

**Sha Tin New Town, Stage II Road D15 Linking Lok Shun Path and  
Tai Po Road (Contract No. ST 77/01)**

**Monthly Environmental Monitoring & Audit Report –  
November 2003**

Checked in accordance with EML QP22  
Environmental Team Leader



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## EXECUTIVE SUMMARY

The impact environmental monitoring report was prepared by Environmental Management Limited (EML) for Environmental Monitoring & Audit (EM&A) Services of Sha Tin New Town, Stage II Road D15 Linking Lok Shun Path and Tai Po Road. This report discusses the EM&A services that had been carried out in November 2003.

Environmental monitoring for this Project included both air quality and noise measurements. The parameters measured for air quality are 24-hour and 1-hour Total Suspended Particulate (TSP) while for noise monitoring, the A-weighted continuous sound pressure level ( $L_{eq}$ ) as well as percentile levels ( $L_{10}$  and  $L_{90}$ ) were measured.

Over the reporting period, all monitored 24-hour TSP, 1-hour TSP and noise ( $L_{eq}(5min)$ ) monitoring data were below the Action and Limit Levels and no remedial actions as listed in the Event and Action Plan (**Appendix G**) were required.

The major construction activities in this reporting period included:

- Construction of Bridge A, B and C, including pile caps (Bridge A, B and C), abutment walls (Bridge A and B), and bridge decks (Bridge A and C);
- Retaining wall 1, 2, 5, 7 and 12;
- Noise barrier construction for noise barrier No.1 and noise barrier No.5;
- Box culvert extension, including the construction of 1400 box culvert and 1500 diameter pipe;
- Underground drainage and water pipes at Lok Shun Path Roundabout; and
- Construction of staircase 4, 5 and 8.

Regular site inspection was conducted in this reporting month and the mitigation measures, as discussed in the relevant documents, were assessed.

In regard to the environmental issues in the last reporting month, it was noted from site inspections that the rubbish and construction waste left on the site were removed and water spraying was carried out more frequently on unpaved road.

In this month, however, it was noted from site inspections that oils were observed on the top of oil drum and the Contractor was asked to remove and properly dispose them in order to prevent the soil contaminations. Meanwhile, stagnant water was observed in Area A2, retaining wall 1&2. The Contractor was instructed to pump out and remove any stagnant water immediately to avoid the spread of Dengue disease. In addition, the Contractor was asked to cover the stockpiles with tarpaulic sheeting in order to prevent fugitive dust emission.

## 1. INTRODUCTION

### 1.1 Background

Environmental Management Limited (EML) was appointed by Maunsell Consultants Asia Ltd. as the Environmental Specialist for the project *Sha Tin New Town, Stage II Road Linking Lok Shun Path and Tai Po Road* (Contract No. ST 77/01).

The responsibilities of the Environmental Team included:

- Monitor the noise and air quality data as required in the Environmental Monitoring and Audit (EM&A) Manual;
- Analyse the monitoring data and review the success of EM&A program to cost effectively confirm the adequacy of mitigatory measures implemented and validity of the Environmental Impact Assessment Study predictions and to identify any adverse environmental impacts arising;
- Carry out site inspection to investigate and audit the Contractor's site practice, equipment and work methodologies with respect to pollution control and environmental mitigation, and anticipate environmental issues for proactive action before problems arise;
- Review the proposal for mitigation measures submitted by Contractor in accordance with Event and Action Plans;
- Propose any improvement or other alternative mitigation measures should Contractor's proposal be found to be inadequate;
- Adhere to the procedures for carrying out complaint investigation;
- Audit and prepare EM&A reports on environmental monitoring data and site environmental conditions and;
- Report on EM&A results to Engineer, the ER and EPD.

This is the monthly EM&A report for November 2003. This monthly report describes the results of the impact air quality and noise monitoring works in the reporting period as well as the environmental status and issues of Road D15 Construction Site. In addition, if required, any remedial/follow-up actions undertaken as a result of non-compliance with relevant environmental criteria or complaints related to Road D15 Construction Site would also be discussed.

The project area of Road D15 Construction Site is shown in **Figure 1.1**.

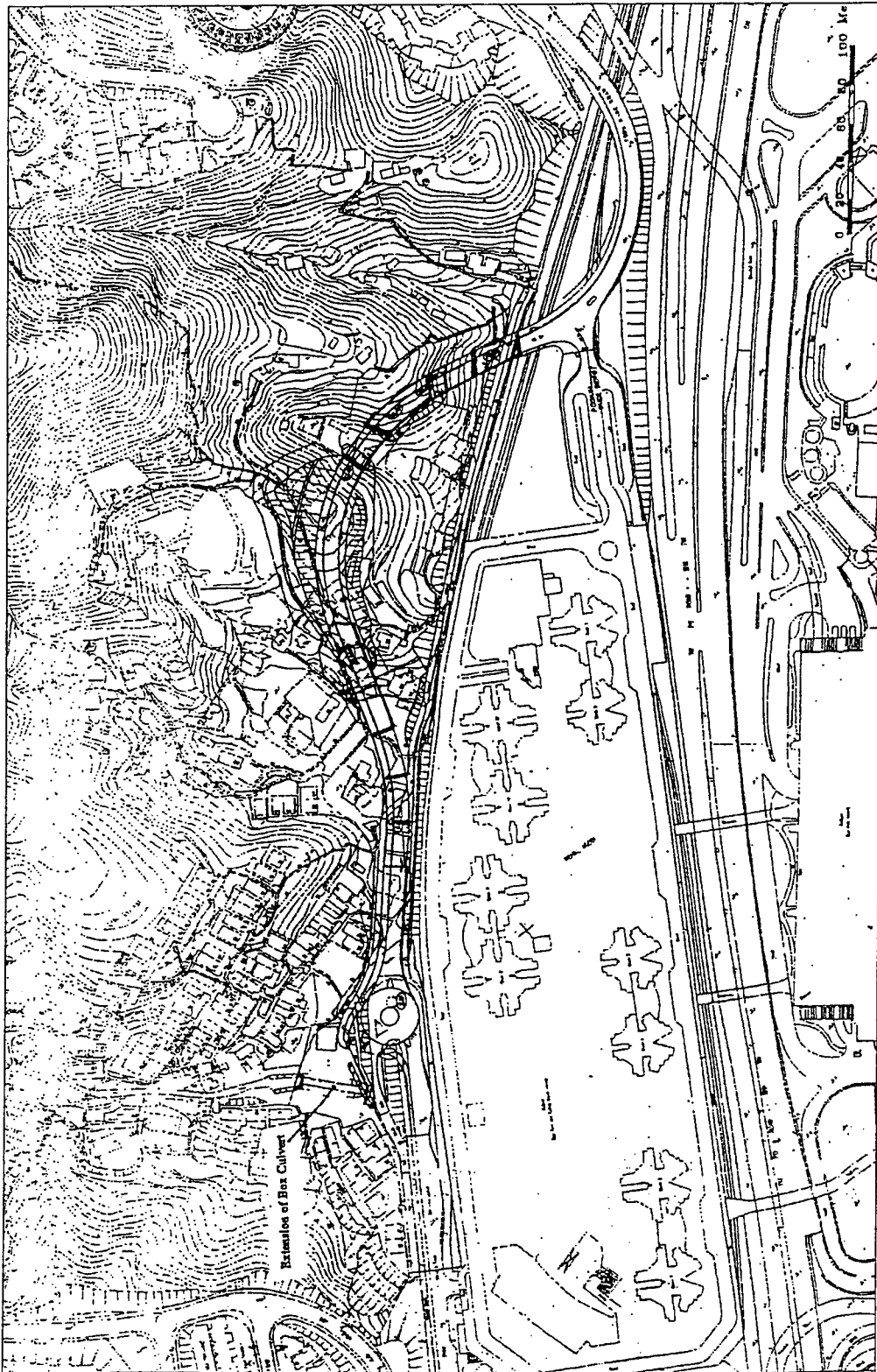


Figure 1.1 Project Area

## 2. ENVIRONMENTAL STATUS

### 2.1 Air Quality

#### 2.1.1 Monitoring Requirements

In accordance with the EM&A Manual, air quality impact monitoring was conducted in terms of 1-hour and 24-hour TSP at the designated monitoring locations.

Continuous 24-hour TSP monitoring was performed once in every six days while 1-hour TSP monitoring was performed 3 times in every 6 days. The Action and Limit (AL) levels for air quality is attached in **Appendix A** while the tentative monitoring schedules for the current and next reporting months are attached in **Appendix B**.

#### 2.1.2 Monitoring Locations

The designated impact air quality monitoring stations are listed in **Table 2.1** and are shown in **Figure 2.1**.

**Table 2.1 Air Quality Monitoring Locations**

Monitoring Station	Location
A1	Village house at Lok Lo Ha Village
A2	Lok Lo Ha Village House No. 104
A3	Village House near Tsun King Road

#### 2.1.3 Summary of Monitoring Results

In this report, the results for the impact air quality monitoring conducted in November 2003 at the three designated locations were evaluated. **Table 2.2** summarises the ranges and mean of the 24-hour and 1-hour TSP monitoring results carried out in the reporting period. Detailed results, including graphical plots and relevant field logs, are presented in **Appendix C** and **D**. Meanwhile, **Appendix F** shows the meteorological conditions during the monitoring days.

**Table 2.2 Summary of 24 and 1-hour TSP Monitoring Results**

Parameter	Monitoring Location	Mean TSP Levels ( $\mu\text{g}/\text{m}^3$ )	Range ( $\mu\text{g}/\text{m}^3$ )	No. of Exceedance	
				Action Levels	Limit Levels
24 – hour TSP	A1	103.8	69 – 149	0	0
	A2	106.4	65 – 149	0	0
	A3	97.8	58 – 136	0	0
1 – hour TSP	A1	200.9	116 – 285	0	0
	A2	182.7	119 – 255	0	0
	A3	185.2	129 – 269	0	0

From **Table 2.2** above, all measured 24-TSP and 1-hour TSP monitoring data were below the criteria as set out in the Action and Limit Levels in **Appendix A**.

Over the reporting period, the local weather conditions during the monitoring were mainly sunny or cloudy. From field logs, the major dust sources during samplings near the designated stations included road dusts, vehicle emissions from traffic in Lok Shun Path and construction works at Road D15 Site. The major construction works carried out at Road D15 Site over the reporting period include construction of Bridge A, B and C, retaining wall, noise barrier, box culvert

extension, underground drainage and water pipes and staircases. Meanwhile, it was also observed that there were construction activities carried out by sites that were not related to this Project in the vicinity of the monitoring stations.

Comparing with the monitoring results from last month, the calculated mean 24-hour and 1-hour TSP levels at all stations were generally higher in this reporting month. The highest mean TSP levels were recorded at Station A1 (1-hour TSP) with values of  $200.9\mu\text{g}/\text{m}^3$  which was relatively higher than the levels recorded in October ( $181.4\mu\text{g}/\text{m}^3$ ).



Figure 2.1 Air Quality Monitoring Locations



## 2.2 Noise

### 2.2.1 Monitoring Requirements

Impact noise monitoring was conducted once in every six days at the five designated monitoring locations in accordance with specifications in the EM&A Manual. The duration of sampling was 30 minutes. The Action and Limit levels for noise monitoring are attached in **Appendix A** while the tentative monitoring schedules for the current and next reporting months are attached in **Appendix B**.

### 2.2.2 Monitoring Locations

The impact noise monitoring locations are presented in **Table 2.3** and shown in **Figure 2.2**.

**Table 2.3 Noise Monitoring Locations**

Monitoring Location	Measurement	Location
N1	Façade	Lok Lo Ha Village House No. 3B
N2	Façade	Lok Lo Ha Village House No. 32A
N3	Façade	Royal Ascot Block 9, Flat C
N4	Façade	Lok Lo Ha Village House No. 97
N5	Façade	Village near Royal Ascot

### 2.2.3 Summary of Monitoring Results

In this report, the results for the impact noise monitoring conducted in November 2003 at the five designated locations were evaluated. The monitoring results obtained are summarised in **Table 2.4** below. Detailed results, including graphical plots and relevant field logs, are presented in **Appendix E**. Meanwhile, **Appendix F** shows the meteorological conditions during the monitoring days.

**Table 2.4 Summary of Noise Monitoring Results**

Parameter	Monitoring Location	Range of Results dB(A)	No. of Exceedance	
			Action Levels	Limit Levels
30-minute Noise Measurement (Leq)	N1	61.5 – 71.4	0	0
	N2	64.8 – 73.2	0	0
	N3	58.2 – 62.8	0	0
	N4	59.7 – 63.9	0	0
	N5	58.7 – 62.2	0	0

From **Table 2.4** above, all noise monitoring data recorded were below the criteria as set out in the Action and Limit Levels in **Appendix A**.

Over the reporting period, the local weather conditions during the sampling were mainly sunny or cloudy, while all monitoring was conducted with wind speed of below 1.3 m/s. Traffic and construction activities were the major noise sources identified at the five monitoring locations. Meanwhile it was noted from field log that activities of cutting, piling, excavating, hammering, concreting and carpentry, as well as operations of construction vehicles and machines including cranes, dump truck, hand-held breakers, electric generator were present in the vicinity of the monitoring stations during the monitoring.

Comparing with the monitoring results recorded in last reporting period, the range of measured noise level during this reporting month at all stations were similar. The highest level was recorded at Station N2 (73.2dB(A)) and occurred in the morning of 20 November. According to the field log, the major noise source at that time was excavation and hammering as well as traffic on KCR.

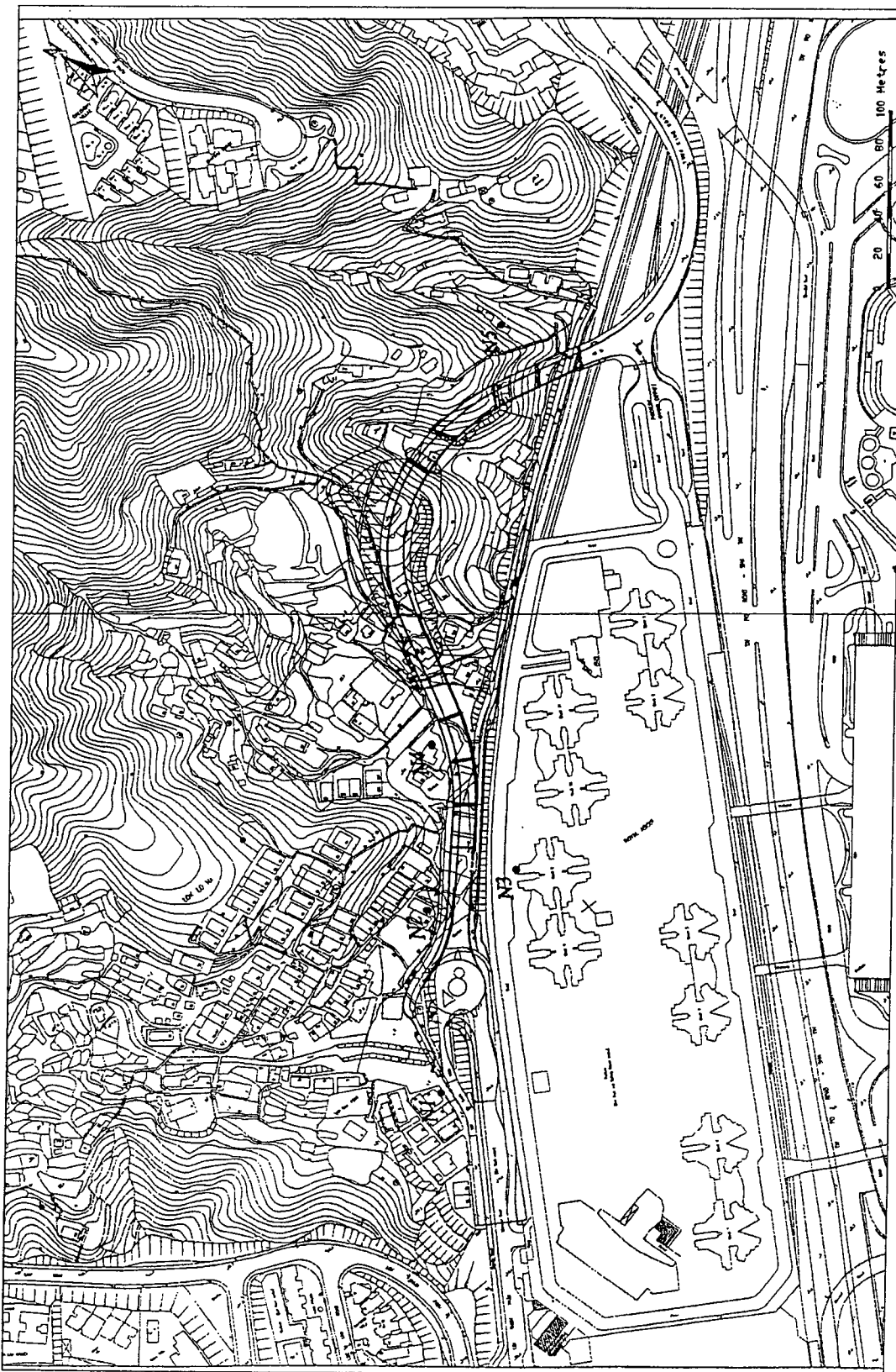


Figure 2.2 Noise Monitoring Locations

### 3. ENVIRONMENTAL AUDIT

#### 3.1 General

In the last monthly EM&A report, three environmental issues were raised:

- Stagnant water was observed occasionally on the site;
- Rubbish and construction waste was observed at parts of the construction site; and
- Water spraying should be carried out more frequently on unpaved road;

It was noted from site inspections that the rubbish and construction waste left on the site were removed and water spraying was carried out more frequently on unpaved road.

Table 3.1 summarises the date and type of site inspections carried out during the reporting period.

**Table 3.1 Summary of Site Inspection during the Reporting Period**

Date	Type of Inspection
6 November 2003 (Thursday)	Regular Site Inspection
13 November 2003 (Thursday)	Regular Site Inspection
21 November 2003 (Friday)	Regular Site Inspection
26 November 2003 (Wednesday)	Regular Site Inspection

Over the reporting period, the major construction work at the Site include:

- Construction of Bridge A, B and C, including pile caps (Bridge A, B and C), abutment walls (Bridge A and B), and bridge decks (Bridge A and C);
- Retaining wall 1, 2, 5, 7 and 12;
- Noise barrier construction for noise barrier No.1 and noise barrier No.5;
- Box culvert extension, including the construction of 1400 box culvert and 1500 diameter pipe;
- Underground drainage and water pipes at Lok Shun Path Roundabout; and
- Construction of staircase 4, 5 and 8.

#### 3.2 Assessment of Environmental Monitoring Results

In this reporting month, there were no exceedance recorded for both impact air quality and noise monitoring. The monitoring result was discussed in Section 2 of the report and are summarised in Table 3.2 below.

**Table 3.2 Summary of Environmental Monitoring**

Item	Parameter	Monitoring Period	Total No. of Samples Taken (on all stations)	No. of Exceedance	
				Action Levels	Limit Levels
1	24 – hour TSP	01/10/03 to 31/10/03	15	0	0
2	1 – hour TSP	01/10/03 to 31/10/03	54	0	0
3	30-minute Noise Measurement (Leq)	01/10/03 to 31/10/03	30	0	0

### 3.3 Environmental Complaints

No environmental complaints had been received by the Environmental Team against the construction site in this reporting month. **Table 3.3** shows the summary record for this reporting month while **Table 3.4** summarises the complaint statistics from the commencement of the Project to date. **Appendix I** listed the details of all the complaints received on the construction site.

**Table 3.3 Environmental Complaints / Enquiry Received in the Reporting Month**

Complaint No.	Received date & Time	Description (inc. location/ nature of complaint)	Follow-up Action Taken	Recommended Mitigation Measures	Status/ Remarks
N/a	N/a	N/a	N/a	N/a	N/a

**Table 3.4 Summary of Total Number of Complaints Received to date**

Total No. of Complaints to date	No. of Complaints in this reporting period	No. of Active Complaints	No. of Inactive/Closed Complaints
2	0	N/a	2

### 3.4 Assessment of Mitigation Measures

**Table 3.5** presented the status of the major mitigation measures identified during site inspection.

**Table 3.5 Summary of Major Mitigation Measures at the Site**

Type	Mitigation Measure	Comments
Noise	Temporary purposed-built Noise Barrier	<ul style="list-style-type: none"> <li>Constructed based on the design in the Construction Noise Mitigation Proposal.</li> </ul>
Water	Wheel Washing Facility	<ul style="list-style-type: none"> <li>Installed and in operation.</li> </ul>
	Sand/Silt Removal Facilities	<ul style="list-style-type: none"> <li>Wastewater treatment systems are installed to treat site-runoffs and water from piling works</li> <li>Another treatment system was installed to treat wastewater from piling works near Bridge C.</li> </ul>
	Measures along stream-banks north-east of Lok Shun Path Roundabout	<ul style="list-style-type: none"> <li>Concrete, sandbags, sump pits and pumps were placed/installed along the banks to prevent construction debris and site run-off from entering the stream untreated.</li> </ul>
	Diversion of Stream Course via drainage pipe	<ul style="list-style-type: none"> <li>Installed at the existing channel.</li> </ul>
Wastewater	Water Reuse at wheel washing facility and site investigation drilling works.	Implemented

Type	Mitigation Measure	Comments
Land Contamination	Metal trays are placed underneath stationary machines where there are potential of oil leakage	Implemented
Air	Provide plastic sheeting covers on exposed soils	Implemented
	Regular water spraying on areas where there is likely generation of dust	Implemented
	Impervious sheeting was placed around the working area near monitoring station A1	Implemented

In this month, it was noted from site inspections that oils were observed on the top of oil drum and the Contractor was asked to remove and properly dispose them in order to prevent the soil contaminations. Meanwhile, stagnant water was observed in Area A2, retaining wall 1&2. The Contractor was instructed to pump out and remove any stagnant water immediately to avoid the spread of Dengue disease. In addition, the Contractor was asked to cover the stockpiles with tarpaulic sheeting in order to prevent fugitive dust emission.

#### 4. FUTURE KEY ISSUE AND RECOMMENDATION

There are three environmental issues that will need to be addressed in the next reporting month:

- Oils left on the top of oil drum should be removed and properly disposed;
- Stagnant water in Area A2, retaining wall 1&2 should be removed to avoid the spread of Dengue Fever;
- Stockpiles should be sprayed with water and covered with tarpaulic sheeting.

The updated work program for the following months are attached in **Appendix J** while the monitoring tentative schedule for the next reporting month are attached in **Appendix B**.

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**APPENDIX A:**

**Action and Limit Levels**

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**Action and Limit Levels for 24-hour TSP**

Location	Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
A1	156	260
A2	155	
A3	153	

**Action and Limit Levels for 1-hour TSP**

Location	Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
A1	371	500
A2	378	
A3	368	

**Action / Limit Levels for Construction Noise**

Time Period	Action Level	Limit Level
0700-1900 hours on normal weekdays	When one documented complaint is received	75* dB(A)
0700-2300 hours on holidays; and 1900-2300 hours on all other days		60/65/70** dB(A)
2300- 0700 hours of next day		45/50/55** dB(A)

\*\* to be selected based on Area Sensitivity Rating

Note: If works are to be carried out during restricted hours, the conditions stipulated in the construction noise permit issued by the Noise Control Authority have to be followed.

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**APPENDIX B:**

**Tentative Schedule for Impact  
Air Quality and Noise  
Monitoring**

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**1. Tentative Schedule for Current Reporting Month – November 2003**

Contract No. ST77/01

Sha Tin New Town, Stage II

Road D15 Linking Lok Shun Path and Tai Po Road

Tentative Time Schedule for Construction Phase Dust Monitoring for Nov 2003

Nov-03	Day	Start Time	
		24-hr TSP	1-hr TSP
1	Sat	x	x
2	Sun	x	x
3	Mon	09:30	08:00
4	Tue	x	09:50,11:00
5	Wed	x	x
6	Thu	x	x
7	Fri	09:30	08:00
8	Sat	x	x
9	Sun	x	x
10	Mon	x	08:00,11:00
11	Tue	x	x
12	Wed	x	x
13	Thu	09:30	08:00
14	Fri	x	09:50,11:00
15	Sat	x	x
16	Sun	x	x
17	Mon	x	x
18	Tue	x	x
19	Wed	09:30	08:00
20	Thu	x	09:50,11:00
21	Fri	x	x
22	Sat	x	x
23	Sun	x	x
24	Mon	x	x
25	Tue	09:30	08:00
26	Wed	x	09:50,11:00
27	Thu	x	x
28	Fri	x	x
29	Sat	x	x
30	Sun	x	x

Contract No. ST77/01

Sha Tin New Town, Stage II

Road D15 Linking Lok Shun Path and Tai Po Road

Tentative Time Schedule for Construction Phase Noise Monitoring for Nov 2003

Nov-03	Day	Start Time				
		N1	N2	N3	N4	N5
1	Sat	x	x	x	x	x
2	Sun	x	x	x	x	x
3	Mon	x	x	x	x	x
4	Tue	09:50	11:15	13:00	10:25	09:00
5	Wed	x	x	x	x	x
6	Thu	x	x	x	x	x
7	Fri	x	x	x	x	x
8	Sat	x	x	x	x	x
9	Sun	x	x	x	x	x
10	Mon	09:50	11:15	13:00	10:25	09:00
11	Tue	x	x	x	x	x
12	Wed	x	x	x	x	x
13	Thu	x	x	x	x	x
14	Fri	09:50	11:15	13:00	10:25	09:00
15	Sat	x	x	x	x	x
16	Sun	x	x	x	x	x
17	Mon	x	x	x	x	x
18	Tue	x	x	x	x	x
19	Wed	x	x	x	x	x
20	Thu	09:50	11:15	13:00	10:25	09:00
21	Fri	x	x	x	x	x
22	Sat	x	x	x	x	x
23	Sun	x	x	x	x	x
24	Mon	x	x	x	x	x
25	Tue	x	x	x	x	x
26	Wed	09:50	11:15	13:00	10:25	09:00
27	Thu	x	x	x	x	x
28	Fri	x	x	x	x	x
29	Sat	x	x	x	x	x
30	Sun	x	x	x	x	x

## 2. Tentative Schedule for Next Reporting Month – December 2003

Contract No. ST77/01

Sha Tin New Town, Stage II

Road D15 Linking Lok Shun Path and Tai Po Road

Tentative Time Schedule for Construction Phase Dust Monitoring for Dec 2003

Dec-03	Day	Start Time	
		24-hr TSP	1-hr TSP
1	Mon	09:30	08:00
2	Tue	x	09:50,11:00
3	Wed	x	x
4	Thu	x	x
5	Fri	09:30	08:00
6	Sat	x	x
7	Sun	x	x
8	Mon	x	08:00,11:00
9	Tue	x	x
10	Wed	x	x
11	Thu	09:30	08:00
12	Fri	x	09:50,11:00
13	Sat	x	x
14	Sun	x	x
15	Mon	x	x
16	Tue	x	x
17	Wed	09:30	08:00
18	Thu	x	09:50,11:00
19	Fri	x	x
20	Sat	x	x
21	Sun	x	x
22	Mon	x	x
23	Tue	09:30	08:00
24	Wed	x	09:50,11:00
25	Thu	x	x
26	Fri	x	x
27	Sat	x	x
28	Sun	x	x
29	Mon	09:30	08:00
30	Tue	x	09:50,11:00
31	Wed	x	x

Contract No. ST77/01

Sha Tin New Town, Stage II

Road D15 Linking Lok Shun Path and Tai Po Road

Tentative Time Schedule for Construction Phase Noise Monitoring for Dec 2003

Dec-03	Day	Start Time				
		N1	N2	N3	N4	N5
1	Mon	x	x	x	x	x
2	Tue	09:50	11:15	13:00	10:25	09:00
3	Wed	x	x	x	x	x
4	Thu	x	x	x	x	x
5	Fri	x	x	x	x	x
6	Sat	x	x	x	x	x
7	Sun	x	x	x	x	x
8	Mon	09:50	11:15	13:00	10:25	09:00
9	Tue	x	x	x	x	x
10	Wed	x	x	x	x	x
11	Thu	x	x	x	x	x
12	Fri	09:50	11:15	13:00	10:25	09:00
13	Sat	x	x	x	x	x
14	Sun	x	x	x	x	x
15	Mon	x	x	x	x	x
16	Tue	x	x	x	x	x
17	Wed	x	x	x	x	x
18	Thu	09:50	11:15	13:00	10:25	09:00
19	Fri	x	x	x	x	x
20	Sat	x	x	x	x	x
21	Sun	x	x	x	x	x
22	Mon	x	x	x	x	x
23	Tue	x	x	x	x	x
24	Wed	09:50	11:15	13:00	10:25	09:00
25	Thu	x	x	x	x	x
26	Fri	x	x	x	x	x
27	Sat	x	x	x	x	x
28	Sun	x	x	x	x	x
29	Mon	x	x	x	x	x
30	Tue	09:50	11:15	13:00	10:25	09:00
31	Wed	x	x	x	x	x

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**APPENDIX C:**

**24-Hour TSP Impact  
Monitoring Results and Plots**

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### 1. 24-hour TSP Monitoring Results

#### Monitoring Station A1 (Lok Lo Ha Village House No. 3B)

Date	Filter Weight (g)		Flow Rate (m <sup>3</sup> /min.)		Elapse Time		Total Sampling Time (min.)	Conc. (µg/m <sup>3</sup> )	Weather Condition
	Initial	Final	Initial	Final	Initial	Final			
3-Nov-03	2.8900	3.0957	1.11	1.11	12329.17	12353.17	1440	129	Sunny
7-Nov-03	2.7593	2.8699	1.11	1.11	12356.17	12380.17	1440	69	Sunny
13-Nov-03	2.8279	2.9755	1.11	1.11	12383.17	12407.17	1440	92	Sunny
19-Nov-03	2.8182	3.0568	1.11	1.11	12410.17	12434.17	1440	149	Cloudy
25-Nov-03	2.8204	2.9480	1.11	1.11	12437.17	12461.17	1440	80	Fine
							Min	69	
							Max	149	
							Average	103.8	

#### Monitoring Station A2 (Lok Lo Ha Village House No. 104)

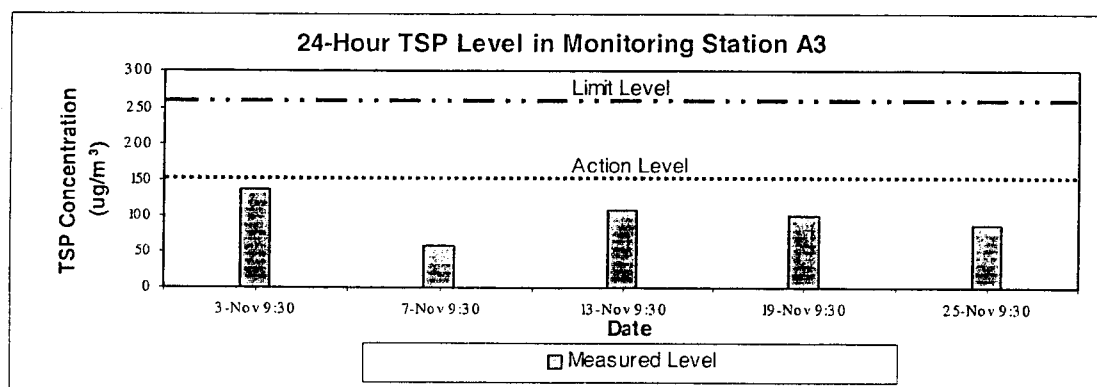
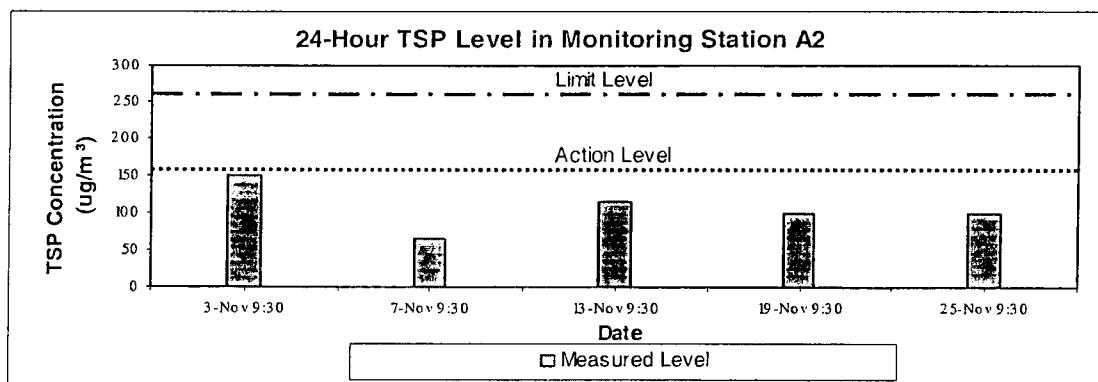
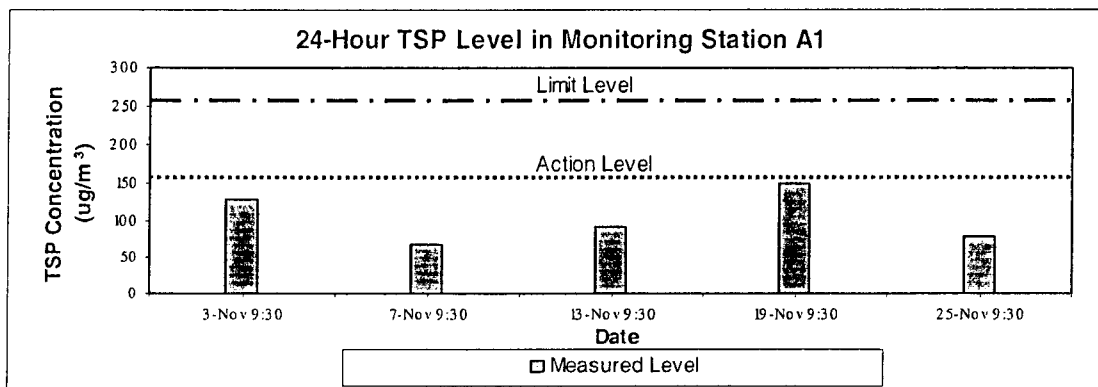
Date	Filter Weight (g)		Flow Rate (m <sup>3</sup> /min.)		Elapse Time		Total Sampling Time (min.)	Conc. (µg/m <sup>3</sup> )	Weather Condition
	Initial	Final	Initial	Final	Initial	Final			
3-Nov-03	2.8703	3.1078	1.11	1.11	3002.75	3026.75	1440	149	Sunny
7-Nov-03	2.7819	2.8864	1.11	1.11	3029.75	3053.75	1440	65	Sunny
13-Nov-03	2.8339	3.0212	1.11	1.11	3056.75	3080.75	1440	117	Sunny
19-Nov-03	2.8276	2.9898	1.11	1.11	3083.75	3107.75	1440	101	Cloudy
25-Nov-03	2.8237	2.9829	1.11	1.11	3110.75	3134.75	1440	100	Fine
							Min	65	
							Max	149	
							Average	106.4	



**Monitoring Station A3 (Village House near Tsun King Road)**

Date	Filter Weight (g)		Flow Rate (m <sup>3</sup> /min.)		Elapse Time		Total Sampling Time (min.)	Conc. (µg/m <sup>3</sup> )	Weather Condition
	Initial	Final	Initial	Final	Initial	Final			
3-Nov-03	2.8712	3.0883	1.11	1.11	11517.07	11541.07	1440	136	Sunny
7-Nov-03	2.7552	2.8476	1.11	1.11	11544.07	11568.07	1440	58	Sunny
13-Nov-03	2.8309	3.0038	1.11	1.11	11571.07	11595.07	1440	108	Sunny
19-Nov-03	2.8227	2.9808	1.11	1.11	11598.07	11622.07	1440	99	Cloudy
25-Nov-03	2.8507	2.9919	1.11	1.11	11625.07	11649.07	1440	88	Fine
							Min	58	
							Max	136	
							Average	97.8	

## 2. Plots for 24-hour Monitoring Results



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**APPENDIX D:**

**1-Hour TSP Impact  
Monitoring Results and Plots**

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## 1. 1-hour TSP Monitoring Results

### Station A1 (Lok Lo Ha Village House No. 3B)

Date	Time of sampling	Concentration, $\mu\text{g}/\text{m}^3$
3-Nov-03	8000 – 9000	272
4-Nov-03	0950 – 1050	168
4-Nov-03	1100 – 1200	221
7-Nov-03	0800 – 0900	237
10-Nov-03	0950 – 1050	132
10-Nov-03	1100 – 1200	240
13-Nov-03	0800 – 0900	215
14-Nov-03	0950 – 1050	192
14-Nov-03	1100 – 1200	285
19-Nov-03	0800 – 0900	216
20-Nov-03	0950 – 1050	116
20-Nov-03	1100 – 1200	126
25-Nov-03	0800 – 0900	257
26-Nov-03	0950 – 1050	203
26-Nov-03	1100 – 1200	134
	Average	200.9
	Min	116
	Max	285

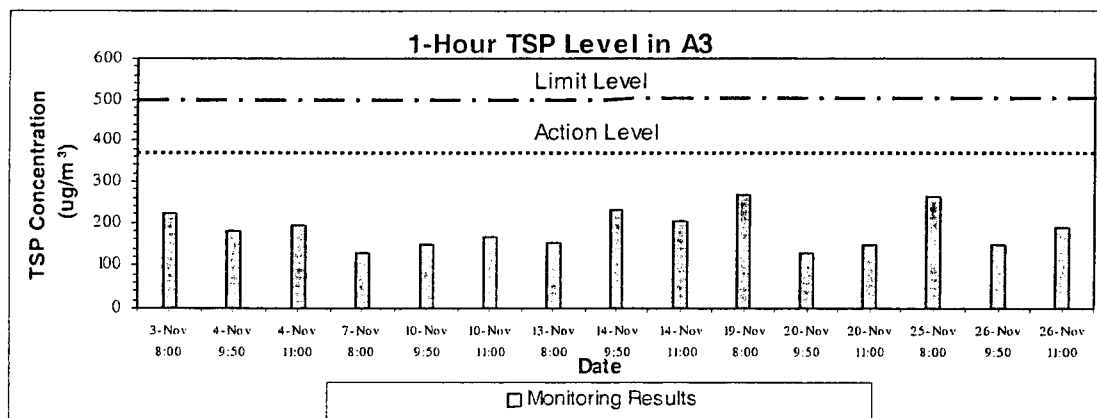
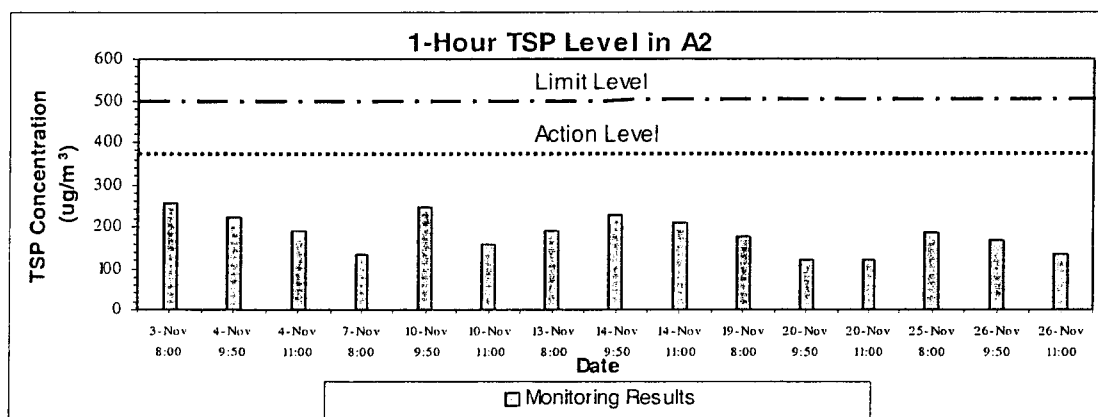
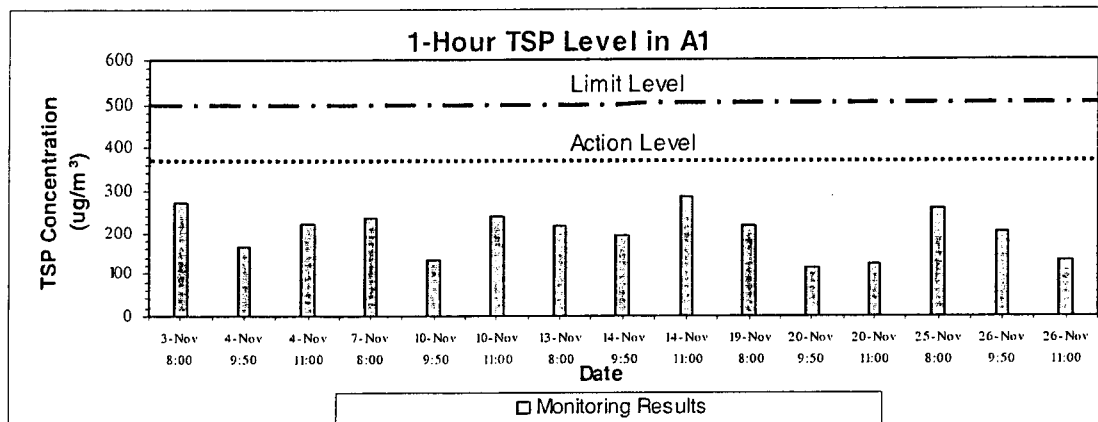
### Station A2 (Lok Lo Ha Village House No. 104)

Date	Time of sampling	Concentration, $\mu\text{g}/\text{m}^3$
3-Nov-03	8000 – 9000	255
4-Nov-03	0950 – 1050	221
4-Nov-03	1100 – 1200	191
7-Nov-03	0800 – 0900	135
10-Nov-03	0950 – 1050	248
10-Nov-03	1100 – 1200	159
13-Nov-03	0800 – 0900	189
14-Nov-03	0950 – 1050	230
14-Nov-03	1100 – 1200	209
19-Nov-03	0800 – 0900	176
20-Nov-03	0950 – 1050	119
20-Nov-03	1100 – 1200	119
25-Nov-03	0800 – 0900	186
26-Nov-03	0950 – 1050	168
26-Nov-03	1100 – 1200	135
	Average	182.7
	Min	119
	Max	255

**Station A3 (Village House near Tsun King Road)**

Date	Time of sampling	Concentration, $\mu\text{g}/\text{m}^3$
3-Nov-03	8000 – 9000	221
4-Nov-03	0950 – 1050	179
4-Nov-03	1100 – 1200	195
7-Nov-03	0800 – 0900	129
10-Nov-03	0950 – 1050	149
10-Nov-03	1100 – 1200	168
13-Nov-03	0800 – 0900	153
14-Nov-03	0950 – 1050	231
14-Nov-03	1100 – 1200	204
19-Nov-03	0800 – 0900	269
20-Nov-03	0950 – 1050	131
20-Nov-03	1100 – 1200	150
25-Nov-03	0800 – 0900	264
26-Nov-03	0950 – 1050	146
26-Nov-03	1100 – 1200	189
	Average	185.2
	Min	129
	Max	269

## 2. Plots of 1-hour TSP Monitoring Results



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**APPENDIX E:**

**Daytime 07:00 -19:00Hrs  
Impact Noise Monitoring  
Results and Plots**

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## 1. Noise Monitoring Results

### Monitoring Station N1 (Lok Lo Ha Village House No.3B)

Date	Noise Level for 30 min, dB(A)			
	Time of Sampling	L <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>
4 -Nov-03	0950 – 1020	61.6	64.2	56.8
10-Nov-03	0950 – 1020	71.4	74.5	64.8
14-Nov-03	0950 – 1020	65.0	66.7	60.5
20-Nov-03	0930 – 1000	61.7	64.5	57.8
26-Nov-03	0930 – 1000	61.5	64.1	57.2

Min	61.5	64.1	56.8
Max	71.4	74.5	64.8

### Monitoring Station N2 (Lok Lo Ha Village House No.32A)

Date	Noise Level for 30 min, dB(A)			
	Time of Sampling	L <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>
4 -Nov-03	1120 – 1150	64.8	67.9	59.7
10-Nov-03	1130 – 1200	67.0	70.0	59.5
14-Nov-03	1125 – 1155	66.5	69.7	61.2
20-Nov-03	1045 – 1115	73.2	76.3	66.4
26-Nov-03	1048 – 1118	66.8	70.4	60.9

Min	64.8	67.9	59.5
Max	73.2	76.3	66.4

### Monitoring Station N3 (Royal Ascot Block 9, Flat C)

Date	Noise Level for 30 min, dB(A)			
	Time of Sampling	L <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>
4 -Nov-03	1300 – 1330	58.2	59.4	56.4
10-Nov-03	1300 – 1330	60.6	62.2	53.1
14-Nov-03	1300 – 1330	59.3	62.1	53.5
20-Nov-03	1300 – 1330	62.8	63.9	54.0
26-Nov-03	1300 – 1330	60.9	63.8	55.8

Min	58.2	59.4	53.1
Max	62.8	63.9	56.4



**Monitoring Station N4 (Lok Lo Ha Village House No.97)**

Date	Noise Level for 30 min, dB(A)			
	Time of Sampling	L <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>
4 -Nov-03	1045 – 1115	61.3	63.5	54.7
10-Nov-03	1030 – 1100	59.7	62.0	56.5
14-Nov-03	1025 – 1055	60.7	63.0	55.2
20-Nov-03	1121 – 1151	60.7	63.1	56.3
26-Nov-03	1123 – 1153	63.9	67.9	53.8

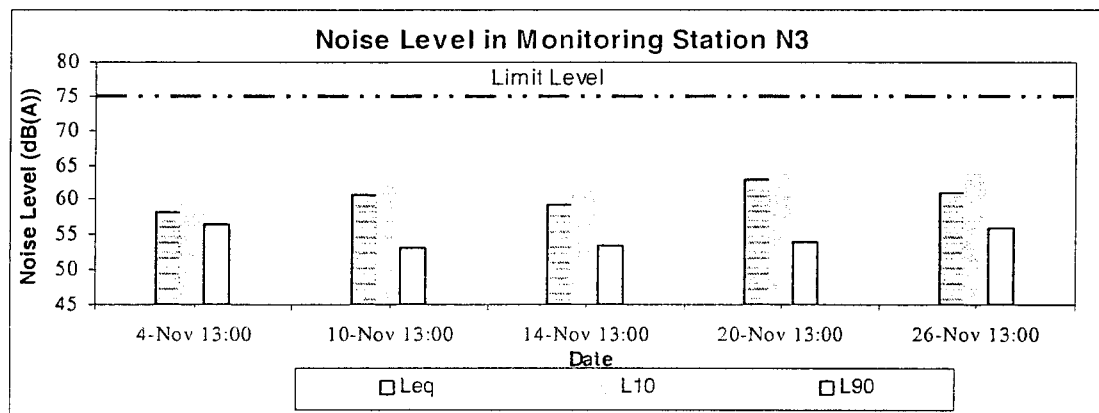
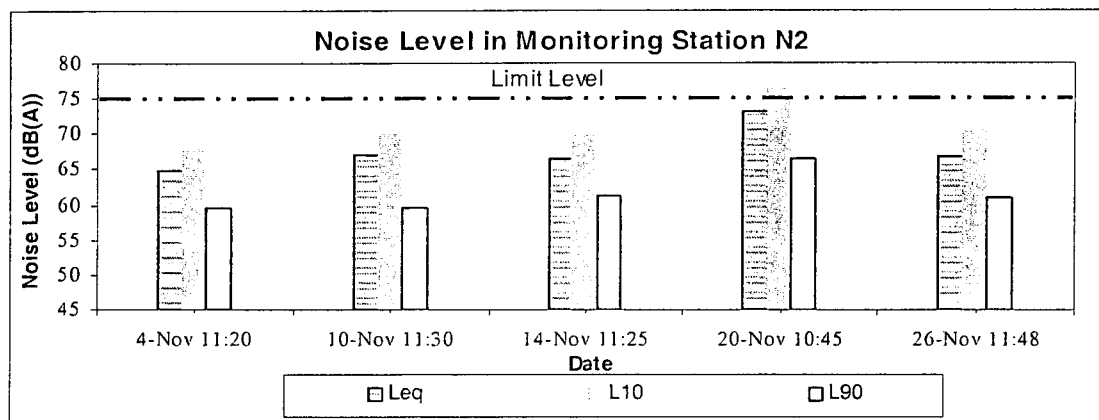
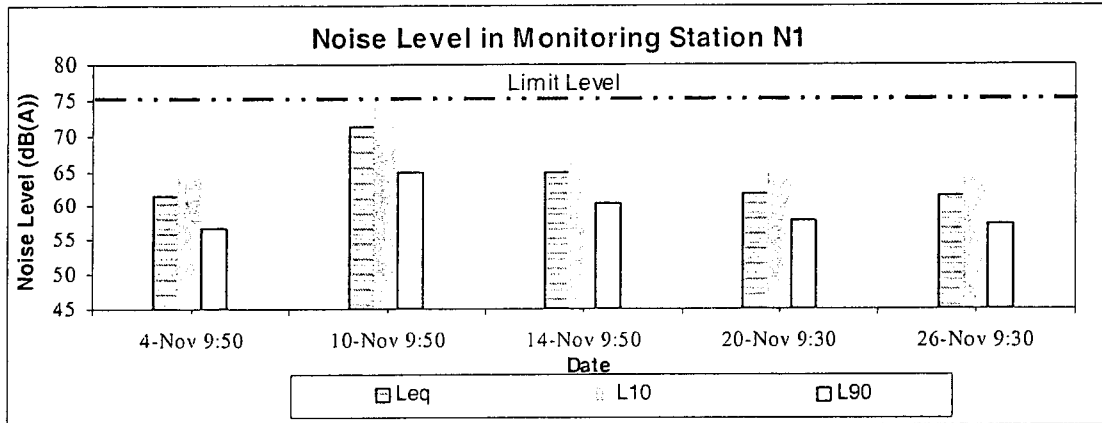
Min	59.7	62.0	53.8
Max	63.9	67.9	65.5

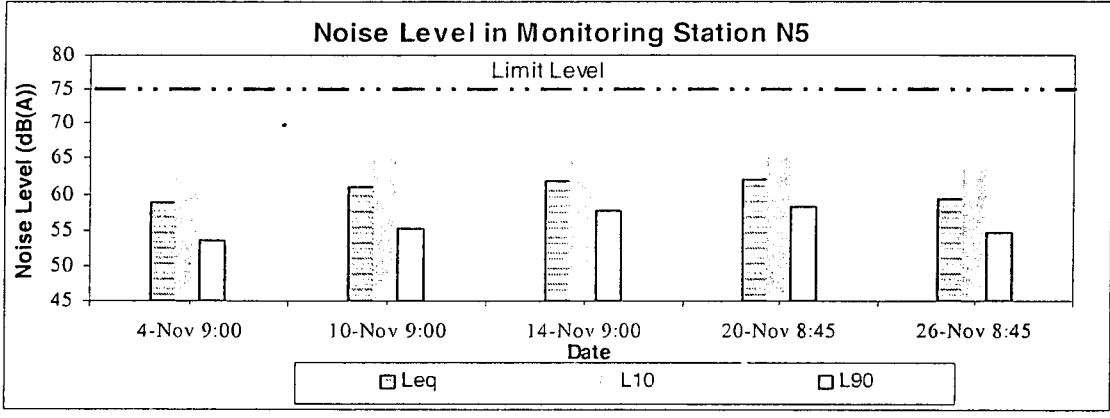
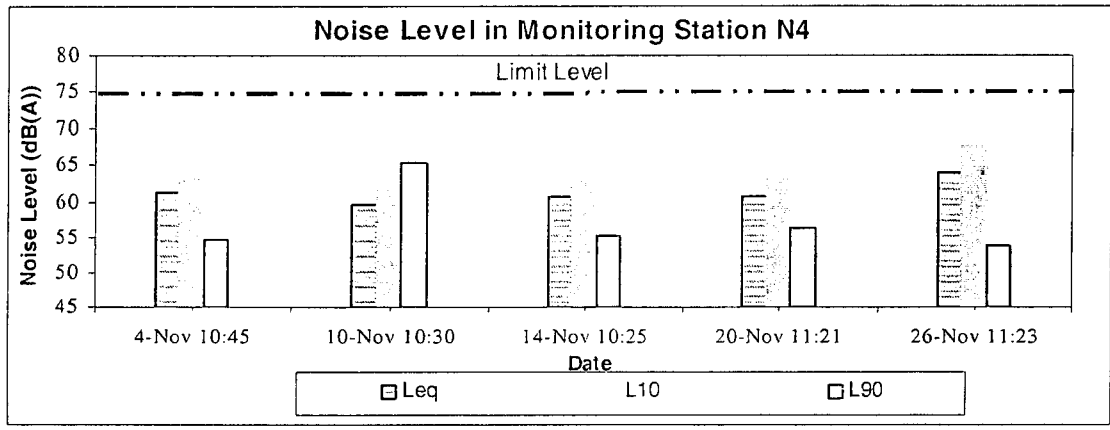
**Monitoring Station N5 (Village House near Royal Ascot)**

Date	Noise Level for 30 min, dB(A)			
	Time of Sampling	L <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>
4 -Nov-03	0900 –0930	58.7	62.8	53.5
10-Nov-03	0900 – 0930	61.0	64.9	55.2
14-Nov-03	0900 – 0930	61.7	65.1	57.7
20-Nov-03	0845 – 0915	62.2	65.5	58.1
26-Nov-03	0845 – 0915	59.2	63.5	54.7

Min	58.7	62.8	53.5
Max	62.2	65.5	58.1

## 2. Plots of Noise Monitoring Results





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**APPENDIX F:**

**Weather Conditions During  
Monitoring Periods**

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**Weather Condition during Monitoring Period  
(From 1 to 30 November 2003)**

Date	Weather	Mean Air Temperature (°C)	Wind Speed (m/s)	Mean Relative Humidity (%)
3-Nov-03	Sunny	26.7	1.1 - 1.2	56
4-Nov-03	Sunny	24.9	1.2	71
7-Nov-03	Sunny	25.2	1.2	82
10-Nov-03	Cloudy	20.8	1.2	79
13-Nov-03	Sunny	19.9	1.2 - 1.3	71
14-Nov-03	Haze	22.0	1.2	75
19-Nov-03	Cloudy	23.1	1.0	92
20-Nov-03	Cloudy	24.2	1.0	92
25-Nov-03	Fine	22.2	1.0	74
26-Nov-03	Fine	22.1	1.0	72

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**APPENDIX G:**

**Event and Action Plan for Air  
Quality and Noise**

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### Event / Action Plan for Air Quality

EVENT	ACTION		
	ET	Engineer	CONTRACTOR
<b>ACTION LEVEL</b>			
1. Exceedance for one sample	<ol style="list-style-type: none"> <li>1. Identify source;</li> <li>2. Inform the Engineer and Contractor;</li> <li>3. Repeat measurement to confirm finding; and</li> <li>4. Increase monitoring frequency to daily.</li> </ol>	<ol style="list-style-type: none"> <li>1. Notify Contractor; and</li> <li>2. Check monitoring data and Contractor's working methods.</li> </ol>	<ol style="list-style-type: none"> <li>1. Rectify any unacceptable practice, if any; and</li> <li>2. Amend working methods if appropriate.</li> </ol>
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> <li>1. Identify source;</li> <li>2. Inform the Engineer and Contractor;</li> <li>3. Repeat measurement to confirm findings;</li> <li>4. Increase monitoring frequency to daily.</li> <li>5. Discuss with Engineer for remedial actions required;</li> <li>6. If exceedance continues, arrange meeting with the engineer; and</li> <li>7. If exceedance stops, cease additional monitoring.</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. Check monitoring data and Contractor's working methods;</li> <li>4. Discuss with ET and Contractor on potential remedial actions; and</li> <li>5. Ensure remedial measures properly implemented.</li> </ol>	<ol style="list-style-type: none"> <li>1. Submit proposals for mitigation measures to the Engineer within 3 working days of notification;</li> <li>2. Implement the agreed proposals; and</li> <li>3. Amend proposal if appropriate.</li> </ol>
<b>LIMIT LEVEL</b>			
1. Exceedance for one sample	<ol style="list-style-type: none"> <li>1. Identify source;</li> <li>2. Inform the Engineer and Contractor;</li> <li>3. Repeat measurement to confirm findings;</li> <li>4. Increase monitoring frequency to daily;</li> <li>5. Assess effectiveness of Contractor's remedial actions and keep EPD and the Engineer informed of results.</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. Check monitoring data and Contractor's working methods;</li> <li>4. Discuss with ET and Contractor on potential remedial actions; and</li> <li>5. Ensure remedial action properly implemented.</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 the Engineer within 3 working days of notification;</li> <li>3. Implement the agreed proposals; and</li> <li>4. Amend proposal if appropriate.</li> </ol>
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> <li>1. Identify source;</li> <li>2. Inform the Engineer and Contractor;</li> <li>3. Repeat measurement to confirm findings;</li> <li>4. Increase monitoring frequency to daily.</li> <li>5. Investigate the causes of exceedance;</li> <li>6. Arrange meeting with EPD and the Engineer to discuss the remedial actions to be taken;</li> <li>7. Assess effectiveness of Contractor's remedial actions and keep EPD and the Engineer informed of the results; and</li> <li>8. If exceedance stops, cease additional monitoring</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. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented;</li> <li>4. Discuss among ET and Contractor on potential remedial actions;</li> <li>5. Review Contractor's remedial action whenever necessary to assure their effectiveness; and</li> <li>6. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop 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 the Engineer within 3 working days of notification;</li> <li>3. Implement the agreed proposals;</li> <li>4. Resubmit proposals if problem still not under control;</li> <li>5. Stop the relevant portion of works as determined by the Engineer until the exceedance is abated.</li> </ol>

**Event / Action Plan for Construction Noise**

EVENT	ACTION	
	ET	Contractor
Action Level	<ol style="list-style-type: none"> <li>1. Notify the Engineer and Contractor;</li> <li>2. Analyze investigation;</li> <li>3. Require Contractor to propose measures for the analyzed noise problem; and</li> <li>4. Increase monitoring frequency to check mitigation effectiveness.</li> </ol>	<ol style="list-style-type: none"> <li>1. Submit noise mitigation proposals to Environmental Team and the Engineer; and</li> <li>2. Implement noise mitigation proposals.</li> </ol>
Limit Level	<ol style="list-style-type: none"> <li>1. Notify the Engineer and Contractor;</li> <li>2. Notify EPD; and</li> <li>3. Require Contractor to implement mitigation measures; and increase monitoring frequency to check mitigation effectiveness.</li> </ol>	<ol style="list-style-type: none"> <li>1. Implement mitigation measures; and</li> <li>2. Prove to Environmental Team and the Engineer effectiveness of measures applied.</li> </ol>



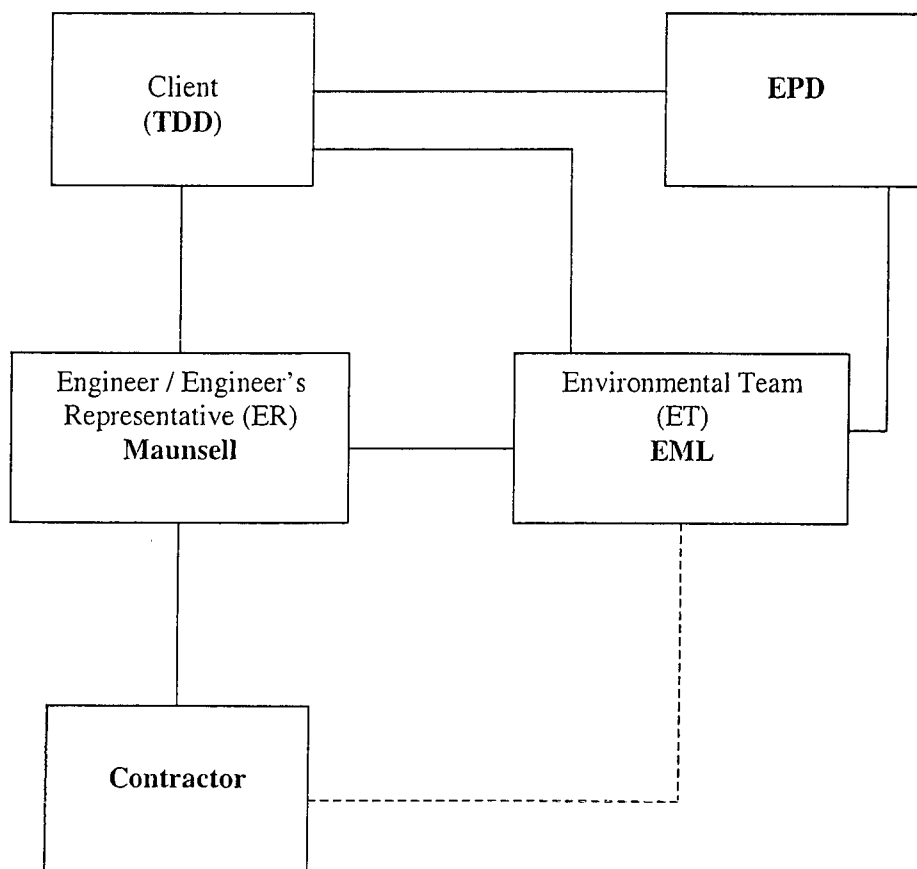
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**APPENDIX H:**

**Project Organisation and  
Contacts of Key Personnel**

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Figure H.1: Project Management Structure



**Contacts of Key Personnel:**

Organisation	Nature of Duty	Contact Personnel	Contact Number	
			Telephone	Fax
Territory Development Department (TDD)	Client	Mr. Stephen Wong	2301-1376	2721-8630
Maunsell Consultants Asia Ltd. (MCAL)	Engineer	Mr. Alan Kwong	2602-3433	2691-2649
Environmental Management Ltd. (EML)	Environmental Team	Mr. Lawrence Tso	2890-1090	2890-6901

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**APPENDIX I:**

**Summary Records of  
Complaints Received**

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Complaint No.	Received date & Time	Description (inc. location/ nature of complaint)	Follow-up Action Taken	Recommended Measures	Mitigation	Status/ Remarks
C02-N1	Morning, 29/7/2002	Around 9:30am on 29/7/02, police came on site to investigate a complaint of noise pollution emitted during rock breaking which carried out by the Contractor near the Site Office (near the box culvert and north Lok Shun Path Roundabout). The Contractor immediately halted the activity in response to police's advice.	<ul style="list-style-type: none"> <li>Ad hoc site inspection was carried out on 31/7/02, jointly with the Engineer and Contractor</li> <li>The complaint log sheet, the investigation findings and recommendations on mitigation measures were submitted to the Engineer and Contractor.</li> <li>A letter, addressing to the complainant, will be sent to the police.</li> </ul>	<p>Mitigation actions:</p> <ul style="list-style-type: none"> <li>Excavator-mounted breaker shall not be carried out within 125m from any nearby noise sensitive receivers and;</li> <li>Temporary purposed built barrier should be installed whenever there are high noise level construction activities.</li> </ul>	The complaint was considered as ad hoc rather than continuous. It is therefore considered not necessary to increase the noise monitoring frequency  File Closed.	
C02-N2	Night-time, 7 November, 2002	<ul style="list-style-type: none"> <li>Nearby residents complained to police that a generator in Road D15 Site was operating in night-time near Lok Lo Ha Village.</li> <li>Police came to the site to investigate the complaint and inform watchmen to turn off the operating generator at around 8:30pm.</li> <li>The complaint was valid as it concerned with construction noise during the restricted hours.</li> </ul>	<ul style="list-style-type: none"> <li>Ad hoc site inspection was carried out on 8 November 02, jointly with the Engineer and Contractor and ET.</li> <li>The complaint log sheet, the investigation findings and recommendations on mitigation measures were submitted to the Engineer and Contractor.</li> <li>A letter in both English and Chinese, addressing to the complainant, has been sent to the police.</li> </ul>	<p>Mitigation actions:</p> <ul style="list-style-type: none"> <li>Under the Noise Control Ordinance, the carrying out of general construction work using powered mechanical equipment (including generators) during the restricted hours (between 7 p.m. and 7 a.m. or at any time on a general holiday (including Sunday) is prohibited unless a valid Construction Noise Permit is in force;</li> <li>A watchmen or site staff should be employed to check daily that all generators and plats are switched off after the permissible working hours.</li> </ul>	File Closed.	

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**APPENDIX J:**

**Updated Construction  
Program**

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She Tin New Town Stage II Contract No. ST77/01, Road D15 Linking Lok Shun Path and Tai Po Road

MASTER PROGRAMME (ST77/01/MP/13B)

ID	Task Name	Duration	Start	2001	2002	2003	2004
0	<b>Road D15 Acceleration Programme</b>						
1	1.0 Original Contract Period	1187 days	Wed 12/12/01				
2	1.1 Works in Section I (345 days)	345 days	Wed 12/12/01				
3	1.2 Works in Section IA (475 Days)	475 days	Wed 12/12/01				
4	1.3 Works in Section II (822 days)	822 days	Wed 12/12/01				
5	1.4 Landscape Work in Section III (1187 Days)	1187 days	Wed 12/12/01				
6	2.0 Anticipated Dates	888 days	Fri 22/11/02				
7	2.1 Anticipated EOI for Section I	246.5 days	Fri 22/11/02				
8	2.2 Anticipated Completion Date for Section IA	0 days	Mon 31/03/04				
9	2.3 Anticipated Completion Date for Section II	141 days	Sat 13/03/04				
10	2.4 Anticipated Completion Date for Section III	345 days	Sun 01/09/04				
11	3 Preliminary & Site Establishment	628 days	Wed 12/12/01				
20	4 Earthworks	448 days	Thu 13/06/02				
35	5 Enshment Works (Section I & IA)	435 days	Tue 15/01/02				
45	6 Bridge A & General	781 days	Wed 12/12/01				
46	6.1 Design Submission of Alternative Design (I Beam)	180 days	Wed 12/12/01				
47	6.2 Procurement manufacturing and testing of bridge beam	63.2 days	Tue 14/05/02				
48	6.3 Engineer's Approval of Off Site Casting Yard	180 days	Mon 04/02/02				
49	6.4 Fabrication of precast beams	150 days	Wed 13/11/02				
50	6.5 Fabrication PC panel permanent formwork	200 days	Fri 24/01/03				
51	6.6 Ground Investigation	62 days	Fri 17/05/02				
52	6.7 Piling Works at A1 to A5	76 days	Fri 10/05/02				
56	6.8 Pile Caps Construction A1 to A5	389 days	Sat 19/02/02				
59	6.8.1 A1 Pile Cap	50 days	Thu 13/02/03				
60	6.8.2 A2 Pile Cap	24 days	Thu 12/12/02				
61	6.8.3 A3 Pile Cap	22 days	Sat 19/10/02				
62	6.8.4 A4 Pile Cap	24 days	Fri 25/10/02				
63	6.8.5 A5 Pile Cap	247 days	Mon 17/03/03				
64	6.8.5.1 A5 Pile Cap (1st Portion)	110 days	Mon 17/03/03				
65	6.8.5.2 A5 Pile Cap (2nd Portion)	22 days	Tue 15/12/03				
66	6.9 Abutment Wall A1 to A5	359 days	Fri 29/11/02				
67	6.9.1 A1 Abutment Wall	162 days	Mon 14/04/03				
68	6.9.1.2 A1 (1st portion to allow site access to C2)	30 days	Mon 14/04/03				
69	6.9.1.2 A1 (Upper Portion)	55 days	Mon 25/09/03				
70	6.9.2 A2 Pier & Cross Head	197 days	Wed 29/01/03				
71	6.9.2.1 Pier only to allow access to C2	22 days	Wed 29/01/03				
72	6.9.2.2 A2 Crosshead	29 days	Mon 25/09/03				
73	6.9.3 A3 Pier & Cross Head	30 days	Fri 29/11/02				
74	6.9.4 A4 Pier & Cross Head	12 days	Thu 02/01/03				
75	6.9.5 A5 Abutment Wall	148 days	Mon 18/03/03				
76	6.9.5.1 A5 Abutment wall (Portion 1 to allow site ac	50 days	Mon 18/09/03				
77	6.9.5.2 A5 Abutment wall (Portion 2)	25 days	Wed 14/01/04				
78	6.10 Install bridge bearings A1 to A5	398 days	Thu 23/01/03				
79	6.10.1 A1 - A2 Bridge Bearings	6 days	Wed 05/11/03				
80	6.10.2 A2 - A3 Bridge Bearings	6 days	Wed 05/11/03				
81	6.10.3 A3 - A4 Bridge Bearings	6 days	Thu 23/01/03				
82	6.10.4 A4 - A5 Bridge Bearings	6 days	Fri 20/02/04				
83	6.11 Install Precast Beams A1 to A5	349 days	Fri 14/02/03				
84	6.11.1 A1 to A2 PC Beams	6 days	Thu 20/11/03				
85	6.11.2 A2 to A3 PC Beams	3 days	Tue 13/04/04				

Date: 18/10/2003

Task Progress:  Critical Task Progress

Task Summary:  Milestone Summary

Roll Up Milestone:  Roll Up Progress

Roll Up Task:  Roll Up Progress

Roll Up Critical Task:  Roll Up Progress

Spill:  External Tasks

Project Summary:

Page 1

MASTER PROGRAMME (ST770/MP/13B)

Sha Tin New Town Stage II Contract No. ST770/1, Road D15 Linking Lok Shun Path and Tai Po Road

ID	Task Name	Duration	Start	Oct 03	Nov 03	Dec 03	2004	Jan 04	Feb 04
86	6.11.3 A3 to A4 PC Beams	3 days	Fri 14/09/03						
87	6.11.4 A4 to A5 PC Beams (Storage on Span A3 to A4)	6 days	Mon 29/12/03						
88	6.11.4 A4 to A5 PC Beams	6 days	Tue 02/03/04						
89	6.12 Bridge Deck construction A1 to A5	375 days	Mon 24/02/04						
90	6.12.1 A1 to A2 Bridge Deck	50 days	Fri 28/11/03						
91	6.12.2 A2 to A3 Bridge Deck	32 days	Fri 19/09/04						
92	6.12.3 A3 to A4 Bridge Deck	95 days	Mon 24/02/04						
93	6.12.4 A4 to A5 Bridge Deck	50 days	Wed 10/03/04						
94	6.13 Bridge Deck Drainage	104 days	Fri 20/02/04						
95	6.13.1 A1 to A2 Drainage Pipe, M/H cover & Gully	18 days	Fri 20/02/04						
96	6.13.2 A2 to A3 Drainage Pipe, M/H cover & Gully	18 days	Fri 14/03/04						
97	6.13.3 A3 to A4 Drainage Pipe, M/H cover & Gully	18 days	Wed 03/03/04						
98	6.13.4 A4 to A5 Drainage Pipe, M/H cover & Gully	18 days	Thu 03/03/04						
99	6.14 Bridge deck Parapet & Curb	240 days	Mon 15/09/03						
100	6.14.1 A1 to A2 Parapet & Curb	30 days	Fri 06/02/04						
101	6.14.2 A2 to A3 Parapet & Curb	27 days	Tue 01/04/04						
102	6.14.3 A3 to A4 Parapet & Curb	60 days	Mon 15/09/03						
103	6.14.4 A4 to A5 Parapet & Curb	30 days	Wed 19/05/04						
104	7 Bridge B	87 days	Wed 11/09/02						
105	7.1 Ground Investigation	36 days	Wed 11/09/02						
106	7.2 Pre Bore H Piles	230 days	Fri 13/12/02						
107	7.2.1 B1 H Piles	29 days	Fri 13/12/02						
108	7.2.2 B2 H Piles	27 days	Mon 11/08/03						
109	7.2.3 Loading test on Pile	12 days	Tue 09/09/03						
110	7.3 Pile Cap & Abutment Wall B1 & B2	51 days	Wed 24/09/03						
111	7.3.1 Temp. works for B1 Pile Cap	35 days	Wed 24/09/03						
118	7.3.2 Construct B1 Pile Cap	16 days	Wed 05/11/03						
127	7.3.3 B1 Abutment	19 days	Mon 24/11/03						
135	Remove temp work and backfilling of B1 Abutment	10 days	Tue 16/12/03						
136									
137	7.3.4 Temp. works for B2 Pile Cap	94 days	Wed 15/10/03						
159									
168	7.4 Install Bridge Bearings	6 days	Fri 06/02/04						
169	7.4.1 B1 bridge bearings	6 days	Fri 06/02/04						
170	7.4.2 B2 bridge bearings	6 days	Mon 09/02/04						
171	7.5 install Precast Beams B1 to B2	6 days	Wed 18/02/04						
172	7.6 Bridge Deck Construction B1 to B2	50 days	Wed 25/02/04						
173	7.7 Bridge deck Drainage B1 to B2	25 days	Wed 25/02/04						
174	7.8 Bridge Deck Parapet & Curb B1 to B2	20 days	Sat 29/05/04						
175	7.9 Remove Temp Platform (Underneath Bridge Deck)	30 days	Wed 28/04/04						
176	7.10 Reinstall Extra Valley	60 days	Sat 27/03/04						
177	8 Bridge C	582 days	Thu 01/08/02						
178	8.1 Ground Investigation	62 days	Thu 01/08/02						
179	8.2 Pre Bore H Piles	224 days	Mon 18/11/02						
180	8.2.1 C1 H Piles	35 days	Fri 11/07/03						
181	8.2.2 C2 H Piles	52 days	Mon 18/11/02						
182	8.3 Pile Cap & Abutment Wall C1 & C2	260 days	Tue 25/02/03						
183	8.3.1 Temp. works and Construct C1 Pile Cap	39 days	Mon 20/09/03						
205	8.3.2 C1 Abutment Wall	25 days	Fri 14/11/03						

Date: 18/10/2003

Task Progress:

Task:

Critical Task Progress:

Critical Task:

Milestone Summary:

Milestone:

Roll Up Milestone:

Roll Up Task:

Roll Up Critical Task:

Roll Up Progress:

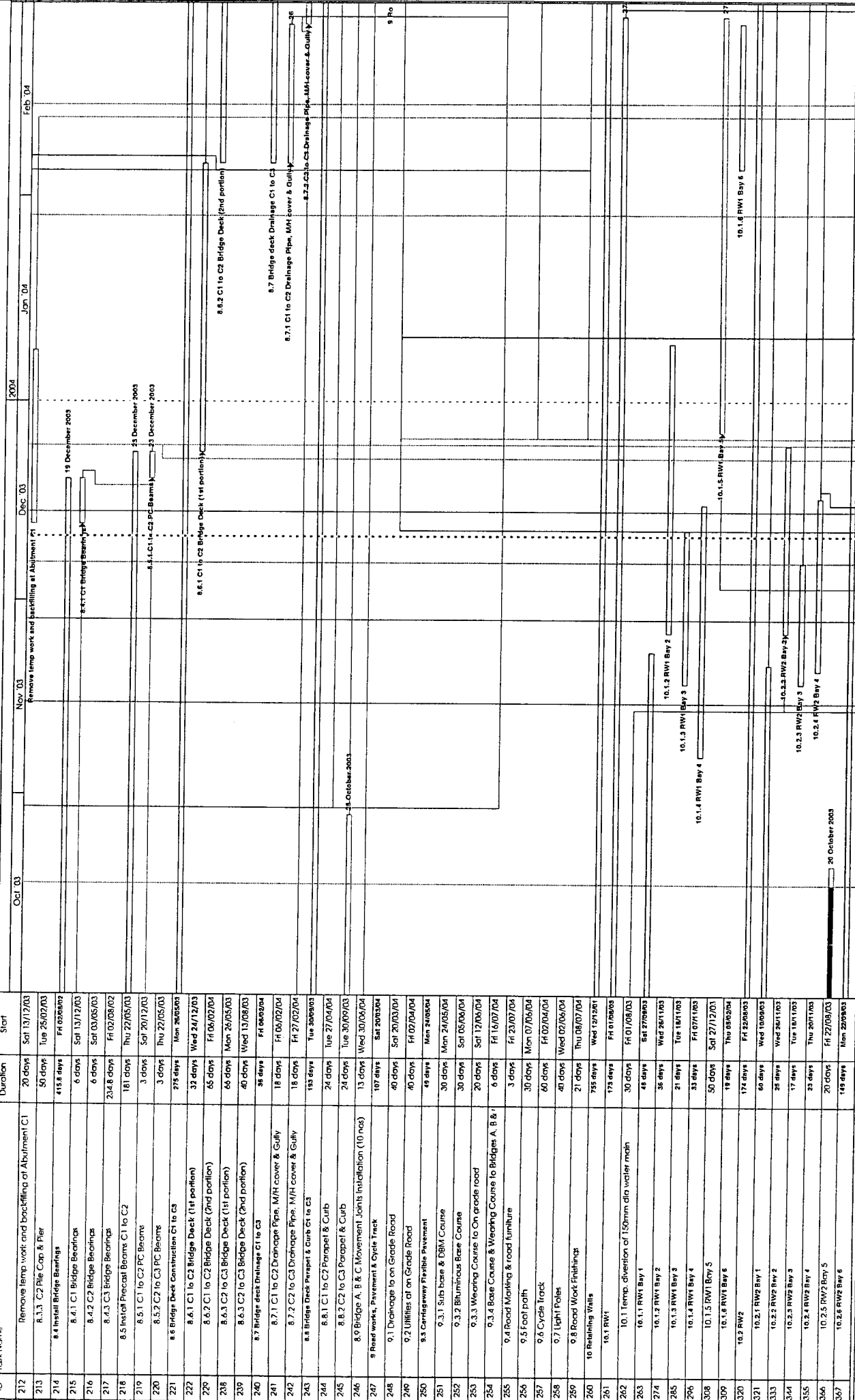
External Tools:

Project Summary:

Page 2

MASTER PROGRAMME (S17701/MP/13B)

Sha Tin New Town Stage II Contract No. S17701, Road D15 Linking Lok Shan Path and Tai Po Road



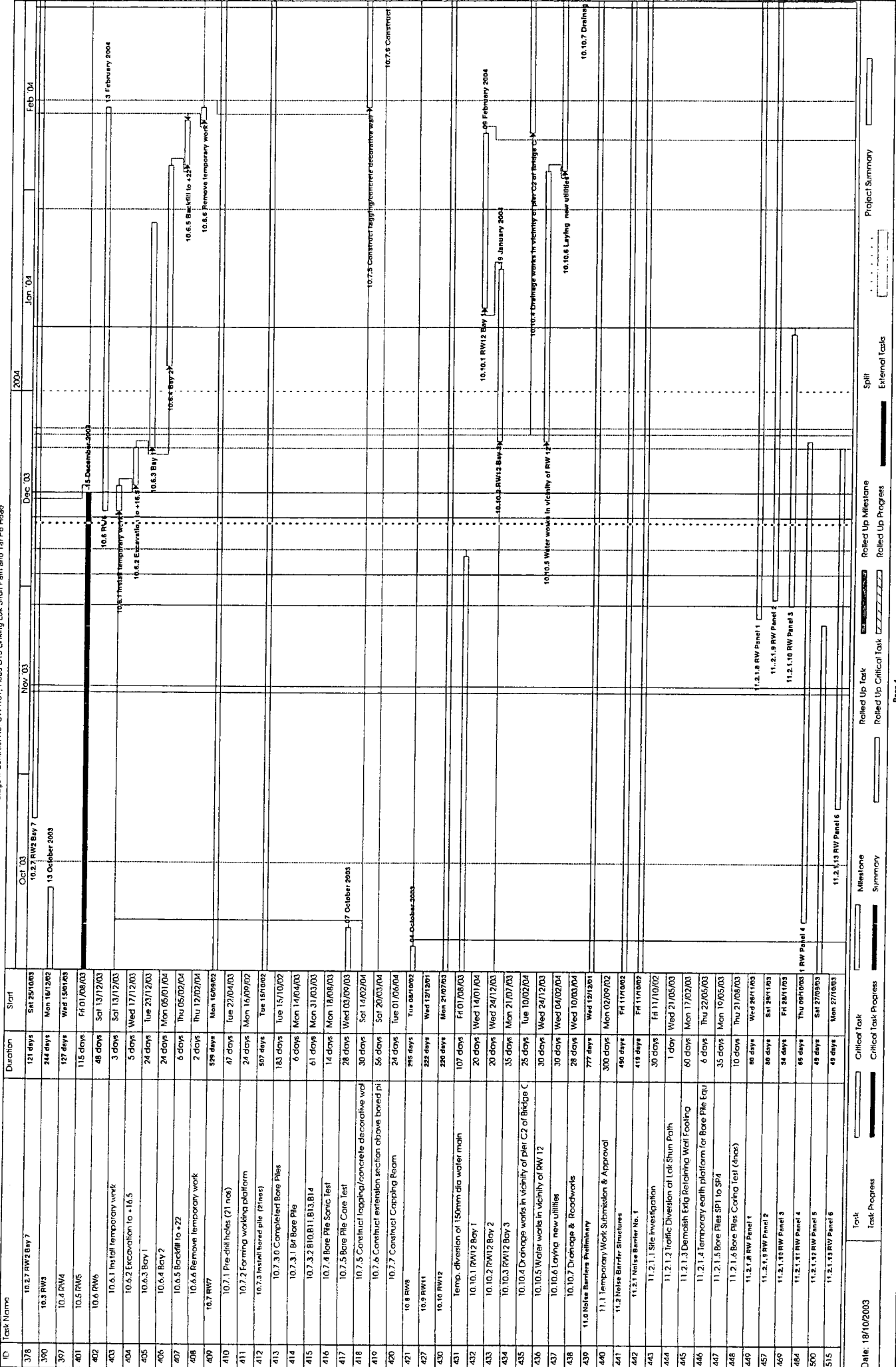
Date: 18/10/2003

Task Progress:  Task:  Milestones:  Summary:  Critical Task Progress:  Critical Task:  Rolled Up Milestone:  Rolled Up Progress:  Rolled Up Critical Task:  External Tasks:  Project Summary:



MASTER PROGRAMME (ST7701/MP/13B)

Sha Tin New Town Stage II Contract No. ST7701 - Road Dis Linking Lok Shun Path and Tai Po Road



Date: 18/10/2003

Task Progress:

Task:

Critical Task Progress:

Critical Task:

Milestone:

Summary:

Rollled Up Milestone:

Rollled Up Critical Task:

Rollled Up Progress:

External Tasks:

Project Summary:

MASTER PROGRAMME (S177/01/MP/13B)  
 Sha Tin New Town Stage II Contract No. S177/01, Road D15 Luning Lok Shun Path and Tai Po Road

ID	Task Name	Duration	Start	2004	Nov '03	Dec '03	Jan '04	Feb '04
530	11.2.1.14 RW Panel 7	48 days	Thu 27/11/03					
545	11.2.2 Additional Noise Barriers	89 days	Thu 10/07/03					
546	11.2.2.1 Mobilisation of RCD	9 days	Thu 10/07/03					
547	11.2.2.1 ABPI	11 days	Fri 11/07/03					
550	11.2.2.2 ABP2	16.5 days	Sat 09/08/03					
571	11.2.2.3 Noise Barriers	12 days	Tue 16/09/03					
572	11.2.2.3.1 Sonic Test	1 day	Tue 16/09/03					
573	11.2.2.3.2 Core Test (Once)	7 days	Fri 19/09/03					
574	11.2.2.3.3 Grouting Sonic Tubes and core holes	7 days	Sat 27/09/03					
575	11.2.3 Noise Barrier No. 4B	120 days	Thu 08/07/04					
581	11.2.3a Concrete Footing for Noise Barrier 4C	45 days	Thu 29/05/03					
582	11.2.4 Noise Barrier No. 5	68 days	Mon 08/08/03					
583	11.2.4.1 Excavation	12 days	Mon 06/10/03					
584	11.2.4.2 Construct Footing and Walls	45 days	Mon 20/10/03					
585	11.2.4.3 Backfill to Foundation of Noise Barrier No. 5	12 days	Thu 11/12/03					
586	11.3 Noise Barrier Steel Plate & Panels	777 days	Wed 12/12/01					
587	11.3.1 Procurement and fabrication of Noise barrier	150 days	Wed 12/12/01					
588	11.4.1 Design, Submission for approval	250 days	Wed 19/06/02					
589	11.4.2 Fabrication and Delivery	200 days	Thu 17/04/03					
590	11.4.3 Noise Barrier Installation	112 days	Tue 09/03/04					
591	11.4.3.1 Noise Barrier No. 1	60 days	Tue 09/03/04					
592	11.4.3.2 Noise Barrier No. 2	40 days	Fri 30/04/04					
593	11.4.3.3 Noise Barrier No. 3	40 days	Mon 07/06/04					
594	11.4.3.4 Noise Barrier No. 4A	18 days	Wed 23/06/04					
595	11.4.3.5 Noise Barrier No. 4B	30 days	Mon 07/06/04					
596	11.4.3.6 Noise Barrier No. 4B at Bridge A, A2 to A3	10 days	Thu 08/07/04					
597	11.4.3.6 Noise Barrier No. 4C	30 days	Mon 03/05/04					
598	11.4.3.7 Noise Barrier No. 5	40 days	Tue 08/06/04					
599	12 Box Culvert Extension	474 days	Thu 27/06/02					
600	12.1 Remove existing inlet, water diversion	158 days	Thu 27/06/02					
601	12.2 Box culvert	156 days	Sat 19/10/02					
602	12.3 Flood Wall	29 days	Mon 21/10/02					
603	12.4 Construct 1400 box culvert (5 bays)	166 days	Thu 10/04/03					
604	12.5 Construct 1500 pipe	228 days	Thu 24/04/03					
605	12.5.1 Construct 1500 pipe CH 0 to CH 30 (MH164 to M)	100 days	Thu 24/04/03					
606	12.5.2 Construct 1500 pipe CH 30 to CH 60	44 days	Sat 11/10/03					
607	12.5.3 Construct 1500 pipe CH 60 to CH 82	44 days	Tue 02/12/03					
608	12.6 Construct CP15 (Deleted)	0 days	Fri 21/03/03					
609	12.7 Construct MH/31	60 days	Sat 15/03/03					
610	12.8 Construct 1400 Box Culvert Extension (bay A, B & man	90 days	Mon 02/04/03					
611								
612	13.0 Underground Drainage & Utilities	458 days	Wed 15/01/03					
613	13.1 Drainage & Roadworks at Luk Ho Lo roundabout	458 days	Wed 15/01/03					
614	13.1.1 Drainage & roadworks at stage 2 & 2A of ITM	263 days	Wed 15/01/03					
615	13.1.2 Drainage and roadworks at stage 2b of ITM	95 days	Tue 02/12/03					
616	13.1.3 Drainage and roadworks at stage 4 of ITM (Delete)	0 days	Mon 29/03/04					
617	13.1.3 Drainage and roadworks at stage 5 of ITM	54 days	Tue 30/03/04					
618	13.1.4 Drainage and roadworks at stage 6 of ITM	46 days	Mon 07/04/04					
619	13.2 New Utilities and Drainage Near Noise Barrier No. 1	56 days	Tue 27/01/04					
620	13.2.1 Construct MH/24 pipe 225 dia and MH10 of stag	19 days	Tue 27/01/04					

Date: 18/10/2003

Task Progress:  Critical Task Progress:  Milestone:  Summary:

Roll Up Milestone:  Rolled Up Critical Task:  Rolled Up Progress:  External Tasks:

Spill:  Project Summary:

11.4.3 Noise Barriers  
11.4.3.1 Noise Barrier No. 1

11.2.3 Noise Barrier No. 4B  
11.2.3.1 Noise Barrier No. 4B

11.2.4 Noise Barrier No. 5  
11.2.4.1 Backfill to Foundation of Noise Barrier No. 5

12.5.3 Construct 1500 pipe CH 60 to CH 82

12.5.3 Construct 1500 pipe CH 60 to CH 82

13.1.2 Drainage and roadworks at stage 2b of ITM

13.1.3 Drainage and roadworks at stage 4 of ITM (Delete)

13.1.4 Drainage and roadworks at stage 6 of ITM

13.2.1 Construct MH/24 pipe 225 dia and MH10 of stage 2b ITM

13.2.1 Construct MH/24 pipe 225 dia and MH10 at stage 2b ITM

MASTER PROGRAMME (ST77/01/MP/13B)

Sha Tin New Town Stage II Conical No. ST77/01, Road D15 Linking Lok Shun Path and Tai Po Road

