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TEST REPORT

PENTA-OCEAN CONSTRUCTION COMPANY LIMITED

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

QUARTERLY EM&A SUMMARY REPORT

(FROM OCTOBER TO DECEMBER 2004)

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INDEPENDENT ENVIRONMENTAL CHECKER

CHECK CERTIFICATE

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Independent Environmental Checker

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TABLE OF CONTENTS

FIGURE

TABLES

EXECUTIVE SUMMARY

The quarterly EM&A summary report (No.8) 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 October to 31 December 2004.

Construction Progress in this Quarter

The major construction works in this quarter are as below:

Month	*Major Activities*
October 2004	▪ *Drainage works in Zone P and Area 15* ▪ *Watermain installation work* ▪ *Roadworks for Zone P and Area 15* ▪ *Drainage and Watermain Works under KCRC bridge* ▪ *Construction of pumping station no.1 and no.2* ▪ *Construction of Road D1 Bridge* ▪ *Rectification of jogging track and cross-link fence in HKIED*
November 2004	▪ *Drainage works in Zone P and Area 15* ▪ *Watermain installation work* ▪ *Roadworks for Zone P and Area 15* ▪ *Drainage and Watermain Works under KCRC bridge* ▪ *Construction of pumping station no.1 and no.2* ▪ *Construction of Road D1 Bridge* ▪ *Rectification of jogging track and cross-link fence in HKIED* ▪ *General landscape works* ▪ *Construction of footpath and cycle track along area 7A and area 15*
December 2004	▪ *Drainage works in Zone P and Area 15* ▪ *Watermain installation work* ▪ *Sewage works* ▪ *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 quarter is listed below:

- Noise Monitoring (Day-time): 13 Occasions at 3 designated locations;
- Noise Monitoring (Evening-time): 13 Occasions at 3 designated locations;
- Noise Monitoring (Holiday): 13 Occasions at 3 designated locations;
- 24-hour TSP Monitoring: 16 Occasions at 2 designated location;
- 1-hour TSP Monitoring: 40 Occasions at 2 designated locations;
- Weekly-site inspection: 14 Occasions.

Noise Monitoring

No exceedances of Action and Limit levels for noise monitoring were recorded in this quarter.

Air Monitoring

No exceedances of Action and Limit levels were recorded for 24-hr TSP and 1-hr TSP monitoring in this quarter.

Environmental Complaints

No environmental complaints were received in this reporting period.

Notification of summons and successful prosecutions

No notification of summons and prosecutions with respect to environmental issues registered in this quarter.

The monitored environmental data indicated that no unacceptable environmental impacts arising from the Project had been caused to the surrounding sensitive receivers. The environmental measures had been effective in controlling potential impacts to within acceptable sensitive receivers. However, the Contractor had been recommended to introduce more effort on environmental mitigation measures to minimize the environmental impact from the Project.

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 quarterly EM&A summary report summarizes the impact monitoring results and audit findings of the EM&A program during the reporting period from 01 October to 31 December 2004. It covers 3 monthly reports produced for October 2004, November 2004 and December 2004.

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

2.3 Construction Programme

The details of construction programme (from October to December 2004) 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 QUARTER

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

A summary of the major construction activities undertaken in this quarter is shown in Table 3.1.

Table 3.1 Major Construction Activities in this quarter

Location	*Major Construction Activity*
Zone P and Area 15	*Drainage work*
Zone P and Area 15	*Roadworks*
KCRC Bridge	*Drainage and Watermain Works*
Road D1	*Construction of Road Works*
Road D1	*Construction of Road D1 Bridge*
No.1 & No.2	*Construction of pump stations*
Area 7A and area 15	*Construction of footpath and cycle track*
HKIED	*Rectification of jogging track and cross-link fence*
---	*Construction of footpath and cycle track*
---	*Watermain installation work*
---	*General landscape works*
---	*Sewage works*

4.0 AIR QUALITY MONITORING

4.1 Monitoring Locations

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

- HKIB Staff Accommodation (on ground floor near the entrance facing south-east) for 1-hr TSP monitoring;
- 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 Parameters, Frequency, Duration and Schedule

Table 4.1 summarizes the monitoring parameters, monitoring duration and frequencies of air quality monitoring. The air quality monitoring schedule for 24-hr and 1-hr TSP monitoring at designated monitoring locations in this quarter is summarized in table 4.2.

Table 4.1 Monitoring parameters, duration and frequency 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*

Table 4.2 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*	---				*02/10/04*	*14:08*	*15:08*
						05/10/04	*08:50*	*09:50*
						07/10/04	*08:20*	*09:20*
						09/10/04	*08:20*	*09:20*
						12/10/04	*08:38*	*09:38*
						14/10/04	*09:10*	*10:10*
						16/10/04	*14:48*	*15:48*
						19/10/04	*08:35*	*09:35*
						21/10/04	*09:30*	*10:30*
						23/10/04	*13:00*	*14:00*
						26/10/04	*08:20*	*09:20*
						28/10/04	*08:50*	*09:50*
						30/10/04	*13:30*	*14:30*
						02/11/04	*17:10*	*18:10*
						04/11/04	*08:10*	*09:10*
						06/11/04	*13:32*	*14:32*
						09/11/04	*09:07*	*10:07*
						11/11/04	*08:10*	*09:10*
						13/11/04	*16:15*	*17:15*
						16/11/04	*08:32*	*09:32*
						18/11/04	*15:00*	*16:00*
						20/11/04	*14:00*	*15:00*
						23/11/04	*13:38*	*14:38*
						25/11/04	*14:25*	*15:25*
						27/11/04	*13:50*	*14:50*
						30/11/04	*08:47*	*09:47*
						02/12/04	*14:30*	*15:30*
						04/12/04	*13:50*	*14:50*
						07/12/04	*10:00*	*11:00*
						09/12/04	*14:20*	*15:20*
						11/12/04	*09:00*	*10:00*
						14/12/04	*08:20*	*09:20*
						16/12/04	*08:25*	*09:25*
						18/12/04	*09:00*	*10:00*
						21/12/04	*13:00*	*14:00*
						22/12/04	*15:55*	*16:55*
						23/12/04	*09:46*	*10:46*
						28/12/04	*15:08*	*16:08*
						29/12/04	*08:20*	*09:20*
						30/12/04	*10:56*	*11:56*

Air quality monitoring stations	*Location*	*Monitoring Period*						
		24-hr TSP				*1-hr TSP*		
		Start		*Finish*				
		Date	*Time*	*Date*	*Time*	*Date*	*Start*	*Finish*
AM3	Cheung Shue Tan Village (near the outer building, temple)	---				*02/10/04*	*16:22*	*17:22*
						05/10/04	*10:45*	*11:45*
						07/10/04	*14:32*	*15:32*
						09/10/04	*11:14*	*12:14*
						12/10/04	*13:05*	*14:05*
						14/10/04	*14:42*	*15:42*
						16/10/04	*17:02*	*18:02*
						19/10/04	*14:08*	*15:08*
						21/10/04	*11:00*	*12:00*
						23/10/04	*15:18*	*16:18*
						26/10/04	*13:20*	*14:20*
						28/10/04	*14:05*	*15:05*
						30/10/04	*15:45*	*16:45*
						02/11/04	*15:40*	*16:40*
						04/11/04	*15:06*	*16:06*
						06/11/04	*15:48*	*16:48*
						09/11/04	*15:13*	*16:13*
						11/11/04	*09:23*	*10:23*
						13/11/04	*16:35*	*17:35*
						16/11/04	*10:35*	*11:35*
						18/11/04	*16:12*	*17:12*
						20/11/04	*15:15*	*16:15*
						23/11/04	*15:40*	*16:40*
						25/11/04	*15:40*	*16:40*
						27/11/04	*15:02*	*16:02*
						30/11/04	*10:42*	*11:42*
						02/12/04	*16:00*	*17:00*
						04/12/04	*15:06*	*16:06*
						07/12/04	*13:00*	*14:00*
						09/12/04	*13:00*	*14:00*
						11/12/04	*14:00*	*15:00*
						14/12/04	*16:40*	*17:40*
						16/12/04	*09:32*	*10:32*
						18/12/04	*14:15*	*15:15*
						21/12/04	*14:45*	*15:45*
						22/12/04	*17:12*	*18:12*
						23/12/04	*08:35*	*09:35*
						28/12/04	*16:59*	*17:59*
						29/12/04	*09:32*	*10:32*
						30/12/04	*16:02*	*17:02*
AM1	*HKIB Staff Accommodation*	*04/10/04*	*09:12*	*05/10/04*	*09:22*			
		09/10/04	*08:25*	*10/10/04*	*08:29*			
		15/10/04	*11:20*	*16/10/04*	*11:28*			
		20/10/04	*08:56*	*21/10/04*	*08:45*			
		26/10/04	*10:10*	*27/10/04*	*10:08*			
		01/11/04	*08:55*	*02/11/04*	*08:49*			
		06/11/04	*13:35*	*07/11/04*	*13:37*			
		12/11/04	*09:22*	*13/11/04*	*09:22*			
		18/11/04	*09:20*	*19/11/04*	*09:13*			
		24/11/04	*14:15*	*25/11/04*	*13:40*			
		30/11/04	*08:45*	*01/12/04*	*08:53*			
		06/12/04	*10:05*	*07/12/04*	*05:00*			
		11/12/04	*09:02*	*12/12/04*	*08:57*			
		17/12/04	*09:38*	*18/12/04*	*09:35*			
		23/12/04	*08:55*	*24/12/04*	*08:54*			
		29/12/04	*09:28*	*30/12/04*	*09:25*			
AM3A	*Cheung Shue Tan (in front of Man Kee Store)*	*04/10/04*	*09:30*	*05/10/04*	*09:47*	---		
		09/10/04	*11:18*	*10/10/04*	*11:45*			
		15/10/04	*11:38*	*16/10/04*	*12:04*			
		20/10/04	*09:16*	*21/10/04*	*09:43*			
		26/10/04	*11:32*	*27/10/04*	*11:00*			
		01/11/04	*09:10*	*02/11/04*	*09:26*			
		06/11/04	*15:55*	*07/11/04*	*16:18*			
		12/11/04	*09:05*	*13/11/04*	*09:30*			
		18/11/04	*11:15*	*19/11/04*	*11:36*			
		24/11/04	*14:30*	*25/11/04*	*13:55*			
		30/11/04	*10:40*	*01/12/04*	*10:56*			
		06/12/04	*10:22*	*07/12/04*	*10:02*			
		11/12/04	*14:10*	*12/12/04*	*14:18*			
		17/12/04	*09:57*	*18/12/04*	*10:02*			
		23/12/04	*08:35*	*24/12/04*	*08:27*			
		29/12/04	*09:14*	*30/12/04*	*09:19*			

4.3 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 period are shown in Appendix D.

4.4 Action and Limit Levels

Action and Limit levels for 24-hr TSP and 1-hr TSP derived as illustrated in Table 4.3.

Table 4.3 Action and Limit Levels for 24-hr TSP and 1-hr TSP

Monitoring Location	*24-hr TSP (μg/m³)*		*1-hr TSP (μg/m³)*	
	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

4.5 Event-Action Plans

Please refer to Appendix E for details.

4.6 Air Quality Monitoring Results

4.6.1 24-hour TSP Monitoring

24-hour TSP monitoring was carried out at monitoring stations, AM1 and AM3 in the reporting period. Graphical presentation of 24-hour TSP monitoring results for these reporting months is shown in Appendix B.

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

4.6.2 1-hour TSP Monitoring

1-hour TSP monitoring was carried out at monitoring stations, AM1 and AM3 in the reporting period. Graphical presentation of 1-hour TSP monitoring results for these reporting months is shown in Appendix B.

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

5.0 Noise Monitoring

5.1 Monitoring Locations

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 Parameters, duration, Frequency and Schedule

Noise monitoring for the A-weighted levels Leq, L10 and L90 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 $L_{eq(5\text{-}min)}$);*
- *One set of measurements between 1900-2300 hours (3 consecutive $L_{eq(5\text{-}min)}$)*;*
- *One set of measurements between 2300-0700 hours of next day (3 consecutive $L_{eq(5\text{-}min)}$)*;*
- *One set of measurements between 0700-1900 hours on holidays (3 consecutive $L_{eq(5\text{-}min)}$)*.*

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

Duration, frequencies and parameters of noise measurement are presented in Table 5.1.

Table 5.1 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*

The noise monitoring programme of monitoring locations (Day-time, Evening-time, Holiday and Night-time) is summarized in Table 5.2.

Table 5.2 Monitoring Schedule for noise monitoring stations

Noise monitoring stations	*Monitoring Period*							
	Day-time		*Evening-time*		*Holiday*		*Night-time*	
NM1	*05/10/04*	*10:00*	*05/10/04*	*19:00*	*03/10/04*	*09:10*	---	---
	12/10/04	*10:52*	*12/10/04*	*19:49*	*10/10/04*	*13:00*	---	---
	19/10/04	*10:50*	*19/10/04*	*19:00*	*17/10/04*	*09:45*	---	---
	26/10/04	*10:50*	*26/10/04*	*19:45*	*24/10/04*	*09:18*	---	---
	---	---	---	---	*31/10/04*	*14:00*	---	---
	02/11/04	*17:15*	*02/11/04*	*21:05*	*07/11/04*	*09:45*	---	---
	09/11/04	*09:10*	*09/11/04*	*19:00*	*14/11/04*	*13:35*	---	---
	16/11/04	*08:35*	*16/11/04*	*19:00*	*21/11/04*	*13:00*	---	---
	23/11/04	*13:40*	*23/11/04*	*19:10*	*28/11/04*	*09:45*	---	---
	30/11/04	*08:49*	*30/11/04*	*20:32*	---	---	---	---
	07/12/04	*10:02*	*07/12/04*	*19:15*	*05/12/04*	*14:16*	---	---
	14/12/04	*08:28*	*14/12/04*	*20:07*	*12/12/04*	*15:00*	---	---
	21/12/04	*13:02*	*21/12/04*	*19:00*	*19/12/04*	*09:45*	---	---
	28/12/04	*15:12*	*28/12/04*	*19:06*	*26/12/04*	*14:50*	---	---
NM2	*05/10/04*	*10:00*	*05/10/04*	*19:25*	*03/10/04*	*09:38*	---	---
	12/10/04	*10:52*	*12/10/04*	*20:24*	*10/10/04*	*13:38*	---	---
	19/10/04	*10:50*	*19/10/04*	*19:28*	*17/10/04*	*10:10*	---	---
	26/10/04	*10:50*	*26/10/04*	*20:10*	*24/10/04*	*09:50*	---	---
	---	---	---	---	*31/10/04*	*14:35*	---	---
	02/11/04	*16:22*	*02/11/04*	*21:40*	*07/11/04*	*10:10*	---	---
	09/11/04	*10:28*	*09/11/04*	*19:28*	*14/11/04*	*14:10*	---	---
	16/11/04	*09:46*	*16/11/04*	*19:25*	*21/11/04*	*13:35*	---	---
	23/11/04	*14:52*	*23/11/04*	*19:45*	*28/11/04*	*10:10*	---	---
	30/11/04	*09:57*	*30/11/04*	*20:58*		---	---	---
	07/12/04	*11:10*	*07/12/04*	*19:40*	*05/12/04*	*14:45*	---	---
	14/12/04	*09:32*	*14/12/04*	*19:32*	*12/12/04*	*15:35*	---	---
	21/12/04	*14:12*	*21/12/04*	*19:25*	*19/12/04*	*10:10*	---	---
	28/12/04	*16:18*	*28/12/04*	*19:32*	*26/12/04*	*15:22*	---	---

Noise monitoring stations	Monitoring Period							
	Day-time		Evening-time		Holiday		Night-time	
NM3	05/10/04	10:50	05/10/04	19:50	03/10/04	10:12	---	---
	12/10/04	13:08	12/10/04	21:00	10/10/04	14:15	---	---
	19/10/04	15:14	19/10/04	19:58	17/10/04	10:35	---	---
	26/10/04	14:25	26/10/04	20:35	24/10/04	10:20	---	---
	---	---	---	---	31/10/04	15:15	---	---
	02/11/04	15:42	02/11/04	22:15	07/11/04	10:40	---	---
	09/11/04	15:15	09/11/04	19:55	14/11/04	14:38	---	---
	16/11/04	10:36	16/11/04	19:55	21/11/04	14:17	---	---
	23/11/04	15:42	23/11/04	20:20	28/11/04	10:40	---	---
	30/11/04	10:44	30/11/04	21:25	---	---	---	---
	07/12/04	13:02	07/12/04	20:10	05/12/04	15:12	---	---
	14/12/04	16:45	14/12/04	19:00	12/12/04	16:13	---	---
	21/12/04	14:48	21/12/04	19:55	19/12/04	10:30	---	---
	28/12/04	17:05	28/12/04	19:59	26/12/04	15:55	---	---

5.3 Action and Limit Levels

The Action and Limit levels for noise levels derived as illustrated in Table 5.3.

Table 5.3 Action and Limit Levels for noise monitoring

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

* = 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".

5.4 Event-Action Plans

Please refer to the Appendix E for details.

5.5 Noise Monitoring Results

Day-time, Evening-time and Holiday noise monitoring were carried out at monitoring Stations, NM1, NM2 and NM3 in this reporting period. No night-time noise monitoring were required since no construction works were processed during the night-time period. Graphical presentation of the monitoring results for these reporting months are shown in Appendix C.

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 period. Besides, no exceedances in Limit Level were recorded according to the results from day-time, evening-time and holiday noise monitoring.

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. 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 In this quarter, POC appointed ALS Technichem HK P/L (ALS) to sampling one wastewater sample at the effluent discharge point at 14 October 2004. The collected sample was transport to the Laboratory of ALS for analysis. The Laboratory of ALS is HOKLAS accredited and the test method used for suspended solids analysis is also HOKLAS accredited in accordance with the 2540D of Standard Methods for the Examination of Water and Wastewater (APHA 19th edition). The result of suspended solids content of the wastewater sample was found below 30mg/L and within the discharge limit of the Discharge Licence. The test report for this monitoring was attached in Appendix J.

7.0 Review of the Reasons for and the implications of Non-compliance

According to the summary of environmental monitoring results, no exceedances of noise and air quality monitoring were recorded in this quarter. Hence, no further mitigation measures and action were required.

8.0 Summary of Environmental Complaints

No environmental complaints on this Project were received in this quarter. A statistical summary of environmental complaints is presented in Table 8.1.

Table 8.1 Statistical Summary of Environmental Complaints

Reporting Month	*Complaints Statistics*		
	Frequency	*Cumulative*	*Complaint Nature*
October 2004	*0*	*0*	*N/A*
November 2004	*0*	*0*	*N/A*
December 2004	*0*	*0*	*N/A*

9.0 Environmental Summons

There were no notification of summons respect to environmental issues registered in this quarter. Cumulative log of Notification of Summons and Prosecution is tabulated in Table 9.1.

Table 9.1 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.*	• *POC paved the site main haul road with concrete and bituminous materials;* • *The road surface was wet by the spraying of water regularly by POC.*	*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 until September 2003.*
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.*

10.0 Status of Environmental Licensing and Permitting

All permits/licenses obtained in this quarter are summarized in Table 10.1.

Table 10.1 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
Construction Noise Permit (General / Prescribed construction works)	GW-RN0440-04	15/0904	10/02/05	Group A (For Area B2 or E) • 1 Poker, vibratory, hand-held (CNP 170) • 1 Concrete pump, lorry mounted (CNP 047) • 2 Concrete lorry mixer (CNP 044) Group B (For Area B2 or E) • 1 Poker, vibratory, hand-held (CNP 170) • 2 Concrete lorry mixer (CNP 044) • 1 Crane, mobile (diesel) (CNP 048) Group C (For Area B2 or E): • 2 Generator, silenced, 75dB(A) at 7m (CNP 102) • 1 Excavator, tracked (CNP 081) • 1 Lorry, with crane Group D (For Area B2 or E): • 1 Drill rig Group E (For Area B2 or E): • 2 Generator, silenced, 75dB(A) at 7m (CNP 102) • 2 Drill/Grinder, hand-held (electric) (CNP 065) • 1 Saw, circular, wood (CNP 201) • 2 Water pump, submersible (electric) (CNP 283) • 1 Air Compressor (CNP002) • 1 Bar bender and cutter (electric) (CNP 021) Group F (For Area B, C or D): • 1 Asphalt paver (CNP 004) • 1 Roller, vibratory (CNP 186) • 1 Excavator, tracked (CNP 081) Group G (For Area F): • 1 Excavator, tracked (CNP 081)
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

11.0 WASTE MANAGEMENT

11.1 Summary of Waste Quantities

The summary of waste generated at the site in the reporting period is summarized in Table 11.1.

Table 11.1 Summary of Quantities of Waste generated at this reporting period

Type of Waste	Quantity	Disposal Location
C&D Material (Inert) (m^3)	0	Nil
C&D material (Non-inert) (m^3)	0	Nil
General Refuse (m^3)	120	Disposed at NENT Landfills
Chemical Waste (L)	0	Nil

12.0 SITE INSPECTION / AUDIT

12.1 Summary of Weekly Site Inspection and Monthly Joint Site Audit Findings

Weekly site inspection was carried out by the ET. A total 14 weekly site inspections were undertaken in this quarter. Monthly joint site audit was carried out by the RE, the IEC, POC and ET at 21 October, 25 November and 22 December 2004 in this quarter. The summary of weekly site inspection and monthly joint site audit findings from this quarter is shown in Table 12.1.

Table 12.1 Summary of Weekly Site Inspection and Monthly Joint Site Audit Findings

October 2004				
Item	*Aspects*	*Findings*	*Action(s) taken by POC*	*ET Verification*
1	*Air (Obs.)*	*Some of the stockpiles were not entirely covered during weekly site inspection. They should be backfilled, entirely covered with impervious tarpaulin sheets or hydroseeded.*	*POC replied that the stockpile will be covered with tarpaulin sheets or sprayed with water.*	*During the last weekly site inspection in this reporting month, most of the stockpile were covered with tarpaulin sheets or sprayed with water.*
2	*Air (Obs)*	*Some part of haul road and surface areas were observed during weekly and monthly joint site inspections.*	*These areas were covered and watering was provided more frequently.*	*During the last site inspection in this reporting month, the dusty ground was found watered and no fugitive dust was observed.*
November 2004				
Item	*Aspects*	*Findings*	*Action(s) taken by POC*	*ET Verification*
No site inspection findings were recorded in that reporting month.				
December 2004				
Item	*Aspects*	*Findings*	*Action(s) taken by POC*	*ET Verification*
No site inspection findings were recorded in that reporting month.				

Remark: "NC" = Non-compliance and "Obs" = Observation

13.0 IMPLEMENTATION STATUS

13.1 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 schedule 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 H were implemented properly in this reporting period.

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, proper maintenance of sedimentation system and drainage facilities, and remove the sand/rubbish accumulated in the drain/channel and sedimentation tanks regularly.

Waste Management
POC has been implementing most mitigation measures on waste management. However, rubbish was observed at the site and insufficient skips or bins were provided for collecting rubbish at site. The Contractor was remained to provide more manpower to clean up of rubbish accumulated at the site and provide rubbish bin/skips for collected the rubbish.

13.2 Implementation Status of Event and Action Plan

There were no exceedances in air quality and noise monitoring parameters recorded in this quarter. Hence, no further mitigation measures were required.

13.3 Implementation Status of Environmental Complaint Handling

No complaints had been received during this quarter.

14.0 Conclusions and Recommendations

All 1-hr TSP and 24-hr TSP levels in air quality monitoring were recorded below the Action and Limit levels in this quarter. At the same time, no noise monitoring exceedances were recorded and no complaints were received in this quarter. Therefore, no further mitigation measures and actions were required.

The monitored environmental data indicated that no unacceptable environmental impacts arising from the Project had been caused to the surrounding sensitive receivers. The environmental measures had been effective in controlling potential impacts to within acceptable sensitive receivers. However, the Contractor had been recommended to introduce more effort on environmental mitigation measures to minimize the environmental impact from the Project.

Based on the site inspections and audit findings during the reporting period, the following recommendation for further improvement of the current conditions are as below:

- All stockpiles with a volume of greater than 50m^3 should be covered with clean tarpaulin sheets, watering or hydro-seeding to avoid wind and water erosion;
- Providing more manpower to clean up of rubbish accumulated at the site;
- Providing rubbish bin/skips for collected the rubbish;
- Site inspection and maintenance of all sedimentation system and drainage facilities by the contractor's site staff should be conducted regularly to ensure proper and efficient operation all the times;
- Draining the stagnant water out from the idle sedimentation tank and channel to prevent mosquito breeding;
- Diverting silty runoff to sedimentation system before discharge;
- Placing enough sand bags or other protection should be applied to prevent the silty surface runoff onto the drains system;
- Removing the sand/rubbish accumulated in the drain/channel regularly;
- Removing the oil in the drip tray and treat as chemical waste if necessary
- Checking and maintaining all the site machines regularly to prevent oil leakage;
- Providing briefing to the concerned site staff on remedial actions in case of oil spillage, such as handling method of chemical waste;
- Maintain good waste management at the site.

Appendix A

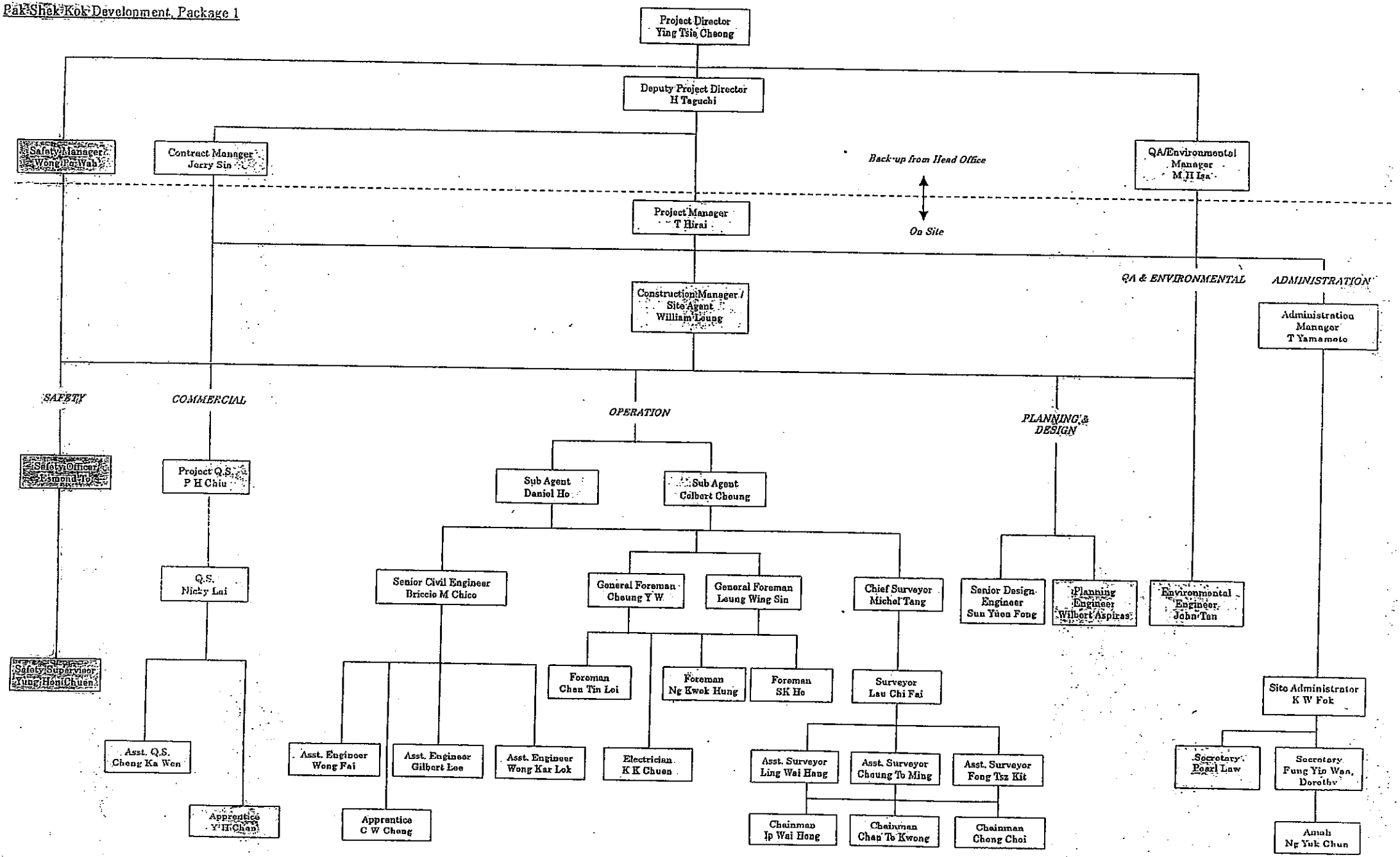
Organization Chart and Lines of Communication

Contract No. TP/35/02
Remaining Engineering Infrastructure Works for
Pak Shek Kok Development, Package 1

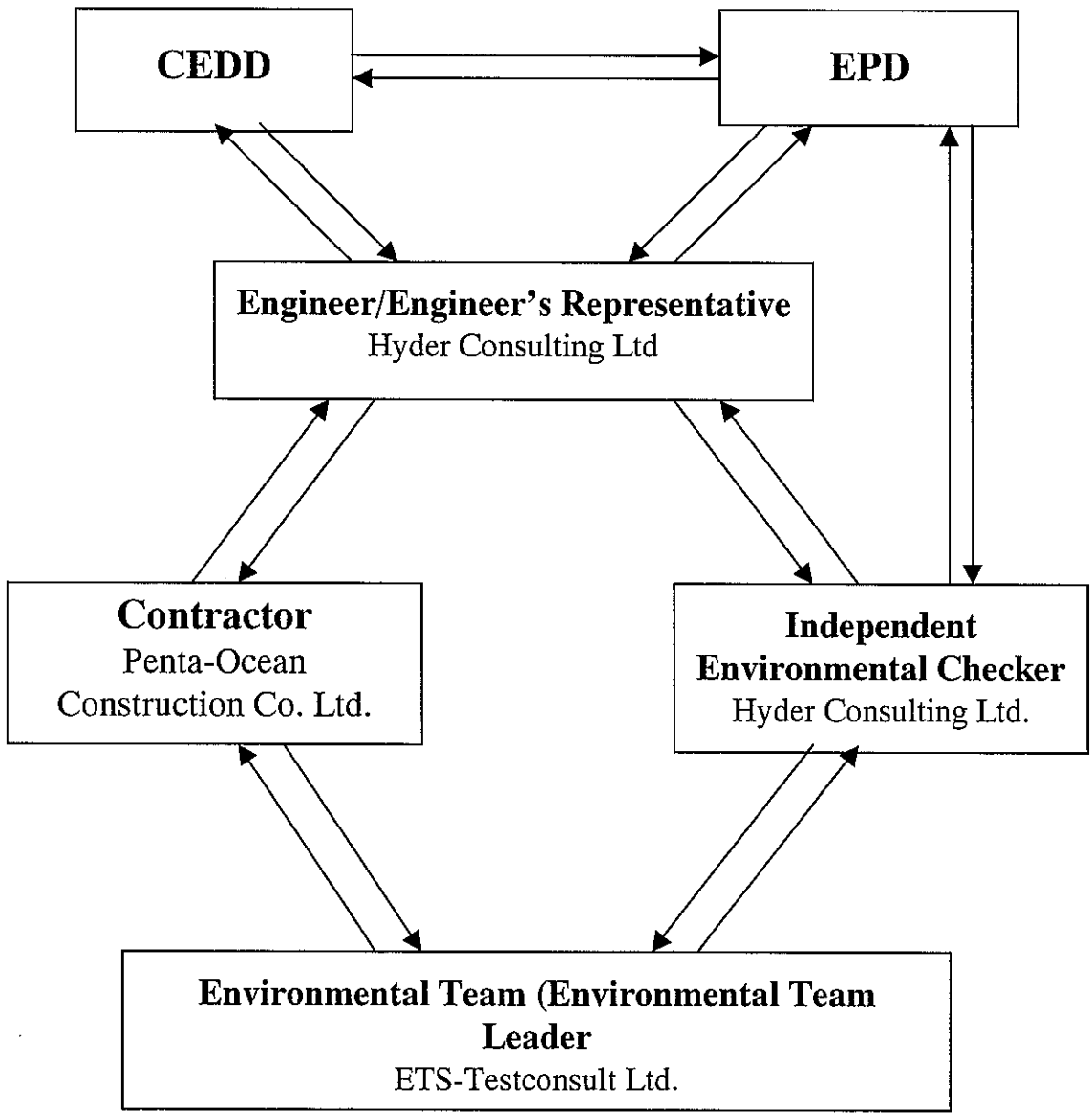
Project Site Organization Chart

Rev. K

Date : 03-Aug-04



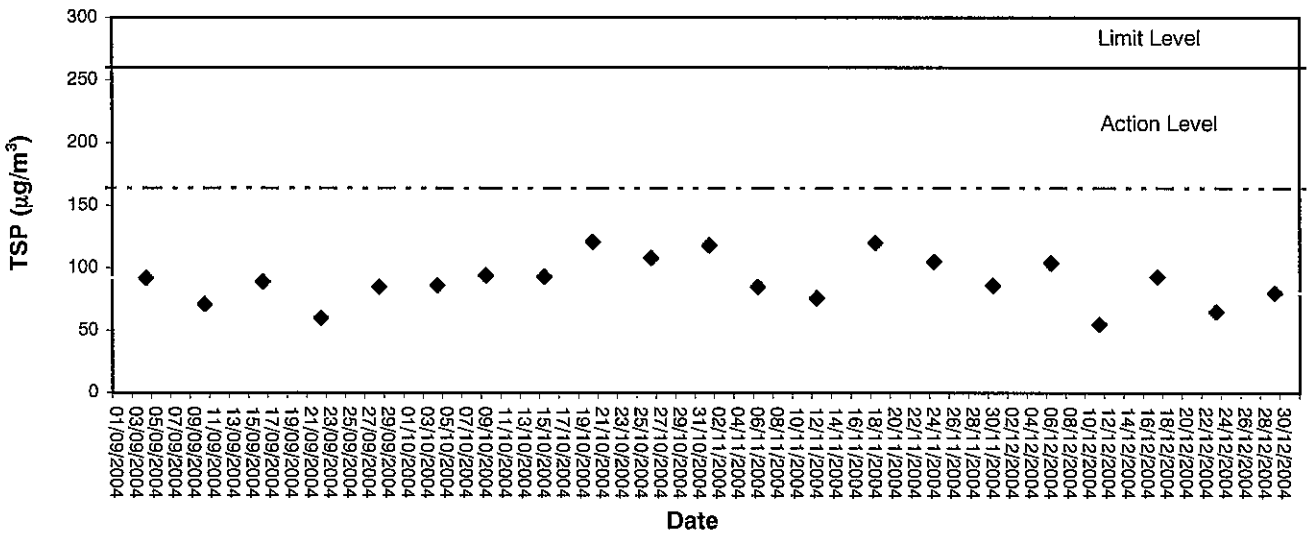
Lines of Communication



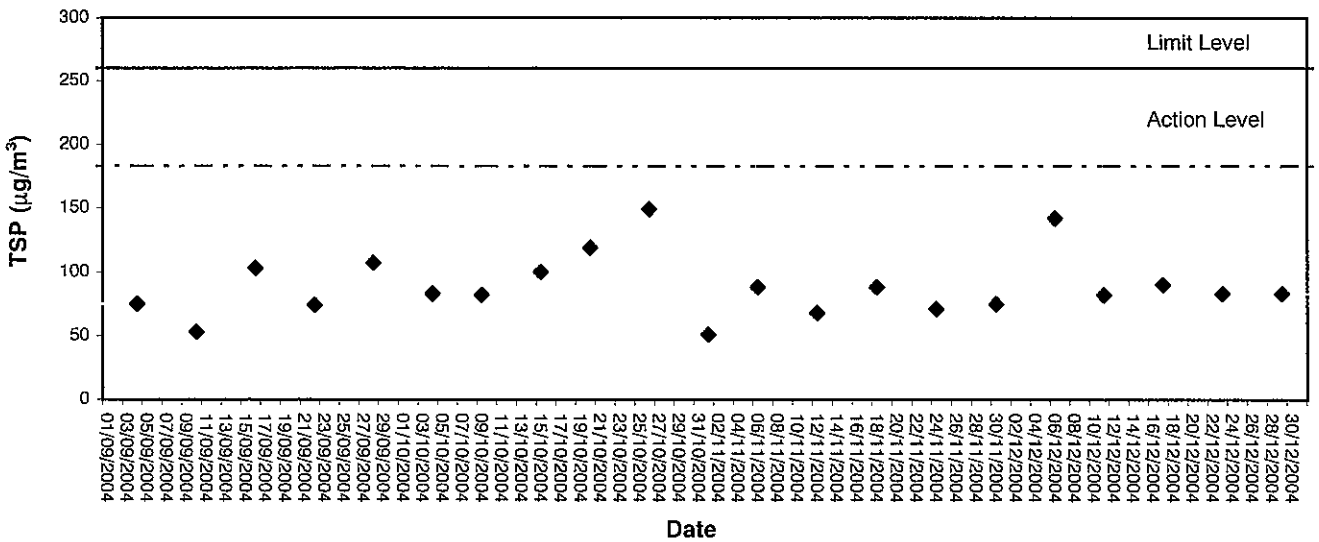
Appendix B

Graphical Plots of Air Quality Monitoring Data

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

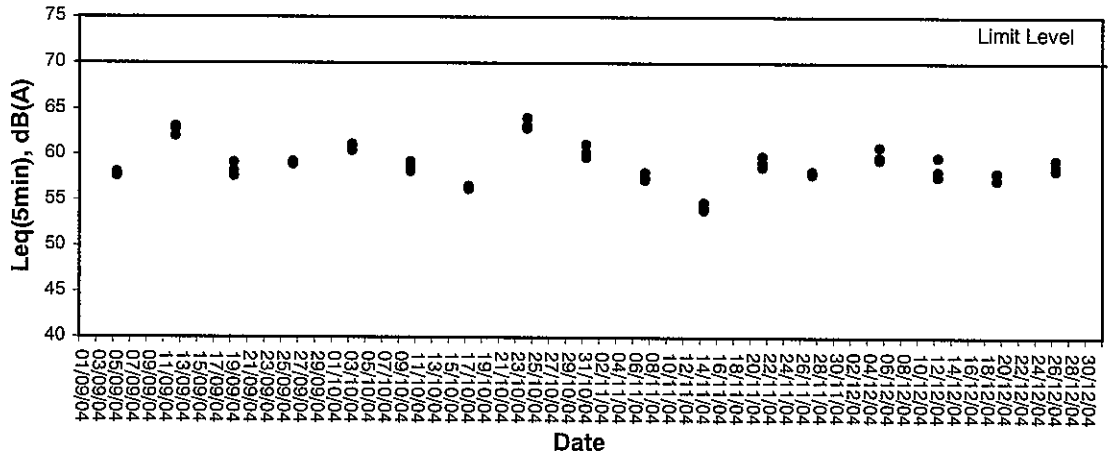


24-hour TSP level at AM3A (Cheung Shue Tan in front of Man Kee Store)

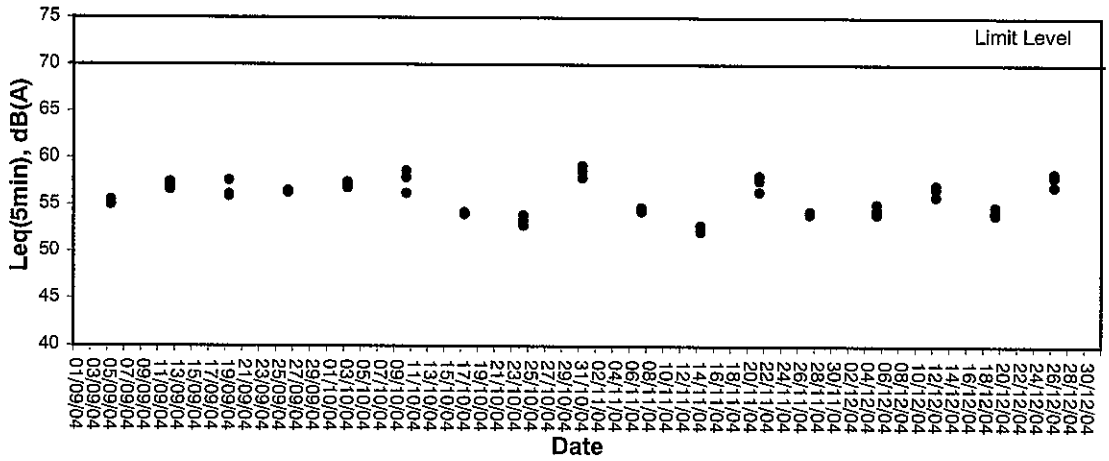


Noise Monitoring (Holiday)

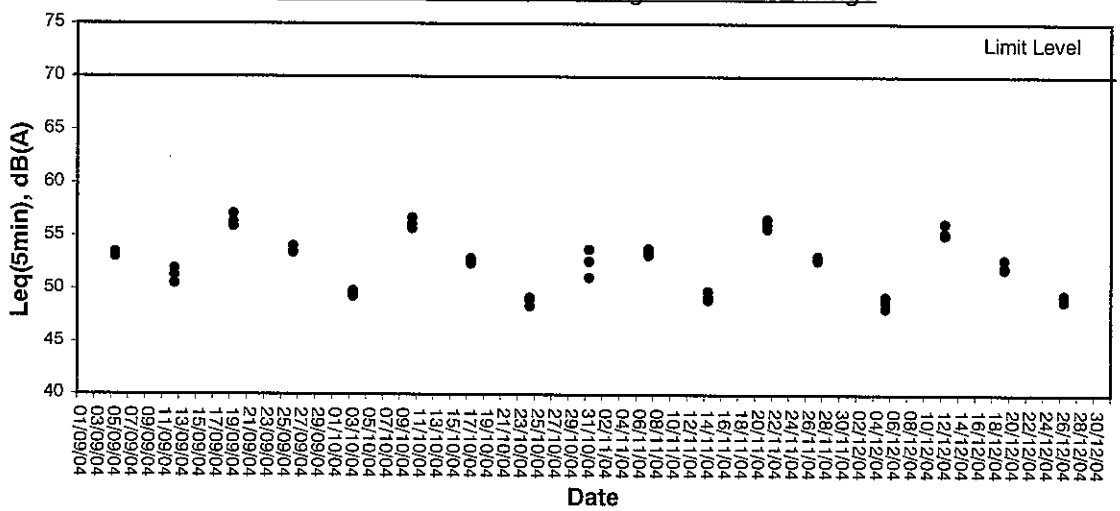
Noise level at NM1, HKIB Staff Accommodation



Noise level at NM2, CUHK Residence No.10



Noise level at NM3, Cheung Shue Tan Village

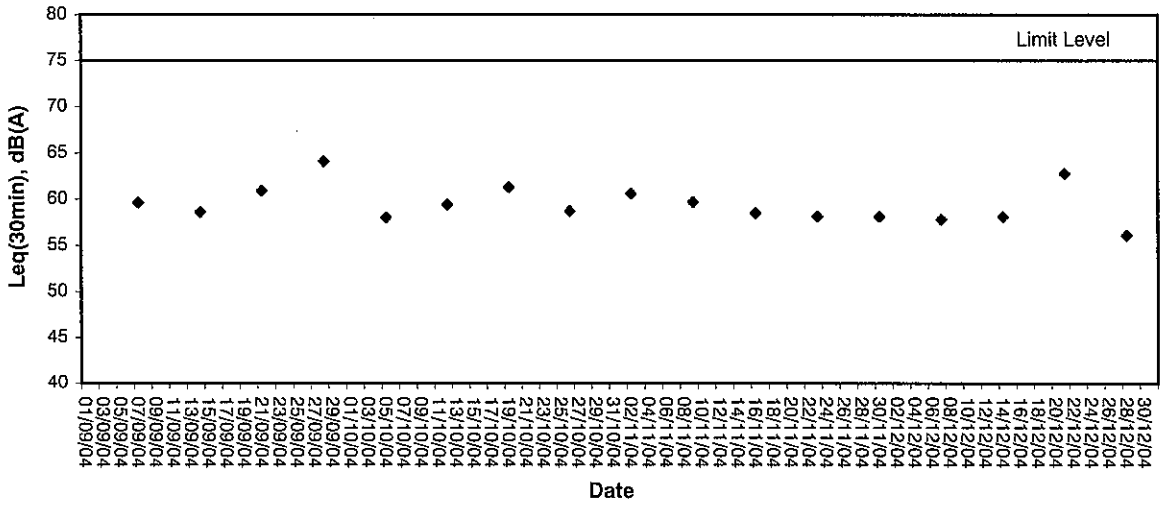


Appendix C

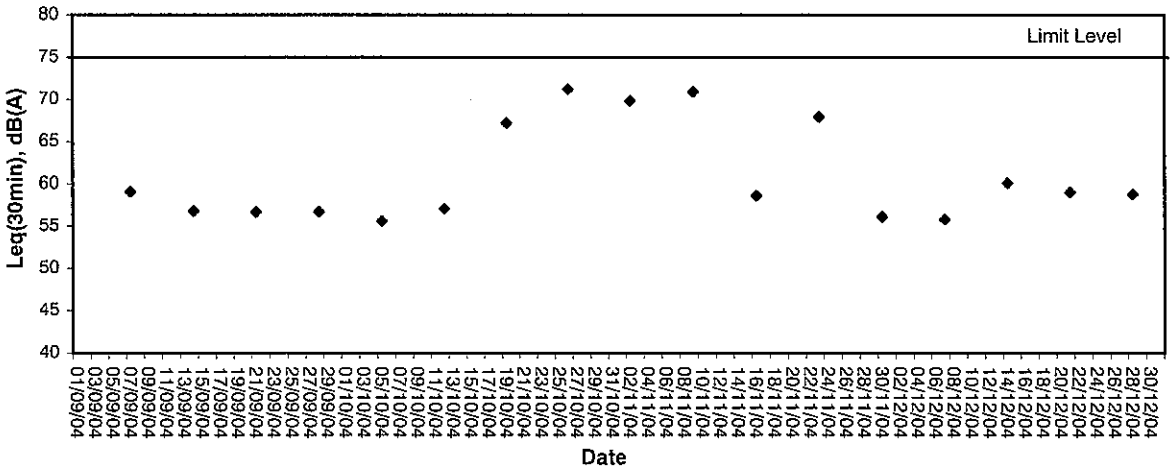
Graphical Plots of Noise Monitoring Data

Noise Monitoring (Day-time)

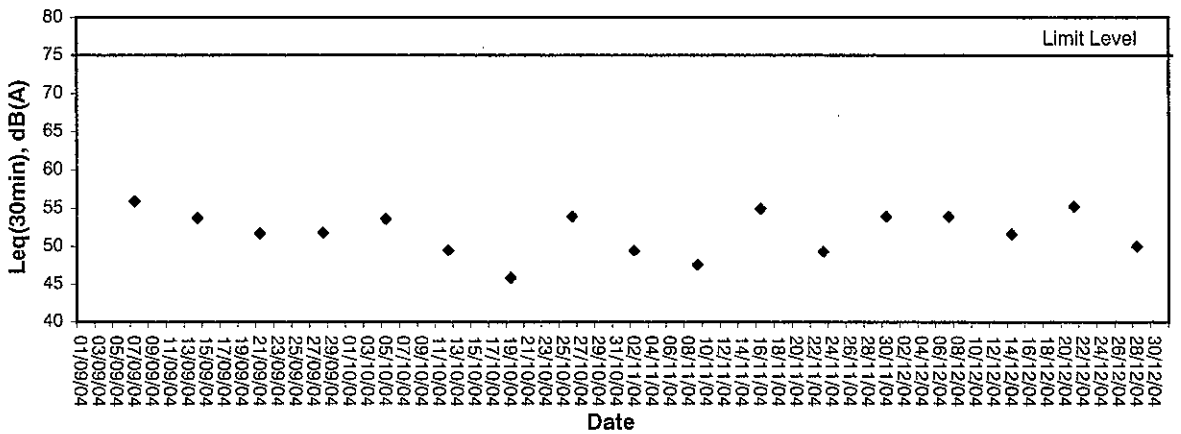
Noise level at NM1, HKIB Staff Accommodation



Noise level at NM2, CUHK Residence No.10

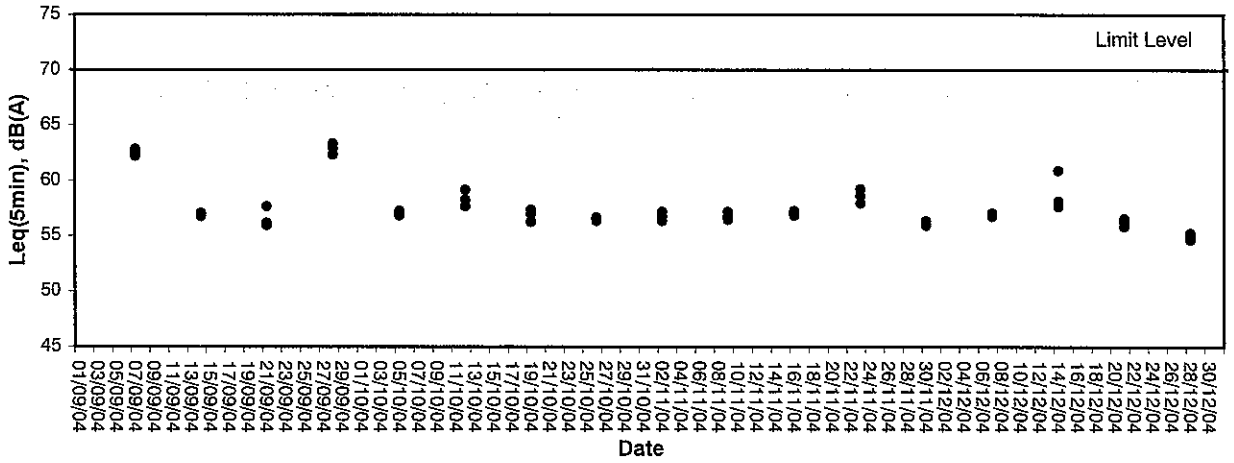


Noise level at NM3, Cheung Shue Tan Village

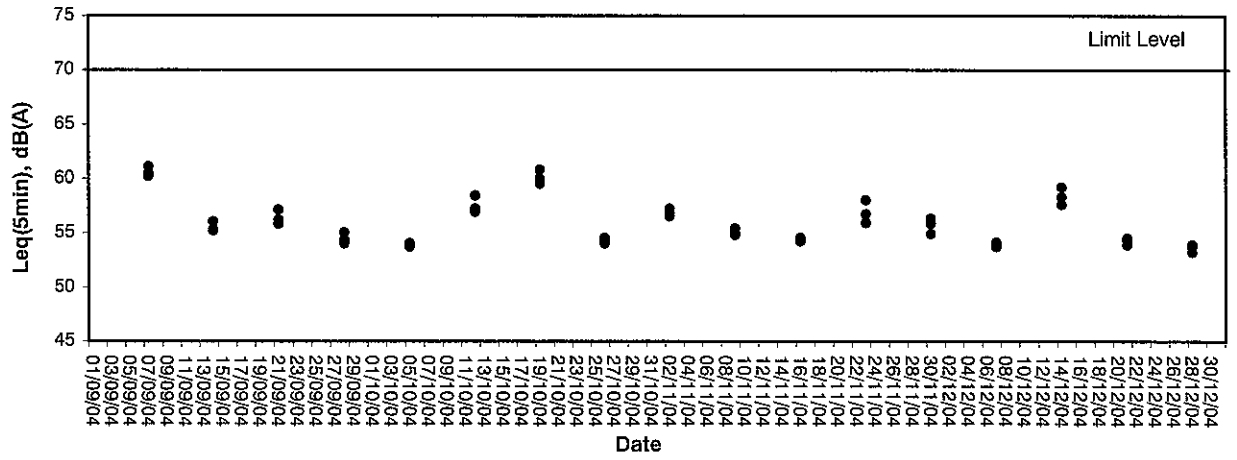


Noise Monitoring (Evening-time)

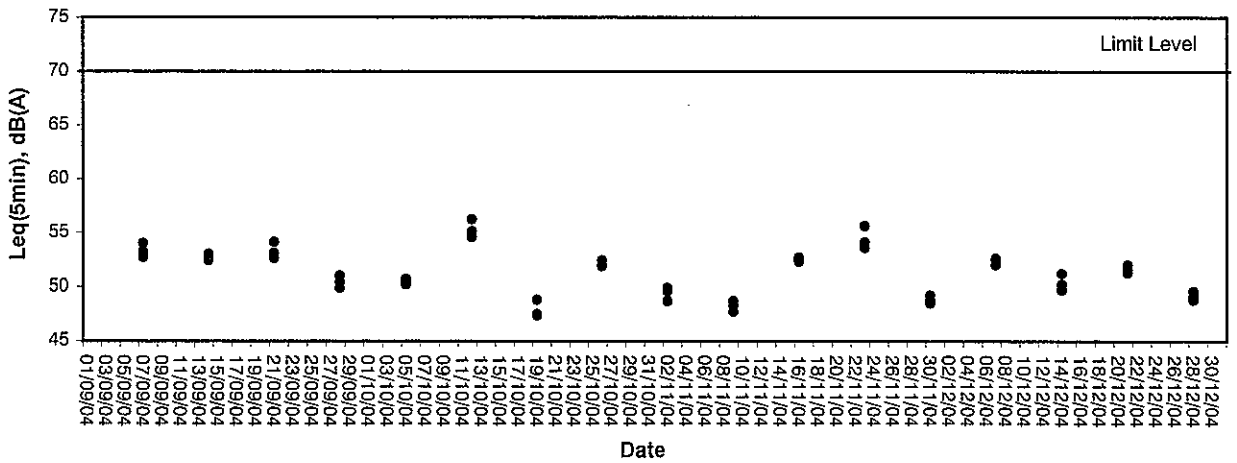
Noise level at NM1, HKIB Staff Accommodation



Noise level at NM2, CUHK Residence No.10

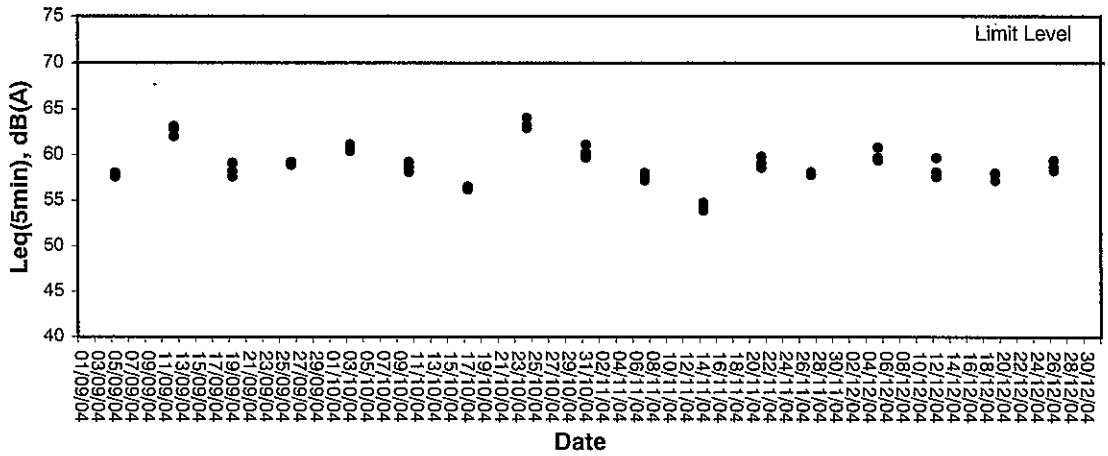


Noise level at NM3, Cheung Shue Tan Village

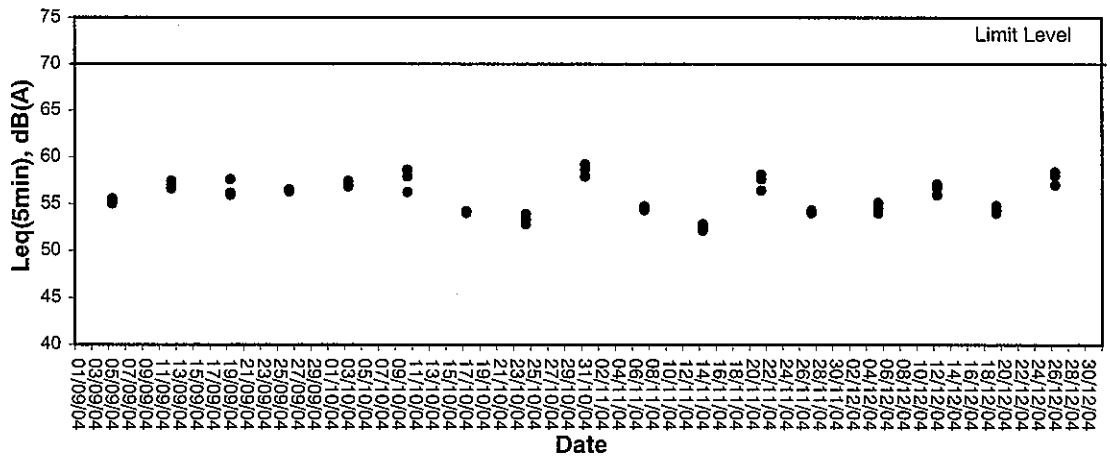


Noise Monitoring (Holiday)

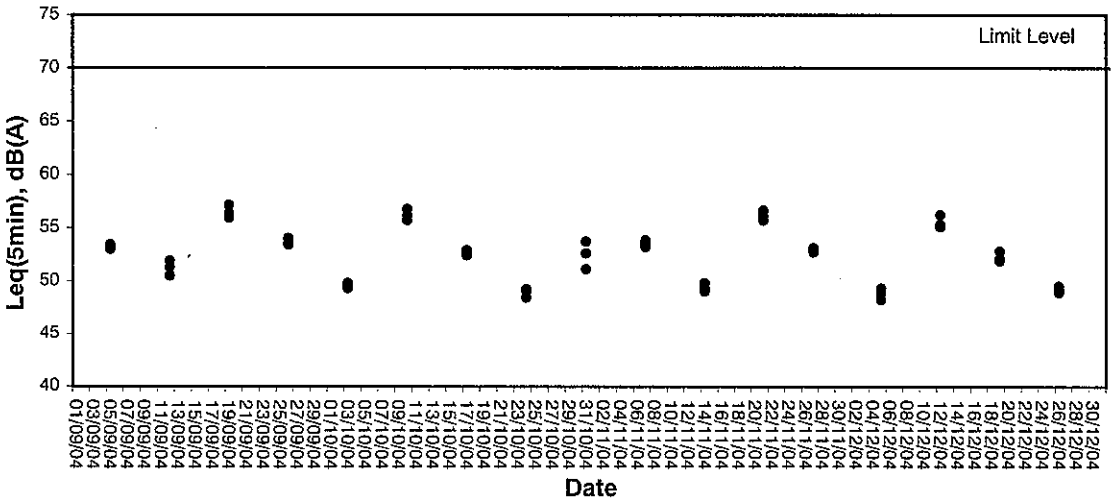
Noise level at NM1, HKIB Staff Accommodation



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)
01/10/04	Trace	30.8	26.3	78	NE	<5
02/10/04	-	26.3	22.5	59	NE	<5
03/10/04	-	25.5	20.9	50	NE	<5
04/10/04	-	26.7	21.4	53	NE	<5
05/10/04	-	28.3	22.4	60	NE	<5
06/10/04	-	28.7	22.6	63	NE	<5
07/10/04	Trace	27.4	23.4	67	E	<5
08/10/04	-	29.0	23.0	45	N	<5
09/10/04	-	30.0	23.1	54	NE	<5
10/10/04	-	29.0	23.4	65	E	<5
11/10/04	-	29.0	23.6	73	E	<5
12/10/04	-	29.3	23.6	68	E	<5
13/10/04	-	28.9	23.5	60	E	<5
14/10/04	Trace	26.8	26.9	70	E	<5
15/10/04	-	26.7	22.7	67	E	<5
16/10/04	-	26.6	23.2	73	E	<5
17/10/04	-	26.9	22.9	73	E	<5
18/10/04	-	28.9	22.6	52	N	<5
19/10/04	-	28.4	23.3	52	N	<5
20/10/04	-	27.3	22.4	64	E	<5
21/10/04	Trace	26.4	24.2	73	E	<5
22/10/04	Trace	26.4	23.5	70	E	<5
23/10/04	-	25.8	22.7	64	E	<5
24/10/04	Trace	27.4	22.3	65	E	<5
25/10/04	-	28.6	23.1	56	N	<5
26/10/04	2.3	27.9	21.9	58	NE	<5
27/10/04	Trace	25.3	21.3	66	E	<5
28/10/04	Trace	24.8	22.2	74	E	<5
29/10/04	-	25.5	22.2	42	E	<5
30/10/04	-	26.0	22.6	76	E	<5
31/10/04	-	26.3	22.4	76	E	<5

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

Weather Condition

Date	Rainfall (mm)	Max. Temp (°C)	Min. Temp. (°C)	Relative Humidity (%)	Wind Direction	Wind Speed (m/s)
01/11/04	-	27.1	22.6	77	NE	<5
02/11/04	-	26.1	22.2	71	N	<5
03/11/04	-	25.1	22.9	76	SE	<5
04/11/04	-	24.5	22.1	73	NE	<5
05/11/04	-	25.0	22.3	79	N	<5
06/11/04	-	25.4	22.1	77	N	<5
07/11/04	Trace	25.1	22.8	77	E	<5
08/11/04	-	25.1	22.7	78	N	<5
09/11/04	Trace	25.3	23.5	84	SE	<5
10/11/04	Trace	27.0	24.0	87	S	<5
11/11/04	Trace	27.2	24.5	85	NE	<5
12/11/04	Trace	27.5	24.2	80	N	<5
13/11/04	Trace	25.3	23.7	80	E	<5
14/11/04	-	27.2	23.5	82	NE	<5
15/11/04	-	24.5	20.1	73	NE	<5
16/11/04	-	21.7	18.5	70	NE	<5
17/11/04	-	23.9	18.9	65	NE	<5
18/11/04	-	23.0	18.2	48	N	<5
19/11/04	-	22.7	18.3	51	N	<5
20/11/04	-	22.3	18.5	68	N	<5
21/11/04	-	22.6	18.9	70	N	<5
22/11/04	-	23.9	19.4	69	NE	<5
23/11/04	Trace	23.2	20.5	74	N	<5
24/11/04	0.4	24.6	21.3	80	E	<5
25/11/04	-	26.0	21.9	77	N	<5
26/11/04	-	23.9	19.2	66	NE	<5
27/11/04	-	21.1	17.8	65	E	<5
28/11/04	-	22.9	18.4	66	SE	<5
29/11/04	-	23.8	19.3	73	NE	<5
30/11/04	-	22.9	19.5	71	N	<5

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

Weather Condition

Date	Rainfall (mm)	Max. Temp (°C)	Min. Temp. (°C)	Relative Humidity (%)	Wind Direction	Wind Speed (m/s)
01/12/04	-	23.3	19.9	72	E	<5
02/12/04	-	24.4	20.2	76	NE	<5
03/12/04	-	25.8	20.6	62	N	<5
04/12/04	-	24.6	19.1	53	N	<5
05/12/04	Trace	21.4	17.2	54	N	<5
06/12/04	Trace	20.9	18.1	69	E	<5
07/12/04	-	21.5	18.0	50	N	<5
08/12/04	-	20.5	16.1	55	N	<5
09/12/04	-	20.8	16.7	65	E	<5
10/12/04	-	21.4	17.3	67	E	<5
11/12/04	-	21.3	17.9	73	E	<5
12/12/04	-	23.3	18.0	55	N	<5
13/12/04	-	21.2	17.0	60	E	<5
14/12/04	Trace	20.9	17.3	72	E	<5
15/12/04	-	23.0	18.4	77	NE	<5
16/12/04	-	22.1	18.8	75	E	<5
17/12/04	-	21.8	18.4	77	E	<5
18/12/04	-	22.5	18.6	82	E	<5
19/12/04	-	22.6	19.2	82	E	<5
20/12/04	Trace	22.1	18.7	81	E	<5
21/12/04	-	21.0	19.2	76	E	<5
22/12/04	Trace	21.5	19.4	83	E	<5
23/12/04	-	24.1	19.8	81	NE	<5
24/12/04	Trace	20.6	18.3	78	E	<5
25/12/04	-	20.2	18.1	79	E	<5
26/12/04	Trace	20.9	18.4	78	E	<5
27/12/04	-	21.4	16.9	73	N	<5
28/12/04	-	17.1	9.9	70	N	<5
29/12/04	-	14.9	8.9	71	N	<5
30/12/04	-	16.8	9.3	68	N	<5
31/12/04	-	11.6	8.2	46	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			
	ET Leader	IC(E)	ER	CNOTRACTOR
Action Level				
1. Exceedance of one sample	1. Identify source 2. Inform IC(E) and ER 3. Repeat measurement to confirm finding 4. Increase monitoring frequency to daily	1. Check monitoring data submitted by ET 2. Check Contractor's working method.	1. Notify Contractor	1. Rectify any unacceptable practice 2. Amend working methods if possible
2. Exceedance for two more consecutive samples	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. Checking monitoring data submitted by ET 2. Check Contactor'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. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Ensure remedial measures properly implemented	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
Limit Level				
1. Exceedance of one sample	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. Check 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 proposal remedial measures 5. Supervisor implementation of remedial measures	1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Ensure remedial measures properly implemented	1. Take immediate action to avoid further exceedance 2. Submit proposal for remedial actions to IC(E) within 3 working days of notification 3. Implement the agreed proposals 4. Amend proposal if appropriate
2. Exceedance for two or more consecutive samples	1. Notify 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. Discuss amongst ER, ET, and Contractor on potential remedial actions 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly 3. Supervise the implementation of remedial measures	1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. In consultation with the IC(E), agreed with the Contractor on the remedial 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 Contract to stop that portion of work until the exceedance is abated.	1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to 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 if abated.

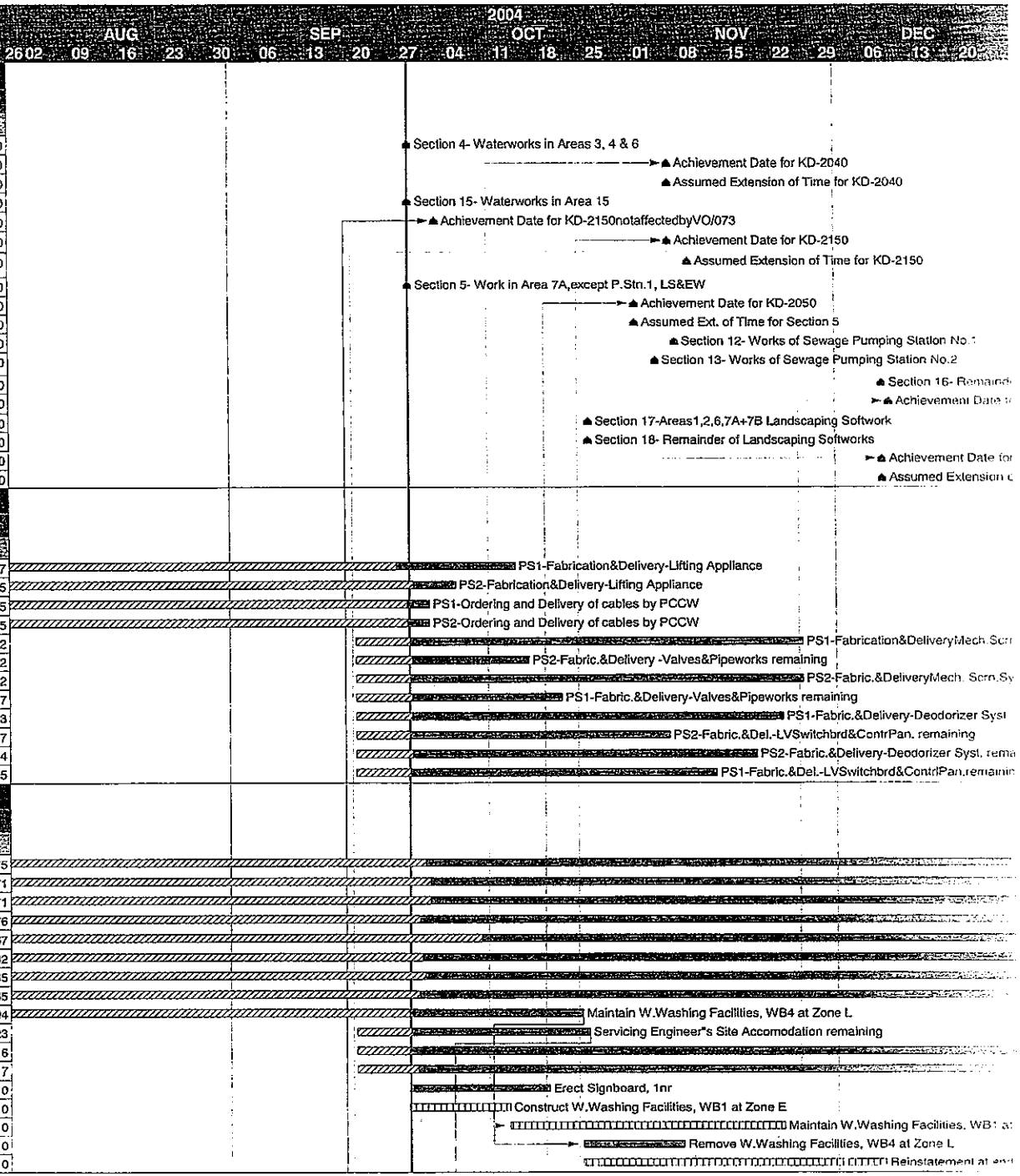
Event / Action Plan for Construction Noise

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

Appendix F

Construction Programme

Act ID	Description	Orig Dur	Early Start	Early Finish	Percent Complete
KEY DATES					
Completion Dates					
KD-2040	Section 4- Waterworks in Areas 3, 4 & 6	0		27SEP04 *	0
KD-2040A	Achievement Date for KD-2040	0		05NOV04	0
KD-2040B	Assumed Extension of Time for KD-2040	0		05NOV04 *	0
KD-2150	Section 15- Waterworks in Area 15	0		27SEP04 *	0
KD-2150B10	Achievement Date for KD-2150notaffectedbyVO/073	0		01OCT04	0
KD-2150A	Achievement Date for KD-2150	0		05NOV04	0
KD-2150B	Assumed Extension of Time for KD-2150	0		08NOV04 *	0
KD-2050	Section 5- Work in Area 7A,except P.Stn.1, LS&EW	0		27SEP04 *	0
KD-2050A	Achievement Date for KD-2050	0		31OCT04	0
KD-2050B	Assumed Ext. of Time for Section 5	0		31OCT04 *	0
KD-2120	Section 12- Works of Sewage Pumping Station No.1	0		06NOV04 *	0
KD-2130	Section 13- Works of Sewage Pumping Station No.2	0		03NOV04 *	0
KD-2160	Section 16- Remainder of Works, except LS+EW	0		07DEC04 *	0
KD-2160A	Achievement Date for KD-2160	0		08DEC04	0
KD-2170	Section 17-Areas1,2,6,7A+7B Landscaping Softwork	0		24OCT04 *	0
KD-2180	Section 18- Remainder of Landscaping Softworks	0		24OCT04 *	0
KD-2180A	Achievement Date for KD-2180	0		07DEC04	0
KD-2180B	Assumed Extension of Time for KD-2180	0		07DEC04 *	0
SUBMISSION, PROCUREMENT, TYPE A, VERSION, ETC.					
Preliminaries & Procurement					
B0-205760	PS1-Fabrication&Delivery-Lifting Appliance	92	29MAY04 A	13OCT04	87
B0-205815	PS2-Fabrication&Delivery-Lifting Appliance	84	29MAY04 A	04OCT04	95
B0-205830	PS1-Ordering and Delivery of cables by PCCW	60	26JUL04 A	30SEP04	95
B0-205840	PS2-Ordering and Delivery of cables by PCCW	60	26JUL04 A	30SEP04	95
B0-205780	PS1-Fabrication&DeliveryMech.Scrn.Syst.remaining	67	20SEP04 A	25NOV04	12
B0-205825	PS2-Fabric.&Delivery -Valves&Pipeworks remaining	27	20SEP04 A	15OCT04	32
B0-205835	PS2-Fabric.&DeliveryMech. Scrn.System remaining	67	20SEP04 A	25NOV04	12
B0-205850	PS1-Fabric.&Delivery-Valves&Pipeworks remaining	32	20SEP04 A	20OCT04	27
B0-205860	PS1-Fabric.&Delivery-Deodorizer Syst. remaining	64	20SEP04 A	22NOV04	13
B0-205870	PS2-Fabric.&Del.-LVSwitchbrd&ContrPan. remaining	47	20SEP04 A	05NOV04	17
B0-205880	PS2-Fabric.&Delivery-Deodorizer Syst. remaining	60	20SEP04 A	18NOV04	14
B0-205890	PS1-Fabric.&Del.-LVSwitchbrd&ContrPan.remaining	54	20SEP04 A	12NOV04	15
PRELIMINARIES					
Part 1.1 Preliminaries					
B1-0103E1	Operate/ maintain Moble Phones, 4nr	1020	03SEP02 A	09JUN05	75
B1-0107D0	Update Waste Management Plan	1080	03SEP02 A	06AUG05	71
B1-0107E0	Implement & Monitor Waste Management Plan	1080	03SEP02 A	06AUG05	71
B1-0102B0	Operate & maintain 4-wheel drive vehicle, 2 nr	1001	05SEP02 A	25MAY05	76
B1-0101G0	Maintain/remove measures for traffic flow	1140	10SEP02 A	17OCT05	67
B1-0102D0	Progress Photographs, 30nr	900	01OCT02 A	08MAR05	82
B1-0106N0	Maintain Noise Monitoring	1118	09OCT02 A	23OCT05	65
B1-0106K0	Maintain Air Monitoring	1104	16OCT02 A	18OCT05	65
B1-0103J4	Maintain W.Washing Facilities, WB4 at Zone L	424	15AUG03 A	23OCT04	94
B1-0101B10	Servicing Engineer's Site Accomodation remaining	35	20SEP04 A	24OCT04	23
B1-0101D15	ServicingContractor'sSiteAccommodation remaining	131	20SEP04 A	28JAN05	6
B1-0103E12	Operate/maintain Mobile Phones, 3nr remaining	131	20SEP04 A	27JAN05	7
B1-0103B4	Erect Signboard, 1nr	21	28SEP04	18OCT04	0
B1-0103I1	Construct W.Washing Facilities, WB1 at Zone E	15	28SEP04	12OCT04	0
B1-0103J1	Maintain W.Washing Facilities, WB1 at Zone E	41	13OCT04	22NOV04	0
B1-0103K4	Remove W.Washing Facilities, WB4 at Zone L	15	24OCT04	07NOV04	0
B1-0106Z0	Reinstatement at end of Contract	45	24OCT04	07DEC04	0



Data date	26SEP04
Page number	1A
Page count	6A
Number/Version	TP35/02/3MON/25
Company name	Penta-Ocean Construction Co. Ltd.
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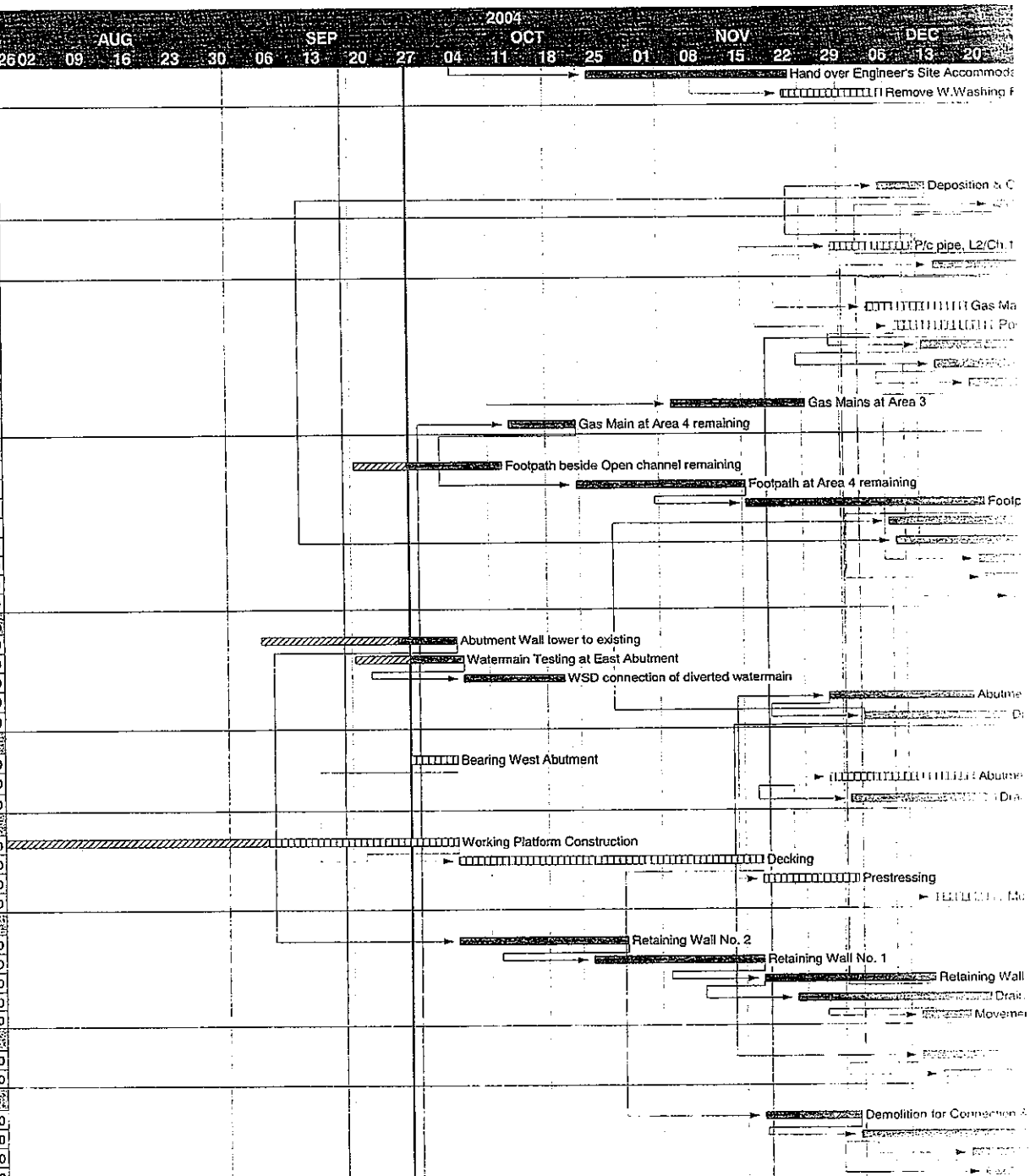
Contract No.TP35/02
Remaining Engineering Infrastructure Works for Pak Shek Kok Development Package 1
3MONTHS ROLLING PROGRAM

Act ID	Description	Orig Dur	Early Start	Early Finish	Percent Complete
B1-0101C0	Hand over Engineer's Site Accommodation	30	25OCT04	23NOV04	0
B1-0103K1	Remove W.Washing Facilities, WB1 at Zone E	15	23NOV04	07DEC04	0
CONSTRUCTION					
Section 3-Works in Areas3,4+6,except Sec.4+LS&EW					
Part 3.3 Earthworks - Section 3					
B3-0308M1	Deposition & Compaction, L2/Ch.100-200	7	07DEC04	13DEC04	0
B3-0308M2	Deposition & Compaction, D1/Ch.780-920	10	24DEC04	02JAN05	0
Part 4.3 Drainage & Sewerage - Section 3					
B4-0317D31	P/c pipe, L2/Ch.100-200 Gully works	12	30NOV04	11DEC04	0
B4-0317D12	P/c pipe, D1/Ch.780-920 remaining	14	15DEC04	28DEC04	0
Section 3 - Utilities					
UT-0300G1	Gas Mains, L2/Ch.100-200	15	05DEC04	19DEC04	0
UT-0300P1	Powers(11kV), L2/Ch.100-200	15	09DEC04	23DEC04	0
UT-0300T1A	PCCW, L2/Ch.100-200	15	13DEC04	27DEC04	0
UT-0300T1B	HGC-New World, L2/Ch.100-200	15	15DEC04	29DEC04	0
UT-0300T1C	CATV, L2/Ch.100-200	7	20DEC04	26DEC04	0
UT-0300G4	Gas Mains at Area 3	20	06NOV04	25NOV04	0
UT-0300G4C	Gas Main at Area 4 remaining	10	13OCT04	22OCT04	0
Part 5.3 Roadworks - Section 3					
B5-0325C53	Footpath beside Open channel remaining	22	20SEP04 A	11OCT04	35
B5-0325C33	Footpath at Area 4 remaining	25	23OCT04	16NOV04	0
B5-0325C3	Footpath, Area 3	35	17NOV04	21DEC04	0
B5-0326A2	Cycle track & Footpath, D1/Ch.780-920	25	08DEC04	01JAN05	0
B5-0325C1	Roadworks, L2/Ch.100-200	30	09DEC04	07JAN05	0
B5-0326A1	Cycle track & Footpath, L2/Ch.100-200	25	21DEC04	14JAN05	0
B5-0325C23	Footpath at Area 6 under bridge	25	22DEC04	15JAN05	0
B5-0325C2	Roadworks, D1/Ch.780-920	12	26DEC04	06JAN05	0
Part 7.2 Substructure - East Abutment					
B7-032120	Abutment Wall lower to existing	24	06SEP04 A	04OCT04	70
B7-032130	Watermain Testing at East Abutment	15	20SEP04 A	05OCT04	50
B7-032110	WSD connection of diverted watermain	15	06OCT04	20OCT04	0
B7-032050	Abutment Wall, Rest - East Abutment	21	29NOV04	19DEC04	0
B7-032060	Drainage & Backfill - East Abutment	21	04DEC04	24DEC04	0
Part 7.3 Substructure - West Abutment					
B7-033070	Bearing West Abutment	7	28SEP04	04OCT04	0
B7-033050	Abutment Wall, Rest - West Abutment	21	29NOV04	19DEC04	0
B7-033060	Drainage & Backfill - West Abutment	21	02DEC04	22DEC04	0
Part 7.4 Superstructure					
B7-034040	Working Platform Construction	24	03JUL04 A	04OCT04	70
B7-034010	Decking	45	05OCT04	18NOV04	0
B7-034020	Prestressing	14	19NOV04	02DEC04	0
B7-034030	Movement Joint	10	14DEC04	23DEC04	0
Part 7.5 Retaining Walls					
B7-035030	Retaining Wall No. 2	25	05OCT04	29OCT04	0
B7-035020	Retaining Wall No. 1	25	25OCT04	18NOV04	0
B7-035040	Retaining Wall No. 3	25	19NOV04	13DEC04	0
B7-035050	Drainage & Backfill	28	24NOV04	21DEC04	0
B7-035060	Movement Joint	7	12DEC04	18DEC04	0
Part 7.6 Finishing Works					
B7-036030	Road & Drainage Works	25	12DEC04	05JAN05	0
B7-036050	Footway, Cycle Track, Paving	20	15DEC04	03JAN05	0
Part 7.7 Modification of Pak Shek Kok Bridge					
B7-037020	Demolition for Connection & Excavation	14	19NOV04	02DEC04	0
B7-037030	Modification Works	30	03DEC04	01JAN05	0
B7-037040	Drainage Works & Movement Joints	20	19DEC04	07JAN05	0
B7-037050	E&M Works & Finishing	25	21DEC04	14JAN05	0



Data date	28SEP04
Page number	2A
Page count	6A
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Company name	Penta-Ocean Construction Co. Ltd.
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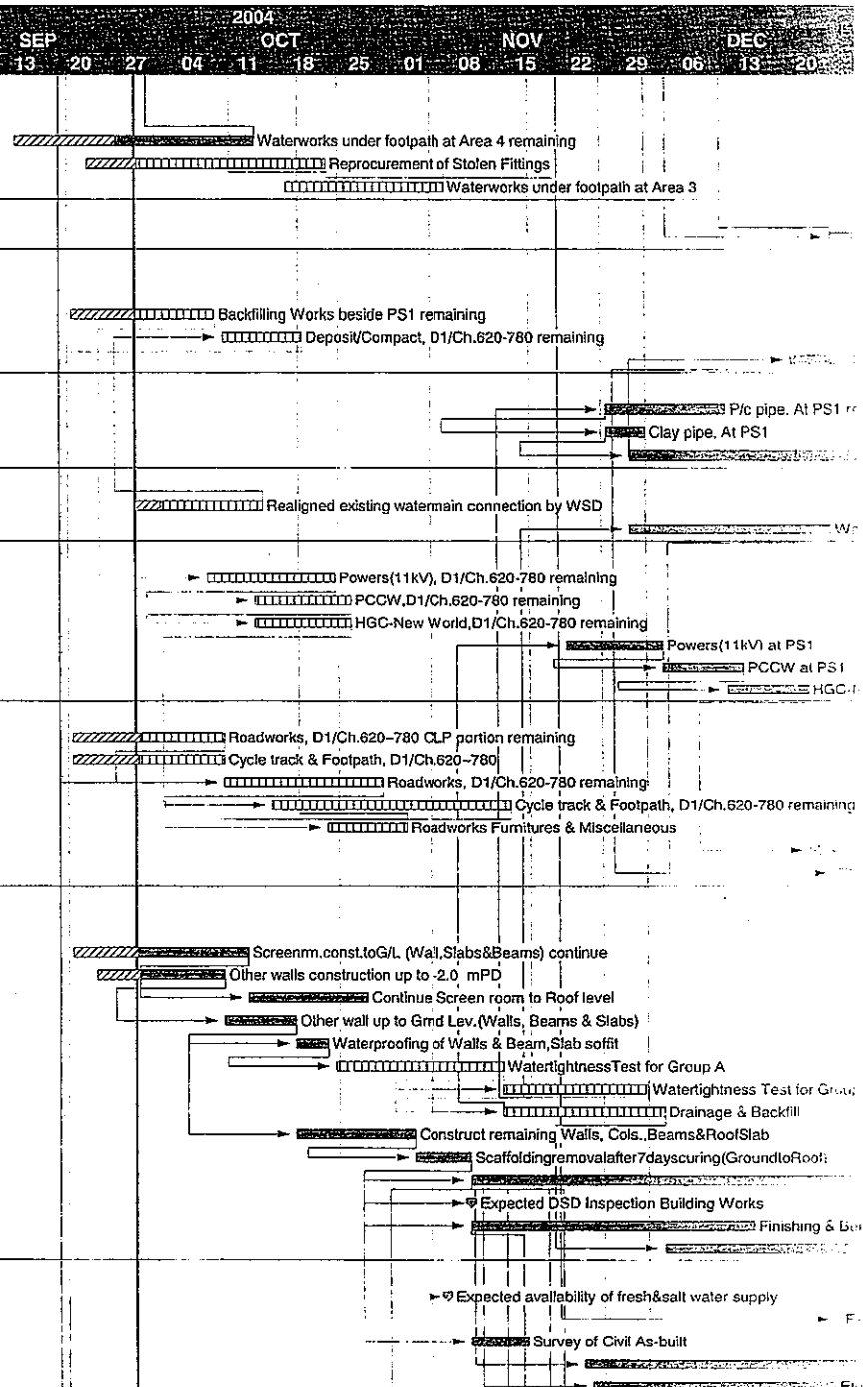
Contract No.TP35/02
Remaining Engineering Infrastructure Works for Pak Shek Kok Development Package 1
3MONTHS ROLLING PROGRAM

Act ID	Description	Orig Dur	Early Start	Early Finish	Percent Complete
Section 4- Waterworks in Areas 3, 4, & 6					
Part 6.3 Waterworks - Section 4 except Area 6					
B6-0424C7	Waterworks under footpath at Area 4 remaining	25	13SEP04 A	12OCT04	42
B6-0424C13	Reprocurement of Stolen Fittings	30	22SEP04 A	21OCT04	21
B6-0424C3	Waterworks under footpath at Area 3	20	17OCT04	05NOV04	0
Part 6.4 Waterworks - Section 4 in Area 6					
B6-0417C32	Waterworks, D1/Ch.780-920 phase 2	7	24DEC04	30DEC04	0
Section 5- Work in Area 7A except PumpStn 1 LS&EW					
Part 3.4 Earthworks - Section 5					
B3-0511L32	Backfilling Works beside PS1 remaining	18	20SEP04 A	07OCT04	45
B3-0511L22	Deposit/Compact, D1/Ch.620-780 remaining	10	09OCT04	18OCT04	0
B3-0512A30	Deposit/ Compact, At PS1	8	19DEC04	26DEC04	0
Part 4.5 Drainage & Sewerage - Section 5					
B4-0528F12	P/c pipe, At PS1 remaining (S303~S017)	15	26NOV04	10DEC04	0
B4-0530A3	Clay pipe, At PS1	5	26NOV04	30NOV04	0
B4-0535A1	SewerRising Main, At PS1	35	29NOV04	02JAN05	0
Part 6.5 Waterworks - Section 5					
B6-0503A6	Realigned existing watermain connection by WSD	20	28SEP04 A	13OCT04	20
B6-0503A3	Watermains, At PS1	25	29NOV04	23DEC04	0
Section 5 - Utilities					
UT-0500P12	Powers(11kV), D1/Ch.620-780 remaining	16	07OCT04	22OCT04	0
UT-0500T2C	PCCW,D1/Ch.620-780 remaining	12	13OCT04	24OCT04	0
UT-0500T2D	HGC-New World,D1/Ch.620-780 remaining	12	13OCT04	24OCT04	0
UT-0500P3	Powers(11kV) at PS1	12	21NOV04	02DEC04	0
UT-0500T3A	PCCW at PS1	10	03DEC04	12DEC04	0
UT-0500T3B	HGC-New World at PS1	10	11DEC04	20DEC04	0
Part 5.5 Roadworks - Section 5					
B5-0540F22	Roadworks, D1/Ch.620~780 CLP portion remaining	19	20SEP04 A	08OCT04	45
B5-0541B12	Cycle track & Footpath, D1/Ch.620~780	20	20SEP04 A	08OCT04	44
B5-0540F2	Roadworks, D1/Ch.620-780 remaining	20	09OCT04	28OCT04	0
B5-0541B2	Cycle track & Footpath, D1/Ch.620-780 remaining	30	15OCT04	13NOV04	0
B5-0543E0	Roadworks Furnitures & Miscellaneous	10	22OCT04	31OCT04	0
B5-0541B3	Footpath, At PS1	15	21DEC04	04JAN05	0
B5-0540F3	Roadworks, At PS1	12	24DEC04	04JAN05	0
Section 12- Works of Sewage Pumping Station No.1					
Part 11.1 Pumping Station 1 Piling, Struct Work					
BS-120530	Screenrm.const.toG/L (Wall,Slabs&Beams) continue	22	20SEP04 A	11OCT04	37
BS-120520	Other walls construction up to -2.0 mPD	17	23SEP04 A	08OCT04	34
BS-120540	Continue Screen room to Roof level	15	12OCT04	26OCT04	0
BS-120670	Other wall up to Grnd Lev.(Walls, Beams & Slabs)	9	09OCT04	17OCT04	0
BS-120690	Waterproofing of Walls & Beam,Slab soffit	4	18OCT04	21OCT04	0
BS-120720	WatertightnessTest for Group A	18	23OCT04	12NOV04	0
BS-120660	Watertightness Test for Group B	18	13NOV04	30NOV04	0
BS-120700	Drainage & Backfill	20	13NOV04	02DEC04	0
BS-120600	Construct remaining Walls, Cols.,Beams&RoofSlab	15	18OCT04	01NOV04	0
BS-120610	Scaffoldingremovalafter7dayscuring(GroundtoRoof)	7	02NOV04	08NOV04	0
BS-120800	Finishing & Furniture above ground structure	60	09NOV04	07JAN05	0
BS-120740	Expected DSD Inspection Building Works	0	09NOV04		0
BS-120810	Finishing & Benching Works belowground chambers	35	09NOV04	13DEC04	0
BS-120730	Sheetpile Extraction	25	03DEC04	27DEC04	0
Part 11.4 Electrical & Mechanical Equipment					
BS-125080	Expected availability of fresh&salt water supply	0	06NOV04		0
BS-125090	Expected availability of power supply	0	24DEC04		0
BS-126010	Survey of Civil As-built	7	09NOV04	15NOV04	0
BS-124100	LV Switchboard and Control Panels	30	23NOV04	29DEC04	0
BS-126020	Electrical Installation-Concealed Conduit	30	24NOV04	23DEC04	0



Data date	28SEP04
Page number	3A
Page count	6A
Number/Version	TP35/02/3MON/25
Company name	Penta-Ocean Construction Co. Ltd.

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Progress bar
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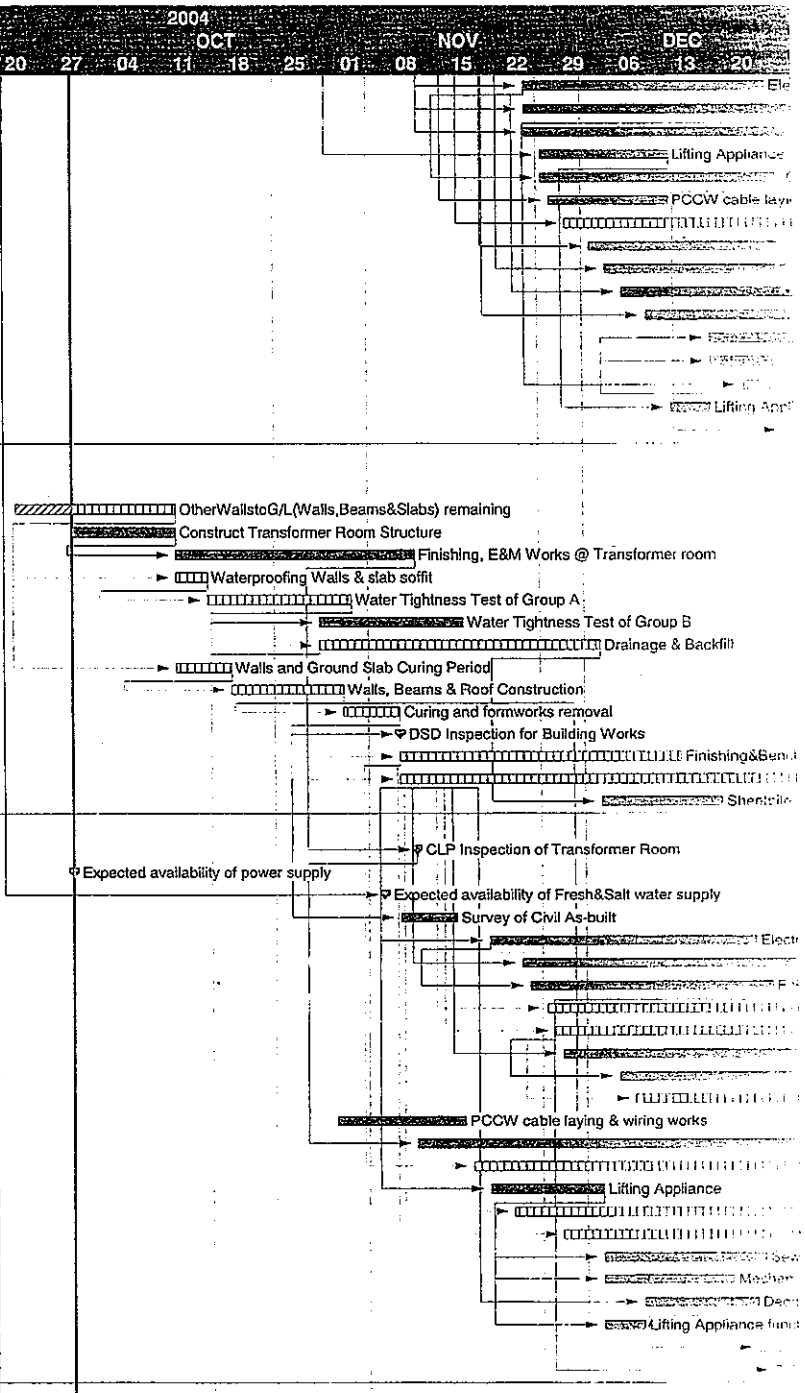
Contract No.TP35/02
Remaining Engineering Infrastructure Works for Pak Shek Kok Development Package 1
3MONTHS ROLLING PROGRAM

Act ID	Description	Orig Dur	Early Start	Early Finish	Percent Complete
BS-126030	Electrical Installation	30	24NOV04	23DEC04	0
BS-126060	SCADA & PLC Works	35	24NOV04	28DEC04	0
BS-126080	P & D Installation	35	24NOV04	28DEC04	0
BS-124090	Lifting Appliance	14	26NOV04	11DEC04	0
BS-126050	Cabling works	30	26NOV04	25DEC04	0
BS-124110	PCCW cable laying & wiring works	15	27NOV04	11DEC04	0
BS-124070	Valves and Pipeworks	40	29NOV04	17JAN05	0
BS-126090	F.S. Services Installation	30	02DEC04	31DEC04	0
BS-124060	Penstock	33	04DEC04	14JAN05	0
BS-126040	Lightning & Earthing Installation	30	06DEC04	04JAN05	0
BS-124080	Deodourizer System	20	09DEC04	04JAN05	0
BS-124040	Sewage Pumpset and VSD	20	17DEC04	05JAN05	0
BS-124050	Mechanical Screen System	20	17DEC04	05JAN05	0
BS-126070	MVAC	30	21DEC04	19JAN05	0
BS-127090	Lifting Appliance testing	5	12DEC04	16DEC04	0
BS-127060	Cabling Works Testing	5	26DEC04	30DEC04	0
Section 13: Works of Sewage Pumping Station No.2					
Part 11.2 Pumping Station 2 Piling, Struct Work					
BS-130670	OtherWallstoG/L(Walls,Beams&Slabs) remaining	20	21SEP04 A	10OCT04	35
BS-130540	Construct Transformer Room Structure	13	28SEP04	10OCT04	0
BS-130620	Finishing, E&M Works @ Transformer room	30	11OCT04	09NOV04	0
BS-130650	Waterproofing Walls & slab soffit	4	11OCT04	14OCT04	0
BS-130660	Water Tightness Test of Group A	18	15OCT04	01NOV04	0
BS-130680	Water Tightness Test of Group B	18	29OCT04	15NOV04	0
BS-130700	Drainage & Backfill	35	29OCT04	02DEC04	0
BS-130630	Walls and Ground Slab Curing Period	7	11OCT04	17OCT04	0
BS-130640	Walls, Beams & Roof Construction	14	18OCT04	31OCT04	0
BS-130610	Curing and formworks removal	7	01NOV04	07NOV04	0
BS-130690	DSD Inspection for Building Works	0	08NOV04		0
BS-130720	Finishing&BenchingWorks for Underground Chambers	35	08NOV04	12DEC04	0
BS-130800	Finishing & Furniture for Above-ground Structure	60	08NOV04	05JAN05	0
BS-130710	Sheetpile Extraction	15	03DEC04	17DEC04	0
Part 11.4 Electrical & Mechanical Equipment					
BS-134110	CLP Inspection of Transformer Room	0	10NOV04		0
BS-135100	Expected availability of power supply	0	28SEP04		0
BS-135090	Expected availability of Fresh&Salt water supply	0	08NOV04		0
BS-136030	Survey of Civil As-built	7	08NOV04	14NOV04	0
BS-136040	Electrical Installation-Concealed Conduit	33	19NOV04	21DEC04	0
BS-136080	SCADA and PLC Works	35	23NOV04	27DEC04	0
BS-136110	F.S. Services Installation	30	24NOV04	23DEC04	0
BS-136100	P & D Installation	45	26NOV04	09JAN05	0
BS-136050	Electrical Installation	47	27NOV04	12JAN05	0
BS-136090	MVAC	30	28NOV04	27DEC04	0
BS-136060	Lightning & Earthing Installation	30	05DEC04	03JAN05	0
BS-136070	Cabling Works	30	07DEC04	05JAN05	0
BS-134120	PCCW cable laying & wiring works	16	31OCT04	15NOV04	0
BS-136010	CLP Installation	42	10NOV04	30DEC04	0
BS-134070	Valves & Pipeworks	40	17NOV04	05JAN05	0
BS-134090	Lifting Appliance	14	19NOV04	02DEC04	0
BS-134100	LV Switchboard and Control Panels	30	22NOV04	28DEC04	0
BS-134060	Penstock	40	28NOV04	06JAN05	0
BS-134040	Sewage Pumpset & VSD	20	03DEC04	22DEC04	0
BS-134050	Mechanical Screen System	16	03DEC04	18DEC04	0
BS-134080	Deodourizer System	12	08DEC04	21DEC04	0
BS-137080	Lifting Appliance functional testing	5	03DEC04	07DEC04	0
BS-137090	Deodorizer System functional testing	6	22DEC04	27DEC04	0
BS-137030	F.S. Services functional testing	3	24DEC04	26DEC04	0
Section 15: Waterworks in Area 15					



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Page number	4A
Page count	6A
Number/Version	TP35/02/3MON/25
Company name	Penta-Ocean Construction Co. Ltd.
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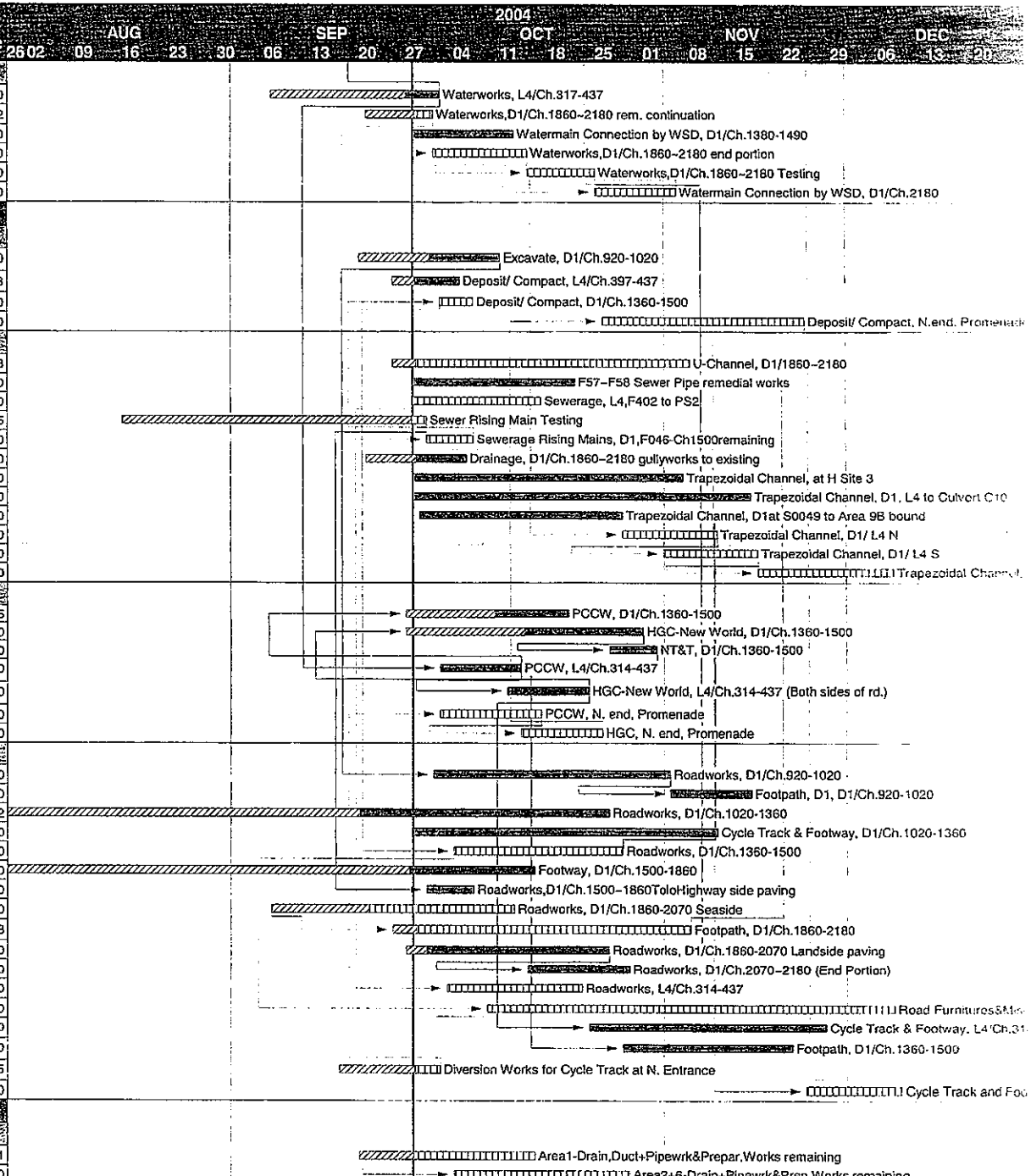
Early bar
Progress bar
Critical bar
Summary bar
Start milestone point
Finish milestone point

Contract No.TP35/02
Remaining Engineering Infrastructure Works for Pak Shek Kok Development Package 1
3MONTHS ROLLING PROGRAM

Act. ID	Description	Orig Dur	Early Start	Early Finish	Percent Complete
Part 6.10 Waterworks - Section 15					
B6-1595D7	Waterworks, L4/Ch.317-437	20	07SEP04 A	01OCT04	80
B6-1595D86	Waterworks,D1/Ch.1860~2180 rem. continuation	12	21SEP04 A	30SEP04	72
B6-1595D23	Watermain Connection by WSD, D1/Ch.1380-1490	15	28SEP04	12OCT04	0
B6-1595D76	Waterworks,D1/Ch.1860~2180 end portion	14	01OCT04	14OCT04	0
B6-1595D56	Waterworks,D1/Ch.1860~2180 Testing	10	15OCT04	24OCT04	0
B6-1595D66	Watermain Connection by WSD, D1/Ch.2180	12	25OCT04	05NOV04	0
Section 16 - Remainder of Works, except LS+EW					
Part 3.11 Earthworks - Section 16					
B3-1622M1	Excavate, D1/Ch.920-1020	25	20SEP04 A	10OCT04	50
B3-1622N7	Deposit/ Compact, L4/Ch.397-437	10	25SEP04 A	04OCT04	33
B3-1622N3	Deposit/ Compact, D1/Ch.1360-1500	5	02OCT04	06OCT04	0
B3-1622N9	Deposit/ Compact, N.end, Promenade	30	26OCT04	24NOV04	0
Part 4.10 Drainage & Sewerage - Section 16					
B4-1683B56	U-Channel, D1/1860~2180	45	25SEP04 A	07NOV04	8
B4-1683B86	F57~F58 Sewer Pipe remedial works	24	28SEP04	21OCT04	0
B4-1685B18	Sewerage, L4,F402 to PS2	19	28SEP04	16OCT04	0
B4-1691B23	Sewer Rising Main Testing	45	16AUG04 A	29SEP04	95
B4-1691B13	Sewerage Rising Mains, D1,F046-Ch1500remaining	7	30SEP04	06OCT04	0
B4-1683B97	Drainage, D1/Ch.1860~2180 gullyworks to existing	15	21SEP04 A	05OCT04	50
B4-1689C8	Trapezoidal Channel, at H Site 3	40	28SEP04	06NOV04	0
B4-1689D6	Trapezoidal Channel, D1, L4 to Culvert C10	50	28SEP04	16NOV04	0
B4-1689D2	Trapezoidal Channel, D1at S0049 to Area 9B bound	30	29SEP04	28OCT04	0
B4-1689D3	Trapezoidal Channel, D1/ L4 N	14	29OCT04	11NOV04	0
B4-1689D4	Trapezoidal Channel, D1/ L4 S	14	04NOV04	17NOV04	0
B4-1689D5	Trapezoidal Channel, L4	20	18NOV04	07DEC04	0
Section 16 - Utilities					
UT-1600T3A	PCCW, D1/Ch.1360-1500	15	27SEP04 A	20OCT04	55
UT-1600T3B	HGC-New World, D1/Ch.1360-1500	15	27SEP04 A	31OCT04	50
UT-1600T3C	NT&T, D1/Ch.1360-1500	7	27OCT04	02NOV04	0
UT-1600T7A	PCCW, L4/Ch.314-437	12	02OCT04	13OCT04	0
UT-1600T7B	HGC-New World, L4/Ch.314-437 (Both sides of rd.)	12	12OCT04	23OCT04	0
UT-1600T9A	PCCW, N. end, Promenade	15	02OCT04	16OCT04	0
UT-1600T9B	HGC, N. end, Promenade	12	14OCT04	25OCT04	0
Part 5.10 Roadworks - Section 16					
B5-1670A1	Roadworks, D1/Ch.920-1020	35	01OCT04	04NOV04	0
B5-1672A21	Footpath, D1, D1/Ch.920-1020	12	05NOV04	16NOV04	0
B5-1670A2	Roadworks, D1/Ch.1020-1360	75	22JUL04 A	26OCT04	62
B5-1672A2	Cycle Track & Footway, D1/Ch.1020-1360	45	28SEP04	11NOV04	0
B5-1670A3	Roadworks, D1/Ch.1360-1500	25	04OCT04	28OCT04	0
B5-1672A4	Footway, D1/Ch.1500-1860	90	15JUL04 A	15OCT04	80
B5-1670A14	Roadworks,D1/Ch.1500~1860ToloHighway side paving	7	30SEP04	06OCT04	0
B5-1670A6	Roadworks, D1/Ch.1860-2070 Seaside	25	07SEP04 A	12OCT04	40
B5-1672A6	Footpath, D1/Ch.1860-2180	45	25SEP04 A	07NOV04	8
B5-1670A26	Roadworks, D1/Ch.1860-2070 Landside paving	20	27SEP04 A	26OCT04	10
B5-1670A36	Roadworks, D1/Ch.2070~2180 (End Portion)	15	15OCT04	29OCT04	0
B5-1670A7	Roadworks, L4/Ch.314-437	20	03OCT04	22OCT04	0
B5-1674G0	Road Furnitures&Misc.,D1/Ch920-2180&L4/Ch315-437	60	09OCT04	07DEC04	0
B5-1672A7	Cycle Track & Footway, L4/Ch.314-437	35	24OCT04	27NOV04	0
B5-1672A3	Footpath, D1/Ch.1360-1500	25	29OCT04	22NOV04	0
B5-1670A46	Diversion Works for Cycle Track at N. Entrance	14	17SEP04 A	01OCT04	75
B5-1670A56	Cycle Track and Footpath, North End	14	25NOV04	08DEC04	0
Section 17 - Areas 1,2,6,7A+7B Landscape Softwork					
Part 12.1 Landscape Works - Section 17					
BL-1705A11	Area1-Drain,Duct+Pipewrk&Prepar,Works remaining	26	20SEP04 A	15OCT04	31
BL-1705A12	Area2+6-Drain+Pipewrk&Prep.Works remaining	26	04OCT04	29OCT04	0



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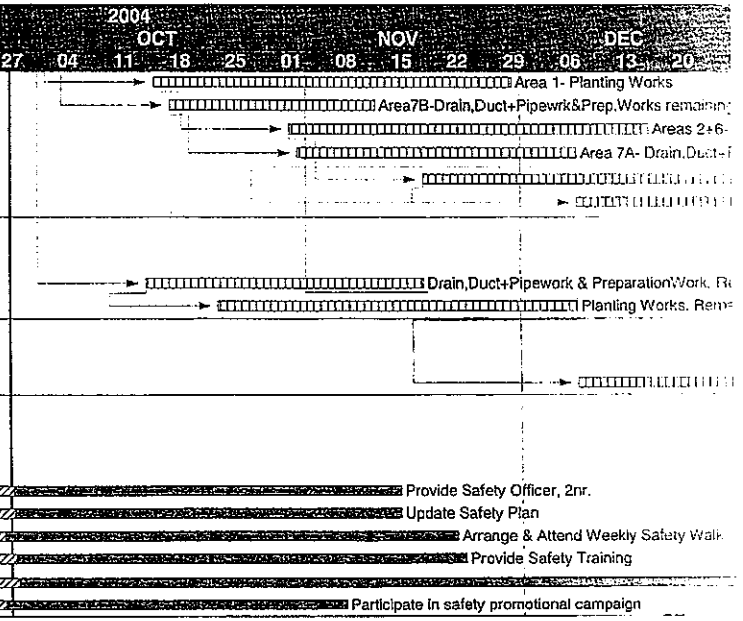
Page number	5A
Page count	6A
Number/Version	TP35/02/3MON/25
Company name	Penta-Ocean Construction Co. Ltd.

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
3MONTHS ROLLING PROGRAM

Act ID	Description	Orig Dur	Early Start	Early Finish	Percent Complete
BL-1707A1	Area 1- Planting Works	45	16OCT04	29NOV04	0
BL-1705A14	Area7B-Drain,Duct+Pipewrk&Prep.Works remaining	26	18OCT04	12NOV04	0
BL-1707A2	Areas 2+6- Planting Works	45	02NOV04	16DEC04	0
BL-1705A3	Area 7A- Drain,Duct+Pipework & Preparation Works	35	03NOV04	07DEC04	0
BL-1707A4	Area 7B- Planting Works	45	19NOV04	02JAN05	0
BL-1707A3	Area 7A- Planting Works	45	08DEC04	21JAN05	0
Section 18- Remainder of Landscaping Works					
Part 12.2 Landscape Works - Section 18					
BL-1814A1	Drain,Duct+Pipework & PreparationWork, Remainder	35	15OCT04	18NOV04	0
BL-1814A2	Planting Works, Remainder	45	24OCT04	07DEC04	0
Section 20- Remainder of Establishment Works					
Part 12.4 Landscape Works - Section 20					
BL-300001	Establishment Works - Remainder	365	08DEC04	07DEC05	0
SITE SAFETY					
Part 14 Site Safety					
BT-1401D0	Provide Safety Officer, 2nr.	810	27AUG02 A	15NOV04	94
BT-1401C0	Update Safety Plan	810	31AUG02 A	15NOV04	94
BT-1401G0	Arrange & Attend Weekly Safety Walk	805	03SEP02 A	22NOV04	93
BT-1401H0	Provide Safety Training	810	10SEP02 A	23NOV04	93
BT-1401E0	Attend Site Safety Committee & Mgmt.Committee	810	26OCT02 A	02JAN05	88
BT-1401K0	Participate in safety promotional campaign	694	28NOV02 A	08NOV04	94



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Page number	6A
Page count	6A
Number/Version	TP35/02/3MON/25
Company name	Penta-Ocean Construction Co. Ltd.
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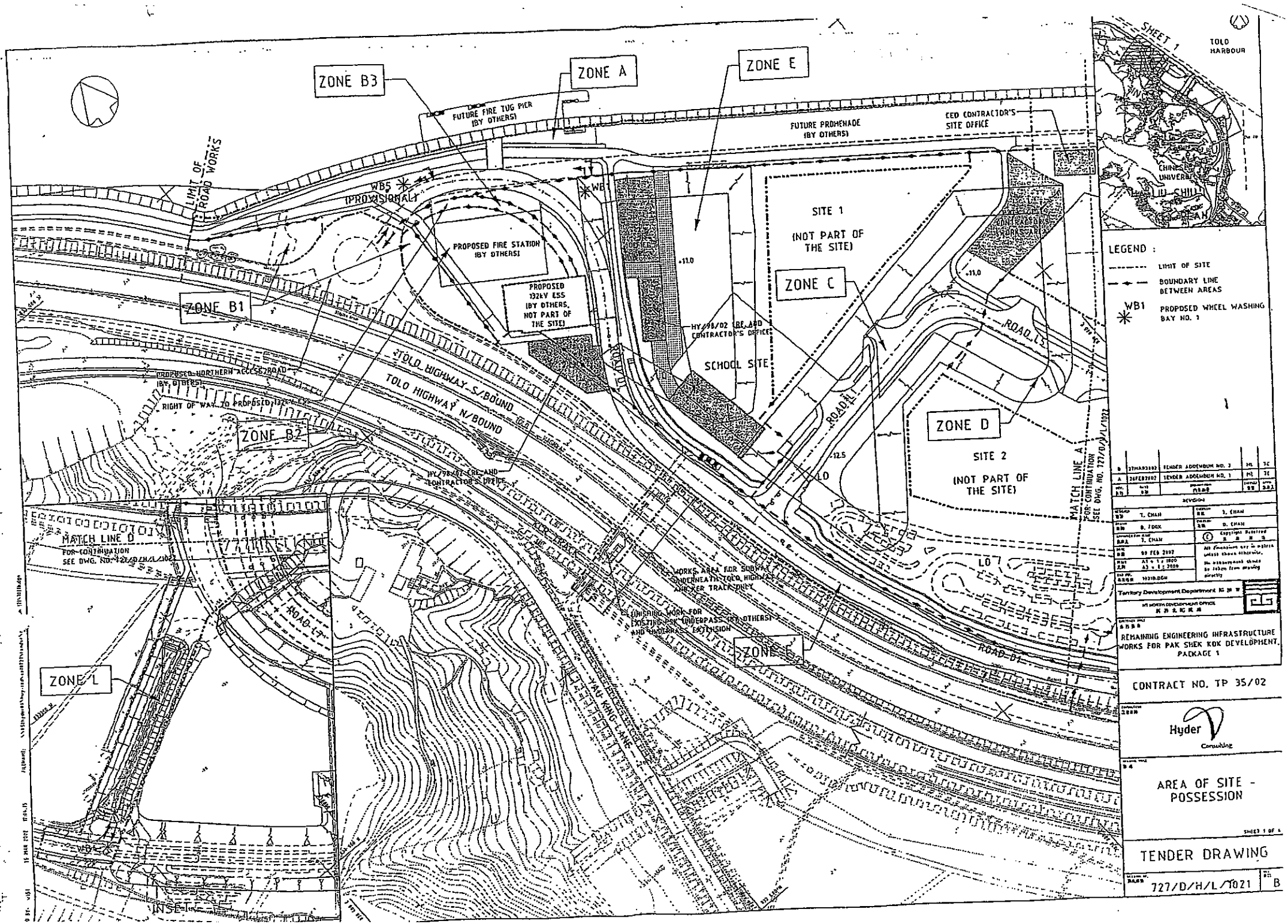
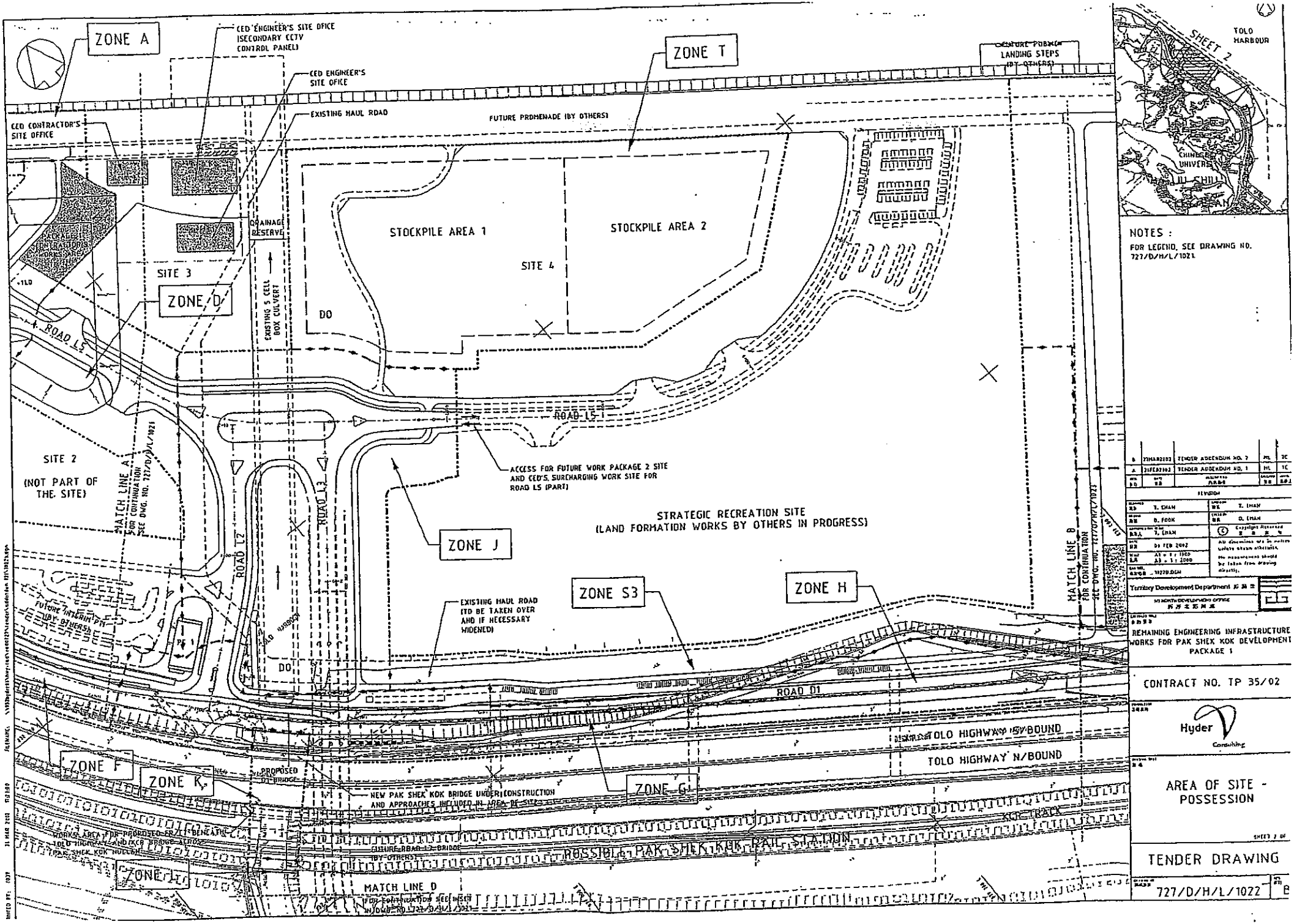
Summary bar
Start milestone point
Finish milestone point

Contract No.TP35/02
Remaining Engineering Infrastructure Works for Pak Shek Kok Development Package 1
3MONTHS ROLLING PROGRAM

Appendix G

Construction Site Area


ZONE B3
ZONE A
ZONE E
ZONE B1
ZONE B2
ZONE C
ZONE D
ZONE L
SITE 1
(NOT PART OF THE SITE)
SITE 2
(NOT PART OF THE SITE)
SCHOOL SITE
FUTURE FIRE TUG PIER (BY OTHERS)
FUTURE PROMENADE (BY OTHERS)
CED CONTRACTOR'S SITE OFFICE
LIMIT OF ROAD WORKS
WB5 (PROVISIONAL)
PROPOSED FIRE STATION (BY OTHERS)
PROPOSED 132kV ESS (BY OTHERS, NOT PART OF THE SITE)
HY/98/02 RE AND CONTRACTOR'S OFFICE
TOLO HIGHWAY S/BOUND
TOLO HIGHWAY N/BOUND
PROPOSED NORTHERN ACCESS ROAD (BY OTHERS)
RIGHT OF WAY TO PROPOSED 132kV ESS
MATCH LINE D
FOR CONTINUATION SEE DWG. NO. 727/D/H/L/1022
MATCH LINE A
FOR CONTINUATION SEE DWG. NO. 727/D/H/L/1021
WORKS AREA FOR SUBWAY UNDERNEATH TOLO HIGHWAY (HIKER TRACK ONLY)
UNDERPASS EXTENSION
YAU KING LANE
ROAD L1
ROAD L2
ROAD L3
ROAD D1
INSET
TOLO HARBOUR
SHEET 1
CHINESE UNIVERSITY
SHIU HAH
LEGEND :
LIMIT OF SITE
BOUNDARY LINE BETWEEN AREAS
WB1 PROPOSED WHEEL WASHING BAY NO. 1
REVISION
T. CHAN
B. FOOK
B. CHAN
Territory Development Department
HY NORTH DEVELOPMENT OFFICE
REMAINING 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
B



NOTES :

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

REV	DATE	REVISION	BY	CK
B	27MAR2002	TENDER ADDENDUM NO. 2	WL	TC
A	21FEB2002	TENDER ADDENDUM NO. 1	WL	TC

DESIGNED BY	T. CHAN
DRAWN BY	T. CHAN
CHECKED BY	D. FOOK
APPROVED BY	D. CHAN
SUBMITTED BY	T. CHAN
DATE	20 FEB 2002
SCALE	A1 = 1 : 1000, A3 = 1 : 2000
DWG. NO.	727/D/H/L/1022

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All dimensions are in metres unless shown otherwise.

No measurement should be taken from drawing directly.

Territory Development Department

HK MAINTENANCE OFFICE

REMAINING ENGINEERING INFRASTRUCTURE WORKS FOR PAK SHEK KOK DEVELOPMENT PACKAGE 1

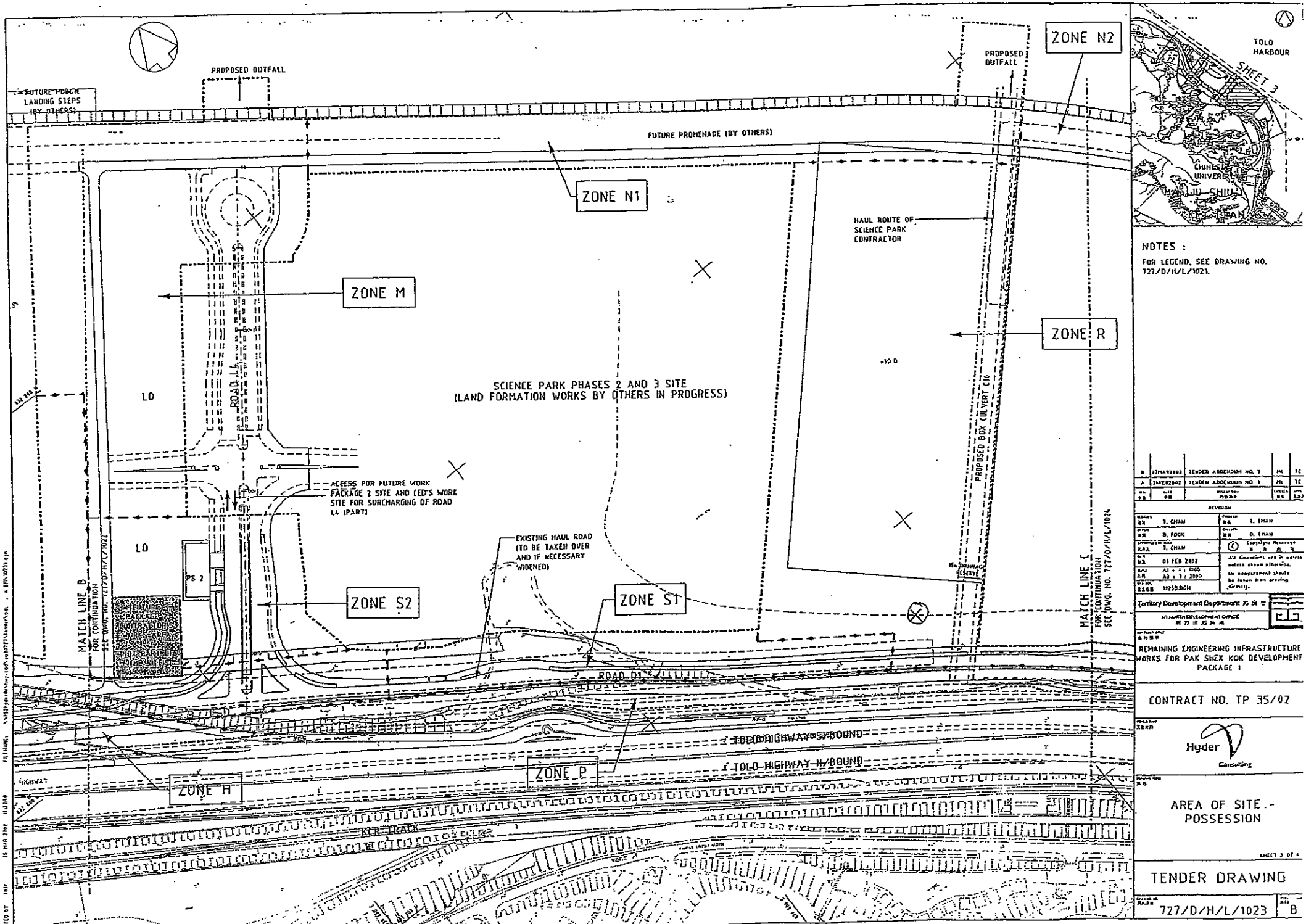
CONTRACT NO. TP 35/02

Hyder Consulting

AREA OF SITE - POSSESSION

TENDER DRAWING

727/D/H/L/1022 B



NOTES :

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

B	23MAR2002	TENDER ADDENDUM NO. 2	PK	TC
A	26FEB2002	TENDER ADDENDUM NO. 1	PK	TC
n/a	n/a	NONE		

REVISION

DESIGNED	Y. CHAN	CHECKED	E. CHAN
DRAWN	B. POON	SUBMITTED	D. CHAN
CHECKED	Y. CHAN	© Copyright Reserved	
DATE	05 FEB 2002	All dimensions are in metres unless shown otherwise.	
SCALE	A1 = 1 : 1000 A3 = 1 : 2000	No measurement should be taken from drawing directly.	
AGD NO.	11238.DGN		

Territory Development Department 地 拓 署

HK NORTH DEVELOPMENT OFFICE 香 港 北 部 拓 展 處

REMAINING ENGINEERING INFRASTRUCTURE WORKS FOR PAK SHEK KOK DEVELOPMENT PACKAGE 1

CONTRACT NO. TP 35/02

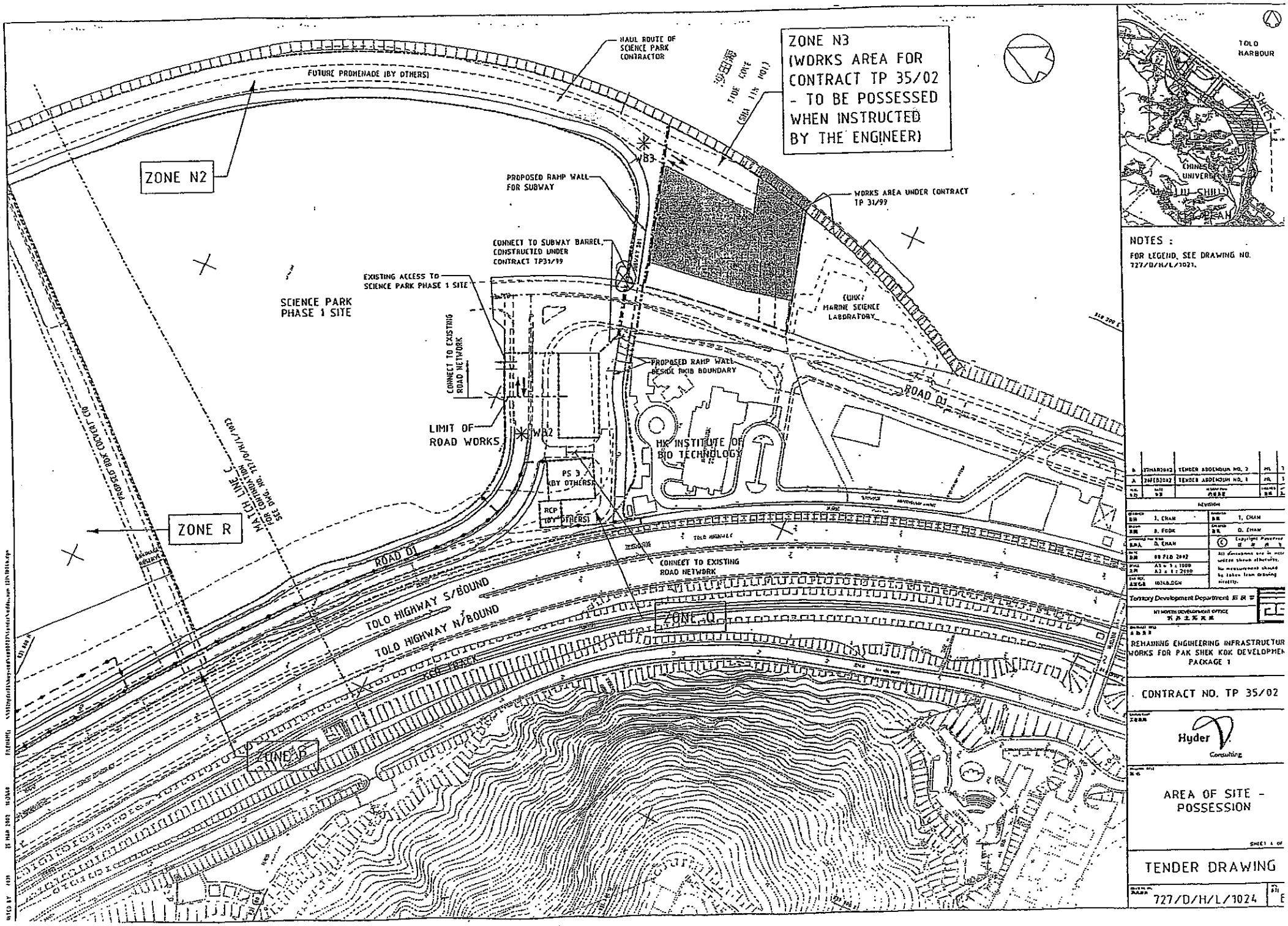
Hyder Consulting

AREA OF SITE - POSSESSION

SHEET 2 OF 4

TENDER DRAWING

727/D/H/L/1023 | B



NOTES :

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

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A	26FEB2002	TENDER ADDENDUM NO. 1	

DESIGNED BY	T. CHAN
DRAWN BY	T. CHAN
CHECKED BY	D. FOOK
APPROVED BY	D. CHAN
DATE	08 FEB 2002
SCALE	A1 = 1:1000 A3 = 1:2000
FILE NO.	10748.DGN

All dimensions are in metres unless shown otherwise. No measurement should be taken from drawing directly.

Territory Development Department

MT HAVEN DEVELOPMENT OFFICE

REMAINING ENGINEERING INFRASTRUCTUR WORKS FOR PAK SHEK KOK DEVELOPMEN PACKAGE 1

CONTRACT NO. TP 35/02

Hyder Consulting

AREA OF SITE - POSSESSION

SHEET 1 OF

TENDER DRAWING

727/D/H/L/1024

E

Appendix H

Summary of the Implementation schedule of Mitigation Measures

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

Summary of the Implementation Status of Mitigation Measures

October 2004

The Summary of Implementation status of Mitigation Measures

Aspect	Mitigation Measures	Implementation Status		
		Y	N	N/A
Air	- The height from which fill materials were dropped was controlled to a practical height to minimize the fugitive dust arising form 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.	√		
Noise	- 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 on direction, where possible, were orientated so that the noise is directed away from nearby NSRs.	√		
	- Silencers or mufflers on construction equipment were considered.	√		
Water	- 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 rain water.	√		
	- 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 (bunded) 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
Waste	- 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.	√		
Chemical Waste	- 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 110% 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.	√		

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

Summary of the Implementation Status of Mitigation Measures

November 2004

The Summary of Implementation status of Mitigation Measures

Aspect	Mitigation Measures	Implementation Status		
		Y	N	N/A
Air	- The height from which fill materials were dropped was controlled to a practical height to minimize the fugitive dust arising form 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.	√		
Noise	- Only well maintained plant were 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 on direction, where possible, were orientated so that the noise is directed away from nearby NSRs.	√		
	- Silencers or mufflers on construction equipment were considered.	√		
Water	- 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 (bunded) 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
Waste	- 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.	√		
Chemical Waste	- 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:			
	7. - Suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed;	√		
	8. - Enclosed on at least 3 sides;	√		
	9. - Have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest;	√		
	10. - Have adequate ventilation;	√		
	11. - Covered to prevent rainfall entering (water collected within the bund must be tested and disposal as chemical waste if necessary);	√		
	12. - Arranged so that incompatible materials are adequately separated.	√		

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

Summary of the Implementation Status of Mitigation Measures

December 2004

The Summary of implementation Status of Mitigation Measures

Aspect	Mitigation Measures	Implementation Status		
		Y	N	N/A
Air	- The height from which fill materials were dropped was controlled to a practical height to minimize the fugitive dust arising form 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.	√		
Noise	- Only well maintained plant were 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 on direction, where possible, were orientated so that the noise is directed away from nearby NSRs.	√		
	- Silencers or mufflers on construction equipment were considered.	√		
Water	- 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 rain water.	√		
	- 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 (bunded) 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
Waste	- 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.	√		
Chemical Waste	- 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:			
	13. - Suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed;	√		
	14. - Enclosed on at least 3 sides;	√		
	15. - Have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest;	√		
	16. - Have adequate ventilation;	√		
	17. - Covered to prevent rainfall entering (water collected within the bund must be tested and disposal as chemical waste if necessary);	√		
	18. - Arranged so that incompatible materials are adequately separated.	√		

Appendix I

Wastewater Monitoring
–
Test Report of Wastewater Sample from Discharge Point

ALS Environmental

PENTA-OCEAN CONST. CO LTD

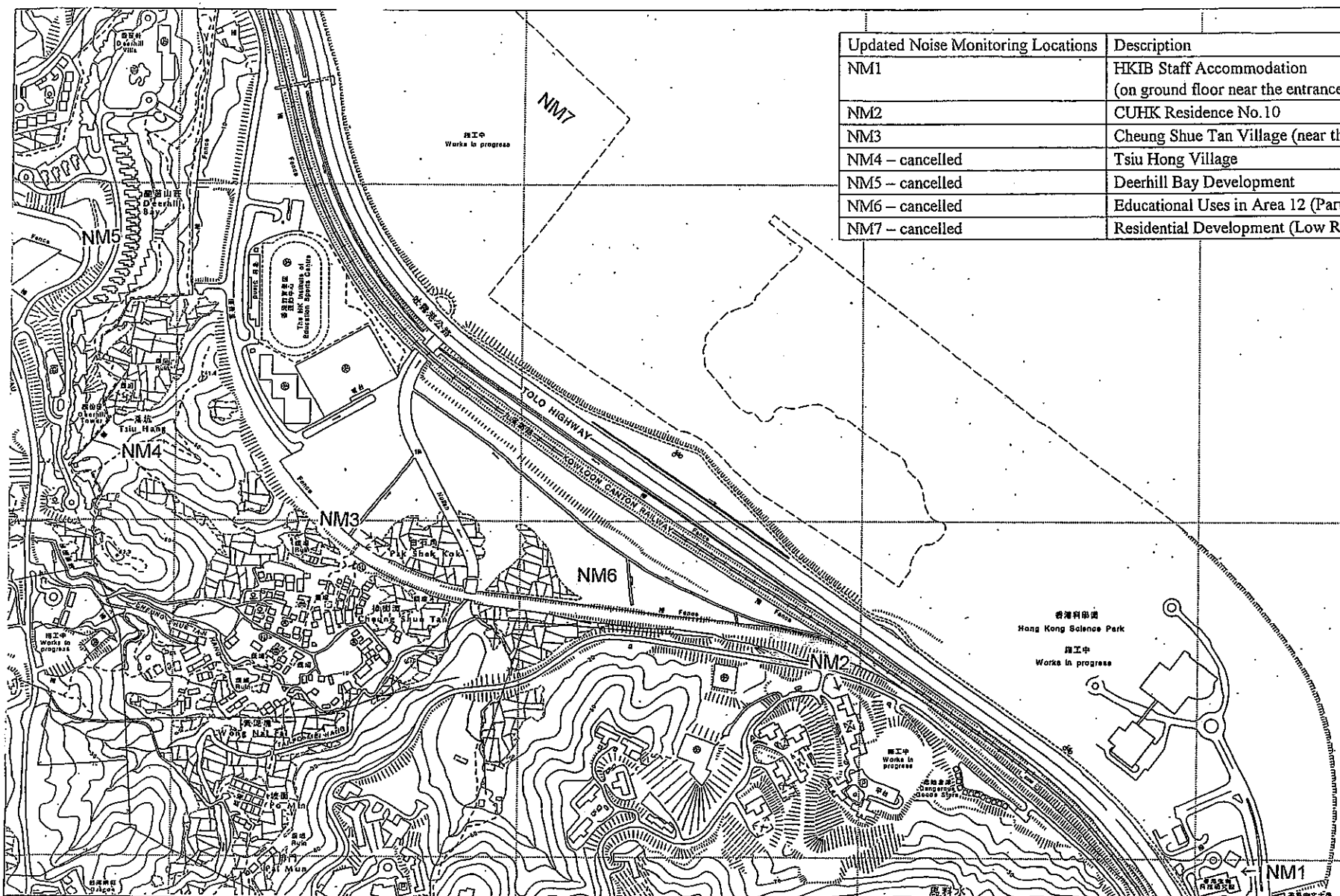
Attention: MR JOHN TAM
YourOrder:
SampleType: WASTE WATER
Project: PSK

Page-no: 1
HONG KONG
Batch-no: 31077
Sub-batch: 0
No-samples: 1
Received: 14/10/04
Checked:

Method	Analysis description	Units	LOR	PSK-PS1
				14/10/04
EA-002	pH Value @ 25'C		0.1	8.2
EA-025	Suspended Solids (SS)	mg/L	2	16
EP-026	Chemical Oxygen Demand	mg/L	2	18

Samples were picked up from client by ALS Technichem (HK) staff in a chilled condition. Sample analysed and reported on an as received basis. The completion date of analysis is 21 October, 2004.

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	Tsiu Hong Village
NM5 – cancelled	Deerhill Bay Development
NM6 – cancelled	Educational Uses in Area 12 (Part I)
NM7 – cancelled	Residential Development (Low Rise Building) – R1

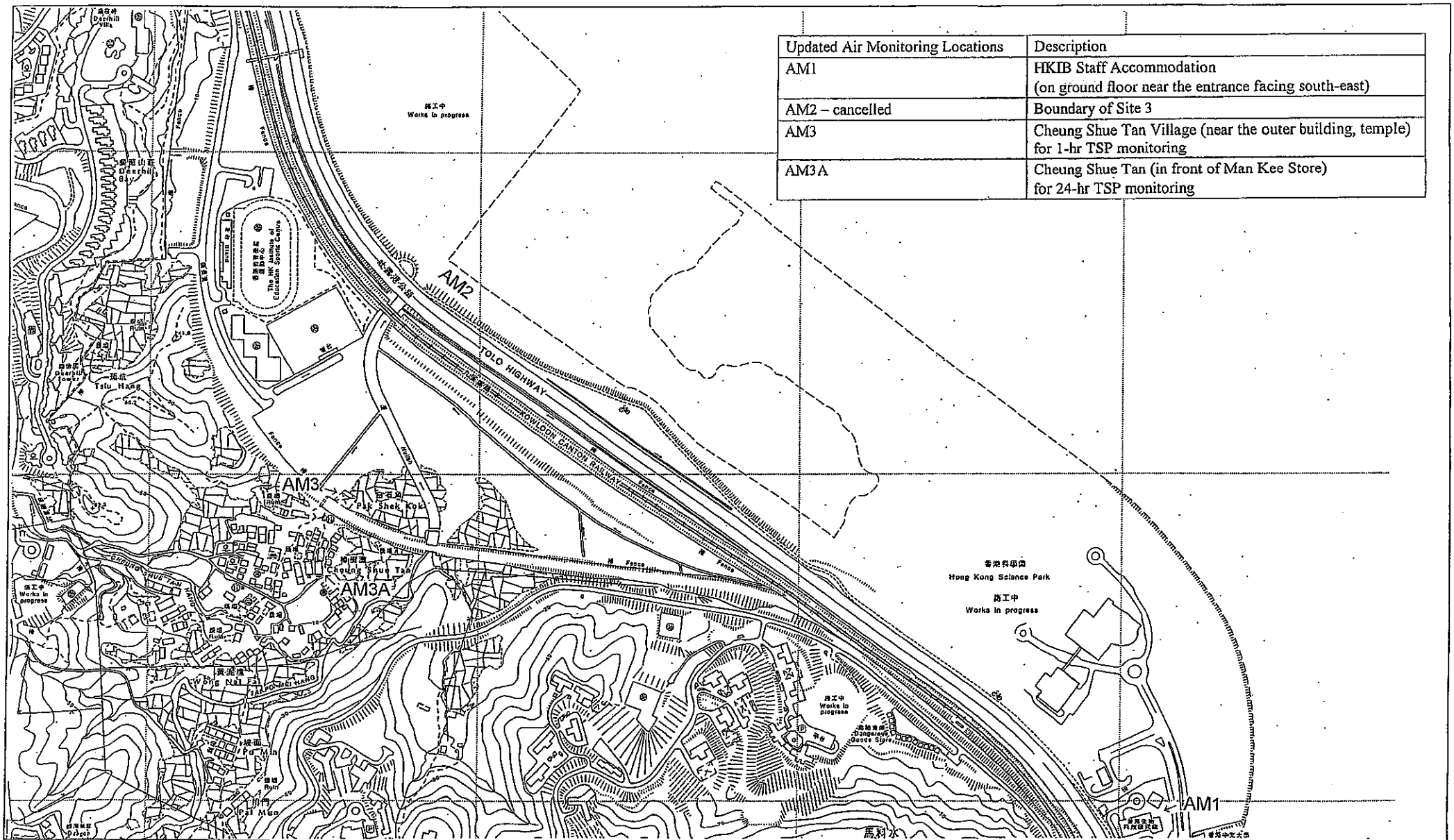
Remaining Engineering Works for Pak Shek Kok Development, Package 1
Contract No. TP35/02

Figure 1 Location of Noise Monitoring Stations

Scale : ---

Revised Date:
15/11/2002

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED



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

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

Figure 2 Location of Air Monitoring Stations

Scale : ---

Revised Date:
15/11/2002

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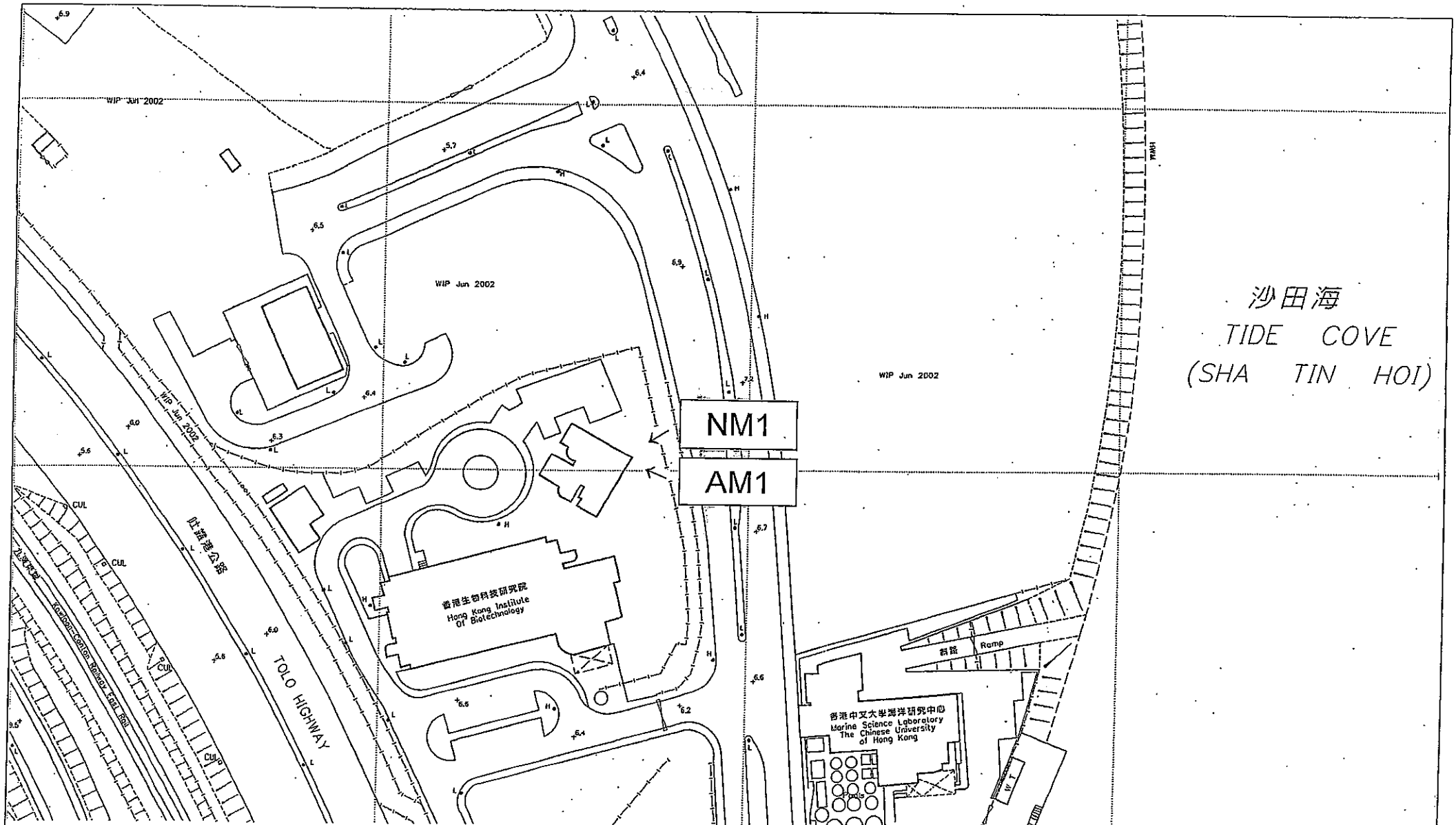
ETS-TESTCONSULT LIMITED



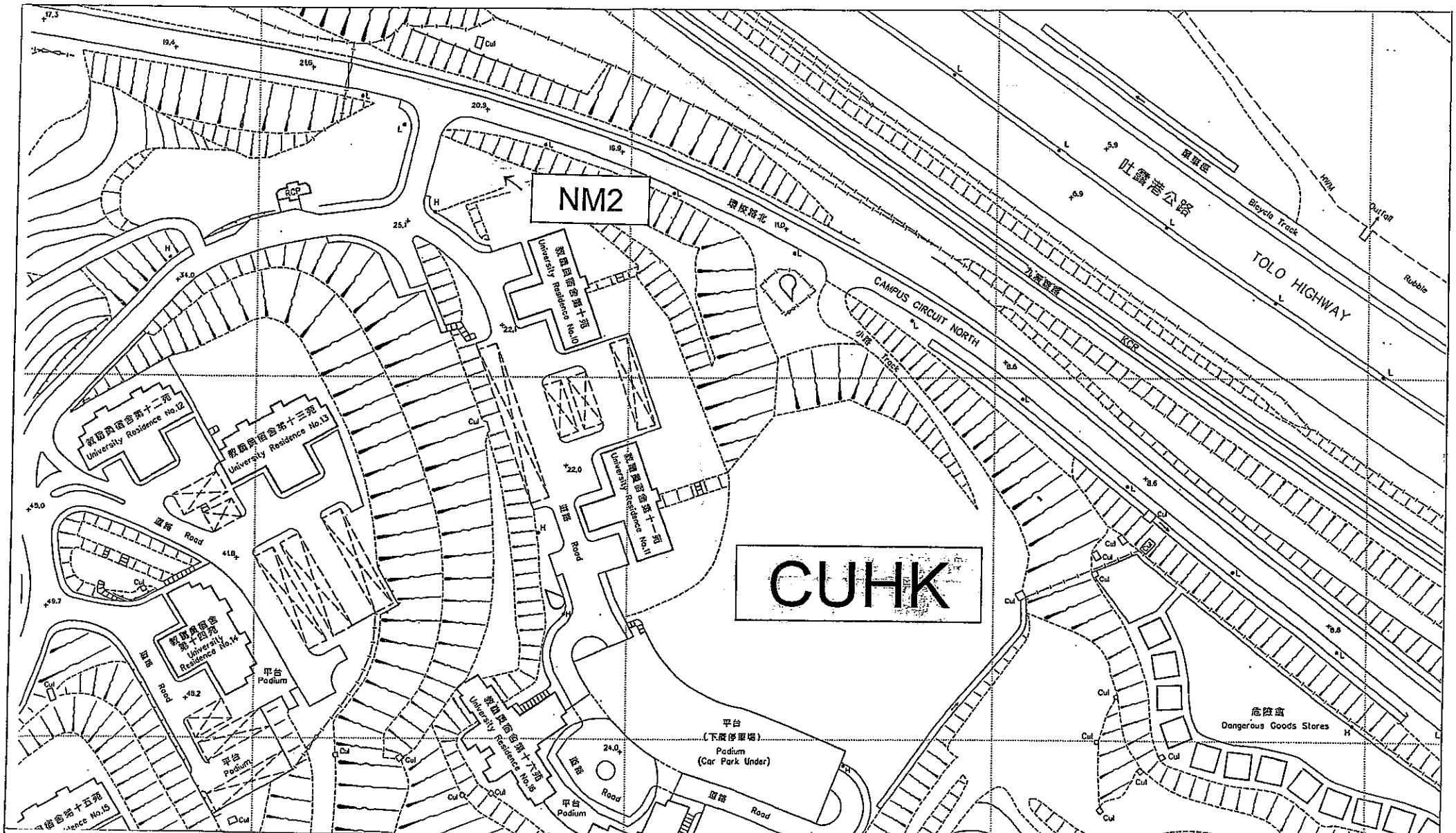
Remaining Engineering Works for Pak Shek Kok Development, Package 1
Contract No. TP35/02

Figure 3 Location of Air and Noise Monitoring Stations at HKIB Staff Accommodation

Scale : ---

Revised Date: 15/11/2002

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED



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

Scale : ---

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15/11/2002

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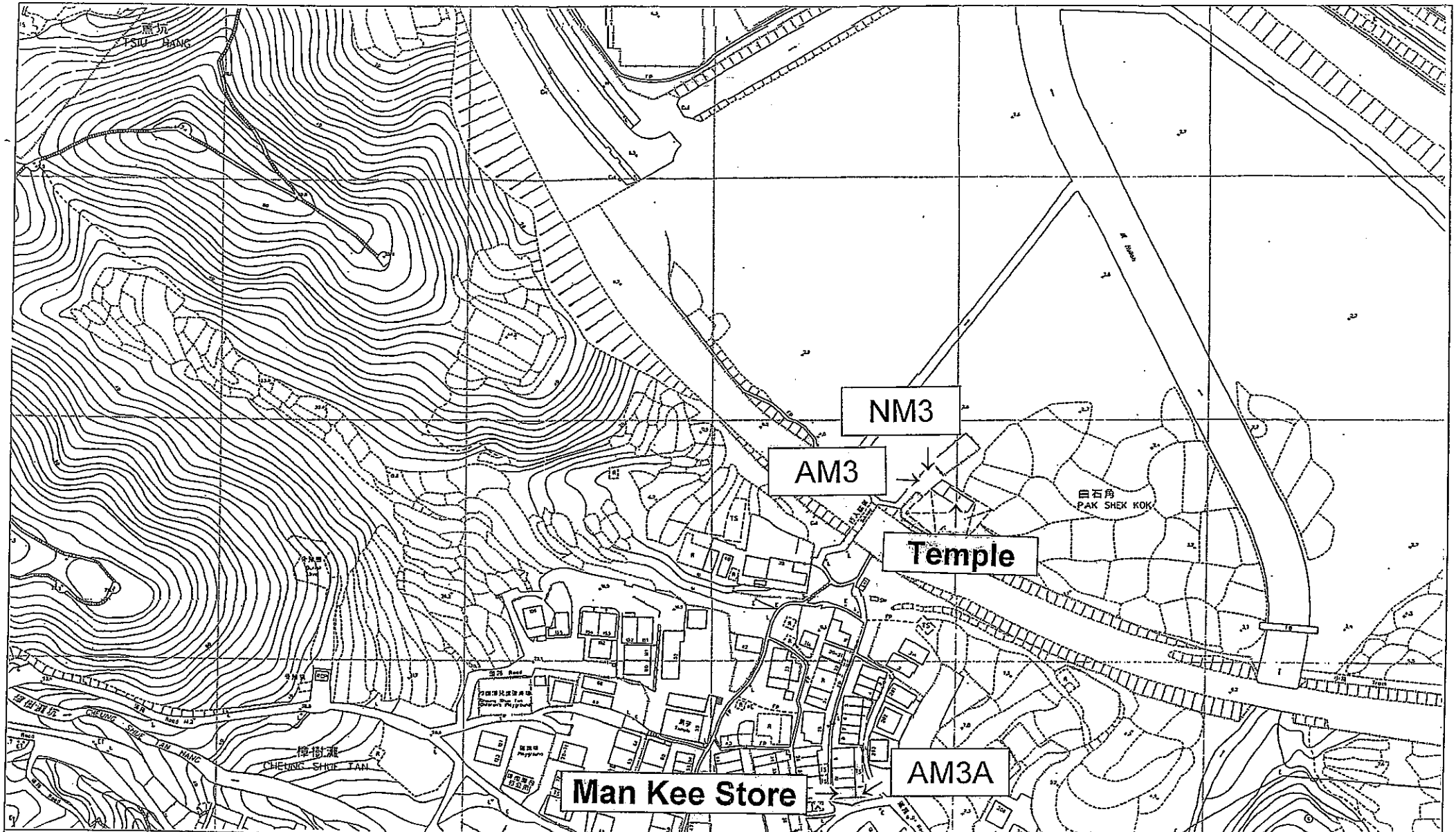

Remaining Engineering Works for Pak Shek Kok Development, Package 1
Contract No. TP35/02

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

Scale : ---

Revised Date:
15/11/2002

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