JOB 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 MARCH 2008 (NO. 9)

REVISION NO.: 2

PREPARED FOR

CHIT CHEUNG CONSTRUCTION COMPANY LIMITED

Quality Index

Date	Reference No.	Prepared By	Certified By
10 April 2008	TCS00371/07/600/R0561	Sylvie Wong	Ken Wong
		Environmental Consultant	Environmental Team Leader

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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 Tsin 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 Monthly EM&A Report for **March 2008 (No. 9)** is present the environmental impact monitoring and audit (EM&A) results of the project EM&A program for the reporting month **March 2008** during the period from **26 February 2008 to 25 March 2008**.

Breach of Action and Limit (AL) Levels

ES.05 The Limit Level exceedance was recorded in ecology (16 March 2008) 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 **April 2008** included Construction and Excavation works, Stream Diversion, Sheet Piles Driving; Tree protection and tree transplanting works; Carrying out joined survey; Utilities companies liaison; Dumping activities and Gabion installation. 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	16	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 (16 March 2008). No intrusions of construction activities into the wetland areas nor adverse impact was observed. 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.

Summary of Monitoring Exceedances

ES.15 A summary of monitoring exceedances during the reporting period for 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	NA	(monitoring not required in this reporting month)

Site Inspection by External Parties

ES.16 One site inspection was undertaken by Environmental Protection Department (EPD) on 17 March 2008 regarding to the handling, storage and disposal of chemical waste at Portion 8. No comment was made by EPD.

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. Location plan of the project site is presented in **Appendix A** and the 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 **March 2008** during the period from **26 February 2007 to 25 March 2008**.

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 and excavation works;
- Provision of temporary entrance at Kam Po Road and Kam Sheung Road;
- Dumping activities;
- Sheet pile driving;
- Tree protection and tree transplanting works;
- Utilities companies liaison;
- Carrying out joined survey; and
- Gabion Installation

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

Items	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)

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	$Leq_{(30min)}$ during normal working hours		N10a*
	Supplementary data of L_{10} and L_{90} for reference.		
Stream Water Quality	In Situ Measurement	• Dissolved Oxygen Concentration (mg/L);	W9A & W9B
		• Dissolved Oxygen Saturation (% Sat);	
		• Turbidity (NTU);	
		• pH;	
		• Salinity (%); Water Depth (m) and	
		• Temperature (^oC).	
	Laboratory Analysis	• Suspended Solids (mg/L);	
		• Ammonia Nitrogen (mg/L); and	
		• Zinc (μg/L).	
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 $Leq_{(30min)}$ shall be taken between 0700 and 1900 with supplementary L_{10} and L_{90} 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 and 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. Photographic record should be made at six month intervals.

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 ($\mu g/m^3$)		Limit Level ($\mu g/m^3$)	
	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)#	W9B (Downstream)
Action Level	NA	< 0.3
Limit Level	NA	< 0.2
Turbidity (NTU)	**W9A (Upstream)#**	**W9B (Downstream)**
Action Level	NA	> 73.5*
Limit Level	NA	> 78.2**
pH	**W9A (Upstream)#**	**W9B (Downstream)**
Action Level	NA	> 7.0*
Limit Level	NA	> 7.1**
Suspended Solids (mg/L)	**W9A (Upstream)#**	**W9B (Downstream)**
Action Level	NA	> 148*
Limit Level	NA	> 159**
Ammonia Nitrogen (mg/L)	**W9A (Upstream)#**	**W9B (Downstream)**
Action Level	NA	> 30.91*
Limit Level	NA	> 32.20**
Zinc (μg/L)	**W9A (Upstream)#**	**W9B (Downstream)**
Action Level	NA	> 242*
Limit Level	NA	> 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.

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 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

Air Quality Station	
A10	Village House in Tin Sam San Tsuen
Construction Noise Location	
N10*	Village House in Tin Sam San Tsuen
N10a	Village House in Tin Sam San Tsuen
Water Quality Locations	
W9A#	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 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 **16** 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. Photographic record should be made at six monthly intervals.

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 The 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^3/min (20-60 SCFM) adjustable flow rate;
- A 7-day mechanical timer for 24-Hour operation;
- An elapsed time indicator with ±2 minutes accuracy for 24-Hour operation;
- Minimum exposed area of 63 in^2;
- Flow control accuracy of ±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 ±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 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 (L_{eq}) measured in decibels (dB). Supplementary statistical results such as L_{10} and L_{90} 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 (L_{eq}).

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^{o}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 200°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 40°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 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	1st Result (μg/m³)	2nd Result (μg/m³)	3rd Result (μg/m³)	Action Level (μg/m³)	Limit Level (μg/m³)
28-Feb-08	9:22	156	167	147	> 307	> 500
05-Mar-08	9:42	185	168	116	> 307	> 500
11-Mar-08	9:19	141	144	148	> 307	> 500
17-Mar-08	9:16	181	178	154	> 307	> 500
25-Mar-08	8:56	184	207	193	> 307	> 500

Note: Bold and italic is exceed the Action Level.
Bold and underline is exceed the Limit Level

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

Monitoring Date	Monitoring Results (μg/m³)	Action Level (μg/m³)	Limit Level (μg/m³)
27-Feb-08	57	> 165	> 260
04-Mar-08	116	> 165	> 260
10-Mar-08	74	> 165	> 260
15-Mar-08	65	> 165	> 260
20-Mar-08	118	> 165	> 260

Note: Bold and italic is exceed the Action Level.
Bold and underline is exceed 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	6th Leq5	Leq30
28-Feb-08	10:02	53.5	53.7	54.7	54.6	53.1	53.7	53.9
05-Mar-08	11:02	62.7	59.5	60.9	58.8	59.8	54.0	60.0
11-Mar-08	10:09	54.6	54.0	54.9	53.3	54.7	55.8	54.6
17-Mar-08	9:36	50.4	50.5	49.8	50.5	48.4	51.3	50.2
25-Mar-08	10:31	47.9	48.6	50.6	53.0	49.8	51.3	50.5
Limit Level		-						**> 75 dB(A)**

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 & W9B

Monitoring Date	DO in mg/L		Turbidity (NTU)		pH		SS in mg/L		Ammonia (mg/L)		Zinc (μg/L)	
	W9A#	W9B	W9A#	W9B	W9A#	W9B	W9A#	W9B	W9A#	W9B	W9A#	W9B
28-Feb-08	5.0	3.7	32.2	30.7	8.8	8.7	56	49	38.50	8.54	148	145
05-Mar-08	0.5	4.1	120.5	15.5	8.9	9.1	154	39	43.70	8.49	416	117
07-Mar-08	5.0	2.4	23.7	19.6	9.1	9.0	42	29	24.10	7.85	106	87
11-Mar-08	5.0	3.2	27.6	22.9	9.0	8.9	19	40	46.40	8.61	98	174
13-Mar-08	3.7	2.5	17.3	25.6	9.0	8.7	18	44	32.00	7.99	44	111
17-Mar-08	3.6	1.5	25.7	54.1	9.1	9.1	28	60	42.00	22.10	92	152
19-Mar-08	1.6	1.7	30.1	13.2	9.4	9.0	182	43	67.80	1.00	354	114
25-Mar-08	4.4	4.6	39.7	31.0	9.4	9.1	21	49	95.90	15.20	75	82
Action Level	-	< 0.3*	-	> 73.5*	-	> 7.0*	-	> 148*	-	> 30.91*	-	> 242*
Limit Level	-	< 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 23 individuals of birds from 9 species were recorded during the survey for the present monthly monitoring on 16 March 2008. 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, while fauna survey is conducted during the wetland season (April to July), and thus both 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 Mar 08)
Birds			
Bubulcus ibis	**Cattle Egret**	**0.4**	
Ardeola bacchus	**Chinese Pond Heron**	**0.8**	
Amaurornis phoenicurus	**White-breasted Waterhen**	**Recorded only**	
Streptopelia chinensis	Spotted Dove	Recorded only	4
Hirundo rustica	Barn Swallow	Recorded only	
Motacilla alba	White Wagtail	Recorded only	1
Pycnonotus jocosus	Red-whiskered Bulbul	Recorded only	
Pycnonotus sinesis	Chinese Bulbul	Recorded only	
Lanius schach	Long-tailed Shrike	Recorded only	
Copsychus saularis	Oriental Magpie Robin	Recorded only	2
Orthotomus sutorius	Common Tailorbird	Recorded only	
Lonchura striata	White-rumped Munia	Recorded only	
Passer montanus	Eurasian Tree Sparrow	Recorded only	
Sturnus nigricollis	Black-collared Starling	Recorded only	
Acridotheres cristatellus	Crested Myna	Recorded only	
Prinia flaviventris	Yellow-bellied Prinia	\	3
Eudynamis scolopacea	Common Koel	\	1
Halcyon smyrnensis	White-throated Kingfisher	\	
Garrulax perspicillatus	Masked Laughingthrush	\	
Zosterops japonica	Japanese White Eye	\	
Lonchura punctulata	Scaly-breasted Munia	\	5
Egretta garzetta	Little Egret	\	
Anthus hodgsoni	Olive-backed Pipit	\	
Phylloscopus subaffinis	Dusky Warbler	\	2
Phylloscopus inornatus	Yellow-Browed Warbler	\	
Parus major	Great Tit	\	3
Anthus hodgsoni	Olive-backed Pipit	\	
Zosterops japonica	Japanese White Eye	\	
Sturnus sericeus	Red-billied Starling		
Prinia inornata	Plain Prinia	\	2
Species Number		**15 spp. recorded, (only 2 species of wetland birds with abundance)**	**9 spp. (0 sp. from the wetland birds with abundance in the baseline)**
Individual Number		**1.2 (from the 2 species of wetland birds with abundance)**	**23 (0 from the wetland birds with abundance in the baseline)**

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^3)	0	Public Filling
Reused in this Contract (Inert) (m^3)	0	N/A
Reused in other Projects (Inert) (m^3)	0	N/A
Disposal as Public Fill (Inert) (m^3)	0	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)	10	NA
Recycled Plastic (kg)	0	NENT Landfill
Chemical Wastes (kg)	0	License Collector
General Refuses (m^3)	0	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^3)	0	East Sha Chau (Pitch 4a & 4b)
Type 2 Materials (m^3)	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 been formulation by ET Leader. ET had carried out the environmental site inspection on 28 February 2008, 06, 13 and 20 March 2008 with the Representatives of the Engineer and the Contractor to evaluate the site environmental performance in this reporting period. The monthly IEC site audit conducted on 20 March 2008 by IEC's representative with the Engineer's, the Contractor's and ET's representative. No non-compliance and four observations were noted.

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

- Some C&D material scattered on-site was observed at Bay 23, the Contractor was reminded to tight up the working area;
- Some C&D waste scattered on-site was observed at CH 180, the Contractor was reminded to tight up the working area;
- Stagnant water was accumulated at CH 200, the Contractor was reminded to clean to prevent mosquito breeding; and
- Stagnant water was observed at CH200 and Bay 41 near CH504.

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 One site inspection was undertaken by Environmental Protection Department (EPD) on 17 March 2008 regarding to the handling, storage and disposal of chemical waste at Portion 8. No comment was made by EPD.

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
July – December 2007	0	0	NA
January – February 2008	0	0	NA
March 2008	0	0	NA

Table 8-2 Statistical Summary of Environmental Summons

Reporting Period	Environmental Summons Statistics		
	Frequency	Cumulative	Nature
July – December 2007	0	0	NA
January – February 2008	0	0	NA
March 2008	0	0	NA

Table 8-3 Statistical Summary of Environmental Prosecution

Reporting Period	Environmental Prosecution Statistics		
	Frequency	Cumulative	Nature
July – December 2007	0	0	NA
January – February 2008	0	0	NA
March 2008	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 **March 2008** 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	NA	(monitoring not required in this reporting month)

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 were found during the reporting period. Wetland bird individual number and species number on 16 March 2008 fell within the Limit Level (decrease >40 % from baseline). 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 28 February 2008, 06, 13 and 20 March 2008, no non-compliance and four observations were recorded. Details of the observations as follows:-

- Some C&D material scattered on-site was observed at Bay 23, the Contractor was reminded to tight up the working area;
- Some C&D waste scattered on-site was observed at CH 180, the Contractor was reminded to tight up the working area;
- Stagnant water was accumulated at CH 200, the Contractor was reminded to clean to prevent mosquito breeding; and
- Stagnant water was observed at CH200 and Bay 41 near CH504.

11.08 One site inspection was undertaken by Environmental Protection Department (EPD) on 17 March 2008 regarding to the handling, storage and disposal of chemical waste at Portion 8. No comment was made by EPD.

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

NOTES :

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

N

825100 E 825200 E 825300 E 825400 E 825500 E 825600 E 825700 E

832600 N 832500 N 832400 N 832300 N 832200 N 832100 N

KONG HA WAI

KAM TSIN WAI

IL=+3.31mPD
VEHICULAR GATE VG15-3
TURNING AREA
LOCKABLE CRASH GATE CG15-4
RAMP NO. 4
IL=+4.75mPD
1.2m(W)x1.5m(H) OPENING
PROPOSED 3x3m (W)x2m (H) BOX CULVERT
EXISTING BOX CULVERT TO BE DEMOLISHED
CH 0
KAM PO ROAD
PEDESTRIAN CROSSING PC15-2
RAMP NO. 3
CH 200
FILL TO ADJACENT LEVEL
LOCKABLE CRASH GATE CG15-3
TURNING AREA
900mm DIA PIPE CROSSING
CH 300
3.5m MAINTENANCE ACCESS
150mm DIA PIPE CROSSING
WITH TRAPEZOIDAL CHANNEL (WEEPHOLE SHALL NOT BE EMPLOYED FROM CH. 90 TO 120)
CH 100
TRAPEZOIDAL CHANNEL WITH GABION BASE AND BANKS
EXISTING BRIDGE TO BE DEMOLISHED AND REMOVED
900mm DIA PIPE CROSSING
150mm DIA PIPE CROSSING
REPROVISION OF 8m WIDE VEHICULAR GATE
VEHICULAR GATE VG15-1
INVERT LEVEL OF THE EXISTING TWIN CELL BOX CULVERT TO BE MODIFIED
IL=+6.00mPD
IL=+6.01mPD
VEHICULAR GATE VG15-2
CH 400
EXISTING FOOTPATH TO BE REPAVED
EXISTING WING WALLS TO BE DEMOLISHED (REFER TO DRG. NO. 105)
PROPOSED 1.6m HIGH RETAINING WALL RW2
KAM SHEUNG ROAD
TRAPEZOIDAL CHANNEL WITH GABION BASE AND BANKS (WEEPHOLE SHALL NOT BE EMPLOYED FROM CH. 460 TO CH. 596.31)
LOCKABLE CRASH GATE CG15-2
TURNING AREA
3.5m MAINTENANCE ACCESS
900mm DIA PIPE CROSSING
150mm DIA PIPE CROSSING
RAMP NO. 2
CH 500
CH 600
PEDESTRIAN CROSSING PC15-1
CH 700
TRAPEZOIDAL CHANNEL WITH GABION BASE AND BANKS (WEEPHOLE SHALL NOT BE EMPLOYED)
LOCKABGLE CRASH GATE CG15-1
TURNING AREA
RAMP NO. 1
450mm DIA PIPE CROSSING
3.5m (W) x 1.6m (H) RECTANGULAR CONCRETE CHANNEL WITH GABION BASE
REFER TO DRAWING NO. 103 FOR DETAILS OF INTAKE APRON
IL=+7.7mPD
CONNECTION TO MATCH WITH EXISTING STREAMCOURSE
CH 797.26

TIN SAM SAN TSUEN

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

Approved

CONTRACT NO. DC2006/02

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

Drawing title

CHANNEL KT15
GENERAL LAYOUT PLAN

Drawing no. 021

Scale 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 • 6/12/2006

CAD Filename • D:\Phase 2B\cww\c2b\C021.dgn

Appendix B

Three-Month Construction Program

PROGRAMME OF WORKS - RP09
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 : JAN 2008

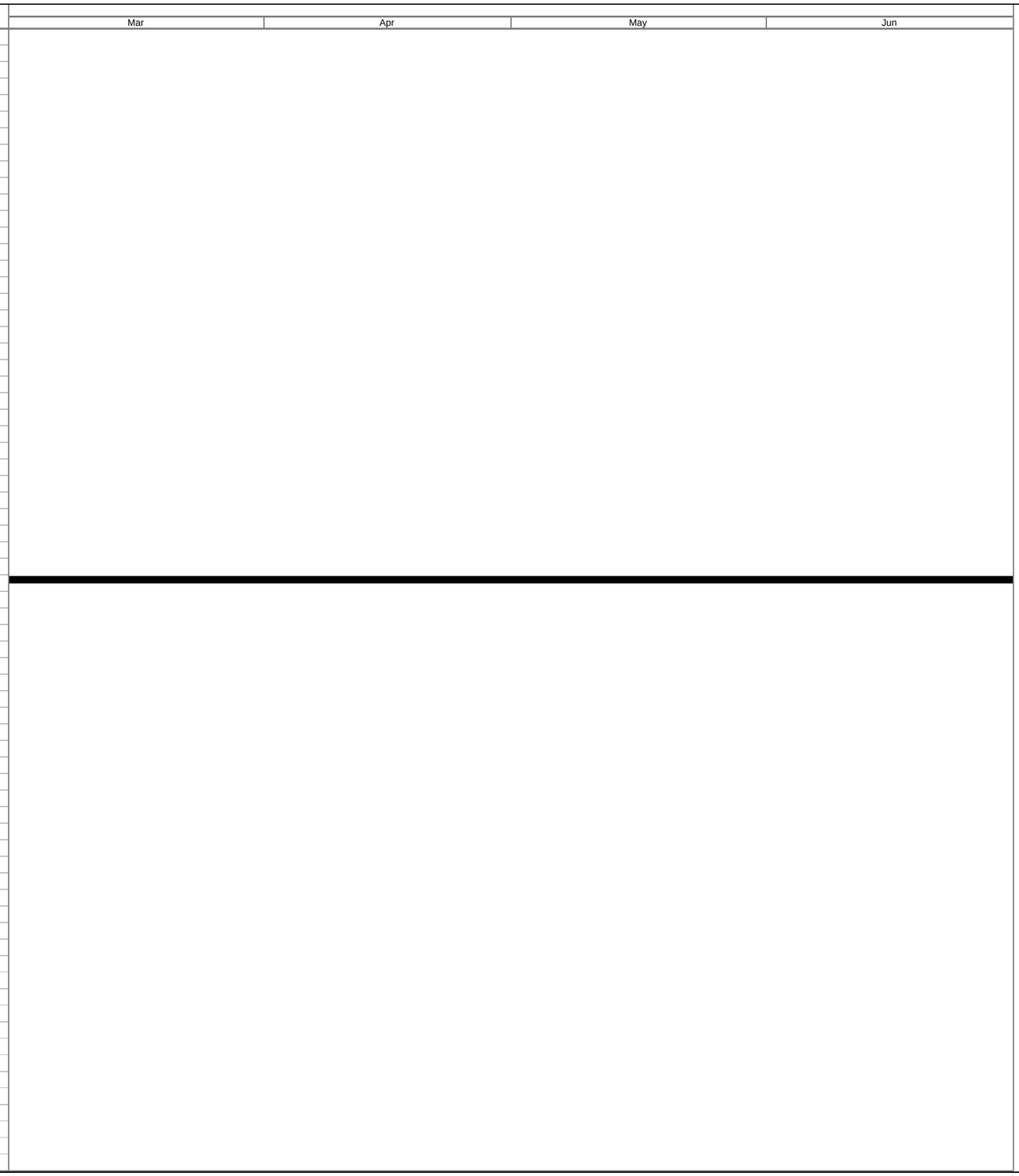
ID	Task Name	Duration	Start	Finish	Predecessors
1	Letter of Acceptance	1 day	Wed 21/3/07	Wed 21/3/07	
2	Date for commencement of Works	1 day	Fri 30/3/07	Fri 30/3/07	
3	Execution of Article of Agreement	1 day	Tue 3/4/07	Tue 3/4/07	
4					
5	**Master Programme of the Works**	**839 days**	**Wed 21/3/07**	**Mon 6/7/09**	
6					
7	**Completion Dates**	**830 days**	**Fri 30/3/07**	**Mon 6/7/09**	
8	Section I - portions 1, 2 and 3	830 days	Fri 30/3/07	Mon 6/7/09	2SS
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
12	Section V - preservation and protection of existing trees	830 days	Fri 30/3/07	Mon 6/7/09	2SS
13					
14	**Possession of Site**	**200 days**	**Fri 30/3/07**	**Mon 15/10/07**	
15	Portion 1 - channel KT2	1 day	Fri 30/3/07	Fri 30/3/07	2SS
16	Portion 2 - channel KT2	61 days	Fri 30/3/07	Tue 29/5/07	2SS
17	Portion 3 - channel KT2	91 days	Fri 30/3/07	Thu 28/6/07	2SS
18	Portion 4 - channel KT15	1 day	Fri 30/3/07	Fri 30/3/07	2SS
19	Portion 5 - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07	2SS
20	Portion 5A1 - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07	2SS
21	Portion 5A2 - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07	2SS
22	Portion 5B - channel KT15	20 days	Wed 26/9/07	Mon 15/10/07	11
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
27					
28	**A. Preliminary Works**	**839 days**	**Wed 21/3/07**	**Mon 6/7/09**	
29	**1. Setting out of Works**	**830 days**	**Fri 30/3/07**	**Mon 6/7/09**	**2SS**
30	**2. Environmental Monitoring and Audit**	**830 days**	**Fri 30/3/07**	**Mon 6/7/09**	
31	2.1 Establishment of Environmental Team	14 days	Fri 30/3/07	Thu 12/4/07	8SS
32	2.2 approval by the Engineer	7 days	Fri 13/4/07	Thu 19/4/07	31
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	b. Approval by the Engineer	7 days	Fri 27/4/07	Thu 3/5/07	34
36	c. Baseline monitoring	63 days	Fri 4/5/07	Thu 5/7/07	35
37	2.4 Environmental impact monitoring and audit	730 days	Sun 8/7/07	Mon 6/7/09	36,8FF
38	**3. Environmental Management and Environmental Management Plan**	**73 days**	**Fri 30/3/07**	**Sun 10/6/07**	
39	3.1 Submission of draft EMP	21 days	Fri 30/3/07	Thu 19/4/07	2SS
40	3.2 Comment from the Engineer	7 days	Fri 20/4/07	Thu 26/4/07	39
41	3.3 Submission of EMP	45 days	Fri 27/4/07	Sun 10/6/07	40
42	**4. Engineer's Accommodation**	**51 days**	**Fri 30/3/07**	**Sat 19/5/07**	
43	4.1 Renovation	30 days	Fri 30/3/07	Sat 28/4/07	26SS
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	**51 days**	**Fri 30/3/07**	**Sat 19/5/07**	
48	submission	14 days	Fri 30/3/07	Thu 12/4/07	26SS
49	approval	7 days	Fri 13/4/07	Thu 19/4/07	48
50	installation	21 days	Sun 22/4/07	Sat 12/5/07	49,43FS-7 days
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	**33 days**	**Fri 30/3/07**	**Tue 1/5/07**	
56	temporary service	32 days	Fri 30/3/07	Mon 30/4/07	26SS
57	new service	**19 days**	**Fri 13/4/07**	**Tue 1/5/07**	
58	application	5 days	Fri 13/4/07	Tue 17/4/07	56SS+14 days
59	installation	14 days	Wed 18/4/07	Tue 1/5/07	58
60	d. Facsimile	**33 days**	**Fri 30/3/07**	**Tue 1/5/07**	
61	temporary service	32 days	Fri 30/3/07	Mon 30/4/07	26SS
62	new service	**19 days**	**Fri 13/4/07**	**Tue 1/5/07**	
63	application	5 days	Fri 13/4/07	Tue 17/4/07	61SS+14 days
64	installation	14 days	Wed 18/4/07	Tue 1/5/07	63
65	e. Internet broadband	**33 days**	**Fri 30/3/07**	**Tue 1/5/07**	
66	temporary service (56K)	32 days	Fri 30/3/07	Mon 30/4/07	26SS

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

PROGRAMME OF WORKS - RP09
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 : JAN 2008

ID	Task Name	Duration	Start	Finish	Predecessors
67	new service	**19 days**	**Fri 13/4/07**	**Tue 1/5/07**	
68	application	5 days	Fri 13/4/07	Tue 17/4/07	66SS+14 days
69	installation	14 days	Wed 18/4/07	Tue 1/5/07	68
70	**5. Contractor's Accommodation**	**45 days**	**Fri 30/3/07**	**Sun 13/5/07**	
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
73	b. Toilet facilities	21 days	Mon 23/4/07	Sun 13/5/07	72FF
74	c. Telephone service	30 days	Sat 14/4/07	Sun 13/5/07	72FF
75	d. Fascimile 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	**6. Transport (land) for the Engineer**	**124 days**	**Fri 30/3/07**	**Tue 31/7/07**	
80	6.1 submission	7 days	Fri 30/3/07	Thu 5/4/07	2SS
81	6.2 comment & approval	14 days	Fri 6/4/07	Thu 19/4/07	80
82	6.3 delivery	103 days	Fri 20/4/07	Tue 31/7/07	81
83	6.4 temp service	124 days	Fri 30/3/07	Tue 31/7/07	2SS,82FF
84	**7. Transport (land) for Public Works Regional Laboratory**	**124 days**	**Fri 30/3/07**	**Tue 31/7/07**	
85	7.1 submission	7 days	Fri 30/3/07	Thu 5/4/07	2SS
86	7.2 comment, approval & instruction	14 days	Fri 6/4/07	Thu 19/4/07	85
87	7.3 delivery	103 days	Fri 20/4/07	Tue 31/7/07	86
88	**8. Signboard**	**150 days**	**Fri 30/3/07**	**Sun 26/8/07**	
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
91	comment & approval	90 days	Sun 29/4/07	Fri 27/7/07	90SS+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
95	comment & approval	90 days	Sun 29/4/07	Fri 27/7/07	94SS+30 days
96	erection	90 days	Tue 29/5/07	Sun 26/8/07	95SS+30 days
97	**9. Telephone hotline**	**15 days**	**Sun 29/4/07**	**Sun 13/5/07**	
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
100	**10. Contractual general submissions**	**839 days**	**Wed 21/3/07**	**Mon 6/7/09**	
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	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
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	b. Comment & approval	14 days	Fri 6/4/07	Thu 19/4/07	129
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	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	

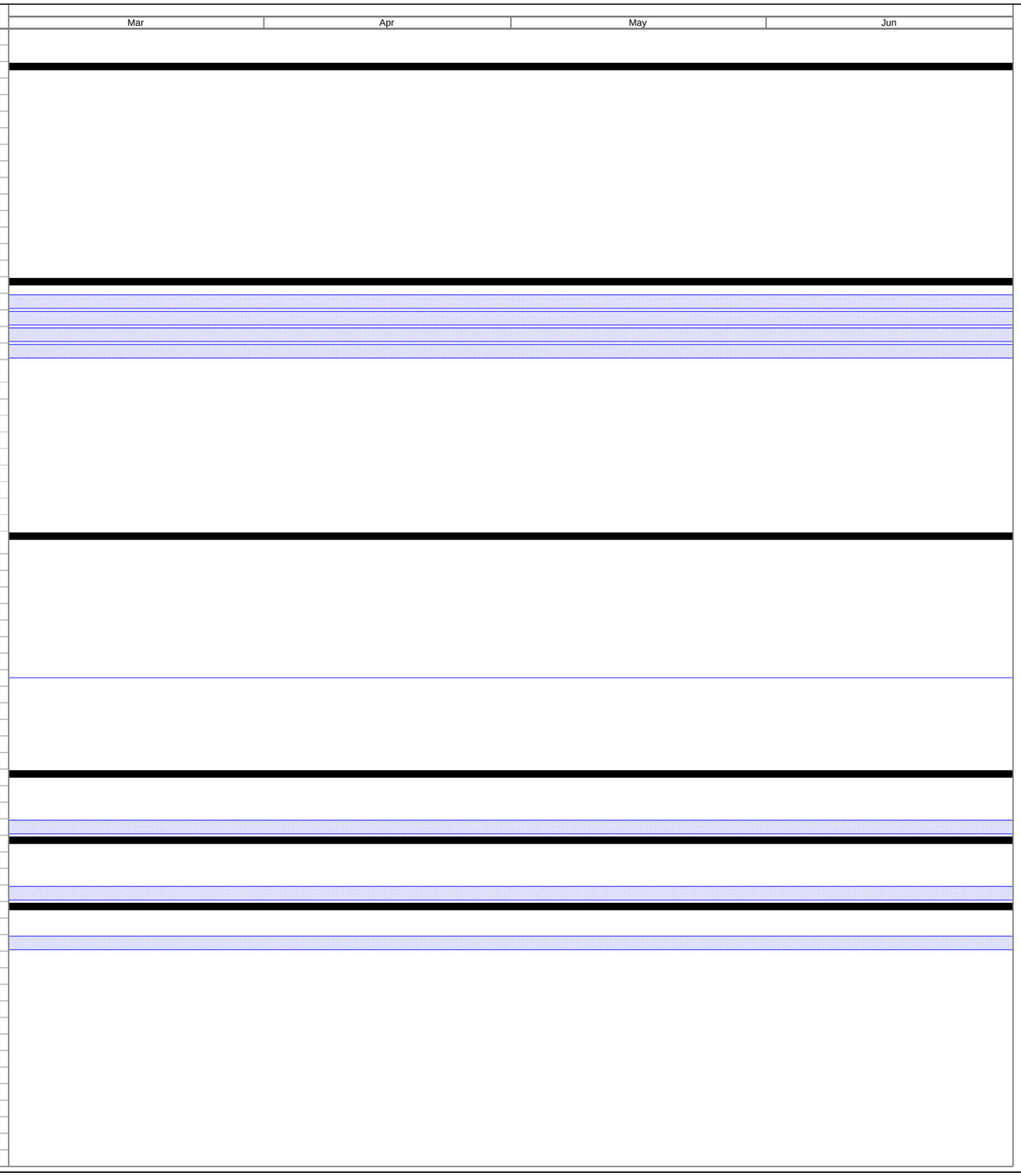


Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

PROGRAMME OF WORKS - RP09
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 : JAN 2008

ID	Task Name	Duration	Start	Finish	Predecessors
136	a. Submission of site management plan	45 days	Fri 30/3/07	Sun 13/5/07	2SS
137	b. Comment & approval	14 days	Mon 14/5/07	Sun 27/5/07	136
138	10.9. Condition survey and structral 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	b. Comment & approval	7 days	Fri 13/4/07	Thu 19/4/07	139
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
143	Portion 2	30 days	Wed 30/5/07	Thu 28/6/07	16
144	Portion 3, 5, 5A1, 5A2	30 days	Fri 29/6/07	Sat 28/7/07	17,19,20,21
145	Portion 5B	30 days	Tue 16/10/07	Wed 14/11/07	22
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
148	Portion 2	14 days	Fri 29/6/07	Thu 12/7/07	143
149	Portion 3, 5, 5A1, 5A2	14 days	Sun 29/7/07	Sat 11/8/07	144
150	Portion 5B	14 days	Thu 15/11/07	Wed 28/11/07	145
151	e. Condition survey & structral 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 materials	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	705SS-44 days
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	Comment & approval	14 days	Wed 29/8/07	Tue 11/9/07	161
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	Comment & approval	14 days	Wed 12/9/07	Tue 25/9/07	164
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	Comment & approval	14 days	Sat 28/7/07	Fri 10/8/07	168
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
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	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	b. Comment by the Engineer	7 days	Wed 4/4/07	Tue 10/4/07	177
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	b. For information & Comments	14 days	Fri 20/4/07	Thu 3/5/07	181
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	b. Comment by the Engineer / Employer	14 days	Fri 13/4/07	Thu 26/4/07	185
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	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	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	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	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	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07	202

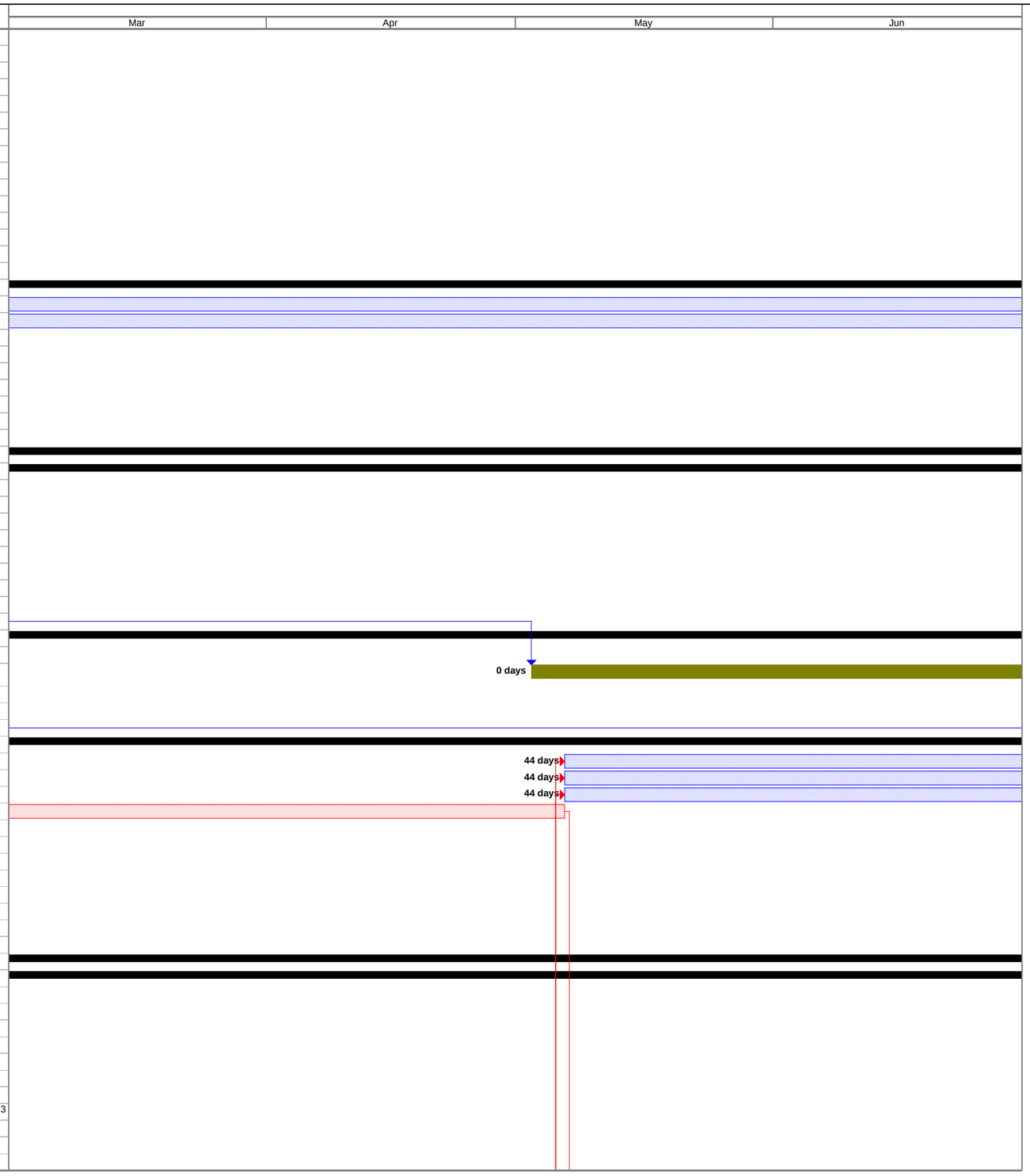


Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

PROGRAMME OF WORKS - RP09
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 : JAN 2008

ID	Task Name	Duration	Start	Finish	Predecessors
205	a. Submission of technical information	14 days	Fri 30/3/07	Thu 12/4/07	2SS
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	
208	a. Specialist contractor (landscaping Class I)	28 days	Fri 30/3/07	Thu 26/4/07	
209	Submission	14 days	Fri 30/3/07	Thu 12/4/07	2SS
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	Comment & approval	14 days	Sat 5/5/07	Fri 18/5/07	212
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	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	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	**11. Provision of wheel washing facilities**	**180 days**	**Fri 30/3/07**	**Tue 25/9/07**	
224	11.1 Channel KT2	120 days	Fri 30/3/07	Fri 27/7/07	2SS
225	11.2 Channel KT15	90 days	Thu 28/6/07	Tue 25/9/07	19FS-1 day
226	11.3 Berthing area	90 days	Fri 30/3/07	Wed 27/6/07	2SS
227	11.4 Portion 6	45 days	Fri 30/3/07	Sun 13/5/07	2SS
228	**12. Setting up of traffic management liaison group**	30 days	Fri 30/3/07	Sat 28/4/07	2SS
229					
230	**B. Section I of the Works**	**830 days**	**Fri 30/3/07**	**Mon 6/7/09**	
231	**B1. Portion 1**	**790 days**	**Fri 30/3/07**	**Wed 27/5/09**	
232	**1. Site clearance**	**30 days**	**Sat 28/7/07**	**Sun 26/8/07**	
233	1.1 General site clearance	30 days	Sat 28/7/07	Sun 26/8/07	36,224,893,891
234	**2. Temporary Traffic Management Scheme**	**59 days**	**Fri 30/3/07**	**Sun 27/5/07**	
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	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	236
238	2.2 TTMS Proposal (for construction of box culvet)	59 days	Fri 30/3/07	Sun 27/5/07	
239	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07	
240	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	239
241	**3. Excavation Permits**	**521 days**	**Mon 28/5/07**	**Wed 29/10/08**	
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
243	3.2 application and issue of permits (for construction of box culvert)	180 days	Sat 3/5/08	Wed 29/10/08	240
244	**4. Underground utilities detection**	**253 days**	**Fri 30/3/07**	**Fri 7/12/07**	
245	4.1 utlities detection	28 days	Fri 30/3/07	Thu 26/4/07	2SS
246	4.2 trial trench excavtion & identification	14 days	Sat 24/11/07	Fri 7/12/07	245,242
247	**5. Utilities temporary diversion / protection**	**493 days**	**Thu 27/9/07**	**Sat 31/1/09**	
248	a. WSD watermain along village vehicular access	103 days	Wed 7/5/08	Sun 17/8/08	284SS
249	b. Street lighting along village vehicular access	103 days	Wed 7/5/08	Sun 17/8/08	284SS
250	c. PCCW along village vehicular access	103 days	Wed 7/5/08	Sun 17/8/08	284SS
251	d. CLP overhead cable at Bay 4	90 days	Thu 7/2/08	Tue 6/5/08	282
252	e. CH 816~CH841 underground cables (33kV)	42 days	Thu 27/9/07	Wed 7/11/07	259
253	f. CH 816~CH841 underground cables (132kV)	56 days	Thu 8/11/07	Wed 2/1/08	252
254	g. Street lighting at Chi Ho Road	92 days	Sat 1/11/08	Sat 31/1/09	264SS,246
255	h. Irrigation pipe at Chi Ho Road	92 days	Sat 1/11/08	Sat 31/1/09	264SS
256	**6. Drainage Management Plan (Ch810 to Ch850)**	**77 days**	**Thu 12/7/07**	**Wed 26/9/07**	
257	6.1 Submission of DMPs	1 day	Thu 12/7/07	Thu 12/7/07	
258	6.2 Comments by the Engineer	14 days	Fri 13/7/07	Thu 26/7/07	257
259	6.3 Implementation of DMP	3 days	Mon 24/9/07	Wed 26/9/07	258SF
260	**7. Box Culvert and Channel**	**550 days**	**Wed 1/8/07**	**Sat 31/1/09**	
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	Excavation	9 days	Sat 1/11/08	Sun 9/11/08	263
265	Granular Bedding	5 days	Mon 10/11/08	Fri 14/11/08	264
266	Base Slab	21 days	Sat 15/11/08	Fri 5/12/08	265
267	Wall and Deck	31 days	Sat 6/12/08	Mon 5/1/09	266
268	Curing	14 days	Tue 6/1/09	Mon 19/1/09	267
269	Trench Backfill	3 days	Tue 20/1/09	Thu 22/1/09	268,390FF,391FF,392FF,395FF,3
270	Reinstatement of Chi Ho Road	6 days	Mon 26/1/09	Sat 31/1/09	254FF,255FF,308
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	



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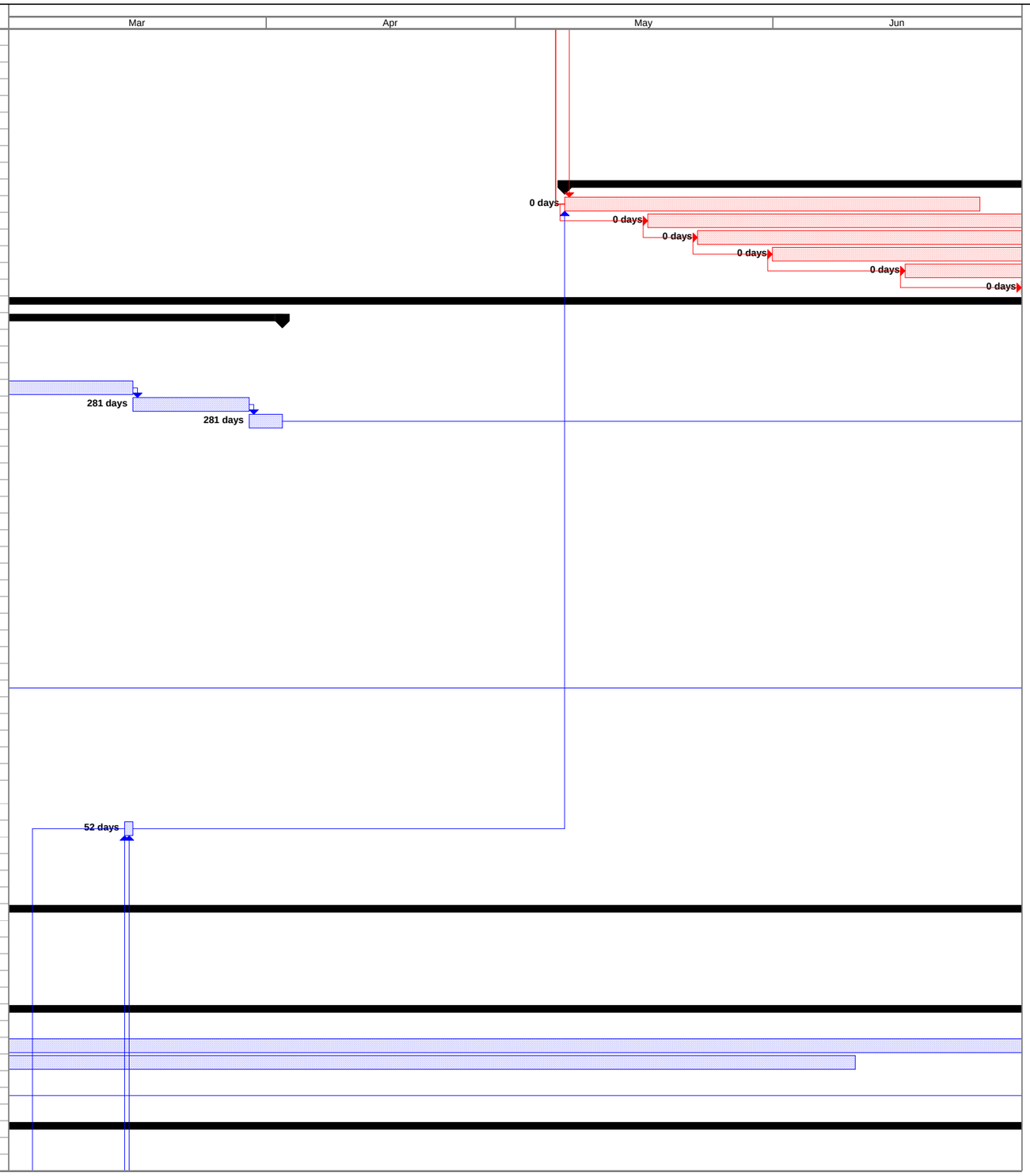
PROGRAMME OF WORKS - RP09
Contract No. : DC / 2006 / 02
Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.
DATE : JAN 2008

ID	Task Name	Duration	Start	Finish	Predecessors
274	3.Modified chain link fence	11 days	Mon 1/10/07	Thu 11/10/07	273
275	4. Construction of temporary bund	15 days	Fri 12/10/07	Fri 26/10/07	274
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	Granular Bedding	7 days	Wed 21/11/07	Tue 27/11/07	277
279	Base Slab	18 days	Wed 28/11/07	Sat 15/12/07	278
280	Wall and Deck	32 days	Sun 16/12/07	Wed 16/1/08	279
281	Curing	14 days	Thu 17/1/08	Wed 30/1/08	280
282	Trench Backfill	7 days	Thu 31/1/08	Wed 6/2/08	281
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
285	Granular Bedding	60 days	Sat 17/5/08	Tue 15/7/08	284SS+10 days
286	Base Slab	75 days	Fri 23/5/08	Tue 5/8/08	285SS+6 days
287	Wall and Deck	87 days	Sun 1/6/08	Tue 26/8/08	286SS+9 days
288	Curing	85 days	Tue 17/6/08	Tue 9/9/08	287SS+16 days
289	Trench Backfill	82 days	Tue 1/7/08	Sat 20/9/08	288SS+14 days
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	
292	Excavation (including contamination materials)	25 days	Thu 3/1/08	Sun 27/1/08	253
293	Granular Bedding	3 days	Mon 28/1/08	Wed 30/1/08	292
294	Base Slab	22 days	Thu 31/1/08	Thu 21/2/08	293
295	Wall and Deck	23 days	Fri 22/2/08	Sat 15/3/08	294
296	Curing	14 days	Sun 16/3/08	Sat 29/3/08	295
297	Trench Backfill	4 days	Sun 30/3/08	Wed 2/4/08	296
298	b. Demolition of existing crossing	20 days	Thu 11/9/08	Tue 30/9/08	311
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	Granular Bedding	3 days	Mon 13/10/08	Wed 15/10/08	300
302	Base Slab	12 days	Thu 16/10/08	Mon 27/10/08	301
303	Wall and Deck	22 days	Tue 28/10/08	Tue 18/11/08	302
304	Curing	26 days	Fri 7/11/08	Tue 2/12/08	303SS+10 days
305	Trench Backfill	16 days	Fri 21/11/08	Sat 6/12/08	304SS+14 days
306	**8. Filling in Platform**	**142 days**	**Sat 6/9/08**	**Sun 25/1/09**	
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
309	b. Ch15-Ch88 (Bay 2 to Bay 8)	10 days	Sun 21/9/08	Tue 30/9/08	289,248FF,249FF,250FF
310	8.2 Channel	112 days	Sat 6/9/08	Fri 26/12/08	
311	a. Ch840-Ch844 (Bay 56b)	5 days	Sat 6/9/08	Wed 10/9/08	505,297
312	b. Ch800-840 (Bay 56a)	20 days	Sun 7/12/08	Fri 26/12/08	305
313	**9. Geotechnical Instrumentation for CLP Pylon**	**4 days**	**Mon 24/9/07**	**Thu 27/9/07**	
314	**10. Drainage works (except Bays 56a and 56b)**	**45 days**	**Wed 1/10/08**	**Fri 14/11/08**	
315	a. storm drain with manhole	30 days	Wed 1/10/08	Thu 30/10/08	309
316	b. surface drain	45 days	Wed 1/10/08	Fri 14/11/08	309
317	**11. Water supply pipeworks**	**60 days**	**Fri 31/10/08**	**Mon 29/12/08**	**315SS+30 days**
318	**12. Roads and paving (except Bays 56a and 56b)**	**52 days**	**Fri 31/10/08**	**Sun 21/12/08**	**315**
319	**13. Street furnitures / traffic sign / road marking (except Bay**	**52 days**	**Sun 30/11/08**	**Tue 20/1/09**	**318SS+30 days**
320	**14. Landscape softworks / hardworks (except Bays 56a and**	**84 days**	**Thu 5/3/09**	**Wed 27/5/09**	**437SS,270**
321	**15. Diversion of Village Vehicular Access to Bays 9 -11**	**1 day**	**Sat 15/3/08**	**Sat 15/3/08**	**428,429**
322	**16. Road Diversion in Chi Ho Road**	**8 days**	**Wed 1/10/08**	**Wed 8/10/08**	
323	a. Construction of temporary road above Box Culvert	7 days	Wed 1/10/08	Tue 7/10/08	309
324	b. Implementation of road diversion	1 day	Wed 8/10/08	Wed 8/10/08	323
325					
326	**B2. Portion 2**	**830 days**	**Fri 30/3/07**	**Mon 6/7/09**	
327	**1. Site clearance**	**90 days**	**Tue 14/8/07**	**Sun 11/11/07**	
328	1.1 General clearance	90 days	Tue 14/8/07	Sun 11/11/07	36,897,224,899
329	**2. Underground utilities detection**	**42 days**	**Tue 3/7/07**	**Mon 13/8/07**	
330	2.1 utilities detection	28 days	Tue 3/7/07	Mon 30/7/07	
331	2.2 trial trench excavtion & identification	14 days	Tue 31/7/07	Mon 13/8/07	330
332	**3. Utilities temporary diversion / protection**	**463 days**	**Fri 30/3/07**	**Fri 4/7/08**	
333	a. WSD water main along village vehicular access	90 days	Wed 10/10/07	Mon 7/1/08	349SS
334	b. Street lighting along village vehicular access	269 days	Wed 10/10/07	Fri 4/7/08	349SS
335	c. PCCW along village vehicular access	245 days	Wed 10/10/07	Tue 10/6/08	349SS
336	d. CLP overhead cables / street lighting at CH 290 ~ CH 33	90 days	Fri 30/3/07	Wed 27/6/07	
337	**4. Geotechnical Instrumentation for AFCD**	6 days	Thu 27/9/07	Tue 2/10/07	
338	**5. Discussion with Pond Owner**	39 days	Wed 1/8/07	Sat 8/9/07	
339	**6. Box Culvert, Channel and Crossings**	**533 days**	**Sun 9/9/07**	**Sun 22/2/09**	
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



Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
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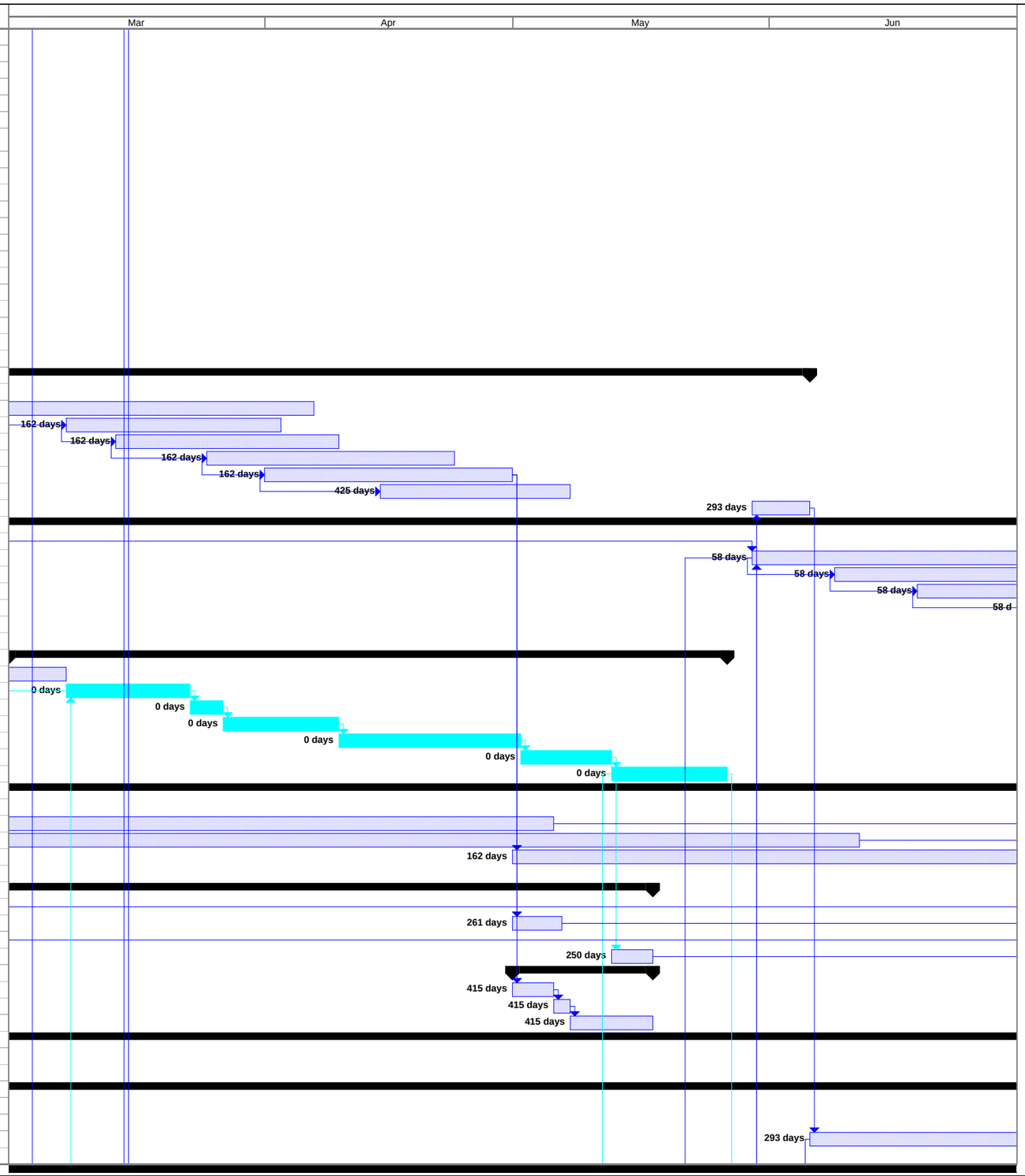
PROGRAMME OF WORKS - RP09
Contract No. : DC / 2006 / 02
Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.
DATE : JAN 2008

ID	Task Name	Duration	Start	Finish	Predecessors
343	Base Slab	15 days	Wed 7/1/09	Wed 21/1/09	342SS+6 days
344	Wall and Deck	22 days	Wed 14/1/09	Wed 4/2/09	343SS+7 days
345	Curing	25 days	Sun 25/1/09	Wed 18/2/09	344SS+11 days
346	Trench Backfill	15 days	Sun 8/2/09	Sun 22/2/09	345SS+14 days
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	Excavation	46 days	Wed 10/10/07	Sat 24/11/07	337,331,348
350	Granular Bedding	43 days	Sat 20/10/07	Sat 1/12/07	349SS+10 days
351	Base Slab	50 days	Fri 26/10/07	Fri 14/12/07	350SS+6 days
352	Wall and Deck	53 days	Tue 6/11/07	Fri 28/12/07	351SS+11 days
353	Curing	53 days	Tue 13/11/07	Fri 4/1/08	352SS+7 days
354	Trench Backfill	46 days	Tue 27/11/07	Fri 11/1/08	353SS+14 days,333FF
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
357	Excavation	27 days	Sun 23/9/07	Fri 19/10/07	336,356
358	Granular Bedding	23 days	Wed 3/10/07	Thu 25/10/07	357SS+10 days,356
359	Base Slab	39 days	Tue 9/10/07	Fri 16/11/07	358SS+6 days
360	Wall and Deck	42 days	Sat 20/10/07	Fri 30/11/07	359SS+11 days
361	Curing	42 days	Sat 27/10/07	Fri 7/12/07	360SS+7 days
362	Trench Backfill	31 days	Sat 10/11/07	Mon 10/12/07	361SS+14 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	Excavation	40 days	Wed 27/2/08	Sun 6/4/08	572,364
366	Granular Bedding	26 days	Sat 8/3/08	Wed 2/4/08	365SS+10 days
367	Base Slab	27 days	Fri 14/3/08	Wed 9/4/08	366SS+6 days
368	Wall and Deck	30 days	Tue 25/3/08	Wed 23/4/08	367SS+11 days
369	Curing	30 days	Tue 1/4/08	Wed 30/4/08	368SS+7 days
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
372	e. Ch375-Ch413 (Bay 29 - Bay 31)	**314 days**	**Mon 8/10/07**	**Sat 16/8/08**	
373	Haul access	10 days	Mon 8/10/07	Wed 17/10/07	364
374	Excavation	40 days	Fri 30/5/08	Tue 8/7/08	443,373
375	Granular Bedding	28 days	Mon 9/6/08	Sun 6/7/08	374SS+10 days
376	Base Slab	29 days	Thu 19/6/08	Thu 17/7/08	375SS+10 days
377	Wall and Deck	27 days	Thu 3/7/08	Tue 29/7/08	376SS+14 days
378	Curing	34 days	Thu 10/7/08	Tue 12/8/08	377SS+7 days
379	Trench Backfill	24 days	Thu 24/7/08	Sat 16/8/08	378SS+14 days
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
383	Granular Bedding	4 days	Sun 23/3/08	Wed 26/3/08	382
384	Base Slab	14 days	Thu 27/3/08	Wed 9/4/08	383
385	Wall and Deck	22 days	Thu 10/4/08	Thu 1/5/08	384
386	Curing	11 days	Fri 2/5/08	Mon 12/5/08	385
387	Trench Backfill	14 days	Tue 13/5/08	Mon 26/5/08	386
388	**6. Gabion**	**354 days**	**Sat 8/12/07**	**Tue 25/11/08**	
389	Ch120-Ch145.5 (Bay 12 - Bay 13)	19 days	Sat 5/1/08	Wed 23/1/08	353
390	Ch163 - Ch205 (Bay 15 - Bay 17)	103 days	Thu 24/1/08	Mon 5/5/08	389
391	Ch205 - Ch310 (Bay 18 - Bay 24)	187 days	Sat 8/12/07	Wed 11/6/08	361
392	Ch310 - Ch325, Ch348 - Ch375 (Bay 25, Bay 27 - Bay 28)	105 days	Thu 1/5/08	Wed 13/8/08	369
393	Ch375 - CH413 (Bay29 - Bay31)	105 days	Wed 13/8/08	Tue 25/11/08	378
394	**7. Granite Stone Facing**	**134 days**	**Sat 5/1/08**	**Sat 17/5/08**	
395	Ch100 -Ch120 (Bay 10 - Bay 11)	11 days	Sat 5/1/08	Tue 15/1/08	353
396	Ch325 - Ch348 (Bay 26)	6 days	Thu 1/5/08	Tue 6/5/08	369
397	Ch120 - Ch310 (Bay 12 - Bay 24)	16 days	Sat 5/1/08	Sun 20/1/08	353
398	Ch413 - Ch436 (Bay 32)	5 days	Tue 13/5/08	Sat 17/5/08	386
399	**8. Ramp No. 3 (Ch356 - Ch405)**	**17 days**	**Thu 1/5/08**	**Sat 17/5/08**	
400	General fill	5 days	Thu 1/5/08	Mon 5/5/08	369
401	Granular fill and blinding	2 days	Tue 6/5/08	Wed 7/5/08	400
402	Road slab	10 days	Thu 8/5/08	Sat 17/5/08	401
403	**8. Filling in Platform**	**450 days**	**Tue 11/12/07**	**Wed 4/3/09**	
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
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
408	b. Ch205-Ch310 (Bay 18 - Bay 24)	28 days	Tue 11/12/07	Mon 7/1/08	362
409	c. Ch310-Ch375 (Bay 25 - Bay 28)	31 days	Fri 6/6/08	Sun 6/7/08	371
410	d. Ch375-Ch413 (Bay 29 - Bay 31)	14 days	Sun 17/8/08	Sat 30/8/08	379

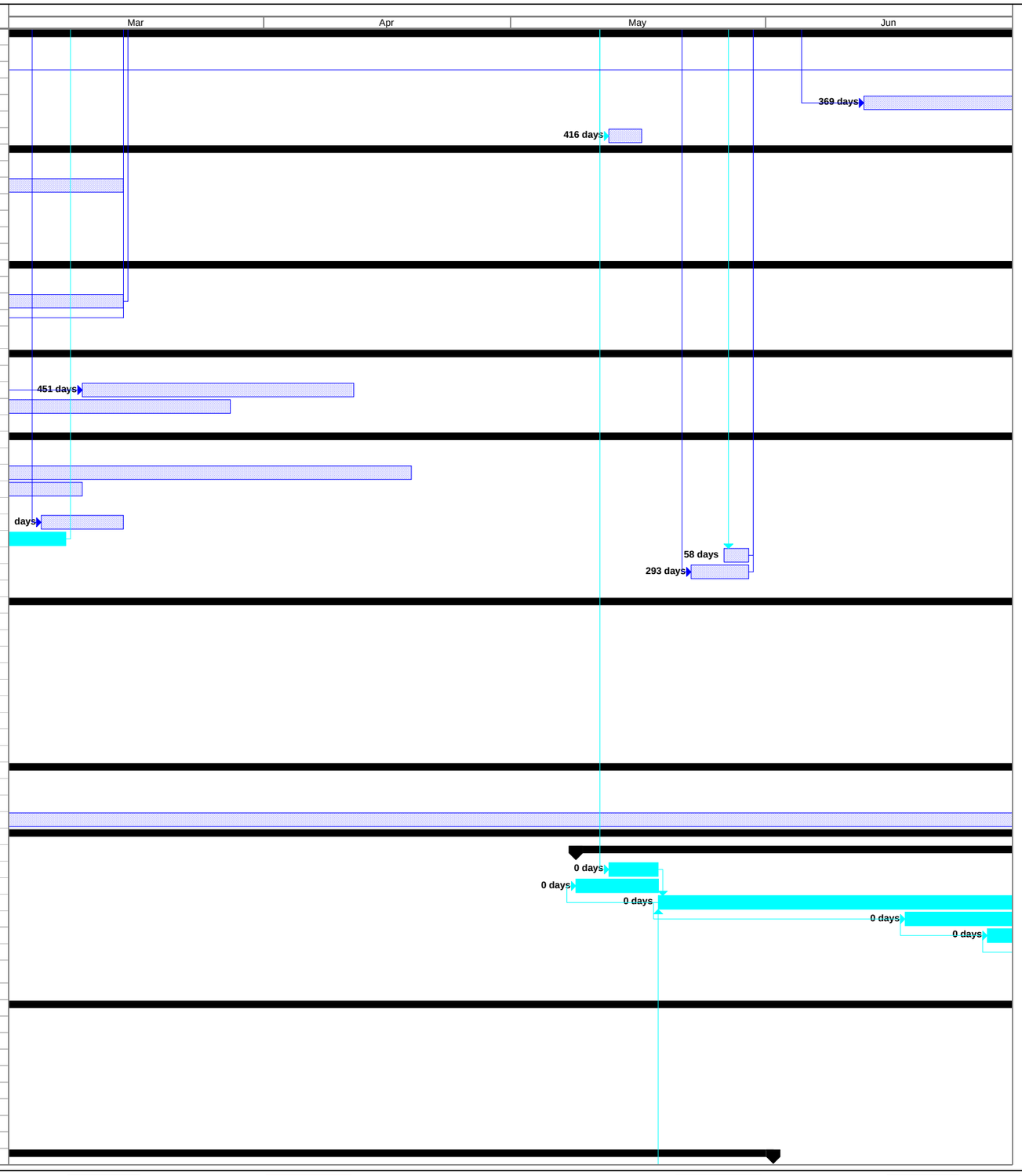


Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

PROGRAMME OF WORKS - RP09
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 : JAN 2008

ID	Task Name	Duration	Start	Finish	Predecessors
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
414	b. Ch120-Ch205 (Bay 12 - Bay 17)	20 days	Sat 19/1/08	Thu 7/2/08	407SS+7 days
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
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
421	b. Ch120-Ch205 (Bay 12 - Bay 17)	35 days	Sat 9/2/08	Fri 14/3/08	407
422	c. Ch205-Ch310 (Bay 18 - Bay 24)	45 days	Tue 8/1/08	Thu 21/2/08	408
423	d. Ch310-Ch375 (Bay 25 - Bay 28)	35 days	Mon 7/7/08	Sun 10/8/08	409
424	e. Ch375-Ch413 (Bay 29 - Bay 31)	10 days	Sun 31/8/08	Tue 9/9/08	410
425	**10. Water supply pipeworks**	**60 days**	**Sat 4/4/09**	**Tue 2/6/09**	**413SS+30 days**
426	**11. Roads and paving**	**529 days**	**Tue 8/1/08**	**Fri 19/6/09**	
427	a. Ch88-Ch 120 (Bay 9 - Bay 11)	17 days	Wed 3/6/09	Fri 19/6/09	414,425,405,413
428	b. Ch120-Ch205 (Bay 12 - Bay 17)	35 days	Sat 9/2/08	Fri 14/3/08	407
429	c. Ch205-Ch310 (Bay 18 - Bay 24)	50 days	Tue 8/1/08	Tue 26/2/08	408
430	d. Ch310-Ch436 (Bay 25 - Bay 32)	58 days	Sun 31/8/08	Mon 27/10/08	410
431	**12. Road furnitures**	**516 days**	**Thu 7/2/08**	**Mon 6/7/09**	
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	**13. Landscape softworks / hardworks**	**452 days**	**Tue 8/1/08**	**Fri 3/4/09**	
437	a. Ch88-Ch 120 (Bay 9 - Bay 11)	30 days	Thu 5/3/09	Fri 3/4/09	420SS
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	**14. Temporary Village Access on Bay 9 - Bay 11**	**10 days**	**Wed 5/3/08**	**Fri 14/3/08**	**321SS-10 days**
442	**15. Temporary Village Access on Bay 29 - Bay 31**	10 days	Wed 27/2/08	Fri 7/3/08	572
443	**16. Temporary Village Access on Bay 32**	3 days	Tue 27/5/08	Thu 29/5/08	387
444	**17. Diversion of Existing Traffic to Cheung Chun San Tsuen**	7 days	Fri 23/5/08	Thu 29/5/08	374SS-7 days
445					
446	**B3. Portion 3**	**726 days**	**Thu 12/7/07**	**Mon 6/7/09**	
447	**1. Site clearance**	**90 days**	**Sat 15/9/07**	**Thu 13/12/07**	
448	1.1 General clearance	90 days	Sat 15/9/07	Thu 13/12/07	17,224,903,905
449	**2. Underground utilities detection**	**42 days**	**Tue 31/7/07**	**Mon 10/9/07**	
450	2.1 utilities detection	28 days	Tue 31/7/07	Mon 27/8/07	330
451	2.2 trial trench excavtion & identification	14 days	Tue 28/8/07	Mon 10/9/07	450
452	**3. Utilities temporary diversion / protection**	**153 days**	**Sat 1/11/08**	**Thu 2/4/09**	
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
454	b. Street lighting along village access at CH 1150	93 days	Sat 1/11/08	Sun 1/2/09	529SS,534FF
455	c. PCCW along village access at CH 1150	153 days	Sat 1/11/08	Thu 2/4/09	529SS,534FF+60 days
456	**4. Drainage Management Plan**	**706 days**	**Thu 12/7/07**	**Tue 16/6/09**	
457	4.1 Submission of DMPs	1 day	Thu 12/7/07	Thu 12/7/07	
458	4.2 Comments by the Engineer	14 days	Fri 13/7/07	Thu 26/7/07	457
459	4.3 Implementation of DMP	659 days	Tue 28/8/07	Tue 16/6/09	535FF,458
460	**5. Channel and Crossings**	**633 days**	**Sat 28/7/07**	**Mon 20/4/09**	
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
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
465	Granular Bedding	80 days	Wed 18/6/08	Fri 5/9/08	464SS+30 days
466	Base Slab	82 days	Sat 28/6/08	Wed 17/9/08	465SS+10 days
467	Wall and Deck	85 days	Sat 12/7/08	Sat 4/10/08	466SS+14 days
468	Curing	92 days	Sat 19/7/08	Sat 18/10/08	467SS+7 days
469	Trench Backfill	91 days	Sat 2/8/08	Fri 31/10/08	468SS+14 days
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
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	
474	Granular Bedding	41 days	Tue 11/11/08	Sun 21/12/08	473SS+10 days
475	Base Slab	45 days	Mon 17/11/08	Wed 31/12/08	474SS+6 days
476	Wall and Deck	48 days	Fri 28/11/08	Wed 14/1/09	475SS+11 days
477	Curing	55 days	Fri 5/12/08	Wed 28/1/09	476SS+7 days
478	Trench Backfill	49 days	Fri 19/12/08	Thu 5/2/09	477SS+14 days
479	c. Ch625-Ch738 (Bay 46 - Bay 53)	295 days	Sun 12/8/07	Sun 1/6/08	



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CHIT CHEUNG CONSTRUCTION CO., LTD.
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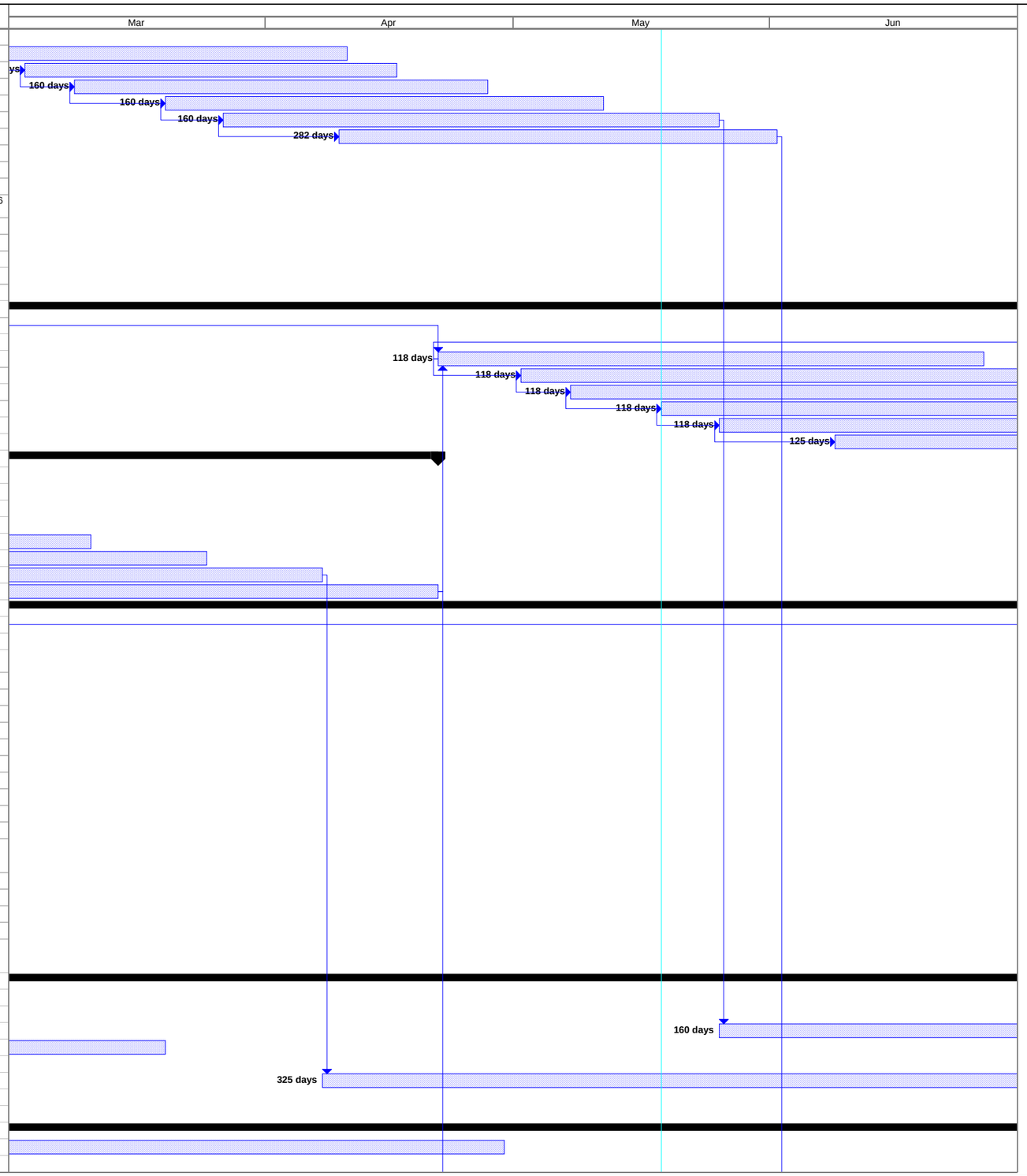
ID	Task Name	Duration	Start	Finish	Predecessors
481	Flow diversion	10 days	Tue 12/2/08	Thu 21/2/08	482SS-10 days
482	Excavation (including contamination material)	49 days	Fri 22/2/08	Thu 10/4/08	496,480
483	Granular Bedding	45 days	Mon 3/3/08	Wed 16/4/08	482SS+10 days
484	Base Slab	50 days	Sun 9/3/08	Sun 27/4/08	483SS+6 days
485	Wall and Deck	53 days	Thu 20/3/08	Sun 11/5/08	484SS+11 days
486	Curing	60 days	Thu 27/3/08	Sun 25/5/08	485SS+7 days
487	Trench Backfill	53 days	Thu 10/4/08	Sun 1/6/08	486SS+14 days
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
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
492	Granular Bedding	34 days	Sun 11/11/07	Fri 14/12/07	491SS+10 days
493	Base Slab	49 days	Sat 17/11/07	Fri 4/1/08	492SS+6 days
494	Wall and Deck	62 days	Wed 28/11/07	Mon 28/1/08	493SS+11 days
495	Curing	69 days	Wed 5/12/07	Mon 11/2/08	494SS+7 days
496	Trench Backfill	65 days	Wed 19/12/07	Thu 21/2/08	495SS+14 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
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
501	Granular Bedding	64 days	Fri 2/5/08	Fri 4/7/08	500SS+10 days
502	Base Slab	79 days	Thu 8/5/08	Fri 25/7/08	501SS+6 days
503	Wall and Deck	82 days	Mon 19/5/08	Fri 8/8/08	502SS+11 days
504	Curing	89 days	Mon 26/5/08	Fri 22/8/08	503SS+7 days
505	Trench Backfill	89 days	Mon 9/6/08	Fri 5/9/08	504SS+14 days
506	f. Ch925-Ch1038 (Bay 60 - Bay 66)	**218 days**	**Mon 17/9/07**	**Mon 21/4/08**	
507	Haul access	10 days	Mon 17/9/07	Wed 26/9/07	498
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	
510	Granular Bedding	116 days	Tue 30/10/07	Fri 22/2/08	509SS+10 days
511	Base Slab	127 days	Mon 5/11/07	Mon 10/3/08	510SS+6 days
512	Wall and Deck	130 days	Fri 16/11/07	Mon 24/3/08	511SS+11 days
513	Curing	137 days	Fri 23/11/07	Mon 7/4/08	512SS+7 days
514	Trench Backfill	137 days	Fri 7/12/07	Mon 21/4/08	513SS+14 days
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
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
519	Granular Bedding	29 days	Thu 12/2/09	Thu 12/3/09	518SS+10 days
520	Base Slab	30 days	Wed 18/2/09	Thu 19/3/09	519SS+6 days
521	Wall and Deck	34 days	Sun 1/3/09	Fri 3/4/09	520SS+11 days
522	Curing	41 days	Sun 8/3/09	Fri 17/4/09	521SS+7 days
523	Trench Backfill	30 days	Sun 22/3/09	Mon 20/4/09	522SS+14 days
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
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
530	Granular Bedding	53 days	Tue 11/11/08	Fri 2/1/09	529SS+10 days
531	Base Slab	53 days	Mon 17/11/08	Thu 8/1/09	530SS+6 days
532	Wall and Deck	49 days	Fri 28/11/08	Thu 15/1/09	531SS+11 days
533	Curing	56 days	Fri 5/12/08	Thu 29/1/09	532SS+7 days
534	Trench Backfill	45 days	Fri 19/12/08	Sun 1/2/09	533SS+14 days
535	**6. Gabion**	**491 days**	**Tue 12/2/08**	**Tue 16/6/09**	
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
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	**7. Granite Stone Facing**	**454 days**	**Tue 12/2/08**	**Sun 10/5/09**	
545	Bay 54 to Bay 55 (Ch738 - Ch800)	78 days	Tue 12/2/08	Tue 29/4/08	495
546	Bay 67 and Bay 69a (Ch1038 -Ch1108)	23 days	Sat 18/4/09	Sun 10/5/09	522



Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
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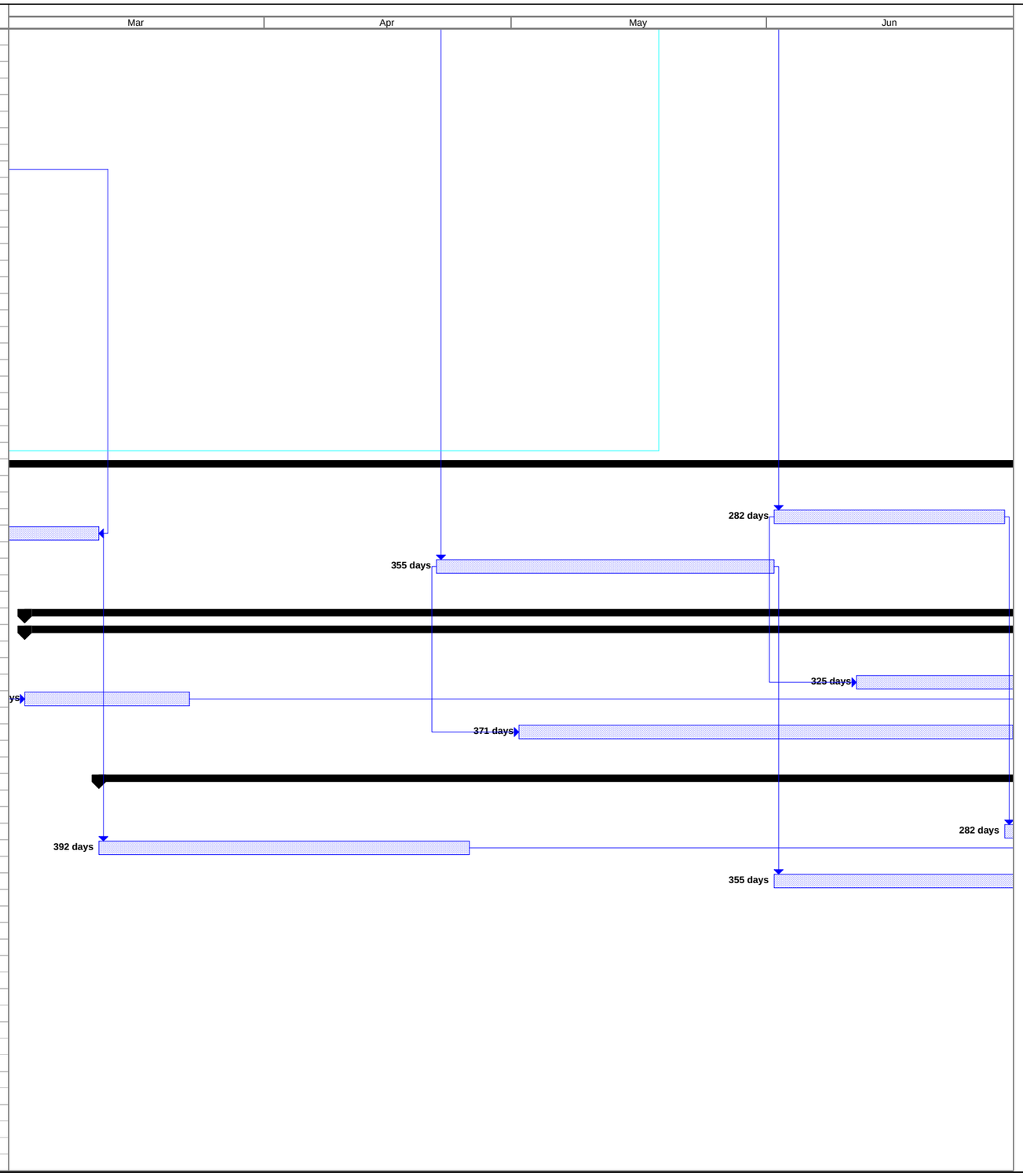
PROGRAMME OF WORKS - RP09
Contract No. : DC / 2006 / 02
Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

CHIT CHEUNG CONSTRUCTION CO., LTD.
DATE : JAN 2008

ID	Task Name	Duration	Start	Finish	Predecessors
547	Bay 83 and Bay 84 (Ch1301-Ch1330)	7 days	Fri 30/1/09	Thu 5/2/09	533
548	**8. Temp Crossing at Bay 71 (Ch1145)**	**86 days**	**Mon 10/11/08**	**Tue 3/2/09**	
549	8.1 Construction	5 days	Mon 10/11/08	Fri 14/11/08	529SS+9 days
550	8.2 Pesdestrian diversion	1 day	Sat 15/11/08	Sat 15/11/08	549
551	8.3 Demolition of Temp crossing	2 days	Mon 2/2/09	Tue 3/2/09	534
552	**9. Ramp No. 2 (Ch752 - Ch800, Bay 55)**	**17 days**	**Tue 12/2/08**	**Thu 28/2/08**	
553	General fill	5 days	Tue 12/2/08	Sat 16/2/08	495
554	Granular fill and blinding	2 days	Sun 17/2/08	Mon 18/2/08	553
555	Road slab	10 days	Tue 19/2/08	Thu 28/2/08	554
556	**10. Ramp No. 1 (Ch1052 - Ch1103, Bay 68)**	**31 days**	**Sat 18/4/09**	**Mon 18/5/09**	
557	base slab	12 days	Sat 18/4/09	Wed 29/4/09	522,521SS+21 days
558	Wall	10 days	Thu 30/4/09	Sat 9/5/09	557
559	General fill	5 days	Sun 10/5/09	Thu 14/5/09	558
560	Granular fill and blinding	2 days	Fri 15/5/09	Sat 16/5/09	559
561	Road slab	2 days	Sun 17/5/09	Mon 18/5/09	560
562	**11. Pedestrian Temporary Crossing at Bay 83 (Ch1306)**	**85 days**	**Tue 11/11/08**	**Tue 3/2/09**	
563	11.1 Construction	5 days	Tue 11/11/08	Sat 15/11/08	529SS+10 days
564	11.2 Pedestrian diversion	1 day	Sun 16/11/08	Sun 16/11/08	563
565	11.3 Demolition of Temp crossing	2 days	Mon 2/2/09	Tue 3/2/09	534
566	**12. Retaining Wall RW1 (Ch430-Ch490)**	**109 days**	**Sat 10/11/07**	**Tue 26/2/08**	
567	Excavation	26 days	Sat 10/11/07	Wed 5/12/07	618
568	Granular bedding	7 days	Thu 6/12/07	Wed 12/12/07	567
569	Base slab	24 days	Thu 13/12/07	Sat 5/1/08	568
570	Wall	26 days	Sun 6/1/08	Thu 31/1/08	569
571	Curing	14 days	Fri 1/2/08	Thu 14/2/08	570
572	Backfilling	12 days	Fri 15/2/08	Tue 26/2/08	571
573	**13. Filling in Platform**	**434 days**	**Fri 22/2/08**	**Thu 30/4/09**	
574	a. Bay 33- Bay39 (Ch436-Ch535)	25 days	Sat 1/11/08	Tue 25/11/08	469
575	b. Bay 40 - Bay 45 (CH535-Ch625)	28 days	Fri 6/2/09	Thu 5/3/09	478
576	c. Bay 46 - Bay 53 (Ch625-Ch738)	28 days	Mon 2/6/08	Sun 29/6/08	487
577	d. Bay 54 - Bay 55 (Ch738-Ch800)	19 days	Fri 22/2/08	Tue 11/3/08	496,555FF
578	e. Bay 56c - Bay 59 (Ch844-Ch925)	21 days	Sat 6/9/08	Fri 26/9/08	505
579	f. Bay 60 - Bay 66 (Ch925-Ch1038)	41 days	Tue 22/4/08	Sun 1/6/08	514
580	g. Bay 67 - Bay 71 (Ch1038-Ch1146)	10 days	Tue 21/4/09	Thu 30/4/09	523,551
581	h. Bay 72 - Bay 84 (Ch1146-Ch1330)	14 days	Mon 2/2/09	Sun 15/2/09	534
582	**14. Drainage works**	**469 days**	**Mon 3/3/08**	**Sun 14/6/09**	
583	14.1 storm drain with manhole	444 days	Mon 3/3/08	Wed 20/5/09	
584	a. Bay 33- Bay39 (Ch436-Ch535)	30 days	Tue 11/11/08	Wed 10/12/08	574SS+10 days
585	b. Bay 40 - Bay 45 (CH535-Ch625)	20 days	Mon 16/2/09	Sat 7/3/09	575SS+10 days
586	c. Bay 46 - Bay 53 (Ch625-Ch738)	20 days	Thu 12/6/08	Tue 1/7/08	576SS+10 days
587	d. Bay 54 - Bay 55 (Ch738-Ch800)	20 days	Mon 3/3/08	Sat 22/3/08	577SS+10 days
588	e. Bay 56c - Bay 59 (Ch844-Ch925)	30 days	Thu 27/11/08	Fri 26/12/08	578SS+10 days,312FF
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
594	b. Bay 40 - Bay 45 (CH535-Ch625)	45 days	Fri 6/3/09	Sun 19/4/09	575
595	c. Bay 46 - Bay 53 (Ch625-Ch738)	45 days	Mon 30/6/08	Wed 13/8/08	576
596	d. Bay 54 - Bay 55 (Ch738-Ch800)	45 days	Wed 12/3/08	Fri 25/4/08	577
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
600	h. Bay 72 - Bay 84 (Ch1146-Ch1330)	45 days	Mon 16/2/09	Wed 1/4/09	581
601	**15. Roads and paving**	**276 days**	**Sat 27/9/08**	**Mon 29/6/09**	
602	a. Ch800-Ch881	60 days	Sat 27/9/08	Tue 25/11/08	578
603	b. Ch881-CH1037	52 days	Sat 27/12/08	Mon 16/2/09	602,588
604	c. CH1037-CH1165	60 days	Fri 1/5/09	Mon 29/6/09	580,453,454,455,561FF
605	**16. Street furnitures / traffic sign / road marking**	**253 days**	**Mon 27/10/08**	**Mon 6/7/09**	
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	**17. Landscape softworks / hardworks**	**193 days**	**Fri 26/12/08**	**Mon 6/7/09**	
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
614	e. Bay 56c - Bay 59 (Ch844-Ch925)	22 days	Mon 25/5/09	Mon 15/6/09	615
615	f. Bay 60 - Bay 66 (Ch925-Ch1038)	23 days	Sat 2/5/09	Sun 24/5/09	617

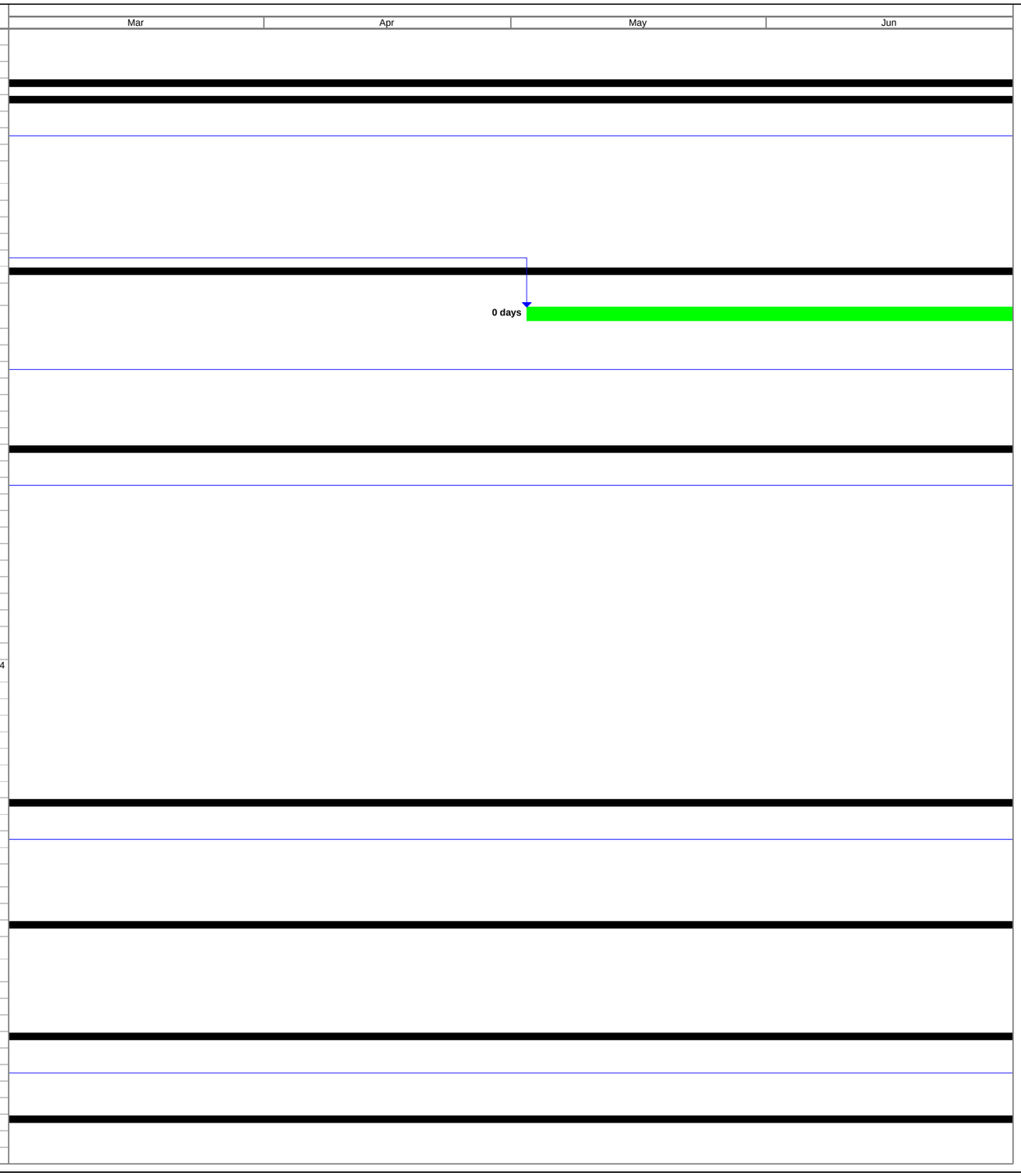


Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

PROGRAMME OF WORKS - RP09
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 : JAN 2008

ID	Task Name	Duration	Start	Finish	Predecessors
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
618	**18. Lower down existing village access**	9 days	Thu 1/11/07	Fri 9/11/07	
619	**C. Section II of the Works**	**830 days**	**Fri 30/3/07**	**Mon 6/7/09**	
620	**C1. Portion 4**	**812 days**	**Fri 30/3/07**	**Thu 18/6/09**	
621	**1. Site clearance**	**14 days**	**Wed 26/9/07**	**Tue 9/10/07**	
622	1.1 General clearance	14 days	Wed 26/9/07	Tue 9/10/07	225,36,909,911
623	**2. Temporary Traffic Management Scheme**	**60 days**	**Fri 30/3/07**	**Mon 28/5/07**	
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	b. comments & approvals by Engineer & TMLG	14 days	Tue 15/5/07	Mon 28/5/07	625
627	2.2 TTMS Proposal (for construction of box culvet)	59 days	Fri 30/3/07	Sun 27/5/07	
628	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07	
629	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	628
630	**3. Excavation Permits**	**520 days**	**Tue 29/5/07**	**Wed 29/10/08**	
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
632	3.2 application and issue of permits (for construction of box culvert)	180 days	Sat 3/5/08	Wed 29/10/08	629
633	**4. Underground utilities detection**	**43 days**	**Fri 29/6/07**	**Fri 10/8/07**	
634	4.1 utilities detection	28 days	Fri 29/6/07	Fri 27/7/07	635SF-1 day
635	4.2 trial trench excavtion & identification	14 days	Sat 28/7/07	Fri 10/8/07	631
636	**5. Utilities temporary diversion / protection**	**85 days**	**Sat 1/11/08**	**Sat 24/1/09**	
637	a. WSD water main along Kam Po Road	85 days	Sat 1/11/08	Sat 24/1/09	646SS
638	b. Street lighting along Kam Po Road	85 days	Sat 1/11/08	Sat 24/1/09	646SS
639	c. DSD storm Drain	85 days	Sat 1/11/08	Sat 24/1/09	646SS
640	**6. Drainage Management Plan**	**662 days**	**Fri 30/3/07**	**Mon 19/1/09**	
641	6.1 Submission of DMPs	1 day	Fri 30/3/07	Fri 30/3/07	
642	6.2 Comments by the Engineer	14 days	Sat 31/3/07	Fri 13/4/07	641
643	6.3 Implementation of DMPs	57 days	Mon 24/11/08	Mon 19/1/09	647,642
644	**7. Box Culvert Ch0-Ch15 (Bay 1 and Outlet)**	**94 days**	**Thu 30/10/08**	**Sat 31/1/09**	
645	Remove road pavement and expose existing utilities	2 days	Thu 30/10/08	Fri 31/10/08	635,632,833
646	Excavation	8 days	Sat 1/11/08	Sat 8/11/08	645,622
647	Remove existing box culvert	14 days	Mon 10/11/08	Sun 23/11/08	648
648	flow diversion	1 day	Sun 9/11/08	Sun 9/11/08	646
649	Granular Bedding	5 days	Fri 14/11/08	Tue 18/11/08	647SS+4 days
650	Base Slab	18 days	Wed 19/11/08	Sat 6/12/08	649
651	Wall and Deck	30 days	Sun 7/12/08	Mon 5/1/09	650
652	Curing	14 days	Tue 6/1/09	Mon 19/1/09	651
653	Trench Backfill	5 days	Tue 20/1/09	Sat 24/1/09	652,637FF,638FF,639FF,647,764
654	Reinstatement of Kam Po Road	7 days	Sun 25/1/09	Sat 31/1/09	653
655	**9. Modification to invert level of box culvert at Kam Sheung**	**45 days**	**Fri 9/1/09**	**Sun 22/2/09**	**716**
656	**10. Fill in Platform**	**30 days**	**Mon 2/2/09**	**Tue 3/3/09**	**653,834**
657	**11. Roads and paving**	**30 days**	**Wed 4/3/09**	**Thu 2/4/09**	**656,798**
658	**12. Street furnitures**	**14 days**	**Fri 3/4/09**	**Thu 16/4/09**	**657**
659	**13. Landscape softworks / hardworks**	**77 days**	**Fri 3/4/09**	**Thu 18/6/09**	**657**
660					
661	**C2. Portion 5 and 5C**	**830 days**	**Fri 30/3/07**	**Mon 6/7/09**	
662	**1. Site clearance**	**90 days**	**Thu 20/9/07**	**Tue 18/12/07**	
663	1.1 General clearance	90 days	Thu 20/9/07	Tue 18/12/07	36,225SS+75 days,915,917
664	**2. Temporary Traffic Management Scheme**	**59 days**	**Fri 30/3/07**	**Sun 27/5/07**	
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	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	666
668	**3. Excavation Permits**	**741 days**	**Mon 28/5/07**	**Sat 6/6/09**	
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
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
671	**4. Underground utilities detection**	**42 days**	**Fri 29/6/07**	**Thu 9/8/07**	
672	a. utilities detection	28 days	Fri 29/6/07	Thu 26/7/07	19
673	b. trial trench excavtion & identification	14 days	Fri 27/7/07	Thu 9/8/07	669,672
674	**5. Utilities temporary diversion / protection**	**553 days**	**Fri 10/8/07**	**Thu 12/2/09**	
675	a. CLP overhead cables at CH 100 ~ CH 120	90 days	Fri 10/8/07	Wed 7/11/07	673
676	b. CLP overhead cables at CH 530 ~ CH 550	90 days	Fri 10/8/07	Wed 7/11/07	673
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	**6. Drainage Management Plan**	**722 days**	**Fri 30/3/07**	**Fri 20/3/09**	
680	5.1 Submission of DMPs	1 day	Fri 30/3/07	Fri 30/3/07	641SS
681	5.2 Comments by the Engineer	14 days	Sat 31/3/07	Fri 13/4/07	680



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CHIT CHEUNG CONSTRUCTION CO., LTD.
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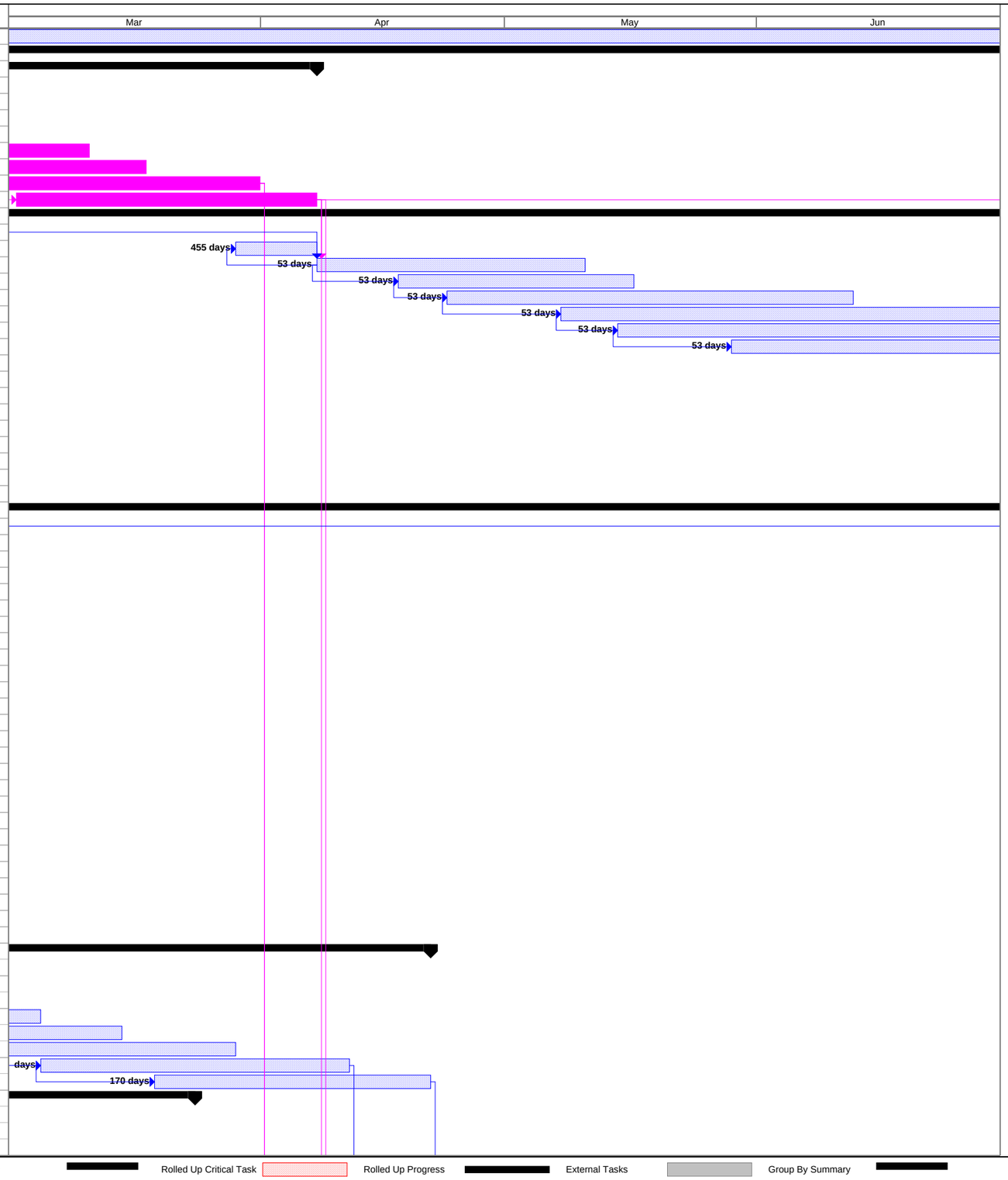
ID	Task Name	Duration	Start	Finish	Predecessors
682	5.3 Implementation of DMP	581 days	Sat 18/8/07	Fri 20/3/09	704SS,681
683	**7. Channel and Crossings**	**553 days**	**Fri 10/8/07**	**Thu 12/2/09**	
684	a. Ch11-Ch130 (Bay 3 - Bay 11)	229 days	Thu 23/8/07	Mon 7/4/08	
685	Haul access	5 days	Thu 23/8/07	Mon 27/8/07	694
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
688	Granular Bedding	40 days	Mon 21/1/08	Fri 29/2/08	687SS+10 days
689	Base Slab	44 days	Sun 27/1/08	Mon 10/3/08	688SS+6 days
690	Wall and Deck	37 days	Sun 10/2/08	Mon 17/3/08	689SS+14 days
691	Curing	44 days	Sun 17/2/08	Mon 31/3/08	690SS+7 days
692	Trench Backfill	37 days	Sun 2/3/08	Mon 7/4/08	691SS+14 days
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
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
697	Granular Bedding	29 days	Fri 18/4/08	Fri 16/5/08	696SS+10 days
698	Base Slab	50 days	Thu 24/4/08	Thu 12/6/08	697SS+6 days
699	Wall and Deck	56 days	Thu 8/5/08	Wed 2/7/08	698SS+14 days
700	Curing	63 days	Thu 15/5/08	Wed 16/7/08	699SS+7 days
701	Trench Backfill	56 days	Thu 29/5/08	Wed 23/7/08	700SS+14 days
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
704	Flow diversion	10 days	Sat 18/8/07	Mon 27/8/07	703
705	Excavation (including contamination material)	60 days	Tue 28/8/07	Fri 26/10/07	
706	Granular Bedding	70 days	Fri 7/9/07	Thu 15/11/07	705SS+10 days
707	Base Slab	78 days	Thu 13/9/07	Thu 29/11/07	706SS+6 days
708	Wall and Deck	85 days	Thu 27/9/07	Thu 20/12/07	707SS+14 days
709	Curing	92 days	Thu 4/10/07	Thu 3/1/08	708SS+7 days
710	Trench Backfill	85 days	Thu 18/10/07	Thu 10/1/08	709SS+14 days
711	d. Ch449-Ch504 (Bay 37 - Bay 40)	553 days	Fri 10/8/07	Thu 12/2/09	
712	Haul access	5 days	Fri 10/8/07	Tue 14/8/07	673
713	Flow diversion	10 days	Fri 12/9/08	Sun 21/9/08	714SS-10 days
714	Excavation (including contamination material)	75 days	Mon 22/9/08	Fri 5/12/08	663,676,712,864
715	Granular Bedding	75 days	Sun 12/10/08	Thu 25/12/08	714SS+20 days
716	Base Slab	75 days	Sun 26/10/08	Thu 8/1/09	715SS+14 days
717	Wall and Deck	75 days	Sun 9/11/08	Thu 22/1/09	716SS+14 days,799
718	Curing	82 days	Sun 16/11/08	Thu 5/2/09	717SS+7 days
719	Trench Backfill	75 days	Sun 30/11/08	Thu 12/2/09	718SS+14 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
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	
724	Granular Bedding	55 days	Thu 27/9/07	Tue 20/11/07	723SS+10 days
725	Base Slab	63 days	Wed 3/10/07	Tue 4/12/07	724SS+6 days
726	Wall and Deck	63 days	Wed 17/10/07	Tue 18/12/07	725SS+14 days
727	Curing	70 days	Wed 24/10/07	Tue 1/1/08	726SS+7 days
728	Trench Backfill	63 days	Wed 7/11/07	Tue 8/1/08	727SS+14 days
729	f. Ch586-Ch675 (Bay 47 - Bay 54)	163 days	Sat 18/8/07	Sun 27/1/08	
730	Haul access	5 days	Sat 18/8/07	Wed 22/8/07	721
731	Flow diversion	3 days	Sat 29/9/07	Mon 1/10/07	732SS-10 days
732	Excavation (including contamination material)	60 days	Tue 9/10/07	Fri 7/12/07	730,938
733	Granular Bedding	60 days	Fri 19/10/07	Mon 17/12/07	732SS+10 days
734	Base Slab	60 days	Thu 25/10/07	Sun 23/12/07	733SS+6 days
735	Wall and Deck	60 days	Thu 8/11/07	Sun 6/1/08	734SS+14 days
736	Curing	67 days	Thu 15/11/07	Sun 20/1/08	735SS+7 days
737	Trench Backfill	60 days	Thu 29/11/07	Sun 27/1/08	736SS+14 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
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
742	Granular Bedding	27 days	Thu 7/2/08	Tue 4/3/08	741SS+10 days
743	Base Slab	31 days	Wed 13/2/08	Fri 14/3/08	742SS+6 days
744	Wall and Deck	31 days	Wed 27/2/08	Fri 28/3/08	743SS+14 days
745	Curing	38 days	Wed 5/3/08	Fri 11/4/08	744SS+7 days
746	Trench Backfill	34 days	Wed 19/3/08	Mon 21/4/08	745SS+14 days
747	h. Ch741-Ch797 (Bay 60 - Bay 63)	211 days	Sun 26/8/07	Sun 23/3/08	
748	Haul access	3 days	Sun 26/8/07	Tue 28/8/07	739
749	Flow diversion	3 days	Sun 6/1/08	Tue 8/1/08	750SS-3 days
750	Excavation (including contamination material)	20 days	Wed 9/1/08	Mon 28/1/08	748,728

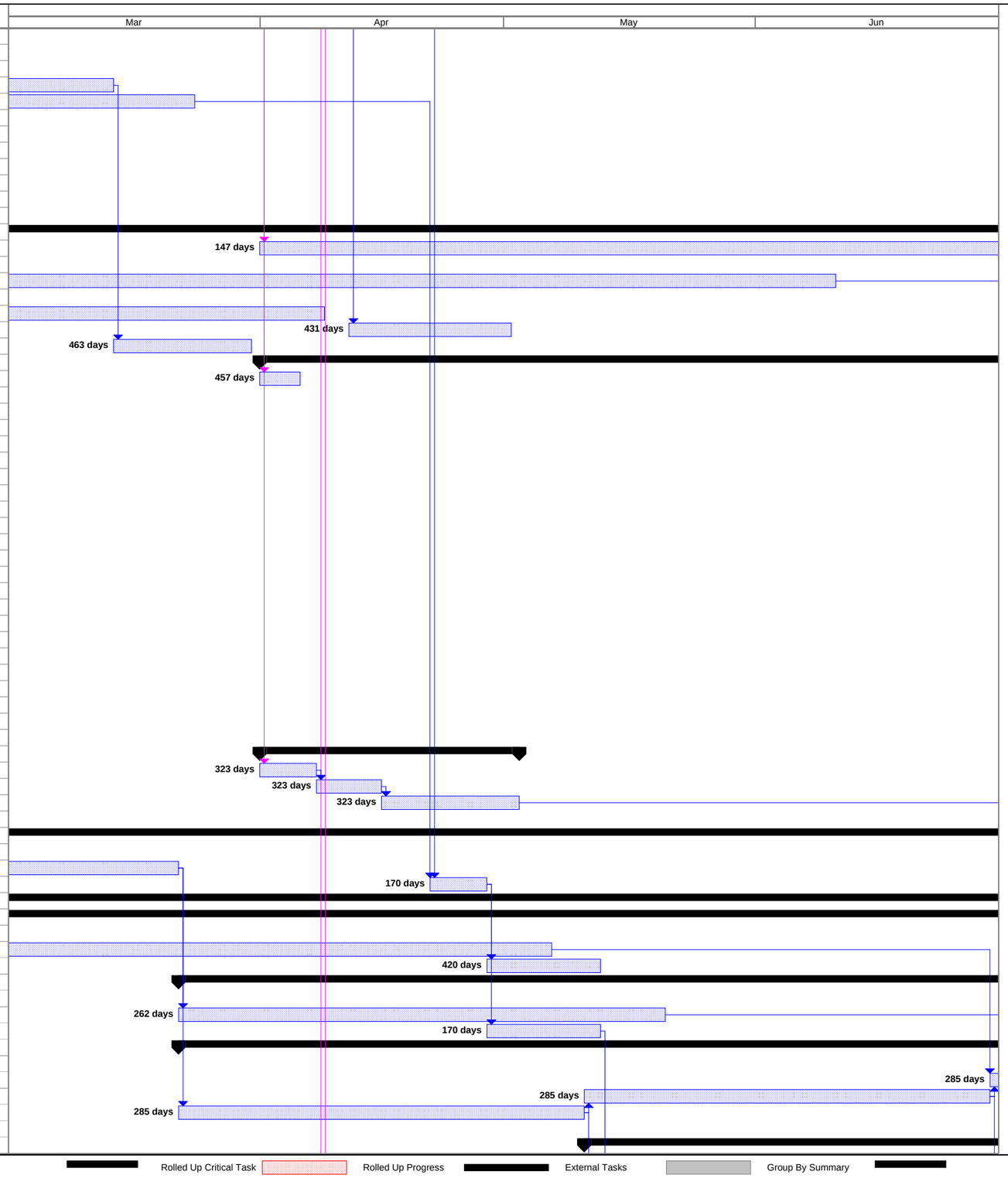


Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

PROGRAMME OF WORKS - RP09
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 : JAN 2008

ID	Task Name	Duration	Start	Finish	Predecessors
751	Granular Bedding	16 days	Sat 19/1/08	Sun 3/2/08	750SS+10 days
752	Base Slab	20 days	Fri 25/1/08	Wed 13/2/08	751SS+6 days
753	Wall and Deck	20 days	Fri 8/2/08	Wed 27/2/08	752SS+14 days
754	Curing	28 days	Fri 15/2/08	Thu 13/3/08	753SS+7 days
755	Trench Backfill	24 days	Fri 29/2/08	Sun 23/3/08	754SS+14 days
756	**8. Retaining Wall RW2 (Ch340-Ch350)**	**73 days**	**Mon 22/9/08**	**Wed 3/12/08**	
757	Excavation	10 days	Mon 22/9/08	Wed 1/10/08	864
758	Granular bedding	4 days	Thu 2/10/08	Sun 5/10/08	757
759	Base slab	21 days	Mon 6/10/08	Sun 26/10/08	758
760	Wall	14 days	Mon 27/10/08	Sun 9/11/08	759
761	Curing	14 days	Mon 10/11/08	Sun 23/11/08	760
762	Backfilling	10 days	Mon 24/11/08	Wed 3/12/08	761
763	**9. Gabion**	**466 days**	**Fri 4/1/08**	**Mon 13/4/09**	
764	Bay 5- Bay 11 (Ch35-Ch130)	147 days	Tue 1/4/08	Mon 25/8/08	691
765	Bay 12 - Bay 19 (Ch130-Ch233)	93 days	Thu 17/7/08	Fri 17/10/08	700
766	Bay 20 - Bay 27 (Ch233-Ch340)	159 days	Fri 4/1/08	Tue 10/6/08	709
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	**10. Granite Stone Facing**	**318 days**	**Tue 1/4/08**	**Thu 12/2/09**	
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
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	Bay 47 - Bay 55 (Ch586-Ch688)	9 days	Thu 7/8/08	Fri 15/8/08	775
777	**11. Ramp No. 1 (Ch645 - Ch668, Bay 52 - Bay 53)**	**39 days**	**Mon 21/1/08**	**Thu 28/2/08**	
778	base slab	12 days	Mon 21/1/08	Fri 1/2/08	736
779	Wall	10 days	Sat 2/2/08	Mon 11/2/08	778
780	General fill	5 days	Tue 12/2/08	Sat 16/2/08	779
781	Granular fill and blinding	5 days	Sun 17/2/08	Thu 21/2/08	780
782	Road slab	7 days	Fri 22/2/08	Thu 28/2/08	781
783	**12. Ramp No. 2 (Ch516 - Ch537, Bay 42)**	**54 days**	**Fri 6/2/09**	**Tue 31/3/09**	
784	base slab	12 days	Fri 6/2/09	Tue 17/2/09	718
785	Wall	10 days	Wed 18/2/09	Fri 27/2/09	784
786	General fill	20 days	Sat 28/2/09	Thu 19/3/09	785
787	Granular fill and blinding	5 days	Fri 20/3/09	Tue 24/3/09	786
788	Road slab	7 days	Wed 25/3/09	Tue 31/3/09	787
789	**13. Ramp No. 3 (Ch209 - Ch233, Bay 18 - Bay 19)**	**54 days**	**Thu 17/7/08**	**Mon 8/9/08**	
790	base slab	12 days	Thu 17/7/08	Mon 28/7/08	700
791	Wall	10 days	Tue 29/7/08	Thu 7/8/08	790
792	General fill	20 days	Fri 8/8/08	Wed 27/8/08	791
793	Granular fill and blinding	5 days	Thu 28/8/08	Mon 1/9/08	792
794	Road slab	7 days	Tue 2/9/08	Mon 8/9/08	793
795	**14 Ramp No. 4 (Ch35 - Ch55, Bay5)**	**32 days**	**Tue 1/4/08**	**Fri 2/5/08**	
796	General fill	7 days	Tue 1/4/08	Mon 7/4/08	691
797	Granular fill and blinding	8 days	Tue 8/4/08	Tue 15/4/08	796
798	Sloping side wall and road slab	17 days	Wed 16/4/08	Fri 2/5/08	797
799	**15. Demolition of existing wing walls Ch449**	14 days	Sun 26/10/08	Sat 8/11/08	716SS
800	**16. Filling in Platform**	**212 days**	**Mon 28/1/08**	**Tue 26/8/08**	
801	a. Bay 3- Bay 27 (Ch11-Ch340)	34 days	Thu 24/7/08	Tue 26/8/08	692,701
802	b. Bay 37 - Bay 55 (Ch449-Ch688)	54 days	Mon 28/1/08	Fri 21/3/08	737,728
803	c. Bay 56 - Bay 63 (Ch688-Ch797)	7 days	Tue 22/4/08	Mon 28/4/08	746,755
804	**17. Drainage works**	**236 days**	**Thu 7/2/08**	**Mon 29/9/08**	
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
807	b. Bay 37 - Bay 55 (Ch449-Ch688)	90 days	Thu 7/2/08	Tue 6/5/08	802SS+10 days
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
811	b. Bay 37 - Bay 55 (Ch449-Ch688)	60 days	Sat 22/3/08	Tue 20/5/08	802
812	c. Bay 56 - Bay 63 (Ch688-Ch797)	14 days	Tue 29/4/08	Mon 12/5/08	803
813	**18. Roads and paving**	**465 days**	**Sat 22/3/08**	**Mon 29/6/09**	
814	a. Ch233 - Ch340	50 days	Mon 2/2/09	Mon 23/3/09	801,874SS-30 days,794,806
815	b. Ch449 - Ch549	50 days	Mon 30/6/08	Mon 18/8/08	816,807
816	c. Ch549 - Ch609	50 days	Sun 11/5/08	Sun 29/6/08	817
817	d. Ch609 - Ch688	50 days	Sat 22/3/08	Sat 10/5/08	802
818	e. Permanent Entrance at Ch449	23 days	Sun 7/6/09	Mon 29/6/09	670
819	**19. Street furnitures**	**422 days**	**Sun 11/5/08**	**Mon 6/7/09**	



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PROGRAMME OF WORKS - RP09
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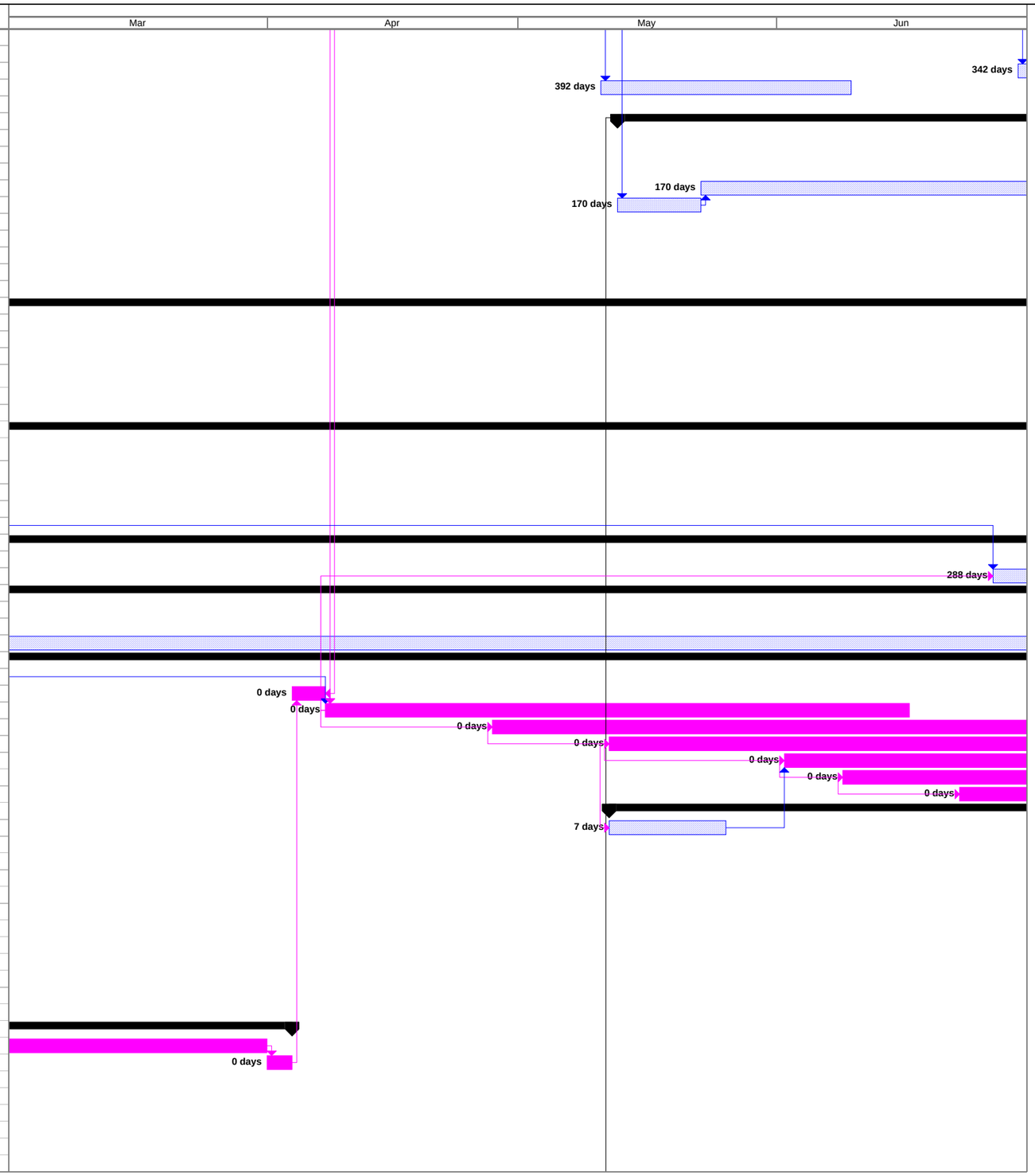
CHIT CHEUNG CONSTRUCTION CO., LTD.
DATE : JAN 2008

ID	Task Name	Duration	Start	Finish	Predecessors
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
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	**20. Landscape softworks / hardworks**	**420 days**	**Tue 13/5/08**	**Mon 6/7/09**	
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
828	c. Ch549 - Ch609	45 days	Mon 7/7/08	Wed 20/8/08	829
829	d. Ch609 - Ch688	45 days	Fri 23/5/08	Sun 6/7/08	830
830	e. Ch688 - Ch797	10 days	Tue 13/5/08	Thu 22/5/08	812
831	**21. Road Diversion in Kam Po Road**	**159 days**	**Wed 27/8/08**	**Sun 1/2/09**	
832	a. Temp Decking above Bay 3 and temp road pavement	10 days	Wed 27/8/08	Fri 5/9/08	801
833	b. Implementation of road diversion	1 day	Sat 6/9/08	Sat 6/9/08	832
834	c. Removal of decking	1 day	Sun 1/2/09	Sun 1/2/09	654
835					
836	**D. Section III of the Works - Portions 5A1, 5A2 and 5B**	**830 days**	**Fri 30/3/07**	**Mon 6/7/09**	
837	**1. Site clearance**	**4 days**	**Mon 31/12/07**	**Thu 3/1/08**	
838	1.1 General site clearance	4 days	Mon 31/12/07	Thu 3/1/08	921,923,927,929,933,935
839	**2. Temporary Traffic Management Scheme**	**59 days**	**Fri 30/3/07**	**Sun 27/5/07**	
840	TTMS Proposal (trial pits for utilities and site entrance in Kam Sh	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	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	841
843	**3. Excavation Permits**	**741 days**	**Mon 28/5/07**	**Sat 6/6/09**	
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
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
846	**4. Underground utilities detection**	**42 days**	**Fri 29/6/07**	**Thu 9/8/07**	
847	a. utilities detection	2 days	Fri 29/6/07	Sat 30/6/07	20
848	b. trial trench excavtion & identification	14 days	Fri 27/7/07	Thu 9/8/07	844,847
849	**5. Utilities temporary diversion / protection**	**424 days**	**Thu 26/7/07**	**Sun 21/9/08**	
850	a. Completion of WSD 450 diameter water main (By WSD)	1 day	Thu 26/7/07	Thu 26/7/07	
851	b. Telephone line	87 days	Fri 27/6/08	Sun 21/9/08	859SS,864FF,848
852	**6. Drainage Management Plan**	**662 days**	**Fri 30/3/07**	**Mon 19/1/09**	
853	a Submission of DMPs	1 day	Fri 30/3/07	Fri 30/3/07	641SS
854	b Comments by the Engineer	14 days	Sat 31/3/07	Fri 13/4/07	853
855	c Implementation of DMP	558 days	Thu 12/7/07	Mon 19/1/09	854,643FF
856	**7. Channel - Ch340-Ch439 (Bay 28 - Bay 35)**	**277 days**	**Thu 20/12/07**	**Sun 21/9/08**	
857	Haul access	15 days	Thu 20/12/07	Thu 3/1/08	921,838FF
858	Flow diversion	4 days	Fri 4/4/08	Mon 7/4/08	692FF,880
859	Excavation (including contamination material)	70 days	Tue 8/4/08	Mon 16/6/08	692,857,858
860	Granular Bedding	70 days	Mon 28/4/08	Sun 6/7/08	859SS+20 days
861	Base Slab	77 days	Mon 12/5/08	Sun 27/7/08	860SS+14 days
862	Wall and Deck	77 days	Mon 2/6/08	Sun 17/8/08	861SS+21 days,866
863	Curing	84 days	Mon 9/6/08	Sun 31/8/08	862SS+7 days
864	Trench Backfill	91 days	Mon 23/6/08	Sun 21/9/08	863SS+14 days
865	**8. Demolition of existing structures**	**147 days**	**Mon 12/5/08**	**Sun 5/10/08**	
866	a. Existing wing walls Ch439 (Bay35)	14 days	Mon 12/5/08	Sun 25/5/08	861SS
867	b. Existing footbridge at Ch350 (Bay 29)	14 days	Mon 22/9/08	Sun 5/10/08	864
868	**9. Gabion**	124 days	Mon 1/9/08	Fri 2/1/09	863
869	**10. Granite Stone Facing**	3 days	Tue 29/7/08	Thu 31/7/08	773
870	**11. Fill in Platform**	90 days	Thu 4/12/08	Tue 3/3/09	864,762,867SF+14 days
871	**12. Drainage works**	**100 days**	**Sun 14/12/08**	**Mon 23/3/09**	
872	a. storm drain with manhole	45 days	Sun 14/12/08	Tue 27/1/09	870SS+10 days
873	b. surface drain	20 days	Wed 4/3/09	Mon 23/3/09	870
874	**13. Roads and paving**	45 days	Wed 4/3/09	Fri 17/4/09	870,872
875	**14. Permanent Entrance and street furnitrures at Ch439**	30 days	Sun 7/6/09	Mon 6/7/09	845,874
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
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	b. Removal	3 days	Tue 1/4/08	Thu 3/4/08	879
881					
882	**E. Section IV of the Works**	**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	2. Construction of temp vehicular access	17 days	Sat 8/9/07	Mon 24/9/07	883,11FF-1 day
885	3. Opening of temp vehicular access to the Public	1 day	Tue 25/9/07	Tue 25/9/07	884
886					



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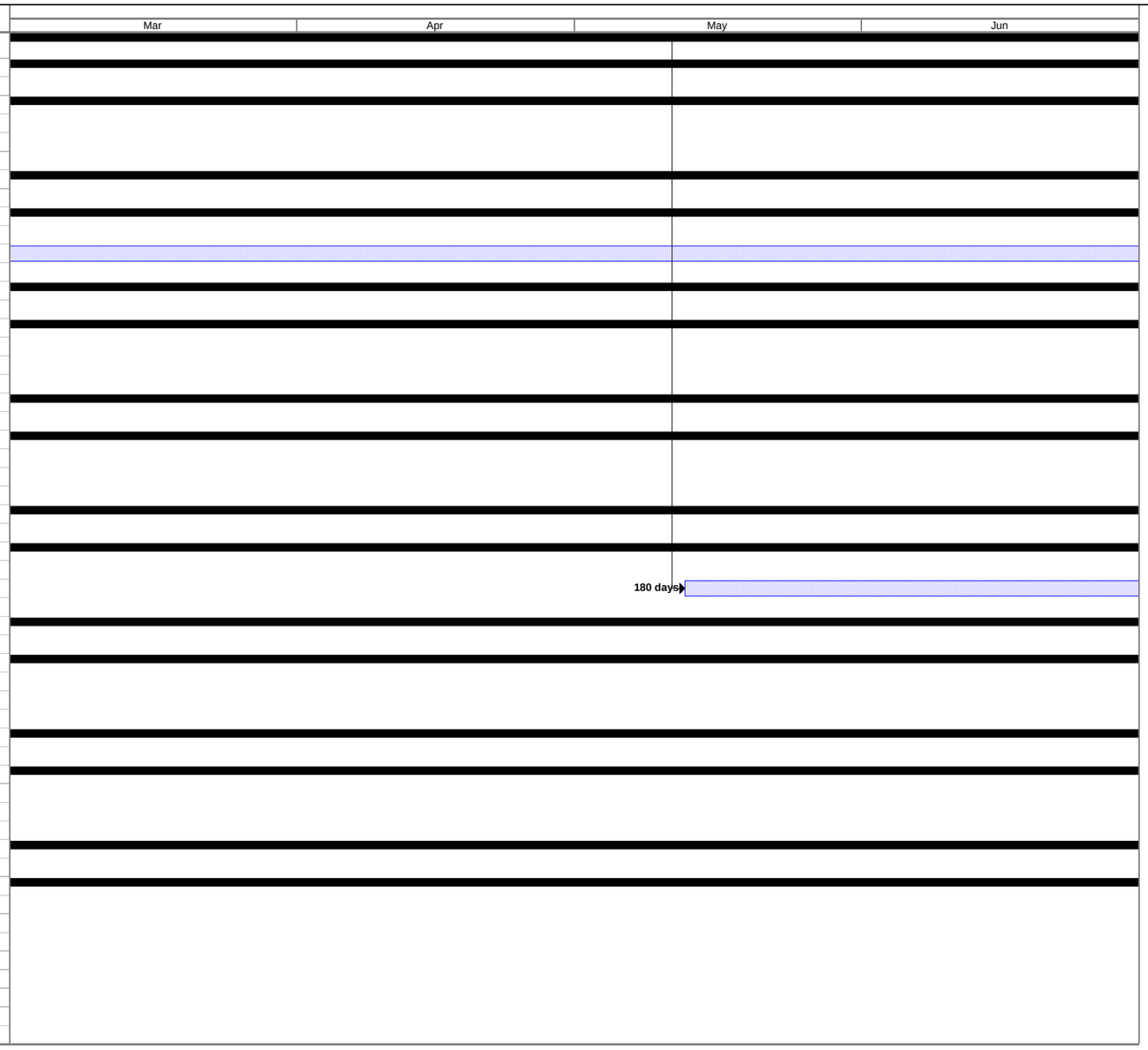
ID	Task Name	Duration	Start	Finish	Predecessors
887	**F. Section V of the Works - Preservation and protection to existing trees**	**804 days**	**Sat 31/3/07**	**Thu 11/6/09**	
888	**1. Portion 1**	**789 days**	**Sat 31/3/07**	**Wed 27/5/09**	
889	1.1 Tree survey	14 days	Sat 31/3/07	Fri 13/4/07	15
890	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
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
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
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
898	b. To final location	231 days	Tue 8/1/08	Mon 25/8/08	436SS
899	2.3 Tree protection	62 days	Wed 13/6/07	Mon 13/8/07	897SS
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
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
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
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
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
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
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
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
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
918	**6. Portion 5A1**	**694 days**	**Fri 29/6/07**	**Fri 22/5/09**	
919	6.1 Tree survey	7 days	Fri 29/6/07	Thu 5/7/07	20
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
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
924	**7. Portion 5A2**	**694 days**	**Fri 29/6/07**	**Fri 22/5/09**	
925	7.1 Tree survey	14 days	Fri 29/6/07	Thu 12/7/07	21
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
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
930	**8. Portion 5B**	**585 days**	**Tue 16/10/07**	**Fri 22/5/09**	
931	8.1 Tree survey	14 days	Tue 16/10/07	Mon 29/10/07	22
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
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
936					
937	**G. Berthing Area**	**148 days**	**Wed 12/9/07**	**Wed 6/2/08**	
938	**1. Construction of Loading Facilities**	**27 days**	**Wed 12/9/07**	**Mon 8/10/07**	**162**
939	**2. Removal of Loading Facilities**	**2 days**	**Tue 29/1/08**	**Wed 30/1/08**	**750,73**
940	**3. Reinstatement of Berthing Area**	**7 days**	**Thu 31/1/08**	**Wed 6/2/08**	**939**



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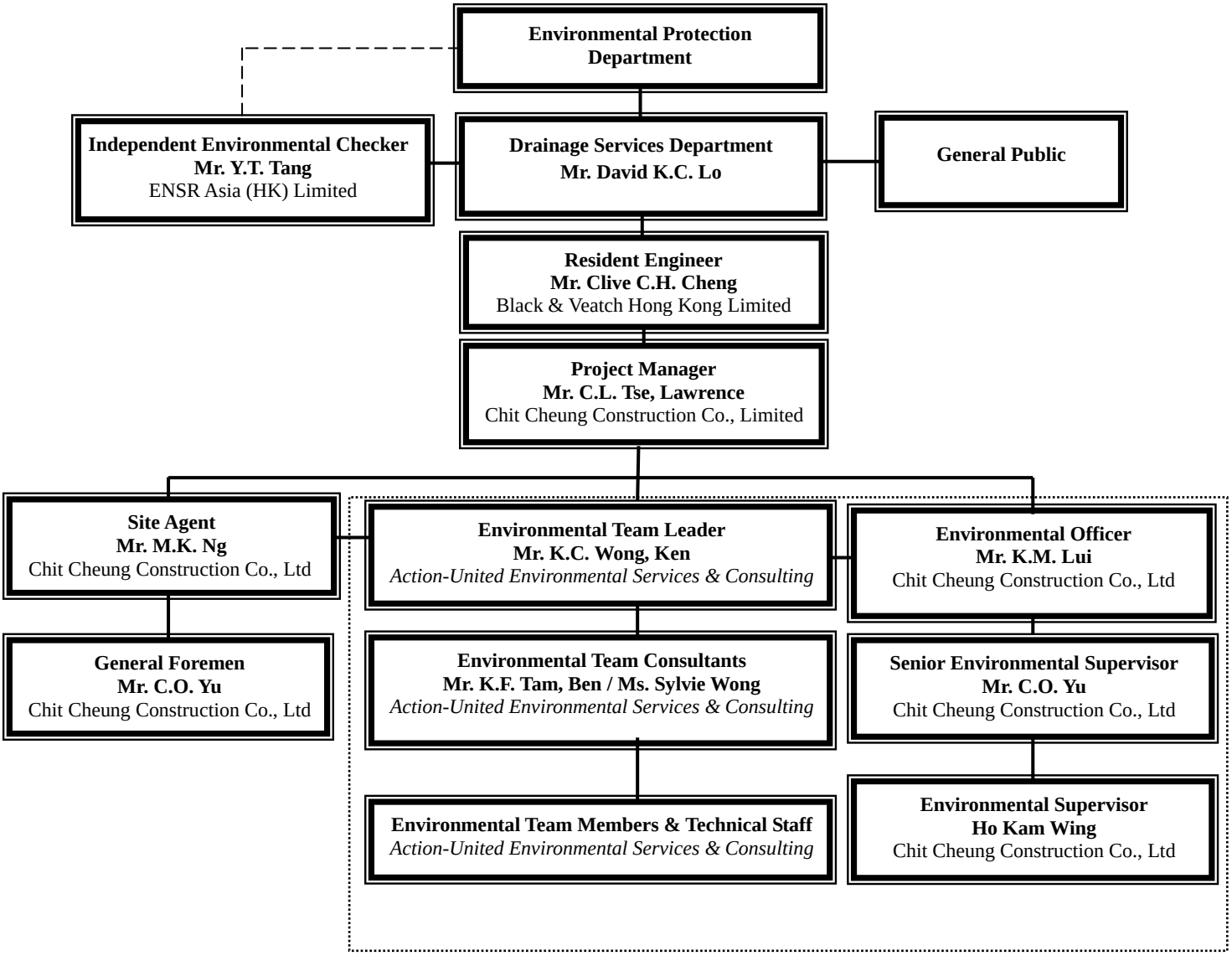
Appendix C

Environmental Organization Structure

Environmental Organization Structure



Contractor's Environmental Team (CET)

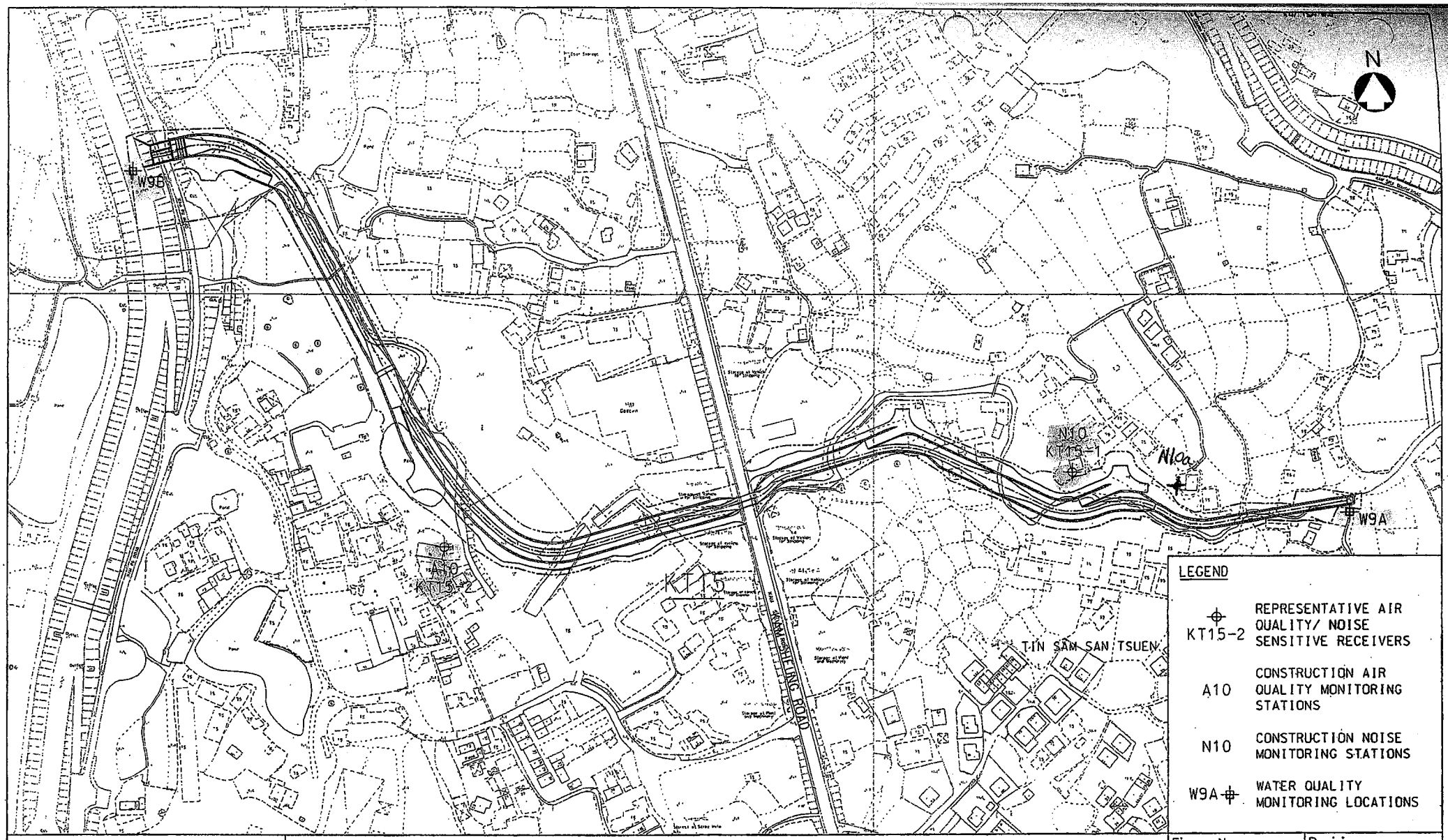
Contact Details of Key Personnel

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	Environmental Team Supervisor	Ben Tam	2959-6059	2959-6079
AUES	Environmental Consultant	Ben Tam/Sylvie Wong	2959-6059	2959-6079
AUES	Ecologist	Vincent Lai	9406-9784	2959-6079
AUES	Decontamination Specialist	FN Wong	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



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

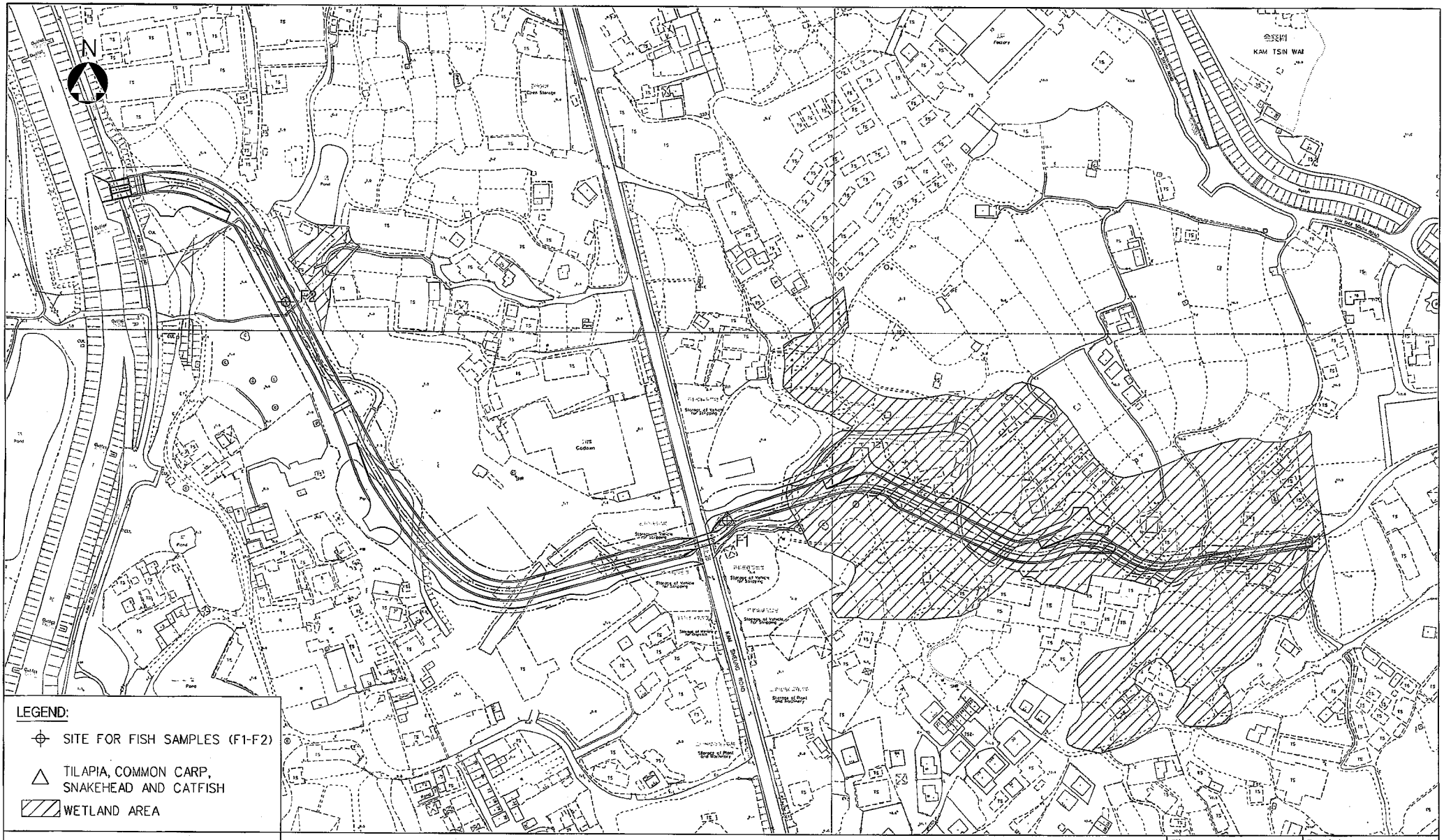
BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Title :

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

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

...\env study\3820470201-137.dgn Aug. 24, 2005 09:01:07



LEGEND:

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

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

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

Title :

ECOLOGICAL MONITORING AREA KT15

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

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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**
ACTION LEVEL				
1. Exeedance for one sample	1. Identify source 2. Inform IEC and Engineer 3. Repeat measurement to confirm finding 4. Increase monitoring frequency to daily	1. Check monitoring data submitted by ET 2. Check Contractor's working method	Notify Contractor	1. Rectify any unacceptable practice 2. Amend working methods if appropriate
2. Exeedance for two or more consecutive samples	1. Identify source 2. Inform IEC and Engineer 3. Repeat measurements to confirm findings 4. Increase monitoring frequency to daily 5. Discuss with IEC and Contractor on remedial actions required 6. If exceedance continues, arrange meeting with IEC and Engineer 7. 7. If exceedance stops, cease additional monitoring	1. Check monitoring data submitted by ET 2. Check Contractor's working method 3. Discuss with ET and Contractor on possible remedial measures 4. Advice Engineer on the effectiveness of the proposed remedial measures 5. Supervise implementation of remedial measures	1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Ensure remedial measures properly implemented	1. Submit proposals for remedial actions to IEC within 3 working days of notification 2. Implement the agreed proposals 3. Amend proposal if appropriate
LIMIT LEVEL				
1. Exeedance for one sample	1. Identify source 2. Inform Engineer and EPD 3. Repeat measurement to confirm finding 4. Increase monitoring frequency to daily 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and Engineer informed of the results	1. Check monitoring data submitted by ET 2. Check Contractor's working method 3. Discuss with ET and Contractor on possible remedial measures 4. Advice Engineer on the effectiveness of the proposed remedial measures 5. Supervise implementation of remedial measures	1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Ensure remedial measures properly implemented	1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to IEC within 3 working days of notification 3. Implement the agreed proposals 4. Amend proposal if appropriate
2. Exceedance for two or more consecutive samples	1. Notify IEC, Engineer and EPD 2. Identify source 3. Repeat measurement to confirm findings 4. Increase monitoring frequency to daily 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented. 6. Arrange meeting with IEC and Engineer to discuss the remedial actions to be taken 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and Engineer informed of the results 8. If exceedance stops, cease additional monitoring	1. Discuss amongst Engineer, ET and Contractor on potential remedial actions 2. Review Contractor's remedial actions whether necessary to assure their effectiveness and advice the Engineer accordingly 3. Supervise implementation of remedial measures	1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. In consultation with the IEC, agree with the Contractor on the remedial measures to be implemented 4. Discuss amongst Environmental Team Leader and the Contractor potential remedial actions 5. Ensure remedial measures properly implemented 6. 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	1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to IEC within 3 working days of notification 3. Implement the agreed proposals 4. Resubmit proposals if problem still not under control 5. Stop the relevant portion of works as determined by the Engineer until the exceedance is abated

Event/Action Plan for Construction Noise

EVENT	ACTION			
	ET Leader	IEC	Engineer	Contractor
ACTION LEVEL	1. Notify Contractor and Engineer 2. Carry out investigation 3. Report the results of investigation to the IEC and Contractor 4. Discuss with the Contractor and formulate remedial measures 5. Increase monitoring frequency to check mitigation effectiveness	1. Review the analysed results submitted by ET 2. Review the proposed remedial measures by the Contractor and advice the Engineer accordingly 3. Supervise implementation of remedial measures	1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Require Contractor to propose remedial measures for the analysed noise problem 4. Ensure remedial measures properly implemented	1. Submit noise mitigation proposals for remedial actions to IEC 2. Implement the agreed proposals
LIMIT LEVEL	1. Notify IEC, Engineer, EPD and Contractor 2. Identify source 3. Repeat measurement to confirm findings 4. Increase monitoring frequency 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented 6. Inform IEC, Engineer and EPD the causes & actions taken for the exceedances 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and Engineer informed of the results 8. If exceedance stops, cease additional monitoring	1. Discuss amongst Engineer, ET and Contractor on potential remedial actions 2. Review Contractor's remedial actions whether necessary to assure their effectiveness and advice the Engineer accordingly 3. Supervise implementation of remedial measures	1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Require Contractor to propose remedial measures for the analysed noise problem 4. Ensure remedial measures properly implemented 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	1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to IEC within 3 working days of notification 3. Implement the agreed proposals 4. Resubmit proposals if problem still not under control 5. Stop the relevant portion of works as determined by the Engineer until the exceedance is abated

Event and Action Plan for Stream Water Quality

Event	ET Leader	IEC	Engineer	Contractor
ACTION LEVEL (being exceeded by one sampling day)	1. Repeat in-situ measurement to confirm findings 2. Identify source(s) of impact 3. Inform IEC and Contractor 4. Check monitoring data, all plant, equipment and Contractor's working methods 5. Discuss mitigation measures IEC and Contractor 6. Repeat measurement on next day of exceedance	1. Discuss with ET and Contractor on the mitigation measures 2. Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly 3. Assess the effectiveness of the implemented mitigation measures	1. Discuss with IEC on the proposed mitigation measures 2. Make agreement on the mitigation measures to be implemented	1. Inform Engineer and confirm notification of the non-compliance in writing 2. Rectify unacceptable practice 3. Check all plant and equipment 4. Consider changes of working methods 5. Discuss with ET and Contractor and propose mitigation measures to IEC and Engineer 6. Implement the agreed mitigation measures
ACTION LEVEL (being exceeded by more than one sampling day)	1. Repeat in-situ measurement to confirm findings 2. Identify source(s) of impact 3. Inform IEC, Contractor and EPD 4. Check monitoring data, all plant, equipment and Contractor's working methods 5. Discuss mitigation measures IEC, Engineer and Contractor 6. Repeat measurement on next day of exceedance 7. Ensure mitigation measures are implemented 8. Prepare to increase the monitoring frequency to daily 9. Repeat measurement on next day of exceedance	1. Discuss with ET and Contractor on the mitigation measures 2. Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly 3. Assess the effectiveness of the implemented mitigation measures	1. Discuss with IEC on the proposed mitigation measures 2. Make agreement on the mitigation measures to be implemented 3. Assess the effectiveness of the implemented mitigation measures	1. Inform Engineer and confirm notification of the non-compliance in writing 2. Rectify unacceptable practice 3. Check all plant and equipment 4. Consider changes of working methods 5. Discuss with ET and IEC and propose mitigation measures to IEC and Engineer within 3 working days 6. Implement the agreed mitigation measures
LIMIT LEVEL (being exceeded by one sampling days)	1. Repeat in-situ measurement to confirm findings 2. Identify source(s) of impact 3. Inform IEC, Contractor and EPD 4. Check monitoring data, all plant, equipment and Contractor's working methods 5. Discuss mitigation measures IEC, Engineer and Contractor 6. Ensure mitigation measures are implemented 7. Increase the monitoring frequency to daily until no exceedance of Limit level	1. Discuss with ET and Contractor on the mitigation measures 2. Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly 3. Assess the effectiveness of the implemented mitigation measures	1. Discuss with IEC, ET and Contractor on the proposed mitigation measures 2. Request Contractor to critically review the working methods 3. Make agreement on the mitigation measures to be implemented 4. Assess the effectiveness of the implemented mitigation measures	1. Inform Engineer and confirm notification of the non-compliance in writing 2. Rectify unacceptable practice 3. Check all plant and equipment 4. Consider changes of working methods 5. Discuss with ET, IEC and Engineer and propose mitigation measures to IEC and Engineer within 3 working days 6. Implement the agreed mitigation measures
LIMIT LEVEL (being exceeded by more than one sampling days)	1. Repeat in-situ measurement to confirm findings; 2. Identify source(s) of impact; 3. Inform Contractor, Engineer, IEC and EPD; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC, Engineer and Contractor; 6. Ensure mitigation measures are implemented; 7. Increase the monitoring frequency to daily until no exceedance of Limit level	1. Discuss with ET and Contractor on the mitigation measures 2. Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly 3. Assess the effectiveness of the implemented mitigation measures	1. Discuss with IEC, ET and Contractor on the proposed mitigation measures 2. Request Contractor to critically review the working methods 3. Make agreement on the mitigation measures to be implemented 4. Assess the effectiveness of the implemented mitigation measures 5. 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	1. Inform Engineer and confirm notification of the non-compliance in writing 2. Rectify unacceptable practice 3. Check all plant and equipment 4. Consider changes of working methods 5. Discuss with ET, IEC and Engineer and propose mitigation measures to IEC and Engineer within 3 working days Propose mitigation measures to Engineer within 3 working days 6. Implement the agreed mitigation measures; 7. As directed by Engineer, to slow down or to stop all or part of the construction activities

Event/Action Plan for Ecology

Event	ET Leader	IEC	Engineer	Contractor
Fauna The total number of species or individuals of the surveyed wetland dependent faunal groups is reduced by 20-40% from baseline	• Notify IEC and Contractor; • Check the position and state of the current works to identify the causes; • Discuss mitigation measures with IEC and Contractor	• Discuss with ET and Contractor on the mitigation measures • Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly • Assess the effectiveness of the implemented mitigation measures	• Discuss with IEC on the proposed mitigation measures; • Reach agreement on the mitigation measures to be implemented	• Inform Engineer and confirm notification of the non-compliance in writing • Take immediate action to avoid further exceedances; • Check all plant and equipment and working methods, especially noise emanating ones • Discuss with ET and IEC and propose mitigation measures to IEC and Engineer • Implement the agreed mitigation measures

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

Items	Aspect	Description of Equipment	Date of Calibration	Date of Next Calibration
1*	Air	Greasby Anderson GMWS2310 High Volume Sampler	07 Mar 08	07 May 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	12 Jan 08	12 Apr 08
7		Hanna HI 98128	15 Jan 08	15 Apr 08
8		Hach 2100p	11 Jan 08	11 Apr 08
9		ATAGO Refractometer	11 Jan 08	11 Apr 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
Location ID : A10

Date of Calibration: 7-Mar-08
Next Calibration Date: 7-May-08
Technician: Mr. Ben Tam

CONDITIONS

Sea Level Pressure (hPa)	1020.8	Corrected Pressure (mm Hg)	765.6
Temperature (^{o}C)	19.1	Temperature (K)	292

CALIBRATION ORIFICE

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

CALIBRATION

Plate No.	H20 (L) (in)	H2O (R) (in)	H20 (in)	Qstd (m3/min)	I (chart)	IC corrected
18	4.4	4.4	8.8	1.542	52	53.25
13	3.2	3.2	6.4	1.315	43	44.03
10	2.4	2.4	4.8	1.139	35	35.84
7	1.5	1.5	3	0.900	24	24.57
5	1.1	1.1	2.2	0.771	16	16.38

LINEAR REGRESSION

Slope = 47.3563
Intercept = -18.8547
Corr. coeff. = 0.9977

Calculations :

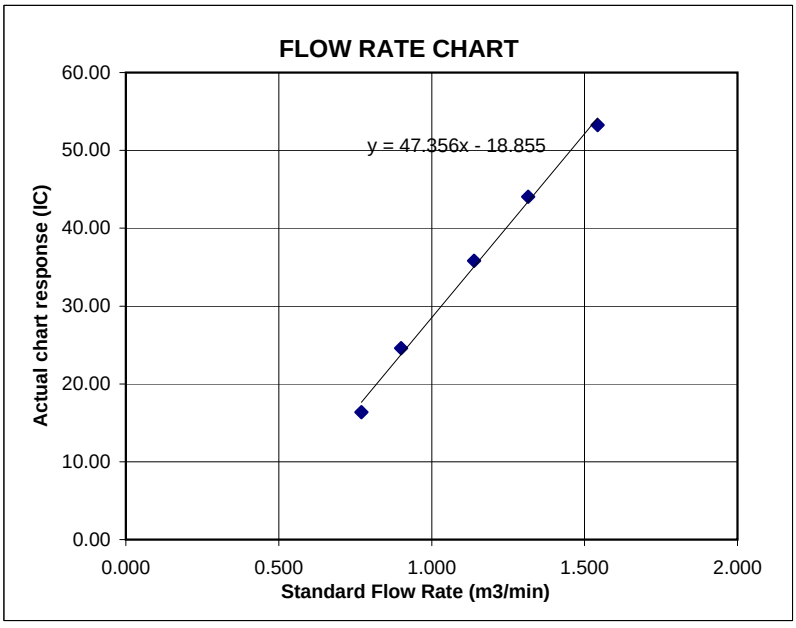
Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b]
IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

Qstd = standard flow rate
IC = corrected chart respones
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)[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

AUES

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^3 (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)

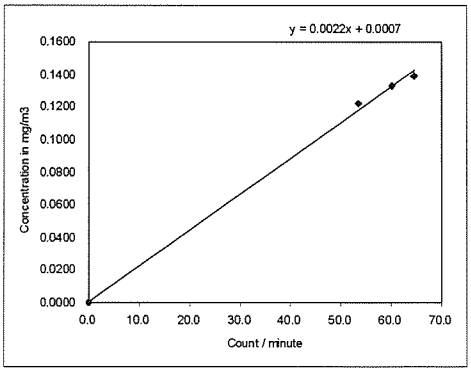
Sensitivity Adjustment Scale Setting (After Calibration) 722 (CPM)

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 : Date : 25 June 2007

QC Reviewer : Kenneth Wong Signature : Date : 25 June 2007

Equipment Calibration Record

AUES

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^3 (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)

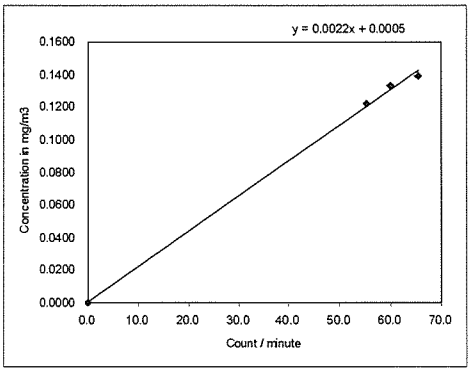
Sensitivity Adjustment Scale Setting (After Calibration) 709 (CPM)

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 : Date : 25 June 2007

QC Reviewer : Kan Wong 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*

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

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: HK0800538
Date of Issue: 14/01/2008
Client: ACTION UNITED ENVIRO SERVICES
Client Reference:

Calibration of DO System

Item : YSI Multimeter

Model No. : YSI 550A

Serial No. : 05F2063AZ

Equipment No. : --

Calibration Method : This meter was calibrated in accordance with standard method APHA (18th Ed.) 4500-0C & G

Date of Calibration : 12 January, 2008

Testing Results :

Expected Reading	Recording Reading
0.00 mg/L	0.00 mg/L
3.22 mg/L	3.25 mg/L
5.45 mg/L	5.38 mg/L
8.83 mg/L	8.64 mg/L
Allowing Deviation	±0.2 mg/L

Ms Wong Wai Man, Alice
Laboratory Manager - Hong Kong

CERTIFICATE OF ANALYSIS

Batch: HK0800542
Date of Issue: 15/01/2008
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

Date of Calibration : 15 January, 2008

Testing Results :

Expected Reading	Recording Reading
4.00	4.1
7.00	7.0
10.0	10.2
Allowing Deviation	± 0.2

Ms Wong Wai Man, Alice
Laboratory Manager - Hong Kong

CERTIFICATE OF ANALYSIS

Batch: HK0800539
Date of Issue: 14/01/2008
Client: ACTION UNITED ENVIRO SERVICES
Client Reference:

Calibration of Tubidimeter

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 : 11 January, 2008

Testing Results :

Expected Reading	Recording Reading
0.0 NTU	0.1 NTU
4.0 NTU	3.8 NTU
16.0 NTU	17.1 NTU
40.0 NTU	38.8 NTU
80.0 NTU	83.8 NTU
Allowing Deviation	±10%

Ms Wong Wai Man, Alice
Laboratory Manager - Hong Kong

CERTIFICATE OF ANALYSIS

Batch: HK0800541
Date of Issue: 14/01/2008
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 : 11 January, 2008

Testing Results :

Expected Reading	Recording Reading
10 g/L 20 g/L 30 g/L	10 g/L 20 g/L 30 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-Feb-08	Tue					
27-Feb-08	Wed		■			
28-Feb-08	Thu	■		■	■	
29-Feb-08	Fri					
1-Mar-08	Sat					
2-Mar-08	Sun					
3-Mar-08	Mon					
4-Mar-08	Tue		■			
5-Mar-08	Wed	■		■	■	
6-Mar-08	Thu					
7-Mar-08	Fri				■	
8-Mar-08	Sat					■
9-Mar-08	Sun					
10-Mar-08	Mon		■			
11-Mar-08	Tue	■		■	■	
12-Mar-08	Wed					
13-Mar-08	Thu				■	
14-Mar-08	Fri					
15-Mar-08	Sat		■			
16-Mar-08	Sun					
17-Mar-08	Mon	■		■	■	
18-Mar-08	Tue					
19-Mar-08	Wed				■	
20-Mar-08	Thu		■			
21-Mar-08	Fri					
22-Mar-08	Sat					
23-Mar-08	Sun					
24-Mar-08	Mon					
25-Mar-08	Tue	■		■	■	

■	Monitoring Day
	Sunday or Public Holiday

Impact Monitoring Schedules in the Next Reporting Period

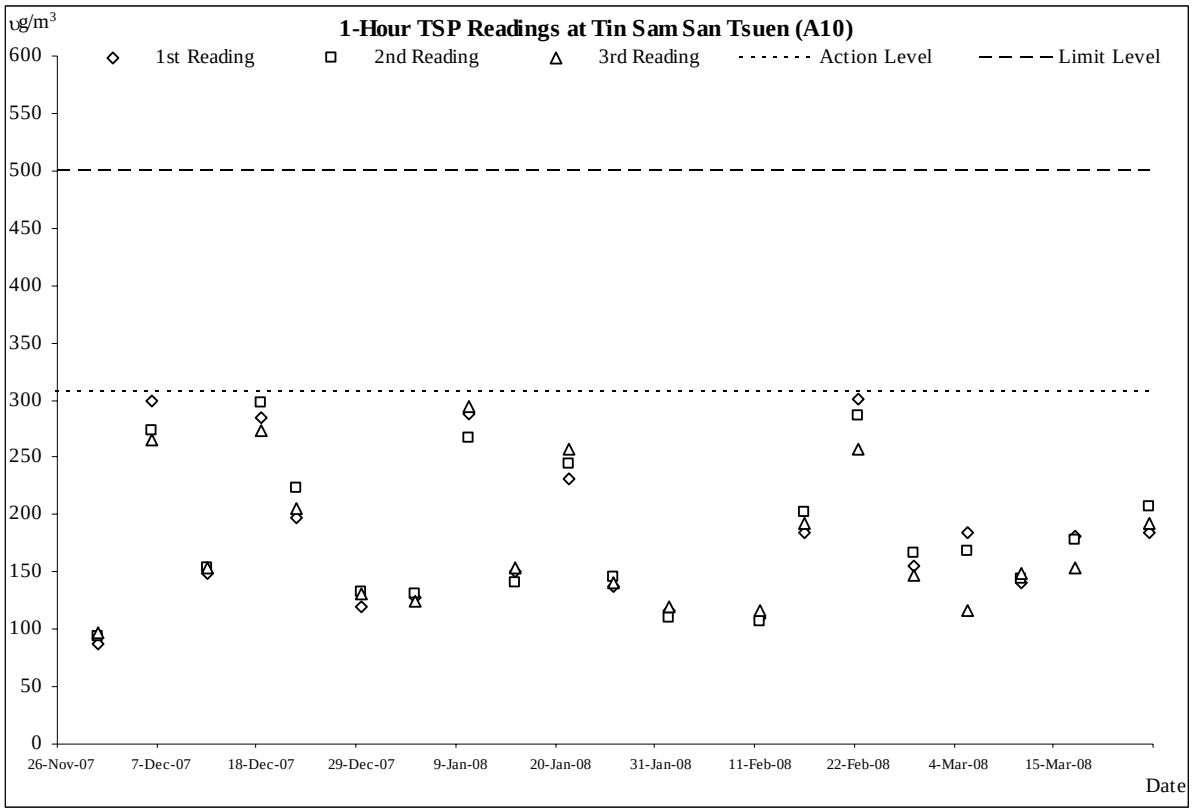
Date		Air Quality		Noise Leq 30min	Stream Water Quality	Ecology Surveys
		1-Hour TSP	24-Hour TSP			
26-Mar-08	Wed		■			
27-Mar-08	Thu				■	
28-Mar-08	Fri					
29-Mar-08	Sat		■			
30-Mar-08	Sun					
31-Mar-08	Mon	■	■	■	■	
1-Apr -08	Tue					
2-Apr -08	Wed				■	
3-Apr -08	Thu					
4-Apr -08	Fri					
5-Apr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

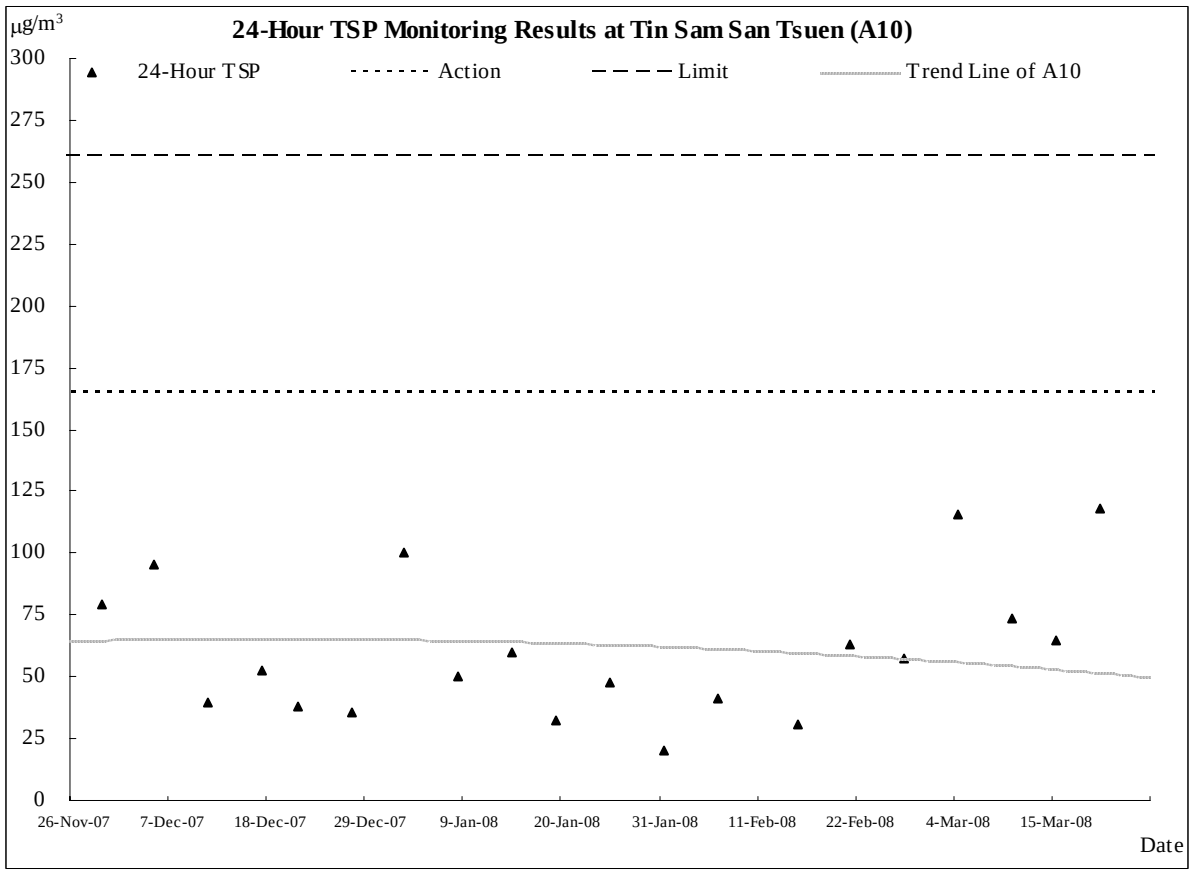
■	Monitoring Day
■	Sunday or Public Holiday

Appendix H

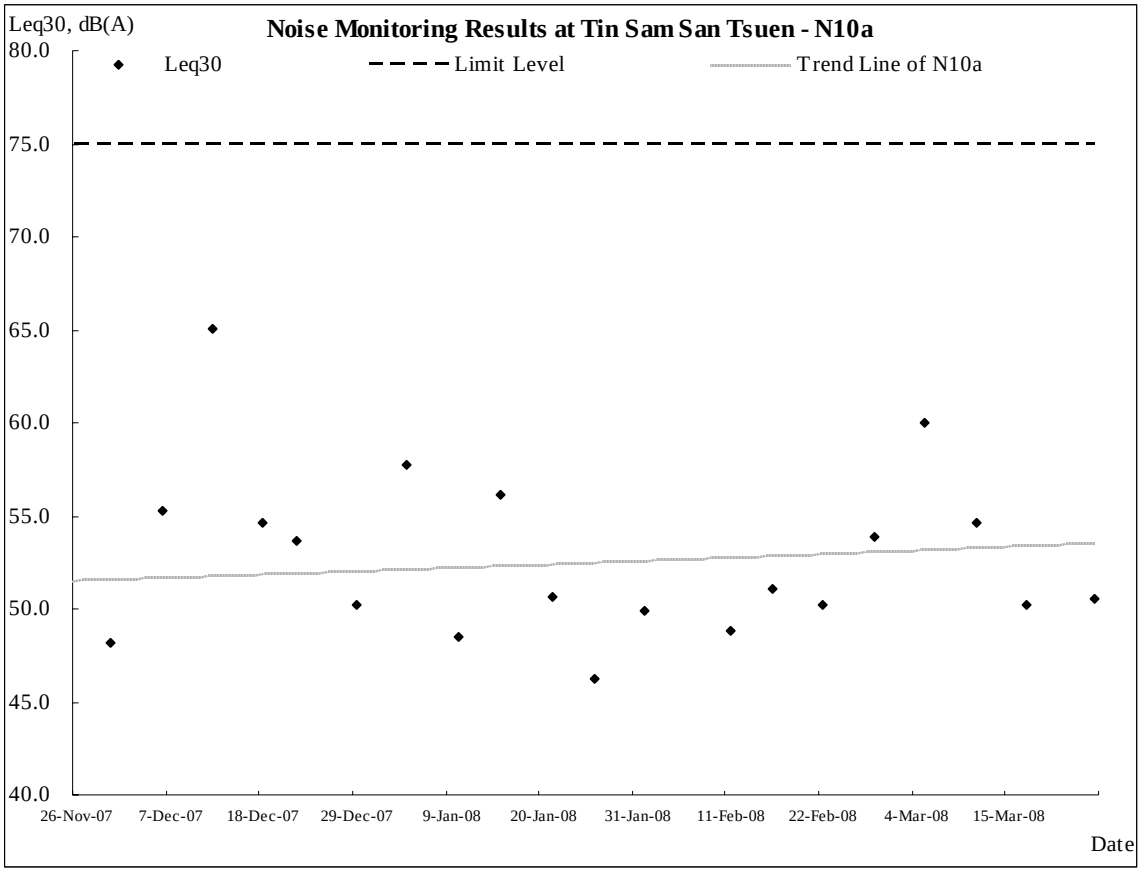
Graphical Plots of Air Quality, Construction Noise and Stream Water Quality Monitoring Results

Air Quality

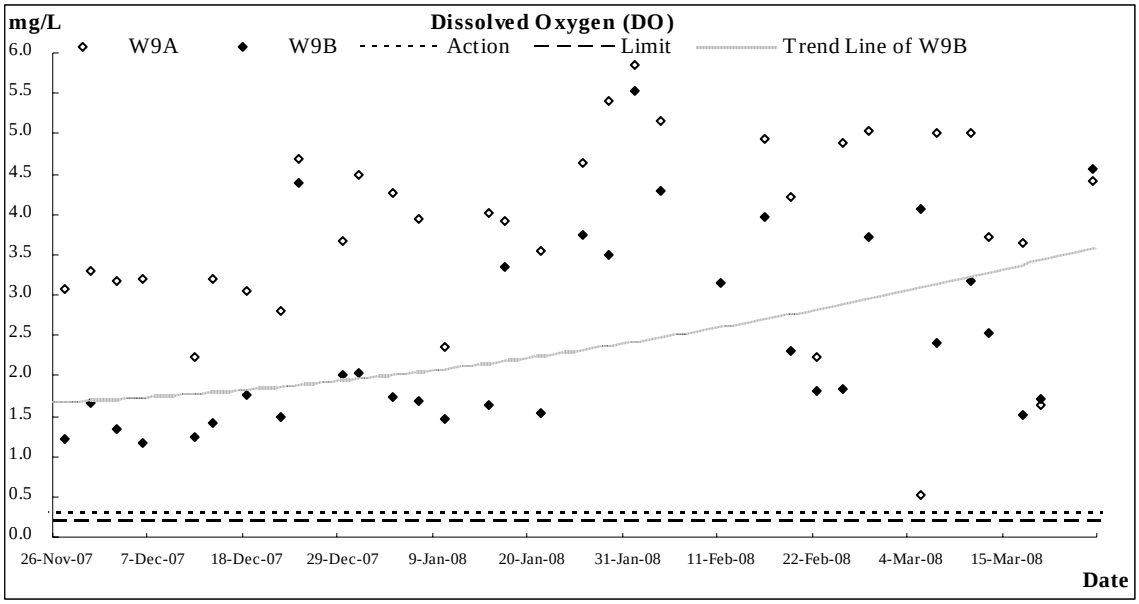

1-Hour TSP Readings at Tin Sam San Tsuen (A10)
μg/m3
1st Reading
2nd Reading
3rd Reading
Action Level
Limit Level
600
550
500
450
400
350
300
250
200
150
100
50
0
26-Nov-07
7-Dec-07
18-Dec-07
29-Dec-07
9-Jan-08
20-Jan-08
31-Jan-08
11-Feb-08
22-Feb-08
4-Mar-08
15-Mar-08
Date

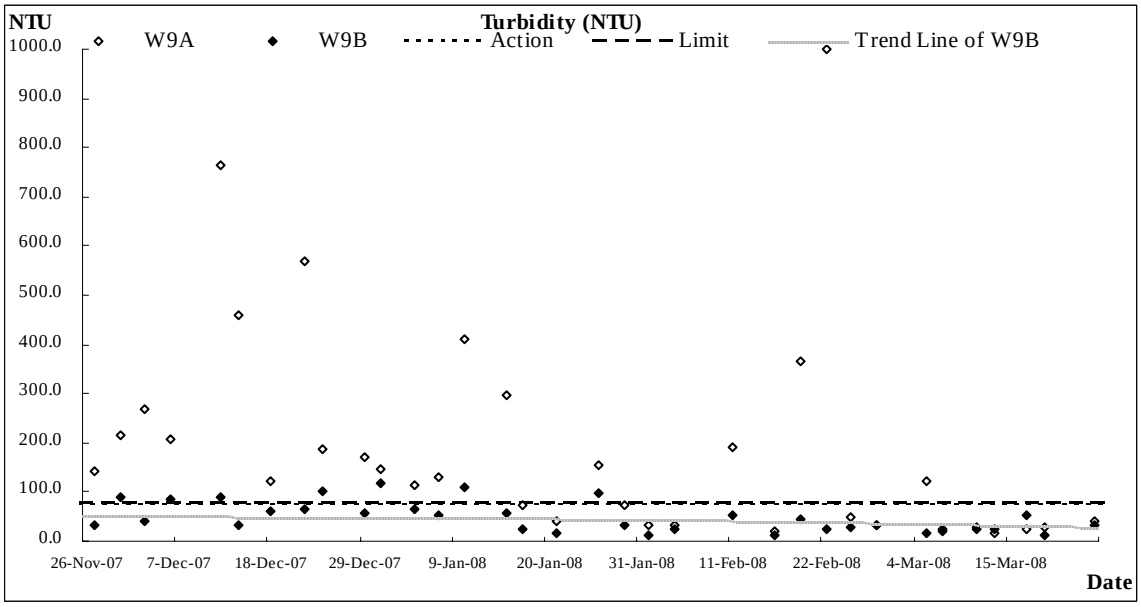

24-Hour TSP Monitoring Results at Tin Sam San Tsuen (A10)
μg/m3
24-Hour TSP
Action
Limit
Trend Line of A10
300
275
250
225
200
175
150
125
100
75
50
25
0
26-Nov-07
7-Dec-07
18-Dec-07
29-Dec-07
9-Jan-08
20-Jan-08
31-Jan-08
11-Feb-08
22-Feb-08
4-Mar-08
15-Mar-08
Date

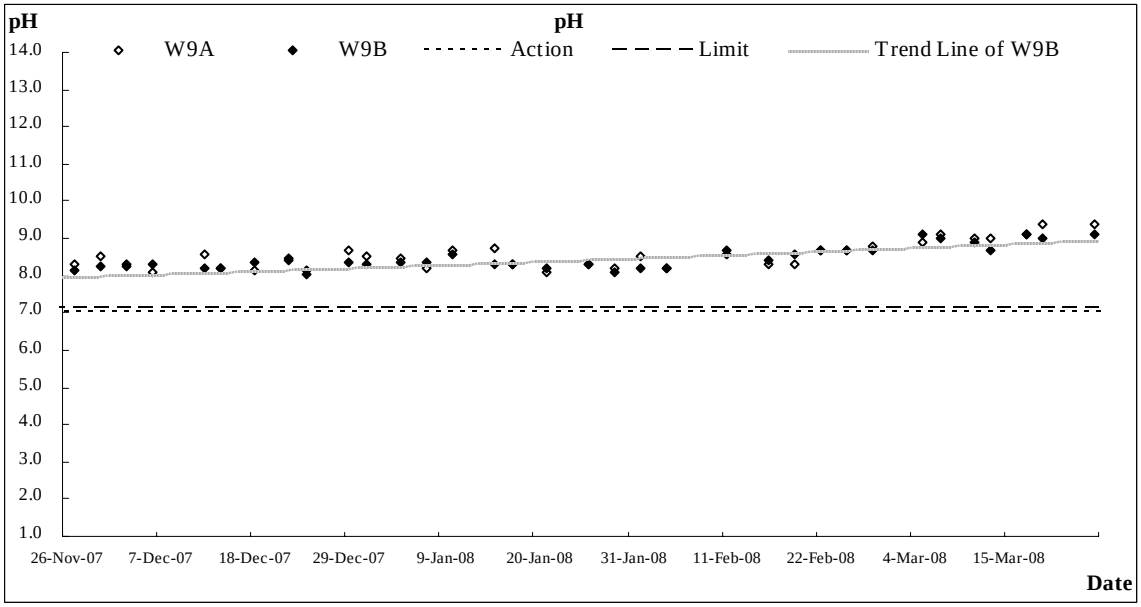
Construction Noise

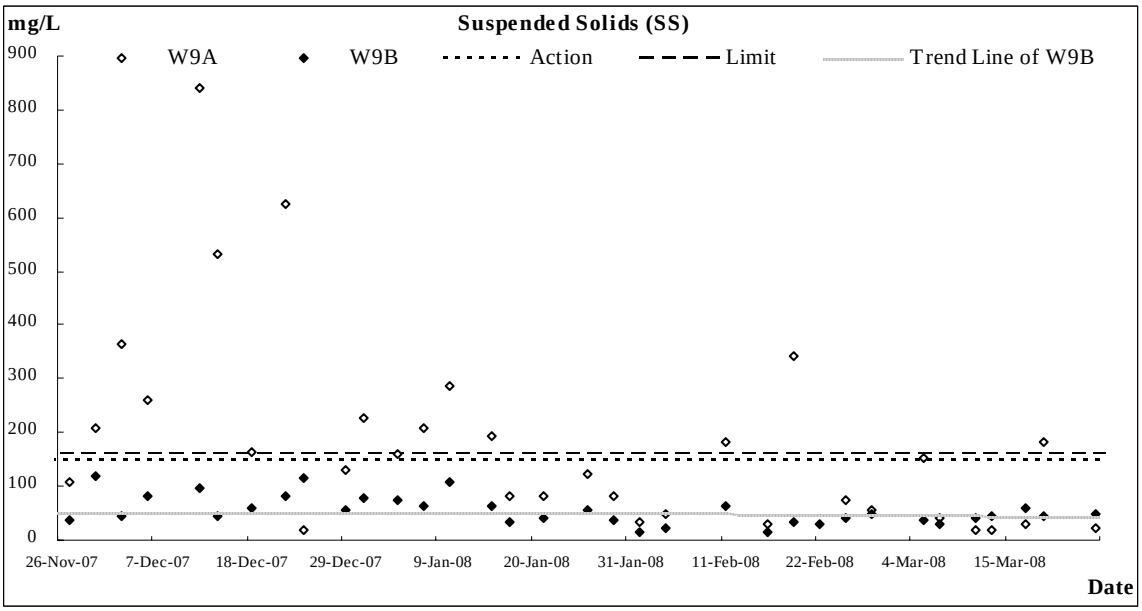


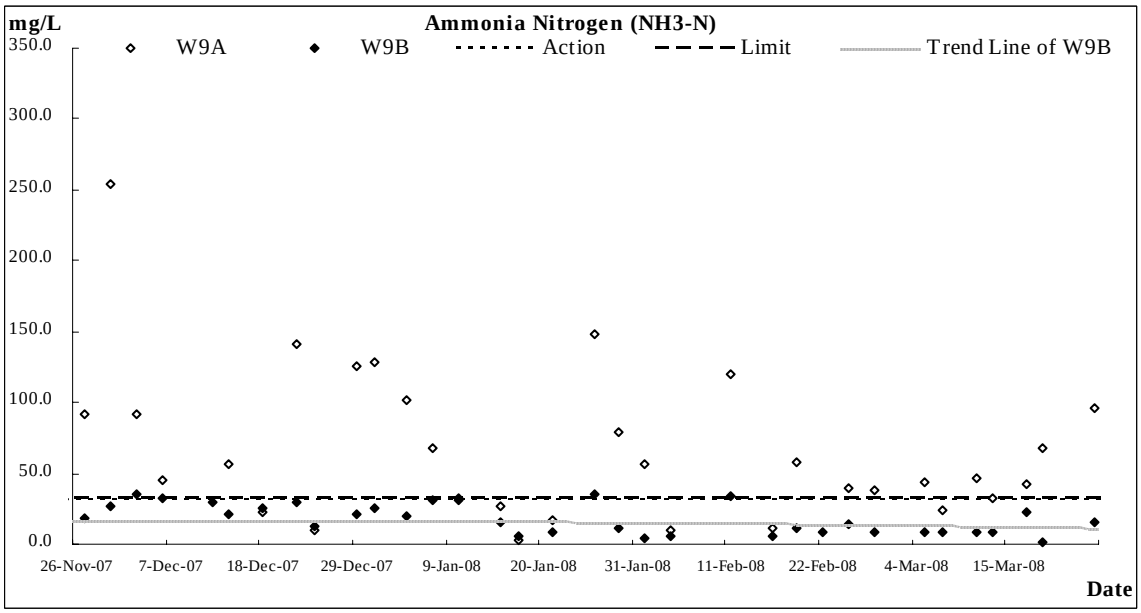
Stream Water Quality

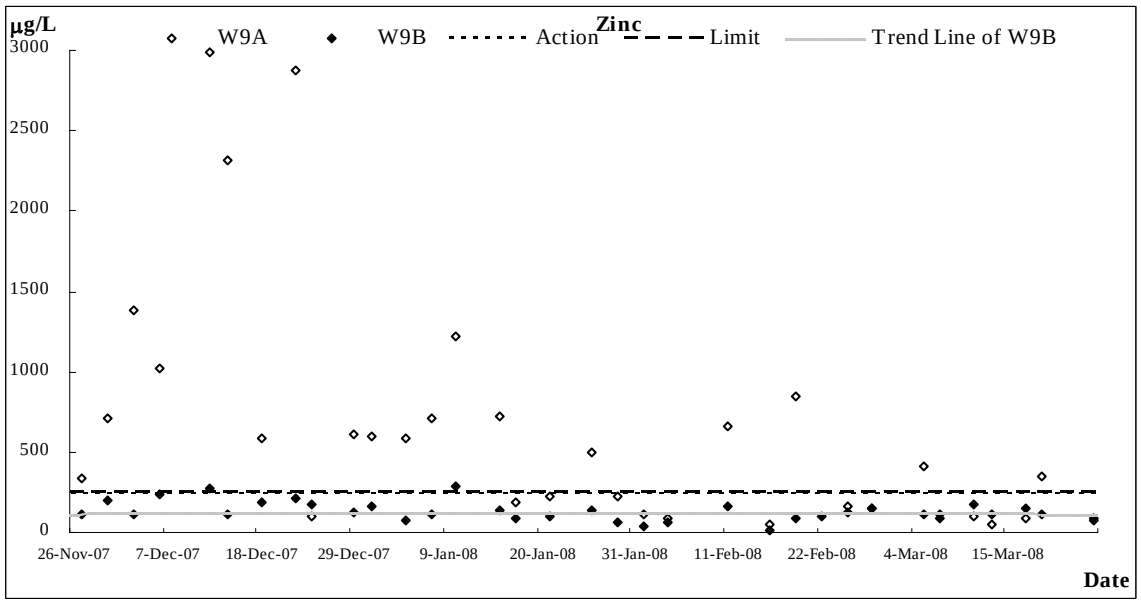







Suspended Solids (SS)
mg/L
W9A
W9B
Action
Limit
Trend Line of W9B
900
800
700
600
500
400
300
200
100
0
26-Nov-07
7-Dec-07
18-Dec-07
29-Dec-07
9-Jan-08
20-Jan-08
31-Jan-08
11-Feb-08
22-Feb-08
4-Mar-08
15-Mar-08
Date


Ammonia Nitrogen (NH3-N)
mg/L
W9A
W9B
Action
Limit
Trend Line of W9B
350.0
300.0
250.0
200.0
150.0
100.0
50.0
0.0
26-Nov-07
7-Dec-07
18-Dec-07
29-Dec-07
9-Jan-08
20-Jan-08
31-Jan-08
11-Feb-08
22-Feb-08
4-Mar-08
15-Mar-08
Date


Zinc
µg/L
W9A
W9B
Action
Limit
Trend Line of W9B
3000
2500
2000
1500
1000
500
0
26-Nov-07
7-Dec-07
18-Dec-07
29-Dec-07
9-Jan-08
20-Jan-08
31-Jan-08
11-Feb-08
22-Feb-08
4-Mar-08
15-Mar-08
Date

Date	28-Feb-08																			
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DOS (%)**		**Turbidity (NTU)**		**Salinity**		**pH**		**SS**	**NH3-N**	**Zinc**
W9A	11:15	0.09	15.6	15.6	5.04	5.03	51.0	50.8	31.8	32.2	0	0.0	8.80	8.80	56.0	38.5	148.0
			15.6		5.01		50.5		32.5		0		8.80				
W9B	11:30	0.31	18.3	18.3	3.73	3.72	39.9	39.7	30.8	30.7	0	0.0	8.70	8.70	49.0	8.5	145.0
			18.3		3.7		39.5		30.5		0		8.70				

Date	5-Mar-08																			
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DOS (%)**		**Turbidity (NTU)**		**Salinity**		**pH**		**SS**	**NH3-N**	**Zinc**
W9A	11:43	0.10	23.5	23.5	0.56	0.52	7.0	6.5	125.0	120.5	0	0.0	8.90	8.90	154.0	43.7	416.0
			23.5		0.48		5.9		116.0		0		8.90				
W9B	11:59	0.33	23.5	23.5	4.1	4.08	48.4	47.9	16.1	15.5	0	0.0	9.10	9.10	39.0	8.5	117.0
			23.5		4.05		47.3		14.9		0		9.10				

Date	7-Mar-08																			
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DOS (%)**		**Turbidity (NTU)**		**Salinity**		**pH**		**SS**	**NH3-N**	**Zinc**
W9A	11:35	0.07	20.1	20.1	5.03	5.02	55.8	55.6	23.3	23.7	0	0.0	9.10	9.10	42.0	24.1	106.0
			20.1		5.01		55.4		24.1		0		9.10				
W9B	11:47	0.23	22.4	22.4	2.41	2.40	28.3	28.0	19.5	19.6	0	0.0	9.00	9.00	29.0	7.9	87.0
			22.3		2.38		27.6		19.6		0		9.00				

Date	11-Mar-08																			
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DOS (%)**		**Turbidity (NTU)**		**Salinity**		**pH**		**SS**	**NH3-N**	**Zinc**
W9A	11:00	0.08	19.4	19.4	5.02	5.01	55.7	55.5	28.0	27.6	0	0.0	9.00	9.00	19.0	46.4	98.0
			19.3		5		55.2		27.2		0		9.00				
W9B	11:08	0.28	21.2	21.2	3.19	3.18	35.9	35.8	23.2	22.9	0	0.0	8.90	8.90	40.0	8.6	174.0
			21.1		3.17		35.7		22.6		0		8.90				

Date	13-Mar-08																			
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DOS (%)**		**Turbidity (NTU)**		**Salinity**		**pH**		**SS**	**NH3-N**	**Zinc**
W9A	10:12	0.12	19.7	19.7	3.76	3.73	40.9	40.6	17.2	17.3	0	0.0	9.00	9.00	18.0	32.0	44.0
			19.7		3.69		40.3		17.4		0		9.00				
W9B	10:00	0.31	21.2	21.3	2.54	2.52	28.6	28.4	26.4	25.6	0	0.0	8.70	8.70	44.0	8.0	111.0
			21.3		2.5		28.2		24.8		0		8.70				

Date	17-Mar-08																			
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DOS (%)**		**Turbidity (NTU)**		**Salinity**		**pH**		**SS**	**NH3-N**	**Zinc**
W9A	10:12	0.11	21.7	21.7	3.65	3.64	41.6	41.2	24.4	25.7	0	0.0	9.10	9.10	28.0	42.0	92.0
			21.6		3.62		40.8		26.9		0		9.10				
W9B	10:34	0.26	23.2	23.2	1.53	1.52	18.2	18.0	54.5	54.1	0	0.0	9.10	9.10	60.0	22.1	152.0
			23.2		1.5		17.7		53.6		0		9.10				

Date	19-Mar-08																			
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DOS (%)**		**Turbidity (NTU)**		**Salinity**		**pH**		**SS**	**NH3-N**	**Zinc**
W9A	10:38	0.08	25.3	25.4	1.66	1.65	20.2	20.0	33.7	30.1	0	0.0	9.40	9.40	182.0	67.8	354.0
			25.4		1.63		19.8		26.4		0		9.40				
W9B	11:00	0.33	25.9	26.0	1.74	1.72	21.5	21.2	13.2	13.2	0	0.0	9.00	9.00	43.0	1.0	114.0
			26.0		1.7		20.9		13.1		0		9.00				

Date	25-Mar-08																			
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DOS (%)**		**Turbidity (NTU)**		**Salinity**		**pH**		**SS**	**NH3-N**	**Zinc**
W9A	11:30	0.21	19.4	19.4	4.44	4.41	49.6	48.4	39.7	39.7	0	0.0	9.40	9.40	21.0	95.9	75.0
			19.4		4.37		47.1		39.6		0		9.40				
W9B	14:00	0.25	21.5	21.5	4.56	4.55	50.5	50.2	31.5	31.0	0	0.0	9.10	9.10	49.0	15.2	82.0
			21.5		4.54		49.9		30.4		0		9.10				

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 (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 605763)								
HK0803190-001	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	1800	1850	3.1
HK0803258-001	Anonymous	EA025: Suspended Solids (SS)	----	3	mg/L	190	186	2.1
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 605749)								
HK0803268-005	W9B - 1 & 2 MIX	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	8.54	8.41	1.5
HK0803291-009	Anonymous	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	0.26	0.25	3.9
EG: Metals and Major Cations (QC Lot: 605582)								
HK0803141-002	Anonymous	EG020: Zinc	7440-66-6	10	µg/L	<10	<10	0.0
HK0803149-004	Anonymous	EG020: Zinc	7440-66-6	10	µg/L	<10	<10	0.0
EG: Metals and Major Cations (QC Lot: 605589)								
HK0803268-005	W9B - 1 & 2 MIX	EG020: Zinc	7440-66-6	10	µg/L	145	144	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						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	SCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 605763)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	96.5	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 605749)											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	99.5	----	85	115	----	----
EG: Metals and Major Cations (QCLot: 605582)											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	87.2	----	85	115	----	----
EG: Metals and Major Cations (QCLot: 605589)											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	88.7	----	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						
				Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Concentration	MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 605749)										
HK0803233-021	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QCLot: 605582)										
HK0803141-001	Anonymous	EG020: Zinc	7440-66-6	100 µg/L	77.5	----	75	125	----	----
EG: Metals and Major Cations (QCLot: 605589)										
HK0803268-004	W9A - 1 & 2 MIX	EG020: Zinc	7440-66-6	100 µg/L	84.4	----	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 (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 612420)								
HK0803549-010	Anonymous	EA025: Suspended Solids (SS)	----	3	mg/L	92	89	2.3
HK0803711-004	W9A 1 & 2 MIX	EA025: Suspended Solids (SS)	----	2	mg/L	154	150	3.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 611062)								
HK0803711-005	W9B 1 & 2 MIX	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	8.49	8.61	1.4
EG: Metals and Major Cations (QC Lot: 611532)								
HK0803711-002	W1B 1 & 2 MIX	EG020: Zinc	7440-66-6	10	µg/L	49	55	13.1

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						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	SCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 612420)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	95.0	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 611062)											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	99.8	----	85	115	----	----
EG: Metals and Major Cations (QCLot: 611532)											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	91.5	----	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						
				Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Concentration	MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 611062)										
HK0803672-019	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QCLot: 611532)										
HK0803711-001	W1A 1 & 2 MIX	EG020: Zinc	7440-66-6	100 µg/L	89.7	----	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 (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 613434)								
HK0803762-001	W1A -1&2 MIX	EA025: Suspended Solids (SS)	----	2	mg/L	23	21	7.4
HK0803924-004	Anonymous	EA025: Suspended Solids (SS)	----	3	mg/L	13	13	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 612995)								
HK0803779-020	Anonymous	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	0.09	0.08	11.8
HK0803779-046	Anonymous	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	0.09	0.09	0.0
EG: Metals and Major Cations (QC Lot: 613412)								
HK0803762-002	W1B -1&2 MIX	EG020: Zinc	7440-66-6	10	µg/L	39	36	8.6

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						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	SCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 613434)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	107	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 612995)											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	103	----	85	115	----	----
EG: Metals and Major Cations (QCLot: 613412)											
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						
				Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Concentration	MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 612995)										
HK0803725-021	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	88.0	----	75	125	----	----
EG: Metals and Major Cations (QCLot: 613412)										
HK0803762-001	W1A -1&2 MIX	EG020: Zinc	7440-66-6	100 µg/L	80.9	----	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 (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 615602)								
HK0803880-001	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.0
HK0803981-001	W1A - 1 & 2 MIX	EA025: Suspended Solids (SS)	----	2	mg/L	16	16	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 615192)								
HK0803917-008	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	126	135	6.9
HK0803981-005	W9B - 1 & 2 MIX	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	8.61	8.27	4.0
EG: Metals and Major Cations (QC Lot: 614586)								
HK0803981-002	W1B - 1 & 2 MIX	EG020: Zinc	7440-66-6	10	µg/L	31	30	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						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	SCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 615602)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	103	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 615192)											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	96.5	----	85	115	----	----
EG: Metals and Major Cations (QCLot: 614586)											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	89.3	----	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						
				Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Concentration	MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 615192)										
HK0803839-021	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QCLot: 614586)										
HK0803981-001	W1A - 1 & 2 MIX	EG020: Zinc	7440-66-6	100 µg/L	90.8	----	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 (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 616813)								
HK0804137-002	Anonymous	EA025: Suspended Solids (SS)	----	3	mg/L	298	279	6.7
HK0804163-001	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	121	137	12.5
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 616835)								
HK0804179-005	W9B - 1 & 2 MIX	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	7.99	8.10	1.4
EG: Metals and Major Cations (QC Lot: 616796)								
HK0804179-002	W1B - 1 & 2 MIX	EG020: Zinc	7440-66-6	10	µg/L	22	23	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						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	SCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 616813)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	100	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 616835)											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	98.8	----	85	115	----	----
EG: Metals and Major Cations (QCLot: 616796)											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	96.5	----	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						
				Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Concentration	MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 616835)										
HK0804171-019	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QCLot: 616796)										
HK0804179-001	W1A - 1 & 2 MIX	EG020: Zinc	7440-66-6	100 µg/L	91.6	----	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 (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 618679)								
HK0804285-001	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	3	3	0.0
HK0804301-001	Anonymous	EA025: Suspended Solids (SS)	----	3	mg/L	4	5	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 619148)								
HK0804306-003	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	<0.1	<0.1	0.0
HK0804344-009	Anonymous	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	0.63	0.69	9.1
EG: Metals and Major Cations (QC Lot: 618769)								
HK0804300-002	W1B - 1 & 2 MIX	EG020: Zinc	7440-66-6	10	µg/L	32	31	4.9

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						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	SCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 618679)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	97.0	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 619148)											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	94.6	----	85	115	----	----
EG: Metals and Major Cations (QCLot: 618769)											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	92.6	----	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						
				Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Concentration	MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 619148)										
HK0804312-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	98.0	----	75	125	----	----
EG: Metals and Major Cations (QCLot: 618769)										
HK0804300-001	W1A - 1 & 2 MIX	EG020: Zinc	7440-66-6	100 µg/L	89.4	----	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 (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 621735)								
HK0804485-001	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	68	65	5.4
HK0804568-004	W9A - 1 & 2 MIX	EA025: Suspended Solids (SS)	----	2	mg/L	182	191	5.1
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 623307)								
HK0804689-003	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	0.7	0.7	0.0
HK0804568-005	W9B - 1 & 2 MIX	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	1.02	0.98	4.0
EG: Metals and Major Cations (QC Lot: 621749)								
HK0804568-002	W1B - 1 & 2 MIX	EG020: Zinc	7440-66-6	10	µg/L	67	70	4.1
HK0804596-006	Anonymous	EG020: Zinc	7440-66-6	10	µg/L	140	144	2.8

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						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	SCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 621735)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	104	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 623307)											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	96.8	----	85	115	----	----
EG: Metals and Major Cations (QCLot: 621749)											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	91.0	----	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						
				Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Concentration	MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 623307)										
HK0804579-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	122	----	75	125	----	----
EG: Metals and Major Cations (QCLot: 621749)										
HK0804568-001	W1A - 1 & 2 MIX	EG020: Zinc	7440-66-6	100 µg/L	87.0	----	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 (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 622737)								
HK0804633-001	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	35	38	7.5
HK0804658-004	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	6	7	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 623307)								
HK0804689-003	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	0.7	0.7	0.0
HK0804568-005	Anonymous	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	1.02	0.98	4.0
EG: Metals and Major Cations (QC Lot: 622751)								
HK0804657-002	W1B-1 & 2 MIX	EG020: Zinc	7440-66-6	10	µg/L	46	44	2.8
HK0804658-006	Anonymous	EG020: Zinc	7440-66-6	10	µg/L	208	212	2.2

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						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	SCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 622737)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	97.5	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 623307)											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	96.8	----	85	115	----	----
EG: Metals and Major Cations (QCLot: 622751)											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	87.6	----	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						
				Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Concentration	MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 623307)										
HK0804579-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	122	----	75	125	----	----
EG: Metals and Major Cations (QCLot: 622751)										
HK0804657-001	W1A-1 & 2 MIX	EG020: Zinc	7440-66-6	100 µg/L	85.7	----	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-Feb-08	Tue	cloudy/misty/rain/moderate/fresh/strong	Trace	14.6	16	79.5	E/NE
27-Feb-08	Wed	fine/dry/moderate/fresh	Trace	13.6	23	70	N/NE
28-Feb-08	Thu	fine/dry/haze/moderate	0	14.2	12	60	E
29-Feb-08	Fri	cloudy/dry/haze/rain/moderate	0.6	9.8	10	54.5	W/SW
1-Mar-08	Sat	fine/dry/hazy/moderate	0	14.9	14.5	60	N
2-Mar-08	Sun	fine/dry/haze/moderate	0	17.2	9.5	49	SE
3-Mar-08	Mon	fine/hazy/very dry/moderate	0	17.3	9	49	E/SE
4-Mar-08	Tue	fine/very dry/haze/moderate/fresh	0	18.3	12.5	37.5	E/SE
5-Mar-08	Wed	fine/very dry/fresh/strong	0	19.1	15	46	E/SE
6-Mar-08	Thu	sunny periods/dry/moderate/fresh	0	18.7	12	44.5	E/SE
7-Mar-08	Fri	fine/dry/cloudy/rain/moderate/fresh	0	21.3	9.5	57.5	E/SE
8-Mar-08	Sat	fine/hazy/moderate/fresh	0	18.9	11	59.5	E
9-Mar-08	Sun	sunny periods/haze/cloudy/rain/moderate/fresh	0	18.4	16	73	W/SW
10-Mar-08	Mon	sunny periods/haze/cloudy/rain/moderate/fresh	0	18.6	7.5	75	E/SE
11-Mar-08	Tue	fine/hazy/moderate	0	19.3	10.5	73.5	E/SE
12-Mar-08	Wed	fine/moderate/fresh	0	22.3	10.5	63	E/SE
13-Mar-08	Thu	cloudy/sunny intervals/moderate	Trace	21.8	12.5	65	E
14-Mar-08	Fri	cloudy/rain/light winds	Trace	22.2	9.7	71	E/NE
15-Mar-08	Sat	fine/cloudy/moderate/fresh	0	21.9	10	58	E/SE
16-Mar-08	Sun	cloudy/rain/sunny periods/moderate	0	21	9	80.5	SE
17-Mar-08	Mon	cloudy/rain/sunny periods/moderate	0	22.5	9.5	77.5	E/NE
18-Mar-08	Tue	cloudy/rain/mist/moderate	Trace	23.5	11	78.5	E/SE
19-Mar-08	Wed	warm/sunny periods/light winds/rain	0	24.8	11.5	78.5	W/NW
20-Mar-08	Thu	cloudy/fresh/strong	Trace	22.1	15.5	65.5	E/SE
21-Mar-08	Fri			Holiday			
22-Mar-08	Sat			Holiday			
23-Mar-08	Sun			Holiday			
24-Mar-08	Mon			Holiday			
25-Mar-08	Tue	cloudy/rain/moderate	Trace	18.9	14	64.5	E/NE

Appendix J

Environmental Team Site Inspection Checklists

Environmental Site Inspection Checklist for KT15

AUES

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:	Mr. W. L. Chan
Inspection		**IEC/IEC's representative:**	
Date:	28 February 2008	**ETL/ ET's representative:**	Ken Wong
Time:	09:15	**Contractor's representative:**	M.K. Ng / Man / Siu
		Checklist No.	KT15-280208

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

Weather: ☐ Sunny ☑ Fine ☐ Cloudy ☐ Rainy

Temperature: 15 ^{0}C

Humidity: ☐ High ☑ Moderate ☐ Low

Wind: ☐ Strong ☐ Breeze ☑ Light ☐ Calm

PART B: SITE AUDIT

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

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

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
3.07	Are air compressors fitted with valid noise emission labels during operation?	☐	☐	☐	☐	☑	
3.08	Are flaps and panels of mechanical equipment closed during operation?	☐	☑	☐	☐	☐	
3.09	Are Construction Noise Permit(s) applied for percussive piling works?	☐	☐	☐	☐	☑	
3.10	Are Construction Noise Permit(s) applied for general construction works during restricted hours?	☐	☐	☐	☐	☑	
3.11	Are valid Construction Noise Permit(s) posted at site entrances?	☐	☐	☐	☐	☑	
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).	☑	☐	☐	☐	☐	
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)	☐	☑	☐	☐	☐	
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).	☐	☑	☐	☐	☐	
Section 4: Waste/Chemical Management							
4.01	Waste Management Plan had been submit to Engineer for approval.	☐	☑	☐	☐	☐	
4.02	Are receptacles available for general refuse collection?	☐	☑	☐	☐	☐	
4.03	Is general refuse sorting or recycling implemented?	☑	☐	☐	☐	☐	
4.04	Is general refuse disposed of properly and regularly?	☐	☑	☐	☐	☐	
4.05	Is the Contractor registered as a chemical waste producer?	☐	☑	☐	☐	☐	
4.06	Are the chemical waste containers properly labelled?	☐	☑	☐	☐	☐	
4.07	Are the chemical wastes stored in proper storage areas?	☐	☑	☐	☐	☐	
4.08	Is the chemical waste storage area properly labelled?	☐	☑	☐	☐	☐	
4.09	Is the chemical waste storage area used for storage of chemical waste only?	☐	☑	☐	☐	☐	
4.10	Are incompatible chemical wastes stored in different areas?	☐	☑	☐	☐	☐	
4.11	Are the chemical wastes disposed of by licensed collectors?	☐	☐	☐	☐	☑	
4.12	Are trip tickets for chemical wastes disposal available for inspection?	☐	☐	☐	☐	☑	
4.13	Are chemical/fuel storage areas bunded?	☐	☑	☐	☐	☐	
4.14	Are designated areas identified for storage and sorting of construction wastes?	☐	☑	☐	☐	☐	
4.15	Are construction wastes sorted (inert and non-inert) on site?	☐	☑	☐	☐	☐	
4.16	Are construction wastes reused?	☑	☐	☐	☐	☐	
4.17	Are construction wastes disposed of properly?	☐	☑	☐	☐	☐	
4.18	Are site hoardings and signboards made of durable materials instead of timber?	☐	☑	☐	☐	☐	
4.19	Is trip ticket system implemented for the disposal of construction wastes and records available for inspection?	☐	☑	☐	☐	☐	
4.20	Are appropriate procedures followed if contaminated material exists?	☐	☑	☐	☐	☐	
4.21	Is relevant license/ permit for disposal of construction waste or excavated materials available for inspection?	☐	☑	☐	☐	☐	
4.22	Site cleanliness and appropriate waste management training had provided for the site workers.	☐	☑	☐	☐	☐	

		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.	☐	☑	☐	☐	☐	
Section 5: Landscape & Visual							
5.01	Are retained and transplanted trees in health condition?	☐	☑	☐	☐	☐	
5.02	Are retained and transplanted trees properly protected?	☐	☑	☐	☐	☐	
5.03	Are surgery works carried out for the damaged trees?	☑	☐	☐	☐	☐	
5.04	Is damage to trees outside site boundary due to construction activities avoided?	☐	☑	☐	☐	☐	
5.05	Is the night-time lighting controlled to minimize glare to sensitive receivers?	☑	☐	☐	☐	☐	
Section 6: Ecology							
6.01	Gabion banks and base had been provide for channel linings and banks for typical sections of KT15?	☐	☐	☐	☐	☑	
6.02	Prevent site effluent/runoff discharge to the seasonal wetlands at KT15?	☐	☑	☐	☐	☐	
6.03	Stockpiling or disposal of materials, and any dredging or construction activities at the seasonal wetlands at KT15 are prohibited?	☐	☑	☐	☐	☐	
Section 7: Others							
7.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits?	☐	☑	☐	☐	☐	

Remarks

Last Site Inspection (21 February 2008):

Nil

Findings of Site Inspection on 28 February 2008:
Site inspection was covered the site area from CH000-800 and Portion 8 (Site office).

No environmental issue was observed during the site inspection. In general, the site was kept clean and tidy.

RE's representative	*IEC's representative*	*ET's representative*	*Contractor's representative*
( )	( )	(Ken Wong)	( )

Environmental Site Inspection Checklist for KT15

AUES

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:	Mr. A.F. Ng
Inspection		**IEC/IEC's representative:**	
Date:	6 March 2008	**ETL/ ET's representative:**	Ben Tam
Time:	14:00	**Contractor's representative:**	M.K. Ng / Man / Siu
		Checklist No.	KT15-060308

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

Weather: ☐ Sunny ☑ Fine ☐ Cloudy ☐ Rainy

Temperature: 19 ^{0}C

Humidity: ☐ High ☑ Moderate ☐ Low

Wind: ☐ Strong ☐ Breeze ☑ Light ☐ Calm

PART B: SITE AUDIT

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

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

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
3.07	Are air compressors fitted with valid noise emission labels during operation?	☐	☐	☐	☐	☑	
3.08	Are flaps and panels of mechanical equipment closed during operation?	☐	☑	☐	☐	☐	
3.09	Are Construction Noise Permit(s) applied for percussive piling works?	☐	☐	☐	☐	☑	
3.10	Are Construction Noise Permit(s) applied for general construction works during restricted hours?	☐	☐	☐	☐	☑	
3.11	Are valid Construction Noise Permit(s) posted at site entrances?	☐	☐	☐	☐	☑	
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).	☑	☐	☐	☐	☐	
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)	☐	☑	☐	☐	☐	
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).	☐	☑	☐	☐	☐	
Section 4: Waste/Chemical Management							
4.01	Waste Management Plan had been submit to Engineer for approval.	☐	☑	☐	☐	☐	
4.02	Are receptacles available for general refuse collection?	☐	☑	☐	☐	☐	
4.03	Is general refuse sorting or recycling implemented?	☑	☐	☐	☐	☐	
4.04	Is general refuse disposed of properly and regularly?	☐	☑	☐	☐	☐	
4.05	Is the Contractor registered as a chemical waste producer?	☐	☑	☐	☐	☐	
4.06	Are the chemical waste containers properly labelled?	☐	☑	☐	☐	☐	
4.07	Are the chemical wastes stored in proper storage areas?	☐	☑	☐	☐	☐	
4.08	Is the chemical waste storage area properly labelled?	☐	☑	☐	☐	☐	
4.09	Is the chemical waste storage area used for storage of chemical waste only?	☐	☑	☐	☐	☐	
4.10	Are incompatible chemical wastes stored in different areas?	☐	☑	☐	☐	☐	
4.11	Are the chemical wastes disposed of by licensed collectors?	☐	☐	☐	☐	☑	
4.12	Are trip tickets for chemical wastes disposal available for inspection?	☐	☐	☐	☐	☑	
4.13	Are chemical/fuel storage areas bunded?	☐	☑	☐	☐	☐	
4.14	Are designated areas identified for storage and sorting of construction wastes?	☐	☑	☐	☐	☐	
4.15	Are construction wastes sorted (inert and non-inert) on site?	☐	☑	☐	☐	☐	
4.16	Are construction wastes reused?	☑	☐	☐	☐	☐	
4.17	Are construction wastes disposed of properly?	☐	☐	☑	☐	☐	
4.18	Are site hoardings and signboards made of durable materials instead of timber?	☐	☑	☐	☐	☐	
4.19	Is trip ticket system implemented for the disposal of construction wastes and records available for inspection?	☐	☑	☐	☐	☐	
4.20	Are appropriate procedures followed if contaminated material exists?	☐	☑	☐	☐	☐	
4.21	Is relevant license/ permit for disposal of construction waste or excavated materials available for inspection?	☐	☑	☐	☐	☐	
4.22	Site cleanliness and appropriate waste management training had provided for the site workers.	☐	☑	☐	☐	☐	

		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.	☐	☑	☐	☐	☐	
Section 5: Landscape & Visual							
5.01	Are retained and transplanted trees in health condition?	☐	☑	☐	☐	☐	
5.02	Are retained and transplanted trees properly protected?	☐	☑	☐	☐	☐	
5.03	Are surgery works carried out for the damaged trees?	☑	☐	☐	☐	☐	
5.04	Is damage to trees outside site boundary due to construction activities avoided?	☐	☑	☐	☐	☐	
5.05	Is the night-time lighting controlled to minimize glare to sensitive receivers?	☑	☐	☐	☐	☐	
Section 6: Ecology							
6.01	Gabion banks and base had been provide for channel linings and banks for typical sections of KT15?	☐	☐	☐	☐	☑	
6.02	Prevent site effluent/runoff discharge to the seasonal wetlands at KT15?	☐	☑	☐	☐	☐	
6.03	Stockpiling or disposal of materials, and any dredging or construction activities at the seasonal wetlands at KT15 are prohibited?	☐	☑	☐	☐	☐	
Section 7: Others							
7.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits?	☐	☑	☐	☐	☐	

Remarks

Last Site Inspection (28 February 2008):

Nil

Findings of Site Inspection on 6 March 2008:
Site inspection was covered the site area from CH000-800 and Portion 8 (Site office).

Some C&D material scattered on-site was observed at Bay 23, the Contractor was reminded to tight up the working area.

RE's representative	IEC's representative	ET's representative	Contractor's representative
( )	( )	(Ben Tam)	( )

Environmental Site Inspection Checklist for KT15

AUES

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:	Mr. A.F. Ng
Inspection		**IEC/IEC's representative:**	
Date:	13 March 2008	**ETL/ ET's representative:**	Ben Tam
Time:	15:00	**Contractor's representative:**	M.K. Ng / Man
		Checklist No.	KT15-130308

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

Weather: ☑ Sunny ☐ Fine ☐ Cloudy ☐ Rainy

Temperature: 22 ^{0}C

Humidity: ☐ High ☑ Moderate ☐ Low

Wind: ☐ Strong ☐ Breeze ☑ Light ☐ Calm

PART B: SITE AUDIT

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

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

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
3.07	Are air compressors fitted with valid noise emission labels during operation?	☐	☐	☐	☐	☑	
3.08	Are flaps and panels of mechanical equipment closed during operation?	☐	☑	☐	☐	☐	
3.09	Are Construction Noise Permit(s) applied for percussive piling works?	☐	☐	☐	☐	☑	
3.10	Are Construction Noise Permit(s) applied for general construction works during restricted hours?	☐	☐	☐	☐	☑	
3.11	Are valid Construction Noise Permit(s) posted at site entrances?	☐	☐	☐	☐	☑	
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).	☑	☐	☐	☐	☐	
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)	☐	☑	☐	☐	☐	
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).	☐	☑	☐	☐	☐	
Section 4: Waste/Chemical Management							
4.01	Waste Management Plan had been submit to Engineer for approval.	☐	☑	☐	☐	☐	
4.02	Are receptacles available for general refuse collection?	☐	☑	☐	☐	☐	
4.03	Is general refuse sorting or recycling implemented?	☑	☐	☐	☐	☐	
4.04	Is general refuse disposed of properly and regularly?	☐	☐	☑	☐	☐	
4.05	Is the Contractor registered as a chemical waste producer?	☐	☑	☐	☐	☐	
4.06	Are the chemical waste containers properly labelled?	☐	☑	☐	☐	☐	
4.07	Are the chemical wastes stored in proper storage areas?	☐	☑	☐	☐	☐	
4.08	Is the chemical waste storage area properly labelled?	☐	☑	☐	☐	☐	
4.09	Is the chemical waste storage area used for storage of chemical waste only?	☐	☑	☐	☐	☐	
4.10	Are incompatible chemical wastes stored in different areas?	☐	☑	☐	☐	☐	
4.11	Are the chemical wastes disposed of by licensed collectors?	☐	☐	☐	☐	☑	
4.12	Are trip tickets for chemical wastes disposal available for inspection?	☐	☐	☐	☐	☑	
4.13	Are chemical/fuel storage areas bunded?	☐	☑	☐	☐	☐	
4.14	Are designated areas identified for storage and sorting of construction wastes?	☐	☑	☐	☐	☐	
4.15	Are construction wastes sorted (inert and non-inert) on site?	☐	☑	☐	☐	☐	
4.16	Are construction wastes reused?	☑	☐	☐	☐	☐	
4.17	Are construction wastes disposed of properly?	☐	☐	☑	☐	☐	
4.18	Are site hoardings and signboards made of durable materials instead of timber?	☐	☑	☐	☐	☐	
4.19	Is trip ticket system implemented for the disposal of construction wastes and records available for inspection?	☐	☑	☐	☐	☐	
4.20	Are appropriate procedures followed if contaminated material exists?	☐	☑	☐	☐	☐	
4.21	Is relevant license/ permit for disposal of construction waste or excavated materials available for inspection?	☐	☑	☐	☐	☐	
4.22	Site cleanliness and appropriate waste management training had provided for the site workers.	☐	☑	☐	☐	☐	

		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.	☐	☑	☐	☐	☐	
Section 5: Landscape & Visual							
5.01	Are retained and transplanted trees in health condition?	☐	☑	☐	☐	☐	
5.02	Are retained and transplanted trees properly protected?	☐	☑	☐	☐	☐	
5.03	Are surgery works carried out for the damaged trees?	☑	☐	☐	☐	☐	
5.04	Is damage to trees outside site boundary due to construction activities avoided?	☐	☑	☐	☐	☐	
5.05	Is the night-time lighting controlled to minimize glare to sensitive receivers?	☑	☐	☐	☐	☐	
Section 6: Ecology							
6.01	Gabion banks and base had been provide for channel linings and banks for typical sections of KT15?	☐	☐	☐	☐	☑	
6.02	Prevent site effluent/runoff discharge to the seasonal wetlands at KT15?	☐	☑	☐	☐	☐	
6.03	Stockpiling or disposal of materials, and any dredging or construction activities at the seasonal wetlands at KT15 are prohibited?	☐	☑	☐	☐	☐	
Section 7: Others							
7.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits?	☐	☑	☐	☐	☐	

Remarks

Last Site Inspection (6 March 2008):

Working area at Bay 23 was tight up.

Findings of Site Inspection on 13 March 2008:

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

Some C&D waste scattered on-site was observed at CH 180, the Contractor was reminded to tight up the working area.

Stagnant water was accumulated at CH 200, the Contractor was reminded to clean to prevent mosquito breeding.

RE's representative	*IEC's representative*	*ET's representative*	*Contractor's representative*
( )	( )	(Ben Tam)	( )

Environmental Site Inspection Checklist for KT15

AUES

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:	Mr. W.L. Chan
Inspection		**IEC/IEC's representative:**	Benny Liu
Date:	20 March 2008	**ETL/ ET's representative:**	Ben Tam
Time:	15:00	**Contractor's representative:**	M.K. Ng / Man
		Checklist No.	KT15-200308

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

Weather: ☑ Sunny ☐ Fine ☐ Cloudy ☐ Rainy

Temperature: 22 ^{0}C

Humidity: ☐ High ☑ Moderate ☐ Low

Wind: ☐ Strong ☐ Breeze ☑ Light ☐ Calm

PART B: SITE AUDIT

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

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

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
3.07	Are air compressors fitted with valid noise emission labels during operation?	☐	☐	☐	☐	☑	
3.08	Are flaps and panels of mechanical equipment closed during operation?	☐	☑	☐	☐	☐	
3.09	Are Construction Noise Permit(s) applied for percussive piling works?	☐	☐	☐	☐	☑	
3.10	Are Construction Noise Permit(s) applied for general construction works during restricted hours?	☐	☐	☐	☐	☑	
3.11	Are valid Construction Noise Permit(s) posted at site entrances?	☐	☐	☐	☐	☑	
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).	☑	☐	☐	☐	☐	
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)	☐	☑	☐	☐	☐	
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).	☐	☑	☐	☐	☐	
Section 4: Waste/Chemical Management							
4.01	Waste Management Plan had been submit to Engineer for approval.	☐	☑	☐	☐	☐	
4.02	Are receptacles available for general refuse collection?	☐	☑	☐	☐	☐	
4.03	Is general refuse sorting or recycling implemented?	☑	☐	☐	☐	☐	
4.04	Is general refuse disposed of properly and regularly?	☐	☑	☐	☐	☐	
4.05	Is the Contractor registered as a chemical waste producer?	☐	☑	☐	☐	☐	
4.06	Are the chemical waste containers properly labelled?	☐	☑	☐	☐	☐	
4.07	Are the chemical wastes stored in proper storage areas?	☐	☑	☐	☐	☐	
4.08	Is the chemical waste storage area properly labelled?	☐	☑	☐	☐	☐	
4.09	Is the chemical waste storage area used for storage of chemical waste only?	☐	☑	☐	☐	☐	
4.10	Are incompatible chemical wastes stored in different areas?	☐	☑	☐	☐	☐	
4.11	Are the chemical wastes disposed of by licensed collectors?	☐	☐	☐	☐	☑	
4.12	Are trip tickets for chemical wastes disposal available for inspection?	☐	☐	☐	☐	☑	
4.13	Are chemical/fuel storage areas bunded?	☐	☑	☐	☐	☐	
4.14	Are designated areas identified for storage and sorting of construction wastes?	☐	☑	☐	☐	☐	
4.15	Are construction wastes sorted (inert and non-inert) on site?	☐	☑	☐	☐	☐	
4.16	Are construction wastes reused?	☑	☐	☐	☐	☐	
4.17	Are construction wastes disposed of properly?	☐	☐	☑	☐	☐	
4.18	Are site hoardings and signboards made of durable materials instead of timber?	☐	☑	☐	☐	☐	
4.19	Is trip ticket system implemented for the disposal of construction wastes and records available for inspection?	☐	☑	☐	☐	☐	
4.20	Are appropriate procedures followed if contaminated material exists?	☐	☑	☐	☐	☐	
4.21	Is relevant license/ permit for disposal of construction waste or excavated materials available for inspection?	☐	☑	☐	☐	☐	
4.22	Site cleanliness and appropriate waste management training had provided for the site workers.	☐	☑	☐	☐	☐	

		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.	☐	☑	☐	☐	☐	
Section 5: Landscape & Visual							
5.01	Are retained and transplanted trees in health condition?	☐	☑	☐	☐	☐	
5.02	Are retained and transplanted trees properly protected?	☐	☑	☐	☐	☐	
5.03	Are surgery works carried out for the damaged trees?	☑	☐	☐	☐	☐	
5.04	Is damage to trees outside site boundary due to construction activities avoided?	☐	☑	☐	☐	☐	
5.05	Is the night-time lighting controlled to minimize glare to sensitive receivers?	☑	☐	☐	☐	☐	
Section 6: Ecology							
6.01	Gabion banks and base had been provide for channel linings and banks for typical sections of KT15?	☐	☐	☐	☐	☑	
6.02	Prevent site effluent/runoff discharge to the seasonal wetlands at KT15?	☐	☑	☐	☐	☐	
6.03	Stockpiling or disposal of materials, and any dredging or construction activities at the seasonal wetlands at KT15 are prohibited?	☐	☑	☐	☐	☐	
Section 7: Others							
7.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits?	☐	☑	☐	☐	☐	

Remarks

Last Site Inspection (13 March 2008):

C&D waste at CH 180 was cleared.

Stagnant water was accumulated at CH 200 & 504, the Contractor was reminded to clean to prevent mosquito breeding. (On- going)

Findings of Site Inspection on 20 March 2008:
Site inspection was covered the site area from CH000-800 and Portion 8 (Site office).

No new environmental issue was observed was observed during the site inspection.

RE's representative	*IEC's representative*	*ET's representative*	*Contractor's representative*
( )	(Benny Li)	(Ben Tam)	( )

Appendix K

Response to Comments

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 March 2008 (R0561 Revision 0) submit on 01 Apr 08
Response to IEC's comments [Received from e-mail on 08 Apr 2008 09:30]

No.	Section / Paragraph	Comments	Ref.	Response to Comments
1	Table 5-4 / Appendix G	There is an inconsistency between the monitoring dates in Table 5-4 and the monitoring schedule in Appendix G. Please revise accordingly.	-	Noted.
2	Appendix J	The Environmental Team Site Inspection Checklists for 20 March 2008 is missing. Please attach the captioned site inspection checklist.	-	Noted.
3	ES.16 / 7.04 / 11.08	There is an inconsistency between whether there was site inspection by external parties in this reporting period. Please revise accordingly.	-	Noted.
4	Appendix F	Please provide updated cal. cert. for HVS	-	Noted.

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 March 2008 (R0561 Revision 1) submit on 09 April 08 (15:27)
Response to IEC's comments [Received from e-mail on 08 April 2008 09:30]

No.	Section / Paragraph	Comments	Ref.	Response to Comments
1	Appendix F	Calibration for HVS should be conducted at bi-monthly interval, please amend	EM&A Manual 4.2.3	Noted.