

# Highways Department

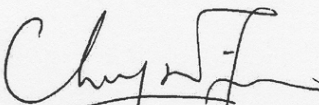
## Route 8 (previously known as Route 9) between Cheung Sha Wan & Sha Tin

Contract No. HY/2003/10 - Environmental Team for  
Lai Chi Kok Viaduct and Eagle's Nest Tunnel

### Monthly EM&A Report Part I – Lai Chi Kok Viaduct (Version 1)

January 2006

Approved By

  
(Environmental Team Leader)

REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

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## ABBREVIATION AND ACRONYM

AL Levels	Action and Limit Levels
CEDD	Civil Engineering and Development Department
E / ER	Engineer/Engineer's Representative
EIA	Environmental Impact Assessment
EM&A	Environmental Monitoring and Audit
EMIS	Environmental Mitigation Implementation Schedule
EP	Environmental Permit
EPD	Environmental Protection Department
ET	Environmental Team
HVS	High Volume Sampler
HyD	Highways Department
IEC	Independent Environmental Checker
NOE	Notification of Exceedance
QA/QC	Quality Assurance / Quality Control
RE	Resident Engineer
RH	Relative Humidity
SLM	Sound Level Meter
TSP	Total Suspended Particulates

## EXECUTIVE SUMMARY

### Introduction

- This is the twenty-sixth monthly Environmental Monitoring and Audit (EM&A) Report prepared by Cinotech Consultants Limited for the “Route 8 (previously known as Route 9) between Cheung Sha Wan & Sha Tin, Lai Chi Kok Viaduct & Eagle’s Nest Tunnel”. This report documents the findings of EM&A Works conducted in January 2006 for Contract No. HY/2003/01, Lai Chi Kok Viaduct (the Project).
- The major site activities undertaken in the reporting month included construction of pile caps and piers, slope works and segment erection works.

### Environmental Monitoring and Audit Works

- Environmental monitoring and audit works for the Project was performed regularly as stipulated in the updated EM&A Manual and the results were checked and reviewed. Site audits were conducted once per week. The implementation of the environmental mitigation measures, Event Action Plans and environmental complaint handling procedures were also checked.
- Summary of the events and action taken in the reporting month is tabulated in **Table I**.

**Table I Summary Table for Events Recorded in the Reporting Month**

Parameter	No. of Events		No. of Events Due to the Project	Action Taken
	Action Level	Limit Level		
1-hr TSP	0	0	0	N/A
24-hr TSP	0	0	0	N/A
Noise	1	0	0	Complaint investigation

### Environmental Licenses and Permits

- Licenses/Permits granted to the Project include the Environmental Permit (EP) for the Project, the Water Discharge Licenses (WDLs) and the Construction Noise Permits (CNPs). Two new CNPs were issued to the Project in the reporting month.

### Key Information in the Reporting Month

- Summary of key information in this reporting month is tabulated in **Table II**.

**Table II Summary Table for Key Information in the Reporting Month**

Event	Event Details		Action Taken	Status	Remark
	Number	Nature			
Complaint received	2	1 on noise 1 on dust	Complaint investigation	Closed	---
Changes to the assumptions and key construction / operation activities recorded	0	---	N/A	N/A	---
Status of submissions under EP	0	---	N/A	N/A	---
Notifications of any summons & prosecutions received	0	---	N/A	N/A	---

**Future Key Issues:**  
Major site activities for the coming month include:

- Construction of abutment, pile caps and columns;
- Bulk excavation;
- Buttress wall construction;
- Soil nail installation;
- Retaining wall construction;
- Drainage works;
- Cast in-situ of slip roads; and
- Segment erection by lifting frame and launching gantry.

The anticipated environmental impacts will be mainly on dust generation and construction noise impact from slope works.

## 1. INTRODUCTION

### Background

- 1.1 Route 9 (Kowloon Section) (R9K) (hereinafter call the R9K-Project) forms part of the Route 9 between Cheung Sha Wan and Sha Tin (R9-CSWST) project, which will be a new expressway connecting West Kowloon and Sha Tin. It will be the fourth external link between Sha Tin and Kowloon and will form an important link between the northeast New Territories and the west Kowloon, Lantau Island and the western New Territories. R9K is being managed and implemented by the Highways Department (HyD).
- 1.2 The engineering design of R9K is covered under Agreement No. CE 50/98 “Route 9 between Cheung Sha Wan and Sha Tin – Design Construction Assignment”. The main consultant engaged under Agreement No. CE 50/98 is Maunsell Hyder Joint Venture (MHJV), who will act as the Engineer for the construction contracts. The works of R9K mainly comprise a 1.4km dual 3-lane Lai Chi Kok Viaduct from Lai Wan Interchange to Butterfly Valley; 0.5 km of dual 3-lane at-grade carriageway linking to the 2.1 km dual 3-lane twin-bore Eagle's Nest Tunnel with associated portal buildings; a toll plaza with an administration building located with the Sha Tin valley woodland; a ventilation building and an adit; associated noise barriers, noise enclosures, drainage, slope and landscape works; and electrical and mechanical works for the whole R9-CSWST. The remainder of the R9-CSWST forms the Sha Tin Section (R9S) of the project and is being managed and implemented separately by the Civil Engineering and Development Department (CEDD).
- 1.3 The R9-CSWST project is a Designated Project under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO). An environmental impact assessment (EIA) report has been prepared in 1998 for the R9-CSWST project (1998 R9 EIA) to consider the key issues of noise, air quality, water quality, ecological, construction waste, landscape and visual, land use and cultural impacts, and identify possible mitigation measures.
- 1.4 An Updated Final EIA report was subsequently completed in August 1999 for the R9-CSWST project (1999 R9 EIA), to cater for some changes in R9K portion as mentioned in paragraph 1 in the report. The 1999 R9 EIA was endorsed by Environmental Protection Department (EPD) in November 1999. The 1998 R9 EIA and the 1999 R9 EIA (R9 EIA Reports) were included in the EIA register under the EIAO as report no. EIA-135/BC and AEIAR-022/1999 respectively. An Environmental Monitoring and Audit (EM&A) Manuals for each of the R9 EIA Reports (EM&A Manuals) were also included as part of the EIA reports in the register.
- 1.5 Subsequent to the endorsement of the R9 EIA Reports by EPD in November 1999, the project programme was deferred to start in 2002/2003 for completion by 2006/07. The implementation of the project was then separated into the R9S and R9K portion. An Environmental Permit (EP) No. EP-103/2001 was issued on 17 September 2001 for R9K to the HyD as Permit Holder and a varied EP No. EP-103/2001/A was subsequently issued on 20 May 2003 for R9K (R9K EP) to HyD as Permit Holder. A varied EP-103/2001/C was recently issued on 22 July 2005.

- 1.6 The major construction activities of two civil contracts of the R9K project, Contract No. HY/2003/01 entitled “Route 9 – Lai Chi Kok Viaduct” and Contract No. HY/2003/02 entitled “Route 9 – Eagle’s Nest Tunnel and Associated Works”, were commenced in 15<sup>th</sup> December 2003 for completion in April 2007.
- 1.7 “Route 9” was recently re-titled as “Route 8 (previously known as Route 9)”. Cinotech Consultants Limited (Cinotech) was commissioned by HyD to undertake the Environmental Monitoring and Audit works for “Route 8 between Cheung Sha Wan and Sha Tin - Environmental Team (ET) for Lai Chi Kok Viaduct and Eagle’s Nest Tunnel (Contract No. HY/2003/10)”. Dr. Priscilla CHOY of Cinotech Consultants Ltd. was appointed as the ET Leader under Condition 2.2 of the EP. Mr. David YEUNG of CH2M-IDC Hong Kong Ltd. was appointed as the IEC under Condition 2.1 of the EP. This is the twenty-sixth monthly EM&A report summarizing the EM&A works for the Project in January 2006.

### **Project Organizations**

- 1.8 Different parties with different levels of involvement in the project organization include:
- Project Proponent – Major Works Project Management Office (MWPMO) of Highways Department (HyD)
  - Engineer (E) / Engineer’s Representative (ER) – Maunsell-Hyder Joint Venture
  - Environmental Team (ET) – Cinotech Consultants Limited
  - Independent Environmental Checker (IEC) – CH2M-IDC Hong Kong Limited
  - Contractor – Acciona Infraestructuras S.A.
- 1.9 The responsibilities of respective parties are detailed in Section 1.8.3 of the EM&A Manual (1999) of the Project.
- 1.10 The key contacts of the Project are shown in **Table 1.1**.

### **Construction Programme**

- 1.11 The site activities undertaken in the reporting month were:
- Construction of abutments, pile caps and columns at Slip Roads C and D, Lai Wan Overpass and Main Viaduct;
  - Bulk excavation works and retaining wall construction at CCR-R1;
  - Bulk excavation works at slopes CCR-S1, CCR-S2 and CCR-R3;
  - Soil nails at 11NW-A/C26;
  - Rock dowel installation at slopes CCR-S1 and CCR-R2;
  - Drainage works at Rest Garden area, Hoi Lai Estate, Piers B1 and P5;
  - Segment erection by lifting frame at B3, P16, P17 and P18;
  - Pier construction at Slip Road D;
  - Retaining wall construction at CCR-R2;
  - Cast in-situ of Slip Road C;
  - Spraying concrete at R3; and
  - Segment erection at Main Viaduct by launching gantry at night at Piers P15 and P10.



## Summary of EM&A Requirements

1.12 The EM&A programme requires construction phase monitoring for air quality and construction noise, and environmental site audit. The EM&A requirements for each parameter are described in the following 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 final report; and
- Environmental requirements in contract documents.

**Table 1.1 Key Project Contacts**

Party	Role	Name	Position	Phone No.	Fax No.
HyD	Permit Holder	Mr. Kroc Leung	SE2/R8K	2762 3662	2714 5198
		Mr. Esther Yung	E1/R8K	2762 3677	
		Mr. LC Chung	E2/R8K	2762 3613	
MHJV	Engineer	Mr. Conrad Ng	Project Manager	2605 6262	2691 2649
	Engineer's Representative	Mr. D.F. Lilliman	CRE	2959 0010	2959 0290
		Mr. Henry Liu	SRE	2991 1068	
		Mr. Joseph Chi	RE	2991 1034	
Cinotech	Environmental Team	Dr. Priscilla Choy	The ET Leader	2151 2089	3107 1388
		Mr. KK Chan	Audit Team Leader	2151 2077	
		Mr. Henry Leung	Monitoring Team Leader	2151 2087	
CH2M-IDC	Independent Environmental Checker	Mr. David Yeung	Independent Environmental Checker	2872 2934	2507 2293
		Mr. Billy Yu	Assistant Independent Environmental Checker	2872 2949	
Acciona	Contractor	Mr. Rafael Rubio	Project Director	2956 3300	2956 3331
		Mr. Lawrence Kwok	QA/E Manager		
24-hour Emergency Hotline				2370 9200	-

1.13 The advice on the implementation status of environmental protection and pollution control/mitigation measures is summarized in Section 4 of this report.

1.14 This report presents the environmental monitoring results, observations, locations, equipment, period, methodology and QA/QC procedures of the required monitoring parameters, namely dust and noise levels and audit works for the Project in January 2006.

## 2. AIR QUALITY

### Monitoring Requirements

- 2.1 Monitoring of 1-hour and 24-hour TSP was conducted to monitor the air quality. **Appendix A** shows the established Action/Limit Levels for the environmental monitoring works.

### Monitoring Locations

- 2.2 One designated monitoring station, AM2 was selected for impact dust monitoring for the Project. **Table 2.1** describes the air quality monitoring location, which is also depicted in **Figures 1**.

**Table 2.1 Locations for Air Quality Monitoring**

Monitoring Station	Description	Location
AM2	Lai Chi Kok Park Sports Centre	Rooftop

### Monitoring Equipment

- 2.3 **Table 2.2** summarizes the equipment used for the air quality monitoring. Copies of calibration certificates are attached in **Appendix B**.

**Table 2.2 Air Quality Monitoring Equipment**

Equipment	Model and Make	Quantity
Calibrator	GMW25; S/N: 1536	1
HVS Sampler	Graseby GMW Model GS2310 High Volume TSP Sampler and associated equipment and shelter	1

### Monitoring Parameters, Frequency and Duration

- 2.4 **Table 2.3** summarizes the monitoring parameters and frequencies of impact dust monitoring for the whole construction period. The air quality monitoring schedule for the reporting period is shown in **Appendix C**.

**Table 2.3 Impact Dust Monitoring Parameters, Frequency and Duration**

Parameters	Frequency
1-hr TSP	Three times / 6 days
24-hr TSP	Once / 6 days

---

## Monitoring Methodology and QA/QC Procedure

### Instrumentation

- 2.5 Graseby GMW Model GS2310 TSP High Volume Sampler (HVS) was employed for 1-hour & 24-hour TSP monitoring. The sampler was composed of a motor, a filter holder, a flow controller and a sampling inlet and its performance specification complied with that required by USEPA Standard Title 40, Code of Federation Regulations Chapter 1 (Part 50). Moreover, the HVS also met all the requirements in Sections 2.2 to 2.4 of the EM&A Manual (1999).

### Operating/Analytical Procedures

- 2.6 Operating/analytical procedures for the operation of HVS were as follows:
- A horizontal platform was provided with appropriate support to secure the samplers against gusty wind.
  - No two samplers were placed less than 2 meters apart.
  - The distance between the sampler and an obstacle, such as buildings, was at least twice the height that the obstacle protrudes above the sampler.
  - A minimum of 2 meters of separation from walls, parapets and penthouses was required for rooftop samples.
  - A minimum of 2 meters separation from any supporting structure, measured horizontally was required.
  - No furnaces or incineration flues were nearby.
  - Airflow around the sampler was unrestricted.
  - The sampler was more than 20 meters from the drip line.
  - Any wire fence and gate, to protect the sampler, should not cause any obstruction during monitoring.
- 2.7 Prior to the commencement of the dust sampling, the flow rate of the high volume sampler was properly set (between 1.1 m<sup>3</sup>/min. and 1.4 m<sup>3</sup>/min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50.
- 2.8 For TSP sampling, fiberglass filters (G810) were used.
- 2.9 The power supply was checked to ensure the sampler worked properly.
- 2.10 On sampling, the sampler was operated for 5 minutes to establish thermal equilibrium before placing any filter media at the designated air monitoring station.
- 2.11 The filter holding frame was then removed by loosening the four nuts and a weighted and conditioned filter was carefully centered with the stamped number upwards, on a supporting screen.
- 2.12 The filter was aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter. Then the filter holding frame was tightened to the filter holder with swing bolts. The applied pressure should be sufficient to avoid air leakage at the edges.

- 2.13 The shelter lid was closed and secured with the aluminum strip.
- 2.14 The timer was then programmed. Information was recorded on the record sheet, which included the starting time, the weather condition and the filter number (the initial weight of the filter paper can be found out by using the filter number).
- 2.15 After sampling, the filter was removed and sent to the laboratory for weighing. The elapsed time was also recorded.
- 2.16 Before weighing, all filters were equilibrated in a conditioning environment for 24 hours. The conditioning environment temperature should be between 25°C and 30°C and not vary by more than  $\pm 3^\circ\text{C}$ ; the relative humidity (RH) should be  $< 50\%$  and not vary by more than  $\pm 5\%$ . A convenient working RH is 40%.

#### Maintenance/Calibration

- 2.17 The following maintenance/calibration was required for the HVS:
- The high volume motors and their accessories were properly maintained. Appropriate maintenance such as routine motor brushes replacement and electrical wiring checking were made to ensure that the equipment and necessary power supply are in good working condition.
  - High volume samplers were calibrated at bi-monthly intervals using GMW-25 Calibration Kit throughout all stages of the air quality monitoring.

#### **Results and Observations**

- 2.18 All TSP monitoring was conducted as scheduled in this reporting month.
- 2.19 No Action/Limit Level exceedance was recorded for both 1-hr and 24-hr TSP monitoring.
- 2.20 Wind data monitoring equipment has been installed in Shatin Heights for logging wind speed and wind direction. These wind data for the reporting month is summarized in **Appendix D**.
- 2.21 The monitoring data and graphical presentations of 1-hour and 24-hour TSP monitoring results are shown in **Appendices E** and **F**, respectively.

### 3. NOISE

#### Monitoring Requirements

- 3.1 Monitoring and audit of construction noise levels is required to be conducted, in accordance with the EM&A Manual, to ensure that any unacceptable noise impacts could be readily detected and timely and appropriate action be undertaken to rectify the situation.
- 3.2 The construction noise levels shall be measured in terms of the A-weighted equivalent continuous sound pressure level (Leq). Leq (30min) shall be used as the monitoring parameter for the time period between 0700-1900 hours on normal weekdays. For all other time periods, Leq (5min) shall be employed for comparison with the Noise Control Ordinance (NCO) criteria. As supplementary information for data auditing, statistical results such as  $L_{10}$  and  $L_{90}$  shall also be obtained for reference.
- 3.3 Four designated noise monitoring stations, namely NM4, NM8a, NM8b and NM9 were selected for impact monitoring. **Appendix A** shows the established Action and Limit Levels for the environmental monitoring works.

#### Monitoring Locations

- 3.4 Noise monitoring was conducted at five designated monitoring stations as summarized in **Table 3.1**. **Figures 1** show the locations of these stations.

**Table 3.1** Noise Monitoring Stations

Stations*	Description	Location
NM4	Mei Foo Sun Chuen, Phase 5	Rooftop of Block 9
NM8a	Nob Hill	M/F of Car Park
NM8b	Nob Hill	3/F of Car Park
NM9	Hoi Lai Estate	G/F of Hoi Fai House

- (1) Renovation work was undertaken at the Lai Chi Kok Reception Centre (NM2) and the centre was found vacated. The noise monitoring was suspended since December 2004. Approval for the change of EM&A Programme was granted by EPD on 30<sup>th</sup> December 2004.
- (2) The Lai Chi Kok Hospital (NM3) was also found vacated and noise monitoring has been suspended since January 2005, as approved by EPD on 15<sup>th</sup> March 2005.

- 3.5 Stations NM8a and NM8b were installed at Nob Hill in May 2004. Station NM8b is located at 3/F of the car park of Nob Hill, which is strongly influenced by traffic noise from Ching Cheung Road. The measurement at this station is for reference purpose, but not for compliance check of construction noise. The measured noise level at Station NM8a, which is located at M/F of car park and closer to the construction site, acts as an indicator of the construction noise. Since the domestic premises are located above 5/F, noise assessment would be performed to assess the level of nuisance resulting from the construction noise at the domestic premises whenever the measured noise level at NM8a exceeds the noise limit level.

- 3.6 A new housing estate, Hoi Lai Estate, became one of the noise sensitive receivers close to the Project site. As recommended by the Regional (West) Office of EPD, noise monitoring at this location (Station NM9) was newly included in the EM&A programme. Approval for the change of EM&A programme was granted by EPD on 30<sup>th</sup> December 2004.

### Monitoring Equipment

- 3.7 **Table 3.2** summarizes the noise monitoring equipment model being used. Copies of calibration certificates are attached in **Appendix B**.

**Table 3.2 Noise Monitoring Equipment**

Equipment	Model and Make	Qty.
Integrating Sound Level Meter	B&K Model 2238	5
Calibrator	B&K 4231	2
Wind Speed Anemometer	RS232 Integral Vane Digital Anemometer	1

### Monitoring Parameters, Frequency and Duration

- 3.8 **Table 3.3** summarizes the monitoring parameters, frequency and total duration of monitoring. The noise monitoring schedule is shown in **Appendix C**.

**Table 3.3 Noise Monitoring Parameters, Frequency and Duration**

Stations	Parameter	Period	Frequency	Measurement
NM4	L <sub>10</sub> (30 min.)dB(A) L <sub>90</sub> (30 min.)dB(A) L <sub>eq</sub> (30 min.)dB(A)	0700-1900 hrs. on weekdays	Once per week	Façade
NM8a				Façade
NM8b				Façade
NM9				Façade

### Monitoring Methodology and QA/QC Procedures

- The Sound Level Meter was generally set on a tripod at a height of 1.2 m above the ground, depending to the actual monitoring condition.
- The battery condition was checked to ensure the correct functioning of the meter.
- Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:
  - frequency weighting : A
  - time weighting : Fast
  - time measurement : 30 minutes / 5 minutes
- Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement was more than 1.0 dB, the measurement would be considered invalid and repeat of noise measurement would be required after re-calibration or repair of the equipment.
- The wind speed was frequently checked with the portable wind meter.

- At the end of the monitoring period, the  $L_{eq}$ ,  $L_{90}$  and  $L_{10}$  were recorded. In addition, site conditions and noise sources were recorded on a standard record sheet.
- Noise measurement was paused during periods of high intrusive noise if possible and observation was recorded when intrusive noise was not avoided.
- Noise monitoring was cancelled in the presence of fog, rain, and wind with a steady speed exceeding 5 m/s, or wind with gusts exceeding 10 m/s.

### **Maintenance and Calibration**

- 3.9 The microphone head of the sound level meter and calibrator was cleaned with soft cloth regularly.
- 3.10 The meters were sent to the supplier to check and calibrate on a yearly interval.

### **Results and Observations**

- 3.11 Noise monitoring was performed at the four designated locations as scheduled in this reporting month.
- 3.12 All the Construction Noise Levels (CNLs) reported in this report, except those collected at Stations NM8a, NM8b and NM9, were adjusted with the corresponding baseline level (i.e. Measured  $L_{eq}$  – Baseline  $L_{eq}$  = Measured CNL), in order to facilitate the interpretation of the noise exceedance.
- 3.13 Noise monitoring results and graphical presentations are shown in **Appendix G**.
- 3.14 One Action Level exceedance was recorded due to a noise complaint received on 18 January 2006. No Limit Level exceedance was recorded in the reporting month.
- 3.15 At Stations NM4, NM8a and NM8b, the major noise source identified during the monitoring exercises was mainly the road traffic noise.
- 3.16 At Station NM9, construction noise from the Project and occasionally the traffic noise were identified as the major noise source during monitoring.

#### 4. ENVIRONMENTAL AUDIT

##### Site Audits

- 4.1 Site audits were carried out by ET on weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures in the Project site. The summaries of site audits are attached in **Appendix I**.
- 4.2 Site audits were conducted on 4, 11, 19 and 25 January 2006 by ET. The audit session on 4 January 2006 was conducted with the representatives of HyD, IEC, ER, the Contractor and ET.

##### Review of Environmental Monitoring Procedures

- 4.3 The monitoring works conducted by the monitoring team were inspected regularly. The following observations have been recorded for the monitoring works:

###### *Air Quality Monitoring*

- The monitoring team recorded all observations around the monitoring stations within and outside the construction site.
- The monitoring team recorded the temperature and weather conditions on the monitoring days.

###### *Noise Monitoring*

- The monitoring team recorded all observations around the monitoring stations, which might affect the monitoring result.
- Major noise sources were identified and recorded. Other intrusive noise attributing to the result was trimmed off by pausing the monitoring temporarily.

##### Status of Environmental Licensing and Permitting

- 4.4 All permits/licenses obtained for the Project are summarized in **Table 4.1**. Two new CNPs were issued to the Project in the reporting month.

##### Implementation Status of Environmental Mitigation Measures

- 4.5 According to the Environmental Permit and the EM&A Manuals, the mitigation measures detailed in the documents are required to be implemented. An updated summary of the EMIS is provided in **Appendix K**.



**Table 4.1 Summary of Environmental Licensing and Permit Status**

Permit No.	Valid Period		Details	Status
	From	To		
<b>Environmental Permit (EP)</b>				
EP-103/2001/C	22/7/05	N/A	<u>Construction and operation of</u> (a) All civil works (including highways, traffic, geotechnical, drainage, structural, architectural and landscaping works) for the Lai Chi Kok Viaduct, the interchange with Ching Cheung Road, the main road within Butterfly Valley and the Eagle's Nest Tunnel; (b) All E&M works (including ventilation, Traffic Control & Surveillance System (TCSS), toll collection system and lighting) for the whole Route 9 between Cheung Sha Wan and Sha Tin; (c) The permanent slope works above the northern portal of the Eagle's Nest Tunnel; (d) The architectural works (including fitting out and furnishings) of the portal buildings of the Sha Tin Heights Tunnel.	Valid
<b>Registration of Chemical Waste Producer</b>				
WPN 5213-261-N2413-04	17/11/03	N/A	N/A	Valid
<b>Water Discharge Licence</b>				
EP482/260/251/1	05/12/03	31/12/08	Discharge of industrial trade effluent arising from the construction site at Route 9 – Lai Po Road Section of Lai Chi Kok Viaduct (Contract HY/2003/01).	Valid
EP482/260/251/2	15/12/03	31/12/08	Discharge of industrial trade effluent arising from the construction site at Route 9 – Lai Chi Kok Viaduct excluding Lai Po Road Section.	Valid
<b>Construction Noise Permit (CNP)</b>				
GW-RW0519-05	13/08/05	12/02/06	<i>Location:</i> Butterfly Valley Road near LCK Reception Center <i>Time Period:</i> Whole day of general holidays (including Sundays) and any other days between 1900-0700 hours on next day	Valid
GW-RW0535-05	17/08/05	15/02/06	<i>Location:</i> Butterfly Valley Road and Kom Tsun Street <i>Time Period:</i> Any day not being a general holiday between 2100-0700 hours	Valid
GW-RW0563-05	02/09/05	01/03/06	<i>Location:</i> Ching Cheung Road near Mei Foo Sun Chuen <i>Time Period:</i> General holidays (including Sundays) between 0700-2300 hours and any other days between 1900-2300 hours	Valid
GW-RW0624-05	30/09/05	29/03/06	<i>Location:</i> Lai Wan Road <i>Time Period:</i> Any day not being a general holiday between 2100-0700 hours	Valid
GW-RW0648-05	07/10/05	06/04/06	<i>Location:</i> Junction of Ching Cheung Road and Castle Peak Road <i>Time Period:</i> General holidays (including Sundays) between 0700-2300 hours and any other days between 1900-2300 hours	Valid

Permit No.	Valid Period		Details	Status
	From	To		
GW-RW0662-05	17/10/05	16/03/06	<i>Location:</i> Junction of Ching Cheung Road and Castle Peak Road <i>Time Period:</i> Any day not being a general holiday between 2100-0700 hours	Valid
GW-RW0674-05	23/10/05	19/02/06	<i>Location:</i> Butterfly Valley near LCK Reception Centre <i>Time Period:</i> Whole day of general holidays (including Sundays) and any other days between 1900-0700 hours on next day	Valid
GW-RW0699-05	7/11/05	5/5/06	<i>Location:</i> Lai Po Road near West Kowloon Highway <i>Time Period:</i> Any day not being a general holiday between 2100-0700 hours	Valid
GW-RW0716-05	9/11/05	31/3/06	<i>Location:</i> Kwai Chung Road and Butterfly Valley Road <i>Time Period:</i> Whole day of general holidays (including Sundays) and any other days between 1900-0700 hours on next day	Valid
GW-RW0738-05	15/11/05	14/05/06	<i>Location:</i> Lai Po Road near Hoi Lai Estate <i>Time Period:</i> General holidays (including Sundays) between 0700-2300 hours and any other days between 1900-2300 hours	Valid
GW-RW0739-05	19/11/05	31/03/06	<i>Location:</i> Yuet Lun Street, Kwai Chung Road & Butterfly Valley Road <i>Time Period:</i> Any day not being a general holiday between 2100-0700 hours	Valid
GW-RW0740-05	16/11/05	14/05/06	<i>Location:</i> Lai Po Road near Yuet Lun Street <i>Time Period:</i> Whole day of general holidays (including Sundays) and any other days between 1900-0700 hours on next day	Valid
GW-RW0745-05	18/11/05	17/05/06	<i>Location:</i> Ching Cheung Road near LCK Swimming Pool <i>Time Period:</i> Whole day of general holidays (including Sundays) and any other days between 1900-0700 hours on next day	Valid
GW-RW0757-05	23/11/05	31/03/06	<i>Location:</i> Ching Cheung Road near LCK Power Substation <i>Time Period:</i> Whole day of general holidays (including Sundays) and any other days between 1900-0700 hours on next day	Valid
GW-RW0824-05	25/12/05	23/04/06	<i>Location:</i> Kwai Chung Road <i>Time Period:</i> General holidays (including Sundays) between 0900-2100 hrs	Valid
GW-RW0825-05	20/12/05	19/05/06	<i>Location:</i> Butterfly Valley <i>Time Period:</i> General holidays (including Sundays) between 0000-2400 hours from 20/12/05 to 9/1/06, general holidays (including Sundays) between 0000-2300 hours from 10/1/06 to 19/5/06 and any other days between 1900-0700 hours on next day	Valid

Permit No.	Valid Period		Details	Status
	From	To		
GW-RW0844-05	15/1/06	14/06/06	<i>Location:</i> Butterfly Valley <i>Time Period:</i> Whole day of general holidays (including Sundays) and any other days between 1900-0700 hours on next day	Valid
GW-RW0867-05	3/2/06	2/8/06	<i>Location:</i> Hing Wah Street West (Jetty Area) <i>Time Period:</i> Whole day of general holidays (including Sundays) and any other days between 1900-0700 hours on next day	Valid

4.6 During site inspections in the reporting month, no non-conformance was identified. The observations and recommendations are summarized in **Table 4.2**.

**Table 4.2 Observations and Recommendations of Site Audits**

Parameters	Date	Observations and Recommendations	Follow-up
<i>Air Quality</i>	4-Jan-06	Dust tracks were observed deposited on the public road near the site exit of R2. The Contractor was recommended to repair the broken concrete pavement at the exit.	The situation was found improved / rectified during the audit on 11-Jan-06.
<i>Chemical Management</i>	4-Jan-06	Rubbish was observed scattering in the open channel near P13. In addition, refuse accumulation was observed at P18. The Contractor was reminded to collect the refuse and remove it regularly.	The situation was found improved / rectified during the audit on 11-Jan-06.
	19-Jan-06	Spilled fuel oil was accumulated in drip tray at Mui Kong Tsuen. The contractor was reminded to collect the oil.	The situation was found improved / rectified during the audit on 25-Jan-06.
	25-Jan-06	General refuse was accumulated at Mui Kong Tsuen. The Contractor was reminded to keep the site area tidy.	The situation was found improved / rectified during the audit on 2-Feb-06.

### Summary of Exceedances

#### 1-hr TSP Monitoring

4.7 No Action/Limit Level exceedance was recorded in the reporting month.

#### 24-hr TSP Monitoring

4.8 No Action/Limit Level exceedance was recorded in the reporting month.

### Construction Noise Monitoring

- 4.9 One Action Level exceedance was recorded due to a public noise complaint received on 18 January 2006. No Limit Level exceedance was recorded in the reporting month.

### **Implementation Status of Event Action Plans**

- 4.10 The Event Action Plans for air quality and construction noise are presented in **Appendix J**.

### **Summary of Complaint and Prosecution**

- 4.11 Two environmental complaints were received in the reporting month. One complaint was received on 18 January 2006 from EPD. The complaint, which was lodged by a resident of Hoi Ming House of Hoi Lai Estate, was about construction noise nuisance caused by works at Lai Po Road near Hoi Lai Estate. The noise nuisance was noted since 14 January 2006 during the periods from 2330 hrs to 0600 hrs. Complaint investigation was undertaken by ET. The complaint was considered not justifiable based on the noise measurement results. The complaint investigation report was submitted to EPD on 27 January 2006.
- 4.12 Another complaint was received on 19 January 2006 from EPD. The complaint, which was lodged by resident of Mei Foo Sun Chuen Phase 5, was about construction dust nuisance generated at construction sites along Ching Cheung Road. According to the site observations and environmental monitoring results, the complaint was considered not justifiable. The complaint investigation report was submitted to EPD on 2 February 2006.
- 4.13 Further to incident of mosquito larvae being identified in a plant pot drip tray on 21 July 2005 during FEHD's site inspection, the Contractor was prosecuted under the Public Health and Municipal Services Ordinance (Cap.132). After the hearing on 6 December 2005, the Contractor was fined \$5,000 by the Kowloon City magistrate's court.
- 4.14 There were 18 environmental complaints and 1 prosecution received since the commencement of the Project. The Complaint Log is attached in **Appendix M**.

## 5. FUTURE KEY ISSUES

### Key Issues for the Coming Month

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

- Dust generation from stockpiles of dusty materials, exposed slope surfaces, breaking works, excavation works and soil nail installations at CCR-S1, S4 R1 to R3;
- Construction noise from slope works at S4 and excavation works at R2 and R3;
- Nighttime construction noise from segment transportation and segment erection;
- Proper storage of fuel oil and chemical waste;
- Site tidiness of Mui Kong Tsuen and Wai Man Tsuen site areas.

### Monitoring Schedule for the Next Month

5.2 The tentative monitoring schedule for the next month is shown in **Appendix C**.

### Construction Program for the Next Month

5.3 The major construction activities in coming months include:

- Construction of abutments, pile caps and piers at Slip Roads C and D, Lai Wan Overpass and Main Viaduct;
- Bulk excavation works, rock dowels installation and soil nails installation at slope CCR-S1;
- Bulk excavation works and soil nails installation at slope CCR-S4;
- Bulk excavation works and retaining wall construction at CCR-R1 and LCK-R2;
- Bulk excavation works at CCR-R1 and CCR-R3;
- Drainage works at Rest Garden area, Hoi Lai Estate, Piers B1 and P5;
- Segment erection by lifting frame at P18 and Slip Roads B and C;
- Segment erection by launching gantry at night at Piers P15, P16 and P17; and
- Cast insitu of Slip Roads C and D.

5.4 The tentative construction program for the Project is provided in **Appendix L**.

## 6. CONCLUSIONS AND RECOMMENDATIONS

### Conclusions

- 6.1 Environmental monitoring works were performed in the reporting month and all monitoring results were checked and reviewed.
- 6.2 No exceedance was recorded for the environmental monitoring in the reporting month, except one noise Action Level (complaint) exceedance was recorded.
- 6.3 Two environmental complaints were received in the reporting month. Complaint investigation was undertaken and both complaints were considered not justifiable.

### Recommendations

- 6.4 According to the environmental audit performed in the reporting month, the following recommendations were made:

#### *Dust Impact*

- To ensure water spray is applied for the dust emissive works, such as soil nail installation, loading and unloading of soil materials, rock breaking works.
- To cover soil stockpiles and exposed slope surface by impervious sheets or other means.

#### *Noise Impact*

- To provide temporary noise barriers for noisy activities, such as breaking works near the noise sensitive receivers.
- To employ quiet powered mechanical equipment if possible.
- To ensure compliance of CNP conditions during restricted-hour works.
- To space out noisy equipment and position the equipment as far away as possible from noise sensitive receivers.

#### *Water Impact*

- To review and implement temporary drainage system for the upcoming wet system.
- To review the capacity of de-silting facilities for discharge.
- To keep the sedimentation faculties well maintained and to perform de-silting regularly.

#### *Waste / Chemical Management*

- To ensure proper collection and disposal of rubbish generated on site.
- To provide proper storage for oil drums on site.
- To check for any accumulation of waste materials or rubbish on site.
- To avoid any discharge or accidental spillage of chemical waste directly from the site.

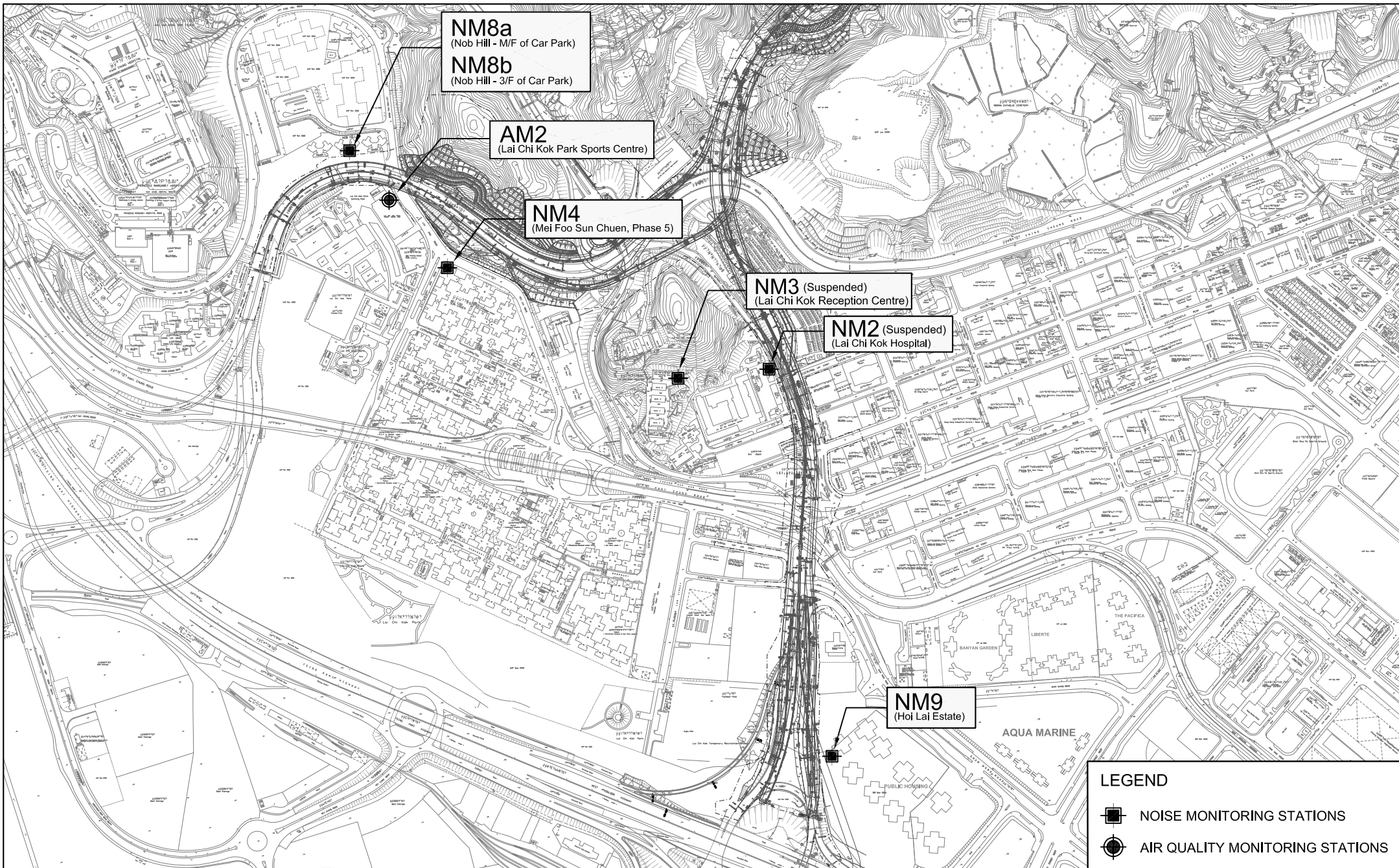
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## FIGURES

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Title ROUTE 8 (PREVIOUSLY KNOWN AS ROUTE 9) BETWEEN CHEUNG SHA WAN AND SHA TIN  
CONTRACT HY/2003/01 - LAI CHI KOK VIADUCT

LOCATIONS OF MONITORING STATIONS

Scale 1 : 8000 (A4)

Date 2005

Project No. MA3024

Figure No. 1





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**APPENDIX A  
ACTION AND LIMIT LEVELS**

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## Appendix A - Action and Limit Levels (LCKV)

### 1-Hour TSP

Location	Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
AM2	301	500

### 24-Hour TSP

Location	Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
AM2	177	260

### Construction Noise

Period	Action Level	Limit Level
0700-1900 hrs on normal weekdays	When one documented complaint is received	75 dB(A)
0700-2300 hrs on holidays & 1900-2300 hrs on all other days		70* dB(A)
2300-0700 hrs of next day		55* dB(A)

(\*) The Area Sensitivity Rating for the noise monitoring stations (NM4, NM8a, NM8b and NM9) is taken as C, according to Table 1 of EPD's Technical Memorandum on Noise from Construction Work other than Percussive Piling.

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**APPENDIX B  
COPIES OF CALIBRATION  
CERTIFICATES**

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## TEST REPORT

**APPLICANT:** Cinotech Consultants Limited  
1602-1610 Delta House,  
3 On Yiu Street,  
Shatin, N.T.

Test Report No.:	C/05/50503
Date of Issue:	2005-05-03
Date Received:	2005-05-03
Date Tested:	2005-05-03
Date Completed:	2005-05-03

**ATTN:** Mr. Henry Leung

Page: 1 of 1

### Certificate of Calibration

**Item for calibration:**

Description : RS232 Integral Vane Digital Anemometer  
Manufacturer : AZ Instrument  
Model No. : 451104  
Serial No. : 9020746  
Project No. : C13  
Equipment No. : A-03-01

**Test conditions:**

Room Temperature : 21 degree Celsius  
Relative Humidity : 70%  
Pressure : 100.8 kPa

**Methodology:**

The anemometer has been calibrated in accordance with the documented procedures and using standard(s) and instrument(s) which are recommended by the manufacturer, or equivalent.

**Results:**

	Reference Set Point	Instrument Readings
Measuring Air Velocity, m/s	2.00	2.00
Temperature, °C	20.0	20.1

*PREPARED AND CHECKED BY:*

For and On Behalf of **WELLAB Ltd.**



**PATRICK TSE**  
*Operation Manager*

D.0403

**Andersen Instruments, Inc.**  
Orifice Transfer Standard Certification Worksheet

Date: 04/23/2005      Rootsmeter S/N: 9736553      Ta: 22.00 C  
 Operator: RA      Calibrator S/N: 1888A      Pa: 761.0 mm Hg  
 Calibrator Model #: G25A      Placed in service:

Run	Vol. Init. (m3)	Vol. Final (m3)	Δ Vol. (m3)	Δ Time (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1.00	2.00	1.00	1.404	3.08	2.00
2	3.00	4.00	1.00	0.997	6.17	4.00
3	5.00	6.00	1.00	0.889	7.85	5.00
4	7.00	8.00	1.00	0.848	8.59	5.50
5	9.00	10.00	1.00	0.700	12.42	8.00

**Data Tabulation**

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H \left( \frac{Pa}{Pstd} \right) \left( \frac{Tstd}{Ta} \right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H (Ta / Pa)}$ (y-axis)
1.007	0.717	1.422	0.996	0.709	0.881
1.003	1.006	2.011	0.992	0.995	1.246
1.000	1.125	2.248	0.990	1.113	1.393
0.999	1.179	2.358	0.989	1.166	1.461
0.994	1.420	2.844	0.984	1.405	1.762
	m =	2.0208		m =	1.2658
	b =	-0.024947		b =	-0.015460
	r =	0.999989		r =	0.999989

**Calculations**

$$Vstd = \Delta Vol \left( \frac{Pa - \Delta P}{Pstd} \right) \left( \frac{Tstd}{Ta} \right)$$

$$Qstd = Vstd / \Delta Time$$

$$Va = \Delta Vol \left( \frac{Pa - \Delta P}{Pa} \right)$$

$$Qa = Va / \Delta Time$$

**For subsequent flow rate calculations:**

$$Qstd = 1 / m \left( \left( \sqrt{\Delta H \left( \frac{Pa}{Pstd} \right) \left( \frac{Tstd}{Ta} \right)} \right) - b \right)$$

$$Qa = 1 / m \left( \left( \sqrt{\Delta H (Ta / Pa)} \right) - b \right)$$

Standard Conditions:

Tstd: 298.18 °K  
 Pstd: 760 mm Hg

where:

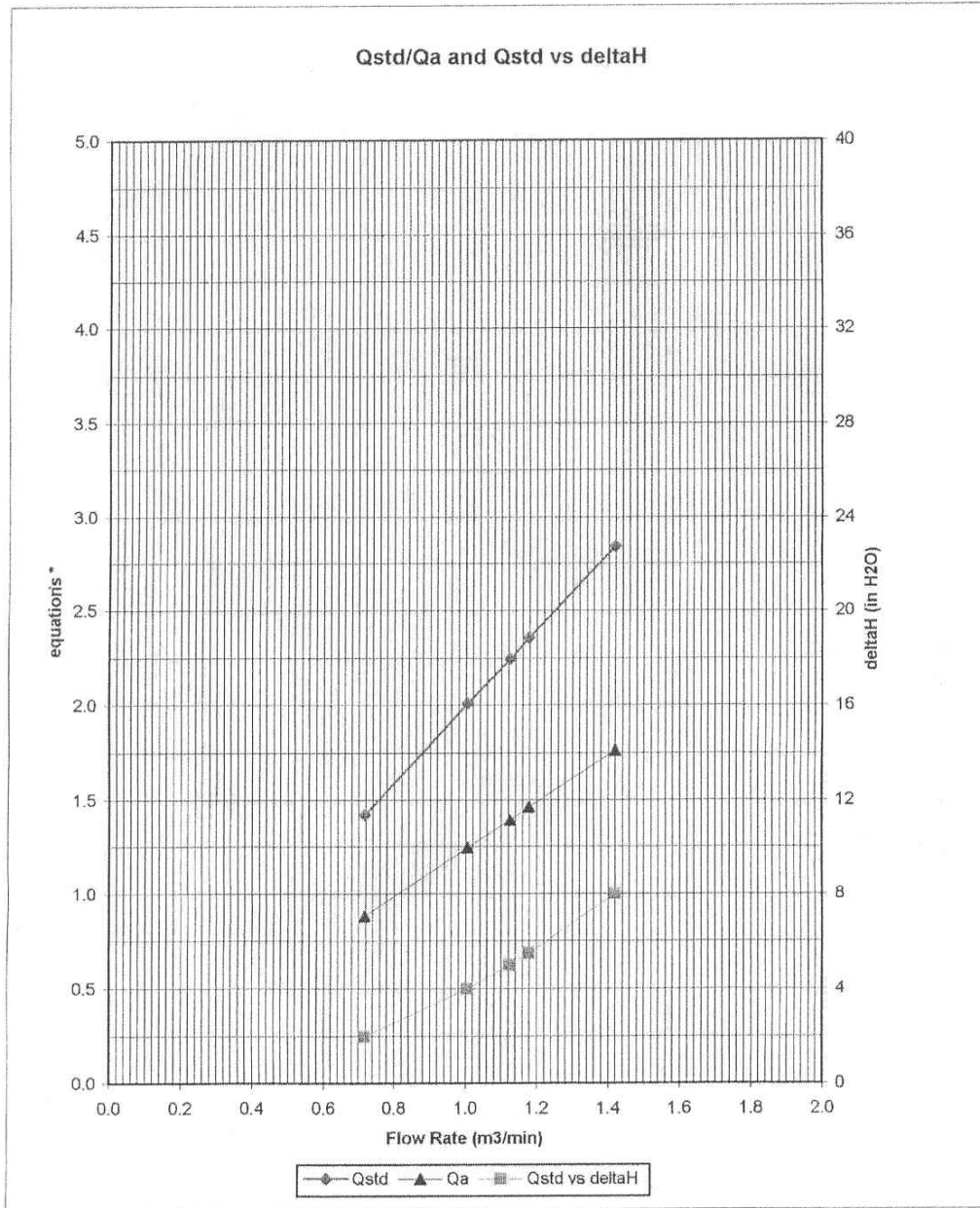
ΔH: calibrator manometer reading (in H2O)  
 ΔP: rootsmeter manometer reading (mm Hg)  
 Ta: actual absolute temperature (°K)  
 Pa: actual barometric pressure (mm Hg)  
 b: intercept  
 m: slope

For additional information consult:

1. The Federal Register, Vol. 47, No.234, pp. 54896-54921, Dec. 6, 1982
2. Quality Assurance Handbook, Vol II (EPA 60074-77-277a), Section 2.11
3. Andersen Instruments, Inc. Instruction Manual

**Notes:**

1. Copies of this calibration are not kept on file.
2. EPA recommends calibrators should be recalibrated after one year of use.



\* y-axis equations:

Qstd series:  $\sqrt{\Delta H \left( \frac{Pa}{Pstd} \right) \left( \frac{Tstd}{Ta} \right)}$

Qa series:  $\sqrt{(\Delta H (Ta / Pa))}$

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## TEST REPORT

**APPLICANT:** Cinotech Consultants Limited  
1602-1610 Delta House,  
3 On Yiu Street,  
Shatin, N.T.

Test Report No.:	C/N/51216/1
Date of Issue:	2005-12-16
Date Received:	2005-12-15
Date Tested:	2005-12-15
Date Completed:	2005-12-16
Next Due Date:	2006-12-15

**ATTN:** Mr. Henry Leung

Page: 1 of 1

### Certificate of Calibration

#### Item for calibration:

Description	: Integrating Sound Level Meter
Manufacturer	: Brüel & Kjær
Model No.	: B&K 2238
Serial No.	: 2337665
Microphone No.	: 2289749
Equipment No.	: N-01-01

#### Test conditions:

Room Temperature	: 20 degree Celsius
Relative Humidity	: 63%

#### Test Specifications:

Performance checking at 94 and 114 dB

#### Methodology:

In-house method, according to manufacturer instruction manual

#### Results:

Reference Set Point, dB	Instrument Readings, dB
94	94.0
114	114.0

*PREPARED AND CHECKED BY:*

For and On Behalf of **WELLAB Ltd.**

  
\_\_\_\_\_  
**PATRICK TSE**  
Operation Manager



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## TEST REPORT

**APPLICANT:** Cinotech Consultants Limited  
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3 On Yiu Street,  
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Test Report No.:	C/N/51116/1
Date of Issue:	2005-11-16
Date Received:	2005-11-15
Date Tested:	2005-11-15
Date Completed:	2005-11-16
Next Due Date:	2006-11-15

**ATTN:** Mr. Henry Leung

Page: 1 of 1

### Certificate of Calibration

#### Item for calibration:

Description	: Integrating Sound Level Meter
Manufacturer	: Brüel & Kjær
Model No.	: B&K 2238
Serial No.	: 2337666
Microphone No.	: 2289750
Equipment No.	: N-01-02

#### Test conditions:

Room Temperature	: 20 degree Celsius
Relative Humidity	: 60%

#### Test Specifications:

Performance checking at 94 and 114 dB

#### Methodology:

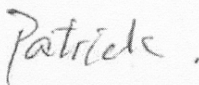
In-house method, according to manufacturer instruction manual

#### Results:

Reference Set Point, dB	Instrument Readings, dB
94	94.0
114	114.0

*PREPARED AND CHECKED BY:*

For and On Behalf of **WELLAB Ltd.**



**PATRICK TSE**

Operation Manager

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## TEST REPORT

**APPLICANT:** Cinotech Consultants Limited  
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3 On Yiu Street,  
Shatin, N.T.

Test Report No.:	C/N/50905-1
Date of Issue:	2005-09-06
Date Received:	2005-09-05
Date Tested:	2005-09-06
Date Completed:	2005-09-06
Next Due Date:	2006-09-05

**ATTN:** Mr. Henry Leung

Page: 1 of 1

### Certificate of Calibration

#### Item for calibration:

Description	: Integrating Sound Level Meter
Manufacturer	: Brüel & Kjær
Model No.	: B&K 2238
Serial No.	: 2359311
Microphone No.	: 2346382
Equipment No.	: N-01-03

#### Test conditions:

Room Temperature	: 22 degree Celsius
Relative Humidity	: 65%

#### Test Specifications:

Performance checking at 94 and 114 dB

#### Methodology:

In-house method, according to manufacturer instruction manual

#### Results:

Reference Set Point, dB	Instrument Readings, dB
94	94.0
114	114.0

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*Patrick*

**PATRICK TSE**  
Laborary Manager

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## TEST REPORT

**APPLICANT:** Cinotech Consultants Limited  
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Test Report No.:	C/N/50905-2
Date of Issue:	2005-09-06
Date Received:	2005-09-05
Date Tested:	2005-09-05
Date Completed:	2005-09-06
Next Due Date:	2006-09-05

**ATTN:** Mr. Henry Leung

Page: 1 of 1

### Certificate of Calibration

**Item for calibration:**

Description	: Integrating Sound Level Meter
Manufacturer	: Brüel & Kjær
Model No.	: B&K 2238
Serial No.	: 2359303
Equipment No.	: N-01-04

**Test conditions:**

Room Temperature	: 21 degree Celsius
Relative Humidity	: 62%
Pressure	: 1006.5hPa

**Test Specifications:**

Performance checking at 94 and 114 dB

**Methodology:**

In-house method, according to manufacturer instruction manual

**Results:**

Reference Set Point, dB	Instrument Readings, dB
94	94.0
114	114.0

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For and On Behalf of **WELLAB Ltd.**

*Patrick*

**PATRICK TSE**

*Operation Manager*

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## TEST REPORT

**APPLICANT:** Cinotech Consultants Limited  
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3 On Yiu Street,  
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Test Report No.:	C/N/51015/1
Date of Issue:	2005-10-15
Date Received:	2005-10-13
Date Tested:	2005-10-14
Date Completed:	2005-10-15
Next Due Date:	2006-10-14

**ATTN:** Mr. Henry Leung

Page: 1 of 1

### Certificate of Calibration

#### Item for calibration:

Description	: Integrating Sound Level Meter
Manufacturer	: Brüel & Kjær
Model No.	: B&K 2238
Serial No.	: 2394976
Microphone No.	: 2407349
Equipment No.	: N-01-05

#### Test conditions:

Room Temperature	: 22 degree Celsius
Relative Humidity	: 65%

#### Test Specifications:

Performance checking at 94 and 114 dB

#### Methodology:

In-house method, according to manufacturer instruction manual

#### Results:

Reference Set Point, dB	Instrument Readings, dB
94	94.0
114	114.0

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For and On Behalf of **WELLAB Ltd.**

*Patrick*

**PATRICK TSE**  
Operation Manager

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## TEST REPORT

**APPLICANT:** Cinotech Consultants Limited  
1602-1610 Delta House,  
3 On Yiu Street,  
Shatin, N.T.

Test Report No.:	C/05/1115-1
Date of Issue:	2005-11-15
Date Received:	2005-11-14
Date Tested:	2005-11-15
Date Completed:	2005-11-15
Next Due Date:	2006-11-14

**ATTN:** Mr. Henry Leung

Page: 1 of 1

### Item for calibration:

Description	: Acoustical Calibrator
Manufacturer	: Brüel & Kjær
Model No.	: 4231
Serial No.	: 2326353
Project No.	: C13
Equipment No.	: N-02-01

### Test conditions:

Room Temperature	: 20 degree Celsius
Relative Humidity	: 65%
Pressure	: 1015.2 hPa

### Methodology:

The sound calibrator has been calibrated in accordance with the documented procedures and using standard(s) and instrument(s) which are recommended by the manufacturer, or equivalent.

### Results:

Sound Pressure Level	Measured SPL	Tolerance
At 94 dB SPL	94.0	94.0 ± 0.1 dB

*PREPARED AND CHECKED BY:*

For and On Behalf of **WELLAB Ltd.**

*Patrick*

**PATRICK TSE**  
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## TEST REPORT

**APPLICANT:** Cinotech Consultants Limited  
1602-1610 Delta House,  
3 On Yiu Street,  
Shatin, N.T.

Test Report No.:	C/05/50305
Date of Issue:	2005-03-05
Date Received:	2005-03-04
Date Tested:	2005-03-05
Date Completed:	2005-03-05
Next Due Date:	2006-03-04

**ATTN:** Mr. Henry Leung

Page: 1 of 1

### Item for calibration:

Description	: Acoustical Calibrator
Manufacturer	: Brüel & Kjær
Model No.	: 4231
Serial No.	: 2343007
Project No.	: C13
Equipment No.	: N-02-02

### Test conditions:

Room Temperature	: 19 degree Celsius
Relative Humidity	: 70%
Pressure	: 1020.1hPa

### Methodology:

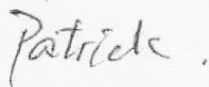
The sound calibrator has been calibrated in accordance with the documented procedures and using standard(s) and instrument(s) which are recommended by the manufacturer, or equivalent.

### Results:

Sound Pressure Level	Measured SPL	Tolerance
At 94 dB SPL	94.0	94.0 ± 0.2 dB

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**



**PATRICK TSE**  
Operation Manager

# WELLAB LTD.

Unit C, 1/F, Goldlion Holdings Center  
13-15 Yuen Shun Circuit,  
Shatin, Hong Kong.  
Tel: (852) 2898 7388  
Fax: (852) 2898 7076

## TEST REPORT

**APPLICANT:** Cinotech Consultants Limited  
1602-1610 Delta House,  
3 On Yiu Street,  
Shatin, N.T.

Test Report No.:	C/N/50905-1A
Date of Issue:	2005-09-06
Date Received:	2005-09-05
Date Tested:	2005-09-05
Date Completed:	2005-09-06
Next Due Date:	2006-09-05

**ATTN:** Mr. Henry Leung

Page: 1 of 1

### Item for calibration:

Description	: Acoustical Calibrator
Manufacturer	: Brüel & Kjær
Model No.	: 4231
Serial No.	: 2412367
Equipment No.	: N-02-03

### Test conditions:

Room Temperature	: 21 degree Celsius
Relative Humidity	: 62%
Pressure	: 1006.5hPa

### Methodology:

The Sound Level Calibrator has been calibrated in accordance with the documented procedures and using standard(s) and instrument(s) which are recommended by the manufacturer, or equivalent.

### Results:

Sound Pressure Level (1kHz)	Measured SPL	Tolerance
At 94 dB SPL	94.0	94.0 ± 0.1 dB
At 114 dB SPL	114.0	114.0 ± 0.1 dB

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**

*Patrick*

**PATRICK TSE**

Operation Manager

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**APPENDIX C  
ENVIRONMENTAL MONITORING AND  
AUDIT SCHEDULE**

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**Environmental Monitoring for Lai Chi Kok Viaduct  
Air Quality and Noise Monitoring Schedule for January 2006**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<b>1-Jan</b>	<b>2-Jan</b>	3-Jan	4-Jan	5-Jan	6-Jan	7-Jan
		1 hr TSP 24 hrs TSP	1 hr TSP Noise		1 hr TSP	
<b>8-Jan</b>	9-Jan	10-Jan	11-Jan	12-Jan	13-Jan	14-Jan
	24 hrs TSP	1 hr TSP Noise		1 hr TSP	1 hr TSP	24 hrs TSP
<b>15-Jan</b>	16-Jan	17-Jan	18-Jan	19-Jan	20-Jan	21-Jan
	1 hr TSP	1 hr TSP Noise		1 hr TSP	24 hrs TSP	
<b>22-Jan</b>	23-Jan	24-Jan	25-Jan	26-Jan	27-Jan	28-Jan
	1 hr TSP	1 hr TSP Noise		<b>24 hrs TSP*</b>	<b>1 hr TSP*</b>	
<b>29-Jan</b>	<b>30-Jan</b>	<b>31-Jan</b>	1-Feb	2-Feb	3-Feb	4-Feb

The schedule may be changed due to unforeseen circumstances (adverse weather, etc)

AM2      Lai Chi Kok Sports Centre  
 NM4      Mei Foo Sun Chuen, Phase 5  
 NM8a     M/F of Nob Hill  
 NM8b     3/F of Nob Hill  
 NM9      G/F, Hoi Fai House, Hoi Lai Estate

\* The TSP monitoring on 26 and 27 Jan 06 was cancelled due to malfunctioning of monitoring equipment.

**Environmental Monitoring for Lai Chi Kok Viaduct  
Tentative Air Quality and Noise Monitoring Schedule for February 2006**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<b>29-Jan</b>	<b>30-Jan</b>	<b>31-Jan</b>	1-Feb	2-Feb	3-Feb	4-Feb
			1 hr TSP	1 hr TSP Noise 24 hrs TSP	1 hr TSP	
<b>5-Feb</b>	6-Feb	7-Feb	8-Feb	9-Feb	10-Feb	11-Feb
	1 hr TSP	1 hr TSP Noise	24 hrs TSP	1 hr TSP		
<b>12-Feb</b>	13-Feb	14-Feb	15-Feb	16-Feb	17-Feb	18-Feb
		1 hr TSP 24 hrs TSP	1 hr TSP Noise	1 hr TSP		
<b>19-Feb</b>	20-Feb	21-Feb	22-Feb	23-Feb	24-Feb	25-Feb
	24 hrs TSP	1 hr TSP	1 hr TSP Noise	1 hr TSP		24 hrs TSP
<b>26-Feb</b>	27-Feb	28-Feb	1-Mar	2-Mar	3-Mar	4-Mar
	1 hr TSP	1 hr TSP Noise		1 hr TSP	24 hrs TSP	

The schedule may be changed due to unforeseen circumstances (adverse weather, etc)

AM2      Lai Chi Kok Sports Centre  
 NM4      Mei Foo Sun Chuen, Phase 5  
 NM8a     M/F of Nob Hill  
 NM8b     3/F of Nob Hill  
 NM9      G/F, Hoi Fai House, Hoi Lai Estate

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**APPENDIX D**  
**WIND DATA**

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## Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
1-Jan-2006	0:00	0	SW
1-Jan-2006	1:00	0.9	W
1-Jan-2006	2:00	1.8	WSW
1-Jan-2006	3:00	2.2	WNW
1-Jan-2006	4:00	2.2	W
1-Jan-2006	5:00	2.2	WSW
1-Jan-2006	6:00	2.7	WSW
1-Jan-2006	7:00	2.2	WSW
1-Jan-2006	8:00	1.8	WSW
1-Jan-2006	9:00	2.2	WNW
1-Jan-2006	10:00	2.2	WNW
1-Jan-2006	11:00	2.2	WNW
1-Jan-2006	12:00	1.3	WNW
1-Jan-2006	13:00	1.3	WNW
1-Jan-2006	14:00	2.2	WNW
1-Jan-2006	15:00	1.8	NE
1-Jan-2006	16:00	2.7	NE
1-Jan-2006	17:00	1.3	NE
1-Jan-2006	18:00	0.4	NNE
1-Jan-2006	19:00	0	NNE
1-Jan-2006	20:00	0	---
1-Jan-2006	21:00	0.4	SSW
1-Jan-2006	22:00	0.9	SSW
1-Jan-2006	23:00	1.3	SSW
2-Jan-2006	0:00	1.8	SSW
2-Jan-2006	1:00	0.4	SSW
2-Jan-2006	2:00	0	SW
2-Jan-2006	3:00	0	W
2-Jan-2006	4:00	0	---
2-Jan-2006	5:00	0.9	W
2-Jan-2006	6:00	0.9	WNW
2-Jan-2006	7:00	0	WNW
2-Jan-2006	8:00	1.3	WNW
2-Jan-2006	9:00	3.1	WNW
2-Jan-2006	10:00	2.7	WNW
2-Jan-2006	11:00	2.2	WNW
2-Jan-2006	12:00	1.3	WNW
2-Jan-2006	13:00	1.8	WNW
2-Jan-2006	14:00	1.8	WNW
2-Jan-2006	15:00	2.7	WNW
2-Jan-2006	16:00	2.7	WNW
2-Jan-2006	17:00	2.2	W
2-Jan-2006	18:00	3.1	WSW
2-Jan-2006	19:00	3.6	W
2-Jan-2006	20:00	3.1	WSW
2-Jan-2006	21:00	3.1	W
2-Jan-2006	22:00	3.1	W
2-Jan-2006	23:00	3.1	WSW
3-Jan-2006	0:00	2.2	SW
3-Jan-2006	1:00	2.7	SW
3-Jan-2006	2:00	2.2	WSW
3-Jan-2006	3:00	2.7	SSW
3-Jan-2006	4:00	3.1	SW
3-Jan-2006	5:00	2.7	SW

## Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
3-Jan-2006	6:00	4	WSW
3-Jan-2006	7:00	5.4	W
3-Jan-2006	8:00	5.4	WSW
3-Jan-2006	9:00	4.5	WSW
3-Jan-2006	10:00	4.5	W
3-Jan-2006	11:00	4.9	WNW
3-Jan-2006	12:00	4.9	W
3-Jan-2006	13:00	4.5	W
3-Jan-2006	14:00	4.5	W
3-Jan-2006	15:00	3.6	W
3-Jan-2006	16:00	3.6	W
3-Jan-2006	17:00	3.1	W
3-Jan-2006	18:00	3.1	W
3-Jan-2006	19:00	2.7	W
3-Jan-2006	20:00	2.7	WSW
3-Jan-2006	21:00	3.6	WSW
3-Jan-2006	22:00	3.1	WSW
3-Jan-2006	23:00	2.2	WSW
4-Jan-2006	0:00	1.3	WSW
4-Jan-2006	1:00	2.7	W
4-Jan-2006	2:00	3.6	WSW
4-Jan-2006	3:00	3.6	W
4-Jan-2006	4:00	3.6	WSW
4-Jan-2006	5:00	4.5	WSW
4-Jan-2006	6:00	4	W
4-Jan-2006	7:00	2.7	WNW
4-Jan-2006	8:00	4.5	WNW
4-Jan-2006	9:00	2.7	W
4-Jan-2006	10:00	4.5	WSW
4-Jan-2006	11:00	4.5	W
4-Jan-2006	12:00	4	W
4-Jan-2006	13:00	2.7	W
4-Jan-2006	14:00	2.2	W
4-Jan-2006	15:00	2.2	W
4-Jan-2006	16:00	1.8	WSW
4-Jan-2006	17:00	1.3	WSW
4-Jan-2006	18:00	1.3	SW
4-Jan-2006	19:00	1.8	WNW
4-Jan-2006	20:00	0.9	W
4-Jan-2006	21:00	0.9	W
4-Jan-2006	22:00	0	W
4-Jan-2006	23:00	0	W
5-Jan-2006	0:00	0	---
5-Jan-2006	1:00	0	SW
5-Jan-2006	2:00	0	---
5-Jan-2006	3:00	0	---
5-Jan-2006	4:00	0	---
5-Jan-2006	5:00	0	---
5-Jan-2006	6:00	0	---
5-Jan-2006	7:00	0	WNW
5-Jan-2006	8:00	2.7	W
5-Jan-2006	9:00	3.6	WNW
5-Jan-2006	10:00	6.3	WNW
5-Jan-2006	11:00	6.7	WNW

## Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
5-Jan-2006	12:00	6.7	WNW
5-Jan-2006	13:00	3.6	W
5-Jan-2006	14:00	3.1	WSW
5-Jan-2006	15:00	3.1	WNW
5-Jan-2006	16:00	3.1	WNW
5-Jan-2006	17:00	3.6	WSW
5-Jan-2006	18:00	2.7	WNW
5-Jan-2006	19:00	2.7	SW
5-Jan-2006	20:00	4	WNW
5-Jan-2006	21:00	3.6	WSW
5-Jan-2006	22:00	3.1	W
5-Jan-2006	23:00	3.6	W
6-Jan-2006	0:00	4	WNW
6-Jan-2006	1:00	4.5	WNW
6-Jan-2006	2:00	3.6	WNW
6-Jan-2006	3:00	2.7	WSW
6-Jan-2006	4:00	2.7	WSW
6-Jan-2006	5:00	2.7	WSW
6-Jan-2006	6:00	3.1	SW
6-Jan-2006	7:00	2.7	WSW
6-Jan-2006	8:00	2.7	WSW
6-Jan-2006	9:00	3.6	WSW
6-Jan-2006	10:00	4.5	WNW
6-Jan-2006	11:00	2.7	WNW
6-Jan-2006	12:00	3.1	SW
6-Jan-2006	13:00	1.8	WNW
6-Jan-2006	14:00	1.3	W
6-Jan-2006	15:00	3.1	WSW
6-Jan-2006	16:00	2.7	SW
6-Jan-2006	17:00	3.1	WSW
6-Jan-2006	18:00	2.7	SW
6-Jan-2006	19:00	3.1	WSW
6-Jan-2006	20:00	2.7	SW
6-Jan-2006	21:00	2.2	WSW
6-Jan-2006	22:00	2.7	WSW
6-Jan-2006	23:00	1.8	WSW
7-Jan-2006	0:00	3.1	SW
7-Jan-2006	1:00	2.7	WSW
7-Jan-2006	2:00	3.1	WSW
7-Jan-2006	3:00	2.2	WSW
7-Jan-2006	4:00	3.6	WSW
7-Jan-2006	5:00	4.9	WNW
7-Jan-2006	6:00	4	WNW
7-Jan-2006	7:00	3.6	WNW
7-Jan-2006	8:00	3.1	WNW
7-Jan-2006	9:00	2.7	WSW
7-Jan-2006	10:00	4.9	WNW
7-Jan-2006	11:00	3.6	WNW
7-Jan-2006	12:00	3.1	WNW
7-Jan-2006	13:00	4	WNW
7-Jan-2006	14:00	4.5	WNW
7-Jan-2006	15:00	3.6	WNW
7-Jan-2006	16:00	3.1	WNW
7-Jan-2006	17:00	1.8	W

## Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
7-Jan-2006	18:00	1.8	SSW
7-Jan-2006	19:00	0.9	SSW
7-Jan-2006	20:00	1.8	SSW
7-Jan-2006	21:00	1.8	SW
7-Jan-2006	22:00	2.2	SW
7-Jan-2006	23:00	2.2	SW
8-Jan-2006	0:00	1.3	WSW
8-Jan-2006	1:00	2.2	SW
8-Jan-2006	2:00	2.2	SW
8-Jan-2006	3:00	1.8	WSW
8-Jan-2006	4:00	2.2	WSW
8-Jan-2006	5:00	2.2	SW
8-Jan-2006	6:00	2.2	WSW
8-Jan-2006	7:00	1.8	WSW
8-Jan-2006	8:00	1.3	SW
8-Jan-2006	9:00	1.3	WSW
8-Jan-2006	10:00	1.8	WSW
8-Jan-2006	11:00	2.2	WNW
8-Jan-2006	12:00	2.2	WNW
8-Jan-2006	13:00	3.1	WNW
8-Jan-2006	14:00	2.2	WNW
8-Jan-2006	15:00	1.8	WNW
8-Jan-2006	16:00	1.3	W
8-Jan-2006	17:00	0.4	WSW
8-Jan-2006	18:00	0.9	SSW
8-Jan-2006	19:00	0.9	SSW
8-Jan-2006	20:00	1.3	WSW
8-Jan-2006	21:00	1.3	W
8-Jan-2006	22:00	0.9	SW
8-Jan-2006	23:00	0.4	SSW
9-Jan-2006	0:00	0.9	SSW
9-Jan-2006	1:00	0.9	WNW
9-Jan-2006	2:00	0.9	WNW
9-Jan-2006	3:00	1.3	W
9-Jan-2006	4:00	0.9	W
9-Jan-2006	5:00	1.8	WNW
9-Jan-2006	6:00	2.7	W
9-Jan-2006	7:00	2.2	WNW
9-Jan-2006	8:00	1.8	WNW
9-Jan-2006	9:00	1.8	WNW
9-Jan-2006	10:00	3.6	WNW
9-Jan-2006	11:00	2.7	WNW
9-Jan-2006	12:00	2.2	WNW
9-Jan-2006	13:00	1.3	WNW
9-Jan-2006	14:00	0.9	WNW
9-Jan-2006	15:00	1.8	WNW
9-Jan-2006	16:00	0.9	W
9-Jan-2006	17:00	1.3	WNW
9-Jan-2006	18:00	0.9	W
9-Jan-2006	19:00	0.4	W
9-Jan-2006	20:00	0.4	W
9-Jan-2006	21:00	0	W
9-Jan-2006	22:00	0	---
9-Jan-2006	23:00	0	W

## Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
10-Jan-2006	0:00	0.9	SW
10-Jan-2006	1:00	0.4	W
10-Jan-2006	2:00	1.3	WSW
10-Jan-2006	3:00	2.2	WSW
10-Jan-2006	4:00	1.8	WSW
10-Jan-2006	5:00	1.8	WSW
10-Jan-2006	6:00	2.7	WSW
10-Jan-2006	7:00	2.7	SW
10-Jan-2006	8:00	3.1	WSW
10-Jan-2006	9:00	2.7	WSW
10-Jan-2006	10:00	2.2	W
10-Jan-2006	11:00	2.2	WSW
10-Jan-2006	12:00	2.7	WNW
10-Jan-2006	13:00	3.6	WNW
10-Jan-2006	14:00	1.8	WNW
10-Jan-2006	15:00	1.8	WNW
10-Jan-2006	16:00	1.8	W
10-Jan-2006	17:00	1.3	W
10-Jan-2006	18:00	0.9	W
10-Jan-2006	19:00	0	W
10-Jan-2006	20:00	0	W
10-Jan-2006	21:00	0.4	W
10-Jan-2006	22:00	1.3	W
10-Jan-2006	23:00	1.8	WNW
11-Jan-2006	0:00	0.4	SW
11-Jan-2006	1:00	0.9	W
11-Jan-2006	2:00	0	S
11-Jan-2006	3:00	0	---
11-Jan-2006	4:00	0.4	WNW
11-Jan-2006	5:00	0.4	SW
11-Jan-2006	6:00	0.4	SW
11-Jan-2006	7:00	0.4	WNW
11-Jan-2006	8:00	0	NW
11-Jan-2006	9:00	0	WNW
11-Jan-2006	10:00	2.2	WNW
11-Jan-2006	11:00	2.7	WNW
11-Jan-2006	12:00	4.5	WNW
11-Jan-2006	13:00	3.6	WNW
11-Jan-2006	14:00	3.1	WNW
11-Jan-2006	15:00	3.6	W
11-Jan-2006	16:00	2.7	W
11-Jan-2006	17:00	1.8	WNW
11-Jan-2006	18:00	2.2	W
11-Jan-2006	19:00	2.2	W
11-Jan-2006	20:00	2.7	WSW
11-Jan-2006	21:00	2.7	WSW
11-Jan-2006	22:00	1.8	W
11-Jan-2006	23:00	0.9	WSW
12-Jan-2006	0:00	1.3	WSW
12-Jan-2006	1:00	1.8	WNW
12-Jan-2006	2:00	1.8	WNW
12-Jan-2006	3:00	1.8	WNW
12-Jan-2006	4:00	1.8	W
12-Jan-2006	5:00	1.8	SW



## Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
12-Jan-2006	6:00	2.7	SW
12-Jan-2006	7:00	1.8	WSW
12-Jan-2006	8:00	2.2	SSW
12-Jan-2006	9:00	1.8	SW
12-Jan-2006	10:00	3.1	W
12-Jan-2006	11:00	2.7	WSW
12-Jan-2006	12:00	3.1	WSW
12-Jan-2006	13:00	2.7	W
12-Jan-2006	14:00	3.6	W
12-Jan-2006	15:00	3.1	W
12-Jan-2006	16:00	2.2	WNW
12-Jan-2006	17:00	1.8	W
12-Jan-2006	18:00	0.4	W
12-Jan-2006	19:00	0.4	SSW
12-Jan-2006	20:00	0	---
12-Jan-2006	21:00	0	---
12-Jan-2006	22:00	0	---
12-Jan-2006	23:00	0	---
13-Jan-2006	0:00	0	---
13-Jan-2006	1:00	0	---
13-Jan-2006	2:00	0	---
13-Jan-2006	3:00	0	---
13-Jan-2006	4:00	0	---
13-Jan-2006	5:00	0	---
13-Jan-2006	6:00	0	---
13-Jan-2006	7:00	0	---
13-Jan-2006	8:00	0	---
13-Jan-2006	9:00	0	SW
13-Jan-2006	10:00	0	WNW
13-Jan-2006	11:00	0	NW
13-Jan-2006	12:00	0.9	WNW
13-Jan-2006	13:00	1.8	NE
13-Jan-2006	14:00	3.1	NE
13-Jan-2006	15:00	2.7	NNE
13-Jan-2006	16:00	2.7	NE
13-Jan-2006	17:00	1.3	NE
13-Jan-2006	18:00	0	NE
13-Jan-2006	19:00	0.4	E
13-Jan-2006	20:00	0	ESE
13-Jan-2006	21:00	0	---
13-Jan-2006	22:00	0	---
13-Jan-2006	23:00	0	---
14-Jan-2006	0:00	0	ESE
14-Jan-2006	1:00	0	---
14-Jan-2006	2:00	0	ESE
14-Jan-2006	3:00	0	---
14-Jan-2006	4:00	0	SW
14-Jan-2006	5:00	0.9	W
14-Jan-2006	6:00	1.3	W
14-Jan-2006	7:00	0.4	WNW
14-Jan-2006	8:00	0	---
14-Jan-2006	9:00	1.3	WNW
14-Jan-2006	10:00	2.2	W
14-Jan-2006	11:00	2.2	WNW

## Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
14-Jan-2006	12:00	2.2	WNW
14-Jan-2006	13:00	3.1	WNW
14-Jan-2006	14:00	2.7	W
14-Jan-2006	15:00	3.1	WNW
14-Jan-2006	16:00	2.7	W
14-Jan-2006	17:00	2.2	W
14-Jan-2006	18:00	2.2	W
14-Jan-2006	19:00	0.4	W
14-Jan-2006	20:00	0	---
14-Jan-2006	21:00	0	---
14-Jan-2006	22:00	0	---
14-Jan-2006	23:00	0	WNW
15-Jan-2006	0:00	0	WSW
15-Jan-2006	1:00	1.3	SSW
15-Jan-2006	2:00	0.4	WNW
15-Jan-2006	3:00	0	---
15-Jan-2006	4:00	0	---
15-Jan-2006	5:00	0	S
15-Jan-2006	6:00	0	---
15-Jan-2006	7:00	0	SSE
15-Jan-2006	8:00	0	---
15-Jan-2006	9:00	0	SSE
15-Jan-2006	10:00	0	W
15-Jan-2006	11:00	1.8	WNW
15-Jan-2006	12:00	2.2	WNW
15-Jan-2006	13:00	1.8	WNW
15-Jan-2006	14:00	2.7	W
15-Jan-2006	15:00	0.9	W
15-Jan-2006	16:00	2.2	N
15-Jan-2006	17:00	1.8	NNE
15-Jan-2006	18:00	0	NNE
15-Jan-2006	19:00	0	S
15-Jan-2006	20:00	0	---
15-Jan-2006	21:00	0	S
15-Jan-2006	22:00	0	SSW
15-Jan-2006	23:00	0.4	W
16-Jan-2006	0:00	0	N
16-Jan-2006	1:00	0	---
16-Jan-2006	2:00	0.4	W
16-Jan-2006	3:00	0	---
16-Jan-2006	4:00	0	---
16-Jan-2006	5:00	0.9	SSW
16-Jan-2006	6:00	1.8	SSW
16-Jan-2006	7:00	2.2	SSW
16-Jan-2006	8:00	0.4	SSW
16-Jan-2006	9:00	0	---
16-Jan-2006	10:00	0.4	WNW
16-Jan-2006	11:00	1.3	WNW
16-Jan-2006	12:00	1.3	W
16-Jan-2006	13:00	1.8	N
16-Jan-2006	14:00	2.2	N
16-Jan-2006	15:00	2.7	N
16-Jan-2006	16:00	1.8	N
16-Jan-2006	17:00	1.8	N

## Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
16-Jan-2006	18:00	0.9	NNE
16-Jan-2006	19:00	0	NNE
16-Jan-2006	20:00	0	SSW
16-Jan-2006	21:00	0	SSW
16-Jan-2006	22:00	1.3	W
16-Jan-2006	23:00	0	---
17-Jan-2006	0:00	0	W
17-Jan-2006	1:00	0.4	W
17-Jan-2006	2:00	0.9	W
17-Jan-2006	3:00	0	W
17-Jan-2006	4:00	0	W
17-Jan-2006	5:00	1.3	W
17-Jan-2006	6:00	1.8	W
17-Jan-2006	7:00	2.2	W
17-Jan-2006	8:00	3.1	W
17-Jan-2006	9:00	1.3	S
17-Jan-2006	10:00	2.2	W
17-Jan-2006	11:00	3.1	W
17-Jan-2006	12:00	5.4	WSW
17-Jan-2006	13:00	5.4	WSW
17-Jan-2006	14:00	4.9	WSW
17-Jan-2006	15:00	5.4	WSW
17-Jan-2006	16:00	5.8	W
17-Jan-2006	17:00	4	W
17-Jan-2006	18:00	4.5	W
17-Jan-2006	19:00	4.9	WSW
17-Jan-2006	20:00	4.9	WSW
17-Jan-2006	21:00	4	WSW
17-Jan-2006	22:00	4	W
17-Jan-2006	23:00	4.9	W
18-Jan-2006	0:00	4	WNW
18-Jan-2006	1:00	4.9	WSW
18-Jan-2006	2:00	4	WSW
18-Jan-2006	3:00	4	W
18-Jan-2006	4:00	0.9	NW
18-Jan-2006	5:00	0.9	SSW
18-Jan-2006	6:00	0.9	S
18-Jan-2006	7:00	0.4	S
18-Jan-2006	8:00	3.1	SSW
18-Jan-2006	9:00	4	W
18-Jan-2006	10:00	4	WSW
18-Jan-2006	11:00	3.6	WSW
18-Jan-2006	12:00	4.5	W
18-Jan-2006	13:00	4	W
18-Jan-2006	14:00	3.6	WSW
18-Jan-2006	15:00	3.1	WSW
18-Jan-2006	16:00	3.1	SW
18-Jan-2006	17:00	3.1	WSW
18-Jan-2006	18:00	2.2	WSW
18-Jan-2006	19:00	3.6	WSW
18-Jan-2006	20:00	3.1	W
18-Jan-2006	21:00	3.1	WSW
18-Jan-2006	22:00	3.1	WSW
18-Jan-2006	23:00	4	WSW

## Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
19-Jan-2006	0:00	4	WSW
19-Jan-2006	1:00	3.1	SSW
19-Jan-2006	2:00	1.8	W
19-Jan-2006	3:00	2.2	SSW
19-Jan-2006	4:00	2.7	SSW
19-Jan-2006	5:00	2.7	SW
19-Jan-2006	6:00	2.2	SW
19-Jan-2006	7:00	3.1	WSW
19-Jan-2006	8:00	3.1	WSW
19-Jan-2006	9:00	2.7	WSW
19-Jan-2006	10:00	3.1	W
19-Jan-2006	11:00	2.7	SW
19-Jan-2006	12:00	2.7	WSW
19-Jan-2006	13:00	3.1	WSW
19-Jan-2006	14:00	2.7	WSW
19-Jan-2006	15:00	2.2	W
19-Jan-2006	16:00	1.8	W
19-Jan-2006	17:00	1.3	W
19-Jan-2006	18:00	2.7	W
19-Jan-2006	19:00	1.8	WSW
19-Jan-2006	20:00	2.2	WSW
19-Jan-2006	21:00	2.7	W
19-Jan-2006	22:00	2.2	WSW
19-Jan-2006	23:00	2.7	W
20-Jan-2006	0:00	2.2	WSW
20-Jan-2006	1:00	2.7	WSW
20-Jan-2006	2:00	1.8	WNW
20-Jan-2006	3:00	1.3	W
20-Jan-2006	4:00	2.2	WSW
20-Jan-2006	5:00	2.7	WSW
20-Jan-2006	6:00	0.4	WNW
20-Jan-2006	7:00	0.9	WNW
20-Jan-2006	8:00	2.7	WNW
20-Jan-2006	9:00	2.7	W
20-Jan-2006	10:00	2.2	WNW
20-Jan-2006	11:00	3.1	WNW
20-Jan-2006	12:00	3.6	W
20-Jan-2006	13:00	2.7	W
20-Jan-2006	14:00	2.2	W
20-Jan-2006	15:00	1.8	WNW
20-Jan-2006	16:00	3.6	WNW
20-Jan-2006	17:00	2.7	WNW
20-Jan-2006	18:00	2.2	WNW
20-Jan-2006	19:00	2.2	WNW
20-Jan-2006	20:00	3.1	WNW
20-Jan-2006	21:00	4	WNW
20-Jan-2006	22:00	2.7	WNW
20-Jan-2006	23:00	1.8	WNW
21-Jan-2006	0:00	2.2	WNW
21-Jan-2006	1:00	3.1	WNW
21-Jan-2006	2:00	4	WNW
21-Jan-2006	3:00	4.5	WNW
21-Jan-2006	4:00	4	WNW
21-Jan-2006	5:00	3.6	WNW

## Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
21-Jan-2006	6:00	4.9	WNW
21-Jan-2006	7:00	4	WNW
21-Jan-2006	8:00	2.2	W
21-Jan-2006	9:00	0.9	WNW
21-Jan-2006	10:00	1.3	WNW
21-Jan-2006	11:00	1.8	WNW
21-Jan-2006	12:00	2.7	NW
21-Jan-2006	13:00	2.7	WNW
21-Jan-2006	14:00	1.8	WNW
21-Jan-2006	15:00	3.6	W
21-Jan-2006	16:00	4	WNW
21-Jan-2006	17:00	4	WNW
21-Jan-2006	18:00	3.1	WNW
21-Jan-2006	19:00	1.3	W
21-Jan-2006	20:00	0.9	W
21-Jan-2006	21:00	1.3	W
21-Jan-2006	22:00	3.1	WSW
21-Jan-2006	23:00	2.2	WSW
22-Jan-2006	0:00	3.1	WNW
22-Jan-2006	1:00	3.1	WNW
22-Jan-2006	2:00	3.1	WNW
22-Jan-2006	3:00	2.2	WNW
22-Jan-2006	4:00	2.7	WNW
22-Jan-2006	5:00	1.8	WNW
22-Jan-2006	6:00	1.8	WNW
22-Jan-2006	7:00	1.8	WNW
22-Jan-2006	8:00	2.2	WNW
22-Jan-2006	9:00	2.7	WNW
22-Jan-2006	10:00	3.6	WNW
22-Jan-2006	11:00	3.1	W
22-Jan-2006	12:00	3.6	WNW
22-Jan-2006	13:00	3.1	WNW
22-Jan-2006	14:00	3.1	WNW
22-Jan-2006	15:00	3.6	WNW
22-Jan-2006	16:00	3.6	WNW
22-Jan-2006	17:00	4	WNW
22-Jan-2006	18:00	4	WNW
22-Jan-2006	19:00	3.1	W
22-Jan-2006	20:00	3.1	WNW
22-Jan-2006	21:00	2.2	WNW
22-Jan-2006	22:00	2.2	W
22-Jan-2006	23:00	2.7	WSW
23-Jan-2006	0:00	2.7	WSW
23-Jan-2006	1:00	3.1	WSW
23-Jan-2006	2:00	2.7	WSW
23-Jan-2006	3:00	3.1	WSW
23-Jan-2006	4:00	4.5	WNW
23-Jan-2006	5:00	4.5	WNW
23-Jan-2006	6:00	2.7	WNW
23-Jan-2006	7:00	4.5	WNW
23-Jan-2006	8:00	3.6	WSW
23-Jan-2006	9:00	2.7	WSW
23-Jan-2006	10:00	2.2	WSW
23-Jan-2006	11:00	3.6	WNW

## Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
23-Jan-2006	12:00	4	WNW
23-Jan-2006	13:00	3.6	WNW
23-Jan-2006	14:00	1.8	WNW
23-Jan-2006	15:00	3.1	WNW
23-Jan-2006	16:00	3.1	WNW
23-Jan-2006	17:00	2.7	WSW
23-Jan-2006	18:00	3.1	WSW
23-Jan-2006	19:00	1.8	WSW
23-Jan-2006	20:00	2.2	WSW
23-Jan-2006	21:00	2.2	SW
23-Jan-2006	22:00	2.2	W
23-Jan-2006	23:00	2.2	WNW
24-Jan-2006	0:00	3.1	WNW
24-Jan-2006	1:00	2.2	WNW
24-Jan-2006	2:00	2.7	WSW
24-Jan-2006	3:00	2.7	WSW
24-Jan-2006	4:00	2.7	W
24-Jan-2006	5:00	2.7	WNW
24-Jan-2006	6:00	3.1	WNW
24-Jan-2006	7:00	2.7	WNW
24-Jan-2006	8:00	1.3	WNW
24-Jan-2006	9:00	2.7	WNW
24-Jan-2006	10:00	4	WNW
24-Jan-2006	11:00	2.2	WNW
24-Jan-2006	12:00	0.9	WNW
24-Jan-2006	13:00	1.8	NW
24-Jan-2006	14:00	3.6	WNW
24-Jan-2006	15:00	2.7	W
24-Jan-2006	16:00	3.1	W
24-Jan-2006	17:00	3.1	W
24-Jan-2006	18:00	1.3	SW
24-Jan-2006	19:00	1.3	SSW
24-Jan-2006	20:00	1.3	SSW
24-Jan-2006	21:00	1.8	SW
24-Jan-2006	22:00	1.8	SW
24-Jan-2006	23:00	1.8	WSW
25-Jan-2006	0:00	2.2	SW
25-Jan-2006	1:00	1.8	WSW
25-Jan-2006	2:00	1.8	WSW
25-Jan-2006	3:00	1.3	WSW
25-Jan-2006	4:00	1.8	W
25-Jan-2006	5:00	3.1	WNW
25-Jan-2006	6:00	3.6	WNW
25-Jan-2006	7:00	3.1	WNW
25-Jan-2006	8:00	2.7	WSW
25-Jan-2006	9:00	3.6	WNW
25-Jan-2006	10:00	4	WNW
25-Jan-2006	11:00	5.8	WNW
25-Jan-2006	12:00	4.9	WNW
25-Jan-2006	13:00	4	WNW
25-Jan-2006	14:00	3.1	WNW
25-Jan-2006	15:00	3.1	WNW
25-Jan-2006	16:00	2.7	W
25-Jan-2006	17:00	2.2	WNW

## Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
25-Jan-2006	18:00	0.4	WSW
25-Jan-2006	19:00	0	W
25-Jan-2006	20:00	0	---
25-Jan-2006	21:00	0	---
25-Jan-2006	22:00	0	---
25-Jan-2006	23:00	0.9	WSW
26-Jan-2006	0:00	2.7	WSW
26-Jan-2006	1:00	3.1	SW
26-Jan-2006	2:00	3.1	W
26-Jan-2006	3:00	4	WNW
26-Jan-2006	4:00	2.7	WSW
26-Jan-2006	5:00	3.6	WSW
26-Jan-2006	6:00	3.1	WNW
26-Jan-2006	7:00	2.7	WSW
26-Jan-2006	8:00	3.6	WSW
26-Jan-2006	9:00	3.1	WSW
26-Jan-2006	10:00	4.9	WNW
26-Jan-2006	11:00	4	WNW
26-Jan-2006	12:00	5.4	WNW
26-Jan-2006	13:00	4.5	WNW
26-Jan-2006	14:00	3.1	W
26-Jan-2006	15:00	3.1	W
26-Jan-2006	16:00	2.2	WNW
26-Jan-2006	17:00	2.2	SW
26-Jan-2006	18:00	0.9	SW
26-Jan-2006	19:00	0	SSW
26-Jan-2006	20:00	0	WSW
26-Jan-2006	21:00	1.8	SSW
26-Jan-2006	22:00	2.7	SW
26-Jan-2006	23:00	2.2	SW
27-Jan-2006	0:00	1.3	SW
27-Jan-2006	1:00	0.9	W
27-Jan-2006	2:00	1.3	WSW
27-Jan-2006	3:00	1.3	WSW
27-Jan-2006	4:00	0.4	SSW
27-Jan-2006	5:00	1.3	WNW
27-Jan-2006	6:00	1.8	SSW
27-Jan-2006	7:00	1.8	WNW
27-Jan-2006	8:00	3.1	W
27-Jan-2006	9:00	3.1	W
27-Jan-2006	10:00	3.1	W
27-Jan-2006	11:00	4	W
27-Jan-2006	12:00	4	W
27-Jan-2006	13:00	3.1	WNW
27-Jan-2006	14:00	2.7	WNW
27-Jan-2006	15:00	1.8	W
27-Jan-2006	16:00	0.9	WNW
27-Jan-2006	17:00	0.9	W
27-Jan-2006	18:00	1.8	W
27-Jan-2006	19:00	1.8	W
27-Jan-2006	20:00	2.2	W
27-Jan-2006	21:00	2.7	W
27-Jan-2006	22:00	2.7	WNW
27-Jan-2006	23:00	3.1	WSW

## Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
28-Jan-2006	0:00	3.1	WSW
28-Jan-2006	1:00	2.2	WSW
28-Jan-2006	2:00	3.1	W
28-Jan-2006	3:00	3.1	SW
28-Jan-2006	4:00	3.1	W
28-Jan-2006	5:00	2.7	W
28-Jan-2006	6:00	2.2	SW
28-Jan-2006	7:00	0.9	SSW
28-Jan-2006	8:00	0.4	W
28-Jan-2006	9:00	1.8	WNW
28-Jan-2006	10:00	1.8	WSW
28-Jan-2006	11:00	1.8	W
28-Jan-2006	12:00	3.6	WNW
28-Jan-2006	13:00	4.5	WNW
28-Jan-2006	14:00	2.7	W
28-Jan-2006	15:00	1.3	W
28-Jan-2006	16:00	1.8	W
28-Jan-2006	17:00	1.8	W
28-Jan-2006	18:00	2.2	WNW
28-Jan-2006	19:00	0.9	WNW
28-Jan-2006	20:00	0	WNW
28-Jan-2006	21:00	0	---
28-Jan-2006	22:00	0.4	WNW
28-Jan-2006	23:00	1.8	W
29-Jan-2006	0:00	0	SW
29-Jan-2006	1:00	0	WSW
29-Jan-2006	2:00	0.4	W
29-Jan-2006	3:00	1.8	W
29-Jan-2006	4:00	1.8	W
29-Jan-2006	5:00	0.4	W
29-Jan-2006	6:00	0.4	W
29-Jan-2006	7:00	0	W
29-Jan-2006	8:00	0	W
29-Jan-2006	9:00	0	W
29-Jan-2006	10:00	0	W
29-Jan-2006	11:00	0	WNW
29-Jan-2006	12:00	0.4	WNW
29-Jan-2006	13:00	0.4	WNW
29-Jan-2006	14:00	1.3	W
29-Jan-2006	15:00	1.8	WNW
29-Jan-2006	16:00	2.7	WNW
29-Jan-2006	17:00	2.2	W
29-Jan-2006	18:00	2.7	W
29-Jan-2006	19:00	1.8	WSW
29-Jan-2006	20:00	1.3	SSW
29-Jan-2006	21:00	1.3	SSW
29-Jan-2006	22:00	1.8	SSW
29-Jan-2006	23:00	1.3	SSW
30-Jan-2006	0:00	0.4	SW
30-Jan-2006	1:00	0	SW
30-Jan-2006	2:00	0.4	SW
30-Jan-2006	3:00	0.4	WSW
30-Jan-2006	4:00	1.3	SW
30-Jan-2006	5:00	1.8	W



## Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
30-Jan-2006	6:00	1.3	SW
30-Jan-2006	7:00	0.9	SW
30-Jan-2006	8:00	0	---
30-Jan-2006	9:00	0	W
30-Jan-2006	10:00	0.4	WSW
30-Jan-2006	11:00	0.9	W
30-Jan-2006	12:00	1.3	WNW
30-Jan-2006	13:00	0.9	WNW
30-Jan-2006	14:00	2.7	W
30-Jan-2006	15:00	2.2	W
30-Jan-2006	16:00	1.8	N
30-Jan-2006	17:00	1.8	N
30-Jan-2006	18:00	0.9	NE
30-Jan-2006	19:00	0	NE
30-Jan-2006	20:00	0	---
30-Jan-2006	21:00	0	---
30-Jan-2006	22:00	0	NE
30-Jan-2006	23:00	0	S
31-Jan-2006	0:00	0	SSE
31-Jan-2006	1:00	0	---
31-Jan-2006	2:00	0	---
31-Jan-2006	3:00	0	---
31-Jan-2006	4:00	0	---
31-Jan-2006	5:00	0	NNE
31-Jan-2006	6:00	0	---
31-Jan-2006	7:00	0	---
31-Jan-2006	8:00	0	---
31-Jan-2006	9:00	0	ENE
31-Jan-2006	10:00	0	W
31-Jan-2006	11:00	0	WNW
31-Jan-2006	12:00	1.8	WNW
31-Jan-2006	13:00	2.7	WNW
31-Jan-2006	14:00	3.1	NNE
31-Jan-2006	15:00	2.7	NNE
31-Jan-2006	16:00	1.8	NNE
31-Jan-2006	17:00	1.8	NE
31-Jan-2006	18:00	0.9	NE
31-Jan-2006	19:00	0.4	NE
31-Jan-2006	20:00	0	---
31-Jan-2006	21:00	0	---
31-Jan-2006	22:00	0	---
31-Jan-2006	23:00	0	---

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**APPENDIX E  
1-HOUR TSP MONITORING RESULTS  
AND GRAPHICAL PRESENTATION**

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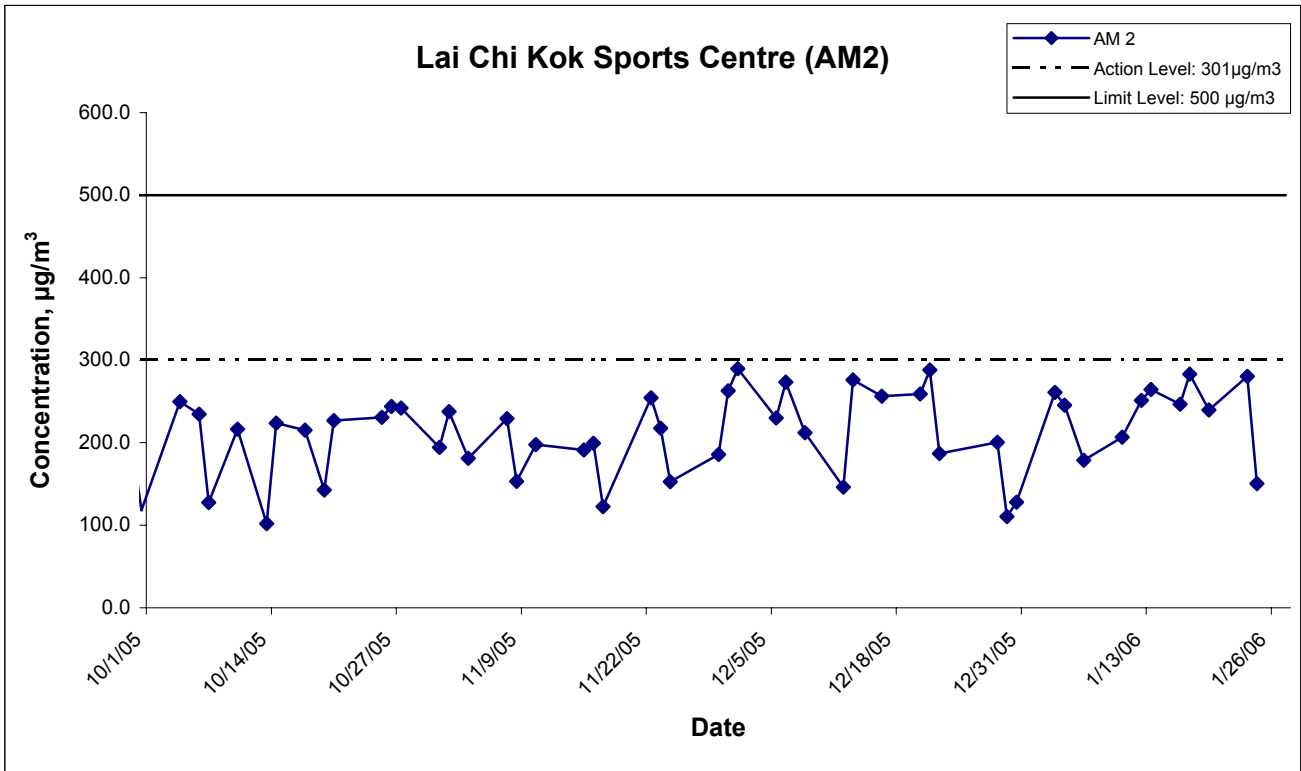
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## Appendix E - 1-hour TSP Monitoring Results

### Location AM 2 - Lai Chi Kok Sports Centre

Date	Weather Condition	Filter Weight (g)		Flow Rate (m <sup>3</sup> /min.)		Elapse Time		Air Temp. (K)	Atmospheric Pressure(Pa)	Particulate weight(g)	Av. flow (m <sup>3</sup> /min)	Total vol. (m <sup>3</sup> )	Sampling Time(hrs.)	Conc. (µg/m <sup>3</sup> )
		Initial	Final	Initial	Final	Initial	Final							
3-Jan-06	Cloudy	2.8834	2.9025	1.22	1.22	3681.2	3682.2	290.7	765.4	0.0191	1.22	73.1	1.0	261.2
4-Jan-06	Cloudy	2.8731	2.8909	1.21	1.21	3706.2	3707.2	294.7	763.1	0.0178	1.21	72.5	1.0	245.5
6-Jan-06	Cloudy	2.8568	2.8701	1.24	1.24	3707.2	3708.2	283.3	771.6	0.0133	1.24	74.3	1.0	178.9
10-Jan-06	Cloudy	2.8766	2.8918	1.23	1.23	3732.2	3733.2	287.7	767.6	0.0152	1.23	73.6	1.0	206.6
12-Jan-06	Sunny	2.8676	2.8860	1.22	1.22	3733.2	3734.2	289.8	764.6	0.0184	1.22	73.2	1.0	251.4
13-Jan-06	Sunny	2.8554	2.8748	1.22	1.22	3734.2	3735.2	290.9	763.6	0.0194	1.22	73.3	1.0	264.7
16-Jan-06	Sunny	2.8597	2.8778	1.21	1.21	3759.2	3760.2	293.4	763.5	0.0181	1.21	73.4	1.0	246.5
17-Jan-06	Cloudy	2.8932	2.9138	1.21	1.21	3760.2	3761.2	292.8	763.5	0.0206	1.21	72.8	1.0	283.1
19-Jan-06	Cloudy	2.8487	2.8661	1.21	1.21	3761.2	3762.2	293.4	760.4	0.0174	1.21	72.5	1.0	239.9
23-Jan-06	Cloudy	2.8851	2.9086	1.24	1.24	3786.2	3787.3	283.6	769.1	0.0235	1.24	83.8	1.1	280.4
24-Jan-06	Cloudy	2.8699	2.8810	1.23	1.23	3787.3	3788.3	287.7	768.5	0.0111	1.23	73.7	1.0	150.7
27-Jan-06	The monitoring was cancelled due to malfunctioning of monitoring equipment.													
													Min	150.7
													Max	283.1
													Average	237.2

# 1-hr TSP Levels



Title Route 8 (previously known as Route 9) between Cheung Sha Wan & Sha Tin Contract HY/2003/01 - Lai Chi Kok Viaduct Graphical Presentation of 1-hour TSP Impact Monitoring Results	Scale N.T.S	Project No. MA3024	
	Date Jan 06	Appendix E	

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**APPENDIX F  
24-HOUR TSP MONITORING RESULTS  
AND GRAPHICAL PRESENTATION**

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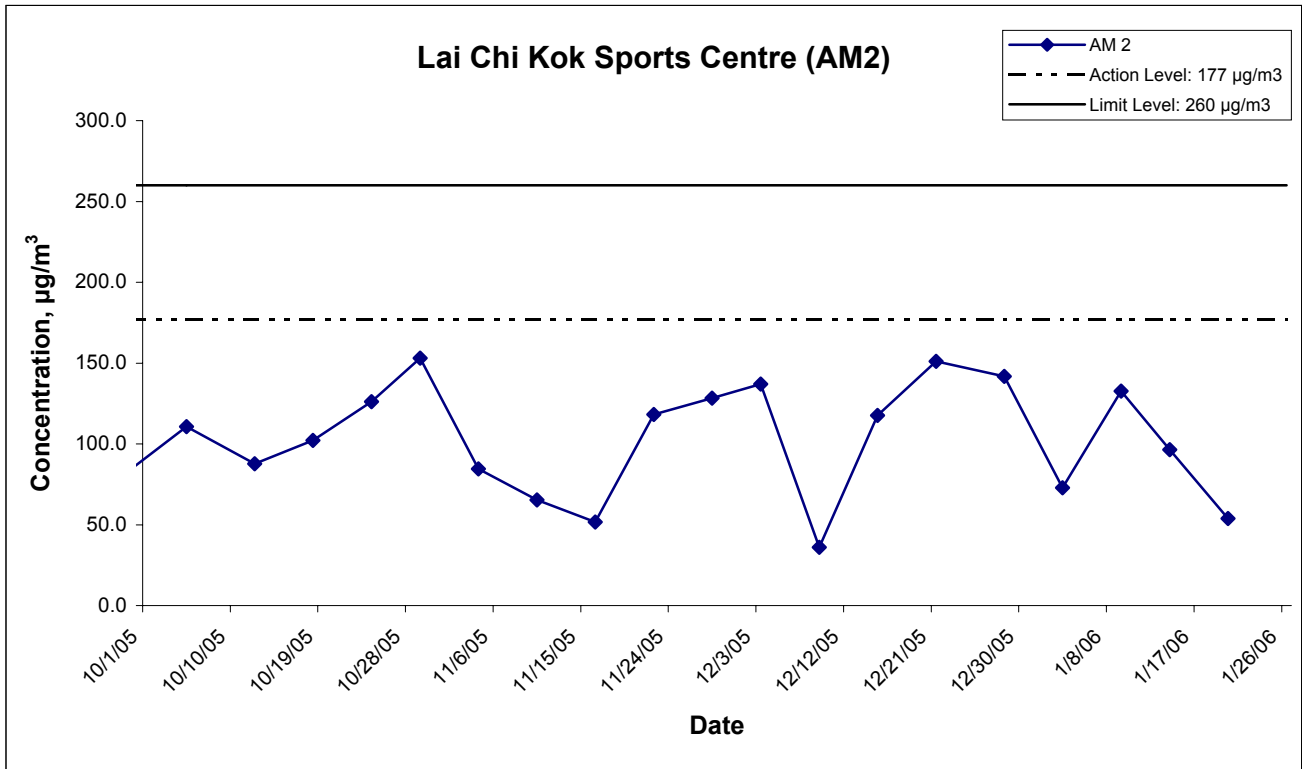
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## Appendix F - 24-hour TSP Monitoring Results

### Location AM 2 - Lai Chi Kok Sports Centre

Date	Weather Condition	Filter Weight (g)		Flow Rate (m <sup>3</sup> /min.)		Elapse Time		Air Temp. (K)	Atmospheric Pressure(Pa)	Particulate weight(g)	Av. flow (m <sup>3</sup> /min)	Total vol. (m <sup>3</sup> )	Sampling Time(hrs.)	Conc. (µg/m <sup>3</sup> )
		Initial	Final	Initial	Final	Initial	Final							
3-Jan-06	Cloudy	2.8926	3.0187	1.20	1.20	3682.2	3706.2	296.6	760.9	0.1261	1.20	1732.5	24.0	72.8
9-Jan-06	Cloudy	2.8529	3.0862	1.24	1.24	3708.2	3732.2	283.9	769.5	0.2333	1.24	1758.0	24.0	132.7
14-Jan-06	Sunny	2.8600	3.0287	1.21	1.21	3735.2	3759.2	292.5	764.0	0.1687	1.21	1748.5	24.0	96.5
20-Jan-06	Cloudy	2.8777	2.9723	1.22	1.22	3762.2	3786.2	289.1	762.4	0.0946	1.22	1756.0	24.0	53.9
26-Jan-06	The monitoring was cancelled due to malfunctioning of monitoring equipment.													
													Min	53.9
													Max	132.7
													Average	89.0

## 24-hr TSP Levels



Title Route 8 (previously known as Route 9) between Cheung Sha Wan & Sha Tin Contract HY/2003/01 - Lai Chi Kok Viaduct Graphical Presentation of 24-hour TSP Impact Monitoring Results	Scale N.T.S	Project No. MA3024	
	Date Jan 06	Appendix F	

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**APPENDIX G  
NOISE MONITORING RESULTS AND  
GRAPHICAL PRESENTATION**

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## Appendix G - Noise Monitoring Results

Location NM4 - Mei Foo Sun Chuen, Phase 5								
Date	Time	Weather	Unit: dB (A) (30-min)			Remarks		
			Measured Noise Level				Baseline Level	Construction Noise Level
			L <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>		L <sub>eq</sub>	L <sub>eq</sub>
4-Jan-06	10:00	Fine	74.3	77.5	72.5	Road traffic noise from Ching Cheung Road was identified as the major noise source.		
10-Jan-06	11:10	Sunny	77.0	78.5	73.0			
17-Jan-06	9:32	Sunny	75.0	77.0	68.0			
24-Jan-06	13:30	Fine	76.4	79.5	71.5			

Location NM8a - M/F of Nob Hill								
Date	Time	Weather	Unit: dB (A) (30-min)			Remarks		
			Measured Noise Level				Baseline Level	Construction Noise Level
			L <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>		L <sub>eq</sub>	L <sub>eq</sub>
4-Jan-06	10:50	Fine	73.4	77.0	69.5	Road traffic noise from Ching Cheung Road was identified as the major noise source.		
10-Jan-06	13:10	Sunny	73.2	75.0	69.5			
17-Jan-06	10:20	Sunny	73.8	76.0	68.5			
24-Jan-06	10:15	Fine	73.6	79.0	72.5			

Location NM8b - 3/F of Nob Hill								
Date	Time	Weather	Unit: dB (A) (30-min)			Remarks		
			Measured Noise Level				Baseline Level	Construction Noise Level
			L <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>		L <sub>eq</sub>	L <sub>eq</sub>
4-Jan-06	11:30	Fine	76.8	79.0	72.0	Road traffic noise from Ching Cheung Road was identified as the major noise source.		
10-Jan-06	13:50	Sunny	78.5	80.0	75.5			
17-Jan-06	11:16	Sunny	77.5	78.5	71.0			
24-Jan-06	11:00	Fine	77.7	81.5	74.5			

Location NM9 - Hoi Lai Estate								
Date	Time	Weather	Unit: dB (A) (30-min)			Remarks		
			Measured Noise Level				Baseline Level	Construction Noise Level
			L <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>		L <sub>eq</sub>	L <sub>eq</sub>
4-Jan-06	13:30	Fine	64.5	70.0	62.5			
10-Jan-06	10:15	Sunny	66.3	67.5	63.5			
17-Jan-06	13:13	Sunny	65.6	67.5	63.5			
24-Jan-06	15:30	Fine	71.3	73.0	69.0			

# Construction Noise Level (Leq) = Measured Noise Level (Leq) - Baseline Noise Level (Leq)

\*Bolded value indicated limit level exceedance

## Appendix G - Noise Monitoring Results

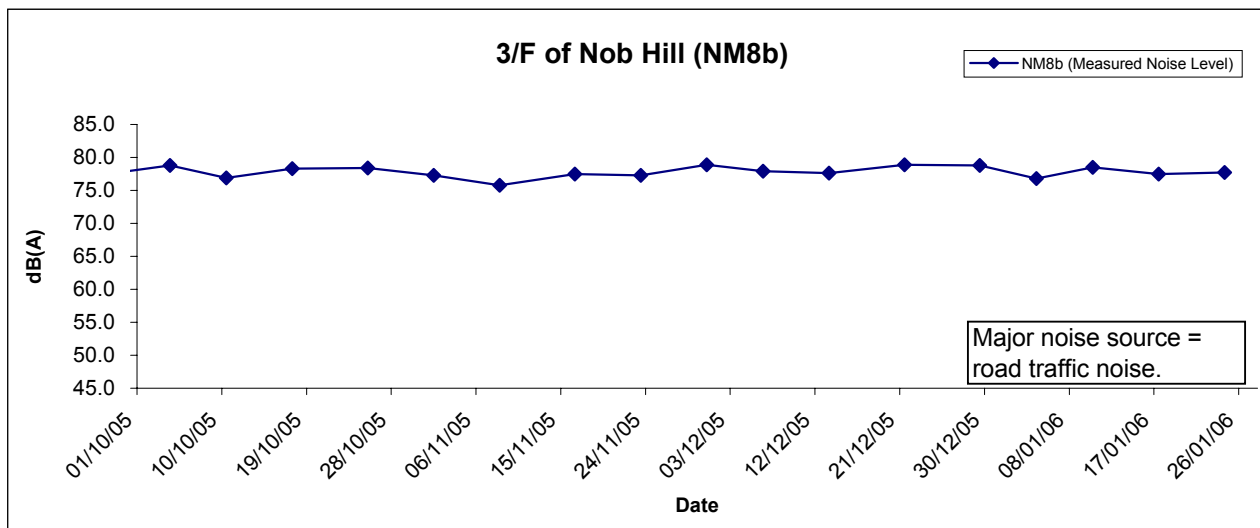
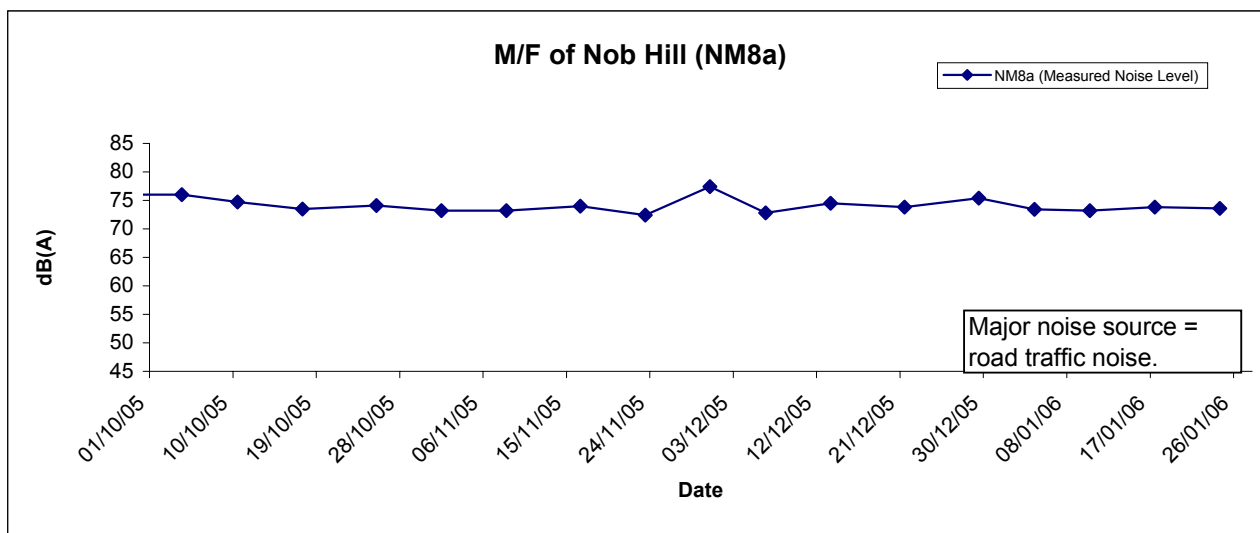
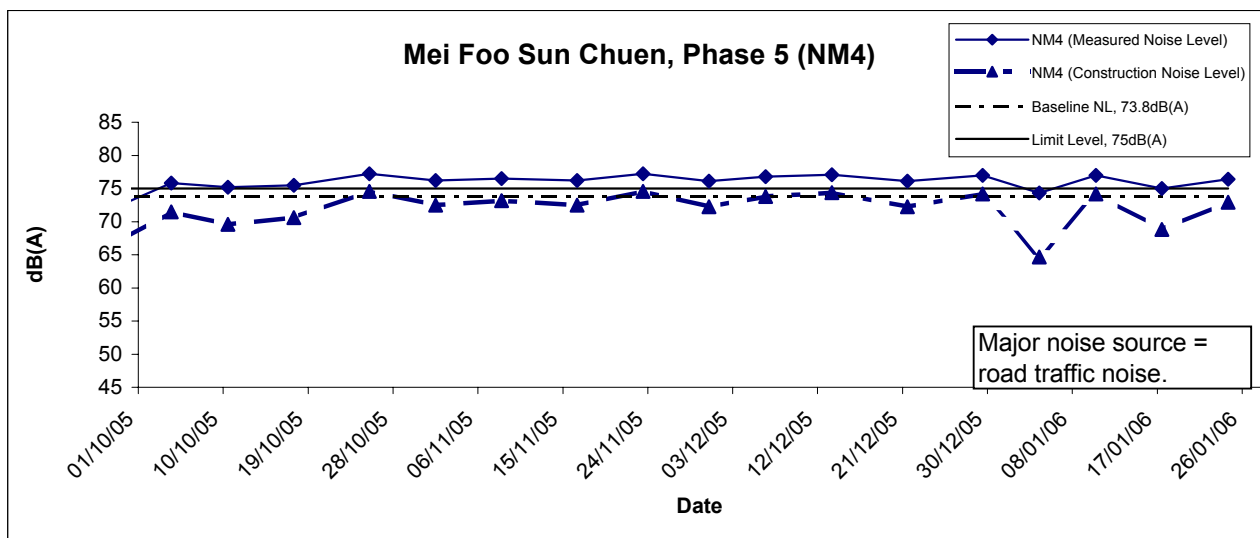
### Restricted Hours - 19:00 to 23:00 on normal weekdays

Location NM9 - Hoi Lai Estate						
Date	Time	Weather	dB (A) (5-min)			
			L <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>	Average L <sub>eq</sub>
3-Jan-06	19:10	Cloudy	63.3	66.0	60.5	63.5
	19:15		63.5	66.0	60.5	
	19:20		63.6	66.5	60.5	
10-Jan-06	19:05	Cloudy	64.2	68.0	61.0	64.4
	19:10		64.6	68.0	61.5	
	19:15		64.3	68.0	61.0	
20-Jan-06	19:20	Cloudy	62.8	66.0	60.0	63.1
	19:25		62.9	65.5	60.0	
	19:30		63.5	66.0	60.5	
24-Jan-06	19:10	Cloudy	63.1	66.5	60.0	62.9
	19:15		62.7	66.0	60.0	
	19:20		62.8	66.0	60.0	

# Construction Noise Level (Leq) = Measured Noise Level (Leq) - Baseline Noise Level (Leq)

\*Bolded value indicated limit level exceedance

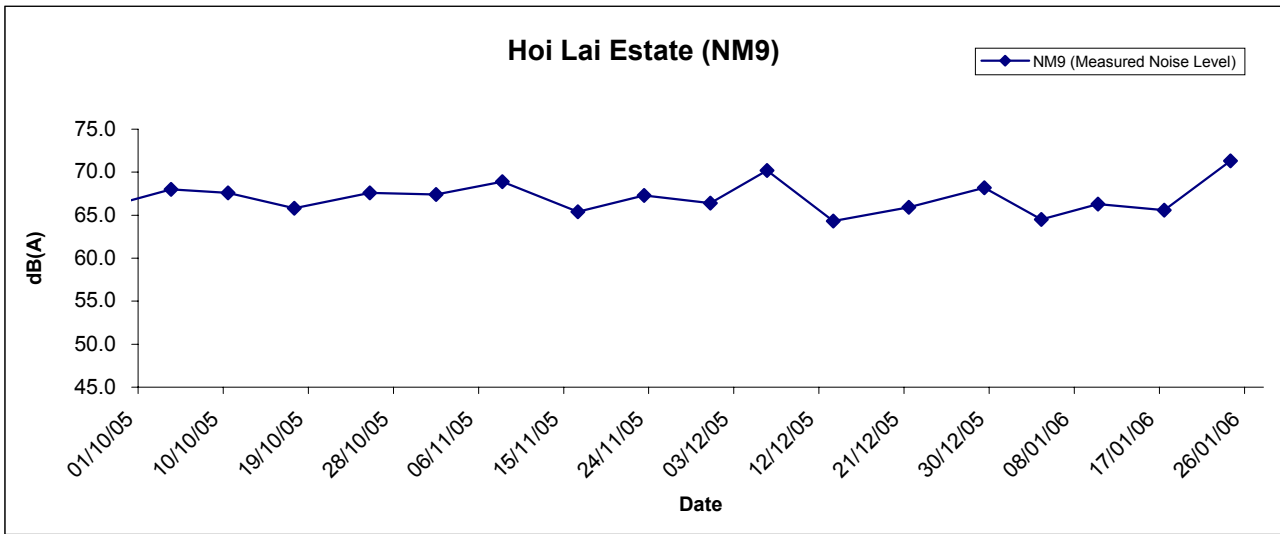
### Noise Levels



\* Construction Noise Level = Measured Noise Level - Baseline Level  
 (If the measured noise level is lower than the baseline level, the construction noise level will be taken as the measured one)

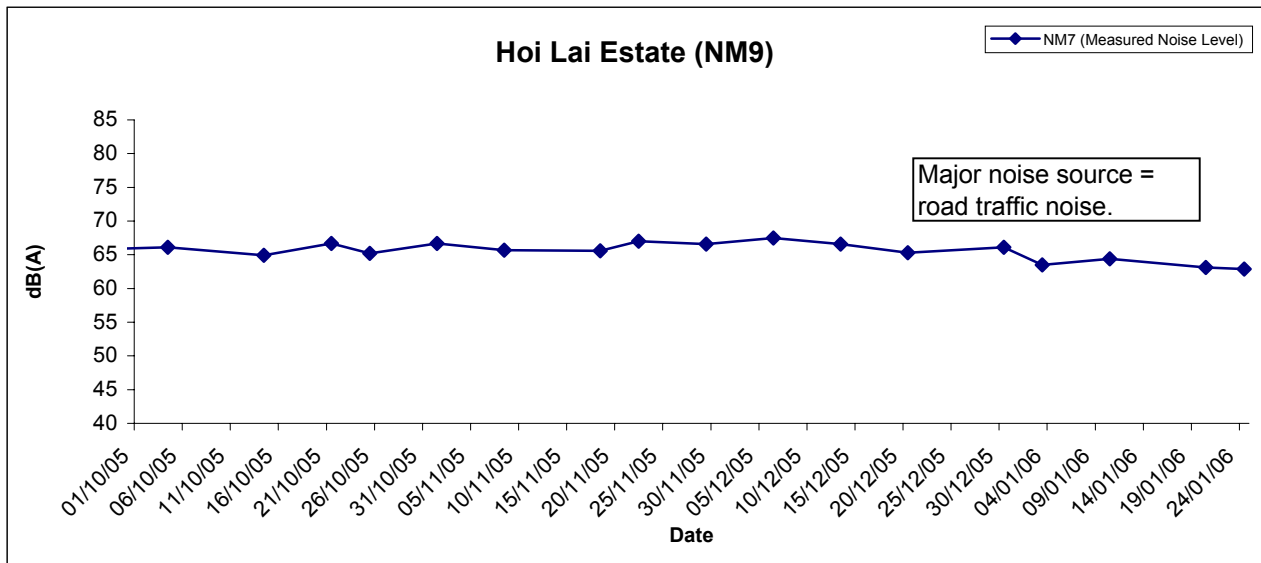
Title Route 8 (previously known as Route 9) between Cheung Sha Wan and Sha Tin Contract HY/2003/01 - Lai Chi Kok Viaduct  Graphical Presentation of Construction Noise Monitoring Results	Scale	Project No.	
	Date	Appendix G	
	N.T.S	MA3024	
	Jan 06	G	

## Noise Levels



Title Route 8 (previously known as Route 9) between Cheung Sha Wan and Sha Tin Contract HY/2003/01 - Lai Chi Kok Viaduct  Graphical Presentation of Construction Noise Monitoring Results	Scale N.T.S	Project No. MA3024	
	Date Jan 06	Appendix G	

## Restricted Hours (19:00 to 23:00) - Noise Levels



Title Route 8 (previously known as Route 9) between Cheung Sha Wan and Sha Tin Contract HY/2003/01 - Lai Chi Kok Viaduct  Graphical Presentation of Construction Noise Monitoring Results	Scale N.T.S	Project No. MA3024	
	Date Jan 06	Appendix G	

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**APPENDIX H  
SUMMARY OF EXCEEDANCE**

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### **Summary of Exceedances Recorded in the Reporting Month**

*a) Exceedance Report for 1-hr TSP (NIL)*

*b) Exceedance Report for 24-hr TSP (NIL)*

*c) Exceedance Report for Construction Noise*

- One noise action level exceedance was recorded due to a noise complaint received on 18 January 2006.
- No noise limit level exceedance was recorded.

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**APPENDIX I  
SITE AUDIT SUMMARY**

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*Route 8 (previously known as Route 9) between Cheung Sha Wan and Sha Tin  
 Environmental Team for Lai Chi Kok Viaduct and Eagle's Nest Tunnel  
 Contract No. HY/2003/01 - Lai Chi Kok Viaduct*

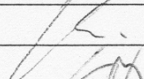
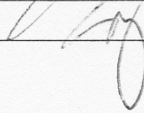
Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	60104-LCKV
Date	4 January 2006 (Wed)
Time	0930 – 1150

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-

Ref. No.	Remarks/Observations	Related Item No.
60104L-01	<p><b>A. Water Quality</b></p> <ul style="list-style-type: none"> <li>No environmental deficiency was identified during the site inspection.</li> </ul> <p><b>B. Air Quality</b></p> <ul style="list-style-type: none"> <li>Dust tracks were observed deposited on the public road near the site exit of R2. The Contractor was recommended to repair the broken concrete pavement at the exit.</li> </ul> <p><b>C. Noise</b></p> <ul style="list-style-type: none"> <li>No environmental deficiency was identified during the site inspection.</li> </ul>	C16iv
60104L-02	<p><b>D. Waste / Chemical Management</b></p> <ul style="list-style-type: none"> <li>Rubbish was observed scattering in the open channel near <u>P13</u>. In addition, refuse accumulation was observed at <u>P18</u>. The Contractor was reminded to collect the refuse and remove it regularly.</li> </ul> <p><b>E. Permit / Licenses</b></p> <ul style="list-style-type: none"> <li>No environmental deficiency was identified during the site inspection.</li> </ul> <p><b>F. Others</b></p> <ul style="list-style-type: none"> <li>The environmental deficiency identified during last audit (ref. 51229-LCKV) 29 December 2005, was rectified / improved by the Contractor.</li> </ul>	E1i & E1iii

	Name	Signature	Date
Recorded by	KK Chan		5 January 2006
Checked by	Jesse Yuen		5 January 2006

*Route 8 (previously known as Route 9) between Cheung Sha Wan and Sha Tin  
 Environmental Team for Lai Chi Kok Viaduct and Eagle's Nest Tunnel  
 Contract No. HY/2003/01 - Lai Chi Kok Viaduct*

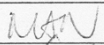
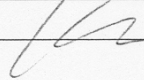
Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	60111-LCKV
Date	11 January 2006 (Wed)
Time	0930 – 1130

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-

Ref. No.	Remarks/Observations	Related Item No.
	<p><b>A. Water Quality</b></p> <ul style="list-style-type: none"> <li>No environmental deficiency was identified during the site inspection.</li> </ul> <p><b>B. Air Quality</b></p> <ul style="list-style-type: none"> <li>No environmental deficiency was identified during the site inspection.</li> </ul> <p><b>C. Noise</b></p> <ul style="list-style-type: none"> <li>No environmental deficiency was identified during the site inspection.</li> </ul> <p><b>D. Waste / Chemical Management</b></p> <ul style="list-style-type: none"> <li>No environmental deficiency was identified during the site inspection.</li> </ul> <p><b>E. Permit / Licenses</b></p> <ul style="list-style-type: none"> <li>No environmental deficiency was identified during the site inspection.</li> </ul> <p><b>F. Others</b></p> <ul style="list-style-type: none"> <li>The environmental deficiency identified during last audit (ref. 60104-LCKV) 4 January 2006, was rectified / improved by the Contractor.</li> </ul>	

	Name	Signature	Date
Recorded by	CM Cheung		13 January 2006
Checked by	KK Chan		13 January 2006

*Route 8 (previously known as Route 9) between Cheung Sha Wan and Sha Tin  
 Environmental Team for Lai Chi Kok Viaduct and Eagle's Nest Tunnel  
 Contract No. HY/2003/01 - Lai Chi Kok Viaduct*



Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	60119-LCKV
Date	19 January 2006 (Thr)
Time	1330 - 1515

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-

Ref. No.	Remarks/Observations	Related Item No.
60119L-01	<p><b>A. Water Quality</b></p> <ul style="list-style-type: none"> <li>No environmental deficiency was identified during the site inspection.</li> </ul> <p><b>B. Air Quality</b></p> <ul style="list-style-type: none"> <li>No environmental deficiency was identified during the site inspection.</li> </ul> <p><b>C. Noise</b></p> <ul style="list-style-type: none"> <li>No environmental deficiency was identified during the site inspection.</li> </ul> <p><b>D. Waste / Chemical Management</b></p> <ul style="list-style-type: none"> <li>Spilled fuel oil was accumulated in drip tray at Mui Kong Tsuen. The contractor was reminded to collect the oil.</li> </ul> <p><b>E. Permit / Licenses</b></p> <ul style="list-style-type: none"> <li>No environmental deficiency was identified during the site inspection.</li> </ul> <p><b>F. Others</b></p> <ul style="list-style-type: none"> <li>The environmental deficiency identified during last audit (ref. 60111-LCKV) 11 January 2006, was rectified / improved by the Contractor.</li> </ul>	

	Name	Signature	Date
Recorded by	CM Cheung		19 January 2006
Checked by	KK Chan		19 January 2006

*Route 8 (previously known as Route 9) between Cheung Sha Wan and Sha Tin  
 Environmental Team for Lai Chi Kok Viaduct and Eagle's Nest Tunnel  
 Contract No. HY/2003/01 - Lai Chi Kok Viaduct*

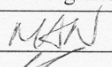

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	60125-LCKV
Date	25 January 2006 (Wed)
Time	0930 – 1100

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-

Ref. No.	Remarks/Observations	Related Item No.
60125L-01	<p><b>A. Water Quality</b></p> <ul style="list-style-type: none"> <li>No environmental deficiency was identified during the site inspection.</li> </ul> <p><b>B. Air Quality</b></p> <ul style="list-style-type: none"> <li>No environmental deficiency was identified during the site inspection.</li> </ul> <p><b>C. Noise</b></p> <ul style="list-style-type: none"> <li>No environmental deficiency was identified during the site inspection.</li> </ul> <p><b>D. Waste / Chemical Management</b></p> <ul style="list-style-type: none"> <li>General refuse was accumulated at Mui Kong Tsuen. The Contractor was reminded to keep the site area tidy.</li> </ul> <p><b>E. Permit / Licenses</b></p> <ul style="list-style-type: none"> <li>No environmental deficiency was identified during the site inspection.</li> </ul> <p><b>F. Others</b></p> <ul style="list-style-type: none"> <li>The environmental deficiency identified during last audit (ref. 60119-LCKV) 19 January 2006, was rectified / improved by the Contractor.</li> </ul>	E 1i

	Name	Signature	Date
Recorded by	CM Cheung		26 January 2006
Checked by	KK Chan		26 January 2006

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**APPENDIX J**  
**EVENT ACTION PLANS**

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## Appendix J - Event Action Plans

### Event/Action Plan for Air Quality

EVENT	ACTION			
	ET	IEC	ER	Contractor
<b>ACTION LEVEL</b>				
1. Exceedance for one sample	<ol style="list-style-type: none"> <li>1. Identify source</li> <li>2. Inform ER &amp; IEC</li> <li>3. Repeat measurement to confirm finding</li> <li>4. Increase monitoring frequency to daily</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET</li> <li>2. Check Contractor's working methods</li> </ol>	<ol style="list-style-type: none"> <li>1. Notify Contractor</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</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 ER &amp; IEC</li> <li>3. Repeat measurement to confirm findings</li> <li>4. Increase monitoring frequency to daily</li> <li>5. Discuss with ER &amp; for remedial actions required</li> <li>6. If exceedance continues, arrange meeting with ER &amp; IEC</li> <li>7. If exceedance stops, cease additional monitoring</li> </ol>	<ol style="list-style-type: none"> <li>1. Checking monitoring data submitted by ET</li> <li>2. Check Contractor's working methods</li> <li>3. Discuss with ET and Contractor on possible remedial measure</li> <li>4. Advise the ER &amp; ET on the effectiveness of the proposed remedial measures</li> <li>5. Supervise the implementation of the remedial measures</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing</li> <li>2. Notify Contractor</li> <li>3. Check Contractor's working methods</li> <li>4. Discuss with ET, IEC and Contractor on proposed remedial actions</li> <li>5. Ensure remedial actions properly implemented</li> </ol>	<ol style="list-style-type: none"> <li>1. Submit proposals for remedial actions to ER within 3 working days of notification</li> <li>2. Implement the agreed proposals</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 ER &amp; IEC and EPD</li> <li>3. Repeat measurement to confirm finding</li> <li>4. Increase monitoring frequency to daily</li> <li>5. Assess effectiveness of Contractor's</li> </ol>	<ol style="list-style-type: none"> <li>1. Checking monitoring data submitted by ET</li> <li>2. Check Contractor's working methods</li> <li>3. Discuss with ET and Contractor on possible remedial measure</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 Contractor's working methods</li> <li>4. Discuss with ET, IEC and Contractor on</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 ER within 3 working days of notification</li> </ol>

EVENT	ACTION			
	ET	IEC	ER	Contractor
	remedial actions and keep EPD and ER & IEC informed of the results	4. Advise the ER & ET on the effectiveness of the proposed remedial measures 5. Supervise the implementation of the remedial measures	proposed remedial actions 5. Ensure remedial actions properly implemented	3. Implement the agreed proposals 4. Amend proposal if appropriate
2. Exceedance for two or more consecutive samples	1. Identify source 2. Inform ER, IEC, Contractor and EPD the cause & actions taken for the exceedances 3. Repeat measurement to confirm findings 4. Increase monitoring frequency to daily 5. Investigate the causes of exceedance 6. Carry out analysis of contractor's working procedures to determine possible mitigation to be implemented. 7. Arrange meeting with EPD, IEC and ER to discuss the remedial actions to be taken 8. Assess effectiveness of Contractor's remedial actions and keep EPD and ER & IEC informed of the results 9. If exceedance stops, cease additional monitoring	1. Checking monitoring data submitted by ET 2. Discuss amongst ER, ET and Contractor on possible remedial measures 3. Review Contractor's remedial measures whenever necessary to ensure their effectiveness and advise the ER accordingly 4. Supervise the implementation of the remedial measures	1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented 4. Discuss amongst ET, IEC and the Contractor on proposed remedial actions 5. In consultation with IEC, agree with the contractor remedial measures to be implemented 6. Ensure remedial measure are properly implemented 7. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated	1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to IEC, ER 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

Event/Action Plan for Construction Noise

Exceedance	ACTION			
	ET	.IEC	ER	Contractor
Action Level	<p>1. Discuss with the IEC and ER and seek to identify potential noise source</p> <p>2. Undertake noise measurement to confirm the validity of complaint</p> <p>3. Inform ER&amp;IEC in writing Discuss remedial actions required with ER&amp;IEC if an exceedance is recorded</p> <p>4. Increase monitoring frequency to demonstrate efficacy of remedial measures</p> <p>5. If exceedance continues, meet with ER&amp;IEC to review implementation of appropriate mitigation measures.</p> <p>6. If exceedance stops, cease additional monitoring</p>	<p>1. Review the analyzed results submitted by the ET</p> <p>2. Review the proposed remedial measures by the Contractor and advise the ER &amp; ET accordingly</p> <p>3. Supervise the implementation of remedial measures</p>	<p>1. Confirm receipt of notification of complaint and notify Contractor immediately</p> <p>2. Check monitoring data trends and Contractor's working methods</p> <p>3. Remind the Contractor of his contractual obligations and discuss with ET, IEC and Contractor on proposed remedial actions</p> <p>4. Assess the efficacy of remedial actions and keep the Contractor informed</p> <p>5. Inform complainant of actions taken</p>	<p>1. Submit proposals for remedial actions to ER within three working days of notification</p> <p>2. Amend proposals if required by the Engineer</p> <p>3. Implement the remedial actions immediately upon instruction</p> <p>4. Liaise with the ER to optimize the effectiveness of the agreed mitigation</p> <p>5. Amend proposal if appropriate</p>



Exceedance	ACTION			
	ET	IEC	ER	Contractor
Limit Level	<ol style="list-style-type: none"> <li>1. Repeat measurement to confirm findings</li> <li>2. Investigate the cause of the exceedance and identify the main source(s) of impact</li> <li>3. Inform ER&amp;IEC and EPD in writing</li> <li>4. Discuss remedial actions required with ER&amp;IEC</li> <li>5. Increase monitoring frequency to demonstrate efficacy of remedial measures</li> <li>6. Assess efficacy of remedial actions and keep ER &amp; IEC informed of the results</li> <li>7. If exceedance continues, meet with ER&amp;IEC to identify appropriate mitigation measures</li> <li>8. If exceedance stops, cease additional monitoring</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET</li> <li>2. Review Contractor's remedial actions to assure their effectiveness and advise the ER &amp; ET accordingly</li> <li>3. Supervise the implementation of the remedial measures</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of exceedance and notify Contractor</li> <li>2. Check monitoring data trends and Contractor's working methods</li> <li>3. Discuss with ET, IEC and Contractor on proposed remedial actions to be implemented</li> <li>4. Assess the efficacy of remedial actions and keep the Contractor informed</li> <li>5. If exceedance continuous, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is aborted</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 ER immediately not more than 3 working days of notification</li> <li>3. Amend proposals if required by the ER</li> <li>4. Implement remedial actions immediately upon instruction</li> <li>5. Liaise with the ER to optimize the effectiveness of the agreed mitigation</li> <li>6. Resubmit proposals if problem still not under control</li> <li>7. Stop the relevant portion of works as determined by the ER until the exceedance is aborted</li> </ol>

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**APPENDIX K  
ENVIRONMENTAL MITIGATION  
IMPLEMENTATION SCHEDULE (EMIS)**

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**Appendix K - Summary of Environmental Mitigation Implementation Schedule**

Types of Impacts	Mitigation Measures	Status
<p align="center"><b>Construction Dust</b></p>	<ul style="list-style-type: none"> <li>Any stockpile of dusty materials or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water so as to maintain the entire surface wet.</li> </ul>	^
	<ul style="list-style-type: none"> <li>A stockpile of dusty materials should not extend beyond the pedestrian barriers, fencing or traffic cones.</li> </ul>	^
	<ul style="list-style-type: none"> <li>Vehicle washing facilities should be provided at every exit point.</li> </ul>	^
	<ul style="list-style-type: none"> <li>The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores.</li> </ul>	^
	<ul style="list-style-type: none"> <li>Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length of that portion of the site boundary except for a site entrance or exit.</li> </ul>	^
	<ul style="list-style-type: none"> <li>Every main haul road should be sprayed with water or a dust suppression chemical so as to maintain the entire road surface wet.</li> </ul>	^
	<ul style="list-style-type: none"> <li>The portion of any road leading only to a construction site that is within 30m of a discernible or designated vehicle entrance or exit should be kept clear of dusty materials.</li> </ul>	^
	<ul style="list-style-type: none"> <li>Any stockpile of dusty materials should be either covered entirely by impervious sheeting, placed in an area sheltered on the top and the 3 sides or sprayed with water or a dust suppression chemical so as to maintain the entire surface wet.</li> </ul>	^
	<ul style="list-style-type: none"> <li>All dusty materials should be sprayed with water or a dust suppression chemical immediately prior to any loading, unloading or transfer operation so as to maintain the dusty materials wet.</li> </ul>	^
	<ul style="list-style-type: none"> <li>Every vehicle should be washed to remove any dusty materials from its body and wheels immediately before leaving a construction site.</li> <li>The working area of any excavation should be sprayed with water or a dust suppression chemical immediately before, during and immediately after the operation so as to maintain the entire surface wet.</li> </ul>	^
<p align="center"><b>Construction Noise</b></p>	<ul style="list-style-type: none"> <li>Only well-maintained plant should be operated on –site and plant should be serviced regularly during the construction works.</li> </ul>	^
	<ul style="list-style-type: none"> <li>Machines and plant that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.</li> </ul>	^
	<ul style="list-style-type: none"> <li>Plant known to emit noise strongly in one direction, should where possible, be orientated to direct noise away from the NSRS.</li> </ul>	^
	<ul style="list-style-type: none"> <li>Mobile plant should be sited as far away from NSRs as possible.</li> </ul>	^
	<ul style="list-style-type: none"> <li>Material stockpiles and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.</li> <li>Use quiet plant and Working Method</li> </ul>	^
<ul style="list-style-type: none"> <li>Reduce the number of plant operating in critical areas close NSRs.</li> <li>Construct temporary and movable noise barriers</li> </ul>	^	

Types of Impacts	Mitigation Measures	Status
Water Quality	<i>Construction Runoff and Drainage</i>	
	<ul style="list-style-type: none"> <li>Use of sediment traps and the adequate maintenance of drainage systems to prevent flooding and overflow.</li> </ul>	^
	<ul style="list-style-type: none"> <li>Boundaries of critical areas of earthworks should be marked and surrounded by dykes or embankments for flood protection. Temporary ditches should be provided to facilities runoff discharge into the appropriate watercourses, via a silt retention pond. Permanent drainage channels should incorporate sediment basins or traps and baffles to enhance deposition rates.</li> </ul>	^
	<ul style="list-style-type: none"> <li>All temporary and permanent drainage pipes and culverts provided to facilitate runoff discharge should be adequately designed for the controlled release of storm flows. All sediment traps should be regularly cleaned and maintained. The temporarily diverted drainage should be reinstated to its original condition when the construction works has finished or the temporary diversion is no longer required</li> </ul>	^
	<ul style="list-style-type: none"> <li>Sand silt in the wash water from the wheel washing facilities, which ensure no earth, mud and debris is deposited on roads, should be settled out the removed before discharging into storm drains. A section of the road between the wheel washing bay and the public road should be paved with backfill to prevent wash water or other site runoff form entering public road drains.</li> </ul>	^
	<ul style="list-style-type: none"> <li>Oil interceptors should be provided in the drainage system and regularly emptied to prevent the release of oils and grease into the storm water drainage system after accidental spillage. The interceptor should have a bypass to prevent flushing during periods of heavy rain.</li> </ul>	N/A
	<ul style="list-style-type: none"> <li>Catchpits and perimeter channels shall be constructed in advance of site formation works and earthworks.</li> </ul>	^
	<ul style="list-style-type: none"> <li>Silt removal facilities, channels and manholes shall be suitably maintained with the deposited silt and grit being removed at least once a week, and at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times.</li> </ul>	^
	<ul style="list-style-type: none"> <li>Earthworks final surfaces shall be well compacted and the subsequent permanent work or surface protection shall be carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms. Appropriate intercepting channels shall be provided along the site boundary or at the locations agreed with the ET Leader. Rainwater pumped out from trenches or foundation excavations shall be discharged into silt removal facilities before discharge into storm drains.</li> </ul>	^
	<ul style="list-style-type: none"> <li>All generators, fuel and oil storage shall be within bunded areas. Drainage from the areas shall be connected to storm drains via a petrol interceptor.</li> </ul>	^
	<i>Tunnelling Work</i>	
	<ul style="list-style-type: none"> <li>Temporary open storage of excavated materials should be covered with tarpaulin or similar fabric during rainstorms. Any washout of construction or excavated materials form the drill and blast tunnelling work should be diverted to the drainage system via appropriate sediment traps.</li> </ul>	N/A
	<ul style="list-style-type: none"> <li>Ground water pumped out of tunnels should be discharged into the drainage channels which incorporated sediment traps to enhance deposition rates and to remove silt.</li> </ul>	N/A
	<ul style="list-style-type: none"> <li>Spend grouts used in diaphragm wall construction should be collected in a separate slurry collection system, reconditioned and reused wherever practicable. The disposal of used grouting materials will only be permitted if it is treated to the TM standards before discharge to the storm drains or disposal to landfill.</li> </ul>	N/A

Types of Impacts	Mitigation Measures	Status
	<i>General Construction Activities</i>	
	<ul style="list-style-type: none"> <li>• Debris and rubbish on site should be collected, handled and disposed of properly to avoid entering the water column and cause water quality impacts.</li> <li>• All fuel tanks and storage areas will be provided with locks and be located on sealed areas (within bunds of a capacity equal to 110% of the storage capacity of the largest tank or 20% by volume of the fuel stored in that areas, whichever in the greatest).</li> </ul>	<p style="text-align: center;">^</p> <p style="text-align: center;">^</p>
	<i>Sewage Effluent</i>	
	<ul style="list-style-type: none"> <li>• Construction work force sewage discharges from fixed toilet facilities on-site should be connected to the nearby existing trunk sewer wherever feasible. However, for areas where existing trunk sewer is not available, it is recommended that appropriate and adequate on site portable chemical toilets should be provided by a licensed contractor who will be responsible for appropriate disposal and maintenance of these facilities.</li> <li>• It is considered that sewage discharges could also be treated by on-site septic tanks and soakaway. Minimum clearance away from streams and catchments and other requirements for the proposed septic tank and soakaway should be referred to EPD's Practice Note for Professional Persons, Drainage Plans.</li> </ul>	<p style="text-align: center;">^</p> <p style="text-align: center;">N/A</p>
<b>Waste</b>	<i>General</i>	
	<ul style="list-style-type: none"> <li>• Training and instruction shall be given at a site to construction staff to increase awareness and draw attention to waste management issues and the need to minimise waste generation. The training requirement shall be included in the site waste management plan.</li> </ul>	<p style="text-align: center;">^</p>
	<i>Storage, Collection and Transportation of Waste</i>	
	<ul style="list-style-type: none"> <li>• Wastes shall be handled and stored in a manner to ensure that they are held securely without loss or leakage.</li> <li>• Authorised or licensed waste hauliers shall be used and they shall only collect wastes prescribed by their permits.</li> <li>• Waste shall be removed on a daily basis.</li> <li>• Waste storage area shall be maintained and cleaned on a daily basis.</li> <li>• Windblown litter and dust during transportation shall be minimised by either covering trucks or transporting wastes in enclosed containers.</li> <li>• Obtain necessary waste disposal permits from the appropriate authorities if they are required.</li> <li>• Wastes shall be disposed of at licensed waste disposal facilities.</li> <li>• Develop procedure such as ticketing system to facilitate tracking of loads, particularly for chemical waste, and to ensure that illegal disposal of wastes does not occur.</li> </ul>	<p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p>
	<ul style="list-style-type: none"> <li>• Maintain records of the quantities of wastes generated, recycled and disposed.</li> </ul>	<p style="text-align: center;">^</p>
	<i>Surplus Excavated Materials</i>	
	<ul style="list-style-type: none"> <li>• Due to the high risk of loose material being washed into the existing nullah, stockpile materials should be properly compacted and covered from water erosion and located at least 10m away from the nullah wall.</li> </ul>	<p style="text-align: center;">^</p>
<i>Construction and Demolition (C&amp;D) Waste</i>		

Types of Impacts	Mitigation Measures	Status
	<ul style="list-style-type: none"> <li>• Careful design, planning and good site management shall be adopted to minimise over-ordering and generation of waste materials such as concrete grouts.</li> <li>• The handling and disposal of bentonite slurries shall be undertaken in accordance with Practice Note for Professional Persons – Construction Site Drainage (ProPECC PN 1/94) on construction site drainage.</li> <li>• Construction and demolition (C&amp;D) material shall be segregated to inert and non-inert parts. The inert portion shall re-used at areas of reclamation or land formation, or to public filling area shall such allocation is deemed necessary. The non-inert portion shall be disposed of to landfill.</li> </ul>	<p style="text-align: center;">^</p> <p style="text-align: center;">N/A</p> <p style="text-align: center;">^</p>
	<p><i>Chemical Waste</i></p> <ul style="list-style-type: none"> <li>• Chemical waste that is produce during construction shall be handled in accordance with the Cod of Practice on the Packaging, Handling and Storage of Chemical Wastes.</li> <li>• Containers used for the storage of chemical wastes should: <ul style="list-style-type: none"> <li>a. Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed;</li> <li>b. Have a capacity of less than 450 litres unless the specifications have been approved by the EPD;</li> <li>c. Display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Chemical Waste Regulations.</li> </ul> </li> <li>• The storage area for chemical wastes should: <ul style="list-style-type: none"> <li>a. Be clearly labelled and used solely for the storage of chemical waste;</li> <li>b. Be enclosed on at least 3 sides;</li> <li>c. 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 the area, whichever is largest;</li> <li>d. Have adequate ventilation;</li> <li>e. Be covered to prevent rainfall entering (water collected within the bund must be tested and disposed as chemical waste if necessary);</li> <li>f. Be arranged so that incompatible materials are adequately separated.</li> </ul> </li> <li>• Disposal of chemical waste shall be via a licensed waste collector; and to a facility licensed to receive chemical waste; or a reuser of the waste (under approval from EPD).</li> </ul>	<p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p>
	<p><i>General Refuse</i></p> <ul style="list-style-type: none"> <li>• General refuse generated on-site shall be stored in enclosed bins or compaction unit separate from C&amp;D and chemical wastes. A reputable waste collector shall be employed by the contractor to remove general refuse from the site, separately from C&amp;D and chemical wastes, on a daily for every second day basis to minimise odour, pest and litter impacts. The burning of refuse on construction sites is prohibited by law.</li> <li>• Reusable rather than disposable dishware shall be used if feasible.</li> </ul>	<p style="text-align: center;">^</p> <p style="text-align: center;">^</p>

Types of Impacts	Mitigation Measures	Status
Ecology	<ul style="list-style-type: none"> <li>• A sediment barrier shall be erected to minimize stream sedimentation at downstream of the project boundary of the Toll Plaza.</li> </ul>	N/A
	<ul style="list-style-type: none"> <li>• Conduct a tree survey before commencement of the construction work.</li> </ul>	^
	<ul style="list-style-type: none"> <li>• All measures recommended in the approved landscape proposals under Condition 2.4 in EP above shall be fully implemented in accordance with the details and time schedule set out in the submission.</li> </ul>	^
	<ul style="list-style-type: none"> <li>• Loss of the adjacent woodland due to temporary land take shall be returned to the original status immediately.</li> </ul>	N/A
	<ul style="list-style-type: none"> <li>• Wild and uncontrolled fire shall be strictly prohibited</li> <li>• Fences shall be erected along the boundary of the construction sites at the Toll Plaza before commencement of works, to prevent tipping, vehicle movements, and encroachment of personnel onto adjacent wooded areas.</li> </ul>	^ N/A
Landscape and Visual Impact	<ul style="list-style-type: none"> <li>• Landscape mitigation measure 1 (LMM1) – Construction programming and management. The periphery of the works areas at street level shall be managed so that they do not appear cluttered, untidy and unattractive and inconvenient to pedestrians. For example, all hoarding shall be colorfully designed with interesting motifs demonstrating the work of Highways Department. Hoardings with bland colours shall be avoided.</li> </ul>	^
	<ul style="list-style-type: none"> <li>• Landscape mitigation measure 2 (LMM2) – Advanced planting and erosion control works. Where possible, the transplantation of existing valuable trees, the stockpiling of topsoil, new planting and erosion control works shall be carried out as early as possible in the construction period instead of at the end. This will assist in maximizing the time for carrying out transplantation and new planting, resulting in a higher success rate for the survival of transplantation and new planting, resulting in a higher success rate for the survival of transplanted trees and the establishment of new screen trees. The stockpiling of topsoil will provide an abundant use of on-site material for growing media. During detailed design, the issue of stockpiling of topsoil in a manner that would avoid washing into the drainage scheme should be examined comprehensively.</li> </ul>	^
	<ul style="list-style-type: none"> <li>• Measurement of vibration would also be carried out on a need basis during the piling work</li> </ul>	^

Remarks:

- |     |                                   |   |  |
|-----|-----------------------------------|---|--|
| ^   | Compliance of mitigation measure; | X | Non-compliance of mitigation measure;          |
| N/A | Not Applicable;                   | • | Non-compliance but rectified by the contractor |

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**APPENDIX L**  
**CONSTRUCTION PROGRAMME**

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Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish	2006											
							JAN			FEB			MAR			APR		
							16	23	30	6	13	20	27	6	13	20	27	3
<b>Procurement</b>																		
<b>Segmental Deck Casting (Type A Units)</b>																		
SD2650A	P17/L-Up - Cast 9 Segments Type A	17	09JAN06A	23JAN06	09JAN06A	23SEP05	SD2650A											
SD2660	P17/R-Up - Cast 12 Segments Type A	20	12JAN06A	03FEB06	12JAN06A	28SEP05	SD2660											
SD2650	P17/L-Down - Cast 9 Segments Type A	18	20JAN06	12FEB06	08SEP05	27SEP05	SD2650											
SD2700A	P19/R-Down - Cast 10 Segments Type A	16	24JAN06	13FEB06	15NOV05	01DEC05	SD2700A											
SD2700	P19/R-Up - Cast 10 Segments Type A	17	04FEB06	22FEB06	18NOV05	06DEC05	SD2700											
SD2690A	P19/L-Down - Cast 9 Segments Type A	16	13FEB06	02MAR06	30NOV05	17DEC05	SD2690A											
SD2690	P19/L-Up - Cast 9 Segments Type A	22	14FEB06	10MAR06	02DEC05	26DEC05	SD2690											
SD2720	P20/L-Down - Cast 13 Segments Type A	22	23FEB06	18MAR06	07DEC05	30DEC05	SD2720											
SD2715	P20/R-Down - Cast 12 Segments Type A	26	03MAR06	31MAR06	18DEC05	15JAN06	SD2715											
SD2720A	P20/L-Up - Cast 13 Segments Type A	21	11MAR06	03APR06	27DEC05	18JAN06	SD2720A											
SD2710	P20/R-Up - Cast 12 Segments Type A	17	20MAR06	07APR06	31DEC05	18JAN06	SD2710											
SD2740	P21/R-Down - Cast 9 Segments Type A	17	01APR06	19APR06	16JAN06	07FEB06	SD2740											
SD2730A	P21/L-Up - Cast 8 Segments Type A	14	04APR06	18APR06	19JAN06	07FEB06	SD2730A											
SD2730	P21/L-Down - Cast 8 Segments Type A	12	08APR06	20APR06	19JAN06	04FEB06	SD2730											
SD2740A	P21/R-Up - Cast 9 Segments Type A	14	20APR06	06MAY06	08FEB06	22FEB06	SD2740A											
SD2760	Abutment M/R - Cast 5 Segments Type A	10	19APR06	29APR06	21FEB06	03MAR06	SD2760											
<b>Segmental Deck Casting (Type B Units)</b>																		
SD3290	PA/L (North) - Cast 9 seg Type B	18	20JAN06	12FEB06	18MAY05	06JUN05	SD3290											
SD3430	D2-Pierhead & Up - Cast 14 Segments Type B	22	15JAN06A	06FEB06	15JAN06A	26SEP05	SD3430											
SD3430A	D2-Down - Cast 13 Segments Type B	22	10JAN06A	06FEB06	10JAN06A	26SEP05	SD3430A											
SD3440	D1-Pierhead & Up - Cast 11 Segs Type B	20	17DEC05A	21JAN06	17DEC05A	17SEP05	SD3440											
SD3390	D6-Pierhead & Up - Cast 9 seg Type B	16	30NOV05A	09FEB06	30NOV05A	08OCT05	SD3390											
SD3390A	D6-Pierhead & Down - Cast 9 seg Type B	16	23JAN06	12FEB06	19SEP05	06OCT05	SD3390A											
SD3460	P19 Slip C-Up - Cast 10 Segments Type B	19	07FEB06	27FEB06	27SEP05	19OCT05	SD3460											
SD3460A	P19 Slip C-Down - Cast 10 Segments Type B	19	07FEB06	27FEB06	27SEP05	19OCT05	SD3460A											
SD3470	P19 Slip D-Up - Cast 8 Segments Type B	16	10FEB06	27FEB06	10OCT05	26OCT05	SD3470											
SD3470A	P19 Slip D-Down - Cast 8 Segments Type B	16	13FEB06	02MAR06	07OCT05	24OCT05	SD3470A											
SD3380	D7-Up - Cast 9 seg Type B	18	28FEB06	18MAR06	20OCT05	08NOV05	SD3380											
SD3380A	D7-Down - Cast 9 seg Type B	18	28FEB06	18MAR06	20OCT05	08NOV05	SD3380A											
SD3370	D8-Up - Cast 15 Segments Type B	25	28FEB06	27MAR06	27OCT05	23NOV05	SD3370											
SD3370A	D8-Down - Cast 15 Segments Type B	25	03MAR06	30MAR06	25OCT05	21NOV05	SD3370A											

Start Date 23SEP03  
 Finish Date 04OCT08  
 Data Date 20JAN06

P3 File : LU28

Sheet 1 of 18

Highways Department Contract No. HY/2003/01  
 Route 8 - Lai Chi Kok Viaduct  
 3 month Rolling Programme  
 From 20 January 2006



Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish	2006																
							JAN			FEB			MAR			APR							
							16	23	30	6	13	20	27	6	13	20	27	3	10	17	24		
SD3480	P20 Slip D-Up - Cast 12 Segments Type B	21	20MAR06	11APR06	04JAN06	26JAN06																	
SD3480A	P20 Slip D-Down - Cast 12 Segments Type B	21	20MAR06	11APR06	06JAN06	28JAN06																	
SD3490	P20 Slip C-Up - Cast 13 Segments Type B	21	28MAR06	19APR06	13JAN06	08FEB06																	
SD3490A	P20 Slip C-Down - Cast 13 Segments Type B	21	31MAR06	22APR06	13JAN06	08FEB06																	
SD3500	P21 Slip C-Down - Cast 8 Segments Type B	16	12APR06	29APR06	27JAN06	16FEB06																	
SD3510	P21 Slip D-Down - Cast 8 Segments Type B	16	12APR06	29APR06	02FEB06	18FEB06																	
<b>Segmental Deck Casting (Type C Units)</b>																							
SD3210	PA/R-Up - Cast 9 seg Type C	18	20JAN06	12FEB06	06JUL05	26JUL05																	
<b>Precast Parapet Panel Casting</b>																							
PP2010	Casting Type I Parapet Units 266 - 565	40	11MAR06	27APR06	16SEP05	04NOV05																	
PP2100	Casting Type II Parapet Units 1 - 265	55	20OCT05A	25JAN06	20OCT05A	03AUG05																	
PP2110	Casting Type II Parapet Units 266 - 565	40	26JAN06	16MAR06	04AUG05	20SEP05																	
PP2120	Casting Type II Parapet Units 566 - 865	40	17MAR06	04MAY06	27JAN06	17MAR06																	
PP2200	Casting Type III Parapet Units 1 - 22	22	20JAN06	17FEB06	24AUG05	17SEP05																	
PP2310	Casting Type IV Parapet Units 181 - 383	70	05APR06	27JUN06	06SEP05	29NOV05																	
PP2410	Casting Type V Parapet Units 181 - 383	70	28FEB06	22MAY06	13AUG05	05NOV05																	
<b>Noise Barriers &amp; Enclosures</b>																							
NB1010	Noise Encl' - Slip Rd A - Design & Shop Drawings	23	07JUL05A	25JAN06	07JUL05A	28APR05																	
NB1020	Noise Encl' - Slip Rd A - Eng. Review & Approval	28	20JAN06	16FEB06	23APR05	20MAY05																	
NB1030	Noise Encl' - Slip Rd A - Materials Purchasing	48	17FEB06	14APR06	21MAY05	18JUL05																	
NB1040	Noise Encl' - Slip Rd A - Off-site Fabrication	85	15APR06	26JUL06	19JUL05	28OCT05																	
NB1100	Noise Encl' - Slip Rd B - Design & Shop Drawings	23	07JUL05A	25JAN06	07JUL05A	29APR05																	
NB1110	Noise Encl' - Slip Rd B - Eng. Review & Approval	28	20JAN06	16FEB06	25APR05	22MAY05																	
NB1120	Noise Encl' - Slip Rd B - Materials Purchasing	72	17FEB06	13MAY06	23MAY05	16AUG05																	
NB1130	Noise Encl' - Slip Rd B - Off-site Fabrication	100	11APR06	09AUG06	15JUL05	11NOV05																	
NB1200	Noise Encl' - P8 to P11 - Design & Shop Drawings	60	10SEP05A	23JAN06	10SEP05A	05MAY05																	
NB1210	Noise Encl' - P8 to P11 - Eng. Review & Approval	28	20JAN06	16FEB06	03MAY05	30MAY05																	
NB1220	Noise Encl' - P8 to P11 - Materials Purchasing	65	17FEB06	05MAY06	31MAY05	16AUG05																	
NB1300	Noise Encl' - ENT Approach - Design & Shop Dwgs.	23	07JUL05A	25JAN06	07JUL05A	08JUL05																	
NB1310	Noise Encl' - ENT Approach - Eng. Review & Appro	28	20JAN06	16FEB06	04JUL05	31JUL05																	
NB1320	Noise Encl' - ENT Approach - Material Purchasing	100	17FEB06	15JUN06	01AUG05	28NOV05																	
NB2000	Noise Barriers - PA to P4 - Design & Shop Dwgs.	82	19AUG05A	23JAN06	19AUG05A	03FEB06																	
NB2010	Noise Barriers - PA to P4 - Eng. Review & Appro'	28	20JAN06	16FEB06	29JAN06	25FEB06																	

Start Date  
Finish Date  
Data Date

23SEP03  
04OCT08  
20JAN06

P3 File : LU28

Sheet 2 of 18

Highways Department Contract No. HY/2003/01  
Route 8 - Lai Chi Kok Viaduct  
3 month Rolling Programme  
From 20 January 2006



Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish	2006																
							JAN			FEB			MAR			APR							
							16	23	30	6	13	20	27	6	13	20	27	3	10	17	24		
NB2020	Noise Barriers - PA to P4 - Materials Purchasing	95	20FEB06	12JUN06	28FEB06	21JUN06																	
NB2100	Noise Barriers - P5 to P8 - Design & Shop Dwgs.	147	05SEP05A	23JAN06	05SEP05A	23JAN06																	
NB2110	Noise Barriers - P5 to P8 - Eng. Review & Appro'	115	20JAN06	14MAY06	20JAN06	14MAY06																	
NB2120	Noise Barriers - P5 to P8 - Materials Purchasing	163	13FEB06	26AUG06	13FEB06	26AUG06																	
NB2200	Noise Barriers - P11 to P13 - Design & Shop Dwgs	82	20JUL05A	23JAN06	20JUL05A	13FEB06																	
NB2210	Noise Barriers - P11 to P13 -Eng Review & Approv	44	20JAN06	04MAR06	10FEB06	25MAR06																	
NB2220	Noise Barriers - P11 to P13 - Materials Purchase	82	21FEB06	29MAY06	14MAR06	19JUN06																	
NB2300	Noise Barriers - ENT Approach -Des'n & Shop Dwgs	82	24AUG05A	07FEB06	24AUG05A	07MAR06																	
NB2310	Noise Barriers - ENT Approach -Eng Rev & Approv	28	20JAN06	16FEB06	21FEB06	20MAR06																	
NB2320	Noise Barriers - ENT Approach -Material Purchase	70	17FEB06	11MAY06	21MAR06	12JUN06																	
NB2400	Noise Barriers - Slip Rd. C - Design & Shop Dwgs	82	20JAN06*	01APR06	09DEC05	21FEB06																	
NB2410	Noise Barriers - Slip Rd. C - Eng Rev & Approv	28	05MAR06	01APR06	25JAN06	21FEB06																	
NB2420	Noise Barriers - Slip Rd. C - Material Purchase	70	04APR06	26JUN06	22FEB06	16MAY06																	
NB2500	Noise Barriers - Slip Rd. D - Design & Shop Dwgs	82	11JUL05A	23JAN06	11JUL05A	28FEB06																	
NB2510	Noise Barriers - Slip Rd. D - Eng Rev & Approv	28	20JAN06	16FEB06	26FEB06	25MAR06																	
NB2520	Noise Barriers - Slip Rd. D - Material Purchase	105	21FEB06	26JUN06	30MAR06	04AUG06																	
<b>Movement Joints</b>																							
MJ1005	Engineer's approval of Proprietary Type of M.J	0	20JAN06		21JAN06																		
MJ1010	Detailed Design & Shop Drawings	75	20JAN06	21APR06	21JAN06	22APR06																	
<b>Signage</b>																							
SG1020	Sign Gantries - Review/Appro of Design & S/Dwgs.	24	28FEB06	27MAR06	09AUG05	05SEP05																	
SG1030	Sign Gantries - Off-Site Fabrication of Gantries	75	28MAR06	26JUN06	06SEP05	05DEC05																	
SG2000	Signage - Award of Sub-contract	0	20JAN06		18FEB05																		
SG2010	Signage - Shop Drawings	50	20JAN06	22MAR06	18FEB05	18APR05																	
SG2020	Signage - Review & Approval of Shop Drawings.	24	23MAR06	20APR06	19APR05	17MAY05																	
<b>High Mast Lighting</b>																							
HM1010	High Mast Lighting - Approval of Found'n Design	24	28FEB06	27MAR06	04NOV05	01DEC05																	
HM1100	High Mast Lighting - Mast Design & Shop Drawings	48	20JAN06	20MAR06	15JUL05	08SEP05																	
HM1110	High Mast Lighting - Approval of Mast Design	56	21MAR06	15MAY06	09SEP05	03NOV05																	
<b>Viaduct - Main Line - Piers PA to P6</b>																							
<b>Substructure</b>																							
MS0100	PA/L - Install Bearings	6	20JAN06	26JAN06	06JUN05	13JUN05																	
MS0110	PA/R - Install Bearings	6	27JAN06	06FEB06	26JUL05	01AUG05																	

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Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish	2006														
							JAN			FEB			MAR			APR					
							16	23	30	6	13	20	27	6	13	20	27	3	10	17	24
MS1112	P1/R - Temporary Props for Spans - Founds	4	20JAN06	24JAN06	15JUL05	19JUL05	■ MS1112														
MS1114	P1/R - Temporary Props for Spans - Towers	4	25JAN06	28JAN06	20JUL05	23JUL05	■ MS1114														
MS1116	P1/R - Remove Temporary Props for Spans - Towers	4	02MAR06	06MAR06	25SEP08	29SEP08	□ MS1116														
MS1118	P1/R - Remove Temporary Props for Spans - Towers	4	07MAR06	10MAR06	30SEP08	04OCT08	□ MS1118														
<b>Main Line - Segmental Deck Construction (Crane)</b>																					
MD1130	PA/L - 9 Segments Type B on Scaffold	6	20FEB06	25FEB06	14JUN05	20JUN05	■ MD1130														
MD1135	PA/L to P1/L - Insitu Stitch	3	27FEB06	01MAR06	21JUN05	23JUN05	■ MD1135														
MD1020	P4/R - 1st. Pair - 2 Segments Type C	6	20JAN06	26JAN06	22JUN05	28JUN05	■ MD1020														
MD1010	P5/R - 1st. Pair - 1 Type C & 1 Type B	6	27JAN06	06FEB06	29JUN05	06JUL05	■ MD1010														
MD1000	P5 (B4) Slip B - 1st. Pair - 2 Segments Type B	6	07FEB06	13FEB06	07JUL05	13JUL05	■ MD1000														
MD1055	P1/R - 30 Segments Type C	15	20JAN06	09FEB06	15JUL05	01AUG05	■ MD1055														
MD1060	PA/R - 9 Segments Type C on Scaffold	6	20FEB06	25FEB06	02AUG05	08AUG05	■ MD1060														
MD1062	PA/R to P1/R - Insitu Stitch	3	27FEB06	01MAR06	13AUG05	16AUG05	■ MD1062														
<b>Main Line - Segmental Deck Const'n (Lift Frames)</b>																					
MD1065	P1/R to P2/R - Insitu Stitch	3	10FEB06	13FEB06	14SEP05	16SEP05	■ MD1065														
MD1036	P2/R to P3/R - Insitu Stitch	3	20JAN06	23JAN06	23MAR05	25MAR05	■ MD1036														
MD1025	P4/R - 28 Segments Type C	12	27JAN06	13FEB06	31AUG05	13SEP05	■ MD1025														
MD1034	P3/R to P4/R) - Insitu Stitch	3	14FEB06	16FEB06	14SEP05	16SEP05	■ MD1034														
MD1005	P5 (B4) Slip B - 22 Segments Type B	10	14FEB06	24FEB06	14JUL05	25JUL05	■ MD1005														
MD1007	P5/R (B4) Slip B to P6 Slip B - Insitu Stitch	3	25FEB06	28FEB06	26JUL05	28JUL05	■ MD1007														
MD1008	P5/R (B4) Slip B to B3 - Insitu Stitch	3	01MAR06	03MAR06	29JUL05	01AUG05	■ MD1008														
MD1015	P5/R - 11 Type C & 11 Type B	10	25FEB06	08MAR06	23SEP05	05OCT05	■ MD1015														
MD1017	P5/R to P6/R - Insitu Stitch	3	09MAR06	11MAR06	06OCT05	08OCT05	■ MD1017														
MD1033	P4/R to P5/R - Insitu Stitch	3	13MAR06	15MAR06	29OCT05	01NOV05	■ MD1033														
<b>Superstructure Finishing Works Required for TCSS</b>																					
MF1000	PA to P6 - Parapets PA/L to P3/L (incl earthing)	48	02MAR06	27APR06	24JUN05	19AUG05	■ MF1000														
MF1015	PA to P6 - Insitu Slab to Under Median Barrier	36	18FEB06	31MAR06	22OCT05	02DEC05	■ MF1015														
MF1017	PA to P6 - Median Barrier (incl earthing)	36	11MAR06	22APR06	12NOV05	23DEC05	■ MF1017														
<b>Viaduct - Slip Road A</b>																					
<b>Substructure</b>																					
AS1050	Abutment A - Install Bearings	2	20JAN06	21JAN06	21JAN06	23JAN06	□ AS1050														

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Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish	2006											
							JAN			FEB			MAR			APR		
							16	23	30	6	13	20	27	6	13	20	27	3
<b>Viaduct - Slip Road B</b>																		
<b>Main Line - Segmental Deck Const'n (Lift Frames)</b>																		
BD1035	B3 - 28 seg Type B	12	14JAN06A	24JAN06	14JAN06A	13JUL05	BD1035											
BD1045	B2 - B3 Insitu Stitch	3	25JAN06	27JAN06	05AUG05	08AUG05	BD1045											
<b>Superstructure Finishing Works Required for TCSS</b>																		
BF1010	Slip Rd.B to P7 - Parapets East Face (incl earth)	75	05APR06	04JUL06	09AUG05	07NOV05										BF1010		
<b>At Grade Works - Lai Po Road</b>																		
<b>Temporary Traffic Management Schemes</b>																		
WT3100	3rd. TTMS Lai Po Road - Prepare for Review	18	20JAN06	13FEB06	23APR05	14MAY05	WT3100											
WT3110	3rd. TTMS Lai Po Road - CRE Endorsement	6	21FEB06	27FEB06	25JUN05	02JUL05	WT3110											
WT3120	3rd. TTMS Lai Po Road - Roadworks Advice	6	28FEB06	06MAR06	04JUL05	09JUL05	WT3120											
WT3130	3rd. TTMS Lai Po Rd - Site Preparation for Divsn	18	07MAR06	27MAR06	11JUL05	30JUL05	WT3130											
WT4010	TTMS Deck Erect'n @ Rd D S/B - CRE Endorsement	6	20JAN06	26JAN06	12SEP08	18SEP08	WT4010											
WT4020	TTMS Deck Erect'n @ Rd D S/B - Roadworks Advice	6	27JAN06	06FEB06	19SEP08	26SEP08	WT4020											
WT4030	TTMS Deck Erect'n @ Rd D S/B - Site Preparation	6	07FEB06	13FEB06	27SEP08	04OCT08	WT4030											
WT4040	TTMS Deck Erect'n @ Rd D S/B - Implementation	38*	20JAN06	08MAR06	22JUN05	05OCT05	WT4040											
<b>Earthworks &amp; Slope Works</b>																		
WE1030	Lai Po Road S/B - Remove Segment Storage Area	6	20JAN06	26JAN06	27OCT05	02NOV05	WE1030											
WE2000	Lai Po Road S/B - Fill to Embankment	24	07MAR06	04APR06	26MAR05	23APR05	WE2000											
<b>Retaining Wall LCK-R2</b>																		
WW2020	Ret. Wall LCK-R2 - Walls	42	20JAN06	13MAR06	12FEB05	01APR05	WW2020											
<b>Drainage Works</b>																		
WA2100	Lai Po Road S/B -Ramp @ Slip Rd B Storm Drainage	18	28MAR06	18APR06	16JUN05	07JUL05	WA2100											
WA2200	Lai Po Road S/B - Stormwater Drainage	36	28MAR06	10MAY06	18APR05	30MAY05	WA2200											
<b>Utilities &amp; Roadworks</b>																		
WR2000	Lai Po Road S/B @ Ramp to Slip Rd B - Formation	6	19APR06	25APR06	08JUL05	14JUL05	WR2000											
WR3000	High Mast Lighting (3 No. Mast) - Foundations	36	05APR06	17MAY06	02DEC05	14JAN06	WR3000											
<b>Kiosk at Lai Wan Interchange</b>																		
WK1000	Kiosk at Lai Wan Interchange - Structure	48	02MAR06	27APR06	17AUG05	14OCT05	WK1000											
<b>Lai Po Road Fire Hydrant Pump House</b>																		
WH1000	Lai Po Rd. F/H Pump House - Plate Load Test	6	27JAN06	06FEB06	22JUL06	28JUL06	WH1000											
WH1010	Lai Po Rd. F/H Pump House - Structure	24	07MAR06	04APR06	31JUL06	26AUG06	WH1010											

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Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish	2006																				
							JAN			FEB			MAR			APR											
							16	23	30	6	13	20	27	6	13	20	27	3	10	17	24						
MT3220	3rd. TTMS Kom Tsun Street - Roadworks Advice	6	28FEB06	06MAR06	10OCT05	17OCT05																					
MT3230	3rd. TTMS Kom Tsun Street - Site Preparation	28	07MAR06	08APR06	18OCT05	18NOV05																					
MT4110	TTMS Deck Erect'n @ B.V. Rd - CRE Endorsement	6	19JUL05A	26JAN06	19JUL05A	04SEP08																					
MT4120	TTMS Deck Erect'n @ B.V. Rd - Roadworks Advice	12	27JAN06	13FEB06	05SEP08	18SEP08																					
MT4130	TTMS Deck Erect'n @ B.V. Rd - Site Preparation	12	14FEB06	27FEB06	19SEP08	04OCT08																					
<b>Utilities &amp; Roadworks</b>																											
SR4000	Kwai Chung Road (Pier 7) - Reinstatement	24	20JAN06	20FEB06	20DEC05	18JAN06																					
SR2000	Castle Peak Road - Roadworks Reinstatement	17	20JAN06	11FEB06	24OCT05	11NOV05																					
SR4500	B.V. Rd. - P8 to P9 - New CLP 11Kv Cable Laying	48	16FEB06	13APR06	11MAY05	07JUL05																					
SR4510	B.V. Rd. - P9 to P10 - New CLP 11Kv Cable Laying	48	16FEB06	13APR06	11MAY05	07JUL05																					
SR5000	Butterfly Valley Rd Stage1 - Excav. & Formation	24	16FEB06	15MAR06	11MAY05	07JUN05																					
SR5010	Butterfly Valley Rd Stage1 - Sub-base	36	27FEB06	10APR06	31MAY05	13JUL05																					
SR5020	Butterfly Valley Rd Stage1 - Kerbs	24	20MAR06	17APR06	22JUN05	20JUL05																					
SR5030	Butterfly Valley Rd Stage1 - Pavement	9	18APR06	27APR06	21JUL05	30JUL05																					
SR3200	Kom Tsun Street Bus Stn. - Excavate & Formation	18	30MAR06	20APR06	24JUN05	15JUL05																					
SR3210	Kom Tsun Street bus Stn. - Sub-base	18	14APR06	05MAY06	09JUL05	29JUL05																					
SR3000	Kom Tsun Street L/H C/Way - Excavate & Formation	12	30MAR06	13APR06	14SEP05	28SEP05																					
SR3010	Kom Tsun Street L/H C/Way - Sub-base	12	14APR06	27APR06	29SEP05	14OCT05																					
<b>Viaduct - Main Line - Piers P11 to P15</b>																											
<b>Substructure</b>																											
MS3115	P12 - Bearings	7	20JAN06	27JAN06	26SEP08	04OCT08																					
MS3178	P13 - Remove Temporary Props for Spans - Founds	2	12JAN06A	20JAN06	12JAN06A	17OCT05																					
<b>Main Line - Segmental Deck Construction (Gantry)</b>																											
MD3050	Launch Gantry back to P12/P13/14	1	20JAN06	20JAN06	04OCT08	04OCT08																					
MD3090	Launch Gantry to P14/P15/P16	1	20JAN06	20JAN06	17SEP05	17SEP05																					
MD3105	P15/L & R - 60 Segments Type A	19	20JAN06	14FEB06	26JUL05	16AUG05																					
MD3107	P14/L&R to P15/L&R - Insitu Stitches	2	15FEB06	16FEB06	20SEP05	21SEP05																					
MD4000A	Launch Gantry to P15/P16/P17	2	15FEB06	16FEB06	17AUG05	18AUG05																					
<b>Superstructure Finishing Works Required for TCSS</b>																											
MF3000	P11 to P15 - Parapets P10 to P12 (incl earthing)	36	23MAR06	05MAY06	05OCT05	16NOV05																					
MF3005	P11 to P15 - Parapets P12 to P14 (incl earthing)	36	05APR06	17MAY06	18OCT05	28NOV05																					
MF3010	P11 to P15 - Parapets P14 to P16 (incl earthing)	36	17APR06	29MAY06	29OCT05	09DEC05																					
MF3015	P11 to P15 - Insitu Slab to Under Median Barrier	48	21MAR06	17MAY06	17AUG05	14OCT05																					

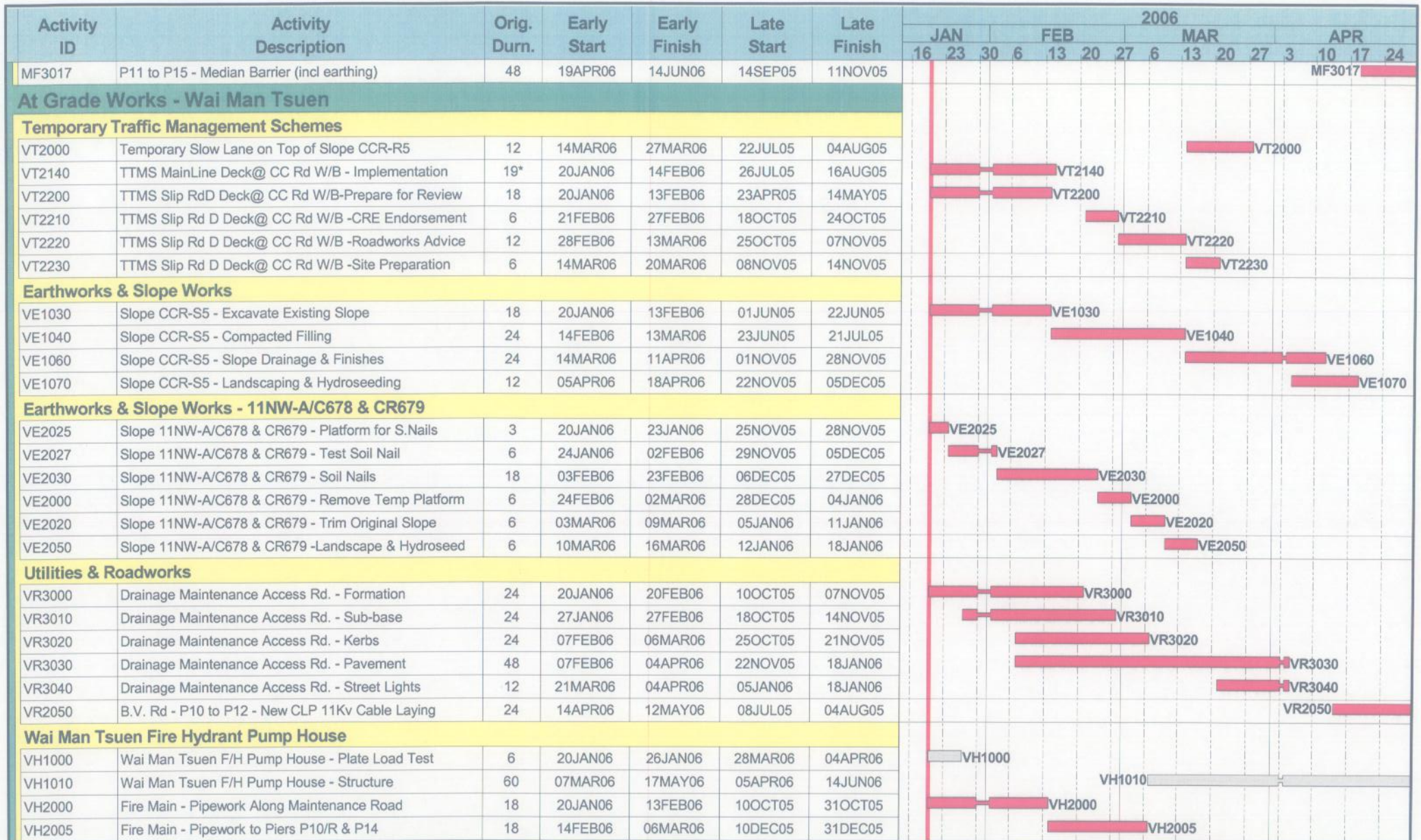
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**Route 8 - Lai Chi Kok Viaduct**  
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							JAN			FEB			MAR			APR					
							16	23	30	6	13	20	27	6	13	20	27	3	10	17	24
VH2010	Fire Main - Valves & Connections	18	07MAR06	27MAR06	03JAN06	23JAN06	VH2010														
<b>Landscape Works</b>																					
VX1000	Landscaping - Earthworks & Formation	24	05APR06	03MAY06	22NOV05	19DEC05	VX1000														
<b>Viaduct - Main Line - Piers P16 to P18</b>																					
<b>Substructure</b>																					
MS4055	P16/L - Install Bearings	6	20JAN06	26JAN06	12SEP05	17SEP05	MS4055														
MS4115	P16/R - Install Bearings	6	20JAN06	26JAN06	12SEP05	17SEP05	MS4115														
MS4225	P17/L & P17/R - Cure & Strike Form/Falsework	24	21DEC05A	21JAN06	21DEC05A	20JUN05	MS4225														
<b>Main Line - Segmental Deck Construction (Crane)</b>																					
MD4095	P18 Slip D - 22 Segments Type B	11	20JAN06	04FEB06	30AUG05	10SEP05	MD4095														
MD4030	P17 Slip C - 1st. Pair - 2 Segments Type B	6	04FEB06	10FEB06	15OCT05	21OCT05	MD4030														
MD4035	P17 Slip C - 16 Segments Type B	7	11FEB06	18FEB06	22OCT05	29OCT05	MD4035														
MD4040	C6 Slip C - 3 Segments Type B	2	27MAR06	28MAR06	28NOV05	29NOV05	MD4040														
<b>Main Line - Segmental Deck Const'n (Lift Frames)</b>																					
MD4085	P18/R - 20 Segments Type A	10	06JAN06A	20JAN06	06JAN06A	29OCT05	MD4085														
MD4115A	P18 Slip C - 2nd-4th. Pairs -6 Segments Type B	3	20JAN06	23JAN06	03OCT05	05OCT05	MD4115A														
MD4115	P18 Slip C - 5th-14th Pairs - 20 Segments Type B	7	24JAN06	03FEB06	06OCT05	14OCT05	MD4115														
<b>Main Line - Segmental Deck Construction (Gantry)</b>																					
MD4010	P16 - 1st. Pair - 2 Segments Type A	6	27JAN06	06FEB06	20SEP05	26SEP05	MD4010														
MD4015	P16 - 18 Segments Type A	6	22FEB06	28FEB06	27SEP05	04OCT05	MD4015														
MD4017	P15/L&R to P16/L&R - Insitu Stitches	2	01MAR06	02MAR06	05OCT05	06OCT05	MD4017														
MD4050	P17/L - 1st. Pair - 2 Segments Type A	6	17FEB06	23FEB06	22SEP05	28SEP05	MD4050														
MD4060	P17/R - 1st. Pair - 2 Segments Type A	6	18FEB06	24FEB06	23SEP05	29SEP05	MD4060														
MD4055	P17/L - 16 Segments Type A	12	03MAR06	16MAR06	07OCT05	21OCT05	MD4055														
MD4065	P17/R - 22 Segments Type A	12	03MAR06	16MAR06	14OCT05	27OCT05	MD4065														
MD4056	P17/L&R to P18/L&R - Insitu Stitches	3	17MAR06	20MAR06	31OCT05	02NOV05	MD4056														
MD4057	P16/L to P17/L - Insitu Stitch	3	17MAR06	20MAR06	09NOV05	11NOV05	MD4057														
MD4067	P16/R to P17/R - Insitu Stitch	3	17MAR06	20MAR06	09NOV05	11NOV05	MD4067														
MD4018	Delivery of Segments at P17 Slip C	5	17MAR06	22MAR06	28OCT05	02NOV05	MD4018														
MD4019	Gantry Modifications	0	23MAR06	22MAR06	03NOV05	02NOV05	MD4019														
MD4019A	CLP SHUT DOWN POWER - O/HEAD LINES NORTH &	0	20JAN06*		03NOV05		MD4019A														
MD4020	Launch Gantry to P16/P17/P18 UNDER CLP O/H LINES	2	23MAR06	24MAR06	03NOV05	04NOV05	MD4020														

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Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish	2006																		
							JAN			FEB			MAR			APR									
							16	23	30	6	13	20	27	6	13	20	27	3	10	17	24				
<b>Superstructure Finishing Works Required for TCSS</b>																									
MF4005	P16 to P18 - Insitu Slab to Under Median Barrier	36	17MAR06	28APR06	22OCT05	02DEC05																			
MF4007	P16 to P18 - Median Barrier (incl earthing)	36	15APR06	27MAY06	19NOV05	31DEC05																			
<b>Viaduct - Main Line - Piers 19 to Abutment M</b>																									
<b>Substructure</b>																									
MS5095	P20 - 3rd. Site Access from ENT Contractor	0	20JAN06*		05OCT08		◆	MS5095																	
MS5115	P20 - Pier Head - Cure & Strip Falsework	24	06MAR06	01APR06	09DEC05	07JAN06																			
MS5165	P21 - Pier Hammer Head	18	20JAN06	13FEB06	08OCT05	29OCT05																			
MS5170	P21 - Pier Insitu Deck Segment	42	14FEB06	04APR06	31OCT05	17DEC05																			
MS5175	P21 - Pier Head - Cure & Strip Falsework	30	05APR06	10MAY06	19DEC05	24JAN06																			
MS5225	Abutment M - Slope Reinstatement	12	20JAN06	06FEB06	20FEB06	04MAR06																			
MS5230	Abutment M - Install Bearings	6	22MAR06	28MAR06	06MAR06	11MAR06																			
<b>Main Line - Segmental Deck Construction (Crane)</b>																									
MD5010	P19 Slip C - 1st. Pair - 2 Segments Type B	6	20FEB06	25FEB06	03JAN06	09JAN06																			
MD5020	P19/L - 1st. Pair - 2 Segments Type A	6	28FEB06	06MAR06	06JAN06	12JAN06																			
MD5030	P19/R - 1st. Pair - 2 Segments Type A	6	28FEB06	06MAR06	06JAN06	12JAN06																			
MD5040	P19 Slip D - 1st. Pair - 2 Segments Type B	6	27FEB06	04MAR06	06JAN06	12JAN06																			
<b>Main Line - Segmental Deck Construction (Gantry)</b>																									
MD4025	Launch Gantry to P17/P18/P19 UNDER CLP O/H LINES	1	25MAR06	25MAR06	14NOV05	14NOV05																			
MD5000	Launch Gantry to P18/P19/P20 UNDER CLP O/H LINES	1	04APR06	04APR06	09JAN06	09JAN06																			
MD4107	CLP RESUME POWER - O/HEAD LINES NORTH &	0		22MAR06		09JAN06*																			
MD5015	P19 Slip C - 18 Segments Type B	8	07APR06	15APR06	12JAN06	20JAN06																			
MD5022	P19/L - 16 Segments Type A	8	08APR06	17APR06	13JAN06	21JAN06																			
MD5035	P19/R - 18 Segments Type A	8	08APR06	17APR06	13JAN06	21JAN06																			
MD5045	P19 Slip D - 14 Segments Type B	8	07APR06	15APR06	13JAN06	21JAN06																			
MD5055	P19/L&R to P18/L&R - Insitu Stitches	2	18APR06	19APR06	23JAN06	24JAN06																			
MD5060	P20 Slip D - 1st. Pair - 2 Segments Type B	6	07APR06	13APR06	21JAN06	27JAN06																			
MD5070	P20/R - 1st. Pair - 2 Segments Type A	6	05APR06	11APR06	10JAN06	16JAN06																			
MD5080	P20/L - 1st. Pair - 2 Segments Type A	6	05APR06	11APR06	20JAN06	26JAN06																			
MD5090	P20 Slip C - 1st. Pair - 2 Segments Type A	6	10APR06	15APR06	23JAN06	28JAN06																			

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Highways Department Contract No. HY/2003/01  
Route 8 - Lai Chi Kok Viaduct  
3 month Rolling Programme  
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Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish	2006														
							JAN			FEB			MAR			APR					
							16	23	30	6	13	20	27	6	13	20	27	3	10	17	24
<b>At Grade Works - Butterfly Valley</b>																					
<b>Temporary Traffic Management Schemes</b>																					
QT2010	TTMS MainLine Deck@ CC Rd E/B - CRE Endorsement	6	20JAN06	26JAN06	27JUL05	02AUG05	QT2010														
QT2020	TTMS MainLine Deck@ CC Rd E/B - Roadworks Advice	6	27JAN06	06FEB06	03AUG05	09AUG05	QT2020														
QT2030	TTMS MainLine Deck@ CC Rd E/B - Site Preparation	6	07FEB06	13FEB06	10AUG05	16AUG05	QT2030														
QT2040	TTMS MainLine Deck@ CC Rd E/B - Implementation	14*	15FEB06	02MAR06	17AUG05	06OCT05	QT2040														
QT2100	TTMS Slip RdD Deck@ CC Rd E/B-Prepare for Review	18	20JAN06	13FEB06	12SEP08	04OCT08	QT2100														
QT2110	TTMS Slip Rd D Deck@ CC Rd E/B - CRE Endorsement	6	21FEB06	27FEB06	17AUG05	23AUG05	QT2110														
QT2120	TTMS Slip RdD Deck@ CC Rd E/B - Roadworks Advice	12	28FEB06	13MAR06	24AUG05	06SEP05	QT2120														
QT2130	TTMS Slip RdD Deck@ CC Rd E/B - Site Preparation	6	16MAR06	22MAR06	09SEP05	15SEP05	QT2130														
<b>Earthworks &amp; Slope Works - 11NW-A/FR54 &amp; F55</b>																					
QE2000	Slope 11NW-A/FR54 & FR55 - Remove Temp. Platform	18	23JAN06	15FEB06	21JUN05	12JUL05	QE2000														
QE2002	Slope 11NW-A/FR54 & FR55 - Retaining Wall -Bases	36	16FEB06	29MAR06	13JUL05	23AUG05	QE2002														
QE2004	Slope 11NW-A/FR54 & FR55 - Retaining Wall -Walls	48	16MAR06	12MAY06	10AUG05	06OCT05	QE2004														
QE2010	Slope 11NW-A/FR54 & FR55 - Install Temp Works	48	07MAR06	03MAY06	20JUL05	13SEP05	QE2010														
<b>Utilities &amp; Roadworks</b>																					
QR1060	WSD Access Road - Permanent C/Way P18 to P19	36	20JAN06	06MAR06	10OCT05	21NOV05	QR1060														
QR1070	WSD Access Road - Make Good Existing C/Way	24	07MAR06	04APR06	22NOV05	19DEC05	QR1070														
QR2000	WSD Access Road - New CLP 11Kv Cable Laying	36	14APR06	26MAY06	29JUL05	08SEP05	QR2000														
<b>Landscape Works</b>																					
QX1010	Landscaping - Footpath Paving	24	05APR06	03MAY06	20DEC05	18JAN06	QX1010														
QX1020	Landscaping - Soiling & Planting on Slope CCR-S6	75	20JAN06*	21APR06	21OCT05	18JAN06	QX1020														
<b>Viaduct - Slip Road C</b>																					
<b>Substructure</b>																					
CS1150	Abutment C - Install Bearings	6	22MAR06	28MAR06	27SEP08	04OCT08	CS1150														
CS1445	C5/L - C5/R Portal - Cure & Strike Form/Falsewk	14	19JAN06A	03FEB06	19JAN06A	21JUL05	CS1445														
CS1447	C5/L - C5/R Portal - Install Bearings	6	04FEB06	10FEB06	22JUL05	28JUL05	CS1447														
CS1555	C6/R & C6/L - Install Bearings on Portal Frame	4	22MAR06	25MAR06	12SEP05	15SEP05	CS1555														
<b>Slip Road C - Insitu Deck Construction</b>																					
CD1026	Slip Rd. C - Deck Span Abut.C to C2 - 1st. Pour	24	07JAN06A	27JAN06	07JAN06A	09SEP05	CD1026														
CD1028	Slip Rd. C - Deck Span Abut.C to C2 - 2nd. Pour	24	28JAN06	28FEB06	10SEP05	10OCT05	CD1028														
CD1029	Slip Rd. C - Deck Span Abut.C to C3 - Stressing	6	01MAR06	07MAR06	12OCT05	18OCT05	CD1029														

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Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish	2006													
							JAN			FEB			MAR			APR				
							16	23	30	6	13	20	6	13	20	27	3	10	17	24
CD1030	Slip Rd. C - Deck Span C3 to C4 - Ground Prep.	12	20JAN06	06FEB06	23JUL05	05AUG05	CD1030													
CD1032	Slip Rd. C - Deck Span C3 to C4 - Falsework	18	27JAN06	20FEB06	30JUL05	19AUG05	CD1032													
CD1034	Slip Rd. C - Deck Span C3 to C4 - Soffit	24	14FEB06	13MAR06	13AUG05	09SEP05	CD1034													
CD1036	Slip Rd. C - Deck Span C3 to C4 - 1st. Pour	24	07MAR06	04APR06	03SEP05	03OCT05	CD1036													
CD1038	Slip Rd. C - Deck Span C3 to C4 - 2nd. Pour	24	05APR06	03MAY06	04OCT05	01NOV05	CD1038													
CD1040	Slip Rd. C - Deck Span C4 to C5 - Ground Prep.	12	25JAN06	10FEB06	15JUL05	28JUL05	CD1040													
CD1042	Slip Rd. C - Deck Span C4 to C5 - Falsework	12	04FEB06	17FEB06	22JUL05	04AUG05	CD1042													
CD1044	Slip Rd. C - Deck Span C4 to C5 - Soffit	18	11FEB06	03MAR06	29JUL05	18AUG05	CD1044													
CD1046	Slip Rd. C - Deck Span C4 to C5 - 1st. Pour	24	25FEB06	24MAR06	12AUG05	08SEP05	CD1046													
CD1048	Slip Rd. C - Deck Span C4 to C5 - 2nd. Pour	24	25MAR06	22APR06	09SEP05	08OCT05	CD1048													
CD1050	Slip Rd. C - Deck Span C5 to C6 - Ground Prep.	12	11FEB06	24FEB06	12AUG05	25AUG05	CD1050													
CD1052	Slip Rd. C - Deck Span C5 to C6 - Falsework	18	18FEB06	10MAR06	19AUG05	08SEP05	CD1052													
CD1054	Slip Rd. C - Deck Span C5 to C6 - Soffit	24	20MAR06	17APR06	09SEP05	08OCT05	CD1054													
CD1056	Slip Rd. C - Deck Span C5 to C6 - 1st. Pour	24	17APR06	15MAY06	03OCT05	31OCT05	CD1056													
<b>Superstructure Finishing Works Required for TCSS</b>																				
CF1000	Slip Rd. C - Parapets - Abut. C to C2 + earthing	48	09MAR06	05MAY06	29OCT05	23DEC05	CF1000													
CF1010	Slip Rd. C - Parapets C2 to C4 (incl earthing)	36	19APR06	31MAY06	19OCT05	29NOV05	CF1010													
<b>Viaduct - Slip Road D</b>																				
<b>Substructure</b>																				
DS1045	Abutment D - Install Bearings	6	22MAR06	28MAR06	03NOV05	09NOV05	DS1045													
DS1115	D1 - Install Bearings	6	22MAR06	28MAR06	13OCT05	19OCT05	DS1115													
DS1175	D2 - Install Bearings	6	22MAR06	28MAR06	30SEP05	07OCT05	DS1175													
DS1295	D4 - Install Bearings	6	20JAN06	26JAN06	15AUG05	20AUG05	DS1295													
DS1355	D5 - Install Bearings	6	20JAN06	26JAN06	08AUG05	13AUG05	DS1355													
DS1415	D6 - Install Bearings	6	22MAR06*	28MAR06	18OCT05	24OCT05	DS1415													
DS1530	D8 - Pier Head	24	17FEB06	16MAR06	19AUG05	15SEP05	DS1530													
DS1530A	D8 - Pier Head - Insitu Segment	36	17MAR06	28APR06	16SEP05	31OCT05	DS1530A													
DS1592	D9 - Install Bearings	6	22MAR06	28MAR06	09SEP05	15SEP05	DS1592													
DS1655	D10 - Install Bearings	6	22MAR06	28MAR06	02SEP05	08SEP05	DS1655													
<b>Slip Road D - Segmental Deck Const'n (Crane)</b>																				
DD1015	D10 - 22 seg Type B	10	25FEB06	08MAR06	12SEP05	23SEP05	DD1015													
DD1025	D10 to P18 - Insitu Stitch	2	09MAR06	10MAR06	08DEC05	09DEC05	DD1025													
DD1110	D5 - Pierhead Segment - 1 Segment Type B	6	27JAN06*	06FEB06	15AUG05	20AUG05	DD1110													

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Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish	2006																
							JAN			FEB			MAR			APR							
							16	23	30	6	13	20	27	6	13	20	27	3	10	17	24		
DD1115	D5 - 28 seg Type B	7	14FEB06	21FEB06	25OCT05	01NOV05																	
DD1130	D4 - Pierhead Segment - 1 Segment Type B	6	07FEB06	13FEB06	22AUG05	27AUG05																	
DD1135	D4 - 28 Segments Type B	7	17FEB06	24FEB06	01SEP05	08SEP05																	
DD1137	D4 to D5 - Insitu Stitch	3	25FEB06	28FEB06	02NOV05	04NOV05																	
<b>Slip Road D - Segmrental Deck Const'n (L/Frames)</b>																							
DD1090	D6 - Pierhead Segments - 2 Segments Type B	6	29MAR06	05APR06	25OCT05	31OCT05																	
DD1095	D6 - 16 seg Type B	7	10APR06	17APR06	04NOV05	11NOV05																	
DD1117	D5-D6 Insitu Stitch	2	18APR06	19APR06	01DEC05	02DEC05																	
DD1070	D7 - 1st. pair - 2 seg Type B	6	06APR06	12APR06	05NOV05	11NOV05																	
DD1075	D7 - 16 seg Type B	8	18APR06	26APR06	12NOV05	21NOV05																	
<b>Lai Wan Road Overpass</b>																							
<b>Temporary Traffic Management Schemes</b>																							
LT2120	TTMS LW Rd (for W/B Deck) - Roadworks Advice	6	20JAN06	25JAN06	21SEP08	26SEP08																	
LT2130	TTMS LW Rd (for W/B Deck) - Site Preparation	6	26JAN06	04FEB06	27SEP08	04OCT08																	
LT2200	TTMS LW Rd (for E/B Deck) - Prepare for Review	12	20JAN06	06FEB06	23APR05	07MAY05																	
LT2210	TTMS LW Rd (for E/B Deck) - CRE Endorsement	6	21FEB06	26FEB06	15SEP08	20SEP08																	
LT2220	TTMS LW Rd (for E/B Deck) - Roadworks Advice	6	27FEB06	04MAR06	21SEP08	26SEP08																	
LT2230	TTMS LW Rd (for E/B Deck) - Site Preparation	6	06MAR06	11MAR06	27SEP08	04OCT08																	
LT3000	TTMS CC Rd (on W/B Deck) - Prepare for Review	12	20JAN06	06FEB06	23APR05	07MAY05																	
LT3010	TTMS CC Rd (on W/B Deck) - CRE Endorsement	6	21FEB06	26FEB06	24OCT05	29OCT05																	
LT3020	TTMS CC Rd (on W/B Deck) - Roadworks Advice	6	27FEB06	04MAR06	30OCT05	04NOV05																	
LT3030	TTMS CC Rd (on W/B Deck) - Site Preparation	6	06MAR06	11MAR06	05NOV05	11NOV05																	
LT3100	TTMS CC Rd (on E/B Deck) - Prepare for Review	12	20JAN06	06FEB06	23APR05	07MAY05																	
LT3110	TTMS CC Rd (on E/B Deck) - CRE Endorsement	6	21FEB06	26FEB06	16JUL06	21JUL06																	
LT3120	TTMS CC Rd (on E/B Deck) - Roadworks Advice	6	27FEB06	04MAR06	22JUL06	27JUL06																	
LT3200	TTMS CC Rd (on Both Decks) - Prepare for Review	12	21MAR06	04APR06	06DEC05	19DEC05																	
LT3210	TTMS CC Rd (on Both Decks) - CRE Endorsement	6	18APR06	23APR06	04AUG06	09AUG06																	
LT3300	TTMS CC Rd (on Both Decks) - Prepare for Review	12	18APR06	02MAY06	11JAN06	24JAN06																	
<b>West Bound - Substructure</b>																							
LS1235	D13 - Install Bearings	3	20JAN06	23JAN06	10SEP05	13SEP05																	
LS1270	D14 - Backfill & Remove Temporary Works	3	14DEC05A	20JAN06	14DEC05A	04OCT08																	
LS1285	D14 - Install Bearings	6	20JAN06	26JAN06	07SEP05	13SEP05																	
LS1286	Abutment DA2 - Remove Existig Rockfall Fence	3	20JAN06	23JAN06	16MAY05	18MAY05																	

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Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish	2006														
							JAN			FEB			MAR			APR					
							16	23	30	6	13	20	27	6	13	20	27	3	10	17	24
LS1287	Abutment DA2 - Remove Existing Footpath	6	24JAN06	02FEB06	19MAY05	25MAY05															
LS1288	Abutment DA2 - Re-instate Rockfall Fence	3	03FEB06	06FEB06	26MAY05	28MAY05															
LS1290	Abutment DA2 - Utility Trial Trenches	3	03FEB06	06FEB06	26MAY05	28MAY05															
LS1310	Abutment DA2 - Excavation in Rock for Footing	24	07FEB06	06MAR06	30MAY05	27JUN05															
LS1320	Abutment DA2 - Mass Concrete Fill Under Footing	12	07MAR06	20MAR06	28JUN05	12JUL05															
LS1330	Abutment DA2 - Footing	18	21MAR06	11APR06	13JUL05	02AUG05															
LS1340	Abutment DA2 - Bearing Shelf & Walls	24	12APR06	10MAY06	03AUG05	30AUG05															
<b>East Bound - Substructure</b>																					
LS2205	C13 - Install Bearings	6	20JAN06	26JAN06	10AUG05	16AUG05															
LS2220	C14 - Excavate for Footing	12	23FEB06	08MAR06	06JUL05	19JUL05															
LS2230	C14 - Footing & Pier Kicker	12	09MAR06	22MAR06	20JUL05	02AUG05															
LS2240	C14 - Backfill & Remove Temporary Works	4	23MAR06	27MAR06	03AUG05	06AUG05															
LS2250	C14 - Pier (incl. Pier Head)	18	28MAR06	18APR06	08AUG05	27AUG05															
LS2255	C14 - Install Bearings	2	19APR06	20APR06	29AUG05	30AUG05															
LS2260	Abutment CA2 - Excavation in Rock for Footing	12	23FEB06	08MAR06	16JUL05	29JUL05															
LS2270	Abutment CA2 - Footing	12	09MAR06	22MAR06	30JUL05	12AUG05															
LS2280	Abutment CA2 - Bearing Shelf & Walls	24	23MAR06	20APR06	13AUG05	09SEP05															
<b>West Bound - Insitu Deck</b>																					
LD1019	Lai Wan O/pass W/B - Span St. 2 - Stressing	6	20JAN06	26JAN06	05NOV05	11NOV05															
LD1040	Lai Wan O/pass W/B - Demolish F/p for Stage 3	24	20JAN06	20FEB06	03AUG05	30AUG05															
<b>East Bound - Insitu Deck</b>																					
LD2052	Lai Wan O/Pass E/B - Span St.3 - Falsework	18	30NOV05A	02FEB06	30NOV05A	23AUG05															
LD2054	Lai Wan O/Pass E/B - Span St.3 - Soffit	24	07APR06	05MAY06	17AUG05	13SEP05															
<b>At Grade Works - Ching Cheung Road at LCK Park</b>																					
<b>Temporary Traffic Management Schemes</b>																					
NT2050	2nd. TTMS CC Rd (E/B C/Way) - Prepare for Review	12	20JAN06	06FEB06	23APR05	07MAY05															
NT2060	2nd. TTMS CC Rd (E/B C/Way) - CRE Endorsement	6	21FEB06	26FEB06	19OCT06	24OCT06															
NT2070	2nd. TTMS CC Rd (E/B C/Way) - Roadworks Advice	6	27FEB06	04MAR06	25OCT06	30OCT06															
NT2080	2nd. TTMS CC Rd (E/B C/Way) - Site Preparation	6	06MAR06	11MAR06	31OCT06	06NOV06															
NT2100	3rd. TTMS CC Rd (E/B C/Way) - Prepare for Review	12	21MAR06	04APR06	06DEC05	19DEC05															
NT2110	3rd. TTMS CC Rd (E/B C/Way) - CRE Endorsement	6	18APR06	23APR06	20JUL06	25JUL06															
<b>Retaining Wall CCR-R1 West Bound</b>																					
NW1120	W/B Ret. Wall CCR-R1B - Excavate	15	07NOV05A	23JAN06	07NOV05A	18SEP08															

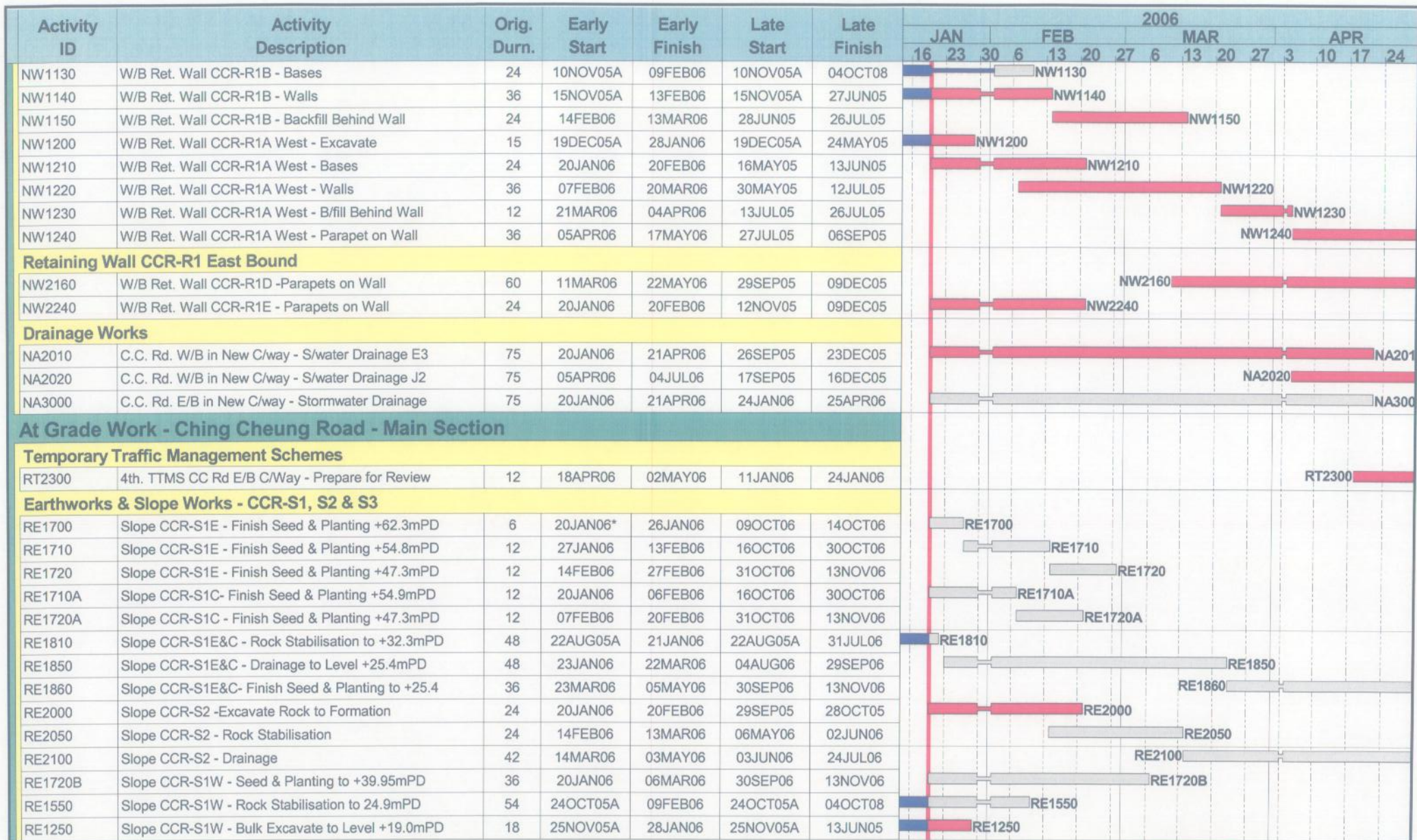
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Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish	2006																
							JAN			FEB			MAR			APR							
							16	23	30	6	13	20	27	6	13	20	27	3	10	17	24		
RE1250A	Slope CCR-S1W -Detailed Excavate to Level +19.0m	18	02FEB06	22FEB06	11AUG06	31AUG06																	
RE1257	Slope CCR-S1W -Platform for Soil Nail R. 1 & 2	6	23FEB06	01MAR06	27SEP08	04OCT08																	
RE1260A	Slope CCR-S1W - Soil Nails (R. 1 & 2) Working	12	20JAN06	06FEB06	08SEP06	21SEP06																	
RE1560	Slope CCR-S1W - Rock Stabilisation to 19.0mPD	48	02FEB06	29MAR06	27JUL06	21SEP06																	
RE1660	Slope CCR-S1W - Drainage to Level +19.0mPD	24	16MAR06	13APR06	08SEP06	07OCT06																	
RE1270	Slope CCR-S1W - Excavate to Lai Wan Road O/pass	18	02FEB06	22FEB06	14JUN05	05JUL05																	
RE16604	Slope CCR-S1W - Drainage to Level +16.8mPD	18	14APR06	05MAY06	09OCT06	30OCT06																	
RE1665	Slope CCR-S1W - Seed & Planting to +32.4mPD	24	20JAN06	20FEB06	11AUG06	07SEP06																	
RE1670	Slope CCR-S1W - Seed & Planting to +24.9mPD	24	21FEB06	20MAR06	08SEP06	07OCT06																	
RE1675	Slope CCR-S1W - Seed & Planting to +19.0mPD	18	14APR06	05MAY06	09OCT06	30OCT06																	
<b>Retaining Wall CCR-R2 (Value Engineering Design)</b>																							
RW1200	Ch 02.13 to 41.71 -Excavate & Rock Stabilisation	36	04APR05A	27JAN06	04APR05A	04OCT08																	
RW1220	Ch 02.13 to 41.71 - Mass Concrete Facing Wall	24	24OCT05A	08FEB06	24OCT05A	07MAY05																	
RW1230	Ch 02.13 to 41.71 - Retaining Wall Base Slabs	12	09FEB06	22FEB06	09MAY05	21MAY05																	
RW1240	Ch 02.13 to 41.71 - Retaining Wall Stem & Coping	27	23FEB06	25MAR06	23MAY05	23JUN05																	
RW1300	Ch 50.71 to 78.27 -Excavate & Rock Stabilisation	24	21OCT05A	25JAN06	21OCT05A	21DEC05																	
RW1320	Ch 50.71 to 78.27 - Mass Concrete Facing Wall	27	26JAN06	01MAR06	22DEC05	24JAN06																	
RW1330	Ch 50.71 to 78.27 - Retaining Wall Base Slabs	12	02MAR06	15MAR06	25JAN06	10FEB06																	
RW1340	Ch 50.71 to 78.27 - Retaining Wall Stem & Coping	24	16MAR06	13APR06	11FEB06	10MAR06																	
RW1400	Ch 00.00 to 02.13 -Excavate & Rock Stabilisation	12	21FEB06	06MAR06	04MAR06	17MAR06																	
RW1420	Ch 00.00 to 02.13 - Mass Concrete Facing Wall	6	07MAR06	13MAR06	18MAR06	24MAR06																	
RW1430	Ch 00.00 to 02.13 - Retaining Wall Base Slabs	6	14MAR06	20MAR06	25MAR06	31MAR06																	
RW1440	Ch 00.00 to 02.13 - Retaining Wall Stem & Coping	16	21MAR06	08APR06	01APR06	20APR06																	
<b>Slope Works Above Retaining Wall CCR-R2</b>																							
RE4000	Ch 00.00 to 78.27 - Excavate in Benches	48	27MAR06	23MAY06	24JUN05	19AUG05																	
RE4010	Ch 00.00 to 78.27 - Filter Layer	48	11APR06	06JUN06	09JUL05	02SEP05																	
<b>Retaining Wall CCR-R3 Type D, E &amp; F</b>																							
RW2070	Ret. Wall CCR-R3E - Break Down Top of Piles	24	20JAN06	20FEB06	20MAY05	17JUN05																	
RW2090	Ret. Wall CCR-R3E - Capping beam	24	27JAN06	27FEB06	27MAY05	24JUN05																	
RW2110	Ret. Wall CCR-R3E - Stem Walls	24	24FEB06	23MAR06	22JUN05	20JUL05																	
RW2190	Ret. Wall CCR-R3F - Break Down Top of Piles	12	03NOV05A	25JAN06	03NOV05A	22SEP08																	
RW2200	Ret. Wall CCR-R3F - Capping beam	12	12NOV05A	08FEB06	12NOV05A	04OCT08																	
RW2210	Ret. Wall CCR-R3F - Stem Walls	12	30NOV05A	02FEB06	30NOV05A	20JUL05																	

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Route 8 - Lai Chi Kok Viaduct  
3 month Rolling Programme  
From 20 January 2006





Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish	2006														
							JAN			FEB			MAR			APR					
							16	23	30	6	13	20	27	6	13	20	27	3	10	17	24
RW2560	Ret. Wall CCR-R3D - 10No Bored Piles Piles	46	04NOV05A	21JAN06	04NOV05A	13APR06	RW2560														
RW2570	Ret. Wall CCR-R3D - Pile Testing	24	20JAN06	20FEB06	30MAR06	27APR06	RW2570														
RW2590	Ret. Wall CCR-R3D - Erect Noise Barriers	12	07FEB06	20FEB06	14APR06	27APR06	RW2590														
RW2600	Ret. Wall CCR-R3D - Break Down Top of Piles	24	21FEB06	20MAR06	28APR06	26MAY06	RW2600														
RW2610	Ret. Wall CCR-R3D - Capping beam	12	21MAR06	04APR06	27MAY06	09JUN06	RW2610														
RW2630	Ret. Wall CCR-R3D - Stem Walls	24	30MAR06	27APR06	06JUN06	05JUL06	RW2630														
<b>Retaining Wall CCR-R3 Type A</b>																					
RW3040	Ret. Wall CCR-R3A - Backfill & Form Platform	18	20JAN06	13FEB06	27SEP05	19OCT05	RW3040														
<b>Retaining Wall CCR-R3 Type B</b>																					
RW4020	Ret. Wall CCR-R3B - Bases	24	03JAN06A	27JAN06	03JAN06A	17AUG05	RW4020														
RW4040	Ret. Wall CCR-R3B - Backfill & Form Platform	18	01MAR06	21MAR06	15SEP05	07OCT05	RW4040														
<b>Retaining Wall CCR-R3 Type C</b>																					
RW5010	Ret. Wall CCR-R3C - Excavation & Blinding	6	15APR06	21APR06	30SEP05	07OCT05	RW5010														
<b>Slope Works Above Retaining Walls CCR-R3D, E &amp; F</b>																					
RE4205	Slope above CCR-R3E&F -Remove Piling Platform	6	24MAR06	30MAR06	21JUL05	27JUL05	RE4205														
RE4207	Slope above CCR-R3E&F -Excavate Slope	12	31MAR06	14APR06	28JUL05	10AUG05	RE4207														
RE4210	Slope above CCR-R3E&F- Filter - Btm. to 1st Berm	6	15APR06	21APR06	11AUG05	17AUG05	RE4210														
<b>Earthworks &amp; Slope Works - CCR-S4</b>																					
RE4268	Slope CCR-S4 - Excavate & Bench Upper Slope	24	03JAN06A	03FEB06	03JAN06A	10FEB06	RE4268														
RE4280	Slope CCR-S4 - Fill and Compact	24	04FEB06	03MAR06	11FEB06	10MAR06	RE4280														
RE4285	Slope CCR-S4 - Form New Access Road at Footpath	24	04FEB06	03MAR06	11FEB06	10MAR06	RE4285														
RE4290	Slope CCR-S4 - Upper Slope Drainage	18	04MAR06	24MAR06	04JUL06	24JUL06	RE4290														
RE4300	Slope CCR-S4 - Upper Slope Finishes	18	25MAR06	15APR06	25JUL06	15AUG06	RE4300														
RE4310	Slope CCR-S4 - Excavate Lower Slope	24	17APR06	15MAY06	25AUG06	21SEP06	RE4310														
<b>Ching Cheung Road NTMM Retaining Wall A</b>																					
RW5990	NNTM Wall A - Excavate to Formation	36	09JAN06A	16FEB06	09JAN06A	19MAY06	RW5990														
RW6000	NNTM Wall A - Bases	12	17FEB06	02MAR06	20MAY06	02JUN06	RW6000														
RW6010	NNTM Wall A - Walls	18	03MAR06	23MAR06	03JUN06	24JUN06	RW6010														
RW6020	NNTM Wall A - Drainage & Fill Behind Walls	12	24MAR06	07APR06	26JUN06	10JUL06	RW6020														
RW6030	NNTM Wall A - Excavate to +20.5mPD	12	08APR06	21APR06	11JUL06	24JUL06	RW6030														
<b>Drainage Works</b>																					
RR1015	1200 dia. Stormwater Diversion at Pier D4	58	21JUN05A	16FEB06	21JUN05A	04OCT08	RR1015														

Start Date  
Finish Date  
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23SEP03  
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20JAN06

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Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish	2006																	
							JAN			FEB			MAR			APR								
							16	23	30	6	13	20	27	6	13	20	27	3	10	17	24			
<b>Utilities &amp; Roadworks</b>																								
RA3070	Ching Cheung Rd. New E/B - Sign Gantry Founds	18	21FEB06	13MAR06	10DEC05	31DEC05																		
RA4000	Ching Cheung Rd. New E/B Slip Road - E&M +TCSS	75	20JAN06	21APR06	26OCT05	23JAN06																		
RA4030	Ching Cheung Rd. New E/B - N/B Founds Base	75	21FEB06	20MAY06	05MAY06	03AUG06																		
RA7000	Lai Wan Road - Watermains & Hydrants FH4 & FH5	24	23MAR06	20APR06	11FEB06	10MAR06																		
<b>At Grade Works - Butterfly Valley Interchange</b>																								
<b>Earthworks &amp; Slopeworks - 11NW-A/C26</b>																								
PE1040	Slope 11NW-A/C26 - Finishing Works	12	20JAN06	06FEB06	31OCT06	13NOV06																		
<b>Retaining Wall CCR-R5 (Pre-bored "H" Piles)</b>																								
PW2150	Ret. Wall CCR-R5 - R.C. Wall CCR-R5A	48	20JAN06	20MAR06	08AUG08	04OCT08																		
PW2040	Ret. Wall CCR-R5 - Stage 1 - Fill Behind Wall	24	20JAN06	20FEB06	05SEP08	04OCT08																		
PW2130	Ret. Wall CCR-R5 - Stage 2 - Install "H" Piles	18	20JAN06	13FEB06	01NOV05	21NOV05																		
PW2225	Ret. Wall CCR-R5 - Complete Coping & Facing	12	14FEB06	27FEB06	22NOV05	05DEC05																		
PW2140	Ret. Wall CCR-R5 - Complete Fill Behind Wall	12	28FEB06	13MAR06	14FEB06	27FEB06																		
PW2230	Ret. Wall CCR-R5 - Slope Works Behind Wall	36	14MAR06	25APR06	30SEP06	13NOV06																		
<b>Retaining Wall CCR-R6 (Pre-bored "H" Piles)</b>																								
PW3037	Ret. Wall CCR-R6 - Temporary Piling Platform	50	20JAN06	22MAR06	02DEC04	31JAN05																		
PW3040	Ret. Wall CCR-R6 - "H" Piles A60-A63 & A1-A23	75	23MAR06	21JUN06	01FEB05	04MAY05																		
<b>Utilities &amp; Roadworks</b>																								
PR1110	CLP Slew 2No.132kva No.5 Behind Wall CCR-R5	18	21DEC05A	28JAN06	21DEC05A	14NOV05																		
<b>Kiosk at Slip Road C</b>																								
PK1000	Kiosk at Slip Rd. C - Structure	24	21FEB06	20MAR06	29OCT05	25NOV05																		
PK1010	Kiosk at Slip Rd. C - Building Finishes	48	21MAR06	17MAY06	26NOV05	23JAN06																		
PK1020	Kiosk at Slip Rd. C - MVAC Installation	24	21MAR06	18APR06	26NOV05	23DEC05																		
PK1030	Kiosk at Slip Rd. C - Electrical Works	24	05APR06	03MAY06	10DEC05	09JAN06																		
PK1040	Kiosk at Slip Rd. C - Drainage Works	24	19APR06	17MAY06	24DEC05	23JAN06																		

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**APPENDIX M  
COMPLAINT LOG**

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## Appendix M - Complaint Log

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
40318	Nob Hill	18 March 2004	<p>Kwai Tsing District Officer (KTDO) recently received a public noise complaint about construction noise generated from the Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project, near Nob Hill, Lai Chi Kok. KTDO referred the complaint to the Highways Department (HyD) on the same day. HyD subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 18 March 2004.</p> <p>The complaint was raised by the Citybase Property Management Ltd. (the management company of Nob Hill) and the Secretary of Nob Hill Owners Committee (Mr. Kevin Tse) about construction noise generated from the R8-LCKV Project at the work areas near Nob Hill. Mr. Kevin Tse mentioned that residents living in Nob Hill have greatly been affected by the noise impacts generating from the R8-LCKV construction works. He also requested relevant government departments to consider installing noise barrier along Ching Cheung Road and to work out possible measures to minimize the noise nuisances to the residents living in the vicinity.</p>	<p>Based on the information provided by the ER, the construction activities conducted in the vicinity of Nob Hill in the period between 2 and 18 March 2004 were:</p> <ul style="list-style-type: none"> <li>▪ Item 1 – Breaking off existing planter and excavate trial trench to expose underground utilities (using one to two backhoes)</li> <li>▪ Item 2 – Erect rock fall fence &amp; forming platform for pre-drilling (using one backhoe and occasionally one crane lorry)</li> <li>▪ Item 4 – Excavate further to expose all underground utilities (using hand tools)</li> <li>▪ Item 5 – Pre-drilling works (using one drilling rig)</li> </ul> <p>Considering the scale of work and the PMEs adopted, the ET believed that the construction noise impact at Nob Hill from the above construction activities of R8-LCKV was not significant.</p> <p>The bored piling work (Item 3) using one crawler crane and one oscillator was started on 19 March 2004, which was two days after the issue date of this complaint, so this activity was not considered in this report.</p> <p>According to the EM&amp;A Manuals, Nob Hill was not selected as Noise Monitoring Location (NML) for the Project. Therefore, no direct noise monitoring data could be provided for the complaint investigation. However, there was no noise level exceedance recorded at the nearby NML (NM4 – Mei Foo Sun Chuen, Phase 5) since the commencement of the project according to ET's inventory.</p> <p>During ET's weekly environmental site inspections on 3, 10, 17 March 2004, no serious noise nuisance induced by the Project works was observed at the sites near Nob Hill.</p> <p>Based on the joint site visit with the representative of HyD, IEC, RSS and ET to the Nob Hill on 30 March 2004, the major noise</p>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				<p>source at Nob Hill was identified as traffic noise on Ching Cheung Road, which is located very close to this building, especially at or above the Podium Floor (i.e. 5/F).</p> <p>Based on the information obtained, this noise complaint is not considered due to the construction activities of the Project. Nevertheless, the Contractor was recommended to adopt good site practice to minimize the construction noise, such as:</p> <ul style="list-style-type: none"> <li>• To space out noisy equipment and position it as far away as possible from the sensitive receivers;</li> <li>• To avoid concurrent uses of noisy equipment near the sensitive area;</li> <li>• To ensure the equipment are maintaining in good operation condition; and</li> <li>• To turned off any idle equipment on site.</li> </ul> <p>Adding to that, ET is proposed to install one to two noise monitoring stations at Nob Hill in order to monitor the noise impact generated from the R8-LCKV Project to the resident of Nob Hill or the nearby buildings.</p>	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
40330	Site Areas near Nob Hill	30 March 2004	<p>Highways Department (HyD) recently received a public noise complaint about construction noise generated from the Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project, near Nob Hill, Lai Chi Kok. HyD referred the complaint to the RSS and subsequently referred to the ET Leader of the Project on 30 March 2004.</p> <p>The complaint was raised by Mr. Yau, the Office of DCV Member Mr. Cheung Wing Shum, regarding the high pitch construction noise generated at the R8-LCKV site which cause serious nuisance to the residents at Mei Foo.</p>	<p>Based on the information provided by the RSS, the Contractor was not aware of any high pitched construction noise arising from plant employed for their works. The noise complaint referred to may be originated from the damage of a gas main valve on the afternoon of 29 March 2004 in the vicinity of the junction of Mai Lai Road with Lai King Hill Road. The high pitched whistle apparently resulted from the damage which was repaired by TownGas in that afternoon.</p> <p>Based on the information obtained, this noise complaint is considered not due to the construction activities of the Project. Nevertheless, the Contractor was recommended to adopt good site practice to minimize the construction noise, such as:</p> <ul style="list-style-type: none"> <li>• To space out noisy equipment and position it as far away as possible from the sensitive receivers;</li> <li>• To avoid concurrent uses of noisy equipment near the sensitive area;</li> <li>• To ensure the equipment are maintaining in good operation condition; and</li> <li>• To turned off any idle equipment on site.</li> </ul>	Closed
40402	Nob Hill	06 April 2004	<p>A public noise complaint was received by the Contractor (NECSO) on 02 April 2004 regarding the noise generated from the Ching Cheung Road Widening Works of the Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project, near Nob Hill, Lai Chi Kok.</p> <p>NECSO referred the complaint to the RSS and subsequently referred to the ET Leader of the Project on 6 April 2004</p>	<p>The complaint was raised by Ms Wong, regarding the noise generated from the Ching Cheung Road Widening Works of the R8-LCKV Project, which cause serious nuisance to her.</p> <p>Based on the information provided by the RSS, the plants employed by the Contractor for carrying out bored piling works in front of Nob Hill should not generate excessive noise. The RSS had also checked against the site records that no piling works was in progress in front of Nob Hill on 1-3 April 2004.</p> <p>According to telephone communication between the complainant (Ms Wong) and the RSS on 8 April 2004, the RSS reported that Ms Wong was not complaining about the construction noise generated by the R8-LCKV Project. She was actually complaining about the traffic noise she anticipated to be generated after completion of widening work at Ching Cheung</p>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				<p>Road in front of Nob Hill.</p> <p>During ET's weekly environmental site inspections on 17, 24 &amp; 31 March 2004 and 7 April 2004, no serious noise nuisance induced by the Project works was observed at the construction sites near Nob Hill.</p> <p>Based on the joint site visit with the representative of HyD, IEC, RSS and ET to the Nob Hill on 30 March 2004, the major noise source at Nob Hill was identified as traffic noise on Ching Cheung Road, which is located very close to this building, especially at or above the Podium Floor (i.e. 5/F).</p> <p>Based on the information obtained, this noise complaint is considered not due to the construction activities of the Project.</p> <p>Nevertheless, the Contractor was recommended to adopt good site practice to minimize the construction noise, such as</p> <ul style="list-style-type: none"> <li>• To space out noisy equipment and position it as far away as possible from the sensitive receivers;</li> <li>• To avoid concurrent uses of noisy equipment near the sensitive area;</li> <li>• To ensure the equipment are maintaining in good operation condition; and</li> <li>• To turned off any idle equipment on site.</li> </ul>	
40710	Pier P7 in Portion E1	10 July 2004	<p>A public complaint was raised on 30<sup>th</sup> June 2004 regarding the washout of muddy water from the site area of the Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project, at Pier P7 onto Lai Chi Kok Road.</p> <p>The complaint was referred to the RSS on 3<sup>rd</sup> July 2004 and subsequently referred to the ET Leader of the Project on 10<sup>th</sup> July 2004.</p>	<p>Based on the information provided by the RSS, the spillage of muddy water was in fact due to a burst in a temporary water pipe being utilized in the piling operations at Pier P7 in Portion E1.</p> <p>Emergency remedial works were undertaken preventing further spillage of muddy water. The remaining ponding water within the works area arising from the burst was all removed from the area on 5<sup>th</sup> July 2004.</p> <p>During ET's weekly environmental site inspection on 14<sup>th</sup> July 2004, no serious water quality nuisance induced by the Project works was observed at the construction sites near Pier P7. It was</p>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
			<p>The complaint was raised by Mr. Chan, regarding the washout of muddy water from the works area of the R8-LCKV Project onto Lai Chi Kok Road. The washout caused nuisance to the drivers utilizing the road, and may also cause danger to the motorbikes.</p>	<p>also noted that the back of profile barriers along the site boundary had been sealed up by cement as preventive measures.</p> <p>During ET's weekly environmental site inspections on 17, 24 &amp; 31 March 2004 and 7 April 2004, no serious noise nuisance induced by the Project works was observed at the construction sites near Nob Hill.</p> <p>Based on the information obtained, the complaint is considered due to the construction activities of the Project. Emergency remedial works had been taken by the Contractor to rectify the situation and preventive measures had also been implemented.</p> <p>Nevertheless, the Contractor was recommended to adopt the following measures to avoid re-occurrence of similar incidents:</p> <ul style="list-style-type: none"> <li>• to enhance surface runoff control measures along the site boundary;</li> <li>• to provide adequate training to the frontline workers; and</li> <li>• to regularly inspect temporary water supply equipment, such as hose pipe to make sure the equipment is in good condition.</li> </ul>	
40809	Ching Cheung Road area near Nob Hill	<p>22-Jul-04 (by EPD)</p> <p>09-Aug-04 (by ET Leader)</p>	<p>EPD received a public noise complaint on 22 July 2004 about construction noise and dust generated from Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project, at the Ching Cheung Road Area near Nob Hill. EPD subsequently referred the complaint to the ET Leader of the Project on 9 August 2004.</p> <p>The complaint was about the construction noise and dust observed at the Ching Cheung Road area near Nob Hill. The locations of the works areas being concerned by the complainant include:</p> <p>1. <b>Area A:</b> Works area between Nob</p>	<p><b>Information Provided by RSS</b> Information (construction activities and equipment adopted) in a 2-week period before the date of complaint, i.e. 7 to 21 July 2004, was obtained from the Resident Site Staff.</p> <p><b>Area A:</b></p> <ul style="list-style-type: none"> <li>▪ Item 1 – Drainage works by using 1 x backhoe;</li> <li>▪ Item 2 – Bored piling works by using 1 x crawler crane, 1 x air compressor, 1 x reverse circulation drill and 1 x power pack;</li> <li>▪ Item 3 – Trial trench excavation by man power;</li> <li>▪ Item 4 – Gas main diversion by 1 x backhoe (performed by TGC's Contractor)</li> </ul> <p><b>Area B:</b> No construction activity was undertaken in the concerned period.</p> <p><b>Review of Environmental Monitoring Results</b></p>	Closed



Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
			<p>Hill and Lai Chi Kok Park Swimming Pool</p> <p>2. <b>Area B:</b> Works area between Ching Cheung Road and Mei Lai Road / Lai Wan Road opposite to Mei Foo Sun Cheung (Phase 5) and Lai Chi Kok Public Library.</p>	<p>The routine monitoring stations, which are in the vicinity of the concerned works areas, include:</p> <p><u>Noise Monitoring</u>            NM4: R/F of Mei Foo Sun Chuen (Phase 5)            NM8a: M/F of Nob Hill            NM8b: 3/F of Nob Hill</p> <p><u>Air Quality (1-hr TSP / 24-hr TSP) Monitoring</u>            AM2: R/F of Lai Chi Kok Sports Centre</p> <p>No Action / Limit level exceedance was identified in July 2004.</p> <p><b>Environmental Site Inspection</b>            During the ET site inspections on 8<sup>th</sup>, 14<sup>th</sup> and 20<sup>th</sup> July 04, no major environmental deficiency with regard to noise and air quality was identified by the auditors.</p> <p><b>Conclusions</b>            Based on the RSS's information, environmental monitoring results as well as the observations made during site inspections, this complaint is considered to be invalid and not due to the construction activities of the Project. Nevertheless, the Contractor was recommended to adopt good site practice to minimize the construction noise and dust impacts, such as:</p> <ul style="list-style-type: none"> <li>• To space out noisy equipment and position it as far away as possible from the sensitive receivers;</li> <li>• To avoid concurrent uses of noisy equipment near the sensitive area;</li> <li>• To ensure the equipment are maintaining in good operation condition;</li> <li>• To turn off any idle equipment on site.</li> <li>• To cover excavated dusty materials by impervious sheeting;</li> <li>• To provide water spray for haul roads, loading/unloading and concrete breaking operations;</li> <li>• To perform wheel wash for every vehicle immediately before leaving the site.</li> </ul>	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
50215	Mei Foo Sun Chuen, Phase 5 (Retaining Wall CC-R3)	15-Feb-05 (by ET Leader)	<p>A public complaint was raised on 8<sup>th</sup> Feb 2005 regarding construction noise from the site area of the Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project near Mei Foo Sun Chuen. The complaint was referred to the Resident Site Staff on 14<sup>th</sup> Feb 2005 and subsequently referred to the ET Leader of the Project on 15<sup>th</sup> Feb 2005.</p> <p>The complaint was raised by a resident in Mei Foo Sun Chuen, regarding the noise generation from the piling work at Retaining Wall CC-R3, adjacent to Po Leung Kuk Tong Nai Kan College.</p>	<p><b>Construction Activities</b></p> <p>During the weekly site inspection on 17 Feb 05, piling work was being conducted at the concerned. The major powered mechanical equipment (PME) in operation included a mobile crane, an air compressor, a reverse circulation drill and a generator.</p> <p>In view of the separation of the site area and the residential building (around 40 m) and also the high traffic noise from Ching Cheung Road as well as Mei Lai Road, the noise generated from the operation of the PME was believed to be insignificant.</p> <p><b>Environmental Monitoring</b></p> <p>The noise monitoring results at Station NM4 (Mei Foo Sun Chuen, Phase 5) for the last 3 months were reviewed in order to evaluate the noise impact from the Project on the noise sensitive receiver. The measured noise levels in last three threes were ranged from 70.8 to 75.8 dB(A). It was observed that the measured noise levels were well within the range of baseline noise levels (69.2 to 75.8 dB(A)).</p> <p>The corrected construction noise levels were found to be ranged from 63.5 to 71.5 dB(A), which were well below the noise criterion of 75 dB(A).</p> <p><b>Conclusions</b></p> <p>Based on the information obtained and the noise monitoring results, this complaint is considered to be invalid and not due to the construction activities of the Project.</p> <p>Nevertheless, the Contractor was recommended to adopt good site practice to minimize the construction noise impacts.</p>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
50322	Seung Lai House, Wah Lai Estate (Slope S1)	11-Mar-05 (by EPD) 22-Mar-05 (by ET Leader)	<p>Environmental Protection Department (EPD) received a public noise complaint on 11 Mar 05 about daytime construction noise generation from R8-LCKV. EPD subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 22 Mar 05.</p> <p>The complaint was raised by a resident of Seung Lai House of Wah Lai Estate, regarding the daytime (0800-1800 hrs) construction noise generated from the slope work and road work of R8-LCKV Project. As advised by EPD, the complainant is living on 20/F or above in Seung Lai House.</p>	<p><b>Construction Activities</b></p> <p>As advised by the RSS, the major construction work during 25 Feb 05 to 11 Mar 05 (2 weeks before the date of complaint) in the vicinity of Wah Lai Estate included excavation work, soil nail work and installation of u-channel and manholes. The major powered mechanical equipment included excavators, drilling machine and air compressor.</p> <p>In view of the separation of the site area (Slope S1) and the Seung Lai House (around 140 m) and also the traffic noise from Ching Cheung Road, the noise generated from the construction activities at Slope S1 was believed to be insignificant.</p> <p><b>Environmental Monitoring</b></p> <p>Ad-hoc noise measurement was conducted at Seung Lai House on 30<sup>th</sup> Mar 05 and the measured noise level (Leq-30min) was 66.9 dB(A), which was well below the criterion for daytime construction noise of 75 dB(A). The construction noise level (with reduction of background noise level) is expected to be even lower.</p> <p><b>Conclusion</b></p> <p>Based on the information obtained and the noise measurement results, this complaint is considered not justifiable. Nevertheless, the Contractor was recommended to adopt good site practice to minimize the construction noise impact.</p>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
50330, 50331, 50404 & 50407	Wah Lai Estate	30-Mar-05, 31-Mar-05, 4-Apr-05 & 7-Apr-05 (by ET Leader via RSS)	<p>Four public complaints were lodged by the residents of Wah Lai Estate regarding the construction noise from the site area of the Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project near Wah Lai Estate. The complaints were referred by the Resident Site Staff to the Environmental Team (ET) Leader on 30<sup>th</sup>, 31<sup>st</sup> March, 4<sup>th</sup> and 7<sup>th</sup> April 2005, respectively.</p>	<p><b>Construction Activities</b></p> <p>The site of concern was likely to be Slope S1, which is around 140 m away from Wah Lai Estate. The major construction work at Slope S1 included trimming of slope, soil nail work and erection of u-channels and step channels.</p> <p><b>Environmental Monitoring</b></p> <p>Ad-hoc noise measurement was conducted at Seung Lai House on 30<sup>th</sup> Mar 05 and 7<sup>th</sup> Apr 05 and the measured noise levels (Leq-30min) were ranged from 66.9 to 69.1 dB(A), which were well below the criterion for daytime construction noise of 75 dB(A). The construction noise level (with reduction of background noise level) is expected to be even lower.</p> <p><b>Conclusion</b></p> <p>Based on the results of the ad-hoc noise measurements at Wah Lai Estate, no exceedance of daytime noise criterion of 75 dB(A) was recorded. The complaints lodged are therefore considered not justifiable.</p> <p><b>Mitigation</b></p> <p>The Contractor agreed to arrange the noisy activities to commence after 8:00 am. This arrangement could effectively reduce the disturbance to the residents within the more sensitive time period (7:00 am to 8:00 am).</p>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
50404-v2	Mei Foo Sun Chuen	4-Apr-05 (by ET Leader via RSS)	A public complaint was raised on 1 <sup>st</sup> April 2005 regarding construction noise from the site area of the Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project near Mei Foo Sun Chuen. The complaint was referred to the Resident Site Staff and the ET Leader on 4 <sup>th</sup> April 2005.	<p><b>Construction Activities</b></p> <p>The site of concern was likely to Retaining Wall CC-R3, adjacent to Po Leung Kuk Tong Nai Kan College. The major construction works at this area included bored piling works and excavation works.</p> <p><b>Environmental Monitoring</b></p> <p>According to the EM&amp;A Manual, Mei Foo Sun Chuen, Phase 5 (NM4) is designated as one of the noise monitoring stations.</p> <p>Since the commencement of the impact monitoring programme, the construction noise levels recorded at this station were all below the noise criterion.</p> <p><b>Conclusion</b></p> <p>Based on the noise monitoring results at Station NM4 (Mei Foo Sun Chuen), no exceedance of daytime noise criterion of 75 dB(A) was recorded since the commencement of the impact monitoring programme. The complaint lodged is therefore considered not justifiable.</p> <p><b>Mitigation</b></p> <p>The Contractor has agreed to arrange the noisy activities to commence after 8:00 am. This arrangement could effectively reduce the disturbance to the residents within the more sensitive time period (7:00 am to 8:00 am). The Contractor also agreed to provide some temporary noise barriers for the noisy machinery if found necessary.</p>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
50613	Mei Foo Sun Chuen	7-Jun-05 (by EPD)  13-Jun-05 (by ET Leader)	<p>According to EPD, the complaint was raised by a resident of Mei Foo Sun Chuen (Block 7, Phase 5) on 7 June 2005. It was about construction dust emitted intermittently from the slope works undertaken on the other side of Mei Lai Road.</p> <p>The complainant was particularly concerned about the fugitive dust emission during rock / concrete breaking activities.</p>	<p><i>Site Activities</i></p> <p>The site of concern was likely to be CCR-R3. Bored piling works and demolition of existing retaining walls were undertaken at this area in the period between 1 and 7 June 2005. It was believed that the demolition of existing retaining wall, which involved concrete breaking, was the activity of concern.</p> <p><i>Observations</i></p> <p>On 1 Jun 05, one of the environmental deficiencies noted by the ET was about fugitive dust emission from breaking activities at CCR-R3. The Contractor was reminded to provide sufficient dust mitigation measures for the breaking works. Immediate action was taken by the Contractor to apply water spray for the works as observed during the audit session.</p> <p>On 9 Jun 05, the breaking works were still being taken at CCR-R3. Water spray as a dust mitigation measure was being adopted by the Contractor during the audit. No observable dust emission was noted from the breaking works or other site activities.</p> <p>On 15 Jun 05, the same area was re-inspected due to the receipt of the complaint from EPD. The demolition works had been finished and no other dust emissive activity was being taken. No other dust source from the construction site was observed during the inspection.</p> <p><i>Conclusion</i></p> <p>Based on the observations noted during our site inspections, this complaint is considered to be valid and related to the construction activities of the Project.</p> <p>However, corrective action had been taken by the Contractor and the situation was found improved during the follow-up inspections.</p>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
50721	Hei Lai House, Wah Lai Estate	21-Jul-05 (by ET Leader)	<p>The complaint was lodged by a resident of Hei Lai House of Wah Lai Estate through a Legislative Council member. The complaint was about construction noise nuisance caused by rock breaking work, which claimed to be started from 8:30am daily, carried out at Ching Cheung Road near Wah Lai Estate.</p> <p>The complainant hoped that the rock breaking work could start later i.e. be carried out from noon to afternoon and the site could be fully enclosed.</p> <p>The Environmental Team (ET) of the Project received the complaint on 21 July 2005 and forwarded it to the Resident Site Staff (RSS) to obtain necessary information.</p>	<p><i>Site Activities</i></p> <p>The slope work at Slope S1 was likely to be the activity of concern. The work at Slope S1 recently included the operation of excavator mounted breakers, excavators and dump trucks.</p> <p>The time period of concern was within normal working hours (7am to 7pm) on a weekday not being a public holiday. The noise criterion is 75 dB(A) for domestic premises.</p> <p><i>Noise Measurement</i></p> <p>Ad-hoc measurements were carried out on the roof of Hei Lai House on 25 July 2005.</p> <p>The results show that the measured noise level is well below the noise criterion of 75 dB(A). The construction noise level (with reduction of background noise) is expected to be even lower.</p> <p><i>Conclusion</i></p> <p>Since the noise measurement results at Wah Lai Estate were below 75 dB(A), the complaint was considered not justifiable.</p> <p>Nevertheless, noise mitigation measures have been implemented by the Contractor to minimize the noise impact arising from the breaking activities:</p> <ol style="list-style-type: none"> <li>1. Employment of silenced-type breakers;</li> <li>2. Temporary noise barriers, attached with sound adsorption materials, were erected to screen the site of breaking from sensitive receivers</li> <li>3. While the permitted hours for construction works are 7am to 7pm on non-holidays, the Contractor has commenced the rock breaking activity after 8:30am.</li> </ol>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
51107	Ching Cheung Road near Mei Foo Sun Chuen	7-Nov-05 (by the ET Leader)	<p>Environmental Protection Department (EPD) received a public complaint about environmental nuisance generated from Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project. EPD subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 7 November 2005.</p> <p>According to EPD, the complaint was raised by a resident of Mei Foo Sun Chuen. The complaint was about dark smoke, dust and noise nuisance caused by the construction work of R8-LCKV near Mei Foo Sun Chuen.</p>	<p>The site of concern was likely to be CCR-S4 and CCR-R3. According to RSS's records, bored piling works and soil nail drilling at CCR-R3, excavation works at CCR-S4 in the concerned period.</p> <p><b>Site Inspection</b></p> <p>After receipt of the complaint, an ad-hoc site inspection was carried by ET on 9 November 2005 and the following observations were made:</p> <ol style="list-style-type: none"> <li>1. Breaking activities were undertaken at CCR-R2 and R3. Continuous water spray was applied by the workers for dust suppression. Movable noise barriers were erected to alleviate the noise impact.</li> <li>2. The haul roads and exposed works areas were observed wet. A water sprinkler was installed at the CCR-S4 for water spraying.</li> <li>3. Most of the slope was shot-creted to avoid wind erosion.</li> <li>4. Bored piling work was carried out near the site exit of CCR-R3. Since bored piling mainly involves handling of wet materials, dust nuisance causing by this type of work is not anticipated. Gas exhaust from the machines was visually clear and no dark smoke was identified.</li> </ol> <p><b>Environmental Monitoring</b></p> <p>Air quality monitoring was conducted at Lai Chi Kok Sports Centre and noise monitoring is conducted at Mei Foo Sun Chuen. No exceedance was recorded for both monitoring.</p> <p><b>Conclusion</b></p> <p>Based on the ad-hoc site inspection and the environmental monitoring results, this complaint was considered not justifiable.</p>	Closed



Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
60118	Lai Po Road near Hoi Lai Estate	18-Jan-06 (by the ET Leader)	<p>Environmental Protection Department (EPD) received a public complaint about environmental nuisance generated from Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project. EPD subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 18 January 2006.</p> <p>According to EPD, the complaint was lodged by a resident of Hoi Ming House of Hoi Lai Estate. The complaint was about construction noise nuisance caused by construction work of R8-LCKV carried out at Lai Po Road near Hoi Lai Estate. The noise nuisance was noted since 14 January 2006 during the periods from 2330 hrs to 0600 hrs.</p>	<p><b>Site Activities</b></p> <p>According to the RSS's records, night works were carried out by the Contractor between 2000 hrs on 14 January 2006 and 0530 hrs on 15 January 2006:</p> <ul style="list-style-type: none"> <li>• Delivery of segment from storage yard near Pier P5/L to Pier 15 for erection;</li> <li>• Stressing to temporary PT bars of segments at Pier B3.</li> </ul> <p>The above night works, which involved operation of tractor, mobile crane, lifting frame and generator, were undertaken under the two construction noise permits CNP no. GW-RW0739-05 and GW-RW0740-05.</p> <p><b>Environmental Monitoring</b></p> <p>In order to evaluate the noise impact onto the residents of Hoi Lai Estate, nighttime noise monitoring was carried out on 18 January 2006 at 23:00. The above monitoring results revealed that the measured noise levels were close to the reference background levels. After correction of the mean background level, all corrected noise levels were below the noise criterion of 55 dB(A).</p> <p><b>Conclusion</b></p> <p>Based on the information collected and the monitoring results, the complaint is considered not justifiable.</p> <p>Nevertheless, the Contractor was reminded to take sufficient noise mitigation measures to minimize the environmental impact on the nearby community.</p>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
60119	Mei Foo Sun Chuen (Phase 5)	18-Jan-06 (by the ET Leader)	<p>Environmental Protection Department (EPD) received a public complaint about environmental nuisance generated from Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project. EPD subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 19 January 2006.</p> <p>According to EPD, the complaint was raised by a resident of Mei Foo Sun Chuen via a Sham Shui Po District Council Member’s Office. The complaint mentioned that residents of Mei Foo Sun Chuen Stage 5 were adversely affected by construction dust caused by the Route 8 work carried out at the slopes adjacent to Ching Cheung Road.</p>	<p><b>Site Activities</b></p> <p>The site of concern was likely to be CCR-S4, CCR-R2 and CCR-R3. According to RSS’s records, site activities included:</p> <ul style="list-style-type: none"> <li>• Trimming of existing rock slope at CCR-S4;</li> <li>• Excavation and rock dowel installation at CCR-R2; and</li> <li>• Construction of cable trough at CCR-R3 by CLP’s contractor.</li> </ul> <p><b>Site Inspection</b></p> <p>After receipt of the complaint, an ad-hoc site inspection was carried by ET on 19 January 2006. No environmental deficiency regarding construction dust was identified during the inspection.</p> <p><b>Environmental Monitoring</b></p> <p>All monitoring results in Jan 06 revealed that no exceedance was recorded for the air quality (1-hr and 24-hr TSP) criteria.</p> <p><b>Contractor’s Action</b></p> <p>The Contractor of R8-LCKV had implemented several dust mitigation measures:</p> <ul style="list-style-type: none"> <li>• Haul roads, exposed slope surface and soil stockpiles were watered regularly by hose pipes and sprinklers;</li> <li>• Idled exposed slope were shot-creted; and</li> <li>• Watering was applied for the dust emissive activities, such as loading and unloading of dusty materials, excavation and breaking works.</li> </ul> <p><b>Conclusion</b></p> <p>Based on the ad-hoc site inspection and the environmental monitoring results, this complaint was considered not justifiable. Nevertheless, the Contractor was reminded to keep on the dust mitigation measures being implemented and step up the measures if necessary.</p>	Closed