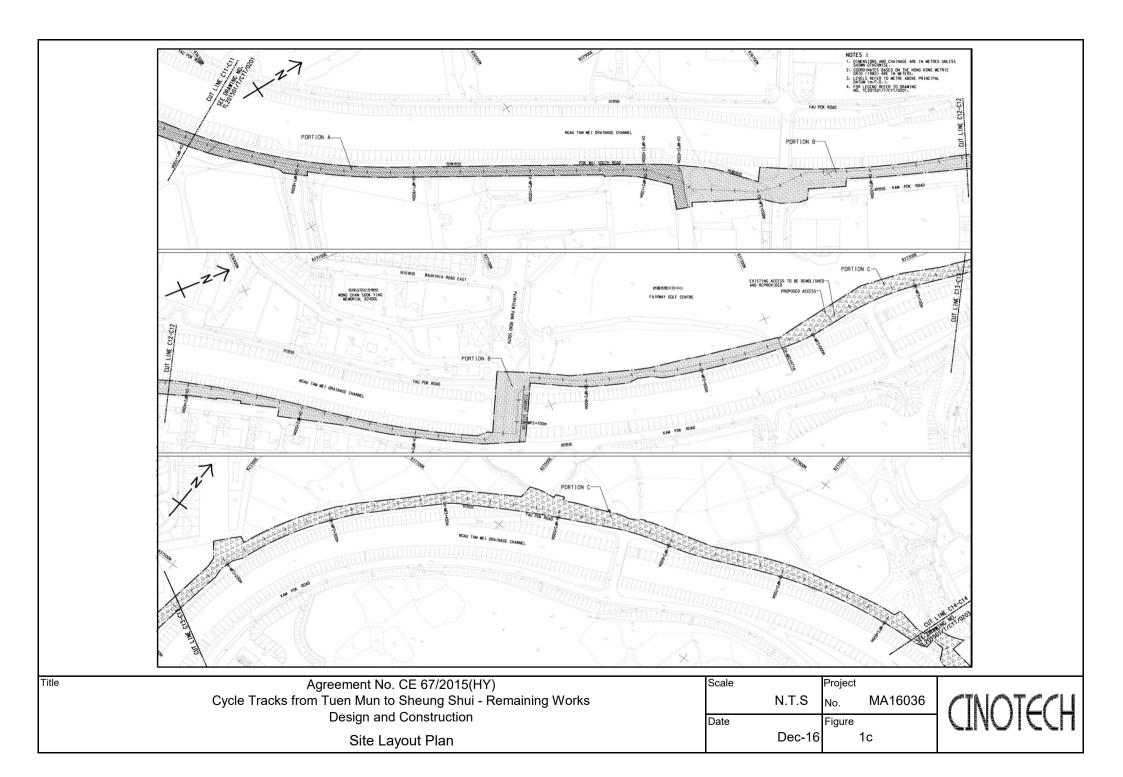
## Permits/Licences

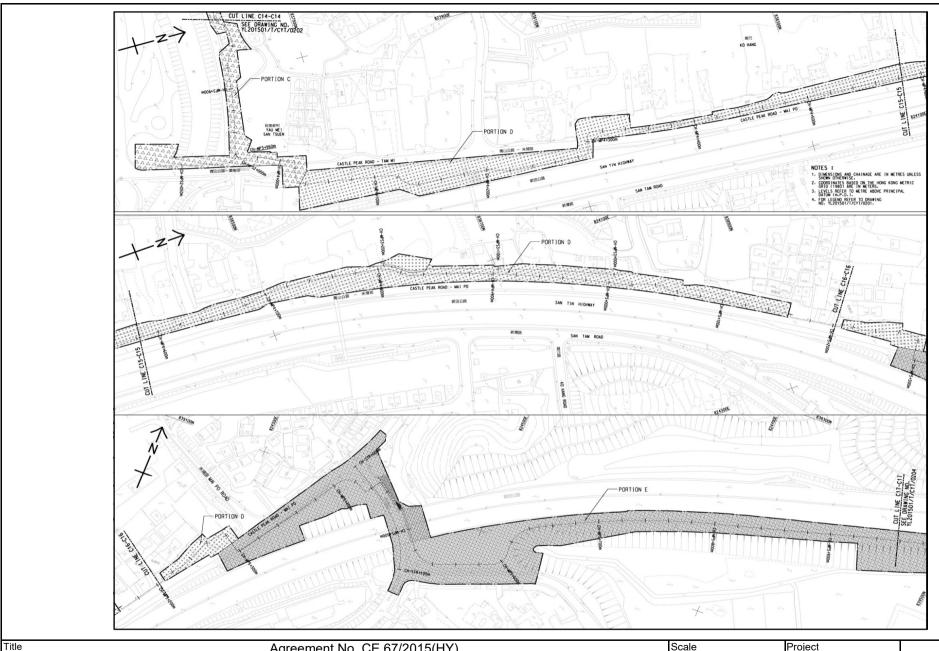
• Environmental licences should be properly displayed at every entrance.

## **FIGURES**

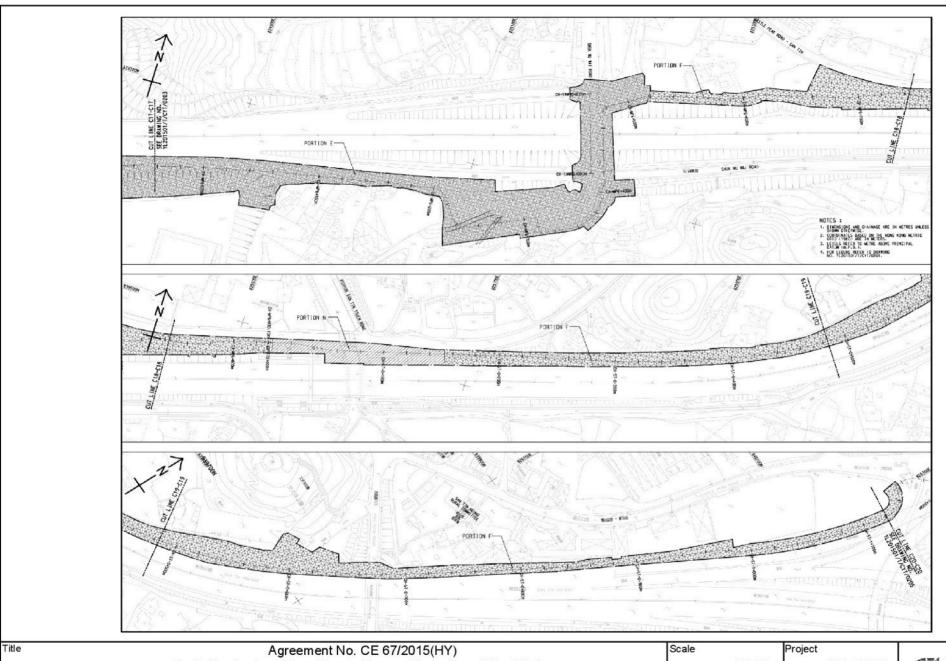




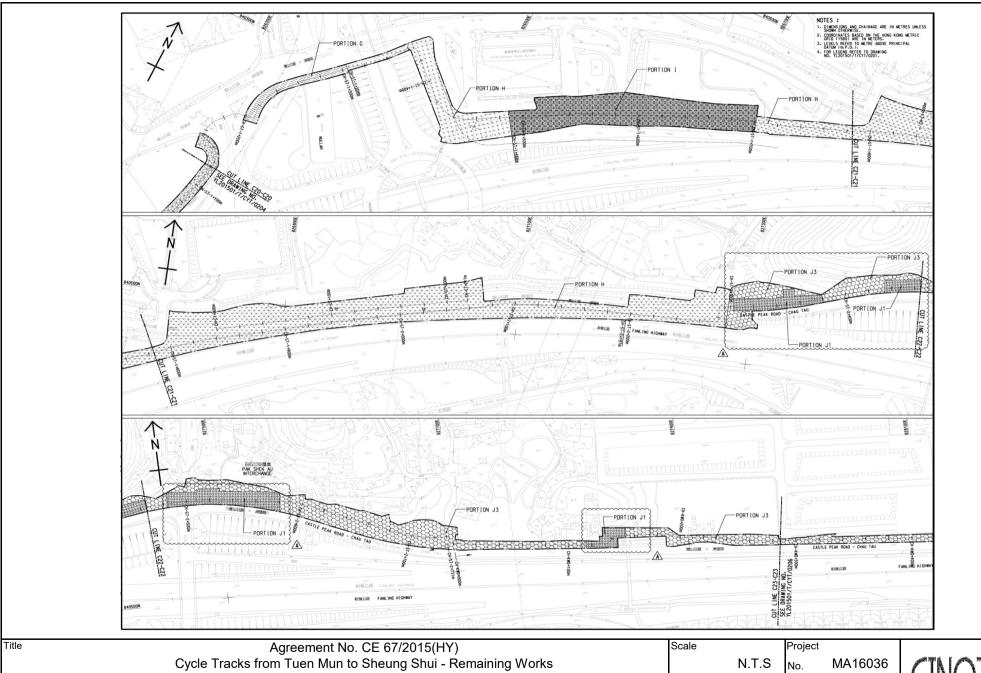




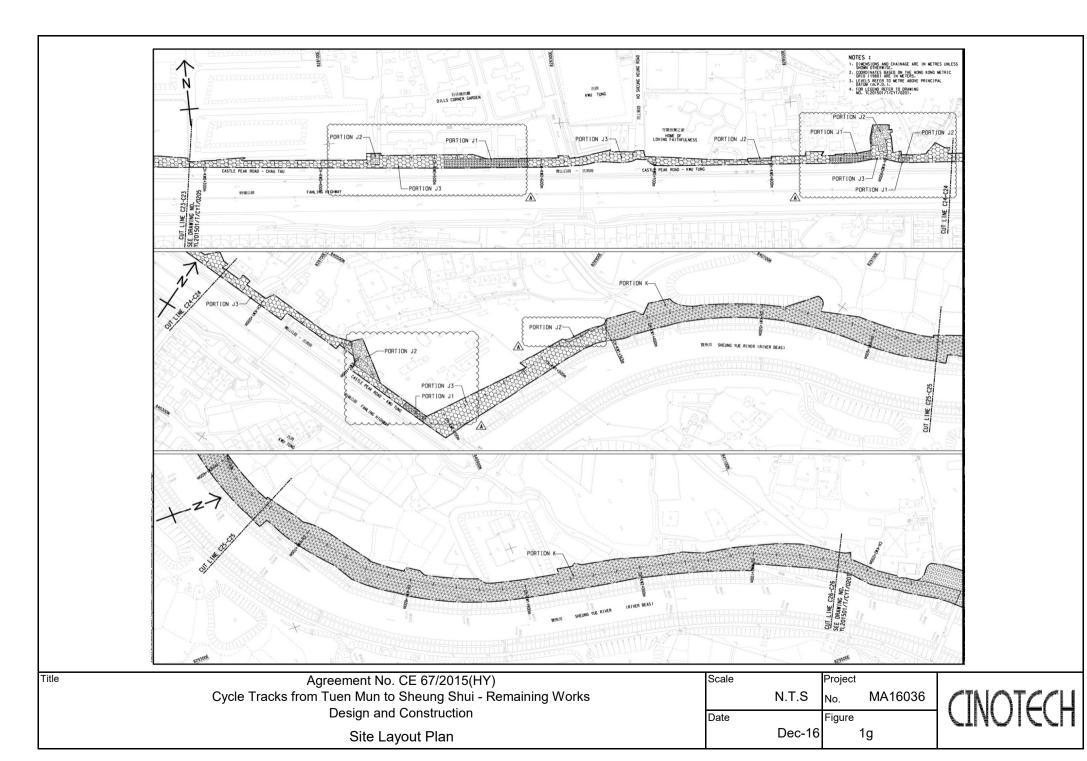
Agreement No. CE 67/2015(HY)
Cycle Tracks from Tuen Mun to Sheung Shui - Remaining Works
Design and Construction
Site Layout Plan

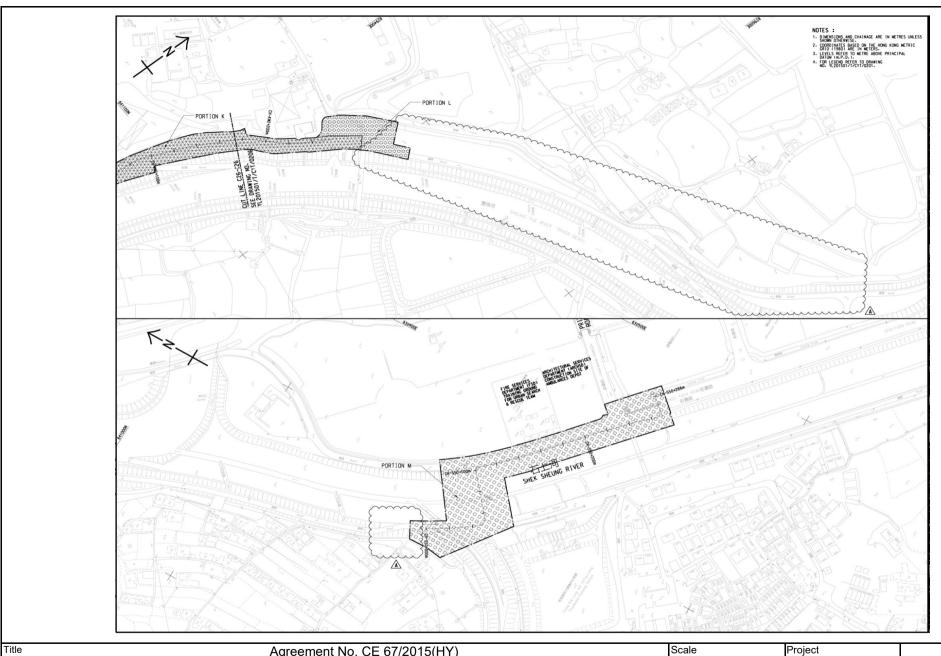


Agreement No. CE 67/2015(HY)
Cycle Tracks from Tuen Mun to Sheung Shui - Remaining Works
Design and Construction
Site Layout Plan



Agreement No. CE 67/2015(HY)
Cycle Tracks from Tuen Mun to Sheung Shui - Remaining Work
Design and Construction
Site Layout Plan

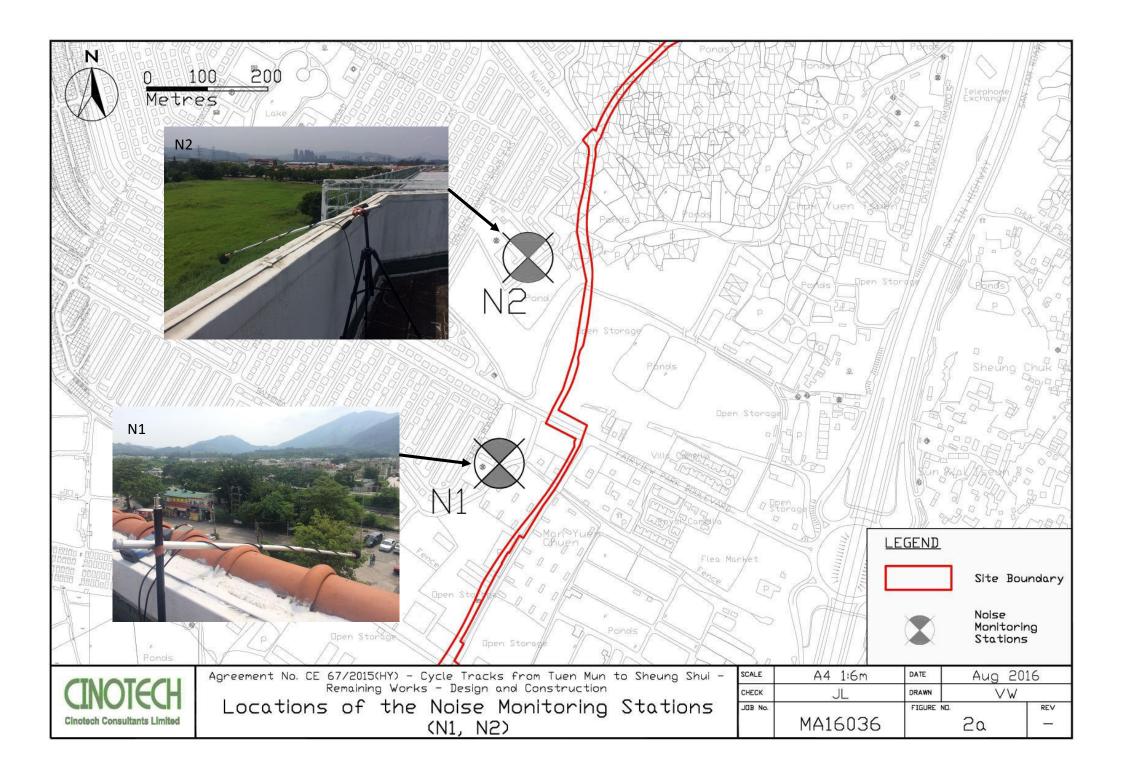


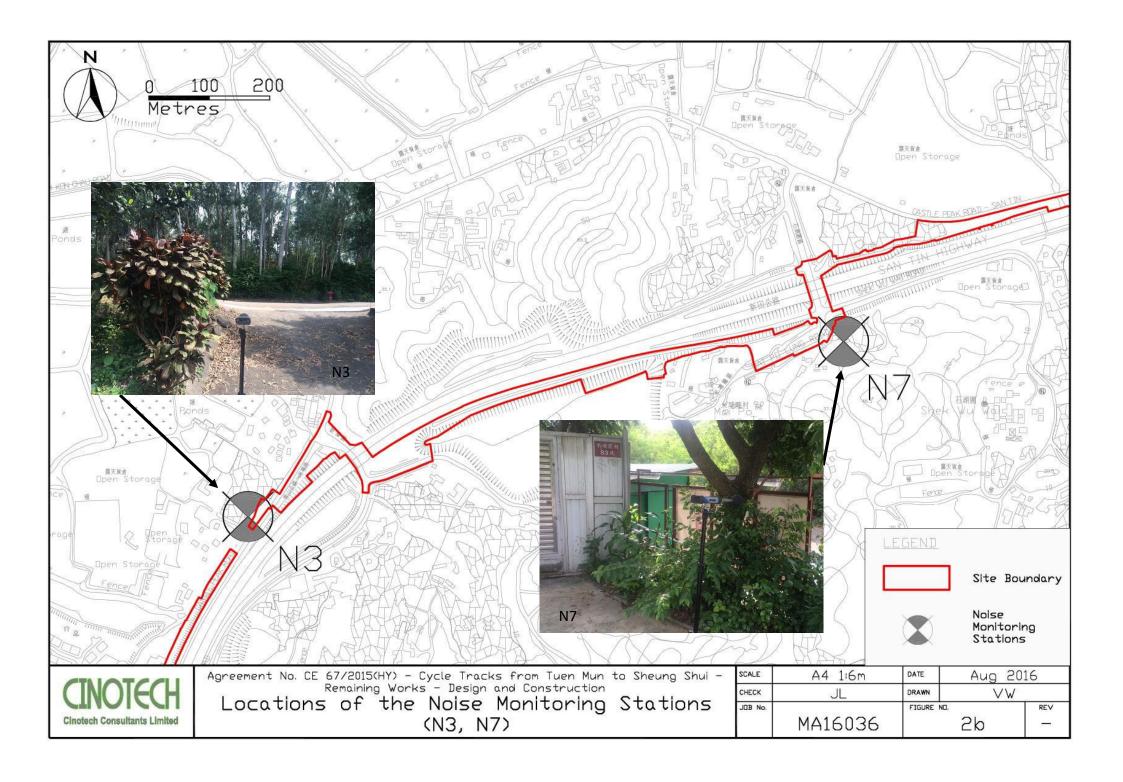


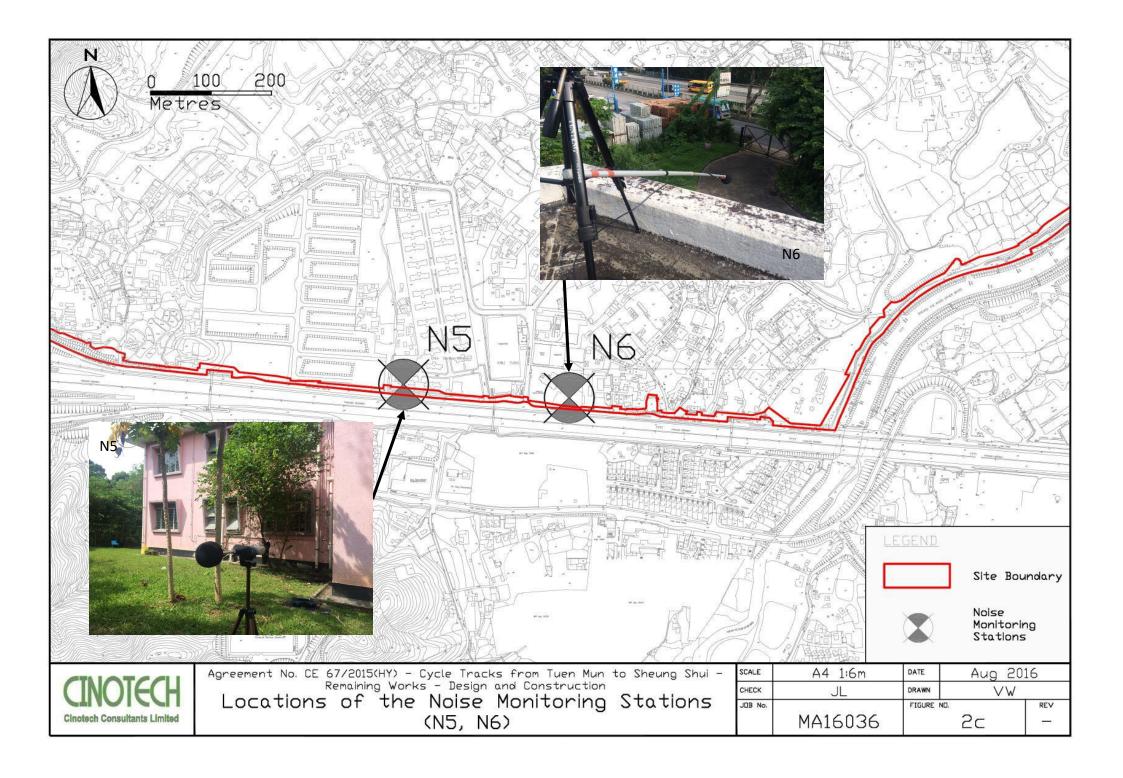
Agreement No. CE 67/2015(HY)
Cycle Tracks from Tuen Mun to Sheung Shui - Remaining Works
Design and Construction
Site Layout Plan

N.T.S No. MA16036

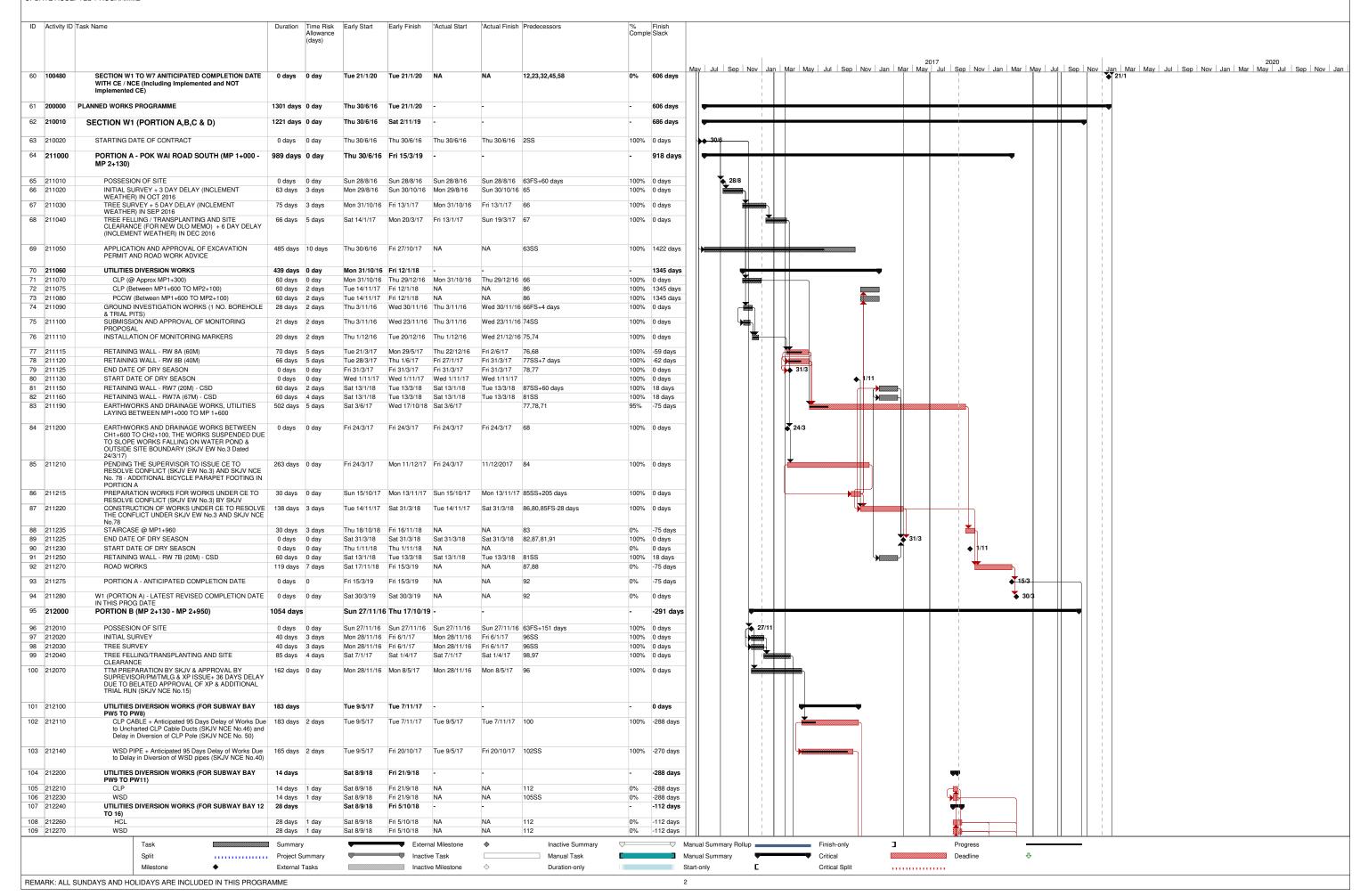
Date Dec-16 Figure 1h

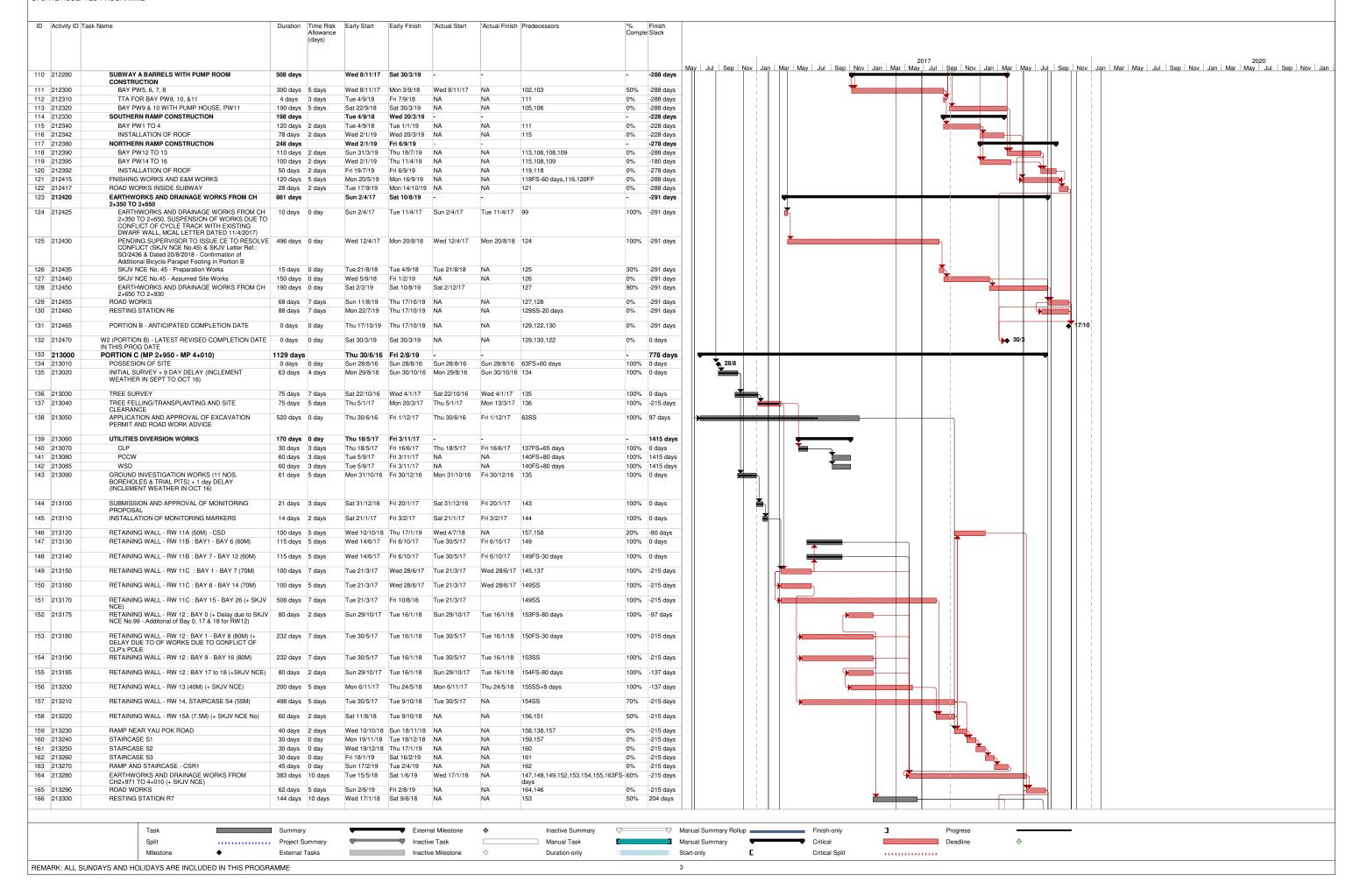


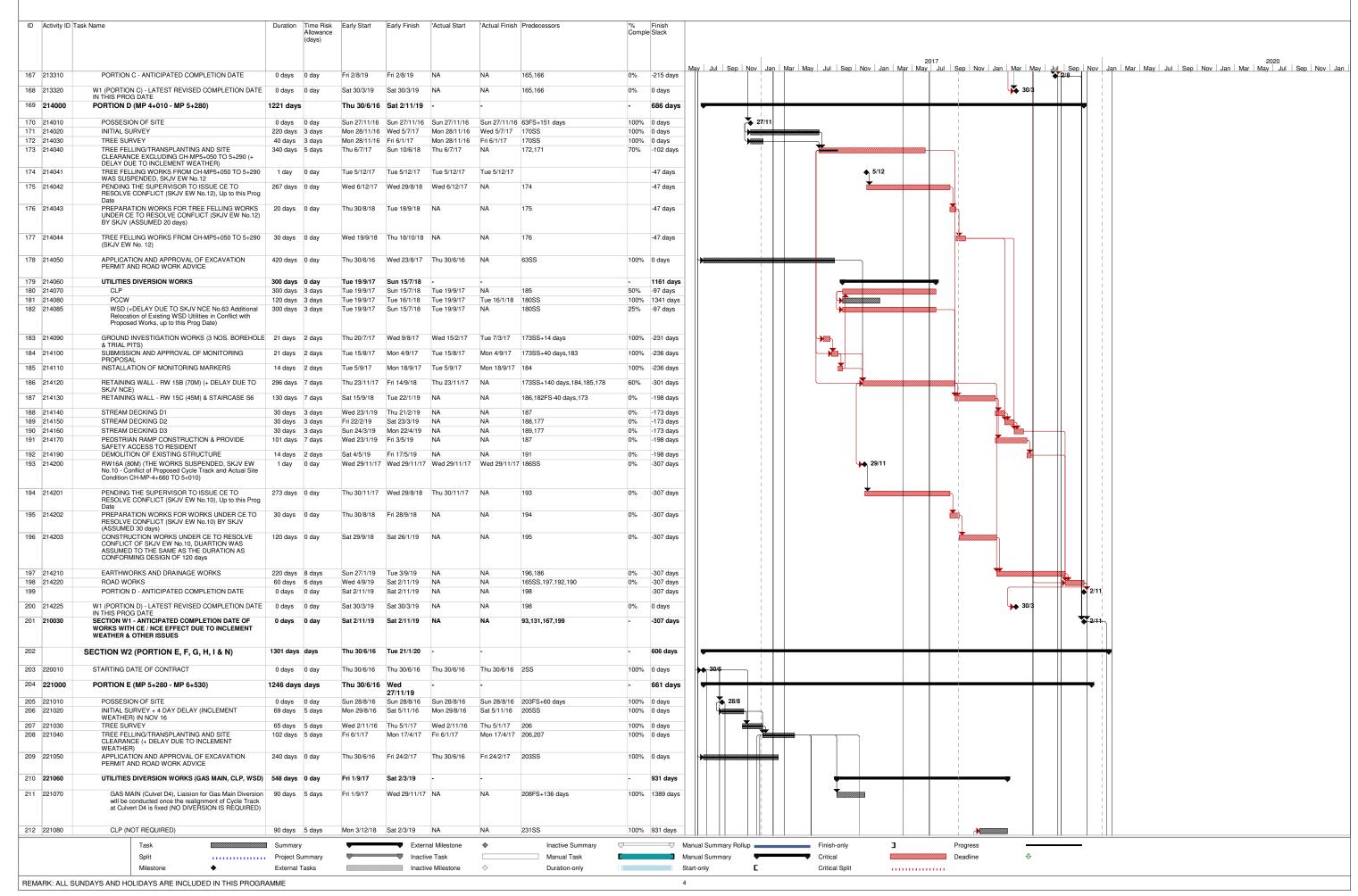


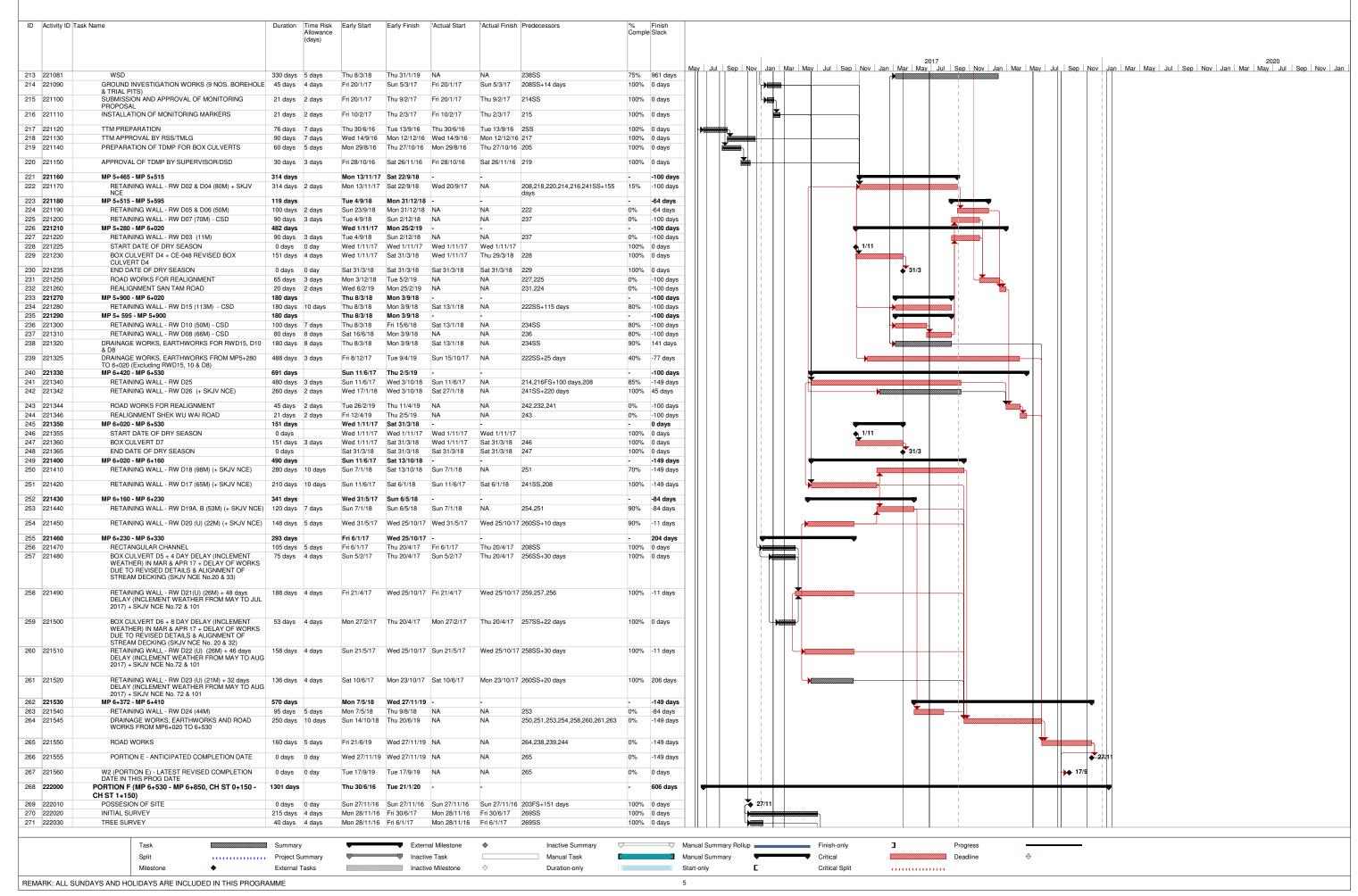


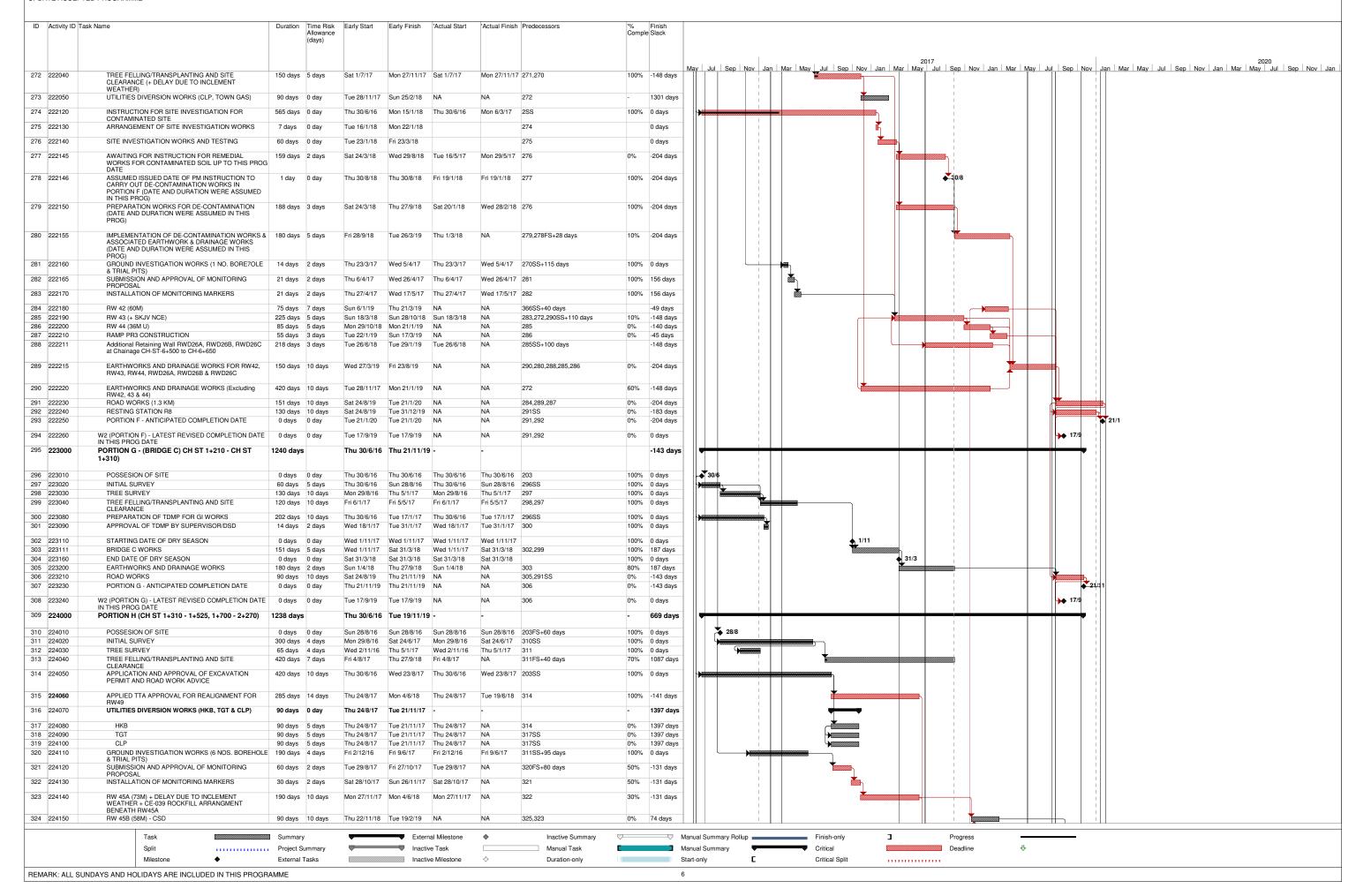
## APPENDIX A WORK PROGRAMME

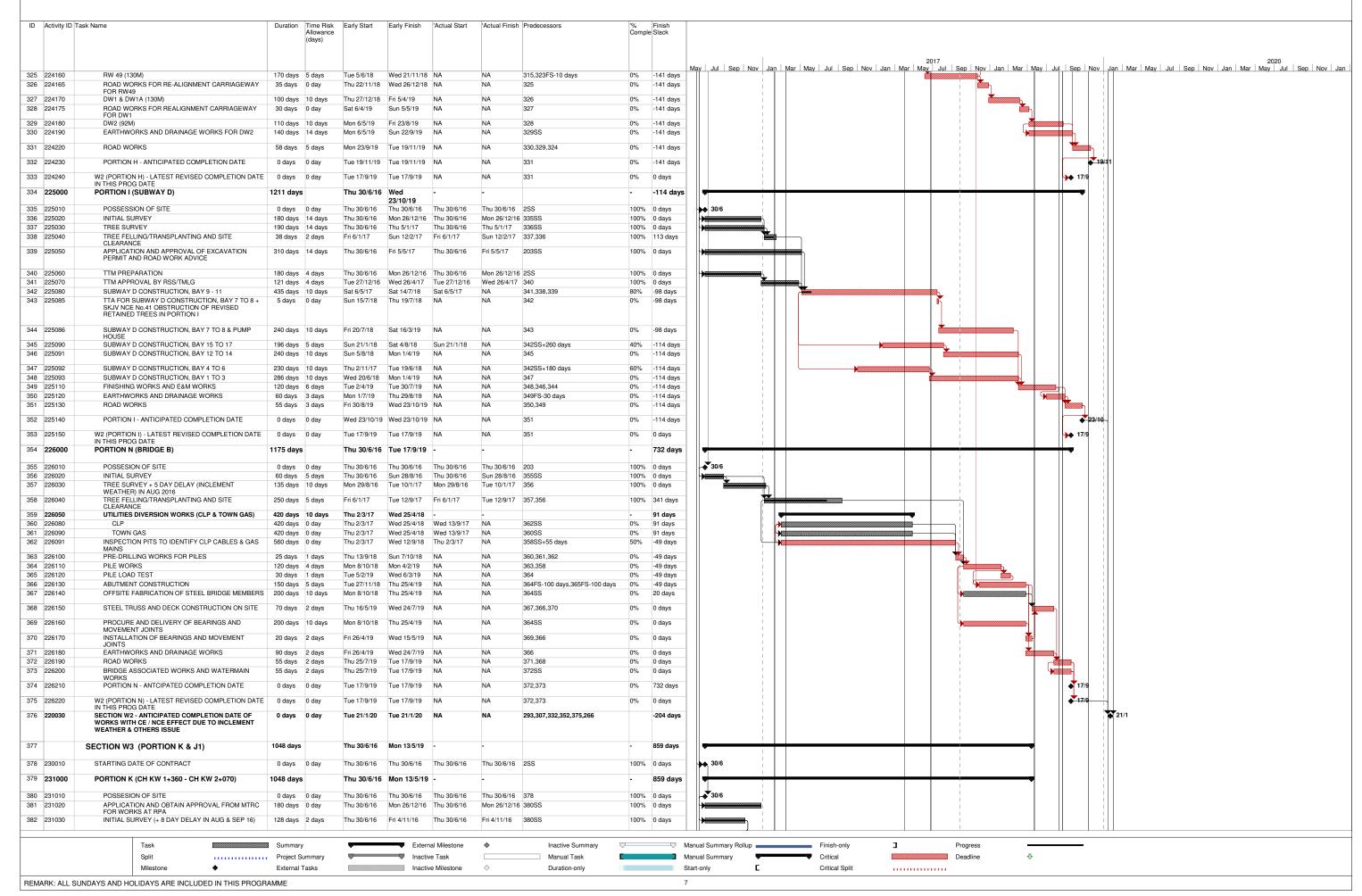


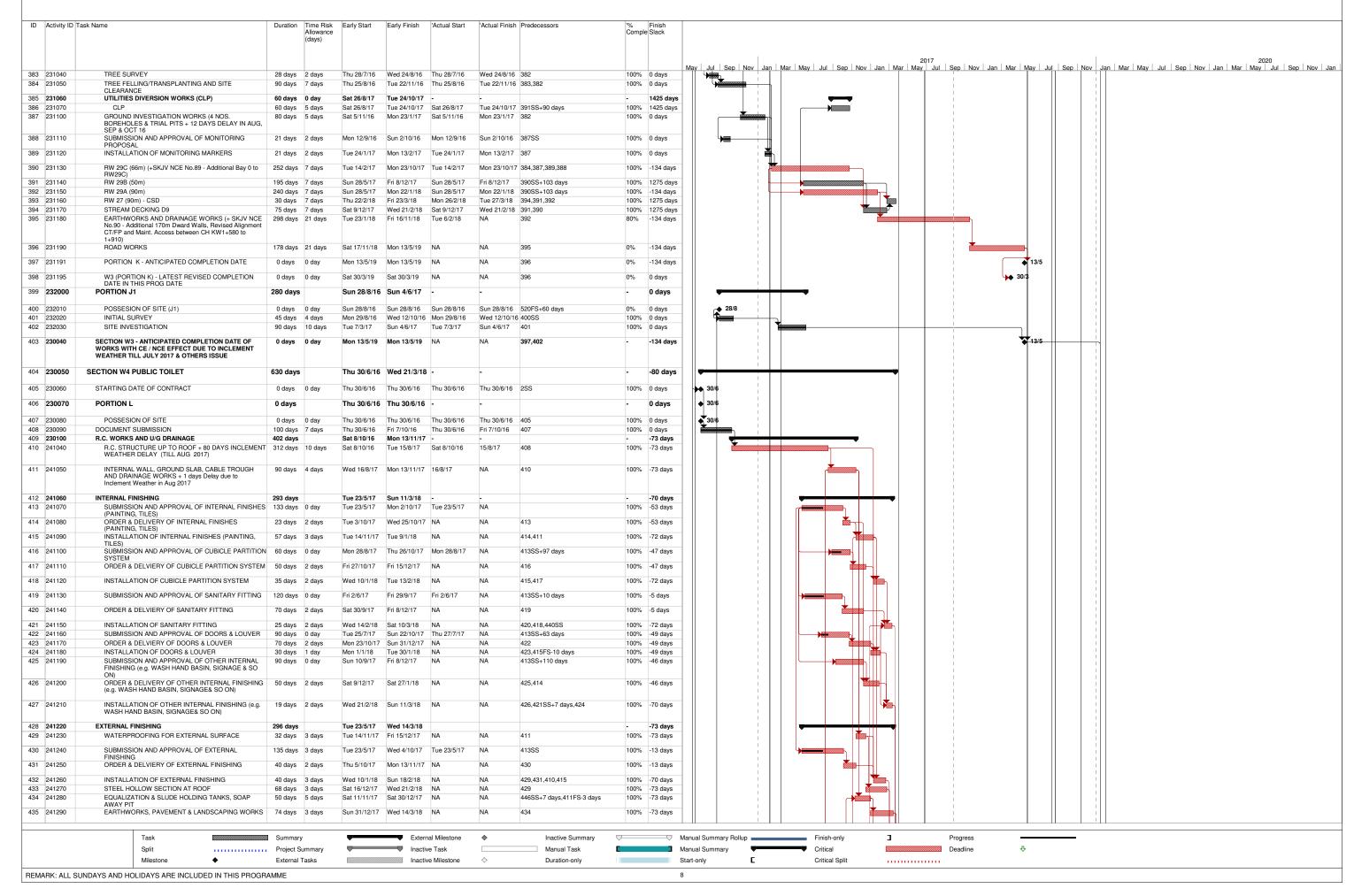


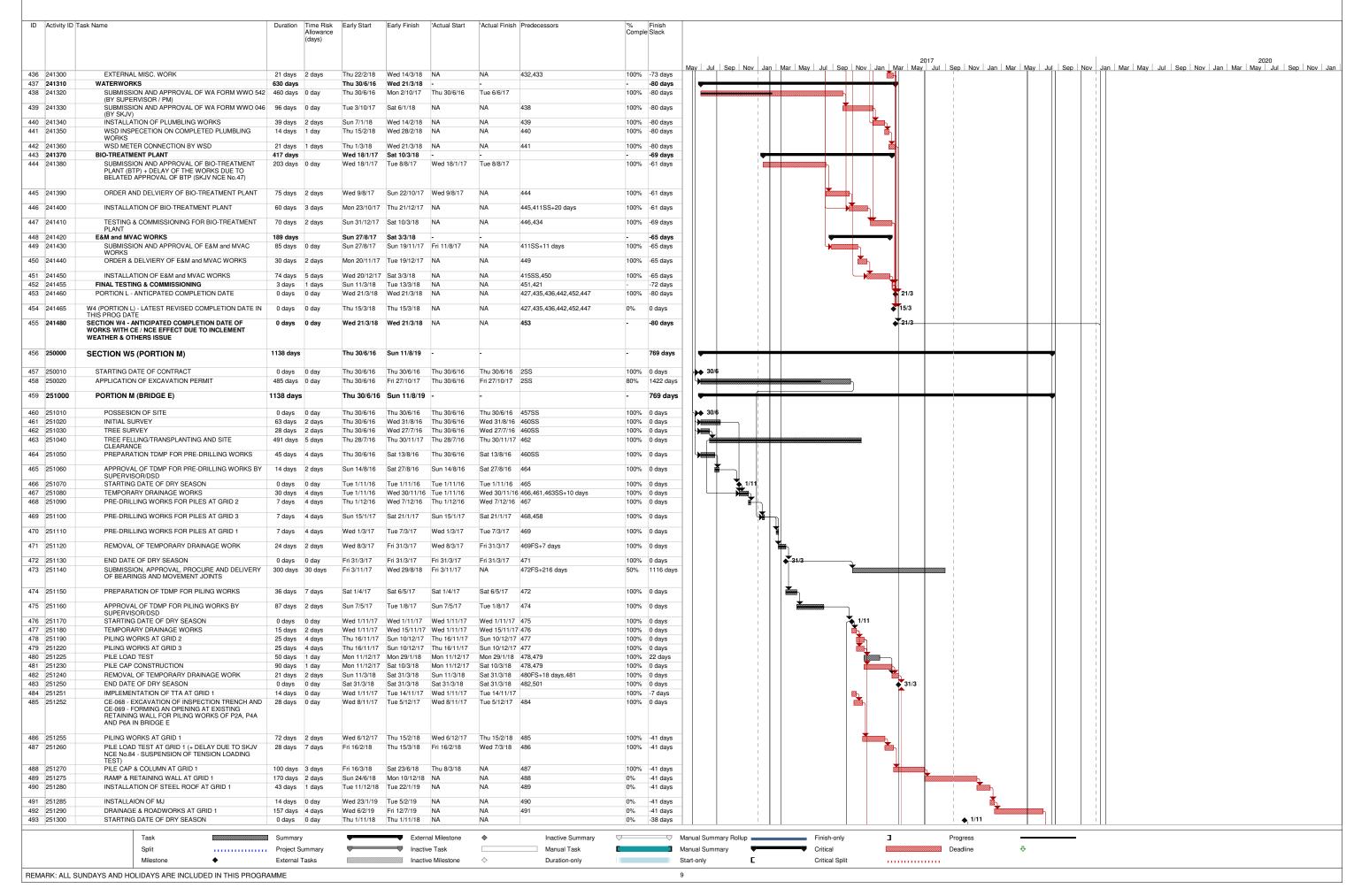


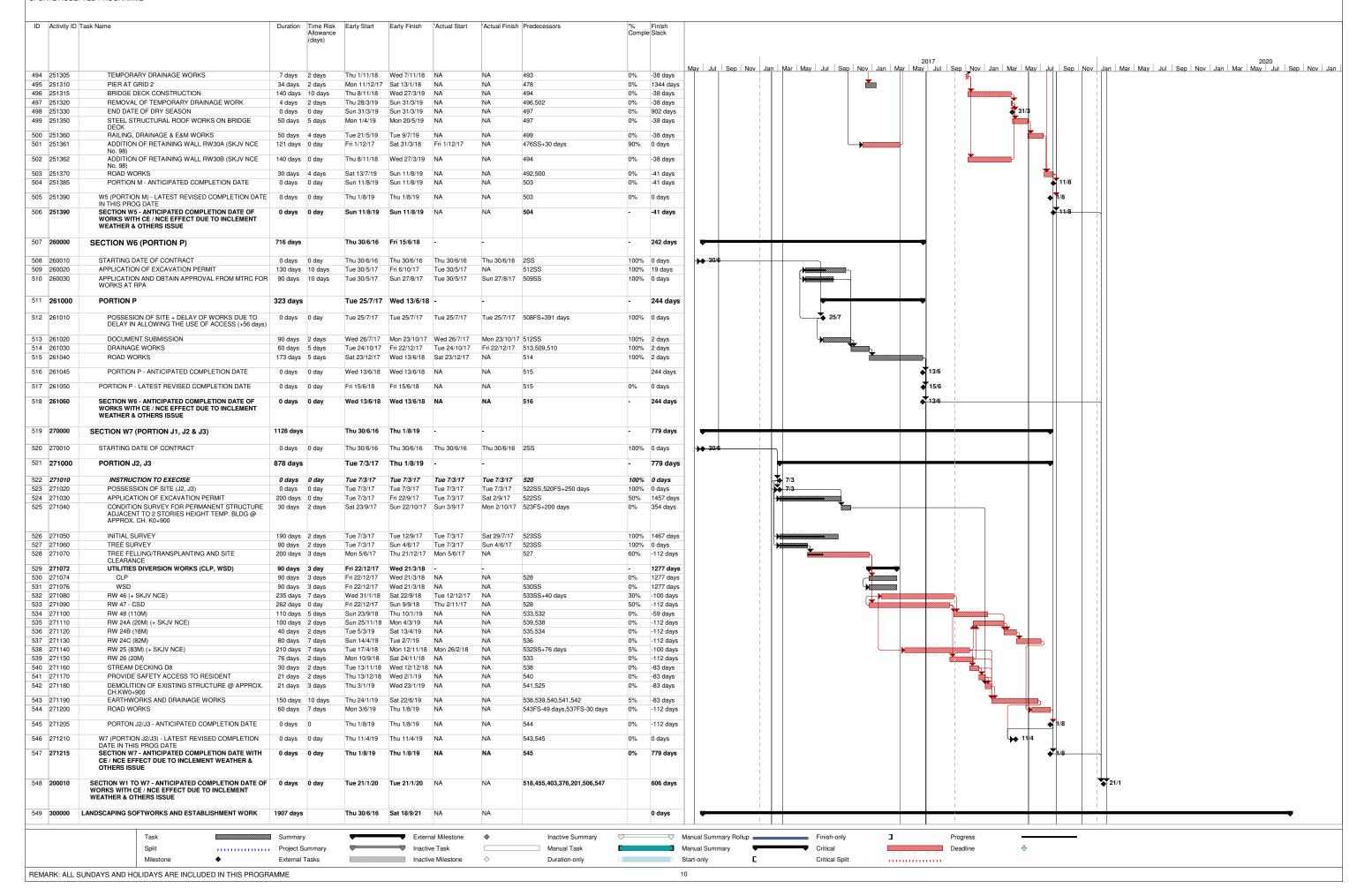


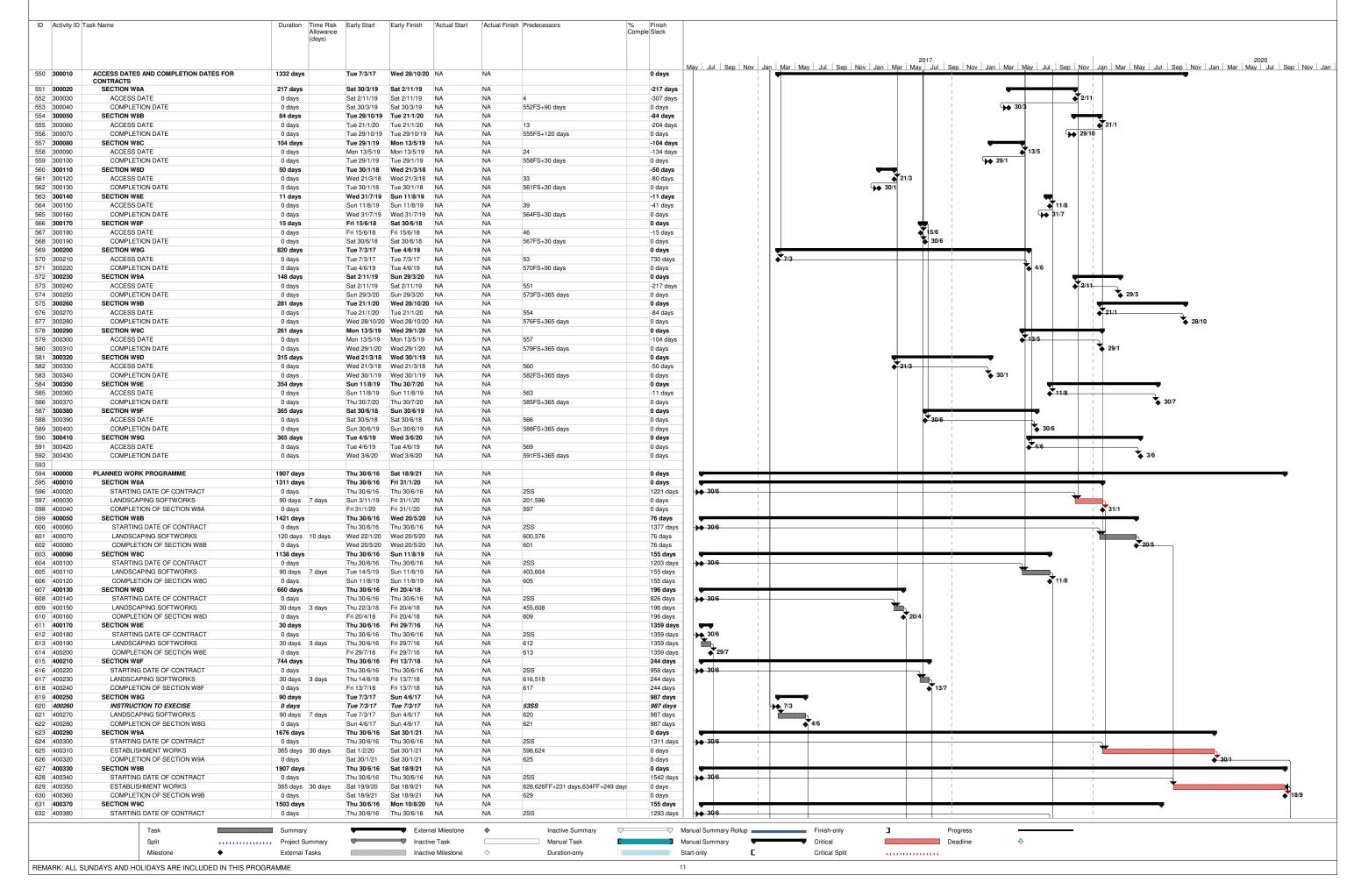












ID Activity ID Ta	ask Name	Duration		Early Start	Early Finish	'Actual Start	'Actual Finish	Predecessors	'% Finish Comple Slack															
			Allowance (davs)						Comple Slack															
			(days)																					
														Nov Jan Ma	2017			1			1		2020	
633 400390	ESTABLISHMENT WORKS	365 days	30 days	Mon 12/8/19	Mon 10/8/20	NΔ	NA	606,632	155 days	May Jul Sep	Nov Ja	an   Mar   M	ay Jul Sep	Nov   Jan   Ma	r May Ju	ul Sep Nov	Jan   Mar   Ma	y Jul Sep	Nov Jan	ı Mar May	ıy   Jul   Se	p Nov Jan	Mar   May   Jul	Sep No
634 400400	COMPLETION OF SECTION W9C	0 days	oo aays	Mon 10/8/20				633	155 days		1					1					10/8	1		1
	SECTION W9D							033											1		-10/0			
635 400410		1025 days		Thu 30/6/16			NA		196 days	<u> </u>														
636 400420	STARTING DATE OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16	NA	NA	2SS	856 days	30/6		+			고									
637 400430	ESTABLISHMENT WORKS	365 days	30 days	Sat 21/4/18	Sat 20/4/19	NA	NA	610,636	196 days		i								i					
638 400440	COMPLETION OF SECTION W9D	0 days		Sat 20/4/19	Sat 20/4/19	NA	NA	637	196 days		1					1	20	4	-					—
639 <b>400450</b>	SECTION W9E	395 days		Thu 30/6/16	Sat 29/7/17	NA	NA		1359 days	_	_					1			1					
640 400460	STARTING DATE OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16	NA	NA	2SS	1389 days	30/6						i I								
641 400470	ESTABLISHMENT WORKS	365 days	30 days	Sat 30/7/16	Sat 29/7/17	NA	NA	614,640	1359 days							i			i					
642 400480	COMPLETION OF SECTION W9E	0 days		Sat 29/7/17	Sat 29/7/17	NA	NA	641	1359 days		1		29/7											
643 <b>400490</b>	SECTION W9F	1109 days		Thu 30/6/16	Sat 13/7/19	NA	NA		244 days	_								_	l I					
644 400500	STARTING DATE OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16	NA	NA	2SS	988 days	30/6						i			i					
645 400510	ESTABLISHMENT WORKS	365 days	30 days	Sat 14/7/18	Sat 13/7/19	NA	NA	618,644	244 days		1								1					
646 400520	COMPLETION OF SECTION W9F	0 days		Sat 13/7/19	Sat 13/7/19	NA	NA	645	244 days							1		13/7						—
647 <b>400530</b>	SECTION W9G	455 days		Tue 7/3/17	Mon 4/6/18	NA	NA		987 days		i	_			_	i			i					
648 <b>400540</b>	INSTRUCTION TO EXECISE	0 days		Tue 7/3/17	Tue 7/3/17	NA	NA	53SS	1077 days		1	7/3				1			1					
649 400550	ESTABLISHMENT WORKS	365 days	30 days	Mon 5/6/17	Mon 4/6/18	NA	NA	622,648	987 days			•				1								
650 400560	COMPLETION OF SECTION W8A	0 days		Mon 4/6/18	Mon 4/6/18	NA	NA	649	987 days		i				4/6									

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 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.:
 30294

 Date of Issue:
 2018-11-24

 Date Received:
 2018-11-23

 Date Tested:
 2018-11-23

 Date Completed:
 2018-11-24

 Next Due Date:
 2019-11-23

ATTN:

Mr. W.K. Tang

Page:

1 of 1

# **Certificate of Calibration**

#### Item for calibration:

Description

: 'SVANTEK' Integrating Sound Level Meter

Manufacturer

: SVANTEK

Model No.

: SVAN 957

Serial No.

: 23851

Equipment No.

: N-08-12

#### **Test conditions:**

Room Temperatre

: 17-22 degree Celsius

Relative Humidity

: 40-70%

## **Test Specifications:**

Performance checking at 94 and 114 dB

#### Methodology:

In-house method, according to manufacturer instruction manual

#### Results:

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

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

Laboratory Manager



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/181213/1
Date of Issue:	2018-12-13
Date Received:	2018-12-12
Date Tested:	2018-12-12
Date Completed:	2018-12-13
Next Due Date:	2019-12-12

Page:

1 of 1

## **Certificate of Calibration**

#### Item for calibration:

Description : 'SVANTEK' Integrating Sound Level Meter

Manufacturer : SVANTEK
Model No. : SVAN 979
Serial No. : 27189
Microphone No. : 165399
Equipment No. : SN-01-01

#### **Test conditions:**

Room Temperatre : 22 degree Celsius

Relative Humidity : 58 %

## 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 94.0 SPL	94.0	94.0 ± 0.1dB
At 114.0 SPL	114.0	114.0 ± 0.1dB

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



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/181221/1
Date of Issue:	2018-12-21
Date Received:	2018-12-19
Date Tested:	2018-12-19
Date Completed:	2018-12-21
Next Due Date:	2019-12-20

**ATTN:** 

Mr. Henry Leung

Page:

1 of 1

## **Certificate of Calibration**

#### Item for calibration:

Description : 'SVANTEK' Integrating Sound Level Meter

Manufacturer : SVANTEK
Model No. : SVAN 959
Serial No. : 11275
Microphone No. : 86553
Equipment No. : N-08-01

#### **Test conditions:**

Room Temperatre : 22 degree Celsius

Relative Humidity : 55%

## Methodology:

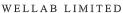
The Sound Level Calibrator has been calibrated in accordance with the documented procedures and using standard(s) and instrument(s) which are recommended by the manufacturer, or equivalent.

#### **Results:**

Sound Pressure Level (1KHz)	Measured SPL	Tolerance
At 94.0 SPL	94.0	94.0 ± 0.1dB
At 114.0 SPL	114.0	114.0 ± 0.1dB

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.





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.:	30289
Date of Issue:	2018-11-04
Date Received:	2018-11-03
Date Tested:	2018-11-03
Date Completed:	2018-11-04
Next Due Date:	2019-11-03

ATTN: Mr. W.K. Tang Page: 1 of 1

## Item for calibration:

Description : Acoustical Calibrator

Manufacturer : Brüel & Kjær

Model No. : 4231 Serial No. : 2326353 Equipment No. : N-02-01

#### **Test conditions:**

Room Temperatre : 17-22 degree Celsius

Relative Humidity : 40-70 %

## Methodology:

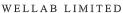
The Sound Level Calibrator has been calibrated in accordance with the documented procedures and using standard(s) and instrument(s) which are recommended by the manufacturer, or equivalent.

#### **Results:**

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

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.





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.:	29817A
Date of Issue:	2018-09-29
Date Received:	2018-09-28
Date Tested:	2018-09-28
Date Completed:	2018-09-29
Next Due Date:	2019-09-28
•	·

ATTN: Mr. W.K. Tang Page: 1 of 1

## Item for calibration:

Description : Acoustical Calibrator

Manufacturer : SVANTEK
Model No. : SV30A
Serial No. : 10965
Equipment No. : N-09-02

#### **Test conditions:**

Room Temperatre : 17-22 degree Celsius

Relative Humidity : 40-70%

## **Methodology:**

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

#### **Results:**

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

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

## APPENDIX D ENVIRONMENTAL MONITORING SCHEDULES

# Agreement No. CE 67/2015 (HY) Cycle Tracks from Tuen Mun to Sheung Shui - Remaining Works - Design and Construction Impact Noise Monitoring Schedule (February 2019)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1-Feb	2-Feb
3-Feb	4-Feb	5-Feb	6-Feb	7-Feb	8-Feb	9-Feb
	Noise					
	Noise					
10-Feb	11-Feb	12-Feb	13-Feb	14-Feb	15-Feb	16-Feb
		Naiss				
		Noise				
17-Feb	18-Feb	19-Feb	20-Feb	21-Feb	22-Feb	23-Feb
		Mata				
		Noise				
24-Feb	25-Feb	26-Feb	27-Feb	28-Feb		
		Noise				

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

#### Cycle Tracks from Tuen Mun to Sheung Shui - Remaining Works - Design and Construction Tentative Impact Noise Monitoring Schedule (March 2019)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1-Mar	2-Mar
3-Mar	4-Mar	5-Mar	6-Mar	7-Mar	8-Mar	9-Mar
		Noise				
10-Mar	11-Mar	12-Mar	13-Mar	14-Mar	15-Mar	16-Mar
		Noise				
47.15	40.74	40.14	20.14	24.34	22.16	22.16
17-Mar	18-Mar	19-Mar	20-Mar	21-Mar	22-Mar	23-Mar
		Noise				
24-Mar	25-Mar	26-Mar	27-Mar	28-Mar	29-Mar	30-Mar
24-14141	23-ividi	20-14141	27-ividi	20-14141	2)-ividi	30-iviai
		Noise				
31-Mar						

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	ocation N1 - HKMLC Wong Chan Sook Ying Memorial School								
				Unit: dB (A) (30-min)					
Date	Date Time	Weather	Mea	sured Noise I	Level	Baseline Level	Construction Noise Level		
			L <sub>eq</sub>	L <sub>10</sub>	L 90	L <sub>eq</sub>	L <sub>eq</sub>		
4-Feb-19	9:30	Sunny	61.4	63.5	58.9		61.4 measured ≦ Baseline		
12-Feb-19	9:20	Sunny	61.8	63.9	59.1	62.2	61.8 measured ≦ Baseline		
19-Feb-19	16:00	Cloudy	61.0	64.1	55.4	02.2	61 measured ≦ Baseline		
26-Feb-19	14:45	Sunny	64.0	64.6	55.2		59.3		

Location N2 - E	Location N2 - Bethel High School									
				Unit: dB (A) (30-min)						
Date	Time	Weather	Weather Measured Noise Le	_evel	Baseline Level	Construction Noise Level				
			L <sub>eq</sub>	L <sub>10</sub>	L 90	L <sub>eq</sub>	L <sub>eq</sub>			
4-Feb-19	10:30	Sunny	53.7	54.9	51.2		53.7 measured ≦ Baseline			
12-Feb-19	10:20	Sunny	54.9	57.1	51.4	55.2	54.9 measured ≦ Baseline			
19-Feb-19	16:45	Cloudy	55.6	56.8	51.7	33.2	45.0			
26-Feb-19	16:00	Sunny	53.9	54.7	50.0		53.9 measured ≦ Baseline			

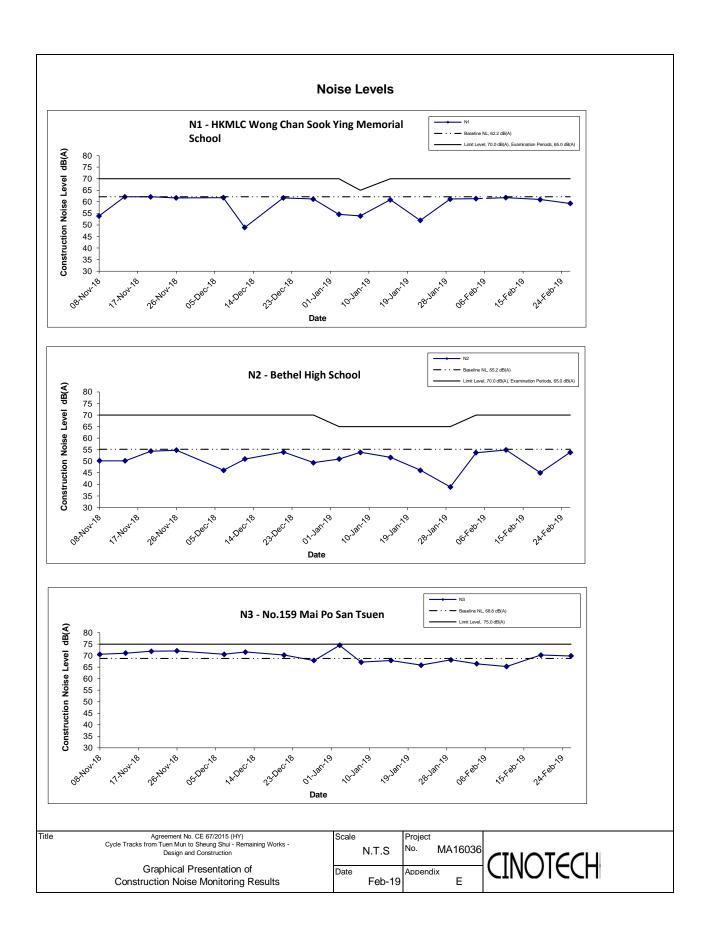
Location N3 - No.159 Mai Po San Tsuen									
				Unit: dB (A) (30-min)					
Date	Time	Weather	Mea	sured Noise I	Level	Baseline Level	Construction Noise Level		
			L <sub>eq</sub>	L <sub>10</sub>	L 90	L <sub>eq</sub>	L <sub>eq</sub>		
4-Feb-19	11:25	Sunny	70.8	71.8	69.5		66.5		
12-Feb-19	11:20	Sunny	70.4	73.3	68.7	68.8	65.3		
19-Feb-19	13:30	Cloudy	72.6	75.0	68.1	00.0	70.3		
26-Feb-19	13:00	Sunny	72.4	76.6	59.5		69.9		

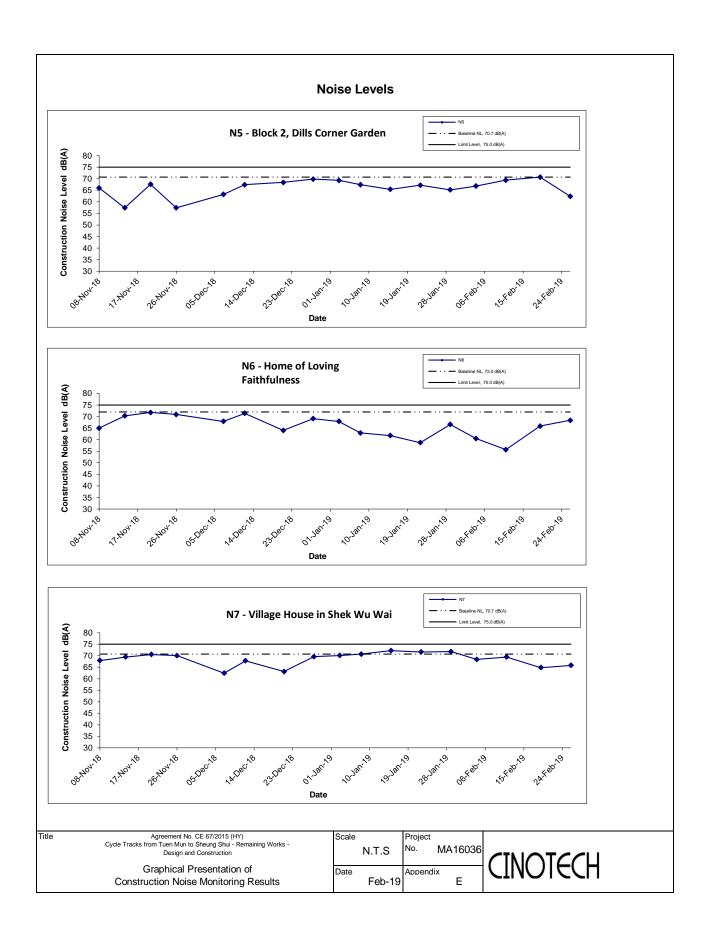
Location N5 - Block 2, Dills Corner Garden									
				Unit: dB (A) (30-min)					
Date Time		Weather	Meas	sured Noise I	_evel	Baseline Level	Construction Noise Level		
			L <sub>eq</sub>	L <sub>10</sub>	L 90	L <sub>eq</sub>	L <sub>eq</sub>		
4-Feb-19	13:00	Sunny	66.8	69.5	64.1		66.8 measured ≦ Baseline		
12-Feb-19	15:00	Sunny	69.4	71.8	63.8	70.7	69.4 measured ≦ Baseline		
19-Feb-19	15:05	Cloudy	70.7	72.4	67.2	70.7	70.7 measured ≦ Baseline		
26-Feb-19	13:45	Sunny	71.3	76.0	59.8		62.4		

Location N6 - Home of Loving Faithfulness										
				Unit: dB (A) (30-min)						
Date	Time	Weather	Mea	sured Noise	Level	Baseline Level	Construction Noise Level			
			L <sub>eq</sub>	L <sub>10</sub>	L 90	L <sub>eq</sub>	L <sub>eq</sub>			
4-Feb-19	14:00	Sunny	72.3	75.1	70.4		60.5			
12-Feb-19	14:00	Sunny	72.1	75.4	69.7	72.0	55.7			
19-Feb-19	15:55	Cloudy	65.9	67.7	63.2	72.0	65.9 measured ≦ Baseline			
26-Feb-19	15:00	Sunny	68.4	71.9	61.2		68.4 measured ≦ Baseline			

Location N7 - Village House in Shek Wui Wai							
					Unit:	dB (A) (30-min)	
Date Time		Weather	Measured Noise Level			Baseline Level	Construction Noise Level
			L <sub>eq</sub>	L <sub>10</sub>	L 90	L <sub>eq</sub>	L <sub>eq</sub>
4-Feb-19	15:00	Sunny	72.7	74.5	71.6		68.4
12-Feb-19	13:00	Sunny	73.1	75.1	70.9	70.7	69.4
19-Feb-19	14:15	Cloudy	71.7	71.1	63.9	70.7	64.8
26-Feb-19	15:45	Sunny	65.8	68.4	60.7		65.8 measured ≦ Baseline

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

**Inspection Information** 

Chec	entite recording running	190204
Date		4 February 2019 (Monday)
Time		10:00 – 12:00

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

Ref. No.	Remarks/Observations	Related Item No.			
	B. Water Quality				
190204-R4	At Portion N, the catchpit should be covered.	В7			
	C. Air Quality				
190204-R1	At Portion B, the pedestrian public road should be cleaned.	C3			
190130-R3	• At Portion M, the stockpile should be covered by impervious materials or maintained wet.	C7			
190122-R1	• At Portion J, mitigation measure for dust suppressing (e.g. watering) should be implemented at entrance area. Water should be collected and passed through sedimentation tank before discharge.	C6			
190122-R3	• At Portion A, mitigation measure for dust suppressing (e.g. watering) should be implemented at exposed area and public road.	С3			
190116-R1	<ul> <li>At Subway A, public road should be cleaned. Mitigation measures such as watering should be implemented.</li> </ul>				
	D. Construction Noise Impact	;			
	No environmental deficiency was identified during site inspection.				
	E. Waste / Chemical Management				
190204-R2	At Portion D, accumulation of rubbish should be avoided.	E1			
190204-R3	At Portion N, piles of rubbish of rubbish should be removed.	E1			
190130-R1	At Portion B, rubbish pile should be removed.	E1			
190130-R2	• At Portion D, the side channel should be cleaned regularly to avoid site-run off from entering the drainage system.	E6			
190122-R2	At Portion D, public drainage should be kept clean and free of oil.	E6			
190204-F2	Clear the oil stains as chemical waste at WA3.	E8			
	F. Ecology and Fisheries				
	No environmental deficiency was identified during site inspection.				
	G. Landscape & Visual				
190204-F1	To set up a proper tree protection zone at WA3.	G1, G2			
	H. Permits/Licences				
	No environmental deficiency was identified during site inspection.				
	I. Others				
	Follow up on the previous session (Ref. No: 190130), follow up actions are needed to be reviewed for item 190116-R1, 190122-R1 to R3, 190130-R1 to R3 and 190204-F1 to F2. Item 190116-R2, 190108-R1, 190102-R1 and 190130-F1 are rectified.	and the same of th			

	Name	Signature	Date
Recorded by	Miss. Jennifer Mok	gm	4 February 2019
Checked by	Mr. KS Lee		4 February 2019

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

**Inspection Information** 

	190214
Date	14 February 2019 (Thursday)
Time	09:30 – 12:00

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

Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
190204-R4	At Portion N, the catchpit should be covered.	B7
	C. Air Quality	
190204-R1	At Portion B, the pedestrian public road should be cleaned.	C3
190130-R3	• At Portion M, the stockpile should be covered by impervious materials or maintained wet.	C7
190122-R1	<ul> <li>At Portion J, mitigation measure for dust suppressing (e.g. watering) should be implemented at entrance area. Water should be collected and passed through sedimentation tank before discharge.</li> </ul>	C6
190122-R3	• At Portion A, mitigation measure for dust suppressing (e.g. watering) should be implemented at exposed area and public road.	C3
190116-R1	<ul> <li>At Subway A, public road should be cleaned. Mitigation measures such as watering should be implemented.</li> </ul>	C3
	D. Construction Noise Impact	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
190214-R1	At Portion M, rubbish pile under the bridge E should be removed.	E1
190204-R2	At Portion D, accumulation of rubbish should be avoided.	E1
190204-R3	At Portion N, piles of rubbish of rubbish should be removed.	E1
190130-R1	At Portion B, rubbish pile should be removed.	E1
190214-F2	Clear the oil stains as chemical waste at WA3.	E8
	F. Ecology and Fisheries	_
	No environmental deficiency was identified during site inspection.	
	G. Landscape & Visual	
190214-F1	To set up a proper tree protection zone at WA3.	G1, G2
,	H. Permits/Licences	
•	No environmental deficiency was identified during site inspection.	1
	I. Others	]
	Follow up on the previous session (Ref. No: 190204), follow up actions are needed to be reviewed for item 190116-R1, 190122-R1& R3, 190130-R1 & R3 and 190204-F1 to F2.	
	Item 190130-R2, 190122-R2 are rectified.	

	Name	Signature	Date
Recorded by	Miss. Jennifer Mok	m	14 February 2019
Checked by	Mr. KS Lee		14 February 2019

# 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**

**Inspection Information** 

Checklist Reference Number	190220
Date	20 February 2019 (Wednesday)
Time	09:45 – 12:00

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

Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
190220-R1	At Portion D, standing water should be avoided.	В8
	C. Air Quality	
190130-R3	• At Portion M, the stockpile should be covered by impervious materials or maintained wet.	C7
190122-R1	• At Portion J, mitigation measure for dust suppressing (e.g. watering) should be implemented at entrance area. Water should be collected and passed through sedimentation tank before discharge.	C6
190122-R3	• At Portion A, mitigation measure for dust suppressing (e.g. watering) should be implemented at exposed area and public road.	C3
190116-R1	• At Subway A, public road should be cleaned. Mitigation measures such as watering should be	C3
	implemented.	
	D. Construction Noise Impact	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
190214-R1	At Portion M, rubbish pile under the bridge E should be removed.	E1
190204-R2	At Portion D, accumulation of rubbish should be avoided.	E1
190204-R3	At Portion N, piles of rubbish of rubbish should be removed.	E1
190220-F2	Clear the oil stains as chemical waste at WA3.	E8
	F. Ecology and Fisheries	
	No environmental deficiency was identified during site inspection.	
	G. Landscape & Visual	
190220-F1	To set up a proper tree protection zone at WA3.	G1, G2
	H. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
	Follow up on the previous session (Ref. No: 190204), follow up actions are needed to be reviewed for item 190116-R1, 190122-R1& R3, 190130-R3, 190204-R2 to R3, 190214-R1 and 190220-F1 to F2.	
	Item 190204-R1, 190204-R4 and 190130-R1 are rectified.	

	Name	Signature	Date
Recorded by	Miss. Jennifer Mok	<i>G</i> m	20 February 2019
Checked by	Mr. KS Lee	flex	20 February 2019

#### Agreement No. CE 67/2015 (HY)

#### 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**

**Inspection Information** 

Checklist Reference Number	190227
Date	27 February 2019 (Wednesday)
Time	09:45 – 12:00

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

	Item No.
ding water should be avoided.	В8
stockpile should be covered by impervious materials or maintained wet.	C6
	C3
	C3
ficiency was identified during site inspection.	
Management	
bbish pile under the bridge E should be removed.	E1
ns as chemical waste at WA3.	E8
eries	
ficiency was identified during site inspection.	
ual	
er tree protection zone at WA3.	G1, G2
ficiency was identified during site inspection.	
	stockpile should be covered by impervious materials or maintained wet. gation measure for dust suppressing (e.g. watering) should be implemented at ter should be collected and passed through sedimentation tank before gation measure for dust suppressing (e.g. watering) should be implemented at public road.  See Impact Efficiency was identified during site inspection.  Management Hibbish pile under the bridge E should be removed. His as chemical waste at WA3.  Meries Efficiency was identified during site inspection.  Mula Her tree protection zone at WA3.  Efficiency was identified during site inspection.  Wious session (Ref. No: 190220), follow up actions are needed to be reviewed & R3, 190130- R3, 190214-R1, 190220-R1 and 190227-F1 to F2. D204-R3 and 190116-R1 are rectified.

	Name	Signature	Date
Recorded by	Mr. Eric Yan	-g/tig	27 February 2019
Checked by	Miss. Jennifer Mok	<i>G</i> m	27 February 2019

## 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	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		
S.3.6.2	S.3.2.3	All the dust control measures as recommended in the Air Pollution Control (Construction Dust) Regulation, where applicable, should be implemented. Typical dust control measures include:	۸
S.3.6.2	S.3.2.3	• The works area for site clearance shall be sprayed with water before, during and after the operation so as to maintain the entire surface wet	٨
S.3.6.2	S.3.2.3	• Restricting heights from which materials are to be dropped, as far as practicable to minimize the fugitive dust arising from unloading/loading	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	*
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	<ul> <li>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</li> </ul>	#

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
S.3.6.2	S.3.2.3	<ul> <li>All dusty materials shall be sprayed with water or a dust suppression chemical immediately prior to any loading, unloading or transfer operation so as to maintain the dusty materials wet</li> </ul>	^
Construction	Noise Impact		
S5.5.11	S4.2.17 (Stage 1 only)	In order to prevent potential cumulative construction noise impacts to NSRs at Mai Po San Tsuen and Palm Springs, the works at the cycle track section (near CHMP5+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	The contractor shall liaise with Yuen Long and Kam Tin Sewerage and Sewage	٨
	(Stage 2 only)	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	٨
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: - air compressor - hand-held breaker	N/A (1)
S.5.6.2	S.4.2.19	The barrier / enclosure material's surface mass shall be in excess of 7 kg/m <sup>2</sup> .	٨
S.5.6.6	S.4.2.19	Use of alternative quieter plant such as road ripper, excavator mounted instead of handheld breaker during levelling/excavation works.	٨

S.5.6.8	S.4.2.19	The Contractor shall adopt the Code of Practice on Good Management Practice to Prevent Violation of the Noise Control Ordinance (Chapter 400) (for Construction Industry) published by EPD	۸
S.5.6.8	S.4.2.19	The Contractor shall observe and comply with the statutory and non-statutory requirements and guidelines	۸
S.5.6.8	S.4.2.19	Before commencing any work, the Contractor shall submit to the project Engineer for approval the method of working, equipment and noise mitigation measures intended to be used at the site	۸
S.5.6.8	S.4.2.19	The Contractor shall devise and execute working methods to minimize the noise impact on the surrounding sensitive uses, and provide experienced personnel with suitable training to ensure that those methods are implemented	۸
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	۸
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	۸
S.5.6.8	S.4.2.19	Regular maintenance of all plant and equipment	۸
S.5.6.8	S.4.2.19	Material stockpiles and other structures should be effectively utilised as noise barriers, where practicable	N/A

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	٨
<b>Construction W</b>	Vater 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	#

S.6.6.1	S.5.2.4	Surface run-off from the construction sites will be directed into storm drains via adequately designed wastewater treatment facilities such as sand traps, silt traps and sediment settling basins. This is important for works immediately along the Kam Tin River, Ngau Tam Mei Main Drainage Channel, River Beas and Shek Sheung River	#
S.6.6.1	S.5.2.4	Channels, earth bunds or sand bag barriers will be provided on-site to properly direct stormwater to the above-mentioned facilities	۸
S.6.6.1	S.5.2.4	Existing silt removal facilities, channels and manholes along roads and pedestrian walkways will be maintained and the deposited silt and grit will be removed regularly, at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times	٨
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	٨
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	٨
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);	۸
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. These will be provided by a licensed contractor, who will be responsible for appropriate disposal and maintenance of the effluent	۸
S.6.6.1	S.5.2.4	Works adjacent to the fishponds near Mai Po San Tsuen should be avoided as far as possible during the wet season to avoid runoff into the fishponds	^

S.6.6.1	S.5.2.4	Wastewater from site facilities (such as toilets) should be discharged to foul sewer, where available. Chemical toilets will be considered where there is no foul sewer connection. There is not expected to be a temporary canteen.	٨
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	۸
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 area near plant workshop/ maintenance areas	N/A
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
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S.5.2.7 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 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)  S.5.2.6 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 Management  S.7.4.1 S.6.2.1 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				
(Stage 2 only) 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 Management  S.7.4.1  S.6.2.1 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;	-		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	٨
(Stage 2 only)   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 Management	N/A		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	۸
S.7.4.1  S.6.2.1 — 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;	N/A		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	^
S.6.2.4 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;	Constructio	n Waste Managem	ent	
S.7.4.1 S.6.2.6 Given the potential for secondary environmental impacts (dust, noise, water quality ^	S.7.4.1		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	^
The second of th	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	۸
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	٨
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;	#
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.	۸
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.	^

S.8.7.2 – S.8.7.3	Preparation of Contamination Assessment Plan (CAP), which should be submitted to EPD for endorsement, prior to investigation.	^

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
		Site investigation and sampling works in accordance with the approved CAP. If contamination is identified, Contamination Assessment Report (CAR) and Remediation Action Plan (RAP) shall be prepared and submitted for EPD's approval.	
S.8.7.5	S.7.3.1	The following control measures should be implemented when handling identified contaminated materials:  General site safety shall be enforced to include basic practices such as the use of safety boots, hard hats, coveralls, gloves and eye protection;  Avoid skin contact, ingestion and inhalation of excavated contaminated soils.  Basic personal protective equipment should be used;  Site staff and workers shall be given adequate training and instructions specific to the potential hazards, their health and safety responsibilities and safe working practice including basic personal hygiene;  Measures shall be implemented to prevent non-workers from approaching the identified works areas in order to avoid exposure to contaminants.	N/A

S.8.7.5	S.7.3.1	Management of Contaminated Soils	N/A
		<ul> <li>Where appropriate, the use of bulk handling equipment should be maximised</li> </ul>	
		to reduce the potential contacts between excavated contaminated materials and	
		associated workers;	
		<ul> <li>The plants for excavation and transportation of the material shall be cleaned</li> </ul>	
		prior to leaving the Site;	
		<ul> <li>All temporary stockpiles of the materials shall be completely covered with</li> </ul>	
		plastic/ tarpaulin sheets, particularly during heavy rainstorms. The stockpiling areas	
		should be concrete-paved or lined with its perimeter constructed of a concrete bund	
		where appropriate in order to avoid any leachate from migrating out of the area;	
		Any vehicles transporting the material shall be suitably covered to limit potential dust	
		emissions;	
		<ul> <li>Surface waters shall be diverted around any contaminated areas or stockpiles</li> </ul>	
		to minimize potential runoff into excavations, as runoff might increase the volume of	

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
		contaminated water requiring disposal and suspended solids in the wastewater stream	
Ecological & Fisheries Impact			
S.9.11.4	S.8.2.2	Prior to tree felling, survey inspections should be made for their suitability for roosting bats. Once these trees have been highlighted, then appropriate checks of each tree for bats should be made prior to removal as a precautionary measure.	٨
S.9.11.7	S.8.2.3 (Stage 1 only)	In situ compensation planting at the Information Kiosk and R9 should occur to provide continuing function of the bamboo and plantation (see Figure 8-1 of EM&A Manual for Stage 1 Works (Year 2015)). It is recommended that the Information Kiosk and Resting Station R9 should be designed sympathetically to the natural surroundings. Compensation planting along the Sheung Yue River and Shek Sheung River including at R9 and Information Kiosk could be implemented as appropriate.	N/A

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.	۸
-	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	
		be implemented practicable to minimize the noise disturbance to the foraging ardeids.	
S.10.5.4	S.8.2.7 (Stage 1) S.8.2.5 (Stage 2)	To prevent any negative impact to water quality as a result of site run-off, good site practice must be employed at all times, particularly in the areas close to fishponds. Practice Note for Professional Persons ProPECC PN1/94 – Construction Site Drainage shall be implemented.	۸
S.10.5.4	S.8.2.8 (Stage 1) S.8.2.6 (Stage 2)	Along Pok Wai South Road, once the final construction sequencing is known, liaison with local residents and aquaculturists should be implemented in order to minimise temporary road blockages and to identify the best timing for works along this area.	N/A

S.10.5.3	S.8.2.9 (Stage 1) S.8.2.7 (Stage 2)	During wet seasons, surface run-off from the construction sites will need to be directed into storm drains via adequately designed wastewater treatment facilities such as sand traps, silt traps, oil interceptors and sediment settling basins. Works 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 (Stage 1 only)		
S.9.11.27	S.8.2.11 (Stage 1) S.8.2.9 (Stage 2)	The following good work practices are recommended:  Avoid soil storage against trees; Fence off any potentially ecologically sensitive areas; Delineation of works area to prevent encroachment onto adjacent habitats; Reinstatement of habitat after works; No on-site burning of waste;	^

■ 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	EIA Ref.	EM&A Ref.	Mitigation Measures	Status
Silt/ Sediment/ Oil traps for drainage to prevent site run-off			Staff training/toolbox talks for site work near Long Valley and WCA – important areas for birds therefore staff should reduce amount of noise whilst	

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 ar	nd Visual		
Detailed Desi	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	
and associated facilities demonstrate landscape and visual mitigation strategies a		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	٨

EIA Ref.	EM&A Ref.	Mitigation Measures	
		planting proposals and treatment of retaining structure and slopes have been recommended in the EIA. More detailed landscape and compensatory planting proposals shall be developed by IDC consultants at later stage during detailed design and construction phase of this project following the completion of the detailed Tree Survey Report and approval from relevant departments at that stage	

Construction I	Phase		
Table 12-11	CP1.1	To retain trees, which have high amenity or ecology value and contribute most to the landscape and visual amenity of the site and its immediate environs.	٨
	CP1.2	Creation of precautionary area around trees to be retained equal to half of the trees canopy diameter. Precautionary area to be fenced.	#
	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.	٨
	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.	٨
	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.	٨
	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	

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
	CP4.3	The tree planting works should be implemented by approved Landscape Contractors	٨
	CP4.2	Use of native plant species predominantly in the planting design for the buffer areas.	٨
	CP4.1	Replanting of disturbed vegetation should be undertaken at the earliest possible stage of the construction phase	^
	CP3.3	Screen the works area during the construction phase through the use of decorative hoarding along the site boundary facing adjacent VSRs	٨
	CP3.2	Construction site controls should be enforced including the storage of materials, the location and appearance of site accommodation and the careful design of site lighting to prevent light spillage.	۸
	CP3.1	Where appropriate to the final design the landscape of these works areas should be restored following the completion of the construction phase.	N/A
	CP2.3	The stockpile should be turned over on a regular basis to avoid acidification and the degradation of the organic material, and reused after completion. Alternatively, if this is not practicable, it should be considered for use elsewhere, including other projects.	٨
	CP2.2	The soil will be stockpiled to a maximum height of 2m and will be either temporarily vegetated with hydroseeded grass during construction or covered with a waterproof covering to prevent erosion.	٨
	CP2.1	Topsoil disturbed during the construction phase should be tested using a standard soil testing methodology and where it is found to be worthy of retention stored for re-use.	^
	CP2.0	The tree preservation works should be implemented by approved Landscape Contractors and inspected and approved on site by a qualified Landscape Architect. A tree protection specification would be included within the contract documents.	۸
	CP1.9	Detailed landscape and tree preservation proposals will be submitted to the relevant government departments for approval under the lease conditions and in accordance with ETWB TCW No. 2/2004 and WB Technical Circular No. 14/2002.	N/A

	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.	۸

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
RECORD 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

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

**Reporting Month**: February 2019

#### 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
1	Pok Wai South Road	8 <sup>th</sup> November 2018	The complaint is filed against extensive dusty stockpile being placed at the works site of Pok Wai South Road (Portion A), causing dust nuisance and affecting the passer-by and residents.	<ul> <li>Cover all the stockpile when stockpiling works was not being conducted;</li> <li>Arrange on-site personnel to wash the wheels of the vehicles immediately before they leave the site area; and</li> <li>Increase the frequency of water spraying on the stockpiles to dampen the dusty surface.</li> </ul>	CIR was submitted in December
2	Mai Po San Tsuen (Portion D)	20 <sup>th</sup> December 2018	The complaint is filed against extensive dust nuisance by construction activities generated sand and dust, and may have caused the nearby village roads to look dusty and unclean.	<ul> <li>Increase the frequency of water spraying on the paved roads to minimize the dust generation; and</li> <li>Cover the temporary cut slopes by tarpaulin before any excavation works commence.</li> </ul>	CIR was submitted in December
3	Mai Po San Tsuen (Portion D)	21 <sup>st</sup> December 2018	The complaint is filed against site effluent being pumped and discharge into the nearby surface channel from the same construction site.	<ul> <li>Cover the temporary cut slopes by tarpaulin before any excavation works commence.</li> <li>Clean the water in the channel and all broken covers are replaced by new decking covers</li> <li>3 weirs have been installed at the downstream</li> <li>Use of sedimentation tank prior to discharge</li> <li>New cut-off plate next to the channel will be raised 200mm to prevent potential run-off</li> <li>A filter with aggregate is placed at the side channel</li> </ul>	CIR was submitted in February

#### Agreement No. CE 67/2015 (HY)

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

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

Log Ref.	Location	Received Date	Details of Complaint/warning/summon and prosecution	Investigation/Mitigation Action	Status
				Water and wastewater filtration system is installed to treat the site effluent.	

**Remarks**: Three environmental complaints were received in the previous reporting period. No environmental complaint was received in this reporting period.

APPENDIX K SUMMARY OF WASTE GENERATION AND DISPOSAL RECORDS

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

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

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#### Monthly Summary Waste Flow Table for <u>2016</u> (Year)

	Α	ctual Quantities	of Inert C&D	Materials Gene	Actual Quantities of C&D Wastes Generated Monthly						
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill*	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse
	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	$(in '000m^3)$	(in '000m <sup>3</sup> )	$(in '000m^3)$	(in '000m <sup>3</sup> )	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m <sup>3</sup> )
Jan	-	-	-	-	-	-	-	-	-	-	-
Feb	-	-	-	-	-	-	-	-	-	-	-
Mar	-	-	-	-	-	-	-	-	-	-	-
Apr	-	-	-	-	-	-	-	-	-	-	-
May	-	-	-	-	-	-	-	-	-	-	-
June	-	-	-	-	-	-	-	-	-	-	-
July	-	-	1	-	-	-	0.01	0.01	0.01	-	0.01
Aug	-	-	ı	-	ı	1	0.01	0.01	0.01	-	0.01
Sept	0.005	-	ı	-	0.005	1	0.01	0.01	0.01	-	0.06
Oct	_	-	-	-	-	-	0.05	0.05	0.05	-	0.04
Nov	0.35	-	ı	-	0.35	-	0.05	0.05	0.05	-	0.05
Dec	0.4	-	-	-	0.4	-	0.05	0.05	0.05	-	0.05
Total	0.755	-	-	-	0.755	-	0.18	0.18	0.18	-	0.22

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

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

## Monthly Summary Waste Flow Table for <u>2017</u> (Year)

	A	ctual Quantities	of Inert C&D	Materials Gene	erated Monthl	Actual Quantities of C&D Wastes Generated Monthly					
Month	Total Quantity Generated	Hard Rock and	Reused in	Reused in other Projects		Imported Fill*	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse
	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	$(in '000m^3)$	(in '000m <sup>3</sup> )	$(in '000m^3)$	(in '000m <sup>3</sup> )	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m <sup>3</sup> )
Jan	0.04	-	-	-	0.04	0.124	0.05	0.05	0.05	-	0.06
Feb	0.02	-	-	-	0.02	-	0.05	0.05	0.05	-	0.01
Mar	1.15	-	-	-	1.15	0.369	0.05	0.05	0.05	-	0.02
Apr	0.65	-	-	-	0.65	-	0.05	0.05	0.05	-	0.02
May	0.79	-	1	-	0.79	-	0.05	0.05	0.05	1	0.01
June	1.63	-	1	-	1.63	-	0.05	0.05	0.05	1	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	1	0.01
Sep	1.15	-	ı	-	1.14	0.493	0.05	0.05	0.05	1	0.01
Oct	1.19	-	-	-	1.19	-	0.05	0.05	0.05	1	0.01
Nov	0.79	-	-	-	0.76	-	0.05	0.05	0.05	-	0.03
Dec	3.09	-	-	-	3.07	-	0.05	0.05	0.05	-	0.01
Total	13.24				13.18	0.986	0.6	0.6	0.6		0.22

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

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

### Monthly Summary Waste Flow Table for <u>2018</u> (Year)

	A	ctual Quantities	of Inert C&D	Materials Gene	Actual Quantities of C&D Wastes Generated Monthly						
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill*	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse
	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m <sup>3</sup> )
Jan	4.37	-	-	-	4.36	-	0.05	0.05	0.05	-	0.01
Feb	1.66	-	-	-	1.64	-	0.05	0.05	0.05	-	0.01
Mar	1.85	-	-	-	1.82	-	0.05	0.05	0.05	-	0.01
Apr	3.35	-	-	-	3.31	-	0.05	0.05	0.05	-	0.01
May	0.84	-	-	-	0.82	-	0.01	0.01	0.01	-	0.01
June	0.04	-	-	-	-	-	0.01	0.01	0.01	-	0.04
July	2.75	-	-	-	2.72	-	0.01	0.01	0.01	-	0.03
Aug	1.34	-	-	-	1.32	-	0.01	0.01	0.01	-	0.02
Sept	0.69	-	-	-	0.68	-	0.01	0.01	0.01	-	0.01
Oct	2.99	-	-	-	2.97	-	0.01	0.01	0.01	-	0.01
Nov	4.62	-	-	-	4.61	-	0.01	0.01	0.01	-	0.01
Dec	6.49	-	-	-	6.45	-	0.01	0.01	0.01	-	0.05
Total	30.99	-	-	-	30.70	-	0.28	0.28	0.28	-	0.22
•	•		•	•		•			•		
		•	•	•	•	•		•	•	•	
Total	44.985	-	-	-	44.635	0.986	1.06	1.06	1.06	-	0.66

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

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

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

	A	ctual Quantities	of Inert C&D	Materials Gene	Actual Quantities of C&D Wastes Generated Monthly						
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill*	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse
	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	$(in '000m^3)$	(in '000m <sup>3</sup> )	$(in '000m^3)$	(in '000m <sup>3</sup> )	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m <sup>3</sup> )
Jan	1.13	-	-	-	1.08	-	0.05	0.05	0.05	-	0.05
Feb	0.04	-	-	-	-	-	0.05	0.05	0.05	-	0.04
Sub-total	1.17	-	-	-	1.08	-	0.10	0.10	0.10	-	0.09
Mar	-	-	-	-	-	-	-	-	-	-	-
Apr	_	-	-	-	-	-	-	-	-	-	-
May	-	-	-	-	-	-	-	-	-	-	-
June	-	-	-	-	-	-	-	-	-	-	-
July	-	-	-	-	-	-	-	-	-	-	-
Aug	_	-	-	-	-	-	-	-	-	-	-
Sept	-	-	-	-	-	-	-	-	-	-	-
Oct	-	-	-	-	-	-	-	-	-	-	-
Nov	_	-	-	-	-	-	-	-	-	-	-
Dec	-	-	-	-	-	-	-	-	-	-	-
•		•	•	•	•	•	•	•			•
	•	•	•	•	•	•	•	•	•	•	
Total	46.155	-	-	-	45.715	0.986	1.16	1.16	1.16	-	0.75

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

#### 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 <sup>3</sup> )	(in '000m <sup>3</sup> )	$(in '000m^3)$	(in '000m <sup>3</sup> )	$(in '000m^3)$	(in '000m <sup>3</sup> )	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m <sup>3</sup> )			
5	2	1	1	1	10	3	3	1	1	3			

\*Remark: Figure to be revised if necessary

#### Notes:

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