

**PROJECT NO.: TCS00371/07**



**DRAINAGE SERVICES DEPARTMENT (DSD)  
CONTRACT NO. DC/2006/02**

**YUEN LONG, KAM TIN, NGAU TAM MEI AND TIN SHUI  
WAI DRAINAGE IMPROVEMENTS, STAGE 1, PHASE  
2B – CHEUNG CHUN SAN TSUEN AND KAM TSIN WAI  
KT15 – Monthly EM&A Report for December 2007  
(No. 6)**

**(Revision: 1)**

**PREPARED FOR  
Chit Cheung Construction Company Limited**

**Quality Index**

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## Executive Summary

- ES.01 Chit Cheung Construction Company Limited (CCC) has been awarded the Drainage Services Department (DSD) Contract No. DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsui Wai (hereinafter “the Project”) on 03 April 2007. According to the contract specification requirements an Environmental Monitoring & Audit program to be implemented by an Independent Environmental Team (ET) throughout the contract period.
- ES.02 Under the Project Profile for Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai, Drainage Improvement Stage 1 Phase 2B – Kam Tin Secondary Drainage Channels KT14 & KT15 (Ref.: 382047/E/PP/Issue 5), KT14 & KT15 was defined as Designated Project and governed by Environmental Permit (EP-231/2005/A).
- ES.03 Action-United Environmental Services and Consulting (AUES) has been commissioned by CCC to be an Independent Environmental Team (ET) to implement the EM&A program in compliance with the requirements as stated in the Environmental Permit (EP-231/2005/A) and Environmental Monitoring & Audit Manual (EM&A Manual) for Secondary Channel KT14 & KT15 (August 2005). For this Contract (DC/2006/02) only covered KT15 and KT14 will carried out under other contract.
- ES.04 This is Monthly EM&A Report for **December 2007 (No. 6)** reporting the environmental impact monitoring and audit (EM&A) results of the project EM&A program for the reporting month **December 2007** during the period from **26 November 2007 to 25 December 2007**.

## Breach of Action and Limit (AL) Levels

- ES.05 The Limit Level exceedance was recorded in ecology during this reporting month. The wetland dependent bird individual number and species number recorded fell within the limit level (decrease > 40%). No Action/Limit Level exceedance was recorded for air, noise and stream water in this reporting period.

## Complaints Log

- ES.06 No environmental complaint was received in this reporting period.

## Notifications of Any Summons and Successful Prosecutions

- ES.07 There was no environmental summons or successful prosecution was recorded in this reporting period.

## Reporting Changes

- ES.08 There are no changes to be reported in this reporting period.

### **Future Key Issues**

ES.09 Construction activities to be undertaken in January 2008 included Construction and excavation works at Ch.11-439, Ch504-575, Ch645-668 and Ch675-797; Stream Diversion; Sheet Piles Driving; Tree protection and tree transplanting works; Carrying out joined survey; Utilities companies liaison; Dumping activities of inert materials and Provision of temporary site entrance at Kam Po Road and Kam Sheung Road. Potential environmental impacts for this project generally include air quality, noise, ecology, surface runoff and construction waste. The contractor shall properly implement the required environmental mitigation measures as per the Implementation Schedule in the EM&A manual to ensure no significant adverse environmental impact arises from the construction works. The contractor was reminded to maintain good house-keeping throughout the construction phase.

### **EM&A Activities in the Reporting Period**

ES.10 A summary of the monitoring activities in this reporting period is listed below:

• 1-Hour TSP Monitoring	15	Events
• 24-Hour TSP Monitoring	5	Events
• Noise Monitoring	5	Events
• Stream Water Quality	18	Events
• Ecology (Fauna)	1	Event
• Site Inspection Audit	4	Times

### **Air Quality**

ES.11 No Action or Limit Level of 1-Hour and 24-Hour TSP exceedance was recorded in this reporting period.

### **Construction Noise**

ES.12 No exceedance in construction noise measurements was recorded and no construction noise complaint was received in this reporting period.

### **Stream Water Quality**

ES.13 No exceedance in stream water quality was recorded in the reporting period.

### **Ecology (Fauna)**

ES.14 Non-compliance (Limit Level) with the ecological criteria was found in the individual number and species number of wetland dependent bird recorded during the reporting period (on 16 December 2007). No intrusions of construction activities into the wetland areas nor adverse impact on the wetlands was found. Based on the findings in the previous monthly monitoring, the non-compliance in wetland dependent bird species and individual number was not caused by the project.

### Summary of Monitoring Exceedances

ES.15 A summary of monitoring exceedances in this reporting period of air quality, construction noise, stream water quality and ecology (fauna) monitoring are presented below:

Env. Quality	Parameters	Work-Related Exceedance %	Investigation & Corrective Actions
Air Quality	1-Hour TSP	0	Not Required for 0% Exceedance
	24-Hour TSP	0	Not Required for 0% Exceedance
Noise	Leq (30min) Daytime	0	Not Required for 0% Exceedance
Stream Water	Dissolve Oxygen (DO) in mg/L	0	Not Required for 0% Exceedance
	Suspended Solids (SS) in mg/L	0	Not Required for 0% Exceedance
	Turbidity (NTU)	0	Not Required for 0% Exceedance
	pH	0	Not Required for 0% Exceedance
	Ammonia Nitrogen (mg/L)	0	Not Required for 0% Exceedance
	Zinc (µg/L)	0	Not Required for 0% Exceedance
Ecology	Decrease in the total number of species or individuals of wetland dependent bird from baseline	0	Not Required for 0% Exceedance
	Decrease in the total number of species or individuals of wetland faunal from baseline	0	Not Required for 0% Exceedance

### Site Inspection by External Parties

ES.16 No site inspection was undertaken by external parties in this reporting period.

## 1.0 INTRODUCTION

- 1.01 Chit Cheung Construction Company Limited (CCC) has been awarded the Drainage Services Department (DSD) Contract No. DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai (hereinafter “the Project”) on 03 April 2007. According to the contract specification requirements the Project should implemented an Environmental Monitoring & Audit (EM&A) program by an Independent Environmental Team (ET) throughout the construction period in compliance with the requirements as stated in the project particular specification, Environmental Permit (EP-231/2005/A) and EM&A Manual for KT15. The location of the project site is presented in **Appendix A**. The project construction program is presented in **Appendix B**.
- 1.02 The works to be executed at the propose drainage Channel KT15 mainly comprise the following:
- Construction of about 0.8 km secondary drainage channels;
  - Construction of DSD maintenances access;
  - Provisioning and re-provisioning of pedestrian crossings;
  - Associated ancillary works; and
  - Construction of temporary vehicular access in Portion 5A1 of the site for vehicular access from Kam Sheung Road to Lot Nos. 398RP, 395 in DD106 which are adjacent to the site.
- 1.03 Action-United Environmental Services and Consulting (AUES) has been commissioned by CCC to be the Independent Environmental Team (ET) for implementation of the EM&A program in accordance with the requirements as set out in the contract particular specification, Environmental Permit (EP-231/2005/A), EM&A Manual for KT15 and the Environment Impact Assessment Ordinance (EIAO).
- 1.04 This report presents the results of the project EM&A program for the reporting month **December 2007** during the period from **26 November 2007 to 25 December 2007**.

### REPORT STRUCTURE

- 1.05 The EM&A report is structured into the following sections:

- Section 1 INTRODUCTION**
- Section 2 PROJECT ORGANIZATION AND CONSTRUCTION PROGRESS**
- Section 3 SUMMARY OF MONITORING REQUIREMENTS**
- Section 4 IMPACT MONITORING METHODOLOGY**
- Section 5 IMPACT MONITORING RESULTS**
- Section 6 WASTE MANAGEMENT**
- Section 7 SITE INSPECTION**
- Section 8 ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE**
- Section 9 IMPLEMENTATION STATUS OF MITIGATION MEASURES**
- Section 10 IMPACT FORECAST**
- Section 11 CONCLUSIONS**

**2.0 PROJECT ORGANIZATION AND CONSTRUCTION PROGRESS****PROJECT ORGANIZATION AND MANAGEMENT STRUCTURE**

- 2.01 The organization chart and lines of communication with respect to the on-site environmental management and monitoring program are shown in [Appendix C](#).

**CONSTRUCTION PROGRESS**

- 2.02 The major construction activities undertaken in this reporting period are list below:-
- Construction of channel wall at CH11 – 439, CH504 – 575 and CH645-668;
  - Provision of temporary entrance at Kam Po Road and Kam Sheung Road;
  - Erection of noise barrier along CH647 to CH700;
  - Construction of wheel washing facility at CH30;
  - Dumping activities;
  - Tree protection and tree transplanting works;
  - Utilitiesd companies liasion; and
  - Carrying out joined survey.

**SUMMARY OF ENVIRONMENTAL SUBMISSIONS**

- 2.03 A summary of the relevant permits, licences, and/or notifications on environmental protection for this Project in this reporting period is presented in [Table 2-1](#).

**Table 2-1 Status of Environmental Licenses and Permits**

Item	Item Description	License/Permit Status
1	Environmental Permit (EP-231/2005/A)	-
2	Air Pollution Control (Construction Dust)	Notified EPD on 09 July 2007
3	Chemical Waste Producer Registration WPN:5296-519-C3430-01 (Portion 8, Ma Fung Ling Road, Tong Yan San Tsuen, Yuen Long)	Registration on 20 April 2007
4	Chemical Waste Producer Registration WPN:5113-533-C3434-09 (Kam Tsin Wai, Kam Tin, Yuen Long)	Registration on 20 April 2007
5	Chemical Waste Producer Registration WPN:5213-424-C3431-01 (Portion 7, Birthing Area, Hoi Wan Road, Tuen Mun)	Registration on 20 April 2007
6	Water Pollution Control Ordinance (Discharge License) License No.: 1U450/1	Obtained on 20 July 2007
7	Billing Account for Disposal of Construction Waste (Account Number : 7005311)	Valid on 07 May 2007
8	Dumping at Sea Permit of Type 1 Contaminated Material (Permit No. EP/MD/08-051)	Validity period (10 Oct – 09 Apr 2008)
9	Dumping at Sea Permit of Type 2 Contaminated Material (Permit No. EP/MD/08-053)	Validity period (02 Nov – 01 Dec 2007)



### 3.0 SUMMARY OF IMPACT MONITORING REQUIREMENTS

- 3.01 Environmental monitoring and audit requirements are set out in the EM&A Manual. Air quality, construction noise, stream water quality and ecology have been identified to be the key environmental issues during the construction phase of the project.
- 3.02 A summary of the EM&A requirements for air quality, construction noise, stream water quality and ecology monitoring are shown in **Table 3-1**. The designated station of the air quality, construction noise, stream water quality locations and ecology monitoring area are shown in **Appendix D**.

**Table 3-1 Summary of EM&A Requirements**

Environmental Aspect	Monitoring Parameters	Monitoring Stations	
Air Quality	1-Hour and 24-Hour TSP	A10	
Construction Noise	Leq <sub>(30min)</sub> during normal working hours Supplementary data of L <sub>10</sub> and L <sub>90</sub> for reference.	N10a*	
Stream Water Quality	In Situ Measurement	W9A & W9B	
			<ul style="list-style-type: none"> <li>• Dissolved Oxygen Concentration (mg/L);</li> <li>• Dissolved Oxygen Saturation (% Sat);</li> <li>• Turbidity (NTU);</li> <li>• pH;</li> <li>• Salinity (%); Water Depth (m) and</li> <li>• Temperature (°C).</li> </ul>
			Laboratory Analysis
	<ul style="list-style-type: none"> <li>• Suspended Solids (mg/L);</li> <li>• Ammonia Nitrogen (mg/L); and</li> <li>• Zinc (µg/L).</li> </ul>		
Ecology	Monthly monitoring of construction activities adjacent to the wetland areas to identify any intrusions of construction activities into the wetland areas; Monthly monitoring of wetland areas themselves to check that there is no adverse impact on the wetlands as a consequence of changes to the water table that are attributable to the project, if any; Photographic records at six-month intervals; and Monthly surveys of fauna in the wetland areas during the wet season (April to July inclusive) for reptiles, amphibians, dragonflies, and butterflies, and throughout the year for birds.		

Note: \* The noise ambient condition within the victim area without significant change. Due to the accessibility, noise monitoring will undertake at N10a. Once the access is available, the impact noise monitoring will undertake at N10.

- 3.03 Air monitoring is carried out once every six days for 24-Hour TSP and 3 times every six days for 1-Hour TSP at one designated monitoring station A10.
- 3.04 Noise monitoring is conducted once per week at one designated monitoring location (N10a). Measurements of Leq<sub>(30min)</sub> shall be taken between 0700 and 1900 with supplementary L<sub>10</sub> and L<sub>90</sub> data will be collected for reference.
- 3.05 Stream water quality monitoring is conducted were undertaken at two location W9A & W9B twice per week. Dissolved Oxygen (DO), pH, Turbidity (NTU) were measured in-situ, water depth, temperature and salinity will be collected for relevant data. Suspended Solids (SS), Ammonia Nitrogen and Zinc were determined in a HOKLAS accredited laboratory respectively.
- 3.06 Ecological monitoring is conducted in the seasonal wetland area as shown in Project profile of KT15 Figure ATT 4-7.2). Bird survey should be conducted in monthly through the year and other faunal groups (reptiles, amphibians, dragonflies and butterflies) are conducted monthly in wet season (April to July inclusive) only.

3.07 A summary of the Action/Limit (A/L) Levels for air quality, construction noise, stream water quality and ecology are shown in [Tables 3-2, 3-3, 3-4](#) and [3-5](#).

**Table 3-2 Action and Limit Levels for Air Quality Monitoring**

Monitoring Station	Action Level ( $\mu\text{g}/\text{m}^3$ )		Limit Level ( $\mu\text{g}/\text{m}^3$ )	
	1-Hour TSP	24-Hour TSP	1-Hour TSP	24-Hour TSP
A10	> 307	> 165	> 500	> 260

**Table 3-3 Action and Limit Levels for Construction Noise Monitoring**

Time Period	Action Level in dB(A)	Limit Level in dB(A)
0700-1900 hrs on normal weekdays	When one or more documented complaints are received	> 75* dB(A)

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

**Table 3-4 Action and Limit Levels for Stream Water Quality Monitoring**

Dissolved Oxygen (mg/l)	W9A (Upstream) <sup>#</sup>	W9B (Downstream)
Action Level	NA	0.3
Limit Level	NA	0.2
<b>Turbidity (NTU)</b>		
W9A (Upstream) <sup>#</sup>		
Action Level	NA	73.5*
Limit Level	NA	78.2**
<b>pH</b>		
W9A (Upstream) <sup>#</sup>		
Action Level	NA	7.0*
Limit Level	NA	7.1**
<b>Suspended Solids (mg/L)</b>		
W9A (Upstream) <sup>#</sup>		
Action Level	NA	148*
Limit Level	NA	159**
<b>Ammonia Nitrogen (mg/L)</b>		
W9A (Upstream) <sup>#</sup>		
Action Level	NA	30.91*
Limit Level	NA	32.20**
<b>Zinc (<math>\mu\text{g}/\text{L}</math>)</b>		
W9A (Upstream) <sup>#</sup>		
Action Level	NA	242*
Limit Level	NA	252**

Notes: <sup>#</sup> Act as Control Station for the Impact Water Quality Monitoring.

\* Alternative Action Level of the Turbidity, pH, Suspended Solid, Ammonia Nitrogen and Zinc are 120% of upstream control station of same day.

\*\* Alternative Limit Level of the Turbidity, pH, Suspended Solid, Ammonia Nitrogen and Zinc are 130% of upstream control station of same day.

**Table 3-5 Action and Limit Levels for Construction Ecology Monitoring**

Parameters	Action Level	Limit Level
Bird: decrease in the total number of wetland dependent bird species or individuals of the wetland dependent bird species from baseline	20 – 40% of 1.2 individuals and 3 species	> 40% of 1.2 individuals and 3 species

3.08 The Event/Action Plan of air quality, construction noise, stream water quality and ecology has been implemented for this project. Details of the Event/Action Plan were presented in the [Appendix E](#).

## 4.0 IMPACT MONITORING METHDOLOGY

### MONITORING LOCATIONS

- 4.01 The 1-Hour TSP and 24-Hour TSP monitoring was carried out at one designated station A10. Impact construction noise monitoring was undertaken at the designated location N10a. Stream water quality monitoring was undertaken at two designated locations (W9A & W9B). The ecology monitoring was conducted within the wetland area in according to the EM&A Manual of KT15. The descriptions of monitoring stations are presented in **Tables 4-1**. The geographically location are shown in **Appendix D**.

**Table 4-1 Location of Air Quality, Construction Noise & Stream Water Quality Monitoring Station/Locations**

<b>Air Quality Station</b>	
A10	Village House in Tin Sam San Tsuen
<b>Construction Noise Location</b>	
N10*	Village House in Tin Sam San Tsuen
N10a	Village House in Tin Sam San Tsuen
<b>Water Quality Locations</b>	
W9A <sup>#</sup>	Tin Sam San Tsuen
W9B	Tin Sam San Tsuen

Note: \* The noise ambient condition within the victim area without significant change. Due to the accessibility, noise monitoring will undertake at N10a. Once the access is available, the impact noise monitoring will undertake at N10  
# Act as control station in impact monitoring

- 4.02 The meteorological data during the reporting period was obtained from the Lau Fau Shan Station of the Hong Kong Observatory (HKO).

### MONITORING FREQUENCY AND PERIOD

#### 1-HOUR TSP MONITORING

- 4.03 The 1-Hour TSP monitoring was conducted in designated station A10 in according to the EM&A Manual three times every 6 days. Total of 15 monitoring events were carried out in this reporting period.

#### 24-HOUR TSP MONITORING

- 4.04 The 24-Hour TSP monitoring was conducted at station A10 once every six days. Total of 5 monitoring events were carried out in this reporting period.

#### NOISE MONITORING

- 4.05 Impact noise monitoring was undertaken at one location N10a once per week. Total of 5 monitoring events were carried out in this reporting period.

#### STREAM WATER QUALITY MONITORING

- 4.06 The stream water quality monitoring was undertaken at two locations W9A & W9B two times per week. Total of 18 monitoring events were carried out in this reporting period.

**ECOLOGY MONITORING**

- 4.07 Bird survey should be conducted in monthly throughout the year and other faunal groups (reptiles, amphibians, dragonflies and butterflies) are conducted monthly in wet season (April to July inclusive) in the seasonal wetland area.

**MONITORING EQUIPMENT**

- 4.08 The monitoring equipment used by the ET in the EM&A program is presented in the **Table 4-2**.

**Table 4-2 Monitoring Equipment Used in EM&A Program**

Parameters	Equipment	Monitoring Equipment
1-Hour TSP	Portable dust meter	Sibata LD-3 Laser Dust Meter
24-Hour TSP	High Volume Sampler	Grasby Anderson GMWS 2310 HVS / Tisch High Volume Sampler 515N
	Calibration Kit	TISCH Model TE-5028A
Leq30min	Integrating Sound Level Meter (Type1)	B&K Type 2238
	Calibrator	B&K Type 4231
	Portable Wind Speed Indicator	Testo Anemometer
Water Depth	Water Depth Detector	Eagle Sonar
Temperature	Thermometer & DO Meter	YSI 85/10FT
DO	Thermometer & DO Meter	YSI 85/10FT
pH	pH Meter	Hanna HI 98128
Turbidity	Turbidimeter	Hach 2100P
Salinity	Salinometer	ATAGO refractometer
-	Water Sampler	Teflon bailer / bucket
-	Sample Container	High density polythene bottles (provided by laboratory)
-	Storage Container	'Willow' 33-litter plastic cool box

**24-HOUR TSP MONITORING**

- 4.09 24-Hour TSP monitoring was carried out by a High Volume Sampler (HVS) in compliance with the USEPA Standards Title 40, Code of Federal Regulations Chapter 1 (Part 50) specifications. The HVS employed complied with the PS specifications including.
- Power supply of 220v/50 hz for 24-Hour continuous operation;
  - 0.6-1.7 m<sup>3</sup>/min (20-60 SCFM) adjustable flow rate;
  - A 7-day mechanical timer for 24-Hour operation;
  - An elapsed time indicator with  $\pm 2$  minutes accuracy for 24-Hour operation;
  - Minimum exposed area of 63 in<sup>2</sup>;
  - Flow control accuracy of  $\pm 2.5\%$  deviation over 24-Hour operation;
  - An anodized aluminum shelter to protect the filter and sampler;
  - A motor speed-voltage control to control mass flow rate with accuracy of  $\pm 2.5\%$  deviation over 24-Hour sampling period;
  - Provision of a flow recorder for continuous monitoring;
  - Provision of a peaked roof inlet;
  - Incorporation with a manometer; and
  - An 8"x10" stainless steel filter holder to hold, seal and easy to change the filter paper.
- 4.10 The filter papers used in 24-Hour TSP monitoring were of size 8"x10" and provided by a local HOKLAS-accredited laboratory, ALS Techichem Pty (HK) Limited (HOKLAS No. 66). The filters papers after measurements were returned to the laboratory for the required treatment and analysis.

### **1-HOUR TSP MONITORING**

- 4.11 Measurements of 1-Hour TSP monitoring were taken by a Sibata LD-3 Laser Dust Meter that is a portable and battery-operated laser photometer capable of performing real time 1-Hour TSP measurements. A comparison test with HVS was carried out prior to baseline monitoring in compliance with the EM&A requirements and a conversion factor for direct reading of the dust meter has been established.

### **WIND DATA MONITORING**

- 4.12 The meteorological data during the reporting period was obtained from the Lau Fau Shan Station of the Hong Kong Observatory (HKO).

### **NOISE MONITORING**

- 4.13 Noise measurements were taken in terms of the A-weighted equivalent sound pressure level (Leq) measured in decibels (dB). Supplementary statistical results such as L<sub>10</sub> and L<sub>90</sub> were also obtained for reference.
- 4.14 Hand-held sound level meters (B&K Model 2238) and associated acoustical calibrators in compliance with the International Electrotechnical Commission (IEC) Publication 651:1979 (Type 1) and 804:1985 (Type 1) specification were used for taking the impact noise measurements.
- 4.15 Windshield was fitted in all measurements. All noise measurements were made with the meter set to FAST response and on the A-weighted equivalent continuous sound pressure level (Leq).
- 4.16 No noise measurement was carried out in the presence of fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s.

### **STREAM WATER QUALITY MONITORING**

#### **Water Depth**

- 4.17 Water quality monitoring will be conducted at the middle of the water columns (Mid-Depth) if the depths of the water columns at the sampling locations are less than 3 meters during monitoring. Or else, monitoring will be performed at two depths, at 1 meter from surface and bottom respectively when the water depth is less than 6m.
- 4.18 Water depths will be determined prior to measurement and sampling at W9A and W9B, using a portable battery operated depth detector, brand named 'Eagle Sonar', if the depths exceed 3 meter. For the depths well below 1 meter, an appropriate steel ruler or rope with appropriate weight will be used for the depth estimation.

#### **Water Temperature**

- 4.19 Although the DO Meter automatically compensates ambient water temperature to a standard temperature of 20°C for ease of comparison of the data under the changing reality, the temperature readings of the DO Meter will be recorded in the field data sheets. Calibration of the equipment will be regularly performed by ALS on quarterly basis.

Dissolved Oxygen (DO)

- 4.20 A portable YSI 85/10FT DO Meter will be used for in-situ DO measurement. The DO meter is capable of measuring DO in the range of 0 - 20 mg/L and 0 - 200 % saturation and checked against water saturated ambient air on each monitoring day prior to monitoring.
- 4.21 Although the DO Meter automatically compensates ambient water temperature to a standard temperature of 20°C for ease of comparison of the data under the changing reality, the temperature readings of the DO Meter will be recorded in the field data sheets. Calibration of the equipment will be regularly performed by ALS on quarterly basis.

pH

- 4.22 A portable Hanna pH Meter will be used for in-situ pH measurement. The pH meter is capable of measuring pH in the range of 0 – 14 and readable to 0.1. Standard buffer solutions of at least pH7 and pH10 shall be used for calibration of the instrument before and after use. Calibration of the equipment will be regularly performed by ALS on quarterly basis.

Turbidity (NTU)

- 4.23 A portable Hach 2100p turbidity Meter will be used for in-situ turbidity measurement. The turbidity meter is capable of measuring turbidity in the range of 0 – 1000 NTU. Calibration of the equipment will be regularly performed by ALS on quarterly basis.

Salinity

- 4.24 A portable salinometer capable of measuring salinity in percentage (g/L) will be used for measuring salinity of the water at each monitoring location.

Water Sampler

- 4.25 Water samples will be collected by the ET using a water sampler and 'PE' (Poly-Ethylene) sampling bottles provided by the laboratory. The water sampler will be rinsed before collection with the sample to be taken. Kahlsico Water Sampler will be used for sampling. One liter or 1000mL water sample will be collected from each depth for SS determination. The samples collected are stored in a cool box maintained at 4°C and delivered to ALS upon completion of the sampling by end of each sampling day. Sampling in the stream with shallow water condition, plastic bucket will be used for sample collection.

Sample Container

- 4.26 Water samples will be contained in screw-cap PE (Poly-Ethylene) bottles, which will be provided and pretreated immediately prior to sampling according to HOKLAS quality requirements by ALS. The sampling bottles will be rinsed with the water to be contained. Water sample is then transferred from the sampler to the sample bottles to 95% bottle capacity to allow possible volume changes during delivery and storage.

Sample Storage

- 4.27 A 'Willow' 33-litter plastic cool box packed with ice will be used to preserve the collected water samples prior to arrival at the laboratory for SS determination. The water temperature of the cool box will be maintained at a temperature as close to 4°C as possible without being frozen. Samples collected will be delivered to the laboratory upon collection.

- 4.28 DO, water temperature, turbidity (NTU), pH, salinity and water depth were measured in-situ whereas SS, Ammonia Nitrogen and Zinc were determined in a HOKLAS accredited laboratory (ALS).

### **ECOLOGY MONITORING**

#### **Study Area**

- 4.29 The study area for the ecological monitoring programme for KT15 covers the seasonal wetland area as shown in Project Profile of KT15 Figures ATT 4-7.2.

#### **Survey Method**

- 4.30 Monthly monitoring was conducted by means of walk through survey, along the boundary and within the wetland areas in KT15. Any adverse impacts to the habitat, intrusions of construction activities into the wetland areas, and adverse changes in the wetlands were checked and reported if any.
- 4.31 Photographic records on the fixed photo record points selected during the baseline survey are made every six months. The photos from the construction phase ecological monitoring will be compared with those taken during the baseline which are used as the baseline conditions.
- 4.32 Bird monitoring was conducted in the study areas monthly for KT15. Survey areas in KT15 was the seasonal wetland area covered same as the Project Profile of KT15 Figures ATT 4-7.2.
- 4.33 Fauna monitoring is conducted only during the wet season (April to July inclusive for KT15) in the same survey areas for bird monitoring. For KT15, the survey frequency is monthly, and the surveys cover reptiles, amphibians, dragonflies and butterflies.

#### **Equipment**

- 4.34 Standard portable field survey equipment was used for ecological monitoring, including 1) Binoculars of 10 x 40 magnification; 2) Digital camera; 3) Notebook; and/or 4) Butterfly net (when it is necessary to confirm identities of butterflies and dragonflies).

### **EQUIPMENT CALIBRATION**

- 4.35 Initial calibration of the HVS was performed upon installation and thereafter at bi-monthly intervals in accordance with the manufacturer's instruction using the NIST-certified standard calibrator. The calibration data are properly documented and the records are maintained by ET for future reference.
- 4.36 The 1-Hour TSP meter was calibrated by the supplier prior to purchase. Zero response of the equipment is checked before and after each monitoring event. A comparison test was carried out with a HVS. A conversion factor (K) of 4.0 was generated in accordance with the equipment manufacturer's instruction. The meter counts in minutes multiplied by the conversion factor will generate the equivalent dust concentration by HVS.

- 4.37 The sound level meters are calibrated using an acoustic calibrator prior to and after measurements. The meters are regularly calibrated in accordance with the manufacturer's instructions. Prior to and following each noise measurement, the accuracy of the sound level meter was checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements are considered valid only if the calibration levels before and after the noise measurement agree to within 1.0 dB.
- 4.38 All in-situ monitoring instruments are calibrated and certified by a laboratory accredited under HOKLAS or any other international accreditation scheme at 3 monthly intervals throughout all stages of the water quality monitoring.
- 4.39 The calibration certificates of the monitoring equipment used during the impact monitoring program are attached in [Appendix F](#).

#### ANALYTICAL LABORATORY

- 4.40 Our ET has commissioned a local HOKLAS-accredited laboratory, ALS Technichem (HK) Pty Ltd (HOKLAS No. 66) to provide analytical services for this project. ALS carried out sample and analysis control in accordance with the HOKLAS QA/QC requirements. The specified testing services provided by ALS as shown in [Table 4-3](#).

**Table 4-3 Analytical Method applied to Water Quality Samples**

Determinant	Standard Method	Detection Limit
Suspended Solids	ALS Method EA025	2 mg/L
Ammonia Nitrogen	ALS Method EK055A	0.01 mg/L
Zinc	ALS Method EG020	10 µg/L

- 4.41 The analysis of suspended solids, ammonia nitrogen and zinc concentrations were follow the APHA Standard Methods for the Examination of Water and Wastewater 19ed 2540D. ALS Environmental has comprehensive quality assurance and quality control programs and has attained HOKLAS accreditation for a range of environmental testing. For QA/QC procedures, one duplicate sample for every batch of samples were analyses as required by the HOKLAS. The QA/QC results are presented in [Appendix H](#).

#### DATA MANAGEMENT AND DATA QA/QC CONTROL

- 4.42 The impact monitoring data are handled by the ET's systematic data recording and management, which complies with in-house certified (ISO 9001:2000) Quality Management System. Standard Field Data Sheets (FDS) are used in the impact monitoring program.
- 4.43 The monitoring data recorded in the equipment e.g. 1-Hour TSP meters and noise meters are downloaded directly from the equipment at the end of each monitoring day. The downloaded monitoring data are input into a computerized database properly maintained by the ET. The laboratory results are input directly into the computerized database and QA/QC checked by personnel other than those who input the data.
- 4.44 For monitoring activities require laboratory analysis, the local laboratory follows the QA/QC requirements as set out under the HOKLAS scheme for all laboratory testing.



## 5.0 IMPACT MONITORING RESULTS

5.01 The impact EM&A program was carried out by the ET in compliance with the project specific EM&A Manual in this reporting period. The impact monitoring schedules are presented in [Appendix G](#) and the monitoring results are detailed in the following sub-sections.

### AIR QUALITY

5.02 The 1-Hour and 24-Hour TSP impact air quality monitoring data are summarized in [Tables 5-1](#) and [5-2](#). Graphical plots of the monitoring results are shown in [Appendix H](#) respectively.

**Table 5-1 Summary of 1-Hour TSP Monitoring Results at A10**

Monitoring Date	Start Time	1 <sup>st</sup> Result (µg/m <sup>3</sup> )	2 <sup>nd</sup> Result (µg/m <sup>3</sup> )	3 <sup>rd</sup> Result (µg/m <sup>3</sup> )	Action Level (µg/m <sup>3</sup> )	Limit Level (µg/m <sup>3</sup> )
30-Nov-07	9:23	87	94	97	> 307	> 500
06-Dec-07	9:20	299	273	266	> 307	> 500
12-Dec-07	9:39	148	154	153	> 307	> 500
18-Dec-07	9:13	284	298	273	> 307	> 500
22-Dec-07	9:33	198	223	205	> 307	> 500

Note: \* Monitoring result was exceeded the Action Level  
# Monitoring result was exceeded the Limit Level

**Table 5-2 Summary of 24-Hour TSP Monitoring Results at A10**

Monitoring Date	Monitoring Results (µg/m <sup>3</sup> )	Action Level (µg/m <sup>3</sup> )	Limit Level (µg/m <sup>3</sup> )
29-Nov-07	80	> 165	> 260
07-Dec-07	95	> 165	> 260
11-Dec-07	40	> 165	> 260
17-Dec-07	53	> 165	> 260
21-Dec-07	38	> 165	> 260

Note: \* Monitoring result was exceeded the Action Level  
# Monitoring result was exceeded the Limit Level

5.03 No 1-Hour and 24-Hour TSP Action or Limit Level exceedance was recorded in this reporting period.

5.04 The meteorological data during the monitoring period are summarized in [Appendix I](#).

### CONSTRUCTION NOISE

5.05 The impact construction noise monitoring results are summarized in [Table 5-3](#). Graphical plots of the monitoring data are presented in [Appendix H](#).

**Table 5-3 Summary of Noise Monitoring Results at N10a**

Date	Start Time	1st Leq5	2nd Leq5	3rd Leq5	4th Leq5	5th Leq5	6 <sup>th</sup> Leq5	Leq30
30-Nov-07	10:38	48.1	47.8	48.2	47.3	48.1	49.3	48.2
06-Dec-07	10:38	60.1	59.4	46.2	44.6	43.7	44.1	55.3
12-Dec-07	9:52	64.6	65.9	66.4	64.9	63.4	64.3	65.0
18-Dec-07	10:28	55.0	53.6	54.5	54.9	54.1	55.5	54.6
22-Dec-07	10:27	55.4	53.5	52.6	49.7	56.4	50.6	53.7
<b>Limit Level</b>								<b>&gt; 75 dB(A)</b>

Note: \* The noise ambient condition within the victim area without significant change. Due to the accessibility, baseline monitoring will undertake at N10a. The impact monitoring will undertake at N10 once the access is available.

5.06 No construction noise exceedance (Action/Limit Level) was recorded in this reporting period.

#### **STREAM WATER QUALITY**

5.07 The stream water quality monitoring results are summarized in **Table 5-4**. Details of the monitoring results and graphical plots for each parameter are presented in **Appendix H**.

5.08 No exceedance in stream water quality was recorded in the reporting period.

Table 5-4 Summary of Stream Water Quality Results at W9A &amp; W9B

Monitoring Date	DO in mg/L		Turbidity (NTU)		pH		SS in mg/L		Ammonia (mg/L)		Zinc (µg/L)	
	W9A <sup>#</sup>	W9B	W9A <sup>#</sup>	W9B	W9A <sup>#</sup>	W9B	W9A <sup>#</sup>	W9B	W9A <sup>#</sup>	W9B	W9A <sup>#</sup>	W9B
27-Nov-07	3.1	1.2	142.0	32.1	8.3	8.1	107	37	92.40	18.70	340	113
30-Nov-07	3.3	1.7	217.0	89.8	8.5	8.2	210	120	254.00	26.50	706	196
3-Dec-07	3.2	1.3	269.0	42.5	8.3	8.2	364	43	92.30	35.90	1380	109
6-Dec-07	3.2	1.2	207.0	86.5	8.1	8.3	262	83	45.60	32.60	1020	242
12-Dec-07	2.2	1.2	763.0	89.8	8.6	8.2	840	95	449.00	29.80	2990	280
14-Dec-07	3.2	1.4	459.5	33.8	8.2	8.2	530	44	56.00	21.00	2320	118
18-Dec-07	3.1	1.8	122.0	62.4	8.1	8.4	164	61	22.40	25.50	586	184
22-Dec-07	2.8	1.5	569.5	63.3	8.5	8.4	624	81	141.00	29.00	2870	207
24-Dec-07	4.7	4.4	188.5	102.5	8.1	8.0	20	115	9.66	12.20	96	178
<b>Action Level</b>	-	< 0.3*	-	> 73.5*	-	> 7.0*	-	> 148*	-	> 30.91*	-	> 242*
<b>Limit Level</b>	-	< 0.2**	-	> 78.2**	-	> 7.1**	-	> 159**	-	> 32.20**	-	> 252**

Notes: # Act as Control Station for the Impact Water Quality Monitoring.

\* Alternative Action Level of the Turbidity, pH, Suspended Solid, Ammonia Nitrogen and Zinc are 120% of upstream control station of same day.

\*\* Alternative Limit Level of the Turbidity, pH, Suspended Solid, Ammonia Nitrogen and Zinc are 130% of upstream control station of same day.

## ECOLOGY

- 5.09 34 individuals of birds from 14 species were recorded during the survey for the present monthly monitoring on 16 December 2007. Among the birds recorded, no individual of any wetland bird species with abundance from the baseline (i.e. Cattle Egret and Chinese Pond Heron) was recorded. Compared with the average abundance of 1.2 individuals from 2 species of wetland dependent birds recorded during the baseline study for the KT15 Project Profile, the individual number and the species number of wetland dependent bird recorded fell within the Limit Level for the monitoring requirements for ecology (i.e. decrease in the number of species or individuals > 40% from the baseline).
- 5.10 No intrusions of construction activities into the wetland areas nor adverse impact on the wetlands was found. Based on the findings in the pervious monthly monitoring, the non-compliance in wetland dependent bird species and individual number was not caused by the project.
- 5.11 Photographic records are scheduled in six-month intervals and thus are required in the present monthly monitoring (December 2007). The results are presented in **Appendix K**. Fauna survey is conducted during the wetland season (April to July), and thus are not required in the present monthly monitoring.
- 5.12 Ecology Impact Monitoring Results are presented in the **Table 5-5**.

**Table 5-5 Summary of Ecology Impact Monitoring Results**

Scientific Name	Common Name	Abundance reported in the project profile	Abundance recorded in the present survey (16 Dec 07)
<b>Birds</b>			
<i>Bubulcus ibis</i>	Cattle Egret	<b>0.4</b>	
<i>Ardeola bacchus</i>	Chinese Pond Heron	<b>0.8</b>	
<i>Amaurornis phoenicurus</i>	White-breasted Waterhen	<b>Recorded only</b>	
<i>Streptopelia chinensis</i>	Spotted Dove	Recorded only	3
<i>Hirundo rustica</i>	Barn Swallow	Recorded only	
<i>Motacilla alba</i>	White Wagtail	Recorded only	3
<i>Pycnonotus jocosus</i>	Red-whiskered Bulbul	Recorded only	2
<i>Pycnonotus sinensis</i>	Chinese Bulbul	Recorded only	6
<i>Lanius schach</i>	Long-tailed Shrike	Recorded only	
<i>Copsychus saularis</i>	Oriental Magpie Robin	Recorded only	3
<i>Orthotomus sutorius</i>	Common Tailorbird	Recorded only	
<i>Lonchura striata</i>	White-rumped Munia	Recorded only	
<i>Passer montanus</i>	Eurasian Tree Sparrow	Recorded only	
<i>Sturnus nigricollis</i>	Black-collared Starling	Recorded only	2
<i>Acridotheres cristatellus</i>	Crested Myna	Recorded only	2
<i>Prinia flaviventris</i>	Yellow-bellied Prinia	\	1
<i>Eudynamis scolopacea</i>	Common Koel	\	
<i>Halcyon smyrnensis</i>	White-throated Kingfisher	\	
<i>Garrulax perspicillatus</i>	Masked Laughingthrush	\	
<i>Zosterops japonica</i>	Japanese White Eye	\	3
<i>Lonchura punctulata</i>	Scaly-breasted Munia	\	
<i>Egretta garzetta</i>	Little Egret	\	1
<i>Anthus hodgsoni</i>	Olive-backed Pipit	\	3
<i>Phylloscopus subaffinis</i>	Dusky Warbler	\	1
<i>Phylloscopus inornatus</i>	Yellow-Browed Warbler	\	2
<i>Parus major</i>	Great Tit	\	2
<b>Species Number</b>		<b>15 spp. recorded, (only 2 species of wetland birds with abundance)</b>	<b>14 spp. (0 sp. from the wetland birds with abundance in the baseline)</b>
<b>Individual Number</b>		<b>1.2 (from the 2 species of wetland birds with abundance)</b>	<b>34 (0 from from the wetland birds with abundance in the baseline)</b>

\*Wetland dependent species recorded with abundance during the baseline study with the names bolded

## 6.0 WASTE MANAGEMENT

6.01 The waste management was implemented by on-site Environmental Officer or Environmental Supervisor from time to time.

### RECORDS OF WASTE QUANTITIES

6.02 All types of waste arising from the construction work are classified into the following:

- Construction & Demolition (C&D) Material;
- Chemical Waste;
- General Refuse; and
- Excavated Soil.

6.03 The quantities of waste for disposal in this reporting period are summarized in **Tables 6-1** and **6-2**. Whenever possible, materials were reused on-site as far as practicable.

**Table 6-1 Summary of Quantities of Inert C&D Materials**

Type of Waste	Quantity	Disposal Location
Broken Concrete (Inert) (m <sup>3</sup> )	0	Public Filling
Reused in this Contract (Inert) (m <sup>3</sup> )	0	N/A
Reused in other Projects (Inert) (m <sup>3</sup> )	0	N/A
Disposal as Public Fill (Inert) (m <sup>3</sup> )	364	Tuen Mun Area 38

**Table 6-2 Summary of Quantities of C&D Wastes**

Type of Waste	Quantity	Disposal Location
Recycled Metal (kg)	0	NA
Recycled Paper / Cardboard Packing (kg)	0	NA
Recycled Plastic (kg)	0	NENT Landfill
Chemical Wastes (kg)	0	License Collector
General Refuses (m <sup>3</sup> )	84	NENT Landfill

6.04 The quantities of excavation soil for marine disposal in this reporting period are summarized in **Table 6-3**.

**Table 6-3 Summary of Excavated Soil for Marine Disposal**

Type of Waste	Quantity	Disposal Location
Type 1 Materials (m <sup>3</sup> )	0	East Sha Chau (Pitch 4a & 4b)
Type 2 Materials (m <sup>3</sup> )	0	East Sha Chau (Pitch 4c)

## 7.0 SITE INSPECTION

7.01 According to the EM&A Manual Section 9.1.2, the environmental site inspection should be formulated by ET Leader. ET had carried out the environmental site inspection on 29 November, 07, 13 and 20 December 2007 with the Representatives of the Engineer and the Contractor to evaluate the site environmental performance in this reporting period. The monthly site audit conducted on 13 December 2007 by IEC's representative with the representatives of the Engineer, the Contractor and ET's representative. No non-compliance and three observations were noted.

7.02 The details of observation during the site inspections and monthly audit as follows:

- Dry haul road was observed at the CH100-200, the Contractor was reminded to provide water spraying more frequently to prevent fugitive dust emission in the windy/dry season;

- Housekeeping should be improved at CH 250, C&D waste should clean move frequency to keep the site tidy; and
- Water directly discharge was observed at Bay 27, desilting facilities should be provide for all discharge point.

7.03 The ET site inspection checklists are shown in **Appendix J**. In general, the construction area of KT15 was kept clean and tidy.

7.04 No site inspection was undertaken by external parties in this reporting period.

## 8.0 ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE

### ENVIRONMENTAL COMPLAINT, SUMMONS AND PROSECUTION

8.01 No environmental complaint, summons and prosecution was received in this reporting period. The statistical summary table of environmental complaint is presented in **Table 8-1, 8-2** and **8-3**.

**Table 8-1 Statistical Summary of Environmental Complaints**

Reporting Period	Environmental Complaint Statistics		
	Frequency	Cumulative	Complaint Nature
Jul 2007 –November 2007	0	0	NA
December 2007	0	0	NA

**Table 8-2 Statistical Summary of Environmental Summons**

Reporting Period	Environmental Summons Statistics		
	Frequency	Cumulative	Nature
Jul 2007 –November 2007	0	0	NA
December 2007	0	0	NA

**Table 8-3 Statistical Summary of Environmental Prosecution**

Reporting Period	Environmental Prosecution Statistics		
	Frequency	Cumulative	Nature
Jul 2007 –November 2007	0	0	NA
December 2007	0	0	NA

## 9.0 IMPLEMENTATION STATUS OF MITIGATION MEASURES

9.01 CCC has been implementing the required environmental mitigation measures according to the EM&A Manual of KT15 - Mitigation Measures Implementation Schedule.

9.02 A summary of environmental mitigation measures generally implemented by CCC in this reporting period is presented as follows;

### Water Quality

- Wastewater were appropriately treated by treatment facilities;
- Drainage channels were provided to convey run-off into the treatment facilities;
- Drainage systems were regularly and adequately maintained.

### Air Quality

- Vehicles were cleaned of mud and debris before leaving the site;

- Site vehicles were limited to within 8 km/hr;
- Public roads around the site entrance/exit had been kept clean and free from dust;
- Dust suppression measures were properly provided to reduce dust emission from stockpile.

#### Noise

- Works and equipment were located to minimise noise nuisance from the nearest sensitive receiver;
- Idle equipments were either turned off or throttled down;
- Some of the Powered Mechanical Equipments were covered or shielded by appropriate acoustic materials if practicable.

#### Waste and Chemical Management

- Wastes were properly segregated into inert and non-inert in appropriate containers/areas;
- Excavated materials were reused where practicable.
- A chemical waste storage area had been provided on site;

#### General

- The site was generally kept tidy and clean.

## 10.0 IMPACT FORECAST

### KEY ISSUES FOR THE COMING MONTH

10.01 Key issues to be considered in the coming month include:

- Implementation of dust suppression measures at all times;
- Potential wastewater quality impact due to surface runoff;
- Potential fugitive dust quality impact due to dry/windy season (November to March) from the dry/loose/exposure soil surface/dusty material;
- Disposal of empty engine oil containers within site area;
- Ensure dust suppression measures are implemented properly;
- Sediment catch-pits and silt removal facilities should be regularly maintained;
- Management of chemical wastes;
- Discharge of site effluent to the nearby wetland, stockpiling or disposal of materials, and any dredging or construction area at this area are prohibited;
- Follow-up of improvement on general waste management issues; and
- Implementation of construction noise preventative control measures.

10.02 The tentative 3-month rolling program is presented in [Appendix B](#).

## 11.0 CONCLUSION

11.01 The EM&A program in December 2007 was undertaken in compliance with the EM&A Manual for KT15. A summary of environmental compliance of air, noise, stream water quality and ecology in this reporting period are presented in [Table 11-1](#).

**Table 11-1 Summary of the Exceedances for Impact Monitoring**

Env. Quality	Parameters	Work-Related Exceedance %	Investigation & Corrective Actions
Air Quality	1-Hour TSP	0	Not Required for 0% Exceedance
	24-Hour TSP	0	Not Required for 0% Exceedance
Noise	Leq (30min) Daytime	0	Not Required for 0% Exceedance
Stream Water	Dissolve Oxygen (DO) in mg/L	0	Not Required for 0% Exceedance
	Suspended Solids (SS) in mg/L	0	Not Required for 0% Exceedance
	Turbidity (NTU)	0	Not Required for 0% Exceedance
	pH	0	Not Required for 0% Exceedance
	Ammonia Nitrogen (mg/L)	0	Not Required for 0% Exceedance
	Zinc (µg/L)	0	Not Required for 0% Exceedance
Ecology	Decrease in the total number of species or individuals of wetland dependent bird from baseline	0	Not Required for 0% Exceedance
	Decrease in the total number of species or individuals of wetland faunal from baseline	0	Not Required for 0% Exceedance

- 11.02 No 1-Hour and 24-Hour TSP exceeded the Action/Limit Level was recorded in this reporting period.
- 11.03 All measured daytime construction noise levels were below the Limit level and no complaint was received in this reporting period.
- 11.04 No stream water quality exceeded the Action/Limit Level was recorded during the reporting period.
- 11.05 No intrusions into the wetland area/adverse impact on the wetlands was found during the reporting period. There was an exceedance on the Limit Level for wetland bird individual number and species number (decrease >40%) on 16 December 2007. Based on the findings in the pervious monthly monitoring, the non-compliance in wetland dependent bird species and individual number was not caused by the project.
- 11.06 No environmental complaint, summons or prosecution was received in this reporting period.

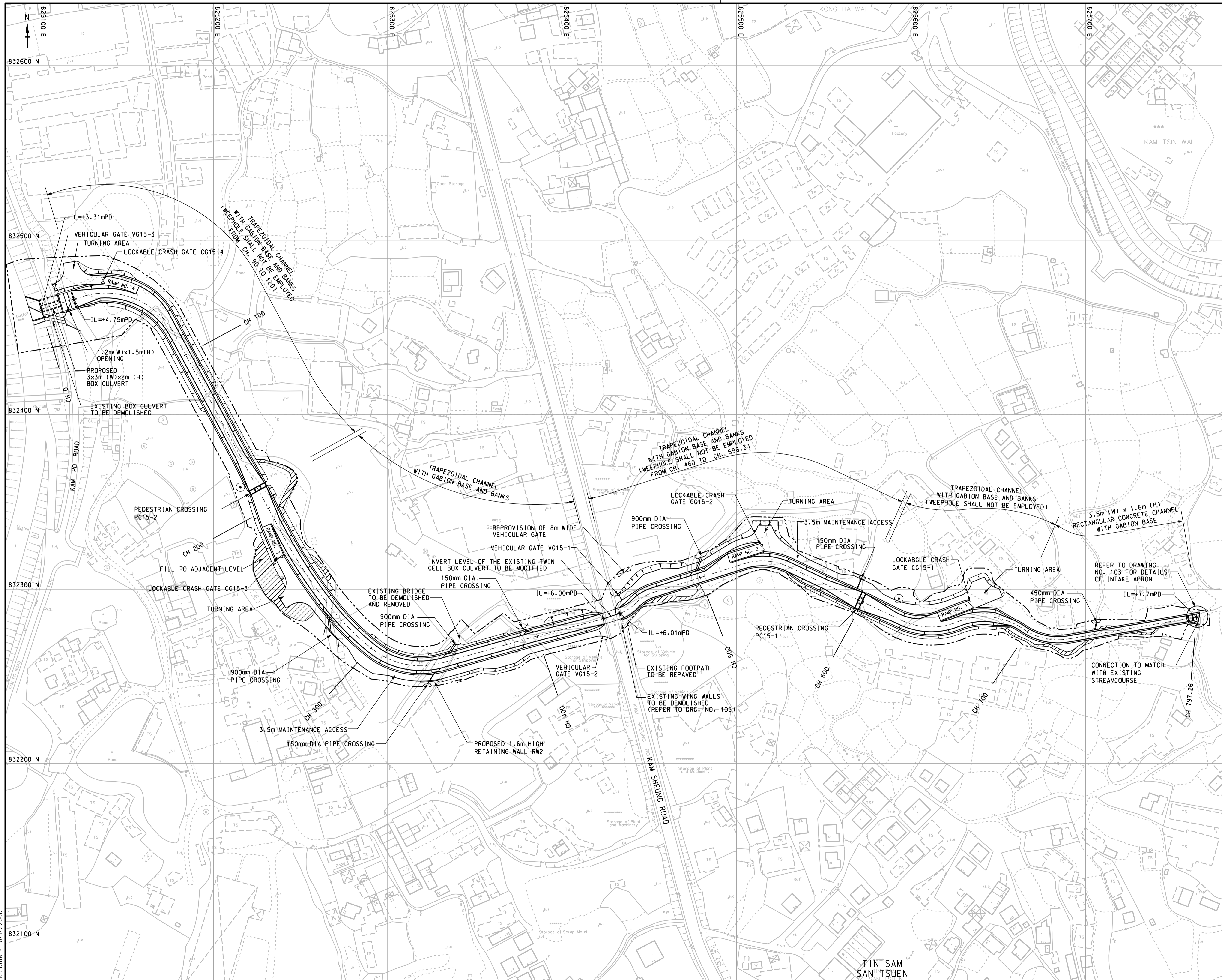
#### RECOMMENDATIONS

- 11.07 Based on the ET regular and monthly IEC site audit inspection records on 29 November, 07, 13 and 20 December 2007, no non-compliance and three observations were recorded. Details of the observations as follows:-
- Dry haul road was observed at the CH100-200, the Contractor was reminded to provide water spraying more frequency to prevent fugitive dust emission in the windy/dry season;
  - Housekeeping should be improved at CH 250, C&D waste should clean move frequency to keep the site tidy; and
  - Water directly discharge was observed at Bay 27, desilting facilities should be provide for all discharge point.
- 11.08 No site inspection was undertaken by external parties in this reporting period.
- 11.09 The ET will continue to implement the EM&A program and audit the implementation of the environmental mitigation measures.



## **Appendix A**

### **Project Site Layout**



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NOTES :  
 1. REFER TO DRAWING NO. 020 FOR NOTES AND LEGENDS.

Revision	Date	Description	Initial
	Designed	Checked	Drawn
	SFL	KIL	MK
Date	12/05	12/05	12/05
Approved			

CONTRACT NO. DG200602

Contract title  
 YUEN LONG, KAM TIN, NGAU TAM MEI AND TIN SHUI WAI DRAINAGE IMPROVEMENTS, STAGE 1, PHASE 2B - CHEUNG CHUN SAN TSUEN AND KAM TSIN WAI

Drawing title  
 CHANNEL KT15 GENERAL LAYOUT PLAN

Drawing no.	Scale
021	1:1000 A1 1:2000 A3

香港特別行政區政府渠務署  
 THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION  
 DRAINAGE SERVICES DEPARTMENT

BLACK & VEATCH HONG KONG LIMITED  
 博威工程顧問有限公司

Plot Date : 6/12/2005

## **Appendix B**

### **Three-Month Construction Program**

PROGRAMME OF WORKS - MP03

Contract No. : DC / 2006 / 02

Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,  
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.

DATE : AUG 2007

ID	Task Name	Duration	Start	Finish	Predecessors	Successors	2008			
							Oct	Nov	Dec	Jan
1	Letter of Acceptance	1 day	Wed 21/3/07	Wed 21/3/07		1S,193SS,199SS,196SS,202SS,212SS				
2	Date for commencement of Works	1 day	Fri 30/3/07	Fri 30/3/07		133SS,136SS,139SS,168SS,185SS...				
3	Execution of Article of Agreement	1 day	Tue 3/4/07	Tue 3/4/07						
4										
5	<b>Master Programme of the Works</b>	<b>839 days</b>	<b>Wed 21/3/07</b>	<b>Mon 6/7/09</b>						
6										
7	<b>Completion Dates</b>	<b>830 days</b>	<b>Fri 30/3/07</b>	<b>Mon 6/7/09</b>		<b>670FS-210 days,845FS-210 days</b>				
8	Section I - portions 1, 2 and 3	830 days	Fri 30/3/07	Mon 6/7/09	2SS	31SS,37FF				
9	Section II - portions 4, 5 and 5C	830 days	Fri 30/3/07	Mon 6/7/09	2SS					
10	Section III - portions 5A1, 5A2 and 5B	740 days	Thu 28/6/07	Mon 6/7/09	20FS-1 day					
11	Section IV - temp vehicular access at portion 5A1	90 days	Thu 28/6/07	Tue 25/9/07	20FS-1 day	22,884FF-1 day				
12	Section V - preservation and protection of existing trees	830 days	Fri 30/3/07	Mon 6/7/09	2SS					
13										
14	<b>Possession of Site</b>	<b>200 days</b>	<b>Fri 30/3/07</b>	<b>Mon 15/10/07</b>						
15	Portion 1 - channel KT2	1 day	Fri 30/3/07	Fri 30/3/07	2SS	221FS+45 days,222FS+45 days,889				
16	Portion 2 - channel KT2	61 days	Fri 30/3/07	Tue 29/5/07	2SS	143,895				
17	Portion 3 - channel KT2	91 days	Fri 30/3/07	Thu 28/6/07	2SS	144,448,901				
18	Portion 4 - channel KT15	1 day	Fri 30/3/07	Fri 30/3/07	2SS	625,907				
19	Portion 5 - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07	2SS	144,672,913,225FS-1 day				
20	Portion 5A1 - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07	2SS	10FS-1 day,11FS-1 day,144,847,919				
21	Portion 5A2 - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07	2SS	144,925				
22	Portion 5B - channel KT15	20 days	Wed 26/9/07	Mon 15/10/07	11	145,931				
23	Portion 5C - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07	2SS					
24	Portion 6 - Temp Storage Area at Chi Ho Road	1 day	Fri 30/3/07	Fri 30/3/07	2SS					
25	Portion 7 - Berthing Area	1 day	Fri 30/3/07	Fri 30/3/07	2SS					
26	Portion 8 - Site Accommodation	1 day	Fri 30/3/07	Fri 30/3/07	2SS	1S,56SS,61SS,66SS,72SS,77SS,78SS				
27										
28	<b>A. Preliminary Works</b>	<b>839 days</b>	<b>Wed 21/3/07</b>	<b>Mon 6/7/09</b>						
29	<b>1. Setting out of Works</b>	<b>830 days</b>	<b>Fri 30/3/07</b>	<b>Mon 6/7/09</b>	<b>2SS</b>					
30	<b>2. Environmental Monitoring and Audit</b>	<b>830 days</b>	<b>Fri 30/3/07</b>	<b>Mon 6/7/09</b>						
31	2.1 Establishment of Environmental Team	14 days	Fri 30/3/07	Thu 12/4/07	8SS	32				
32	2.2 approval by the Engineer	7 days	Fri 13/4/07	Thu 19/4/07	31	34				
33	2.3 Environmental baseline monitoring	77 days	Fri 20/4/07	Thu 5/7/07						
34	a. Technical proposal & methodology	7 days	Fri 20/4/07	Thu 26/4/07	32	35				
35	b. Approval by the Engineer	7 days	Fri 27/4/07	Thu 3/5/07	34	36				
36	c. Baseline monitoring	63 days	Fri 4/5/07	Thu 5/7/07	35	37,233,328,622,663				
37	2.4 Environmental impact monitoring and audit	730 days	Sun 8/7/07	Mon 6/7/09	36,8FF					
38	<b>3. Environmental Management and Environmental Management Plan</b>	<b>73 days</b>	<b>Fri 30/3/07</b>	<b>Sun 10/6/07</b>						
39	3.1 Submission of draft EMP	21 days	Fri 30/3/07	Thu 19/4/07	2SS	40				

Task		Milestone		Rolled Up Critical Task		Split		Group By Summary	
Critical Task		Summary		Rolled Up Milestone		External Tasks		Deadline	
Progress		Rolled Up Task		Rolled Up Progress		Project Summary			

PROGRAMME OF WORKS - MP03









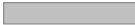





Contract No. : DC / 2006 / 02

Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,  
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.

DATE : AUG 2007

ID	Task Name	Duration	Start	Finish	Predecessors	Successors	2008			
							Oct	Nov	Dec	Jan
40	3.2 Comment from the Engineer	7 days	Fri 20/4/07	Thu 26/4/07	39	41				
41	3.3 Submission of EMP	45 days	Fri 27/4/07	Sun 10/6/07	40					
42	<b>4. Engineer's Accommodation</b>	<b>51 days</b>	<b>Fri 30/3/07</b>	<b>Sat 19/5/07</b>						
43	4.1 Renovation	30 days	Fri 30/3/07	Sat 28/4/07	26SS	50FS-7 days				
44	4.2 Equipment	51 days	Fri 30/3/07	Sat 19/5/07						
45	a. Contract telephone	21 days	Fri 30/3/07	Thu 19/4/07	26SS					
46	b. Survey equipment	45 days	Fri 30/3/07	Sun 13/5/07	26SS					
47	c. Contract computer facilities	<b>51 days</b>	<b>Fri 30/3/07</b>	<b>Sat 19/5/07</b>						
48	submission	14 days	Fri 30/3/07	Thu 12/4/07	26SS	49				
49	approval	7 days	Fri 13/4/07	Thu 19/4/07	48	50				
50	installation	21 days	Sun 22/4/07	Sat 12/5/07	49,43FS-7 days	51				
51	testing & commissioning	7 days	Sun 13/5/07	Sat 19/5/07	50					
52	4.3 utilities servicing	33 days	Fri 30/3/07	Tue 1/5/07						
53	a. Water	1 day	Fri 30/3/07	Fri 30/3/07	26SS					
54	b. Electricity	1 day	Fri 30/3/07	Fri 30/3/07	26SS					
55	c. Telephone	<b>33 days</b>	<b>Fri 30/3/07</b>	<b>Tue 1/5/07</b>						
56	temporary service	32 days	Fri 30/3/07	Mon 30/4/07	26SS	58SS+14 days				
57	new service	<b>19 days</b>	<b>Fri 13/4/07</b>	<b>Tue 1/5/07</b>						
58	application	5 days	Fri 13/4/07	Tue 17/4/07	56SS+14 days	59				
59	installation	14 days	Wed 18/4/07	Tue 1/5/07	58					
60	d. Facsimile	<b>33 days</b>	<b>Fri 30/3/07</b>	<b>Tue 1/5/07</b>						
61	temporary service	32 days	Fri 30/3/07	Mon 30/4/07	26SS	63SS+14 days				
62	new service	<b>19 days</b>	<b>Fri 13/4/07</b>	<b>Tue 1/5/07</b>						
63	application	5 days	Fri 13/4/07	Tue 17/4/07	61SS+14 days	64				
64	installation	14 days	Wed 18/4/07	Tue 1/5/07	63					
65	e. Internet broadband	<b>33 days</b>	<b>Fri 30/3/07</b>	<b>Tue 1/5/07</b>						
66	temporary service (56K)	32 days	Fri 30/3/07	Mon 30/4/07	26SS	68SS+14 days				
67	new service	<b>19 days</b>	<b>Fri 13/4/07</b>	<b>Tue 1/5/07</b>						
68	application	5 days	Fri 13/4/07	Tue 17/4/07	66SS+14 days	69				
69	installation	14 days	Wed 18/4/07	Tue 1/5/07	68					
70	<b>5. Contractor's Accommodation</b>	<b>45 days</b>	<b>Fri 30/3/07</b>	<b>Sun 13/5/07</b>						
71	5.1 Provision	45 days	Fri 30/3/07	Sun 13/5/07						
72	a. Premises	45 days	Fri 30/3/07	Sun 13/5/07	26SS	73FF,74FF,75FF,76FF				
73	b. Toilet facilities	21 days	Mon 23/4/07	Sun 13/5/07	72FF	939				
74	c. Telephone service	30 days	Sat 14/4/07	Sun 13/5/07	72FF	99FF				
75	d. Facsimile service	30 days	Sat 14/4/07	Sun 13/5/07	72FF					
76	e. Internet broadband service	30 days	Sat 14/4/07	Sun 13/5/07	72FF					
77	f. Water	1 day	Fri 30/3/07	Fri 30/3/07	26SS					
78	g. electricity	1 day	Fri 30/3/07	Fri 30/3/07	26SS					
79	<b>6. Transport (land) for the Engineer</b>	<b>124 days</b>	<b>Fri 30/3/07</b>	<b>Tue 31/7/07</b>						
80	6.1 submission	7 days	Fri 30/3/07	Thu 5/4/07	2SS	81				
81	6.2 comment & approval	14 days	Fri 6/4/07	Thu 19/4/07	80	82				

Task		Milestone		Rolled Up Critical Task		Split		Group By Summary	
Critical Task		Summary		Rolled Up Milestone		External Tasks		Deadline	
Progress		Rolled Up Task		Rolled Up Progress		Project Summary			

PROGRAMME OF WORKS - MP03







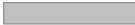




Contract No. : DC / 2006 / 02

Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,  
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.

DATE : AUG 2007

ID	Task Name	Duration	Start	Finish	Predecessors	Successors	2008			
							Oct	Nov	Dec	Jan
82	6.3 delivery	103 days	Fri 20/4/07	Tue 31/7/07	81	83FF				
83	6.4 temp service	124 days	Fri 30/3/07	Tue 31/7/07	2SS,82FF					
84	<b>7. Transport (land) for Public Works Regional Laboratory</b>	<b>124 days</b>	<b>Fri 30/3/07</b>	<b>Tue 31/7/07</b>						
85	7.1 submission	7 days	Fri 30/3/07	Thu 5/4/07	2SS	86				
86	7.2 comment, approval & instruction	14 days	Fri 6/4/07	Thu 19/4/07	85	87				
87	7.3 delivery	103 days	Fri 20/4/07	Tue 31/7/07	86					
88	<b>8. Signboard</b>	<b>150 days</b>	<b>Fri 30/3/07</b>	<b>Sun 26/8/07</b>						
89	8.1 Major	150 days	Fri 30/3/07	Sun 26/8/07						
90	submission	90 days	Fri 30/3/07	Wed 27/6/07	2SS	91SS+30 days				
91	comment & approval	90 days	Sun 29/4/07	Fri 27/7/07	90SS+30 days	92SS+30 days				
92	erection	90 days	Tue 29/5/07	Sun 26/8/07	91SS+30 days					
93	8.2 Minor	150 days	Fri 30/3/07	Sun 26/8/07						
94	submission	90 days	Fri 30/3/07	Wed 27/6/07	2SS	95SS+30 days				
95	comment & approval	90 days	Sun 29/4/07	Fri 27/7/07	94SS+30 days	96SS+30 days				
96	erection	90 days	Tue 29/5/07	Sun 26/8/07	95SS+30 days					
97	<b>9. Telephone hotline</b>	<b>15 days</b>	<b>Sun 29/4/07</b>	<b>Sun 13/5/07</b>						
98	9.1 Engineer's instruction	1 day	Sun 29/4/07	Mon 30/4/07	99SF					
99	9.2 installation	14 days	Mon 30/4/07	Sun 13/5/07	74FF	98SF				
100	<b>10. Contractual general submissions</b>	<b>839 days</b>	<b>Wed 21/3/07</b>	<b>Mon 6/7/09</b>						
101	10.1 programmes	28 days	Wed 21/3/07	Tue 17/4/07						
102	a. GCC Clause 16 programme	14 days	Wed 21/3/07	Tue 3/4/07	1SS	103,104				
103	b. Works programme & financial programme	14 days	Wed 4/4/07	Tue 17/4/07	102					
104	c. 3-month rolling programme	14 days	Wed 4/4/07	Tue 17/4/07	102					
105	10.2 contractor's superintendence	14 days	Fri 30/3/07	Thu 12/4/07						
106	a. Agent	7 days	Fri 30/3/07	Thu 5/4/07	2SS					
107	b. Surveyor	14 days	Fri 30/3/07	Thu 12/4/07	2SS					
108	c. Sub-agent	14 days	Fri 30/3/07	Thu 12/4/07	2SS					
109	d. Geotechnical Engineer	7 days	Fri 30/3/07	Thu 5/4/07	2SS					
110	e. Geotechnical Supervisor	14 days	Fri 30/3/07	Thu 12/4/07	2SS					
111	f. Foreman - concrete	14 days	Fri 30/3/07	Thu 12/4/07	2SS					
112	g. Foreman - drainage	14 days	Fri 30/3/07	Thu 12/4/07	2SS					
113	h. Staff Organization Plan	14 days	Fri 30/3/07	Thu 12/4/07	2SS					
114	10.3 Safety Organization	14 days	Fri 30/3/07	Thu 12/4/07						
115	a. Safety Officer	14 days	Fri 30/3/07	Thu 12/4/07	2SS					
116	b. Safety Supervisor	14 days	Fri 30/3/07	Thu 12/4/07	2SS					
117	c. Safety Representative	14 days	Fri 30/3/07	Thu 12/4/07	2SS					
118	10.4 TTMS design	7 days	Fri 30/3/07	Thu 5/4/07						
119	a. Independent Traffic Consultant	7 days	Fri 30/3/07	Thu 5/4/07	2SS					
120	b. Traffic Engineer	7 days	Fri 30/3/07	Thu 5/4/07	2SS					
121	10.5 Assistant to Engineer	33 days	Fri 30/3/07	Tue 1/5/07						
122	a. Chainmen (4)	33 days	Fri 30/3/07	Tue 1/5/07	2SS					
123	b. Watchmen (2)	33 days	Fri 30/3/07	Tue 1/5/07	2SS					

Task		Milestone		Split		Group By Summary	
Critical Task		Summary		Rolled Up Milestone	External Tasks	Deadline	
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PROGRAMME OF WORKS - MP03

Contract No. : DC / 2006 / 02

Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,  
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.

DATE : AUG 2007

ID	Task Name	Duration	Start	Finish	Predecessors	Successors	2008				
							Oct	Nov	Dec	Jan	
124	c. Field assistant (1)	33 days	Fri 30/3/07	Tue 1/5/07	2SS						
125	d. Technical assistant (1)	33 days	Fri 30/3/07	Tue 1/5/07	2SS						
126	e. Clerical assistant (1)	33 days	Fri 30/3/07	Tue 1/5/07	2SS						
127	f. Office assistant (1)	33 days	Fri 30/3/07	Tue 1/5/07	2SS						
128	10.6 Underground service detection equipment	35 days	Fri 30/3/07	Thu 3/5/07							
129	a. Submission	7 days	Fri 30/3/07	Thu 5/4/07	2SS	130					
130	b. Comment & approval	14 days	Fri 6/4/07	Thu 19/4/07	129	131					
131	c. Provision	14 days	Fri 20/4/07	Thu 3/5/07	130						
132	10.7 Independent Checking of Temporary Works	28 days	Fri 30/3/07	Thu 26/4/07							
133	a. Submission of independent checking engineer	14 days	Fri 30/3/07	Thu 12/4/07	2SS	134					
134	b. Comment & approval	14 days	Fri 13/4/07	Thu 26/4/07	133						
135	10.8 Trip ticket system for C & D material	59 days	Fri 30/3/07	Sun 27/5/07							
136	a. Submission of site management plan	45 days	Fri 30/3/07	Sun 13/5/07	2SS	137					
137	b. Comment & approval	14 days	Mon 14/5/07	Sun 27/5/07	136						
138	10.9. Condition survey and structural monitoring	830 days	Fri 30/3/07	Mon 6/7/09							
139	a. Submission of Independent Structural Engineer	14 days	Fri 30/3/07	Thu 12/4/07	2SS	140					
140	b. Comment & approval	7 days	Fri 13/4/07	Thu 19/4/07	139	142					
141	c. Proposal for condition survey & structural monitoring	209 days	Fri 20/4/07	Wed 14/11/07							
142	Portion 1, 4, 6, 7, 8	30 days	Fri 20/4/07	Sat 19/5/07	140	147					
143	Portion 2	30 days	Wed 30/5/07	Thu 28/6/07	16	148					
144	Portion 3, 5, 5A1, 5A2	30 days	Fri 29/6/07	Sat 28/7/07	17,19,20,21	149					
145	Portion 5B	30 days	Tue 16/10/07	Wed 14/11/07	22	150					
146	d. Comment & approval	193 days	Sun 20/5/07	Wed 28/11/07							
147	Portion 1, 4, 6, 7, 8	14 days	Sun 20/5/07	Sat 2/6/07	142	152					
148	Portion 2	14 days	Fri 29/6/07	Thu 12/7/07	143	153					
149	Portion 3, 5, 5A1, 5A2	14 days	Sun 29/7/07	Sat 11/8/07	144	154					
150	Portion 5B	14 days	Thu 15/11/07	Wed 28/11/07	145	155					
151	e. Condition survey & structural monitoring	765 days	Sun 3/6/07	Mon 6/7/09							
152	Portion 1, 4, 6, 7, 8	765 days	Sun 3/6/07	Mon 6/7/09	147						
153	Portion 2	725 days	Fri 13/7/07	Mon 6/7/09	148						
154	Portion 3, 5, 5A1, 5A2	695 days	Sun 12/8/07	Mon 6/7/09	149						
155	Portion 5B	546 days	Thu 29/11/07	Wed 27/5/09	150						
156	10.10 Handling & disposal of Type 1 & 2 contaminated material:	74 days	Sat 14/7/07	Tue 25/9/07							
157	a. Proposed type of dump truck	44 days	Sun 15/7/07	Mon 27/8/07							
158	Submission	30 days	Sun 15/7/07	Mon 13/8/07	70SS-44 days	159					
159	Comment & approval	14 days	Tue 14/8/07	Mon 27/8/07	158						
160	b. Proposal of berthing area arrangement	44 days	Mon 30/7/07	Tue 11/9/07							
161	Submission	30 days	Mon 30/7/07	Tue 28/8/07		162					
162	Comment & approval	14 days	Wed 29/8/07	Tue 11/9/07	161	938					
163	c. Proposal of disposal arrangement	74 days	Sat 14/7/07	Tue 25/9/07							
164	Submission	60 days	Sat 14/7/07	Tue 11/9/07		165					
165	Comment & approval	14 days	Wed 12/9/07	Tue 25/9/07	164						

Task		Milestone		Rolled Up Critical Task		Split		Group By Summary	
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PROGRAMME OF WORKS - MP03









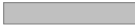





Contract No. : DC / 2006 / 02

Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,  
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.

DATE : AUG 2007

ID	Task Name	Duration	Start	Finish	Predecessors	Successors	2008			
							Oct	Nov	Dec	Jan
166	10.11 Handling & treatment of Type 3 contaminated material	581 days	Fri 30/3/07	Thu 30/10/08						
167	a. Decontamination specialist	134 days	Fri 30/3/07	Fri 10/8/07						
168	Submission	120 days	Fri 30/3/07	Fri 27/7/07	2SS	169				
169	Comment & approval	14 days	Sat 28/7/07	Fri 10/8/07	168	171				
170	b. Statement & treatment programme	42 days	Sat 11/8/07	Fri 21/9/07						
171	(1) Submission	28 days	Sat 11/8/07	Fri 7/9/07	169	173,174				
172	(2) Comment & approval	14 days	Sat 8/9/07	Fri 21/9/07						
173	by the Engineer	14 days	Sat 8/9/07	Fri 21/9/07	171					
174	by the EPD	14 days	Sat 8/9/07	Fri 21/9/07	171	175				
175	c. Setting up of Treatment Plant	60 days	Mon 1/9/08	Thu 30/10/08	174,529SS-61 days					
176	10.12 Safety Plan	35 days	Wed 21/3/07	Tue 24/4/07						
177	a. Submission of draft Safety Plan	14 days	Wed 21/3/07	Tue 3/4/07	1SS	178				
178	b. Comment by the Engineer	7 days	Wed 4/4/07	Tue 10/4/07	177	179				
179	c. Submission of Safety Plan	14 days	Wed 11/4/07	Tue 24/4/07	178					
180	10.13 Sub-contractor Management Plan	839 days	Wed 21/3/07	Mon 6/7/09						
181	a. Submission of SMP	30 days	Wed 21/3/07	Thu 19/4/07	1SS	182				
182	b. For information & Comments	14 days	Fri 20/4/07	Thu 3/5/07	181	183				
183	c. Update SMP	795 days	Fri 4/5/07	Mon 6/7/09	182					
184	10.14 proof of plant ownership	830 days	Fri 30/3/07	Mon 6/7/09						
185	a. Submission of draft written undertaking	14 days	Fri 30/3/07	Thu 12/4/07	2SS	186				
186	b. Comment by the Engineer / Employer	14 days	Fri 13/4/07	Thu 26/4/07	185	187				
187	c. Engineer's request	802 days	Fri 27/4/07	Mon 6/7/09	186					
188	10.15 Contractor's Management Team	830 days	Fri 30/3/07	Mon 6/7/09						
189	a. Submission of staff member details	14 days	Fri 30/3/07	Thu 12/4/07	2SS	190				
190	b. Update management / site supervision team	816 days	Fri 13/4/07	Mon 6/7/09	189					
191	10.16 Water supply pipeworks material	28 days	Wed 21/3/07	Tue 17/4/07						
192	a. Supplier	28 days	Wed 21/3/07	Tue 17/4/07						
193	Submission	14 days	Wed 21/3/07	Tue 3/4/07	1SS	194				
194	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07	193					
195	b. Manufacturer	28 days	Wed 21/3/07	Tue 17/4/07						
196	Submission	14 days	Wed 21/3/07	Tue 3/4/07	1SS	197				
197	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07	196					
198	c. Independent Inspection Agent ( IIA )	28 days	Wed 21/3/07	Tue 17/4/07						
199	Submission	14 days	Wed 21/3/07	Tue 3/4/07	1SS	200				
200	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07	199					
201	d. Representative of the IIA	28 days	Wed 21/3/07	Tue 17/4/07						
202	Submission	14 days	Wed 21/3/07	Tue 3/4/07	1SS	203				
203	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07	202					
204	10.17 Landscape softworks and establishment works	28 days	Fri 30/3/07	Thu 26/4/07						
205	a. Submission of technical information	14 days	Fri 30/3/07	Thu 12/4/07	2SS	206				
206	b. Comment & approval	14 days	Fri 13/4/07	Thu 26/4/07	205					
207	10.18 Preservation and protection of existing trees	59 days	Wed 21/3/07	Fri 18/5/07						

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PROGRAMME OF WORKS - MP03














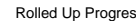
Contract No. : DC / 2006 / 02

Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,  
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.

DATE : AUG 2007

ID	Task Name	Duration	Start	Finish	Predecessors	Successors	2008				
							Oct	Nov	Dec	Jan	
208	a. Specialist contractor ( landscaping Class 1 )	28 days	Fri 30/3/07	Thu 26/4/07							
209	Submission	14 days	Fri 30/3/07	Thu 12/4/07	2SS	210					
210	Comment & approval	14 days	Fri 13/4/07	Thu 26/4/07	209						
211	b. Site supervisory staff	59 days	Wed 21/3/07	Fri 18/5/07							
212	Submission	45 days	Wed 21/3/07	Fri 4/5/07	1SS	213					
213	Comment & approval	14 days	Sat 5/5/07	Fri 18/5/07	212	891,897,903,909,915,921,927,933					
214	10.19 Concrete ( ready mix )	28 days	Fri 30/3/07	Thu 26/4/07							
215	a. Submission of supplier & design mix	21 days	Fri 30/3/07	Thu 19/4/07	2SS	216					
216	b. Comment & approval	7 days	Fri 20/4/07	Thu 26/4/07	215						
217	10.20 Steel reinforcement	35 days	Fri 30/3/07	Thu 3/5/07							
218	a. Submission of supplier	28 days	Fri 30/3/07	Thu 26/4/07	2SS	219					
219	b. Comment & approval	7 days	Fri 27/4/07	Thu 3/5/07	218						
220	10.21 Submissions of method statement / materials	750 days	Tue 15/5/07	Tue 2/6/09							
221	a. Submission of materials	750 days	Tue 15/5/07	Tue 2/6/09	15FS+45 days						
222	b. Submission of method statement	750 days	Tue 15/5/07	Tue 2/6/09	15FS+45 days						
223	<b>11. Provision of wheel washing facilities</b>	<b>180 days</b>	<b>Fri 30/3/07</b>	<b>Tue 25/9/07</b>							
224	11.1 Channel KT2	120 days	Fri 30/3/07	Fri 27/7/07	2SS	233,328,448,471					
225	11.2 Channel KT15	90 days	Thu 28/6/07	Tue 25/9/07	19FS-1 day	622,663SS+75 days					
226	11.3 Berthing area	90 days	Fri 30/3/07	Wed 27/6/07	2SS	491					
227	11.4 Portion 6	45 days	Fri 30/3/07	Sun 13/5/07	2SS	897					
228	<b>12. Setting up of traffic management liaison group</b>	<b>30 days</b>	<b>Fri 30/3/07</b>	<b>Sat 28/4/07</b>	<b>2SS</b>						
229											
230	<b>B. Section I of the Works</b>	<b>830 days</b>	<b>Fri 30/3/07</b>	<b>Mon 6/7/09</b>							
231	<b>B1. Portion 1</b>	<b>790 days</b>	<b>Fri 30/3/07</b>	<b>Wed 27/5/09</b>							
232	<b>1. Site clearance</b>	<b>30 days</b>	<b>Sat 28/7/07</b>	<b>Sun 26/8/07</b>							
233	1.1 General site clearance	30 days	Sat 28/7/07	Sun 26/8/07	36,224,893,891						
234	<b>2. Temporary Traffic Management Scheme</b>	<b>59 days</b>	<b>Fri 30/3/07</b>	<b>Sun 27/5/07</b>							
235	2.1 TTMS Proposal (trial pits in Chi Ho Road for utilities)	59 days	Fri 30/3/07	Sun 27/5/07							
236	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07	2SS	237					
237	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	236	242					
238	2.2 TTMS Proposal (for construction of box culvert)	59 days	Fri 30/3/07	Sun 27/5/07							
239	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07		240					
240	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	239	243					
241	<b>3. Excavation Permits</b>	<b>521 days</b>	<b>Mon 28/5/07</b>	<b>Wed 29/10/08</b>							
242	3.1 application and issue of permit (trial pits in Chi Ho Road)	180 days	Mon 28/5/07	Fri 23/11/07	237	246					
243	3.2 application and issue of permits (for construction of box culvert)	180 days	Sat 3/5/08	Wed 29/10/08	240	263					
244	<b>4. Underground utilities detection</b>	<b>253 days</b>	<b>Fri 30/3/07</b>	<b>Fri 7/12/07</b>							
245	4.1 utilities detection	28 days	Fri 30/3/07	Thu 26/4/07	2SS	246					
246	4.2 trial trench excavation & identification	14 days	Sat 24/11/07	Fri 7/12/07	245,242	254					
247	<b>5. Utilities temporary diversion / protection</b>	<b>493 days</b>	<b>Thu 27/9/07</b>	<b>Sat 31/1/09</b>							
248	a. WSD watermain along village vehicular access	103 days	Wed 7/5/08	Sun 17/8/08	284SS	309FF					
249	b. Street lighting along village vehicular access	103 days	Wed 7/5/08	Sun 17/8/08	284SS	309FF					

Task		Milestone		Rolled Up Critical Task		Split		Group By Summary	
Critical Task		Summary		Rolled Up Milestone		External Tasks		Deadline	
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PROGRAMME OF WORKS - MP03

Contract No. : DC / 2006 / 02

Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,  
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.

DATE : AUG 2007

ID	Task Name	Duration	Start	Finish	Predecessors	Successors	2008				
							Oct	Nov	Dec	Jan	
250	c. PCCW along village vehicular access	103 days	Wed 7/5/08	Sun 17/8/08	284SS	309FF					
251	d. CLP overhead cable at Bay 4	90 days	Thu 7/2/08	Tue 6/5/08	282	284					0 d
252	e. CH 816-CH841 underground cables (33kV)	42 days	Thu 27/9/07	Wed 7/11/07	259	253					
253	f. CH 816-CH841 underground cables (132kV)	56 days	Thu 8/11/07	Wed 2/1/08	252	292					
254	g. Street lighting at Chi Ho Road	92 days	Sat 1/11/08	Sat 31/1/09	264SS,246	270FF					
255	h. Irrigation pipe at Chi Ho Road	92 days	Sat 1/11/08	Sat 31/1/09	264SS	270FF					
256	<b>6. Drainage Management Plan (Ch810 to Ch850)</b>	<b>77 days</b>	<b>Thu 12/7/07</b>	<b>Wed 26/9/07</b>							
257	6.1 Submission of DMPs	1 day	Thu 12/7/07	Thu 12/7/07		258					
258	6.2 Comments by the Engineer	14 days	Fri 13/7/07	Thu 26/7/07	257	259SF					
259	6.3 Implementation of DMP	3 days	Mon 24/9/07	Wed 26/9/07	258SF	252					
260	<b>7. Box Culvert and Channel</b>	<b>550 days</b>	<b>Wed 1/8/07</b>	<b>Sat 31/1/09</b>							
261	7.1 Box Culvert BC2-1	550 days	Wed 1/8/07	Sat 31/1/09							
262	a. Ch0-Ch15 (Bay 1 and Outlet)	94 days	Thu 30/10/08	Sat 31/1/09							
263	Remove road pavement and expose existing utiliti	2 days	Thu 30/10/08	Fri 31/10/08	243,324	264					
264	Excavation	9 days	Sat 1/11/08	Sun 9/11/08	263	254SS,255SS,265					
265	Granular Bedding	5 days	Mon 10/11/08	Fri 14/11/08	264	266					
266	Base Slab	21 days	Sat 15/11/08	Fri 5/12/08	265	267					
267	Wall and Deck	31 days	Sat 6/12/08	Mon 5/1/09	266	268					
268	Curing	14 days	Tue 6/1/09	Mon 19/1/09	267	269					
269	Trench Backfill	3 days	Tue 20/1/09	Thu 22/1/09	268,390FF,391FF,392FF,395FF,3	308					
270	Reinstatement of Chi Ho Road	6 days	Mon 26/1/09	Sat 31/1/09	254FF,255FF,308	320					
271	b. Temporary Bund in AFCD Pond	87 days	Wed 1/8/07	Fri 26/10/07							
272	1. Proposal	31 days	Wed 1/8/07	Fri 31/8/07		273					
273	2. Comments by the Engineer and AFCD	30 days	Sat 1/9/07	Sun 30/9/07	272	274					
274	3.Modified chain link fence	11 days	Mon 1/10/07	Thu 11/10/07	273	275					
275	4. Construction of temporary bund	15 days	Fri 12/10/07	Fri 26/10/07	274	277	0 days				
276	c. Ch15-Ch32 (Bays 2 & 3)	103 days	Sat 27/10/07	Wed 6/2/08							
277	Excavation	25 days	Sat 27/10/07	Tue 20/11/07	275	278	0 days				
278	Granular Bedding	7 days	Wed 21/11/07	Tue 27/11/07	277	279		0 days			
279	Base Slab	18 days	Wed 28/11/07	Sat 15/12/07	278	280			0 days		
280	Wall and Deck	32 days	Sun 16/12/07	Wed 16/1/08	279	281				0 days	
281	Curing	14 days	Thu 17/1/08	Wed 30/1/08	280	282					0 days
282	Trench Backfill	7 days	Thu 31/1/08	Wed 6/2/08	281	251					0 days
283	d. Ch32-Ch88 (Bays 4 - 8)	137 days	Wed 7/5/08	Sat 20/9/08							
284	Excavation	50 days	Wed 7/5/08	Wed 25/6/08	251,321	285SS+10 days,248SS,249SS,250SS					
285	Granular Bedding	60 days	Sat 17/5/08	Tue 15/7/08	284SS+10 days	286SS+6 days					
286	Base Slab	75 days	Fri 23/5/08	Tue 5/8/08	285SS+6 days	287SS+9 days					
287	Wall and Deck	87 days	Sun 1/6/08	Tue 26/8/08	286SS+9 days	288SS+16 days					
288	Curing	85 days	Tue 17/6/08	Tue 9/9/08	287SS+16 days	289SS+14 days					
289	Trench Backfill	82 days	Tue 1/7/08	Sat 20/9/08	288SS+14 days	309					
290	7.2 Channel	339 days	Thu 3/1/08	Sat 6/12/08							
291	a. Ch840-Ch844 (Bay 56b)	91 days	Thu 3/1/08	Wed 2/4/08							

Project: PROGRAMME OF WORKS  
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Task		Milestone		Rolled Up Critical Task		Split		Group By Summary	
Critical Task		Summary		Rolled Up Milestone		External Tasks		Deadline	
Progress		Rolled Up Task		Rolled Up Progress		Project Summary			

PROGRAMME OF WORKS - MP03

Contract No. : DC / 2006 / 02

Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,  
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.

DATE : AUG 2007

ID	Task Name	Duration	Start	Finish	Predecessors	Successors	2008			
							Oct	Nov	Dec	Jan
292	Excavation (including contamination materials)	25 days	Thu 3/1/08	Sun 27/1/08	253	293				
293	Granular Bedding	3 days	Mon 28/1/08	Wed 30/1/08	292	294				
294	Base Slab	22 days	Thu 31/1/08	Thu 21/2/08	293	295				
295	Wall and Deck	23 days	Fri 22/2/08	Sat 15/3/08	294	296				
296	Curing	14 days	Sun 16/3/08	Sat 29/3/08	295	297				
297	Trench Backfill	4 days	Sun 30/3/08	Wed 2/4/08	296	311				
298	b. Demolition of existing crossing	20 days	Thu 11/9/08	Tue 30/9/08	311	300				
299	c. Ch800-840 (Bay 56a)	67 days	Wed 1/10/08	Sat 6/12/08						
300	Excavation (including contamination materials)	12 days	Wed 1/10/08	Sun 12/10/08	298	301				
301	Granular Bedding	3 days	Mon 13/10/08	Wed 15/10/08	300	302				
302	Base Slab	12 days	Thu 16/10/08	Mon 27/10/08	301	303				
303	Wall and Deck	22 days	Tue 28/10/08	Tue 18/11/08	302	304SS+10 days				
304	Curing	26 days	Fri 7/11/08	Tue 2/12/08	303SS+10 days	305SS+14 days				
305	Trench Backfill	16 days	Fri 21/11/08	Sat 6/12/08	304SS+14 days	312				
306	<b>8. Filling in Platform</b>	<b>142 days</b>	<b>Sat 6/9/08</b>	<b>Sun 25/1/09</b>						
307	8.1 Box Culvert	127 days	Sun 21/9/08	Sun 25/1/09						
308	a. Ch0-Ch15 (Bay 1 and Outlet)	3 days	Fri 23/1/09	Sun 25/1/09	269	270				
309	b. Ch15-Ch88 (Bay 2 to Bay 8)	10 days	Sun 21/9/08	Tue 30/9/08	289,248FF,249FF,250FF	315,316,323				
310	8.2 Channel	112 days	Fri 26/12/08	Fri 26/12/08						
311	a. Ch840-Ch844 (Bay 56b)	5 days	Sat 6/9/08	Wed 10/9/08	505,297	298				
312	b. Ch800-840 (Bay 56a)	20 days	Sun 7/12/08	Fri 26/12/08	305	588FF				
313	<b>9. Geotechnical Instrumentation for CLP Pylon</b>	<b>4 days</b>	<b>Mon 24/9/07</b>	<b>Thu 27/9/07</b>		<b>341</b>				
314	<b>10. Drainage works (except Bays 56a and 56b)</b>	<b>45 days</b>	<b>Wed 1/10/08</b>	<b>Fri 14/11/08</b>						
315	a. storm drain with manhole	30 days	Wed 1/10/08	Thu 30/10/08	309	317SS+30 days,318				
316	b. surface drain	45 days	Wed 1/10/08	Fri 14/11/08	309					
317	<b>11. Water supply pipeworks</b>	<b>60 days</b>	<b>Fri 31/10/08</b>	<b>Mon 29/12/08</b>	<b>315SS+30 days</b>					
318	<b>12. Roads and paving (except Bays 56a and 56b)</b>	<b>52 days</b>	<b>Fri 31/10/08</b>	<b>Sun 21/12/08</b>	<b>315</b>	<b>319SS+30 days,341</b>				
319	<b>13. Street furnitures / traffic sign / road marking (except Bay</b>	<b>52 days</b>	<b>Sun 30/11/08</b>	<b>Tue 20/1/09</b>	<b>318SS+30 days</b>					
320	<b>14. Landscape softworks / hardworks (except Bays 56a and</b>	<b>84 days</b>	<b>Thu 5/3/09</b>	<b>Wed 27/5/09</b>	<b>437SS,270</b>	<b>892FF</b>				
321	<b>15. Diversion of Village Vehicular Access to Bays 9 -11</b>	<b>1 day</b>	<b>Sat 15/3/08</b>	<b>Sat 15/3/08</b>	<b>428,429</b>	<b>284,441SS-10 days</b>				
322	<b>16. Road Diversion in Chi Ho Road</b>	<b>8 days</b>	<b>Wed 1/10/08</b>	<b>Wed 8/10/08</b>						
323	a. Construction of temporary road above Box Culvert	7 days	Wed 1/10/08	Tue 7/10/08	309	324				
324	b. Implementation of road diversion	1 day	Wed 8/10/08	Wed 8/10/08	323	263				
325										
326	<b>B2. Portion 2</b>	<b>830 days</b>	<b>Fri 30/3/07</b>	<b>Mon 6/7/09</b>						
327	<b>1. Site clearance</b>	<b>90 days</b>	<b>Tue 14/8/07</b>	<b>Sun 11/11/07</b>						
328	1.1 General clearance	90 days	Tue 14/8/07	Sun 11/11/07	36,897,224,899					
329	<b>2. Underground utilities detection</b>	<b>42 days</b>	<b>Tue 3/7/07</b>	<b>Mon 13/8/07</b>						
330	2.1 utilities detection	28 days	Tue 3/7/07	Mon 30/7/07		331,450				
331	2.2 trial trench excavation & identification	14 days	Tue 31/7/07	Mon 13/8/07	330	349				
332	<b>3. Utilities temporary diversion / protection</b>	<b>463 days</b>	<b>Fri 30/3/07</b>	<b>Fri 4/7/08</b>						
333	a. WSD water main along village vehicular access	90 days	Wed 10/10/07	Mon 7/1/08	349SS	354FF				

Project: PROGRAMME OF WORKS Page: 8 of 23	Task		Milestone		Rolled Up Critical Task		Split		Group By Summary	
	Critical Task		Summary		Rolled Up Milestone		External Tasks		Deadline	
	Progress		Rolled Up Task		Rolled Up Progress		Project Summary			

PROGRAMME OF WORKS - MP03

Contract No. : DC / 2006 / 02

Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,  
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.

DATE : AUG 2007

ID	Task Name	Duration	Start	Finish	Predecessors	Successors	2008				
							Oct	Nov	Dec	Jan	
334	b. Street lighting along village vehicular access	269 days	Wed 10/10/07	Fri 4/7/08	349SS		days				
335	c. PCCW along village vehicular access	245 days	Wed 10/10/07	Tue 10/6/08	349SS		days				
336	d. CLP overhead cables / street lighting at CH 290 - CH 33	90 days	Fri 30/3/07	Wed 27/6/07		357					
337	<b>4. Geotechnical Instrumentation for AFCD</b>	6 days	Thu 27/9/07	Tue 2/10/07		341,349					
338	<b>5. Discussion with Pond Owner</b>	39 days	Wed 1/8/07	Sat 8/9/07		356					
339	<b>6. Box Culvert, Channel and Crossings</b>	<b>533 days</b>	<b>Sun 9/9/07</b>	<b>Sun 22/2/09</b>							
340	a. Ch88-Ch120 (Bays 9 - 11)	63 days	Mon 22/12/08	Sun 22/2/09							
341	Excavation	21 days	Mon 22/12/08	Sun 11/1/09	313,337,318	342SS+10 days					
342	Granular Bedding	15 days	Thu 1/1/09	Thu 15/1/09	341SS+10 days	343SS+6 days					
343	Base Slab	15 days	Wed 7/1/09	Wed 21/1/09	342SS+6 days	344SS+7 days					
344	Wall and Deck	22 days	Wed 14/1/09	Wed 4/2/09	343SS+7 days	345SS+11 days					
345	Curing	25 days	Sun 25/1/09	Wed 18/2/09	344SS+11 days	346SS+14 days					
346	Trench Backfill	15 days	Sun 8/2/09	Sun 22/2/09	345SS+14 days	405					
347	b. Ch120-Ch205 (Bay 12 - Bay 17)	111 days	Sun 23/9/07	Fri 11/1/08							
348	Haul access	16 days	Sun 23/9/07	Mon 8/10/07	356	349					
349	Excavation	46 days	Wed 10/10/07	Sat 24/11/07	337,331,348	333SS,334SS,335SS,350SS+10 days	days				
350	Granular Bedding	43 days	Sat 20/10/07	Sat 1/12/07	349SS+10 days	351SS+6 days	100 days				
351	Base Slab	50 days	Fri 26/10/07	Fri 14/12/07	350SS+6 days	352SS+11 days	100 days				
352	Wall and Deck	53 days	Tue 6/11/07	Fri 28/12/07	351SS+11 days	353SS+7 days	52 days				
353	Curing	53 days	Tue 13/11/07	Fri 4/1/08	352SS+7 days	354SS+14 days,389,395,397	100 days				
354	Trench Backfill	46 days	Tue 27/11/07	Fri 11/1/08	353SS+14 days,333FF	407	52 days				
355	c. Ch205-Ch310 (Bay 18 - Bay 24)	93 days	Sun 9/9/07	Mon 10/12/07							
356	Haul access	14 days	Sun 9/9/07	Sat 22/9/07	338	364,358,348,357					
357	Excavation	27 days	Sun 23/9/07	Fri 19/10/07	336,356	358SS+10 days					
358	Granular Bedding	23 days	Wed 3/10/07	Thu 25/10/07	357SS+10 days,356	359SS+6 days					
359	Base Slab	39 days	Tue 9/10/07	Fri 16/11/07	358SS+6 days	360SS+11 days	days				
360	Wall and Deck	42 days	Sat 20/10/07	Fri 30/11/07	359SS+11 days	361SS+7 days	69 days				
361	Curing	42 days	Sat 27/10/07	Fri 7/12/07	360SS+7 days	362SS+14 days,391	39 days				
362	Trench Backfill	31 days	Sat 10/11/07	Mon 10/12/07	361SS+14 days	408	39 days				
363	d. Ch310-Ch375 (Bay 25 - Bay 28)	257 days	Sun 23/9/07	Thu 5/6/08							
364	Haul access	15 days	Sun 23/9/07	Sun 7/10/07	356	365,373					
365	Excavation	40 days	Wed 27/2/08	Sun 6/4/08	572,364	366SS+10 days					
366	Granular Bedding	26 days	Sat 8/3/08	Wed 2/4/08	365SS+10 days	367SS+6 days					
367	Base Slab	27 days	Fri 14/3/08	Wed 9/4/08	366SS+6 days	368SS+11 days					
368	Wall and Deck	30 days	Tue 25/3/08	Wed 23/4/08	367SS+11 days	369SS+7 days					
369	Curing	30 days	Tue 1/4/08	Wed 30/4/08	368SS+7 days	370SS+14 days,392,396,400					
370	Trench Backfill	23 days	Tue 15/4/08	Wed 7/5/08	369SS+14 days						
371	Demolition of Existing crossing at Ch410	7 days	Fri 30/5/08	Thu 5/6/08	444	409					
372	e. Ch375-Ch413 (Bay 29 - Bay 31)	<b>314 days</b>	<b>Mon 8/10/07</b>	<b>Sat 16/8/08</b>							
373	Haul access	10 days	Mon 8/10/07	Wed 17/10/07	364	374	days				
374	Excavation	40 days	Fri 30/5/08	Tue 8/7/08	443,373	375SS+10 days,444SS-7 days					
375	Granular Bedding	28 days	Mon 9/6/08	Sun 6/7/08	374SS+10 days	376SS+10 days					

Project: PROGRAMME OF WORKS  
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Task		Milestone		Rolled Up Critical Task		Split		Group By Summary	
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PROGRAMME OF WORKS - MP03

Contract No. : DC / 2006 / 02

Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,  
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.

DATE : AUG 2007

ID	Task Name	Duration	Start	Finish	Predecessors	Successors	2008				
							Oct	Nov	Dec	Jan	
376	Base Slab	29 days	Thu 19/6/08	Thu 17/7/08	375SS+10 days	377SS+14 days					
377	Wall and Deck	27 days	Thu 3/7/08	Tue 29/7/08	376SS+14 days	378SS+7 days					
378	Curing	34 days	Thu 10/7/08	Tue 12/8/08	377SS+7 days	379SS+14 days,393					
379	Trench Backfill	24 days	Thu 24/7/08	Sat 16/8/08	378SS+14 days	410					
380	f. Ch413-Ch436 (Bay 32)	87 days	Sat 1/3/08	Mon 26/5/08							
381	Flow diversion	7 days	Sat 1/3/08	Fri 7/3/08	382SS-7 days						
382	Excavation	15 days	Sat 8/3/08	Sat 22/3/08	442	381SS-7 days,383					
383	Granular Bedding	4 days	Sun 23/3/08	Wed 26/3/08	382	384					
384	Base Slab	14 days	Thu 27/3/08	Wed 9/4/08	383	385					
385	Wall and Deck	22 days	Thu 10/4/08	Thu 1/5/08	384	386					
386	Curing	11 days	Fri 2/5/08	Mon 12/5/08	385	387,398					
387	Trench Backfill	14 days	Tue 13/5/08	Mon 26/5/08	386	418SS,443,462SS					
388	<b>6. Gabion</b>	<b>354 days</b>	<b>Sat 8/12/07</b>	<b>Tue 25/11/08</b>							
389	Ch120-Ch145.5 (Bay 12 - Bay 13)	19 days	Sat 5/1/08	Wed 23/1/08	353	390					
390	Ch163 - Ch205 (Bay 15 - Bay 17)	103 days	Thu 24/1/08	Mon 5/5/08	389	269FF					
391	Ch205 - Ch310 (Bay 18 - Bay 24)	187 days	Sat 8/12/07	Wed 11/6/08	361	269FF					
392	Ch310 - Ch325, Ch348 - Ch375 (Bay 25, Bay 27 - Bay 28)	105 days	Thu 1/5/08	Wed 13/8/08	369	269FF					
393	Ch375 - CH413 (Bay29 - Bay31)	105 days	Wed 13/8/08	Tue 25/11/08	378	269FF					
394	<b>7. Granite Stone Facing</b>	<b>134 days</b>	<b>Sat 5/1/08</b>	<b>Sat 17/5/08</b>							
395	Ch100 -Ch120 (Bay 10 - Bay 11)	11 days	Sat 5/1/08	Tue 15/1/08	353	269FF					
396	Ch325 - Ch348 (Bay 26)	6 days	Thu 1/5/08	Tue 6/5/08	369	269FF					
397	Ch120 - Ch310 (Bay 12 - Bay 24)	16 days	Sat 5/1/08	Sun 20/1/08	353	269FF					
398	Ch413 - Ch436 (Bay 32)	5 days	Tue 13/5/08	Sat 17/5/08	386	269FF					
399	<b>8. Ramp No. 3 (Ch356 - Ch405)</b>	<b>17 days</b>	<b>Thu 1/5/08</b>	<b>Sat 17/5/08</b>							
400	General fill	5 days	Thu 1/5/08	Mon 5/5/08	369	401					
401	Granular fill and blinding	2 days	Tue 6/5/08	Wed 7/5/08	400	402					
402	Road slab	10 days	Thu 8/5/08	Sat 17/5/08	401						
403	<b>8. Filling in Platform</b>	<b>450 days</b>	<b>Tue 11/12/07</b>	<b>Wed 4/3/09</b>							
404	8.1 Box Culvert BC2-1	10 days	Mon 23/2/09	Wed 4/3/09							
405	a. Ch88-Ch120 (Bay 9 - Bay 11)	10 days	Mon 23/2/09	Wed 4/3/09	346	413SS+10 days,420,427					
406	8.2 Channel and Crossing	264 days	Tue 11/12/07	Sat 30/8/08							
407	a. Ch120-Ch205 (Bay 12 - Bay 17)	28 days	Sat 12/1/08	Fri 8/2/08	354	414SS+7 days,421,428					
408	b. Ch205-Ch310 (Bay 18 - Bay 24)	28 days	Tue 11/12/07	Mon 7/1/08	362	415SS+7 days,422,429					
409	c. Ch310-Ch375 (Bay 25 - Bay 28)	31 days	Fri 6/6/08	Sun 6/7/08	371	416SS+7 days,423					
410	d. Ch375-Ch413 (Bay 29 - Bay 31)	14 days	Sun 17/8/08	Sat 30/8/08	379	417SS+10 days,424,430					
411	<b>9. Drainage works</b>	<b>463 days</b>	<b>Tue 18/12/07</b>	<b>Tue 24/3/09</b>							
412	9.1 storm drain with manhole and headwall	463 days	Tue 18/12/07	Tue 24/3/09							
413	a. Ch88-Ch 120 (Bay 9 - Bay 11)	20 days	Thu 5/3/09	Tue 24/3/09	405SS+10 days	425SS+30 days,427					
414	b. Ch120-Ch205 (Bay 12 - Bay 17)	20 days	Sat 19/1/08	Thu 7/2/08	407SS+7 days	427					
415	c. Ch205-Ch310 (Bay 18 - Bay 24)	20 days	Tue 18/12/07	Sun 6/1/08	408SS+7 days						
416	d. Ch310-Ch375 (Bay 25 - Bay 28)	20 days	Fri 13/6/08	Wed 2/7/08	409SS+7 days						
417	e. Ch375-Ch413 (Bay 29 - Bay 31)	25 days	Wed 27/8/08	Sat 20/9/08	410SS+10 days						

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Task		Milestone		Rolled Up Critical Task		Split		Group By Summary	
Critical Task		Summary		Rolled Up Milestone		External Tasks		Deadline	
Progress		Rolled Up Task		Rolled Up Progress		Project Summary			

PROGRAMME OF WORKS - MP03















Contract No. : DC / 2006 / 02

Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,  
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.

DATE : AUG 2007

ID	Task Name	Duration	Start	Finish	Predecessors	Successors	2008				
							Oct	Nov	Dec	Jan	
418	f. Ch413-Ch436 (Bay 32)	4 days	Tue 13/5/08	Fri 16/5/08	387SS						
419	9.2. surface drain	432 days	Tue 8/1/08	Sat 14/3/09							
420	a. Ch88-Ch 120 (Bay 9 - Bay 11)	10 days	Thu 5/3/09	Sat 14/3/09	405						437SS
421	b. Ch120-Ch205 (Bay 12 - Bay 17)	35 days	Sat 9/2/08	Fri 14/3/08	407						438SS
422	c. Ch205-Ch310 (Bay 18 - Bay 24)	45 days	Tue 8/1/08	Thu 21/2/08	408						439SS
423	d. Ch310-Ch375 (Bay 25 - Bay 28)	35 days	Mon 7/7/08	Sun 10/8/08	409						440SS
424	e. Ch375-Ch413 (Bay 29 - Bay 31)	10 days	Sun 31/8/08	Tue 9/9/08	410						440SS
425	<b>10. Water supply pipeworks</b>	<b>60 days</b>	<b>Tue 2/6/09</b>	<b>Sat 4/4/09</b>	<b>413SS+30 days</b>						<b>427</b>
426	<b>11. Roads and paving</b>	<b>529 days</b>	<b>Tue 8/1/08</b>	<b>Fri 19/6/09</b>							
427	a. Ch88-Ch 120 (Bay 9 - Bay 11)	17 days	Wed 3/6/09	Fri 19/6/09	414,425,405,413						432
428	b. Ch120-Ch205 (Bay 12 - Bay 17)	35 days	Sat 9/2/08	Fri 14/3/08	407						321,433SS+30 days
429	c. Ch205-Ch310 (Bay 18 - Bay 24)	50 days	Tue 8/1/08	Tue 26/2/08	408						321,434SS+30 days
430	d. Ch310-Ch436 (Bay 25 - Bay 32)	58 days	Sun 31/8/08	Mon 27/10/08	410						435SS+30 days
431	<b>12. Road furnitures</b>	<b>516 days</b>	<b>Thu 7/2/08</b>	<b>Mon 6/7/09</b>							
432	a. Ch88-Ch 120 (Bay 9 - Bay 11)	17 days	Sat 20/6/09	Mon 6/7/09	427						
433	b. Ch120-Ch205 (Bay 12 - Bay 17)	33 days	Mon 10/3/08	Fri 11/4/08	428SS+30 days						
434	c. Ch205-Ch310 (Bay 18 - Bay 24)	50 days	Thu 7/2/08	Thu 27/3/08	429SS+30 days						
435	d. Ch310-Ch436 (Bay 25 - Bay 32)	33 days	Tue 30/9/08	Sat 1/11/08	430SS+30 days						
436	<b>13. Landscape softworks / hardworks</b>	<b>452 days</b>	<b>Tue 8/1/08</b>	<b>Fri 3/4/09</b>							<b>898SS</b>
437	a. Ch88-Ch 120 (Bay 9 - Bay 11)	30 days	Thu 5/3/09	Fri 3/4/09	420SS						320SS
438	b. Ch120-Ch205 (Bay 12 - Bay 17)	70 days	Sat 9/2/08	Fri 18/4/08	421SS						
439	c. Ch205-Ch310 (Bay 18 - Bay 24)	62 days	Tue 8/1/08	Sun 9/3/08	422SS						
440	d. Ch310-Ch436 (Bay 25 - Bay 32)	72 days	Sun 31/8/08	Mon 10/11/08	423SS,424SS						
441	<b>14. Temporary Village Access on Bay 9 - Bay 11</b>	<b>10 days</b>	<b>Wed 5/3/08</b>	<b>Fri 14/3/08</b>	<b>321SS-10 days</b>						
442	<b>15. Temporary Village Access on Bay 29 - Bay 31</b>	<b>10 days</b>	<b>Wed 27/2/08</b>	<b>Fri 7/3/08</b>	<b>572</b>						382
443	<b>16. Temporary Village Access on Bay 32</b>	<b>3 days</b>	<b>Tue 27/5/08</b>	<b>Thu 29/5/08</b>	<b>387</b>						374
444	<b>17. Diversion of Existing Traffic to Cheung Chun San Tsuen</b>	<b>7 days</b>	<b>Fri 23/5/08</b>	<b>Thu 29/5/08</b>	<b>374SS-7 days</b>						371
445											
446	<b>B3. Portion 3</b>	<b>726 days</b>	<b>Thu 12/7/07</b>	<b>Mon 6/7/09</b>							
447	<b>1. Site clearance</b>	<b>90 days</b>	<b>Sat 15/9/07</b>	<b>Thu 13/12/07</b>							
448	1.1 General clearance	90 days	Sat 15/9/07	Thu 13/12/07	17,224,903,905						491SS+10 days
449	<b>2. Underground utilities detection</b>	<b>42 days</b>	<b>Tue 31/7/07</b>	<b>Mon 10/9/07</b>							
450	2.1 utilities detection	28 days	Tue 31/7/07	Mon 27/8/07	330						451
451	2.2 trial trench excavation & identification	14 days	Tue 28/8/07	Mon 10/9/07	450						491
452	<b>3. Utilities temporary diversion / protection</b>	<b>153 days</b>	<b>Sat 1/11/08</b>	<b>Thu 2/4/09</b>							
453	a. WSD water main along village access at CH 1150	153 days	Sat 1/11/08	Thu 2/4/09	529SS,534FF+60 days						604
454	b. Street lighting along village access at CH 1150	93 days	Sat 1/11/08	Sun 1/2/09	529SS,534FF						604
455	c. PCCW along village access at CH 1150	153 days	Sat 1/11/08	Thu 2/4/09	529SS,534FF+60 days						604
456	<b>4. Drainage Management Plan</b>	<b>706 days</b>	<b>Thu 12/7/07</b>	<b>Tue 16/6/09</b>							
457	4.1 Submission of DMPs	1 day	Thu 12/7/07	Thu 12/7/07							458
458	4.2 Comments by the Engineer	14 days	Fri 13/7/07	Thu 26/7/07	457						459
459	4.3 Implementation of DMP	659 days	Tue 28/8/07	Tue 16/6/09	535FF,458						

Task		Milestone		Rolled Up Critical Task		Split		Group By Summary	
Critical Task		Summary		Rolled Up Milestone		External Tasks		Deadline	
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PROGRAMME OF WORKS - MP03

Contract No. : DC / 2006 / 02




Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,  
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.

DATE : AUG 2007

ID	Task Name	Duration	Start	Finish	Predecessors	Successors	2008				
							Oct	Nov	Dec	Jan	
460	<b>5. Channel and Crossings</b>	<b>633 days</b>	<b>Sat 28/7/07</b>	<b>Mon 20/4/09</b>							
461	a. Ch436-Ch535 (Bay 33 - Bay 39)	176 days	Fri 9/5/08	Fri 31/10/08							
462	Haul access	6 days	Tue 13/5/08	Sun 18/5/08	387SS	464					
463	Flow diversion	10 days	Fri 9/5/08	Sun 18/5/08	464SS-10 days						
464	Excavation (including contamination material)	56 days	Mon 19/5/08	Sun 13/7/08	462,572	465SS+30 days,463SS-10 days					
465	Granular Bedding	80 days	Wed 18/6/08	Fri 5/9/08	464SS+30 days	466SS+10 days					
466	Base Slab	82 days	Sat 28/6/08	Wed 17/9/08	465SS+10 days	467SS+14 days					
467	Wall and Deck	85 days	Sat 12/7/08	Sat 4/10/08	466SS+14 days	468SS+7 days					
468	Curing	92 days	Sat 19/7/08	Sat 18/10/08	467SS+7 days	469SS+14 days,536SS+20 days					
469	Trench Backfill	91 days	Sat 2/8/08	Fri 31/10/08	468SS+14 days	574,529					
470	b. Ch535-Ch625 (Bay 40 - Bay 45)	559 days	Sat 28/7/07	Thu 5/2/09							
471	Haul access	15 days	Sat 28/7/07	Sat 11/8/07	224	480					
472	Flow diversion	10 days	Sun 2/11/08	Tue 11/11/08	473SS-10 days						
473	Excavation (including contamination material)	32 days	Sat 1/11/08	Tue 2/12/08		474SS+10 days,472SS-10 days					
474	Granular Bedding	41 days	Tue 11/11/08	Sun 21/12/08	473SS+10 days	475SS+6 days					
475	Base Slab	45 days	Mon 17/11/08	Wed 31/12/08	474SS+6 days	476SS+11 days					
476	Wall and Deck	48 days	Fri 28/11/08	Wed 14/1/09	475SS+11 days	477SS+7 days					
477	Curing	55 days	Fri 5/12/08	Wed 28/1/09	476SS+7 days	478SS+14 days,537					
478	Trench Backfill	49 days	Fri 19/12/08	Thu 5/2/09	477SS+14 days	575					
479	c. Ch625-Ch738 (Bay 46 - Bay 53)	295 days	Sun 12/8/07	Sun 1/6/08							
480	Haul access	15 days	Sun 12/8/07	Sun 26/8/07	471	482,489					
481	Flow diversion	10 days	Tue 12/2/08	Thu 21/2/08	482SS-10 days						5
482	Excavation (including contamination material)	49 days	Fri 22/2/08	Thu 10/4/08	496,480	483SS+10 days,481SS-10 days					
483	Granular Bedding	45 days	Mon 3/3/08	Wed 16/4/08	482SS+10 days	484SS+6 days					
484	Base Slab	50 days	Sun 9/3/08	Sun 27/4/08	483SS+6 days	485SS+11 days					
485	Wall and Deck	53 days	Thu 20/3/08	Sun 11/5/08	484SS+11 days	486SS+7 days					
486	Curing	60 days	Thu 27/3/08	Sun 25/5/08	485SS+7 days	487SS+14 days,538					
487	Trench Backfill	53 days	Thu 10/4/08	Sun 1/6/08	486SS+14 days	576					
488	d. Ch738-Ch800 (Bay 54 - Bay 55)	174 days	Sat 1/9/07	Thu 21/2/08							
489	Haul access	6 days	Sat 1/9/07	Thu 6/9/07	480	498,491					
490	Flow diversion	10 days	Sat 17/11/07	Mon 26/11/07	491SS-10 days						
491	Excavation (including contamination material)	38 days	Thu 1/11/07	Sat 8/12/07	448SS+10 days,451,903,489,226	492SS+10 days,490SS-10 days	217 days				
492	Granular Bedding	34 days	Sun 11/11/07	Fri 14/12/07	491SS+10 days	493SS+6 days	58 days				
493	Base Slab	49 days	Sat 17/11/07	Fri 4/1/08	492SS+6 days	494SS+11 days	217 days				
494	Wall and Deck	62 days	Wed 28/11/07	Mon 28/1/08	493SS+11 days	495SS+7 days	160 days				
495	Curing	69 days	Wed 5/12/07	Mon 11/2/08	494SS+7 days	496SS+14 days,539,545,553	160 days				
496	Trench Backfill	65 days	Wed 19/12/07	Thu 21/2/08	495SS+14 days	482,577	160 days				
497	e. Ch844-Ch925 (Bay 56c - Bay 59)	365 days	Fri 7/9/07	Fri 5/9/08							
498	Haul access	10 days	Fri 7/9/07	Sun 16/9/07	489	500,507					
499	Flow diversion	10 days	Sun 6/7/08	Tue 15/7/08	500SS-10 days						
500	Excavation (including contamination material)	66 days	Tue 22/4/08	Thu 26/6/08	498,514	501SS+10 days,499SS-10 days					

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Task		Milestone		Rolled Up Critical Task		Split		Group By Summary	
Critical Task		Summary		Rolled Up Milestone		External Tasks		Deadline	
Progress		Rolled Up Task		Rolled Up Progress		Project Summary			

PROGRAMME OF WORKS - MP03















Contract No. : DC / 2006 / 02

Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,  
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.

DATE : AUG 2007

ID	Task Name	Duration	Start	Finish	Predecessors	Successors	2008			
							Oct	Nov	Dec	Jan
502	Base Slab	79 days	Thu 8/5/08	Fri 25/7/08	501SS+6 days	503SS+11 days				
503	Wall and Deck	82 days	Mon 19/5/08	Fri 8/8/08	502SS+11 days	504SS+7 days				
504	Curing	89 days	Mon 26/5/08	Fri 22/8/08	503SS+7 days	505SS+14 days,540				
505	Trench Backfill	89 days	Mon 9/6/08	Fri 5/9/08	504SS+14 days	311,578				
506	f. Ch925-Ch1038 (Bay 60 - Bay 66)	<b>218 days</b>	<b>Mon 17/9/07</b>	<b>Mon 21/4/08</b>						
507	Haul access	10 days	Mon 17/9/07	Wed 26/9/07	498	516				
508	Flow diversion	10 days	Wed 10/10/07	Fri 19/10/07	509SS-10 days					
509	Excavation and Handling of Type 3 Contaminated Mat	116 days	Sat 20/10/07	Tue 12/2/08		508SS-10 days,510SS+10 days				
510	Granular Bedding	116 days	Tue 30/10/07	Fri 22/2/08	509SS+10 days	511SS+6 days				
511	Base Slab	127 days	Mon 5/11/07	Mon 10/3/08	510SS+6 days	512SS+11 days				
512	Wall and Deck	130 days	Fri 16/11/07	Mon 24/3/08	511SS+11 days	513SS+7 days				
513	Curing	137 days	Fri 23/11/07	Mon 7/4/08	512SS+7 days	514SS+14 days,541				
514	Trench Backfill	137 days	Fri 7/12/07	Mon 21/4/08	513SS+14 days	500,579				
515	f. Ch1038-Ch1146 (Bay 67 - Bay 71)	572 days	Thu 27/9/07	Mon 20/4/09						
516	Haul access	5 days	Thu 27/9/07	Mon 1/10/07	507	518				
517	Flow diversion	10 days	Fri 23/1/09	Sun 1/2/09	518SS-10 days					
518	Excavation and Handling of Type 3 Contaminated Material	33 days	Mon 2/2/09	Fri 6/3/09	534,516	519SS+10 days,517SS-10 days				
519	Granular Bedding	29 days	Thu 12/2/09	Thu 12/3/09	518SS+10 days	520SS+6 days				
520	Base Slab	30 days	Wed 18/2/09	Thu 19/3/09	519SS+6 days	521SS+11 days				
521	Wall and Deck	34 days	Sun 1/3/09	Fri 3/4/09	520SS+11 days	522SS+7 days,557SS+21 days				
522	Curing	41 days	Sun 8/3/09	Fri 17/4/09	521SS+7 days	523SS+14 days,542,546,557				
523	Trench Backfill	30 days	Sun 22/3/09	Mon 20/4/09	522SS+14 days	580				
524	g. Ch1146-Ch1330 (Bay 72 - Bay 84)	108 days	Fri 17/10/08	Sun 1/2/09						
525	Haul access	5 days	Fri 17/10/08	Tue 21/10/08	529SS-15 days	527				
526	Flow diversion	10 days	Wed 22/10/08	Fri 31/10/08	529SS-10 days					
527	Demolition of existing crossing (Bay 72)	3 days	Sun 16/11/08	Tue 18/11/08	550,525					
528	Demolition of existing footbridge (Bay 83)	7 days	Mon 17/11/08	Sun 23/11/08	564					
529	Excavation and Handling of Type 3 Contaminated Material	57 days	Sat 1/11/08	Sat 27/12/08	469	453SS,454SS,455SS,530SS+10 days,549SS+9 days,563SS+10 days,175SS-61 days,525SS-15				
530	Granular Bedding	53 days	Tue 11/11/08	Fri 2/1/09	529SS+10 days	531SS+6 days				
531	Base Slab	53 days	Mon 17/11/08	Thu 8/1/09	530SS+6 days	532SS+11 days				
532	Wall and Deck	49 days	Fri 28/11/08	Thu 15/1/09	531SS+11 days	533SS+7 days				
533	Curing	56 days	Fri 5/12/08	Thu 29/1/09	532SS+7 days	534SS+14 days,543,547				
534	Trench Backfill	45 days	Fri 19/12/08	Sun 1/2/09	533SS+14 days	453FF+60 days,454FF,455FF+60 days,518,551,565,581				
535	<b>6. Gabion</b>	<b>491 days</b>	<b>Tue 12/2/08</b>	<b>Tue 16/6/09</b>		<b>459FF</b>				
536	a. Bay 33- Bay39 (Ch436-Ch535)	100 days	Fri 8/8/08	Sat 15/11/08	468SS+20 days					
537	b. Bay 40 - Bay 45 (CH535-CH625)	120 days	Thu 29/1/09	Thu 28/5/09	477					
538	c. Bay 46 - Bay 53 (Ch625-Ch738)	247 days	Mon 26/5/08	Tue 27/1/09	486					
539	d. Bay 54 - Bay 55 (Ch738-Ch800)	37 days	Tue 12/2/08	Wed 19/3/08	495					
540	e. Bay 56c - Bay 59 (Ch844-Ch925)	200 days	Sat 23/8/08	Tue 10/3/09	504					
541	f. Bay 60 - Bay 66 (Ch925-Ch1038)	130 days	Tue 8/4/08	Fri 15/8/08	513					

Task		Milestone		Rolled Up Critical Task		Split		Group By Summary	
Critical Task		Summary		Rolled Up Milestone		External Tasks		Deadline	
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PROGRAMME OF WORKS - MP03

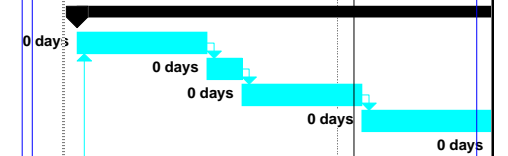
Contract No. : DC / 2006 / 02

Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,  
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.

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ID	Task Name	Duration	Start	Finish	Predecessors	Successors	2008			
							Oct	Nov	Dec	Jan
542	g. Bay 67 - Bay 71 (Ch1038-Ch1146)	60 days	Sat 18/4/09	Tue 16/6/09	522					
543	h. Bay 72 - Bay 84 (Ch1146-Ch1330)	130 days	Fri 30/1/09	Mon 8/6/09	533					
544	<b>7. Granite Stone Facing</b>	<b>454 days</b>	<b>Tue 12/2/08</b>	<b>Sun 10/5/09</b>						
545	Bay 54 to Bay 55 (Ch738 - Ch800)	78 days	Tue 12/2/08	Tue 29/4/08	495					4
546	Bay 67 and Bay 69a (Ch1038 -Ch1108)	23 days	Sat 18/4/09	Sun 10/5/09	522					
547	Bay 83 and Bay 84 (Ch1301-Ch1330)	7 days	Fri 30/1/09	Thu 5/2/09	533					
548	<b>8. Temp Crossing at Bay 71 (Ch1145)</b>	<b>86 days</b>	<b>Mon 10/11/08</b>	<b>Tue 3/2/09</b>						
549	8.1 Construction	5 days	Mon 10/11/08	Fri 14/11/08	529SS+9 days	550				
550	8.2 Pedestrian diversion	1 day	Sat 15/11/08	Sat 15/11/08	549	527				
551	8.3 Demolition of Temp crossing	2 days	Mon 2/2/09	Tue 3/2/09	534	580				
552	<b>9. Ramp No. 2 (Ch752 - Ch800, Bay 55)</b>	<b>17 days</b>	<b>Tue 12/2/08</b>	<b>Thu 28/2/08</b>						
553	General fill	5 days	Tue 12/2/08	Sat 16/2/08	495	554				4
554	Granular fill and blinding	2 days	Sun 17/2/08	Mon 18/2/08	553	555				
555	Road slab	10 days	Tue 19/2/08	Thu 28/2/08	554	577FF				
556	<b>10. Ramp No. 1 (Ch1052 - Ch1103, Bay 68)</b>	<b>31 days</b>	<b>Sat 18/4/09</b>	<b>Mon 18/5/09</b>						
557	base slab	12 days	Sat 18/4/09	Wed 29/4/09	522,521SS+21 days	558				
558	Wall	10 days	Thu 30/4/09	Sat 9/5/09	557	559				
559	General fill	5 days	Sun 10/5/09	Thu 14/5/09	558	560				
560	Granular fill and blinding	2 days	Fri 15/5/09	Sat 16/5/09	559	561				
561	Road slab	2 days	Sun 17/5/09	Mon 18/5/09	560	604FF				
562	<b>11. Pedestrian Temporary Crossing at Bay 83 (Ch1306)</b>	<b>85 days</b>	<b>Tue 11/11/08</b>	<b>Tue 3/2/09</b>						
563	11.1 Construction	5 days	Tue 11/11/08	Sat 15/11/08	529SS+10 days	564				
564	11.2 Pedestrian diversion	1 day	Sun 16/11/08	Sun 16/11/08	563	528				
565	11.3 Demolition of Temp crossing	2 days	Mon 2/2/09	Tue 3/2/09	534	591				
566	<b>12. Retaining Wall RW1 (Ch430-Ch490)</b>	<b>109 days</b>	<b>Sat 10/11/07</b>	<b>Tue 26/2/08</b>						
567	Excavation	26 days	Sat 10/11/07	Wed 5/12/07	618	568				
568	Granular bedding	7 days	Thu 6/12/07	Wed 12/12/07	567	569				
569	Base slab	24 days	Thu 13/12/07	Sat 5/1/08	568	570				
570	Wall	26 days	Sun 6/1/08	Thu 31/1/08	569	571				
571	Curing	14 days	Fri 1/2/08	Thu 14/2/08	570	572				
572	Backfilling	12 days	Fri 15/2/08	Tue 26/2/08	571	365,464,442				
573	<b>13. Filling in Platform</b>	<b>434 days</b>	<b>Fri 22/2/08</b>	<b>Thu 30/4/09</b>						
574	a. Bay 33- Bay39 (Ch436-Ch535)	25 days	Sat 1/11/08	Tue 25/11/08	469	584SS+10 days,593				
575	b. Bay 40 - Bay 45 (Ch535-Ch625)	28 days	Fri 6/2/09	Thu 5/3/09	478	585SS+10 days,594				
576	c. Bay 46 - Bay 53 (Ch625-Ch738)	28 days	Mon 2/6/08	Sun 29/6/08	487	586SS+10 days,595				
577	d. Bay 54 - Bay 55 (Ch738-Ch800)	19 days	Fri 22/2/08	Tue 11/3/08	496,555FF	587SS+10 days,596				
578	e. Bay 56c - Bay 59 (Ch844-Ch925)	21 days	Sat 6/9/08	Fri 26/9/08	505	588SS+10 days,597,602				
579	f. Bay 60 - Bay 66 (Ch925-Ch1038)	41 days	Tue 22/4/08	Sun 1/6/08	514	589SS+10 days,598				
580	g. Bay 67 - Bay 71 (Ch1038-Ch1146)	10 days	Tue 21/4/09	Thu 30/4/09	523,551	590SS+10 days,599,604				
581	h. Bay 72 - Bay 84 (Ch1146-Ch1330)	14 days	Mon 2/2/09	Sun 15/2/09	534	591SS+10 days,600				
582	<b>14. Drainage works</b>	<b>469 days</b>	<b>Mon 3/3/08</b>	<b>Sun 14/6/09</b>						
583	14.1 storm drain with manhole	444 days	Mon 3/3/08	Wed 20/5/09						



Task		Milestone		Rolled Up Critical Task		Split		Group By Summary	
Critical Task		Summary		Rolled Up Milestone		External Tasks		Deadline	
Progress		Rolled Up Task		Rolled Up Progress		Project Summary			

PROGRAMME OF WORKS - MP03


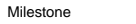






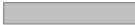





Contract No. : DC / 2006 / 02

Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,  
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.

DATE : AUG 2007

ID	Task Name	Duration	Start	Finish	Predecessors	Successors	2008			
							Oct	Nov	Dec	Jan
584	a. Bay 33- Bay39 (Ch436-Ch535)	30 days	Tue 11/11/08	Wed 10/12/08	574SS+10 days	610				
585	b. Bay 40 - Bay 45 (CH535-Ch625)	20 days	Mon 16/2/09	Sat 7/3/09	575SS+10 days	611				
586	c. Bay 46 - Bay 53 (Ch625-Ch738)	20 days	Thu 12/6/08	Tue 1/7/08	576SS+10 days	612				
587	d. Bay 54 - Bay 55 (Ch738-Ch800)	20 days	Mon 3/3/08	Sat 22/3/08	577SS+10 days	613				
588	e. Bay 56c - Bay 59 (Ch844-Ch925)	30 days	Thu 27/11/08	Fri 26/12/08	578SS+10 days,312FF	603				
589	f. Bay 60 - Bay 66 (Ch925-Ch1038)	60 days	Fri 2/5/08	Mon 30/6/08	579SS+10 days					
590	g. Bay 67 - Bay 71 (Ch1038-Ch1146)	20 days	Fri 1/5/09	Wed 20/5/09	580SS+10 days					
591	h. Bay 72 - Bay 84 (Ch1146-Ch1330)	20 days	Thu 12/2/09	Tue 3/3/09	581SS+10 days,565					
592	14.2. surface drain	460 days	Wed 12/3/08	Sun 14/6/09						
593	a. Bay 33- Bay39 (Ch436-Ch535)	45 days	Wed 26/11/08	Fri 9/1/09	574	610SS+30 days				
594	b. Bay 40 - Bay 45 (CH535-Ch625)	45 days	Fri 6/3/09	Sun 19/4/09	575	611SS+30 days				
595	c. Bay 46 - Bay 53 (Ch625-Ch738)	45 days	Mon 30/6/08	Wed 13/8/08	576	612				
596	d. Bay 54 - Bay 55 (Ch738-Ch800)	45 days	Wed 12/3/08	Fri 25/4/08	577	613				
597	e. Bay 56c - Bay 59 (Ch844-Ch925)	45 days	Sat 27/9/08	Mon 10/11/08	578					
598	f. Bay 60 - Bay 66 (Ch925-Ch1038)	45 days	Mon 2/6/08	Wed 16/7/08	579					
599	g. Bay 67 - Bay 71 (Ch1038-Ch1146)	45 days	Fri 1/5/09	Sun 14/6/09	580	616SS+22 days				
600	h. Bay 72 - Bay 84 (Ch1146-Ch1330)	45 days	Mon 16/2/09	Wed 1/4/09	581	617SS+30 days				
601	<b>15. Roads and paving</b>	<b>276 days</b>	<b>Sat 27/9/08</b>	<b>Mon 29/6/09</b>						
602	a. Ch800-Ch881	60 days	Sat 27/9/08	Tue 25/11/08	578	603,606SS+30 days				
603	b. Ch881-CH1037	52 days	Sat 27/12/08	Mon 16/2/09	602,588	607SS+30 days				
604	c. CH1037-CH1165	60 days	Fri 1/5/09	Mon 29/6/09	580,453,454,455,561FF	608SS+30 days				
605	<b>16. Street furnitures / traffic sign / road marking</b>	<b>253 days</b>	<b>Mon 27/10/08</b>	<b>Mon 6/7/09</b>						
606	a. Ch800-Ch881	37 days	Mon 27/10/08	Tue 2/12/08	602SS+30 days					
607	b. Ch881-CH1037	37 days	Mon 26/1/09	Tue 3/3/09	603SS+30 days					
608	c. CH1037-CH1165	37 days	Sun 31/5/09	Mon 6/7/09	604SS+30 days					
609	<b>17. Landscape softworks / hardworks</b>	<b>193 days</b>	<b>Fri 26/12/08</b>	<b>Mon 6/7/09</b>		<b>904SS</b>				
610	a. Bay 33- Bay39 (Ch436-Ch535)	30 days	Fri 26/12/08	Sat 24/1/09	593SS+30 days,584					
611	b. Bay 40 - Bay 45 (CH535-Ch625)	45 days	Sun 5/4/09	Tue 19/5/09	594SS+30 days,585					
612	c. Bay 46 - Bay 53 (Ch625-Ch738)	45 days	Tue 24/2/09	Fri 10/4/09	613SF,586,595					
613	d. Bay 54 - Bay 55 (Ch738-Ch800)	45 days	Fri 10/4/09	Mon 25/5/09	614SF,587,596	612SF				
614	e. Bay 56c - Bay 59 (Ch844-Ch925)	22 days	Mon 25/5/09	Mon 15/6/09	615	613SF				
615	f. Bay 60 - Bay 66 (Ch925-Ch1038)	23 days	Sat 2/5/09	Sun 24/5/09	617	614				
616	g. Bay 67 - Bay 71 (Ch1038-Ch1146)	45 days	Sat 23/5/09	Mon 6/7/09	599SS+22 days					
617	h. Bay 72 - Bay 84 (Ch1146-Ch1330)	45 days	Wed 18/3/09	Fri 1/5/09	600SS+30 days	615				
618	<b>18. Lower down existing village access</b>	<b>9 days</b>	<b>Thu 1/11/07</b>	<b>Fri 9/11/07</b>		567				
619	<b>C. Section II of the Works</b>	<b>830 days</b>	<b>Fri 30/3/07</b>	<b>Mon 6/7/09</b>						
620	<b>C1. Portion 4</b>	<b>812 days</b>	<b>Fri 30/3/07</b>	<b>Thu 18/6/09</b>						
621	<b>1. Site clearance</b>	<b>14 days</b>	<b>Wed 26/9/07</b>	<b>Tue 9/10/07</b>						
622	1.1 General clearance	14 days	Wed 26/9/07	Tue 9/10/07	225,36,909,911	646				
623	<b>2. Temporary Traffic Management Scheme</b>	<b>60 days</b>	<b>Fri 30/3/07</b>	<b>Mon 28/5/07</b>						
624	2.1 TTMS Proposal (trial pits for utilities and site entrance ir	59 days	Sat 31/3/07	Mon 28/5/07						
625	a. Submission	45 days	Sat 31/3/07	Mon 14/5/07	18	626				

Task		Milestone		Rolled Up Critical Task		Split		Group By Summary	
Critical Task		Summary		Rolled Up Milestone		External Tasks		Deadline	
Progress		Rolled Up Task		Rolled Up Progress		Project Summary			

PROGRAMME OF WORKS - MP03

Contract No. : DC / 2006 / 02









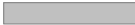





Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,  
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.

DATE : AUG 2007

ID	Task Name	Duration	Start	Finish	Predecessors	Successors	2008			
							Oct	Nov	Dec	Jan
626	b. comments & approvals by Engineer & TMLG	14 days	Tue 15/5/07	Mon 28/5/07	625	631				
627	2.2 TTMS Proposal (for construction of box culvert)	59 days	Fri 30/3/07	Sun 27/5/07						
628	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07		629				
629	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	628	632				
630	<b>3. Excavation Permits</b>	<b>520 days</b>	<b>Tue 29/5/07</b>	<b>Wed 29/10/08</b>						
631	3.1 application and issue of permit (trial pits for utilities and site entrance in Kam Po Road)	60 days	Tue 29/5/07	Fri 27/7/07	626	635				
632	3.2 application and issue of permits (for construction of box culvert)	180 days	Sat 3/5/08	Wed 29/10/08	629	645				
633	<b>4. Underground utilities detection</b>	<b>43 days</b>	<b>Fri 29/6/07</b>	<b>Fri 10/8/07</b>						
634	4.1 utilities detection	28 days	Fri 29/6/07	Fri 27/7/07	635SF-1 day					
635	4.2 trial trench excavation & identification	14 days	Sat 28/7/07	Fri 10/8/07	631	634SF-1 day,645				
636	<b>5. Utilities temporary diversion / protection</b>	<b>85 days</b>	<b>Sat 1/11/08</b>	<b>Sat 24/1/09</b>						
637	a. WSD water main along Kam Po Road	85 days	Sat 1/11/08	Sat 24/1/09	646SS	653FF				
638	b. Street lighting along Kam Po Road	85 days	Sat 1/11/08	Sat 24/1/09	646SS	653FF				
639	c. DSD storm Drain	85 days	Sat 1/11/08	Sat 24/1/09	646SS	653FF				
640	<b>6. Drainage Management Plan</b>	<b>662 days</b>	<b>Fri 30/3/07</b>	<b>Mon 19/1/09</b>						
641	6.1 Submission of DMPs	1 day	Fri 30/3/07	Fri 30/3/07		853SS,680SS,642				
642	6.2 Comments by the Engineer	14 days	Sat 31/3/07	Fri 13/4/07	641	643				
643	6.3 Implementation of DMPs	57 days	Mon 24/11/08	Mon 19/1/09	647,642	855FF				
644	<b>7. Box Culvert Ch0-Ch15 (Bay 1 and Outlet)</b>	<b>94 days</b>	<b>Thu 30/10/08</b>	<b>Sat 31/1/09</b>						
645	Remove road pavement and expose existing utilities	2 days	Thu 30/10/08	Fri 31/10/08	635,632,833	646				
646	Excavation	8 days	Sat 1/11/08	Sat 8/11/08	645,622	638SS,639SS,637SS,648				
647	Remove existing box culvert	14 days	Mon 10/11/08	Sun 23/11/08	648	649SS+4 days,643,653				
648	flow diversion	1 day	Sun 9/11/08	Sun 9/11/08	646	647				
649	Granular Bedding	5 days	Fri 14/11/08	Tue 18/11/08	647SS+4 days	650				
650	Base Slab	18 days	Wed 19/11/08	Sat 6/12/08	649	651				
651	Wall and Deck	30 days	Sun 7/12/08	Mon 5/1/09	650	652				
652	Curing	14 days	Tue 6/1/09	Mon 19/1/09	651	653				
653	Trench Backfill	5 days	Tue 20/1/09	Sat 24/1/09	652,637FF,638FF,639FF,647,764	654,656				
654	Reinstatement of Kam Po Road	7 days	Sun 25/1/09	Sat 31/1/09	653	834				
655	<b>9. Modification to invert level of box culvert at Kam Sheung</b>	<b>45 days</b>	<b>Fri 9/1/09</b>	<b>Sun 22/2/09</b>	<b>716</b>					
656	<b>10. Fill in Platform</b>	<b>30 days</b>	<b>Mon 2/2/09</b>	<b>Tue 3/3/09</b>	<b>653,834</b>	<b>657</b>				
657	<b>11. Roads and paving</b>	<b>30 days</b>	<b>Wed 4/3/09</b>	<b>Thu 2/4/09</b>	<b>656,798</b>	<b>658,659</b>				
658	<b>12. Street furnitures</b>	<b>14 days</b>	<b>Fri 3/4/09</b>	<b>Thu 16/4/09</b>	<b>657</b>					
659	<b>13. Landscape softworks / hardworks</b>	<b>77 days</b>	<b>Fri 3/4/09</b>	<b>Thu 18/6/09</b>	<b>657</b>	<b>910SS</b>				
660										
661	<b>C2. Portion 5 and 5C</b>	<b>830 days</b>	<b>Fri 30/3/07</b>	<b>Mon 6/7/09</b>						
662	<b>1. Site clearance</b>	<b>90 days</b>	<b>Thu 20/9/07</b>	<b>Tue 18/12/07</b>						
663	1.1 General clearance	90 days	Thu 20/9/07	Tue 18/12/07	36,225SS+75 days,915,917	714				
664	<b>2. Temporary Traffic Management Scheme</b>	<b>59 days</b>	<b>Fri 30/3/07</b>	<b>Sun 27/5/07</b>						
665	TTMS Proposal (trial pits for utilities and site entrance in Ka	59 days	Fri 30/3/07	Sun 27/5/07						
666	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07	2SS	667				

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Task		Milestone		Rolled Up Critical Task		Split		Group By Summary	
Critical Task		Summary		Rolled Up Milestone		External Tasks		Deadline	
Progress		Rolled Up Task		Rolled Up Progress		Project Summary			

PROGRAMME OF WORKS - MP03

Contract No. : DC / 2006 / 02

Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,  
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.

DATE : AUG 2007

ID	Task Name	Duration	Start	Finish	Predecessors	Successors	2008				
							Oct	Nov	Dec	Jan	
667	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	666	669					
668	<b>3. Excavation Permits</b>	<b>741 days</b>	<b>Mon 28/5/07</b>	<b>Sat 6/6/09</b>							
669	3.1 application and issue of permit (trial pits for utilities and temporary site entrance in Kam Sheung Road)	60 days	Mon 28/5/07	Thu 26/7/07	667	673					
670	3.2 application and issue of permits (for construction of permanent entrance)	180 days	Tue 9/12/08	Sat 6/6/09	7FS-210 days	818					
671	<b>4. Underground utilities detection</b>	<b>42 days</b>	<b>Fri 29/6/07</b>	<b>Thu 9/8/07</b>							
672	a. utilities detection	28 days	Fri 29/6/07	Thu 26/7/07	19	673					
673	b. trial trench excavation & identification	14 days	Fri 27/7/07	Thu 9/8/07	669,672	675,676,677,712					
674	<b>5. Utilities temporary diversion / protection</b>	<b>553 days</b>	<b>Fri 10/8/07</b>	<b>Thu 12/2/09</b>							
675	a. CLP overhead cables at CH 100 ~ CH 120	90 days	Fri 10/8/07	Wed 7/11/07	673	687					
676	b. CLP overhead cables at CH 530 ~ CH 550	90 days	Fri 10/8/07	Wed 7/11/07	673	714					
677	c. CLP overhead cables at CH 670 ~ CH 690	90 days	Fri 10/8/07	Wed 7/11/07	673						
678	d. Gas main at Kam Sheung Road	84 days	Fri 21/11/08	Thu 12/2/09	714SS,719FF						
679	<b>6. Drainage Management Plan</b>	<b>722 days</b>	<b>Fri 30/3/07</b>	<b>Fri 20/3/09</b>							
680	5.1 Submission of DMPs	1 day	Fri 30/3/07	Fri 30/3/07	641SS	681					
681	5.2 Comments by the Engineer	14 days	Sat 31/3/07	Fri 13/4/07	680	682					
682	5.3 Implementation of DMP	581 days	Fri 18/8/07	Fri 20/3/09	704SS,681	767FF					
683	<b>7. Channel and Crossings</b>	<b>553 days</b>	<b>Fri 10/8/07</b>	<b>Thu 12/2/09</b>							
684	a. Ch11-Ch130 (Bay 3 - Bay 11)	229 days	Thu 23/8/07	Mon 7/4/08							
685	Haul access	5 days	Thu 23/8/07	Mon 27/8/07	694	687					
686	Flow diversion	10 days	Tue 1/1/08	Thu 10/1/08	687SS-10 days						
687	Excavation (including contamination material)	44 days	Fri 11/1/08	Sat 23/2/08	675,685,710	688SS+10 days,686SS-10 days					
688	Granular Bedding	40 days	Mon 21/1/08	Fri 29/2/08	687SS+10 days	689SS+6 days					
689	Base Slab	44 days	Sun 27/1/08	Mon 10/3/08	688SS+6 days	690SS+14 days					
690	Wall and Deck	37 days	Sun 10/2/08	Mon 17/3/08	689SS+14 days	691SS+7 days					
691	Curing	44 days	Sun 17/2/08	Mon 31/3/08	690SS+7 days	692SS+14 days,764,796,772					
692	Trench Backfill	37 days	Sun 2/3/08	Mon 7/4/08	691SS+14 days	859,801,858FF,696					
693	b. Ch130-Ch233 (Bay 12 - Bay 19)	341 days	Sat 18/8/07	Wed 23/7/08							
694	Haul access	5 days	Sat 18/8/07	Wed 22/8/07	703	685,696					
695	Flow diversion	10 days	Sat 29/3/08	Mon 7/4/08	696SS-10 days						
696	Excavation (including contamination material)	33 days	Tue 8/4/08	Sat 10/5/08	694,692	697SS+10 days,695SS-10 days					
697	Granular Bedding	29 days	Fri 18/4/08	Fri 16/5/08	696SS+10 days	698SS+6 days					
698	Base Slab	50 days	Thu 24/4/08	Thu 12/6/08	697SS+6 days	699SS+14 days					
699	Wall and Deck	56 days	Thu 8/5/08	Wed 2/7/08	698SS+14 days	700SS+7 days					
700	Curing	63 days	Thu 15/5/08	Wed 16/7/08	699SS+7 days	701SS+14 days,765,790,773					
701	Trench Backfill	56 days	Thu 29/5/08	Wed 23/7/08	700SS+14 days	801					
702	c. Ch233-Ch340 (Bay 20 - Bay 27)	151 days	Mon 13/8/07	Thu 10/1/08							
703	Haul access	5 days	Mon 13/8/07	Fri 17/8/07	705SS-15 days	694,704					
704	Flow diversion	10 days	Sat 18/8/07	Mon 27/8/07	703	682SS					
705	Excavation (including contamination material)	60 days	Tue 28/8/07	Fri 26/10/07		4 days,706SS+10 days,703SS-15 days					
706	Granular Bedding	70 days	Fri 7/9/07	Thu 15/11/07	705SS+10 days	707SS+6 days					
707	Base Slab	78 days	Thu 13/9/07	Thu 29/11/07	706SS+6 days	708SS+14 days					

Task		Milestone		Rolled Up Critical Task		Split		Group By Summary	
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PROGRAMME OF WORKS - MP03

Contract No. : DC / 2006 / 02

Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,  
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.

DATE : AUG 2007

ID	Task Name	Duration	Start	Finish	Predecessors	Successors	2008				
							Oct	Nov	Dec	Jan	
709	Curing	92 days	Thu 4/10/07	Thu 3/1/08	708SS+7 days	710SS+14 days,766	0 days				
710	Trench Backfill	85 days	Thu 18/10/07	Thu 10/1/08	709SS+14 days	687					
711	d. Ch449-Ch504 (Bay 37 - Bay 40)	553 days	Fri 10/8/07	Thu 12/2/09			0 days				
712	Haul access	5 days	Fri 10/8/07	Tue 14/8/07	673	721,714					
713	Flow diversion	10 days	Fri 12/9/08	Sun 21/9/08	714SS-10 days		0 days				
714	Excavation (including contamination material)	75 days	Mon 22/9/08	Fri 5/12/08	663,676,712,864	678SS,715SS+20 days,713SS-10 days					
715	Granular Bedding	75 days	Sun 12/10/08	Thu 25/12/08	714SS+20 days	716SS+14 days	0 days				
716	Base Slab	75 days	Sun 26/10/08	Thu 8/1/09	715SS+14 days	655,717SS+14 days,799SS					
717	Wall and Deck	75 days	Sun 9/11/08	Thu 22/1/09	716SS+14 days,799	718SS+7 days	0 days				
718	Curing	82 days	Sun 16/11/08	Thu 5/2/09	717SS+7 days	719SS+14 days,767,774,784					
719	Trench Backfill	75 days	Sun 30/11/08	Thu 12/2/09	718SS+14 days	678FF	0 days				
720	e. Ch504-Ch586 (Bay 41 - Bay 46)	147 days	Wed 15/8/07	Tue 8/1/08							
721	Haul access	3 days	Wed 15/8/07	Fri 17/8/07	712	730	0 days				
722	Flow diversion	5 days	Fri 7/9/07	Tue 11/9/07	723SS-10 days						
723	Excavation (including contamination material)	45 days	Mon 17/9/07	Wed 31/10/07		724SS+10 days,722SS-10 days	0 days				
724	Granular Bedding	55 days	Thu 27/9/07	Tue 20/11/07	723SS+10 days	725SS+6 days					
725	Base Slab	63 days	Wed 3/10/07	Tue 4/12/07	724SS+6 days	726SS+14 days	0 days				
726	Wall and Deck	63 days	Wed 17/10/07	Tue 18/12/07	725SS+14 days	727SS+7 days					
727	Curing	70 days	Wed 24/10/07	Tue 1/1/08	726SS+7 days	728SS+14 days	0 days				
728	Trench Backfill	63 days	Wed 7/11/07	Tue 8/1/08	727SS+14 days	750,802					
729	f. Ch586-Ch675 (Bay 47 - Bay 54)	163 days	Sat 18/8/07	Sun 27/1/08			0 days				
730	Haul access	5 days	Sat 18/8/07	Wed 22/8/07	721	739,732					
731	Flow diversion	3 days	Sat 29/9/07	Mon 1/10/07	732SS-10 days		0 days				
732	Excavation (including contamination material)	60 days	Tue 9/10/07	Fri 7/12/07	730,938	733SS+10 days,731SS-10 days					
733	Granular Bedding	60 days	Fri 19/10/07	Mon 17/12/07	732SS+10 days	734SS+6 days	0 days				
734	Base Slab	60 days	Thu 25/10/07	Sun 23/12/07	733SS+6 days	735SS+14 days					
735	Wall and Deck	60 days	Thu 8/11/07	Sun 6/1/08	734SS+14 days	736SS+7 days	0 days				
736	Curing	67 days	Thu 15/11/07	Sun 20/1/08	735SS+7 days	737SS+14 days,768,778					
737	Trench Backfill	60 days	Thu 29/11/07	Sun 27/1/08	736SS+14 days	741,802	0 days				
738	g. Ch675-Ch741 (Bay 55 - Bay 59)	243 days	Thu 23/8/07	Mon 21/4/08							
739	Haul access	3 days	Thu 23/8/07	Sat 25/8/07	730	748,741	0 days				
740	Flow diversion	3 days	Fri 25/1/08	Sun 27/1/08	741SS-3 days						
741	Excavation (including contamination material)	30 days	Mon 28/1/08	Tue 26/2/08	739,737	742SS+10 days,740SS-3 days	0 days				
742	Granular Bedding	27 days	Thu 7/2/08	Tue 4/3/08	741SS+10 days	743SS+6 days					
743	Base Slab	31 days	Wed 13/2/08	Fri 14/3/08	742SS+6 days	744SS+14 days	0 days				
744	Wall and Deck	31 days	Wed 27/2/08	Fri 28/3/08	743SS+14 days	745SS+7 days					
745	Curing	38 days	Wed 5/3/08	Fri 11/4/08	744SS+7 days	746SS+14 days,769	0 days				
746	Trench Backfill	34 days	Wed 19/3/08	Mon 21/4/08	745SS+14 days	803					
747	h. Ch741-Ch797 (Bay 60 - Bay 63)	211 days	Sun 26/8/07	Sun 23/3/08			0 days				
748	Haul access	3 days	Sun 26/8/07	Tue 28/8/07	739	750					
749	Flow diversion	3 days	Sun 6/1/08	Tue 8/1/08	750SS-3 days		0 days				
750	Excavation (including contamination material)	20 days	Wed 9/1/08	Mon 28/1/08	748,728	751SS+10 days,939,749SS-3 days					

Project: PROGRAMME OF WORKS  
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Task		Milestone		Rolled Up Critical Task		Split		Group By Summary	
Critical Task		Summary		Rolled Up Milestone		External Tasks		Deadline	
Progress		Rolled Up Task		Rolled Up Progress		Project Summary			

PROGRAMME OF WORKS - MP03









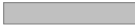





Contract No. : DC / 2006 / 02

Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,  
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.

DATE : AUG 2007

ID	Task Name	Duration	Start	Finish	Predecessors	Successors	2008			
							Oct	Nov	Dec	Jan
751	Granular Bedding	16 days	Sat 19/1/08	Sun 3/2/08	750SS+10 days	752SS+6 days				
752	Base Slab	20 days	Fri 25/1/08	Wed 13/2/08	751SS+6 days	753SS+14 days				
753	Wall and Deck	20 days	Fri 8/2/08	Wed 27/2/08	752SS+14 days	754SS+7 days				
754	Curing	28 days	Fri 15/2/08	Thu 13/3/08	753SS+7 days	755SS+14 days,770				
755	Trench Backfill	24 days	Fri 29/2/08	Sun 23/3/08	754SS+14 days	803				
756	<b>8. Retaining Wall RW2 (Ch340-Ch350)</b>	<b>73 days</b>	<b>Mon 22/9/08</b>	<b>Wed 3/12/08</b>						
757	Excavation	10 days	Mon 22/9/08	Wed 1/10/08	864	758				
758	Granular bedding	4 days	Thu 2/10/08	Sun 5/10/08	757	759				
759	Base slab	21 days	Mon 6/10/08	Sun 26/10/08	758	760				
760	Wall	14 days	Mon 27/10/08	Sun 9/11/08	759	761				
761	Curing	14 days	Mon 10/11/08	Sun 23/11/08	760	762				
762	Backfilling	10 days	Mon 24/11/08	Wed 3/12/08	761	870				
763	<b>9. Gabion</b>	<b>466 days</b>	<b>Fri 4/1/08</b>	<b>Mon 13/4/09</b>						
764	Bay 5 - Bay 11 (Ch35-Ch130)	147 days	Tue 1/4/08	Mon 25/8/08	691	653				
765	Bay 12 - Bay 19 (Ch130-Ch233)	93 days	Thu 17/7/08	Fri 17/10/08	700	653				
766	Bay 20 - Bay 27 (Ch233-Ch340)	159 days	Fri 4/1/08	Tue 10/6/08	709	653				
767	Bay 37 - Bay 43 (Ch449-Ch549)	67 days	Fri 6/2/09	Mon 13/4/09	718,682FF					
768	Bay 48 - Bay 54 (Ch609-Ch675)	79 days	Mon 21/1/08	Tue 8/4/08	736					
769	Bay 55 - Bay 59 (Ch675-Ch741)	20 days	Sat 12/4/08	Thu 1/5/08	745					
770	Bay 60 - Bay 63 (Ch741-Ch797)	17 days	Fri 14/3/08	Sun 30/3/08	754					
771	<b>10. Granite Stone Facing</b>	<b>318 days</b>	<b>Tue 1/4/08</b>	<b>Thu 12/2/09</b>						
772	Bay 4 (Ch19.5-Ch35)	5 days	Tue 1/4/08	Sat 5/4/08	691					
773	Bay 12 - Bay 19 (Ch130-Ch233)	12 days	Thu 17/7/08	Mon 28/7/08	700	869				
774	Bay 37 - Bay 40 (Ch449-Ch504)	7 days	Fri 6/2/09	Thu 12/2/09	718					
775	Bay 41 - Bay 46 (Ch504-Ch586)	6 days	Fri 1/8/08	Wed 6/8/08	869	776				
776	Bay 47 - Bay 55 (Ch586-Ch688)	9 days	Thu 7/8/08	Fri 15/8/08	775	653				
777	<b>11. Ramp No. 1 (Ch645 - Ch668, Bay 52 - Bay 53)</b>	<b>39 days</b>	<b>Mon 21/1/08</b>	<b>Thu 28/2/08</b>						
778	base slab	12 days	Mon 21/1/08	Fri 1/2/08	736	779				
779	Wall	10 days	Sat 2/2/08	Mon 11/2/08	778	780				
780	General fill	5 days	Tue 12/2/08	Sat 16/2/08	779	781				
781	Granular fill and blinding	5 days	Sun 17/2/08	Thu 21/2/08	780	782				
782	Road slab	7 days	Fri 22/2/08	Thu 28/2/08	781					
783	<b>12. Ramp No. 2 (Ch516 - Ch537, Bay 42)</b>	<b>54 days</b>	<b>Fri 6/2/09</b>	<b>Tue 31/3/09</b>						
784	base slab	12 days	Fri 6/2/09	Tue 17/2/09	718	785				
785	Wall	10 days	Wed 18/2/09	Fri 27/2/09	784	786				
786	General fill	20 days	Sat 28/2/09	Thu 19/3/09	785	787				
787	Granular fill and blinding	5 days	Fri 20/3/09	Tue 24/3/09	786	788				
788	Road slab	7 days	Wed 25/3/09	Tue 31/3/09	787					
789	<b>13. Ramp No. 3 (Ch209 - Ch233, Bay 18 - Bay 19)</b>	<b>54 days</b>	<b>Thu 17/7/08</b>	<b>Mon 8/9/08</b>						
790	base slab	12 days	Thu 17/7/08	Mon 28/7/08	700	791				
791	Wall	10 days	Tue 29/7/08	Thu 7/8/08	790	792				
792	General fill	20 days	Fri 8/8/08	Wed 27/8/08	791	793				

Task		Milestone		Rolled Up Critical Task		Split		Group By Summary	
Critical Task		Summary		Rolled Up Milestone		External Tasks		Deadline	
Progress		Rolled Up Task		Rolled Up Progress		Project Summary			

PROGRAMME OF WORKS - MP03

Contract No. : DC / 2006 / 02







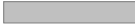



Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,  
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.

DATE : AUG 2007

ID	Task Name	Duration	Start	Finish	Predecessors	Successors	2008			
							Oct	Nov	Dec	Jan
793	Granular fill and blinding	5 days	Thu 28/8/08	Mon 1/9/08	792	794				
794	Road slab	7 days	Tue 2/9/08	Mon 8/9/08	793	814				
795	<b>14 Ramp No. 4 (Ch35 - Ch55, Bay5)</b>	<b>32 days</b>	<b>Tue 1/4/08</b>	<b>Fri 2/5/08</b>						
796	General fill	7 days	Tue 1/4/08	Mon 7/4/08	691	797				
797	Granular fill and blinding	8 days	Tue 8/4/08	Tue 15/4/08	796	798				
798	Sloping side wall and road slab	17 days	Wed 16/4/08	Fri 2/5/08	797	657				
799	<b>15. Demolition of existing wing walls Ch449</b>	<b>14 days</b>	<b>Sun 26/10/08</b>	<b>Sat 8/11/08</b>	716SS	717				
800	<b>16. Filling in Platform</b>	<b>212 days</b>	<b>Mon 28/1/08</b>	<b>Tue 26/8/08</b>						
801	a. Bay 3- Bay 27 (Ch11-Ch340)	34 days	Thu 24/7/08	Tue 26/8/08	692,701	806SS+10 days,810,814,832				
802	b. Bay 37 - Bay 55 (Ch449-Ch688)	54 days	Mon 28/1/08	Fri 21/3/08	737,728	807SS+10 days,811,817				
803	c. Bay 56 - Bay 63 (Ch688-Ch797)	7 days	Tue 22/4/08	Mon 28/4/08	746,755	808,812				
804	<b>17. Drainage works</b>	<b>236 days</b>	<b>Thu 7/2/08</b>	<b>Mon 29/9/08</b>						
805	17.1 storm drain with manhole and headwall	198 days	Thu 7/2/08	Fri 22/8/08						
806	a. Bay 3- Bay 27 (Ch11-Ch340)	20 days	Sun 3/8/08	Fri 22/8/08	801SS+10 days	814				
807	b. Bay 37 - Bay 55 (Ch449-Ch688)	90 days	Thu 7/2/08	Tue 6/5/08	802SS+10 days	815				
808	c. Bay 56 - Bay 63 (Ch688-Ch797)	14 days	Tue 29/4/08	Mon 12/5/08	803					
809	17.2 surface drain	192 days	Sat 22/3/08	Mon 29/9/08						
810	a. Bay 3- Bay 27 (Ch11-Ch340)	34 days	Wed 27/8/08	Mon 29/9/08	801	826				
811	b. Bay 37 - Bay 55 (Ch449-Ch688)	60 days	Sat 22/3/08	Tue 20/5/08	802	827				
812	c. Bay 56 - Bay 63 (Ch688-Ch797)	14 days	Tue 29/4/08	Mon 12/5/08	803	830				
813	<b>18. Roads and paving</b>	<b>465 days</b>	<b>Sat 22/3/08</b>	<b>Mon 29/6/09</b>						
814	a. Ch233 - Ch340	50 days	Mon 2/2/09	Mon 23/3/09	801,874SS-30 days,794,806	820				
815	b. Ch449 - Ch549	50 days	Mon 30/6/08	Mon 18/8/08	816,807	821				
816	c. Ch549 - Ch609	50 days	Sun 11/5/08	Sun 29/6/08	817	815,822				
817	d. Ch609 - Ch688	50 days	Sat 22/3/08	Sat 10/5/08	802	816,823				
818	e. Permanent Entrance at Ch449	23 days	Sun 7/6/09	Mon 29/6/09	670	824				
819	<b>19. Street furnitures</b>	<b>422 days</b>	<b>Sun 11/5/08</b>	<b>Mon 6/7/09</b>						
820	a. Ch233 - Ch340	30 days	Tue 24/3/09	Wed 22/4/09	814					
821	b. Ch449 - Ch549	30 days	Tue 19/8/08	Wed 17/9/08	815	824				
822	c. Ch549 - Ch609	30 days	Mon 30/6/08	Tue 29/7/08	816					
823	d. Ch609 - Ch688	30 days	Sun 11/5/08	Mon 9/6/08	817					
824	e. Permanent Entrance at Ch449	7 days	Tue 30/6/09	Mon 6/7/09	818,821					
825	<b>20. Landscape softworks / hardworks</b>	<b>420 days</b>	<b>Tue 13/5/08</b>	<b>Mon 6/7/09</b>		<b>916SS</b>				
826	a. Ch35 - Ch340	45 days	Sat 23/5/09	Mon 6/7/09	877,810					
827	b. Ch449 - Ch549	45 days	Thu 21/8/08	Sat 4/10/08	828,811	877				
828	c. Ch549 - Ch609	45 days	Mon 7/7/08	Wed 20/8/08	829	827				
829	d. Ch609 - Ch688	45 days	Fri 23/5/08	Sun 6/7/08	830	828				
830	e. Ch688 - Ch797	10 days	Tue 13/5/08	Thu 22/5/08	812	829				
831	<b>21. Road Diversion in Kam Po Road</b>	<b>159 days</b>	<b>Wed 27/8/08</b>	<b>Sun 1/2/09</b>						
832	a. Temp Decking above Bay 3 and temp road pavement	10 days	Wed 27/8/08	Fri 5/9/08	801	833				
833	b. Implementation of road diversion	1 day	Sat 6/9/08	Sat 6/9/08	832	645				
834	c. Removal of decking	1 day	Sun 1/2/09	Sun 1/2/09	654	656				

262 days  
339 d

Task		Milestone		Split		Group By Summary	
Critical Task		Summary		Rolled Up Milestone	External Tasks	Deadline	
Progress		Rolled Up Task		Rolled Up Progress	Project Summary		

PROGRAMME OF WORKS - MP03

Contract No. : DC / 2006 / 02



Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,  
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.

DATE : AUG 2007

ID	Task Name	Duration	Start	Finish	Predecessors	Successors	2008			
							Oct	Nov	Dec	Jan
835										
836	<b>D. Section III of the Works - Portions 5A1, 5A2 and 5B</b>	<b>830 days</b>	<b>Fri 30/3/07</b>	<b>Mon 6/7/09</b>						
837	<b>1. Site clearance</b>	<b>4 days</b>	<b>Mon 31/12/07</b>	<b>Thu 3/1/08</b>						
838	1.1 General site clearance	4 days	Mon 31/12/07	Thu 3/1/08	921,923,927,929,933,935					857FF
839	<b>2. Temporary Traffic Management Scheme</b>	<b>59 days</b>	<b>Fri 30/3/07</b>	<b>Sun 27/5/07</b>						
840	TTMS Proposal (trial pits for utilities and site entrance in Kam St	59 days	Fri 30/3/07	Sun 27/5/07						
841	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07	2SS					842
842	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	841					844
843	<b>3. Excavation Permits</b>	<b>741 days</b>	<b>Mon 28/5/07</b>	<b>Sat 6/6/09</b>						
844	3.1 application and issue of permit (trial pits for utilities and temporary site entrance in Kam Sheung Road)	60 days	Mon 28/5/07	Thu 26/7/07	842					848
845	3.2 application and issue of permits (for construction of permanent entrance)	180 days	Tue 9/12/08	Sat 6/6/09	7FS-210 days					875
846	<b>4. Underground utilities detection</b>	<b>42 days</b>	<b>Fri 29/6/07</b>	<b>Thu 9/8/07</b>						
847	a. utilities detection	2 days	Fri 29/6/07	Sat 30/6/07	20					848
848	b. trial trench excavation & identification	14 days	Fri 27/7/07	Thu 9/8/07	844,847					851
849	<b>5. Utilities temporary diversion / protection</b>	<b>424 days</b>	<b>Thu 26/7/07</b>	<b>Sun 21/9/08</b>						
850	a. Completion of WSD 450 diameter water main (By WSD)	1 day	Thu 26/7/07	Thu 26/7/07						883
851	b. Telephone line	87 days	Fri 27/6/08	Sun 21/9/08	859SS,864FF,848					
852	<b>6. Drainage Management Plan</b>	<b>662 days</b>	<b>Fri 30/3/07</b>	<b>Mon 19/1/09</b>						
853	a Submission of DMPs	1 day	Fri 30/3/07	Fri 30/3/07	641SS					854
854	b Comments by the Engineer	14 days	Sat 31/3/07	Fri 13/4/07	853					855
855	c Implementation of DMP	558 days	Thu 12/7/07	Mon 19/1/09	854,643FF					653
856	<b>7. Channel - Ch340-Ch439 (Bay 28 - Bay 35)</b>	<b>277 days</b>	<b>Thu 20/12/07</b>	<b>Sun 21/9/08</b>						
857	Haul access	15 days	Thu 20/12/07	Thu 3/1/08	921,838FF					859
858	Flow diversion	4 days	Fri 4/4/08	Mon 7/4/08	692FF,880					859
859	Excavation (including contamination material)	70 days	Tue 8/4/08	Mon 16/6/08	692,857,858					851SS,860SS+20 days
860	Granular Bedding	70 days	Mon 28/4/08	Sun 6/7/08	859SS+20 days					861SS+14 days
861	Base Slab	77 days	Mon 12/5/08	Sun 27/7/08	860SS+14 days					862SS+21 days,866SS
862	Wall and Deck	77 days	Mon 2/6/08	Sun 17/8/08	861SS+21 days,866					863SS+7 days
863	Curing	84 days	Mon 9/6/08	Sun 31/8/08	862SS+7 days					864SS+14 days,868
864	Trench Backfill	91 days	Mon 23/6/08	Sun 21/9/08	863SS+14 days					757,851FF,867,870,714
865	<b>8. Demolition of existing structures</b>	<b>147 days</b>	<b>Mon 12/5/08</b>	<b>Sun 5/10/08</b>						
866	a. Existing wing walls Ch439 (Bay35)	14 days	Mon 12/5/08	Sun 25/5/08	861SS					862
867	b. Existing footbridge at Ch350 (Bay 29)	14 days	Mon 22/9/08	Sun 5/10/08	864					870SF+14 days
868	<b>9. Gabion</b>	<b>124 days</b>	<b>Mon 1/9/08</b>	<b>Fri 2/1/09</b>						
869	<b>10. Granite Stone Facing</b>	<b>3 days</b>	<b>Tue 29/7/08</b>	<b>Thu 31/7/08</b>						
870	<b>11. Fill in Platform</b>	<b>90 days</b>	<b>Thu 4/12/08</b>	<b>Tue 3/3/09</b>	864,762,867SF+14 days					872SS+10 days,873,874
871	<b>12. Drainage works</b>	<b>100 days</b>	<b>Sun 14/12/08</b>	<b>Mon 23/3/09</b>						
872	a. storm drain with manhole	45 days	Sun 14/12/08	Tue 27/1/09	870SS+10 days					874
873	b. surface drain	20 days	Wed 4/3/09	Mon 23/3/09	870					877
874	<b>13. Roads and paving</b>	<b>45 days</b>	<b>Wed 4/3/09</b>	<b>Fri 17/4/09</b>	870,872					876SS+30 days,814SS-30 days,875
875	<b>14. Permanent Entrance and street furnitures at Ch439</b>	<b>30 days</b>	<b>Sun 7/6/09</b>	<b>Mon 6/7/09</b>	845,874					

Project: PROGRAMME OF WORKS  
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Task		Milestone		Rolled Up Critical Task		Split		Group By Summary	
Critical Task		Summary		Rolled Up Milestone		External Tasks		Deadline	
Progress		Rolled Up Task		Rolled Up Progress		Project Summary			



PROGRAMME OF WORKS - MP03




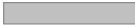



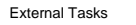






Contract No. : DC / 2006 / 02

Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,  
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.

DATE : AUG 2007

ID	Task Name	Duration	Start	Finish	Predecessors	Successors	2008				
							Oct	Nov	Dec	Jan	
876	15. Street furnitures / traffic sign / road marking	45 days	Fri 3/4/09	Sun 17/5/09	874SS+30 days						
877	16. Landscape softworks / hardworks	60 days	Tue 24/3/09	Fri 22/5/09	827,873	922SS,826,928SS,934SS					
878	17. Temp vehicular access in Portion 5A1	191 days	Wed 26/9/07	Thu 3/4/08							
879	a. Maintenance and operation	188 days	Wed 26/9/07	Mon 31/3/08	885	880					
880	b. Removal	3 days	Tue 1/4/08	Thu 3/4/08	879	858					
881											
882	<b>E. Section IV of the Works</b>	20 days	Thu 6/9/07	Tue 25/9/07							
883	1. Formation for temp vehicular access	2 days	Thu 6/9/07	Fri 7/9/07	921,850	884					
884	2. Construction of temp vehicular access	17 days	Sat 8/9/07	Mon 24/9/07	883,11FF-1 day	885					
885	3. Opening of temp vehicular access to the Public	1 day	Tue 25/9/07	Tue 25/9/07	884	879					
886											
887	<b>F. Section V of the Works - Preservation and protection to existing trees</b>	804 days	Sat 31/3/07	Thu 11/6/09							
888	1. Portion 1	789 days	Sat 31/3/07	Wed 27/5/09							
889	1.1 Tree survey	14 days	Sat 31/3/07	Fri 13/4/07	15	891					
890	1.2 Tree transplant	740 days	Sat 19/5/07	Wed 27/5/09							
891	a. To Temp holding nursery	62 days	Sat 19/5/07	Thu 19/7/07	889,213	893SS,233					
892	b. To final location	90 days	Fri 27/2/09	Wed 27/5/09	320FF						
893	1.3 Tree protection	62 days	Sat 19/5/07	Thu 19/7/07	891SS	233					
894	2. Portion 2	454 days	Wed 30/5/07	Mon 25/8/08							
895	2.1 Tree survey	14 days	Wed 30/5/07	Tue 12/6/07	16	897					
896	2.2 Tree transplant	440 days	Wed 13/6/07	Mon 25/8/08							
897	a. To Temp holding nursery	62 days	Wed 13/6/07	Mon 13/8/07	895,213,227	328,899SS					
898	b. To final location	231 days	Tue 8/1/08	Mon 25/8/08	436SS					315 days	
899	2.3 Tree protection	62 days	Wed 13/6/07	Mon 13/8/07	897SS	328					
900	3. Portion 3	697 days	Fri 29/6/07	Mon 25/5/09							
901	3.1 Tree survey	14 days	Fri 29/6/07	Thu 12/7/07	17	903					
902	3.2 Tree transplant	683 days	Fri 13/7/07	Mon 25/5/09							
903	a. To Temp holding nursery	64 days	Fri 13/7/07	Fri 14/9/07	901,213	448,491,905SS					
904	b. To final location	151 days	Fri 26/12/08	Mon 25/5/09	609SS						
905	3.3 Tree protection	64 days	Fri 13/7/07	Fri 14/9/07	903SS	448					
906	4. Portion 4	804 days	Sat 31/3/07	Thu 11/6/09							
907	4.1 Tree survey	14 days	Sat 31/3/07	Fri 13/4/07	18	909					
908	4.2 Tree transplant	755 days	Sat 19/5/07	Thu 11/6/09							
909	a. To Temp holding nursery	62 days	Sat 19/5/07	Thu 19/7/07	907,213	911SS,622					
910	b. To final location	70 days	Fri 3/4/09	Thu 11/6/09	659SS						
911	4.3 Tree protection	62 days	Sat 19/5/07	Thu 19/7/07	909SS	622					
912	5. Portion 5	559 days	Fri 29/6/07	Wed 7/1/09							
913	5.1 Tree survey	14 days	Fri 29/6/07	Thu 12/7/07	19	915					
914	5.2 Tree transplant	545 days	Fri 13/7/07	Wed 7/1/09							
915	a. To Temp holding nursery	69 days	Fri 13/7/07	Wed 19/9/07	913,213	663,917SS					
916	b. To final location	240 days	Tue 13/5/08	Wed 7/1/09	825SS						
917	5.3 Tree protection	69 days	Fri 13/7/07	Wed 19/9/07	915SS	663					

Task		Milestone		Rolled Up Critical Task		Split		Group By Summary	
Critical Task		Summary		Rolled Up Milestone		External Tasks		Deadline	
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PROGRAMME OF WORKS - MP03















Contract No. : DC / 2006 / 02

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Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.

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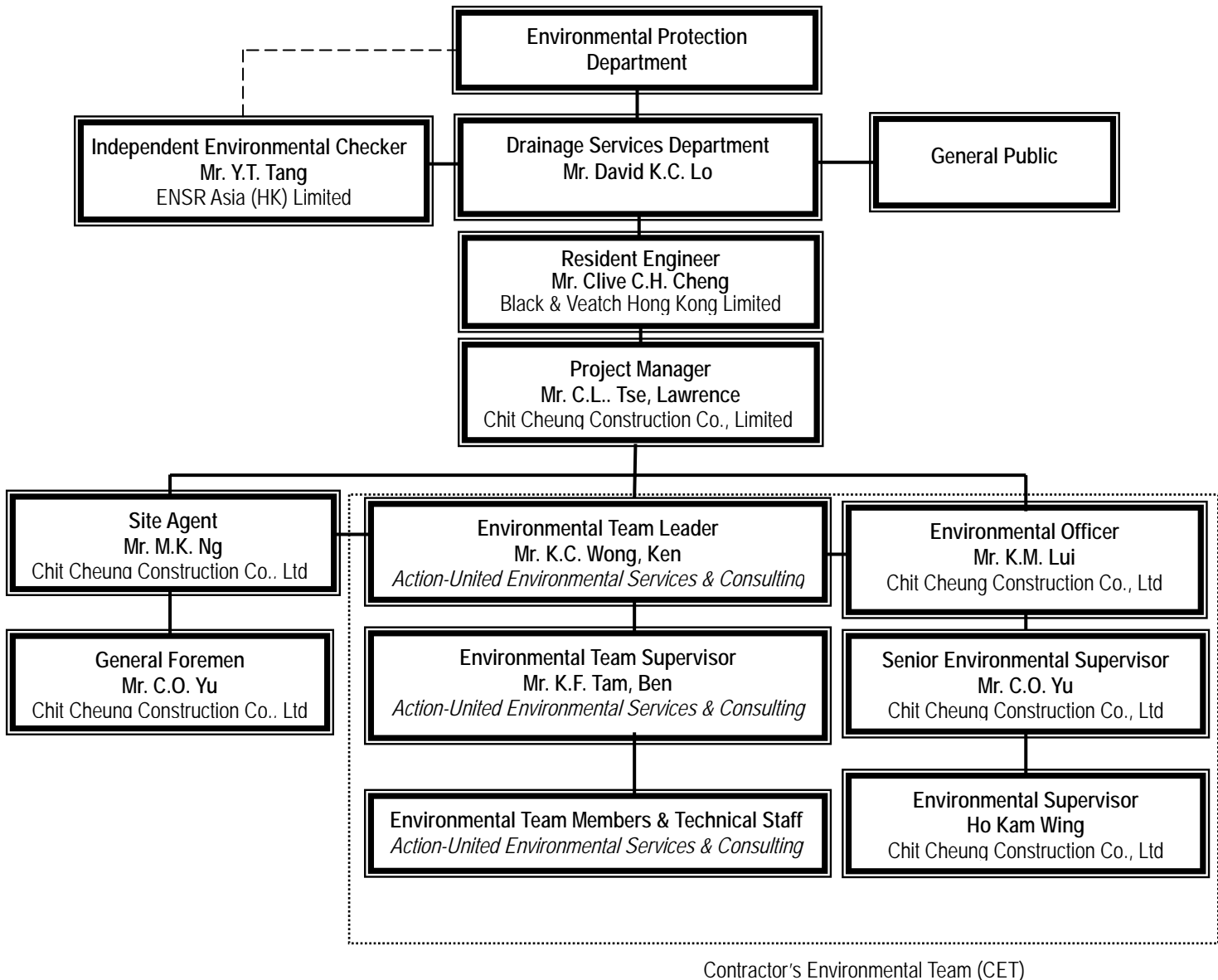
ID	Task Name	Duration	Start	Finish	Predecessors	Successors	2008			
							Oct	Nov	Dec	Jan
918	<b>6. Portion 5A1</b>	<b>694 days</b>	<b>Fri 29/6/07</b>	<b>Fri 22/5/09</b>						
919	6.1 Tree survey	7 days	Fri 29/6/07	Thu 5/7/07	20	921				
920	6.2 Tree transplant	687 days	Fri 6/7/07	Fri 22/5/09						
921	a. To Temp holding nursery	62 days	Fri 6/7/07	Wed 5/9/07	919,213	838,857,923SS,883				
922	b. To final location	60 days	Tue 24/3/09	Fri 22/5/09	877SS					
923	6.3 Tree protection	62 days	Fri 6/7/07	Wed 5/9/07	921SS	838				
924	<b>7. Portion 5A2</b>	<b>694 days</b>	<b>Fri 29/6/07</b>	<b>Fri 22/5/09</b>						
925	7.1 Tree survey	14 days	Fri 29/6/07	Thu 12/7/07	21	927				
926	7.2 Tree transplant	680 days	Fri 13/7/07	Fri 22/5/09						
927	a. To Temp holding nursery	62 days	Fri 13/7/07	Wed 12/9/07	925,213	929SS,838				
928	b. To final location	60 days	Tue 24/3/09	Fri 22/5/09	877SS					
929	7.3 Tree protection	62 days	Fri 13/7/07	Wed 12/9/07	927SS	838				
930	<b>8. Portion 5B</b>	<b>585 days</b>	<b>Tue 16/10/07</b>	<b>Fri 22/5/09</b>						
931	8.1 Tree survey	14 days	Tue 16/10/07	Mon 29/10/07	22	933	130 days			
932	8.2 Tree transplant	571 days	Tue 30/10/07	Fri 22/5/09						
933	a. To Temp holding nursery	62 days	Tue 30/10/07	Sun 30/12/07	931,213	935SS,838	130 days			
934	b. To final location	60 days	Tue 24/3/09	Fri 22/5/09	877SS					
935	8.3 Tree protection	62 days	Tue 30/10/07	Sun 30/12/07	933SS	838	130 days			
936										
937	<b>G. Berthing Area</b>	<b>148 days</b>	<b>Wed 12/9/07</b>	<b>Wed 6/2/08</b>						
938	1. Construction of Loading Facilities	27 days	Wed 12/9/07	Mon 8/10/07	162	732				
939	2. Removal of Loading Facilities	2 days	Tue 29/1/08	Wed 30/1/08	750,73	940				516 days
940	3. Reinstatement of Berthing Area	7 days	Thu 31/1/08	Wed 6/2/08	939					516 days

Task		Milestone		Rolled Up Critical Task		Split		Group By Summary	
Critical Task		Summary		Rolled Up Milestone		External Tasks		Deadline	
Progress		Rolled Up Task		Rolled Up Progress		Project Summary			

## **Appendix C**

### **Environmental Organization Structure**

### Environmental Organization Structure



**Contact Details of Key Personnel**

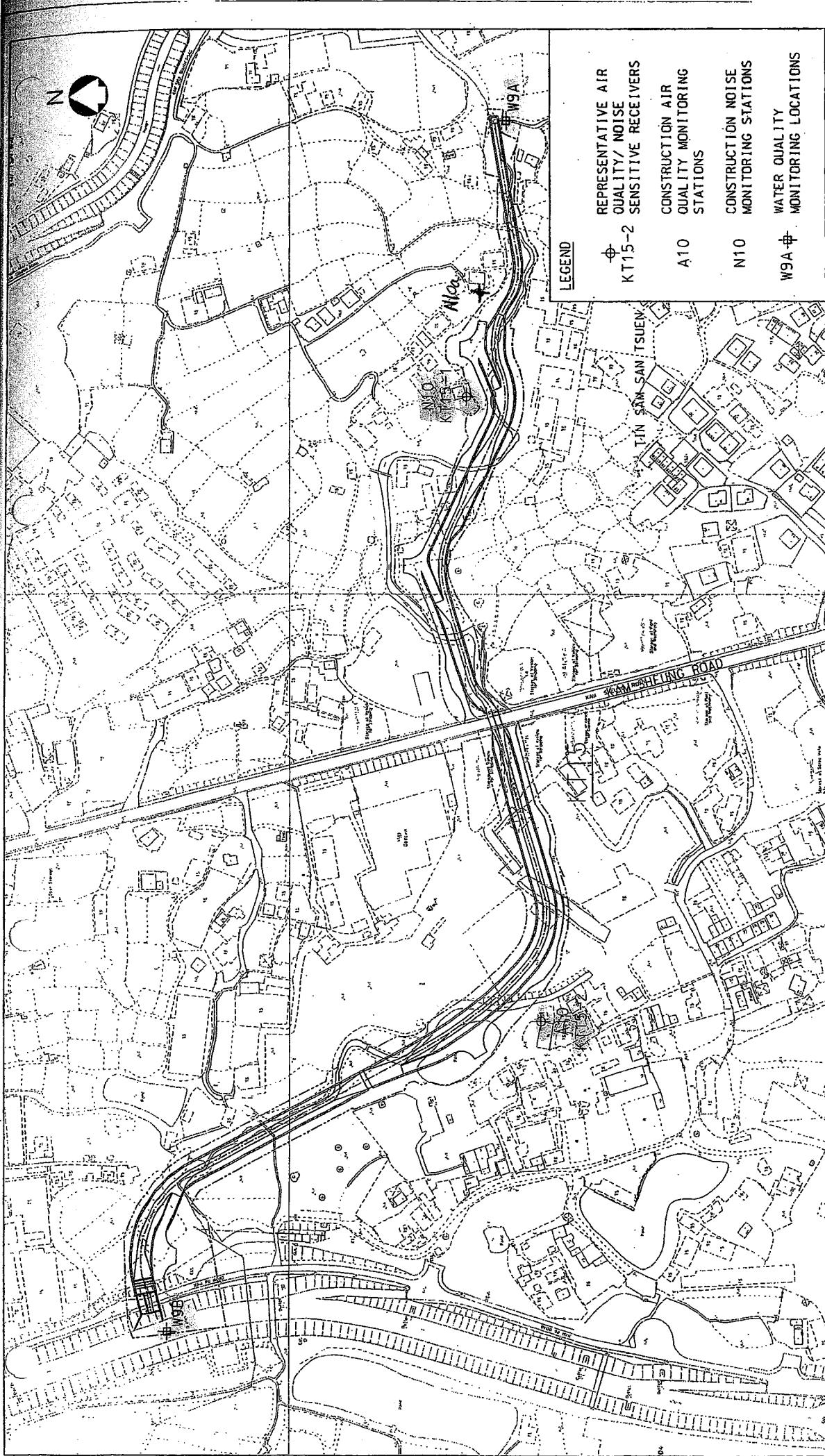
Organization	Project Role	Name of Key Staff	Tel No.	Fax No.
DSD	Employer	Mr. David K.C. LO	2594-7254	2827-8526
B&V	Engineer	Mr. Kelvin N.F. LAU	2601-1000	2601-3988
B&V	Engineer's Representative	Mr. Clive C.H. CHENG	2443-1442	2443-7307
ENSR	Independent Environmental Checker	Mr. Y.T. Tang	3105-8537	2891-0305
CCC	Project Director	Mr. P.Y. CHENG	9023-4821	2403-1162
CCC	Project Manager	Mr. Lawrence TSE	9752-0748	2479-1365
CCC	Site Agent	Mr. M.K. NG	6603-9711	2479-1365
CCC	Site Engineer	Mr. Jimmy CHAN	9234-8632	2479-1365
CCC	Environmental Officer	Mr. LUI Kam Man	9257-9111	2479-1365
CCC	Senior Environmental Supervisor	Mr. YU Chor-on	9026-9501	2479-1365
CCC	Environmental Supervisor	Ho Kam Wing	9016-0592	2479-1365
CCC	Safety Officer	Mr. SHEA Yan Keung	6086-4658	2479-1365
AUES	Environmental Team Leader	Ken Wong	2959-6059	2959-6079
AUES	Ecologist	Vincent Lai	9406-9784	2959-6079
AUES	Decontamination Specialist	David Yeung	2959-6059	2959-6079

## Legend:

DSD (Employer)	-	Drainage Services Department
B&V (Engineer)	-	Black & Veatch Hong Kong Limited
CCC (Contractor)	-	Chit Cheung Construction Company Limited.
ENSR (IEC)	-	ENSR Asia (HK) Ltd.
AUES (ET)	-	Action-United Environmental Services & Consulting

## **Appendix D**

### **Locations of Designated Monitoring Station/Locations/Area**



**LEGEND**


- ⊕ REPRESENTATIVE AIR QUALITY/ NOISE SENSITIVE RECEIVERS  
KT15-2
- A10 CONSTRUCTION AIR QUALITY MONITORING STATIONS
- N10 CONSTRUCTION NOISE MONITORING STATIONS
- W9A ⊕ WATER QUALITY MONITORING LOCATIONS

Figure No.	ATT4-4.3	Revision	-
Reference	-	File Name	3820470201-137.DGN
Prepared	WYC	Checked	MC
Date	DEC. 2002	Scale	1 : 2000

**CONSTRUCTION PHASE AIR QUALITY/NOISE/WATER QUALITY  
MONITORING LOCATIONS AT KT15**

YUEN LONG, KAM TIN,  
 NGAU TAM MEI AND TIN SHUI WAI  
 DRAINAGE IMPROVEMENT, STAGE I, PHASE 2B

**BLACK & VEATCH HONG KONG LIMITED**  
 博風工程顧問有限公司



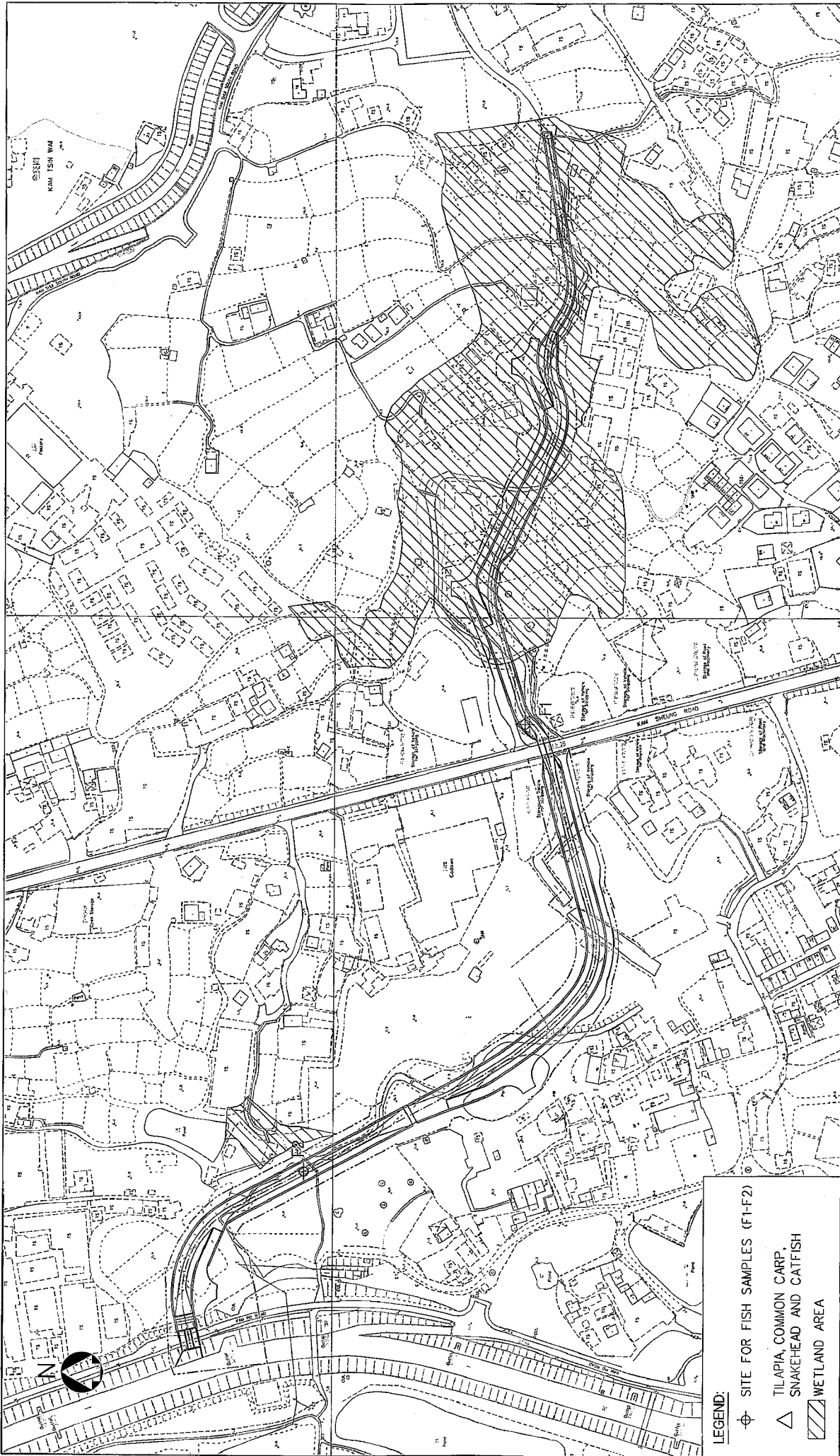


Figure No.	3.3	Revision	0
Reference		File Name	3820470201-114.DGN
Prepared	AEC	Checked	WYC
Date	MAR. 2003	Scale	1 : 2000


Title :

**ECOLOGICAL MONITORING AREA KT15**

**LEGEND:**

- ⊕ SITE FOR FISH SAMPLES (F1-F2)
- △ TILAPIA, COMMON CARP, SNAKEHEAD AND CATFISH
- ▨ WETLAND AREA

YUEN LONG, KAM TIN,  
NGAU TAM MEI AND TIN SHUIWAI  
DRAINAGE IMPROVEMENT, STAGE1, PHASE 2B

 **BLACK & VEATCH HONG KONG LIMITED**  
博威工程顧問有限公司



## **Appendix E**

### **Event/Action Plan for Air Quality, Construction Noise, Stream Water Quality and Ecology**

## Event/Action Plan for Air Quality

EVENT	ACTION			
	ET	IEC	Engineer	Contractor
<b>ACTION LEVEL</b>				
1. Exceedance for one sample	<ol style="list-style-type: none"> <li>Identify source</li> <li>Inform IEC and Engineer</li> <li>Repeat measurement to confirm finding</li> <li>Increase monitoring frequency to daily</li> </ol>	<ol style="list-style-type: none"> <li>Check monitoring data submitted by ET</li> <li>Check Contractor's working method</li> </ol>	Notify Contractor	<ol style="list-style-type: none"> <li>Rectify any unacceptable practice</li> <li>Amend working methods if appropriate</li> </ol>
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> <li>Identify source</li> <li>Inform IEC and Engineer</li> <li>Repeat measurements to confirm findings</li> <li>Increase monitoring frequency to daily</li> <li>Discuss with IEC and Contractor on remedial actions required</li> <li>If exceedance continues, arrange meeting with IEC and Engineer</li> <li>If exceedance stops, cease additional monitoring</li> </ol>	<ol style="list-style-type: none"> <li>Check monitoring data submitted by ET</li> <li>Check Contractor's working method</li> <li>Discuss with ET and Contractor on possible remedial measures</li> <li>Advice Engineer on the effectiveness of the proposed remedial measures</li> <li>Supervise implementation of remedial measures</li> </ol>	<ol style="list-style-type: none"> <li>Confirm receipt of notification of failure in writing</li> <li>Notify Contractor</li> <li>Ensure remedial measures properly implemented</li> </ol>	<ol style="list-style-type: none"> <li>Submit proposals for remedial actions to IEC within 3 working days of notification</li> <li>Implement the agreed proposals</li> <li>Amend proposal if appropriate</li> </ol>
<b>LIMIT LEVEL</b>				
1. Exceedance for one sample	<ol style="list-style-type: none"> <li>Identify source</li> <li>Inform Engineer and EPD</li> <li>Repeat measurement to confirm finding</li> <li>Increase monitoring frequency to daily</li> <li>Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and Engineer informed of the results</li> </ol>	<ol style="list-style-type: none"> <li>Check monitoring data submitted by ET</li> <li>Check Contractor's working method</li> <li>Discuss with ET and Contractor on possible remedial measures</li> <li>Advice Engineer on the effectiveness of the proposed remedial measures</li> <li>Supervise implementation of remedial measures</li> </ol>	<ol style="list-style-type: none"> <li>Confirm receipt of notification of failure in writing</li> <li>Notify Contractor</li> <li>Ensure remedial measures properly implemented</li> </ol>	<ol style="list-style-type: none"> <li>Take immediate action to avoid further exceedance</li> <li>Submit proposals for remedial actions to IEC within 3 working days of notification</li> <li>Implement the agreed proposals</li> <li>Amend proposal if appropriate</li> </ol>
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> <li>Notify IEC, Engineer and EPD</li> <li>Identify source</li> <li>Repeat measurement to confirm findings</li> <li>Increase monitoring frequency to daily</li> <li>Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented.</li> <li>Arrange meeting with IEC and Engineer to discuss the remedial actions to be taken</li> <li>Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and Engineer informed of the results</li> <li>If exceedance stops, cease additional monitoring</li> </ol>	<ol style="list-style-type: none"> <li>Discuss amongst Engineer, ET and Contractor on potential remedial actions</li> <li>Review Contractor's remedial actions whether necessary to assure their effectiveness and advice the Engineer accordingly</li> <li>Supervise implementation of remedial measures</li> </ol>	<ol style="list-style-type: none"> <li>Confirm receipt of notification of failure in writing</li> <li>Notify Contractor</li> <li>In consultation with the IEC, agree with the Contractor on the remedial measures to be implemented</li> <li>Discuss amongst Environmental Team Leader and the Contractor potential remedial actions</li> <li>Ensure remedial measures properly implemented</li> <li>If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated</li> </ol>	<ol style="list-style-type: none"> <li>Take immediate action to avoid further exceedance</li> <li>Submit proposals for remedial actions to IEC within 3 working days of notification</li> <li>Implement the agreed proposals</li> <li>Resubmit proposals if problem still not under control</li> <li>Stop the relevant portion of works as determined by the Engineer until the exceedance is abated</li> </ol>

## Event/Action Plan for Construction Noise

EVENT	ACTION			
	ET Leader	IEC	Engineer	Contractor
ACTION LEVEL	<ol style="list-style-type: none"> <li>1. Notify Contractor and Engineer</li> <li>2. Carry out investigation</li> <li>3. Report the results of investigation to the IEC and Contractor</li> <li>4. Discuss with the Contractor and formulate remedial measures</li> <li>5. Increase monitoring frequency to check mitigation effectiveness</li> </ol>	<ol style="list-style-type: none"> <li>1. Review the analysed results submitted by ET</li> <li>2. Review the proposed remedial measures by the Contractor and advice the Engineer accordingly</li> <li>3. Supervise implementation of remedial measures</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing</li> <li>2. Notify Contractor</li> <li>3. Require Contractor to propose remedial measures for the analysed noise problem</li> <li>4. Ensure remedial measures properly implemented</li> </ol>	<ol style="list-style-type: none"> <li>1. Submit noise mitigation proposals for remedial actions to IEC</li> <li>2. Implement the agreed proposals</li> </ol>
LIMIT LEVEL	<ol style="list-style-type: none"> <li>1. Notify IEC, Engineer, EPD and Contractor</li> <li>2. Identify source</li> <li>3. Repeat measurement to confirm findings</li> <li>4. Increase monitoring frequency</li> <li>5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented</li> <li>6. Inform IEC, Engineer and EPD the causes &amp; actions taken for the exceedances</li> <li>7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and Engineer informed of the results</li> <li>8. If exceedance stops, cease additional monitoring</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss amongst Engineer, ET and Contractor on potential remedial actions</li> <li>2. Review Contractor's remedial actions whether necessary to assure their effectiveness and advice the Engineer accordingly</li> <li>3. Supervise implementation of remedial measures</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing</li> <li>2. Notify Contractor</li> <li>3. Require Contractor to propose remedial measures for the analysed noise problem</li> <li>4. Ensure remedial measures properly implemented</li> <li>5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedance</li> <li>2. Submit proposals for remedial actions to IEC within 3 working days of notification</li> <li>3. Implement the agreed proposals</li> <li>4. Resubmit proposals if problem still not under control</li> <li>5. Stop the relevant portion of works as determined by the Engineer until the exceedance is abated</li> </ol>

## Event and Action Plan for Stream Water Quality

Event	ET Leader	IEC	Engineer	Contractor
<b>ACTION LEVEL</b> (being exceeded by one sampling day)	<ol style="list-style-type: none"> <li>Repeat in-situ measurement to confirm findings</li> <li>Identify source(s) of impact</li> <li>Inform IEC and Contractor</li> <li>Check monitoring data, all plant, equipment and Contractor's working methods</li> <li>Discuss mitigation measures IEC and Contractor</li> <li>Repeat measurement on next day of exceedance</li> </ol>	<ol style="list-style-type: none"> <li>Discuss with ET and Contractor on the mitigation measures</li> <li>Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly</li> <li>Assess the effectiveness of the implemented mitigation measures</li> </ol>	<ol style="list-style-type: none"> <li>Discuss with IEC on the proposed mitigation measures</li> <li>Make agreement on the mitigation measures to be implemented</li> </ol>	<ol style="list-style-type: none"> <li>Inform Engineer and confirm notification of the non-compliance in writing</li> <li>Rectify unacceptable practice</li> <li>Check all plant and equipment</li> <li>Consider changes of working methods</li> <li>Discuss with ET and Contractor and propose mitigation measures to IEC and Engineer</li> <li>Implement the agreed mitigation measures</li> </ol>
<b>ACTION LEVEL</b> (being exceeded by more than one sampling day)	<ol style="list-style-type: none"> <li>Repeat in-situ measurement to confirm findings</li> <li>Identify source(s) of impact</li> <li>Inform IEC, Contractor and EPD</li> <li>Check monitoring data, all plant, equipment and Contractor's working methods</li> <li>Discuss mitigation measures IEC, Engineer and Contractor</li> <li>Repeat measurement on next day of exceedance</li> <li>Ensure mitigation measures are implemented</li> <li>Prepare to increase the monitoring frequency to daily</li> <li>Repeat measurement on next day of exceedance</li> </ol>	<ol style="list-style-type: none"> <li>Discuss with ET and Contractor on the mitigation measures</li> <li>Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly</li> <li>Assess the effectiveness of the implemented mitigation measures</li> </ol>	<ol style="list-style-type: none"> <li>Discuss with IEC on the proposed mitigation measures</li> <li>Make agreement on the mitigation measures to be implemented</li> <li>Assess the effectiveness of the implemented mitigation measures</li> </ol>	<ol style="list-style-type: none"> <li>Inform Engineer and confirm notification of the non-compliance in writing</li> <li>Rectify unacceptable practice</li> <li>Check all plant and equipment</li> <li>Consider changes of working methods</li> <li>Discuss with ET and IEC and propose mitigation measures to IEC and Engineer within 3 working days</li> <li>Implement the agreed mitigation measures</li> </ol>
<b>LIMIT LEVEL</b> (being exceeded by one sampling days)	<ol style="list-style-type: none"> <li>Repeat in-situ measurement to confirm findings</li> <li>Identify source(s) of impact</li> <li>Inform IEC, Contractor and EPD</li> <li>Check monitoring data, all plant, equipment and Contractor's working methods</li> <li>Discuss mitigation measures IEC, Engineer and Contractor</li> <li>Ensure mitigation measures are implemented</li> <li>Increase the monitoring frequency to daily until no exceedance of Limit level</li> </ol>	<ol style="list-style-type: none"> <li>Discuss with ET and Contractor on the mitigation measures</li> <li>Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly</li> <li>Assess the effectiveness of the implemented mitigation measures</li> </ol>	<ol style="list-style-type: none"> <li>Discuss with IEC, ET and Contractor on the proposed mitigation measures</li> <li>Request Contractor to critically review the working methods</li> <li>Make agreement on the mitigation measures to be implemented</li> <li>Assess the effectiveness of the implemented mitigation measures</li> </ol>	<ol style="list-style-type: none"> <li>Inform Engineer and confirm notification of the non-compliance in writing</li> <li>Rectify unacceptable practice</li> <li>Check all plant and equipment</li> <li>Consider changes of working methods</li> <li>Discuss with ET, IEC and Engineer and propose mitigation measures to IEC and Engineer within 3 working days</li> <li>Implement the agreed mitigation measures</li> </ol>
<b>LIMIT LEVEL</b> (being exceeded by more than one sampling days)	<ol style="list-style-type: none"> <li>Repeat in-situ measurement to confirm findings;</li> <li>Identify source(s) of impact;</li> <li>Inform Contractor, Engineer, IEC and EPD;</li> <li>Check monitoring data, all plant, equipment and Contractor's working methods;</li> <li>Discuss mitigation measures with IEC, Engineer and Contractor;</li> <li>Ensure mitigation measures are implemented;</li> <li>Increase the monitoring frequency to daily until no exceedance of Limit level</li> </ol>	<ol style="list-style-type: none"> <li>Discuss with ET and Contractor on the mitigation measures</li> <li>Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly</li> <li>Assess the effectiveness of the implemented mitigation measures</li> </ol>	<ol style="list-style-type: none"> <li>Discuss with IEC, ET and Contractor on the proposed mitigation measures</li> <li>Request Contractor to critically review the working methods</li> <li>Make agreement on the mitigation measures to be implemented</li> <li>Assess the effectiveness of the implemented mitigation measures</li> <li>Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the construction activities until daily until no exceedance of Limit level</li> </ol>	<ol style="list-style-type: none"> <li>Inform Engineer and confirm notification of the non-compliance in writing</li> <li>Rectify unacceptable practice</li> <li>Check all plant and equipment</li> <li>Consider changes of working methods</li> <li>Discuss with ET, IEC and Engineer and propose mitigation measures to IEC and Engineer within 3 working days</li> <li>Propose mitigation measures to Engineer within 3 working days</li> <li>Implement the agreed mitigation measures;</li> <li>As directed by Engineer, to slow down or to stop all or part of the construction activities</li> </ol>

## Event/Action Plan for Ecology

Event	ET Leader	IEC	Engineer	Contractor
<p><b>Fauna</b></p> <p>The total number of species or individuals of the surveyed wetland dependent faunal groups is reduced by 20-40% from baseline</p>	<ul style="list-style-type: none"> <li>Notify IEC and Contractor;</li> <li>Check the position and state of the current works to identify the causes;</li> <li>Discuss mitigation measures with IEC and Contractor</li> </ul>	<ul style="list-style-type: none"> <li>Discuss with ET and Contractor on the mitigation measures</li> <li>Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly</li> <li>Assess the effectiveness of the implemented mitigation measures</li> </ul>	<ul style="list-style-type: none"> <li>Discuss with IEC on the proposed mitigation measures;</li> <li>Reach agreement on the mitigation measures to be implemented</li> </ul>	<ul style="list-style-type: none"> <li>Inform Engineer and confirm notification of the non-compliance in writing</li> <li>Take immediate action to avoid further exceedances;</li> <li>Check all plant and equipment and working methods, especially noise emanating ones</li> <li>Discuss with ET and IEC and propose mitigation measures to IEC and Engineer</li> <li>Implement the agreed mitigation measures</li> </ul>

## **Appendix F**

### **Equipment Calibration Certificates**

**Equipment Calibration List for Construction of Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai Project**

Item	Aspect	Description of Equipment	Date of Calibration	Date of Next Calibration
1	Air	Greasby Anderson GMWS2310 High Volume Sampler	03 Nov 07	03 Jan 08
2		EQ094 - Sibata LD-3 Laser Dust Meter	22 Jun 07	21 Jun 08
3		EQ096 - Sibata LD-3 Laser Dust Meter	22 Jun 07	21 Jun 08
4	Noise	Bruel & Kjaer 4231 Acoustical Calibrator	17 Apr 07	17 Apr 08
5		Bruel & Kjaer 2238 Integrating Sound Level Meter	17 Apr 07	17 Apr 08
6	Water	YSI 550A or YSI 85/10FT DO Meter	15 Oct 07	15 Jan 08
7		Hanna HI 98128	13 Oct 07	13 Jan 08
8		Hach 2100p	15 Oct 07	15 Jan 08
9		ATAGO refractometer	15 Oct 07	15 Jan 08

Note: \*Calibration certificates will only be provided if monitoring equipment is re-calibrated or new.

## TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location : Tin Sam San Tsuen	Date of Calibration: 3-Nov-07
Location ID : A10	Next Calibration Date: 3-Jan-08
	Technician: Mr. Ben Tam

### CONDITIONS

Sea Level Pressure (hPa)	1020.6	Corrected Pressure (mm Hg)	765.45
Temperature (°C)	19.1	Temperature (K)	292

### CALIBRATION ORIFICE

Make-> TISCH	Qstd Slope ->
Model-> 515N	1.94872
Serial # -> 9833620	Qstd Intercept ->
	0.00202

### CALIBRATION

Plate No.	H2O (L) (in)	H2O (R) (in)	H2O (in)	Qstd (m3/min)	I (chart)	IC corrected	LINEAR REGRESSION
18	4.2	4.2	8.4	1.507	42	43.00	Slope = 36.5658 Intercept = -12.3541 Corr. coeff. = 0.9949
13	3.1	3.1	6.2	1.294	35	35.83	
10	2.2	2.2	4.4	1.090	25	25.60	
7	1.5	1.5	3	0.900	20	20.48	
5	1	1	2	0.735	15	15.36	

**Calculations :**

$$Qstd = 1/m[\text{Sqrt}(H2O(Pa/Pstd)(Tstd/Ta))-b]$$

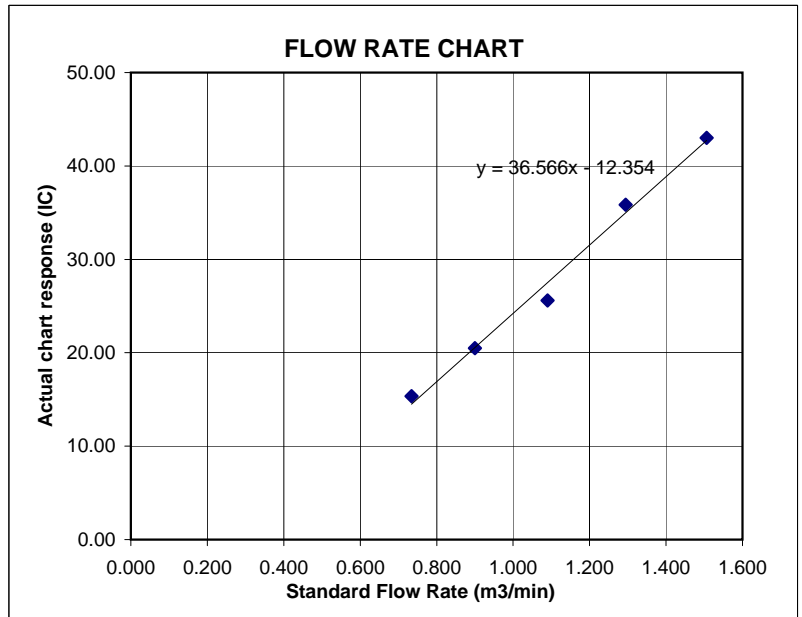
$$IC = I[\text{Sqrt}(Pa/Pstd)(Tstd/Ta)]$$

Qstd = standard flow rate  
 IC = corrected chart responses  
 I = actual chart response  
 m = calibrator Qstd slope  
 b = calibrator Qstd intercept  
 Ta = actual temperature during calibration ( deg K )  
 Pstd = actual pressure during calibration ( mm Hg )

**For subsequent calculation of sampler flow:**

$$1/m((I)[\text{Sqrt}(298/Tav)(Pav/760)]-b)$$

m = sampler slope  
 b = sampler intercept  
 I = chart response  
 Tav = daily average temperature  
 Pav = daily average pressure





## Equipment Calibration Record

### Equipment Calibrated:

Type: Laser Dust monitor  
 Manufacturer: Sibata  
 Serial No. 362337  
 Equipment Ref: EQ094  
 Sensitivity 722 CPM

### Standard Equipment:

Standard Equipment: Higher Volume Sampler  
 Location & Location ID: Au Tau abutment next to Yoho Town Phase 2  
 Equipment Ref: AM 7  
 Last Calibration Date: 20 May 2007

### Equipment Calibration Results:

Calibration Date: 22 June 2007

Hour	Time	Temp °C	RH %	Concentration in mg/m <sup>3</sup> (Standard Equipment)	Total Count (Calibrated Equipment)	Count/Minute (Total Count/60min)
1	13:12 ~ 14:12	32.3	74	0.133	3613	60.2
1	14:15 ~ 15:15	31.7	77	0.139	3872	64.5
1	15:20 ~ 16:20	31.3	79	0.122	3204	53.4

Sensitivity Adjustment Scale Setting (Before Calibration) 722 (CPM)

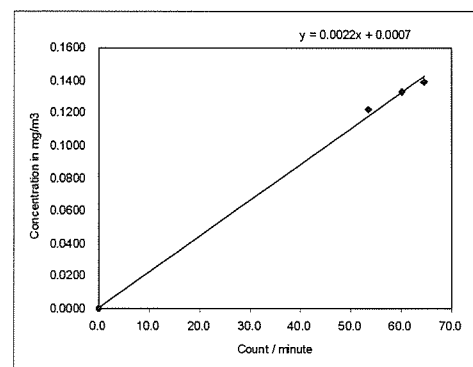
Sensitivity Adjustment Scale Setting (After Calibration) 722 (CPM)

### Linear Regression of Y or X

Slope (K-factor): 0.0022

Correlation Coefficient 0.9987

Validity of Calibration Record 25 June 2007



Operator: Ben Tam Signature: [Signature] Date: 25 June 2007

QC Reviewer: [Signature] Signature: [Signature] Date: 25 June 2007

## Equipment Calibration Record

### Equipment Calibrated:

Type: Laser Dust monitor  
 Manufacturer: Sibata  
 Serial No. 362359  
 Equipment Ref: EQ096  
 Sensitivity 769 CPM

### Standard Equipment:

Standard Equipment: Higher Volume Sampler  
 Location & Location ID: Au Tau abutment next to Yoho Town Phase 2  
 Equipment Ref: AM 7  
 Last Calibration Date: 20 May 2007

### Equipment Calibration Results:

Calibration Date: 22 June 2007

Hour	Time	Temp °C	RH %	Concentration in mg/m <sup>3</sup> (Standard Equipment)	Total Count (Calibrated Equipment)	Count/Minute (Total Count/60min)
1	13:12 ~ 14:12	32.3	74	0.133	3603	60.1
1	14:15 ~ 15:15	31.7	77	0.139	3930	65.5
1	15:20 ~ 16:20	31.3	79	0.122	3311	55.2

Sensitivity Adjustment Scale Setting (Before Calibration) 709 (CPM)

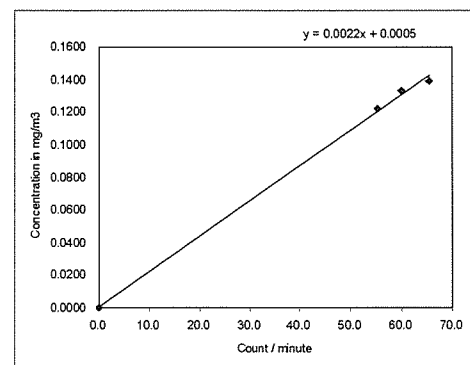
Sensitivity Adjustment Scale Setting (After Calibration) 709 (CPM)

### Linear Regression of Y or X

Slope (K-factor): 0.0021

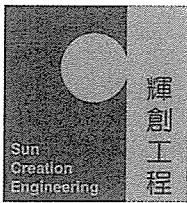
Correlation Coefficient 0.9990

Validity of Calibration Record 25 June 2007



Operator: Ben Tam Signature: [Signature] Date: 25 June 2007

QC Reviewer: Ken Wong Signature: [Signature] Date: 25 June 2007



輝創工程有限公司

Sun Creation Engineering Limited Calibration and Testing Laboratory

Certificate No. : C071764

## *Certificate of Calibration*

*This is to certify that the equipment*

*Description : Acoustical Calibrator (EQ017)*

*Manufacturer : Bruel & Kjaer*

*Model No. : 4231*

*Serial No. : 2292168*

*has been calibrated for the specific items and ranges.  
The results are shown in the Calibration Report No. C071764.*

*The equipment is supplied by*

*Co. Name : Action-United Environmental Services and Consulting*

*Address : Unit A, 20/F., Gold King Industrial Building,  
35-41 Tai Lin Pai Road, Kwai Chung, N.T.*

*Date of Issue : 17 April 2007*

*Certified by :*

*K C Lee*

The test equipment used for testing are traceable to the National Standards as specified in this report.  
This report shall not be reproduced except in full and with prior written approval from this laboratory.

Calibration and Testing Laboratory of Sun Creation Engineering Limited

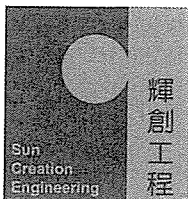
c/o 4/F. Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong

Tel: 2927 2606

Fax: 2744 8986

E-mail: callab@suncreation.com

Website: www.suncreation.com



輝創工程有限公司

Sun Creation Engineering Limited Calibration and Testing Laboratory

Certificate No. : C071765

## *Certificate of Calibration*

*This is to certify that the equipment*

*Description : Integrating Sound Level Meter (EQ010)*

*Manufacturer : Bruel & Kjaer*

*Model No. : 2238*

*Serial No. : 2285721*

*has been calibrated for the specific items and ranges.  
The results are shown in the Calibration Report No. C071765.*

*The equipment is supplied by*

*Co. Name : Action-United Environmental Services and Consulting*

*Address : Unit A, 20/F., Gold King Industrial Building,  
35-41 Tai Lin Pai Road, Kwai Chung, N.T.*

*Date of Issue : 17 April 2007*

*Certified by :*

*K C Lee*

The test equipment used for testing are traceable to the National Standards as specified in this report.  
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Calibration and Testing Laboratory of Sun Creation Engineering Limited

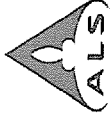
c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong

Tel: 2927 2606

Fax: 2744 8986

E-mail: callab@suncreation.com

Website: www.suncreation.com



# CERTIFICATE OF ANALYSIS

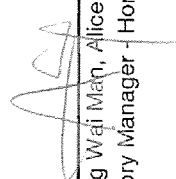
Batch: HK0714833  
 Date of Issue: 18/10/2007  
 Client: ACTION UNITED ENVIRO SERVICES  
 Client Reference:

## Calibration of DO System

Item : YSI Multimeter  
 Model No. : YSI 550A  
 Serial No. : 05F2063AZ  
 Equipment No.: HK0607963  
 Calibration Method : This meter was calibrated in accordance with standard method APHA (18th Ed.) 4500-OC & G  
 Date of Calibration : 15 October, 2007

## Testing Results :

Expected Reading	Recording Reading
1.31 mg/L	1.40 mg/L
3.14 mg/L	3.24 mg/L
7.76 mg/L	7.81 mg/L
Allowing Deviation	±0.2 mg/L

  
 Ms Wong Wai Man, Alice  
 Laboratory Manager - Hong Kong

# CERTIFICATE OF ANALYSIS


Batch: HK0714834  
Date of Issue: 18/10/2007  
Client: ACTION UNITED ENVIRO SERVICES  
Client Reference:

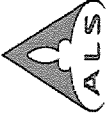
## Calibration of pH System

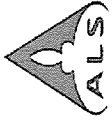
Item : HANNA pH Meter  
Model No. : HI98128  
Serial No. : S229924  
Equipment No. : EQ110  
Calibration Method : This meter was calibrated in accordance with standard method APHA (19th Ed.) 4500-H<sup>+</sup>B  
Date of Calibration : 13 October, 2007

### Testing Results :

Expected Reading	Recording Reading
4.00	3.94
7.00	7.00
10.0	9.86
Allowing Deviation	± 0.2

  
Ms Wong Wai Man / Alice  
Laboratory Manager - Hong Kong





# CERTIFICATE OF ANALYSIS

Batch: HK0714836  
 Date of Issue: 18/10/2007  
 Client: ACTION UNITED ENVIRO SERVICES  
 Client Reference:

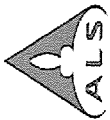
## Calibration of Turbidimeter

Item : HACH Turbidimeter  
 Model No. : HACH 2100P  
 Serial No. : 950900008735  
 Equipment No. : EQ091  
 Calibration Method : This meter was calibrated in accordance with standard method APHA (19th Ed.) 2130B  
 Date of Calibration : 15 October, 2007

### Testing Results :

Expected Reading	Recording Reading
0.0 NTU	0.1 NTU
4.0 NTU	3.7 NTU
16.0 NTU	15.1 NTU
40.0 NTU	39.0 NTU
80.0 NTU	81.2 NTU
Allowing Deviation	±10%

Ms Wong Wai Man, Alice  
 Laboratory Manager - Hong Kong



# CERTIFICATE OF ANALYSIS

Batch: HK0714835  
 Date of Issue: 18/10/2007  
 Client: ACTION UNITED ENVIRO SERVICES  
 Client Reference:

## Calibration of Salinity System

Item : HAND REFRACTOMETER  
 Model No. : ATAGO  
 Serial No. : 289468  
 Equipment No. : EQ114  
 Calibration Method : This meter was calibrated in accordance with standard method APHA (19th Ed.) 2520 A and B  
 Date of Calibration : 15 October, 2007

### Testing Results :

Expected Reading	Recording Reading
10 g/L	10 g/L
20 g/L	18 g/L
30 g/L	28 g/L
Allowing Deviation	±10%

Ms Wong Wai Man, Alice  
 Laboratory Manager - Hong Kong



## **Appendix G**

### **Impact Monitoring Schedules**

**Impact Monitoring Schedules in this Reporting Period**

Date		Air Quality		Noise Leq 30min	Stream Water Quality	Ecology Surveys
		1-Hour TSP	24-Hour TSP			
26-Nov-07	Mon					
27-Nov-07	Tue					
28-Nov-07	Wed					
29-Nov-07	Thu					
30-Nov-07	Fri					
1-Dec-07	Sat					
2-Dec-07	Sun					
3-Dec-07	Mon					
4-Dec-07	Tue					
5-Dec-07	Wed					
6-Dec-07	Thu					
7-Dec-07	Fri					
8-Dec-07	Sat					
9-Dec-07	Sun					
10-Dec-07	Mon					
11-Dec-07	Tue					
12-Dec-07	Wed					
13-Dec-07	Thu					
14-Dec-07	Fri					
15-Dec-07	Sat					
16-Dec-07	Sun					
17-Dec-07	Mon					
18-Dec-07	Tue					
19-Dec-07	Wed					
20-Dec-07	Thu					
21-Dec-07	Fri					
22-Dec-07	Sat					
23-Dec-07	Sun					
24-Dec-07	Mon					
25-Dec-07	Tue					

	Monitoring Day
	Sunday or Public Holiday

**Impact Monitoring Schedules in the Next Reporting Period**

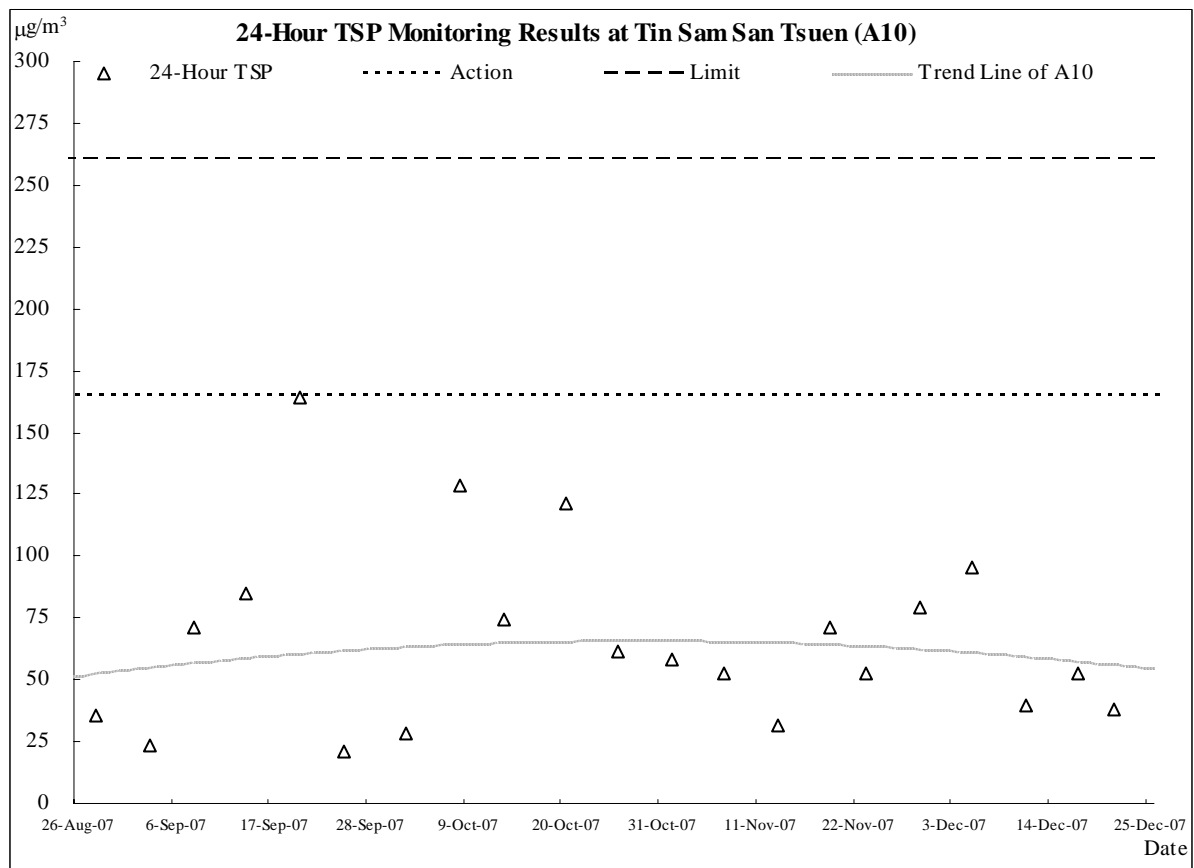
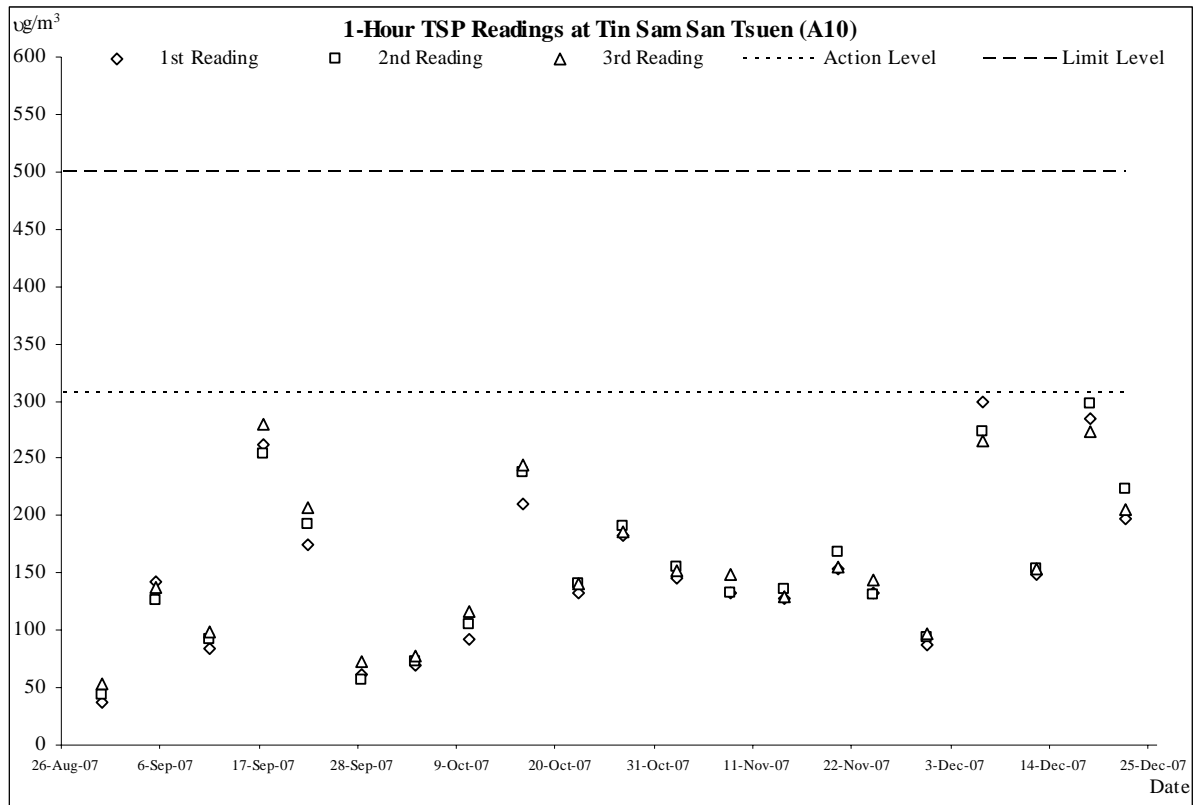
Date		Air Quality		Noise Leq 30min	Stream Water Quality	Ecology Surveys
		1-Hour TSP	24-Hour TSP			
26-Dec-07	Wed					
27-Dec-07	Thu					
28-Dec-07	Fri					
29-Dec-07	Sat					
30-Dec-07	Sun					
31-Dec-07	Mon					
1-Jan-08	Tue					
2-Jan-08	Wed					
3-Jan-08	Thu					
4-Jan-08	Fri					
5-Jan-08	Sat					
6-Jan-08	Sun					
7-Jan-08	Mon					
8-Jan-08	Tue					
9-Jan-08	Wed					
10-Jan-08	Thu					
11-Jan-08	Fri					
12-Jan-08	Sat					
13-Jan-08	Sun					
14-Jan-08	Mon					
15-Jan-08	Tue					
16-Jan-08	Wed					
17-Jan-08	Thu					
18-Jan-08	Fri					
19-Jan-08	Sat					
20-Jan-08	Sun					
21-Jan-08	Mon					
22-Jan-08	Tue					
23-Jan-08	Wed					
24-Jan-08	Thu					
25-Jan-08	Fri					

	Monitoring Day
	Sunday or Public Holiday

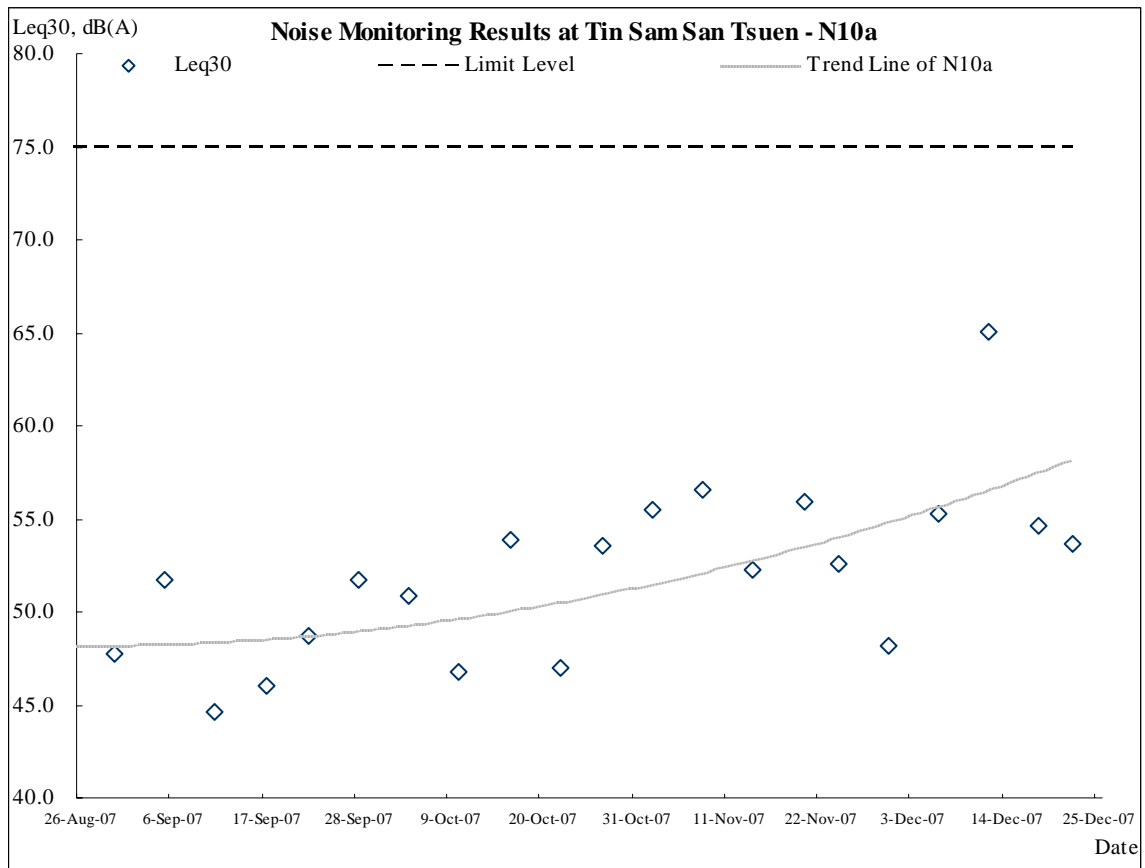
## **Appendix H**

### **Graphical Plots of Air Quality, Construction Noise and Stream Water Quality Monitoring Results**

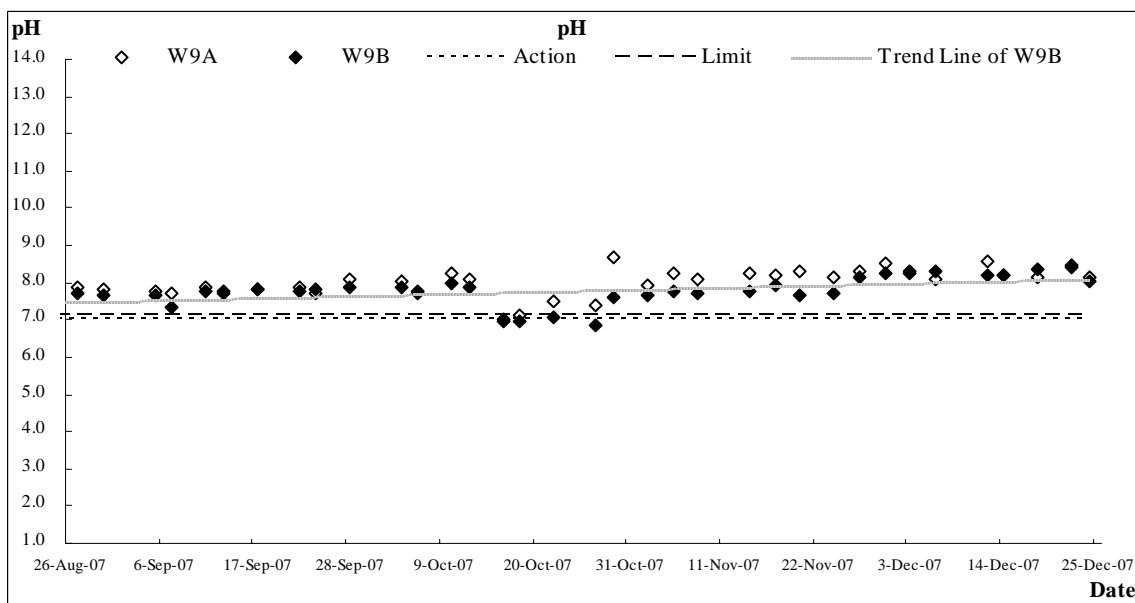
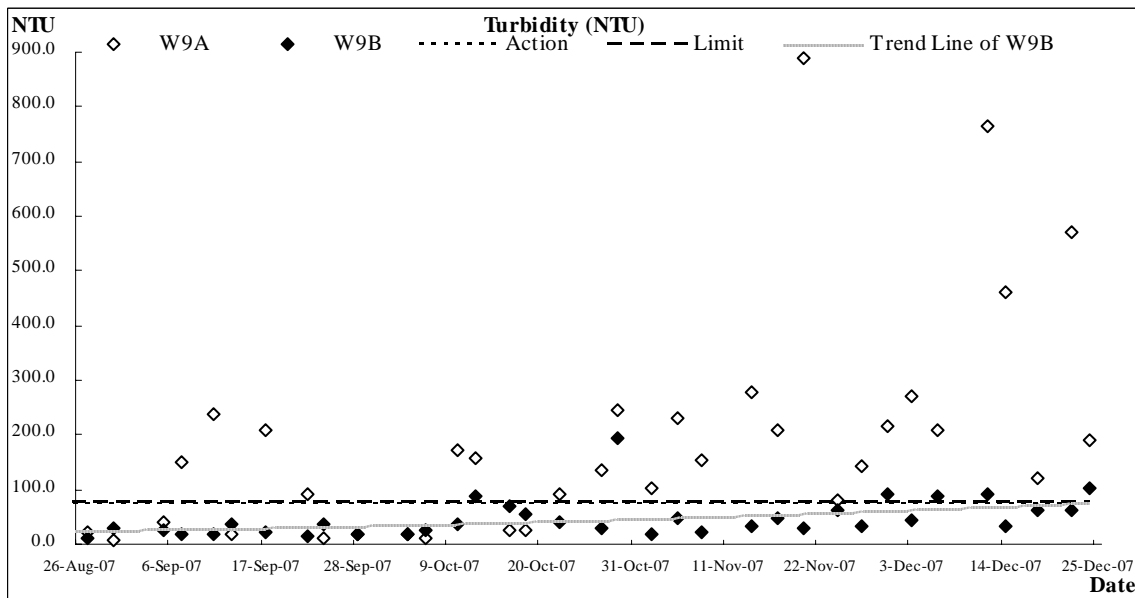
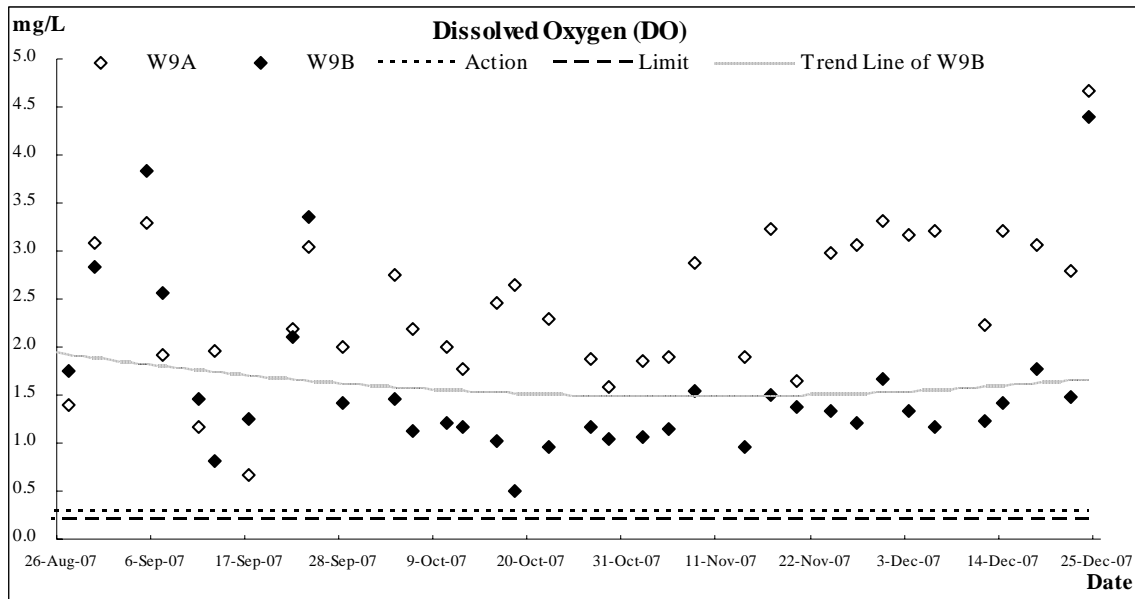
**Air Quality**

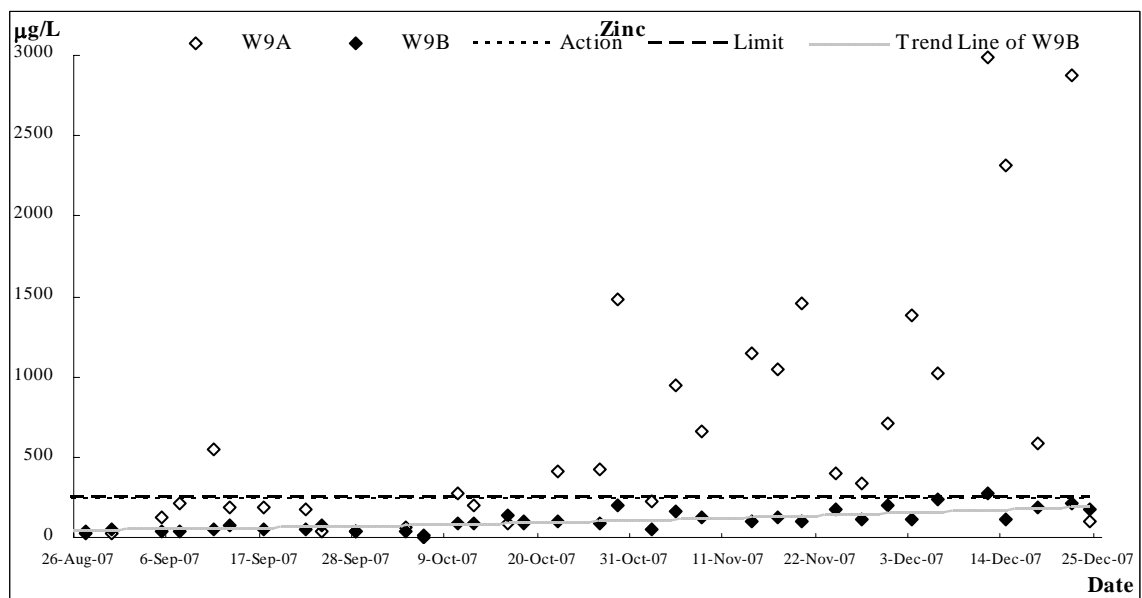
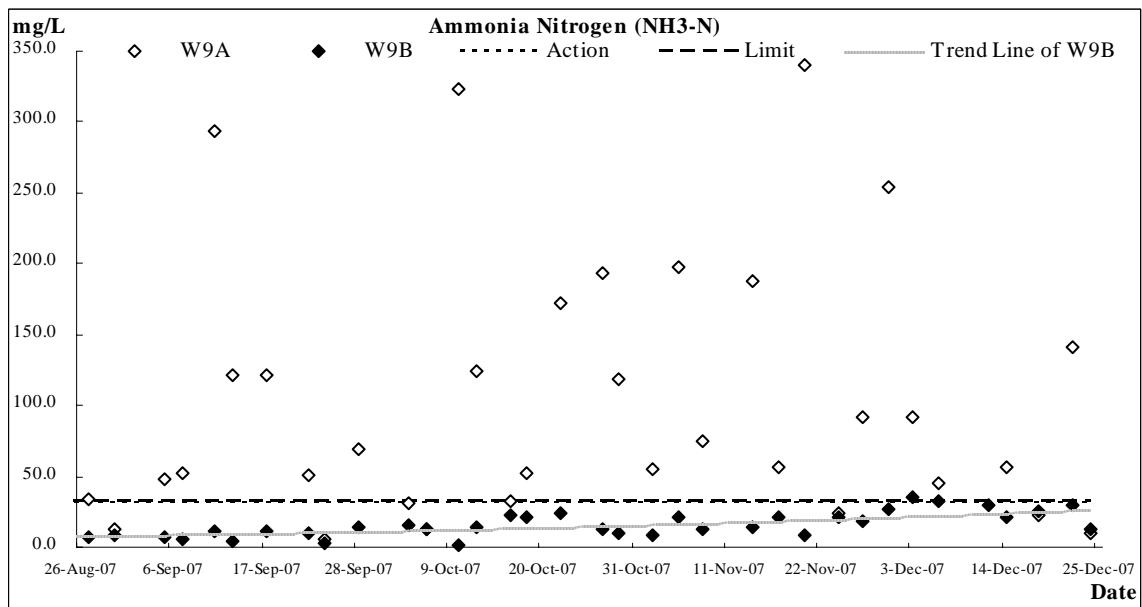
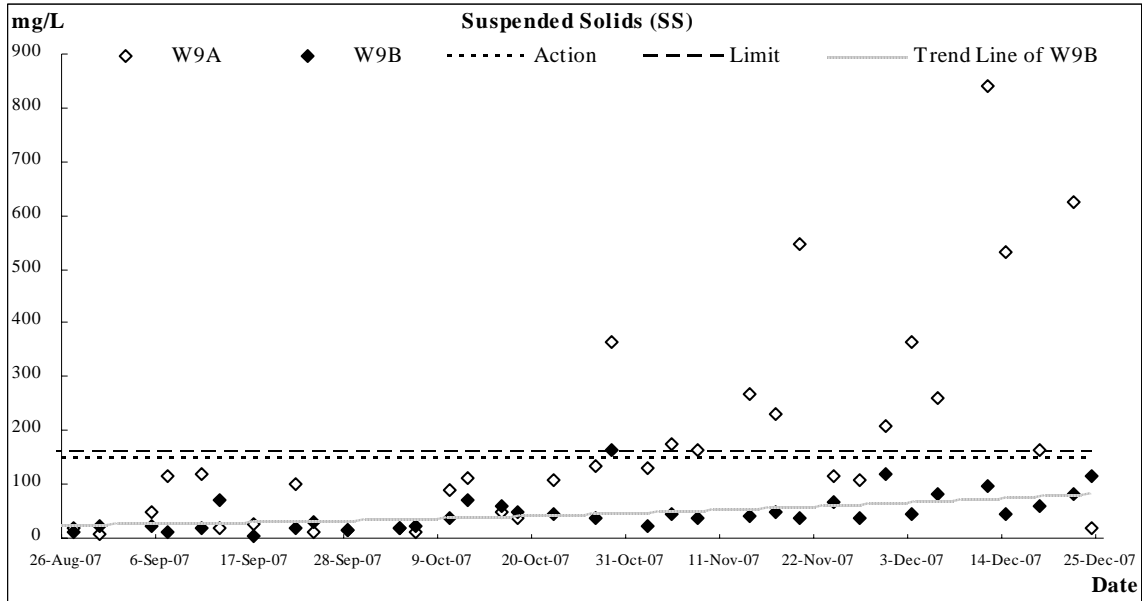


**Construction Noise**



**Stream Water Quality**







Date 27-Nov-07																	
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DOS (%)		Turbidity (NTU)		Salinity		pH		SS	NH3-N	Zinc
W9A	13:16	0.23	19.6	19.6	3.06	3.07	33.2	33.5	140.0	142.0	0	0.0	8.29	8.30	107.0	92.4	340.0
			19.6		3.08		33.7		144.0		0		8.30				
W9B	13:29	0.27	21.1	21.1	1.21	1.22	13.7	13.8	32.5	32.1	0	0.0	8.12	8.12	37.0	18.7	113.0
			21.1		1.22		13.8		31.7		0		8.12				

Date 30-Nov-07																	
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DOS (%)		Turbidity (NTU)		Salinity		pH		SS	NH3-N	Zinc
W9A	11:35	0.16	17.0	17.0	3.29	3.31	33.9	34.2	213.0	217.0	0	0.0	8.54	8.54	210.0	254.0	706.0
			17.0		3.32		34.4		221.0		0		8.54				
W9B	11:50	0.29	20.2	20.2	1.65	1.66	18.0	18.2	88.3	89.8	0	0.0	8.23	8.24	120.0	26.5	196.0
			20.2		1.67		18.4		91.3		0		8.24				

Date 3-Dec-07																	
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DOS (%)		Turbidity (NTU)		Salinity		pH		SS	NH3-N	Zinc
W9A	13:02	0.14	20.2	20.2	3.17	3.18	35.2	35.3	272.0	269.0	0	0.0	8.31	8.32	364.0	92.3	1380.0
			20.2		3.18		35.3		266.0		0		8.32				
W9B	13:15	0.32	22.6	22.6	1.32	1.33	15.3	15.5	41.6	42.5	0	0.0	8.23	8.23	43.0	35.9	109.0
			22.6		1.34		15.6		43.3		0		8.23				

Date 6-Dec-07																	
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DOS (%)		Turbidity (NTU)		Salinity		pH		SS	NH3-N	Zinc
W9A	11:31	0.24	18.6	18.6	3.2	3.21	34.3	34.6	207.0	207.0	0	0.0	8.08	8.08	262.0	45.6	1020.0
			18.6		3.22		34.9		207.0		0		8.08				
W9B	11:45	0.35	21.1	21.1	1.17	1.18	13.7	13.8	85.6	86.5	0	0.0	8.28	8.29	83.0	32.6	242.0
			21.1		1.18		13.9		87.3		0		8.29				

Date 12-Dec-07																	
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DOS (%)		Turbidity (NTU)		Salinity		pH		SS	NH3-N	Zinc
W9A	10:31	0.16	21.2	21.2	2.21	2.23	24.8	25.1	764.0	763.0	0	0.0	8.57	8.57	840.0	449.0	2320.0
			21.1		2.24		25.3		762.0		0		8.57				
W9B	10:54	0.31	23.8	23.8	1.23	1.24	14.7	14.8	90.3	89.8	0	0.0	8.21	8.21	95.0	29.8	118.0
			23.8		1.24		14.8		89.2		0		8.21				

Date 18-Dec-07																	
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DOS (%)		Turbidity (NTU)		Salinity		pH		SS	NH3-N	Zinc
W9A	11:29	0.16	20.3	20.3	3.07	3.06	33.3	33.6	120.0	122.0	0	0.0	8.13	8.13	164.0	22.4	586.0
			20.3		3.05		33.8		124.0		0		8.13				
W9B	11:47	0.24	22.7	22.7	1.78	1.77	21.2	20.8	64.6	62.4	0	0.0	8.38	8.38	61.0	25.5	184.0
			22.6		1.75		20.4		62.4		0		8.38				

Date 22-Dec-07																	
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DOS (%)		Turbidity (NTU)		Salinity		pH		SS	NH3-N	Zinc
W9A	11:03	0.13	21.3	21.3	2.81	2.79	32.1	31.8	570.0	569.5	0	0.0	8.46	8.46	624.0	141.0	2870.0
			21.3		2.77		31.4		569.0		0		8.46				
W9B	11:18	0.26	22.9	22.9	1.49	1.48	17.7	17.6	62.7	63.3	0	0.0	8.39	8.40	81.0	29.0	207.0
			22.9		1.47		17.4		63.8		0		8.40				

Date 24-Dec-07																	
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DOS (%)		Turbidity (NTU)		Salinity		pH		SS	NH3-N	Zinc
W9A	10:14	0.14	19.5	19.5	4.68	4.68	51.4	51.3	182.0	188.5	0	0.0	8.14	8.15	20.0	9.7	96.0
			19.5		4.67		51.1		195.0		0		8.15				
W9B	10:30	0.40	20.5	20.5	4.41	4.40	49.6	49.3	101.0	102.5	0	0.0	8.01	8.02	115.0	12.2	178.0
			20.5		4.38		49.0		104.0		0		8.02				



### Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 547208)</b>								
HK0717260-001	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	35	32	9.4
HK0717307-001	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	38	39	2.6
<b>ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 546498)</b>								
HK0717280-003	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	0.2	0.2	0.0
HK0717282-002	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	0.2	0.2	0.0
<b>EG: Metals and Major Cations (QC Lot: 547071)</b>								
HK0717288-002	W1B - 1 & 2 MIX	EG020: Zinc	7440-66-6	10	µg/L	39	36	8.2

### Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 547208)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	100	----	85	115	----	----
<b>ED/EK: Inorganic Nonmetallic Parameters (QCLot: 546498)</b>											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	96.1	----	85	115	----	----
<b>EG: Metals and Major Cations (QCLot: 547071)</b>											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	94.2	----	85	115	----	----

### Quality Control - Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results

Matrix Type: WATER				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results						
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
					MS	MSD	Low	High	Value	Control Limit
<b>ED/EK: Inorganic Nonmetallic Parameters (QCLot: 546498)</b>										
HK0717282-001	Anonymous	EK055A: Ammonia as N	7664-41-7	50 mg/L	115	----	75	125	----	----
<b>EG: Metals and Major Cations (QCLot: 547071)</b>										
HK0717288-001	W1A - 1 & 2 MIX	EG020: Zinc	7440-66-6	100 µg/L	92.1	----	75	125	----	----



**Quality Control - Laboratory Duplicate (DUP) Results**

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 566532)</b>								
HK0719031-001	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	27	25	8.4
HK0719146-004	FISH POND PUMP - 1 & 2 MIX	EA025: Suspended Solids (SS)	----	2	mg/L	242	240	0.7
<b>ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 566395)</b>								
HK0719042-026	Anonymous	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	0.55	0.56	1.8
HK0719146-006	W9B - 1 & 2 MIX	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	25.4	27.3	7.2
<b>EG: Metals and Major Cations (QC Lot: 566346)</b>								
HK0719034-001	Anonymous	EG020: Zinc	7440-66-6	10	µg/L	30	29	0.0

**Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results**

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 566532)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	98.5	----	85	115	----	----
<b>ED/EK: Inorganic Nonmetallic Parameters (QCLot: 566395)</b>											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	98.6	----	85	115	----	----
<b>EG: Metals and Major Cations (QCLot: 566346)</b>											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	86.7	----	85	115	----	----

**Quality Control - Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results**

Matrix Type: WATER				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results						
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
					MS	MSD	Low	High	Value	Control Limit
<b>ED/EK: Inorganic Nonmetallic Parameters (QCLot: 566395)</b>										
HK0719042-019	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	112	----	75	125	----	----
<b>EG: Metals and Major Cations (QCLot: 566346)</b>										
HK0719034-001	Anonymous	EG020: Zinc	7440-66-6	1000 µg/L	88.2	----	75	125	----	----



### Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 549911)</b>								
HK0717367-001	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	8	9	17.2
HK0717404-001	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	53	56	4.6
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 549912)</b>								
HK0717467-005	W9B - 1 & 2 MIX	EA025: Suspended Solids (SS)	----	2	mg/L	43	40	8.6
HK0717507-003	Anonymous	EA025: Suspended Solids (SS)	----	3	mg/L	38	42	10.0
<b>ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 549976)</b>								
HK0717461-003	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	<0.1	<0.1	0.0
<b>EG: Metals and Major Cations (QC Lot: 549899)</b>								
HK0717467-002	W1B - 1 & 2 MIX	EG020: Zinc	7440-66-6	10	µg/L	65	63	3.2

### Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 549911)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	85.5	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 549912)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	92.0	----	85	115	----	----
<b>ED/EK: Inorganic Nonmetallic Parameters (QCLot: 549976)</b>											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	98.5	----	85	115	----	----
<b>EG: Metals and Major Cations (QCLot: 549899)</b>											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	86.7	----	85	115	----	----

### Quality Control - Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results

Matrix Type: WATER				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results						
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
					MS	MSD	Low	High	Value	Control Limit
<b>ED/EK: Inorganic Nonmetallic Parameters (QCLot: 549976)</b>										
HK0717438-041	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	106	----	75	125	----	----
<b>EG: Metals and Major Cations (QCLot: 549899)</b>										
HK0717467-001	W1A - 1 & 2 MIX	EG020: Zinc	7440-66-6	100 µg/L	85.7	----	75	125	----	----



### Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 552209)</b>								
HK0717707-007	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	5	4	0.0
HK0717737-001	Anonymous	EA025: Suspended Solids (SS)	----	3	mg/L	188	176	7.0
<b>ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 552605)</b>								
HK0717702-003	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	<0.1	<0.1	0.0
<b>EG: Metals and Major Cations (QC Lot: 552146)</b>								
HK0717607-001	Anonymous	EG020: Zinc	7440-66-6	10	µg/L	108000	108000	0.8

### Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 552209)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	97.0	----	85	115	----	----
<b>ED/EK: Inorganic Nonmetallic Parameters (QCLot: 552605)</b>											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	108	----	85	115	----	----
<b>EG: Metals and Major Cations (QCLot: 552146)</b>											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	90.2	----	85	115	----	----

### Quality Control - Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results

Matrix Type: WATER				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results						
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
					MS	MSD	Low	High	Value	Control Limit
<b>ED/EK: Inorganic Nonmetallic Parameters (QCLot: 552605)</b>										
HK0717737-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	Not Determined	----	75	125	----	----
<b>EG: Metals and Major Cations (QCLot: 552146)</b>										
HK0717593-001	Anonymous	EG020: Zinc	7440-66-6	100 µg/L	86.7	----	75	125	----	----



### Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 558667)</b>								
HK0718040-003	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	4	5	23.4
HK0718169-001	Anonymous	EA025: Suspended Solids (SS)	----	3	mg/L	294	299	1.4
<b>ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 560082)</b>								
HK0717993-003	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	0.8	0.8	0.0
HK0718102-004	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	2.0	2.0	0.0
<b>EG: Metals and Major Cations (QC Lot: 558655)</b>								
HK0718099-002	W1B - 1 & 2 MIX	EG020: Zinc	7440-66-6	10	µg/L	46	46	0.0

### Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 558667)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	98.5	----	85	115	----	----
<b>ED/EK: Inorganic Nonmetallic Parameters (QCLot: 560082)</b>											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	108	----	85	115	----	----
<b>EG: Metals and Major Cations (QCLot: 558655)</b>											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	102	----	85	115	----	----

### Quality Control - Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results

Matrix Type: WATER				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results						
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
					MS	MSD	Low	High	Value	Control Limit
<b>ED/EK: Inorganic Nonmetallic Parameters (QCLot: 560082)</b>										
HK0718102-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	77.5	----	75	125	----	----
<b>EG: Metals and Major Cations (QCLot: 558655)</b>										
HK0718099-001	W1A - 1 & 2 MIX	EG020: Zinc	7440-66-6	100 µg/L	96.8	----	75	125	----	----



### Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 559561)</b>								
HK0718296-012	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	<2	2	0.0
HK0718304-002	W1B - 1 & 2 MIX	EA025: Suspended Solids (SS)	----	2	mg/L	22	22	0.0
<b>ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 560083)</b>								
HK0718301-003	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	3.3	3.4	0.0
HK0718099-005	Anonymous	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	29.8	30.3	1.7
<b>EG: Metals and Major Cations (QC Lot: 559518)</b>								
HK0718079-002	Anonymous	EG020: Zinc	7440-66-6	10	µg/L	515	500	2.9
HK0718262-006	Anonymous	EG020: Zinc	7440-66-6	10	µg/L	157	158	0.7

### Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 559561)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	93.0	----	85	115	----	----
<b>ED/EK: Inorganic Nonmetallic Parameters (QCLot: 560083)</b>											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	104	----	85	115	----	----
<b>EG: Metals and Major Cations (QCLot: 559518)</b>											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	95.6	----	85	115	----	----

### Quality Control - Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results

Matrix Type: WATER				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results						
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
					MS	MSD	Low	High	Value	Control Limit
<b>ED/EK: Inorganic Nonmetallic Parameters (QCLot: 560083)</b>										
HK0718161-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	Not Determined	----	75	125	----	----
<b>EG: Metals and Major Cations (QCLot: 559518)</b>										
HK0718079-001	Anonymous	EG020: Zinc	7440-66-6	10000 µg/L	95.6	----	75	125	----	----





### Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 562121)</b>								
HK0718391-001	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	69	68	1.5
HK0718414-001	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	32	32	0.0
<b>ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 561776)</b>								
HK0718437-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	15.6	14.9	4.6
HK0718370-010	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	3.2	3.2	0.0
<b>EG: Metals and Major Cations (QC Lot: 561858)</b>								
HK0718420-002	W1B - 1 & 2 MIX	EG020: Zinc	7440-66-6	10	µg/L	31	29	7.7

### Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 562121)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	88.5	----	85	115	----	----
<b>ED/EK: Inorganic Nonmetallic Parameters (QCLot: 561776)</b>											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	98.4	----	85	115	----	----
<b>EG: Metals and Major Cations (QCLot: 561858)</b>											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	93.9	----	85	115	----	----

### Quality Control - Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results

Matrix Type: WATER				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results						
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
					MS	MSD	Low	High	Value	Control Limit
<b>ED/EK: Inorganic Nonmetallic Parameters (QCLot: 561776)</b>										
HK0718370-011	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	76.1	----	75	125	----	----
<b>EG: Metals and Major Cations (QCLot: 561858)</b>										
HK0718420-001	W1A - 1 & 2 MIX	EG020: Zinc	7440-66-6	100 µg/L	90.3	----	75	125	----	----



### Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 563863)</b>								
HK0718702-035	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.0
HK0718716-001	W1A - 1 & 2 MIX	EA025: Suspended Solids (SS)	----	2	mg/L	21	22	0.0
<b>ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 564533)</b>								
HK0718702-009	Anonymous	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	0.50	0.51	2.0
HK0718702-028	Anonymous	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	0.87	0.88	1.1
<b>EG: Metals and Major Cations (QC Lot: 563771)</b>								
HK0718716-002	W1B - 1 & 2 MIX	EG020: Zinc	7440-66-6	10	µg/L	101	96	4.6

### Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 563863)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	115	----	----
<b>ED/EK: Inorganic Nonmetallic Parameters (QCLot: 564533)</b>											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	97.8	----	85	115	----	----
<b>EG: Metals and Major Cations (QCLot: 563771)</b>											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	103	----	85	115	----	----

### Quality Control - Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results

Matrix Type: WATER				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results						
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
					MS	MSD	Low	High	Value	Control Limit
<b>ED/EK: Inorganic Nonmetallic Parameters (QCLot: 564533)</b>										
HK0718693-031	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	92.9	----	75	125	----	----
<b>EG: Metals and Major Cations (QCLot: 563771)</b>										
HK0718716-001	W1A - 1 & 2 MIX	EG020: Zinc	7440-66-6	100 µg/L	99.1	----	75	125	----	----



### Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 563863)</b>								
HK0718702-035	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.0
HK0718716-001	W1A - 1 & 2 MIX	EA025: Suspended Solids (SS)	----	2	mg/L	21	22	0.0
<b>ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 564533)</b>								
HK0718702-009	Anonymous	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	0.50	0.51	2.0
HK0718702-028	Anonymous	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	0.87	0.88	1.1
<b>EG: Metals and Major Cations (QC Lot: 563771)</b>								
HK0718716-002	W1B - 1 & 2 MIX	EG020: Zinc	7440-66-6	10	µg/L	101	96	4.6

### Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 563863)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	115	----	----
<b>ED/EK: Inorganic Nonmetallic Parameters (QCLot: 564533)</b>											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	97.8	----	85	115	----	----
<b>EG: Metals and Major Cations (QCLot: 563771)</b>											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	103	----	85	115	----	----

### Quality Control - Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results

Matrix Type: WATER				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results						
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
					MS	MSD	Low	High	Value	Control Limit
<b>ED/EK: Inorganic Nonmetallic Parameters (QCLot: 564533)</b>										
HK0718693-031	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	92.9	----	75	125	----	----
<b>EG: Metals and Major Cations (QCLot: 563771)</b>										
HK0718716-001	W1A - 1 & 2 MIX	EG020: Zinc	7440-66-6	100 µg/L	99.1	----	75	125	----	----



### Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 564611)</b>								
HK0718740-001	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	37	38	0.0
HK0718792-001	Anonymous	EA025: Suspended Solids (SS)	----	3	mg/L	209	208	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 564612)</b>								
HK0718795-004	W9A - 1 & 2 MIX	EA025: Suspended Solids (SS)	----	2	mg/L	20	20	0.0
HK0718925-003	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.0
<b>ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 564535)</b>								
HK0718795-005	W9B - 1 & 2 MIX	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	12.2	13.4	9.5
HK0718925-029	Anonymous	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	0.84	0.83	1.2
<b>EG: Metals and Major Cations (QC Lot: 564357)</b>								
HK0718795-001	W1A - 1 & 2 MIX	EG020: Zinc	7440-66-6	10	µg/L	45	46	3.3

### Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 564611)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	93.5	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 564612)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	99.0	----	85	115	----	----
<b>ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 564535)</b>											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	106	----	85	115	----	----
<b>EG: Metals and Major Cations (QC Lot: 564357)</b>											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	85.0	----	85	115	----	----

### Quality Control - Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results

Matrix Type: WATER					Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results					
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
					MS	MSD	Low	High	Value	Control Limit
<b>ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 564535)</b>										
HK0718925-019	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	96.0	----	75	125	----	----
<b>EG: Metals and Major Cations (QC Lot: 564357)</b>										
HK0718753-001	Anonymous	EG020: Zinc	7440-66-6	100 µg/L	80.4	----	75	125	----	----

## **Appendix I**

### **Meteorological Data in the Reporting Period**

**Meteorological Data Extracted from HKO in the Reporting Period**

Date		Weather	Lau Fau Shan Weather Station				
			Total Rainfall (mm)	Mean Air Temperature (°C)	Wind Speed (km/h)	Mean Relative Humidity (%)	Wind Direction
26-Nov-07	Mon	dry/sunny periods/cloudy/fresh	0	21.2	21.5	59.2	N/NE
27-Nov-07	Tue	fine/very dry/haze/fresh/strong	0	18.1	36	45.5	N
28-Nov-07	Wed	fine/very dry/fresh/strong	0	15.4	24.5	27.5	N
29-Nov-07	Thu	fine/very dry/cool/moderate	0	15.7	15.5	31	E
30-Nov-07	Fri	fine/dry/moderate	6.3	23.3	8.5	37.5	E
1-Dec-07	Sat	fine/dry/cloudy/moderate/fresh	0	17.9	9.2	57.7	E
2-Dec-07	Sun	fine/dry/moderate/fresh	0	21.1	9	66.7	W/SW
3-Dec-07	Mon	fine/dry/fresh/moderate/fresh	0	19.7	15.5	61.2	E/NE
4-Dec-07	Tue	fine/dry/haze/moderate	0	18	12.5	48.5	E
5-Dec-07	Wed	cloudy/haze/rain/moderate	0	18.8	11.5	60	E/NE
6-Dec-07	Thu	cloudy/haze/sunny periods/moderate	0	18.6	8.7	58.5	E/NE
7-Dec-07	Fri	fine/dry/hazy/moderate	0	18.9	9.7	60.7	E/NE
8-Dec-07	Sat	fine/dry/hazy/cloudy/moderate/fresh	0	18.2	10.2	58.5	E/NE
9-Dec-07	Sun	sunny periods/moderate	0	20.1	9	66.5	N/NE
10-Dec-07	Mon	fine/cloudy/moderate/fresh	0	21.7	10	70.7	E/NE
11-Dec-07	Tue	fine/warm/cloudy/haze/light winds	0	22	9	68.2	E/SE
12-Dec-07	Wed	fine/hazy/cloudy/moderate	0	21.6	8.5	65	E/NE
13-Dec-07	Thu	fine/haze/moderate	Trace	21.1	10	74.5	W/SW
14-Dec-07	Fri	fine/haze/moderate	Trace	19.2	13	64	E/NE
15-Dec-07	Sat	fine/haze/moderate/fresh	0	20.3	10	73	E/SE
16-Dec-07	Sun	fine/haze/moderate/fresh	0	21.7	11.5	63	E/NE
17-Dec-07	Mon	cloudy/haze/sunny intervals/moderate	Trace	21.7	8.5	70	E/NE
18-Dec-07	Tue	cloudy/haze/moderate/fresh	0	23.2	8	67.2	R/SE
19-Dec-07	Wed	cloudy/rain/moderate	Trace	19	12.5	70	S/SE
20-Dec-07	Thu	cloudy/moderate/fresh	0	21.2	8.2	73.2	E
21-Dec-07	Fri	fine/hazy/cloudy/moderate	0	22.4	9.5	69	E/NE
22-Dec-07	Sat	cloudy/light winds/moderate/rain	Trace	21.8	9.5	77.2	E/SE
23-Dec-07	Sun	fine/cool/moderate/fresh	1.1	18.4	13.5	86	N/NE
24-Dec-07	Mon	fine/cool/moderate/fresh	14.6	16.5	14	87	N/NE
21-Dec-07	Fri	fine/hazy/cloudy/moderate	0	22.4	9.5	69	E/NE
25-Dec-07	Tue						Holiday

## **Appendix J**

### **Environmental Team Site Inspection Checklists**

# Environmental Site Inspection Checklist for KT15

<b>Project:</b>	<u>Contract No.: DC/2006/02</u> <u>Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsui Wai</u>	<b>Inspected by</b>	
<b>Inspection</b>		<b>RE/RE's representative:</b>	<u>A.F. Ng / W.L. Chan</u>
<b>Date:</b>	<u>29 November 2007</u>	<b>IEC/IEC's representative:</b>	<u>-</u>
<b>Time:</b>	<u>14:20</u>	<b>ETL/ ET's representative:</b>	<u>Ken Wong</u>
		<b>Contractor's representative:</b>	<u>M.K. Ng / K.M. Lui</u>
		<b>Checklist No.</b>	<u>KT15-291107</u>

**PART A: GENERAL INFORMATION** Environmental Permit No. EP-231/2005/A

Weather:  Sunny  Fine  Cloudy  Rainy

Temperature:  °C

Humidity:  High  Moderate  Low

Wind:  Strong  Breeze  Light  Calm

**PART B: SITE AUDIT**

		Not Obs.	Yes	No	Follow up	N/A	Photo/Remarks
<b>Section 1: Water Quality</b>							
1.01	Is an effluent discharge license obtained for the Project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.02	Is the effluent discharged in accordance with the discharge licence?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.03	Is the discharge of turbid water avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.04	Are there proper desilting facilities in the drainage systems to reduce SS levels in effluent?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.05	Are there channels, sandbags or bunds to direct surface run-off to sedimentation tanks?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.06	Are there any perimeter channels provided at site boundaries to intercept storm runoff from crossing the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.07	Is drainage system well maintained?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.08	As excavation proceeds, are temporary access roads protected by crushed stone or gravel?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.09	Are temporary exposed slopes properly covered?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.10	Are earthworks final surfaces well compacted or protected?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.11	Are manholes adequately covered or temporarily sealed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.12	Are there any procedures and equipment for rainstorm protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.13	Are wheel washing facilities well maintained?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.14	Is runoff from wheel washing facilities avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.15	Are there toilets provided on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.16	Are toilets properly maintained?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.17	Are the vehicle and plant servicing areas paved and located within roofed areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.18	Is the oil leakage or spillage avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.19	Are there any measures to prevent leaked oil from entering the drainage system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.20	Are there any measures to collect spilt cement and concrete washings during concreting works?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.21	Are there any oil interceptors/grease traps in the drainage systems for vehicle and plant servicing areas, canteen kitchen, etc?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	



# Environmental Site Inspection Checklist for KT15

	Not Obs.	Yes	No	Follow up	N/A	Photo/Remarks
1.22	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.23	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.24	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.25	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.26	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.27	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.25	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.26	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Section 2: Air Quality</b>						
2.01	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.02	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.03	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.04	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.05	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2.06	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.07	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.08	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.09	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.10	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.11	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2.13	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.14	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.15	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.16	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Section 3: Noise</b>						
3.01	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.02	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.03	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.04	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.05	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.06	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

# Environmental Site Inspection Checklist for KT15

		Not Obs.	Yes	No	Follow up	N/A	Photo/Remarks
3.07	Are air compressors fitted with valid noise emission labels during operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3.08	Are flaps and panels of mechanical equipment closed during operation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.09	Are Construction Noise Permit(s) applied for percussive piling works?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3.10	Are Construction Noise Permit(s) applied for general construction works during restricted hours?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3.11	Are valid Construction Noise Permit(s) posted at site entrances?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3.12	Use of quiet plant had been used on site to minimise the construction noise impact to the surrounding residences/dwellings (Level 1 mitigation measures).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.13	Temporary/Moveable noise barrier or site hoarding are provide or erect at the site boundary to minimise the noise impact of the closest NSRs or stationary equipments shield by the noise barrier which cannot visible from NSRs (Level 2 mitigation measure)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.14	Temporary/Moveable noise barrier equal to or more than 3m height with 10kg/m2 are provide for noise mitigation measures (Level 2 mitigation measures).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Section 4: Waste/Chemical Management</b>							
4.01	Waste Management Plan had been submit to Engineer for approval.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.02	Are receptacles available for general refuse collection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.03	Is general refuse sorting or recycling implemented?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.04	Is general refuse disposed of properly and regularly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.05	Is the Contractor registered as a chemical waste producer?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.06	Are the chemical waste containers properly labelled?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.07	Are the chemical wastes stored in proper storage areas?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.08	Is the chemical waste storage area properly labelled?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.09	Is the chemical waste storage area used for storage of chemical waste only?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.10	Are incompatible chemical wastes stored in different areas?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.11	Are the chemical wastes disposed of by licensed collectors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4.12	Are trip tickets for chemical wastes disposal available for inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4.13	Are chemical/fuel storage areas bunded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.14	Are designated areas identified for storage and sorting of construction wastes?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.15	Are construction wastes sorted (inert and non-inert) on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.16	Are construction wastes reused?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.17	Are construction wastes disposed of properly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.18	Are site hoardings and signboards made of durable materials instead of timber?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.19	Is trip ticket system implemented for the disposal of construction wastes and records available for inspection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.20	Are appropriate procedures followed if contaminated material exists?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.21	Is relevant license/ permit for disposal of construction waste or excavated materials available for inspection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.22	Site cleanliness and appropriate waste management training had provided for the site workers.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

# Environmental Site Inspection Checklist for KT15

	Not Obs.	Yes	No	Follow up	N/A	Photo/Remarks
4.23 Contaminated sediments will managed according to WBTC No.12/2000 and EWTB TC(W) No. 34/2002.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>Section 5: Landscape &amp; Visual</b>						
5.01 Are retained and transplanted trees in health condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
5.02 Are retained and transplanted trees properly protected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
5.03 Are surgery works carried out for the damaged trees?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
5.04 Is damage to trees outside site boundary due to construction activities avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
5.05 Is the night-time lighting controlled to minimize glare to sensitive receivers?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>Section 6: Ecology</b>						
6.01 Gabion banks and base had been provide for channel linings and banks for typical sections of KT15?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
6.02 Prevent site effluent/runoff discharge to the seasonal wetlands at KT15?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
6.03 Stockpiling or disposal of materials, and any dredging or construction activities at the seasonal wetlands at KT15 are prohibited?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>Section 7: Others</b>						
7.01 Are relevant Environmental Permits posted at all vehicle site entrances/exits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

Remarks

Last Site Inspection:

Plastic tube connected to the sedimentation tank had been repair.  
Waste skip at the site office had been clean up.

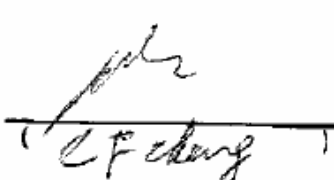
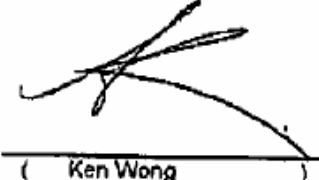
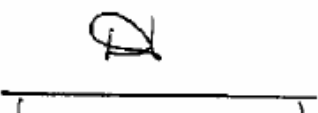
Findings of Site Inspection on 29 November 2007:

Site Inspection was covered the site area from CH000-300, CH450-700 and Portion 8.



Dry haul road was observed at the CH100-200, the Contractor was reminded to provide water spraying more frequency to prevent fugitive dust emission in the windy/dry season.

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<b>RE's representative</b>	<b>IEC's representative</b>	<b>ET's representative</b>	<b>Contractor's representative</b>
			
( C.F. Chang )	( )	( Ken Wong )	( )

# Environmental Site Inspection Checklist for KT15

<b>Project:</b>	<u>Contract No.: DC/2006/02</u> <u>Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsui Wai</u>	<b>Inspected by</b>	
<b>Inspection</b>		<b>RE/RE's representative:</b>	<u>A.F. Ng / W. L. Chan</u>
<b>Date:</b>	<u>07 December 2007</u>	<b>IEC/IEC's representative:</b>	<u></u>
<b>Time:</b>	<u>14:10</u>	<b>ETL/ ET's representative:</b>	<u>Ben Tam</u>
		<b>Contractor's representative:</b>	<u>M.K. Ng / K.M. Lui</u>
		<b>Checklist No.</b>	<u>KT15 - 071207</u>

**PART A: GENERAL INFORMATION** Environmental Permit No. EP-231/2005/A

Weather:  Sunny  Fine  Cloudy  Rainy

Temperature:  °C

Humidity:  High  Moderate  Low

Wind:  Strong  Breeze  Light  Calm

**PART B: SITE AUDIT**

		Not Obs.	Yes	No	Follow up	N/A	Photo/Remarks
<b>Section 1: Water Quality</b>							
1.01	Is an effluent discharge license obtained for the Project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.02	Is the effluent discharged in accordance with the discharge licence?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.03	Is the discharge of turbid water avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.04	Are there proper desilting facilities in the drainage systems to reduce SS levels in effluent?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.05	Are there channels, sandbags or bunds to direct surface run-off to sedimentation tanks?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.06	Are there any perimeter channels provided at site boundaries to intercept storm runoff from crossing the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.07	Is drainage system well maintained?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.08	As excavation proceeds, are temporary access roads protected by crushed stone or gravel?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.09	Are temporary exposed slopes properly covered?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.10	Are earthworks final surfaces well compacted or protected?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.11	Are manholes adequately covered or temporarily sealed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.12	Are there any procedures and equipment for rainstorm protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.13	Are wheel washing facilities well maintained?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.14	Is runoff from wheel washing facilities avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.15	Are there toilets provided on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.16	Are toilets properly maintained?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.17	Are the vehicle and plant servicing areas paved and located within roofed areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.18	Is the oil leakage or spillage avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.19	Are there any measures to prevent leaked oil from entering the drainage system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.20	Are there any measures to collect spilt cement and concrete washings during concreting works?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.21	Are there any oil interceptors/grease traps in the drainage systems for vehicle and plant servicing areas, canteen kitchen, etc?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

# Environmental Site Inspection Checklist for KT15

	Not Obs.	Yes	No	Follow up	N/A	Photo/Remarks
1.22	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.23	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.24	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.25	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.26	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.27	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.28	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.29	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Section 2: Air Quality</b>						
2.01	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.02	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.03	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.04	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.05	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2.06	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.07	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.08	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.09	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.10	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.11	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2.13	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.14	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.15	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.16	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Section 3: Noise</b>						
3.01	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.02	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.03	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.04	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.05	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.06	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

# Environmental Site Inspection Checklist for KT15

	Not Obs.	Yes	No	Follow up	N/A	Photo/Remarks
3.07	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3.08	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.09	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3.10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3.11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3.12	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.13	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.14	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Section 4: Waste/Chemical Management</b>						
4.01	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.02	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.03	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.04	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.05	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.06	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.07	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.08	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.09	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.10	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4.12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4.13	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.14	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.15	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.16	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.17	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.18	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.19	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.20	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.21	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.22	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

# Environmental Site Inspection Checklist for KT15

	Not Obs.	Yes	No	Follow up	N/A	Photo/Remarks
4.23 Contaminated sediments will managed according to WBTC No.12/2000 and EWTB TC(W) No. 34/2002.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>Section 5: Landscape &amp; Visual</b>						
5.01 Are retained and transplanted trees in health condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
5.02 Are retained and transplanted trees properly protected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
5.03 Are surgery works carried out for the damaged trees?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
5.04 Is damage to trees outside site boundary due to construction activities avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
5.05 Is the night-time lighting controlled to minimize glare to sensitive receivers?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>Section 6: Ecology</b>						
6.01 Gabion banks and base had been provide for channel linings and banks for typical sections of KT15?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
6.02 Prevent site effluent/runoff discharge to the seasonal wetlands at KT15?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
6.03 Stockpiling or disposal of materials, and any dredging or construction activities at the seasonal wetlands at KT15 are prohibited?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>Section 7: Others</b>						
7.01 Are relevant Environmental Permits posted at all vehicle site entrances/exits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____



Remarks

Last Site Inspection:

Water spraying was observed at the CH 100 - 200

Findings of Site Inspection on 7 December 2007:

Site Inspection was covered the site area from CH000-300, 450 - 700 and Portion 8.

- 1) Housekeeping should be improved at CH 250, C&D waste should clean move frequency to keep the site tidy.
- 2) Water directly discharge was observed at Bay 27, desilting facilities should be provide for all discharge point.

RE's representative

IEC's representative


ET's representative

Contractor's representative

  
( \_\_\_\_\_ )

( \_\_\_\_\_ )

  
( Ben Tam )

  
( M K Ng )

# Environmental Site Inspection Checklist for KT15

<b>Project:</b>	<u>Contract No.: DC/2006/02</u> <u>Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsui Wai</u>	<b>Inspected by</b>	
<b>Inspection</b>		<b>RE/RE's representative:</b>	<u>A.F. Ng</u>
<b>Date:</b>	<u>13 November 2007</u>	<b>IEC/IEC's representative:</b>	<u>Benny Liu</u>
<b>Time:</b>	<u>16:20</u>	<b>ETL/ ET's representative:</b>	<u>Ken Wong</u>
		<b>Contractor's representative:</b>	<u>M.K. Ng / K.M. Lui</u>
		<b>Checklist No.</b>	<u>KT15-131207</u>

**PART A: GENERAL INFORMATION** Environmental Permit No. EP-231/2005/A

Weather:  Sunny  Fine  Cloudy  Rainy

Temperature:  °C

Humidity:  High  Moderate  Low

Wind:  Strong  Breeze  Light  Calm

**PART B: SITE AUDIT**

		Not Obs.	Yes	No	Follow up	N/A	Photo/Remarks
<b>Section 1: Water Quality</b>							
1.01	Is an effluent discharge license obtained for the Project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.02	Is the effluent discharged in accordance with the discharge licence?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.03	Is the discharge of turbid water avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.04	Are there proper desilting facilities in the drainage systems to reduce SS levels in effluent?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.05	Are there channels, sandbags or bunds to direct surface run-off to sedimentation tanks?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.06	Are there any perimeter channels provided at site boundaries to intercept storm runoff from crossing the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.07	Is drainage system well maintained?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.08	As excavation proceeds, are temporary access roads protected by crushed stone or gravel?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.09	Are temporary exposed slopes properly covered?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.10	Are earthworks final surfaces well compacted or protected?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.11	Are manholes adequately covered or temporarily sealed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.12	Are there any procedures and equipment for rainstorm protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.13	Are wheel washing facilities well maintained?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.14	Is runoff from wheel washing facilities avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.15	Are there toilets provided on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.16	Are toilets properly maintained?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.17	Are the vehicle and plant servicing areas paved and located within roofed areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.18	Is the oil leakage or spillage avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.19	Are there any measures to prevent leaked oil from entering the drainage system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.20	Are there any measures to collect spilt cement and concrete washings during concreting works?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.21	Are there any oil interceptors/grease traps in the drainage systems for vehicle and plant servicing areas, canteen kitchen, etc?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

# Environmental Site Inspection Checklist for KT15

	Not Obs.	Yes	No	Follow up	N/A	Photo/Remarks
1.22	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.23	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.24	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Designated settlement area for runoff/wheel wash waste is provide and located at the streambed with 1-2m deep, 12m long and around 50m3 capacities for sedimentation.
1.25	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No excavation is undertaken in the settlement area.
1.26	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concreting wastes water should be neutralized below the pH Action Levels before discharge.
1.27	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Mobile toilets should provide on site and located away the KT15 stream course.
1.28	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	License collector should be employed for handling the sewage of mobile toilet.
1.29	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Prevent stagnant water accumulated within the excavation trench or site working area.
<b>Section 2: Air Quality</b>						
2.01	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are there wheel washing facilities with high pressure jets provided at every vehicle exit point?
2.02	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are vehicles washed to remove any dusty materials from their bodies and wheels before leaving construction sites?
2.03	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are the excavated materials sprayed with water during handling?
2.04	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are stockpiles of dusty materials sprayed with water, covered or placed in sheltered areas?
2.05	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is the exposed earth properly treated within six months after the last construction activities?
2.06	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are the access roads sprayed with water to maintain the entire road surface wet or paved?
2.07	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the surface where any drilling, cutting, polishing or breaking operation continuously sprayed with water?
2.08	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the load on vehicles covered entirely by clean impervious sheeting?
2.09	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the loading of materials to a level higher than the side and tail boards during transportation by vehicles avoided?
2.10	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the road leading to the construction site within 30m of the vehicle entrance kept clear of dusty materials?
2.11	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is dark smoke emission from plant/equipment avoided?
2.12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Are de-bagging, batching and mixing processes carried out in sheltered areas during the use of bagged cement?
2.13	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are site vehicles travelling within the speed limit not more than 15km/hour?
2.14	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are hoardings of not less than 2.4m high provided along the site boundary, which adjoins areas accessible to the public?
2.15	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is open burning avoided?
2.16	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Excavated materials from the stream must remove form site on the same day. The materials shall be stored in covered impermeable skips awaiting removal from site.
<b>Section 3: Noise</b>						
3.01	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are noisy equipment and activities positioned as far as practicable from the sensitive receivers?
3.02	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is silenced equipment adopted?
3.03	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is idle equipment turned off or throttled down?
3.04	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are all plant and equipment well maintained and in good condition?
3.05	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are noise barriers or enclosures provided at areas where construction activities cause noise impact on sensitive receivers?
3.06	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Are hand held breakers fitted with valid noise emission labels during operation?

# Environmental Site Inspection Checklist for KT15

		Not Obs.	Yes	No	Follow up	N/A	Photo/Remarks
3.07	Are air compressors fitted with valid noise emission labels during operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3.08	Are flaps and panels of mechanical equipment closed during operation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.09	Are Construction Noise Permit(s) applied for percussive piling works?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3.10	Are Construction Noise Permit(s) applied for general construction works during restricted hours?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3.11	Are valid Construction Noise Permit(s) posted at site entrances?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3.12	Use of quiet plant had been used on site to minimise the construction noise impact to the surrounding residences/dwellings (Level 1 mitigation measures).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.13	Temporary/Moveable noise barrier or site hoarding are provide or erect at the site boundary to minimise the noise impact of the closest NSRs or stationary equipments shield by the noise barrier which cannot visible from NSRs (Level 2 mitigation measure)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.14	Temporary/Moveable noise barrier equal to or more than 3m height with 10kg/m2 are provide for noise mitigation measures (Level 2 mitigation measures).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Section 4: Waste/Chemical Management</b>							
4.01	Waste Management Plan had been submit to Engineer for approval.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.02	Are receptacles available for general refuse collection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.03	Is general refuse sorting or recycling implemented?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.04	Is general refuse disposed of properly and regularly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.05	Is the Contractor registered as a chemical waste producer?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.06	Are the chemical waste containers properly labelled?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.07	Are the chemical wastes stored in proper storage areas?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.08	Is the chemical waste storage area properly labelled?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.09	Is the chemical waste storage area used for storage of chemical waste only?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.10	Are incompatible chemical wastes stored in different areas?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.11	Are the chemical wastes disposed of by licensed collectors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4.12	Are trip tickets for chemical wastes disposal available for inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4.13	Are chemical/fuel storage areas bunded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.14	Are designated areas identified for storage and sorting of construction wastes?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.15	Are construction wastes sorted (inert and non-inert) on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.16	Are construction wastes reused?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.17	Are construction wastes disposed of properly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.18	Are site hoardings and signboards made of durable materials instead of timber?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.19	Is trip ticket system implemented for the disposal of construction wastes and records available for inspection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.20	Are appropriate procedures followed if contaminated material exists?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.21	Is relevant license/ permit for disposal of construction waste or excavated materials available for inspection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.22	Site cleanliness and appropriate waste management training had provided for the site workers.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

# Environmental Site Inspection Checklist for KT15

	Not Obs.	Yes	No	Follow up	N/A	Photo/Remarks
4.23 Contaminated sediments will managed according to WBTC No.12/2000 and EWTB TC(W) No. 34/2002.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>Section 5: Landscape &amp; Visual</b>						
5.01 Are retained and transplanted trees in health condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
5.02 Are retained and transplanted trees properly protected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
5.03 Are surgery works carried out for the damaged trees?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
5.04 Is damage to trees outside site boundary due to construction activities avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
5.05 Is the night-time lighting controlled to minimize glare to sensitive receivers?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>Section 6: Ecology</b>						
6.01 Gabion banks and base had been provide for channel linings and banks for typical sections of KT15?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
6.02 Prevent site effluent/runoff discharge to the seasonal wetlands at KT15?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
6.03 Stockpiling or disposal of materials, and any dredging or construction activities at the seasonal wetlands at KT15 are prohibited?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>Section 7: Others</b>						
7.01 Are relevant Environmental Permits posted at all vehicle site entrances/exits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

Remarks

Last Site Inspection:


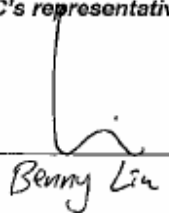

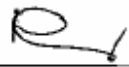
C&D waste had been remove, in general the site was kept clean and tidy.  
No wastewater directly discharge was observed.

Findings of Site Inspection on 13 December 2007:

Site Inspection was covered the site area from CH000-800 and Portion 8.

No environmental observation was recorded during the inspection period.

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<i>RE's representative</i>	<i>IEC's representative</i>	<i>ET's representative</i>	<i>Contractor's representative</i>
			
( _____ )	( <i>Benny Lin</i> _____ )	( _____ )	( _____ )

# Environmental Site Inspection Checklist for KT15

**Project:** Contract No.: DC/2006/02  
Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui  
Wai Drainage Improvements, Stage 1, Phase 2B –  
Cheung Chun San Tsuen and Kam Tsin Wai

**Inspected by** \_\_\_\_\_  
**RE/RE's representative:** A.F. Ng  
**IEC/IEC's representative:** \_\_\_\_\_  
**ETL/ ET's representative:** Ken Wong  
**Contractor's representative:** M.K. Ng  
**Checklist No.** KT15-201207

**Inspection**  
**Date:** 20 December 2007  
**Time:** 13:40

**PART A: GENERAL INFORMATION** Environmental Permit No. EP-231/2005/A

Weather:  Sunny  Fine  Cloudy  Rainy

Temperature:  °C

Humidity:  High  Moderate  Low

Wind:  Strong  Breeze  Light  Calm

**PART B: SITE AUDIT**

		Not Obs.	Yes	No	Follow up	N/A	Photo/Remarks
<b>Section 1: Water Quality</b>							
1.01	Is an effluent discharge license obtained for the Project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.02	Is the effluent discharged in accordance with the discharge licence?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.03	Is the discharge of turbid water avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.04	Are there proper desilting facilities in the drainage systems to reduce SS levels in effluent?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.05	Are there channels, sandbags or bunds to direct surface run-off to sedimentation tanks?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.06	Are there any perimeter channels provided at site boundaries to intercept storm runoff from crossing the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.07	Is drainage system well maintained?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.08	As excavation proceeds, are temporary access roads protected by crushed stone or gravel?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.09	Are temporary exposed slopes properly covered?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.10	Are earthworks final surfaces well compacted or protected?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
1.11	Are manholes adequately covered or temporarily sealed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.12	Are there any procedures and equipment for rainstorm protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.13	Are wheel washing facilities well maintained?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.14	Is runoff from wheel washing facilities avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.15	Are there toilets provided on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.16	Are toilets properly maintained?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.17	Are the vehicle and plant servicing areas paved and located within roofed areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
1.18	Is the oil leakage or spillage avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.19	Are there any measures to prevent leaked oil from entering the drainage system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.20	Are there any measures to collect spilt cement and concrete washings during concreting works?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
1.21	Are there any oil interceptors/grease traps in the drainage systems for vehicle and plant servicing areas, canteen kitchen, etc?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____

# Environmental Site Inspection Checklist for KT15

	Not Obs.	Yes	No	Follow up	N/A	Photo/Remarks
1.22	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.23	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.24	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.25	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.26	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.27	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.28	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.29	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Section 2: Air Quality</b>						
2.01	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.02	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.03	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.04	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.05	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2.06	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.07	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.08	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.09	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.10	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.11	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2.13	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.14	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.15	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.16	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Section 3: Noise</b>						
3.01	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.02	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.03	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.04	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.05	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.06	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	



# Environmental Site Inspection Checklist for KT15

	Not Obs.	Yes	No	Follow up	N/A	Photo/Remarks
3.07	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3.08	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.09	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3.10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3.11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3.12	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.13	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.14	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Section 4: Waste/Chemical Management</b>						
4.01	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.02	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.03	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.04	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.05	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.06	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.07	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.08	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.09	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.10	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4.12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4.13	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.14	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.15	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.16	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.17	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.18	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.19	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.20	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.21	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.22	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

# Environmental Site Inspection Checklist for KT15

	Not Obs.	Yes	No	Follow up	N/A	Photo/Remarks
4.23 Contaminated sediments will managed according to WBTC No.12/2000 and EWTB TC(W) No. 34/2002.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>Section 5: Landscape &amp; Visual</b>						
5.01 Are retained and transplanted trees in health condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
5.02 Are retained and transplanted trees properly protected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
5.03 Are surgery works carried out for the damaged trees?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
5.04 Is damage to trees outside site boundary due to construction activities avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
5.05 Is the night-time lighting controlled to minimize glare to sensitive receivers?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>Section 6: Ecology</b>						
6.01 Gabion banks and base had been provide for channel linings and banks for typical sections of KT15?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
6.02 Prevent site effluent/runoff discharge to the seasonal wetlands at KT15?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
6.03 Stockpiling or disposal of materials, and any dredging or construction activities at the seasonal wetlands at KT15 are prohibited?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>Section 7: Others</b>						
7.01 Are relevant Environmental Permits posted at all vehicle site entrances/exits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

Remarks

**Last Site Inspection:**

No environmental observation was recorded during the inspection on 13 December 2007.

**Findings of Site Inspection on 20 December 2007:**

Site Inspection was covered the site area (KT15) from CH000-800 and Portion 8.

No environmental observation was recorded during the inspection period.

**RE's representative**

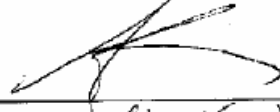
**IEC's representative**


**ET's representative**

**Contractor's representative**

  
( \_\_\_\_\_ )

\_\_\_\_\_  
( \_\_\_\_\_ )

  
( *Ben Worley* )

  
( *M E Roy* )

## **Appendix K**

### **Photos Record of KT15**



A



B



C



E



F



D



H



I



J



G

## **Appendix L**

### **Response to Comments**

**Contract No. DC/2006/02**

**Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai  
Response to IEC's comments on KT15 Monthly EM&A Report for December 2007 (Revision 0) [Received from e-mail on 15 Jan 2008]**

No.	Section / Paragraph	Comments	Ref.	Response to Comments
1	Various	An NOE for ecology was received on 17 December 2007 (Ref: TCS00371/07/300/F0399), regarding exceedance for the wetland dependent bird species and individual number, the investigation report is not yet received, please submit the report accordingly.	-	Please refer to the investigation report (Our Ref: TCS00371/07/300/F0448)
2	Appendix G	Please check if there is one stream water quality monitoring day between 30 Dec 2007 - 3 Jan 2008	-	The correct monitoring schedule had been incorporated in Appendix G.