



**PENTA-OCEAN CONSTRUCTION COMPANY LIMITED**

REMAINING ENGINEERING  
INFRASTRUCTURE WORKS FOR PAK  
SHEK KOK DEVELOPMENT PACKAGE 1  
(CONTRACT NO.: TP 35/02)

MONTHLY EM&A REPORT

(JANUARY 2005)

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## **EXECUTIVE SUMMARY**

This monthly EM&A report (No.25) has been prepared to document the impact monitoring works conducted for the Contract of the Remaining Engineering Infrastructure Works for Pak Shek Kok Development Package 1 (Contract No: TP 35/02) during the reporting period from 01 to 31 January 2005.

### **Construction Progress**

The major construction works in this reporting month were as below:

- Drainage works in Area Zone G and S2
- Watermain installation work
- Roadworks
- Construction of pumping station no.1 and no.2
- Construction of Road D1 Bridge
- General landscape works
- Construction of footpath and cycle track

### **Environmental Monitoring Progress**

The summary of the monitoring activities in this monitoring month is listed below:

- Noise Monitoring (Day-time): 4 Occasions at 3 designated locations
- Noise Monitoring (Evening-time): 4 Occasions at 3 designated locations
- Noise Monitoring (Holiday): 5 Occasions at 3 designated locations
- 24-hour TSP Monitoring: 5 Occasions at 2 designated locations
- 1-hour TSP Monitoring: 12 Occasions at 2 designated locations
- Weekly-site inspection: 4 Occasions

### **Noise Monitoring**

No exceedances of Action and Limit levels for noise monitoring were recorded in the reporting month.

### **Air Monitoring**

No exceedances of Action and Limit levels were recorded for 24-hr TSP and 1-hr TSP monitoring in the reporting month.

### **Site Inspection**

Environmental site inspections conducted in this reporting month are presented as follows:

<u>Concerned Parties</u>	<u>Dates of Audit / Inspection</u>
ET (weekly site inspection)	08, 15, 22, 29
IEC/POC/ET (Monthly site inspection)	26

No observations were raised during this reporting month.

### **Environmental Complaints**

No environmental complaints were received in this monitoring month.

### **Notification of summons and successful prosecutions**

No notification of summons and prosecutions with respect to environmental issues were registered in this reporting month.



**Future Key Issues**

Base on the site inspections and forecast of engineering works in the coming month, key issues to be considered are as follows:

- Noise and air quality impact due to construction works;
- Maintain wheel washing facilities properly;
- Cleanup the access road regularly;
- Watering, hydro-seeding or covering all stockpiles with tarpaulin to avoid wind and water erosion;
- Diverting the silty runoff to sedimentation trap before discharge;
- Maintain good site practice and waste management to minimize environmental impacts at the site;
- Follow-up improvements on waste management issues.



## 1.0 INTRODUCTION

Penta-Ocean Construction Co., Ltd. (POC) appointed Environmental Team (ET) of ETS-Testconsult Limited (ETL) to undertake the Environmental Monitoring and Audit for Remaining Engineering Infrastructure Works for Pak Shek Kok Development Package 1 (Contract No.: TP 35/02).

Under the requirements of Section 10 of Environmental Permit to Construct and Operate a Designate Project (EP-108/2001/AEP-108/2001), EM&A programme as set out in the EM&A Manual is required to be implemented. In accordance with the EM&A manual, environmental monitoring of air quality and noise is required for the Project. The EM&A requirement for each parameter are described in details in subsequent sections, including:

- All monitoring parameters;
- Action and Limit levels for all environmental parameters;
- Event-Action Plans;
- Environmental mitigation measures, as recommended in the project EIA study report;
- Environmental requirements in contract documents.

This monthly EM&A report summarizes the impact monitoring results and audit findings of the EM&A program during the reporting period from 01 to 31 January 2005.

## 2.0 PROJECT INFORMATION

### 2.1 Background

Remaining Engineering Infrastructure Works for Pak Shek Kok Development Package 1 (Contract No.: TP 35/02) was planned and designed by the Civil Engineering and Development Department (CEDD).

As the main Contractor of the captioned project: contracted by, POC will follow the environmental monitoring recommendation stated at the EM&A Manual that was prepared with reference to the EIA Study for Feasibility Study on the Pak Shek Kok Development Area (PSKDA) Environmental Monitoring and Audit Manual under Agreement No. CE 90/96.

### 2.2 Site Description

Generally, the construction site is located at Pak Shek Kok development area. Surrounding the construction site, there are two air sensitive receivers: HKIB Staff Accommodation and Cheung Shue Tan Village and three noise sensitive receivers: HKIB Staff Accommodation, CUHK Residence No.10 and Cheung Shue Tan Village.

Figure 1 and 2 show the noise and air monitoring locations of this project.

### 2.3 Construction Programme

Details of construction programme (from November 2004 to January 2005) are shown in Appendix F.

### 2.4 Project Organization and Management Structure

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

### 2.5 Contact Details of Key Personnel

The key personnel contact names and telephone numbers, and construction programme are shown in table 2.1.

Table 2.1 Contact Details of Key Personnel

Organization	Project Role	Name of Key Staff	Tel. No.	Fax No.
CEDD	Employer	Mr. H W Lau	2158 5629	---
Hyder	Engineer	Mr. Herman Fong	2911 2233	2827 2891
Hyder	Independent Environmental Checker	Ir. Coleman Ng	2911 2233	2827 2891
POC	Contractor	Mr. Roger Lau	9870 6390	2691 6012
ETL	Contractor's Environmental Team	Mr C L Lau (Environmental Team Leader)	2946 7792	2695 3944

### 3.0 CONSTRUCTION PROGRESS IN THIS REPORTING MONTH

The site area of this project is shown in Appendix G.

A summary of the major construction activities undertaken in this monitoring month is shown in Table 3.1. The implementation of corresponding mitigation measures is summarized in Table 3.2.

Table 3.1 Major Construction Activities in this reporting month

Location	Major Construction Activity
---	Roadworks
Zone G and S2	Drainage Works
Road D1	Construction of Road D1 Bridge
No.1 & No.2	Construction of pump stations
---	Construction of footpath and cycle track
---	Watermain installation work
---	General landscape works

Table 3.2 Implementation of Environmental Mitigation Measures

General construction works	<ul style="list-style-type: none"> <li>• Effective water sprays used on the site at potential dust emission sources such as unpaved area;</li> <li>• The heights from which fill materials are dropped should be controlled to a practical height to minimize the fugitive dust arising from unloading;</li> <li>• Minimize of exposed soil areas to reduce the potential for increased siltation and contamination of run-off;</li> <li>• Water, hydro-seed or cover the open stockpile and exposed loose soil areas by using clean tarpaulin sheets;</li> <li>• Provide proper and efficient drainage facilities (e.g. wheel washing facilities) and sedimentation system to ensure that site runoff should be treated before discharged to drains;</li> <li>• Remove the sand/rubbish accumulated in the drain/channel regularly;</li> <li>• Provide good site practice (e.g. selection of quieter plant and working methods and reduction in number of plant operating in critical areas close to NSRs) to limit noise emissions at source;</li> <li>• Remove the construction waste accumulated inside or outside the site regularly;</li> <li>• Keep good waste management.</li> </ul>
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## 4.0 AIR QUALITY MONITORING

### 4.1 Monitoring Requirement

1-hour and 24-hour TSP monitoring were required to be conducted to monitor the air quality, at designated monitoring locations:

- HKIB Staff Accommodation (on ground floor near the entrance facing south-east);
- Cheung Shue Tan Village (near the outer building, temple) for 1-hr TSP monitoring;
- Cheung Shue Tan Village (in front of Man Kee Store) for 24-hr TSP monitoring.

### 4.2 Monitoring Equipment

Continuous 24-hour TSP air quality monitoring was performed using a GMWS2310 High Volume Air Sampler (HVS) located at each of the designated monitoring station. One portable dust meter was used to carry out the 1-hour TSP monitoring. Table 4.1 summarizes the equipment used in the air quality monitoring programme. A copy of the calibration certificate for the HVS and portable dust meter are attached in Appendix B1.

Table 4.1 Air Quality Monitoring Equipment

Equipment	Model and Make
HVS Sampler	Greasby GMWS2310
Calibrator	G25 A
1-hour TSP Dust Meter	TSI Model 8520 Dust Trak™ Aerosol Monitor

### 4.3 Monitoring Parameters, Frequency and Duration

Table 4.2 summarizes the monitoring parameters, monitoring duration and frequencies of air quality monitoring.

Table 4.2 Monitoring parameters, duration, frequencies of impact air quality monitoring

Parameter	Duration	Frequency
24-hr TSP	24 hr (0000-2400)	Once every six days
1-hr TSP	1 hr (0700-1900)	Three times every six days

### 4.4 Monitoring Locations and Schedule

Two designated air quality monitoring locations – Cheung Shue Tan Village and HKIB Staff Accommodation were selected. Table 4.3 tabulates the air quality monitoring locations of this project.

Table 4.3 Air quality monitoring locations

Air quality Monitoring stations	Locations
AM1	HKIB Staff Accommodation (on ground floor near the entrance facing south-east) for 1-hr TSP monitoring
AM3	Cheung Shue Tan Village (near the outer building, temple) for 1-hr TSP monitoring
AM3A	Cheung Shue Tan (in front of Man Kee Store) for 24-hr TSP monitoring

The air quality monitoring schedule for 24-hr and 1-hr TSP monitoring at designated monitoring locations is summarized in table 4.4.

Table 4.4 Monitoring Schedule for the air quality monitoring stations

Air quality monitoring stations	Location	Monitoring Period						
		24-hr TSP				1-hr TSP		
		Start		Finish		Date	Start	Finish
		Date	Time	Date	Time			
AM1	HKIB Staff Accommodation	---				04/01/05	08:42	09:42
						06/01/05	09:05	10:05
						08/01/05	08:50	09:50
						11/01/05	09:48	10:48
						13/01/05	16:00	17:00
						15/01/05	08:45	09:45
						18/01/05	08:45	09:45
						20/01/05	10:25	11:25
						22/01/05	09:23	10:23
						25/01/05	08:45	09:45
						27/01/05	15:16	16:16
29/01/05	10:49	11:49						
AM3	Cheung Shue Tan Village (near the outer building, temple)	---				04/01/05	10:39	11:39
						06/01/05	10:20	11:20
						08/01/05	13:00	14:00
						11/01/05	14:20	15:20
						13/01/05	10:40	11:40
						15/01/05	13:00	14:00
						18/01/05	10:20	11:20
						20/01/05	15:36	16:36
						22/01/05	15:00	16:00
						25/01/05	14:25	15:25
						27/01/05	10:15	11:15
29/01/05	16:30	17:30						
AM1	HKIB Staff Accommodation	04/01/05	09:40	05/01/05	09:41	---		
		10/01/05	11:00	11/01/05	10:56			
		15/01/05	08:47	16/01/05	08:41			
		21/01/05	08:25	22/01/05	08:29			
		27/01/05	11:35	28/01/05	11:22			
AM3A	Cheung Shue Tan (in front of Man Kee Store)	04/01/05	10:45	05/01/05	11:45	---		
		10/01/05	11:15	11/01/05	11:14			
		15/01/05	13:05	16/01/05	13:31			
		21/01/05	08:40	22/01/05	08:17			
		27/01/05	10:20	28/01/05	10:21			

## 4.5 Monitoring Methodology

### 4.5.1 24-hour TSP Monitoring

#### Instrumentation

High volume sampler, as HVS, (Greasby GMWS2310) complete with appropriate sampling inlets are employed for 24-hour TSP. The sampler is composed of a motor, a filter holder, a flow controller and a sampling inlet and its performance specification complies with that required by USEPA standard Title 40, Code of Federation Regulations Chapter 1 (Part 50).

#### Installation

The installation of HVS refers to the requirement stated in EM&A Manual.

#### Operation/Analytical Procedures

Operating/analytical procedures for the operation of HVS are as below:

Prior to the commencement of the dust sampling, the flow rate of the high volume

sampler was properly set (between 0.6m<sup>3</sup>/min and 1.7m<sup>3</sup>/min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50.



- For TSP sampling, fiberglass filters (GA-55) were used.
- The power supply was checked to ensure the sampler worked properly.
- On sampling, the sampler was operated 5 minutes to establish thermal equilibrium before placing any filter media at designated air monitoring station.
- The filter holding frame was then removed by loosening the four nuts and carefully a weighted and conditioned filter was centered with the stamped number upwards, on a supporting screen.
- The filter was aligned on the screen so that the gasket formed an air-tight seal on the outer edges of the filter. Then the filter holder frame was tightened to the filter holder with swing bolts. The applied pressure should be sufficient to avoid air leakage at the edges.
- The programmable timer will be set for a sampling period of 24 hours. Information was recorded on the record sheet, which included the starting time, the weather condition and the filter number (the initial weight of the filter paper can be found out by using the filter number.).
- After sampling, the filter was transferred from the filter holder of the HVS to a sealed plastic bag and sent to the laboratory for weighting. The elapsed time was also recorded.
- Before weighting, all filters were equilibrated in a desiccator for 24 hour with the temperature of  $25^{\circ}\text{C} \pm 3^{\circ}\text{C}$  and the relative humidity (RH)  $<50\% \pm 5\%$ .

#### Maintenance & Calibration

- The HVS and their accessories should be maintained in good working condition, such as replacing motor brushes routinely and checking electrical wiring to ensure a continuous power supply.
- HVS should be calibrated at bi-monthly intervals.

### **4.5.2 1-hour TSP Monitoring**

#### Measuring Procedures

The measuring procedures of the 1-hr dust meter are in accordance with the Manufacturer's instruction Manual as follows:

- Set POWER to ON, check the battery indicator to ensure whether the power supply is enough to conduct the TSP monitoring;
- Calibrate the dust meter by zero check;
- Set the TIME CONSTANT of the dust meter;
- Press SAMPLE to start the TSP monitoring;
- Record the maximum, minimum and average reading directly from the dust meter by press STATISTICS when monitoring complete.

#### Maintenance & Calibration

- 1-hr dust meter should be checked at 3-month intervals and calibrated at 1-year intervals throughout all stages of impact air quality monitoring.

### **4.5.3 Wind Data Monitoring**

Wind data (wind speed and wind direction) were directly extracted from Sha Tin Station (located at Sha Tin Race Course) of Hong Kong Observatory. All wind data during this reporting month are shown in Appendix D.

## **4.6 Action and Limit Levels**

Action and Limit levels for 24-hr TSP and 1-hr TSP derived as illustrated in Table 4.5.



Table 4.5 Action and Limit Levels for 24-hr TSP and 1-hr TSP

Monitoring Location	24-hr TSP ( $\mu\text{g}/\text{m}^3$ )		1-hr TSP ( $\mu\text{g}/\text{m}^3$ )	
	Action Level	Limit Level	Action Level	Limit Level
AM1	164 *	260 *	325 *	500 *
AM3	---	---	306	500
AM3A	183	260	---	---

\* = Reference to the information contained in the Baseline Monitoring Report submitted under the "Advance Engineering Infrastructure Works for Pak Shek Kok Development -- Southern Access Road and Sewage Pumping Station No.3"

#### 4.7 Event-Action Plans

Please refer to Appendix E for details.

#### 4.8 Results

##### 4.8.1 24-hour TSP Monitoring

All monitoring data of 24-hour TSP monitoring is provided in Appendix B2. Graphical presentation of 24-hour TSP monitoring results for the reporting month is shown in Appendix B3.

No exceedances of Action and Limit Level of 24-hour TSP monitoring results were recorded during the reporting month.

##### 4.8.2 1-hour TSP Monitoring

1-hour TSP monitoring was carried out at monitoring stations, AM1 and AM3 in the reporting month. All monitoring data of 1-hour TSP monitoring is provided in Appendix B2. Graphical presentation of 1-hour TSP monitoring results for the reporting month is shown in Appendix B3.

No exceedances of Action and Limit Level of 1-hour TSP monitoring results were recorded during the reporting month.

#### 5.0 Noise Monitoring

##### 5.1 Monitoring Requirements

As the requirement in EM&A Manual, noise monitoring was conducted at designated monitoring locations:

- HKIB Staff Accommodation (on ground floor near the entrance facing south-east);
- Cheung Shue Tan Village (near the outer building, temple);
- CUHK Residence No. 10.

##### 5.2 Monitoring Equipment

Integrating Sound Level Meters were used for noise monitoring. They were Type 1 sound level meters capable of giving a continuous readout of the noise level reading including equivalent continuous sound pressure level ( $L_{eq}$ ) and percentile sound pressure level ( $L_x$ ). They comply with International Electro technical Commission Publications 651:1979 (Type1) and 804:1985 (Type1), and speed in m/s was used to monitor the wind speed.

Table 5.1 summarized noise monitoring equipment model being used. A copy of the calibration certificates for noise meters and calibrator are attached in Appendix C1.



Table 5.1 Noise Monitoring Equipment

Equipment	Model
Integrating Sound Level Meter	Rion NL-14 Sound Level Meter
Calibrator	Quest QC-20 Acoustic Calibrator
Portable Wind Speed Indicator	TSI Model 8340-M Air Velocity Meter

### 5.3 Monitoring Parameters, duration and Frequency

Noise monitoring for the A-weighted levels  $L_{eq}$ ,  $L_{10}$  and  $L_{90}$  were recorded. The following guide on the regular monitoring frequency for each monitoring station on a per week basis when noise generating activities are underway:

- One set of measurements between 0700-1900 hours on normal weekdays (6 consecutive  $L_{eq(5-min)}$ );
- One set of measurements between 1900-2300 hours (3 consecutive  $L_{eq(5-min)}$ )\*;
- One set of measurements between 2300-0700 hours of next day (3 consecutive  $L_{eq(5-min)}$ )\*;
- One set of measurements between 0700-1900 hours on holidays (3 consecutive  $L_{eq(5-min)}$ )\*.

(\*): Noise monitoring to be conducted only when there is construction work.

Duration, frequencies and parameters of noise measurement are presented in Table 5.2.

Table 5.2 Duration, Frequencies and Parameters of Noise Monitoring

Time period	Duration/min	Parameters	Frequency
Day-time: 0700-1900 hrs on normal weekday	30	$L_{eq}$ , $L_{10}$ , $L_{90}$	Once per week
Evening-time: 1900-2300 hrs	15	$L_{eq}$ , $L_{10}$ , $L_{90}$	Once per week
Night-time: 2300-0700 hrs of next day	15	$L_{eq}$ , $L_{10}$ , $L_{90}$	Once per week
Holiday: 0700-1900 hrs	15	$L_{eq}$ , $L_{10}$ , $L_{90}$	Once per week

### 5.4 Monitoring Locations and Period

In accordance with the EM&A Manual, there are three noise monitoring locations: HKIB Staff Accommodation, Cheung Shue Tan Village and CUHK Residence No.10. The location of the monitoring stations are described in Table 5.3 and depicted in Figure 1.

Table 5.3 Noise Monitoring Locations

Noise Monitoring station	Location
NM1	HKIB Staff Accommodation (on ground floor near the entrance facing south-east)
NM2	CUHK Residence No.10
NM3	Cheung Shue Tan Village (near the outer building, a temple)

The noise-monitoring programme of monitoring locations (Day-time, Evening-time, Holiday and Night-time) is summarized in Table 5.4.

Table 5.4 Monitoring Periods for noise monitoring stations

Noise monitoring stations	Monitoring Period							
	Day-time		Evening-time		Holiday		Night-time	
NM1	04/01/05	08:45	04/01/05	20:00	02/01/05	15:00	---	---
	11/01/05	09:50	11/01/05	19:00	09/01/05	09:45	---	---
	18/01/05	08:47	18/01/05	19:04	16/01/05	14:42	---	---
	25/01/05	08:47	25/01/05	19:00	23/01/05	14:00	---	---
	---	---	---	---	30/01/05	10:35	---	---
NM2	04/01/05	09:55	04/01/05	20:35	02/01/05	14:27	---	---
	11/01/05	13:30	11/01/05	19:25	09/01/05	10:10	---	---
	18/01/05	09:27	18/01/05	19:35	16/01/05	15:12	---	---
	25/01/05	09:55	25/01/05	19:35	23/01/05	14:59	---	---
	---	---	---	---	30/01/05	10:10	---	---
NM3	04/01/05	10:42	04/01/05	21:10	02/01/05	13:55	---	---
	11/01/05	14:22	11/01/05	19:55	09/01/05	10:40	---	---
	18/01/05	10:22	18/01/05	20:10	16/01/05	15:40	---	---
	25/01/05	14:27	25/01/05	20:10	23/01/05	17:05	---	---
	---	---	---	---	30/01/05	11:20	---	---



## 5.5 Monitoring Procedures and Calibration Details

### Operation/Analysis Procedures

- The Sound Level Meter was set on a tripod at a height of 1.2m above the ground.
- For free field measurement, the meter was positioned away from any nearby reflective surfaces.
- The battery condition was checked to ensure the correct functioning of the meter.
- Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:
  - Frequency weighting: A
  - Time weighting : Fast
  - Time measurement : 5 mins
- Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94 dB at 1000HZ. If the difference in the calibration level before and after measurement was more than 1dB(A), the measurement would be considered invalid and repeat measurement would be required after re-calibration or repair of the equipment.
- The wind speed was frequently checked with a portable wind meter.
- During the monitoring period, the Leq, L10 and L90 were recorded. In addition, site conditions and noise sources were recorded on a standard record sheet.
- Free Field correction to the measurements should be made. Correction factor of +3dB(A) should be made to the free Field measurements.
- Noise monitoring would be cancelled in the presence of fog, rain, wind with a steady speed exceeding 5m/s, or wind gusts exceeding 10m/s.

### Maintenance and Calibration

- The microphone head of the sound level meter and calibrator is cleaned with soft cloth at quarterly intervals.
- The meter is sent to be supplier or HOKLAS laboratory to check and calibrated at yearly intervals.

## 5.6 Action and Limit Levels

The Action and Limit levels for noise levels derived as illustrated in Table 5.5.

Table 5.5 Action and Limit Levels for noise monitoring

<i>Time Period</i>	<i>Time Period</i>	<i>Action</i>	<i>Limit</i>
<i>Normal hours</i>	<i>0700-1900 hrs on normal weekdays</i>	<i>When one documented complaint is received</i>	<i>75 dB(A) *</i>
<i>Holiday</i>	<i>0700-1900 hrs on holidays</i>		<i>70 dB(A) **</i>
<i>Evening-time</i>	<i>1900-2300 hrs on all other days</i>		<i>55 dB(A) **</i>
<i>Night-time</i>	<i>2300-0700 hrs of next day</i>		

\* = Reduce to 70 dB(A) for schools and 65 dB(A) during school examination periods.

\*\* = Area Sensitivity Rating (ASR) C is selected from the "Technical Memorandum on Noise from Construction Work Other Than Percussive Piling".

## 5.7 Event-Action Plans

Please refer to the Appendix E for details.



## 5.8 Results

Day-time, Evening-time and Holiday noise monitoring were carried out at monitoring stations, NM1, NM2 and NM3 in this reporting month. No night-time noise monitoring were required since no construction works were processed during the night-time period. All noise levels are provided in Appendix C2. Graphical presentation of the monitoring results for the reporting month are shown in Appendix C3.

No day-time, evening-time and holiday noise monitoring results at all monitoring stations exceeded the Action Level since no documented complaints on noise issue were received in this reporting month. Besides, no exceedances in Limit Level were recorded according to the results from day-time, evening-time and holiday noise monitoring.

During the restricted hours, ET found that the PMEs used complied with the requirements stated in the valid CNP and no PMEs other than ones specified in the CNP to be used in the construction site.

## 6.0 WASTEWATER MONITORING

- 6.1 According to the Discharge of Industrial Trade Effluent Licence (Licence No.: 2946), POC is required to carry out wastewater monitoring of suspended solids quarterly at all effluent discharge points within the site. Under the Discharge of Industrial Trade Effluent Licence (Licence No.: 2946), the discharge limit of Suspended Solids content of the effluent at this site should be 30mg/L. It means that the suspended solids of wastewater discharged should be less than 30mg/L or otherwise no wastewater can be discharged under this Licence.
- 6.2 No water quality monitoring were carried out in this reporting month since no construction wastewater were discharged at the discharge point.
- 6.3 Next wastewater monitoring will be carried out when wastewater was found discharged at the discharge point.

## 7.0 ENVIRONMENTAL NON-CONFORMANCE

### 7.1 Summary of air quality, noise and wastewater monitoring

No exceedances of Action and Limit Level of 24-hour and 1-hour TSP monitoring results were recorded during the reporting month.

No day-time, evening-time and holiday noise levels recorded at all monitoring stations exceeded the Action and Limit Level in the reporting month.

No water quality monitoring were carried out in this reporting month since no construction wastewater were discharged at the discharge point.

### 7.2 Summary of Environmental Complaints

No environmental complaints were received in this monitoring month.

### 7.3 Summary of Notification of Summons and Prosecution

There were no notification of summons respect to environmental issues registered in this month. Cumulative log of Notification of Summons and Prosecution is tabulated in Table 7.1.



Table 7.1 Cumulative Log of Notification of Summons and Prosecution

Date	Detail of Notice of Summons or Prosecution	Action Taken	Environmental Outcome
16 Oct 2002	The site main haul road was neither paved with any one of concrete, bituminous materials, hard core or metal plates, nor had the entire road surface maintained wet by the spraying of water or dust suppression chemical.	<ul style="list-style-type: none"> <li>• POC paved the site main haul road with concrete and bituminous materials;</li> <li>• The road surface was wet by the spraying of water regularly by POC.</li> </ul>	It was observed that the problem of dust emission from the site main haul road has been improved. No further complaint or ticket was received during the reporting month.
11 July 2003	Three stockpiles of dusty material namely aggregate, were wither covered entirely by impervious sheeting, nor place in an area sheltered on top and three sites, nor sprayed with water or dust suppression chemical so as to maintain entire surface wet.	The stockpiles of aggregates / excavated materials were covered with tarpaulin sheet / sprayed with water in order to avoid the dust emission.	No further complaints were received during the reporting month.

## 8.0 SITE INSPECTION

Weekly site inspections were carried out by the ET. Four site inspections were undertaken in this reporting month (08, 15, 22 and 29 January 2005). Monthly joint site inspection at 26 January 2005 was carried out by Engineer's Representative, IEC, POC and ET. A summary of the implementation status of the mitigation measures on site inspections is presented in Appendix H.

### 8.1 Summary of the site inspection findings and Action(s) taken by POC and ET

No site inspection findings were recorded in this reporting month.

### 8.2 Status of Environmental Licensing and Permitting

All permits/licenses valid in this reporting month are summarized in Table 8.2.

Table 8.1 Summary of environmental licensing and permit status

Description	Permit No.	Valid Period		Section
		From	To	
Environmental Permit	EP-108/2001	05/11/02	---	Whole work site
Waste Producer	5213 729 P2800 11	03/10/02	---	Generating waste at the work site
Wastewater Discharge License	No. 2946	18/12/02	18/12/07	Discharge of trade Effluent, surface run-off and all other wastewater arising from the construction site and sedimentation tank





Description	Permit No.	Valid Period		Section
		From	To	
Construction Noise Permit (General / Prescribed construction works)	GW-RN0440-04	15/09/04	10/02/05	<p><u>Group A (For Area B2 or E)</u></p> <ul style="list-style-type: none"> <li>• 1 Poker, vibratory, hand-held (CNP 170)</li> <li>• 1 Concrete pump, lorry mounted (CNP 047)</li> <li>• 2 Concrete lorry mixer (CNP 044)</li> </ul> <p><u>Group B (For Area B2 or E)</u></p> <ul style="list-style-type: none"> <li>• 1 Poker, vibratory, hand-held (CNP 170)</li> <li>• 2 Concrete lorry mixer (CNP 044)</li> <li>• 1 Crane, mobile (diesel) (CNP 048)</li> </ul> <p><u>Group C (For Area B2 or E):</u></p> <ul style="list-style-type: none"> <li>• 2 Generator, silenced, 75dB(A) at 7m (CNP 102)</li> <li>• 1 Excavator, tracked (CNP 081)</li> <li>• 1 Lorry, with crane</li> </ul> <p><u>Group D (For Area B2 or E):</u></p> <ul style="list-style-type: none"> <li>• 1 Drill rig</li> </ul> <p><u>Group E (For Area B2 or E):</u></p> <ul style="list-style-type: none"> <li>• 2 Generator, silenced, 75dB(A) at 7m (CNP 102)</li> <li>• 2 Drill/Grinder, hand-held (electric) (CNP 065)</li> <li>• 1 Saw, circular, wood (CNP 201)</li> <li>• 2 Water pump, submersible (electric) (CNP 283)</li> <li>• 1 Air Compressor (CNP002)</li> <li>• 1 Bar bender and cutter (electric) (CNP 021)</li> </ul> <p><u>Group F (For Area B, C or D):</u></p> <ul style="list-style-type: none"> <li>• 1 Asphalt paver (CNP 004)</li> <li>• 1 Roller, vibratory (CNP 186)</li> <li>• 1 Excavator, tracked (CNP 081)</li> </ul> <p><u>Group G (For Area F):</u></p> <ul style="list-style-type: none"> <li>• 1 Excavator, tracked (CNP 081)</li> </ul>

### 8.3 Recommendations on site inspection findings in Site Inspections of this month

Although no site inspection findings were recorded in this reporting month, some recommendations are still raised for general site practice and indicated as below:

- All stockpiles with a volume of greater than 50m<sup>3</sup> should be covered with clean tarpaulin sheets, watering or hydro-seeding to avoid wind and water erosion;
- The heights from which fill materials are dropped should be controlled to a practical height to minimize the fugitive dust arising from unloading;
- Placing enough sand bags or other protection should be applied to prevent the slity surface runoff onto the drains system;
- Checking and maintaining all the site machines to prevent dust emission;
- Providing briefing to the concerned site staff on remedial actions, such as handling method of chemicals and chemical waste;
- Maintain good waste management at the site.

## 9.0 WASTE MANAGEMENT

### 9.1 Waste Management Audit

Waste management audit was carried out by the ET on a weekly basis. A summary of the implementation status of the mitigation measures on waste management is presented in Appendix H.

### 9.2 Records of Waste Quantities

All type of wastes arising from the construction work are classified into the following:

- General refuses;
- Chemical waste;
- Construction & demolition (C&D) material.

The quantities of waste for disposal in this month are summarized in Table 9.1.



Table 9.1 Summary of Quantities of Waste for Disposal in this reporting month

Type of Waste	Quantity	Disposal Location
C&D Material (Inert) (m <sup>3</sup> )	0	Nil
C&D material (Non-inert) (m <sup>3</sup> )	0	Nil
General Refuse (m <sup>3</sup> )	45	Disposed at NENT Landfills
Chemical Waste (L)	0	Nil

## 10.0 IMPLEMENTATION STATUS

### 10.1 Implementation Status of Environmental Mitigation Measures

POC has been implementing the required environmental mitigation measures according to Implementation of Mitigation Measures (clause 4.2, 5.2 and 6.2) in Environmental Management Plan for Contract No. TP 35/02 Remaining Engineering Infrastructure Works for Pak Shek Kok Development Package 1 (Revision 2). A summary of the implementation status of the mitigation measures is presented in Appendix H.

#### Air Quality

The Contractor was reminded to water, hydro-seed or cover all the stockpiles by using clean tarpaulin sheets. The Contractor was also reminded to cleanup the access road regularly to avoid dust emission.

#### Noise

All mitigation measures stated in Appendix I were implemented properly in this reporting month.

#### Water Quality

The Contractor was reminded to provide more effort to implement mitigation measures, such as diverting site runoff to suitable treatment processes before discharge, sedimentation system and drainage facilities (e.g. sedimentation trap and U-channels), and remove the sand/rubbish accumulated in the drain / channel regularly.

#### Waste Management

POC has been implementing most mitigation measures on waste management.

### 10.2 Implementation Status of Event and Action Plan

There were no exceedances in air quality and noise monitoring parameters recorded in this monitoring month. No further mitigation measures were required.

### 10.3 Implementation Status of Environmental Complaint Handling

No complaints had been received during this monitoring month.

## 11.0 CONCLUSION

Impact monitoring of air quality and noise were carried out at designated locations in accordance with the EM&A Manual in this reporting month.

According to the summary of air and noise monitoring results, no exceedances of Action and Limit Level of 24-hour and 1-hour TSP monitoring results were recorded during the reporting month. Besides, no day-time, evening-time and holiday noise levels were recorded at all monitoring stations exceeded the Action and Limit Level in this reporting month. No night-time noise monitoring were required since no construction works were processed during the night-time period.



During the restricted hours, ET found that the PMEs used complied with the requirements stated in the valid CNP and no PMEs other than ones specified in the CNP to be used in the site.

No water quality monitoring were carried out in this reporting month since no construction wastewater were discharged at the discharge point.

According to the ET weekly site inspections and IEC monthly site audit carried out this month, it indicated that site practices of the POC were generally undertaken in an environmentally acceptable manner and the overall site environmental performance was satisfactory.

## 12.0 FUTURE KEY ISSUES

### 12.1 Upcoming EM&A Schedule in coming two months

The Proposed EM&A program in coming two months are presented as following table:

Table 12.1 – Upcoming EM&A Schedule in coming two months

Type of Monitoring	February 2005	March 2005
Noise Monitoring (Day-time)	01, 08, 15, 22	01, 08, 15, 22, 29
Noise Monitoring (Evening-time)	01, 08, 15, 22	01, 08, 15, 22, 29
Noise Monitoring (Holiday)	06, 13, 20, 27	06, 13, 20, 27
1-hour TSP	01, 03, 05, 08, 10, 12, 15, 17, 19, 22, 24, 26	01, 03, 05, 08, 10, 12, 15, 17, 19, 22, 23, 24, 29, 31
24-hour TSP	02, 07, 12, 18, 24	02, 08, 14, 19, 24, 30
Site Inspection	05, 12, 19, 26	05, 12, 19, 24

### 12.2 Upcoming construction works schedule in the coming month

The major construction works planned to be carried out in next two months and their possible impact is tabulated (Table 12.2) for reference.

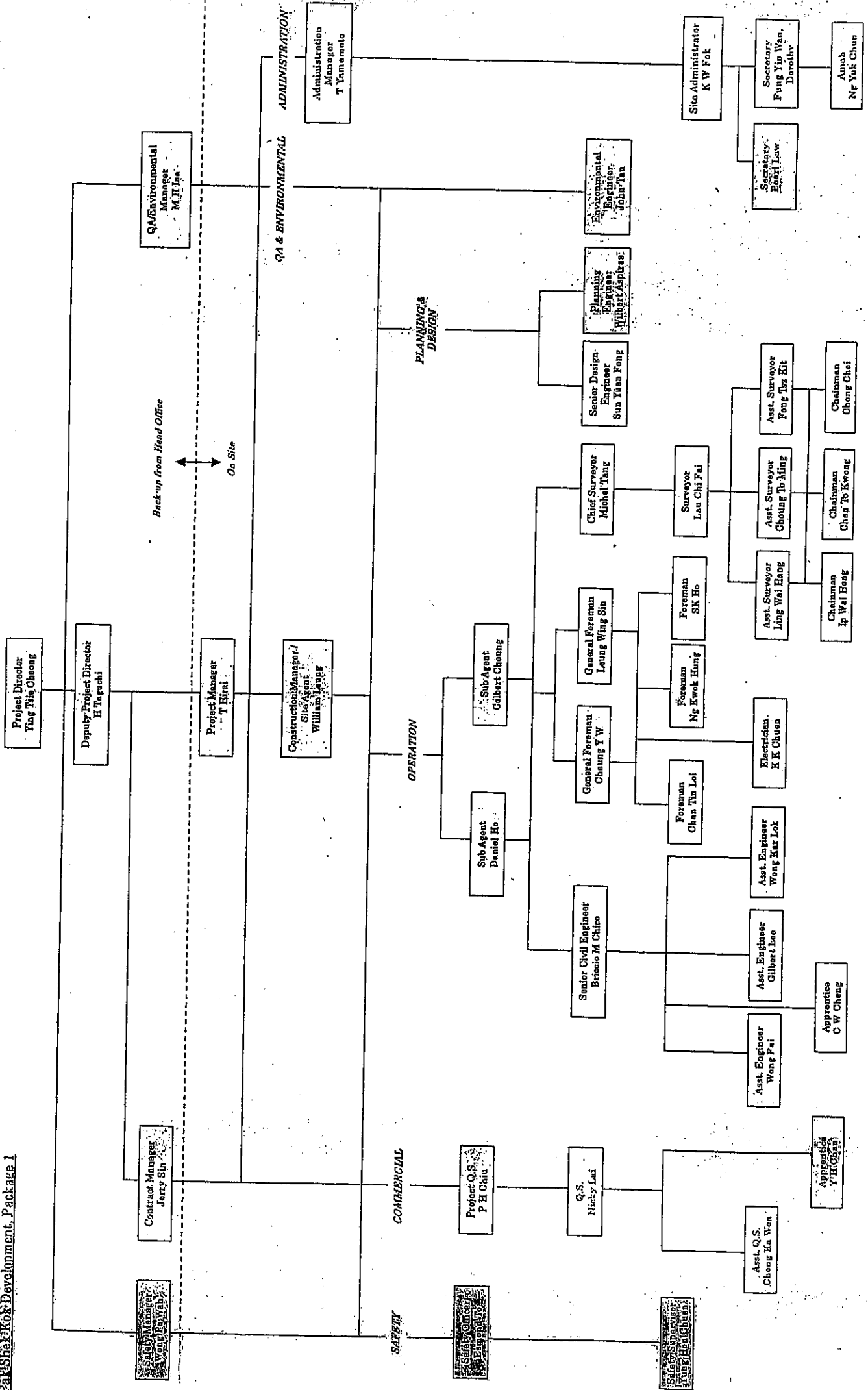
Table 12.2 – Construction Plan in the coming month

Month	Works Planned to be Carried Out
Between February and March 2005	▪ Drainageworks in Zone G and S25
	▪ Watermain installation works
	▪ Roadworks
	▪ Construction of Road D1 Bridge
	▪ Construction of pumping station no.1 and no.2
	▪ General landscape works
	▪ Construction of footpath and cycle track

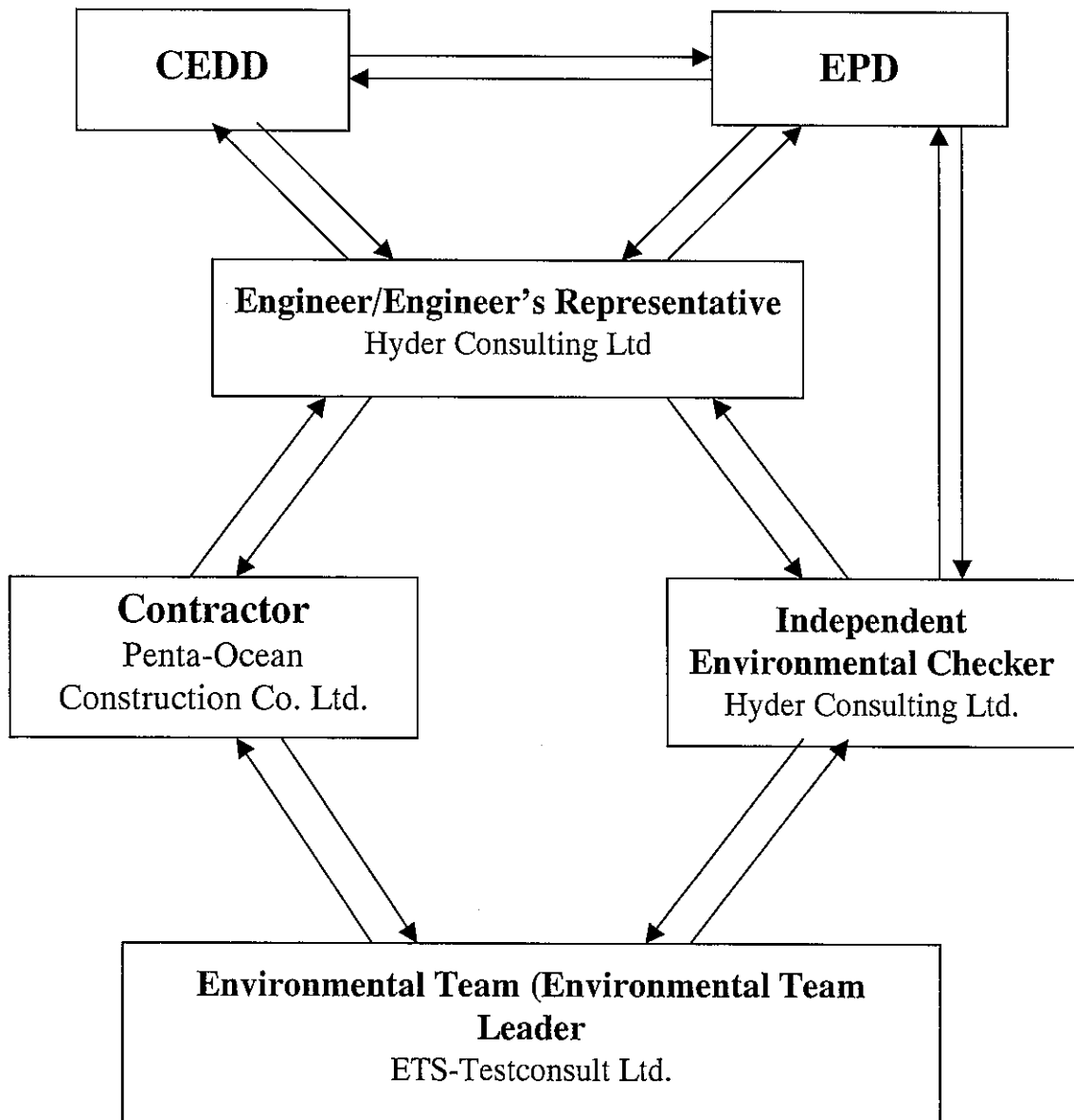


## **Appendix A**

### **Organization Chart and Lines of Communication**



# Lines of Communication





## Appendix B1

### Calibration Certificates for Air Quality Monitoring Equipments



東業德勤測試顧問有限公司  
ETS-TESTCONSULT LIMITED

8/F, Block B, Veristrong Industrial Centre, 34-36 Au Pui Wan Street, Fotan, Hong Kong  
Tel : 2695 8318 E-mail : etl@ets-testconsult.com  
Fax : 2695 3944 Web site : www.ets-testconsult.com

**TEST REPORT**

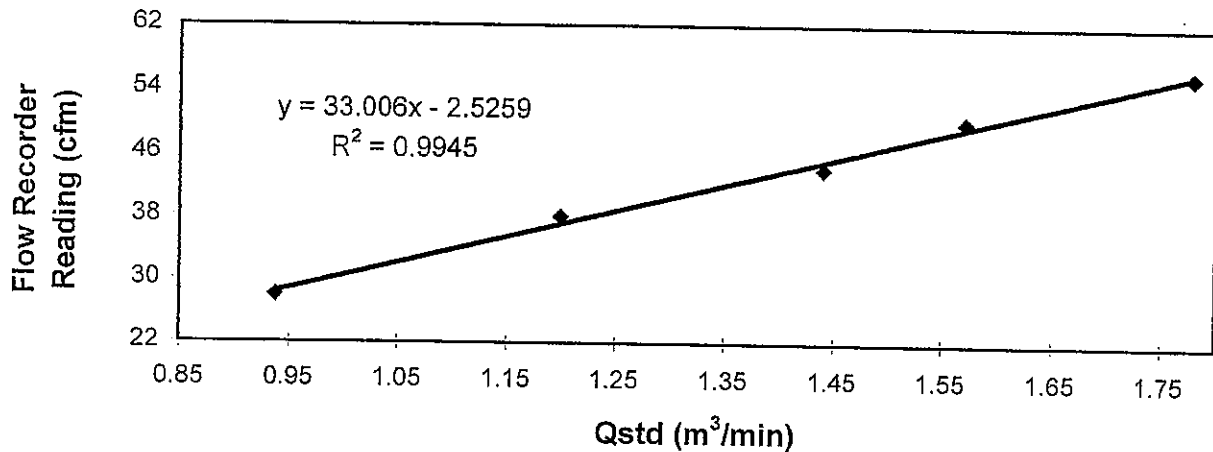
**Calibration Report  
of  
High Volume Air Sampler**

Manufacturer : Greasby GMW Date of Calibration : 18 November 2004  
Serial No. : 1178 (EA/003/01) Calibration Due Date : 17 January 2005  
Method : Based on Operations Manual for Graseby Model GS2310 series using calibration kit TE-5025A

Results :

Flow recorder reading (cfm)	56	50	44	38	28
Qstd (Actual flow rate, m <sup>3</sup> /min)	1.78	1.57	1.44	1.20	0.94
Pressure :	765.44 mm Hg			Temp. : 295 K	

**Sampler1178 Calibration Curve**  
Site: Pak Shek Kok Monitoring Station AM1 (24hr.)  
Date of Calibration: 18 November 2004



Acceptance Criteria : Correlation coefficient (r) of the calibration curve greater than 0.990 after a 5 point calibration

The high volume sampler complies \* / does not comply \* with the specified requirements and is deemed acceptable \* / unacceptable \* for use.

Calibrated by : H. T. Chow  
H. T. Chow  
(Asst. Environmental Officer)

Approved by : Linda Law  
Linda Law  
(Environmental Officer)





東業德勤測試顧問有限公司  
ETS-TESTCONSULT LIMITED

8/F, Block B, Veristrong Industrial Centre, 34-36 Au Pui Wan Street, Fotan, Hong Kong  
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Fax : 2695 3944 Web site : www.ets-testconsult.com

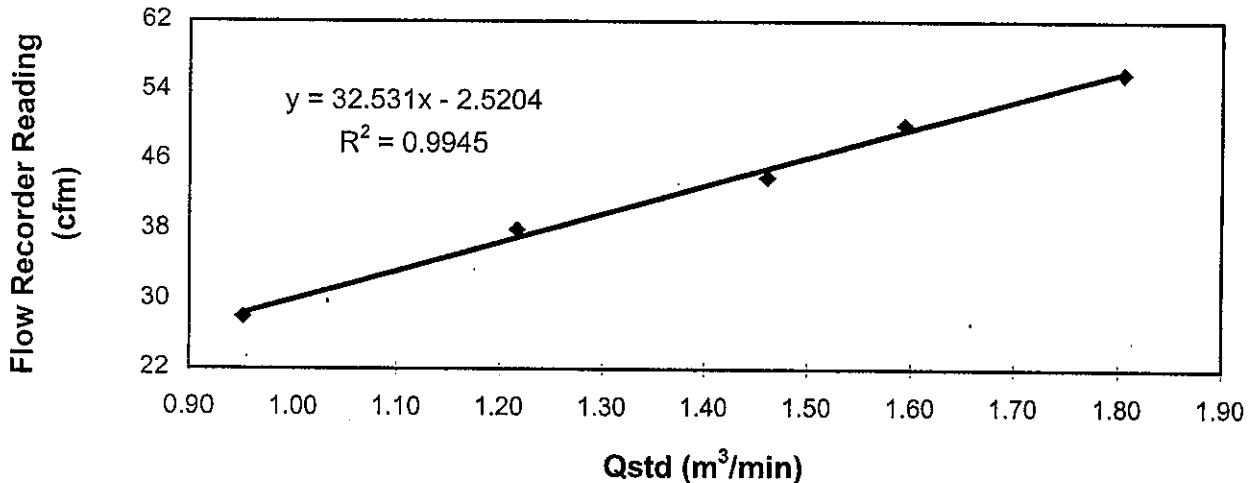
**TEST REPORT**

**Calibration Report**  
of  
**High Volume Air Sampler**

Manufacturer : Greasby GMW Date of Calibration : 17 January 2005  
Serial No. : 1178 (ET / EA / 003 / 01) Calibration Due Date : 16 March 2005  
Method : Based on Operations Manual for Graseby Model GS2310 series using calibration kit TE-5025A

Results	Flow recorder reading (cfm)	56	50	44	38	28
	Qstd (Actual flow rate, m <sup>3</sup> /min)	1.80	1.59	1.46	1.22	0.95
	Pressure : 766.56 mm Hg	Temp. : 287 K				

**Sampler1178 Calibration Curve**  
**Site: Pak Shek Kok Monitoring Station AM1 (24hr.)**  
**Date of Calibration: 17 January 2005**



Acceptance Criteria : Correlation coefficient (r) of the calibration curve greater than 0.990 after a 5 point calibration

The high volume sampler complies \* / ~~does not comply~~ \* with the specified requirements and is deemed acceptable \* / ~~unacceptable~~ \* for use.

Calibrated by : Mak Kei Wai  
Mak Kei Wai  
(Technician)

Approved by : H. T. Chow  
H. T. Chow  
(Asst. Environmental Officer)



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Fax : 2695 3944 Web site : www.ets-testconsult.com

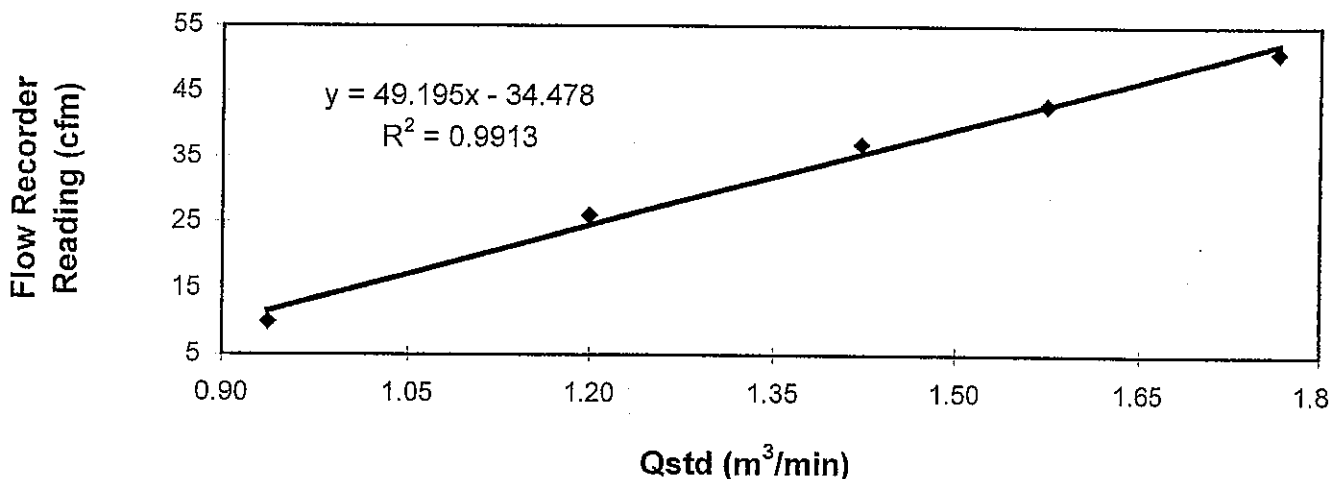
**TEST REPORT**

Calibration Report  
of  
High Volume Air Sampler

Manufacturer : Greasby GMW Date of Calibration : 18 November 2004  
Serial No. : 7179 ( EA / 003 / 16 ) Calibration Due Date : 17 January 2005  
Method : Based on Operations Manual for Graseby Model GS2310 series using calibration kit TE-5025A

Results	Flow recorder reading (cfm)	51	43	37	26	10
	Qstd (Actual flow rate, m <sup>3</sup> /min)	1.76	1.57	1.42	1.20	0.94
	Pressure : 765.44 mm Hg	Temp. : 295 K				

**Sampler 7179 Calibration Curve**  
**Site: Pak Shek Kok (AM3A)**  
**Date of Calibration: 18 November 2004**



Acceptance Criteria : Correlation coefficient (r) of the calibration curve greater than 0.990 after a 5 point calibration

The high volume sampler complies \* / ~~does not comply~~ \* with the specified requirements and is deemed acceptable \* / ~~unacceptable~~ \* for use.

Calibrated by : H. T. Chow  
H. T. Chow  
(Asst. Environmental Officer)

Approved by : Linda Law  
Linda Law  
(Environmental Officer)



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Tel : 2695 8318 E-mail : etl@ets-testconsult.com  
Fax : 2695 3944 Web site : www.ets-testconsult.com

**TEST REPORT**

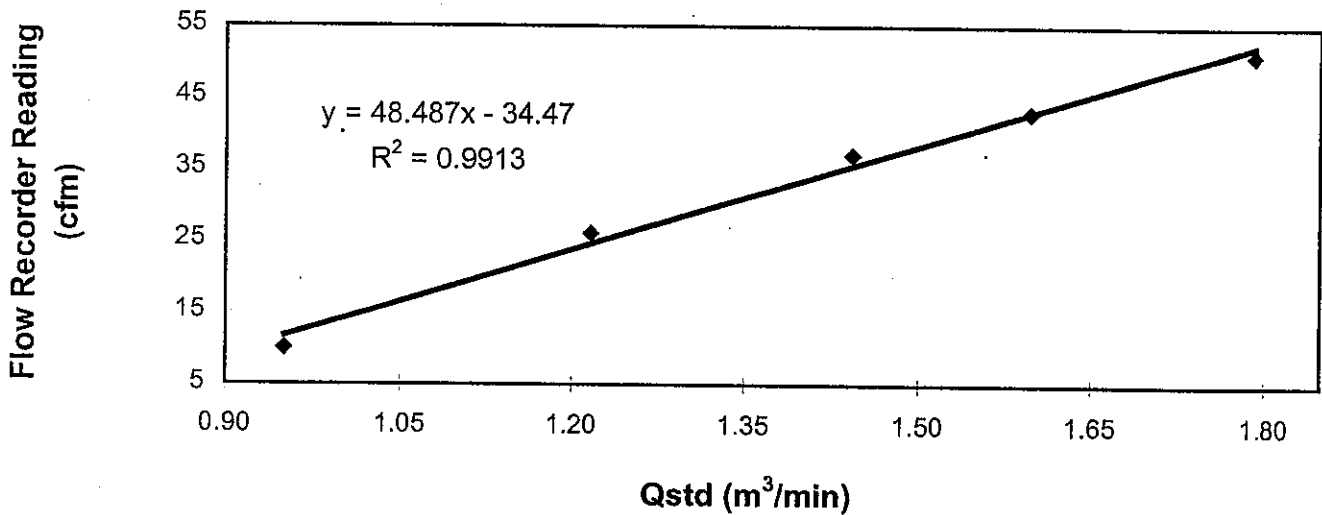
**Calibration Report**  
of  
**High Volume Air Sampler**

Manufacturer : Greasby GMW Date of Calibration : 17 January 2005  
Serial No. : 7179 ( ET / EA / 003 / 16 Calibration Due Date : 16 March 2005  
Method : Based on Operations Manual for Graseby Model GS2310 series using calibration kit TE-5025A

Results :

Flow recorder reading (cfm)	51	43	37	26	10
Qstd (Actual flow rate, m <sup>3</sup> /min)	1.79	1.60	1.44	1.22	0.95
Pressure :	766.56 mm Hg		Temp. :	287 K	

**Sampler 7179 Calibration Curve**  
**Site: Pak Shek Kok (AM3A)**  
**Date of Calibration: 17 January 2005**



Acceptance Criteria : Correlation coefficient (r) of the calibration curve greater than 0.990 after a 5 point calibration

The high volume sampler complies \* / ~~does not comply~~ \* with the specified requirements and is deemed acceptable \* / ~~unacceptable~~ \* for use.

Calibrated by : Mak Kei Wai  
Mak Kei Wai  
(Technician)

Approved by : H. T. Chow  
H. T. Chow  
(Asst. Environmental Officer)



## **Appendix B2**

### **Air Quality Monitoring Results**

## Summary of 24-hr TSP Monitoring Results

Monitoring Station : AM1  
Location : HKIB Staff Accommodation

Start		Finish		Elapse Time		Sampling Time (hrs)	Flow Rate (m <sup>3</sup> /min.)		Average (m <sup>3</sup> /min.)	Filter Weight (g)		Conc. (µg/m <sup>3</sup> )	Weather Condition
Date	Time	Date	Time	Initial	Final		Initial	Final		Initial	Final		
04/01/05	09:40	05/01/05	09:41	7425.40	7449.42	24.02	1.08	1.08	1.08	2.9058	3.0993	124	Cloudy
10/01/05	11:00	11/01/05	10:56	7473.38	7497.32	23.94	1.11	1.11	1.11	2.8423	3.0553	134	Sunny
15/01/05	08:47	16/01/05	08:41	7521.21	7545.11	23.90	1.02	1.02	1.02	2.8851	3.0801	133	Sunny
21/01/05	08:25	22/01/05	08:29	7568.34	7692.41	24.07	1.09	1.09	1.09	2.8361	2.9390	65	Cloudy
27/01/05	11:35	28/01/05	11:22	7616.04	7639.83	23.79	1.12	1.12	1.12	2.8682	2.9519	52	Cloudy

Remark (\*): The monitoring period was less than 24 hours due the power supply failure.

Monitoring Station : AM3A  
Location : Cheung Shue Tan (in front of Man Kee Store)

Start		Finish		Elapse Time		Sampling Time (hrs)	Flow Rate (m <sup>3</sup> /min.)		Average (m <sup>3</sup> /min.)	Filter Weight (g)		Conc. (µg/m <sup>3</sup> )	Weather Condition
Date	Time	Date	Time	Initial	Final		Initial	Final		Initial	Final		
04/01/05	10:45	05/01/05	11:45	12749.41	12774.43	25.02	1.31	1.31	1.31	2.9095	3.1248	109	Cloudy
10/01/05	11:15	11/01/05	11:14	12798.48	12822.46	23.98	1.35	1.35	1.35	2.8727	3.0970	115	Sunny
15/01/05	13:05	16/01/05	13:31	12846.82	12871.26	24.44	1.33	1.33	1.33	2.8734	3.0862	109	Sunny
21/01/05	08:40	22/01/05	08:17	12895.26	12918.88	23.62	1.25	1.25	1.25	2.8508	2.9668	65	Cloudy
27/01/05	10:20	28/01/05	10:21	12943.05	12967.07	24.02	1.33	1.33	1.33	2.8656	2.9760	58	Cloudy

## Summary of 1-hr TSP Monitoring Results

Monitoring Station : AM1  
 Location : HKIB Staff Accommodation

Date	Monitoring Period		1-hr TSP ( $\mu\text{g}/\text{m}^3$ )			Weather
	Start	Finish	Minimum	Maximum	Average	
04/01/05	08:42	09:42	52	486	110	Cloudy
06/01/05	09:05	10:05	46	393	96	Sunny
08/01/05	08:50	09:50	90	350	154	Cloudy
11/01/05	09:48	10:48	90	352	117	Sunny
13/01/05	16:00	17:00	98	352	175	Cloudy
15/01/05	08:45	09:45	93	372	171	Sunny
18/01/05	08:45	09:45	97	370	190	Cloudy
20/01/05	10:25	11:25	93	377	130	Cloudy
22/01/05	09:23	10:23	91	363	191	Cloudy
25/01/05	08:45	09:45	106	389	186	Cloudy
27/01/05	15:16	16:16	110	386	187	Cloudy
29/01/05	10:49	11:49	87	350	155	Cloudy

Monitoring Station : AM3  
 Location : Cheung Shue Tan Village (near the outer building, a temple)

Date	Monitoring Period		1-hr TSP ( $\mu\text{g}/\text{m}^3$ )			Weather
	Start	Finish	Minimum	Maximum	Average	
04/01/05	10:39	11:39	35	405	93	Cloudy
06/01/05	10:20	11:20	38	324	90	Sunny
08/01/05	13:00	14:00	81	311	86	Cloudy
11/01/05	14:20	15:20	83	310	113	Sunny
13/01/05	10:40	11:40	97	320	159	Cloudy
15/01/05	13:00	14:00	71	221	113	Sunny
18/01/05	10:20	11:20	86	321	170	Cloudy
20/01/05	15:36	16:36	89	301	120	Cloudy
22/01/05	15:00	16:00	76	317	165	Cloudy
25/01/05	14:25	15:25	97	343	171	Cloudy
27/01/05	10:15	11:15	87	356	167	Cloudy
29/01/05	16:30	17:30	75	321	131	Cloudy

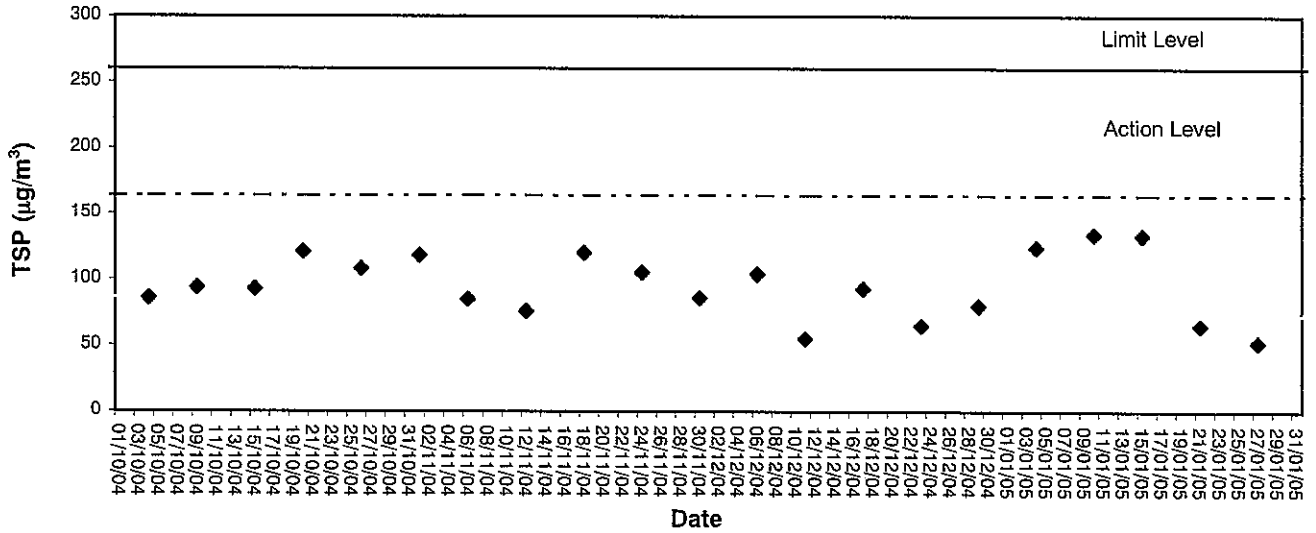


## **Appendix B3**

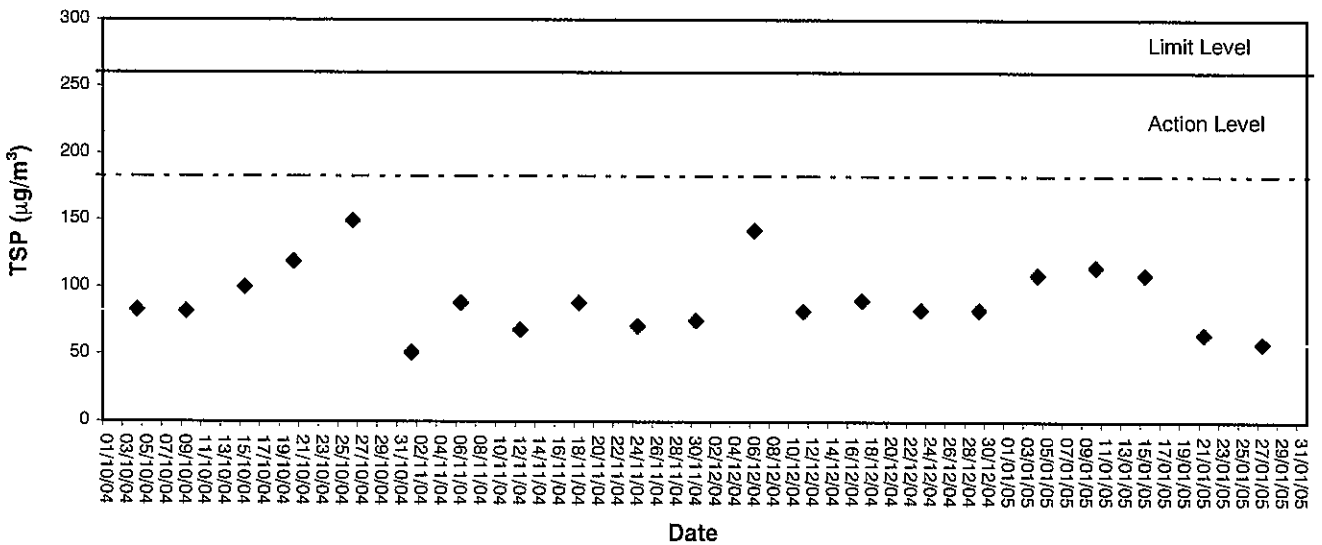
### **Graphical Plots of Air Quality Monitoring Data**



### 24-hour TSP level at AM1 (HKIB Staff Accommodation)



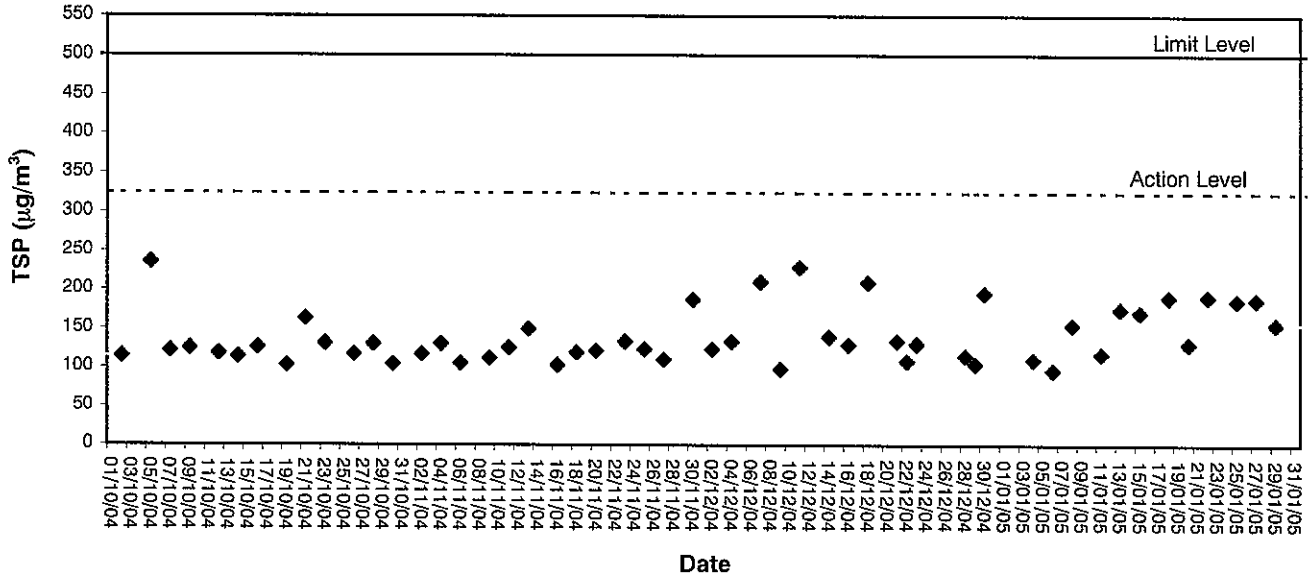
### 24-hour TSP level at AM3A (Cheung Shue Tan in front of Man Kee Store)



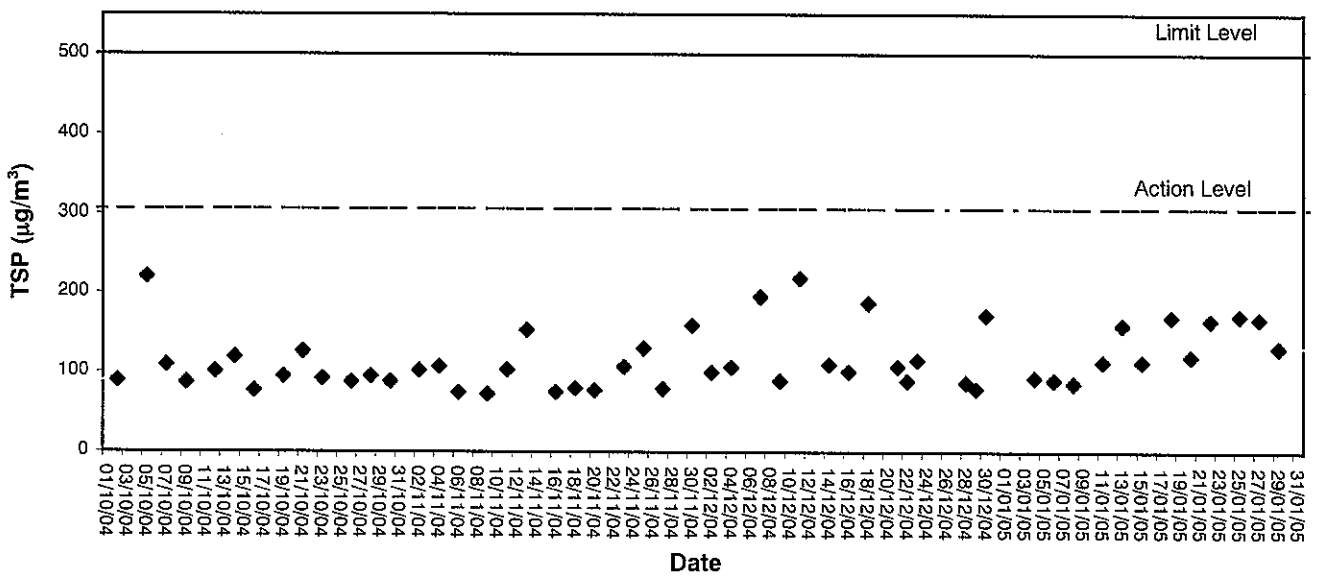




### 1-hour TSP level at AM1, HKIB Staff Accommodation



### 1-hour TSP level at AM3, Cheung Shue Tan Village (near the outer building, a temple)





## **Appendix C1**

### **Calibration Certificates for Noise Monitoring Equipments**



# Calibration Certificate

Certificate No. 41649

Page 1 of 2 Pages

Customer : ETS-Testconsult Limited

Address : 8/F., Block B, Veristrong Industrial Centre, 34-36 Au Pui Wan St., Fotan, Hong Kong.

Order No. : Q40536

Date of receipt : 6-Apr-04

## Item Tested

Description : Sound Level Calibrator (ET/0527/002)

Manufacturer : Rion

Model : NC-73

Serial No. : 10644871

## Test Conditions

Date of Test : 16-Apr-04

Supply Voltage : --

Ambient Temperature : (22.5 ± 2.5)°C

Relative Humidity : (50 ± 20) %

## Test Specifications

Calibration check according to customer's requirement.

Calibration procedure : F21, Z02.

## Test Results

All results were within the manufacturer's specification.

The results are shown in the attached page(s).

Test equipment used:

<u>Equipment No.</u>	<u>Cert. No.</u>	<u>Due Date</u>	<u>Traceable to</u>
S014	30961	1-Jun-04	PRC-NIM
S024	Z02050078	29-May-04	PRC-NIM
S041	35075	2-Dec-04	PRC-NIM

The values given in this Calibration Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Hong Kong Calibration Ltd. shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration are traceable to national standards/International System of Units (SI).

The test results apply to the above Unit-Under-Test only

Calibrated by :

Approved by :

Alan Chu - Manager

This Certificate is issued by:

Hong Kong Calibration Ltd.

Unit 8B, 24/F., Well Fung Industrial Centre, No. 58-76, Ta Chuen Ping Street, Kwai Chung, NT, Hong Kong.

Tel: 2425 8801 Fax: 2425 8646

Date: 16-Apr-04



# Calibration Certificate

Certificate No. 41649

Page 2 of 2 Pages

Results :

**1. Level Accuracy (at 1 kHz)**

UUT Nominal Value	Measured Value	Mfr's Spec.
94 dB	- 0.8 dB	± 1 dB

Uncertainty : ± 0.2 dB

**2. Frequency Accuracy**

UUT Nominal Value	Measured Value	Mfr's Spec.
1 kHz	0.986 kHz	± 2 %

Uncertainty : ± 0.1 %

**3. Level Stability : 0.0 dB**  
Uncertainty : ± 0.01 dB

**4. Total Harmonic Distortion : < 0.2 %**  
Mfr's Spec. : < 3 %  
Uncertainty : ± 2.3 % of reading

Remark : 1. UUT : Unit-Under-Test

2. The uncertainty claimed is for a confidence probability of not less than 95%.

3. Atmospheric Pressure : 995 hPa

4. The above measured values are the mean of 3 measurement.

----- END -----



# Calibration Certificate

Certificate No. 41648

Page 1 of 3 Pages

Customer : ETS-Testconsult Limited

Address : 8/F., Block B, Veristrong Industrial Centre, 34-36 Au Pui Wan St., Fotan, Hong Kong.

Order No. : Q40536

Date of receipt : 6-Apr-04

## Item Tested

Description : Precision Integrating Sound Level Meter

Manufacturer : Rion

Model : NL-31

Serial No. : 00531142

## Test Conditions

Date of Test : 16-Apr-04

Supply Voltage : --

Ambient Temperature : (22.5 ± 2.5)°C

Relative Humidity : (50 ± 20) %

## Test Specifications

Calibration check according to customer's requirement.

Calibration procedure : Z01.

## Test Results

All results were within the manufacturer's, IEC 651 Type 1, IEC 804 Type 1 specification.

The results are shown in the attached page(s).

Test equipment used:


<u>Equipment No.</u>	<u>Cert. No.</u>	<u>Due Date</u>	<u>Traceable to</u>
S017	S30857	8-Apr-05	PRC-NIM
S024	Z02050078	29-May-04	PRC-NIM

The values given in this Calibration Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Hong Kong Calibration Ltd. shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration are traceable to national standards/International System of Units (SI).

The test results apply to the above Unit-Under-Test only

Calibrated by : 

Approved by :   
Alan Chu - Manager

This Certificate is issued by:

Hong Kong Calibration Ltd.

Unit 8B, 24/F., Well Fung Industrial Centre, No. 58-76, Ta Chuen Ping Street, Kwai Chung, NT, Hong Kong.

Tel: 2425 8801 Fax: 2425 8646

Date: 16-Apr-04



# Calibration Certificate

Certificate No. 41648

Page 2 of 3 Pages

Results :

## 1. SPL Accuracy

UUT Setting			UUT Reading (dB)	Correction (dB)
Level Range (dB)	Weight	Response		
20 - 100	L <sub>A</sub>	Fast	94.0	+ 0.1
		Slow		+ 0.1
	L <sub>C</sub>	Fast		+ 0.1
		L <sub>p</sub>		Fast
30 - 120	L <sub>A</sub>	Fast	94.0	+ 0.1
		Slow		+ 0.1
	L <sub>C</sub>	Fast		+ 0.1
	L <sub>p</sub>	Fast		0.0
30 - 120	L <sub>A</sub>	Fast	114.0	0.0
		Slow		0.0
	L <sub>C</sub>	Fast		0.0
	L <sub>p</sub>	Fast		0.0

IEC 651 Type 1 Spec. : ± 0.7 dB

Uncertainty : ± 0.2 dB

## 2. Level Stability : 0.0 dB

IEC 651 Type 1 Spec. : ± 0.3 dB

Uncertainty : ± 0.01 dB



# Calibration Certificate

Certificate No. 41648

Page 3 of 3 Pages

### 3. Frequency Weighting

A weighting

Frequency	Attenuation (dB)	IEC 651 Type 1 Spec.
31.5 Hz	- 39.5	- 39.4 dB, ± 1.5 dB
63 Hz	- 26.3	- 26.2 dB, ± 1.5 dB
125 Hz	- 16.2	- 16.1 dB, ± 1 dB
250 Hz	- 8.7	- 8.6 dB, ± 1 dB
500 Hz	- 3.3	- 3.2 dB, ± 1 dB
1 kHz	0.0 (Ref.)	0 dB, ± 1 dB
2 kHz	+ 1.3	+ 1.2 dB, ± 1 dB
5 kHz	+ 1.1	+ 1.0 dB, ± 1 dB
8 kHz	- 1.1	- 1.1 dB, + 1.5 dB ~ - 3 dB
16 kHz	- 6.7	- 6.6 dB, + 3 dB ~ ∞

Uncertainty : ± 0.1 dB

### 4. Time Averaging

Applied Burst duty Factor	UUT Reading (dB)	Correction (dB)	IEC 804 Type 1 Spec.
continuous	36.9	--	--
1/10	36.7	+ 0.2	± 0.5 dB
1/10 <sup>2</sup>	36.7	+ 0.2	
1/10 <sup>3</sup>	36.7	+ 0.2	± 1.0 dB
1/10 <sup>4</sup>	36.7	+ 0.2	

Uncertainty : ± 0.1 dB

Remark : 1. UUT : Unit-Under-Test

2. True Value = UUT Reading + Correction.

3. The uncertainty claimed is for a confidence probability of not less than 95%.

4. Atmospheric Pressure : 995 hPa.

----- END -----



## Appendix C2

### Noise Monitoring Results





## Day-time Noise Monitoring

### Monitoring Location: NM1 (HKIB Staff Accommodation)

Date	Start Sampling Time (hh:mm)	Noise Level dB (A)			Wind Speed (m/s)	Weather Condition
		L <sub>eq</sub> (30)	L10	L90		
04/01/05	08:45	55.8	58.7	52.4	2.1	Cloudy
11/01/05	09:50	58.8	60.7	57.1	0.8	Sunny
18/01/05	08:47	58.3	60.2	55.6	0.6	Cloudy
25/01/05	08:47	59.4	60.9	55.0	0.6	Cloudy

### Monitoring Location: NM2 (CUHK Residence No.10)

Date	Start Sampling Time (hh:mm)	Noise Level dB (A)			Wind Speed (m/s)	Weather Condition
		L <sub>eq</sub> (30)	L10	L90		
04/01/05	09:55	57.4	60.4	53.3	1.3	Cloudy
11/01/05	13:30	56.4	58.4	54.0	0.7	Sunny
18/01/05	09:27	56.3	58.6	52.5	0.7	Cloudy
25/01/05	09:55	55.9	58.5	52.1	0.4	Cloudy

### Monitoring Location: NM3 (Cheung Shue Tan Village)

Date	Start Sampling Time (hh:mm)	Noise Level dB (A)			Wind Speed (m/s)	Weather Condition
		L <sub>eq</sub> (30)	L10	L90		
04/01/05	10:42	49.6	52.8	45.2	2.0	Cloudy
11/01/05	14:22	58.1	59.8	54.4	0.7	Sunny
18/01/05	10:22	53.8	56.0	49.1	0.6	Cloudy
25/01/05	14:27	53.7	55.9	49.6	0.6	Cloudy



## Evening-time Noise Monitoring

### Monitoring Location: NM1 (HKIB Staff Accommodation)

Date	Start Sampling Time	Noise Level dB (A)									Wind Speed (m/s)	Weather Condition
		L <sub>eq</sub> (5)			L10			L90				
04/01/05	20:00	59.8	60.1	61.1	62.1	62.4	62.9	55.7	54.9	55.5	1.1	Cloudy
11/01/05	19:00	57.7	57.3	57.0	59.8	59.2	58.8	54.0	53.6	53.5	0.7	Fine
18/01/05	19:04	58.9	59.4	58.5	62.6	63.3	62.0	55.1	55.7	54.9	2.1	Fine
25/01/05	19:00	59.1	59.9	61.7	61.1	62.0	62.9	56.2	55.9	56.7	1.2	Cloudy

### Monitoring Location: NM2 (CUHK Residence No.10)

Date	Start Sampling Time	Noise Level dB (A)									Wind Speed (m/s)	Weather Condition
		L <sub>eq</sub> (5)			L10			L90				
04/01/05	20:35	58.6	57.9	59.6	61.0	60.7	61.9	53.1	52.6	52.1	1.0	Cloudy
11/01/05	19:25	54.1	53.7	54.0	56.2	55.6	56.1	49.8	49.4	49.7	0.7	Fine
18/01/05	19:35	57.2	57.6	57.9	59.3	59.8	60.4	53.6	54.0	54.7	1.9	Fine
25/01/05	19:35	57.8	58.2	58.9	60.2	60.7	61.0	55.4	54.9	55.1	1.3	Cloudy

### Monitoring Location: NM3 (Cheung Shue Tan Village)

Date	Start Sampling Time	Noise Level dB (A)									Wind Speed (m/s)	Weather Condition
		L <sub>eq</sub> (5)			L10			L90				
04/01/05	21:10	55.9	56.7	57.6	57.8	58.4	59.9	50.7	51.0	50.5	1.0	Cloudy
11/01/05	19:55	53.1	53.0	52.6	55.0	54.9	54.7	48.1	47.8	47.3	0.6	Fine
18/01/05	20:10	50.2	49.6	49.1	53.9	53.4	52.8	47.0	46.1	45.8	1.0	Fine
25/01/05	20:10	56.7	57.2	55.9	58.2	59.6	57.8	51.9	51.7	51.6	0.9	Cloudy



## Holiday Noise Monitoring

### Monitoring Location: NM1 (HKIB Staff Accommodation)

Date	Start Sampling Time	Noise Level dB (A)									Wind Speed (m/s)	Weather Condition
		L <sub>eq</sub> (5)			L10			L90				
02/01/05	15:00	61.7	62.6	60.9	63.1	64.2	62.7	59.1	58.9	59.6	0.8	Cloudy
09/01/05	09:45	57.9	58.0	57.6	59.8	60.1	58.9	53.5	54.0	53.6	0.6	Cloudy
16/01/05	14:42	56.8	57.4	57.1	59.0	59.9	59.5	53.9	54.8	54.4	2.5	Cloudy
23/01/05	14:00	58.6	59.7	61.7	60.9	61.8	63.2	56.3	56.8	57.2	1.1	Sunny
30/01/05	10:35	57.3	57.6	57.0	59.8	59.9	59.2	53.4	53.7	53.1	1.2	Cloudy

### Monitoring Location: NM2 (CUHK Residence No.10)

Date	Start Sampling Time	Noise Level dB (A)									Wind Speed (m/s)	Weather Condition
		L <sub>eq</sub> (5)			L10			L90				
02/01/05	14:27	60.1	59.1	58.6	62.2	61.9	61.2	57.1	56.7	56.5	0.7	Cloudy
09/01/05	10:10	54.7	55.0	55.4	57.0	57.3	57.8	52.3	52.8	53.0	0.4	Cloudy
16/01/05	15:12	52.7	53.1	53.6	54.9	55.5	55.8	50.6	50.9	51.4	1.8	Cloudy
23/01/05	14:59	58.1	57.9	58.6	60.3	60.0	61.0	55.9	56.2	56.0	1.0	Sunny
30/01/05	10:10	53.7	54.0	53.5	56.0	56.3	55.9	51.2	51.7	51.0	0.9	Cloudy

### Monitoring Location: NM3 (Cheung Shue Tan Village)

Date	Start Sampling Time	Noise Level dB (A)									Wind Speed (m/s)	Weather Condition
		L <sub>eq</sub> (5)			L10			L90				
02/01/05	13:55	57.6	56.9	58.1	59.2	58.6	60.1	54.9	55.1	55.7	0.6	Cloudy
09/01/05	10:40	52.6	53.0	52.4	54.9	55.1	54.6	49.7	49.9	49.2	0.6	Cloudy
16/01/05	15:40	49.7	49.3	49.5	51.9	50.8	51.4	48.1	47.6	47.8	2.4	Cloudy
23/01/05	17:05	54.9	55.8	56.1	56.2	57.9	58.1	49.7	50.7	50.3	0.7	Sunny
30/01/05	11:20	52.4	52.7	53.1	54.6	55.0	55.7	48.2	48.4	49.0	1.0	Cloudy



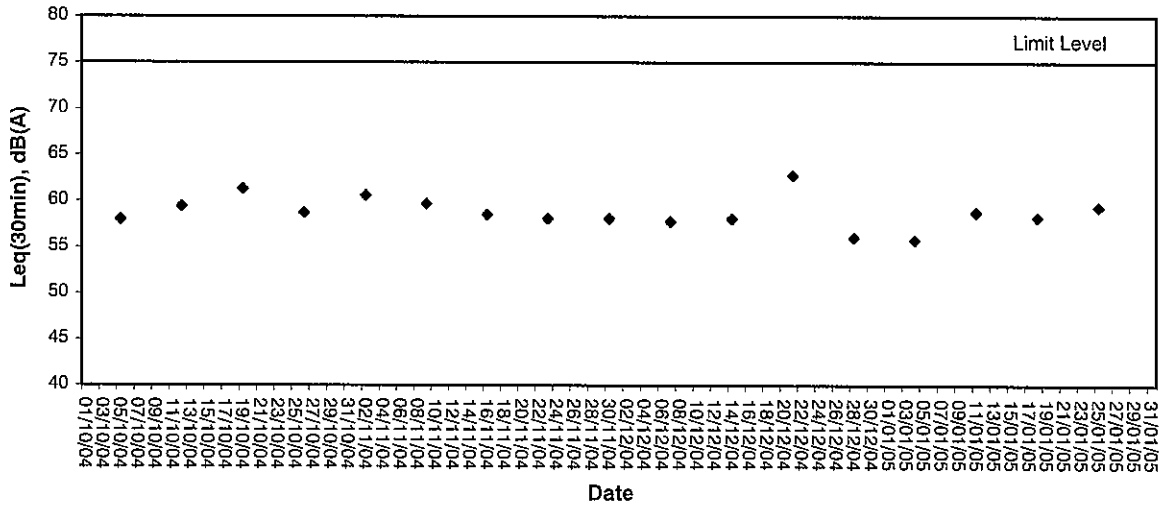
## Appendix C3

### Graphical Plots of Noise Monitoring Data

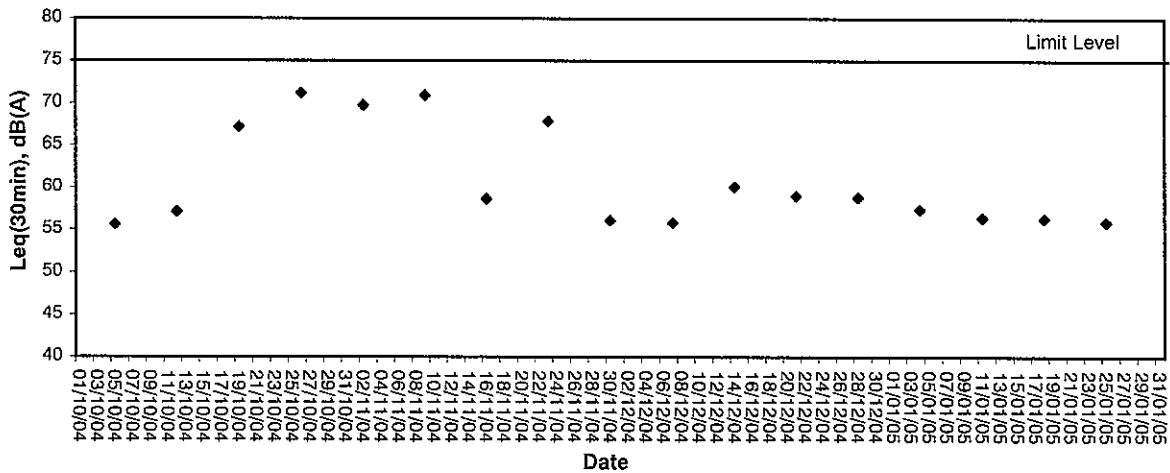


## Noise Monitoring (Day-time)

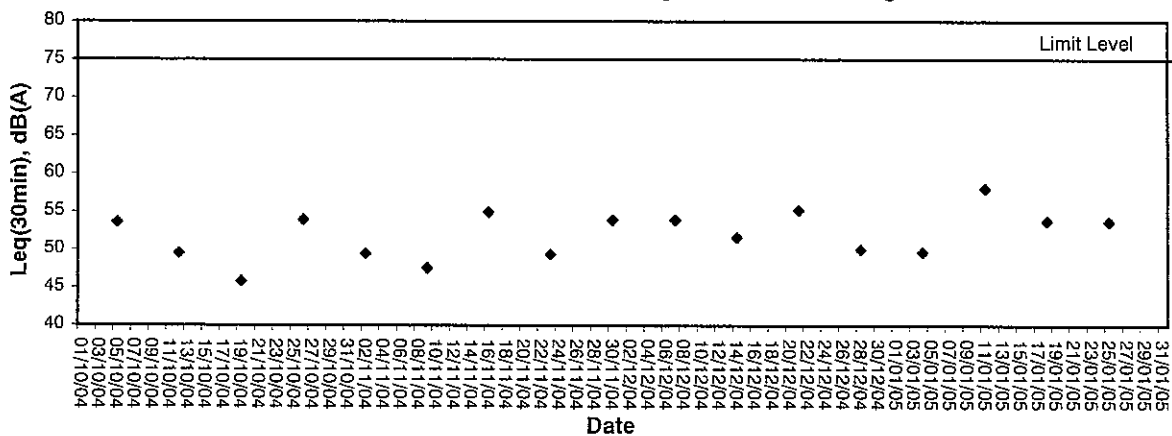
Noise level at NM1. HKIB Staff Accommodation



Noise level at NM2. CUHK Residence No.10

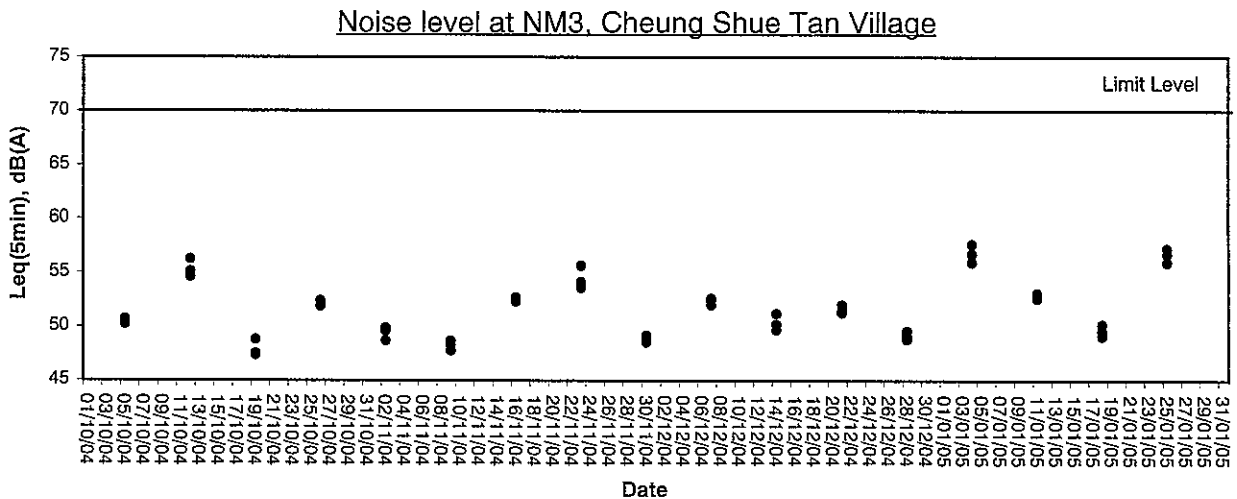
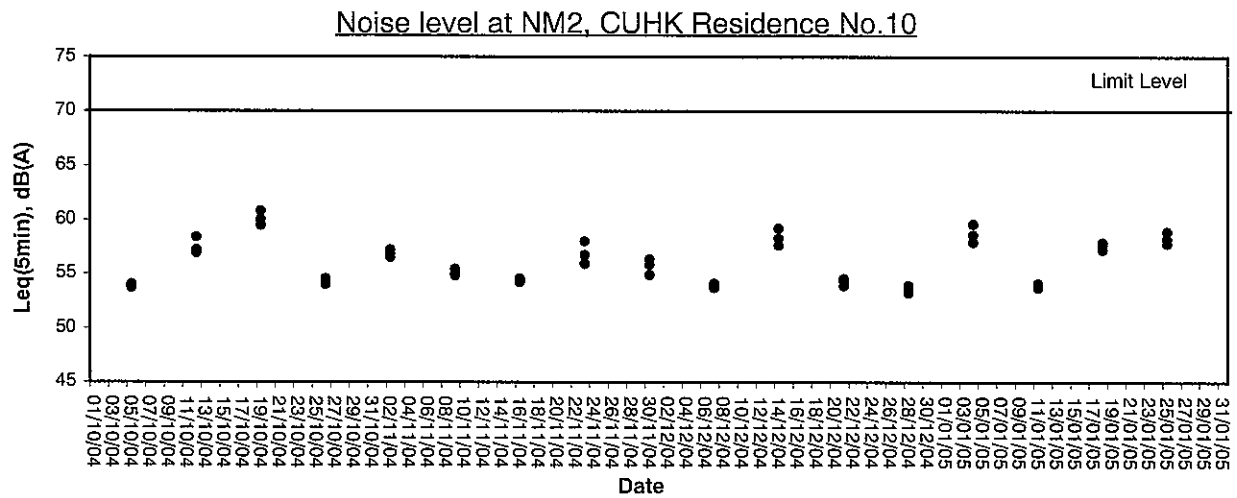
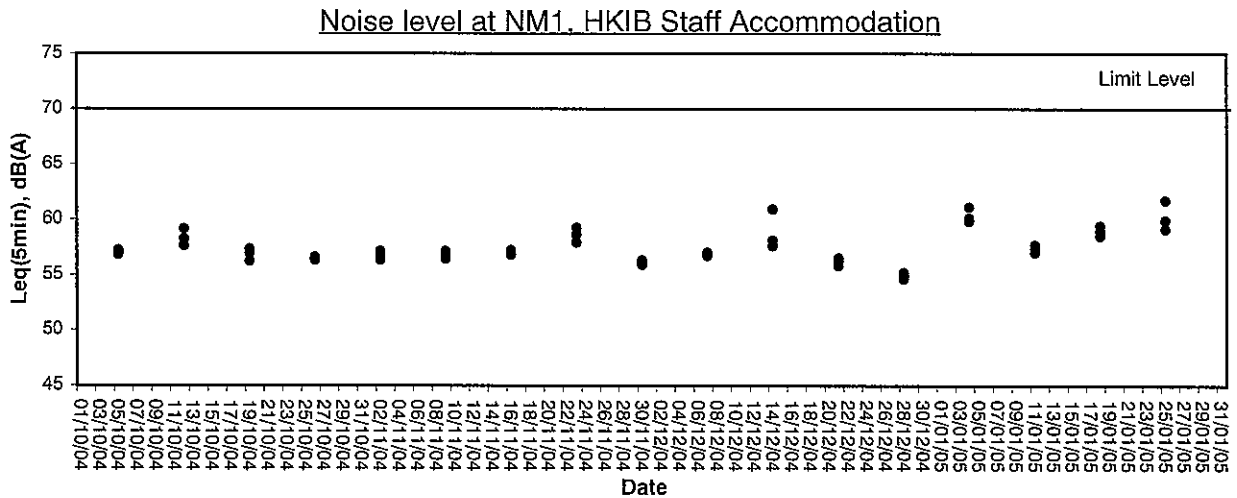


Noise level at NM3. Cheung Shue Tan Village





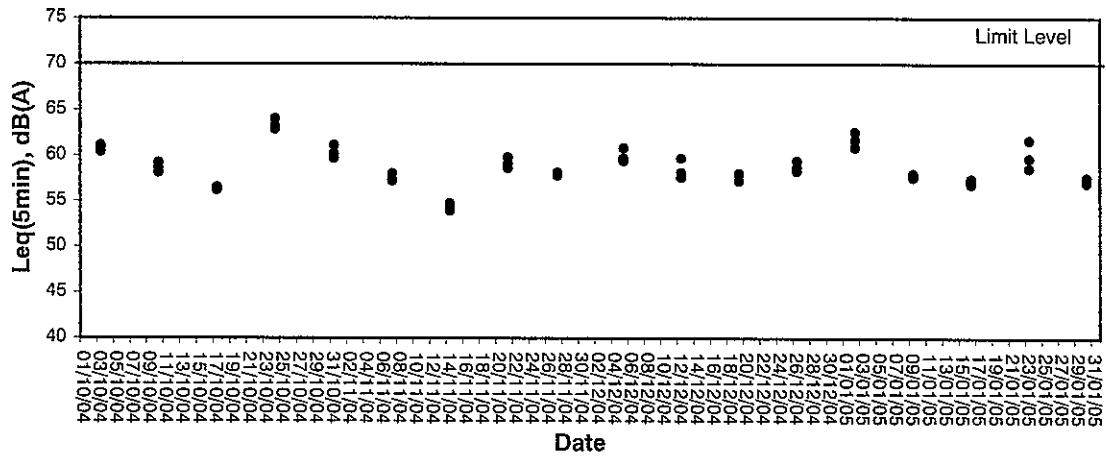
## Noise Monitoring (Evening-time)



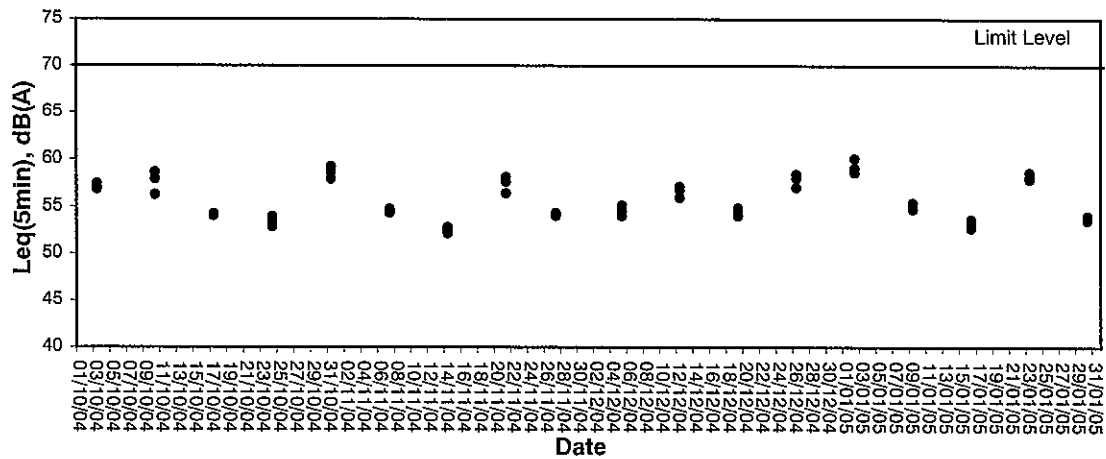


## Noise Monitoring (Holiday)

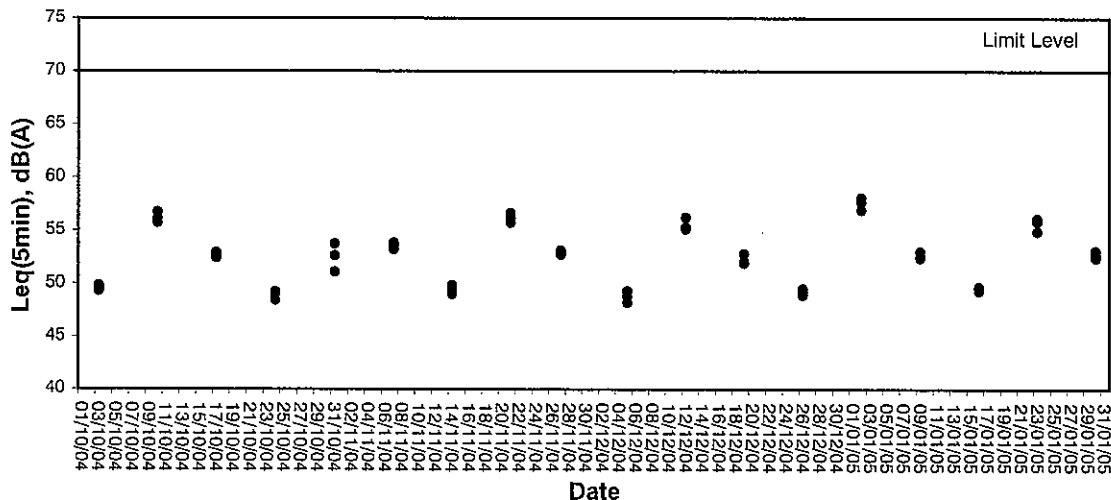
Noise level at NM1, HKIB Staff Accommodation



Noise level at NM2, CUHK Residence No.10



Noise level at NM3, Cheung Shue Tan Village





## **Appendix D**

### **Weather Condition**





## Weather Condition

Date	Rainfall (mm)	Max. Temp (°C)	Min. Temp. (°C)	Relative Humidity (%)	Wind Direction	Wind Speed (m/s)
01/01/05	-	12.1	6.4	43	NE	<5
02/01/05	-	14.1	10.7	53	NE	<5
03/01/05	-	18.1	12.1	65	N	<5
04/01/05	-	18.2	15.3	62	N	<5
05/01/05	-	18.0	16.2	77	E	<5
06/01/05	-	20.4	15.2	69	NE	<5
07/01/05	-	19.3	16.2	80	N	<5
08/01/05	-	19.4	16.8	77	N	<5
09/01/05	-	17.6	14.3	70	N	<5
10/01/05	-	16.7	12.9	73	N	<5
11/01/05	-	18.8	15.0	76	NE	<5
12/01/05	-	18.1	14.3	74	N	<5
13/01/05	3.5	16.2	9.9	82	N	<5
14/01/05	-	14.3	7.4	56	N	<5
15/01/05	-	15.3	9.7	52	N	<5
16/01/05	-	15.9	11.2	56	N	<5
17/01/05	-	16.1	13.0	72	N	<5
18/01/05	-	17.7	14.1	78	E	<5
19/01/05	-	18.4	15.6	81	N	<5
20/01/05	-	16.5	15.2	82	NE	<5
21/01/05	Trace	17.2	14.4	79	E	<5
22/01/05	Trace	19.9	15.6	84	NE	<5
23/01/05	-	21.1	16.1	84	E	<5
24/01/05	-	19.7	16.5	82	NE	<5
25/01/05	-	21.6	18.2	88	NE	<5
26/01/05	Trace	20.8	16.9	91	E	<5
27/01/05	Trace	19.6	16.7	87	E	<5
28/01/05	0.4	19.6	18.3	93	NE	<5
29/01/05	Trace	19.3	17.4	93	NE	<5
30/01/05	1.0	18.8	14.8	94	NE	<5
31/01/05	1.0	14.9	12.9	85	N	<5

Remark: Data of wind speed and wind direction were extracted from Hong Kong Observatory (Shatin Station).



## **Appendix E**

### **Event-Action Plans**

## Event / Action Plan for Air Quality

EVENT	ACTION		CNOTRACTOR
	ET Leader	IC(E) ER	
<b>Action Level</b> 1. Exceedance of one sample  2. Exceedance for two more consecutive samples	1. Identify source 2. Inform IC(E) and ER 3. Repeat measurement to confirm finding 4. Increase monitoring frequency to daily 1. Identify source 2. Inform IC(E) and ER 3. Repeat measurement to confirm findings 4. Increase monitoring frequency to daily 5. Discuss with IC(E) and Contractor on remedial actions required 6. If exceedance continuous, arrange meeting with IC(E) and ER 7. If exceedance stops, cease additional monitoring	1. Check monitoring data submitted by ET 2. Check Contractor's working method.  1. Checking monitoring data submitted by ET 2. Check Contractor's working method 3. Discuss with ET and Contractor on possible remedial measures 4. Advise the ER on the effectiveness of the proposed remedial measures 5. Supervisor implementation of remedial measures  1. Notify Contractor  1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Ensure remedial measures properly implemented	1. Rectify any unacceptable practice 2. Amend working methods if possible  1. Submit proposals for remedial action to IC(E) within 3 working days of notification 2. Implement the agreed proposals 3. Amend proposal if possible
<b>Limit Level</b> 1. Exceedance of one sample  2. Exceedance for two or more consecutive samples	1. Identify source 2. Inform ER and EPD 3. Repeat measurement to confirm finding 4. Increase monitoring frequency to daily 5. Assess effectiveness of Contractor's remedial actions and keep IC(E), EPD and ER informed of the results  1. Notify IC(E), ER, Contractor and EPD 2. Identify source 3. Repeat measurement to confirm findings 4. Increase monitoring frequency to daily 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented 6. Arrange meeting with IC(E) and ER to discuss the remedial actions to be taken 7. Assess effectiveness of Contractor's remedial actions and keep IC(E), EPD and ER to discuss the remedial action to taken 8. If exceedance stops, cease additional monitoring	1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. In consultation with the IC(E), agreed measures to be implemented 4. Ensure remedial measures properly implemented 5. If exceedance continues, consider what portion of this work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.  1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Ensure remedial measures properly implemented  1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. In consultation with the IC(E), agreed measures to be implemented 4. Ensure remedial measures properly implemented 5. If exceedance continues, consider what portion of this work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Take immediate action to avoid further exceedance 2. Submit proposal for remedial actions to IC(E) within 3 working days of notification 3. Implement the agreed proposals 4. Amend proposal if appropriate  1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to IC(E) within 3 working days of notification 3. Implement the agreed proposals 4. Resubmit proposals if possible still not under control 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

### Event / Action Plan for Construction Noise

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



## **Appendix F**

### **Construction Programme**

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Percent Float Complete
BS-130580	Continue Screen Room to G/L (Walls, Slabs & Beams)	8	15SEP04 A	F04 A	15SEP04 A	22SEP04 A	100
BS-130580	Backfilling @ G.L. 4 Wall	2	18SEP04 A	20SEP04 A	20SEP04 A	20SEP04 A	100
BS-130570	Construct Footing of Transformer Room	12	21SEP04 A	02OCT04 A	21SEP04 A	02OCT04 A	100
BS-130570	Other Walls to G/L (Walls, Beams & Slabs) remaining	20	21SEP04 A	09OCT04 A	21SEP04 A	09OCT04 A	100
BS-130540	Construct Transformer Room Structure	13	08OCT04 A	29OCT04 A	08OCT04 A	29OCT04 A	100
BS-130630	Walls and Ground Slab Curing Period	7	09OCT04 A	16OCT04 A	09OCT04 A	16OCT04 A	100
BS-130640	Walls, Beams & Roof Construction	14	11OCT04 A	05NOV04 A	11OCT04 A	05NOV04 A	100
BS-130610	Curing and formworks removal	7	06NOV04 A	20NOV04 A	06NOV04 A	20NOV04 A	100
BS-130650	Waterproofing Walls & slab soffit	4	11OCT04 A	21OCT04 A	11OCT04 A	21OCT04 A	100
BS-130660	Water Tightness Test of Group A Screen Room	18	25OCT04 A	02DEC04 A	25OCT04 A	02DEC04 A	100
BS-130680	Water Tightness Test of Group B Screen Room	18	08NOV04 A	04DEC04 A	08NOV04 A	02DEC04 A	17d
BS-131020	Preparation works for Wet Well Water Tightness	12	05DEC04 A	16DEC04 A	05DEC04 A	02JAN05	17d
BS-131000	Water Tightness Test of Group A Wet Well	18	17DEC04 A	03JAN05	03JAN05	20JAN05	17d
BS-131010	Water Tightness Test of Group B Wet Well	18	04JAN05	21JAN05	04JAN05	14FEB05	17d
BS-130760	Staircase Construction & Platform @ Dry Well	25	28NOV04 A	20DEC04 A	28NOV04 A	21JAN05	22d
BS-130770	Construct Internal Wall @ Screen Room A	6	02DEC04 A	08DEC04 A	15MAR05	21MAR05	96d
BS-130780	Construct Internal Wall @ Screen Room B	6	05DEC04 A	10DEC04 A	16MAR05	21MAR05	94d
BS-130740	Buffer Wall & Platform Construction @ Wet Well A	7	04JAN05	10JAN05	15FEB05	21FEB05	35d
BS-130750	Buffer Wall & Platform Construction @ Wet Well B	7	22JAN05	28JAN05	15FEB05	21FEB05	17d
BS-130810	Rising Main Chamber Construction	39	15NOV04 A	24DEC04 A	15NOV04 A	31MAR05	90d
BS-130790	Inlet Chamber Construction	22	09DEC04 A	22DEC04 A	09DEC04 A	02APR05	94d
BS-130700	Backfilling Works to platform level	20	22JAN05	17FEB05	17FEB05	08MAR05	19d
BS-130690	DSD Inspection for Building Works	15	18FEB05	04MAR05	02MAY05	08MAR05	81d
BS-130710	Sheetpile Extraction	10	03MAR05	12MAR05	06APR05	23MAR05	19d
BS-130800	Inlet Chamber connection to PS2	10	03MAR05	12MAR05	06APR05	15APR05	34d
BS-130730	General Backfilling around PS2	10	05MAR05	14MAR05	06APR05	15APR05	32d
BS-131030	Rising Main Chamber connection to PS2	15	05MAR05	19MAR05	01APR05	15APR05	27d
BS-131040	Construct Boundary Wall	15	20MAR05	03APR05	16APR05	30APR05	27d
<b>Roof Finishing Works</b>							
BS-130830	Roof Finishing	30	28NOV04 A	25DEC04 A	28NOV04 A	25JAN05	31d
BS-130620	Finishing Works @ Transformer room	30	03NOV04 A	09DEC04 A	03NOV04 A	23JAN05	45d
BS-130720	E&M works @ Transformer Room	11	10DEC04 A	20DEC04 A	24JAN05	03FEB05	45d
BS-130900	Ceiling Finishing & Painting	12	01DEC04 A	12DEC04 A	01DEC04 A	18DEC04	6d
BS-130990	Completion of Prep. on Windows/Louvers/revisions	0	11DEC04 *	11DEC04 *	11DEC04 *	11DEC04	0
BS-130910	Wall Finishing	7	12DEC04 A	18DEC04 A	12DEC04 A	18DEC04	0
BS-130920	Wall painting	3	19DEC04 A	21DEC04 A	19DEC04 A	21DEC04	0
BS-130930	Platform Removal @ Loading Bay	5	22DEC04 A	26DEC04 A	22DEC04 A	26DEC04	0
BS-130940	Boosterm./Toliet(Brickwall+Plastering+Tile+Paint)	14	27DEC04 A	09JAN05	02JAN05	15JAN05	6d
BS-130950	Newly added Wall w/cabinet	20	27DEC04 A	15JAN05	27DEC04 A	15JAN05	0
BS-130960	Brickwall @ G.L. 27(days curing)	20	27DEC04 A	15JAN05	27DEC04 A	15JAN05	0
BS-130970	Finishing Works on these walls	10	16JAN05	25JAN05	16JAN05	25JAN05	0
BS-130980	Handover to E&M @ Loading Bay Area	0	26JAN05	26JAN05	26JAN05	26JAN05	0
BS-130840	Mass Concrete/Platform construction @Screen RoomA	5	09DEC04 A	13DEC04 A	22MAR05	26MAR05	96d
BS-130850	Mass Concrete/Platform construction @Screen RoomB	5	11DEC04 A	15DEC04 A	22MAR05	26MAR05	94d
BS-130880	Pipe Trench Construction @ Dry Well	15	21DEC04 A	04JAN05	12JAN05	26JAN05	22d
BS-130890	Bamboo platform & Finishing @ Dry Well	21	05JAN05	25JAN05	27JAN05	23FEB05	22d
BS-130860	Benching Stair@Wet Well A & Finishing	2	11JAN05	12JAN05	22FEB05	23FEB05	35d
BS-130870	Benching Stair@Wet Well B & Finishing	2	29JAN05	30JAN05	22FEB05	23FEB05	17d
BS-130820	External Finishing Works	30	05MAR05	03APR05	01APR05	30APR05	27d
<b>Part 11 - Electrical Works</b>							
BS-134020	Power Supply Application	0	11DEC03 A	11DEC03 A	11DEC03 A	11DEC03 A	100
BS-134030	Direct Link Application	0	07JUL04 A	07JUL04 A	07JUL04 A	07JUL04 A	100
BS-134110	CLP Inspection of Transformer Room	0	21DEC04 A	04FEB05	04FEB05	04FEB05	36d
BS-134010	Electrical WRI Submission	0	12MAR05	04APR05	04APR05	04APR05	27d

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Percent Complete	Float Complete
BS-135050	FS 314 Submission	0	20SEP04 A		20SEP04 A		100	
BS-135110	WW046 Part I & II Submission	0	20SEP04 A		20SEP04 A		100	
BS-136030	Survey of Civil As-built	7	25NOV04 A	30NOV04 A	30NOV04 A		100	
BS-135100	Expected availability of power supply	0	02DEC04		04APR05	11FEB05	0	116d
BS-134130	CLP's Final Inspection of Transformer Room	0	01DEC04		28APR05	28APR05	0	36d
BS-135090	Expected availability of Fresh&Salt water supply	0	26JAN05		04APR05	16APR05	0	111d
BS-135170	VAC submission	0	19FEB05		04APR05	16APR05	0	36d
BS-136020	CLP Energization	0	10MAR05		16APR05	19APR05	0	31d
BS-135190	CLP's inspection for Metering & Power On	0	14MAR05		04APR05	04APR05	0	17d
BS-135200	CLP's Final inspection for Metering & Power On	0	14MAR05		28APR05	28APR05	0	36d
BS-135160	Expected DSD Inspection for Other Works	0	01MAR05		20APR05	20APR05	0	17d
BS-135040	Expected DSD Inspection for Sewage Pumpset & VSD	0	01APR05		04APR05	04APR05	0	23d
BS-135060	FS 501 Submission	0	04APR05		28APR05	28APR05	0	20d
BS-135130	Expected DSD Inspection for Mech. Screen System	0	05APR05		27APR05	27APR05	0	17d
BS-135180	WSD's Final Inspection	0	19APR05		28APR05	28APR05	0	8d
BS-135140	Expected DSD Inspection for Valves & Pipeworks	0	19APR05		28APR05	28APR05	0	8d
BS-135150	Expected DSD Inspection for Deodorizer System	0	20APR05		20APR05	27APR05	0	0
BS-135070	Expected FSD Inspection	0	20APR05		27APR05	27APR05	0	0
BS-135210	FSD's Final Inspection	0	27APR05		30APR05	30APR05	0	0
BS-136000	Pump Station 2- E&M Works	114*	31DEC04		26JAN05	26JAN05	0	0
BS-136040	Conduit & Trunking	40	26JAN05		18MAR05	26JAN05	0	0
BS-136050	Lightning & Earthing Installation	30	26JAN05		03MAR05	26MAR05	0	52d
BS-136060	SCADA and PLC Works	35	26JAN05		08MAR05	15MAR05	0	41d
BS-136090	MVAC	30	26JAN05		03MAR05	03MAR05	0	21d
BS-136100	P & D Installation	40	26JAN05		23FEB05	26JAN05	0	0
BS-136120	Cable Tray Installation	30	26JAN05		03MAR05	03MAR05	0	0
BS-136070	Cabling Works	20	27FEB05		18MAR05	18MAR05	0	0
BS-136110	F.S. Services Installation	30	05MAR05		03APR05	03APR05	0	0
BS-136050	Lighting & Electrical Services	41	14MAR05		23APR05	14MAR05	0	0
BS-136130	Cable terminations to Major Equipment	10	19MAR05		28MAR05	19MAR05	0	0
BS-136140	Cable terminations to other equipment	15	29MAR05		12APR05	29MAR05	0	0
BS-136010	CLP Installation	42	31DEC04		19FEB05	12FEB05	0	36d
BS-134040	Sewage Pumpset & VSD	20	26JAN05		27MAR05	15APR05	0	53d
BS-134050	Mechanical Screen System	16	26JAN05		17FEB05	27MAR05	0	53d
BS-134060	Penstock	40	26JAN05		03MAR05	11APR05	0	29d
BS-134080	Deodorizer System	12	26JAN05		08FEB05	30MAR05	0	53d
BS-134090	Lifting Appliance	14	26JAN05		15FEB05	25APR05	0	69d
BS-134100	LV Switchboard and Control Panels	30	26JAN05		01MAR05	26FEB05	0	27d
BS-134070	Valves & Pipeworks	40	31JAN05		17MAR05	24FEB05	0	21d
BS-134120	PCCW cable laying & wiring works	16	05MAR05		20MAR05	09APR05	0	85d
BS-137010	Functional Testing	58*	04MAR05		30APR05	25APR05	0	0
BS-137040	Lightning & Earthing functional testing	3	04MAR05		06MAR05	25APR05	0	52d
BS-137130	Fan Functional Test	7	04MAR05		21APR05	27APR05	0	48d
BS-137160	Cleansing Water Pump Hydraulic Test	2	14MAR05		15MAR05	22APR05	0	39d
BS-137190	Cleansing Water Pump Functional Test	4	18MAR05		19MAR05	24APR05	0	39d
BS-137070	Penstock functional testing	6	29MAR05		03APR05	18APR05	0	15d
BS-137100	LV Switchboard & Control pa. functional testing	15	29MAR05		12APR05	04APR05	0	6d
BS-137110	Sewage pumpset and VSD functional testing	3	29MAR05		16APR05	18APR05	0	18d
BS-137120	Mech. Screen System functional testing	7	29MAR05		04APR05	12APR05	0	14d
BS-137030	F.S. Services functional testing	3	04APR05		25APR05	27APR05	0	21d
BS-137060	Valves & Pipeworks testing	6	13APR05		13APR05	18APR05	0	13d
BS-137080	Lifting Appliance functional testing	5	13APR05		26APR05	30APR05	0	0
BS-137090	Deodorizer System functional testing	6	13APR05		13APR05	18APR05	0	0

FS 314 Submission  
 WW046 Part I & II Submission  
 Survey of Civil As-built  
 CLP's Final Inspection of Transformer Room  
 Expected availability of Fresh&Salt water supply  
 VAC submission  
 CLP Energization  
 CLP's inspection for Metering & Power On  
 CLP's Final inspection for Metering & Power On  
 WW046 Part IV Submission  
 Expected DSD Inspection for Other Works  
 Expected WSD Inspection  
 FS 501 Submission  
 Expected DSD Inspection for Mech. Screen System  
 WSD's Final Inspection  
 Expected DSD Inspection for Valves & Pipeworks  
 Expected DSD Inspection for Deodorizer System  
 Expected FSD Inspection  
 FSD's Final Inspection  
 Pump Station 2- E&M Works  
 Conduit & Trunking  
 Lightning & Earthing Installation  
 SCADA and PLC Works  
 MVAC  
 P & D Installation  
 Cable Tray Installation  
 Cabling Works  
 F.S. Services Installation  
 Lighting & Electrical Services  
 Cable terminations to Major Equipment  
 Cable terminations to other equipment  
 CLP Installation  
 Sewage Pumpset & VSD  
 Mechanical Screen System  
 Penstock  
 Deodorizer System  
 Lifting Appliance  
 LV Switchboard and Control Panels  
 Valves & Pipeworks  
 PCCW cable laying & wiring works  
 Functional Testing  
 Lightning & Earthing functional testing  
 Fan Functional Test  
 Cleansing Water Pump Hydraulic Test  
 Cleansing Water Pump Functional Test  
 Penstock functional testing  
 LV Switchboard & Control pa. functional testing  
 Sewage pumpset and VSD functional testing  
 Mech. Screen System functional testing  
 F.S. Services functional testing  
 Valves & Pipeworks testing  
 Lifting Appliance functional testing  
 Deodorizer System functional testing

Date	Revision	Checked	Approved
01JUN04	No.9 Revision G	WAJ	WL
07JUL04	No.10 Revision G1	WAJ	WL
04OCT04	No.11 Revision H	WAJ	WL
17DEC04	No.12 Revision I	WAJ	WL

Contract No. TP35/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
 REVISED WORKS PROGRAMME I  
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Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float	Percent Complete
BS-137020	SCADA & PLC Works functional Testing	6	19APR05	20APR05	19APR05	24APR05	0	0
BS-137150	MCB board functional test	3	24APR05	26APR05	25APR05	27APR05	1d	0
BS-137160	RCD/ELCB Functional Test	2	24APR05	25APR05	26APR05	27APR05	2d	0
BS-137170	Lighting Functional & Intensity Test	4	24APR05	27APR05	24APR05	27APR05	0	0
BS-137140	SCADA & PLC Mapping Test	3	25APR05	27APR05	25APR05	27APR05	0	0
BS-137000	Commissioning Test	3	28APR05	30APR05	28APR05	30APR05	0	0
B4-1665B18	Sewerage, L4, F402 to Inlet Chamber	15	18DEC04	30DEC04	27MAR05	10APR05	94d	0
B3-1622N17	Backfilling Works @ Rd. L4	5	18FEB05	22FEB05	09MAR05	13MAR05	19d	0
B3-1622N27	Deposition/Compact, L4/Ch.397-437 remaining	4	23FEB05	26FEB05	21MAR05	24MAR05	26d	0
B4-1699D14	Remaining Gully Works @ Rd. L4	7	23FEB05	01MAR05	14MAR05	20MAR05	19d	0
B4-1699D3	Trapezoidal Channel, D1/L4 N	14	23FEB05	08MAR05	03APR05	16APR05	39d	0
B5-1670A7	Roadworks, L4/Ch.314-437	15	27FEB05	13MAR05	11APR05	25APR05	49d	0
B6-1595D96	Waterworks @ L4 remaining	12	02MAR05	13MAR05	21MAR05	01APR05	19d	0
B4-1699D4	Trapezoidal Channel, D1/L4 S	14	09MAR05	22MAR05	17APR05	30APR05	39d	0
B5-1674G10	Road Furnitures/Misc, Rd. L4	5	14MAR05	18MAR05	26APR05	30APR05	49d	0
UT-1600PS	PCOW/HGC beside PS2 @ Rd. L4	4	14MAR05	17MAR05	02APR05	05APR05	18d	0
B5-1672A7	Cycle Track & Footway, L4/Ch.314-437	25	18MAR05	11APR05	06APR05	30APR05	19d	0

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float	Percent Complete
B6-150000	Waterworks - Section 15, Area 15	332	03FEB04	30DEC04	03FEB04	30DEC04	0	91
B6-1594A0	Trial Pits	4	03FEB04	03FEB04	03FEB04	03FEB04	0	100
B6-1595D4	Waterworks, D1/Ch.1500-1860	90	04FEB04	13MAY04	04FEB04	13MAY04	0	100-1860
B6-1595D2	Waterworks, D1/Ch.1200-1360	40	16FEB04	09APR04	16FEB04	09APR04	0	100
B6-1595D12	Replace Existing Watermain, D1/Ch.1200-1270	14	25FEB04	12MAR04	25FEB04	12MAR04	0	100
B6-1595D31	Replace Existing Watermain, D1/Ch.1100-1200	20	13MAR04	15MAR04	13MAR04	15MAR04	0	100
B6-1595D41	Watermain Connection by WSD, D1/Ch.1100-1200	32	16MAR04	18MAR04	16MAR04	18MAR04	0	100
B6-1595D22	Watermain Connection by WSD, D1/Ch.1200-1270	32	29APR04	29APR04	29APR04	29APR04	0	100
B6-1595D14	Replace Existing Watermain, D1/Ch.1690-1860	34	25JUN04	31JUL04	25JUN04	31JUL04	0	100
B6-1595D13	Replace Existing Watermain, D1/Ch.1380-1490	22	02JUL04	12JUL04	02JUL04	12JUL04	0	100
B6-1595D1	Waterworks, D1/Ch.920-1020	30	19JUL04	01AUG04	19JUL04	01AUG04	0	100
B6-1595D6	Waterworks, D1/Ch.1860-2180	40	02AUG04	07SEP04	02AUG04	07SEP04	0	100
B6-1595D61	Waterworks, D1/Ch.1020-1360 remaining	35	02AUG04	10SEP04	02AUG04	10SEP04	0	100
B6-1595D11	Replace Existing Watermain, D1/Ch.920-990	15	19AUG04	12SEP04	19AUG04	12SEP04	0	100
B6-1595D24	Watermain Connection by WSD, D1/Ch.1690-1860	15	24AUG04	18SEP04	24AUG04	18SEP04	0	100
B6-1595D36	Waterworks, D1/Ch.1860-2180 remaining	20	07SEP04	20SEP04	07SEP04	20SEP04	0	100
B6-1595D7	Waterworks, L4/Ch.317-437	20	07SEP04	09NOV04	07SEP04	09NOV04	0	100
B6-1595D21	Watermain Connection by WSD, D1/Ch.920-990	15	13SEP04	21SEP04	13SEP04	21SEP04	0	100
B6-1595D3	Waterworks, D1/Ch.1360-1500	25	18SEP04	18SEP04	18SEP04	18SEP04	0	100
B6-1595D96	Waterworks, D1/Ch.1860-2180 rem. continuation	12	21SEP04	06OCT04	21SEP04	06OCT04	0	100
B6-1595D76	Waterworks, D1/Ch.1860-2180 end portion	14	07OCT04	16OCT04	07OCT04	16OCT04	0	100
B6-1595D23	Watermain Connection by WSD, D1/Ch.1380-1490	15	27NOV04	04DEC04	27NOV04	04DEC04	26d	81
B6-1595D56	Waterworks, D1/Ch.1860-2180 Testing	18	01DEC04	18DEC04	01DEC04	18DEC04	0	5
B6-1595D66	Watermain Connection by WSD, D1/Ch.2180	12	18DEC04	30DEC04	18DEC04	30DEC04	0	0

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float	Percent Complete
B2-160000	Site Clearance - Section 16, Remainder	242	25APR03	22DEC03	25APR03	22DEC03	0	100
B2-1604A0	Remove disused UPVC duct	350	25APR03	19DEC03	25APR03	19DEC03	0	100
B2-1604B0	Remove disused concrete pipe	150	20NOV03	22DEC03	20NOV03	22DEC03	0	100
B3-160000	Earthworks - Section 16, Remainder	304	30SEP02	07AUG03	30SEP02	07AUG03	0	100
B3-1622L1	Zone C, Excavate ex-mound #1, at SRE site office	6	30SEP02	10OCT02	30SEP02	10OCT02	0	100
B3-1622L3	Zone C, Excavate ex-mound #2, at site office	10	07OCT02	25OCT02	07OCT02	25OCT02	0	100

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float	Percent Complete
B3-1622L3	Zone C, Excavate ex-mound #2, at site office	10	07OCT02	25OCT02	07OCT02	25OCT02	0	100
B3-1622L3	Zone C, Excavate ex-mound #2, at site office	10	07OCT02	25OCT02	07OCT02	25OCT02	0	100

**Section 15- Waterworks in Area 15**

**Section 16- Remainder of Works, except LS+EWS**

Contract No. TP95/02  
Remaining Engineering Infrastructure Works  
for Pak Shek Kok Development Package 1  
REVISED WORKS PROGRAMME I

Start date: 28FEB02  
Finish date: 28FEB02  
Data date: 02DEC04  
Run date: 18DEC04  
Page number: 15A  
Number/Version: 1/30/02/02/01  
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Legend:  
 ■ Early bar  
 ■ Progress bar  
 ■ Critical bar  
 ■ Summary bar  
 ■ Start milestone point  
 ■ Finish milestone point



Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Percent Float Complete
B3-1622L1A	Zone E, Excavate ex.mound #1, N of school site	12	20OCT02 A	04	20OCT02 A	04NOV02 A	100
B3-1622L1B	Zone E, Excavate ex.mound #1, W of office area	13	28OCT02 A	07NOV02 A	28OCT02 A	07NOV02 A	100
B3-1622L2	Zone E, Excavate ex.mound #1, the rest	12	28NOV02 A	13JAN03 A	28NOV02 A	13JAN03 A	100
B3-1622M0	Excavate, NE of H.Site 1, Promenade	70	07DEC02 A	28APR03 A	07DEC02 A	28APR03 A	100
B3-1623F2	S5, Preloading Mound Formation, Zone S3,Phase 8B	10	09DEC02 A	31JUL03 A	09DEC02 A	31JUL03 A	100
B3-1623H2	S5, Preloading Mound Formation, Zone S3,Phase 9D	10	12DEC02 A	31JUL03 A	12DEC02 A	31JUL03 A	100
B3-1623H3	S5, Preloading Mound Formation, Zone S3,Phase 9E	10	12DEC02 A	31JUL03 A	12DEC02 A	31JUL03 A	100
B3-1601A1	Vibrating wire piezometer, S6, No. 6F6	12	02JAN03 A	28JAN03 A	02JAN03 A	28JAN03 A	100
B3-1601E2	Moving rigs, S5, 4 nr.	12	03JAN03 A	23FEB03 A	03JAN03 A	23FEB03 A	100
B3-1601A2	Vibrating wire piezometer, S5, No. 5P1	6	27JAN03 A	27FEB03 A	27JAN03 A	27FEB03 A	100
B3-1601I2	Fieldwork Reports, S5	12	09FEB03 A	09FEB03 A	09FEB03 A	26FEB03 A	100
B3-1601G2	Ground Investigation, S5, 4nr	12	17FEB03 A	17FEB03 A	17FEB03 A	17FEB03 A	100
B3-1601I1	Establish rigs for GI, S6	3	27FEB03 A	01MAR03 A	27FEB03 A	01MAR03 A	100
B3-1601G1	Ground Investigation, S6, 4nr	12	02MAR03 A	02MAR03 A	02MAR03 A	13MAR03 A	100
B3-1601H1	Moving rigs, S6, 4 nr.	12	14MAR03 A	05MAR03 A	14MAR03 A	16MAR03 A	100
B3-1601I1	Fieldwork Reports, S6	12	14MAR03 A	25MAR03 A	14MAR03 A	25MAR03 A	100
B3-1601C1	Subsurface Settlement Marker, No. 6M6	3	27MAR03 A	27MAR03 A	27MAR03 A	29MAR03 A	100
B3-1601C2	Subsurface Settlement Marker, No. 5M1	3	27MAR03 A	27MAR03 A	27MAR03 A	29MAR03 A	100
B3-1601C3	Subsurface Settlement Marker, No. 5M2	3	30MAR03 A	30MAR03 A	30MAR03 A	01APR03 A	100
B3-1623F3	S5, Preloading Mound Formation, Zone S3,Phase 9C	10	31JUL03 A	31JUL03 A	31JUL03 A	31JUL03 A	100
B3-1601B3	Surface Settlement Marker, No. 5M2	3	05AUG03 A	07AUG03 A	05AUG03 A	07AUG03 A	100
B3-1601B2	Surface Settlement Marker, No. 5M1	3	06AUG03 A	06AUG03 A	06AUG03 A	06AUG03 A	100
B3-1600N5	Earthworks-Section 16, Remainder, after surcharge	367	23DEC03 A	31DEC04	23DEC03 A	31DEC04	0
B3-1623I2	S5, Mound Removal, Zone S3,Phase8B&D	18	23DEC03 A	24DEC03 A	23DEC03 A	24DEC03 A	100
B3-1623I3	S5,Mound Removal, Zone S3,Phase8C&E	19	24DEC03 A	31DEC03 A	24DEC03 A	31DEC03 A	100
B3-1622M4	Excavate, D1/Ch.1860-1860	45	10MAR04 A	26MAY04 A	10MAR04 A	26MAY04 A	100
B3-1622M6	Excavate, D1/Ch.1860-2180	15	30APR04 A	24MAY04 A	30APR04 A	24MAY04 A	100
B3-1622M12	Excavate, D1/Ch.1500-1860 remaining	15	26MAY04 A	08JUN04 A	26MAY04 A	08JUN04 A	100
B3-1622M2	Excavate, D1/Ch.1020-1360	25	21JUL04 A	18JUL04 A	21JUL04 A	18JUL04 A	100
B3-1622M1	Excavate, D1/Ch.920-1020	25	20SEP04 A	30SEP04 A	20SEP04 A	30SEP04 A	100
B3-1622N7	Deposit/ Compact, L4/Ch.397-437	10	25SEP04 A	08DEC04	25SEP04 A	20MAR05	95d
B3-1622N3	Deposit/ Compact, D1/Ch.1360-1500	5	08OCT04 A	30NOV04 A	08OCT04 A	30NOV04 A	100
B3-1622N9	Deposit/ Compact, N.end, Promenade	2	30DEC04	31DEC04	30DEC04	31DEC04	0
B4-160000	Drainage & Sewerage-Section16, Area 15+Remainder	728	09DEC02 A	21DEC04	09DEC02 A	07JAN05	176
B4-160350	Drainage, S764-S779, NW of H.Site 1, Promenade	75	09DEC02 A	30MAR03 A	09DEC02 A	30MAR03 A	100
B4-1609C1	Trapezoidal Channel, Area 19A	12	13DEC02 A	13DEC02 A	13DEC02 A	13DEC02 A	100
B4-1603B6	Drainage, D1, S0076-S0080	70	28APR03 A	28DEC03 A	28APR03 A	28DEC03 A	100
B4-1605B6	Sewerage, D1, F056-F054	18	18DEC03 A	28DEC03 A	18DEC03 A	28DEC03 A	100
B4-1603B36	Drainage, D1, S0076-S0080 remaining	75	26DEC03 A	15APR04 A	26DEC03 A	15APR04 A	100
B4-1603B16	Drainage connection to S85	41	28DEC03 A	28DEC03 A	28DEC03 A	28DEC03 A	100
B4-1605B26	Sewerage, D1, F054-F052	25	09FEB04 A	27MAR04 A	09FEB04 A	27MAR04 A	100
B4-1605B16	Sewerage, D1, F056-F058	20	19FEB04 A	03MAR04 A	19FEB04 A	03MAR04 A	100
B4-1603B26	Drainage connection to S83	16	22FEB04 A	24FEB04 A	22FEB04 A	24FEB04 A	100
B4-1603B76	Site Investigation & preliminary works	25	04MAR04 A	04MAR04 A	04MAR04 A	27MAR04 A	100
B4-1603B46	Drainage,D1/Ch.1860-2180 Gully works	30	25MAY04 A	28AUG04 A	25MAY04 A	28AUG04 A	100
B4-1603B96	F57-F58 Sewer Pipe remedial works	30	06JUN04 A	12AUG04 A	06JUN04 A	12AUG04 A	100
B4-1603B56	U-Channel, D1/1860-2180	45	20SEP04 A	12OCT04 A	20SEP04 A	12OCT04 A	100
B4-1605B2	Sewerage, D1, F038-F040	40	20JUN03 A	12NOV03 A	20JUN03 A	12NOV03 A	100
B4-1603B2	Drainage, D1, S0051-S0056	40	08OCT03 A	15MAY04 A	08OCT03 A	15MAY04 A	100
B4-1603B4	Drainage, D1, S0061-S0074	90	10JUN03 A	26DEC03 A	10JUN03 A	26DEC03 A	100
B4-1605B4	Sewerage, D1, F048-F051	90	17OCT03 A	15NOV03 A	17OCT03 A	15NOV03 A	100

Start date: 27/10/02  
 End date: 28/02/05  
 Run date: 30/06/04  
 Page number: 15A  
 Number/Revision: F55/02/1/2/01  
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Contract No. TP95/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
 REVISED WORKS PROGRAMME 1

Legend:  
 Early bar  
 Progress bar  
 Critical bar  
 Summary bar  
 Start milestone point  
 Finish milestone point

Date	Revision	Checked	Approved
01JUN04	No.9 Revision G	WAJ	WL
07JUL04	No.10 Revision G1	WAJ	WL
04OCT04	No.11 Revision H	WAJ	WL
17DEC04	No.12 Revision I	WAJ	WL

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Percent Float Complete
B4-1683B14	Drainage, D1, S0051-S0074 remaining	60	26DEC03 A	14FEB04 A	26DEC03 A	29FEB04 A	100
B4-1691B4	Sewerage Rising Mains, D1, Ch1500-F47	30	14FEB04 A	27MAR04 A	14FEB04 A	27MAR04 A	100
B4-1685B11	Sewerage, D1, F034-F038	72	25JUL03 A	20MAR04 A	25JUL03 A	20MAR04 A	100
B4-1683B11	Drainage, D1, S0043-S0051	90	13OCT03 A	29MAR04 A	18OCT03 A	29MAR04 A	100
B4-1685B1	Sewerage, D1, F031-F034	32	06JAN04 A	04MAR04 A	06JAN04 A	04MAR04 A	100
B4-1683B1	Drainage, D1, S0038-S0043	50	07FEB04 A	24MAR04 A	07FEB04 A	24MAR04 A	100
B4-1685B21	Sewerage, D1, (Ch.1020-1360)F034-F038 remaining	52	26MAY04 A	05JUL04 A	26MAY04 A	05JUL04 A	100
B4-1683B21	Drainage, D1, S0049-S0058 remaining	55	28JUN04 A	22SEP04 A	28JUN04 A	22SEP04 A	100
B4-1683B5	Drainage, D1, S0074-S0076 preliminary works	95	03NOV03 A	05NOV03 A	03NOV03 A	05NOV03 A	100
B4-1683B15	Drainage, D1, S0074-S0076 remaining	37	03JAN04 A	28JAN04 A	03JAN04 A	28JAN04 A	100
B4-1685B5	Sewerage, D1, F051-F052	95	23MAR04 A	18JUL03 A	23MAR04 A	18JUL03 A	100
B4-1685B8	Sewerage, L4, F043-F402	25	19JUL03 A	22SEP03 A	19JUL03 A	22SEP03 A	100
B4-1683B8	Drainage, L4, S402-S406 Pipe Laying Works	60	22SEP03 A	31OCT03 A	22SEP03 A	31OCT03 A	100
B4-1683B7	Drainage, L4, S406-S401	14	01NOV03 A	23APR04 A	01NOV03 A	23APR04 A	100
B4-1685B7	Sewerage, L4, F042-F043	14	25NOV03 A	17DEC03 A	25NOV03 A	17DEC03 A	100
B4-1683B17	Drainage, L4, S406-S407	45	02JAN04 A	30MAR04 A	02JAN04 A	30MAR04 A	100
B4-1683B27	Drainage, L4, S402-S406 remaining	35	02JAN04 A	30MAR04 A	02JAN04 A	30MAR04 A	100
B4-1691B7	Sewerage Rising Mains, L4, F045-F046	20	05MAR04 A	26MAY04 A	05MAR04 A	26MAY04 A	100
B4-1691B8	Sewerage Rising Mains, L4, F044-F45+	30	10MAY04 A	10MAY04 A	10MAY04 A	26MAY04 A	100
B4-1685B28	Sewerage Rising mains, L4 remaining	45	26MAY04 A	15JUL04 A	26MAY04 A	15JUL04 A	100
B4-1685B38	Drainage, L4 remaining	35	26JUN04 A	26SEP04 A	26JUN04 A	26SEP04 A	100
B4-1683B3	Drainage, D1, S0056-S0061	70	10NOV03 A	30DEC03 A	10NOV03 A	30DEC03 A	100
B4-1685B3	Sewerage, D1, F040-F042	35	18NOV03 A	22DEC03 A	18NOV03 A	22DEC03 A	100
B4-1691B3	Sewerage Rising Mains, D1, F046-Ch1500	25	16MAR04 A	16MAR04 A	16MAR04 A	30MAR04 A	100
B4-1685B13	Sewerage, D1, F040-F042 remaining	25	23JUN04 A	15JUL04 A	23JUN04 A	15JUL04 A	100
B4-1691B23	Sewer Rising Main Testing	50	16JUL04 A	13SEP04 A	16JUL04 A	13SEP04 A	100
B4-1691B13	Sewerage Rising Mains, D1, F046-Ch1500 remaining	45	16AUG04 A	20OCT04 A	16AUG04 A	20OCT04 A	100
B4-1078B15	Preparation Works for 2.5m Trapezoidal Channel	7	21OCT04 A	27OCT04 A	21OCT04 A	27OCT04 A	100
B4-1078B25	Fabrication Works and Delivery of 2.5m Trapz.Ch.	55	20APR04 A	27APR04 A	20APR04 A	27APR04 A	100
B4-1078B35	Installation and Construction of 2.5m Trap. Ch.	60	28APR04 A	16AUG04 A	28APR04 A	16AUG04 A	100
B4-1689C5	Trapezoidal Channel, NE of H.Site 1	30	19AUG03 A	01NOV03 A	19AUG03 A	01NOV03 A	100
B4-1689C3	Trapezoidal Channel, at L1, S of H Site 1	14	01NOV03 A	01NOV03 A	01NOV03 A	01NOV03 A	100
B4-1689C4	Trapezoidal Channel, Area 14	14	28DEC03 A	02APR04 A	28DEC03 A	02APR04 A	100
B4-1689D9	Trapezoidal Channel, L5 South	100	08MAR04 A	08MAR04 A	08MAR04 A	25MAR04 A	100
B4-1689D2	Trapezoidal Channel, NE of School Site	25	02APR04 A	20APR04 A	02APR04 A	20APR04 A	100
B4-1689C6	Trapezoidal Channel, Zone 1	60	25MAY04 A	26JUL04 A	25MAY04 A	26JUL04 A	100
B4-1683B67	Sewerage, F58 to existing (remaining)	15	07SEP04 A	02OCT04 A	07SEP04 A	02OCT04 A	100
B4-1683B96	Drainage, D1/Ch.1860-2180 gully works remaining	20	08SEP04 A	08SEP04 A	08SEP04 A	15SEP04 A	100
B4-1689D6	Trapezoidal Channel, D1, L4 to Culvert C10	50	08SEP04 A	30SEP04 A	08SEP04 A	30SEP04 A	100
B4-1683B97	Drainage, D1/Ch.1860-2180 gullyworks to existing.	15	21SEP04 A	16OCT04 A	21SEP04 A	16OCT04 A	100
B6-1595D46	Drain Pipe laying	14	07OCT04 A	15SEP04 A	07OCT04 A	15SEP04 A	100
B4-1689D2	Trapezoidal Channel, D1 at S0049 to Area 9B bound	30	10NOV04 A	08DEC04 A	10NOV04 A	07JAN05	75
B4-1689C8	Trapezoidal Channel, at H Site 3	40	18NOV04 A	11DEC04 A	18NOV04 A	07JAN05	27d
B6-1609A0	Waterworks, NE of H.Site 1, Promenade	60	28APR03 A	30JUN03 A	28APR03 A	30JUN03 A	100
B6-1607A0	Trial Pits	14	26JUN03 A	08JUL03 A	26JUN03 A	08JUL03 A	100
<b>Section 16 Utilities</b>							
UT-160000	Utilities - Section 16, Remainder	459	20SEP03 A	29DEC04	20SEP03 A	29DEC04	0
UT-1600T1A	PCCW, D1/Ch.920-1020	28	08MAR04 A	15MAR04 A	08MAR04 A	15MAR04 A	100
UT-1600T1B	HCC-New World, D1/Ch.820-1020	30	08MAR04 A	17MAR04 A	08MAR04 A	17MAR04 A	100

Contract No. TP35/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
**REVISED WORKS PROGRAMME 1**

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 Finish date: 28 FEB 05  
 Date of issue: 28 FEB 05  
 Run date: 17 MAR 04  
 Number of sheets: 17  
 Number of revisions: 12  
 Start milestone point: Primavera Systems, Inc.

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WAJ	WL
WAJ	WL
WAJ	WL
WAJ	WL

Revisions:  
 No.9 Revision G: 01JUN04  
 No.10 Revision G1: 07JUL04  
 No.11 Revision H: 04OCT04  
 No.12 Revision I: 17DEC04

Act ID		Description		Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float	Percent Complete	2006	
UT-1600G1	Gas Mains, D1/Ch. 920-1020	25	12MAR04 A	25MAR04 A	12MAR04 A	25MAR04 A	100					
UT-1600T1F	PCCW, D1/Ch. 1020-1200	50	16MAR04 A	16MAR04 A	16MAR04 A	16MAR04 A	100					
UT-1600T1G	HGC-New World, D1/Ch. 1020-1200	55	19MAR04 A	19MAR04 A	19MAR04 A	19MAR04 A	100					
UT-1600P1	Powers(11KV), D1/Ch. 920-1020	27	23MAR04 A	30MAR04 A	23MAR04 A	30MAR04 A	100					
UT-1600G11	Gas Mains, D1/Ch. 1020-1200	45	26MAR04 A	27MAR04 A	26MAR04 A	27MAR04 A	100					
UT-1600P11	Powers(11KV), D1/Ch. 1020-1200	45	26MAR04 A	05APR04 A	26MAR04 A	05APR04 A	100					
UT-1600T2A	PCCW, D1/Ch. 1020-1360 (25% completed)	6	05JUN04 A	31MAY04 A	05JUN04 A	31MAY04 A	100					
UT-1600T2B	HGC-New World, D1/Ch. 1020-1360 (25% completed)	36	31JUL04 A	23AUG04 A	31JUL04 A	23AUG04 A	100					
UT-1600P2	Powers(11KV), D1/Ch. 1020-1360	40	11AUG04 A	11SEP04 A	11AUG04 A	11SEP04 A	100					
UT-1600G2	Gas Mains, D1/Ch. 1020-1360	27	18AUG04 A	14SEP04 A	18AUG04 A	14SEP04 A	100					
UT-1600T2D	PCCW, D1/Ch. 1020-1360 remaining	27	30SEP04 A	17SEP04 A	30SEP04 A	17SEP04 A	100					
UT-1600T2G	HGC-New World, D1/Ch. 1020-1360 remaining	25	18SEP04 A	25SEP04 A	18SEP04 A	25SEP04 A	100					
UT-1600G3	Gas Mains, D1/Ch. 1360-1500	25	17SEP04 A	27SEP04 A	17SEP04 A	27SEP04 A	100					
UT-1600P3	Powers(11KV), D1/Ch. 1360-1500	15	27SEP04 A	28SEP04 A	27SEP04 A	28SEP04 A	100					
UT-1600T3A	PCCW, D1/Ch. 1360-1500	15	27SEP04 A	27SEP04 A	27SEP04 A	27SEP04 A	100					
UT-1600T3B	HGC-New World, D1/Ch. 1360-1500	15	27SEP04 A	05OCT04 A	27SEP04 A	05OCT04 A	100					
UT-1600T3C	NT&T, D1/Ch. 1360-1500	7	30SEP04 A	12MAR04 A	30SEP04 A	12MAR04 A	100					
UT-1600T4A	PCCW, D1/Ch. 1500-1860	75	17FEB04 A	16MAR04 A	17FEB04 A	16MAR04 A	100					
UT-1600T4B	HGC-New World, D1/Ch. 1500-1860	85	19FEB04 A	29MAR04 A	19FEB04 A	29MAR04 A	100					
UT-1600P4	Powers(11KV), D1/Ch. 1500-1860	72	29MAR04 A	08APR04 A	29MAR04 A	08APR04 A	100					
UT-1600G4	Gas Mains, D1/Ch. 1500-1860	72	16APR04 A	27APR04 A	16APR04 A	27APR04 A	100					
UT-1600T4E	PCCW, D1/Ch. 1500-1860 remaining	25	14JUN04 A	03JUL04 A	14JUN04 A	03JUL04 A	100					
UT-1600T4F	HGC-New World, D1/Ch. 1500-1860 remaining	25	14JUN04 A	18JUN04 A	14JUN04 A	18JUN04 A	100					
UT-1600G6	Gas Mains, D1/Ch. 1860-2180	50	26MAY04 A	15JUN04 A	26MAY04 A	15JUN04 A	100					
UT-1600P6	Powers(11KV), D1/Ch. 1860-2180	40	28MAY04 A	15JUN04 A	28MAY04 A	15JUN04 A	100					
UT-1600T6A	PCCW, D1/Ch. 1860-2180	40	05JUL04 A	10JUL04 A	05JUL04 A	10JUL04 A	100					
UT-1600T6B	HGC-New World, D1/Ch. 1860-2180	45	15JUL04 A	20JUL04 A	15JUL04 A	20JUL04 A	100					
UT-1600P16	Existing CLP cable realignment	21	06SEP04 A	27SEP04 A	06SEP04 A	27SEP04 A	100					
UT-1600P7	Powers(11KV), Crossing to D1/Ch. 1500	12	07MAY04 A	19MAY04 A	07MAY04 A	19MAY04 A	100					
UT-1600G8	Gas Mains, Crossing to D1/Ch. 1500	12	10MAY04 A	21MAY04 A	10MAY04 A	21MAY04 A	100					
UT-1600T7F	PCCW, Crossing to D1/Ch. 1500	12	26MAY04 A	02JUN04 A	26MAY04 A	02JUN04 A	100					
UT-1600T7G	HGC-New World, Crossing to D1/Ch. 1500	12	03JUN04 A	08JUN04 A	03JUN04 A	08JUN04 A	100					
UT-1600T7C	CATV, Crossing	7	08JUN04 A	14JUN04 A	08JUN04 A	14JUN04 A	100					
UT-1600T7H	NT&T, Crossing	7	15JUN04 A	19JUN04 A	15JUN04 A	19JUN04 A	100					
UT-1600T7A	PCCW, L4/Ch. 314-437	12	01OCT04 A	09OCT04 A	01OCT04 A	09OCT04 A	100					
UT-1600T7B	HGC-New World, L4/Ch. 314-437 (Both sides of rd.)	12	05OCT04 A	09OCT04 A	05OCT04 A	09OCT04 A	100					
UT-1600P9	Powers(132KV), N. end, Promenade	20	20SEP03 A	16OCT03 A	20SEP03 A	16OCT03 A	100					
UT-1600P0	Powers(132KV & 11KV), NE of Site 1, Promenade	60	10DEC03 A	30DEC03 A	10DEC03 A	30DEC03 A	100					
UT-1600T9A	PCCW, N. end, Promenade	7	19DEC04	25DEC04	19DEC04	25DEC04	0					
UT-1600T9B	HGC, N. end, Promenade	7	23DEC04	29DEC04	23DEC04	29DEC04	0					
B5-1600000	Roadworks - Section 16, Area 15 & Remainder	615	04AUG03 A	07JAN05	04AUG03 A	07JAN05	0					
B5-1672A1	Cycle Track, D1/Ch. 920-1020	28	13APR04 A	30APR04 A	13APR04 A	30APR04 A	100					
B5-1672A11	Cycle Track & Footway, D1/Ch. 1020-1200	50	19APR04 A	30APR04 A	19APR04 A	30APR04 A	100					
B5-1670A1	Roadworks, D1/Ch. 920-1020	35	01OCT04 A	19NOV04 A	01OCT04 A	19NOV04 A	100					
B5-1672A21	Footpath, D1, D1/Ch. 920-1020	12	28NOV04 A	02DEC04 A	28NOV04 A	02DEC04 A	100					
B5-1670A2	Roadworks, D1/Ch. 1020-1360	25	02DEC04 A	25DEC04	02DEC04 A	25DEC04	13d					
B5-1672A2	Cycle Track & Footway, D1/Ch. 1020-1360	75	22JUL04 A	28OCT04 A	22JUL04 A	28OCT04 A	100					
B5-1670A3	Roadworks, D1/Ch. 1360-1500	45	26OCT04 A	10DEC04 A	26OCT04 A	10DEC04 A	100					
B5-1670A4	Roadworks, D1/Ch. 1500-1860	28	02DEC04 A	28DEC04	02DEC04 A	28DEC04	4d					
B5-1670A4.13	Roadworks, D1/Ch. 1360-1500 remaining	70	08JUN04 A	21SEP04 A	08JUN04 A	21SEP04 A	100					
B5-1670A4	Roadworks, D1/Ch. 1500-1860 Seaside completion	90	15JUL04 A	30NOV04 A	15JUL04 A	30NOV04 A	100					
B5-1672A4	Footway, D1/Ch. 1500-1860	7	27SEP04 A	16OCT04 A	27SEP04 A	16OCT04 A	100					
B5-1670A14	Roadworks, D1/Ch. 1500-1860 To Highway side paving	100										

Contract No. TP95/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
 REVISED WORKS PROGRAMME I

Start date	Finish date	Progress bar	Critical bar	Summary bar	Milestone point
27AUG02	25FEB06	██████████	██████████	██████████	●
02DEC04	02DEC04	██████████	██████████	██████████	●
15DEC04	15DEC04	██████████	██████████	██████████	●
25DEC04	25DEC04	██████████	██████████	██████████	●
01JUN04	01JUN04	██████████	██████████	██████████	●
04OCT04	04OCT04	██████████	██████████	██████████	●
17DEC04	17DEC04	██████████	██████████	██████████	●

Legend:  
 ██████████ Early bar  
 ██████████ Progress bar  
 ██████████ Critical bar  
 ██████████ Summary bar  
 ● Start milestone point  
 ● Finish milestone point

Date	Revision	Checked	Approved
01JUN04	No.9 Revision G	WAJ	WL
07JUL04	No.10 Revision G1	WAJ	WL
04OCT04	No.11 Revision H	WAJ	WL
17DEC04	No.12 Revision I	WAJ	WL

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float	Percent Complete
BS-1670A6	Roadworks, D1/Ch.1860-2070 Seaside	25	07SEP04	104	07SEP04	12OCT04	100	100
BS-1670A16	Existing kerb demolition	12	16SEP04	16SEP04	16SEP04	16SEP04	0	100
BS-1672A6	Footpath, D1/Ch.1860-2180	45	25SEP04	21DEC04	25SEP04	17JAN05	17d	55
BS-1670A26	Roadworks, D1/Ch.1860-2070 Landside paving	20	27SEP04	20OCT04	27SEP04	20OCT04	0	100
BS-1670A36	Roadworks, D1/Ch.2070-2180 (End Portion)	15	20OCT04	27OCT04	20OCT04	27OCT04	0	100
BS-1674G0	Road Furnitures&Misc.,D1/Ch820-2180	60	08OCT04	03JAN05	08OCT04	07JAN05	4d	45
BS-1672A3	Footpath, D1/Ch.1360-1500	25	02DEC04	26DEC04	04JAN05	17APR04	12d	0
BS-1670A0	Cycle Track, NE of H.Site 1, Promenade	75	04AUG03	17APR04	04AUG03	17APR04	0	100
BS-1672A9	Cycle Track & Footway, N end, Promenade	30	08MAR04	26MAR04	08MAR04	26MAR04	0	100
BS-1670A46	Diversion Works for Cycle Track at N. Entrance	14	17SEP04	02DEC04	17SEP04	02DEC04	0	100
BS-1670A66	Diversion Works for Cycle Track@N. Entrance remaining	16	02DEC04	18DEC04	02DEC04	18DEC04	0	5
BS-1670A76	Breaking of Existing Cycle Track N. Entrance	2	17DEC04	18DEC04	17DEC04	18DEC04	0	0
BS-1670A56	Cycle Track and Footpath, North End	7	01JAN05	07JAN05	01JAN05	07JAN05	0	0
<b>Section 17- Areas 1,2,6,7A+7B Landscape Softwork</b>								
BL-170000	Landscape Softworks in Areas 1, 2, 6, 7A & 7B	378	10FEB04	28FEB05	10FEB04	28FEB05	0	78
BL-1705A1	Area 1- Drain,Duct+Pipework & Preparation Works	40	10FEB04	20SEP04	10FEB04	20SEP04	0	100
BL-1705A4	Area 7B- Drain,Duct+Pipework & Preparation Works	45	11JUN04	20SEP04	11JUN04	20SEP04	0	100
BL-1705A2	Areas 2+6- Drain,Duct+Pipework& Preparatoin Works	45	15JUN04	20SEP04	15JUN04	20SEP04	0	100
BL-1705A11	Area1-Drain,Duct+Pipewrk&Prepar. Works remaining	26	20SEP04	02DEC04	20SEP04	02DEC04	0	100
BL-1705A12	Area2+6-Drain+Pipewrk&Prep. Works remaining	26	08OCT04	02DEC04	08OCT04	02DEC04	0	100
BL-1705A14	Area7B-Drain,Duct+Pipewrk&Prep. Works remaining	26	11OCT04	02DEC04	11OCT04	02DEC04	0	100
BL-1705A3	Area 7A- Drain,Duct+Pipework & Preparation Works	35	15OCT04	02DEC04	15OCT04	02DEC04	0	100
BL-1707A1	Area 1- Planting Works (25% completed)	45	29NOV04	02DEC04	29NOV04	02DEC04	0	100
BL-1707A11	Area1,2,6,7B&7A Preparation & Miscellaneous Works	30	02DEC04	30DEC04	02DEC04	30DEC04	0	2
BL-1707A21	Area 1- Planting Works remaining	34	22DEC04	24JAN05	22DEC04	24JAN05	0	0
BL-1707A2	Areas 2+6- Planting Works	35	01JAN05	04FEB05	01JAN05	04FEB05	0	0
BL-1707A4	Area 7B- Planting Works	25	16JAN05	16FEB05	16JAN05	16FEB05	0	0
BL-1707A3	Area 7A- Planting Works	35	25JAN05	28FEB05	25JAN05	28FEB05	0	0
<b>Section 18- Remainder of Landscaping Works</b>								
BL-180000	Landscape Softworks - Section 18, Remainder	127	12OCT04	15FEB05	12OCT04	15FEB05	0	40
BL-1814A1	Drain,Duct+Pipework&Prepar. Work,Remainder65%.com	38	02DEC04	02DEC04	02DEC04	02DEC04	0	100
BL-1814A11	Preparation Works remain & CL Related obstructions	35	02DEC04	03JAN05	02DEC04	03JAN05	0	5
BL-1814A2	Planting Works, Remainder	43	04JAN05	15FEB05	04JAN05	15FEB05	0	0
<b>Section 19- Areas 1,2,6,7A+7B Establishment Work</b>								
BL-190000	Establishment Work-Section19, Areas 1,2, 6,7A&7B	365	01MAR05	28FEB06	01MAR05	28FEB06	0	0
BL-200000	Establishment Works - Areas 1, 2, 6, 7A & 7B	365	01MAR05	28FEB06	01MAR05	28FEB06	0	0
BL-200001	Establishment Works - Areas 1, 2, 6, 7A & 7B Done	0	0	28FEB06	0	28FEB06	0	0
<b>Section 20- Remainder of Establishment Works</b>								
BL-300000	Establishment Works - Section 20, Remainder	385	16FEB05	15FEB06	16FEB05	15FEB06	0	0
BL-300001	Establishment Works - Remainder	365	16FEB05	15FEB06	16FEB05	15FEB06	0	0
BL-300002	Establishment Works - Remainder	0	15FEB06	15FEB06	15FEB06	15FEB06	0	0
<b>Part 14 Site Safety</b>								
BT-140000	Site Safety	977	27AUG02	29APR05	27AUG02	30APR05	1d	85
BT-1401A0	Complete Draft Safety Plan	810	27AUG02	28AUG02	27AUG02	28AUG02	0	100
BT-1401D0	Provide Safety Officer, 2nr.	2	29AUG02	02DEC04	29AUG02	02DEC04	0	100
BT-1401B0	Complete Safety Plan	2	29AUG02	30AUG02	29AUG02	30AUG02	0	100

Contract No. TP35/02  
Remaining Engineering Infrastructure Works  
for Pak Shek Kok Development Package 1  
REVISED WORKS PROGRAMME I

Date	Revision	Checked	Approved
01JUN04	No.9 Revision G	WJA	WL
07JUL04	No.10 Revision G	WJA	WL
04OCT04	No.11 Revision H	WJA	WL
17DEC04	No.12 Revision I	WJA	WL

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float Complete	Percent Complete
BT-1401C0	Update Safety Plan	810	31AUG02 A	02DEC04 A	02DEC04 A	02DEC04 A	100	100
BT-1401G0	Arrange & Attend Weekly Safety Walk	805	03SEP02 A	02DEC04 A	02DEC04 A	02DEC04 A	100	100
BT-1401H0	Provide Safety Training	810	10SEP02 A	02DEC04 A	02DEC04 A	02DEC04 A	100	100
BT-1401E0	Attend Site Safety Committee & Mgmt. Committee	810	26OCT02 A	02DEC04 A	02DEC04 A	02DEC04 A	100	100
BT-1401K0	Participate in safety promotional campaign	694	28NOV02 A	02DEC04 A	02DEC04 A	02DEC04 A	100	100
BT-1401K10	Site Safety Remaining Works	150	02DEC04 A	29APR05	30APR05	30APR05	1d	1



Date	Revision	Checked	Approved
01 JUN 04	No. 9 Revision G	WJA	WL
07 JUL 04	No. 10 Revision G1	WJA	WL
04 OCT 04	No. 11 Revision H	WJA	WL
17 DEC 04	No. 12 Revision I	WJA	WL

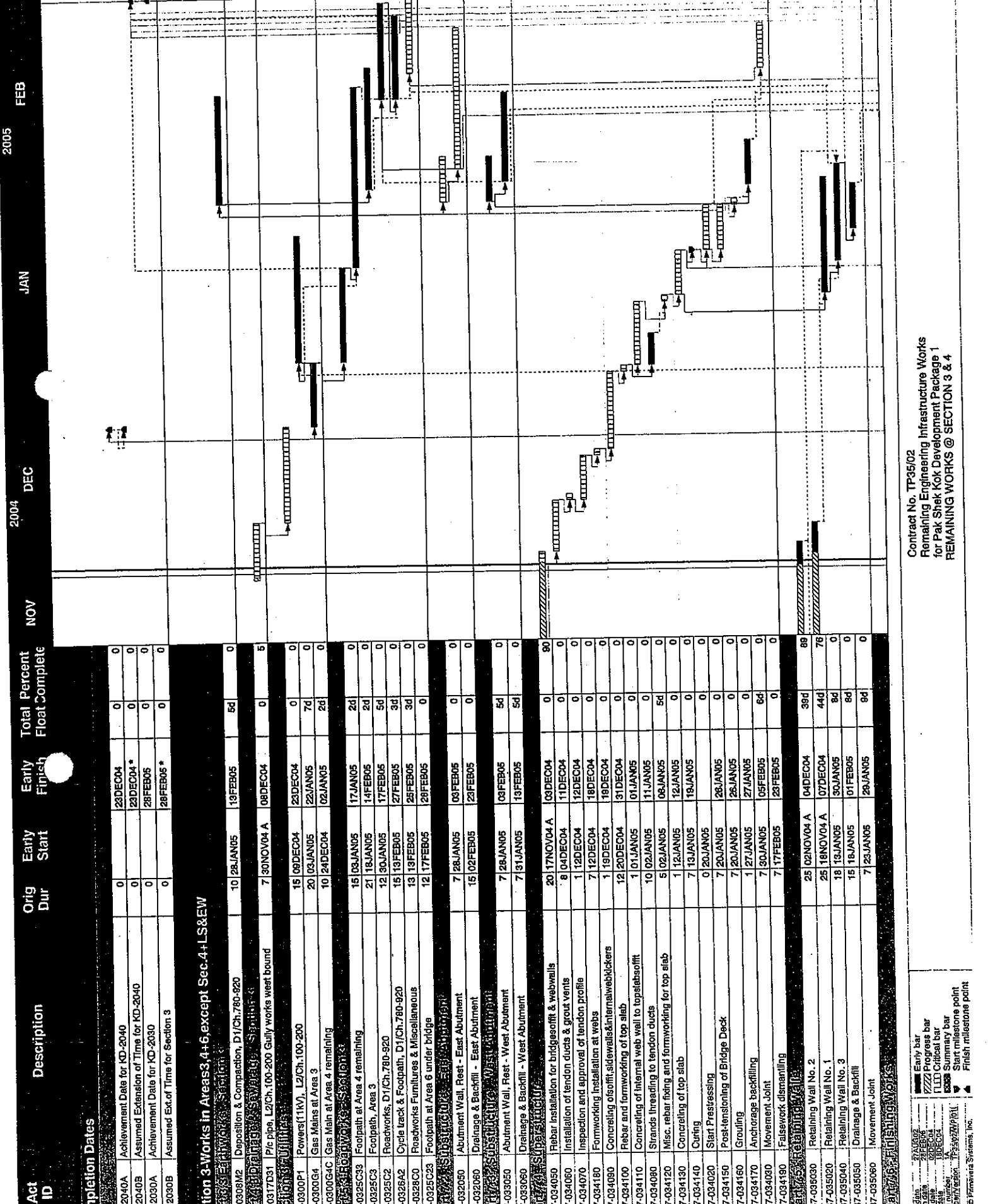
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Contract No. TP35/02
Remaining Engineering Infrastructure Works
for Pak Shek Kok Development Package 1
REVISED WORKS PROGRAMME I

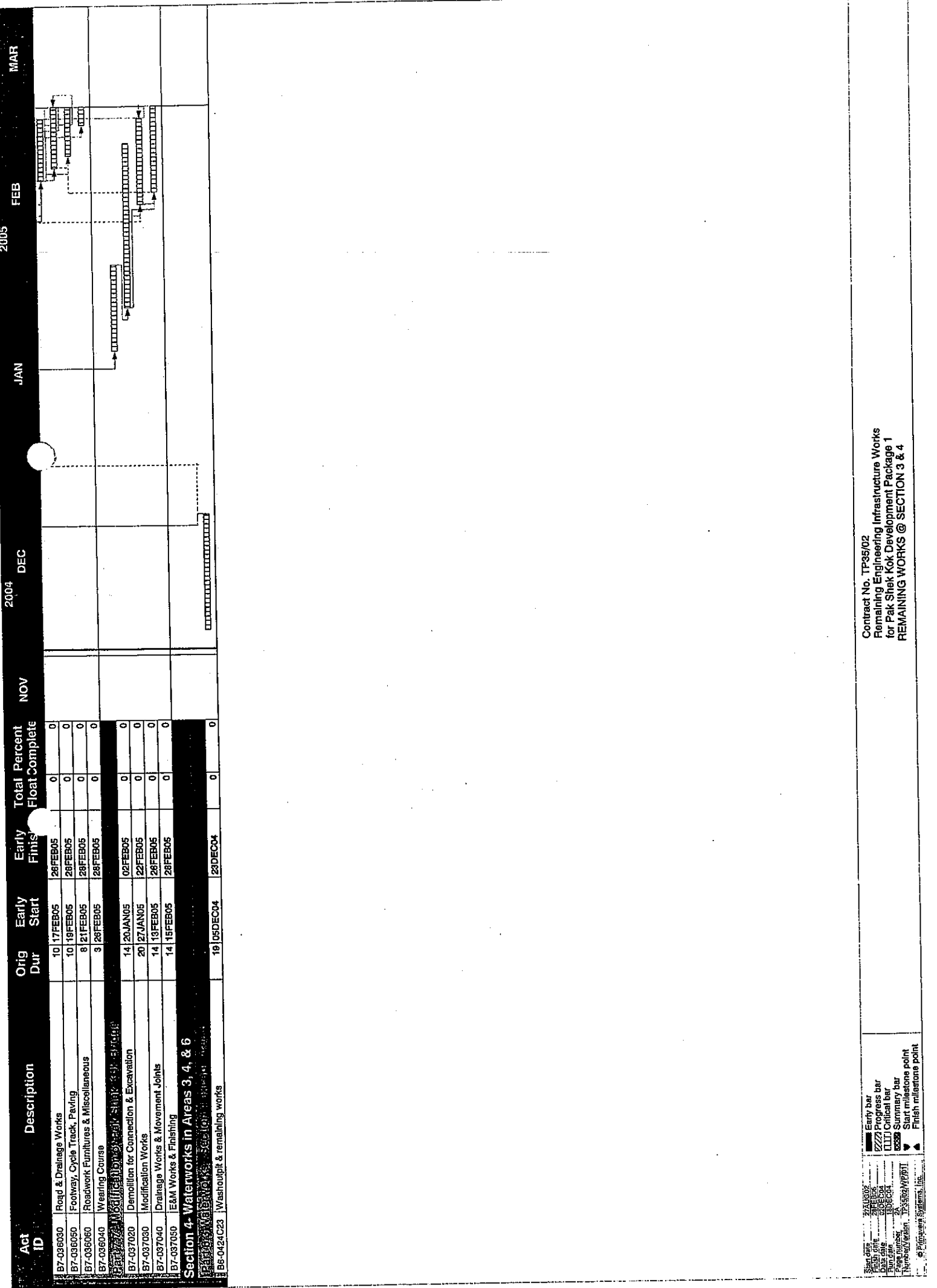
■ Early bar ▨▨▨▨ Progress bar ▨▨▨▨ Critical bar ▨▨▨▨ Summary bar ▼ Start milestone point ▲ Finish milestone point
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Act ID	Description	Orig Dur	Early Start	Early Finish	Total Percent Float Complete
KD-2040A	Achievement Date for KD-2040	0		23DEC04	0
KD-2040B	Assumed Extension of Time for KD-2040	0		23DEC04 *	0
KD-2030A	Achievement Date for KD-2030	0		28FEB05	0
KD-2030B	Assumed Ext. of Time for Section 3	0		28FEB05 *	0
<b>Section 3-Works in Areas 3,4+6, except Sec. 4+LS&amp;EW</b>					
B3-0308M2	Deposition & Compaction, D1/Ch. 760-920	10	28JAN05	19FEB05	5d
B4-0317D31	P/c pipe, L2/Ch. 100-200 Gully works west bound	7	30NOV04 A	08DEC04	0
UT-0300P1	Powers (11KV), L2/Ch. 100-200	15	09DEC04	23DEC04	0
UT-0300G4	Gas Mains at Area 3	20	03JAN05	22JAN05	7d
UT-0300G4C	Gas Main at Area 4 remaining	10	24DEC04	02JAN05	2d
B5-0325C33	Footpath at Area 4 remaining	15	03JAN05	17JAN05	2d
B5-0325C3	Footpath, Area 3	21	18JAN05	14FEB05	2d
B5-0325C2	Roadworks, D1/Ch. 760-920	12	30JAN05	17FEB05	5d
B5-0326A2	Cycle track & Footpath, D1/Ch. 760-920	16	13FEB05	27FEB05	3d
B5-0326C0	Roadworks Furnitures & Miscellaneous	13	13FEB05	25FEB05	3d
B5-0325C23	Footpath at Area 6 under bridge	12	17FEB05	28FEB05	0
B7-032050	Abutment Wall, Rest. - East Abutment	7	28JAN05	03FEB05	0
B7-032050	Drainage & Backfill - East Abutment	15	02FEB05	23FEB05	0
B7-033050	Abutment Wall, Rest. - West Abutment	7	28JAN05	03FEB05	5d
B7-033050	Drainage & Backfill - West Abutment	15	02FEB05	23FEB05	5d
B7-034050	Rebar installation for bridgesoffit & webralls	20	17NOV04 A	03DEC04	0
B7-034060	Installation of tendon ducts & grout vents	8	04DEC04	11DEC04	0
B7-034070	Inspection and approval of tendon profile	1	12DEC04	12DEC04	0
B7-034180	Formworking installation at webs	1	12DEC04	18DEC04	0
B7-034090	Concreting ofoffit, sidewalls&internalwebclckers	12	20DEC04	31DEC04	0
B7-034100	Rebar and formworking of top slab	1	01JAN05	01JAN05	0
B7-034110	Concreting of internal web wall to topslaboffit	10	02JAN05	11JAN05	0
B7-034090	Strands threading to tendon ducts	5	02JAN05	06JAN05	5d
B7-034120	Misc. rebar fixing and formworking for top slab	1	12JAN05	12JAN05	0
B7-034130	Concreting of top slab	7	13JAN05	19JAN05	0
B7-034140	Curing	0	20JAN05	20JAN05	0
B7-034020	Start Prestressing	7	20JAN05	26JAN05	0
B7-034150	Post-tensioning of Bridge Deck	7	20JAN05	26JAN05	0
B7-034160	Grouting	1	27JAN05	27JAN05	0
B7-034170	Anchorage backfilling	7	30JAN05	05FEB05	6d
B7-034090	Movement Joint	7	17FEB05	23FEB05	0
B7-034190	Falsework dismantling	25	02NOV04 A	04DEC04	33d
B7-035030	Retaining Wall No. 2	25	18NOV04 A	07DEC04	44d
B7-035020	Retaining Wall No. 1	18	13JAN05	30JAN05	8d
B7-035040	Retaining Wall No. 3	15	18JAN05	01FEB05	8d
B7-035050	Drainage & Backfill	7	23JAN05	29JAN05	8d
B7-035060	Movement Joint				

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 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
**REMAINING WORKS @ SECTION 3 & 4**

Legend:  
 ■ Early bar  
 ▨ Press bar  
 ▨ Critical bar  
 ▨ Summary bar  
 ▨ Start milestone point  
 ▨ Finish milestone point



Act ID	Description	Orig Dur	Early Start	Early Finish	Total Percent Float Complete
B7-036030	Road & Drainage Works	10	17FEB05	28FEB05	0
B7-036050	Footway, Cycle Track, Paving	10	19FEB05	28FEB05	0
B7-036080	Roadwork Furnitures & Miscellaneous	8	21FEB05	28FEB05	0
B7-036040	Wearing Course	3	28FEB05	28FEB05	0
<b>Section 4 - Waterworks in Areas 3, 4, &amp; 6</b>					
B7-037020	Demolition for Connection & Excavation	14	20JAN05	02FEB05	0
B7-037030	Modification Works	20	27JAN05	22FEB05	0
B7-037040	Drainage Works & Movement Joints	14	13FEB05	26FEB05	0
B7-037050	E&M Works & Finishing	14	15FEB05	28FEB05	0
B6-0424C23	Washoutpit & remaining works	18	05DEC04	28DEC04	0

Start date: 27AUG02  
 Finish date: 28FEB05  
 Date: 05DEC04  
 Page: 3  
 Name: TP-3502/APP01  
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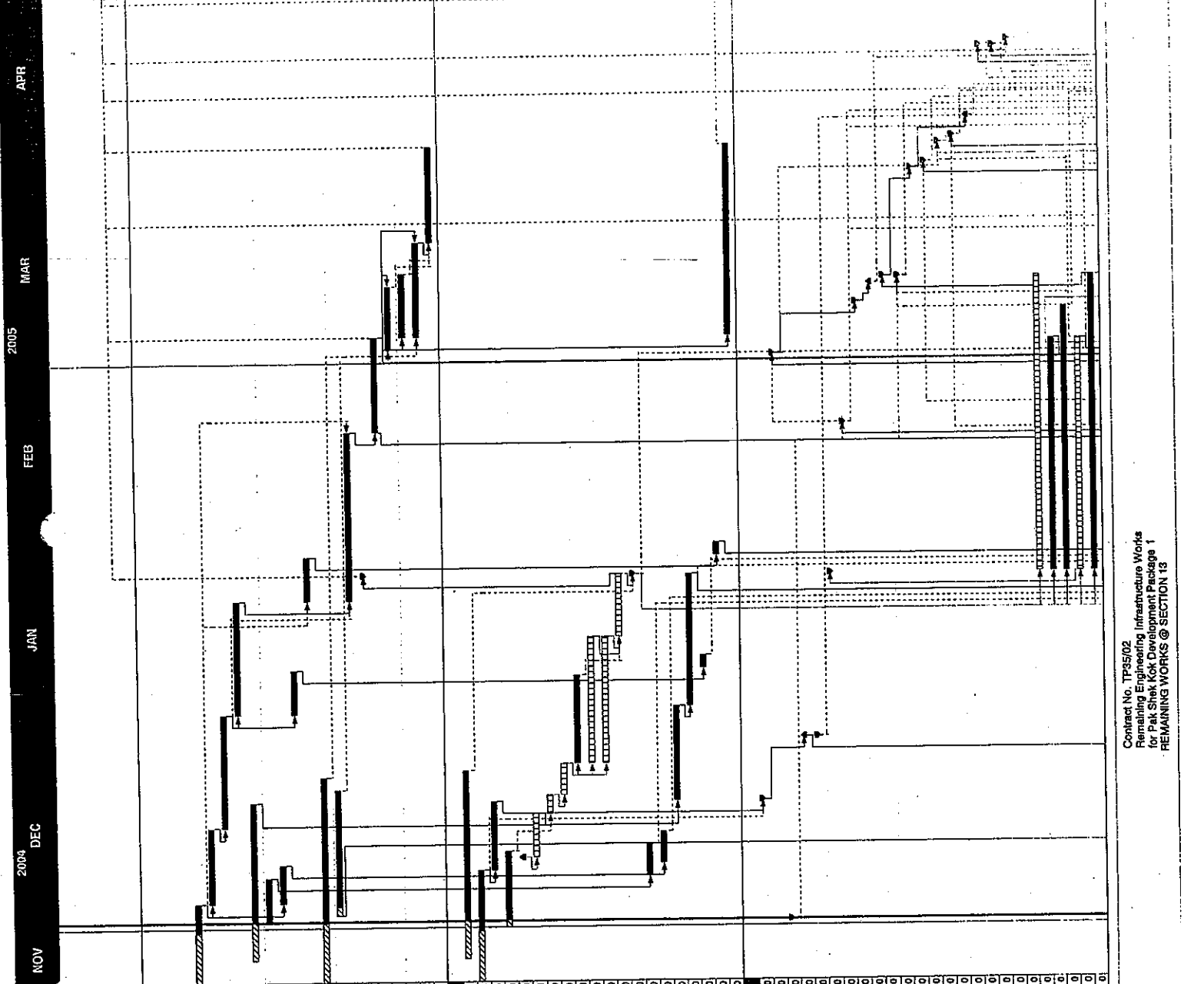
Contract No. TP-35/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
 REMAINING WORKS @ SECTION 3 & 4

■ Early bar  
 ▨ Progress bar  
 [ ] Critical bar  
 ▨ Summary bar  
 ▼ Start milestone point  
 ▲ Finish milestone point









Act ID	Description	Orig Dur	Early Start	Early Finish	Total Percent Float/Complete
KD-2130A	Achievement Date for KD-2130	0		30/APR/05	0
KD-2130B	Assumed Extension of Time for KD-2130	0		30/APR/05*	0
<b>Section 13 - Works of Sewage Pumping Station No.2</b>					
BS-130850	Water Tightness Test of Group B Screen Room	16	08/NOV/04 A	04/DEC/04	176
BS-131020	Preparation works for Wet Well WaterTightness	12	05/DEC/04	18/DEC/04	176
BS-131000	WaterTightness Test of Group A Wet Well	16	17/DEC/04	02/JAN/05	176
BS-131010	WaterTightness Test of Group B Wet Well	16	04/JAN/05	21/JAN/05	176
BS-130760	Salinacs Construction & Platform @ Dry Well	25	28/NOV/04 A	20/DEC/04	228
BS-130770	Construct Internal Wall @ Screen Room A	7	12/DEC/04	08/DEC/04	864
BS-130780	Construct Internal Wall @ Screen Room B	6	05/DEC/04	10/DEC/04	864
BS-130790	Enter Wall & Platform Construction @ Wet Well A	7	04/JAN/05	10/JAN/05	864
BS-130740	Enter Wall & Platform Construction @ Wet Well B	7	20/JAN/05	28/JAN/05	176
BS-130810	Rising Main Chamber Construction	38	15/NOV/04 A	24/DEC/04	904
BS-130820	Inlet Chamber Construction	22	03/DEC/04 A	25/DEC/04	864
BS-130700	Backfilling Works to platform level	20	22/JAN/05	17/FEB/05	196
BS-130690	DSD Inspection for Building Works	15	16/FEB/05	04/MAR/05	816
BS-130910	Sheetpile Extraction	15	03/MAR/05	12/MAR/05	864
BS-130900	Inlet Chamber connection to PS	10	03/MAR/05	12/MAR/05	864
BS-130750	General Backfilling around PS	10	03/MAR/05	14/MAR/05	328
BS-131030	Rising Main Chamber connection to PS	15	03/MAR/05	18/MAR/05	272
BS-131040	Construct Boundary Wall	16	03/MAR/05	03/APR/05	272
BS-130930	Roof Finishing	30	28/NOV/04 A	25/DEC/04	312
BS-130920	Finishing Works @ Transformer room	74	09/NOV/04 A	09/DEC/04	464
BS-130720	EMU works @ Transformer Room	11	10/DEC/04	20/DEC/04	456
BS-130950	Calling Finishing & Painting	12	01/DEC/04 A	12/DEC/04	68
BS-130960	Completion of Prep on Windows & Ventilators	0		11/DEC/04*	0
BS-130910	Wall Finishing	7	12/DEC/04	18/DEC/04	0
BS-130920	Wall painting	3	18/DEC/04	21/DEC/04	0
BS-130930	Platform Removal @ Landing Bay	6	22/DEC/04	28/DEC/04	0
BS-130940	Roosterm (Cable/Glue/Well/Platform/Truss/Paint)	14	27/DEC/04	06/JAN/05	68
BS-130850	Install access Wall (Kachibai)	20	27/DEC/04	15/JAN/05	0
BS-130860	Blockwall @ G.L. 27.45m (curry)	20	27/DEC/04	15/JAN/05	0
BS-130970	Finishing Works on these walls	10	16/JAN/05	25/JAN/05	0
BS-130980	Handover to EM @ Landing Bay Area	0	26/JAN/05	0	0
BS-130840	Mass Concrete Platform construction @ Screen Room A	5	08/DEC/04	13/DEC/04	864
BS-130850	Mass Concrete Platform construction @ Screen Room B	5	11/DEC/04	16/DEC/04	864
BS-130860	Pipe Trench Construction @ Dry Well	15	21/DEC/04	04/JAN/05	228
BS-130890	Barbado platform & Finishing @ Dry Well	21	05/JAN/05	25/JAN/05	228
BS-130950	Benching Start @ Wet Well A & Finishing	2	14/JAN/05	12/JAN/05	384
BS-130870	Benching Start @ Wet Well B & Finishing	2	23/JAN/05	21/JAN/05	176
BS-130880	External Finishing Works	30	05/MAR/05	03/APR/05	272
BS-134110	CLP Inspection of Transformer Room	0	21/DEC/04	0	384
BS-134010	Electrical VFI Substation	0	02/MAR/05	27/0	0
BS-135100	Expected availability of power supply	0	02/DEC/04	11/6	0
BS-134130	CLP's Final Inspection of Transformer Room	0	30/DEC/04	3/6	0
BS-135090	Expected availability of Fresh Cold water supply	0	31/DEC/04	11/1	0
BS-135170	VAC substation	0	28/JAN/05	0	0
BS-135200	CLP Energization	0	19/FEB/05	3/6	0
BS-135190	CLP's Inspection for Mairing & Power On	0	10/MAR/05	31/0	0
BS-135200	CLP's Final Inspection for Mairing & Power On	0	14/MAR/05	17/1	0
BS-135120	WY048 Part IV Submission	0	14/MAR/05	3/6	0
BS-135160	Expected DSD Inspection for Other Works	0	14/MAR/05	2/6	0
BS-135030	Expected WSD Inspection	0	01/MAR/05	17/0	0
BS-135040	Expected DSD Inspection for Sewage Purmeset & VSD	0	01/MAR/05	2/6	0
BS-135050	FS 501 Submission	0	04/APR/05	0	0
BS-135100	Expected DSD Inspection for Mech. Screen System	0	05/APR/05	2/0	0
BS-135180	WSD's Final inspection	0	07/APR/05	17/1	0
BS-135140	Expected DSD Inspection for Valves & Pipeworks	0	18/APR/05	6/1	0
BS-135150	Expected DSD Inspection for Decoupler System	0	18/APR/05	6/1	0
BS-135070	Expected FSD Inspection	0	20/APR/05	0	0
BS-135210	FSD's Final Inspection	40	28/JAN/05	0	0
BS-136240	Cable & Trunking	30	26/JAN/05	0	0
BS-136260	Lightning & Earthing Installation	08	26/JAN/05	5/2	0
BS-136290	SCADA and PLC Works	30	26/JAN/05	41/1	0
BS-136300	NVAC	40	26/JAN/05	0	0
BS-136100	P & D Installation	40	26/JAN/05	21/6	0

Contract No. TP35/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
**REMAINING WORKS @ SECTION 13**

Legend:  
 ■ Early bar  
 ■ Critical bar  
 ■ Summary bar  
 ■ Start milestone point  
 ■ Finish milestone point  
 ■ Patch milestone point



Act ID

Description

Orig Dur

Early Start

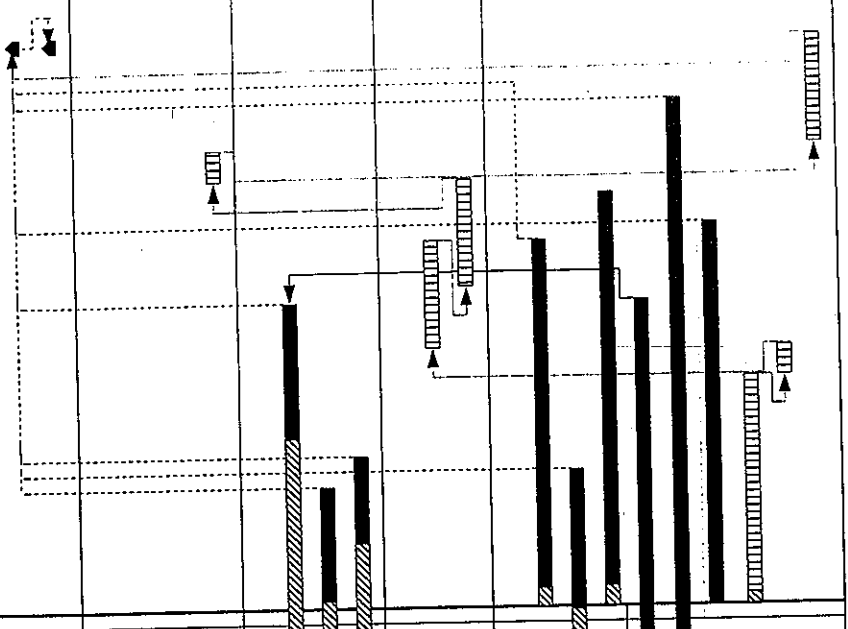
Early Finish

Total Percent Complete

Float

**Completion Dates**

Act ID	Description	Orig Dur	Early Start	Early Finish	Total Percent Complete	Float
KD-2160A	Achievement Date for KD-2160	0		07JAN05	0	0
KD-2160B	Assumed Extension of Time for KD-2160	0		07JAN05 *	0	0
<b>Section 16- Remainder of Works, except LS+EW</b>						
<b>Part 6-1 Earthworks Section 16</b>						
B3-1622N9	Deposit/ Compact, N.end, Promenade	2	30DEC04	31DEC04	0	0
<b>Part 4-11 Drainage &amp; Sewerage Section 16</b>						
B4-1683B56	U-Channel, D1/1860-2180	45	25SEP04 A	21DEC04	17d	90
B4-1689D2	Trapezoidal Channel, D1 at S0049 to Area 9B bound	30	10NOV04 A	09DEC04	29d	75
B4-1689C8	Trapezoidal Channel, at H Site 3	40	19NOV04 A	11DEC04	27d	75
<b>Section 16- Utilities</b>						
UT-1600T9A	PCCW, N. end, Promenade	7	19DEC04	25DEC04	0	0
UT-1600T9B	HGC, N. end, Promenade	7	23DEC04	29DEC04	0	0
<b>Part 5-10 Roadworks Section 16</b>						
B5-1672A31	Footpath, D1/Ch.920-1020 remaining	25	02DEC04 A	25DEC04	13d	5
B5-1672A2	Cycle Track & Footway, D1/Ch.1020-1360	45	26OCT04 A	10DEC04	28d	80
B5-1670A13	Roadworks, D1/Ch.1360-1500 remaining	28	02DEC04 A	28DEC04	4d	5
B5-1672A6	Footpath, D1/Ch.1860-2180	45	25SEP04 A	21DEC04	17d	55
B5-1674G0	Road Furnitures&Misc., D1/Ch920-2180	60	08OCT04 A	03JAN05	4d	45
B5-1672A3	Footpath, D1/Ch.1360-1500	25	02DEC04	26DEC04	12d	0
B5-1670A66	DiversionWorksforCycleTrack@N.Entrance remaining	16	02DEC04 A	16DEC04	.0	5
B5-1670A76	Breaking of Existing Cycle Track N. Entrance	2	17DEC04	18DEC04	0	0
B5-1670A56	Cycle Track and Footpath, North End	7	01JAN05	07JAN05	0	0



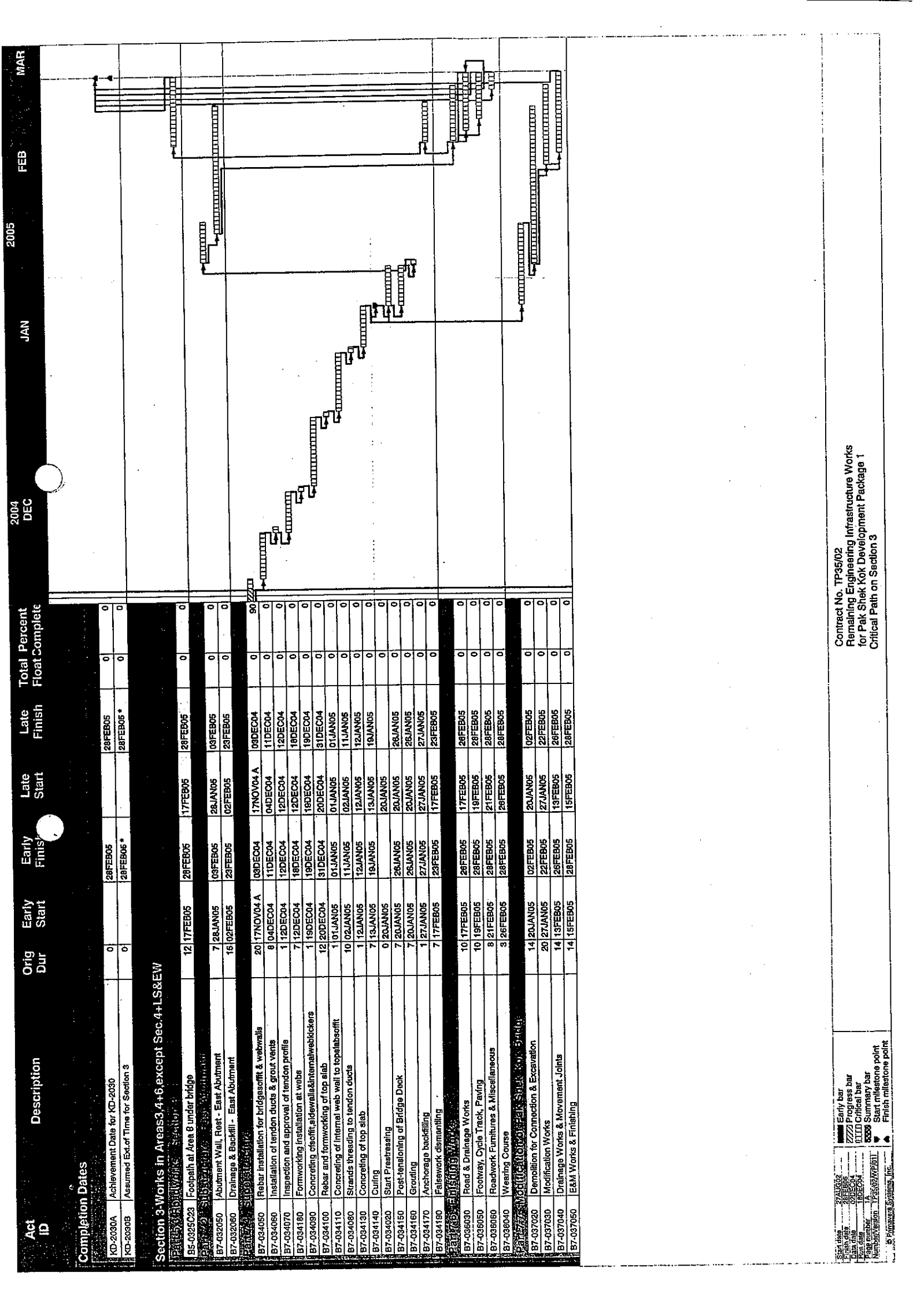
Contract No. TP35/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
**REMAINING WORKS @ SECTION 16**

Start date	27AUG02
Finish date	28FEB06
Data date	02DEC04
Run date	18DEC04
Page number	1A
Number/Version	TP35/02/WP/011

- Early bar
- ▨ Progress bar
- ▤ Critical bar
- ▥ Summary bar
- ▲ Start milestone point
- Finish milestone point



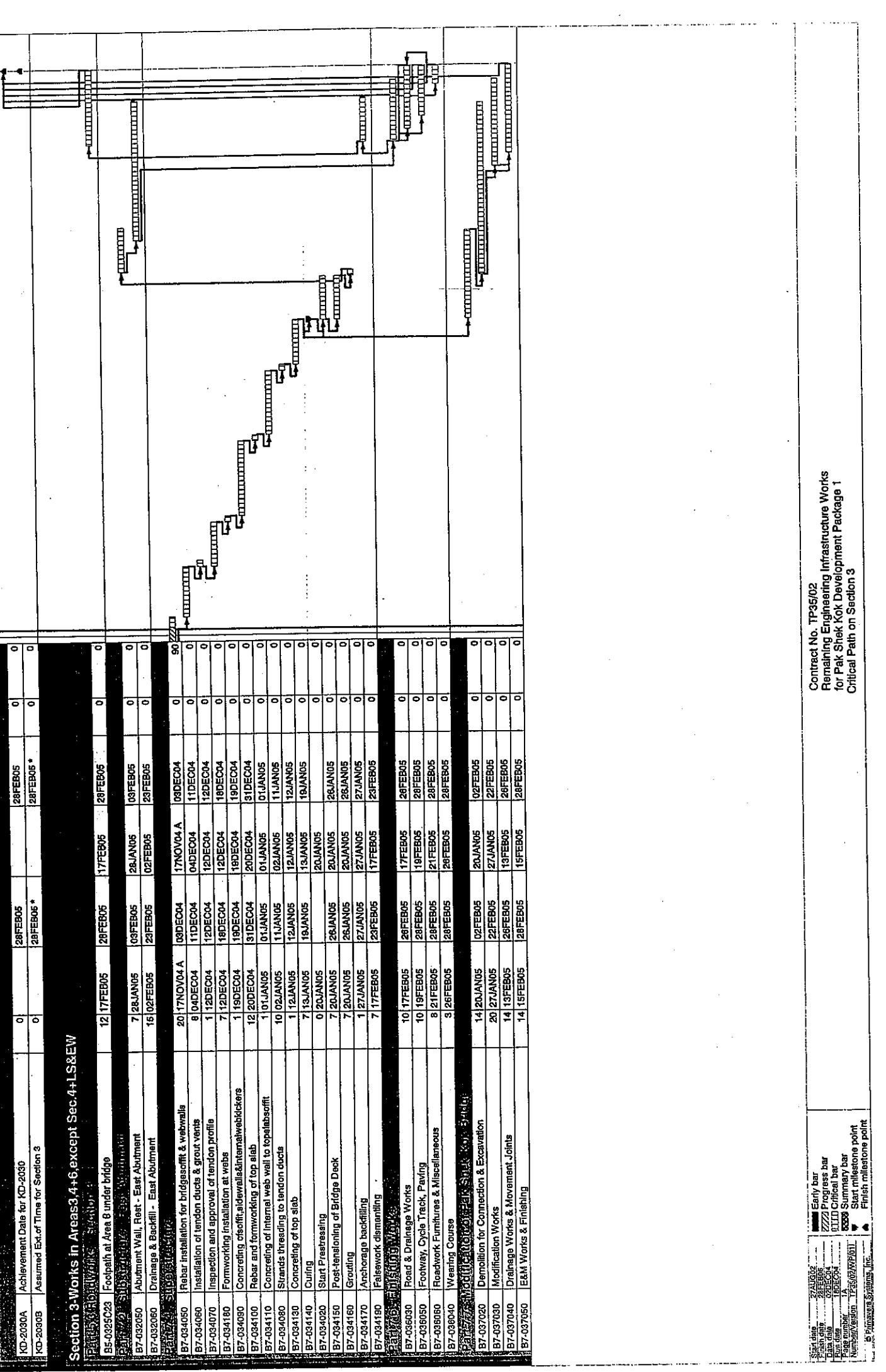




Act ID Description Orig Dur Early Start Early Finish Late Start Late Finish Total Percent Float Complete

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Percent	Float	Complete
KD-2030A	Achievement Date for KD-2030	0	28FEB05	28FEB05	28FEB05	28FEB05	0	0	0
KD-2030B	Assumed Excl of Time for Section 3	0	28FEB05*	28FEB05*	28FEB05*	28FEB05*	0	0	0
<b>Section 3: Works in Areas 3, 4, 5, 6, except Sec. 4+L&amp;EW</b>									
B5-0325C23	Footpath at Area 8 under bridge	12	17FEB05	28FEB05	17FEB05	28FEB05	0	0	0
B7-032050	Abutment Wall, Rest - East Abutment	7	28JAN05	03FEB05	28JAN05	03FEB05	0	0	0
B7-032060	Drainage & Backfill - East Abutment	15	02FEB05	23FEB05	02FEB05	23FEB05	0	0	0
B7-034050	Rebar installation for bridge soffit & webwalls	20	17NOV04 A	03DEC04	17NOV04 A	03DEC04	0	90	22
B7-034060	Installation of tendon ducts & grout vents	8	04DEC04	11DEC04	04DEC04	11DEC04	0	0	0
B7-034070	Inspection and approval of tendon profile	1	12DEC04	12DEC04	12DEC04	12DEC04	0	0	0
B7-034180	Formworking installation at webs	7	12DEC04	18DEC04	12DEC04	18DEC04	0	0	0
B7-034080	Concreting in-situ sidewalk & internal web/dickers	1	19DEC04	19DEC04	19DEC04	19DEC04	0	0	0
B7-034100	Rebar and formworking of top slab	12	20DEC04	31DEC04	20DEC04	31DEC04	0	0	0
B7-034110	Concreting of internal web wall to top slab soffit	10	01JAN05	11JAN05	01JAN05	11JAN05	0	0	0
B7-034060	Strands threading to tendon ducts	10	02JAN05	12JAN05	02JAN05	12JAN05	0	0	0
B7-034130	Concreting of top slab	1	12JAN05	12JAN05	12JAN05	12JAN05	0	0	0
B7-034140	Curing	7	13JAN05	19JAN05	13JAN05	19JAN05	0	0	0
B7-034020	Start Prestressing	0	20JAN05	20JAN05	20JAN05	20JAN05	0	0	0
B7-034150	Post-tensioning of Bridge Deck	7	20JAN05	26JAN05	20JAN05	26JAN05	0	0	0
B7-034160	Grouting	7	20JAN05	26JAN05	20JAN05	26JAN05	0	0	0
B7-034170	Anchorage backfilling	1	27JAN05	27JAN05	27JAN05	27JAN05	0	0	0
B7-034180	Falsework dismantling	7	17FEB05	23FEB05	17FEB05	23FEB05	0	0	0
B7-036030	Road & Drainage Works	10	17FEB05	26FEB05	17FEB05	26FEB05	0	0	0
B7-036050	Footway, Cycle Track, Paving	10	19FEB05	28FEB05	19FEB05	28FEB05	0	0	0
B7-036060	Roadwork Furnitures & Miscellaneous	8	21FEB05	28FEB05	21FEB05	28FEB05	0	0	0
B7-036040	Wearing Course	3	26FEB05	28FEB05	26FEB05	28FEB05	0	0	0
B7-037020	Demolition for Connection & Excavation	14	20JAN05	02FEB05	20JAN05	02FEB05	0	0	0
B7-037030	Modification Works	20	27JAN05	22FEB05	27JAN05	22FEB05	0	0	0
B7-037040	Drainage Works & Movement Joints	14	13FEB05	28FEB05	13FEB05	28FEB05	0	0	0
B7-037050	IE&M Works & Finishing	14	15FEB05	28FEB05	15FEB05	28FEB05	0	0	0

2004 DEC 2005 FEB MAR



Start Date: 27AUG02  
 Finish Date: 28FEB05  
 Data File: 02DEC04  
 Print Date: 14DEC04  
 Number/Version: TP35/02/WP/011  
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■ Early bar  
 ■ Progress bar  
 ■ Critical bar  
 ■ Summary bar  
 ■ Start milestone point  
 ■ Finish milestone point

Contract No. TP35/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
 Critical Path on Section 3

Completion Dates

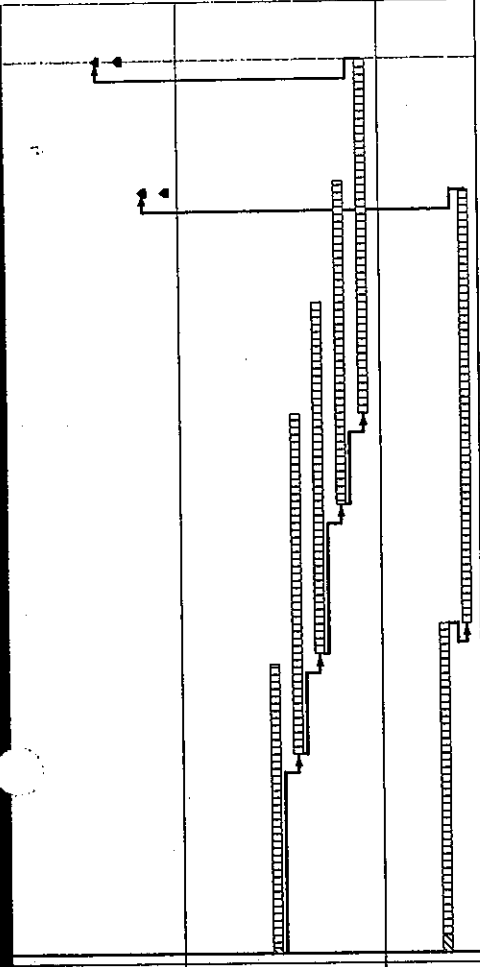
KD-2170A	Achievement Date for KD-2170	0	0	28FEB05	28FEB05	0	0
KD-2170B	Assumed Extension of Time for KD-2170	0	0	28FEB05*	28FEB05*	0	0
KD-2180A	Achievement Date for KD-2180	0	0	15FEB05	15FEB05	0	0
KD-2180B	Assumed Extension of Time for KD-2180	0	0	15FEB05*	15FEB05*	0	0

Section 17- Areas 1,2,6,7A+7B Landscape Softwork

BL-1707A1	Area 1,2,6,7B&7A Preparation & Miscellaneous Works	30	02DEC04 A	30DEC04	02DEC04 A	30DEC04	0	2
BL-1707A2	Area 1 - Planting Works remaining	34	22DEC04	24JAN05	22DEC04	24JAN05	0	0
BL-1707A3	Areas 2-6 - Planting Works	35	01JAN05	04FEB05	01JAN05	04FEB05	0	0
BL-1707A4	Area 7B - Planting Works	25	16JAN05	16FEB05	16JAN05	16FEB05	0	0
BL-1707A5	Area 7A - Planting Works	35	25JAN05	28FEB05	25JAN05	28FEB05	0	0

Section 18- Remainder of Landscaping Works

BL-1814A1	Preparation Works remain & CLP related obstructions	35	02DEC04 A	03JAN05	02DEC04 A	03JAN05	0	5
BL-1814A2	Planting Works - Remainder	43	04JAN05	15FEB05	04JAN05	15FEB05	0	0



Contract No. TP35/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shrek Kok Development Package 1  
 Critical Path on Section 17, 18

Sheet No. 27 AUG 02  
 Drawn by: G.P. LIAO  
 Check by: T. BOE C. H.  
 Page number: 1A  
 Number/Version: TP35/02/02/01  
 Legend:  
 ■ Early bar  
 ■ Progress bar  
 ■ Critical bar  
 ■ Summary bar  
 ■ Start milestone point  
 ■ Finish milestone point  
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Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Percent Float Complete	2004	2005	2006
KD-1000	Contract Duration	1282	27AUG02 A	28FEB06	27AUG02 A	28FEB06	0	65		
KD-1010	Contract Award & Commencement	0	27AUG02 A		27AUG02 A		100			
<b>Completion Dates</b>										
KD-2212	Land Strip @E of SRE Office/N of School Site	0	14NOV02 A		14NOV02 A		100			
KD-2212A	Achievement Date for KD-2212	0	14NOV02 A		14NOV02 A		100			
KD-2080	Section 8 - Works in Area 10B	0	06DEC02 A		06DEC02 A		100			
KD-2080A	Achievement Date for KD-2080	0	06DEC02 A		06DEC02 A		100			
KD-2140	Section 14 - Work in Area 14	0	07APR03 A		07APR03 A		100			
KD-2140A	Achievement Date for KD-2140	0	07APR03 A		07APR03 A		100			
KD-2213	Land Strip around Housing Site 1	0	15MAY03 A		15MAY03 A		100			
KD-2213A	Achievement Date for KD-2213	0	15MAY03 A		15MAY03 A		100			
KD-2090	Section 9 - Works in Area 5	0	23JUL03 A		23JUL03 A		100			
KD-2090B	Assumed Ext. of Time for Sections 9- Works in Area 5	0	23JUL03 A		23JUL03 A		100			
KD-2090A	Achievement Date for KD-2090	0	23JUL03 A		23JUL03 A		100			
KD-2070	Sec. 7 - Area 8A, not Rd, work/Area 10A, not Sec. 10&11	0	09AUG03 A		09AUG03 A		100			
KD-2070A	Achievement Date for KD-2070	0	09AUG03 A		09AUG03 A		100			
KD-2211	Land Strip South of Area 8A	0	09AUG03 A		09AUG03 A		100			
KD-2211A	Achievement Date for KD-2211	0	09AUG03 A		09AUG03 A		100			
KD-2110	Sec. 11 - Area 10A Pipe Culvert 10A, Earthwork+Works	0	10NOV03 A		10NOV03 A		100			
KD-2110A	Achievement Date for KD-2110	0	10NOV03 A		10NOV03 A		100			
KD-2214	Land Strip around Housing Sites 2 & 3	0	18NOV03 A		18NOV03 A		100			
KD-2214A	Achievement Date for KD-2214	0	18NOV03 A		18NOV03 A		100			
KD-2010	Section 1 - Works in Area 1, except LS & EW	0	09MAR04 A		09MAR04 A		100			
KD-2010A	Achievement Date for KD-2010	0	09MAR04 A		09MAR04 A		100			
KD-2010B	Assumed Extension of Time for Area 1	0	09MAR04 A		09MAR04 A		100			
KD-2100	Sec. 10 - Area 9A+9B/Area 8A&10A Roadwork, not LS+EW	0	29MAY04 A		29MAY04 A		100			
KD-2100A	Achievement Date for KD-2100	0	29MAY04 A		29MAY04 A		100			
KD-2100B	Assumed Extension of Time for Section 10	0	29MAY04 A		29MAY04 A		100			
KD-2060	Section 6 - Works in Area 7B, except LS & EW	0	31MAY04 A		31MAY04 A		100			
KD-2060A	Achievement Date for KD-2060	0	31MAY04 A		31MAY04 A		100			
KD-2060B	Assumed Extension of Time for Area 7B	0	31MAY04 A		31MAY04 A		100			
KD-2060C	Subst. Completion Area 7B not affected by corr. pipe	0	31MAY04 A		31MAY04 A		100			
KD-2020	Section 2 - Works Area 2, except LS & EW	0	17MAR04 A		17MAR04 A		100			
KD-2020A	Achievement Date for KD-2020	0	17MAR04 A		17MAR04 A		100			
KD-2020B	Assumed Extension of Time for Area 2	0	17MAR04 A		17MAR04 A		100			
KD-2040	Section 4 - Waterworks in Areas 3, 4 & 6	0	01DEC04 *		01DEC04 *		-189d			
KD-2040A	Achievement Date for KD-2040	0	23DEC04 *		23DEC04 *		0			
KD-2040B	Assumed Extension of Time for KD-2040	0	23DEC04 *		23DEC04 *		0			
KD-2150	Section 15 - Waterworks in Area 15	0	01DEC04 *		01DEC04 *		-140d			
KD-2150A	Achievement Date for KD-2150	0	04DEC04 A		04DEC04 A		0			
KD-2150B	Assumed Extension of Time for KD-2150	0	04DEC04 A		04DEC04 A		0			
KD-2150B10	Achievement Date for KD-2150 not affected by VO/073	0	04DEC04 A		04DEC04 A		0			
KD-2050	Section 5 - Work in Area 7A, except P. Str. 1, LS&EW	0	16SEP04 *		16SEP04 *		-76d			
KD-2050A	Achievement Date for KD-2050	0	16OCT04 A		16OCT04 A		0			
KD-2050B	Assumed Ext. of Time for Section 5	0	16OCT04 A		16OCT04 A		0			
KD-2030	Section 3 - Works in Areas 4+6, except Sec 4+1, LS&EW	0	04FEB05 *		04FEB05 *		0			
KD-2030A	Achievement Date for KD-2030	0	28FEB05 *		28FEB05 *		0			
KD-2030B	Assumed Ext. of Time for Section 3	0	28FEB05 *		28FEB05 *		0			

Start date	27AUG02	28FEB06	27AUG02 A	28FEB06	27AUG02 A	28FEB06	27AUG02 A	28FEB06	27AUG02 A	28FEB06	27AUG02 A	28FEB06
End date	28FEB06	27AUG02 A	28FEB06	27AUG02 A	28FEB06	27AUG02 A	28FEB06	27AUG02 A	28FEB06	27AUG02 A	28FEB06	27AUG02 A
Rev date	06DEC04	19DEC04										
Rev number	1A	1B										
Number/Version	TP35/02/VP/01	TP35/02/VP/01										
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Start date	01JUN04	07JUL04	04OCT04	17DEC04
End date	01JUN04	07JUL04	04OCT04	17DEC04
Rev date				
Rev number				
Number/Version				
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Revision	No.9 Revision G	No.10 Revision G1	No.11 Revision H	No.12 Revision I
Checked	WAJ	WAJ	WAJ	WAJ
Approved	WL	WL	WL	WL

Date	01JUN04	07JUL04	04OCT04	17DEC04
Revision	No.9 Revision G	No.10 Revision G1	No.11 Revision H	No.12 Revision I

Section 4 - Waterworks in Areas 3, 4 & 6  
 Achievement Date for KD-2040  
 Assumed Extension of Time for KD-2040  
 Section 15 - Waterworks in Area 15  
 Achievement Date for KD-2150  
 Assumed Extension of Time for KD-2150  
 Achievement Date for KD-2150 not affected by VO/073  
 Section 5 - Work in Area 7A, except P. Str. 1, LS&EW  
 Achievement Date for KD-2050  
 Assumed Ext. of Time for Section 5  
 Section 3 - Works in Areas 4+6, except Sec 4+1, LS&EW  
 Achievement Date for KD-2030  
 Assumed Ext. of Time for Section 3

Section 4 - Waterworks in Areas 3, 4 & 6  
 Achievement Date for KD-2040  
 Assumed Extension of Time for KD-2040  
 Section 15 - Waterworks in Area 15  
 Achievement Date for KD-2150  
 Assumed Extension of Time for KD-2150  
 Achievement Date for KD-2150 not affected by VO/073  
 Section 5 - Work in Area 7A, except P. Str. 1, LS&EW  
 Achievement Date for KD-2050  
 Assumed Ext. of Time for Section 5  
 Section 3 - Works in Areas 4+6, except Sec 4+1, LS&EW  
 Achievement Date for KD-2030  
 Assumed Ext. of Time for Section 3

Section 4 - Waterworks in Areas 3, 4 & 6  
 Achievement Date for KD-2040  
 Assumed Extension of Time for KD-2040  
 Section 15 - Waterworks in Area 15  
 Achievement Date for KD-2150  
 Assumed Extension of Time for KD-2150  
 Achievement Date for KD-2150 not affected by VO/073  
 Section 5 - Work in Area 7A, except P. Str. 1, LS&EW  
 Achievement Date for KD-2050  
 Assumed Ext. of Time for Section 5  
 Section 3 - Works in Areas 4+6, except Sec 4+1, LS&EW  
 Achievement Date for KD-2030  
 Assumed Ext. of Time for Section 3

Section 4 - Waterworks in Areas 3, 4 & 6  
 Achievement Date for KD-2040  
 Assumed Extension of Time for KD-2040  
 Section 15 - Waterworks in Area 15  
 Achievement Date for KD-2150  
 Assumed Extension of Time for KD-2150  
 Achievement Date for KD-2150 not affected by VO/073  
 Section 5 - Work in Area 7A, except P. Str. 1, LS&EW  
 Achievement Date for KD-2050  
 Assumed Ext. of Time for Section 5  
 Section 3 - Works in Areas 4+6, except Sec 4+1, LS&EW  
 Achievement Date for KD-2030  
 Assumed Ext. of Time for Section 3

Section 4 - Waterworks in Areas 3, 4 & 6  
 Achievement Date for KD-2040  
 Assumed Extension of Time for KD-2040  
 Section 15 - Waterworks in Area 15  
 Achievement Date for KD-2150  
 Assumed Extension of Time for KD-2150  
 Achievement Date for KD-2150 not affected by VO/073  
 Section 5 - Work in Area 7A, except P. Str. 1, LS&EW  
 Achievement Date for KD-2050  
 Assumed Ext. of Time for Section 5  
 Section 3 - Works in Areas 4+6, except Sec 4+1, LS&EW  
 Achievement Date for KD-2030  
 Assumed Ext. of Time for Section 3

Section 4 - Waterworks in Areas 3, 4 & 6  
 Achievement Date for KD-2040  
 Assumed Extension of Time for KD-2040  
 Section 15 - Waterworks in Area 15  
 Achievement Date for KD-2150  
 Assumed Extension of Time for KD-2150  
 Achievement Date for KD-2150 not affected by VO/073  
 Section 5 - Work in Area 7A, except P. Str. 1, LS&EW  
 Achievement Date for KD-2050  
 Assumed Ext. of Time for Section 5  
 Section 3 - Works in Areas 4+6, except Sec 4+1, LS&EW  
 Achievement Date for KD-2030  
 Assumed Ext. of Time for Section 3

Section 4 - Waterworks in Areas 3, 4 & 6  
 Achievement Date for KD-2040  
 Assumed Extension of Time for KD-2040  
 Section 15 - Waterworks in Area 15  
 Achievement Date for KD-2150  
 Assumed Extension of Time for KD-2150  
 Achievement Date for KD-2150 not affected by VO/073  
 Section 5 - Work in Area 7A, except P. Str. 1, LS&EW  
 Achievement Date for KD-2050  
 Assumed Ext. of Time for Section 5  
 Section 3 - Works in Areas 4+6, except Sec 4+1, LS&EW  
 Achievement Date for KD-2030  
 Assumed Ext. of Time for Section 3

Section 4 - Waterworks in Areas 3, 4 & 6  
 Achievement Date for KD-2040  
 Assumed Extension of Time for KD-2040  
 Section 15 - Waterworks in Area 15  
 Achievement Date for KD-2150  
 Assumed Extension of Time for KD-2150  
 Achievement Date for KD-2150 not affected by VO/073  
 Section 5 - Work in Area 7A, except P. Str. 1, LS&EW  
 Achievement Date for KD-2050  
 Assumed Ext. of Time for Section 5  
 Section 3 - Works in Areas 4+6, except Sec 4+1, LS&EW  
 Achievement Date for KD-2030  
 Assumed Ext. of Time for Section 3

Section 4 - Waterworks in Areas 3, 4 & 6  
 Achievement Date for KD-2040  
 Assumed Extension of Time for KD-2040  
 Section 15 - Waterworks in Area 15  
 Achievement Date for KD-2150  
 Assumed Extension of Time for KD-2150  
 Achievement Date for KD-2150 not affected by VO/073  
 Section 5 - Work in Area 7A, except P. Str. 1, LS&EW  
 Achievement Date for KD-2050  
 Assumed Ext. of Time for Section 5  
 Section 3 - Works in Areas 4+6, except Sec 4+1, LS&EW  
 Achievement Date for KD-2030  
 Assumed Ext. of Time for Section 3

Section 4 - Waterworks in Areas 3, 4 & 6  
 Achievement Date for KD-2040  
 Assumed Extension of Time for KD-2040  
 Section 15 - Waterworks in Area 15  
 Achievement Date for KD-2150  
 Assumed Extension of Time for KD-2150  
 Achievement Date for KD-2150 not affected by VO/073  
 Section 5 - Work in Area 7A, except P. Str. 1, LS&EW  
 Achievement Date for KD-2050  
 Assumed Ext. of Time for Section 5  
 Section 3 - Works in Areas 4+6, except Sec 4+1, LS&EW  
 Achievement Date for KD-2030  
 Assumed Ext. of Time for Section 3

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float	Percent Complete	2004	2005	2006
KD-2120	Section 12- Works of Sewage Pumping Station No.1	0	01JUN04	30APR05	18NOV04	30APR05	-13d	0			
KD-2120A	Achievement Date for KD-2120	0	30APR05	30APR05	30APR05	30APR05	0	0			
KD-2120B	Assumed Extension of Time for KD-2120	0	30APR05	30APR05	30APR05	30APR05	0	0			
KD-2130	Section 13- Works of Sewage Pumping Station No.2	0	01DEC04	16NOV04	16NOV04	16NOV04	-15d	0			
KD-2130A	Achievement Date for KD-2130	0	30APR05	30APR05	30APR05	30APR05	0	0			
KD-2130B	Assumed Extension of Time for KD-2130	0	30APR05	30APR05	30APR05	30APR05	0	0			
KD-2160	Section 16- Remainder of Works, except LS+EW	0	21DEC04	07JAN05	21DEC04	07JAN05	0	0			
KD-2160A	Achievement Date for KD-2160	0	07JAN05	07JAN05	07JAN05	07JAN05	0	0			
KD-2160B	Assumed Extension of Time for KD-2160	0	07JAN05	07JAN05	07JAN05	07JAN05	0	0			
KD-2170	Section 17-Areas 1,2,6,7A+7B Landscaping Softwork	0	01DEC04	28FEB05	28FEB05	28FEB05	-38d	0			
KD-2170A	Achievement Date for KD-2170	0	28FEB05	28FEB05	28FEB05	28FEB05	0	0			
KD-2170B	Assumed Extension of Time for KD-2170	0	28FEB05	28FEB05	28FEB05	28FEB05	0	0			
KD-2180	Section 18- Remainder of Landscaping Softworks	0	01DEC04	15FEB05	15FEB05	15FEB05	0	0			
KD-2180A	Achievement Date for KD-2180	0	15FEB05	15FEB05	15FEB05	15FEB05	0	0			
KD-2180B	Assumed Extension of Time for KD-2180	0	15FEB05	15FEB05	15FEB05	15FEB05	0	0			
KD-2200	Section 20- Remainder of Establishment Works	0	24OCT05	15FEB06	24OCT05	15FEB06	0	0			
KD-2200B	Assumed Extension of Time for KD-2200	0	15FEB06	15FEB06	15FEB06	15FEB06	0	0			
KD-2200A	Achievement Date for KD-2200	0	15FEB06	15FEB06	15FEB06	15FEB06	0	0			
<b>+Phased Possession of Site</b>											
		318	27AUG02 A	24SEP03 A	27AUG02 A	24SEP03 A		100			
<b>+Utilities Milestone Dates</b>											
		22	01DEC04	23DEC04	01DEC04	23DEC04		0			
<b>+Submission &amp; Approval</b>											
		563	27AUG02 A	26JUL04 A	27AUG02 A	26JUL04 A		100			
<b>+Preliminaries &amp; Procurement</b>											
		676	27AUG02 A	13DEC04	27AUG02 A	11APR05	102d	100			
<b>+Cycle Track Traffic Management</b>											
		522	14SEP02 A	26JUN04 A	14SEP02 A	26JUN04 A		100			
<b>+Temporary Traffic Arrangement</b>											
		555	28AUG02 A	05MAR04 A	28AUG02 A	05MAR04 A		100			
<b>+Temporary Diversion of Exi. Utilities &amp; Drainage</b>											
		455	26NOV02 A	24FEB04 A	26NOV02 A	24FEB04 A		100			
<b>Part 1.1 Preliminaries</b>											
B1-0101D1	Erect Contractor's Temporary Site Offices	21	27AUG02 A	16SEP02 A	27AUG02 A	16SEP02 A		100			
B1-0101I0	Third Party Insurance	1	27AUG02 A	27AUG02 A	27AUG02 A	27AUG02 A		100			
B1-0102C1	Install computer facilities for Engineer, Initial	2	27AUG02 A	28AUG02 A	27AUG02 A	28AUG02 A		100			
B1-0109D1	Provide Mobile Phones, 4nr	7	27AUG02 A	02SEP02 A	27AUG02 A	02SEP02 A		100			
B1-0103L0	Take over ex.W.Washing Facilities at Zone A	1	27AUG02 A	27AUG02 A	27AUG02 A	27AUG02 A		100			
B1-0107C0	Prepare & Submit Waste Management Plan	7	27AUG02 A	02SEP02 A	27AUG02 A	02SEP02 A		100			
B1-0103J6	Maintain W.Washing Facilities, Existing @Zone A	773	28AUG02 A	28MAR03 A	28AUG02 A	28MAR03 A		100			
B1-0101D2	Servicing Contractor's Temp. Site Offices	100	03SEP02 A	18DEC02 A	03SEP02 A	18DEC02 A		100			
B1-0102E0	Record Photographs	14	03SEP02 A	16SEP02 A	03SEP02 A	16SEP02 A		100			

Revision	Date	Checked	Approved
No.9 Revision G	01JUN04	WAJ	WL
No.10 Revision G1	07JUL04	WAJ	WL
No.11 Revision H	04OCT04	WAJ	WL
No.12 Revision I	17DEC04	WAJ	WL

Contract No. TP35/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
 REVISED WORKS PROGRAMME I

Start date: 27 AUG 02  
 Finish date: 16 SEP 02  
 Run date: 03 DEC 04  
 Page number: 2A  
 Number/Version: TP35/02/WP/011  
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Legend:  
 ■ Early bar  
 ▨ Progress bar  
 ▨▨▨ Critical bar  
 ▨▨▨ Summary bar  
 ▲ Start milestone point  
 ▼ Finish milestone point

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float	Percent Complete
B1-0103E1	Operate/ maintain Mobile Phones, 4hr	1020	03SEP02 A	305	03SEP02 A	28FEB06	260d	81
B1-0107D0	Update Waste Management Plan	1080	03SEP02 A	06AUG05	03SEP02 A	28FEB06	206d	77
B1-0107E0	Implement & Monitor Waste Management Plan	1080	03SEP02 A	06AUG05	03SEP02 A	28FEB06	206d	77
B1-0102A0	Provide 4-wheel drive vehicle, 2 hr	5	05SEP02 A	05SEP02 A	05SEP02 A	20NOV05	174d	100
B1-0102B0	Operate & maintain 4-wheel drive vehicle, 2 hr	1001	05SEP02 A	30MAY05	05SEP02 A	20NOV05	174d	82
B1-0108B01	Site Clearance-Zones A,B2,C,D,E,F,J,L,M2,Q&S1	30	05SEP02 A	15OCT02 A	05SEP02 A	15OCT02 A	100	100
B1-0101F1	Provide measures-Traffic flow maint. S1/Zone F/B2	14	10SEP02 A	23SEP02 A	10SEP02 A	23SEP02 A	100	100
B1-0101F3	Provide measures- Traffic flow maint. S5/ Zone F	14	10SEP02 A	23SEP02 A	10SEP02 A	23SEP02 A	100	100
B1-0101G0	Maintain/remove measures for traffic flow	1140	10SEP02 A	28OCT05	10SEP02 A	28FEB06	123d	71
B1-0103B3	Construct W.Washing Facilities, WB3 at Zone N2	15	26SEP02 A	10OCT02 A	26SEP02 A	10OCT02 A	100	100
B1-0102D0	Progress Photographs, 30hr	2	27SEP02 A	28SEP02 A	27SEP02 A	28SEP02 A	146d	88
B1-0108B15	General Site Clearance	1080	05OCT02 A	15MAR04 A	05OCT02 A	15MAR04 A	100	100
B1-0101E4	T/O measures-Traffic flow maintenance, Zone S1	1118	09OCT02 A	10OCT02 A	09OCT02 A	10OCT02 A	100	100
B1-0106N0	Maintain Noise Monitoring	700	11OCT02 A	02DEC04 A	11OCT02 A	02DEC04 A	100	100
B1-0106K0	Maintain Air Monitoring	1104	16OCT02 A	02DEC04 A	16OCT02 A	02DEC04 A	100	100
B1-0106M0	Provide Baseline Noise Monitoring	14	16OCT02 A	16OCT02 A	16OCT02 A	16OCT02 A	100	100
B1-0101D4	Erect Contractor's Site Accommodation	60	01NOV02 A	26NOV02 A	01NOV02 A	26NOV02 A	100	100
B1-0101A0	Erect Engineer's Site Accommodation	60	14NOV02 A	01DEC02 A	14NOV02 A	01DEC02 A	100	100
B1-0104E0	Concrete Paving to Engineer's Site Accommodation	21	14NOV02 A	14NOV02 A	14NOV02 A	14NOV02 A	100	100
B1-0103C1	Erect Temporary Gate, 6mWx1.8mH at Zone A	21	26NOV02 A	16DEC02 A	26NOV02 A	16DEC02 A	100	100
B1-0103C2	Erect Temporary Gate, 6mWx1.8mH at Zone Q	21	26NOV02 A	16DEC02 A	26NOV02 A	16DEC02 A	100	100
B1-0103C3	Erect Temporary Gate, 6mWx1.8mH at SRE Office	7	26NOV02 A	02DEC02 A	26NOV02 A	02DEC02 A	100	100
B1-0103D2	Provide Mobile Phones, 3hr	1	26NOV02 A	26NOV02 A	26NOV02 A	26NOV02 A	100	100
B1-0107K0	Take over Ex-Cyclist/Ped Bridge at Zone H	2	26NOV02 A	27NOV02 A	26NOV02 A	27NOV02 A	100	100
B1-0109B03	Site Clearance- Zone B1	392	27NOV02 A	07JUN04 A	27NOV02 A	07JUN04 A	100	100
B1-0107L0	Maintain Ex-Cyclist/Ped Bridge at Zone H	1020	03DEC02 A	20SEP04 A	03DEC02 A	20SEP04 A	100	100
B1-0103E2	Operate/ maintain Mobile Phones, 3hr	14	09DEC02 A	11DEC02 A	09DEC02 A	11DEC02 A	100	100
B1-0101D3	Demolish Contractor's Temp. Site Offices	1045	16DEC02 A	20SEP04 A	16DEC02 A	20SEP04 A	100	100
B1-0101D5	Servicing Contractor's Site Accommodation	1037	25DEC02 A	28SEP03 A	25DEC02 A	28SEP03 A	100	100
B1-0101B0	Servicing Engineer's Site Accommodation	2	26DEC02 A	26DEC02 A	26DEC02 A	26DEC02 A	100	100
B1-0101E1	T/O measures-Traffic flow maintenance, Rest	45	30DEC02 A	25JAN03 A	30DEC02 A	25JAN03 A	100	100
B1-0102C2	Install computer facilities for Engineer	14	15JAN03 A	21JAN03 A	15JAN03 A	21JAN03 A	100	100
B1-0101F7	Provide measures- Traffic flow maint. S16/Zone P	2	24JAN03 A	25JAN03 A	24JAN03 A	25JAN03 A	100	100
B1-0101E2	T/O measures-Traffic flow maintenance, Zone G	14	27JAN03 A	01APR03 A	27JAN03 A	01APR03 A	100	100
B1-0101F2	Provide measures- Traffic flow maint. S3/ Zone G	14	27JAN03 A	09APR03 A	27JAN03 A	09APR03 A	100	100
B1-0101F4	Provide measures- Traffic flow maint. S16/Zone G	5	07MAR03 A	26APR03 A	07MAR03 A	26APR03 A	100	100
B1-0108B06	Site Clearance- Zone S3 & J Rest	3	20MAR03 A	30APR03 A	20MAR03 A	30APR03 A	100	100
B1-0108B04	Site Clearance- Zone P	3	20MAR03 A	30MAR03 A	20MAR03 A	30MAR03 A	100	100
B1-0108B05	Site Clearance- Zone G	15	27MAR03 A	28MAR03 A	27MAR03 A	28MAR03 A	100	100
B1-0101E5	T/O measures-Traffic flow maintenance, Zone S3	14	28MAR03 A	14APR03 A	28MAR03 A	14APR03 A	100	100
B1-0103K6	Remove W.Washing Facilities, Existing @ Zone A	6	05APR03 A	10APR03 A	05APR03 A	10APR03 A	100	100
B1-0101F5	Provide measures- Traffic flow maint. S16/ZoneS3	15	07APR03 A	27APR03 A	07APR03 A	27APR03 A	100	100
B1-0108B07	Site Clearance- Zones N1 & T	30	11APR03 A	26APR03 A	11APR03 A	26APR03 A	100	100
B1-0103L5	Construct W.Washing Facilities, WB5 at Zone A	21	26APR03 A	23MAY03 A	26APR03 A	23MAY03 A	100	100
B1-0108A0	Erect Barricade at Zone L	480	26APR03 A	31MAY04 A	26APR03 A	31MAY04 A	100	100
B1-0103B3	Erect Signboard, 1hr at SRE Site Office	15	29APR03 A	09MAY03 A	29APR03 A	09MAY03 A	100	100
B1-0103J5	Maintain W.Washing Facilities, WB5 at Zone A	15	29APR03 A	09MAY03 A	29APR03 A	09MAY03 A	100	100
B1-0103K5	Remove W.Washing Facilities, WB5 at Zone A	1	20MAY03 A	20MAY03 A	20MAY03 A	20MAY03 A	100	100
B1-0107H0	Take over Ex-Cyclist/Pedestrian Bridge@N.RoundA	320	21MAY03 A	26JUN04 A	21MAY03 A	26JUN04 A	100	100
B1-0107I0	Maintain Ex-Cyclist/Pedestrian Bridge@N.RoundA							

Act ID	Description	Orig Dnr	Early Start	Early Finish	Late Start	Late Finish	Total Percent Float Complete
B1-0103AC	Erect Hoarding bet Culvert C10 & S.P. Phase1 Site	25	26MAY03 A	19JUN03 A	26MAY03 A	19JUN03 A	100
B1-0108B08	Site Clearance- Zone H	6	28MAY03 A	02JUN03 A	28MAY03 A	02JUN03 A	100
B1-0103B2	Erect Signboards, Inr at Zone Q	21	19JUN03 A	17SEP03 A	19JUN03 A	17SEP03 A	100
B1-0108B10	Site Clearance- Zone S2	3	25JUL03 A	25JUL03 A	25JUL03 A	25JUL03 A	100
B1-0101F6	Provide measures- Traffic flow maint. S19/Zone H	14	26JUL03 A	08AUG03 A	26JUL03 A	08AUG03 A	100
B1-0103B2	Construct W.Washing Facilities, WB2 at Zone Q	15	26JUL03 A	09AUG03 A	26JUL03 A	09AUG03 A	100
B1-0103B4	Construct W.Washing Facilities, WB4 at Zone L	15	26JUL03 A	09AUG03 A	26JUL03 A	09AUG03 A	100
B1-0103B2	Maintain W.Washing Facilities, WB2 at Zone Q	424	10AUG03 A	31MAR04 A	10AUG03 A	31MAR04 A	100
B1-0103K2	Remove W.Washing Facilities, WB2 at Zone Q	11	11AUG03 A	11AUG03 A	11AUG03 A	11AUG03 A	100
B1-0103L4	Maintain W.Washing Facilities, WB4 at Zone L	424	15AUG03 A	22NOV04 A	15AUG03 A	22NOV04 A	100
B1-0108B11	Site Clearance- Zone M	2	28AUG03 A	28AUG03 A	28AUG03 A	28AUG03 A	100
B1-0108B08	Site Clearance- Zone B3	2	10SEP03 A	20NOV03 A	10SEP03 A	20NOV03 A	100
B1-0108B13	Site Clearance- Zone N3	5	16OCT03 A	28NOV03 A	16OCT03 A	28NOV03 A	100
B1-0108B12	Site Clearance- Zone K	3	10DEC03 A	12DEC03 A	10DEC03 A	12DEC03 A	100
B1-0103B1	Erect Signboards, Inr at Zone A	21	16DEC03 A	18DEC03 A	16DEC03 A	18DEC03 A	100
B1-0107J20	Temporary Cyclotrack at Zone H	5	02MAR04 A	02MAR04 A	02MAR04 A	02MAR04 A	100
B1-0103K3	Remove W.Washing Facilities, WB3 at Zone N2	15	26MAY04 A	09JUN04 A	26MAY04 A	09JUN04 A	100
B1-0107M10	Preparation Works for Zone H Cycle tr. demolition	7	01JUN04 A	07JUN04 A	01JUN04 A	07JUN04 A	100
B1-0107M0	Remove Ex.Cyclist/Ped.Bridge at Zone H	14	08JUN04 A	08JUN04 A	08JUN04 A	08JUN04 A	100
B1-0107J30	Preparation Works prior to diversion	12	11JUN04 A	11JUN04 A	11JUN04 A	11JUN04 A	100
B1-0107J60	Removal of existing cycle track along 7A	10	25JUN04 A	25JUN04 A	25JUN04 A	25JUN04 A	100
B1-0107J0	Remove Ex.Cyclist/Pedestrian Bridge@N.RoundA	45	28JUN04 A	16SEP04 A	28JUN04 A	16SEP04 A	100
B1-0107J50	Roadworks Handover of Section 1, 2 & 6	0	28AUG04 A	28AUG04 A	28AUG04 A	28AUG04 A	100
B1-0101B10	Servicing Engineer's Site Accommodation remaining	35	20SEP04 A	24OCT04 A	20SEP04 A	24OCT04 A	100
B1-0101D15	Servicing Contractor's Site Accommodation remaining	131	20SEP04 A	30JAN05	20SEP04 A	30JAN05	54
B1-0103E12	Operate/maintain Mobile Phones, 3nr remaining	131	20SEP04 A	30JAN05	20SEP04 A	28FEB06	54
B1-0103K4	Remove W.Washing Facilities, WB4 at Zone L	15	22NOV04 A	22NOV04 A	22NOV04 A	22NOV04 A	100
B1-0101C0	Hand over Engineer's Site Accommodation	30	31DEC04	30JAN05	30JAN05	28FEB06	4244
B1-0106K10	Maintain Air Monitoring remaining	152	02DEC04 A	02DEC04 A	02DEC04 A	21FEB06	2384
B1-0106N10	Maintain Noise Monitoring remaining	150	02DEC04 A	02DEC04 A	02DEC04 A	28FEB06	3110
B1-0106Z0	Reinstatement at end of Contract	35	02DEC04	04JAN05	04DEC04	07JAN05	24
B1-0101D8	Demolish Contractor's Site Accommodation	7	17APR05	22FEB06	22FEB06	28FEB06	3110
B1-0106R0	Remove Air Monitoring Measures	7	30APR05	06MAY05	06MAY05	28FEB06	2984
<b>+Part 1.2 Preliminaries - Site Accom. (HY98/02)</b>							
		179	02JAN03 A	28JUN03 A	02JAN03 A	28JUN03 A	100
<b>+Section 1- Works in Area 1, except LS &amp; EW</b>							
		532	04OCT02 A	26JUL04 A	04OCT02 A	26JUL04 A	100
<b>+Section 2- Works in Area 2, except LS &amp; EW</b>							
		689	08NOV02 A	02DEC04 A	08NOV02 A	02DEC04 A	100
<b>Section 3- Works in Areas 3, 4+6, except Sec.4+LS&amp;EW</b>							
B2-030000	Site Clearance - Section 3, Areas 3, 4 & 6	75	02OCT03 A	15DEC03 A	02OCT03 A	15DEC03 A	100
B2-0302A0	Remove disused UPVC duct	60	02OCT03 A	15DEC03 A	02OCT03 A	15DEC03 A	100
B2-0302B0	Remove disused concrete pipe	30	02OCT03 A	15DEC03 A	02OCT03 A	15DEC03 A	100
B3-030000	Earthworks - Section 3, Areas 3, 4 & 6	278	21OCT02 A	02AUG03 A	21OCT02 A	02AUG03 A	100
B3-0309F1	S2, Preloading Mound Formation, Zone G&J, Phase 4B	5	21OCT02 A	05NOV02 A	21OCT02 A	05NOV02 A	100
B3-0309F1A	S2, Preloading Mound Formation, Zone G&J, Phase 4B	4	05DEC02 A	15JUL03 A	05DEC02 A	15JUL03 A	100
B3-0309F2	S5, Preloading Mound Formation, Zone G, Phase 9A	7	05DEC02 A	31JUL03 A	05DEC02 A	31JUL03 A	100
B3-0309G1	S2, Temp. RE Wall, Zone G, Phase 4B	7	28JAN03 A	15JUL03 A	28JAN03 A	15JUL03 A	100
B3-0308C0	Subsurface Settlement Marker, 2nr	3	27FEB03 A	01MAR03 A	27FEB03 A	01MAR03 A	100

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 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
 REVISED WORKS PROGRAMME I

Early bar  
 Progress bar  
 Critical bar  
 Summary bar  
 Start milestone point  
 Finish milestone point  
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Checked	Approved
01 JUN 04	WJ
07 JUL 04	WJ
04 OCT 04	WJ
17 DEC 04	WJ

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float	Percent Complete
B3-0308D0	Establish rigs for G.I.	2	27FEB03 A	28FEB03 A	27FEB03 A	28FEB03 A	100	
B3-0308E0	Moving rigs, 2nr	8	01MAR03 A	08MAR03 A	01MAR03 A	08MAR03 A	100	
B3-0308F0	Ground investigation, 2nr	8	01MAR03 A	08MAR03 A	01MAR03 A	08MAR03 A	100	
B3-0308A0	Vibrating wire piezometer, 3nr	18	04MAR03 A	21MAR03 A	04MAR03 A	21MAR03 A	100	
B3-0308B0	Fieldwork Reports	8	05MAR03 A	12MAR03 A	05MAR03 A	12MAR03 A	100	
B3-0308C0	Surface Settlement Marker, 2nr	3	26JUL03 A	02AUG03 A	26JUL03 A	02AUG03 A	100	
B3-0308D0	Earthworks- Sec.3, Areas 3, 4 & 6, after surcharge	502 *	16SEP03 A	19FEB05	16SEP03 A	19FEB05	5d	87
B3-030915	S2, Temp. REWall & Mound Removal,	7	16SEP03 A	23SEP03 A	16SEP03 A	23SEP03 A	100	
B3-030916	S2, Temp. REWall & Mound Removal,	9	03NOV03 A	10DEC03 A	03NOV03 A	10DEC03 A	100	
B3-030917	S5, Mound Removal, ZoneG, Phase 9A	7	20DEC03 A	23DEC03 A	20DEC03 A	23DEC03 A	100	
B3-030918	Deposition & Compaction, D1/Ch.780-920	10	28JAN05	19FEB05	02FEB05	19FEB05	5d	0
<b>Part 3 Drainage &amp; Sewerage - Section 3</b>								
B4-030001	Drainage & Sewerage - Section 3, Areas 3, 4, 6	457 *	01SEP03 A	08DEC04	01SEP03 A	08DEC04	0	98
B4-0317C1	Clay pipe, L2/Ch.100-200	45	01SEP03 A	23DEC03 A	01SEP03 A	23DEC03 A	100	
B4-0317D1	P/c pipe, L2/Ch.100-200 (1st Phase)	20	23DEC03 A	11JAN04 A	23DEC03 A	11JAN04 A	100	
B4-0317D21	P/c pipe, L2/Ch.100-200 remaining	20	04FEB04 A	15MAY04 A	04FEB04 A	15MAY04 A	100	remaining
B4-0317D31	P/c pipe, S304 connecting to 5 Cell Culvert	23	11FEB04 A	03MAR04 A	11FEB04 A	03MAR04 A	100	
B4-0317D12	P/c pipe, D1/Ch.780-920	7	30NOV04 A	08DEC04	30NOV04 A	08DEC04	0	5
B4-0317C2	Clay pipe, D1/Ch.780-920	35	01SEP03 A	23DEC03 A	01SEP03 A	23DEC03 A	100	
B4-0317D2	P/c pipe, D1/Ch.780-920 remaining	25	16FEB04 A	19FEB04 A	16FEB04 A	19FEB04 A	100	
B4-0317C3	Clay pipe, at Open Channel, F606-F609	14	01SEP04 A	06MAY04 A	01SEP04 A	06MAY04 A	100	
B4-0317D12	P/c pipe, D1/Ch.780-920 remaining	70	27OCT03 A	06MAY04 A	27OCT03 A	06MAY04 A	100	
B4-0317C4	Clay pipe, F603-F606	50	28NOV03 A	08MAR04 A	28NOV03 A	08MAR04 A	100	
B4-0317C12	Clay Pipe F602-F603	52	19DEC03 A	21FEB04 A	19DEC03 A	21FEB04 A	100	
B4-0317D22	Outfall and Catchpit construction under KCRC	59	12JUL04 A	09SEP04 A	12JUL04 A	09SEP04 A	100	
B4-030000	Drainage & Sewerage - Sec.3, Area 4, Open Channel	320 *	17JUL03 A	08JUN04 A	17JUL03 A	08JUN04 A	100	
B4-0321C0	Open Channel - Excavation Half Phase	40	17JUL03 A	22AUG03 A	17JUL03 A	22AUG03 A	100	
B4-0323B0	Open Channel - Formworks Half Phase	40	19AUG03 A	06SEP03 A	19AUG03 A	06SEP03 A	100	
B4-0324C0	Open Channel - Jointfiller/Sealant, waterstop Half Phase	40	15SEP03 A	15SEP03 A	15SEP03 A	15SEP03 A	100	
B4-0324A0	Open Channel - Concrete Half Phase	40	12NOV03 A	12NOV03 A	12NOV03 A	12NOV03 A	100	
B4-0321C10	Open Channel - Excavation Full Phase	35	01MAR04 A	10MAR04 A	01MAR04 A	10MAR04 A	100	
B4-0323B10	Open Channel - Formworks Full Phase(Lower Part)	35	05MAR04 A	31MAR04 A	05MAR04 A	31MAR04 A	100	
B4-0324A10	Open Channel - Jt-filler/sealant, waterstop Full Phase(LP)	35	08MAR04 A	31MAR04 A	08MAR04 A	31MAR04 A	100	
B4-0324C10	Open Channel - Concrete Full Phase(Lower Part)	35	08MAR04 A	31MAR04 A	08MAR04 A	31MAR04 A	100	
B4-0324A20	Open Channel - Backfilling Works Upper Portion	10	03MAY04 A	21MAY04 A	03MAY04 A	21MAY04 A	100	
B4-0324A30	Open Channel - Upper portion wing wall	25	22MAY04 A	08JUN04 A	22MAY04 A	08JUN04 A	100	
<b>Section 3 Utilities</b>								
UT-030000	Utilities by Others, Section 3, Areas 3, 4, 6	328 *	01MAR04 A	22JAN05	01MAR04 A	22JAN05	7d	84
UT-0300P11	Powers(CLP), cross road@L2Ch.120	9	08NOV04 A	16NOV04 A	08NOV04 A	16NOV04 A	100	
UT-0300P21	Powers(CLP), cross road@L2Ch.200	3	27NOV04 A	29NOV04 A	27NOV04 A	29NOV04 A	100	
UT-0300P1	Powers(11KV), L2/Ch.100-200	15	09DEC04	23DEC04	09DEC04	23DEC04	0	0
UT-0300P2	Powers(132KV & 11KV), D1/Ch.780-920	28	01MAR04 A	08MAR04 A	01MAR04 A	08MAR04 A	100	
UT-0300T2A	PCCW, D1/Ch.780-920	25	08MAR04 A	08MAR04 A	08MAR04 A	08MAR04 A	100	
UT-0300T2B	HGC - New World, D1/Ch.780-920	35	08MAR04 A	08MAR04 A	08MAR04 A	08MAR04 A	100	
UT-0300G2	Gas Mains, D1/Ch.780-920	28	10MAR04 A	11MAR04 A	10MAR04 A	11MAR04 A	100	
UT-0300T1D	Gas Mains at Area 6 under bridge	15	13SEP04 A	20SEP04 A	13SEP04 A	20SEP04 A	100	
UT-0300C3	Gas Mains at Area 3	20	03JAN05	10JAN05	03JAN05	10JAN05	7d	0
UT-0300C4B	Gas Main at Area 4 beside Open Channel	35	03MAY04 A	06MAY04 A	03MAY04 A	06MAY04 A	100	
UT-0300G4C	Gas Main at Area 4 remaining	10	24DEC04	02JAN05	26DEC04	04JAN05	2d	0
<b>Part 3 Roadworks - Section 3</b>								
B5-030000	Roadworks - Section 3, Areas 3, 4, 6	228 *	08JUL04 A	28FEB05	08JUL04 A	28FEB05	0	64
B5-0325C43	Falling beside Open Channel	29	08JUL04 A	07AUG04 A	08JUL04 A	07AUG04 A	100	
B5-0325C13	Footpath, Area 4 beside Open Channel	30	09AUG04 A	20SEP04 A	09AUG04 A	20SEP04 A	100	

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 for Pak Shek Kok Development Package 1  
 REVISED WORKS PROGRAMME I

Date	Revision	Checked	Approved
01JUN04	No.9 Revision G	WAJ	WL
07JUL04	No.10 Revision H	WAJ	WL
04OCT04	No.11 Revision H	WAJ	WL
17DEC04	No.12 Revision I	WAJ	WL

01/06/05  
 28/02/05  
 02/03/05  
 16/03/05  
 5A  
 17/03/05  
 17/03/05  
 P. Pinnaveera Systems, Inc.







Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Percent Float Complete	Date	Revision	Checked	Approved
B2-0503A0	Remove disused duct	40	04MAR04 A	25MAR04 A	04MAR04 A	25MAR04 A	100				
B3-050000	Earthworks - Section 5, Area 7A	271 *	10OCT02 A	15JUL03 A	10OCT02 A	15JUL03 A	100				
B3-0512P2	S2, Preloading Mound Formation, Zone C, Phase 2A	12	10OCT02 A	27JAN03 A	10OCT02 A	27JAN03 A	100				
B3-0512P3	S2, Preloading Mound Formation, Zone C, Phase 3A	24	11OCT02 A	27JAN03 A	11OCT02 A	27JAN03 A	100				
B3-0512F4	S2, Preloading Mound Formation, Zone J-G, Phase 4A	8	18OCT02 A	26NOV02 A	18OCT02 A	26NOV02 A	100				
B3-0512F5	S2, Preloading Mound Formation, Zone C, Phase 5	30	20OCT02 A	28NOV02 A	20OCT02 A	28NOV02 A	100				
B3-0511A4	Vibrating wire piezometer, No. 2P4	6	24OCT02 A	05NOV02 A	24OCT02 A	05NOV02 A	100				
B3-0511C4	Subsurface Settlement Marker, No. 2M4	3	07NOV02 A	08NOV02 A	07NOV02 A	08NOV02 A	100				
B3-0511D0	Establish rigs for G.I.	3	12NOV02 A	13NOV02 A	12NOV02 A	13NOV02 A	100				
B3-0511E0	Moving rigs, 9 nr.	13	14NOV02 A	03DEC02 A	14NOV02 A	03DEC02 A	100				
B3-0511G1	Ground Investigation, S2-07	5	14NOV02 A	18NOV02 A	14NOV02 A	18NOV02 A	100				
B3-0511G3	Ground Investigation, S2-09	5	16NOV02 A	26NOV02 A	16NOV02 A	26NOV02 A	100				
B3-0511G4	Ground Investigation, S2-10	5	18NOV02 A	26NOV02 A	18NOV02 A	26NOV02 A	100				
B3-0511G2	Ground Investigation, S2-08	16	18NOV02 A	06DEC02 A	19NOV02 A	06DEC02 A	100				
B3-0511I0	Fieldwork Reports	5	20NOV02 A	28NOV02 A	20NOV02 A	28NOV02 A	100				
B3-0511G6	Ground Investigation, S2-12	5	23NOV02 A	28NOV02 A	23NOV02 A	28NOV02 A	100				
B3-0511G9	Ground Investigation, S2-15	3	26NOV02 A	28NOV02 A	26NOV02 A	28NOV02 A	100				
B3-0511B3	Surface Settlement Marker, No. 2M3	3	26NOV02 A	28NOV02 A	26NOV02 A	28NOV02 A	100				
B3-0511B4	Surface Settlement Marker, No. 2M4	3	26NOV02 A	28NOV02 A	26NOV02 A	28NOV02 A	100				
B3-0511C3	Subsurface Settlement Marker, No. 2M3	3	26NOV02 A	12NOV02 A	26NOV02 A	12NOV02 A	100				
B3-0511G7	Ground Investigation, S2-13	5	27NOV02 A	02DEC02 A	27NOV02 A	02DEC02 A	100				
B3-0511G5	Ground Investigation, S2-11	5	28NOV02 A	05DEC02 A	29NOV02 A	05DEC02 A	100				
B3-0511G8	Ground Investigation, S2-14	5	05DEC02 A	05DEC02 A	05DEC02 A	05DEC02 A	100				
B3-0512H3	S2, Preloading Mound Formation, Zone F, Phase 3B	8	09DEC02 A	15JUL03 A	09DEC02 A	15JUL03 A	100				
B3-0512H2	S2, Preloading Mound Formation, Zone F, Phase 2B	7	16DEC02 A	27FEB03 A	16DEC02 A	27FEB03 A	100				
B3-0512G2	S2, Temp. RE Wall, Zone F, Phase 2	5	09JAN03 A	09JAN03 A	09JAN03 A	09JAN03 A	100				
B3-0512G4	S2, Temp. RE Wall, Zone G, Phase 3	4	10JAN03 A	15JUL03 A	10JAN03 A	15JUL03 A	100				
B3-0512G3	S2, Temp. RE Wall, Zone F, Phase 3	11	17JAN03 A	15JUL03 A	17JAN03 A	15JUL03 A	100				
B3-050005	Earthworks - Section 5, Area 7A, after surcharge	411 *	21AUG03 A	12OCT04 A	21AUG03 A	12OCT04 A	100				
B3-0512I5	S2, Preloading Mound Removal, Zone C, Phase 5	30	21AUG03 A	26NOV03 A	21AUG03 A	26NOV03 A	100				
B3-0512I4	S2, Preloading Mound Removal, Zone J-G, Phase 4A	9	05SEP03 A	11SEP03 A	05SEP03 A	11SEP03 A	100				
B3-0512I2	S2, Preloading Mound Removal, Zone F, Phase 2A	17	11SEP03 A	02OCT03 A	11SEP03 A	02OCT03 A	100				
B3-0512J2	S2, Temp. RE Wall & Mound Removal, Zone C, Phase 3A	7	11SEP03 A	11SEP03 A	11SEP03 A	11SEP03 A	100				
B3-0512I3	S2, Preloading Mound Removal, Zone C, Phase 3A	24	12SEP03 A	25NOV03 A	12SEP03 A	25NOV03 A	100				
B3-0512I3	S2, Temp. RE Wall & Mound Removal, Zone C, Phase 3A	8	05NOV03 A	17NOV03 A	05NOV03 A	17NOV03 A	100				
B3-0511L1	Excavate, D1/Ch. 540-620	15	28MAY04 A	28JUN04 A	26MAY04 A	28JUN04 A	100				
B3-0511L2	Backfilling beside PS1, D1/Ch. 720-780	25	07AUG04 A	20SEP04 A	07AUG04 A	20SEP04 A	100				
B3-0511L2	Deposit/Compact, D1/Ch. 620-780	10	28AUG04 A	28AUG04 A	28AUG04 A	28AUG04 A	100				
B3-0511L2	Backfilling Works beside PS1 remaining	18	20SEP04 A	08OCT04 A	20SEP04 A	08OCT04 A	100				
B3-0511L22	Deposit/Compact, D1/Ch. 620-780 remaining	10	09OCT04 A	12OCT04 A	09OCT04 A	12OCT04 A	100				
B4-050000	Drainage & Sewerage - Section 5, Area 7A	276 *	22NOV03 A	31AUG04 A	22NOV03 A	31AUG04 A	100				
B4-0530A2	Clay pipe, D1/Ch. 620-780 preliminary excavation	3	22NOV03 A	24NOV03 A	22NOV03 A	24NOV03 A	100				
B4-0530A12	Clay pipe, D1/Ch. 620-780 remaining	35	16FEB04 A	08MAR04 A	16FEB04 A	08MAR04 A	100				
B4-0530A1	Clay pipe, D1/Ch. 540-620	45	18FEB04 A	17MAR04 A	18FEB04 A	17MAR04 A	100				
B4-0528F3	P/c pipe, At PS1	30	05MAR04 A	02APR04 A	05MAR04 A	02APR04 A	100				
B4-0528F2	P/c pipe, D1/Ch. 620-780 pipelaying	45	08MAR04 A	15MAY04 A	08MAR04 A	15MAY04 A	100				
B4-0528F1	P/c pipe, D1/Ch. 540-620	45	19MAR04 A	06APR04 A	19MAR04 A	06APR04 A	100				
B4-0528F11	P/c pipe, D1/Ch. 620-780 Gully works	15	26MAY04 A	31AUG04 A	26MAY04 A	31AUG04 A	100				
B4-0528F21	Catchpit construction	12	05JUL04 A	16JUL04 A	05JUL04 A	16JUL04 A	100				
B4-0528F31	Drain pipe construction from existing, to newline	18	17JUL04 A	24AUG04 A	17JUL04 A	24AUG04 A	100				

Section 5-Work in Area 7A, except PumpStn. 1, LS&EW

Contract No. TP35/02  
 Reminting Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
 REVISED WORKS PROGRAMME I

Sheet No. 27 AUG 02  
 Start date 28 FEB 02  
 Data date 16 DEC 04  
 Run date 16 DEC 04  
 Page number 8A  
 Number/Version TP3502WP/101  
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Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Percent Float Complete
B6-0501A0	Trial Pits	14	24APR04 A	24APR04 A	24APR04 A	24APR04 A	100
B6-050000	Waterworks - Section 5, Area 7A	202 *	26APR04 A	13NOV04 A	26APR04 A	13NOV04 A	100
B6-0503A1	Watermains, D1/Ch.540-620	30	26APR04 A	15MAY04 A	26APR04 A	15MAY04 A	100
B6-0503A2	Watermains, D1/Ch.620-780	10	16MAY04 A	20MAY04 A	20MAY04 A	20MAY04 A	100
B6-0503A15	Watermain, D1/Ch.620-780 remaining	15	30AUG04 A	18SEP04 A	30AUG04 A	18SEP04 A	100
B6-0503A5	Replace Existing Watermain, Ch.620-770	18	06SEP04 A	27SEP04 A	06SEP04 A	27SEP04 A	100
B6-0503A6	Reassigned existing watermain connection by WSD	20	28SEP04 A	30OCT04 A	28SEP04 A	30OCT04 A	100
B6-0503A3	Watermains, At PS1	25	28OCT04 A	13NOV04 A	28OCT04 A	13NOV04 A	100
UT-050000	Utilities by Others, Section 7, Area 7A	219 *	15APR04 A	18NOV04 A	15APR04 A	18NOV04 A	100
UT-0500P1	Powers (11KV), D1/Ch.540-620	19	15APR04 A	26APR04 A	15APR04 A	26APR04 A	100
UT-0500T1B	HGC-New World, D1/Ch.540-620	18	26APR04 A	29APR04 A	26APR04 A	29APR04 A	100
UT-0500T1A	PCOW, D1/Ch.540-620	16	27APR04 A	29APR04 A	27APR04 A	29APR04 A	100
UT-0500T2A	PCOW, D1/Ch.620-780 (30% done)	25	05JUN04 A	02JUN04 A	28MAY04 A	02JUN04 A	100
UT-0500T2B	HGC-New World, D1/Ch.620-780 (30% done)	25	15JUN04 A	18JUN04 A	15JUN04 A	18JUN04 A	100
UT-0500P32	Planned start of works to be constructed by CLP existing cable	0	10AUG04 A	06SEP04 A	10AUG04 A	06SEP04 A	100
UT-0500P12	Powers (11KV), D1/Ch.620-780 remaining	16	28OCT04 A	13NOV04 A	28OCT04 A	13NOV04 A	100
UT-0500T2C	PCOW, D1/Ch.620-780 remaining	12	15NOV04 A	18NOV04 A	15NOV04 A	18NOV04 A	100
UT-0500T2D	HGC-New World, D1/Ch.620-780 remaining	12	15NOV04 A	18NOV04 A	15NOV04 A	18NOV04 A	100
BS-050000	Roadworks - Section 5, Area 7A	187 *	07JUN04 A	10DEC04	07JUN04 A	24DEC04	14d
BS-0540F1	Roadworks, D1/Ch.540-620	20	07JUN04 A	09AUG04 A	07JUN04 A	09AUG04 A	100
BS-0541B1	Cycle track & Footpath, D1/Ch.540-620	20	17JUN04 A	10AUG04 A	17JUN04 A	10AUG04 A	100
BS-0540F2	Roadworks, D1/Ch.620-780 CLP portion	22	28AUG04 A	20SEP04 A	28AUG04 A	20SEP04 A	100
BS-0540F22	Roadworks, D1/Ch.620-780 CLP portion remaining	19	20SEP04 A	25SEP04 A	20SEP04 A	25SEP04 A	100
BS-0541B12	Cycle track & Footpath, D1/Ch.620-780	20	20SEP04 A	04OCT04 A	20SEP04 A	04OCT04 A	100
BS-0540F22	Roadworks, D1/Ch.620-780 remaining	20	26SEP04 A	16OCT04 A	26SEP04 A	16OCT04 A	100
BS-0541B2	Cycle track & Footpath, D1/Ch.620-780 remaining	30	05OCT04 A	10DEC04	05OCT04 A	24DEC04	14d
BS-0543E0	Roadworks Furnitures & Miscellaneous	10	15OCT04 A	06DEC04	15OCT04 A	06DEC04	0
<b>+Section 6- Works in Area 7B, except LS &amp; EW</b>							
<b>+Sec.7-Area 8A, not Roadwork/Area10A, not Sec.10&amp;11</b>							
<b>+Section 8- Works in Area 10B</b>							
<b>+Section 9- Works in Area 5</b>							
<b>+Sec-10-Areas9A+9B/ Areas8-10A Roadwork, not LS+EW</b>							
<b>+Sec-11-Earthwork &amp; Works of Culvert C10 in Area10A</b>							
<b>Section 12- Works of Sewage Pumping Station No.1</b>							
<b>Pump Station Pilling Structure</b>							
BS-120000	Pump Station No.1 - Piling & Structural Works	650 *	06DEC02 A	25APR05	06DEC02 A	30APR05	84
BS-120100	Ground Investigation, 10 nos.	25	06DEC02 A	22OCT03 A	06DEC02 A	22OCT03 A	100
BS-120200	Install Bored Piles, 1800dia, 2400 bellout, 10nr	100	10NOV03 A	19FEB04 A	10NOV03 A	19FEB04 A	100
BS-120250	Pile Testing	30	17FEB04 A	28MAR04 A	17FEB04 A	28MAR04 A	100
BS-120300	Sheetpiling & preboring	55	26FEB04 A	26MAY04 A	26FEB04 A	26MAY04 A	100
BS-120320	Sheetpiling & Preboring Works remaining	12	26MAY04 A	06JUN04 A	26MAY04 A	06JUN04 A	100
<b>Pump Station No.1 - Piling &amp; Structural Works</b>							

Date	Revision	Checked	Approved
01JUN04	No.9 Revision G	WJA	WL
07JUL04	No.10 Revision I	WJA	WL
04OCT04	No.11 Revision H	WJA	WL
17DEC04	No.12 Revision J	WJA	WL

Contract No. TP35/02  
 Remaining Engineering Infrastructure Works  
 for Pak Sreik Kok Development Package 1  
**REVISED WORKS PROGRAMME 1**

Start date: 24JUL02  
 End date: 26FEB05  
 Data date: 02DEC04  
 Rev date: 18DEC04  
 Page number: 6A  
 Number/Version: TP35/02/WP/01  
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Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Percent Complete
BS-120350	Excavation & Structuring	24/10/04	07/JUN/04	24/AUG/04	07/JUN/04	24/AUG/04	100
BS-120400	Construction of base slab	10/25/AUG/04	14/SEP/04	14/SEP/04	14/SEP/04	14/SEP/04	100
BS-120410	Base slab Waterproofing	4/14/SEP/04	14/SEP/04	16/SEP/04	14/SEP/04	16/SEP/04	100
BS-120500	Screen rm. const. to G/L (Wall, Slabs & Beams)	8/16/SEP/04	20/SEP/04	20/SEP/04	20/SEP/04	20/SEP/04	100
BS-120510	Backfilling and removal of lowest layer str	3/20/SEP/04	22/SEP/04	22/SEP/04	22/SEP/04	22/SEP/04	100
BS-120530	Screen rm. const to G/L (Wall, Slabs & Beams) continue	21/20/SEP/04	22/OCT/04	22/OCT/04	22/OCT/04	22/OCT/04	100
BS-120590	Other walls construction up to -2.0 mPD	17/23/SEP/04	23/SEP/04	08/OCT/04	23/SEP/04	08/OCT/04	100
BS-120620	Other wall up to Grnd Lev. (Walls, Beams & Slabs)	9/08/OCT/04	21/OCT/04	21/OCT/04	09/OCT/04	21/OCT/04	100
BS-120640	Continue Screen room to Roof level	15/23/OCT/04	11/NOV/04	11/NOV/04	23/OCT/04	11/NOV/04	100
BS-120660	Construct remaining Walls, Cols, Beams & Roof/Slab	15/25/OCT/04	11/NOV/04	11/NOV/04	25/OCT/04	11/NOV/04	100
BS-120690	Waterproofing of Walls & Beam Slab soffit	4/25/OCT/04	30/NOV/04	30/NOV/04	25/OCT/04	30/NOV/04	100
BS-120610	Scaffolding removal after dayscuring (Ground to Roof)	7/17/NOV/04	26/NOV/04	26/NOV/04	17/NOV/04	26/NOV/04	100
BS-120760	Preliminary Testing and Leakage Repair Works	25/02/DEC/04	25/DEC/04	25/DEC/04	02/DEC/04	25/DEC/04	5
BS-120720	Watertightness Test for Group A	13/20/DEC/04	20/DEC/04	20/DEC/04	20/DEC/04	20/DEC/04	0
BS-120660	Watertightness Test for Group B	19/02/JAN/05	14/JAN/05	14/JAN/05	02/JAN/05	14/JAN/05	0
BS-120710	Watertightness Test for Group B	42/02/NOV/04	13/DEC/04	13/DEC/04	02/NOV/04	27/DEC/04	144
BS-121010	Strut Removal & Backfilling around Dry Well	2/28/DEC/04	29/DEC/04	29/DEC/04	28/DEC/04	29/DEC/04	0
BS-121020	Scaffolding Erection for new Wall @ G.L.4-5/E	6/30/DEC/04	06/JAN/05	06/JAN/05	30/DEC/04	06/JAN/05	0
BS-121030	New Wall Construction @ G.L.4-5/E	2/13/JAN/05	13/JAN/05	13/JAN/05	13/JAN/05	13/JAN/05	0
BS-121040	Scaffolding removal @ Switch Room Area	6/15/JAN/05	20/JAN/05	20/JAN/05	15/JAN/05	20/JAN/05	0
BS-121060	Sheepile Extraction @ Switch Room Area	20/20/JAN/05	18/FEB/05	18/FEB/05	20/JAN/05	18/FEB/05	0
BS-120620	Inspection Gallery & Switchroom construction	25/28/NOV/04	20/DEC/04	20/DEC/04	28/NOV/04	20/DEC/04	24
BS-120770	Staircase & Platform Construction @ Dry Well	7/02/JAN/05	08/JAN/05	08/JAN/05	02/JAN/05	08/JAN/05	0
BS-120850	Buffer wall & Platform Construction @ Wet Well A	5/02/JAN/05	06/JAN/05	06/JAN/05	02/JAN/05	06/JAN/05	0
BS-120780	Construct internal wall @ Screen Room A	7/15/JAN/05	21/JAN/05	21/JAN/05	15/JAN/05	21/JAN/05	0
BS-120680	Buffer Wall & Platform Construction @ Wet Well B	5/15/JAN/05	19/JAN/05	19/JAN/05	15/JAN/05	19/JAN/05	0
BS-120790	Construct internal Wall @ Screen Room B	25/27/NOV/04	22/DEC/04	22/DEC/04	27/NOV/04	22/DEC/04	16
BS-120890	Inlet Chamber Construction	20/02/JAN/05	21/JAN/05	21/JAN/05	02/JAN/05	21/JAN/05	5d
BS-120700	Backfilling works after Watertightness Test	15/22/JAN/05	05/FEB/05	05/FEB/05	22/JAN/05	05/FEB/05	5d
BS-120730	Sheepile Extraction	0/27/JAN/05	27/JAN/05	27/JAN/05	27/JAN/05	27/JAN/05	87d
BS-120740	Expected DSD Inspection Building Works	15/13/FEB/05	27/FEB/05	27/FEB/05	13/FEB/05	27/FEB/05	5d
BS-120810	Backfilling Works around PS1 to Ground Level	0/13/FEB/05	01/MAY/05	01/MAY/05	13/FEB/05	04/MAR/05	0
BS-120910	Remaining Drainage Works around PS1 (refer to Sec5)	7/16/FEB/05	09/APR/05	09/APR/05	16/FEB/05	15/APR/05	77d
BS-121050	Inlet Chamber connection to PS1	15/28/FEB/05	14/MAR/05	14/MAR/05	28/FEB/05	15/APR/05	52d
BS-120900	Rising main Chamber Construction	15/11/APR/05	25/APR/05	25/APR/05	11/APR/05	30/APR/05	32d
BS-120750	Construct Boundary Wall	30/01/DEC/04	27/DEC/04	27/DEC/04	01/DEC/04	28/JAN/05	0
BS-120830	Roof Finishing	11/02/DEC/04	12/DEC/04	12/DEC/04	02/DEC/04	19/DEC/04	30d
BS-120920	Ceiling Finishing & Painting	0/12/DEC/04	12/DEC/04	12/DEC/04	12/DEC/04	19/DEC/04	7d
BS-121000	Completion of Prep. Work on Windows/Louvers/Revisions	7/13/DEC/04	19/DEC/04	19/DEC/04	13/DEC/04	19/DEC/04	0
BS-120940	Wall Finishing	3/20/DEC/04	22/DEC/04	22/DEC/04	20/DEC/04	22/DEC/04	0
BS-120950	Wall Painting	5/23/DEC/04	27/DEC/04	27/DEC/04	23/DEC/04	27/DEC/04	0
BS-120960	Platform Removal @ Loading Bay	14/28/DEC/04	10/JAN/05	09/JAN/05	28/DEC/04	16/JAN/05	6d
BS-120970	Booster/Term./Toilet (Block wall + Plastering + Tile + Paint)	20/28/DEC/04	16/JAN/05	16/JAN/05	28/DEC/04	16/JAN/05	0
BS-120980	Newly added Wall w/cabinet	20/28/DEC/04	16/JAN/05	16/JAN/05	28/DEC/04	16/JAN/05	0
BS-120990	Brick wall at G.L.2 (7 days curing)	10/17/JAN/05	26/JAN/05	26/JAN/05	17/JAN/05	26/JAN/05	0
BS-120990	Finishing on these Walls	0/27/JAN/05	27/JAN/05	27/JAN/05	27/JAN/05	27/JAN/05	0
BS-121060	Handover to E&M Works @ Loading Area	6/07/JAN/05	12/JAN/05	12/JAN/05	07/JAN/05	12/JAN/05	0
BS-120890	Finishing of New Wall @ G.L.4-5/E	12/16/FEB/05	27/FEB/05	16/FEB/05	16/FEB/05	27/FEB/05	0
BS-120630	Finishing Works for Insp. gallery & Switchroom	30/13/FEB/05	14/MAR/05	01/APR/05	13/FEB/05	30/APR/05	47d
BS-120640	External Finishing Works	15/21/DEC/04	04/JAN/05	14/JAN/05	21/DEC/04	28/JAN/05	24d
BS-120820	Pipe Trench Construction @ Dry Well	21/05/JAN/05	25/JAN/05	25/JAN/05	05/JAN/05	25/FEB/05	24d
BS-120840	Bamboo platform & Finishing works @ Dry Well	5/07/JAN/05	11/JAN/05	19/MAR/05	07/JAN/05	23/MAR/05	64d
BS-120850	Mass concrete/Platform construction @ Screen Room A	2/08/JAN/05	10/JAN/05	24/FEB/05	08/JAN/05	25/FEB/05	39d
BS-120970	Benching stair @ Wet Well A & finishing						

Contract No. TP35/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
 REVISED WORKS PROGRAMME I

Early bar  
 Progress bar  
 Critical bar  
 Summary bar  
 Start milestone point  
 Finish milestone point  
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Start date	Finish date	Run date	Page number	Number/Version	Date	Revision	Checked	Approved
27/JUL/04	28/FEB/05	02/DEC/04	10	PS05/04/01	01/JUN/04	No.9 Revision G	WAJ	WL
02/DEC/04	18/DEC/04	18/DEC/04	10	PS05/04/01	07/JUL/04	No.10 Revision G1	WAJ	WL
18/DEC/04	18/DEC/04	18/DEC/04	10	PS05/04/01	04/OCT/04	No.11 Revision H	WAJ	WL
18/DEC/04	18/DEC/04	18/DEC/04	10	PS05/04/01	17/DEC/04	No.12 Revision I	WAJ	WL



Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Percent Complete	Float	Finish
BS-127150	Penstock Leakage Rate Test	6	02APR05	07Apr-05	22APR05	27APR05	20d	0	27APR05
BS-127110	LV Switchboard and Panels Testing	15	03APR05	17APR05	04APR05	18APR05	1d	0	18APR05
BS-127180	MCB board functional Test	3	04APR05	06APR05	25APR05	27APR05	21d	0	27APR05
BS-127200	Lighting functional & Intensity Test	4	04APR05	07APR05	24APR05	27APR05	20d	0	27APR05
BS-127040	FS functional testing	3	07APR05	09APR05	25APR05	27APR05	18d	0	27APR05
BS-127190	RCD/ELCD functional Test	2	07APR05	08APR05	28APR05	29APR05	21d	0	29APR05
BS-127070	Valves & Pipeworks Testing	4	13APR05	16APR05	15APR05	18APR05	2d	0	18APR05
BS-127090	Lifting Appliance testing	5	13APR05	17APR05	23APR05	27APR05	10d	0	27APR05
BS-127100	Decoupler System functional Testing	6	13APR05	18APR05	13APR05	18APR05	0	0	18APR05
BS-127030	SCADA and PLC Works Functional Testing	6	19APR05	24APR05	19APR05	24APR05	0	0	24APR05
BS-127160	Decoupling Unit Air Duct Tightness Test	3	19APR05	21APR05	25APR05	27APR05	6d	0	27APR05
BS-127170	SCADA & PLC Mapping Test	3	25APR05	27APR05	25APR05	27APR05	0	0	27APR05
BS-127010	Commissioning Test	3	28APR05	30APR05	28APR05	30APR05	0	0	30APR05
BS-127020	Commissioning Test	3	28APR05	30APR05	28APR05	30APR05	0	0	30APR05
UT-030001A	Gas Mains, L2/Ch.100-200	15	28FEB05	14MAR05	05MAR05	19MAR05	5d	0	19MAR05
UT-030001B	PCCW, L2/Ch.100-200	15	14MAR05	28MAR05	19MAR05	02APR05	5d	0	02APR05
UT-030001C	HGC-New World, L2/Ch.100-200	15	16MAR05	30MAR05	21MAR05	04APR05	5d	0	04APR05
UT-030001D	CATV, L2/Ch.100-200	7	21MAR05	27MAR05	26MAR05	01APR05	5d	0	01APR05
BS-0317041	P/c pipe, L2/Ch.100-200 Gully works east bound	7	28FEB05	06MAR05	13MAR05	19MAR05	13d	0	19MAR05
BS-0308M1	Deposition & Compaction, L2/Ch.100-200	7	07MAR05	13MAR05	13MAR05	20MAR05	13d	0	20MAR05
BS-0325C1	Roadworks, L2/Ch.100-200	30	09MAR05	07APR05	22MAR05	20APR05	13d	0	20APR05
BS-0326A1	Cycle track & Footpath, L2/Ch.100-200	25	22MAR05	15APR05	27MAR05	20APR05	5d	0	20APR05
BS-0328C10	Roadworks Furnitures & Miscellaneous @ Rd. L2	10	16APR05	25APR05	21APR05	30APR05	5d	0	30APR05
BS-0528F12	P/c pipe, At PS1 remaining (S303-S017)	15	28FEB05	14MAR05	05MAR05	19MAR05	5d	0	19MAR05
UT-0500P3	Powers(11KV) at PS1 Sec. 5 part	12	28FEB05	11MAR05	12MAR05	23MAR05	12d	0	23MAR05
UT-0500T3A	PCCW at PS1 Sec. 5 part	35	14MAR05	17APR05	19MAR05	22APR05	5d	0	22APR05
BS-0335A1	SewerRising Main, At PS1 Sec. 5 part	10	20MAR05	29MAR05	01APR05	10APR05	12d	0	10APR05
UT-0500T3B	HGC-New World at PS1 Sec. 5 part	15	30MAR05	13APR05	11APR05	25APR05	12d	0	25APR05
BS-0541B3	Footpath, At PS1 Sec. 5 part	8	03APR05	10APR05	08APR05	15APR05	5d	0	15APR05
BS-0512A30	Deposit/ Compact, At PS1 Sec. 5 part	12	08APR05	19APR05	18APR05	27APR05	8d	0	27APR05
BS-0540F3	Roadworks, At PS1 Sec. 5 part	5	18APR05	22APR05	26APR05	30APR05	8d	0	30APR05
BS-0543E10	Furnitures & Miscellaneous at PS1 Sec. 5 part	5	18APR05	22APR05	26APR05	30APR05	8d	0	30APR05
BS-130000	Pump Station No.2 - Piling & Structural Works	621	08JUL03 A	03APR05	08JUL03 A	30APR05	27d	81	30APR05
BS-130100	Ground Investigation, 4 nos.	12	08JUL03 A	29OCT03 A	08JUL03 A	29OCT03 A	100	100	29OCT03 A
BS-130300	Sheepiling	45	22OCT03 A	11DEC03 A	22OCT03 A	11DEC03 A	100	100	11DEC03 A
BS-130200	Install/Bored Piles, 2.2dia, 2.3belloft, 4mAlt. Des.	70	11JAN04 A	28MAR04 A	11JAN04 A	28MAR04 A	100	100	28MAR04 A
BS-130250	Pile Testing	30	01APR04 A	28APR04 A	01APR04 A	28APR04 A	100	100	28APR04 A
BS-130380	Ground Investigation, 1 no.	9	29APR04 A	07MAY04 A	29APR04 A	07MAY04 A	100	100	07MAY04 A
BS-130360	Install/Bored Pile, 1 no. additional	20	13MAY04 A	30MAY04 A	13MAY04 A	30MAY04 A	100	100	30MAY04 A
BS-130390	Pile Testing Platform Preparation Works	27	31MAY04 A	05JUL04 A	31MAY04 A	05JUL04 A	100	100	05JUL04 A
BS-130420	Mobilization for Excavation & strutting	12	31MAY04 A	07JUN04 A	31MAY04 A	07JUN04 A	100	100	07JUN04 A
BS-130350	Excavation & Strutting	16	08JUN04 A	16AUG04 A	08JUN04 A	16AUG04 A	100	100	16AUG04 A
BS-130370	Pile Testing 1 no. additional	6	06JUL04 A	10JUL04 A	06JUL04 A	10JUL04 A	100	100	10JUL04 A
BS-130400	Construction and concreting of Base Slab	10	17AUG04 A	02SEP04 A	17AUG04 A	02SEP04 A	100	100	02SEP04 A
BS-130410	Base Slab waterproofing	4	02SEP04 A	06SEP04 A	02SEP04 A	06SEP04 A	100	100	06SEP04 A
BS-130500	Construct Walls of Screen Room	8	03SEP04 A	14SEP04 A	03SEP04 A	14SEP04 A	100	100	14SEP04 A
BS-130430	Backfilling and removal of lower layer strut	3	05SEP04 A	12SEP04 A	05SEP04 A	12SEP04 A	100	100	12SEP04 A
BS-130520	Other Walls Construction to +2.5mPD Level	8	05SEP04 A	24SEP04 A	05SEP04 A	24SEP04 A	100	100	24SEP04 A
BS-130600	Wall at G.L.4 to +2.5mPD Level	8	05SEP04 A	11SEP04 A	05SEP04 A	11SEP04 A	100	100	11SEP04 A
BS-130570	Complete Wall @ Grid Line 4 to G/L	2	12SEP04 A	21SEP04 A	12SEP04 A	21SEP04 A	100	100	21SEP04 A
BS-130590	Other Walls to G/L (Walls, Beams & Slabs)	7	12SEP04 A	20SEP04 A	12SEP04 A	20SEP04 A	100	100	20SEP04 A
BS-130550	Waterproofing of Wall @ G.L. 4	4	15SEP04 A	17SEP04 A	15SEP04 A	17SEP04 A	100	100	17SEP04 A

**Section 13- Works of Sewage Pumping Station No.2**

Pump Station No.2 - Piling & Structural Works

Ground Investigation, 4 nos.

Sheepiling

Install/Bored Piles, 2.2dia, 2.3belloft, 4mAlt. Des.

Pile Testing

Ground Investigation, 1 no.

Install/Bored Pile, 1 no. additional

Pile Testing Platform Preparation Works

Mobilization for Excavation & strutting

Excavation & Strutting

Pile Testing 1 no. additional

Construction and concreting of Base Slab

Base Slab waterproofing

Construct Walls of Screen Room

Backfilling and removal of lower layer strut

Other Walls Construction to +2.5mPD Level

Wall at G.L.4 to +2.5mPD Level

Complete Wall @ Grid Line 4 to G/L

Other Walls to G/L (Walls, Beams & Slabs)

Waterproofing of Wall @ G.L. 4

Date	Revision	Checked	Approved
01JUN04	No.9 Revision G	WAJ	WL
07JUL04	No.10 Revision G1	WAJ	WL
04OCT04	No.11 Revision H	WAJ	WL
17DEC04	No.12 Revision I	WAJ	WL

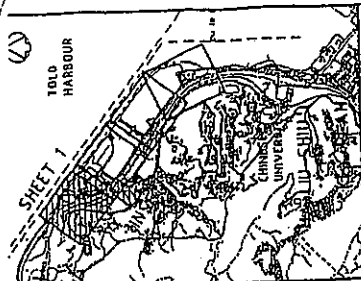
Contract No. TP35/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
 REVISED WORKS PROGRAMME I

Start date: 27AUG02  
 Finish date: 28FEB06  
 Data date: 09DEC04  
 Run date: 19DEC04  
 Page number: 1A  
 Number/Version: TP35/02/Rev01  
 © Primavera Systems, Inc.



## **Appendix G**

### **Construction Site Area**



LEGEND :

- LIGHT OF SITE
- - - BOUNDARY LINE BETWEEN AREAS
- PROPOSED WHEEL WASHING BAY NO. 1
- \* WB1

NO.	DESCRIPTION	DATE	BY
1	ISSUED FOR TENDER	20/01/02	HYDER
2	REVISED	20/01/02	HYDER
3	REVISED	20/01/02	HYDER
4	REVISED	20/01/02	HYDER
5	REVISED	20/01/02	HYDER
6	REVISED	20/01/02	HYDER
7	REVISED	20/01/02	HYDER
8	REVISED	20/01/02	HYDER
9	REVISED	20/01/02	HYDER
10	REVISED	20/01/02	HYDER

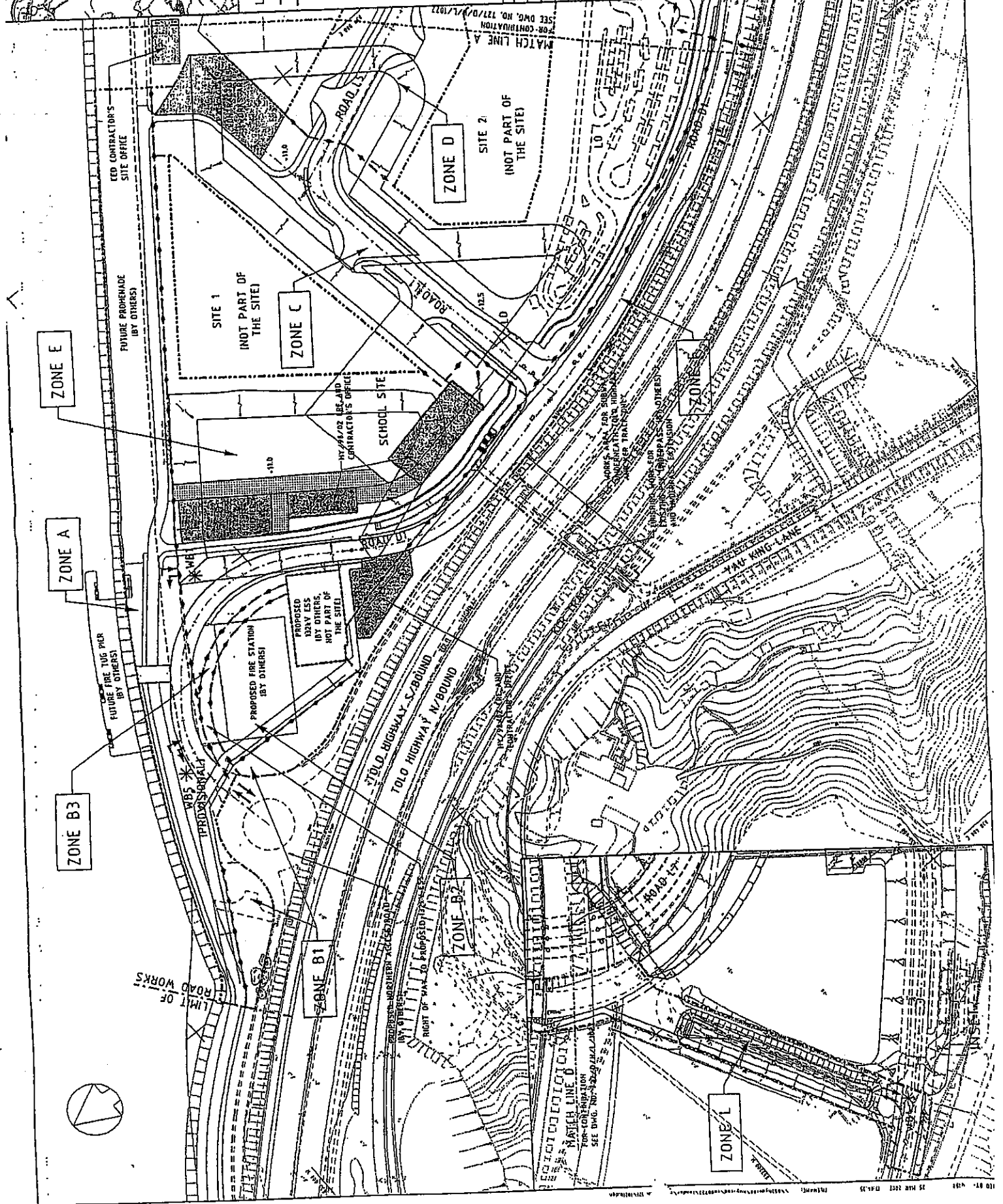
REPAIRING ENGINEERING INFRASTRUCTURE WORKS FOR PAK SHEK KOK DEVELOPMENT, PACKAGE 1

CONTRACT NO. TP 35/02

Hyder Consulting

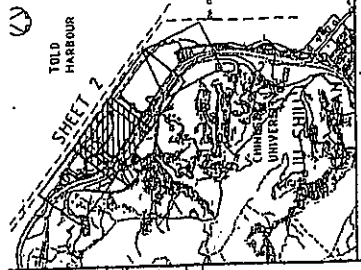
AREA OF SITE - POSSESSION

TENDER DRAWING  
727/D/H/L/021



10/01/02





NOTES:  
 FOR LEGEND, SEE DRAWING NO.  
 727/D/H/L/1021

PROJECT NO.	727/D/H/L/1021
DATE	2017
SCALE	AS SHOWN
DESIGNED BY	HYDER
CHECKED BY	HYDER
APPROVED BY	HYDER
DATE OF ISSUE	2017
PROJECT LOCATION	TOLU HARBOUR
CLIENT	PORT DEVELOPMENT DEPARTMENT
PROJECT DESCRIPTION	REHABILITATION OF TOLU HARBOUR
PROJECT PHASE	CONSTRUCTION
PROJECT STATUS	UNDERWAY
PROJECT BUDGET	HK\$ 100,000,000
PROJECT RISK	LOW
PROJECT COMPLETION DATE	2020
PROJECT CONTACT	HYDER
PROJECT PHONE	3522 2222
PROJECT FAX	3522 2222
PROJECT EMAIL	HYDER@HYDER.COM
PROJECT WEBSITE	HYDER.COM
PROJECT ADDRESS	HYDER
PROJECT CITY	HYDER
PROJECT STATE	HYDER
PROJECT COUNTRY	HYDER

CONTRACT NO. TP 35/02  
 BEHAVING ENGINEERING INFRASTRUCTURE  
 WORKS FOR PAK SHEK KOK DEVELOPMENT  
 PACKAGE 1

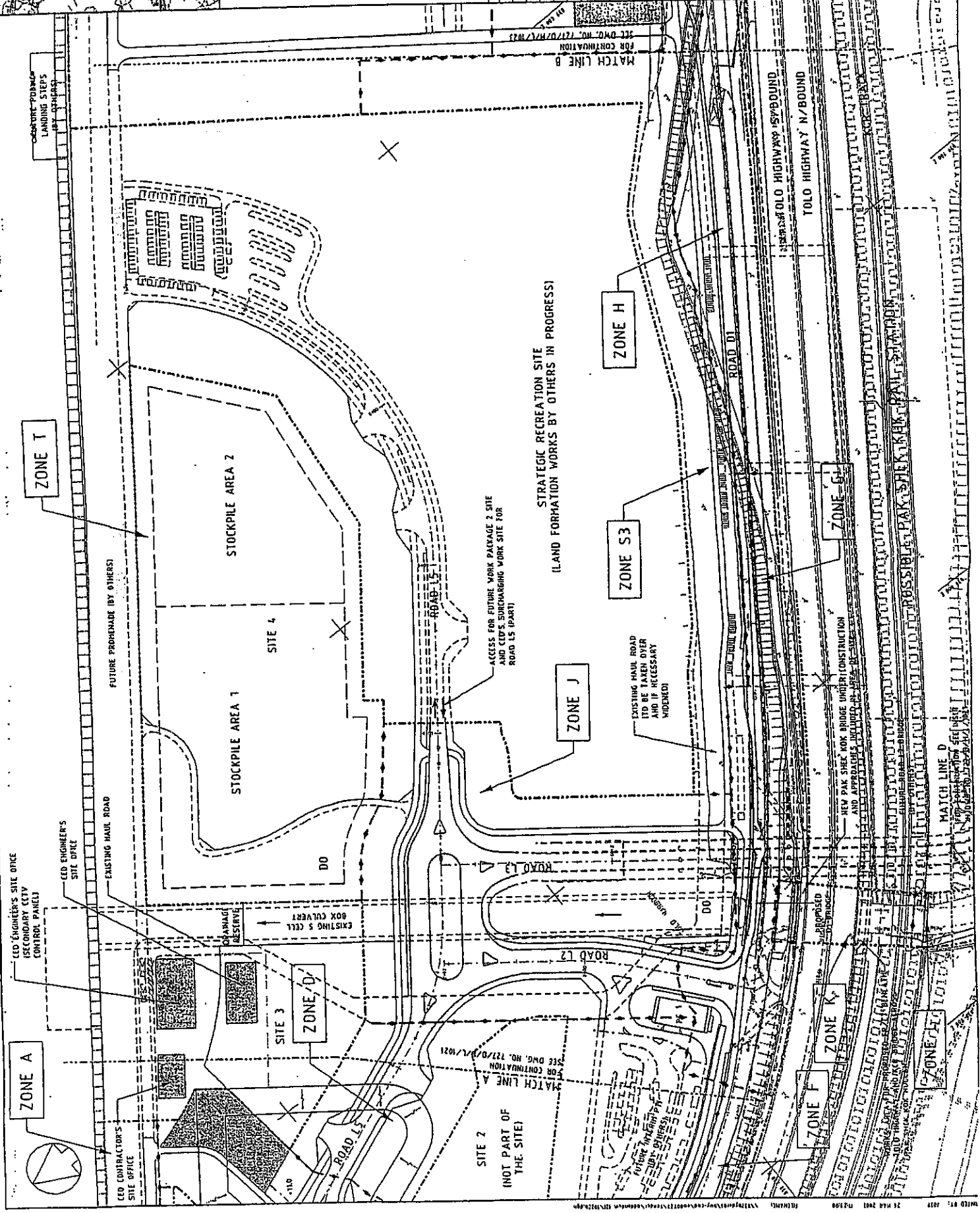
CONTRACT NO. TP 35/02

Hyder  
 Consulting

AREA OF SITE -  
 POSSESSION

TENDER DRAWING

727/D/H/L/1021



LED CONTRACTOR'S SITE OFFICE  
 SECONDARY CCTV CONTROL PANEL

LED ENGINEER'S SITE OFFICE

FUTURE PROMENADE (BY OTHERS)

EXISTING HAUL ROAD

DO

DO

DO

DO

DO

DO

DO

DO

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DO

DO

DO

DO

SITE 2  
 (NOT PART OF THE SITE)

MATCH LINE A  
 FOR CONTINUATION  
 SEE DWG. NO. 727/D/H/L/1021

MATCH LINE D  
 FOR CONTINUATION  
 SEE DWG. NO. 727/D/H/L/1021

NEW PAK SHEK KOK BRIDGE UNDER CONSTRUCTION  
 AND APPROXIMATE LOCATION OF BRIDGE  
 AND APPROXIMATE LOCATION OF BRIDGE

EXISTING HAUL ROAD  
 TO BE TAKEN OVER  
 AND IF NECESSARY  
 WIDENED

ACCESS FOR FUTURE WORK PACKAGE 2 SITE  
 AND CED'S SURCHARGING WORK SITE FOR  
 ROAD LS (PART)

STRATEGIC RECREATION SITE  
 (LAND FORMATION WORKS BY OTHERS IN PROGRESS)

ZONE T

STOCKPILE AREA 2

SITE 4

STOCKPILE AREA 1

ZONE J

ZONE S3

ZONE H

ZONE G4

ZONE K

ZONE F

ZONE L

ZONE M

ZONE N

ZONE O

ZONE P

ZONE Q

ZONE R

ZONE S

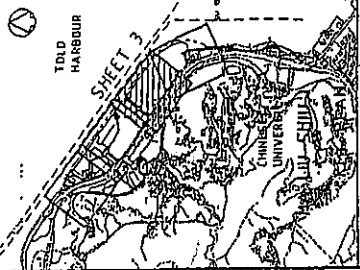
ZONE V

ZONE W

ZONE X

ZONE Y

ZONE Z



NOTES :  
FOR LEGEND, SEE DRAWING NO.  
777/D/H/L/1021.

NO.	DESCRIPTION	DATE	BY	CHECKED BY
1	PRELIMINARY	1.10.00	I. CHAN	I. CHAN
2	REVISED	1.10.00	I. CHAN	I. CHAN
3	REVISED	1.10.00	I. CHAN	I. CHAN
4	REVISED	1.10.00	I. CHAN	I. CHAN
5	REVISED	1.10.00	I. CHAN	I. CHAN
6	REVISED	1.10.00	I. CHAN	I. CHAN
7	REVISED	1.10.00	I. CHAN	I. CHAN
8	REVISED	1.10.00	I. CHAN	I. CHAN
9	REVISED	1.10.00	I. CHAN	I. CHAN
10	REVISED	1.10.00	I. CHAN	I. CHAN

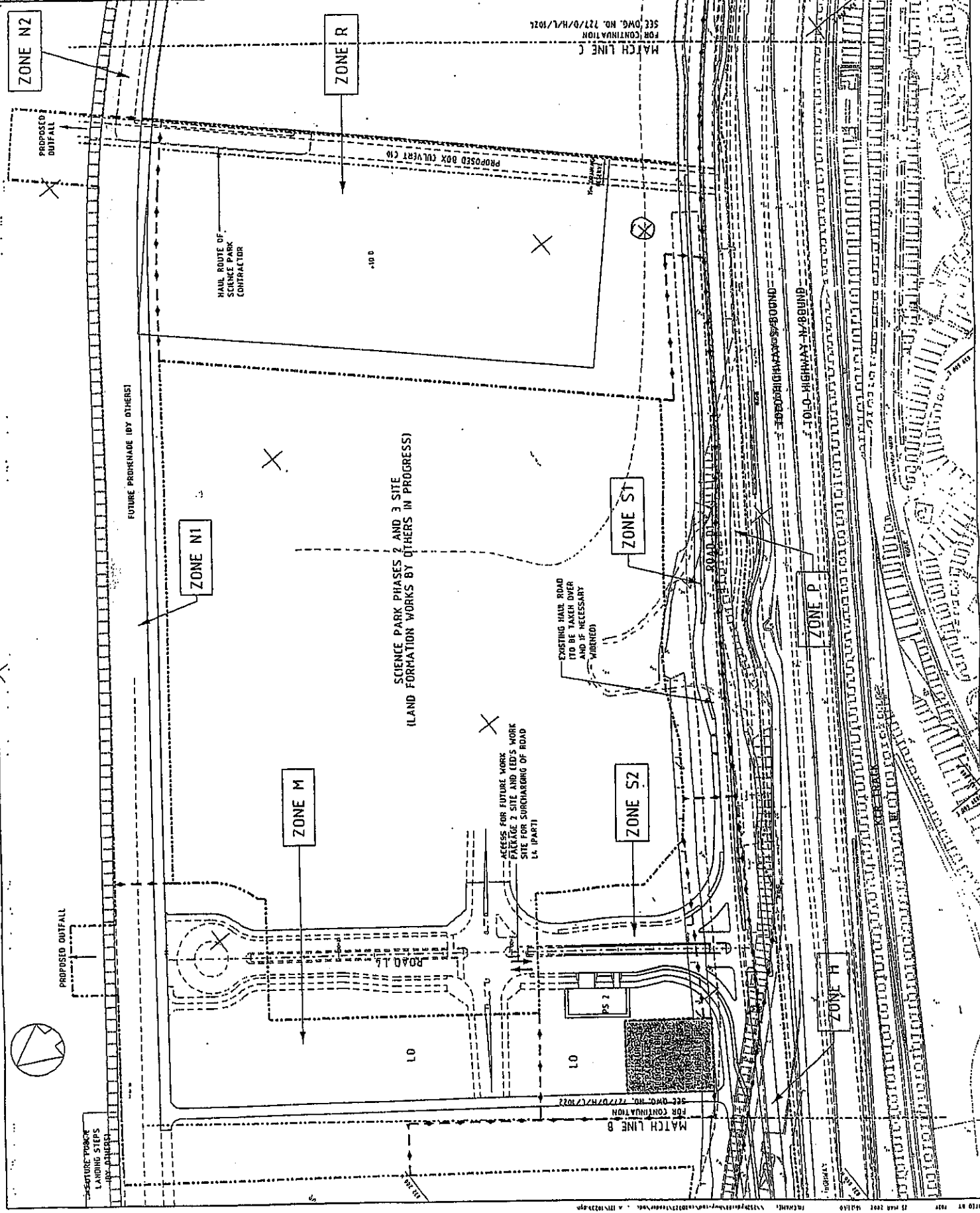
REMAINING ENGINEERING INFRASTRUCTURE  
WORKS FOR PAK SHEK RICK DEVELOPMENT  
PACKAGE 1

CONTRACT NO. TP 35/92

Hyder  
Consulting

AREA OF SITE -  
POSSESSION

TENDER DRAWING  
777/D/H/L/1023  
SHEET 3 OF 4



MATCH LINE C  
FOR CONTINUATION  
SEE DWG. NO. 777/D/H/L/1021

MATCH LINE B  
FOR CONTINUATION  
SEE DWG. NO. 777/D/H/L/1022

SCIENCE PARK PHASES 2 AND 3 SITE  
ISLAND FORMATION WORKS BY OTHERS IN PROGRESS)

EXISTING HAUL ROAD  
TO BE TAKEN OVER  
AND IS NECESSARY  
AND IS NECESSARY  
(WINKED)

ACCESS FOR FUTURE WORK  
PACKAGE 2 SITE AND LED'S WORK  
SITE FOR SURCHARGING OF ROAD  
L1 (PART)

FUTURE PROGRADE (BY OTHERS)

HAUL ROUTE OF  
SCIENCE PARK  
CONTRACTOR

+10.0

ROAD BOUNDARY  
100-HIGHWAY-BOUND  
100-HIGHWAY-N/BOUND

PROPOSED OUTFALL

FUTURE PROGRADE  
LANDING STEPS

L0

L0

ZONE H

ZONE N1

ZONE N2

ZONE R

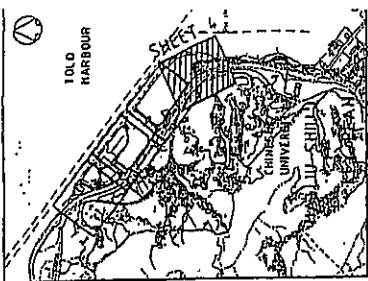
ZONE M

ZONE S2

ZONE S1

ZONE P





NOTES :  
FOR LEGEND, SEE DRAWING NO.  
727/D/H/L/1023.

NO.	REV.	DESCRIPTION	DATE
1	1	ISSUED FOR TENDER	15/11/02
2	1	ISSUED FOR TENDER	15/11/02
3	1	ISSUED FOR TENDER	15/11/02
4	1	ISSUED FOR TENDER	15/11/02
5	1	ISSUED FOR TENDER	15/11/02
6	1	ISSUED FOR TENDER	15/11/02
7	1	ISSUED FOR TENDER	15/11/02
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9	1	ISSUED FOR TENDER	15/11/02
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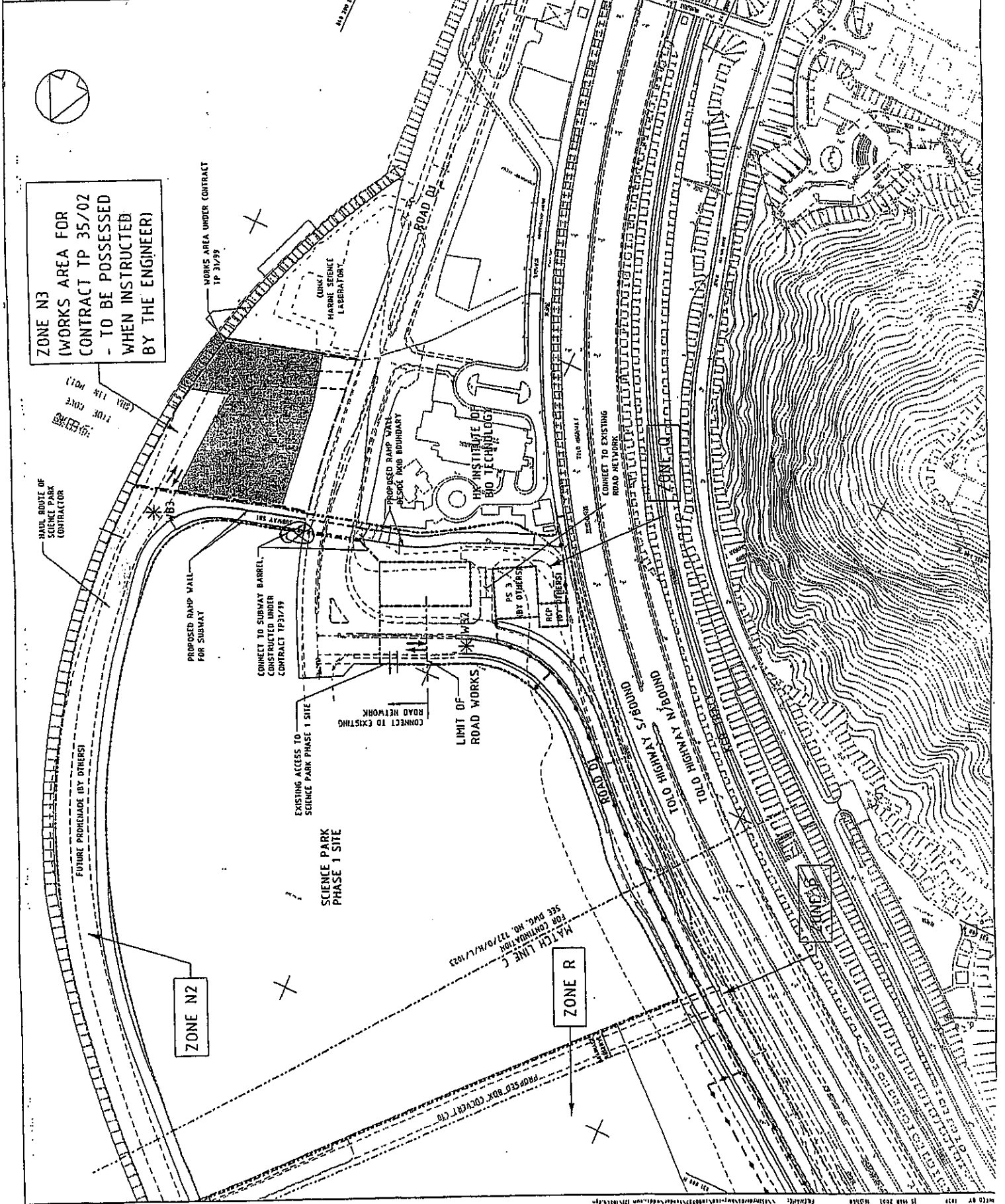
REMAINING ENGINEERING INFRASTRUCTURE  
WORKS FOR PAK SHEK KOK DEVELOPED  
PACKAGE 1

CONTRACT NO. TP 35/02

Hyder  
Consulting

AREA OF SITE -  
POSSESSION

TENDER DRAWING  
SHEET 1 OF 1  
727/D/H/L/1024



**ZONE N3**  
WORKS AREA FOR  
CONTRACT TP 35/02  
- TO BE POSSESSED  
WHEN INSTRUCTED  
BY THE ENGINEER)

**ZONE N2**

**ZONE R**

MA 1 CH LINE C  
FOR CONSTRUCTION  
SEE DRAWING NO. 727/D/H/L/1023

SCIENCE PARK  
PHASE 1 SITE

EXISTING ACCESS TO  
SCIENCE PARK PHASE 1 SITE

PROPOSED RAMP WALL  
FOR SUBWAY

CONNECT TO SUBWAY BARREL  
CONSTRUCTED UNDER  
CONTRACT TP31/99

CONNECT TO EXISTING  
ROAD NETWORK

LIMIT OF  
ROAD WORKS

PROPOSED RAMP WALL  
BESIDE TOMB BOUNDARY

HW INSTITUTE OF  
BIO TECHNOLOGY

QUINCY  
MARINE SCIENCE  
LABORATORY

WORKS AREA UNDER CONTRACT  
TP 31/99

HAUL ROUTE OF  
SCIENCE PARK  
CONTRACTOR

FUTURE PROMENADE (BY DRIVERS)

TOLONG HIGHWAY S/BOUND

TOLONG HIGHWAY N/BOUND

THE AVENUE

ROAD 10

ROAD 11

ROAD 12

ROAD 13

ROAD 14

ROAD 15

ROAD 16

ROAD 17

ROAD 18

ROAD 19

ROAD 20

ROAD 21

ROAD 22

ROAD 23

ROAD 24

ROAD 25

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ROAD 89

ROAD 90

ROAD 91

ROAD 92

ROAD 93

ROAD 94

ROAD 95

ROAD 96

ROAD 97

ROAD 98

ROAD 99

ROAD 100



**Appendix H**

**The Summary of Implementation Status  
of  
Mitigation Measures during Weekly Site Inspections**



## The Summary of Implementation status of Mitigation Measures

Aspect	Mitigation Measures	Implementation Status		
		Y	N	N/A
<b>Air</b>	- The height from which fill materials were dropped was controlled to a practical height to minimize the fugitive dust arising from unloading.	√		
	- During transportation by truck, material was loaded to a level higher than the side and tail boards, and should be dampened or covered before transport.	√		
	- All stockpile of aggregate or spoil were enclosed or covered and water applied in dry or windy condition.	√		
	- Effective water sprays were used on the site at potential dust emission sources such as unpaved area.	√		
	- The haul road was either paved or regular watering.	√		
	- Vehicle speed was limited to 20 km/hr.	√		
	- Adequately designed wheel washing facilities including a high pressure water jet were provided at all main entrance of work site.	√		
<b>Noise</b>	- Only well maintained plant was operated on-site and plant should be serviced regularly during the construction works.	√		
	- Machines and plants that were in intermittent use were shut down between work periods or throttled down to a minimum.	√		
	- Plant known to emit noise strongly in one direction, where possible, were orientated so that the noise is directed away from nearby NSRs.	√		
	- Silencers or mufflers on construction equipment were considered.	√		
<b>Water</b>	- Recirculation system was used to reduce SS from the vehicle wheel washing facility.	√		
	- Fuel tanks on site were housed within drainable trays and regularly drained of rainwater.	√		
	- Washing area and road exiting were paved from washing facility.	√		
	- Permanent / Temporary ditches were provided to facilities run-off discharge into the appropriate watercourses, via a sediment trap/sediment retention basin, prior to discharge.	√		
	- Sedimentation tanks with adequate capacity to settle the sand and silt out were provided.	√		
	- Sedimentation tanks were regularly cleaned and maintained in order to control their efficiency and to prevent the recycled water overflow to drains.	√		
	- All drainage facilities were adequate for the controlled release of storm flows.	√		
	- Exposed soil areas were minimized to reduce the potential for increased siltation and contamination of run-off.	√		
	- All chemical stores were contained (bundled) such that spills are not slowed to gain access to water bodies.	√		
	- Chemical toilets were provided to handle the sewage from the on-site construction workforce.	√		



## The Summary of Implementation status of Mitigation Measures

Aspect	Mitigation Measures	Implementation Status		
		Y	N	N/A
<b>Waste</b>	- Wastes were handle and store in a manner, which ensure that they were held securely without loss or leakage, thereby minimizing the potential for pollution.	√		
	- Authorized or licensed waste hauliers were use to collect the specific category of waste.	√		
	- Wastes were removed in a timely manner.	√		
	- The waste storage areas were maintained and cleaned regularly.	√		
	- Windblown litter and dust during transportation by either covering trucks or transporting wastes in enclosed containers were minimized.	√		
	- Waste disposal permits were obtained form the appropriate authorities.	√		
	- Wastes were disposed at licensed sites.	√		
	- Procedures such as a ticketing system were developed to facilitate tracing of loads, particularly for chemical waste, and to ensure that illegal disposal of wastes does not occur.	√		
	- Records of the quantities of wastes generated, recycled and disposal were maintained.	√		
<b>Chemical Waste</b>	- Under the Waste Disposal (Chemical Waste) (General) Regulation, chemical waste producers were registered with EPD.	√		
	- Chemical wastes were transported by a registered chemical waste collector to a facility licensed to receive chemical waste.	√		
	- Containers used for the storage of chemical wastes were:			
	1.Suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed;	√		
	2.Enclosed on at least 3 sides;	√		
	3.Have an impermeable floor and bunding, of capacity to accommodate 120% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest;	√		
	4.-Have adequate ventilation;	√		
	5.Covered to prevent rainfall entering (water collected within the bund must be tested and disposal as chemical waste if necessary);	√		
6.Arranged so that incompatible materials are adequately separated.	√			



## **Appendix I**

### **IEC and RE Comments on Monthly EM&A Report**

—

**December 2004**

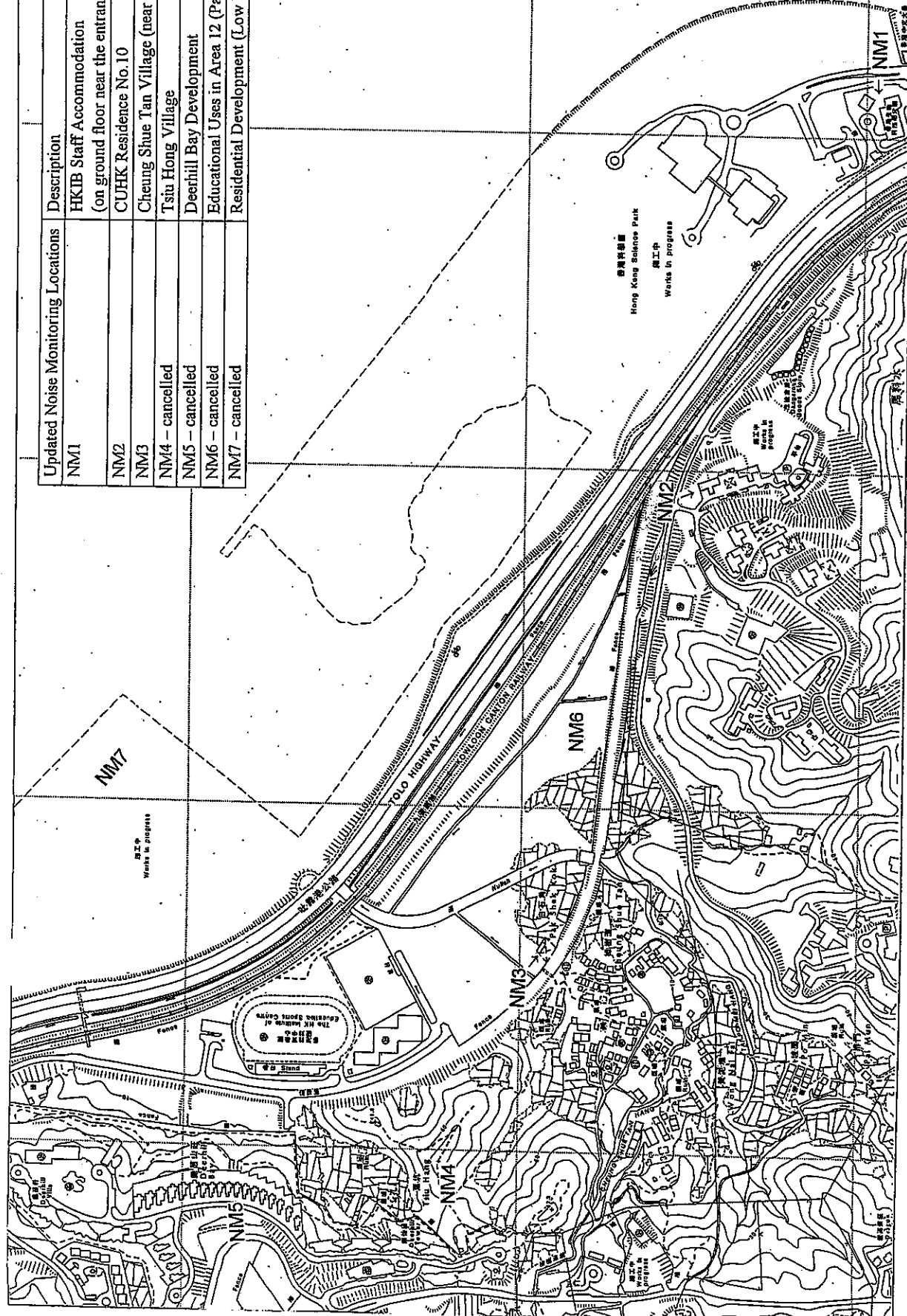
**IEC and RE Comments on Monthly Environmental Monitoring and Audit Report –  
 December 2004**

Item No.	Document Reference	Comment	ET Response
---	---	No RE / IEC Comments on Monthly Environmental Monitoring and Audit Report – December 2004 were received.	No ET responses were required



## Figures

Updated Noise Monitoring Locations	Description
NM1	HKIB Staff Accommodation (on ground floor near the entrance facing south-east)
NM2	CUHK Residence No. 10
NM3	Cheung Shue Tan Village (near the outer building, temple)
NM4 – cancelled	Tsui Hong Village
NM5 – cancelled	Deerhill Bay Development
NM6 – cancelled	Educational Uses in Area 12 (Part I)
NM7 – cancelled	Residential Development (Low Rise Building) – R1



Scale : ---

Remaining Engineering Works for Pak Shek Kok Development, Package 1  
 Contract No. TP35/02

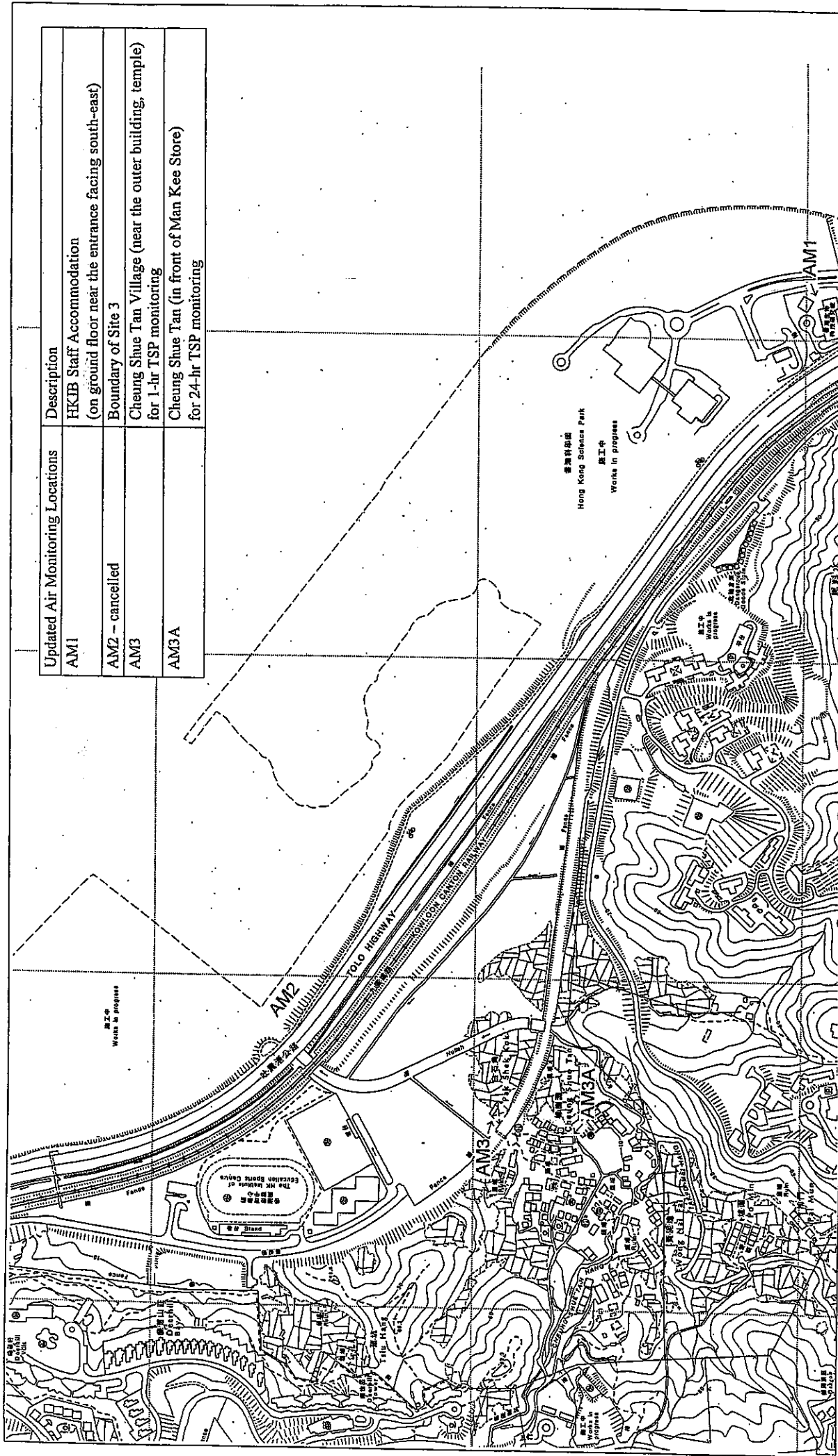
Revised Date:  
 15/11/2002



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 ETS-TESTCONSULT LIMITED

Figure 1 Location of Noise Monitoring Stations





Updated Air Monitoring Locations	Description
AM1	HKIB Staff Accommodation (on ground floor near the entrance facing south-east)
AM2 - cancelled	Boundary of Site 3
AM3	Cheung Shue Tan Village (near the outer building, temple) for 1-hr TSP monitoring
AM3A	Cheung Shue Tan (in front of Man Kee Store) for 24-hr TSP monitoring

Scale : ---

Remaining Engineering Works for Pak Shek Kok Development, Package 1  
Contract No. TP35/02

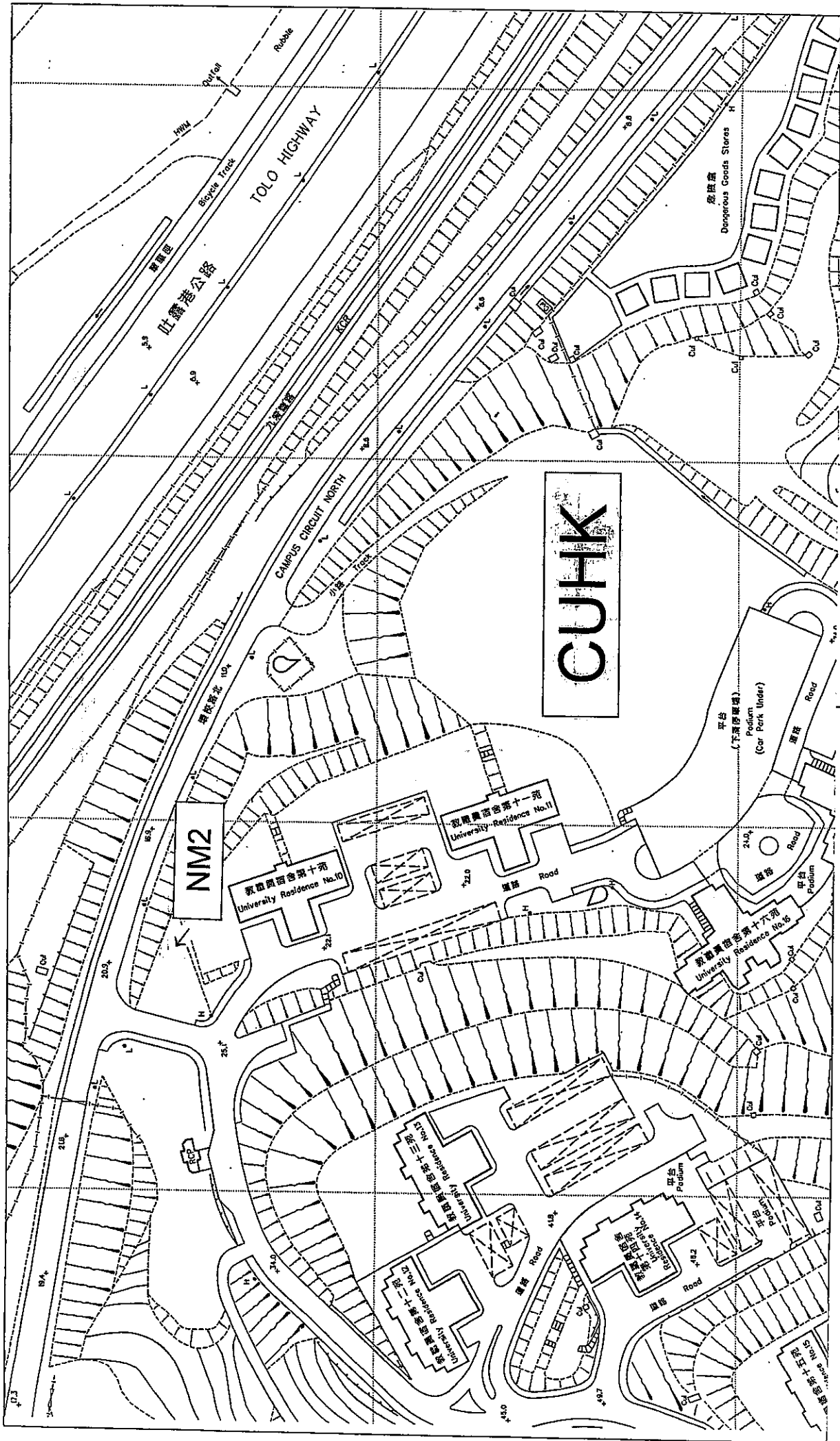
Revised Date:  
15/11/2002



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ETS-TESTCONSULT LIMITED

Figure 2 Location of Air Monitoring Stations





Scale : ---

Remaining Engineering Works for Pak Shek Kok Development, Package 1  
 Contract No. TP35/02

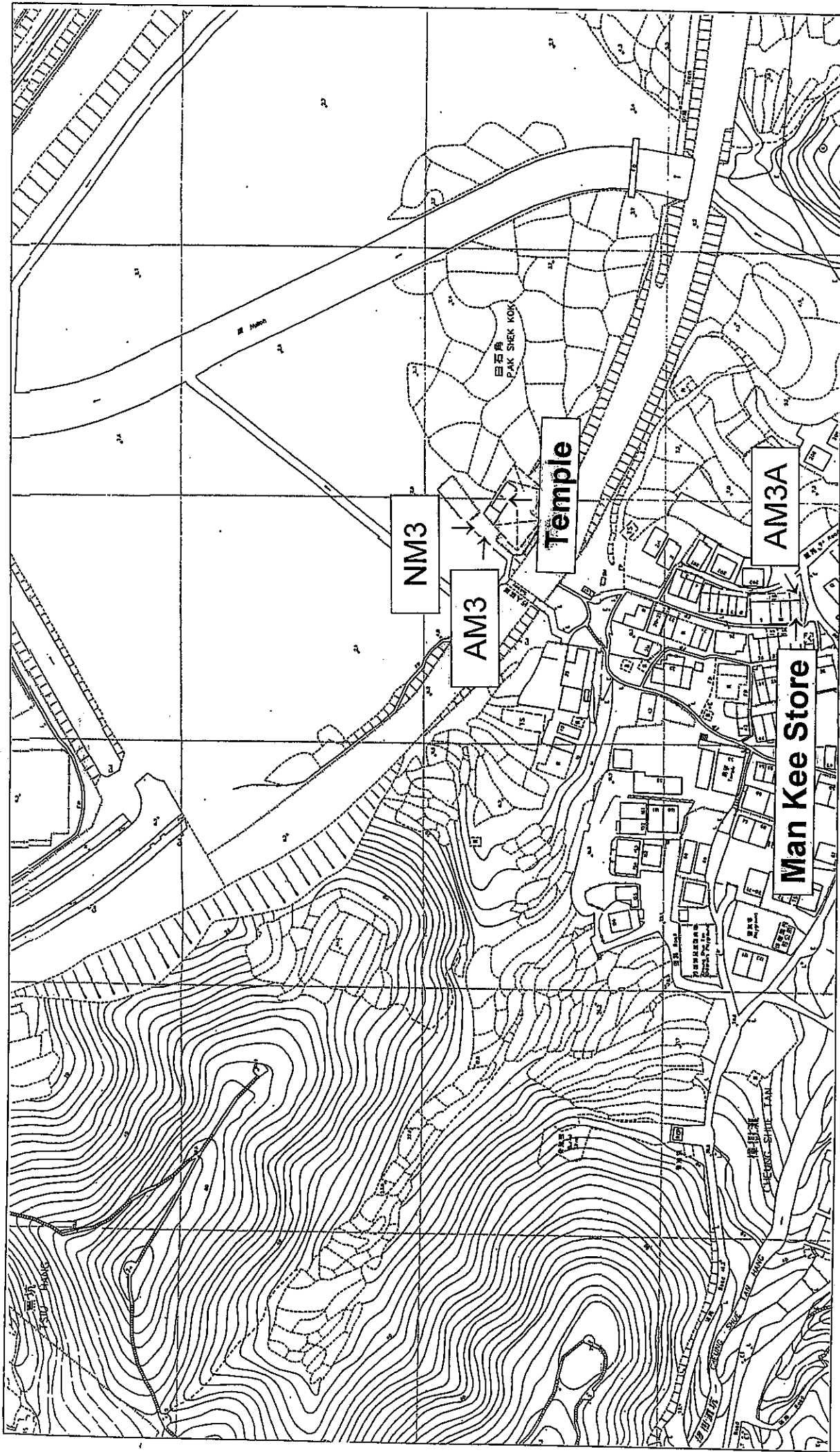
Figure 4 Location of Noise Monitoring Station at CUHK Residence No.10

Revised Date:

15/11/2002



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Scale : ---

Remaining Engineering Works for Pak Shek Kok Development, Package 1  
 Contract No. TP35/02

Figure 5 Location of Air and Noise Monitoring Stations  
 at Cheung Shue Tan Village



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Revised Date:

15/11/2002