Issue No. :

Issue Date : April 2012

Project No. :

944

CONSTRUCTION OF A SECONDARY BOUNDARY FENCE AND NEW SECTION OF PRIMARY **BOUNDARY FENCE AND BOUNDARY PATROL ROAD** (SECTION 2 LOK MA CHAU CONTROL POINT TO NG TUNG RIVER)

ENVIRONMENTAL MONITORING & **AUDIT REPORT (MARCH 2012)** 

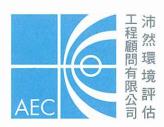
Prepared By:

ALLIED ENVIRONMENTAL CONSULTANTS LTD.

**COMMERCIAL-IN-CONFIDENCE** 







## ENVIRON

Ref.: ASDBFBPREM00 0 0370L.12.doc

11 April 2012

Mott MacDonald Hong Kong Limited 20/F Two Landmark East, 100 How Ming Street, Kwun Tong, Hong Kong

By Fax (2827 1823) and Post

Attention: Mr. James Kam / Mr. F. Y. Wong

Dear Sirs,

Re: Environmental Permit No. EP-347/2009/A and FEP-02/347/2009/A Contract No. SSW306 - Section 2 Construction of a Secondary Boundary Fence and New Section of Primary Boundary Fence and Boundary Patrol Road from Lok Ma Chau Control Point to Ng Tung River Monthly EM&A Report for March 2012

Reference is made to the Environmental Team's submission of the draft Monthly EM&A Report for March 2012 (Issue No. 1) by E-mail on 11 April 2012.

We are pleased to inform you that we have no further comments on the captioned report. We write to verify that the captioned submission in accordance with Condition 4.5 of EP-347/2009/A and FEP-02/347/2009/A.

Thank you for your attention and please feel free to contact the undersigned should you have any queries.

Yours faithfully,

David Yeung

Independent Environmental Checker

Attn: Mr. W. K. Yiu (CPM203) / Mr. C. L. Wong (SPM225) Fax: 2810 5372

MMHK(site) Attn: Mr. Peter Tsang Fax: 2683 1195 AEC (ETL) Attn: Ms. Grace Kwok Fax: 2815 5399

Able Attn: Mr. Gavin Lee Fax: 2796 0519

Q:\Projects\ASDBFBPREM00\Corr\ASDBFBPREM00\_0\_0370L.12.doc

Issue No. : 1
Issue Date : April 2012
Project No. : 944

CONSTRUCTION OF A SECONDARY **BOUNDARY FENCE AND NEW** SECTION OF PRIMARY BOUNDARY FENCE AND BOUNDARY PATROL ROAD (SECTION 2 LOK MA CHAU CONTROL POINT TO NG TUNG RIVER)

**ENVIRONMENTAL MONITORING & AUDIT REPORT (MARCH 2012)** 

Prepared By:

ALLIED ENVIRONMENTAL CONSULTANTS LTD.

COMMERCIAL-IN-CONFIDENCE

Certified by:

Grace M. H. Kwok Environmental Team Leader

Issue No.

Issue Date

April 2012

Project No.

944

CONSTRUCTION OF A SECONDARY
BOUNDARY FENCE AND NEW
SECTION OF PRIMARY BOUNDARY
FENCE AND BOUNDARY PATROL
ROAD (SECTION 2 LOK MA CHAU
CONTROL POINT TO NG TUNG
RIVER)

Environmental Monitoring & Audit Report (March 2012)

Prepared By:

ALLIED ENVIRONMENTAL CONSULTANTS LTD.

**COMMERCIAL-IN-CONFIDENCE** 

Author:

Ronan L. H.C.

Checked:

Nic H. H. Lam BSc(Hons) AMHKIOA AMHKIEIA Approved:

Grace M. M. Kwok BEng(Hons) MHKIEIA MHKIOA MISWA MIAIA MRAPA LEED AP

This report has been prepared by Allied Environmental Consultants Limited with all reasonable skill, care and diligence within the terms of the Agreement with the client, incorporating our General Terms and Conditions of Business and taking account of the resources devoted to it by agreement with the client.

We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies upon the report at their own risk.

i

## **Table of Contents**

Table of Contents	i
List of Tables	ii
List of Figures	ii
List of Appendices	ii
EXECUTIVE SUMMARY	1
1. PROJECT BACKGROUND	2
1.1 Project Organization and Contact Personnel	3
2. CONSTRUCTION WORKS & PROGRAMME	3
3. SUMMARY OF EM&A REQUIREMENT	5
4. NOISE MONITORING METHODOLOGY	7
4.1 Noise Monitoring Procedure	7
4.2 Noise Monitoring Programme	7
5. RESULTS	8
6. SITE INSPECTION & AUDIT	9
7. NON-COMPLIANCE, COMPLAINTS, NOTIFICAT SUCCESSFUL PROSECUTIONS	TIONS OF SUMMONS AND 9
8. WASTE MANAGEMENT	10
9. STATUS OF LICENSE AND PERMIT	10
10. CONCLUSIONS AND FUTURE KEY ISSUES	10

ii

## **List of Tables**

Table 1	Contact Details of Key Personnel
Table 2	Interrelationship between Construction Activities and Mitigation Measures
Table 3	Action and Limit Level for Noise Impact Monitoring
Table 4	Event Action Plan
Table 5	Noise Monitoring Equipment
Table 6	Descriptions of Noise Monitoring Locations
Table 7	Noise Monitoring Results
Table 8	Summary of Site Inspections

## **List of Figures**

Figure 1	Site Location Plan
Figure 2	Location of Noise Monitoring Stations

# **List of Appendices**

Appendix A	Project Construction Programme
Appendix B	Organization Chart
Appendix C	Calibration Certificates of Noise Monitoring Instruments
Appendix D	Detail Schedule of Noise Monitoring Programme
Appendix E	Summary and Graphical Plot of Noise Monitoring Record
Appendix F	Mitigation Measures Implementation Schedule for Construction Stage
Appendix G	Complaint Log
Appendix H	Monthly Waste Flow Table
Appendix I	Status of License and Permit

Issue 1\_\_\_\_\_AEC

#### EXECUTIVE SUMMARY

Architectural Services Department (ArchSD) has awarded the contract for the Construction of a Secondary Boundary Fence and New Section of Primary Boundary Fence and Boundary Patrol Road - Section 2 Lok Ma Chau Control Point to Ng Tung River. (hereafter referred to as the "Project") to Able Engineering Co. Ltd. ("the Contractor"). The contractor has appointed Allied Environmental Consultants Limited (AEC) as the Environmental Team (ET) to undertake Environmental Monitoring and Audit (EM&A) programme in accordance with the EM&A Manual, the Environmental Permit (EP-347/2009/A) and Further Environmental Permit (FEP-02/347/2009/A) for the Project. The site preparation works and EM&A programme commenced on 25<sup>th</sup> March 2010 and the construction works were commenced on 12<sup>th</sup> April 2010. This report is the twenty-fifth monthly EM&A report, which details the EM&A results recorded during the period from 1<sup>st</sup> March 2012 to 31<sup>st</sup> March 2012.

According to the EM&A Manual, there are total 10 designated noise monitoring locations for the entire Construction of a Secondary Boundary Fence and New Sections of Primary Boundary Fence and Boundary Patrol Road project, where only MTL01 is within 300m from the construction area for Section 2 (Lok Ma Chau Control Point to Ng Tung River), thus only MTL01 is covered in this EM&A report for Section 2. Impact noise monitoring for the Project was carried out on 8<sup>th</sup>, 15<sup>th</sup>, 20<sup>th</sup> and 27<sup>th</sup> March 2012. Noise monitoring was conducted within the period of 0700-1900, non-restricted hours.

Noise monitoring results at the monitoring location MTL01, based on the monitoring results, the noise levels comply with the environmental requirements in EM&A Manual. There was no exceedance of the action and limit levels during the reporting month.

Five environmental site inspections were conducted by the Contractor and the ET on 2<sup>nd</sup>, 9<sup>th</sup>, 15<sup>th</sup>, 23<sup>rd</sup> and 26<sup>th</sup> March 2012. Major findings and deficiency were summarized at *Table 8* of this report. No non-compliance was observed in the reporting month.

There were no environmental complaints received in the reporting month.

No notification of summons or prosecution was received in the reporting month.

A total of 13m<sup>3</sup> of general refuse was disposed to NENT Landfill and no inert C&D waste was disposed in this reporting period.

Construction activities to be undertaken from 1<sup>st</sup> April to 30<sup>th</sup> April 2012 will include fixing and painting of PBF / SBF post, concreting to Boundary patrol road, U/G ducting work, backfilling / compaction to proposed boundary patrol road, XPM Mesh fixing to PBF fence and concreting to 450 U channel . Potential environmental impacts include dust emission relating to the dry weather; noise from loading, unloading and handling of materials and storage of various C&D and chemical wastes. The Contractor should properly implement environmental mitigation measures as per the implementation schedule in the EM&A manual to ensure no adverse environmental impacts to be arisen from the construction works. The Contractor was reminded to maintain good housekeeping at the site.

Issue 1\_\_\_\_\_AEC

Environmental Monitoring & Audit Report (March 2012)

#### 1. PROJECT BACKGROUND

The Frontier Closed Area (FCA) is an integral part of the package of measures for maintaining the integrity of the Hong Kong SAR's boundary with the Mainland and for combating illegal immigration and other cross-boundary criminal activities. Following a recent review, the Government has concluded that with the erection of a secondary boundary fence (SBF) along the boundary patrol road (BPR) and construction of new sections of the BPR and primary boundary fence (PBF) at certain sections along the boundary, the FCA coverage can be substantially reduced without affecting the objective of maintaining the integrity of the boundary. The PBF and SBF will be erected along the northern and southern curbs of the realigned BPR respectively to facilitate the Police in combating cross-boundary criminal activities. The reduced FCA will comprise a narrow strip of land covering the realigned BPR and areas to its north, together with the points of crossing the boundary (i.e. the Boundary Control Points and Sha Tau Kok town). Areas south of the SBF will generally be excised from the FCA. The site location plan is shown in *Figure 1*.

The proposed Secondary Boundary Fence is categorized as a Designated Project (DP) under the Environmental Impact Assessment Ordinance (EIAO) and therefore a detailed Environmental Impact Assessment (EIA- 161/2008) was conducted in year 2009.

An Environmental Permit (EP-347/2009) and a Variation of Environmental Permit (EP-347/2009/A) for the construction of whole project was issued by Environmental Protection Department in June 2009 and June 2010 respectively. A Further Environmental Permit (FEP-02/347/2009) and a Variation of Further Environmental Permit (FEP-02/347/2009/A) for the construction of the subject project was issued in February 2010 and July 2010 respectively.

Architectural Services Department (ArchSD) as the works agent has awarded the construction contract of the Project to Able Engineering Co. Ltd. ("the Contractor"). The Contractor has appointed Allied Environmental Consultants Limited (AEC) as the Environmental Team (ET) to undertake Environmental Monitoring and Audit (EM&A) programme in accordance with the EM&A Manual under the approved EIA report, which details the EM&A requirements for the construction of the Project, the EP-347/2009/A and FEP-02/347/2009/A.

The Construction Programme of the Project is shown in *Appendix A*. The site preparation works and EM&A programme commenced on 25<sup>th</sup> March 2010 and the construction works commenced on 12<sup>th</sup> April 2010. This report is the twenty-fifth monthly EM&A report, which details the EM&A results recorded during the period from 1<sup>st</sup> March 2012 to 31<sup>st</sup> March 2012.

Issue 1 AEC

Environmental Monitoring & Audit Report (March 2012)

## 1.1 Project Organization and Contact Personnel

Key personnel and contact particulars are summarized in *Table 1*.

Role	Department / Company	Names	Contact Number	Fax Number
Engineer Representative	Mott McDonald Hong Kong Limited	Mr. FY Wong	2828 5740	2827 1823
representative	Trong Emilieu	Mr. Peter Tsang	2828 5921	2827 1823
Main Contractor	Able Engineering Co., Limited	Mr. Gavin Lee	9282 8158	2676 7966
Environmental Team Leader	Allied Environmental Consultants Limited	Ms. Grace Kwok	2815 7028	2815 5399
Independent Environmental Checker	ENVIRON Hong Kong Limited	Mr. David Yeung	3743 0788	3548 6988

Table 1 Contact Details of Key Personnel

The organizational structure and lines of communication during the construction work with respect to environmental management is given in *Appendix B*.

#### 2. CONSTRUCTION WORKS & PROGRAMME

Construction activities undertaken during 1<sup>st</sup> March 2012 to 31<sup>st</sup> March 2012 including the following works items:

- Fixing and painting of PBF / SBF post;
- Concreting to Boundary patrol road;
- U/G ducting work;
- Backfilling / compaction to proposed Boundary patrol road;
- XPM Mesh fixing to PBF fence; and
- Concreting to 450 U channel.

The interrelationship between construction activities and environmental mitigation measures in the reporting month are shown in *Table 2*.

Issue 1 \_\_\_\_\_\_AEC

<b>Construction Works</b>	Major Environmental Impact	Mitigation Measures
Fixing of PBF / SBF	Waste management.	Quantities and record of waste
post	-	transferred to licensed collector
		should be well- maintained.
Concreting to	Wastewater, air quality, noise	Proper treatment should be made
boundary patrol road	quality impacts and waste	prior to discharge of wastewater.
	management.	Water spraying provided when
		necessary. Well-maintained or
		quiet plants were used. Quantities
		and record of waste transfer should
		be well-maintained.
U/G ducting work	Waste management.	Quantities and record of waste
		transferred to licensed collector
		should be well- maintained.
Backfilling /	Wastewater, air quality, noise	Proper treatment should be made
compaction to	quality impacts and waste	prior to discharge of wastewater.
proposed Boundary	management.	Water spraying provided when
patrol road		necessary. Well-maintained or
		quiet plants were used. Quantities
		and record of waste transfer should
		be well-maintained.
XPM Mesh fixing to	Waste management.	Quantities and record of waste
PBF fence		transferred to licensed collector
		should be well- maintained.
Concreting to 450 U	Wastewater, air quality, noise	Proper treatment should be made
channel	quality impacts and waste	prior to discharge of wastewater.
	management.	Water spraying provided when
		necessary. Well-maintained or
		quiet plants were used. Quantities
		and record of waste transfer should
		be well-maintained.

Table 2 Interrelationship between Construction Activities and Mitigation Measures

Issue 1\_\_\_\_\_\_\_AEC

5

#### 3. SUMMARY OF EM&A REQUIREMENT

Weekly site inspection is required for air quality, noise quality, water quality, waste management, ecology, cultural heritage and landscape and visual. The inspection is to ensure mitigation measures recommended in EIA and EM&A manual implemented during construction phase. Mitigation measures implementation schedule and their status are given in *Appendix F* 

For regular impact noise monitoring, the sampling frequency of at least once a week for a  $L_{eq(30mins)}$ . The Action and Limit Levels for Impact noise are summarized in *Table 3*.

Time Period	Action Level	Limit Level
Daytime (0700-1900) except general holidays and Sunday	When one documented complaint is received.	75 dB(A)
Measurements in Leq (30min)	_	

Table 3 Action and Limit Level for Noise Impact Monitoring

Should non-compliance of the above Action and Limit levels occurs, actions in accordance with the Event and Action Plan in *Table 4*.

Issue 1 \_\_\_\_\_\_ AEC

Event A	Action							
F	ET Leader	IEC	ER	Contractor				
Action Level 2 3	Contractor. Carry out investigation. Report the results of investigation to IEC and the Contractor. Discuss with the Contractor and formulate remedial measures.	1. Review with analyzed results submitted by ET  2. Review the proposed remedial measures by the Contractor and advise ER accordingly.  3. Supervise the implement of remedial measures.	<ol> <li>Confirm receipt of notification of exceedance in writing,</li> <li>Notify the Contractor.</li> <li>Require the Contractor to propose remedial measures for the analyzed noise problem.</li> <li>Ensure remedial measures are properly implemented.</li> </ol>	Submit noise mitigation proposals to IEC.      Implement noise mitigation proposals.				
Limit 1 2 3 3 4 5 5 6 6 7 7	2. Notify IEC, ER, EPD and the Contractor. 3. Repeat measurement to confirm findings. 4. Increase monitoring frequency. 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented. 6. Inform IEC, ER and EPD to causes & actions taken for the exceedances. 7. Assess effectiveness of the Contractor's remedial actions and keep IEC, EPD and ER informed of the results.	1. Discuss amongst ER, ET Leader and the Contractor on the potential remedial actions.  2. Review the Contractor's remedial actions whenever necessary to assure their effectiveness and advise ER accordingly.  3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing. 2. Notify the Contractor. 3. Require the Contractor to propose remedial measures for the analyzed noise problem. 4. Ensure remedial measures are properly implemented. 5. If exceedance continues, consider what activity of the work is responsible and instruct the Contractor to stop that activity of work until the exceedance is abate.	1. Take immediate action to avoid further exceedance. 2. Submit proposals for remedial actions to IEC within 3 working days of notification. 3. Implement the agreed proposals. 4. Resubmit proposals if problem still not under control. 5. Stop the relevant activity of works as determined by the ER until the exceedance is abated.				

Table 4 Event and Action Plan

Issue 1\_\_\_\_\_\_AEC

7

#### 4. NOISE MONITORING METHODOLOGY

#### 4.1 Noise Monitoring Procedure

Noise monitoring was conducted at the designated noise monitoring location between 0700-1900 hours using a sound level meter which complies with the International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1). Noise instrumentation details are given in *Table 5*.

Manufacturer	Type/Model No.	Equipment
RION	Model NL 31	Precision Sound Level Analyser
		with windshield
RION	Model NC 73	Calibrator

Table 5 Noise Monitoring Equipment

Noise levels measurements were recorded in terms of thirty minutes A-weighted equivalent continuous sound pressure level (Leq( $_{30 mins}$ )) on a weekly basis. The sound level meter was calibrated immediately prior to and following each noise measurement. The meter was mounted on a tripod at a height of 1.2m and the microphone was positioned at 1m away the building façade of the noise monitoring station facing the construction site. The sound level meters, including the calibrators, are verified by the manufacturer every one year to ensure they perform to the same level of accuracy as stated in the manufacturer's specifications. The calibration certificates for the sound level meter and calibrator are given in *Appendix C*.

Noise measurements were not made in the presence of fog, rain, and wind with a steady speed exceeding 5m/s or wind with gusts exceeding 10m/s. The wind speed was checked with a portable anemometer capable of measuring the wind speed in m/s.

#### **4.2** Noise Monitoring Programme

Noise monitoring was conducted at designated noise monitoring locations during construction phase: a village house at Village House at Ma Tso Lung (MTL01) as shown in *Figure 2* on 8<sup>th</sup>, 15<sup>th</sup>, 20<sup>th</sup> and 27<sup>th</sup> March 2012. Details of the noise monitoring stations are shown in *Table 6*. *Appendix D* shows detailed schedule of the monitoring programme in the reporting month and upcoming month.

ID	Monitoring Location	Description of Monitoring Location
MTL01	Village House at Ma Tso	G/F boundary wall of Village House at Ma Tso
WIILUI	Lung	Lung

Table 6 Descriptions of Noise Monitoring Locations

Issue 1 AEC

8

#### 5. RESULTS

Noise monitoring results and weather conditions during the monitoring period is summarized in  $Table\ 7$ . Detailed results and graphical plots of noise monitoring are given in  $Appendix\ E$ . There were no exceedances of the action and limit levels during the reporting month.

Location	Date	Weather Condition	Wind Speed (m/s)	Time	L <sub>eq</sub> (30mins)	L <sub>10</sub> (30mins)	L <sub>90</sub> (30mins)	Remarks
	08 Mar 12	Cloudy	0.3	08:30 – 09:00	46.6	49.2	38.6	Noise from birdcall and traffic noise
	15 Mar 12	Cloudy	0.2	16:40 – 17:10	50.5	53.2	42.2	Noise from birdcall and transient noise from excavation works by adjacent DSD site.
MTL-01	20 Mar 12	Cloudy	0.3	16:38 – 17:08	50.2	53.5	40.1	Noise from birdcall and transient noise from excavation works by adjacent DSD site.
	27 Mar 12	Cloudy	0.3	15:20 – 15:50	48.7	51.7	39.8	Noise from birdcall and transient noise from excavation works by adjacent DSD site.

Table 7 Noise Monitoring Results

Issue 1\_\_\_\_\_AEC

9

#### 6. SITE INSPECTION & AUDIT

A total of five site inspections were conducted by the Environmental Team (ET) in this reporting month. Observations by the ET, actions by the Contractor and outcome are summarized in the *Table 8*.

Date	Observations	Action taken by	Outcome
		Contractor	
2 Mar 12	No major environmental	-	-
	deficiency.		
9 Mar 12	No major environmental	-	-
	deficiency.		
15 Mar 12	Water was accumulated	The Contractor	The situation was
	and appeared as water	employed mitigation	rectified as observed on
	ponds.	measures and properly	23 Mar 2012. (Closed)
		monitored the land	
		condition to prevent	
		from flooding.	
	Stockpile of dusty	Covering was provided.	The situation was
	materials was		rectified as observed
	uncovered.		immediately. (Closed)
23 Mar 12	No major environmental	-	-
	deficiency.		
26 Mar 12	Haul road appeared dry.	Adequate watering was	The situation was
		provided.	rectified as observed on
			5 Apr 2012. (Closed)

Table 8 Summary of Site Inspections

During site inspections in the reporting month, no non-conformance of implementation of environmental mitigation measures was identified. All environmental mitigation measures for construction stages as stated in approved EIA Report, EM&A Manual and EP-347/2009/A were carried out properly in the reporting month. The mitigation measures implementation schedule is shown in *Appendix F*.

# 7. NON-COMPLIANCE, COMPLAINTS, NOTIFICATIONS OF SUMMONS AND SUCCESSFUL PROSECUTIONS

In this reporting period, no complaint, notification of summons or prosecution was received. No non-compliance for general works and no non-compliance against EP condition were recorded. The complaint log is appended in *Appendix G*.

Issue 1 AEC

Environmental Monitoring & Audit Report (March 2012)

#### 8. WASTE MANAGEMENT

There are no inert C&D waste was disposed to Tuen Mun Area 38 Fill Bank,  $0m^3$  of metal wastes,  $0m^3$  of paper and cardboard packing and  $13m^3$  of general refuse were disposed to North East New Territories Landfill. There are a total of  $0m^3$  of chemical waste was transported off site to Chemical Waste Treatment Centre at Tsing Yi in this reporting period. The monthly Waste Flow Table is given in *Appendix H*.

Good site practice shall be maintained and specific procedures in dealing with different kind of wastes shall be followed during construction. The Contractor shall maintain and record all triptickets as stipulated in the Waste Management Plan (WMP) and project EM&A Manual and make a thorough reference from the relevant Legislations and guidelines by the EPD.

#### 9. STATUS OF LICENSE AND PERMIT

A summary of relevant permits, licences, and notifications on environmental protection for the Project is given in *Appendix I*.

#### 10. CONCLUSIONS AND FUTURE KEY ISSUES

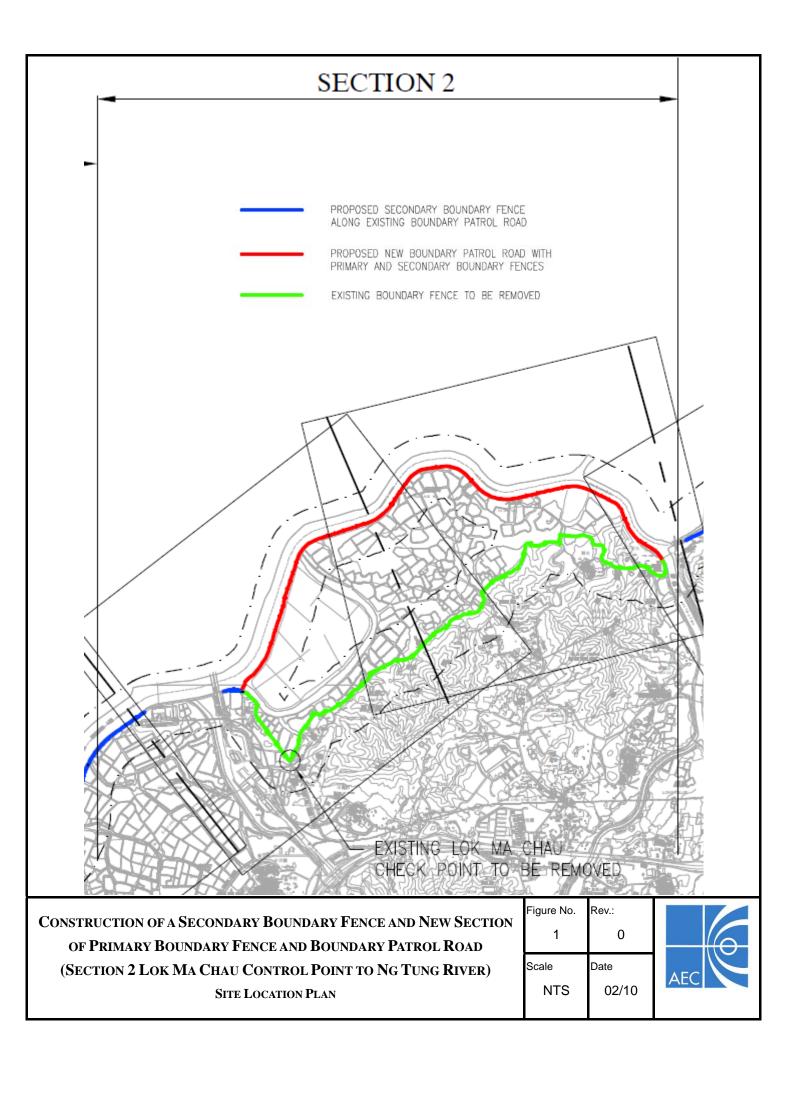
Environmental monitoring was carried out for the Construction of a Secondary Boundary Fence and New Section of Primary Boundary Fence and Boundary Patrol Road (Section 2 Lok Ma Chau Control Point to Ng Tung River) in the reporting month. Noise monitoring was conducted at a village house at Ma Tso Lung (MTL01) during the period from 1<sup>st</sup> March 2012 to 31<sup>st</sup> March 2012.

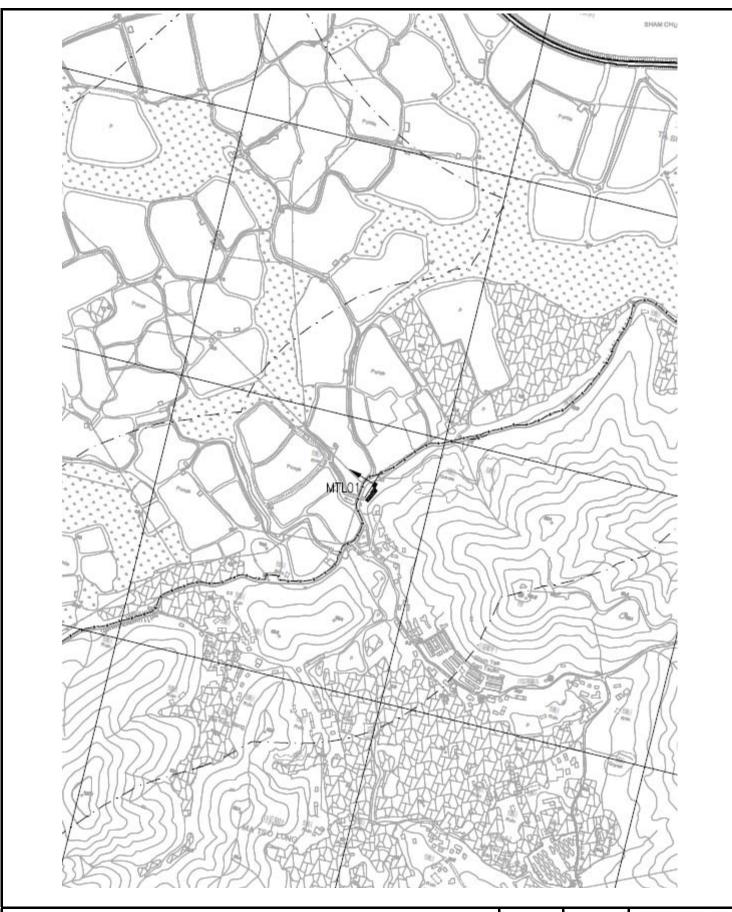
Noise monitoring was conducted at the monitoring location MTL01. All monitoring results complied with the relevant action and limit levels.

A total of 13m<sup>3</sup> of general refuse was disposed to NENT Landfill. No inert C&D waste was disposed in this reporting period.

Construction activities to be undertaken from 1<sup>st</sup> April to 30<sup>th</sup> April 2012 will include fixing and painting of PBF / SBF post, concreting to Boundary patrol road, U/G ducting work, backfilling / compaction to proposed boundary patrol road, XPM Mesh fixing to PBF fence and concreting to 450 U channel . Potential environmental impacts include noise from dust emission relating to the dry weather; loading, unloading and handling of materials and storage of various C&D and chemical wastes. The Contractor should properly implement environmental mitigation measures as per the implementation schedule in the EM&A manual to ensure no adverse environmental impacts to be arisen from the construction works. The Contractor was reminded to maintain good housekeeping at the site.

Issue 1 AEC





CONSTRUCTION OF A SECONDARY BOUNDARY FENCE AND NEW SECTION
OF PRIMARY BOUNDARY FENCE AND BOUNDARY PATROL ROAD
(SECTION 2 LOK MA CHAU CONTROL POINT TO NG TUNG RIVER)
LOCATION OF NOISE MONITORING STATION

Figure No. Rev.:

2
0

Scale Date

NTS 02/10







# ABLE ENGINEERING COMPANY LIMITED 安保工程有限公司

A member of Vantage International (Holdings) Limited 盈信控数有限公司附屬機構

Our Ref.: 23909/01/S0867

21st November, 2011

Mott MacDonald Hong Kong Limited 20/F., Two Landmark East 100 How Ming Street Kwun Tong, Kowloon Hong Kong

By Hand

Attn: Mr. James Kam

Dear Sirs,

Re: ASD Contract No. SS W306

Construction of a Secondary Boundary Fence and New Section of Primary Boundary Fence and Boundary Patrol Road from Lok Ma Chau Control Point to Ng Tung River

**Submission of Master Program Revision 4** 

With reference to your letter SHC/JK/FYW/LW/DC/C216727/306/12/L-0162 dated 22/08/11 regarding granted EOT 6 of the captioned project, we would like to submit herewith our Master program revision 4 as per attached for your earlier comment and approval.

Thank you for your kind attention.

Yours faithfully For and on behalf of ABLE ENGINEERING CO., LTD.

Site Agent

GL/KMT/kmť

Encl.

c.c. CPM203, ArchSD (Attn: Mr. C. L. Wong / Mr. Sammy Yue) w/e ER/COW-SCOW/KE, ArchSD (Attn: Mr. Y. Y. Chan)

w/e

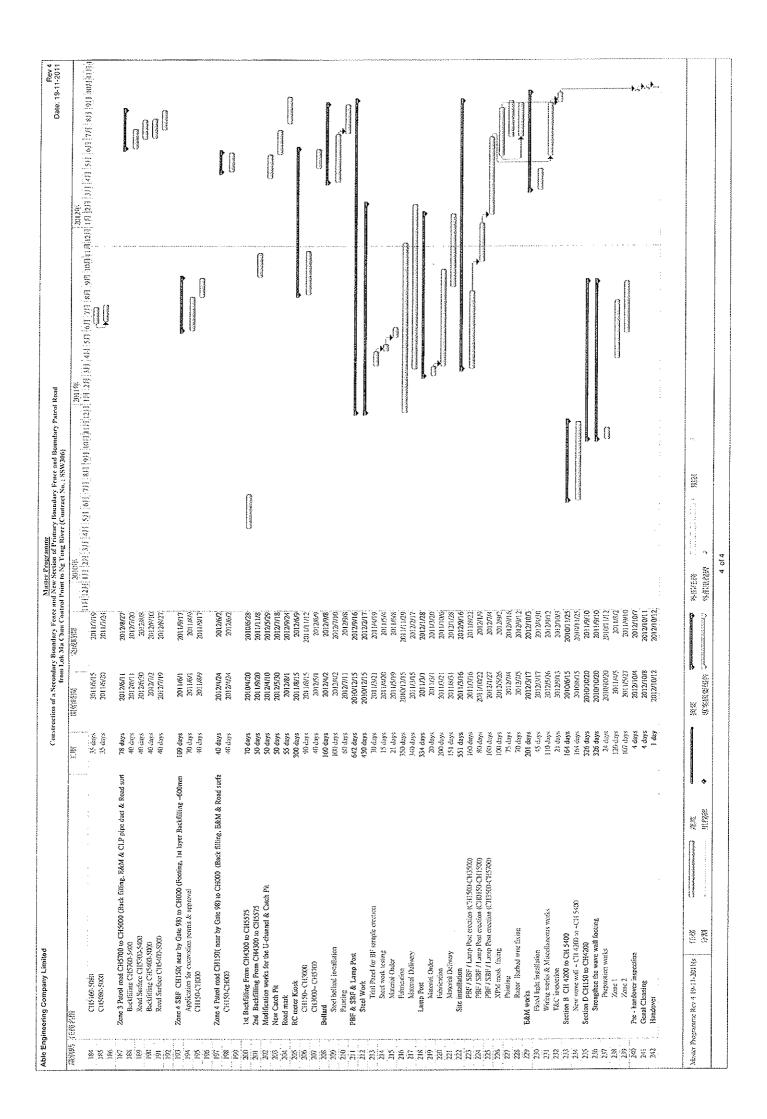
RE / PCOW Mottmac (Attn: Mr. Peter Tsang / Mr. Paul Chong) w/e PBSI Mottmac (Att.: Mr. C. K. Hui) w/e

Site office / SQS w/e

	Able Eng	Able Enginecring Company Limitod		Constru	tion of a Secondary from Lo	pue aanag karpunog	Master Pennal of a Steomary Boundary Fouce and Now Section of Training Boundary Fence and Boundary Patrol Road  From Lab Na Chan Chan Control Private to Na Train Brand Na Section of Training Section 1 and Na Section 1	Rev4 Date: 19-11-2011
Section A   1016 days   20071201   2007120	(80 MOR)	Œ## K##		1801	DISSERTION OF THE PARTY OF THE	SELVERIM	Solutific Solutions (1997)	20124
Accordance   Colores   C						M'1	मिलों पर है है अपने हैं अपने हैं अपने हैं अपने हैं कि हो हो है है जिस्से अपने हैं अपने हैं अपने हैं अपने सिक्ष	[113] ब्राया । अ इ.स. व्या इ.स. इ.स. इ.स. १११ १० मा । इ.स.
		Site Posessing		1018 days	2009/12/20	2012/10/12	A. MON	
		Application courage peomit		14 days	2009/12/30	2010/1/12		
		Site Office Erection		9 days	2010/1/15	2010/1/21	<del>)</del>	
Street of the content of the conte		Prografion works		syde OO	20100/17	2010/3/7:	(PROCESSO)	
State with a forestance would be compared to the compared to	,e~			14 days	2010/3/16	2010/3/29	9	
The state of the county   Control	œ			1/4 days	6/2/0102	2010/2/22		
Market   M	0 5		લ્હાર	O days	2010/2/2	2010/2/2	◆ 2Ω 	
Marche Parameter   1970   19	=	The Submission		O days	2010/2/24	2010/2/25	SCIE 👁	
Figure 2012   Company	15	Submission to EPD		58 days	2010/1/13	2010/2/12	l	
The control of the	=	Registration as a chemical waste pro-	dater	0 days	2010/3/4	2010/3/4	¥£ ◆	
Note to propose date   Corp.   Millolds   Corp.	=:	Further EP application		O days	2010/1/13	2010/1/13	◆ 1/13	
The standard coal black date   Coat   Bird Door	2 ×	further EP approval		0 days	2010/2/19	2010/2/19:	◆ 2119	
The twinglinist   Control of the c	2 -	Been Men monitoring ground cohories	eo.	u etass O desse	21/2/01/02	2010/2/12	4 31/2 5 31/2	
This is the contained by the contained	: 22	Tree transplanting	1775	925 days	2010/2010	20102010	◆ 5/115	
Touristate   Control Page   Contro	92	Tive Protection		21 days	2010/3/20	2010/2/5		
Transcriptors   Transcriptor	ક્ષ			70 days	2010/2/1	2010/7/9	Total action of the control of the c	
File Secretary   Control Con	~			45 days	2010/7/10	2010/8/23		
Column   Street   S	2.2			120 days	2012/4/16	2012/8/13		400
CATESTORY OF CHI 19 (Foculue, 14 Speed Beddelling - 60 mm 11 Mm 100 mm	3 %			SD days	2012/112	2012/6/129		Vision vertices and vertices an
CH2802-82-28         CH2802-82-28         STHINGS	1,71		g, 1st layer Backfilling ~600mm THK)	553 days	2010/5/3	2011/11/6		D
CH280-2580         CH280-2580         C4 Lays         2011/157	92			46 days	2011/10/29	2013/6/13	(Alternatives)	•
CHIZGO 2790   Chizgo 2700	23			46 ånys	2011/5/5	2011/6/19	Printeger Control of the Control of	***
CH12504.2890   CH12	<b>%</b> ;			16 days	20/11/5/11	2011/6/25	Common	
C1000000000000000000000000000000000000	20 8			46 days	2011/2/17	2011/01	A CONTRACTOR OF THE PROPERTY O	•
CHISDREAD   CHIS	9.			46 days	3011/5/23	2011/17		
CUEDAD 289   CUE	=::2 :: :			46 days	2011/8/14	2011/0/28	Ç	
CTITION 2019   CTIT	¥.#	CHORDON (S)		sources.	2081100 2081100	2011/19/6	COMMUNICATION	
CHIZZON 2100   CHIZZON 2100   Chicks	. ×.	C112369-2289		semen 46 days	2010/5/3	2016/6/17		
CT1202-010	×	CH2286-2200		46 days	2010/5/9	2010/6/23	A Constant	
CHIRDLE DATA   CHIR	28	CN2200-2120		A6 days	2030/5/15	2010/6/25	Comments.	
CH1920-19400   Grécios   Grécios   Grécios   CH1920-19400   CH1920-19400   Grécios   Grécios   CH1920-19400   Grécios   Grécios   CH1920-19400   Grécios   Grécios   CH1920-1940   Grécios   Grécios   CH1920-1940   Grécios   Grécios   CH1920-1940   Grécios   Grécios   CH1920-1940   Grécios   CH1920-1940   Grécios   Grécios   CH1920-1940   Grécios   Grécios   Grécios   CH1920-1940   Grécios   Grécios   CH1920-1940   Grécios   Grécios   CH1920-1940   Grécios   Grécios   CH1920-1940   Grécios	æ ;	CR2120.2040		46 days	2010/5/21	3019/1/5	(minute)	
CHIRGO-1500	× 2	C15249-1965		66 days	3010/5/27	2010/2015		
CT   1800 1720   CT	₹ €	Chiyoman		(to days	2010/6/2	20107077		
CHITOD-1640 CHIROL-1540 CHIRO		CH8041220		sis dass	62/6/11/07 2016/6/06	VE1/1/1/05	•	
CHISCA-1640 CHISC		CH1720-1640		46 days	2010/5/22	2010/7/6	Account of the second of the s	
CHIROLINGS   CHI	ij	CH1640-1500		46 days	2010/5/28	2010/7/12	- Commence	
CHIRD-1900   Ch	\$ 5	CH1560-1480		46 days	2011/6/4	2011:17/19		
CH1220-1700	⊕ .€	CETACHERO		40 (13)S	2011/0/10	2011/1/25		
CHIRGO HIGH CHIRGO CHIRGO CHIRGO SIGN CHIRGO HIGH CHI	. G			45 days	2010/65	2010/07/24	CONTRACTOR OF THE PARTY OF THE	
CHINGA-1890	<b>8</b>			scop 9)	2010/6/15	2010/7/30	A CALIFORNIA CONTRACTOR OF THE CALIFOR OF THE CALIFORNIA CONTRACTOR OF THE CALIFORNIA CONTRACTOR OF THE	
CHIRDAD AND CHI	8	CH1169-1080		40 days	2011/6/16	2011/7/31	**	
46 days   2010508	\$ :	CH1080-1030		skip 99	2010/6/2	2010/7/17	(Managing)	
1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,				46 days	2010/6/24	2010/3/8	Transaction (	a de la Companya de l
45 ctays 20118072 20118072 (1970) 20118072 (1970) 20118072 (1970) 20118072 (1970) 20118072 (1970) 20118072 (1970) 20118073 (1970) 20118073 (1970) 20118073 (1970) 20118073 (1970) 2011805 (1970) 201180		Clisterio		Skirp ov	202000	PERMITTEE STATE		-
46 days   2019/07/25   2019/07/25   1   1   1   1   1   1   1   1   1	<b>&gt;</b> .	CH760-680		skep 95	2011/6/28	2011/8/12	Section of the sectio	
46 chays   2010/02/27   46 chays   2011/02/5   46 chays   2011/02/5   46 chays   2011/02/5   46 chays   2011/02/5   2011/01/6   46 chays   2011/02/12   2011/01/6   47 chays   2011/02/12   47 chay	×	CH680-600		46 days	2010/7/12	2010/8/26		-
Fig.	S 0	C1669-520		46 days	2010/8/23	2010/19/7	freeze,	
(46 days         2011/05/2 <t< td=""><th></th><td>Cindoxo</td><td></td><td>Sign &amp;</td><td>2011/6/16</td><td>2011/0/51</td><td>(negativno)</td><td></td></t<>		Cindoxo		Sign &	2011/6/16	2011/0/51	(negativno)	
46 days         2011/01/9         2011/11/6           1455         CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC		C11360-280		46 days	2011/4/22	2011/8/6		
[456   1997	\$	C11280.200		46 days	2011/07/19	2011/11/5		
任初	5	CH200.150		46 cays	2013/0/22	2011/11/6		
第28	N. coper P.	_	1	Cationical	-		Elaber V	ATTENDED TO THE PERSON NOT THE PERSO
**************************************	C Diversi			*	<b>蒸製製金</b>	Commen	William Commence of the Commen	
								The state of the s

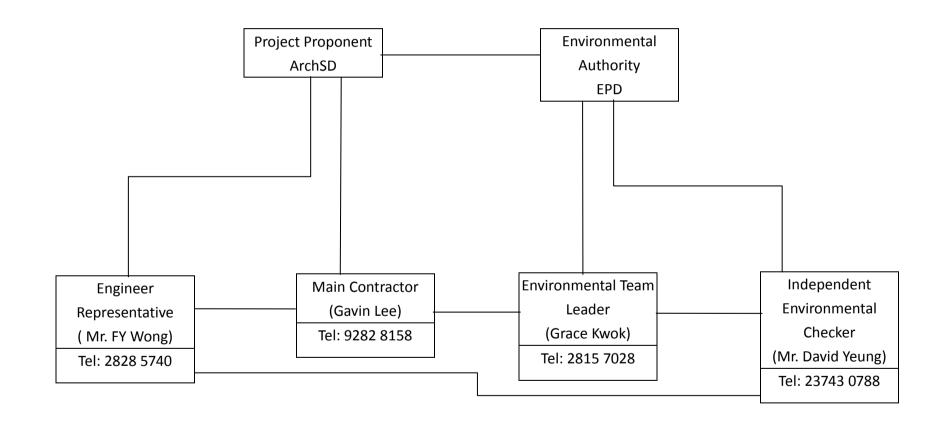
Able Engil	Able Enginearing Company Limited	('085fra	tion of a Secondary 1	MASACA Programme Construction of a Secondary Boundary Feorec and New Science of Patent Road Construction of a Secondary Programme Construction of Prince Board Construction of a Secondary Prince Construction of Prince Prince Road	undary Patest Road	Rev 4 Date, 19-11-2011
海绵鸣 消除条件	5.然名的	11.6	Manager Manager	ASSACIABLE CONTROL COURT TO USE FIRME KNOCK (A GRITTARE AND E SAN JOB)	301188	WY SE
			:	महोद्या मि यम उम (यम (४म) ६म (मा (४म) 9म	१०) मुन्नाहरम् । म्यु हास हुन्स हुन्स हुन्स । जा हुन्स ।	महोता में महोता है। इस का का कि महोता है। जिल्ला महोता है। जिल्ला महोता है। जिल्ला महोता है। जिल्ला महोता है।
:3	Zone i PBF CH3000 ta CH 150 (Pooling)	449 days	2010/8/4	2011/10/26		P.
2 %	(TH,20XR,2920 (CH,2920,2840	35 days	2011/5/31	2011/7/4		
.8	C1228-0-2760	35 @ys	2011/6/10	201 <i>U</i> 714		
6 8	CH2260-2680 Cupren pare	35 days	2011/6/15			
3 8	CH26f0.2520	S) Gays 35 days	20108/4	2010971		
2	C112520-2440	35 days	2011/9/15	2011/10/19		
	CH2AA0 2365 CH2AA0 2383	35 days	2011/0/20			*Cross
12	C12230-200	25 days	2010/9/11		· ·	
× 7	CH2200-2120	35 days	2010/0/16		<i>1</i> 3 ( <i>1</i>	
Q  X	CHONG ING	35 days	2010/9/21		<b>A</b>	
	C11960-1880	35 days	2010/19/1	2010/1020 2010/1020	Comm	
82	CH 1880-1800	35 days	2010/10/6		- Commons	
8 2	CH1220-160	35 days 35 days	2011/6/20			
	C1156/0-1560	35 days	2010/10/11			
ឌន	(7):560;jd80	35 days 35 days	2010/10/11			
	CH400-1320	35 days	2010/8/31		Politica	
	CH1326-1240	35 days	3010075			•
8 8	CH1246-1160	35 days	2010/9/10	2010/107/4	i n	
	CHOSE DOS	25 days	2010/01/02		n (	
8	CH100x1-920	35 days	2010/01/25		7	,
8	CH990-840	35 days	2010//30			
5 8	CH364-600	35 days	2010/10/5			
3,8	CHESTACES	35 days	2310/10/30			
	CH629,520	35 days	2011/6/10			
8 8	CH520-440	35 days	2011/6/15	201:0719	(company)	
£ 6	CHAMASA	35 days	30:18620	2011/1926		
*	CH280-202	35 days	2011/9/17	201 7/0/21	(€.¥	Common of the Co
8.8	CHEROLISE	35 days	2011/9/22	2011/10/26		Connection
<u> </u>	Zone i Patro) toad CH3000 to CH 150 (Back Filing, FAM & CLP ning duct & Road surf	f 531 days	2011/4/18	2012		
102	Backfliing CH3/XX-1(XX)		2011/4/18	X01M1V1Z	CHARLES AND THE CONTRACT TO TH	- Section of the sect
6,3	Backfiling (1180%) 150	191 days	2011/5/6	2011/11/02	TOTAL TOTAL PROTOCOLOGICAL PROTOCOLOGICA PROTO	Control of the contro
59	Notice Statistics CH1000x+350 Road statistics CH1000x+350	SO deys	2012/8/1	2012/W29. 2012/W29.		Company Summer reports
2 2	ZAPA 2 CBR CH 5000 to CU3000 Charles Int have Bush filling a finance		G. 1000			Expression
	CHORRES OF THE CONTRACT OF THE PROPERTY OF THE	ooz uzys 46 days	2010/7/19	,		
<u></u>	C110920-4540	46 days	2010/07/25			
<u> </u>	CH4780-4680	46 clays	2010/2/31			
:2	CHARACTER	16 days	2014/8/12			
£ .	CHESS-6520	46 days	\$2010/8/18			
2 2	(1902)-460) (1907)-460)	46 čtays 46 čtays	201082/24	2010/10/5:		
116	C14/3/04-/280	46 days	2011/05			
	C14280-4200	46 days	2011/10	2011/023/ 2011/023/	Commence 4	
.2	CHAIDAMA	(de days	2011/60	2011/022	Comments of the control of the contr	
8	CHARACTER	A6 days	2011/(V13			
2 8	0.000-0.000	db days db days	2010/04/28			
	27 V. Composition and account account and account and account account account and account account and account account account and account account account account and account acco				OFFICIORE AND LIGHT AND A STATE OF THE PERSON AND AND ANALASAIDA ANALASAIDA AND ANALASAIDA ANA	THE PARTY OF LAND ASSESSMENT AND ASSESSMENT
Master Prog.	Master Programme Rev 4 (9-11-2011/s) (1995) summinomagnessed IIII = ==			A A STATE A	f	
	33,504		44688000 ×	**************************************		
				2 of 4		
	- Camara Constitution of the Constitution of t				THE PROPERTY OF THE PROPERTY O	· · · · · · · · · · · · · · · · · · ·

Able Engi	Able Engineering Company Limitod		5	onstruction of a	Secondary Bon	Mast adary Fence and New	Master Programme Construction of a Secondary Boundary Fence and New Section of Printary Boundary Fence and Boundsay Patrol Road		Rev 4 Date: 19-11-2011
SAN SAN CE	任務名條		1000	HERRER	TW NOT MIDST	SARREII	0.0g (ung fewer (c.nntract No. ; SSW306) 0104:	(1)	3/1.10/2
20	0.000 (0.000)		77			11/1/12/H	म वस अम् दम दम हम हम अम् अम् अम् माम	र्म अम् क्रम डिम्म डिम्म सम्म । अम् क्रम मिना	मार्गायमा में ऐसे देशी हमा उसी हमा देशी हमा हमा आहे. मार्गायमा मार्गायमा मार्गायमा मार्गायमा मार्गायमा मार्गायम
2	CH3720-3640		3 49 9 49		2011/4/29	2011/6/13	Programme Annie	lanyamanan	
진	CH3540.3560		vyab 99		2011/5/5	2011/6/19		Waterston C	
8 5	CL5560, MS0		46 days		2011(5/1)	2011/6/25			
	CH3/07/320		46 days		2011/5/23	2011/07			
8 2	CH3320-3240		46 days		30:175/29	2011/0/13		- Consession	
8 8	CH3166-3980		46 days		2010/4/0	2010/5/24	discussion.		
193	C113080-3000		46 days		2011/6/10	2011/7/25			
	Zone 2 PBF CH 5030-3000	Zonc 2 PBF CH SKW-3000 (Festing & 2nd layer Backfilling us to sub-base)	415 days		2010/231	3011000			
	CH5600-4920	feeta any or do Vicinitiana a feeta and an alternative	46 days		201 (772)	2011/9/12		•	
8	C11x920-48x0		46 days		2011/8/4	2011/2/18			
B:8	CH4840.4760		46 days		2011/6/10	2011/1/25		Construction Const	
8	CHASSLAGO		40 45		ZOT 1/(V12)	2011/11/27		( Constitution of the Cons	
8	C114669-4520		46 dg		10730	2011/0/13		- Consession	
141	C144520-4440		46 days		2011/5/17	2011/7/1		Constant Constant	
2 2	C1344x0-4350		46 dt		2011/5/23	201100		(Marie Control of the	
ž ž	CH280-130		46 days		2011/6/29	2011/11/3			
145	CH4200-4120		46 days		2011/6/10	2011/7/25		A CONTRACTOR OF THE PARTY OF TH	
146	CH4120-4040		46 days		2010/7/31	2010/9/14	Commy	Verifferen	
147	C34040-3960		46 days		2010/8/6	2010/9/20,	Common of the co		
£/3	CHASS MAC		46 days		2010/8/12	2010/0/26	and continue of		
	CH3300-3720		45 days		2010/8/24	2010/10/2	Constitution of the Consti		
. <u></u>	CH3720-3640		46 days		2010/8/30	2010/10/14			
152	C113540-3560		66 days		2010/01/5	2010/10/20	Tricking A		,
6 8	C13560-3480		46 days		11/6/0105	2010/10/26			
2 2	C11460-3120		5 + 49 9 - 9		2000000	2010/11/01			-
951	CH3320-3240		W days		2010/9/29	2010/11/13	Common A		
5. 3	CB3240-31(4)		40%		2011/5/30	2011/7/14		Construction of	-
<u> </u>	CH286-380		Ab days		2013/6/5	2011/7/20			
	trans.				1000	STRIKE IN		<b>←</b>	
<u> 2</u> 3	Zono 2 Patrol road CH 500 Backfilling CH5000-30	Zonc 2 Pairol road CH 5000-3000 (Back filling, F&M & CLP pipe duct & Road surface) Backfilling CH5000-3000			2011/6/1	2012/8/12		***************************************	
2 3	Road Surface (1455)00	-3000	90 days		2012/5/15	2012/8/12			PT TOTAL VERY DEPTH TOTAL PROPERTY AND A STATE OF THE PARTY AND A STATE
8	Zone 3 SBF CH5700 to CI	Zone 3 SBF CH5700 to CH5000 (Footing, 1st layer Backfilling -600mm THK)	487 days		2010/1/114	2011/11/12	<u> </u>	<u> </u>	
\$ <u>\$</u>	CH5700.56x0		46 days	***	2011/9/28	2011/11/12		Control of the contro	
2 <u>2</u>	CH5560-5480		40 days		2011/6/2 2011/6/8	3011003			
9	CH5480-5400		4h days		2011/9/14	2011/10/23		``	
2.5	CH5400-5326		A6 days		2011/9/20	2011/11/6		- Accountance	-
5.2	CHS2240-5160		45 days		2011/2/13	2011/10/28	Comments of the Comments of th		
173	CBS160-5080		40 days		2010/7/20	2010///3	Constant of the Constant of th		
Σ×	CH5080-8000		skip \$5		2311027125	3010909	* Characteristics		
2	Zone 3 PBF CH5700 to CH5000 (Footing)	H5000 (Footing)	152 days		2011/6/15	2011/11/03			
	C15700-5640		35 days		2011/9/15	2017/10/19		( Annual Control of the Control of t	
2.3	CH5560-5481		35 days 35 days		2011/0/20	2011/10/24			
8	CH5480-5400		September 2		2017105	2011/11/8		Accessory.	
	CH5400-5320		35 days		2011/20/10	2011/01/03			
. 2	CHS240-5160		App CC		2011/7/24	201 JAV27			
Master Pros	Master Propressing Rev 4 19-11-20116s	With Commence (\$51)				27 11 12 17 10 A	ļ		Volume to the state of the stat
		海绵	•	研究需要報告		を表示を表示。 ・			
		THE THE PERSON NAMED AND ADDRESS OF THE PERSON NAMED AND ADDRE					3 014		THE
								***************************************	



Appendix B
Organization Chart

#### Line of communication





Certificate No.: C113270

# Certificate of Calibration

# This is to certify that the equipment

Description: Sound Level Meter

Manufacturer: Rion

Model No.: NL-31

Serial No.: 00410224

has been calibrated for the specific items and ranges. The results are shown in the Calibration Report No. C113270.

# The equipment is supplied by

Co. Name: Envirotech Services Co.

Address: Shop 6, G/F., Casio Mansion, 209 Shaukeiwan Road, Hong Kong

Date of Issue: 10 June 2011

Certified by: Clan An Chan

Certificate No.: C113870

# Certificate of Calibration

# This is to certify that the equipment

Description: Sound Level Calibrator

Manufacturer: Rion

Model No.: NC-73

Serial No.: 10997142

has been calibrated for the specific items and ranges. The results are shown in the Calibration Report No. C113870.

# *The equipment is supplied by*

Co. Name: Envirotech Services Co.

Address: Shop 6, G/F., Casio Mansion, 209 Shaukeiwan Road, Hong Kong

Date of Issue: 11 July 2011



Schedule for noise monitoring programme of Construction of a Secondary Boundary Fence and New Section of Primary Boundary Fence and Boundary Patrol Road (Section 2 Lok Ma Chau Control Point to Ng Tung River)

## Monitoring schedule for the reporting month

Date	Start Time
8 <sup>th</sup> March 2012	08:30
15 <sup>th</sup> March 2012	16:40
20 <sup>th</sup> March 2012	16:38
27 <sup>th</sup> March 2012	15:20

# Monitoring schedule of the coming month

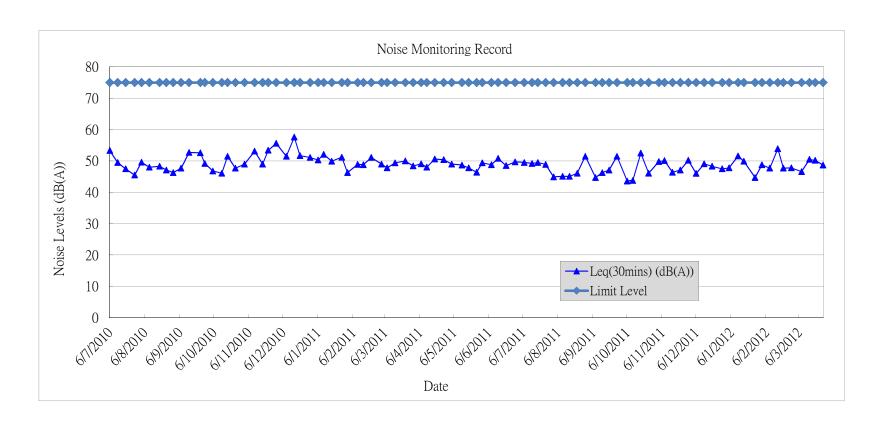
Date	Time
3 <sup>rd</sup> April 2012	To be confirmed
13 <sup>th</sup> April 2012	To be confirmed
17 <sup>th</sup> April 2012	To be confirmed
24 <sup>th</sup> April 2012	To be confirmed

Appendix E

Summary and Graphical Plot of Noise Monitoring Record Noise Monitoring Result for Construction of a Secondary Boundary Fence and New Section of Primary Boundary Fence and Boundary Patrol Road (Section 2 Lok Ma Chau Control Point to Ng Tung River)

Month: March 2012

Date	Time	Leq(30mins) (dB(A))	L10(30mins) (dB(A))	L90(30mins) (dB(A))	Limit Level
8-Mar-12	08:30 - 09:00	46.6	49.2	38.6	75
15-Mar-12	16:40 – 17:10	50.5	53.2	42.2	75
20-Mar-12	16:38 – 17:08	50.2	53.5	40.1	75
27-Mar-12	15:20 – 15:50	48.7	51.7	39.8	75





Mitigation Measures Implementation Schedule for Construction Stage

## **Appendix F** Environmental Mitigation Implementation Schedule

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
Air Q	<u>uality</u>							
Durin	ng Constr	uction						
2.5.2	3.2.2	The following good site practice should be implemented:	To minimize	Contractor	Constructi	During	EIAO-TM, Air Pollution	*
		any excavated dusty materials or stockpile of dusty materials should be covered	construction dust		on Work	Construction	Control	
		entirely by impervious sheeting or sprayed with water so as to maintain the	impact		Sites		(Construction Dust)	
		entire surface wet, and recovered or backfilled or reinstated within 24 hours of					Regulation	
		the excavation or unloading;						
		• the working area of excavation should be sprayed with water immediately						*
		before, during and immediately after the operations so as to maintain the entire						
		surface wet;						
		• dusty materials carried by vehicle leaving a construction site should be covered						^
		entirely by clean impervious sheeting;						
		• the area where vehicle washing takes place and the section of the road between						^
		the washing facilities and the exit point should paved with concrete, bituminous						
		materials or hardcores;						

Remarks: Implement mitigation measure in the reporting month;

Non-compliance of mitigation measure; N/A Not Applicable in the reporting month; Not satisfactory but rectified by the contractor.

As updated on 11 April 2012 1/32

## **Appendix F** Environmental Mitigation Implementation Schedule

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
		• the portion of road leading only to a construction site that is within 30m of						٨
		designated vehicle entrance or exit should be kept clear of dusty materials;						
		all dusty materials should be sprayed with water prior to any loading, unloading						٨
		or transfer;						
		• vehicle speed should be limited to 10kph except on completed access roads;						٨
		• every vehicle should be washed to remove any dusty materials from its body						٨
		and wheels before leaving the construction sites.						
Noise								
During Construction								
3.8.14	4.8.1	The following good site practical should be implemented:	To mitigate	Contractor	Constructi	During	EIAO-TM, NCO	
			construction noise		on Work	Construction		
		The Contractor shall adopt the Code of Practice on Good Management Practice	impact		Sites			
		to Prevent Violation of the Noise Control Ordinance (Chapter 400) (for						٨
		Construction Industry) published by EPD;						
		The Contractor shall observe and comply with the statutory and non-statutory						٨
		requirements and guidelines;						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

\* Not satisfactory but rectified by the contractor.

As updated on 11 April 2012

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
		Before commencing any work, the Contractor shall submit to the Engineer						٨
		Representative for approval the method of working, equipment and noise						
		mitigation measures intended to be used at the site;						
		The Contractor shall devise and execute working methods to minimise the noise						^
		impact on the surrounding sensitive uses, and provide experienced personnel						
		with suitable training to ensure that those methods are implemented;						
		Noisy equipment and noisy activities should be located as far away from the						٨
		NSRs as is practical;						
		Unused equipment should be turned off. PME should be kept to a minimum						^
		and the parallel use of noisy equipment / machinery should be avoided;						
		Regular maintenance of all plant and equipment;						٨
		Material stockpiles and other structures should be effectively utilised as noise						N/A
		barriers, where practicable.						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

\* Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
3.8.1	4.8.2	Other than good site practice, the Contractor is required to adopt Levels 1 and 2	To mitigate	Contractor	Constructi	During	EIAO-TM, NCO	N/A
-3.8.3	-4.8.3	site-specific direct mitigation measures as specified below during the construction	construction noise		on work	construction		
		phase.	impact		sites			
		With construction / demolition work undertaken at a distance of 60m or less to the						
		NSRs, below mitigation measures should be included:						
		Level 1 – Use of Quiet Plant and Movable Noise Barrier						
		The Contractor shall obtain particular models of plant that are quieter than						
		standards given in GW-TM.						
		Purpose-built movable noise barriers should be used to mitigate construction						
		noise directly at sources that are not usually mobile provide that the direct line						
		of sight to the source is blocked.						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
3.8.9	4.8.4	In addition to the use of quiet plant and movable noise barrier, alternative	To mitigate	Contractor	Constructi	Before the	EIAO-TM, NCO	٨
		demolition method of existing boundary fence at Section 2-3 shall be used where	construction noise		on work	commenceme		
		demolition works would be undertaken at a distance of 12m or less to the NSRs.	impact for demolition		sites	nt of		
		These particular mitigation measures should be included:	of existing boundary		(Section 2	demolition		
			fence		- 3)	works		
		Level 2 – Alternative Demolition Method of Existing Boundary Fence						
		The use of welder is recommended to replace the use of hand-held driller;						
		The use of hand-held breaker with movable noise barrier is recommended to						
		replace the use of mini-robot mounted breaker; and the duration for the use of						
		hand-held breaker is minimal as only the surface level of the footing to be						
		broken; and						
		The removal of the footing of the existing boundary fence should be carried by						
		concrete crusher mini-robot mounted after the surface level broken by						
		hand-held breaker.						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

\* Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
Wate	r Quality							
Durir	ng Constr	uction						
4.7.1	5.3.1	Good site practices in addition to the implementation of mitigation measures would	To avoid site runoff	Contractor	Constructi	During	Practice Note for	*
		minimize the impact to the surrounding environment.	and chemical leakage		on work	construction	Professional Persons with	
					sites		regard to site drainage	
		General Prevention and Precaution Measures					(ProPECC PN 1/94) and	
		The site should be confined to avoid silt runoff to the site.					TM standard	^
		No discharge of silty water into the storm drain and drainage channel within					under the WPCO	^
		and the vicinity of the site.						
		Any soil contaminated with chemicals/oils shall be removed from site and the						^
		void created shall be filled with suitable materials.						
		Stockpiles to be covered by tarpaulin to avoid spreading of materials during						^
		rainstorms;						
		Suitable containers shall be used to hold the chemical wastes to avoid leakage						^
		or spillage during storage, handling and transport;						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

\* Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
		Chemical waste containers shall be labelled with appropriate warning signs in						٨
		English and Chinese to avoid accidents. there shall also be clear instructions						
		showing what action to take in the event of an accidental;						
		Storage areas shall be selected at safe locations on site and adequate space shall						^
		be allocated to the storage area;						
		Any construction plant which causes pollution to the water system due to						N/A
		leakage of oil or fuel shall be removed off-site immediately;						
		Spillage or leakage of chemical waste to be controlled by using suitable						٨
		absorbent materials;						
		Chemicals will always be stored on drip trays or in bunded areas where the						٨
		volume is 110% of the stored volume;						
		Regular clearance of domestic waste generated in the temporary sanitary						٨
		facilities to avoid waste water spillage.						
		Temporary sanitary facilities to be provided for on-site workers during						^
		construction.						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

 $X \qquad \hbox{Non-compliance of mitigation measure;} \\$ 

\* Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
4.7.2 -	5.3.2-5.	Concreting Work	To collect runoff	Contractor	Constructi	During	Practice Note for	٨
4.7.3	3.3	A temporary drainage channel and associated facilities should be provided to collect	generated and prevent		on work	construction	Professional Persons with	
		the runoff generated and prevent concrete-contaminated water from entering	concrete-contaminated		sites		regard to site drainage	
		watercourses. Adjustment of pH can be achieved by adding a suitable neutralising	water from entering				(ProPECC PN 1/94) and	
		reagent to wastewater prior to discharge.	watercourses				TM standard under the	
							WPCO	
		The concreting works should be temporarily isolated with proper methods, such as					CEDD General	

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
		by placing of sandbags or silt curtains with lead edge at bottom and properly	To prevent adverse				Specification- Protection	N/A
		supported props.	impacts on the water		Work sites		of natural streams/rivers-	
			quality of Lin Ma		of Section		Clause 25.09	
			Hang Stream SSSI		3 in the			
					proximity			
					of Lin Ma			
					Hang			
					Stream			
					SSSI			
4.7.4	5.3.4	Soil Excavation and Stockpiling	To avoid site runoff	Contractor	Constructi	During	Practice Note for	*
		Excavated soil which needs to be temporarily stockpiled should be stored in a			on work	construction	Professional Persons with	
		specially designated area and provided with a tarpaulin cover to avoid runoff into			Sites		regard to site drainage	
		the drainage channels.					(ProPECC PN 1/94) and	
							TM standard under the	
							WPCO	

Remarks: ^ Implement mitigation measure in the reporting month;

X Non-compliance of mitigation measure;

N/A Not Applicable in the reporting month;

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
4.7.5 -	5.3.5-5.	Site Depot	To avoid wash-out of	Contractor	Constructi	During	Practice Note for	N/A
4.7.6	3.6	All compounds in works areas should be located on areas of hard standing with	oil during storm		on work	construction	Professional Persons with	
		provision of drainage channels and settlement ponds where necessary to allow	conditions		Sites		regard to site drainage	
		interception and controlled release of settled/treated water. Hard standing					(ProPECC PN 1/94) and	
		compounds should drain via an oil interceptor. The oil interceptor should be					TM standard under the	
		regularly inspected and cleaned to avoid wash-out of oil during storm conditions. A					WPCO	
		bypass should be provided to avoid overload of the interceptor's capacity. Any						
		contractor generating waste oil or other chemicals as a result of his activities should						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
		register as a chemical waste producer. Disposal of the waste oil should be done by a						٨
		licensed collector.						
		Good housekeeping practices should be implemented to minimise careless spillage						
		and to keep the storage and the work space in a tidy and clean condition.						
		Appropriate training including safety codes and relevant manuals should be given to						
		the personnel who regularly handle the chemicals on site.						
4.7.7	5.3.7	Construction of Checkpoint	To avoid disposal of	Contractor	Constructi	During	N/A	N/A
		Sewage system should be constructed to divert domestic sewage, which will be	domestic sewage into		on work	construction		
		generated from the sanitary facilities provided in the new checkpoint at Shek Chung	watercourses.		Site at			
		Au, to public sewer connected to government sewage treatment facilities.			Checkpoin			
					t			
Waste	Manage	ment						
During	g Constru	nction						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

\* Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
5.6.7	6.3.6	Site Clearance	Prevent the generation	Contractor	Constructi	During	Waste Disposal	٨
		The topsoil and vegetation removed and excavated material may have to be	of dust and pollution		on work	construction	Ordinance (Cap.354);	
		temporarily stockpiled on-site. Control measures should be taken at the stockpiling	of storm water		sites		ETWBTC No. 15/2003,	
		area to prevent the generation of dust and pollution of stormwater channels, fish	channels				Waste Management on	
		ponds or river channels. However, to eliminate the risk of blocking drains in the wet					Construction Site	
		season, it is recommended that stockpiling of excavated materials during the wet						
		season should be avoided as far as practicable.						
5.6.10	6.3.8	Construction and Demolition Materials	Minimize	Contractor	Constructi	During	Waste Disposal	٨
_		Careful design, planning and good site management can minimize over-ordering	over-ordering and		on work	construction	Ordinance (Cap.354);	
5.6.12		and generation of waste materials such as concrete mortars and cement grouts. The	generation of waste		sites		ETWBTC No. 15/2003,	
		design of formwork should maximize the use of standard wooden panels so to	materials				Waste Management on	
		achieve high reuse levels. Alternatives such as steel formwork or plastic facing					Construction Site	
		should be considered to increase the potential for reuse.						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
		The Contractor should recycle as much of the C&D materials as possible on-site.						٨
		Proper segregation of waste on-site will increase the feasibility of certain						
		components of the waste stream by the recycling contractors. Different areas of						
		the worksite shall be designated for such segregation and storage wherever site						
		conditions permit.						
		Trip-ticket system should be employed to monitor the disposal of C&D material						
		and solid at public filling facilities and landfills, and to control fly-tipping.						
		Government has established a differentiated charging scheme for the disposal of						
		waste to landfill, construction waste sorting facilities and public fill facilities. This						
		will provide additional incentives to reduce the volume of waste generated and to						
		ensure proper segregation of wastes.						
5.6.13-	6.3.9 –	Chemical Waste	To avoid chemical	Contractor	Constructi	During	Code of Practice on the	٨
5.6.14	6.3.13	For those processes which generate chemical waste, it may be possible to find	leakage		on work	construction	Packaging, Labelling and	
		alternatives which generate reduced quantities or even no chemical waste, or less			sites	planning	Storage of Chemical	
		dangerous types of chemical waste.					Wastes, Waste Disposal	

Remarks: ^ Imple

Implement mitigation measure in the reporting month;

X Non-compliance of mitigation measure;

N/A Not Applicable in the reporting month;

Not satisfactory but rectified by the contractor.

EIA Ref.	EM&A Log Ref.		Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve?	Status
		Chemical waste that is produced, as defined by Schedule 1 of the Waste Disposal					(Chemical Waste)	^
		(Chemical Waste) (General) Regulation, should be handed in accordance with the					(General) Regulation	
		Code of Practice on the Packaging, Handling and Storage of Chemical Waste as						
		follows:						
		Containers used for the storage of chemical wastes should:						٨
		be suitable for the substance they are holding, resistant to corrosion, maintained						٨
		in a good condition, and securely closed:						
		• have a capacity of less than 450 litres unless the specification have been						^
		approved by the EPD; and						
		display a label in English and Chinese in accordance with instructions						^
		prescribed in Schedule 2 of the Regulations,						
		The storage area for chemical wastes should:						٨
		be clearly labelled and used solely for the storage of chemical waste;						٨
		• be enclosed on at least 3 sides;						٨
		• have an impermeable floor and bunding, of capacity to accommodate 110% of						٨
		the volume of the largest container or 20% by volume of the chemical waste						
		stored in that area whichever is the greatest;						

Remarks: ^ Implement mitigation measure in the reporting month;

X Non-compliance of mitigation measure;

N/A Not Applicable in the reporting month;

\* Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
		have adequate ventilation;						٨
		• be covered to prevent rainfall entering (water collected within the bund must be						٨
		tested and disposed as chemical waste if necessary); and						
		be arranged so that incompatible materials are adequately separated.						٨
		Disposal of chemical waste should:						^
		be via a licensed waste collector; and						٨
		• be to a facility licensed to receive chemical waste, such as the Chemical Waste						^
		Treatment Facility which also offers a chemical waste collection service and						
		can supply the necessary storage containers, or						
		• to be re-user of the waste, under approval from the EPD.						N/A
5.6.16	6.3.15	General Refuse	Minimise odour, pest	Contractor	Constructi	During	Public Health and	٨
		Should be stored in enclosed bins or compaction units separate from C&D and	and litter impacts		on work	construction	Municipal Services	
		chemical wastes. The Contractor should employ a reputable waste collector to			sites		Ordinance (Cap. 132)	
		remove general refuse from the site, separate from C&D and chemical wastes, on a						
		regular basis to minimise odour, pest and litter impacts. Burning of refuse on						
		construction sites is prohibited by law.						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

\* Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
5.6.1	6.3.16	Construction Waste Management Plan	Waste management	Contractor	Constructi	During	ETWB TCW No.	٨
		A construction waste management plan (CWMP) should be prepared and developed	during construction		on work	construction	19/2005, Waste	
		by the contractor to ensure proper collection, treatment and disposal of waste on			sites		Management on	
		site. This CWMP will also take into account the requirement to handle chemical					Construction Sites	
		wastes on site which will need to be managed by a licensed waste collection						
		contractor.						
Ec	ology							
Table	7.2	Ecological Impacts on Floral Species of Conservation Concern	Protect the plant	Contractor	Constructi	During	EIAO	٨
6.38		Erection of protective fencing to protect the plant during construction period	during construction		on work	construction		
			period		sites			

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
Table	7.2	Potential Ecological Impacts on Offsite Habitats	To avoid site runoff	Contractor	Constructi	During	EIAO / Air Pollution	۸
6.40		Good site practices for controlling the dust and water quality (avoid stockpiles	and dust impact		on work	construction	Control	
		adjacent to wetlands, covering the stockpiles with impervious sheeting, control of			sites		(Construction Dust)	
		vehicle speed, no discharge of silty water to the rivers, streams and drainage					Regulation / WPCO	
		channels);						
		Clear definition of works limit to avoid impact on adjacent habitats						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status	
Ref.	Log		Recommended	implement	of the	implement	standards for the		
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?		
			Concerns to address						
Table	7.2	Disturbance to Wetland-Dependent Birds, Raptors, Terrestrial Birds and	To minimize	Contractor	Constructi	During	EIAO / Air Pollution	٨	
6.39-T		Egretry	disturbance to wildlife		on work	construction	Control		
able		Good working practices include switching off unused equipment, keep minimum			sites		(Construction Dust)		
6.45		number of powered mechanical equipment in operation at the same period, the use					Regulation / WPCO		
		of stockpiles and other structures to form noise barriers where practicable,							
		avoidance of feeding the wildlife to cause disturbance, site confinement and proper							
		cover of stockpiles with impervious sheeting to minimize construction noise,							
		uncontrolled surface runoff and discharge of silts;							
		Avoidance of construction works using Power Mechanical Equipments within the							
		Wetland Conservation Area during bird migratory season (15th November – 15th							
		March); and							
		Restriction of excavation works within a 150m buffer zone from the egretry							
		to ardeid non-breeding season (from August to February).							
Cultur	Cultural Heritage								

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
8.7.1 –	8.1.1 -	An archaeological survey should be undertaken at the study areas of Pak Fu Shan	Assess the	Contractor	The study	After land	Antiquities and	N/A
8.7.4	8.1.4	and Lin Ma Hang of Section 3 after land resumption and before commencement of	archaeological impact	(through	areas of	resumption	Monuments Ordinance /	
		construction works	on the two identified	professional	Pak Fu	and before	EIAO	
			sites of archaeological	archaeologist)	Shan and	commenceme		
			potential.		Lin Ma	nt of		
					Hang of	construction		
					Section 3	works		

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
8.7.6	8.2.1	Built Heritage Resources	Avoid impacts to built	Contractor	The works	During	EIAO	N/A
		Mitigation in the form of buffer zones and safe public access have been proposed	heritage resources		that are	Construction		
		for one shrine (BF-HB1) and two graves (BF-G1 and G2)			located in			
					the vicinity			
		ВҒ-НВ1			of built			
		A buffer zone of a minimum distance of 1 metres should be established between the			heritage			
		shrine and any construction works in close proximity. The buffer zone should be			resources			
		marked out by temporary fencing. Safe public access should be provided to the			(BF-HB1			
		shrine during any construction works in close proximity.			and BF-G1			
					and G2)			
		BF-G1 and BF-G2						
		A buffer zone of a minimum distance of 1 metres should be established between the						
		graves and any construction works in close proximity. The buffer zone should be						
		marked out by temporary fencing. Safe public access should be provided to the						
		graves during any construction works in close proximity.						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
Lands	cape and	Visual						
		Preservation of Existing Vegetation						
Table 7-13	Table 9-1	To retain trees that have high amenity or ecology value and contribute most to the landscape and visual amenity of the site and its immediate environs.	Preservation of Existing Vegetation	Project Landscape Architect / Contractor	Site	Throughout construction phase	TM-EIA Annex 18, ETWB TCW No. 2/2004 & ETWB TCW No.	٨
CP1							3/2006	
Table 7-13	Table 9-1	Creation of precautionary area around trees to be retained equal to half of the trees canopy diameter. Precautionary area to be fenced.	To ensure the success of the tree preservation proposals.	Project Landscape Architect /	Site	Before construction phase commences	TM-EIA	^
CP1				Contractor				
Table 7-13	Table 9-1	<ul> <li>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.</li> </ul>	To ensure the success of the tree preservation proposals.	Project  Landscape  Architect /	Site	Throughout construction phase	TM-EIA Annex 18, ETWB TCW No. 2/2004 & ETWB TCW No.	^
CP1				Contractor			3/2006	

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

\* Not satisfactory but rectified by the contractor.

	EM&A Log Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve?	Status
Table 7-13 CP1	Table 9-1	<ul> <li>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.</li> </ul>	To ensure the success of the tree preservation proposals.	Project  Landscape  Architect /  Contractor	Site	Throughout construction phase	TM-EIA Annex 18, ETWB TCW No. 2/2004 & ETWB TCW No. 3/2006	^
Table 7-13 CP1	Table 9-1	<ul> <li>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.</li> </ul>	To ensure the success of the tree preservation proposals.	Project Landscape Architect / Contractor	Site	Throughout construction phase	TM-EIA Annex 18, ETWB TCW No. 2/2004 & ETWB TCW No. 3/2006	^
Table 7-13 CP1	Table 9-1	The watering of existing vegetation particularly during periods of excavation when the water table beneath the existing vegetation is lowered.	To ensure the success of the tree preservation proposals.	Project  Landscape  Architect /  Contractor	Site	Throughout construction phase	TM-EIA Annex 18, ETWB TCW No. 2/2004 & ETWB TCW No. 3/2006	^
Table 7-13 CP1	Table 9-1	The rectification and repair of damaged vegetation following the construction phase to it's 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	of the tree	Project  Landscape  Architect /  Contractor	Site	Throughout construction phase	Annex 18, ETWB TCW No. 2/2004 & ETWB TCW No. 3/2006	N/A

Remarks:

Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

\* Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
Table	Table	• All works affecting the trees identified for retention and transplantation will be carefully monitored. This includes the key stages in the preparation of the		Project	Site	Throughout	TM-EIA Annex 18,	^
7-13	9-1	trees, the implementation of protection measures and health monitoring through	preservation	Landscape		construction phase	ETWB TCW No. 2/2004	
		out the construction period	proposals.	Architect /			& ETWB TCW No.	
CP1				Contractor			3/2006	
Table	Table	• Detailed landscape and tree preservation proposals will be submitted to the relevant government departments for approval under the lease conditions and in	To ensure the tree	Project	Site	Throughout construction	TM-EIA Annex 18,	٨
7-13	9-1	accordance with ETWB TCW No. 2/2004 and WBTC No. 3/2006.	preservation and	Landscape		phase	ETWB TCW No. 2/2004	
			planting proposals are integrated with the	Architect /			& ETWB TCW No.	
CP1			existing landscape	Contractor			3/2006	
			context and that the					
			landscape resources					
			are preserved where					
			appropriate.					

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

 $X \qquad \hbox{Non-compliance of mitigation measure;} \\$ 

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
Table	Table	The tree preservation works should be implemented by approved Landscape Contractors and inspected and approved on site by a qualified Landscape	To ensure the tree	Contractor	Site	Throughout	TM-EIA Annex 18,	٨
7-13	9-1	Architect. A tree protection specification would be included within the contract	preservation and			construction phase	ETWB TCW No. 2/2004	
		documents.	planting proposals are			priuse	& ETWB TCW No.	
			integrated with the					
CP1			existing landscape				3/2006	
			context and that the					
			landscape resources					
			are preserved where					
			appropriate.					
		Preservation of Existing Topsoil					L	
Table	Table	• Topsoil disturbed during the construction phase should be tested using a standard soil testing methodology and where it is found to be worthy of	To provide a viable	Contractor	Site	Throughout	TM-EIA	^
7-13	9-1		growing medium			construction	Annex 18	
			suited to the existing			phase		
CP2			conditions and reduce					
			the need for the					
			importation of top					
			soil.					

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

\* Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
Table	Table	The soil will be stockpiled to a maximum height of 2m and will be either temporarily vegetated with hydroseeded grass during construction or covered.	To provide a viable	Contractor	Site	Throughout	TM-EIA	^
7-13	9-1	with a waterproof covering to prevent erosion.	growing medium			construction	Annex 18	
			suited to the existing			phase		
CP2			conditions and reduce					
			the need for the					
			importation of top					
			soil.					
Table	Table	<ul> <li>The stockpile should be turned over on a regular basis to avoid acidification and the degradation of the organic material, and reused after completion.</li> </ul>	To provide a viable	Contractor	Site	Throughout	TM-EIA Annex 18	^
7-13	9-1	Alternatively, if this is not practicable, it should be considered for use elsewhere, including other projects.				construction	Allilex 16	
		eisewhere, metading other projects.	suited to the existing			phase		
CP2			conditions and reduce					
			the need for the					
			importation of top					
			soil.					
		Permanent and Temporary Works Areas						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
Table	Table	<ul> <li>Where appropriate to the final design the landscape of these works areas should be restored following the completion of the construction phase.</li> </ul>	To minimise the disturbance to existing	Contractor	Site	Through out construction	TM-EIA Annex 18	N/A
7-13	9-1		landscape resources and change of visual amenity.			phase	Alliex 10	
CP3								
Table	Table	<ul> <li>Construction site controls should be enforced including the storage of materials, the location and appearance of site accommodation and the careful design of</li> </ul>	To minimise the disturbance to existing	Contractor	Site	Through out construction	TM-EIA Annex 18	٨
7-13	9-1	site lighting to prevent light spillage.	landscape resources and change of visual amenity.			phase		
СР3								
		Mitigation Planting						
Table	Table	<ul> <li>Replanting of disturbed vegetation should be undertaken at the earliest possible stage of the construction phase</li> </ul>	To minimise the disturbance to existing	Contractor	Site	Through out construction		N/A
7-13	9-1		landscape resources and change of visual amenity.			phase	Annex 18	
CP4								

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
Table	Table	<ul> <li>Use of native plant species predominantly in the planting design for the buffer areas.</li> </ul>	To minimise the disturbance to existing	Contractor	Site	Through out construction	TM-EIA	N/A
7-13	9-1	urcus.	landscape resources and change of visual amenity.			phase	Annex 18	
CP4								
	Table 9-1	<ul> <li>The tree planting works should be implemented by approved Landscape Contractors and inspected and approved on site by a qualified Landscape Architect. A tree planting specification would be included within the contract documents.</li> </ul>	disturbance to existing	Contractor	Site	Through out construction phase	TM-EIA Annex 18	۸
		documents.	amenity.					
CP4								
		Transplantation of Existing Trees						
Table	Table	<ul> <li>The tree transplanting works should be implemented by approved Landscape Contractors and inspected and approved on site by a qualified Landscape</li> </ul>		Contractor	Site	Prior to the	TM-EIA	^
7-13	9-1	Architect. A tree protection / transplanting specification would be included	landscape resources			commencem	Annex 18, ETWB TCW	
		within the contract documents.	and minimize the impacts on the visual			ent of the	No. 2/2004 & ETWB	
CP5			amenity of the area.			proposed	TCW No. 3/2006	
						works		
		Design of the Fence and associated Structures						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

 $X \qquad \hbox{Non-compliance of mitigation measure;} \\$ 

Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
Table	Table	<ul> <li>Design of Boundary Fence, Boundary Patrol Road and Police Check Point –</li> <li>These structural elements will be designed in accordance with security</li> </ul>	Responsive design to	ArchSD	Site	Throughout	TM-EIA	٨
7-14	9-2	requirement from Police Force and incorporate design features as part of	integrate the proposals			design phase	Annex 18 and BD	
		design mitigation measures including:	into their landscape					
OP1			and visual context.					
		Integrated design approach – the boundary fence should integrated, as						٨
		far as technically feasible, with existing built structures such as existing						
		road, footpath and track and embankment of fishponds, river and						
		drainage channel as part of design mitigation measures to reduce the						
		potential cumulative impact of the proposed works. The location and						
		orientation of the police check points should be away from landscape						
		and visually sensitive areas such wetland, fishpond and agricultural						
		field.						
		2. Building massing - the proposed use of simple responsive design for the						N/A
		built structures with a low building height profile to reduce the potential						
		visual mass of the structure within a rural context.						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
		3. Treatment of built structures - the architectural design should seek to						N/A
		reduce the apparent visual mass of the facilities further through the use						
		of natural materials such as wooden frame, vertical greening or other						
		sustainable materials such as recycled plastic.						
		4. Responsive building and fence finishes - In terms of the proposed						N/A
		finishes natural tones should be considered for the colour palette with						
		non-reflective finishes are recommended to reduce glare effect. The use						
		of colour blocking on the proposed fence could be used to break up the						
		visual mass of the structure.						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
		<ol> <li>Responsive lighting design – Aesthetic design of architectural and track</li> </ol>						N/A
		lighting with following glare design measures:						
		■ Directional and full cut off lighting is recommended particularly for						
		areas adjacent to existing village to minimise light spillage.						
		<ul> <li>Minimise geographical spread of lighting, only applied for safety and</li> </ul>						
		security reasons;						
		■ Limited lighting intensity to meet the minimum safety and operation						
		requirement; and						
		<ul> <li>High-pressure sodium road lighting is recommended for more stringent</li> </ul>						
		light control reducing spillage and thus visual impacts.						
		Compensatory Planting Proposals		l	l			
Table	Table	Utilise native to Hong Kong will be utilized within the buffer planting areas.	Planting will serve to visually integrate the	Contractor	Site	Throughout design phase	TM-EIA	N/A
7-14	9-2		proposals within the existing landscape framework.			design phase	Annex 18, HKPSG and BD	
OP2			maniework.					

Remarks:

Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
Table	Table	<ul> <li>A qualified or registered landscape architect will be involved in the design, construction supervision and monitoring, and maintenance period to oversee the</li> </ul>		Contractor	Site	Throughout design phase	TM-EIA	٨
7-14	9-2	implementation of the recommended landscape and visual mitigation measures	areas creating a more			design phase	Annex 18, HKPSG and BD	
		·	coherent landscape framework whilst also					
OP 2 /			improving the ecological					
3			connectivity between existing and proposed					
			woodland habitats.					
Table	Table	<ul> <li>Tree and Shrub Planting – Given the rural nature of the proposed alignment it is recommended that the where possible tree and shrub species which are</li> </ul>	The planting proposal seeks to compensate	Contractor	Site	Throughout design phase	TM-EIA Annex 18, HKPSG and	N/A
7-14	9-2	native to Hong Kong be used. In addition where possible the planting of new trees and shrubs will aim to link together existing woodland areas and small	for the predicted tree				BD	
		tree groups to improve the connectivity between habitats and create more	1055.					
OP 2		coherent landscape framework. The planting of small groups of trees along the alignment of the proposed fence will serve to de-emphasise the horizontality of						
		the fence structure and provide for better sense of visual integration with the landscape context. Where practicable vertical greening measures should also						
		be considered on engineering structures.						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
Table	Table		seeks to compensate	Contractor	Site	Throughout design phase	TM-EIA Annex 18, HKPSG and BD	N/A
7-14	9-2	settlements and valuable landscape resources such as wetland, fishpond, stream course and existing trees, and considered the importance of tree retention within the works area, new tree planting will concentrate in selected	for the predicted tree loss.					
OP 3		retention within the works area, new tree planting will concentrate in selected new amenity areas along the alignment, infilling between retained and transplanted trees. The preliminary planting proposals for the proposed works include the planting of some 357 new trees utilising a combination of mature to light standard sized stock (i.e. approximately 15% of mature trees, 75% of standard trees, and 10% light standard trees). These trees will be planted in woodland clumps and small tree groups at strategic locations to de-emphasise the horizontality of the fence alignment. Based on preliminary findings the proposed planting will result in a compensatory planting ratio of 1:1 (new planting: trees recommended for felling). This compares favourably with the report's assertion that some 357 trees would be felled due to the proposed works. With the proposed preservation of existing trees, transplantation of trees in conflict with the proposals and the planting of new trees the project area will contain approximately 2000 trees. Trees forming part of the new planting will provide screening to neighbourhood villagers and will utilise species native to Hong Kong. These proposals will be subject to review at detailed design stage of the project.						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

Appendix	$\overline{G}$
Complaint La	g

#### Appendix G – Complaint Logs

# Complaints

Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
	Location	Location Received Date	Location Received Date Details of Complaint	Location Received Date Details of Complaint Investigation/Mitigation Action



Architectural	Services	Department
micciaiai	DCI VICCS	Depar unem

Form No. D/OI.03/09.002

Contract No. / Works Order No.: - SS W 306

# Monthly Summary Waste Flow Table for March 2012 [to be submitted not later than the 15th day of each month following reporting month]

(All quantities shall be rounded off to 3 decimal places.)

		Actual Quantities of In	ert Construction Waste Ge	nerated Monthly	
Month	(a)=(b)+(c)+(d)+(e) Total Quantity Generated	(b) Broken Concrete (see Note 4)	(c) Reused in the Contract	(d) Reused in other Projects	(e) Disposed of as Public Fill
	(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> )
Jan	0	0	0	0	0
Feb	0	0	0	0	0
Mar	0	0	0	0	0
Apr					
May					
Jun					
Sub-total	0	0	0	0	0
Jul					
Aug					
Sep					
Oct					
Nov					
Dec					
Total	0	0	0	0	0

Form No. D/OI.03/09.002

					Actual Qua	ntities of No	n-inert Constr	uction Waste	Generated M	onthly			
Month	Timber (in '000kg)		Metals (in '000kg)		Paper/ cardboard packaging			Plastics (see Note 3)		Chemical Waste		ecyclable erials pecify)	General Refuse disposed of at Landfill
					(in '0	00kg)	(in '000kg)		(in '000kg)		(in '0	00kg)	(in '000m <sup>3</sup> )
	generated	recycled	generated	recycled	generated	recycled	generated	recycled	generated	recycled	generated	recycled	generated
Jan	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar	0	0	0	0	0	0	0	0	0	0	0	0	0.013
Apr													
May													
Jun													
Sub-total	0	0	0	0	0	0	0	0	0	0	0	0	0.013
Jul													
Aug													
Sep													
Oct													
Nov													
Dec													
Total	0	0	0	0	0	0	0	0	0	0	0	0	0.013

Description of mod	Description of mode and details of recycling if any for the month e.g. XX kg of used timber was sent to YY site for transformation into fertilizers										

#### Notes:

- (1) The performance targets are given in the Particular Specification on Environmental Management Plan.
- (2) The waste flow table shall also include construction waste that are specified in the Contract to be imported for use at the site.
- (3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
- (4) Broken concrete for recycling into aggregates.
- (5) If necessary, use the conversion factor: 1 full load of dumping truck being equivalent to 6.5 m<sup>3</sup> by volume.



#### Appendix I-Status of License and Permit

Item	Permit/License /Ref.	Validity		Remarks
	No.	From	То	Remarks
Variation of Further Environmental Permit	FEP-02/347/2009/A	13 <sup>th</sup> Jul 2010	N.A.	
Variation of Environmental Permit	EP-347/2009/A	9 <sup>th</sup> Jun 2010	N.A.	
Notification Pursuant to Section 3(1) of The Air Pollution Control	313192	8 <sup>th</sup> Jan 2010	N.A.	
(Construction Dust) Regulation				
Registration of Chemical Waste Producer	5213-542-A2587-02	4 <sup>th</sup> Mar 2010	N.A.	