

PROJECT NO.: TCS00371/07

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


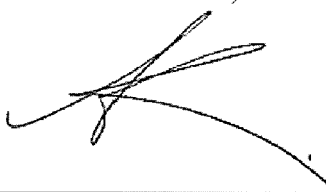
**YUEN LONG, KAM TIN, NGAU TAM MEI AND TIN SHUI
WAI DRAINAGE IMPROVEMENTS, STAGE 1, PHASE
2B – CHEUNG CHUN SAN TSUEN AND KAM TSING WAI**

**KT15 – Monthly EM&A Report for September
2007 (No. 3)**

(Revision: 1)

**PREPARED FOR
Chit Cheung Construction Company Limited**

Quality Index

Date	Reference No.	Prepared by	Certified By
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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 is Monthly EM&A Report for September 2007 (No. 3) reporting the environmental impact monitoring and audit (EM&A) results of the project EM&A program for the reporting month **September 2007** during the period from 26 August to 25 September 2007.

Breach of Action and Limit (AL) Levels

- ES.05 One Limit Level exceedance was recorded in ecology during this reporting period. The wetland dependent bird number and individual number recorded fell within the limit level, but the non-compliance was not considered to be caused by the project, as the major construction works have not commenced. 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 October 2007 included Open sea dumping of contaminated material, construction and excavation works, installation of geotechnical instruments, installation of steel tank at Berthing Area of portion 7, construction of temporary entrance at portion 5, tree protection and tree transplanting works, construction of temporary noise barrier along ch.504 to ch.590 of portion 5, construction of hoarding at CH221 to 276 of portion 5, carrying out joined survey and utilities companies liaison. 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	6 Events
• Noise Monitoring	5 Events
• Stream Water Quality	18 Events
• Ecology (Fauna)	1 Event
• Site Inspection Audit	4 Times

Air Quality

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

Construction Noise

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

Stream Water Quality

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

Ecology (Fauna)

ES.14 One Limit Level exceedance was found in the wetland dependent bird number and individual number recorded during the reporting period. But it was not considered a consequence of the project as the major construction works for the project have not commenced.

Summary of Monitoring Exceedances

ES.15 A summary of monitoring exceedances in this reporting period of air quality, 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)	0	Not Required for 0% Exceedance
	Suspended Solids (SS)	0	Not Required for 0% Exceedance
	Turbidity (NTU)	0	Not Required for 0% Exceedance
	pH	0	Not Required for 0% Exceedance
	Ammonia Nitrogen	0	Not Required for 0% Exceedance
	Zinc	0	Not Required for 0% Exceedance
Ecology	Wetland Bird	0	Not Required for 0% Exceedance

1.0 INTRODUCTION

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

REPORT STRUCTURE

- 1.05 The EM&A report is structured into the following sections:
- Section 1** Introduction
 - Section 2** Project Organization and Construction Progress
 - Section 3** Summary of Monitoring Requirements
 - Section 4** Impact Monitoring Methodology
 - Section 5** Impact Monitoring Results
 - Section 6** Waste Management
 - Section 7** Site Inspection
 - Section 8** Environmental Complaint and Non-Compliance
 - Section 9** Implementation Status of Mitigation Measures
 - Section 10** Impact Forecast
 - Section 11** Conclusions

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

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

CONSTRUCTION PROGRESS

2.02 The major construction activities undertaken in this reporting period are list below:-

- Provision of temporary entrance at portion 5;
- Construction of temporary noise barrier along ch.230 to ch.327 of portion5 ;
- Construction of hoarding at ch.419 and ch.427 of portion5;
- Installation of geotechnical instruments;
- Channel wall construction at ch.290 of portion 5;
- Tree protection and tree transplanting works;
- Site Clearance work;
- Construction and excavation works at portion 5;
- Utilities companies liaison and underground utility ducting detection; and
- Carrying out joined survey.

SUMMARY OF ENVIRONMENTAL SUBMISSIONS

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

Table 2-1 Status of Environmental Licenses and Permits

Item	Item Description	License/Permit Status
1	Environmental Permit (EP-231/2005/A)	-
2	Air Pollution Control (Construction Dust)	Notified EPD on 09 July 2007
3	Chemical Waste Producer Registration WPN:5296-519-C3430-01 (Portion 8, Ma Fung Ling Road, Tong Yan San Tsuen, Yuen Long)	Registration on 20 April 2007
4	Chemical Waste Producer Registration WPN:5113-533-C3434-09 (Kam Tsin Wai, Kam Tin, Yuen Long)	Registration on 20 April 2007
5	Chemical Waste Producer Registration WPN:5213-424-C3431-01 (Portion 7, Birthing Area, Hoi Wan Road, Tuen Mun)	Registration on 20 April 2007
6	Water Pollution Control Ordinance (Discharge License) License No.: 1U450/1	Obtained on 20 July 2007
7	Billing Account for Disposal of Construction Waste (Account Number : 7005311)	Valid on 07 May 2007
8	Dumping at Sea Permit of Type II Contaminated Material (Permit No. EP/MD/08-044)	Obtained on 20 September 2007

3.0 SUMMARY OF IMPACT MONITORING REQUIREMENTS

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

Table 3-1 Summary of EM&A Requirements

Environmental Aspect	Monitoring Parameters	Monitoring Stations	
Air Quality	1-Hour and 24-Hour TSP	A10	
Construction Noise	Leq _(30min) during normal working hours Supplementary data of L ₁₀ and L ₉₀ for reference.	N10a*	
Stream Water Quality	In Situ Measurement	W9A & W9B	
			<ul style="list-style-type: none"> • Dissolved Oxygen Concentration (mg/L); • Dissolved Oxygen Saturation (% Sat); • Turbidity (NTU); • pH; • Salinity (%); Water Depth (m) and • Temperature (°C).
			Laboratory Analysis
	<ul style="list-style-type: none"> • 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 L₁₀ and L₉₀ data will be collected for reference.
- 3.05 Stream water quality monitoring is conducted were undertaken at two location W9A & W9B twice per week. Dissolved Oxygen (DO), pH, Turbidity (NTU) were measured in-situ, water depth, temperature and salinity will be collected for relevant data. Suspended Solids (SS), Ammonia Nitrogen and Zinc were determined in a HOKLAS accredited laboratory respectively.
- 3.06 Ecological monitoring is conducted in the seasonal wetland area as shown in Project profile of KT15 Figure ATT 4-7.2). Bird survey should be conducted in monthly and other faunal groups (reptiles, amphibians, dragonflies and butterflies) are conducted in wet season (April to July inclusive).

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

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

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

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

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

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

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

Dissolved Oxygen (mg/l)	W9A (Upstream) [#]	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 ($\mu\text{g}/\text{L}$)	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 TSP and 24-Hour TSP monitoring was carried out at one designated station A10. Impact construction noise monitoring was undertaken at the designated location N10a. Stream water quality monitoring was undertaken at two designated locations (W9A & W9B). The ecology monitoring was conducted within the wetland area in according to the EM&A Manual of KT15. The descriptions of monitoring stations are presented in **Tables 4-1**. The geographically location are shown in **Appendix D**.

Table 4-1 Location of Air Quality, 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 6 monitoring events were carried out in this reporting period.

NOISE MONITORING

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

STREAM WATER QUALITY MONITORING

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

ECOLOGY MONITORING

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

MONITORING EQUIPMENT

- 4.08 The monitoring equipment used by the ET in the EM&A program is presented in the following table:

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

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

24-HOUR TSP MONITORING

- 4.09 24-Hour TSP monitoring was carried out by a High Volume Sampler (HVS) in compliance with the USEPA Standards Title 40, Code of Federal Regulations Chapter 1 (Part 50) specifications. The HVS employed complied with the PS specifications including.
- Power supply of 220v/50 hz for 24-Hour continuous operation;
 - 0.6-1.7 m³/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 in²;
 - Flow control accuracy of $\pm 2.5\%$ deviation over 24-Hour operation;
 - An anodized aluminum shelter to protect the filter and sampler;
 - A motor speed-voltage control to control mass flow rate with accuracy of $\pm 2.5\%$ deviation over 24-Hour sampling period;
 - Provision of a flow recorder for continuous monitoring;
 - Provision of a peaked roof inlet;
 - Incorporation with a manometer; and
 - An 8"x10" stainless steel filter holder to hold, seal and easy to change the filter paper.
- 4.10 The filter papers used in 24-Hour TSP monitoring were of size 8"x10" and provided by a local HOKLAS-accredited laboratory, ALS Techichem Pty (HK) Limited (HOKLAS No. 66). The filters papers after measurements were returned to the laboratory for the required treatment and analysis.

1-HOUR TSP MONITORING

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

WIND DATA MONITORING

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

NOISE MONITORING

- 4.13 Noise measurements were taken in terms of the A-weighted equivalent sound pressure level (Leq) measured in decibels (dB). Supplementary statistical results such as L₁₀ and L₉₀ were also obtained for reference.
- 4.14 Hand-held sound level meters (B&K Model 2238) and associated acoustical calibrators in compliance with the International Electrotechnical Commission (IEC) Publication 651:1979 (Type 1) and 804:1985 (Type 1) specification were used for taking the impact noise measurements.
- 4.15 Windshield was fitted in all measurements. All noise measurements were made with the meter set to FAST response and on the A-weighted equivalent continuous sound pressure level (Leq).
- 4.16 No noise measurement was carried out in the presence of fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s.

STREAM WATER QUALITY MONITORING

Water Depth

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

Water Temperature

- 4.19 Although the DO Meter automatically compensates ambient water temperature to a standard temperature of 20⁰C for ease of comparison of the data under the changing reality, the temperature readings of the DO Meter will be recorded in the field data sheets. Calibration of the equipment will be regularly performed by ALS on quarterly basis.

Dissolved Oxygen (DO)

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

pH

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

Turbidity

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

Salinity

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

Water Sampler

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

Sample Container

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

Sample Storage

- 4.27 A 'Willow' 33-litter plastic cool box packed with ice will be used to preserve the collected water samples prior to arrival at the laboratory for SS determination. The water temperature of the cool box will be maintained at a temperature as close to 4°C as possible without being frozen. Samples collected will be delivered to the laboratory upon collection.
- 4.28 DO, water temperature, turbidity, pH, salinity and water depth were measured in-situ whereas SS, Ammonia Nitrogen and Zinc were determined in a HOKLAS accredited laboratory (ALS).

ECOLOGY MONITORING

Study Area

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

Survey Method

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

Equipment

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

EQUIPMENT CALIBRATION

- 4.35 Initial calibration of the HVS was performed upon installation and thereafter at bi-monthly intervals in accordance with the manufacturer's instruction using the NIST-certified standard calibrator. The calibration data are properly documented and the records are maintained by ET for future reference.

- 4.36 The 1-Hour TSP meter was calibrated by the supplier prior to purchase. Zero response of the equipment is checked before and after each monitoring event. A comparison test was carried out with a HVS. A conversion factor (K) of 4.0 was generated in accordance with the equipment manufacturer's instruction. The meter counts in minutes multiplied by the conversion factor will generate the equivalent dust concentration by HVS.
- 4.37 The sound level meters are calibrated using an acoustic calibrator prior to and after measurements. The meters are regularly calibrated in accordance with the manufacturer's instructions. Prior to and following each noise measurement, the accuracy of the sound level meter was checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements are considered valid only if the calibration levels before and after the noise measurement agree to within 1.0 dB.
- 4.38 All in-situ monitoring instruments are calibrated and certified by a laboratory accredited under HOKLAS or any other international accreditation scheme at 3 monthly intervals throughout all stages of the water quality monitoring.
- 4.39 The calibration certificates of the monitoring equipment used during the impact monitoring program are attached in **Appendix F**.

ANALYTICAL LABORATORY

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

Table 4-3 Analytical Method applied to Water Quality Samples

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

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

DATA MANAGEMENT AND DATA QA/QC CONTROL

- 4.42 The impact monitoring data are handled by the ET's systematic data recording and management, which complies with in-house certified (ISO 9001:2000) Quality Management System. Standard Field Data Sheets (FDS) are used in the impact monitoring program.

- 4.43 The monitoring data recorded in the equipment e.g. 1-Hour TSP meters and noise meters are downloaded directly from the equipment at the end of each monitoring day. The downloaded monitoring data are input into a computerized database properly maintained by the ET. The laboratory results are input directly into the computerized database and QA/QC checked by personnel other than those who input the data.
- 4.44 For monitoring activities require laboratory analysis, the local laboratory follows the QA/QC requirements as set out under the HOKLAS scheme for all laboratory testing.

5.0 IMPACT MONITORING RESULTS

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

AIR QUALITY

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

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

Monitoring Date	Start Time	1 st Result (µg/m ³)	2 nd Result (µg/m ³)	3 rd Result (µg/m ³)	Action Level (µg/m ³)	Limit Level (µg/m ³)
30-Aug-07	13:03	37	43	54	> 307	> 500
5-Sep-07	9:22	143	126	138	> 307	> 500
11-Sep-07	9:21	84	92	98	> 307	> 500
17-Sep-07	13:15	262	254	279	> 307	> 500
22-Sep-07	9:08	174	192	207	> 307	> 500

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

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

Monitoring Date	Monitoring Results (µg/m ³)	Action Level (µg/m ³)	Limit Level (µg/m ³)
28-Aug-07	36	> 165	> 260
3-Sep-07	24	> 165	> 260
8-Sep-07	71	> 165	> 260
14-Sep-07	85	> 165	> 260
20-Sep-07	164	> 165	> 260
25-Sep-07	21	> 165	> 260

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

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

5.04 The meteorological data during the monitoring period are summarized in **Appendix I**.

CONSTRUCTION NOISE

- 5.05 The impact construction noise monitoring results are summarized in **Table 5-3**. Graphical plots of the monitoring data are presented in **Appendix H**.

Table 5-3 Summary of Noise Monitoring Results at N10a

Date	Start Time	1st Leq5	2nd Leq5	3rd Leq5	4th Leq5	5th Leq5	6 th Leq5	Leq30	
30-Aug-07	13:47	45.4	44.5	49.2	49.6	48.4	46.7	47.7	
5-Sep-07	9:41	50.7	47.7	55.5	46.7	43.9	54.7	51.7	
11-Sep-07	10:00	44.4	45.9	44.1	45.1	45.0	42.1	44.6	
17-Sep-07	10:45	48.0	43.4	43.4	45.2	48.5	44.3	46.0	
22-Sep-07	11:23	46.1	48.0	48.7	49.8	49.3	49.4	48.7	
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**.

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
27-Aug-07	1.4	1.8	23.5	11.3	7.9	7.7	19	12	33.40	7.19	42	26
30-Aug-07	3.1	2.8	8.8	27.7	7.8	7.7	9	22	12.80	9.07	22	54
5-Sep-07	3.3	3.8	41.9	25.4	7.8	7.7	49	22	47.80	6.82	123	43
7-Sep-07	1.9	2.6	151.0	19.8	7.7	7.3	115	10	52.40	6.08	210	34
11-Sep-07	1.2	1.5	239.5	18.1	7.9	7.8	119	18	293.00	11.30	546	47
13-Sep-07	2.0	0.8	17.9	36.6	7.8	7.7	20	71	122.00	4.84	186	73
17-Sep-07	0.7	1.3	209.5	21.2	7.8	7.8	26	4	122.00	10.90	186	56
22-Sep-07	2.2	2.1	89.9	14.9	7.9	7.8	99	18	50.90	10.20	170	56
24-Sep-07	3.1	3.3	10.5	35.9	7.7	7.9	10	30	5.90	3.10	37	71
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

- 5.08 28 individuals of birds from 10 species were recorded during the survey for the present monthly monitoring. Among the bird species recorded, none was wetland dependent birds, and no individual from the two wetland bird species with abundance from the baseline (i.e. Cattle Egret and Chinese Pond Heron) was found. Compared with the average abundance of 1.2 individuals and 3 species of wetland dependent birds recorded during the study for the KT15 Project Profile, the species number and the individual number recorded in the present monitoring survey was zero. The wetland dependent bird species number and individual number 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).
- 5.09 As the major construction works for the project was not commenced when the survey for the present monthly monitoring were conducted, the site basically remained the same conditions as reported in baseline monitoring report, and no intrusions of construction activities into the wetland areas nor adverse impact on the wetlands was found. Based on the findings on the monthly monitoring of construction activities, the non-compliance in wetland dependent bird species and individual number was not caused by the project.
- 5.10 Photographic records are scheduled in six-month intervals and thus are not required in the present monthly monitoring. Fauna survey is conducted during the wetland season (April to July), and thus are not required in the present monthly monitoring.
- 5.11 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
Birds			
<i>Bubulcus ibis</i>	Cattle Egret	0.4	
<i>Ardeola bacchus</i>	Chinese Pond Heron	0.8	
<i>Amauornis phoenicurus</i>	White-breasted Waterhen	Recorded only	
<i>Streptopelia chinensis</i>	Spotted Dove	Recorded only	3
<i>Hirundo rustica</i>	Barn Swallow	Recorded only	
<i>Motacilla alba</i>	White Wagtail	Recorded only	
<i>Pycnonotus jocosus</i>	Red-whiskered Bulbul	Recorded only	6
<i>Pycnonotus sinensis</i>	Chinese Bulbul	Recorded only	4
<i>Lanius schach</i>	Long-tailed Shrike	Recorded only	1
<i>Copsychus saularis</i>	Oriental Magpie Robin	Recorded only	2
<i>Orthotomus sutorius</i>	Common Tailorbird	Recorded only	
<i>Lonchura striata</i>	White-rumped Munia	Recorded only	
<i>Passer montanus</i>	Eurasian Tree Sparrow	Recorded only	5
<i>Sturnus nigricollis</i>	Black-collared Starling	Recorded only	1
<i>Acridotheres cristatellus</i>	Crested Myna	Recorded only	1
<i>Prinia flaviventris</i>	Yellow-bellied Prinia	\	1
<i>Eudynamis scolopacea</i>	Common Koel	\	
<i>Halcyon smyrnensis</i>	White-throated Kingfisher	\	
<i>Garrulax perspicillatus</i>	Masked Laughingthrush	\	
<i>Zosterops japonica</i>	Japanese White Eye	\	
<i>Lonchura punctulata</i>	Scaly-breasted Munia	\	4
Species Number		15 spp. recorded, only 2 species with abundance	10
Individual Number		1.2	28

*Wetland dependent species 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; and
- General Refuse.

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)	0.364	N/A

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

Type of Waste	Quantity	Disposal Location
Recycled Metal (kg)	0.65	NA
Recycled Paper / Cardboard Packing (kg)	0	NA
Recycled Plastic (kg)	0	NENT Landfill
Chemical Wastes (kg)	0	License Collector
General Refuses (kg)	182	NENT Landfill

7.0 SITE INSPECTION

7.01 According to the EM&A Manual Section 9.1.2, the environmental site inspection should be formulation by ET Leader. ET had carried out the environmental site inspection on 29 August, 06, 12, and 21 September 2007 with the Representatives of the Engineer and the Contractor to evaluate the site environmental performance in this reporting period. The monthly site audit conducted on 12 September 2007 by IEC's representative with the representatives of the Engineer, the Contractor 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:

- Fugitive dust emission from the site was observed at CH290 during the site inspection, the Contractor was reminded to provide water spraying or implement the dust suppression on necessary basis;
- Muddy water discharge into the drainage channel from the sedimentation tank was observed at CH290. The Contractor was reminded to stop the discharge and provide the effective sedimentation or improved the desilting system efficiency before any discharge was undertaken;
- Rubbish skip at the site office was full, the Contractor was reminded to dispose the general refuse in regular period; and
- Muddy water discharge from the sedimentation tank was observed at CH200, the Contractor was reminded to improve the desilting system in effective/efficiency condition.

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

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
20 – 25 Jul 2007	0	0	NA
26 Jul – 25 Aug 2007	0	0	NA
26 Aug – 25 Sep 2007	0	0	NA

Table 8-2 Statistical Summary of Environmental Summons

Reporting Period	Environmental Summons Statistics		
	Frequency	Cumulative	Nature
20 – 25 July 2007	0	0	NA
26 Jul – 25 Aug 2007	0	0	NA
26 Aug – 25 Sep 2007	0	0	NA

Table 8-3 Statistical Summary of Environmental Prosecution

Reporting Period	Environmental Prosecution Statistics		
	Frequency	Cumulative	Nature
20 – 25 July 2007	0	0	NA
26 Jul – 25 Aug 2007	0	0	NA
26 Aug – 25 Sep 2007	0	0	NA

9.0 IMPLEMENTATION STATUS OF MITIGATION MEASURES

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

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

Water Quality

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

Air Quality

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

Noise

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

Waste and Chemical Management

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

General

- The site was generally kept tidy and clean.

10.0 IMPACT FORECAST

KEY ISSUES FOR THE COMING MONTH

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

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

10.02 The tentative 3-month rolling program is presented in **Appendix B**.

11.0 CONCLUSION

11.01 The EM&A program in September 2007 was undertaken in compliance with the EM&A Manual for KT15. A summary of environmental compliance of air, noise, stream water quality and ecology in this reporting period are presented as follows:

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	DO in mg/L	0	Not Required for 0% Exceedance
	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

11.02 No 1-Hour and 24-Hour TSP exceeded the Action/Limit Level was recorded in this reporting period.

11.03 All measured daytime construction noise levels were below the Limit level and no complaint was received in this reporting period.

11.04 No stream water quality exceeded the Action/Limit Level was recorded during the reporting period.

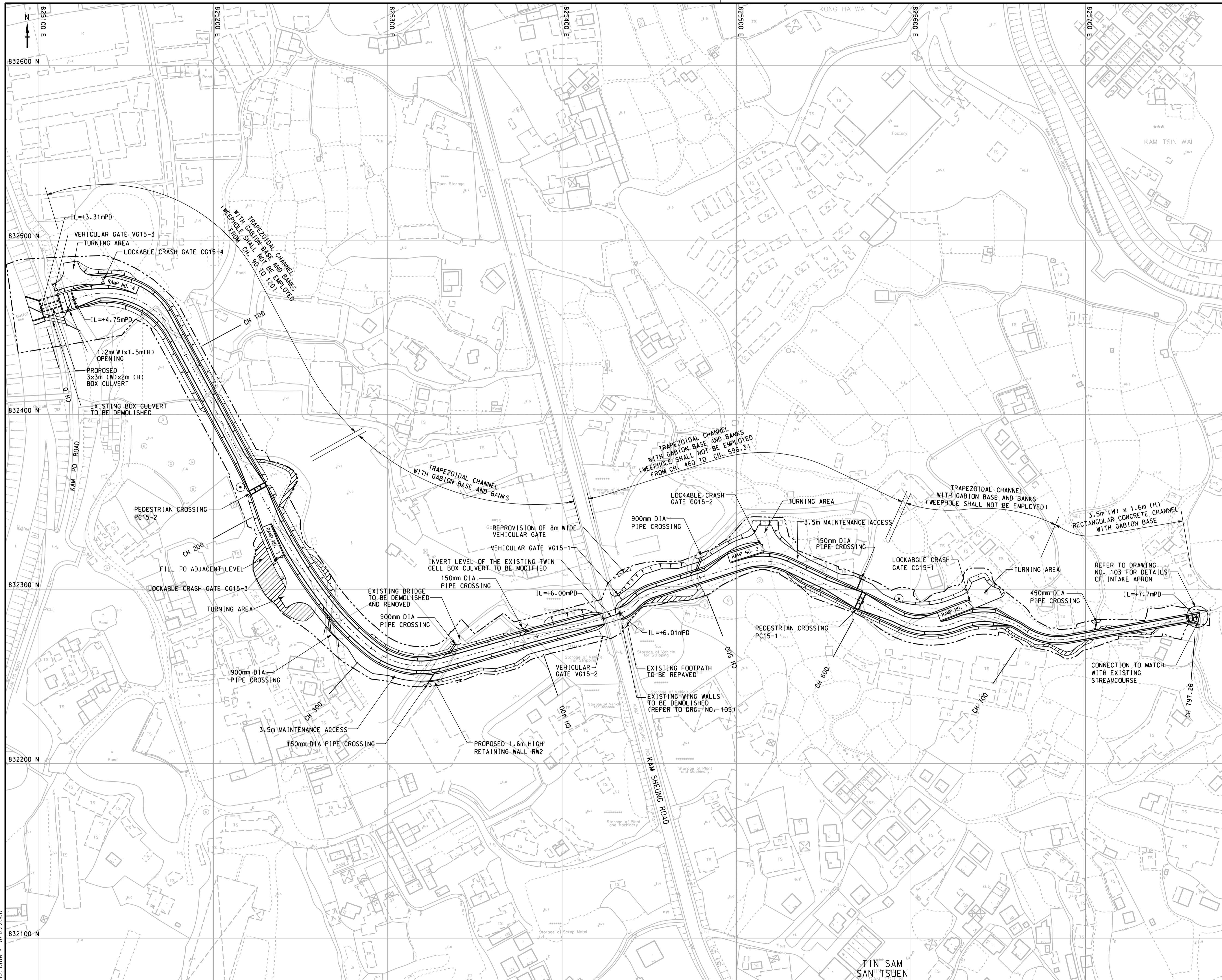
- 11.05 No intrusions into the wetland area/adverse impact on the wetlands was found during the reporting period. Although exceedance on the decrease of wetland dependent bird species number and individual number was recorded for Ecology, it was not caused by the project as the major construction works have not commenced.
- 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 inspection records on 29 August, 06, 12 and 21 September 2007, no non-compliance and four observations were recorded. Details of the observations as follows:-
- Fugitive dust emission from the site was observed at CH290 during the site inspection, the Contractor was reminded to provide water spraying or implement the dust suppression on necessary basis;
 - Muddy water discharge into the drainage channel from the sedimentation tank was observed at CH290. The Contractor was reminded to stop the discharge and provide the effective sedimentation or improved the desilting system efficiency before any discharge was undertaken;
 - Rubbish skip at the site office was full, the Contractor was reminded to disposal the general refuse in regular period; and
 - Muddy water discharge from the sedimentation tank was observed at CH200, the Contractor was reminded to improve the desilting system in effective/efficiency condition.
- 11.08 The ET will continue to implement the EM&A program and audit the implementation of the environmental mitigation measures.

Appendix A

Project Site Layout



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

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

CONTRACT NO. DG200602

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

Drawing title
 CHANNEL KT15 GENERAL LAYOUT PLAN

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

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

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

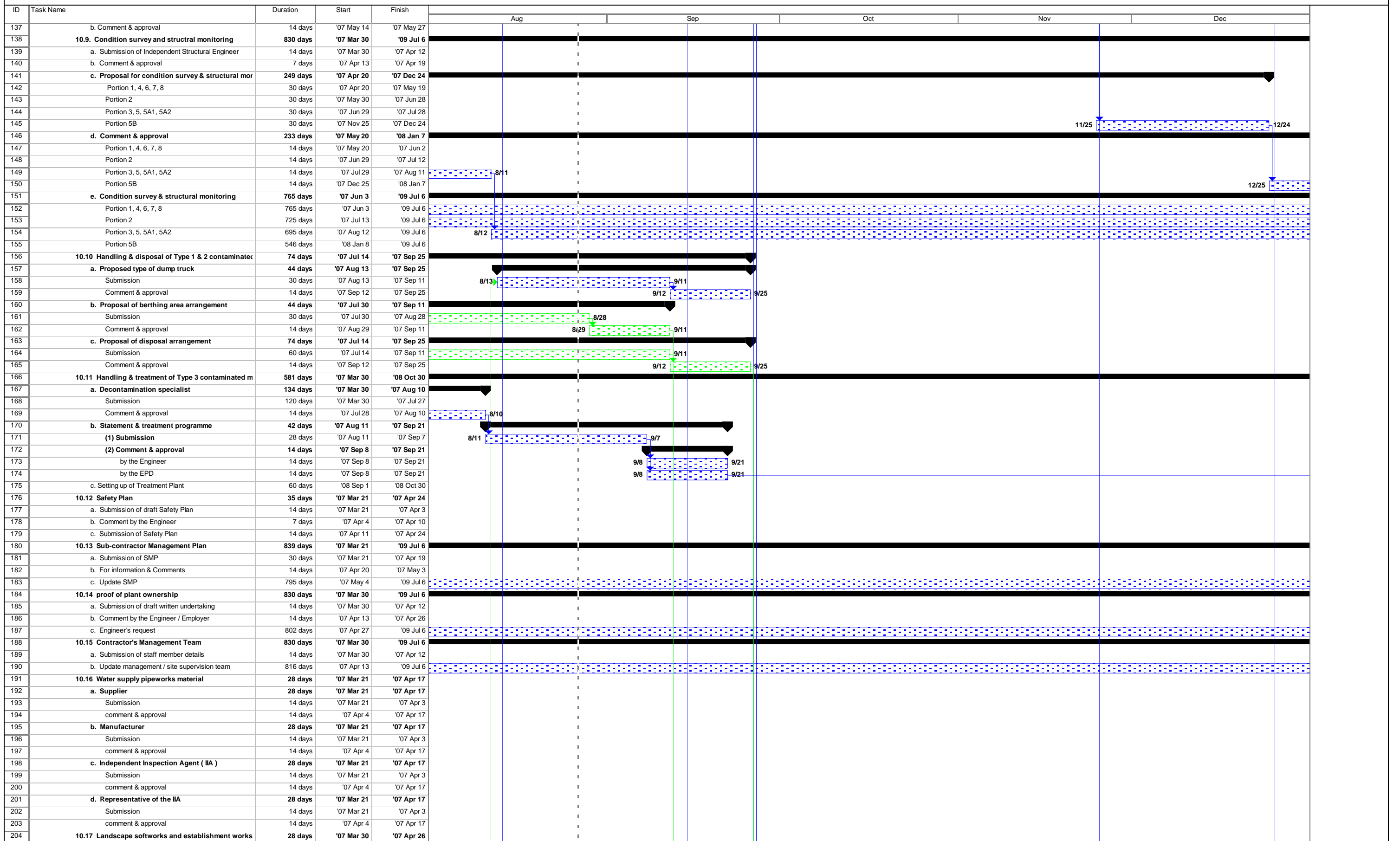
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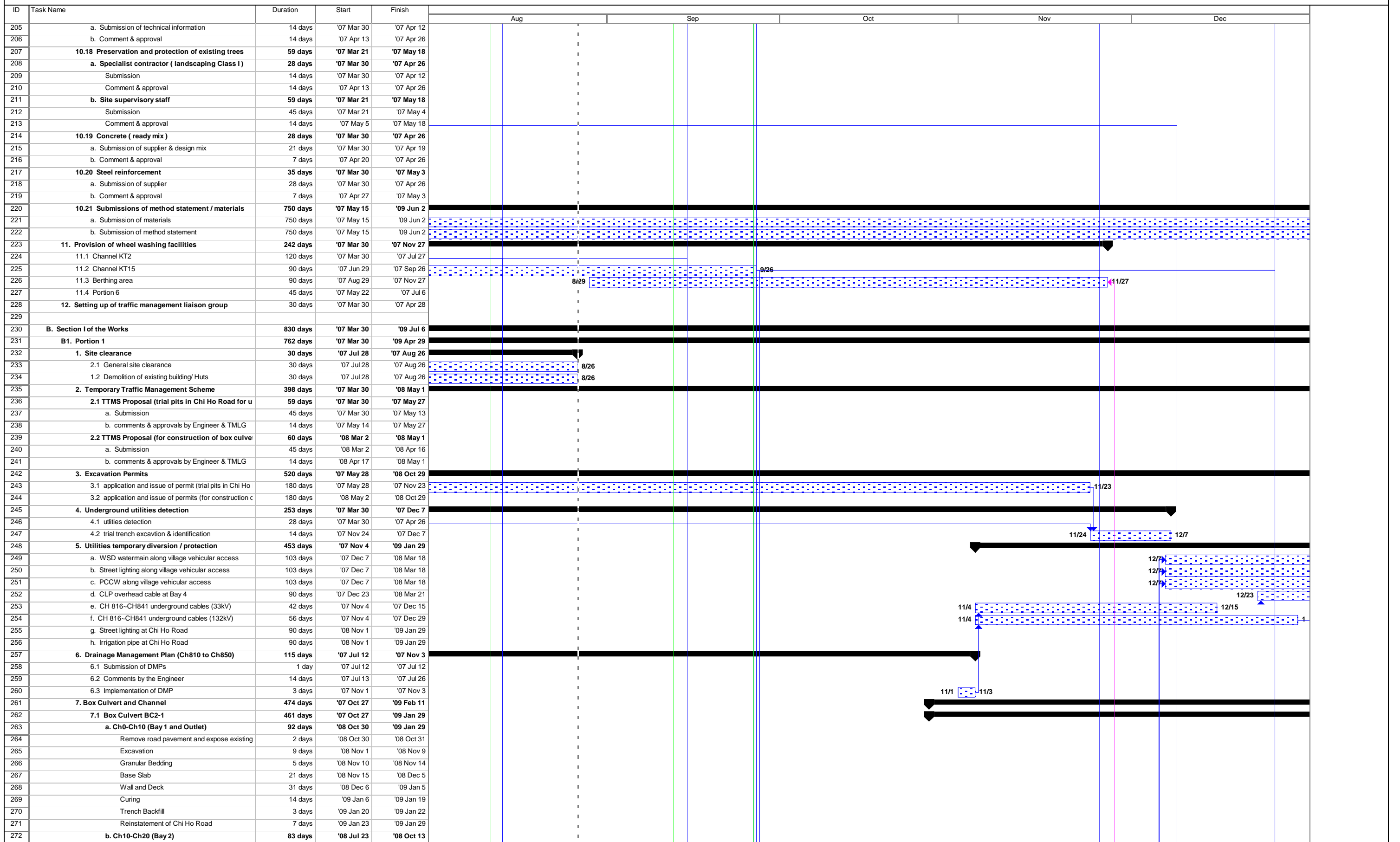
Appendix B

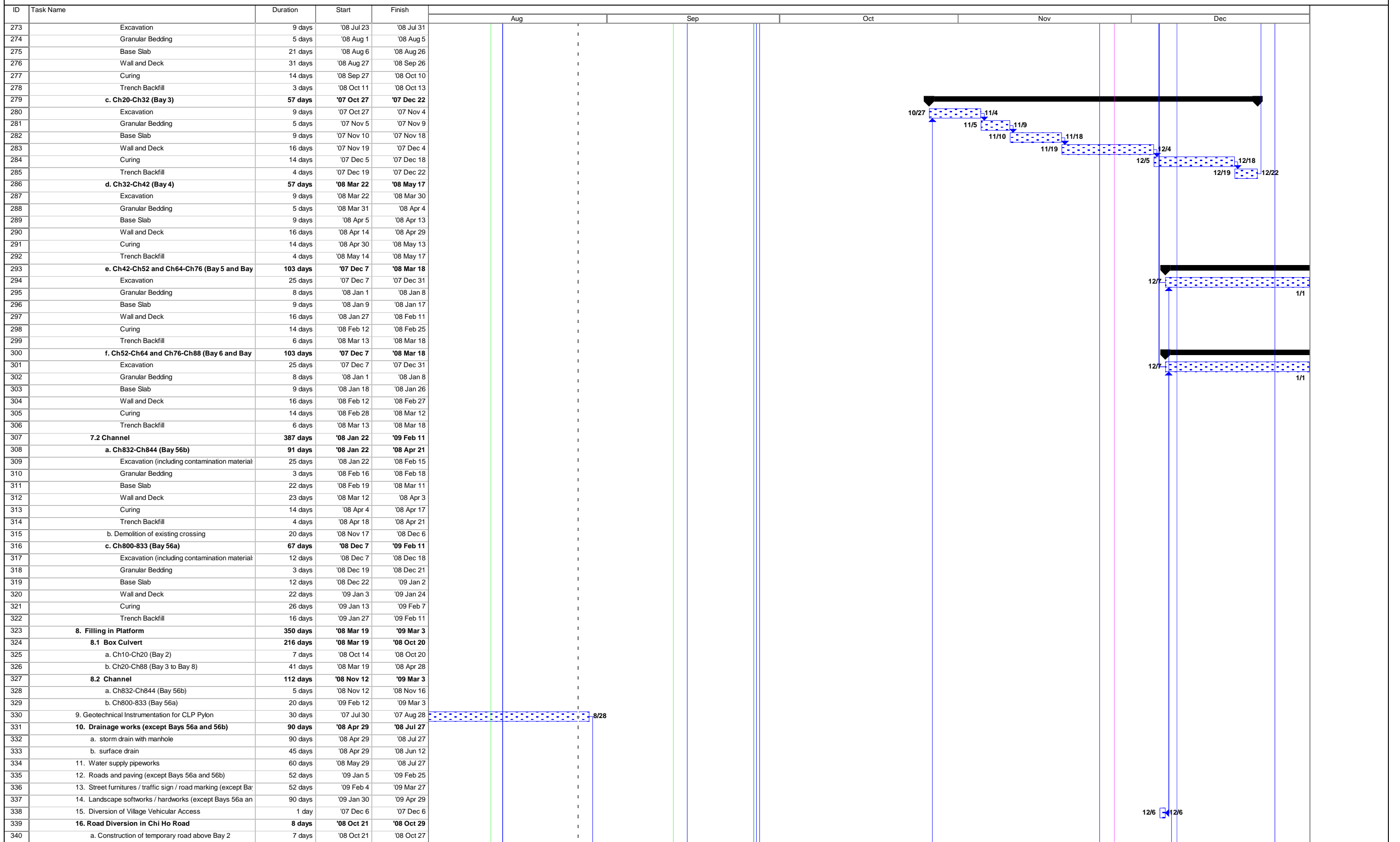
Three-Month Construction Program

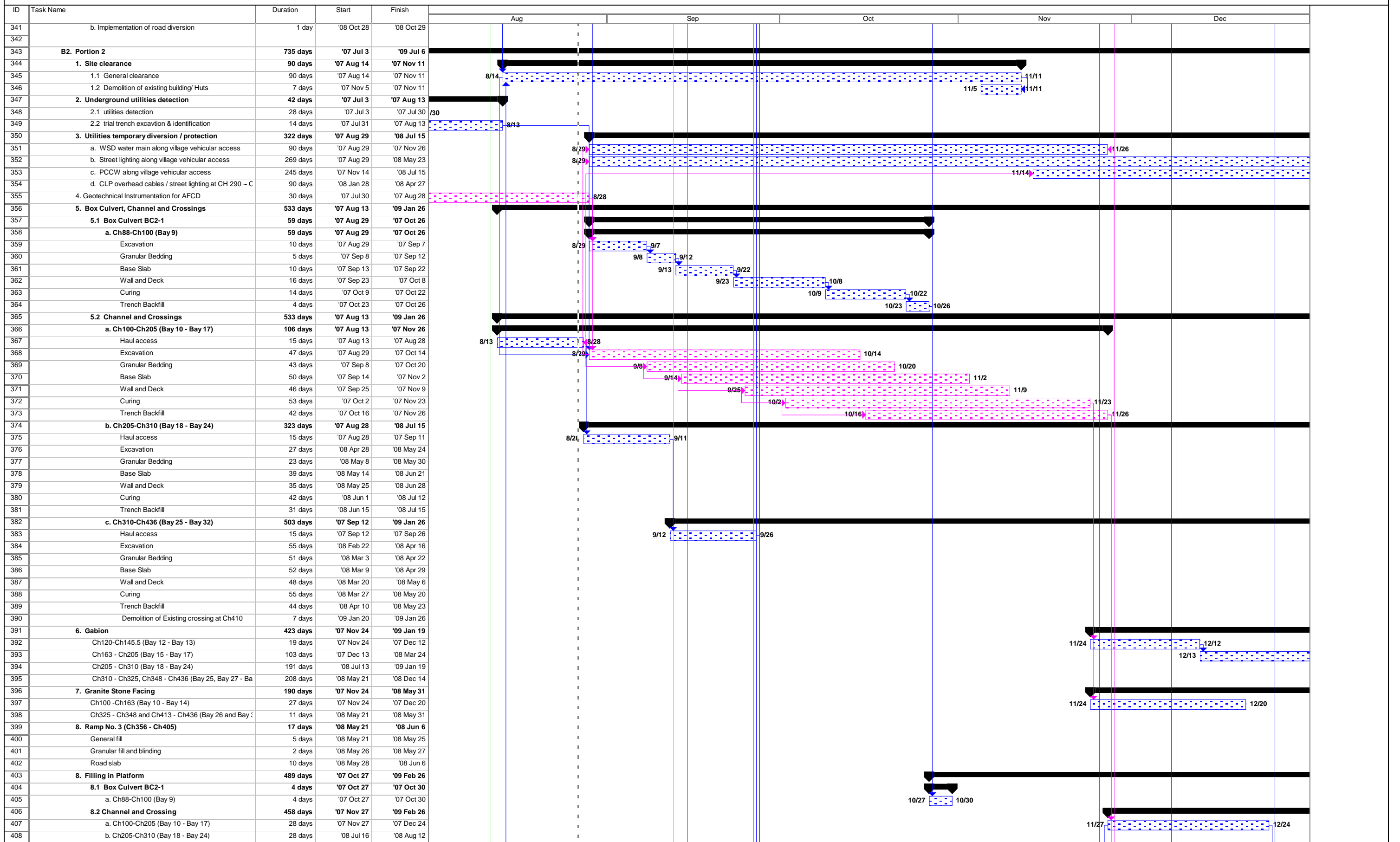
ID	Task Name	Duration	Start	Finish	Aug	Sep	Oct	Nov	Dec
1	Letter of Acceptance	1 day	'07 Mar 21	'07 Mar 21					
2	Date for commencement of Works	1 day	'07 Mar 30	'07 Mar 30					
3	Execution of Article of Agreement	1 day	'07 Apr 3	'07 Apr 3					
4									
5	Master Programme of the Works	839 days	'07 Mar 21	'09 Jul 6					
6									
7	Completion Dates	830 days	'07 Mar 30	'09 Jul 6					
8	Section I - portions 1, 2 and 3	830 days	'07 Mar 30	'09 Jul 6					
9	Section II - portions 4, 5 and 5C	830 days	'07 Mar 30	'09 Jul 6					
10	Section III - portions 5A1, 5A2 and 5B	740 days	'07 Jun 28	'09 Jul 6					
11	Section IV - temp vehicular access at portion 5A1	90 days	'07 Jun 28	'07 Sep 25			9/25		
12	Section V - preservation and protection of existing trees	830 days	'07 Mar 30	'09 Jul 6					
13									
14	Possession of Site	240 days	'07 Mar 30	'07 Nov 24					
15	Portion 1 - channel KT2	1 day	'07 Mar 30	'07 Mar 30					
16	Portion 2 - channel KT2	61 days	'07 Mar 30	'07 May 29					
17	Portion 3 - channel KT2	91 days	'07 Mar 30	'07 Jun 28					
18	Portion 4 - channel KT15	1 day	'07 Mar 30	'07 Mar 30					
19	Portion 5 - channel KT15	91 days	'07 Mar 30	'07 Jun 28					
20	Portion 5A1 - channel KT15	91 days	'07 Mar 30	'07 Jun 28					
21	Portion 5A2 - channel KT15	91 days	'07 Mar 30	'07 Jun 28					
22	Portion 5B - channel KT15	60 days	'07 Sep 26	'07 Nov 24		9/26			
23	Portion 5C - channel KT15	91 days	'07 Mar 30	'07 Jun 28					
24	Portion 6 - Temp Storage Area at Chi Ho Road	1 day	'07 Mar 30	'07 Mar 30					
25	Portion 7 - Berthing Area	1 day	'07 Mar 30	'07 Mar 30					
26	Portion 8 - Site Accommodation	1 day	'07 Mar 30	'07 Mar 30					
27									
28	A. Preliminary Works	839 days	'07 Mar 21	'09 Jul 6					
29	1. Setting out of Works	830 days	'07 Mar 30	'09 Jul 6					
30	2. Environmental Monitoring and Audit	830 days	'07 Mar 30	'09 Jul 6					
31	2.1 Establishment of Environmental Team	14 days	'07 Mar 30	'07 Apr 12					
32	2.2 approval by the Engineer	7 days	'07 Apr 13	'07 Apr 19					
33	2.3 Environmental baseline monitoring	77 days	'07 Apr 20	'07 Jul 5					
34	a. Technical proposal & methodology	7 days	'07 Apr 20	'07 Apr 26					
35	b. Approval by the Engineer	7 days	'07 Apr 27	'07 May 3					
36	c. Baseline monitoring	63 days	'07 May 4	'07 Jul 5					
37	2.4 Environmental impact monitoring and audit	730 days	'07 Jul 8	'09 Jul 6					
38	3. Environmental Management and Environmental Managi	73 days	'07 Mar 30	'07 Jun 10					
39	3.1 Submission of draft EMP	21 days	'07 Mar 30	'07 Apr 19					
40	3.2 Comment from the Engineer	7 days	'07 Apr 20	'07 Apr 26					
41	3.3 Submission of EMP	45 days	'07 Apr 27	'07 Jun 10					
42	4. Engineer's Accommodation	51 days	'07 Mar 30	'07 May 19					
43	4.1 Renovation	30 days	'07 Mar 30	'07 Apr 28					
44	4.2 Equipment	51 days	'07 Mar 30	'07 May 19					
45	a. Contract telephone	21 days	'07 Mar 30	'07 Apr 19					
46	b. Survey equipment	45 days	'07 Mar 30	'07 May 13					
47	c. Contract computer facilities	51 days	'07 Mar 30	'07 May 19					
48	submission	14 days	'07 Mar 30	'07 Apr 12					
49	approval	7 days	'07 Apr 13	'07 Apr 19					
50	installation	21 days	'07 Apr 22	'07 May 12					
51	testing & commissioning	7 days	'07 May 13	'07 May 19					
52	4.3 utilities servicing	33 days	'07 Mar 30	'07 May 1					
53	a. Water	1 day	'07 Mar 30	'07 Mar 30					
54	b. Electricity	1 day	'07 Mar 30	'07 Mar 30					
55	c. Telephone	33 days	'07 Mar 30	'07 May 1					
56	temporary service	32 days	'07 Mar 30	'07 Apr 30					
57	new service	19 days	'07 Apr 13	'07 May 1					
58	application	5 days	'07 Apr 13	'07 Apr 17					
59	installation	14 days	'07 Apr 18	'07 May 1					
60	d. Facsimile	33 days	'07 Mar 30	'07 May 1					
61	temporary service	32 days	'07 Mar 30	'07 Apr 30					
62	new service	19 days	'07 Apr 13	'07 May 1					
63	application	5 days	'07 Apr 13	'07 Apr 17					
64	installation	14 days	'07 Apr 18	'07 May 1					
65	e. Internet broadband	33 days	'07 Mar 30	'07 May 1					
66	temporary service (56K)	32 days	'07 Mar 30	'07 Apr 30					
67	new service	19 days	'07 Apr 13	'07 May 1					
68	application	5 days	'07 Apr 13	'07 Apr 17					

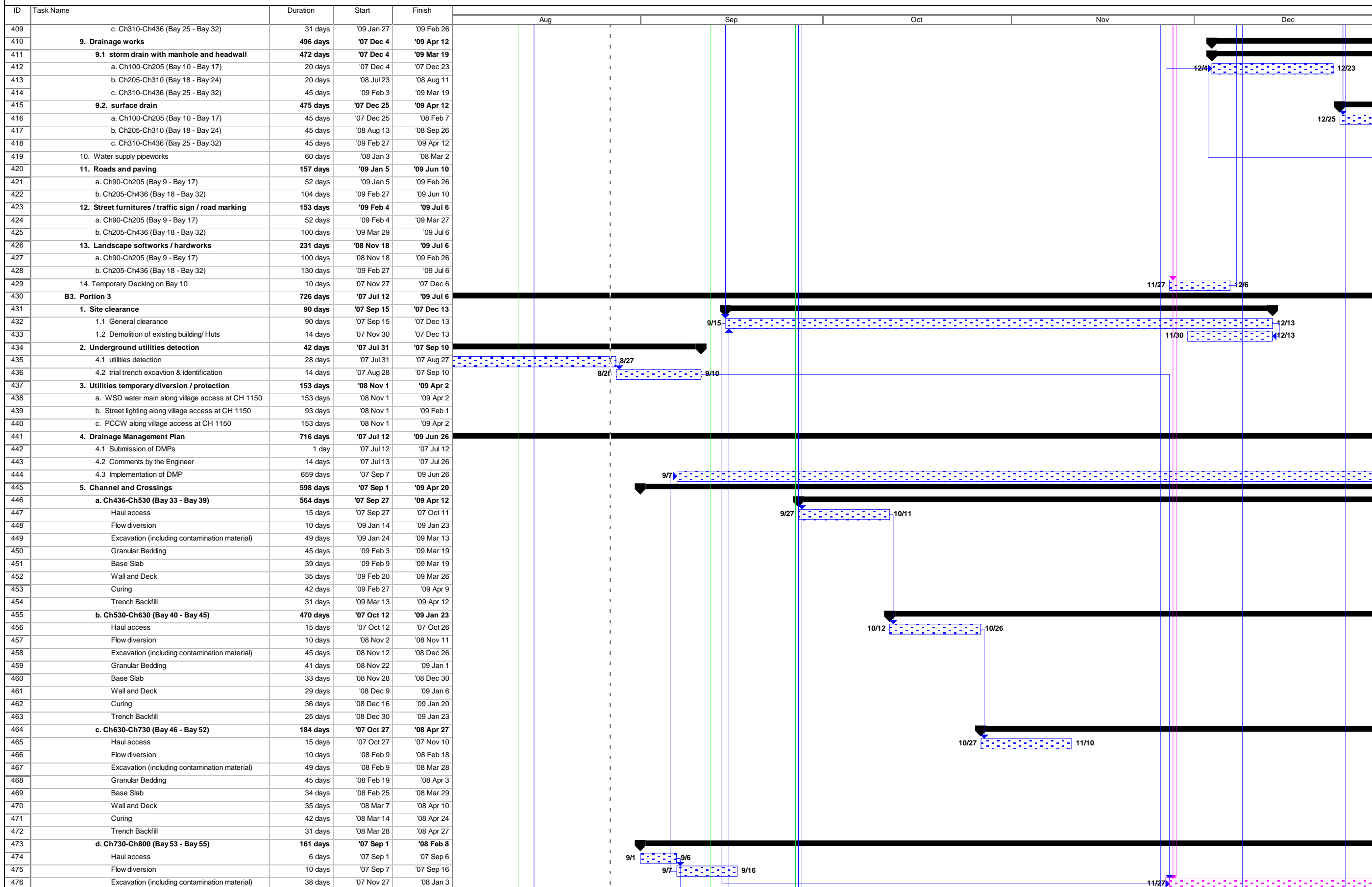
ID	Task Name	Duration	Start	Finish	Gantt Chart					
					Aug	Sep	Oct	Nov	Dec	
69	installation	14 days	'07 Apr 18	'07 May 1						
70	5. Contractor's Accommodation	45 days	'07 Mar 30	'07 May 13						
71	5.1 Provision	45 days	'07 Mar 30	'07 May 13						
72	a. Premises	45 days	'07 Mar 30	'07 May 13						
73	b. Toilet facilities	21 days	'07 Apr 23	'07 May 13						
74	c. Telephone service	30 days	'07 Apr 14	'07 May 13						
75	d. Fascimile service	30 days	'07 Apr 14	'07 May 13						
76	e. Internet broadband service	30 days	'07 Apr 14	'07 May 13						
77	f. Water	1 day	'07 Mar 30	'07 Mar 30						
78	g. electricity	1 day	'07 Mar 30	'07 Mar 30						
79	6. Transport (land) for the Engineer	124 days	'07 Mar 30	'07 Jul 31						
80	6.1 submission	7 days	'07 Mar 30	'07 Apr 5						
81	6.2 comment & approval	14 days	'07 Apr 6	'07 Apr 19						
82	6.3 delivery	103 days	'07 Apr 20	'07 Jul 31						
83	6.4 temp service	124 days	'07 Mar 30	'07 Jul 31						
84	7. Transport (land) for Public Works Regional Laboratory	124 days	'07 Mar 30	'07 Jul 31						
85	7.1 submission	7 days	'07 Mar 30	'07 Apr 5						
86	7.2 comment, approval & instruction	14 days	'07 Apr 6	'07 Apr 19						
87	7.3 delivery	103 days	'07 Apr 20	'07 Jul 31						
88	8. Signboard	150 days	'07 Mar 30	'07 Aug 26						
89	8.1 Major	150 days	'07 Mar 30	'07 Aug 26						
90	submission	90 days	'07 Mar 30	'07 Jun 27						
91	comment & approval	90 days	'07 Apr 29	'07 Jul 27						
92	erection	90 days	'07 May 29	'07 Aug 26						
93	8.2 Minor	150 days	'07 Mar 30	'07 Aug 26						
94	submission	90 days	'07 Mar 30	'07 Jun 27						
95	comment & approval	90 days	'07 Apr 29	'07 Jul 27						
96	erection	90 days	'07 May 29	'07 Aug 26						
97	9. Telephone hotline	15 days	'07 Apr 29	'07 May 13						
98	9.1 Engineer's instruction	1 day	'07 Apr 29	'07 Apr 30						
99	9.2 installation	14 days	'07 Apr 30	'07 May 13						
100	10. Contractual general submissions	839 days	'07 Mar 21	'09 Jul 6						
101	10.1 programmes	28 days	'07 Mar 21	'07 Apr 17						
102	a. GCC Clause 16 programme	14 days	'07 Mar 21	'07 Apr 3						
103	b. Works programme & financial programme	14 days	'07 Apr 4	'07 Apr 17						
104	c. 3-month rolling programme	14 days	'07 Apr 4	'07 Apr 17						
105	10.2 contractor's superintendence	14 days	'07 Mar 30	'07 Apr 12						
106	a. Agent	7 days	'07 Mar 30	'07 Apr 5						
107	b. Surveyor	14 days	'07 Mar 30	'07 Apr 12						
108	c. Sub-agent	14 days	'07 Mar 30	'07 Apr 12						
109	d. Geotechnical Engineer	7 days	'07 Mar 30	'07 Apr 5						
110	e. Geotechnical Supervisor	14 days	'07 Mar 30	'07 Apr 12						
111	f. Foreman - concrete	14 days	'07 Mar 30	'07 Apr 12						
112	g. Foreman - drainage	14 days	'07 Mar 30	'07 Apr 12						
113	h. Staff Organization Plan	14 days	'07 Mar 30	'07 Apr 12						
114	10.3 Safety Organization	14 days	'07 Mar 30	'07 Apr 12						
115	a. Safety Officer	14 days	'07 Mar 30	'07 Apr 12						
116	b. Safety Supervisor	14 days	'07 Mar 30	'07 Apr 12						
117	c. Safety Representative	14 days	'07 Mar 30	'07 Apr 12						
118	10.4 TTMS design	7 days	'07 Mar 30	'07 Apr 5						
119	a. Independent Traffic Consultant	7 days	'07 Mar 30	'07 Apr 5						
120	b. Traffic Engineer	7 days	'07 Mar 30	'07 Apr 5						
121	10.5 Assistant to Engineer	33 days	'07 Mar 30	'07 May 1						
122	a. Chainmen (4)	33 days	'07 Mar 30	'07 May 1						
123	b. Watchmen (2)	33 days	'07 Mar 30	'07 May 1						
124	c. Field assistant (1)	33 days	'07 Mar 30	'07 May 1						
125	d. Technical assistant (1)	33 days	'07 Mar 30	'07 May 1						
126	e. Clerical assistant (1)	33 days	'07 Mar 30	'07 May 1						
127	f. Office assistant (1)	33 days	'07 Mar 30	'07 May 1						
128	10.6 Underground service detection equipment	35 days	'07 Mar 30	'07 May 3						
129	a. Submission	7 days	'07 Mar 30	'07 Apr 5						
130	b. Comment & approval	14 days	'07 Apr 6	'07 Apr 19						
131	c. Provision	14 days	'07 Apr 20	'07 May 3						
132	10.7 Independent Checking of Temporary Works	28 days	'07 Mar 30	'07 Apr 26						
133	a. Submission of independent checking engineer	14 days	'07 Mar 30	'07 Apr 12						
134	b. Comment & approval	14 days	'07 Apr 13	'07 Apr 26						
135	10.8 Trip ticket system for C & D material	59 days	'07 Mar 30	'07 May 27						
136	a. Submission of site management plan	45 days	'07 Mar 30	'07 May 13						

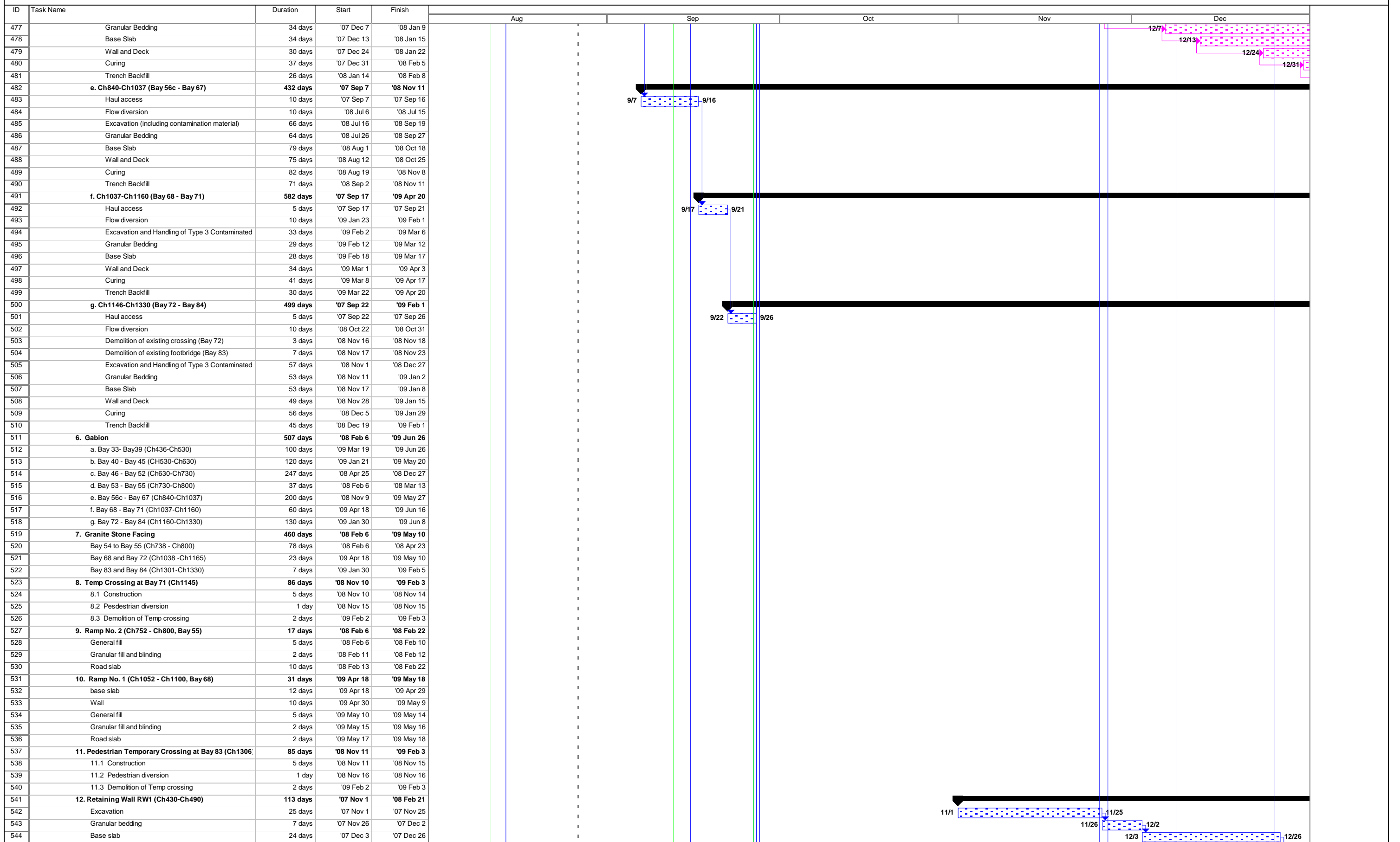




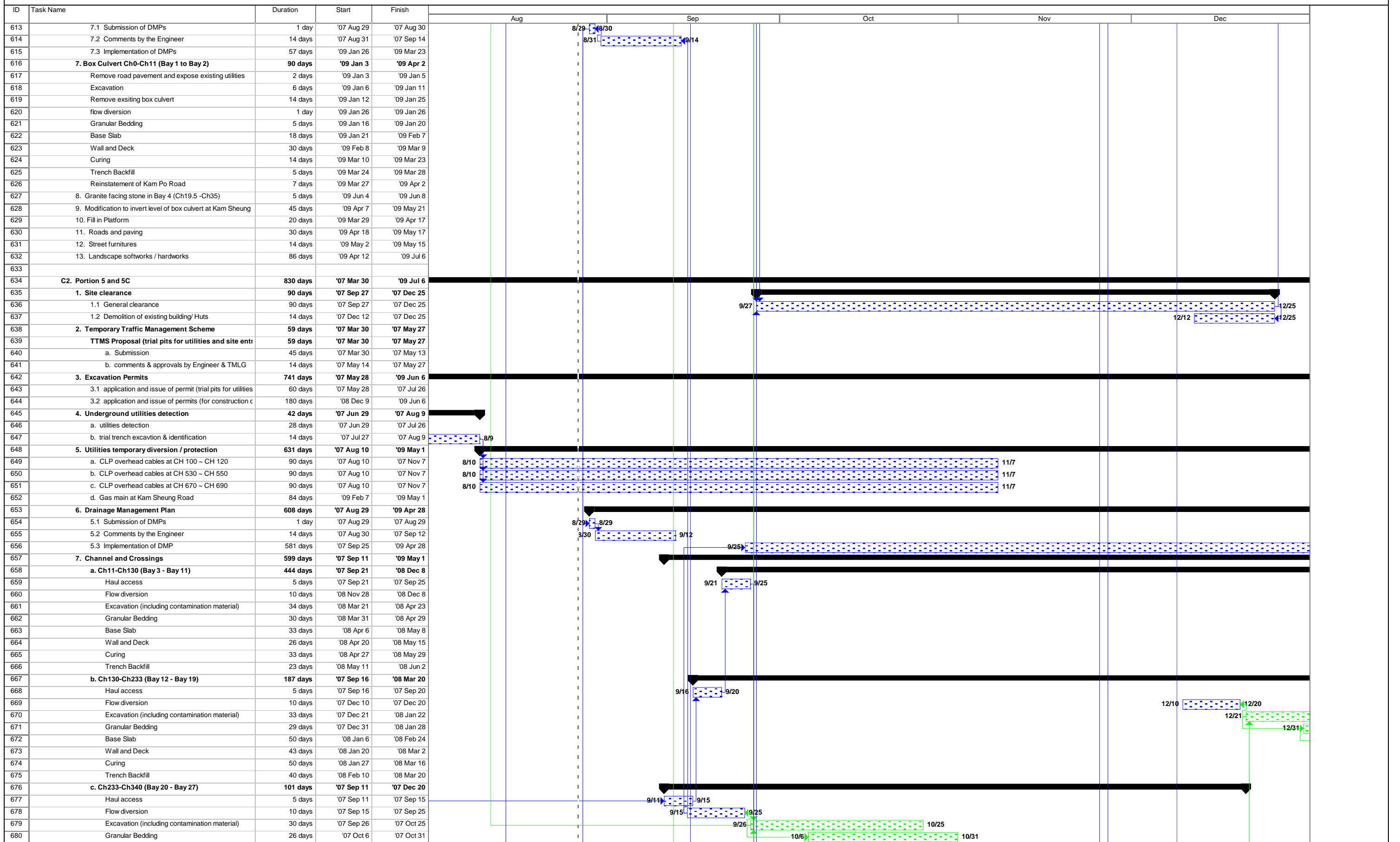


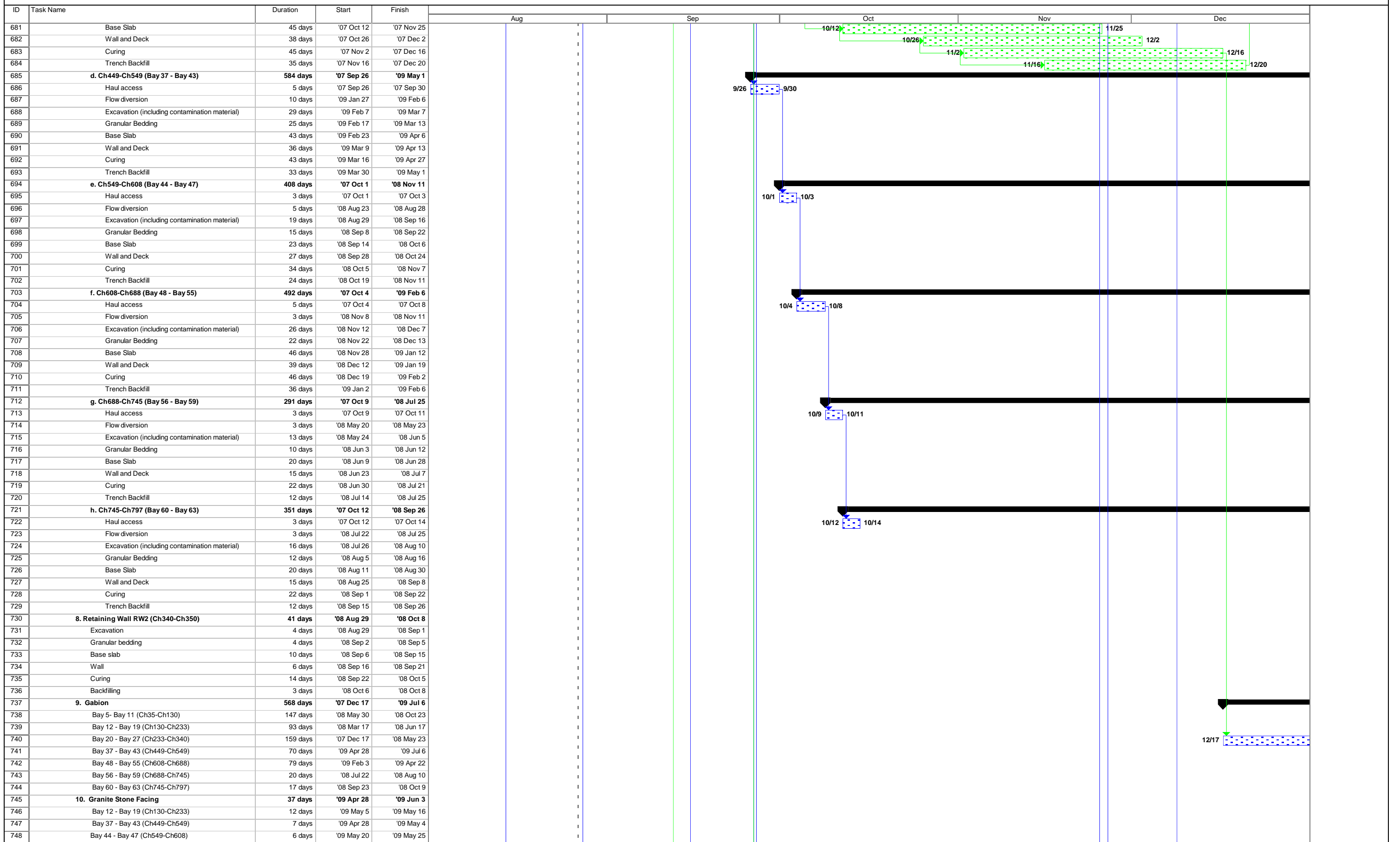




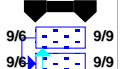


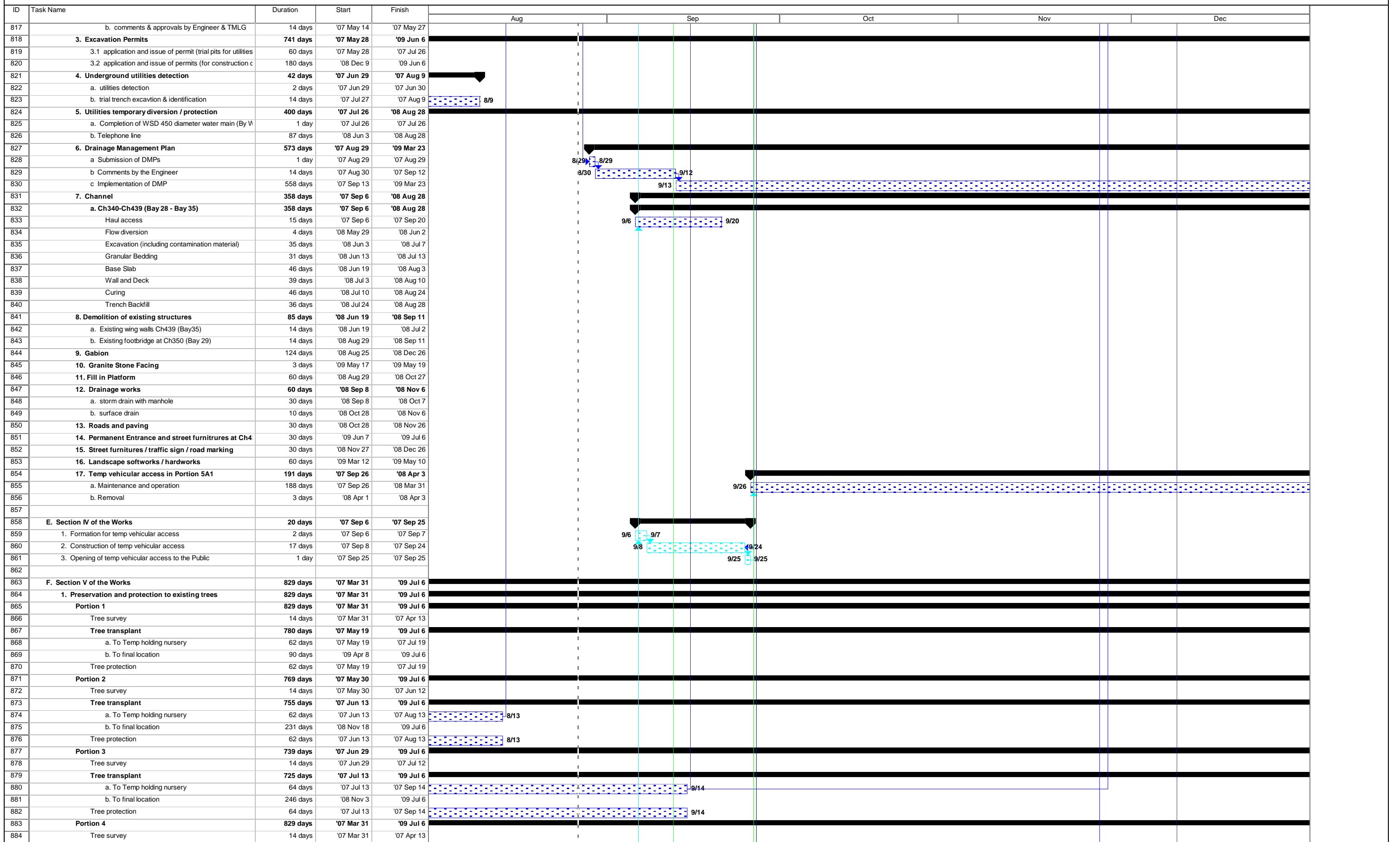
ID	Task Name	Duration	Start	Finish	Aug	Sep	Oct	Nov	Dec
545	Wall	26 days	'07 Dec 27	'08 Jan 21					12/27
546	Curing	14 days	'08 Jan 22	'08 Feb 4					
547	Backfilling	17 days	'08 Feb 5	'08 Feb 21					
548	13. Filling in Platform	454 days	'08 Feb 9	'09 May 7					
549	a. Bay 33- Bay39 (Ch436-Ch530)	25 days	'09 Apr 13	'09 May 7					
550	b. Bay 40 - Bay 45 (CH530-Ch630)	28 days	'09 Jan 24	'09 Feb 20					
551	c. Bay 46 - Bay 52 (Ch630-Ch730)	28 days	'08 Apr 28	'08 May 25					
552	d. Bay 53 - Bay 55 (Ch730-Ch800)	19 days	'08 Feb 9	'08 Feb 27					
553	e. Bay 56c - Bay 67 (Ch844-Ch1037)	62 days	'08 Nov 12	'09 Jan 12					
554	f. Bay 68 - Bay 71 (Ch1037-Ch1146)	10 days	'09 Apr 21	'09 Apr 30					
555	g. Bay 72 - Bay 84 (Ch1146-Ch1330)	14 days	'09 Feb 2	'09 Feb 15					
556	14. Drainage works	489 days	'08 Feb 19	'09 Jun 21					
557	14.1 storm drain with manhole	459 days	'08 Feb 19	'09 May 22					
558	a. Bay 33- Bay39 (Ch436-Ch530)	30 days	'09 Apr 23	'09 May 22					
559	b. Bay 40 - Bay 45 (CH530-Ch630)	20 days	'09 Feb 3	'09 Feb 22					
560	c. Bay 46 - Bay 52 (Ch630-Ch730)	20 days	'08 May 8	'08 May 27					
561	d. Bay 53 - Bay 55 (Ch730-Ch800)	20 days	'08 Feb 19	'08 Mar 9					
562	e. Bay 56c - Bay 67 (Ch844-Ch1037)	90 days	'08 Nov 22	'09 Feb 19					
563	f. Bay 68 - Bay 71 (Ch1037-Ch1146)	20 days	'09 May 1	'09 May 20					
564	g. Bay 72 - Bay 84 (Ch1146-Ch1330)	20 days	'09 Feb 12	'09 Mar 3					
565	14.2. surface drain	480 days	'08 Feb 28	'09 Jun 21					
566	a. Bay 33- Bay39 (Ch436-Ch530)	45 days	'09 May 8	'09 Jun 21					
567	b. Bay 40 - Bay 45 (CH530-Ch630)	45 days	'09 Feb 21	'09 Apr 6					
568	c. Bay 46 - Bay 52 (Ch630-Ch730)	45 days	'08 May 26	'08 Jul 9					
569	d. Bay 53 - Bay 55 (Ch730-Ch800)	45 days	'08 Feb 28	'08 Apr 12					
570	e. Bay 56c - Bay 67 (Ch844-Ch1037)	45 days	'09 Jan 13	'09 Feb 26					
571	f. Bay 68 - Bay 71 (Ch1037-Ch1146)	45 days	'09 May 1	'09 Jun 14					
572	g. Bay 72 - Bay 84 (Ch1146-Ch1330)	45 days	'09 Feb 16	'09 Apr 1					
573	15. Roads and paving	168 days	'09 Jan 13	'09 Jun 29					
574	a. Ch800-Ch881	60 days	'09 Jan 13	'09 Mar 13					
575	b. Ch881-CH1037	52 days	'09 Mar 14	'09 May 4					
576	c. CH1037-CH1165	60 days	'09 May 1	'09 Jun 29					
577	16. Street furnitures / traffic sign / road marking	145 days	'09 Feb 12	'09 Jul 6					
578	a. Ch800-Ch881	37 days	'09 Feb 12	'09 Mar 20					
579	b. Ch881-CH1037	37 days	'09 Apr 13	'09 May 19					
580	c. CH1037-CH1165	37 days	'09 May 31	'09 Jul 6					
581	17. Landscape softworks / hardworks	246 days	'08 Nov 3	'09 Jul 6					
582	a. Bay 33- Bay39 (Ch436-Ch530)	30 days	'09 Jun 7	'09 Jul 6					
583	b. Bay 40 - Bay 45 (CH530-Ch630)	45 days	'09 Mar 23	'09 May 6					
584	c. Bay 46 - Bay 52 (Ch630-Ch730)	45 days	'08 Nov 3	'08 Dec 18					
585	d. Bay 53 - Bay 55 (Ch730-Ch800)	45 days	'08 Dec 18	'09 Feb 1					
586	e. Bay 56c - Bay 67 (Ch844-Ch1037)	45 days	'09 Feb 1	'09 Mar 18					
587	f. Bay 68 - Bay 71 (Ch1037-Ch1146)	45 days	'09 May 23	'09 Jul 6					
588	g. Bay 72 - Bay 84 (Ch1146-Ch1330)	45 days	'09 Mar 18	'09 May 1					
589									
590	C. Section II of the Works	830 days	'07 Mar 30	'09 Jul 6					
591	C1. Portion 4	829 days	'07 Mar 31	'09 Jul 6					
592	1. Site clearance	14 days	'07 Dec 26	'08 Jan 8					
593	1.1 General clearance	14 days	'07 Dec 26	'08 Jan 8					12/26
594	1.2 Demolition of existing building/ Huts	2 days	'08 Jan 7	'08 Jan 8					
595	2. Temporary Traffic Management Scheme	462 days	'07 Mar 31	'08 Jul 5					
596	2.1 TTMS Proposal (trial pits for utilities and site)	59 days	'07 Mar 31	'07 May 28					
597	a. Submission	45 days	'07 Mar 31	'07 May 14					
598	b. comments & approvals by Engineer & TMLG	14 days	'07 May 15	'07 May 28					
599	2.2 TTMS Proposal (for construction of box culve	60 days	'08 May 6	'08 Jul 5					
600	a. Submission	45 days	'08 May 6	'08 Jun 20					
601	b. comments & approvals by Engineer & TMLG	14 days	'08 Jun 21	'08 Jul 5					
602	3. Excavation Permits	584 days	'07 May 29	'09 Jan 2					
603	3.1 application and issue of permit (trial pits for utilities	60 days	'07 May 29	'07 Jul 27					
604	3.2 application and issue of permits (for construction c	180 days	'08 Jul 6	'09 Jan 2					
605	4. Underground utilities detection	43 days	'07 Jun 29	'07 Aug 10					
606	4.1 utilities detection	28 days	'07 Jun 29	'07 Jul 27					
607	4.2 trial trench excavation & identification	14 days	'07 Jul 28	'07 Aug 10					8/10
608	5. Utilities temporary diversion / protection	94 days	'09 Jan 6	'09 Apr 9					
609	a. WSD water main along Kam Po Road	94 days	'09 Jan 6	'09 Apr 9					
610	b. Street lighting along Kam Po Road	94 days	'09 Jan 6	'09 Apr 9					
611	c. DSD storm Drain	94 days	'09 Jan 6	'09 Apr 9					
612	6. Drainage Management Plan	573 days	'07 Aug 29	'09 Mar 23					

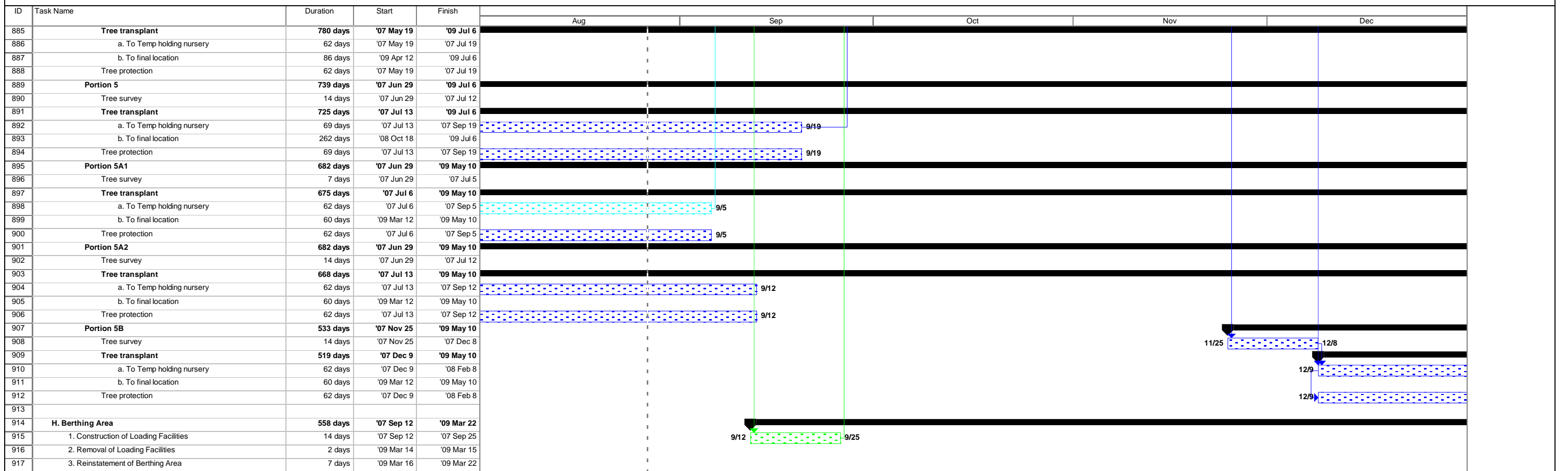




ID	Task Name	Duration	Start	Finish	Gantt Chart												
					Aug	Sep	Oct	Nov	Dec								
749	Bay 48 - Bay 55 (Ch608-Ch688)	9 days	'09 May 26	'09 Jun 3													
750	11. Ramp No. 1 (Ch650 - Ch675, Bay 52-Bay 53)	33 days	'09 Feb 3	'09 Mar 7													
751	base slab	12 days	'09 Feb 3	'09 Feb 14													
752	Wall	10 days	'09 Feb 15	'09 Feb 24													
753	General fill	5 days	'09 Feb 25	'09 Mar 1													
754	Granular fill and blinding	3 days	'09 Mar 2	'09 Mar 4													
755	Road slab	3 days	'09 Mar 5	'09 Mar 7													
756	12. Ramp No. 2 (Ch515 - Ch540, Bay 42)	33 days	'09 Apr 28	'09 May 30													
757	base slab	12 days	'09 Apr 28	'09 May 9													
758	Wall	10 days	'09 May 10	'09 May 19													
759	General fill	5 days	'09 May 20	'09 May 24													
760	Granular fill and blinding	3 days	'09 May 25	'09 May 27													
761	Road slab	3 days	'09 May 28	'09 May 30													
762	13. Ramp No. 3 (Ch210 - Ch235, Bay 18-Bay19)	33 days	'08 Mar 17	'08 Apr 18													
763	base slab	12 days	'08 Mar 17	'08 Mar 28													
764	Wall	10 days	'08 Mar 29	'08 Apr 7													
765	General fill	5 days	'08 Apr 8	'08 Apr 12													
766	Granular fill and blinding	3 days	'08 Apr 13	'08 Apr 15													
767	Road slab	3 days	'08 Apr 16	'08 Apr 18													
768	14 Ramp No. 4 (Ch20 - Ch45, Bay 4-Bay5)	28 days	'08 May 30	'08 Jun 26													
769	General fill	7 days	'08 May 30	'08 Jun 5													
770	Granular fill and blinding	4 days	'08 Jun 6	'08 Jun 9													
771	Sloping side wall and road slab	17 days	'08 Jun 10	'08 Jun 26													
772	15. Demolition of existing wing walls Ch449	14 days	'09 Feb 23	'09 Mar 8													
773	16. Filling in Platform	123 days	'08 Jun 3	'08 Oct 3													
774	a. Bay 3- Bay 27 (Ch11-Ch340)	34 days	'08 Jun 3	'08 Jul 6													
775	b. Bay 37 - Bay 55 (Ch449-Ch688)	34 days	'08 Aug 29	'08 Oct 1													
776	c. Bay 56 - Bay 63 (Ch688-Ch797)	7 days	'08 Sep 27	'08 Oct 3													
777	17. Drainage works	146 days	'08 Jun 13	'08 Nov 5													
778	17.1 storm drain with manhole and headwall	132 days	'08 Jun 13	'08 Oct 22													
779	a. Bay 3- Bay 27 (Ch11-Ch340)	20 days	'08 Jun 13	'08 Jul 2													
780	b. Bay 37 - Bay 55 (Ch449-Ch688)	45 days	'08 Sep 8	'08 Oct 22													
781	c. Bay 56 - Bay 63 (Ch688-Ch797)	14 days	'08 Oct 4	'08 Oct 17													
782	17.2 surface drain	122 days	'08 Jul 7	'08 Nov 5													
783	a. Bay 3- Bay 27 (Ch11-Ch340)	34 days	'08 Jul 7	'08 Aug 9													
784	b. Bay 37 - Bay 55 (Ch449-Ch688)	35 days	'08 Oct 2	'08 Nov 5													
785	c. Bay 56 - Bay 63 (Ch688-Ch797)	14 days	'08 Oct 4	'08 Oct 17													
786	18. Roads and paving	275 days	'08 Sep 28	'09 Jun 29													
787	a. Ch233 - Ch340	30 days	'08 Sep 28	'08 Oct 27													
788	b. Ch449 - Ch549	30 days	'08 Dec 1	'08 Dec 30													
789	c. Ch549 - Ch609	30 days	'08 Nov 1	'08 Nov 30													
790	d. Ch609 - Ch688	30 days	'08 Oct 2	'08 Oct 31													
791	e. Permanent Entrance at Ch449	23 days	'09 Jun 7	'09 Jun 29													
792	19. Street furnitures	252 days	'08 Oct 28	'09 Jul 6													
793	a. Ch233 - Ch340	30 days	'08 Oct 28	'08 Nov 26													
794	b. Ch449 - Ch549	30 days	'08 Dec 31	'09 Jan 29													
795	c. Ch549 - Ch609	30 days	'08 Dec 1	'08 Dec 30													
796	d. Ch609 - Ch688	30 days	'08 Nov 1	'08 Nov 30													
797	e. Permanent Entrance at Ch449	7 days	'09 Jun 30	'09 Jul 6													
798	20. Landscape softworks / hardworks	250 days	'08 Oct 18	'09 Jun 24													
799	a. Ch35 - Ch340	45 days	'09 May 11	'09 Jun 24													
800	b. Ch449 - Ch549	45 days	'09 Jan 26	'09 Mar 11													
801	c. Ch549 - Ch609	45 days	'08 Dec 12	'09 Jan 25													
802	d. Ch609 - Ch688	45 days	'08 Oct 28	'08 Dec 11													
803	e. Ch688 - Ch797	10 days	'08 Oct 18	'08 Oct 27													
804	21. Road Diversion in Kam Po Road	102 days	'08 Dec 23	'09 Apr 3													
805	a. Temp Decking above Bay 3 and temp road paver	10 days	'08 Dec 23	'09 Jan 2													
806	b. Implementation of road diversion	1 day	'09 Jan 2	'09 Jan 2													
807	c. Removal of decking	1 day	'09 Apr 3	'09 Apr 3													
808																	
809	D. Section III of the Works	830 days	'07 Mar 30	'09 Jul 6													
810	D1. Portions 5A1, 5A2 and 5B	830 days	'07 Mar 30	'09 Jul 6													
811	1. Site clearance	4 days	'07 Sep 6	'07 Sep 9													
812	1.1 General site clearance	4 days	'07 Sep 6	'07 Sep 9													
813	1.2 Demolition of existing building/ Huts	4 days	'07 Sep 6	'07 Sep 9													
814	2. Temporary Traffic Management Scheme	59 days	'07 Mar 30	'07 May 27													
815	TTMS Proposal (trial pits for utilities and site enti	59 days	'07 Mar 30	'07 May 27													
816	a. Submission	45 days	'07 Mar 30	'07 May 13													



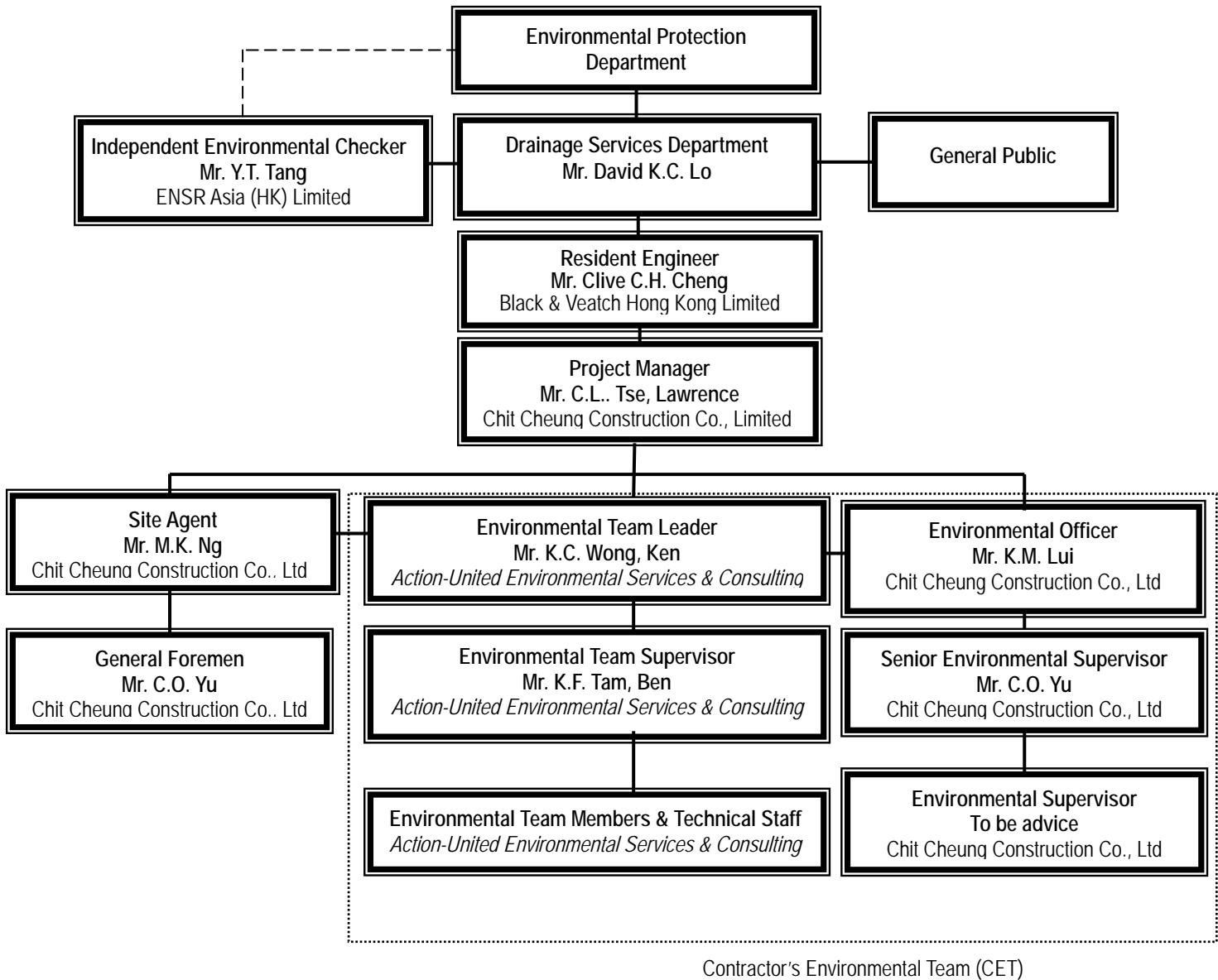




Appendix C

Environmental Organization Structure

Environmental Organization Structure



Contact Details of Key Personnel

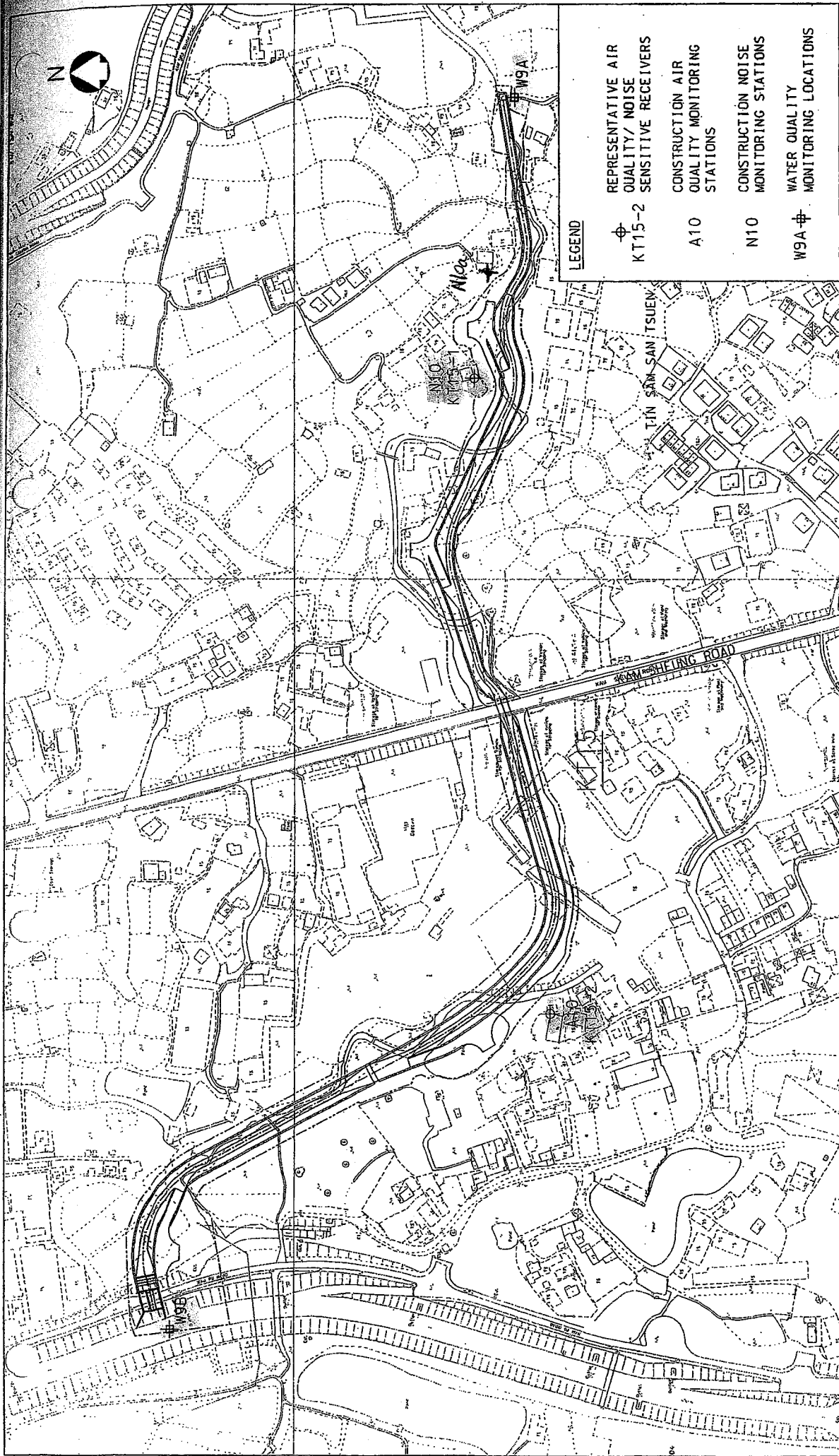
Organization	Project Role	Name of Key Staff	Tel No.	Fax No.
DSD	Employer	Mr. David K.C. LO	2594-7254	2827-8526
B&V	Engineer	Mr. Kelvin N.F. LAU	2601-1000	2601-3988
B&V	Engineer's Representative	Mr. Clive C.H. CHENG	2443-1442	2443-7307
ENSR	Independent Environmental Checker	Mr. Y.T. Tang	3105-8537	2891-0305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

Legend:

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

Appendix D

Locations of Designated Monitoring Station/Locations/Area




LEGEND

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

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

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

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


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

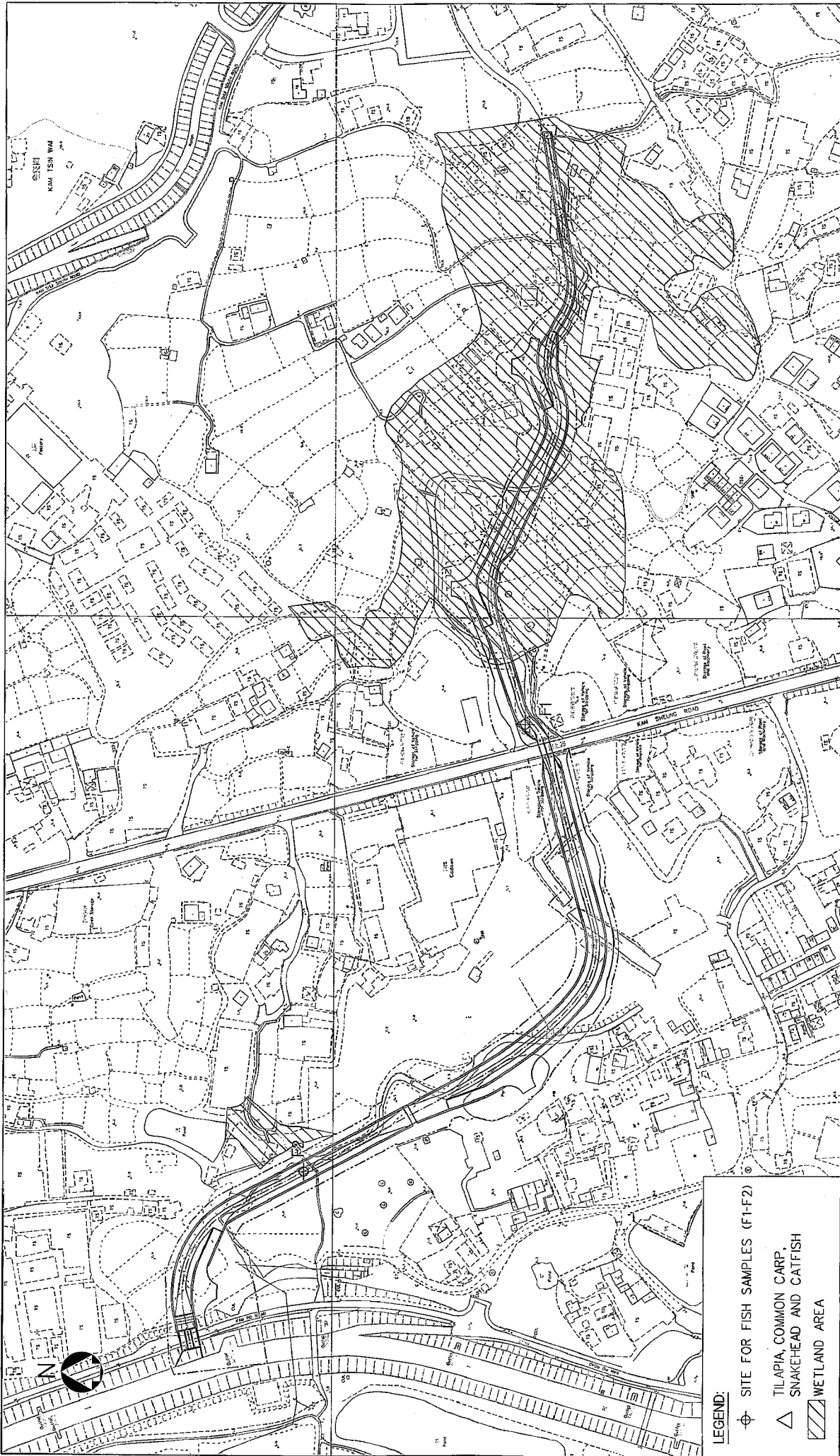


Figure No.	3.3	Revision	0
Reference		File Name	3820470201-114.DGN
Prepared	AEC	Checked	WYC
Date	MAR. 2003	Scale	1 : 2000


Title :

ECOLOGICAL MONITORING AREA KT15

LEGEND:

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

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

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

Appendix E

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

Event/Action Plan for Air Quality

EVENT	ACTION			
	ET	IEC	Engineer	Contractor
ACTION LEVEL				
1. Exceedance for one sample	<ol style="list-style-type: none"> Identify source Inform IEC and Engineer Repeat measurement to confirm finding Increase monitoring frequency to daily 	<ol style="list-style-type: none"> Check monitoring data submitted by ET Check Contractor's working method 	Notify Contractor	<ol style="list-style-type: none"> Rectify any unacceptable practice Amend working methods if appropriate
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> Identify source Inform IEC and Engineer Repeat measurements to confirm findings Increase monitoring frequency to daily Discuss with IEC and Contractor on remedial actions required If exceedance continues, arrange meeting with IEC and Engineer If exceedance stops, cease additional monitoring 	<ol style="list-style-type: none"> Check monitoring data submitted by ET Check Contractor's working method Discuss with ET and Contractor on possible remedial measures Advice Engineer on the effectiveness of the proposed remedial measures Supervise implementation of remedial measures 	<ol style="list-style-type: none"> Confirm receipt of notification of failure in writing Notify Contractor Ensure remedial measures properly implemented 	<ol style="list-style-type: none"> Submit proposals for remedial actions to IEC within 3 working days of notification Implement the agreed proposals Amend proposal if appropriate
LIMIT LEVEL				
1. Exceedance for one sample	<ol style="list-style-type: none"> Identify source Inform Engineer and EPD Repeat measurement to confirm finding Increase monitoring frequency to daily Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and Engineer informed of the results 	<ol style="list-style-type: none"> Check monitoring data submitted by ET Check Contractor's working method Discuss with ET and Contractor on possible remedial measures Advice Engineer on the effectiveness of the proposed remedial measures Supervise implementation of remedial measures 	<ol style="list-style-type: none"> Confirm receipt of notification of failure in writing Notify Contractor Ensure remedial measures properly implemented 	<ol style="list-style-type: none"> Take immediate action to avoid further exceedance Submit proposals for remedial actions to IEC within 3 working days of notification Implement the agreed proposals Amend proposal if appropriate
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> Notify IEC, Engineer and EPD Identify source Repeat measurement to confirm findings Increase monitoring frequency to daily Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented. Arrange meeting with IEC and Engineer to discuss the remedial actions to be taken Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and Engineer informed of the results If exceedance stops, cease additional monitoring 	<ol style="list-style-type: none"> Discuss amongst Engineer, ET and Contractor on potential remedial actions Review Contractor's remedial actions whether necessary to assure their effectiveness and advice the Engineer accordingly Supervise implementation of remedial measures 	<ol style="list-style-type: none"> Confirm receipt of notification of failure in writing Notify Contractor In consultation with the IEC, agree with the Contractor on the remedial measures to be implemented Discuss amongst Environmental Team Leader and the Contractor potential remedial actions Ensure remedial measures properly implemented 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 	<ol style="list-style-type: none"> Take immediate action to avoid further exceedance Submit proposals for remedial actions to IEC within 3 working days of notification Implement the agreed proposals Resubmit proposals if problem still not under control 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	<ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> 1. Submit noise mitigation proposals for remedial actions to IEC 2. Implement the agreed proposals
LIMIT LEVEL	<ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> 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)	<ol style="list-style-type: none"> Repeat in-situ measurement to confirm findings Identify source(s) of impact Inform IEC and Contractor Check monitoring data, all plant, equipment and Contractor's working methods Discuss mitigation measures IEC and Contractor Repeat measurement on next day of exceedance 	<ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> Discuss with IEC on the proposed mitigation measures Make agreement on the mitigation measures to be implemented 	<ol style="list-style-type: none"> Inform Engineer and confirm notification of the non-compliance in writing Rectify unacceptable practice Check all plant and equipment Consider changes of working methods Discuss with ET and Contractor and propose mitigation measures to IEC and Engineer Implement the agreed mitigation measures
ACTION LEVEL (being exceeded by more than one sampling day)	<ol style="list-style-type: none"> Repeat in-situ measurement to confirm findings Identify source(s) of impact Inform IEC, Contractor and EPD Check monitoring data, all plant, equipment and Contractor's working methods Discuss mitigation measures IEC, Engineer and Contractor Repeat measurement on next day of exceedance Ensure mitigation measures are implemented Prepare to increase the monitoring frequency to daily Repeat measurement on next day of exceedance 	<ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> Discuss with IEC on the proposed mitigation measures Make agreement on the mitigation measures to be implemented Assess the effectiveness of the implemented mitigation measures 	<ol style="list-style-type: none"> Inform Engineer and confirm notification of the non-compliance in writing Rectify unacceptable practice Check all plant and equipment Consider changes of working methods Discuss with ET and IEC and propose mitigation measures to IEC and Engineer within 3 working days Implement the agreed mitigation measures
LIMIT LEVEL (being exceeded by more than one sampling days)	<ol style="list-style-type: none"> Repeat in-situ measurement to confirm findings Identify source(s) of impact Inform IEC, Contractor and EPD Check monitoring data, all plant, equipment and Contractor's working methods Discuss mitigation measures IEC, Engineer and Contractor Ensure mitigation measures are implemented Increase the monitoring frequency to daily until no exceedance of Limit level 	<ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> Discuss with IEC, ET and Contractor on the proposed mitigation measures Request Contractor to critically review the working methods Make agreement on the mitigation measures to be implemented Assess the effectiveness of the implemented mitigation measures 	<ol style="list-style-type: none"> Inform Engineer and confirm notification of the non-compliance in writing Rectify unacceptable practice Check all plant and equipment Consider changes of working methods Discuss with ET, IEC and Engineer and propose mitigation measures to IEC and Engineer within 3 working days Implement the agreed mitigation measures
LIMIT LEVEL (being exceeded by more than one sampling days)	<ol style="list-style-type: none"> Repeat in-situ measurement to confirm findings; Identify source(s) of impact; Inform Contractor, Engineer, IEC and EPD; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC, Engineer and Contractor; Ensure mitigation measures are implemented; Increase the monitoring frequency to daily until no exceedance of Limit level 	<ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> Discuss with IEC, ET and Contractor on the proposed mitigation measures Request Contractor to critically review the working methods Make agreement on the mitigation measures to be implemented Assess the effectiveness of the implemented mitigation measures 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 	<ol style="list-style-type: none"> Inform Engineer and confirm notification of the non-compliance in writing Rectify unacceptable practice Check all plant and equipment Consider changes of working methods 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 Implement the agreed mitigation measures; 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
<p>Fauna</p> <p>The total number of species or individuals of the surveyed wetland dependent faunal groups is reduced by 20-40% from baseline</p>	<ul style="list-style-type: none"> Notify IEC and Contractor; Check the position and state of the current works to identify the causes; Discuss mitigation measures with IEC and Contractor 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Discuss with IEC on the proposed mitigation measures; Reach agreement on the mitigation measures to be implemented 	<ul style="list-style-type: none"> 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

Item	Aspect	Description of Equipment	Date of Calibration	Date of Next Calibration
1*	Air	Greasby Anderson GMWS2310 High Volume Sampler	03 Sep 07	03 Nov 07
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	19 Jul 07	19 Oct 07
7		Hanna HI 98128	19 Jul 07	19 Oct 07
8		Hach 2100p	19 Jul 07	19 Oct 07
9		ATAGO refractometer	19 Jul 07	19 Oct 07

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

TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

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

CONDITIONS

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

CALIBRATION ORIFICE

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

CALIBRATION

Plate No.	H2O (L) (in)	H2O (R) (in)	H2O (in)	Qstd (m3/min)	I (chart)	IC corrected	LINEAR REGRESSION		
							Slope =	Intercept =	Corr. coeff. =
18	4.1	4.1	8.2	1.489	42	43.00	Slope = 36.1799 Intercept = -11.8292 Corr. coeff. = 0.9952		
13	3.2	3.2	6.4	1.315	35	35.83			
10	2.4	2.4	4.8	1.139	27	27.64			
7	1.6	1.6	3.2	0.929	21	21.50			
5	0.9	0.9	1.8	0.697	14	14.33			

Calculations :

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

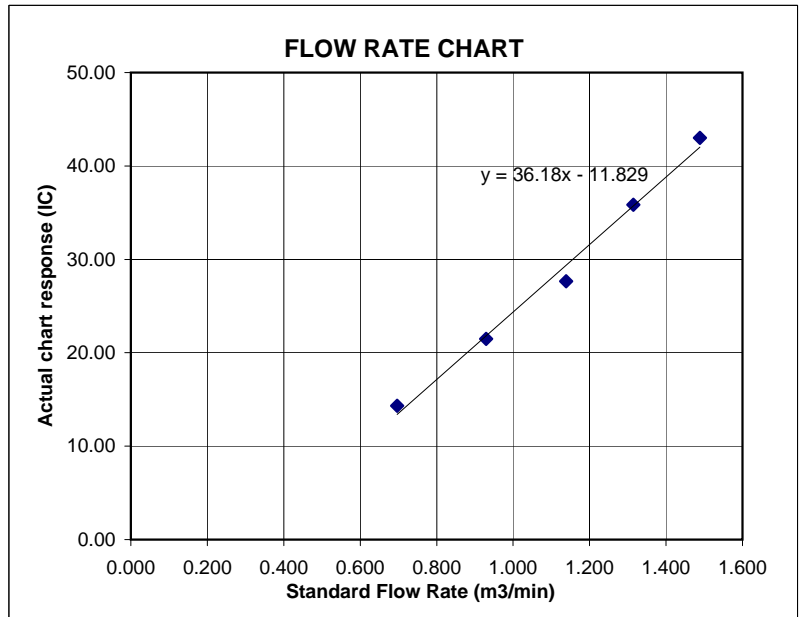
$$IC = I[\text{Sqrt}(Pa/Pstd)(Tstd/Ta)]$$

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

For subsequent calculation of sampler flow:

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

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



Equipment Calibration Record

Equipment Calibrated:

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

Standard Equipment:

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

Equipment Calibration Results:

Calibration Date: 22 June 2007

Hour	Time	Temp °C	RH %	Concentration in mg/m 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)

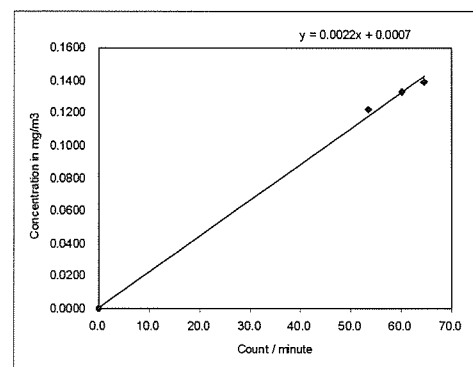
Sensitivity Adjustment Scale Setting (After Calibration) 722 (CPM)

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: [Signature] Date: 25 June 2007

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

Equipment Calibration Record

Equipment Calibrated:

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

Standard Equipment:

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

Equipment Calibration Results:

Calibration Date: 22 June 2007

Hour	Time	Temp °C	RH %	Concentration in mg/m 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)

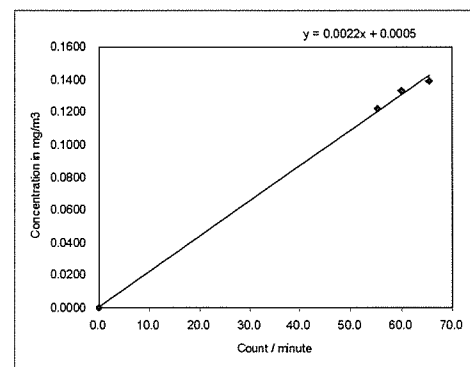
Sensitivity Adjustment Scale Setting (After Calibration) 709 (CPM)

Linear Regression of Y or X

Slope (K-factor): 0.0021

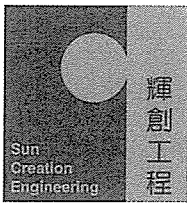
Correlation Coefficient 0.9990

Validity of Calibration Record 25 June 2007



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

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



輝創工程有限公司

Sun Creation Engineering Limited Calibration and Testing Laboratory

Certificate No. : C071764

Certificate of Calibration

This is to certify that the equipment

Description : Acoustical Calibrator (EQ017)

Manufacturer : Bruel & Kjaer

Model No. : 4231

Serial No. : 2292168

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

The equipment is supplied by

Co. Name : Action-United Environmental Services and Consulting

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

Date of Issue : 17 April 2007

Certified by :

K C Lee

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

Calibration and Testing Laboratory of Sun Creation Engineering Limited

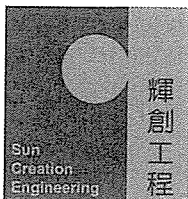
c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong

Tel: 2927 2606

Fax: 2744 8986

E-mail: callab@suncreation.com

Website: www.suncreation.com



輝創工程有限公司

Sun Creation Engineering Limited Calibration and Testing Laboratory

Certificate No. : C071765

Certificate of Calibration

This is to certify that the equipment

Description : Integrating Sound Level Meter (EQ010)

Manufacturer : Bruel & Kjaer

Model No. : 2238

Serial No. : 2285721

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

The equipment is supplied by

Co. Name : Action-United Environmental Services and Consulting

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

Date of Issue : 17 April 2007

Certified by :

K C Lee

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

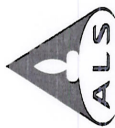
c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong

Tel: 2927 2606

Fax: 2744 8986

E-mail: callab@suncreation.com

Website: www.suncreation.com



CERTIFICATE OF ANALYSIS

Batch: HK0709810
Date of Issue: 19/07/2007
Client: ACTION UNITED ENVIRO SERVICES
Client Reference:

Calibration of DO System

Item : YSI Multimeter
Model No. : YSI 550A
Serial No. : 05F2063AZ
Equipment No.: HK0607963
Calibration Method : This meter was calibrated in accordance with standard method APHA (19th Ed.) 4500-O C and G
Date of Calibration : 19 July, 2007

Testing Results :

Expected Reading	Recording Reading
2.80 mg/L	2.89 mg/L
4.82 mg/L	4.93 mg/L
7.76 mg/L	7.59 mg/L
Allowing Deviation	±0.2 mg/L


 Ms Wong Wai Man, Alice
 Laboratory Manager - Hong Kong



CERTIFICATE OF ANALYSIS

Batch: HK0709811
 Date of Issue: 19/07/2007
 Client: ACTION UNITED ENVIRO SERVICES
 Client Reference:

Calibration of pH System

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

Testing Results :

Expected Reading	Recording Reading
4.00	4.05
7.00	7.02
10.0	9.91
Allowing Deviation	+ 0.2

Ms Wong Wai Man, Alice
 Laboratory Manager - Hong Kong

CERTIFICATE OF ANALYSIS



Batch: HK0709812
Date of Issue: 19/07/2007
Client: ACTION UNITED ENVIRO SERVICES
Client Reference:

Calibration of Salinity System

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

Testing Results :

Expected Reading	Recording Reading
10.0 g/L	9.8 g/L
20.0 g/L	21.0 g/L
30.0 g/L	29.0 g/L
Allowing Deviation	±10%

Ms Wong Wai Man, Alice
Laboratory Manager - Hong Kong



CERTIFICATE OF ANALYSIS

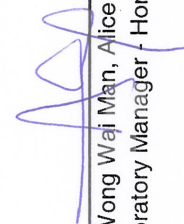
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Date of Issue: 19/07/2007
Client: ACTION UNITED ENVIRO SERVICES
Client Reference:

Calibration of Turbidimeter

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

Testing Results :

Expected Reading	Recording Reading
0.0 NTU	0.1 NTU
4.0 NTU	4.3 NTU
16.0 NTU	15.4 NTU
40.0 NTU	37.0 NTU
80.0 NTU	81.0 NTU
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-Aug-07	Sun					
27-Aug-07	Mon					
28-Aug-07	Tue					
29-Aug-07	Wed					
30-Aug-07	Thu					
31-Aug-07	Fri					
1-Sep-07	Sat					
2-Sep-07	Sun					
3-Sep-07	Mon					
4-Sep-07	Tue					
5-Sep-07	Wed					
6-Sep-07	Thu					
7-Sep-07	Fri					
8-Sep-07	Sat					
9-Sep-07	Sun					
10-Sep-07	Mon					
11-Sep-07	Tue					
12-Sep-07	Wed					
13-Sep-07	Thu					
14-Sep-07	Fri					
15-Sep-07	Sat					
16-Sep-07	Sun					
17-Sep-07	Mon					
18-Sep-07	Tue					
19-Sep-07	Wed					
20-Sep-07	Thu					
21-Sep-07	Fri					
22-Sep-07	Sat					
23-Sep-07	Sun					
24-Sep-07	Mon					
25-Sep-07	Tue					

	Monitoring Day
	Sunday or Public Holiday

Impact Monitoring Schedules in the Next Reporting Month

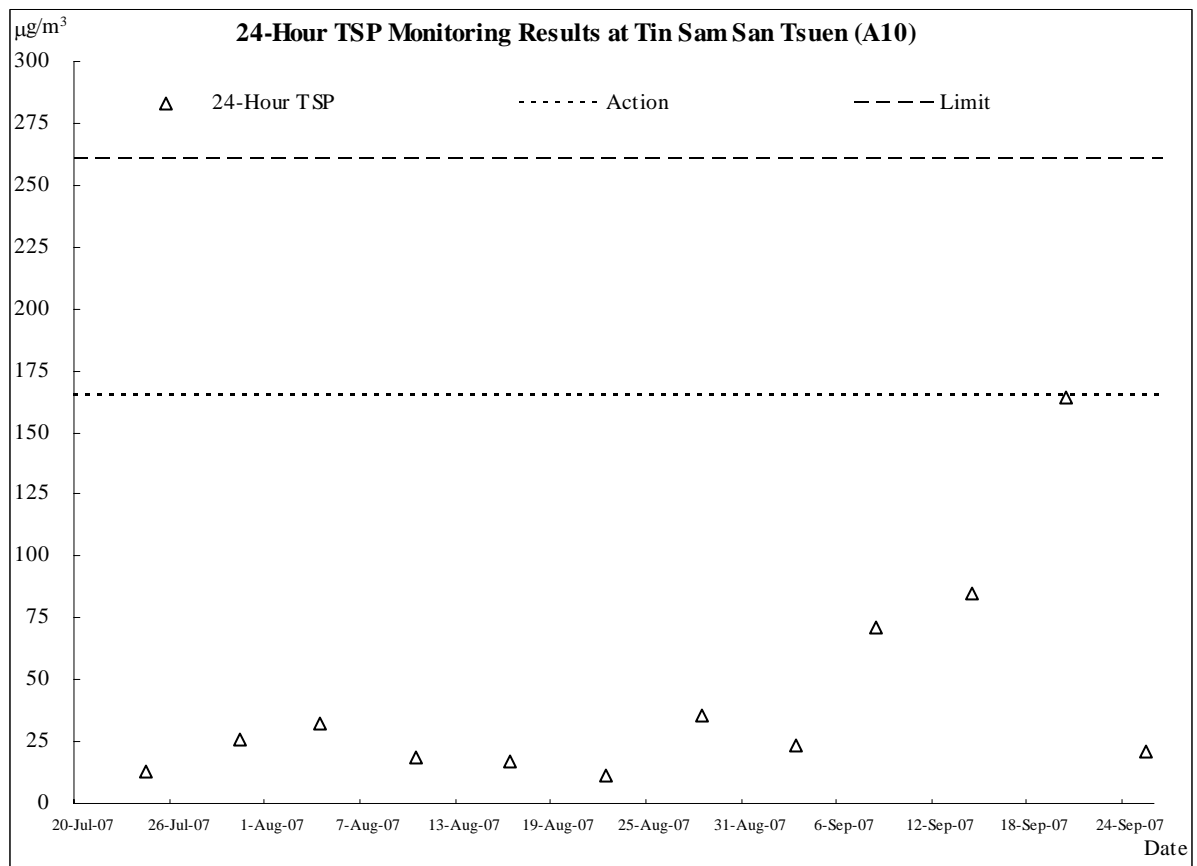
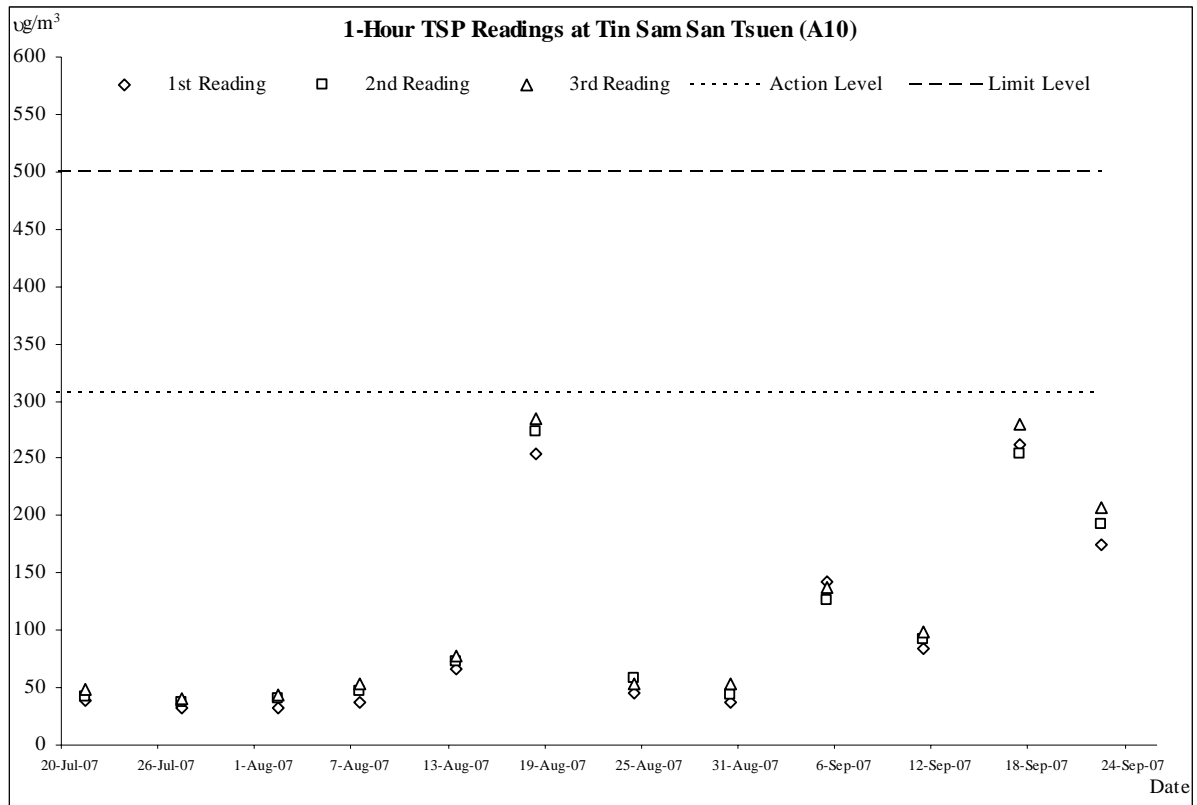
Date		Air Quality		Noise Leq 30min	Stream Water Quality	Ecology Surveys
		1-Hour TSP	24-Hour TSP			
26-Sep-07	Wed					
27-Sep-07	Thu					
28-Sep-07	Fri					
29-Sep-07	Sat					
30-Sep-07	Sun					
1-Oct-07	Mon					
2-Oct-07	Tue					
3-Oct-07	Wed					
4-Oct-07	Thu					
5-Oct-07	Fri					
6-Oct-07	Sat					
7-Oct-07	Sun					
8-Oct-07	Mon					
9-Oct-07	Tue					
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19-Oct-07	Fri					
20-Oct-07	Sat					
21-Oct-07	Sun					
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24-Oct-07	Wed					
25-Oct-07	Thu					

	Monitoring Day
	Sunday or Public Holiday

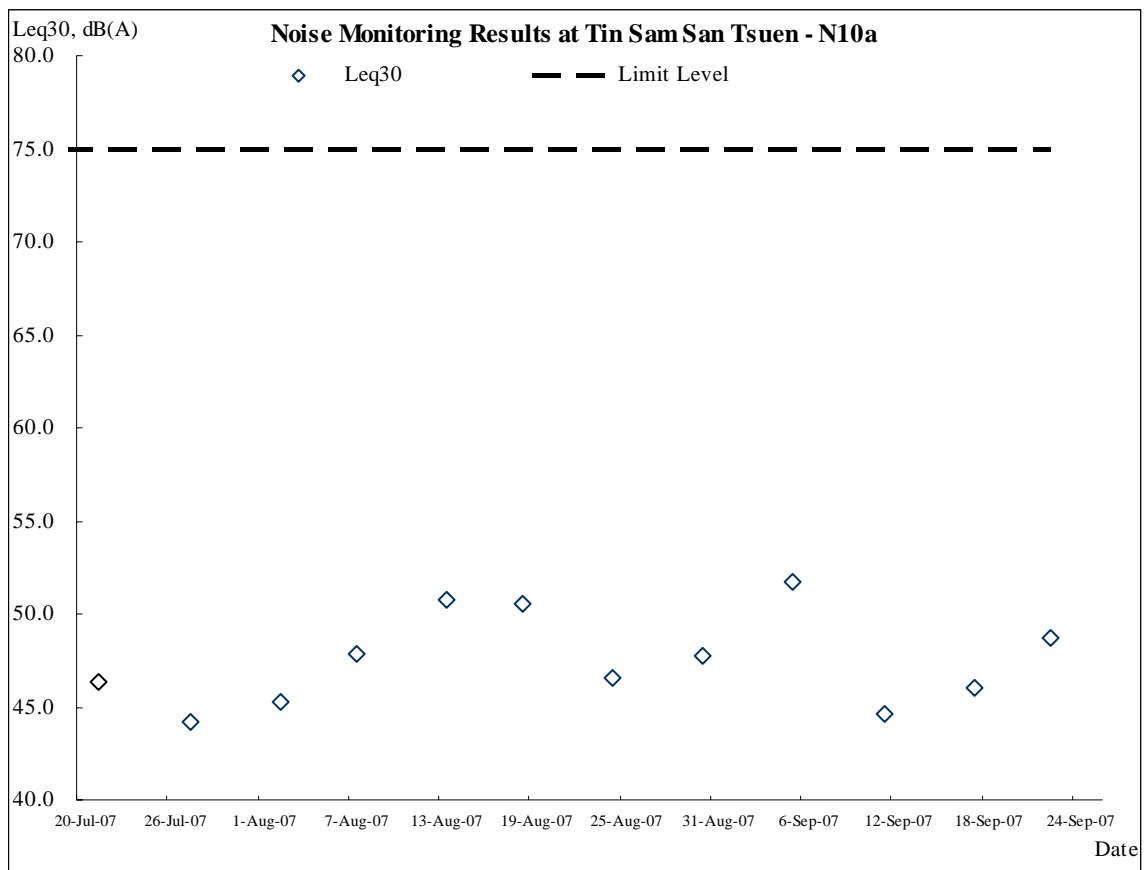
Appendix H

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

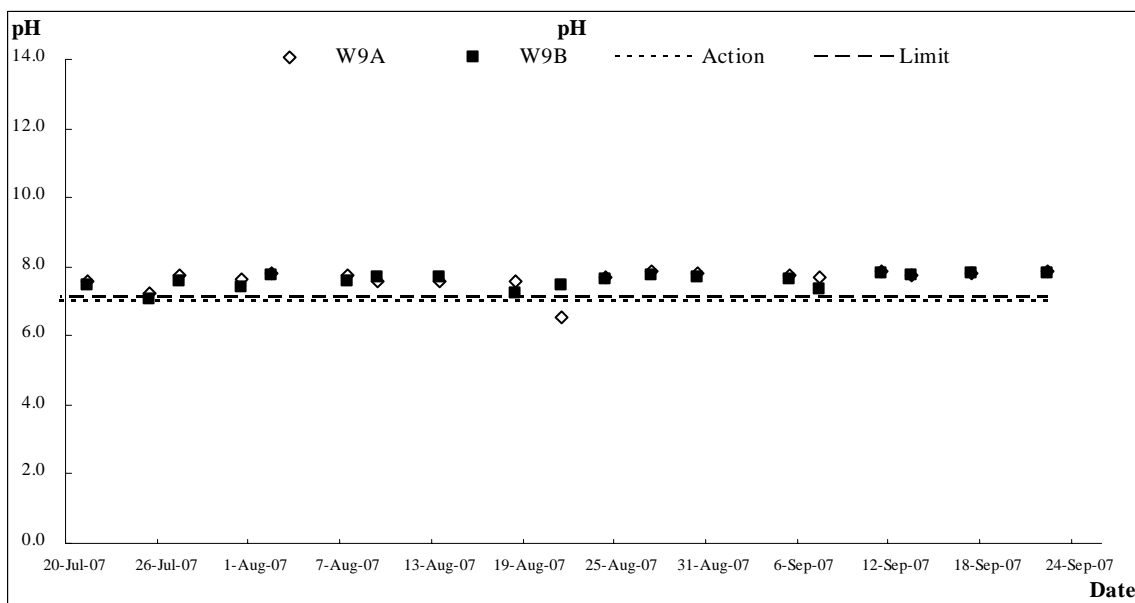
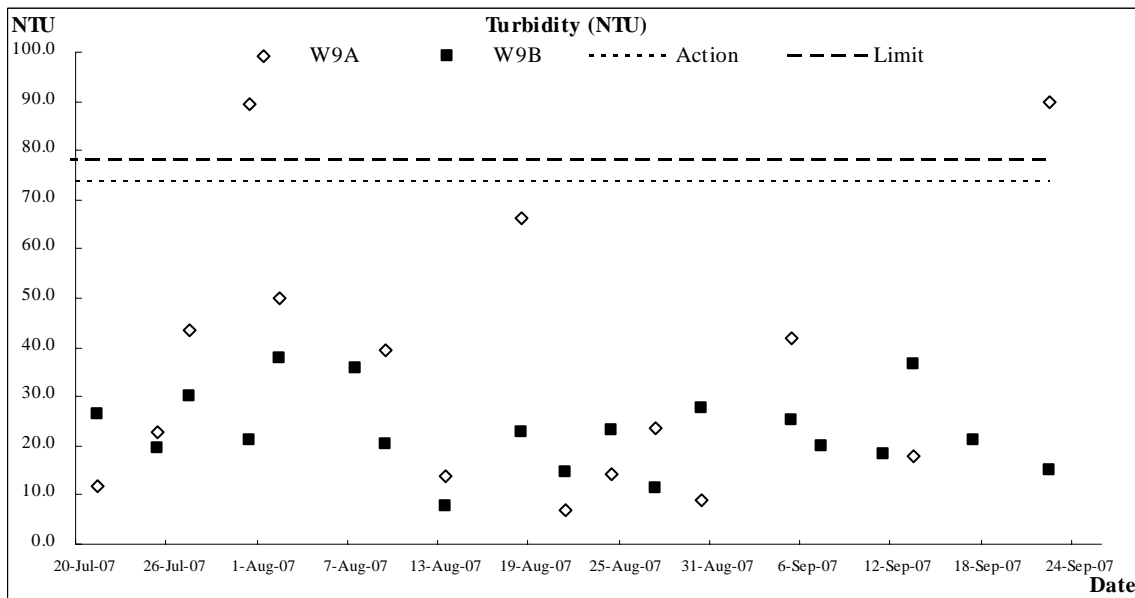
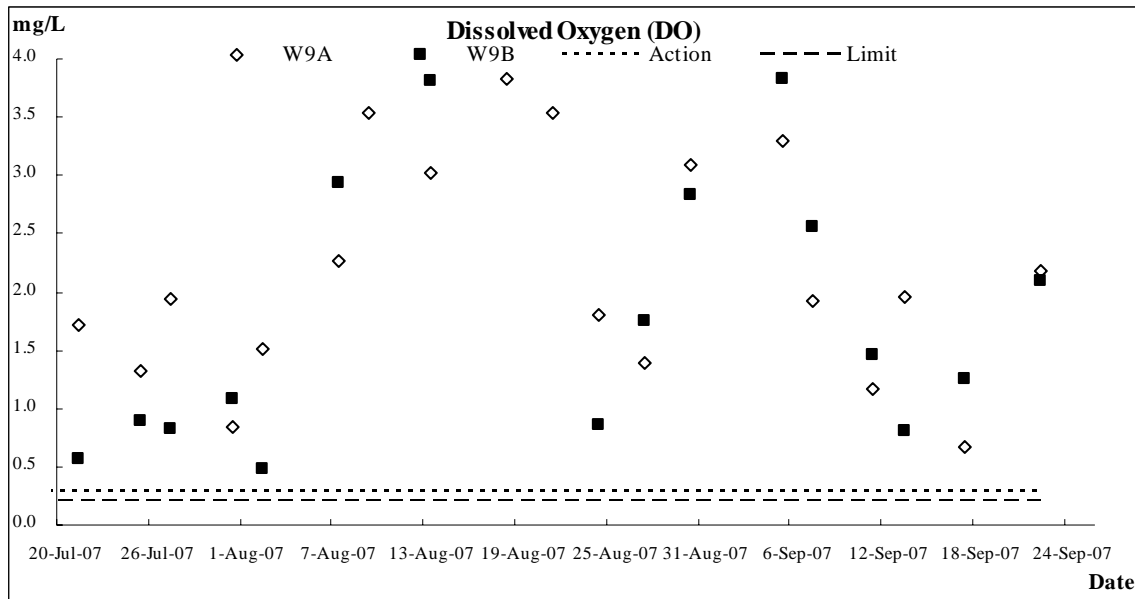
Air Quality

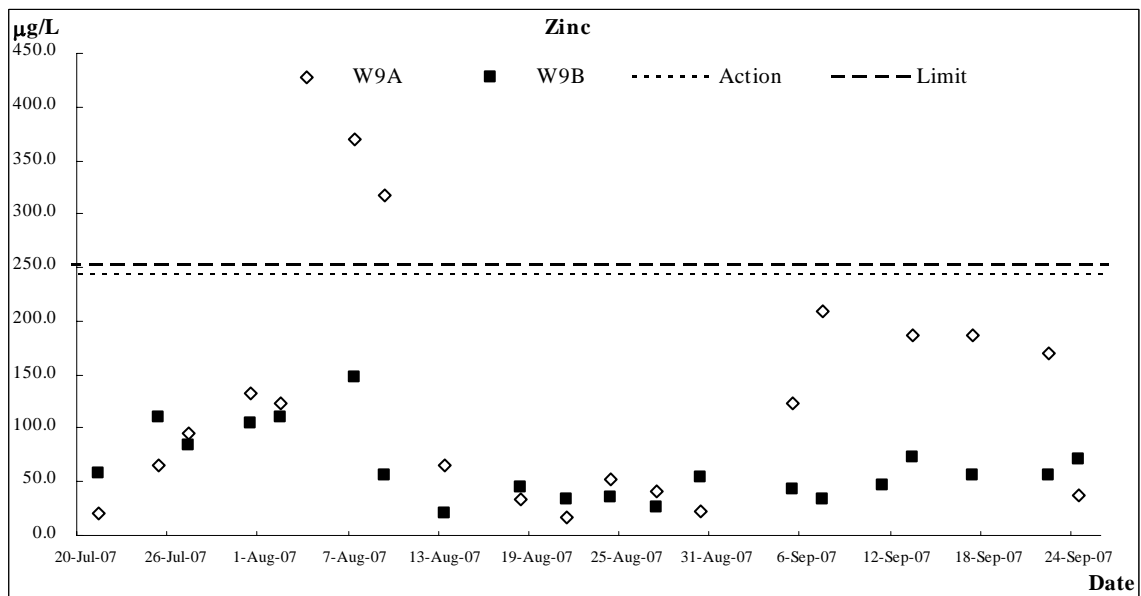
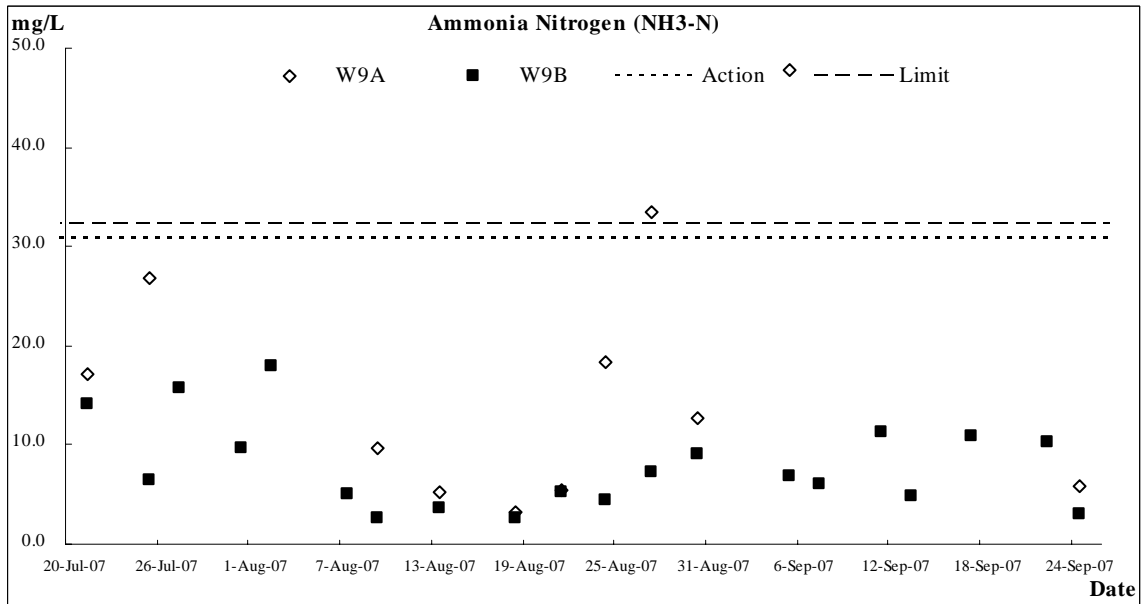
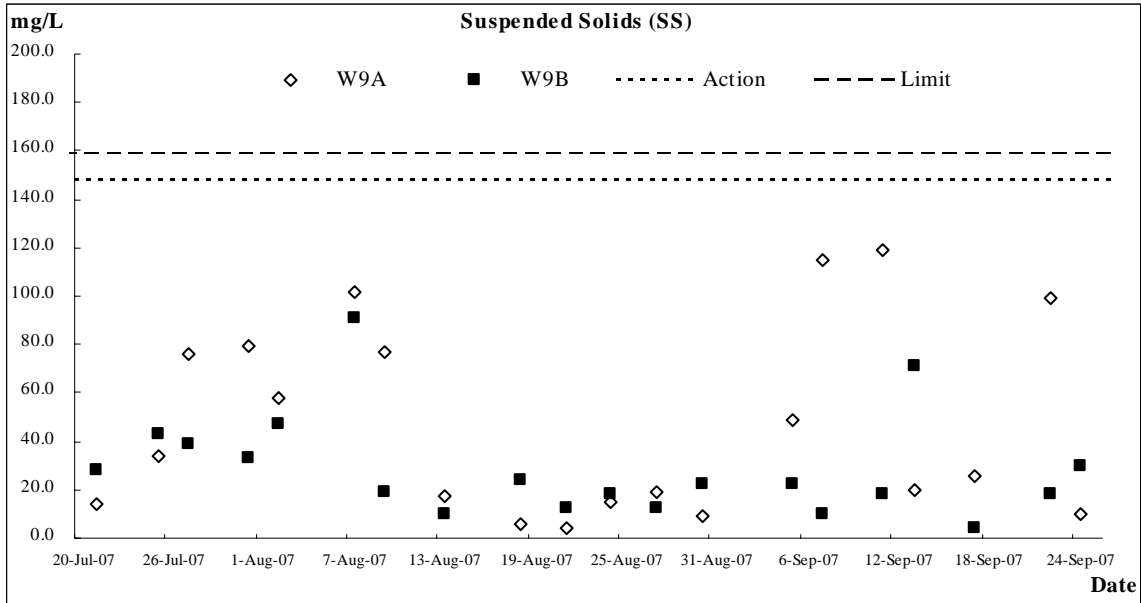


Construction Noise



Stream Water Quality





Date 27-Aug-07																	
Location	Time	Depth (m)	Temp (oC)	DO (mg/L)		DOS (%)		Turbidity (NTU)		Salinity		pH		SS	NH3-N	Zinc	
W9A	13:16	0.19	29.4	29.4	1.39	1.39	18.8	18.8	23.1	23.5	0	0.0	7.85	7.86	19.0	33.4	42.0
			29.4		1.39		18.8		23.8		0		7.86				
W9B	13:37	0.26	30.8	30.8	1.75	1.76	24.4	24.5	11.3	11.3	0	0.0	7.73	7.73	12.0	7.2	26.0
			30.8		1.76		24.6		11.3		0		7.72				

Date 30-Aug-07																	
Location	Time	Depth (m)	Temp (oC)	DO (mg/L)		DOS (%)		Turbidity (NTU)		Salinity		pH		SS	NH3-N	Zinc	
W9A	15:20	0.12	29.3	29.3	3.08	3.09	40.3	40.5	8.1	8.8	0	0.0	7.82	7.82	9.0	12.8	22.0
			29.3		3.1		40.7		9.6		0		7.82				
W9B	15:35	0.26	30.2	30.2	2.82	2.83	37.4	37.5	27.6	27.7	0	0.0	7.68	7.69	22.0	9.1	54.0
			30.2		2.83		37.6		27.8		0		7.69				

Date 5-Sep-07																	
Location	Time	Depth (m)	Temp (oC)	DO (mg/L)		DOS (%)		Turbidity (NTU)		Salinity		pH		SS	NH3-N	Zinc	
W9A	10:27	0.29	26.6	26.6	3.28	3.29	40.8	41.0	42.5	41.9	0	0.0	7.76	7.76	49.0	47.8	123.0
			26.6		3.3		41.2		41.2		0		7.76				
W9B	10:43	0.35	27.1	27.2	3.82	3.83	48.0	48.1	25.2	25.4	0	0.0	7.65	7.66	22.0	6.8	43.0
			27.2		3.83		48.2		25.5		0		7.66				

Date 7-Sep-07																	
Location	Time	Depth (m)	Temp (oC)	DO (mg/L)		DOS (%)		Turbidity (NTU)		Salinity		pH		SS	NH3-N	Zinc	
W9A	12:32	0.23	26.7	26.7	1.92	1.93	24.0	24.1	152.0	151.0	0	0.0	7.71	7.71	115.0	52.4	210.0
			26.7		1.93		24.2		150.0		0		7.71				
W9B	12:37	0.32	27.8	27.8	2.55	2.56	35.2	35.4	19.3	19.8	0	0.0	7.34	7.34	10.0	6.1	34.0
			27.8		2.57		35.6		20.3		0		7.34				

Date 11-Sep-07																	
Location	Time	Depth (m)	Temp (oC)	DO (mg/L)		DOS (%)		Turbidity (NTU)		Salinity		pH		SS	NH3-N	Zinc	
W9A	10:34	0.39	27.4	27.4	1.16	1.17	14.6	14.8	240.0	239.5	0	0.0	7.85	7.85	119.0	293.0	546.0
			27.4		1.18		15.0		239.0		0		7.85				
W9B	10:42	0.44	29.1	29.1	1.45	1.46	18.8	18.9	17.9	18.1	0	0.0	7.79	7.79	18.0	11.3	47.0
			29.1		1.46		19.0		18.3		0		7.79				

Date 13-Sep-07																	
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DOS (%)		Turbidity (NTU)		Salinity		pH		SS	NH3-N	Zinc
W9A	14:10	0.16	28.3	28.3	1.96	1.97	25.4	25.5	18.0	17.9	0	0.0	7.77	7.77	20.0	24.0	22.0
			28.3		1.97		25.6		17.7		0		7.77				
W9B	14:26	0.21	31.2	31.2	0.8	0.81	10.6	10.7	37.9	36.6	0	0.0	7.74	7.74	71.0	4.8	73.0
			31.2		0.81		10.8		35.3		0		7.74				

Date 17-Sep-07																	
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DOS (%)		Turbidity (NTU)		Salinity		pH		SS	NH3-N	Zinc
W9A	10:14	0.26	27.9	27.9	0.66	0.67	8.2	8.4	209.0	209.5	0	0.0	7.80	7.80	26.0	122.0	186.0
			27.8		0.68		8.6		210.0		0		7.80				
W9B	10:36	0.34	29.5	29.5	1.25	1.26	16.4	16.5	21.1	21.2	0	0.0	7.83	7.83	4.0	10.9	56.0
			29.5		1.26		16.5		21.2		0		7.83				

Date 22-Sep-07																	
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DOS (%)		Turbidity (NTU)		Salinity		pH		SS	NH3-N	Zinc
W9A	9:50	0.21	25.7	25.7	2.18	2.19	26.9	27.0	91.2	89.9	0	0.0	7.89	7.89	99.0	50.9	170.0
			25.7		2.19		27.1		88.6		0		7.89				
W9B	9:58	0.36	26.9	26.9	2.09	2.10	25.2	25.3	14.5	14.9	0	0.0	7.79	7.79	18.0	10.2	56.0
			26.9		2.1		25.4		15.3		0		7.79				

Date 24-Sep-07																	
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DOS (%)		Turbidity (NTU)		Salinity		pH		SS	NH3-N	Zinc
W9A	13:12	0.32	26.1	26.1	3.04	3.05	37.4	37.6	10.3	10.5	0	0.0	7.72	7.72	10.0	5.9	37.0
			26.1		3.06		37.8		10.7		0		7.72				
W9B	13:26	0.69	26.7	26.7	3.34	3.35	41.7	41.8	37.6	35.9	0	0.0	7.83	7.83	30.0	3.1	71.0
			26.7		3.35		41.9		34.2		0		7.82				



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: 481310)								
HK0712134-002	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	268	259	3.2
HK0712156-003	W1C -1 & 2 (MIX)	EA025: Suspended Solids (SS)	----	2	mg/L	18	18	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 482355)								
HK0712126-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	0.3	0.2	40.0
HK0712179-003	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	<0.1	<0.1	0.0
EG: Metals and Major Cations (QC Lot: 481233)								
HK0711978-001	Anonymous	EG020: Zinc	7440-66-6	10	µg/L	737	747	1.4

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

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 481310)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	95.5	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 482355)											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	95.2	----	85	115	----	----
EG: Metals and Major Cations (QCLot: 481233)											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	90.1	----	85	115	----	----

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

Matrix Type: WATER				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results						
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
					MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 482355)										
HK0712179-003	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	107	----	75	125	----	----
EG: Metals and Major Cations (QCLot: 481233)										
HK0711978-001	Anonymous	EG020: Zinc	7440-66-6	100 µg/L	Not Determined	----	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: 484172)								
HK0712384-001	Anonymous	EA025: Suspended Solids (SS)	----	3	mg/L	88	82	7.1
HK0712418-003	W1C - 1 & 2 (MIX)	EA025: Suspended Solids (SS)	----	2	mg/L	40	38	6.9
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 486687)								
HK0712529-003	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	<0.1	<0.1	0.0
HK0712561-003	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	0.3	0.3	0.0
EG: Metals and Major Cations (QC Lot: 484109)								
HK0712418-001	W1A - 1 & 2 (MIX)	EG020: Zinc	7440-66-6	10	µg/L	15	16	6.4

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

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 484172)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	95.5	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 486687)											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5 mg/L	99.9	----	85	115	----	----
EG: Metals and Major Cations (QCLot: 484109)											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	98.0	----	85	115	----	----

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

Matrix Type: WATER				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results						
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
					MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 486687)										
HK0712428-001	Anonymous	EK055A: Ammonia as N	7664-41-7	5 mg/L	Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QCLot: 484109)										
HK0712310-003	Anonymous	EG020: Zinc	7440-66-6	100 µg/L	Not Determined	----	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: 487902)								
HK0712625-001	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	4	6	37.1
HK0712695-005	Anonymous	EA025: Suspended Solids (SS)	----	1	mg/L	<1	<1	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 487905)								
HK0712745-005	W9B - 1 & 2 (MIX)	EA025: Suspended Solids (SS)	----	2	mg/L	22	25	12.6
HK0712787-002	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	17	19	9.8
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 490542)								
HK0712768-010	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	<0.1	<0.1	0.0
HK0712768-018	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	<0.1	<0.1	0.0
EG: Metals and Major Cations (QC Lot: 488399)								
HK0712745-002	W1B - 1 & 2 (MIX)	EG020: Zinc	7440-66-6	10	µg/L	53	55	4.0

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

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QC Lot: 487902)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	97.0	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QC Lot: 487905)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	87.5	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 490542)											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	96.0	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 488399)											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	93.9	----	85	115	----	----

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

Matrix Type: WATER					Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results					
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
					MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 490542)										
HK0712768-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	101	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 488399)										
HK0712745-001	W1A - 1 & 2 (MIX)	EG020: Zinc	7440-66-6	100 µg/L	92.6	----	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: 489404)								
HK0712810-002	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	10	8	23.5
HK0712862-001	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 490544)								
HK0712801-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	16.0	15.8	1.2
HK0712802-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	15.6	15.8	1.3
EG: Metals and Major Cations (QC Lot: 489383)								
HK0712869-002	W1B - 1 & 2 (MIX)	EG020: Zinc	7440-66-6	10	µg/L	59	60	1.7

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

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 489404)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	94.0	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 490544)											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	93.2	----	85	115	----	----
EG: Metals and Major Cations (QCLot: 489383)											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	102	----	85	115	----	----

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

Matrix Type: WATER				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results						
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
					MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 490544)										
HK0712799-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QCLot: 489383)										
HK0712869-001	W1A - 1 & 2 (MIX)	EG020: Zinc	7440-66-6	100 µg/L	97.2	----	75	125	----	----



Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 492272)								
HK0712939-001	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	57	58	1.7
HK0712980-003	W1C - 1 & 2 (MIX)	EA025: Suspended Solids (SS)	----	2	mg/L	16	15	9.5
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 492645)								
HK0712902-003	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	<0.1	<0.1	0.0
HK0713109-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	0.8	0.8	0.0
EG: Metals and Major Cations (QC Lot: 492258)								
HK0712980-002	W1B - 1 & 2 (MIX)	EG020: Zinc	7440-66-6	10	µg/L	31	30	3.8

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

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 492272)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	89.0	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 492645)											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	99.2	----	85	115	----	----
EG: Metals and Major Cations (QCLot: 492258)											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	94.3	----	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						
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
					MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 492645)										
HK0712902-002	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	102	----	75	125	----	----
EG: Metals and Major Cations (QCLot: 492258)										
HK0712980-001	W1A - 1 & 2 (MIX)	EG020: Zinc	7440-66-6	100 µg/L	92.8	----	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: 495317)								
HK0713226-014	Anonymous	EA025: Suspended Solids (SS)	----	1	mg/L	74	73	1.9
HK0713246-002	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	16	13	19.1
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 496672)								
HK0713350-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	0.9	0.8	0.0
HK0713355-003	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	<0.1	<0.1	0.0
EG: Metals and Major Cations (QC Lot: 494535)								
HK0713229-002	W1B - 1 & 2 (MIX)	EG020: Zinc	7440-66-6	10	µg/L	53	55	4.8

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

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 495317)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 496672)											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	99.6	----	85	115	----	----
EG: Metals and Major Cations (QCLot: 494535)											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	85.2	----	85	115	----	----

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

Matrix Type: WATER				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results						
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
					MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 496672)										
HK0713229-001	W1A - 1 & 2 (MIX)	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	110	----	75	125	----	----
EG: Metals and Major Cations (QCLot: 494535)										
HK0713229-001	W1A - 1 & 2 (MIX)	EG020: Zinc	7440-66-6	100 µg/L	85.0	----	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: 496161)								
HK0713315-001	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	<2	2	0.0
HK0713327-004	Anonymous	EA025: Suspended Solids (SS)	----	2	mg/L	8	8	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 496672)								
HK0713350-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	0.9	0.8	0.0
HK0713355-003	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	<0.1	<0.1	0.0
EG: Metals and Major Cations (QC Lot: 496132)								
HK0713320-001	W1A - 1 & 2 (MIX)	EG020: Zinc	7440-66-6	10	µg/L	11	<10	11.8

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

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 496161)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	98.5	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 496672)											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	99.6	----	85	115	----	----
EG: Metals and Major Cations (QCLot: 496132)											
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	87.5	----	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						
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
					MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QCLot: 496672)										
HK0713229-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	110	----	75	125	----	----
EG: Metals and Major Cations (QCLot: 496132)										
HK0713288-001	Anonymous	EG020: Zinc	7440-66-6	100 µg/L	76.0	----	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-Aug-07	Sun	sunny intervals/a few showers/moderate	Trace	27.9	12	73	S/SE
27-Aug-07	Mon	a few showers/sunny intervals/moderate	25	28.5	12	78	E
28-Aug-07	Tue	a few showers/sunny intervals/moderate	25.9	28.5	13	83.5	E
29-Aug-07	Wed	sunny periods/isolated showers/moderate	1.3	29.3	12	80	E
30-Aug-07	Thu	fine/isolated showers/thunderstorms/light winds	0.1	28.1	12	79.5	SE
31-Aug-07	Fri	fine/hot/isolated showers/light winds	0	28.4	14	79.5	SE
1-Sep-07	Sat	fine/hot/isolated showers/thunderstorms/light winds	0	28.3	12	75	S/SE
2-Sep-07	Sun	sunny intervals/a few showers/squally thunderstorms/light winds	3.7	27.7	9.5	84	E/SE
3-Aug-07	Mon	cloudy/a few showers/squally thunderstorms/light winds	Trace	28.9	14.5	77	SE
4-Sep-07	Tue	cloudy/a few showers/light winds	2.3	27	15	81.5	S/SE
5-Sep-07	Wed	cloudy/a few showers/sunny intervals/moderate	1.5	26.6	15	78.5	E/NE
6-Sep-07	Thu	cloudy/sunny intervals/hazy/moderate	0	26.1	14.5	69.5	E/NE
7-Sep-07	Fri	sunny periods/hazy/moderate	0.1	26.7	8.2	72	E/SE
8-Sep-07	Sat	sunny periods/cloudy/moderate	Trace	28.3	9.5	74	E
9-Sep-07	Sun	sunny periods/cloudy/moderate	Trace	28.3	16	74	E/SE
10-Sep-07	Mon	cloudy/sunny intervals/rain moderate fresh	Trace	28.6	16.5	74.5	E
11-Sep-07	Tue	Sunny periods/rain/moderate/fresh	10.7	28.7	16.5	68.7	E
12-Sep-07	Wed	fine/isolated showers/moderate	Trace	28.3	13	72.5	E
13-Sep-07	Thu	fine/dry/moderate/fresh	0	28.9	14	63.5	E
14-Sep-07	Fri	fine/hazy/dry/light winds	0	27.9	8	64.5	E/SE
15-Sep-07	Sat	fine/hazy/isolated showers/light winds	0	28.6	9	69.5	S/SE
16-Sep-07	Sun	hazy/isolated showers/light winds	6	28.9	7.5	77	E/SE
17-Sep-07	Mon	hazy/isolated showers/light winds	0.5	28.5	6	81	E
18-Sep-07	Tue	fine/very dry/haze/moderate/fresh	0	28.5	20	56	N
19-Sep-07	Wed	fine/dry/hazy/fresh/strong	0	27.6	24.2	51	N/NW
20-Sep-07	Thu	sunny periods/dry/moderate/fresh	0.1	28.4	21	53.5	NE
21-Sep-07	Fri	sunny periods/haze/rain/moderate/fresh	1.7	27.8	13.5	66.5	E/NE
22-Sep-07	Sat	fine/dry/haze/moderate/fresh	0	28.2	15.5	6.12	NE
23-Sep-07	Sun	cloudy/overcast/rain/fresh/strong	12.5	25.4	24.5	83.5	N/NE
24-Sep-07	Mon	cloudy/overcast/rain/fresh/strong	60.1	24.8	17	94	E/NE
25-Sep-07	Tue	cloudy/rain/thunderstorms/fresh/strong	2.1	26.8	15.5	88	E

Appendix J

ET Site Inspection Checklists

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 Tsui Wai

Inspected by _____
RE/RE's representative: A.F. Ng / WL Chan
IEC/IEC's representative: _____
ETL/ ET's representative: Ben Tam
Contractor's representative: M.K. Ng / K.M. Lui
Checklist No. KT15-290807

Inspection
Date: 29 August 2007
Time: 13:30

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

Weather: Sunny Fine Cloudy Rainy
 Temperature: °C
 Humidity: High Moderate Low
 Wind: Strong Breeze Light Calm

PART B: SITE AUDIT

Section 1: Water Quality

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

Environmental Site Inspection Checklist for KT15

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

Environmental Site Inspection Checklist for KT15

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

Environmental Site Inspection Checklist for KT15

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

Remarks

Last Site Inspection:



No silty water seepage into the stream was observed at CH155. (ref.: KT15-210807).

Findings of Site Inspection on 29 Aug 2007:

Site Inspection was covered the site area from CH150-CH290.



Obs 1 – Fugitive dust emission from the site was observed at CH290 during the site inspection, the Contractor was reminded to provide water spraying or implement the dust suppression on necessary basis.

RE's representative

IEC's representative

()

ET's representative

(Ken Wong)

Contractor's representative

()

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 Tsui Wai

Inspected by _____
RE/RE's representative: A.F. Ng / WL Chan

Inspection
Date: 06 September 2007
Time: 14:30

IEC/IEC's representative: _____
ETL/ ET's representative: Ben Tam
Contractor's representative: M.K. Ng / K.M. Lui
Checklist No. KT15-060907

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

Weather: Sunny Fine Cloudy Rainy
 Temperature: °C
 Humidity: High Moderate Low
 Wind: Strong Breeze Light Calm

PART B: SITE AUDIT

Section 1: Water Quality

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

Environmental Site Inspection Checklist for KT15

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

Environmental Site Inspection Checklist for KT15

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

Environmental Site Inspection Checklist for KT15

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

Remarks

Last Site Inspection:

No fugitive dust was observed at the CH290 during the site inspection. (ref.: KT15-290807).

Findings of Site Inspection on 06 September 2007:

Site Inspection was covered the site area from CH150-CH290.



Muddy water discharge into the drainage channel from the sedimentation tank was observed at CH290. The Contractor was reminded to stop the discharge and provide the effective sedimentation or improved the desilting system efficiency before any discharge was undertaken.



Rubbish skip at the site office was full, the Contractor was reminded to disposal the general refuse in regular period.

RE's representative

()

IEC's representative

()

ET's representative

Ben Tam

()

Contractor's representative

()

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 Tsui Wai

Inspected by
RE/RE's representative: A.F. Ng / WL Chan
IEC/IEC's representative: Benny Liu
ETL/ ET's representative: Ben Tam
Contractor's representative: M.K. Ng / K.M. Lui
Checklist No. KT15-120907

Inspection
Date: 12 September 2007
Time: 15:00

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

Weather: Sunny Fine Cloudy Rainy

Temperature: °C

Humidity: High Moderate Low

Wind: Strong Breeze Light Calm

PART B: SITE AUDIT

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

Environmental Site Inspection Checklist for KT15

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

Environmental Site Inspection Checklist for KT15

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

Environmental Site Inspection Checklist for KT15

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

Remarks




Last Site Inspection:

No muddy water discharge into the drainage channel from the sedimentation tank was observed at CH290.
Rubbish skip at the site office was cleared.

Findings of Site Inspection on 12 September 2007:

Site Inspection was covered the site area from CH200-CH600.

No major environmental issue was observed. In general, the site was keep clean and tidy within the site boundary.

<i>RE's representative</i>	<i>IEC's representative</i>	<i>ET's representative</i>	<i>Contractor's representative</i>
		 Ben Tam	

Environmental Site Inspection Checklist for KT15

Project:	<u>Contract No.: DC/2006/02</u> <u>Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsui Wai</u>	Inspected by	
Inspection		RE/RE's representative:	<u>A.F. Ng / WL Chan</u>
Date:	<u>21 September 2007</u>	IEC/IEC's representative:	<u>-</u>
Time:	<u>14:00</u>	ETL/ ET's representative:	<u>Ken Wong</u>
		Contractor's representative:	<u>M.K. Ng / K.M. Lui</u>
		Checklist No.	<u>KT15-210907</u>

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

Weather: Sunny Fine Cloudy Rainy

Temperature: °C

Humidity: High Moderate Low

Wind: Strong Breeze Light Calm

PART B: SITE AUDIT

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

Environmental Site Inspection Checklist for KT15



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

Environmental Site Inspection Checklist for KT15

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

Environmental Site Inspection Checklist for KT15



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

Remarks

Last Site Inspection:

-


Findings of Site Inspection on 21 September 2007:

Site Inspection was covered the site area from CH200-350, CH450-620.



Muddy water discharge from the sedimentation tank was observed at CH200, the Contractor was reminded to improve the desilting system in effective/efficiency condition.


RE's representative

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IEC's representative

(_____)

ET's representative

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Ken Wong

Contractor's representative

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Appendix K

Response to Comments

Contract No. DC/2006/02

Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai
Response to IEC's comments on KT15 Monthly EM&A Report for September 2007 (Revision 0) [Received from e-mail on 09 Oct 2007 10:17]

No.	Section / Paragraph	Comments	Ref.	Response to Comments
1	5.08	The survey results for bird (total number of wetland dependent bird species or individuals of the wetland dependent bird species compared from baseline) fell within the limit level (decrease >40%). We agreed as the site basically had not been affected by the project for small scale construction works. We advise that the ET should follow the procedure detailed in the Event/Action Plan for Ecology in case of same circumstance in the future.	EM&A Manual Table ATT4-11.	Noted
2	5.09	Please add "Based on the findings on the monthly monitoring of construction activities, the non-compliance in wetland dependent bird species and <u>individual number</u> was not caused by the project."	-	The underline words had been added in the last sentence.
3	Appendix D	For water quality monitoring, please provide QA/QC results	EM&A Manual 10.3.4 (v)	QA/QC results provided.
4	Appendix J	Please include relevant period of site inspection checklists	-	Noted.