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 1.0)

April 2007

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 Exceedancee

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 41st 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 April 2007 for Contract No. HY/2003/01, Lai Chi Kok Viaduct (the Project).

The major site activities for civil works undertaken in the reporting month included:

- Rock dowel installation at slope CCR-S4.;
- Bulk excavation works at slope CCR-S4, LCK-R3 and CCR-R5;
- Retaining wall construction at CCR-R1 to CCR-R3 & CCR-R6 and LCK-R2 to LCK-R3;
- Slope upgrading works for Feature No. 11NW-A/FR 54 & A/FR55;
- Drainage works at slip road D and Lai Po Road;
- Offsite fabrication of parapet and noise barrier;
- Cast in-situ of slip roads C and D;
- Parapet installation for Main Viaduct and slip roads A to B;
- Erection of noise barrier at slip roads A, B C, D and Main Viaduct;
- Construction of Wai Man Tsuen pump house, Irrigation Pump House near pier C14, kiosk at CCR-S1 and Lai Po Road pump house;
- Hydroseeding and tree planting for slope CCR-S1, S3 & S6; and
- Roadworks at slip roads C & D, Lai Po Road and Butterfly Valley Road.

The major site activities for Traffic Control and Surveillance System (TCSS) works undertaken in the reporting month included:

- Cable-laying at Sections A, B, C, D, E, F and G and Kiosk K2;
- Control Cabinet Installation at Sections A, B, C, D, E, F and G and Kiosk K2;
- Field Equipment Installation at Sections A, B, C, D, E, F and G; and
- Equipment Cabinet Installation at Kiosk K2.

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	Action Taken	
1 al allietei	Action Level	Limit Level	Due to the Project	Action Taken	
1-hr TSP	0	0	0	N/A	
24-hr TSP	0	0	0	N/A	
Noise	0	0	0	N/A	

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). Total of 6 new CNPs were issued to the Project by EPD 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
Event	Number	Nature	Action Taken	Status	Kemark
Complaint received	0		N/A	N/A	
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 civil works in the coming month include:

- Bulk excavation works at slope CCR-S4, LCK-R3 and CCR-R5;
- Retaining wall construction at CCR-R2 to CCR-R3 & CCR-R6 and LCK-R2 to LCK-R3;
- Slope upgrading works for Feature No. 11NW-A/FR 54 & A/FR55;
- Drainage works at slip road D and Lai Po Road;
- Offsite fabrication of noise barrier and sign gantry;
- Cast in-situ of slip roads C and D;
- Erection of noise barrier at slip roads A, B C, D and Main Viaduct;
- Erection of sign gantry at Main Viaduct;
- Construction of Wai Man Tsuen pump house, Irrigation Pump House near pier C14, kiosk at CCR-S1 and Lai Po Road pump house;
- Hydroseeding and tree planting for slope CCR-S1 & S3; and
- Roadworks at slip roads C & D, Lai Po Road and Butterfly Valley Road.

Major site activities for TCSS works in the coming month include:

- Cable-laying at Sections A, B, C, D, E, F and G and Kiosk K2;
- Control Cabinet Installation at Sections A, B, C, D, E, F and G and Kiosk K2;
- Field Equipment Installation at Sections A, B, C, D, E, F and G; and
- Equipment Cabinet Installation at Kiosk K2.

The anticipated environmental issues will be mainly on surface runoff during rainy season, dust impact from bulk excavation works and noise nuisance from construction of Wai Man Tsuen Pump House and Irrigation Pump House near Pier C14 and kiosk at CCR-S1.

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. 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 15th 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 HILL Hong Kong Ltd. was appointed as the IEC under Condition 2.1 of the EP. This is the 41st monthly EM&A report summarizing the EM&A works for the Project in April 2007.

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 HILL Hong Kong Limited
 - Contractor Acciona Infraestructuras S.A.
 - Engineer's Representative for TCSS works Ove Arup & Partners Hong Hong Limited
 - Contractor for TCSS works Delcan-Imtech-Gtech Joint Venture
- 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 for civil works undertaken in the reporting month included:
 - Rock dowel installation at slope CCR-S4.;
 - Bulk excavation works at slope CCR-S4, LCK-R3 and CCR-R5;
 - Retaining wall construction at CCR-R1 to CCR-R3 & CCR-R6 and LCK-R2 to LCK-R3:
 - Slope upgrading works for Feature No. 11NW-A/FR 54 & A/FR55;
 - Drainage works at slip road D and Lai Po Road;
 - Offsite fabrication of parapet and noise barrier;
 - Cast in-situ of slip roads C and D;
 - Parapet installation for Main Viaduct and slip roads A to B;
 - Erection of noise barrier at slip roads A, B C, D and Main Viaduct;
 - Construction of Wai Man Tsuen pump house, Irrigation Pump House near pier C14, kiosk at CCR-S1 and Lai Po Road pump house;
 - Hydroseeding and tree planting for slope CCR-S1, S3 & S6; and
 - Roadworks at slip roads C & D, Lai Po Road and Butterfly Valley Road.

- 1.12 The site activities for TCSS works undertaken in the reporting month included:
 - Cable-laying at Sections A, B, C, D, E, F and G and Kiosk K2;
 - Control Cabinet Installation at Sections A, B, C, D, E, F and G and Kiosk K2;
 - Field Equipment Installation at Sections A, B, C, D, E, F and G; and
 - Equipment Cabinet Installation at Kiosk K2.

Table 1.1 Key Project Contacts

Party	Party Role Name		Position	Phone No.	Fax No.	
	Permit Holder	Mr. Kroc Leung	SE2/R8K	2762 3662		
HyD		Mr. Esther Yung	E1/R8K	2762 3677	2714 5198	
		Mr. LC Chung	E2/R8K	2762 3613		
	Engineer	Mr. Conrad Ng	Project Manager	2605 6262	2691 2649	
MHJV		Mr. Peter Poon	CRE	2959 0010		
IVIIIJ V	Engineer's Representative	Mr. Henry Liu	SRE	2991 1068	2959 0290	
	representative	Mr. Joseph Chi	RE	2991 1034		
		Dr. Priscilla Choy	ET Leader	2151 2089		
	tech Team Mr. E	Mr. Jesse Yuen	Project Manager	2151 2091	3107 1388	
Cinotech		Mr. Edmond Wu	Audit Team Leader	2151 2092		
		Mr. Henry Leung	Monitoring Team Leader	2151 2087		
CH2M	Independent Environmental	Mr. David Yeung	Independent Environmental Checker	2872 2934	2507 2293	
CHZM	Checker	Mr. Billy Yu	Assistant Independent Environmental Checker	2872 2949	2307 2293	
Acciona	Contractor	Mr. William D. Payne	Project Director	2956 3300	2956 3331	
Acciona	Contractor	Mr. Lawrence Kwok	QA/E Manager	2930 3300	2930 3331	
ADIID	Engineer's Mr. Donald	Mr. Donald Leung	RE	2436 7489	2426 1002	
ARUP	Representative (TCSS)	Ms. Ivy Kong	ARE	2436 7435	2436 1803	
DIGJV Contractor (TCSS) Ms. Joyo		Ms. Joyce Chan	Quality Manager	2123 0845	2123 0889	
24-hour Er	nergency Hotline	2370 9200	-			

Summary of EM&A Requirements

- 1.13 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.

- 1.14 The advice on the implementation status of environmental protection and pollution control/mitigation measures is summarized in Section 4 of this report.
- 1.15 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 the reporting month.

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	Equipment Model and Make	
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 m³/min. and 1.4 m³/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 ±3°C; the relative humidity (RH) should be < 50% and not vary by more than ±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. No Action/Limit Level exceedance for both 1-hr and 24-hr TSP was recorded in the reporting month.
- 2.19 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**.
- 2.20 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 L₁₀ and L₉₀ shall also be obtained for reference.
- 3.3 Five designated noise monitoring stations, namely NM2, 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 ⁽¹⁾	Description	Location	
NM2	Lai Chi Kok Correctional Institution	Rooftop	
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⁾ The Lai Chi Kok Hospital (NM3) was also found vacated and noise monitoring has been suspended since January 2005, as approved by EPD on 15th 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 The noise monitoring at Lai Chi Kok Correctional Institution (NM2), which was formerly known as Lai Chi Kok Reception Centre, has been resumed since 8th September 2006 after the completion of the renovation works.
- 3.7 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 30th December 2004.

Monitoring Equipment

3.8 **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

3.9 **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
NM2				Façade
NM4	L ₁₀ (30 min.)dB(A) L ₉₀ (30 min.)dB(A) L _{eq} (30 min.)dB(A)			Façade
NM8a		0700-1900 hrs. on weekdays	Once per week	Façade
NM8b		on weekaays	Week	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 weightingtime weightingFast

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

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

Results and Observations

- 3.12 Noise monitoring was performed at the five designated locations (NM2, NM4, NM8a, NM8b and NM9) as scheduled in the reporting month.
- 3.13 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 Leq Baseline Leq = Measured CNL), in order to facilitate the interpretation of the noise exceedance.
- 3.14 Noise monitoring results and graphical presentations are shown in **Appendix G**.
- 3.15 No Action/Limit Level exceedance was recorded in the reporting month.
- 3.16 At Stations NM8a and NM8b, the major noise source identified during the monitoring exercises was mainly the road traffic noise.
- 3.17 At Stations NM2, NM4 and 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 for Civil contract were conducted on 2nd, 11th, 18th, and 25th April 2007 by ET. . No environmental deficiency was recorded for TCSS contract during site inspections.

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 valid permits/licenses obtained for the Project are summarized in **Table 4.1**. Total of 6 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 From To		Details	Status	
1 Cl mit 140.			Details		
Environmental Per	rmit (EP)				
EP-103/2001/C	22/7/05	N/A	Construction and operation of (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; © 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	
Registration of Ch	emical Wast	e Producer			
WPN 5213-261- N2413-04	17/11/03	N/A	N/A	Valid	
Water Discharge L	isence				
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	
Construction Noise	Permit (CN	I <u>I</u> IP)			
GW-RW0565-06	4/10/06	03/4/07	Location: Castle Peak Road near Ching Cheung Road Time Period: 0700-2300 (general holiday including Sundays) and 1900-2300 (any day not being a general holiday)	Expired	
GW-RW0624-06	27/10/06	26/4/07	Location: Kwai Chung Road near Lai Chi Kok Interchange Time Period: Any day not being a general holiday between 2100-2400 hours (immediately following a general holiday) and between 2100-0700 hours (not immediately following a general holiday).	Expired	
GW-RW0625-06	31/10/06	28/4/07	Location: Butterfly Valley Road near Lai Chi Kok Reception Centre Time Period: Any day not being a general holiday between 2100- 2400 hours (immediately following a general holiday) and between 2100-0700 hours (not immediately following a general holiday).	Expired	
GW-RW0642-06	13/11/06	11/4/07	Location: Butterfly Valley Road near Lai Chi Kok Interchange Time Period: Any day not being a general holiday between 2100-2400 hours (immediately following a general holiday) and between 0000-0700 hours & 2100-2400 hours (not immediately following a general holiday).	Expired	
GW-RW0643-06	8/11/06	7/5/07	Location: Ching Cheung Road near Butterfly Valley Time Period: 0000-2400 (general holiday including Sundays) and 0000-0700 & 1900-2400 (any day not being a general holiday).	Valid	

No. 14 No. Valid Period Details		Valid Period Details		C4 - 4	
Permit No.	From To		Details	Status	
GW-RN0662-06	24/11/06	19/5/07	Location: Ching Cheung Road near Butterfly Valley Time Period: any day not being a general holiday for 2100-2400 (immediately following a general holiday) and 2100-0700 hours (not immediately following a general holiday).	Valid	
GW-RW0755-06	14/1/07	10/6/07	Location: Lai Po Road near Hoi Lai Estate Time Period: 0000-2400 (general holiday including Sundays) and 0000-0700 & 1900-2400 (any day not being a general holiday).		
GW-RW0027-07	31/1/07	30/6/07	Location: Lai Wan Road Time Period: 0000-2400 (general holiday including Sundays) and 0000-0700 & 1900-2400 (any day not being a general holiday).	Valid	
GW-RW0057-07	21/2/07	21/7/07	Location: Kwai Chung Road near Lai Chi Kok Interchange Time Period: 0000-2400 (general holiday including Sundays) and 0000-0700 & 1900-2400 (any day not being a general holiday).	Valid	
GW-RW0058-07	25/2/07	19/8/07	Location: Ching Cheung Road section between Nob Hill to Castle Peak Road Time Period: 0000-2400 (general holiday including Sundays) and 0000-0700 & 1900-2400 (any day not being a general holiday).	Valid	
GW-RW0072-07	27/2/07	27/7/07	Location: Ching Cheung Road near Mei Foo Sun Chuen Time Period: 0000-2400 (general holiday including Sundays) and 0000-0700 & 1900-2400 (any day not being a general holiday).	Valid	
GW-RW0093-07	21/3/07	19/9/07	Location: Lai Po Road near Hoi Lai Estate Time Period: 0000-2400 (general holiday including Sundays) and 1900-0700 (any day not being a general holiday).	Valid	
GW-RW0097-07	22/3/07	21/9/07			
GW-RW0121-07	27/3/07	27/9/07			
GW-RW0129-07	30/3/07	29/9/07	Location: Construction site at junction of Ching Cheung Road and Castle Peak Road Time Period: 0000-2400 (general holiday including Sundays) and 0000-0700 & 1900-2400 (any day not being a general holiday).	Valid	
GW-RW0130-07	4/04/07	3/10/07	Location: Castle Peak Road near Ching Cheung Road Time Period: 0000-2400 (general holiday including Sundays) and 0000-0700 & 1900-2400 (any day not being a general holiday).	Valid	
GW-RW0140-07	5/04/07	4/09/07			
GW-RW0143-07	5/04/07	6/05/07			
GW-RW0145-07	10/04/07	9/06/07			
GW-RW0146-07	6/04/07	5/08/07	Location: Ching Cheung Road near Mei Foo Sun Chuen Time Period: 0000-2400 (general holiday including Sundays) and 0000-0700 & 1900-2400 (any day not being a general holiday).	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 for Civil Works

Parameters	Date	Observations and Recommendations	Follow-up
Water Quality	18-Apr-07	Reminder - The contractor was reminded to	Rectification / improvement
		clean up the ponding water observed at	was observed during the site
		Abutment A.	inspection on 25 April 07.
Waste /	25-Apr-07	Reminder - Scattered general refuse was	The situation will be followed
Chemical		observed at Abutment A. The contractor was	up on the next site audit.
Management		reminded to clean it	_

4.7 The observations and recommendations arising from pervious month and followed up in the reporting month are summarized in **Table 4.3**.

Table 4.3 Observations and Recommendations of Site Audits Followed up for Pervious Month for Civil Works

Parameters	Date	Observations and Recommendations	Follow-up
-	-	-	-

Summary of Exceedances

1-hr and 24-hr TSP Monitoring

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

Construction Noise Monitoring

4.9 No Action/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 No environmental complaint was received in the reporting month.
- 4.12 No prosecution was received in the reporting month.
- 4.13 There was no environmental complaint referred to the ET and no 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:
 - Construction noise from excavation works, construction of pump station, rock dowel installation and retaining wall at CCR-R1 to CCR-R3 & CC-R6 and LCK-R2 to LCK-R3:
 - Surface runoff generated at the areas CCR-S1, CCR-S4 and LCK-R3; and
 - Dust generation from stockpiles of dusty materials, exposed retaining wall and bulk excavation works and haul road.
 - Stagnant water accumulated on site after heavy rainfall.

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 for civil works in the coming month include:
 - Bulk excavation works at slope CCR-S4, LCK-R3 and CCR-R5;
 - Retaining wall construction at CCR-R2 to CCR-R3 & CCR-R6 and LCK-R2 to LCK-R3;
 - Slope upgrading works for Feature No. 11NW-A/FR 54 & A/FR55;
 - Drainage works at slip road D and Lai Po Road;
 - Offsite fabrication of noise barrier and sign gantry;
 - Cast in-situ of slip roads C and D;
 - Erection of noise barrier at slip roads A, B C, D and Main Viaduct;
 - Erection of sign gantry at Main Viaduct:
 - Construction of Wai Man Tsuen pump house, Irrigation Pump House near pier C14, kiosk at CCR-S1 and Lai Po Road pump house;
 - Hydroseeding and tree planting for slope CCR-S1 & S3; and
 - Roadworks at slip roads C & D, Lai Po Road and Butterfly Valley Road.
- 5.4 The tentative construction program for civil works is provided in **Appendix L**.
- 5.5 The major activities for TCSS works in the coming month include:
 - Cable-laying at Sections A, B, C, D, E, F and G and Kiosk K2;
 - Control Cabinet Installation at Sections A, B, C, D, E, F and G and Kiosk K2;
 - Field Equipment Installation at Sections A, B, C, D, E, F and G; and
 - Equipment Cabinet Installation at Kiosk K2.

6. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

- 6.1 Environmental monitoring works were conducted in the reporting month and all monitoring results were checked and reviewed.
- 6.2 No Action/Limit Level exceedance for both 1-hour TSP and 24-hours TSP was recorded in the reporting month.
- 6.3 No Action/Limit Level exceedance for noise was recorded in the reporting month.
- 6.4 No environmental complaint was received in the reporting month.
- 6.5 No prosecution was received in the reporting month.

Recommendations

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

Water Impact

- To ensure properly maintenance for de-silting facilities
- To review and implement temporary drainage system for the upcoming wet season.
- To review the capacity of de-silting facilities for discharge.
- To avoid stagnant water accumulation on site.

Noise Impact

- To provide temporary noise barriers for noisy activities, such as rock dowel installation.
- To review the works sequence of site activities so as to reduce the number of noisy equipment in concurrent operation.
- To employ quiet powered mechanical equipment if possible.
- To ensure compliance of CNP conditions during restricted-hour works.

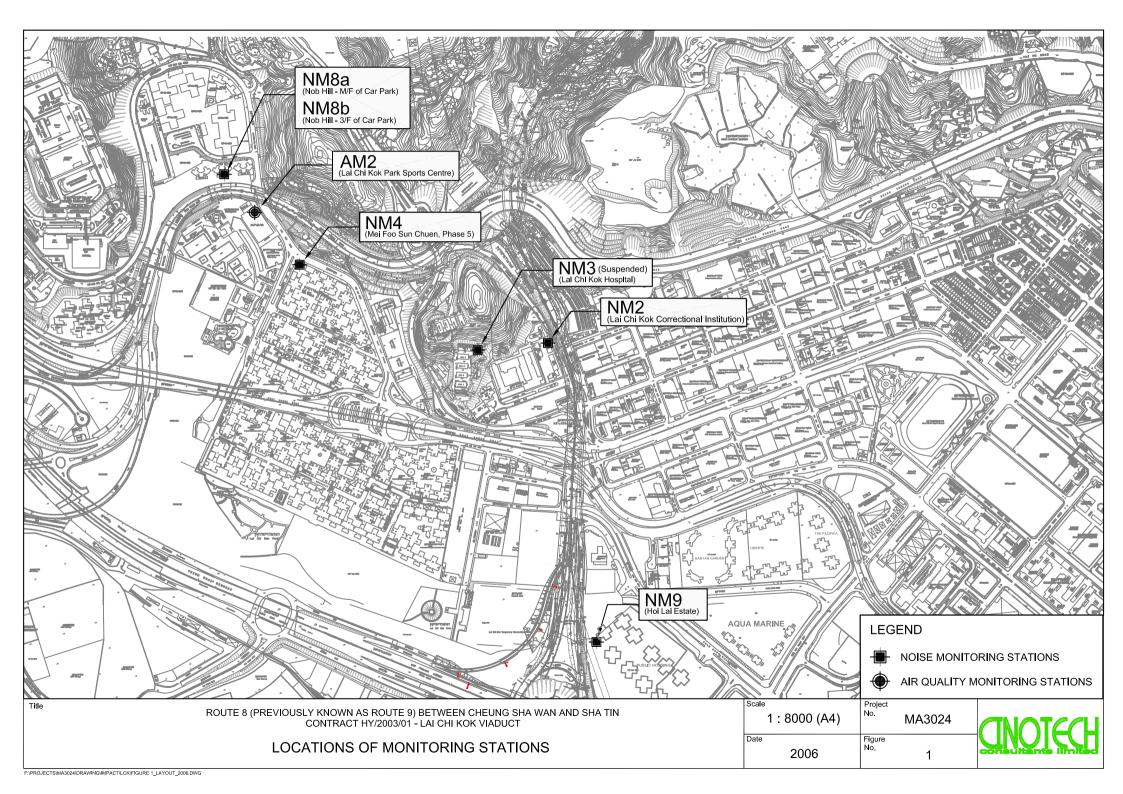
Dust Impact

- To ensure water spray is applied for the dust emissive works, such as soil nail installation, loading and unloading of soil materials, excavation works and rock dowel installation.
- To cover soil stockpiles and exposed slope surface by impervious sheets or other means.
- To ensure that all vehicles carrying dusty material are properly covered before leaving the site.

Waste / Chemical Management

- To ensure the performance of sorting of C&D materials at source (during generation);
- To carry out inspection of dump truck at site exit to ensure inert and non-inert C&D materials are properly segregated before removing off site.
- To ensure proper collection and disposal of rubbish generated on site.
- To avoid any discharge or accidental spillage of chemical waste directly from the site.

FIGURES



APPENDIX A ACTION AND LIMIT LEVELS

Appendix A - Action and Limit Levels (LCKV)

1-Hour TSP

Location	Action Level, μg/m ³	Limit Level, μg/m³
AM2	301	500

24-Hour TSP

Location	Action Level, μg/m ³	Limit Level, μg/m³
AM2	177	260

Construction Noise

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

APPENDIX B COPIES OF CALIBRATION CERTIFCATES

High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET

CINOTECH

File No. MA3024/20/0022 Station Operator: ____ WK Lai Chi Kok Sport Centre (AM2) Date: 16-Mar-07 Next Due Date: 15-May-07 Equipment No.: A-01-20 0818 Serial No. **Ambient Condition** Temperature, Ta (K) 295.4 Pressure, Pa (mmHg) 762.2 **Orifice Transfer Standard Information** Equipment No.: A-04-04 0.0575 Slope, mc Intercept, bc 0.0395 Last Calibration Date: mc x Qstd + bc = $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ 12-Mar-07 Qstd = $\{ [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} -bc \} / mc$ Next Calibration Date: 11-Mar-08 Calibration of TSP Sampler Orfice HVS Calibration ΔH (orifice), $[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2} \text{ Y-}$ Qstd (CFM) ΔW Point $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ in. of water X - axis (HVS), in. of oil axis 1 11.9 3.47 59.66 9.4 3.08 10.5 3.26 56.00 8.4 2.92 3 7.6 2.77 47.54 5.9 2.44 4 5.0 2.25 38.43 3.3 1.83 3.0 1.74 29.61 2.2 1.49 By Linear Regression of Y on X Slope , mw = _______ 0.0551 Intercept, bw : _____ -0.1944 Correlation coefficient* = *If Correlation Coefficient < 0.990, check and recalibrate. Set Point Calculation From the TSP Field Calibration Curve, take Qstd = 43 CFM From the Regression Equation, the "Y" value according to mw x Qstd + bw = $[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Therefore, Set Point; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ Remarks: Date: Date:

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/06/60502
Date of Issue: 2006-05-02
Date Received: 2006-05-01
Date Tested: 2006-05-01
Date Completed: 2006-05-02

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.
Equipment No.

: 9020746 : A-03-01

Test conditions:

Room Temperature

: 21 degree Celsius

Relative Humidity

: 66%

Pressure

: 1018.4 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	21.0	21.0

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

Laboratory Manager

Patrick

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513.467.9009 FAX
WWW.TISCH-ENV.COM

AIR POLLUTION MONITORING EQUIPMENT

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

Date - Ma Operator		7 Rootsmeter Orifice I.I		9833640 0999	Ta (K) - Pa (mm) -	294 74676
PLATE OR Run #	VOLUME START (m3)	VOLUME STOP (m3)	DIFF VOLUME (m3)	DIFF TIME (min)	METER DIFF Hg (mm)	ORFICE DIFF H2O (in.)
1 2 3 4 5	NA NA NA NA	NA NA NA NA	1.00 1.00 1.00 1.00	1.3890 0.9850 0.8810 0.8410 0.6950	3.2 6.3 7.8 8.6 12.5	2.00 4.00 5.00 5.50 8.00

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)		Va .	(x axis) Qa	(y axis)
0.9917 0.9876 0.9854 0.9844 0.9792	0.7139 1.0026 1.1185 1.1706 1.4090	1.4113 1.9959 2.2315 2.3405 2.8227		0.9957 0.9916 0.9894 0.9884 0.9832	0.7168 1.0067 1.1231 1.1753 1.4147	0.8874 1.2549 1.4030 1.4715 1.7747
Qstd slor intercept coefficie y axis =	(b) = ent (r) =	2.03154 -0.03970 0.99999 	 [a)]	Qa slope intercept coefficie	(b) =	1.27212 -0.02496 0.99999

CALCULATIONS

Vstd = Diff. Vol[(Pa-Diff. Hg)/760](298/Ta)
Qstd = Vstd/Time

Va = Diff Vol [(Pa-Diff Hg)/Pa]

Qa = Va/Time

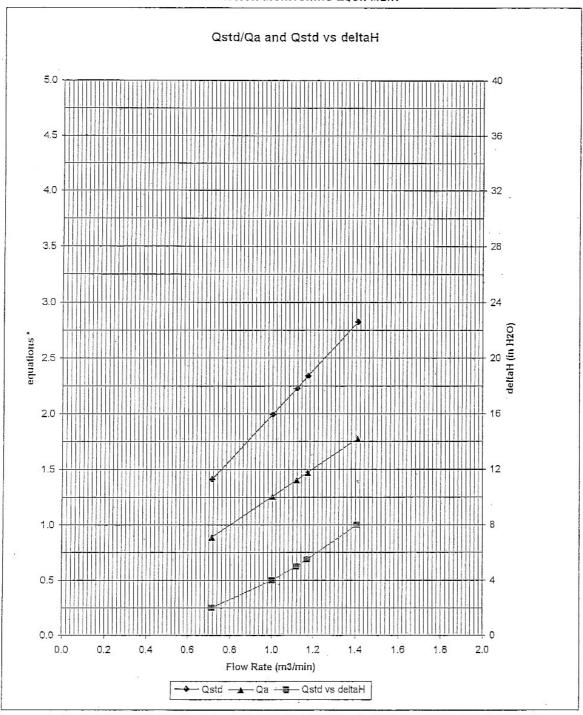
For subsequent flow rate calculations:

Qstd = $1/m\{[SQRT(H2O(Pa/760)(298/Ta))] - b\}$ Qa = $1/m\{[SQRT H2O(Ta/Pa)] - b\}$.



TISCH ENVIROMENTAL, INC. 145 SOUTH MIAMI AVE. VILLAGE OF CLEVES, OH 45002 513.467.9000 877.263.7610 TOLL FREE 513.467.9009 FAX WWW.TISCH-ENV.COM

AIR POLLUTION MONITORING EQUIPMENT



* y-axis equations:

Qstd series:

$$\sqrt{\Delta \ H \left(\frac{P \ a}{P \ s \ t \ d}\right) \left(\frac{T \ s \ t \ d}{T \ a}\right)}$$

Qa series:

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

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/61215/1
Date of Issue: 2006-12-15
Date Received: 2006-12-14
Date Tested: 2006-12-15
Date Completed: 2006-12-15
Next Due Date: 2007-12-14

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. : 2337665 Microphone No. : 2289749 Equipment No. : N-01-01

Test conditions:

Room Temperatre : 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

1602-1610 Delta House,

3 On Yiu Street, Shatin, N.T.

 Test Report No.:
 C/N/61116/1

 Date of Issue:
 2006-11-16

 Date Received:
 2006-11-15

 Date Tested:
 2006-11-15

 Date Completed:
 2006-11-16

 Next Due Date:
 2007-11-15

ATTN:

Mr. Henry Leung

Page:

1 of 1

Certificate of Calibration

Item for calibration:

Description ·

: Integrating Sound Level Meter

Manufacturer Model No.

: Brüel & Kjær : B&K 2238

Serial No.

: 2337666 : 2289750

Microphone No. Equipment No.

: N-01-02

Test conditions:

Room Temperatre

: 20 degree Celsius

Relative Humidity

: 59%

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

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

1601-1610 Delta House,

3 On Yiu Street, Shatin, N.T. Test Report No.: C/N/60904-1

Date of Issue: 2006-09-04 Date Received: 2006-09-02

Date Tested: 2006-09-02
Date Completed: 2006-09-04

Next Due Date: 2007-09-03

ATTN:

Mr. Henry Leung

Page:

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Certificate of Calibration

Item for calibration:

Description

: Integrating Sound Level Meter

Manufacturer

: Brüel & Kjær : B&K 2238

Model No. Serial No.

: 2359311

Microphone No. Equipment No.

: 2346382 : N-01-03

Test conditions:

Room Temperatre

: 23 degree Celsius

Relative Humidity

: 64%

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:

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Laborary 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/N/60904-2

 Date of Issue:
 2006-09-04

 Date Received:
 2006-09-02

 Date Tested:
 2006-09-02

 Date Completed:
 2006-09-04

 Next Due Date:
 2007-09-03

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 : 2359303

Serial No. Equipment No.

: N-01-04

Test conditions:

Room Temperatre

: 23 degree Celsius

Relative Humidity

: 63%

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

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

1602-1610 Delta House,

3 On Yiu Street, Shatin, N.T. Test Report No.: C/N/61014/1
Date of Issue: 2006-10-14
Date Received: 2006-10-13
Date Tested: 2006-10-14
Date Completed: 2006-10-14
Next Due Date: 2007-10-13

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 : 2394976

Serial No.
Microphone No.

: 2407349

Equipment No.

: N-01-05

Test conditions:

Room Temperatre

: 21 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:

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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/61116/2

 Date of Issue:
 2006-11-16

 Date Received:
 2006-11-15

 Date Tested:
 2006-11-15

 Date Completed:
 2006-11-16

 Next Due Date:
 2007-11-15

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 Temperatre

: 20 degree Celsius

Relative Humidity

: 59%

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	$94.0 \pm 0.1~\mathrm{dB}$	

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

Operation Manager

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/06/70305
Date of Issue:	2007-03-05
Date Received:	2007-03-03
Date Tested:	2007-03-03
Date Completed:	2007-03-05
Next Due Date:	2008-03-04

ATTN:

Mr. Henry Leung

Page:

1 of 1

Item for calibration:

Description

: Acoustical Calibrator

Manufacturer

: Brüel & Kjær

Model No. Serial No.

: 4231 : 2343007

Project No.

: C13

Equipment No.

: N-02-02

Test conditions:

Room Temperatre

: 20 degree Celsius

Relative Humidity

: 65%

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

This test document cannot be reproduced in any way, except in full context, without the prior approval in writing of the laboratory.

606 - 608 Cornell Centre, 50 Wing Tai Road, Chai Wan, Hong Kong. Tel: (852) 2898 7388

Fax: (852) 2898 7076

TEST REPORT

APPLICANT:

Cinotech Consultants Limited

1601-1610 Delta House,

3 On Yiu Street, Shatin, N.T.

Test Report No.:	C/N/60904-3
Date of Issue:	2006-09-04
Date Received:	2006-09-02
Date Tested:	2006-09-02
Date Completed:	2006-09-04
Next Due Date:	2007-09-03

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 Temperatre

: 23 degree Celsius

Relative Humidity

: 63%

Pressure

: 1020.1hPa

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 TSE

Operation Manager

APPENDIX C ENVIRONMENTAL MONITORING AND AUDIT SCHEDULE

Environmental Monitoring for Lai Chi Kok Viaduct Tentative Air Quality and Noise Monitoring Schedule for April 2007

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1-Apr	2-Apr	3-Apr	4-Apr	5-Apr	6-Apr	7-Apr
	1 hr TSP Noise	1 hr TSP	1 hr TSP 24 hr TSP			
8-Apr	9-Apr	10-Apr	11-Apr	12-Apr	13-Apr	14-Apr
		1 hr TSP Noise		1 hr TSP 24 hr TSP	1 hr TSP	
15-Apr	16-Apr	17-Apr	18-Apr	19-Apr	20-Apr	21-Apr
		1 hr TSP Noise	1 hr TSP 24 hr TSP	1 hr TSP		
22-Apr	23-Apr	24-Apr	25-Apr	26-Apr	27-Apr	28-Apr
		1 hr TSP Noise 24 hr TSP	1 hr TSP	1 hr TSP		
29-Apr	30-Apr	1-May	2-May	3-May	4-May	5-May
	24 hr TSP	·	1 hr TSP Noise	1 hr TSP	1 hr TSP	

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

AM2 Lai Chi Kok Sports Centre

NM2 Lai Chi Kok Correctional Institution

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

Environmental Monitoring for Lai Chi Kok Viaduct Tentative Air Quality and Noise Monitoring Schedule for May 2007

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
29-Apr	30-Apr	1-May	2-May	3-May	4-May	5-May
	24 hr TSP		1 hr TSP Noise	1 hr TSP	1 hr TSP	24 hr TSP
6-May	7-May	8-May	9-May	10-May	11-May	12-May
	1 hr TSP Noise	1 hr TSP		1 hr TSP		
					24 hr TSP	
13-May	14-May	15-May	16-May	17-May	18-May	19-May
	1 hr TSP Noise	1 hr TSP		24 hr TSP	1 hr TSP	
20-May	21-May	22-May	23-May	24-May	25-May	26-May
	1 hr TSP Noise	1 hr TSP			1 hr TSP	
			24 hr TSP			
27-May	28-May	29-May	30-May	31-May	1-Jun	2-Jun
		1 hr TSP Noise 24 hr TSP	1 hr TSP	1 hr TSP		

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

AM2 Lai Chi Kok Sports Centre

NM2 Lai Chi Kok Correctional Institution

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

APPENDIX D WIND DATA

Date	Time	Wind Speed m/s	Direction
1-Apr-2007	00:00	3.6	NE
1-Apr-2007	01:00	2.2	ESE
1-Apr-2007	02:00	1.8	N
1-Apr-2007	03:00	0.9	N
1-Apr-2007	04:00	0.4	
1-Apr-2007	05:00	1.3	N
1-Apr-2007	06:00	0.0	
1-Apr-2007	07:00	0.9	N
1-Apr-2007	08:00	1.3	N
1-Apr-2007	09:00	4.0	W
1-Apr-2007	10:00	5.8	W
1-Apr-2007	11:00	5.8	W
1-Apr-2007	12:00	6.7	W
1-Apr-2007	13:00	7.6	W
1-Apr-2007	14:00	7.6	W
1-Apr-2007	15:00	8.5	W
1-Apr-2007	16:00	7.2	W
1-Apr-2007	17:00	6.7	W
1-Apr-2007	18:00	4.0	SW
1-Apr-2007	19:00	2.2	SW
1-Apr-2007	20:00	2.7	WSW
1-Apr-2007	21:00	4.9	W
1-Apr-2007	22:00	4.9	WSW
1-Apr-2007	23:00	2.7	NE
2-Apr-2007	00:00	0.0	SSW
2-Apr-2007	01:00	0.0	WSW
2-Apr-2007	02:00	0.0	WSW
2-Apr-2007	03:00	0.0	WSW
2-Apr-2007	04:00	0.0	WSW
2-Apr-2007	05:00	0.0	SW
2-Apr-2007	06:00	0.0	SSW
2-Apr-2007	07:00	0.0	SSW
2-Apr-2007	08:00	0.0	SSW
2-Apr-2007	09:00	0.0	SSW
2-Apr-2007	10:00	0.9	S
2-Apr-2007	11:00	2.7	NE
2-Apr-2007	12:00	2.7	NE
2-Apr-2007	13:00	4.9	WNW
2-Apr-2007	14:00	2.2	SW
2-Apr-2007	15:00	1.8	WNW
2-Apr-2007	16:00	2.2	WNW
2-Apr-2007	17:00	0.9	W
2-Apr-2007	18:00	0.4	W
2-Apr-2007	19:00	2.7	WNW
2-Apr-2007	20:00	2.7	WSW
2-Apr-2007	21:00	2.7	WSW
2-Apr-2007	22:00	4.9	WNW
2-Apr-2007	23:00	4.9	WNW
3-Apr-2007	00:00	4.0	WNW
3-Apr-2007	01:00	3.6	WSW
3-Apr-2007	02:00	4.0	WSW
3-Apr-2007	03:00	4.0	WSW
·			WSW
3-Apr-2007	04:00	3.6	VV 3 V V

3-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007	06:00 07:00 08:00 09:00 10:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00 18:00 20:00 21:00 22:00 23:00 00:00 01:00 02:00 03:00 04:00 05:00 06:00	Wind Speed m/s 3.1 3.6 2.7 2.7 2.2 3.1 3.1 3.1 2.7 3.6 2.7 3.6 2.7 4.5 4.0 2.2 3.1 3.1 1.8 2.7 2.7 2.7 2.7 2.7 2.7 2.2	WSW
3-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007	08:00 09:00 10:00 11:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00 18:00 20:00 21:00 22:00 23:00 00:00 01:00 02:00 03:00 04:00 05:00	2.7 2.7 2.2 3.1 3.1 3.1 2.7 2.7 2.7 3.6 2.7 3.6 2.7 3.6 2.2 2.7 4.5 4.0 2.2 3.1 3.1 3.1 3.1 1.8	W\$W
3-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007	09:00 10:00 11:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00 18:00 19:00 20:00 21:00 22:00 23:00 00:00 01:00 02:00 03:00 04:00 05:00	2.7 2.2 3.1 3.1 3.1 2.7 2.7 2.7 3.6 2.7 3.6 2.7 4.5 4.0 2.2 3.1 3.1 3.1 1.8 2.7 2.7	WSW
3-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007	10:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00 18:00 20:00 21:00 22:00 23:00 00:00 01:00 02:00 03:00 04:00 05:00	2.2 3.1 3.1 3.1 2.7 2.7 2.7 3.6 2.7 3.6 2.2 2.7 4.5 4.0 2.2 3.1 3.1 1.8 2.7 2.7	W\$W
3-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007	11:00 12:00 13:00 14:00 15:00 16:00 17:00 18:00 20:00 21:00 22:00 23:00 00:00 01:00 02:00 03:00 04:00 05:00	3.1 3.1 3.1 2.7 2.7 3.6 2.7 3.6 2.2 2.7 4.5 4.0 2.2 3.1 3.1 1.8 2.7 2.7	WSW
3-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007	12:00 13:00 14:00 15:00 16:00 17:00 18:00 19:00 20:00 21:00 22:00 23:00 00:00 01:00 02:00 03:00 04:00 05:00	3.1 3.1 2.7 2.7 2.7 3.6 2.7 3.6 2.2 2.7 4.5 4.0 2.2 3.1 3.1 1.8 2.7 2.7	W\$W
3-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007	12:00 13:00 14:00 15:00 16:00 17:00 18:00 19:00 20:00 21:00 22:00 23:00 00:00 01:00 02:00 03:00 04:00 05:00	3.1 3.1 2.7 2.7 2.7 3.6 2.7 3.6 2.2 2.7 4.5 4.0 2.2 3.1 3.1 1.8 2.7 2.7	W\$W
3-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007	13:00 14:00 15:00 16:00 17:00 18:00 19:00 20:00 21:00 22:00 23:00 00:00 01:00 02:00 03:00 04:00 05:00	3.1 2.7 2.7 3.6 2.7 3.6 2.2 2.7 4.5 4.0 2.2 3.1 3.1 1.8 2.7 2.7	WSW
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3-Apr-2007 3-Apr-2007 3-Apr-2007 3-Apr-2007 3-Apr-2007 3-Apr-2007 3-Apr-2007 3-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007	15:00 16:00 17:00 18:00 19:00 20:00 21:00 22:00 23:00 00:00 01:00 02:00 03:00 04:00	2.7 3.6 2.7 3.6 2.2 2.7 4.5 4.0 2.2 3.1 3.1 1.8 2.7 2.7	WSW
3-Apr-2007 3-Apr-2007 3-Apr-2007 3-Apr-2007 3-Apr-2007 3-Apr-2007 3-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007	17:00 18:00 19:00 20:00 21:00 22:00 23:00 00:00 01:00 02:00 03:00 04:00 05:00	2.7 3.6 2.2 2.7 4.5 4.0 2.2 3.1 3.1 1.8 2.7 2.7	WSW
3-Apr-2007 3-Apr-2007 3-Apr-2007 3-Apr-2007 3-Apr-2007 3-Apr-2007 3-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007	18:00 19:00 20:00 21:00 22:00 23:00 00:00 01:00 02:00 03:00 04:00 05:00	2.7 3.6 2.2 2.7 4.5 4.0 2.2 3.1 3.1 1.8 2.7 2.7	WSW
3-Apr-2007 3-Apr-2007 3-Apr-2007 3-Apr-2007 3-Apr-2007 3-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007	18:00 19:00 20:00 21:00 22:00 23:00 00:00 01:00 02:00 03:00 04:00 05:00	3.6 2.2 2.7 4.5 4.0 2.2 3.1 3.1 1.8 2.7 2.7	WSW
3-Apr-2007 3-Apr-2007 3-Apr-2007 3-Apr-2007 3-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007	19:00 20:00 21:00 22:00 23:00 00:00 01:00 02:00 03:00 04:00 05:00	2.2 2.7 4.5 4.0 2.2 3.1 3.1 1.8 2.7 2.7	WSW
3-Apr-2007 3-Apr-2007 3-Apr-2007 3-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007	20:00 21:00 22:00 23:00 00:00 01:00 02:00 03:00 04:00 05:00	2.7 4.5 4.0 2.2 3.1 3.1 1.8 2.7 2.7	WSW WSW WSW WSW WSW WSW WSW WSW WSW
3-Apr-2007 3-Apr-2007 3-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007	21:00 22:00 23:00 00:00 01:00 02:00 03:00 04:00 05:00	4.5 4.0 2.2 3.1 3.1 1.8 2.7 2.7	WSW WSW WSW WSW WSW WSW WSW
3-Apr-2007 3-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007	22:00 23:00 00:00 01:00 02:00 03:00 04:00 05:00	4.0 2.2 3.1 3.1 1.8 2.7 2.7	WSW WSW WSW WSW WSW WSW
3-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007	23:00 00:00 01:00 02:00 03:00 04:00 05:00	2.2 3.1 3.1 1.8 2.7 2.7	W WSW WSW WSW WSW
4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007	00:00 01:00 02:00 03:00 04:00 05:00	3.1 3.1 1.8 2.7 2.7	WSW WSW WSW WSW
4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007	01:00 02:00 03:00 04:00 05:00	3.1 1.8 2.7 2.7	WSW WSW WSW
4-Apr-2007 4-Apr-2007 4-Apr-2007 4-Apr-2007	02:00 03:00 04:00 05:00	1.8 2.7 2.7	WSW WSW WSW
4-Apr-2007 4-Apr-2007 4-Apr-2007	03:00 04:00 05:00	2.7 2.7	WSW WSW
4-Apr-2007 4-Apr-2007	04:00 05:00	2.7	WSW
4-Apr-2007	05:00		
4-ADI-2007	UD UU	2.2	WSW
4-Apr-2007	07:00	0.9	W
4-Apr-2007	08:00	1.8	W
4-Apr-2007	09:00	1.8	SW
4-Apr-2007	10:00	1.8	WSW
4-Apr-2007	11:00	2.2	WSW
4-Apr-2007	12:00	1.8	SW
4-Apr-2007	13:00	1.8	WSW
4-Apr-2007	14:00	2.2	WSW
4-Apr-2007	15:00	2.2	WSW
4-Apr-2007	16:00	2.2	WSW
4-Apr-2007	17:00	3.1	WSW
4-Apr-2007	18:00	2.2	WSW
4-Apr-2007	19:00	2.7	WSW
4-Apr-2007	20:00	2.7	WSW
4-Apr-2007	21:00	3.1	WSW
4-Apr-2007	22:00	1.8	WSW
4-Apr-2007 4-Apr-2007	23:00	1.3	W
5-Apr-2007	00:00	1.8	WSW
5-Apr-2007	01:00	2.2	WSW
5-Apr-2007	02:00	1.3	WSW
5-Apr-2007	03:00	1.3	WSW
5-Apr-2007	04:00	1.8	WSW
5-Apr-2007 5-Apr-2007	05:00	1.3	WSW
5-Apr-2007 5-Apr-2007	06:00	1.8	WSW
•	07:00	1.8	WSW
5-Apr-2007			WSW
5-Apr-2007	08:00	1.3	
5-Apr-2007	09:00	1.3	WSW
5-Apr-2007 5-Apr-2007	10:00 11:00	0.4	WNW WSW

Date	Time	Wind Speed m/s	Direction
5-Apr-2007	12:00	1.8	SW
5-Apr-2007	13:00	1.8	WNW
5-Apr-2007	14:00	1.8	WNW
5-Apr-2007	15:00	1.8	WNW
5-Apr-2007	16:00	1.3	WSW
5-Apr-2007	17:00	1.8	WNW
5-Apr-2007	18:00	2.2	WNW
5-Apr-2007	19:00	1.8	WNW
5-Apr-2007	20:00	1.8	WNW
5-Apr-2007	21:00	2.2	WNW
5-Apr-2007	22:00	1.8	WNW
5-Apr-2007	23:00	2.2	WNW
6-Apr-2007	00:00	1.8	WNW
6-Apr-2007	01:00	0.9	WNW
6-Apr-2007	02:00	0.0	WNW
6-Apr-2007	03:00	0.0	WNW
6-Apr-2007	04:00	0.9	WNW
6-Apr-2007	05:00	0.4	WNW
6-Apr-2007	06:00	0.0	
6-Apr-2007	07:00	0.0	
6-Apr-2007	08:00	0.0	W
6-Apr-2007	09:00	0.0	
6-Apr-2007	10:00	0.9	W
6-Apr-2007	11:00	0.4	W
6-Apr-2007	12:00	1.3	W
6-Apr-2007	13:00	1.3	WNW
6-Apr-2007	14:00	2.7	WNW
6-Apr-2007	15:00	3.6	WNW
6-Apr-2007	16:00	2.2	WNW
6-Apr-2007	17:00	1.8	WNW
6-Apr-2007	18:00	2.2	WNW
6-Apr-2007	19:00	1.8	WNW
6-Apr-2007	20:00	2.2	WNW
6-Apr-2007	21:00	0.9	WNW
6-Apr-2007	22:00	1.3	WNW
6-Apr-2007	23:00	0.9	WNW
7-Apr-2007	00:00	2.2	WNW
7-Apr-2007	01:00	3.1	WNW
7-Apr-2007 7-Apr-2007	02:00	2.7	WNW
7-Apr-2007 7-Apr-2007	03:00	2.2	WNW
7-Apr-2007 7-Apr-2007	03.00	0.0	
	05:00	0.0	 W
7-Apr-2007			W
7-Apr-2007 7-Apr-2007	06:00 07:00	0.4 1.8	WNW
	07:00	2.7	WNW
7-Apr-2007		2.7	W
7-Apr-2007	09:00	2.2	W
7-Apr-2007	10:00		
7-Apr-2007	11:00	2.2	WNW
7-Apr-2007	12:00	1.8	WNW
7-Apr-2007	13:00	1.3	WNW
7-Apr-2007	14:00	0.9	W
7-Apr-2007	15:00	1.3	WNW
7-Apr-2007	16:00	2.7	W
7-Apr-2007	17:00	1.8	WNW

Date	Time	Wind Speed m/s	Direction		
7-Apr-2007	18:00	0.4	SW		
7-Apr-2007	19:00	0.0	SW		
7-Apr-2007	20:00	0.4	SW		
7-Apr-2007	21:00	0.9	W		
7-Apr-2007	22:00	1.3	W		
7-Apr-2007	23:00	0.9	WNW		
8-Apr-2007	00:00	1.3	WNW		
8-Apr-2007	01:00	0.9	WNW		
8-Apr-2007	02:00	1.8	WNW		
8-Apr-2007	03:00	0.9	W		
8-Apr-2007	04:00	0.0	W		
8-Apr-2007	05:00	0.0	W		
8-Apr-2007	06:00	0.0			
8-Apr-2007	07:00	0.0	W		
8-Apr-2007	08:00	0.0			
8-Apr-2007	09:00	0.4	WNW		
8-Apr-2007	10:00	1.8	WNW		
8-Apr-2007	11:00	2.2	WNW		
8-Apr-2007	12:00	3.1	WNW		
8-Apr-2007	13:00	3.6	WNW		
8-Apr-2007	14:00	2.2	WNW		
8-Apr-2007	15:00	1.3	WSW		
8-Apr-2007	16:00	0.9	WSW		
8-Apr-2007	17:00	0.9	SW		
8-Apr-2007	18:00	1.8	WNW		
8-Apr-2007	19:00	1.3	W		
8-Apr-2007	20:00	0.4	SW		
8-Apr-2007	21:00	1.3	SW		
8-Apr-2007	22:00	1.3	WSW		
8-Apr-2007	23:00	1.8	WSW		
9-Apr-2007	00:00	1.8	WSW		
9-Apr-2007	01:00	0.4	WNW		
9-Apr-2007	02:00	0.0			
9-Apr-2007	03:00	0.0			
9-Apr-2007	04:00	0.0	WNW		
9-Apr-2007	05:00	0.0			
9-Apr-2007	06:00	0.0	NNE		
9-Apr-2007	07:00	0.0			
9-Apr-2007	08:00	0.0	NNE		
9-Apr-2007	09:00	0.9	WNW		
9-Apr-2007	10:00	2.2	WSW		
9-Apr-2007	11:00	3.1	WNW		
9-Apr-2007	12:00	3.6	WSW		
9-Apr-2007	13:00	4.5	WSW		
9-Apr-2007	14:00	4.5	WSW		
9-Apr-2007	15:00	4.5	WNW		
9-Apr-2007	16:00	4.9	WNW		
9-Apr-2007	17:00	4.5	WNW		
9-Apr-2007	18:00	3.1	WNW		
9-Apr-2007	19:00	4.0	WNW		
9-Apr-2007	20:00	3.1	WNW		
9-Apr-2007	21:00	3.1	WSW		
9-Apr-2007	22:00	3.1	SW		
9-Apr-2007	23:00	1.8	SW		

Date	Time	Wind Speed m/s	Direction		
10-Apr-2007	00:00	1.8	WNW		
10-Apr-2007	01:00	2.7	WNW		
10-Apr-2007	02:00	2.2	WNW		
10-Apr-2007	03:00	2.7	SW		
10-Apr-2007	04:00	1.3	WNW		
10-Apr-2007	05:00	1.8	SW		
10-Apr-2007	06:00	1.3	WSW		
10-Apr-2007	07:00	1.3	WSW		
10-Apr-2007	08:00	0.9	WSW		
10-Apr-2007	09:00	1.8	WSW		
10-Apr-2007	10:00	1.3	WSW		
10-Apr-2007	11:00	0.9	SW		
10-Apr-2007	12:00	0.9	SSW		
10-Apr-2007	13:00	1.3	WNW		
10-Apr-2007	14:00	1.3	WNW		
10-Apr-2007	15:00	1.8	W		
10-Apr-2007	16:00	1.3	WNW		
10-Apr-2007	17:00	1.3	WNW		
10-Apr-2007	18:00	1.8	WNW		
10-Apr-2007	19:00	3.1	WNW		
10-Apr-2007	20:00	2.7	WNW		
10-Apr-2007	21:00	0.9	SW		
10-Apr-2007	22:00	1.3	WNW		
10-Apr-2007	23:00	1.3	WNW		
11-Apr-2007	00:00	1.3	WSW		
11-Apr-2007	01:00	1.8	WNW		
11-Apr-2007	02:00	0.0	W		
11-Apr-2007	03:00	0.0	WNW		
11-Apr-2007	04:00	0.0	W		
11-Apr-2007	05:00	0.0			
11-Apr-2007	06:00	0.0			
11-Apr-2007	07:00	0.0	W		
11-Apr-2007	08:00	3.1	WNW		
11-Apr-2007	09:00	2.2	WNW		
11-Apr-2007	10:00	2.7	WNW		
11-Apr-2007	11:00	3.1	WNW		
11-Apr-2007	12:00	1.8	W		
11-Apr-2007 11-Apr-2007	13:00	3.1	WNW		
	14:00	3.1	NW		
11-Apr-2007	15:00	2.7	WNW		
11-Apr-2007			WNW		
11-Apr-2007	16:00	3.6			
11-Apr-2007	17:00	2.7	WNW		
11-Apr-2007	18:00	2.2	WNW		
11-Apr-2007	19:00	2.2	W		
11-Apr-2007	20:00	0.0	W		
11-Apr-2007	21:00	1.8	WNW		
11-Apr-2007	22:00	0.4	WNW		
11-Apr-2007	23:00	0.0	 \\/\(\)\\/\(\)		
12-Apr-2007	00:00	0.4	WSW		
12-Apr-2007	01:00	0.4	WNW		
12-Apr-2007	02:00	0.4	W		
12-Apr-2007	03:00	0.4	W		
12-Apr-2007	04:00	1.3	WNW		
12-Apr-2007	05:00	0.9	W		

Date	Time	Wind Speed m/s	Direction
12-Apr-2007	06:00	0.4	WNW
12-Apr-2007	07:00	0.4	W
12-Apr-2007	08:00	0.4	WNW
12-Apr-2007	09:00	2.7	WNW
12-Apr-2007	10:00	2.7	WNW
12-Apr-2007	11:00	3.6	WNW
12-Apr-2007	12:00	4.0	WNW
12-Apr-2007	13:00	4.5	NW
12-Apr-2007	14:00	3.6	WNW
12-Apr-2007	15:00	3.1	WNW
12-Apr-2007	16:00	2.2	WNW
12-Apr-2007	17:00	1.8	W
12-Apr-2007	18:00	0.9	WSW
12-Apr-2007	19:00	0.4	W
12-Apr-2007	20:00	0.0	SSW
12-Apr-2007	21:00	0.0	
12-Apr-2007	22:00	0.0	
12-Apr-2007	23:00	0.0	
13-Apr-2007	00:00	0.0	
13-Apr-2007	01:00	0.0	
13-Apr-2007	02:00	0.0	
13-Apr-2007	03:00	0.0	
13-Apr-2007	04:00	0.0	
13-Apr-2007	05:00	0.0	
13-Apr-2007	06:00	0.0	
13-Apr-2007	07:00	0.0	
13-Apr-2007	08:00	0.0	
13-Apr-2007	09:00	0.0	W
13-Apr-2007	10:00	0.0	WNW
13-Apr-2007	11:00	1.3	WNW
13-Apr-2007	12:00	0.9	WNW
13-Apr-2007	13:00	2.2	NE
13-Apr-2007	14:00	2.2	NE NE
13-Apr-2007	15:00	2.2	NE
13-Apr-2007	16:00	2.7	NE
13-Apr-2007	17:00	2.2	NNE
13-Apr-2007	18:00	2.2	NE
13-Apr-2007	19:00	0.0	NE
13-Apr-2007	20:00	0.0	NE
13-Apr-2007	21:00	0.0	ENE
13-Apr-2007	22:00	0.0	
13-Apr-2007	23:00	0.0	
	00:00	0.0	NE
14-Apr-2007	01:00	0.0	<u> </u>
14-Apr-2007			ENE
14-Apr-2007	02:00	0.9	ENE E
14-Apr-2007	03:00	0.4	
14-Apr-2007	04:00	0.0	
14-Apr-2007	05:00	0.0	
14-Apr-2007	06:00	0.0	
14-Apr-2007	07:00	0.0	
14-Apr-2007	08:00	0.0	
14-Apr-2007	09:00	0.0	
14-Apr-2007	10:00	0.9	N N
14-Apr-2007	11:00	1.3	NE

Date	Time	Wind Speed m/s	Direction
14-Apr-2007	12:00	2.2	NE
14-Apr-2007	13:00	2.2	ENE
14-Apr-2007	14:00	3.1	NE
14-Apr-2007	15:00	2.7	NE
14-Apr-2007	16:00	2.2	E
14-Apr-2007	17:00	1.3	ENE
14-Apr-2007	18:00	2.2	E
14-Apr-2007	19:00	2.2	ENE
14-Apr-2007	20:00	1.3	E
14-Apr-2007	21:00	0.0	Е
14-Apr-2007	22:00	0.9	Е
14-Apr-2007	23:00	0.0	ENE
15-Apr-2007	00:00	0.4	ENE
15-Apr-2007	01:00	0.4	ENE
15-Apr-2007	02:00	0.4	ENE
15-Apr-2007	03:00	0.0	Е
15-Apr-2007	04:00	0.0	
15-Apr-2007	05:00	0.0	SSE
15-Apr-2007	06:00	0.0	
15-Apr-2007	07:00	0.0	
15-Apr-2007	08:00	0.0	
15-Apr-2007	09:00	0.0	W
15-Apr-2007	10:00	3.1	NNE
15-Apr-2007	11:00	3.6	NNE
15-Apr-2007	12:00	2.7	NNE
15-Apr-2007	13:00	4.5	NNE
15-Apr-2007	14:00	1.3	NNE
15-Apr-2007	15:00	3.1	NE
15-Apr-2007	16:00	3.1	NE
15-Apr-2007	17:00	2.7	NE
15-Apr-2007	18:00	1.8	NNE
15-Apr-2007	19:00	2.2	NE
15-Apr-2007	20:00	0.4	E
15-Apr-2007	21:00	0.9	E
15-Apr-2007	22:00	0.4	NE
15-Apr-2007	23:00	0.0	NE
16-Apr-2007	00:00	0.4	E
16-Apr-2007	01:00	0.9	ESE
16-Apr-2007	02:00	0.9	ENE
16-Apr-2007	03:00	0.9	ENE
16-Apr-2007	04:00	0.9	E
16-Apr-2007	05:00	0.9	E
16-Apr-2007	06:00	0.4	ENE
16-Apr-2007	07:00	0.9	ENE
16-Apr-2007	08:00	0.4	ENE
16-Apr-2007	09:00	0.9	NE
16-Apr-2007	10:00	1.3	N
16-Apr-2007	11:00	2.2	NNE
16-Apr-2007	12:00	1.8	NE
16-Apr-2007	13:00	4.0	NE
16-Apr-2007	14:00	3.1	NE
16-Apr-2007	15:00	3.6	NNE
16-Apr-2007	16:00	3.1	NE
16-Apr-2007	17:00	2.2	NE

Date	Time	Wind Speed m/s	Direction
16-Apr-2007	18:00	1.8	NNE
16-Apr-2007	19:00	1.3	ENE
16-Apr-2007	20:00	0.9	ENE
16-Apr-2007	21:00	0.4	Е
16-Apr-2007	22:00	0.0	
16-Apr-2007	23:00	0.4	Е
17-Apr-2007	00:00	0.4	ENE
17-Apr-2007	01:00	2.2	Е
17-Apr-2007	02:00	0.9	ESE
17-Apr-2007	03:00	0.9	ENE
17-Apr-2007	04:00	0.4	ENE
17-Apr-2007	05:00	0.0	ENE
17-Apr-2007	06:00	0.4	NE
17-Apr-2007	07:00	1.3	NNE
17-Apr-2007	08:00	0.9	NE
17-Apr-2007	09:00	1.8	N
17-Apr-2007	10:00	1.8	N
17-Apr-2007	11:00	1.8	N
17-Apr-2007	12:00	2.7	NE
17-Apr-2007	13:00	4.0	NNE
17-Apr-2007	14:00	4.5	NE
17-Apr-2007	15:00	4.9	NNE
17-Apr-2007	16:00	4.9	NNE
17-Apr-2007	17:00	4.9	NNE
17-Apr-2007	18:00	4.9	NNE
17-Apr-2007	19:00	5.4	NNE
17-Apr-2007	20:00	3.1	NE NE
17-Apr-2007	21:00	4.0	NNE
17-Apr-2007	22:00	2.7	W
17-Apr-2007	23:00	2.2	NW
18-Apr-2007	00:00	1.8	WNW
18-Apr-2007	01:00	2.2	SW
18-Apr-2007	02:00	3.1	WSW
18-Apr-2007	03:00	3.1	WSW
18-Apr-2007	04:00	2.7	W
18-Apr-2007	05:00	2.2	W
18-Apr-2007	06:00	2.7	SW
18-Apr-2007	07:00	3.1	SW
18-Apr-2007	08:00	4.5	WNW
18-Apr-2007	09:00	5.4	WNW
18-Apr-2007	10:00	4.5	W
18-Apr-2007	11:00	6.3	WNW
18-Apr-2007	12:00	5.4	WNW
18-Apr-2007	13:00	5.4	WNW
18-Apr-2007	14:00	4.9	WNW
18-Apr-2007	15:00	4.9	WNW
18-Apr-2007	16:00	4.9	WNW
18-Apr-2007	17:00	2.7	WNW
18-Apr-2007	18:00	1.3	SSW
18-Apr-2007	19:00	1.3	S
18-Apr-2007	20:00	0.0	<u></u>
18-Apr-2007	21:00	0.0	
18-Apr-2007	22:00	0.0	
18-Apr-2007	23:00	0.0	
10-Api-200 <i>1</i>	۷۵.00	0.0	

Date	Time	Wind Speed m/s	Direction
19-Apr-2007	00:00	0.0	
19-Apr-2007	01:00	0.0	
19-Apr-2007	02:00	0.0	
19-Apr-2007	03:00	0.0	
19-Apr-2007	04:00	0.0	SE
19-Apr-2007	05:00	0.0	SSW
19-Apr-2007	06:00	0.0	SW
19-Apr-2007	07:00	0.9	W
19-Apr-2007	08:00	2.2	W
19-Apr-2007	09:00	3.6	WNW
19-Apr-2007	10:00	3.1	WNW
19-Apr-2007	11:00	4.0	WNW
19-Apr-2007	12:00	5.8	WNW
19-Apr-2007	13:00	4.9	WNW
19-Apr-2007	14:00	4.9	WNW
19-Apr-2007	15:00	4.0	WNW
19-Apr-2007	16:00	3.1	WNW
19-Apr-2007	17:00	2.2	WNW
19-Apr-2007	18:00	1.3	NW
19-Apr-2007	19:00	0.9	WNW
19-Apr-2007	20:00	0.4	WNW
19-Apr-2007	21:00	0.4	NNE
19-Apr-2007	22:00	0.0	W
19-Apr-2007	23:00	0.4	W
20-Apr-2007	00:00	0.4	WNW
20-Apr-2007	01:00	0.0	S
20-Apr-2007	02:00	0.0	
20-Apr-2007	03:00	0.0	
20-Apr-2007	04:00	0.0	
20-Apr-2007 20-Apr-2007	05:00	0.0	
20-Apr-2007 20-Apr-2007	06:00	0.0	
20-Apr-2007 20-Apr-2007	07:00	0.0	SSW
20-Apr-2007 20-Apr-2007	08:00	1.8	SW
20-Apr-2007 20-Apr-2007	09:00	2.2	W
20-Apr-2007 20-Apr-2007	10:00	2.7	W
20-Apr-2007 20-Apr-2007	11:00	2.2	WNW
20-Apr-2007 20-Apr-2007		1.8	WNW
	12:00		
20-Apr-2007	13:00	2.7	N N
20-Apr-2007	14:00	2.7	N N
20-Apr-2007	15:00	2.2	N N
20-Apr-2007	16:00	1.3	NW
20-Apr-2007	17:00	1.8	NW
20-Apr-2007	18:00	0.9	NW
20-Apr-2007	19:00	0.4	NW
20-Apr-2007	20:00	0.9	S
20-Apr-2007	21:00	0.4	SSW
20-Apr-2007	22:00	0.0	SSW
20-Apr-2007	23:00	0.4	WSW
21-Apr-2007	00:00	0.4	W
21-Apr-2007	01:00	0.4	W
21-Apr-2007	02:00	0.0	SSW
21-Apr-2007	03:00	0.0	
21-Apr-2007	04:00	0.0	
21-Apr-2007	05:00	0.0	S

Date	Time	Wind Speed m/s	Direction
21-Apr-2007	06:00	0.0	S
21-Apr-2007	07:00	0.0	
21-Apr-2007	08:00	0.0	WNW
21-Apr-2007	09:00	0.4	W
21-Apr-2007	10:00	0.4	NW
21-Apr-2007	11:00	0.9	W
21-Apr-2007	12:00	2.7	N
21-Apr-2007	13:00	3.1	NNE
21-Apr-2007	14:00	3.1	NNE
21-Apr-2007	15:00	2.2	N
21-Apr-2007	16:00	1.8	N
21-Apr-2007	17:00	2.2	N
21-Apr-2007	18:00	0.9	N
21-Apr-2007	19:00	0.9	N
21-Apr-2007	20:00	1.8	NNE
21-Apr-2007	21:00	0.9	NE
21-Apr-2007	22:00	0.9	NNE
21-Apr-2007	23:00	1.8	NNE
22-Apr-2007	00:00	0.9	NE
22-Apr-2007	01:00	0.9	N
22-Apr-2007	02:00	1.3	NE
22-Apr-2007	03:00	0.9	NE
22-Apr-2007	04:00	0.4	NNE
22-Apr-2007	05:00	0.9	N
22-Apr-2007	06:00	0.9	N
22-Apr-2007	07:00	0.9	N
22-Apr-2007	08:00	0.9	NNE
22-Apr-2007	09:00	3.1	NNE
22-Apr-2007	10:00	3.6	NNE
22-Apr-2007	11:00	4.9	NNE
22-Apr-2007	12:00	4.9	NNE
22-Apr-2007	13:00	4.9	NNE
22-Apr-2007	14:00	4.0	NNE
22-Apr-2007	15:00	3.6	NNE
22-Apr-2007	16:00	3.1	NE
22-Apr-2007	17:00	3.6	NE
22-Apr-2007	18:00	3.6	NE
22-Apr-2007	19:00	2.2	NE
22-Apr-2007	20:00	3.6	NE
22-Apr-2007	21:00	3.6	NE
22-Apr-2007	22:00	4.0	NE
22-Apr-2007	23:00	3.6	NE
23-Apr-2007	00:00	3.6	NNE
23-Apr-2007	01:00	4.0	NNE
23-Apr-2007	02:00	3.6	NE
23-Apr-2007	03:00	4.5	NNE
23-Apr-2007	04:00	4.5	NNE
23-Apr-2007	05:00	2.7	NNE
23-Apr-2007	06:00	2.2	NE
23-Apr-2007	07:00	2.2	NE
23-Apr-2007	08:00	4.5	NNE
23-Apr-2007	09:00	3.1	NE
23-Apr-2007	10:00	2.7	NE
23-Apr-2007	11:00	2.2	NE

Date	Time	Wind Speed m/s	Direction
23-Apr-2007	12:00	0.9	NNE
23-Apr-2007	13:00	1.3	NE
23-Apr-2007	14:00	1.8	ENE
23-Apr-2007	15:00	1.8	NE
23-Apr-2007	16:00	1.8	NE
23-Apr-2007	17:00	0.9	NE
23-Apr-2007	18:00	0.4	SE
23-Apr-2007	19:00	0.4	Е
23-Apr-2007	20:00	0.0	E
23-Apr-2007	21:00	0.0	N
23-Apr-2007	22:00	0.4	NNE
23-Apr-2007	23:00	0.4	NNE
24-Apr-2007	00:00	0.9	W
24-Apr-2007	01:00	0.0	W
24-Apr-2007	02:00	0.4	W
24-Apr-2007	03:00	0.0	SSW
24-Apr-2007	04:00	0.4	NNE
24-Apr-2007	05:00	2.2	NNE
24-Apr-2007	06:00	1.8	N
24-Apr-2007	07:00	2.7	NNE
24-Apr-2007	08:00	3.6	NE
24-Apr-2007	09:00	3.1	NE
24-Apr-2007	10:00	2.2	NE NE
24-Apr-2007	11:00	3.1	WNW
24-Apr-2007	12:00	0.9	SSE
24-Apr-2007	13:00	0.9	S
24-Apr-2007	14:00	0.4	Ē
24-Apr-2007	15:00	0.4	NE
24-Apr-2007	16:00	0.0	E
24-Apr-2007	17:00	0.0	NNE
24-Apr-2007	18:00	0.4	S
24-Apr-2007	19:00	0.9	W
24-Apr-2007	20:00	0.9	W
24-Apr-2007	21:00	1.3	WNW
24-Apr-2007	22:00	3.1	WNW
24-Apr-2007	23:00	1.3	W
25-Apr-2007	00:00	0.4	WNW
25-Apr-2007	01:00	0.4	W
25-Apr-2007	02:00	1.3	WNW
25-Apr-2007	03:00	1.3	WNW
25-Apr-2007	04:00	2.2	WNW
25-Apr-2007	05:00	1.3	WNW
25-Apr-2007 25-Apr-2007	06:00	2.2	WNW
25-Apr-2007 25-Apr-2007	07:00	1.3	WNW
25-Apr-2007	08:00	0.4	SW
25-Apr-2007	09:00	1.3	WSW
25-Apr-2007 25-Apr-2007	10:00	1.3	W
25-Apr-2007 25-Apr-2007	11:00	2.2	W
25-Apr-2007 25-Apr-2007	12:00	2.7	WNW
25-Apr-2007 25-Apr-2007	13:00	2.7	WNW
	14:00	1.3	W
25-Apr-2007		2.2	WNW
25-Apr-2007	15:00	2.2	
25-Apr-2007	16:00 17:00		WNW WNW
25-Apr-2007	17:00	2.2	VVINVV

Date	Time	Wind Speed m/s				
25-Apr-2007	18:00	1.3	WNW			
25-Apr-2007	19:00	1.3	WNW			
25-Apr-2007	20:00	0.9	WSW			
25-Apr-2007	21:00	0.9	SSW			
25-Apr-2007	22:00	0.9	WSW			
25-Apr-2007	23:00	1.3	WSW			
26-Apr-2007	00:00	0.4	WSW			
26-Apr-2007	01:00	0.9	SW			
26-Apr-2007	02:00	0.4	SW			
26-Apr-2007	03:00	1.3	SW			
26-Apr-2007	04:00	0.4	W			
26-Apr-2007	05:00	0.0	WSW			
26-Apr-2007	06:00	1.3	W			
26-Apr-2007	07:00	1.8	WSW			
26-Apr-2007	08:00	2.2	SW			
26-Apr-2007	09:00	3.1	WNW			
26-Apr-2007	10:00	2.7	WNW			
26-Apr-2007	11:00	2.7	WNW			
26-Apr-2007	12:00	2.7	WNW			
26-Apr-2007	13:00	3.1	WNW			
26-Apr-2007	14:00	2.7	WNW			
26-Apr-2007	15:00	3.1	WNW			
26-Apr-2007	16:00	2.7	W			
26-Apr-2007	17:00	2.2	W			
26-Apr-2007	18:00	2.2	W			
26-Apr-2007	19:00	1.8	W			
26-Apr-2007	20:00	1.8	W			
26-Apr-2007	21:00	1.8	W			
26-Apr-2007	22:00	1.8	SW			
26-Apr-2007	23:00	1.8	WSW			
27-Apr-2007	00:00	2.2	W			
27-Apr-2007	01:00	2.7	WSW			
27-Apr-2007	02:00	1.8	SSW			
27-Apr-2007 27-Apr-2007	03:00	0.9	SW			
27-Apr-2007 27-Apr-2007	04:00	1.3	SSW			
27-Apr-2007 27-Apr-2007	05:00	0.9	SSW			
27-Apr-2007 27-Apr-2007	06:00	0.9	SW			
27-Apr-2007 27-Apr-2007	07:00	1.3	SW			
27-Apr-2007 27-Apr-2007	08:00	1.8	SW			
27-Apr-2007 27-Apr-2007	09:00	2.7	WNW			
	10:00	3.1	WNW			
27-Apr-2007	11:00	3.1	WNW			
27-Apr-2007		3.6				
27-Apr-2007 27-Apr-2007	12:00 13:00	3.1	WNW			
	14:00	2.2	WNW			
27-Apr-2007			NNE			
27-Apr-2007	15:00 16:00	0.9				
27-Apr-2007	16:00	3.1	NNE			
27-Apr-2007	17:00	1.3	WNW			
27-Apr-2007	18:00	1.3	WNW			
27-Apr-2007	19:00	1.8	SSW			
27-Apr-2007	20:00	1.8	SSW			
27-Apr-2007	21:00	0.0				
27-Apr-2007	22:00	0.0				
27-Apr-2007	23:00	0.0	SW			

Date	Time	Wind Speed m/s	Direction
28-Apr-2007	00:00	0.0	SW
28-Apr-2007	01:00	0.0	
28-Apr-2007	02:00	0.0	S
28-Apr-2007	03:00	0.4	SW
28-Apr-2007	04:00	1.3	WSW
28-Apr-2007	05:00	1.8	WSW
28-Apr-2007	06:00	1.8	W
28-Apr-2007	07:00	2.7	WNW
28-Apr-2007	08:00	1.8	WNW
28-Apr-2007	09:00	2.7	WNW
28-Apr-2007	10:00	3.6	WNW
28-Apr-2007	11:00	4.5	WNW
28-Apr-2007	12:00	4.0	WNW
28-Apr-2007	13:00	3.1	WNW
28-Apr-2007	14:00	3.6	WNW
28-Apr-2007	15:00	3.1	WNW
28-Apr-2007	16:00	3.1	WNW
28-Apr-2007	17:00	3.1	W
28-Apr-2007	18:00	2.7	W
28-Apr-2007	19:00	2.7	W
28-Apr-2007	20:00	4.5	WNW
28-Apr-2007	21:00	3.6	W
28-Apr-2007	22:00	4.0	WNW
28-Apr-2007	23:00	4.0	WNW
29-Apr-2007	00:00	4.0	WNW
29-Apr-2007	01:00	4.5	WNW
29-Apr-2007	02:00	4.9	WNW
29-Apr-2007	03:00	4.0	WNW
29-Apr-2007	04:00	4.0	WNW
29-Apr-2007	05:00	3.6	W
29-Apr-2007	06:00	3.6	WNW
29-Apr-2007	07:00	3.6	WSW
29-Apr-2007	08:00	4.0	WNW
29-Apr-2007	09:00	2.7	WSW
29-Apr-2007	10:00	3.6	W
29-Apr-2007 29-Apr-2007	11:00	2.7	WSW
29-Apr-2007 29-Apr-2007	12:00	3.6	W
29-Apr-2007 29-Apr-2007	13:00	4.0	WSW
29-Apr-2007 29-Apr-2007	14:00	4.0	WNW
			WNW
29-Apr-2007	15:00	2.2	WNW
29-Apr-2007	16:00	1.8	
29-Apr-2007	17:00	2.2	WNW
29-Apr-2007	18:00	1.8	W
29-Apr-2007	19:00	0.9	WNW
29-Apr-2007	20:00	0.4	W
29-Apr-2007	21:00	0.9	WNW
29-Apr-2007	22:00	0.9	WNW
29-Apr-2007	23:00	0.9	SW
30-Apr-2007	00:00	1.8	WNW
30-Apr-2007	01:00	2.2	W
30-Apr-2007	02:00	2.2	SW
30-Apr-2007	03:00	0.9	W
30-Apr-2007	04:00	1.3	SSW
30-Apr-2007	05:00	0.4	WSW

Date	Time	Wind Speed m/s	Direction
30-Apr-2007	06:00	0.0	SW
30-Apr-2007	07:00	0.0	SSW
30-Apr-2007	08:00	0.0	SW
30-Apr-2007	09:00	0.0	
30-Apr-2007	10:00	0.0	
30-Apr-2007	11:00	0.9	W
30-Apr-2007	12:00	0.0	W
30-Apr-2007	13:00	0.4	W
30-Apr-2007	14:00	1.3	W
30-Apr-2007	15:00	2.2	WNW
30-Apr-2007	16:00	0.4	W
30-Apr-2007	17:00	0.0	
30-Apr-2007	18:00	0.4	ESE
30-Apr-2007	19:00	0.9	ESE
30-Apr-2007	20:00	0.0	ESE
30-Apr-2007	21:00	0.0	
30-Apr-2007	22:00	0.0	
30-Apr-2007	23:00	0.0	

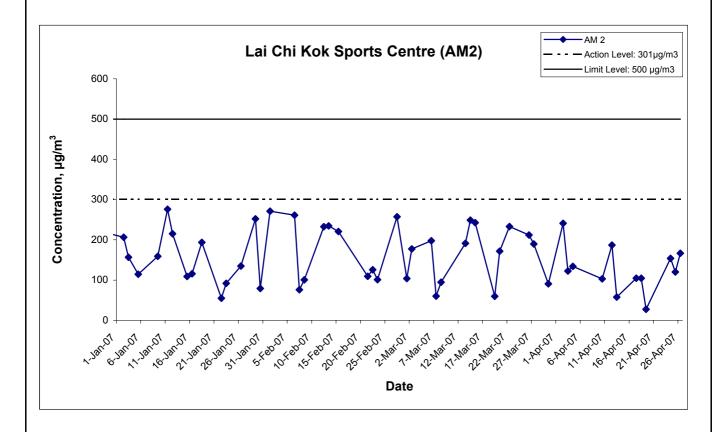
APPENDIX E 1-HOUR TSP MONITORING RESULTS AND GRAPHICAL PRESENTATION

Appendix E - 1-hour TSP Monitoring Results

Location AM 2 - Lai Chi Kok Sports Centre

Date	Weather	Filter W	eight (g)	Flow Rate	e (m³/min.)	Elaps	se Time	Air	Atmospheric	Particulate	Av. flow	Total vol.	Sampling	Conc.
	Condition	Initial	Final	Initial	Final	Initial	Final	Temp. (K)	Pressure(Pa)	weight(g)	(m ³ /min)	(m ³)	Time(hrs.)	(µg/m ³)
2-Apr-07	Cloudy	2.9320	2.9495	1.21	1.21	5717.1	5718.1	299.1	759.7	0.0175	1.21	72.7	1.0	240.8
3-Apr-07	Cloudy	2.8901	2.8992	1.24	1.24	5718.1	5719.1	288.6	767.1	0.0091	1.24	74.2	1.0	122.6
4-Apr-07	Cloudy	2.7154	2.7254	1.24	1.24	5719.1	5720.1	285.9	770.3	0.0100	1.24	74.7	1.0	133.9
10-Apr-07	Cloudy	2.7686	2.7762	1.23	1.23	5744.1	5745.1	290.7	765.4	0.0076	1.23	73.9	1.0	102.9
12-Apr-07	Sunshine	2.7369	2.7506	1.22	1.22	5745.1	5746.1	295.1	765.7	0.0137	1.22	73.4	1.0	186.7
13-Apr-07	Sunshine	2.7565	2.7607	1.22	1.22	5770.1	5771.1	296.6	763.0	0.0042	1.22	73.1	1.0	57.5
17-Apr-07	Cloudy	2.7750	2.7826	1.21	1.21	5771.1	5772.1	299.1	760.3	0.0076	1.21	72.7	1.0	104.6
18-Apr-07	Sunshine	2.7376	2.7453	1.23	1.23	5772.1	5773.1	292.7	763.1	0.0077	1.23	73.6	1.0	104.7
19-Apr-07	Sunshine	2.7527	2.7547	1.22	1.22	5797.1	5798.1	296.7	764.0	0.0020	1.22	73.1	1.0	27.4
24-Apr-07	Cloudy	2.7876	2.7988	1.21	1.21	5798.1	5799.1	298.9	760.1	0.0112	1.21	72.7	1.0	154.1
25-Apr-07	Cloudy	2.7386	2.7474	1.22	1.22	5823.1	5824.1	294.4	759.4	0.0088	1.22	73.2	1.0	120.3
26-Apr-07	Sunshine	2.7479	2.7601	1.22	1.22	5824.1	5825.1	296.6	766.6	0.0122	1.22	73.3	1.0	166.6
													Min	27.4
													Max	240.8
													Average	126.8

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

Appendix Appendix Apr 07



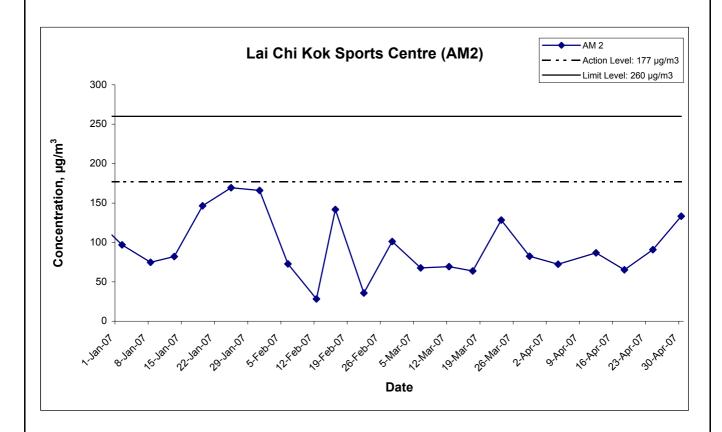
APPENDIX F 24-HOUR TSP MONITORING RESULTS AND GRAPHICAL PRESENTATION

Appendix F - 24-hour TSP Monitoring Results

Location AM 2 - Lai Chi Kok Sports Centre

Date	Weather	Filter W	eight (g)	Flow Rate	e (m³/min.)	Elaps	e Time	Air	Atmospheric	Particulate	Av. flow	Total vol.	Sampling	Conc.
	Condition	Initial	Final	Initial	Final	Initial	Final	Temp. (K)	Pressure(Pa)	weight(g)	(m ³ /min)	(m ³)	Time(hrs.)	$(\mu g/m^3)$
4-Apr-07	Cloudy	2.7336	2.8628	1.24	1.24	5720.1	5744.1	285.9	770.3	0.1292	1.24	1788.8	24.0	72.2
12-Apr-07	Sunshine	2.8817	3.0344	1.22	1.22	5746.1	5770.1	295.3	765.5	0.1527	1.22	1760.3	24.0	86.7
18-Apr-07	Sunshine	2.7732	2.8880	1.22	1.22	5773.1	5797.1	293.1	762.7	0.1148	1.22	1763.4	24.0	65.1
24-Apr-07	Rainy	2.7934	2.9518	1.21	1.21	5799.1	5823.1	299.1	759.9	0.1584	1.21	1744.1	24.0	90.8
30-Apr-07	Sunshine	2.7783	3.0119	1.22	1.22	5825.1	5849.1	296.4	762.7	0.2336	1.22	1754.5	24.0	133.1
													Min	65.1
													Max	133.1
													Average	89.6

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 Project No. M.

N.T.S MA3024

Pate Apr 07 Appendix F



APPENDIX G NOISE MONITORING RESULTS AND GRAPHICAL PRESENTATION

Appendix G - Noise Monitoring Results

Location NM2 - Lai Chi Kok Reception Centre									
						Unit: dB (A) (30			
Date	Time	Weather	Measured Noise Level		Baseline Level	Construction Noise Level	Remarks		
			L _{eq}	L ₁₀	L 90	L _{eq}	L _{eq}		
2-Apr-07	09:40	Cloudy	65.3	68.7	62.7		65.3, Measured ≤ Baseline		
10-Apr-07	15:10	Cloudy	61.7	63.2	57.7	68.4	61.7, Measured ≤ Baseline	Resumed since September 2006	
17-Apr-07	09:14	Fine	62.1	63.2	58.7	00.4	62.1, Measured ≤ Baseline	Resultied silice September 2000	
24-Apr-07	13:12	Cloudy	61.4	63.2	58.2		61.4, Measured ≤ Baseline		

Location NM4 - Mei Foo Sun Chuen, Phase 5										
						Unit: dB (A) (30)-min)			
Date	te Time Weather		Measured Noise Level			Baseline Level	Construction Noise Level	Remarks		
			L _{eq}	L ₁₀	L 90	L _{eq}	L _{eq}			
2-Apr-07	10:40	Cloudy	74.3	78.0	70.0		64.7	Road traffic noise from Ching		
10-Apr-07	13:10	Cloudy	73.9	76.0	71.0	73.8	57.5	Cheung Road was identified as the		
17-Apr-07	10:06	Fine	73.7	75.5	68.5	73.0	73.7, Measured ≤ Baseline	major noise source.		
24-Apr-07	13:56	Cloudy	73.9	75.5	69.5		57.5	major noise source.		

Location NM8a - M/F of Nob Hill									
Date	Time	Weather	ather Unit: dB (A) (30-min)		0-min)	Remarks			
			L _{eq}	L ₁₀	L 90				
2-Apr-07	13:00	Cloudy	73.7	77.0	70.0				
10-Apr-07	10:25	Cloudy	74.2	76.0	71.5	Road traffic noise from Ching Cheung Road			
17-Apr-07	10:54	Sunny	73.5	77.0	69.5	was identified as the major noise source.			
24-Apr-07	14:44	Cloudy	74.6	76.5	71.0				

Location N	Location NM8b - 3/F of Nob Hill									
Date	Date Time Weather		Unit: d	IB (A) (3	0-min)	Remarks				
			L _{eq}	L ₁₀	L 90					
2-Apr-07	13:45	Cloudy	75.0	78.5	71.0	This Station (NM8b) which is strongly				
10-Apr-07	11:10	Cloudy	75.7	78.0	73.5	influenced by road traffic noise from Ching Cheung Road. The measurement at this station				
17-Apr-07	11:36	Sunny	76.3	78.5	70.5	is for reference purpose, but not for compliance				
24-Apr-07	15:30	Cloudy	76.4	78.0	72.5	check for construction noise.				

Location NM9 - Hoi Lai Estate								
Date	Time Weather		Unit: c	IB (A) (3	0-min)	Remarks		
			L _{eq}	L ₁₀	L 90			
2-Apr-07	15:00	Cloudy	71.4	74.5	66.5			
10-Apr-07	14:00	Cloudy	66.9	68.0	62.0	_		
17-Apr-07	13:19	Sunny	67.1	68.5	64.0	-		
24-Apr-07	16:14	Cloudy	65.7	66.5	60.0			

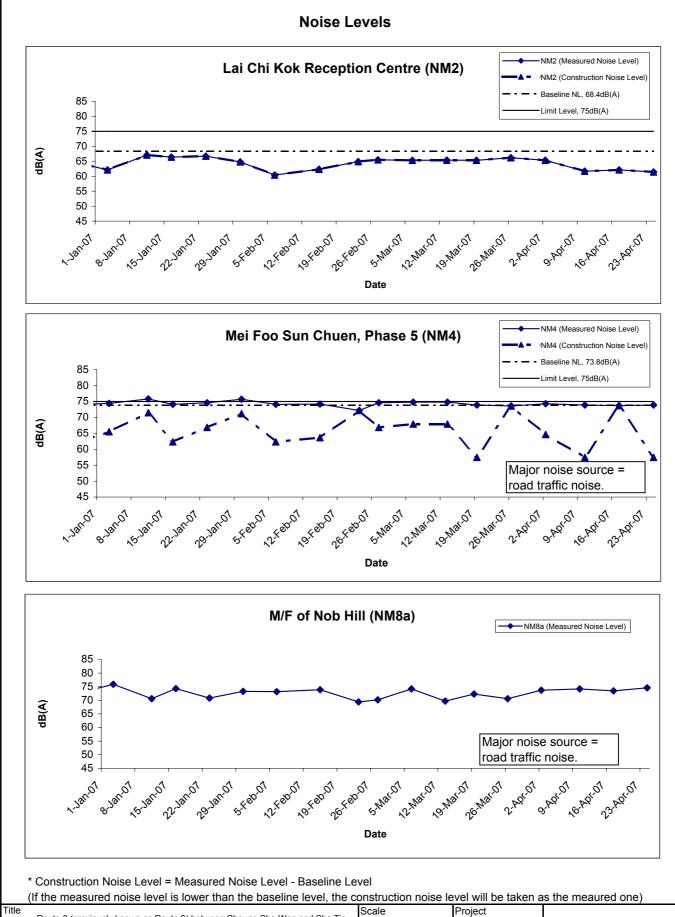
[#] Construction Noise Level (Leq) = Measured Noise Level (Leq) - Baseline Noise Level (Leq)

Appendix G - Noise Monitoring Results

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

Location N	Location NM9 - Hoi Lai Estate								
Data	Time	\A/a athan	dB (A) (5-min)						
Date	Time	Weather	L _{eq}	L ₁₀	L 90	Average L _{eq}			
	19:00		64.1	68.0	61.0				
3-Apr-07	19:05	Cloudy	63.5	67.5	61.0	63.7			
	19:10		63.4	67.5	61.0				
	19:00		63.6	68.0	61.0				
10-Apr-07	19:05	Cloudy	63.6	68.0	61.0	63.6			
	19:10		63.7	68.0	61.0				
	19:20		63.0	68.0	60.5				
17-Apr-07	19:25	Cloudy	63.1	68.0	60.5	63.0			
	19:30		63.0	68.0	61.0				
	19:05		62.9	67.5	58.5				
27-Apr-07	19:10	Cloudy	62.8	67.5	58.5	63.0			
	19:15		63.3	68.0	58.5				

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



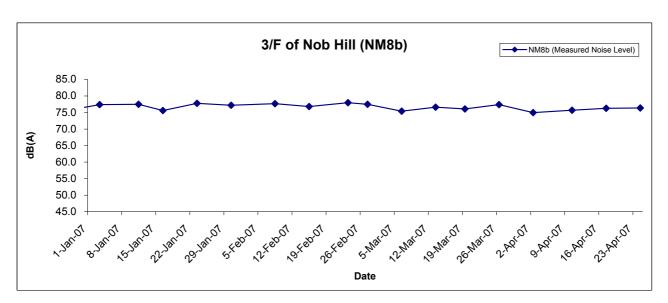
Route 8 (previously known as Route 9) between Cheung Sha Wan and Sha Tin
Contract HY/2003/01 - Lai Chi Kok Viaduct

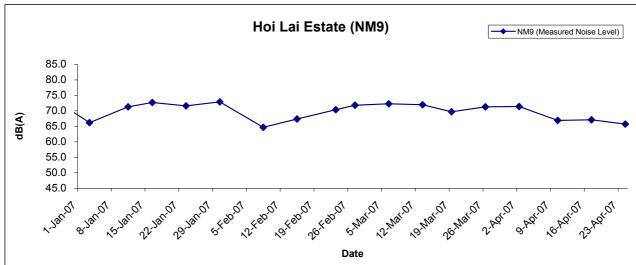
Graphical Presentation of Construction Noise Monitoring
Results

Scale	N.T.S	Project No. MA3024
Date	Apr 07	Appendix G



Noise Levels





Title

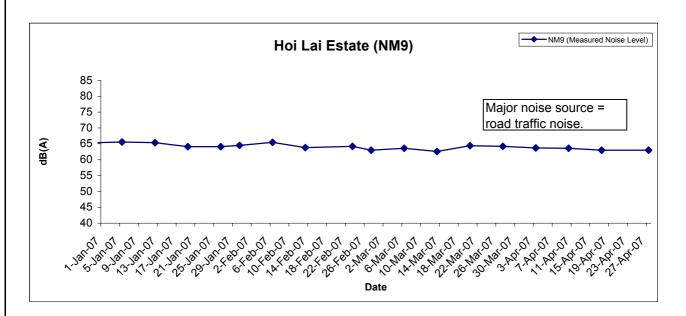
Route 8 (previously known as Route 9) between Cheung Sha Wan and Sha Tin Contract HY/2003/01 - Lai Chi Kok Viaduct

Graphical Presentation of Construction Noise Monitoring Results

Scale		Proje	ct
	N.T.S	No.	MA3024
Date		Appei	ndix
	Apr 07		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
 Project No.

 N.T.S
 MA3024

 Date
 Apr 07
 Appendix G



APPENDIX H SUMMARY OF EXCEEDANCE

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 (NIL)
 - No Action/Limit Level exceedance was recorded in the reporting month.

APPENDIX I SITE AUDIT SUMMARY

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 70402-LCKV		
Date	2 April 2007 (Monday)	
Time	13:30-16:00	

Ref. No.	Non-Compliance	Related Item No
	None identified	12

Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality	
	No environmental deficiency was identified during the site inspection.	
	B. Air Quality	
	No environmental deficiency was identified during the site inspection.	
	C. Noise	
S.	No environmental deficiency was identified during the site inspection.	
	D. Waste / Chemical Management	
	No environmental deficiency was identified during the site inspection.	
	E. Permit/Licenses	
	No environmental deficiency was identified during the site inspection.	
	F. Others	
	 Follow-up on previous audit (Ref. No.: 70329-LCKV), no environmental deficiency was observed during site inspection. 	
	Spot checking for dump truck (loaded) was carried out during site inspection.	
	No dump truck leaving the construction site was observed.	

	Name	Signature	Date
Recorded by	Tommy Ho	4	4 April 2007
Checked by	Edmond Wu	115	4 April 2007



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	70411-LCKV	
Date	11 April 2007 (Wednesday)	
Time	13:30-15:30	

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

Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality	
	No environmental deficiency was identified during the site inspection.	
	B. Air Quality	
	No environmental deficiency was identified during the site inspection.	
	C. Noise	
	No environmental deficiency was identified during the site inspection.	
	D. Waste / Chemical Management	
	No environmental deficiency was identified during the site inspection.	
	E. Permit / Licenses	
	No environmental deficiency was identified during the site inspection.	
	F. Others	
	• Follow-up on previous audit (Ref. No.: 70402-LCKV), no environmenta	1
	deficiency was observed during site inspection.	
	Spot checking for dump truck (loaded) was carried out during site inspection	
	No dump truck leaving the construction site was observed.	

	Name	Signature	Date
Recorded by	Tommy Ho	7	13 April 2007
Checked by	Edmond Wu	111	13 April 2007

CINOTECH MA3024

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	70418-LCKV
Date	18 April 2007 (Wednesday)
Time	9:00-10:45

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

Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality	
70418E-01R	Ponding water with general refuse was observed at Abutment A. The contractor was reminded to clean it.	B14
	B. Air Quality	
	No environmental deficiency was identified during the site inspection.	
	C. Noise	
	No environmental deficiency was identified during the site inspection.	
	D. Waste / Chemical Management	
	No environmental deficiency was identified during the site inspection.	
	E. Permit / Licenses	
	No environmental deficiency was identified during the site inspection.	
	F. Others	
	• Follow-up on previous audit (Ref. No.: 70411-LCKV), no environmental	
	deficiency was observed during site inspection.	
=	Spot checking for dump truck (loaded) was carried out during site inspection.	
	No dump truck leaving the construction site was observed.	

	Name	Signature	Date
Recorded by	Stanley Liu	Stanley	19 April 2007
Checked by	Dr. Priscilla Choy	WI	19 April 2007

CINOTECH MA3024 70418_LCKV

ute 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	70425-LCKV
Date	25 April 2007 (Wednesday)
Time	13:30 -14:45

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

Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality	
	No environmental deficiency was identified during the site inspection.	
	B. Air Quality	
	No environmental deficiency was identified during the site inspection.	-
	C. Noise	
	No environmental deficiency was identified during the site inspection.	
	D. Waste / Chemical Management	
70425 L •01R	Scattered general refuse was observed at Abutment A. The contractor was reminded to clean it.	Eli
	E. Permit/Licenses	
	No environmental deficiency was identified during the site inspection.	
	F. Others	
	• Follow-up on previous audit (Ref. No.: 70418-LCKV), no environmental	
	deficiency was observed during site inspection.	
	Spot checking for dump truck (loaded) was carried out during site inspection.	
	No dump truck leaving the construction site was observed.	

	Name	Signature	Date
Recorded by	Stanley Liu	Stanley	26 April 2007
Checked by	Edmond Wu	211	26 April 2007

CINOTECH MA3024 70425_LCKV

APPENDIX J EVENT ACTION PLANS

Appendix J - Event Action Plans

Event/Action Plan for Air Quality

EVENT		ACTIO	N	
EVENI	ET	IEC	ER	Contractor
ACTION LEVEL				
1. Exceedance for one	1. Identify source	1. Check monitoring data submitted by ET	1. Notify Contractor	Rectify any unacceptable practice
sample	2. Inform ER & IEC	2. Check Contractor's working methods	2. Check monitoring data and Contractor's	2. Amend working methods if
	3. Repeat measurement to confirm finding		working methods	appropriate
	4. Increase monitoring frequency to daily			
2. Exceedance for two or	1. Identify source	1. Checking monitoring data submitted by	1. Confirm receipt of notification of failure	Submit proposals for remedial
more consecutive samples	2. Inform ER & IEC	ET	in writing	actions to ER within 3 working days
	3. Repeat measurement to confirm findings	2. Check Contractor's working methods	2. Notify Contractor	of notification
	4. Increase monitoring frequency to daily	3. Discuss with ET and Contractor on	3. Check Contractor's working methods	2. Implement the agreed proposals
	5. Discuss with ER & for remedial actions	possible remedial measure	4. Discuss with ET, IEC and Contractor on	3. Amend proposal if appropriate
	required	4. Advise the ER & ET on the effectiveness	proposed remedial actions	
	6. If exceedance continues, arrange	of the proposed remedial measures	5. Ensure remedial actions properly	
	meeting with ER & IEC	5. Supervise the implementation of the	implemented	
	7. If exceedance stops, cease additional	remedial measures		
	monitoring			
LIMIT LEVEL				
1. Exceedance for one	1. Identify source	1. Checking monitoring data submitted by	1. Confirm receipt of notification of failure	1. Take immediate action to avoid
sample	2. Inform ER & IEC and EPD	ET	in writing	further exceedance
	3. Repeat measurement to confirm finding	2. Check Contractor's working methods	2. Notify Contractor	2. Submit proposals for remedial
	4. Increase monitoring frequency to daily	3. Discuss with ET and Contractor on	3. Check Contractor's working methods	actions to ER within 3 working days
	5. Assess effectiveness of Contractor's	possible remedial measure	4. Discuss with ET, IEC and Contractor on	of notification

EVENT		ACTIO	N	
EVENI	ET	IEC	ER	Contractor
	remedial actions and keep EPD and ER &	4. Advise the ER & ET on the effectiveness	proposed remedial actions	3. Implement the agreed proposals
	IEC informed of the results	of the proposed remedial measures	5. Ensure remedial actions properly	4. Amend proposal if appropriate
		5. Supervise the implementation of the	implemented	
		remedial measures		
2. Exceedance for two or	1. Identify source	1. Checking monitoring data submitted by	1. Confirm receipt of notification of failure	1. Take immediate action to avoid
more consecutive samples	2. Inform ER, IEC, Contractor and EPD	ET	in writing	further exceedance
	the cause & actions taken for the	2. Discuss amongst ER, ET and Contractor	2. Notify Contractor	2. Submit proposals for remedial
	exceedances	on possible remedial measures	3. Carry out analysis of Contractor's	actions to IEC, ER within 3 working
	3. Repeat measurement to confirm findings	3. Review Contractor's remedial measures	working procedures to determine possible	days of notification
	4. Increase monitoring frequency to daily	whenever necessary to ensure their	mitigation to be implemented	3. Implement the agreed proposals
	5. Investigate the causes of exceedance	effectiveness and advise the ER	4. Discuss amongst ET, IEC and the	4. Resubmit proposals if problem
	6. Carry out analysis of contractor's	accordingly	Contractor on proposed remedial actions	still not under control
	working procedures to determine possible	4. Supervise the implementation of the	5. In consultation with IEC, agree with the	5. Stop the relevant portion of works
	mitigation to be implemented.	remedial measures	contractor remedial measures to be	as determined by the ER until the
	7. Arrange meeting with EPD, IEC and ER		implemented	exceedance is abated
	to discuss the remedial actions to be taken		6. Ensure remedial measure are properly	
	8. Assess effectiveness of Contractor's		implemented	
	remedial actions and keep EPD and ER &		7. If exceedance continues, consider what	
	IEC informed of the results		portion of the work is responsible and	
	9. If exceedance stops, cease additional		instruct the Contractor to stop that portion	
	monitoring		of work until the exceedance is abated	

Event/Action Plan for Construction Noise

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

Exceedance		ACTIO	N	
Exceedance	ET	IEC	ER	Contractor
Limit Level	1. Repeat measurement to confirm findings	1. Check monitoring data submitted by ET	1. Confirm receipt of notification of	1. Take immediate action to avoid
			exceedance and notify Contractor	further exceedance
	2. Investigate the cause of the exceedance	2. Review Contractor's remedial actions to	2. Check monitoring data trends and	2. Submit proposals for remedial
	and identify the main source(s) of impact	assure their effectiveness and advise the	Contractor's working methods	actions to ER immediately not more
		ER &ET accordingly		than 3 working days of notification
	3. Inform ER&IEC and EPD in writing	3. Supervise the implementation of the	3. Discuss with ET, IEC and Contractor on	3. Amend proposals if required by
		remedial measures	proposed remedial actions to be	the ER
			implemented	
	4. Discuss remedial actions required with		4. Assess the efficacy of remedial actions	4. Implement remedial actions
	ER&IEC		and keep the Contractor informed	immediately upon instruction
	5. Increase monitoring frequency to		5. If exceedance continuous, consider what	5. Liaise with the ER to optimize the
	demonstrate efficacy of remedial measures		portion of the work is responsible and	effectiveness of the agreed
			instruct the Contractor to stop that portion	mitigation
			of work until the exceedance is aborted	
	6. Assess efficacy of remedial actions and			6. Resubmit proposals if problem
	keep ER & IEC informed of the results			still not under control
	7. If exceedance continues, meet with			7. Stop the relevant portion of works
	ER&IEC to identify appropriate mitigation			as determined by the ER until the
	measures			exceedance is aborted
	8. If exceedance stops, cease additional			
	monitoring			

APPENDIX K ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

Appendix K - Summary of Environmental Mitigation Implementation Schedule

Types of Impacts	Mitigation Measures	Status
	 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. 	٨
	 A stockpile of dusty materials should not extend beyond the pedestrian barriers, fencing or traffic cones. 	^
	 Vehicle washing facilities should be provided at every exit point. 	^
	• 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.	۸
	• 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.	^
Construction Dust	 Every main haul road should be sprayed with water or a dust suppression chemical so as to maintain the entire road surface wet. 	۸
Dust	• 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.	۸
	• Any stockpile of dusty materials should be either covered entirely be 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.	^
	 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. 	^
	 Every vehicle should be washed to remove any dusty materials from its body and wheels immediately before leaving a construction site. 	^
	• 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.	^
	Only well-maintained plant should be operated on –site and plant should be serviced regularly during the construction works.	٨
	 Machines and plant that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum. 	۸
	• Plant know to emit noise strongly in one direction, should where possible, be orientated to direct noise away from the NSRS.	^
Construction	Mobile plant should be sited as far away from NSRs as possible.	^
Noise	 Material stockpiles and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities. 	^
	Use quite plant and Working Method	^
	Reduce the number of plant operating in critical areas close NSRs.	^
	Construct temporary and movable noise barriers	^

Types of Impacts	Mitigation Measures	Status
Water Quality	Construction Runoff and Drainage	
	 Use of sediment traps and the adequate maintenance of drainage systems to prevent flooding and overflow. 	^
	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.	٨
	 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 	۸
	• 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.	^
	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.	N/A
	Catchpits and perimeter channels shall be constructed in advance of site formation works and earthworks.	^
	• 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.	^
	• 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.	۸
	 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. 	۸
	Tunnelling Work	
	 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. 	N/A
	 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. 	N/A
	 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. 	N/A

Types of Impacts	Mitigation Measures	Status
<u>-</u>	General Construction Activities	
	• Debris and rubbish on site should be collected, handled and disposed of properly to avoid entering the water column and cause water quality impacts.	٨
	• 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).	^
	Sewage Effluent	
	• Construction work force sewage discharges form 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.	^
	• It is considered that sewage discharges could also be treated by on-site septic tanks and soakaway. Minimum clearance away form 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.	N/A
Waste	General	
	• 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.	^
	Storage, Collection and Transportation of Waste	l .
	Wastes shall be handled and stored in a manner to ensure that they are held securely without loss or leakage.	٨
	• Authorised or licensed waste hauliers shall be used and they shall only collect wastes prescribed by their permits.	٨
	Waste shall be removed on a daily basis.	^
	Waste storage area shall be maintained and cleaned on a daily basis.	^
	 Windblown litter and dust during transportation shall be minimised by either covering trucks or transporting wastes in enclosed containers. 	^
	 Obtain necessary waste disposal permits from the appropriate authorities if they are required. 	^
	Wastes shall be disposed of at licensed waste disposal facilities.	^
	• 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.	^
	 Maintain records of the quantities of wastes generated, recycled and disposed. 	٨
	Surplus Excavated Materials	
	• 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.	٨
	Construction and Demolition (C&D) Waste	

Types of Impacts	Mitigation Measures	Status
	 Careful design, planning and good site management shall be adopted to minimise over-ordering and generation of waste materials such as concrete grouts. 	^
	 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. 	N/A
	• Construction and demolition (C&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.	^
	Chemical Waste	
	• 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.	^
	 Containers used for the storage of chemical wastes should: a. Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed; b. Have a capacity of less than 450 litres unless the specifications have been approved by the EPD; c. Display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Chemical Waste Regulations. 	^
	 The storage area for chemical wastes should: a. Be clearly labelled and used solely for the storage of chemical waste; b. Be enclosed on at least 3 sides; 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; d. Have adequate ventilation; e. Be covered to prevent rainfall entering (water collected within the bund must be tested and disposed as chemical waste if necessary); f. Be arranged so that incompatible materials are adequately separated. 	٨
	 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). 	^
	General Refuse	
	• General refuse generated on-site shall be stored in enclosed bins or compaction unit separate from C&D and chemical wastes. A reputable waste collector shall be employed by the contractor to remove general refuse from the site, separately from C&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.	^
	Reusable rather than disposable dishware shall be used if feasible.	^

Types of Impacts	Mitigation Measures	Status
•	 A sediment barrier shall be erected to minimize stream sedimentation at downstream of the project boundary of the Toll Plaza. Conduct a tree survey before commencement of the construction work. 	N/A
Earland	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.	^
Ecology	 Loss of the adjacent woodland due to temporary land take shall be returned to the original status immediately. Wild and uncontrolled fire shall be strictly prohibited 	N/A
	• 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.	N/A
	• 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.	^
Landscape and Visual Impact	• 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.	^
	 Measurement of vibration would also be carried out on a need basis during the piling work 	^

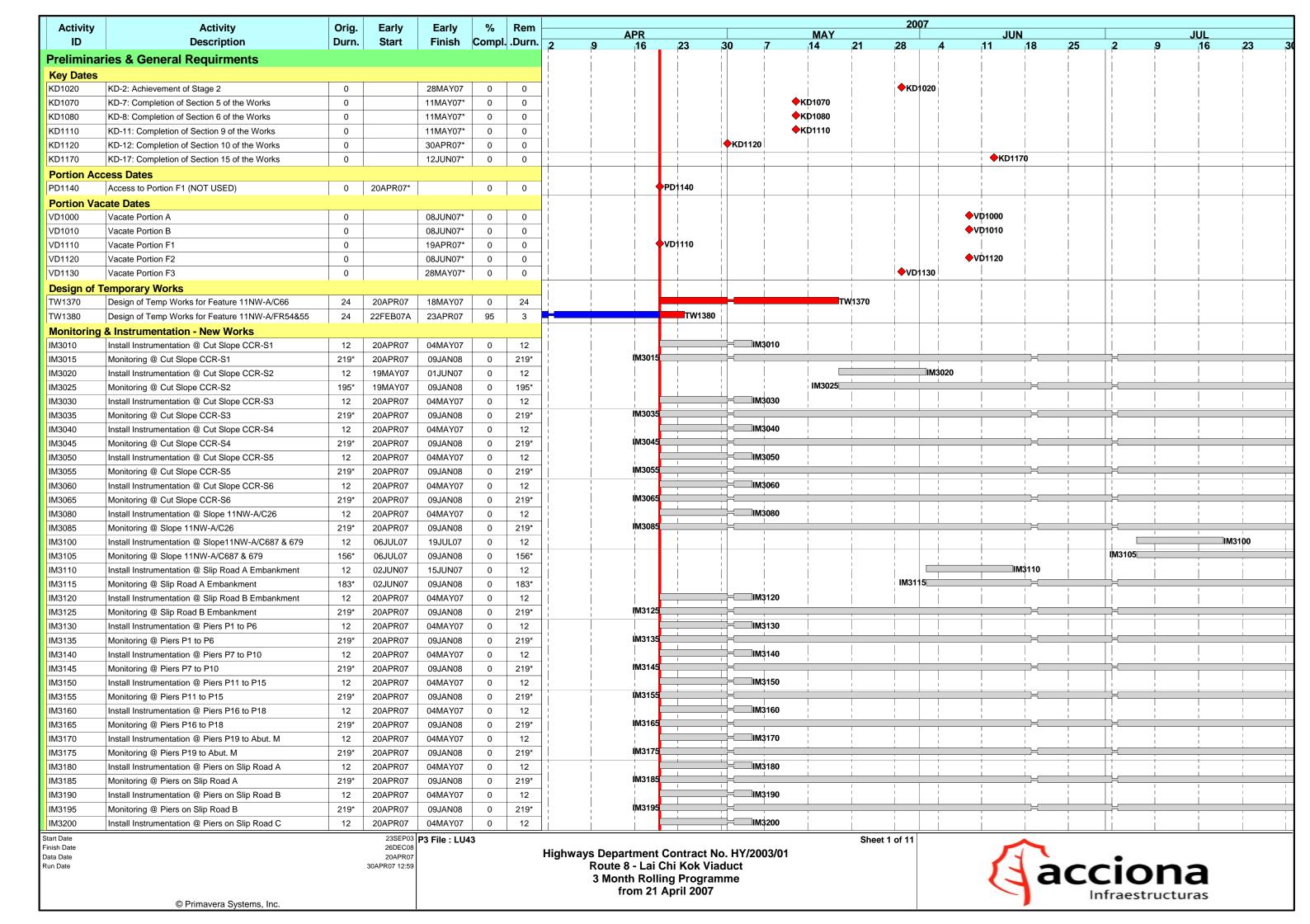
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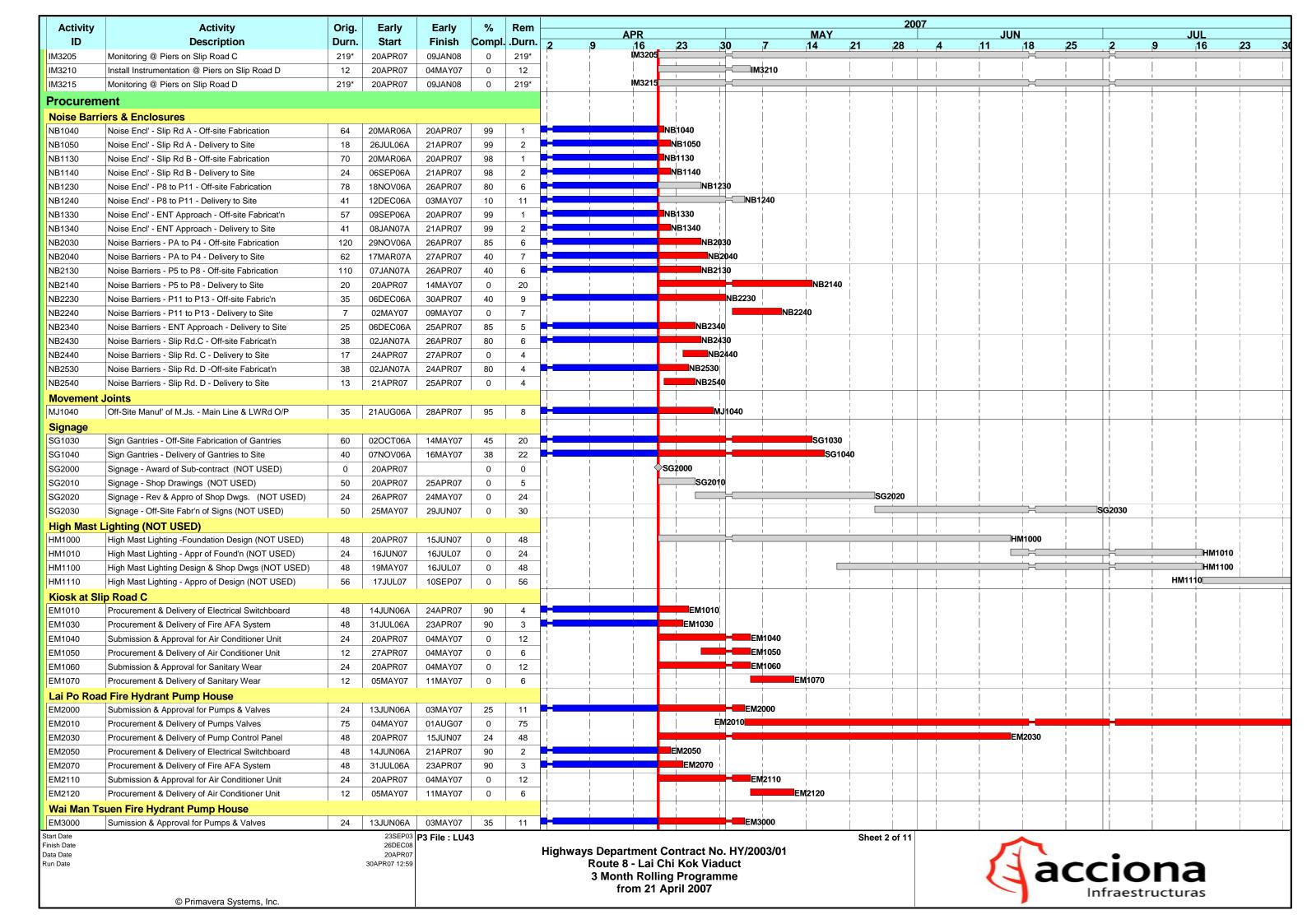
Compliance of mitigation measure; Not Applicable; \wedge

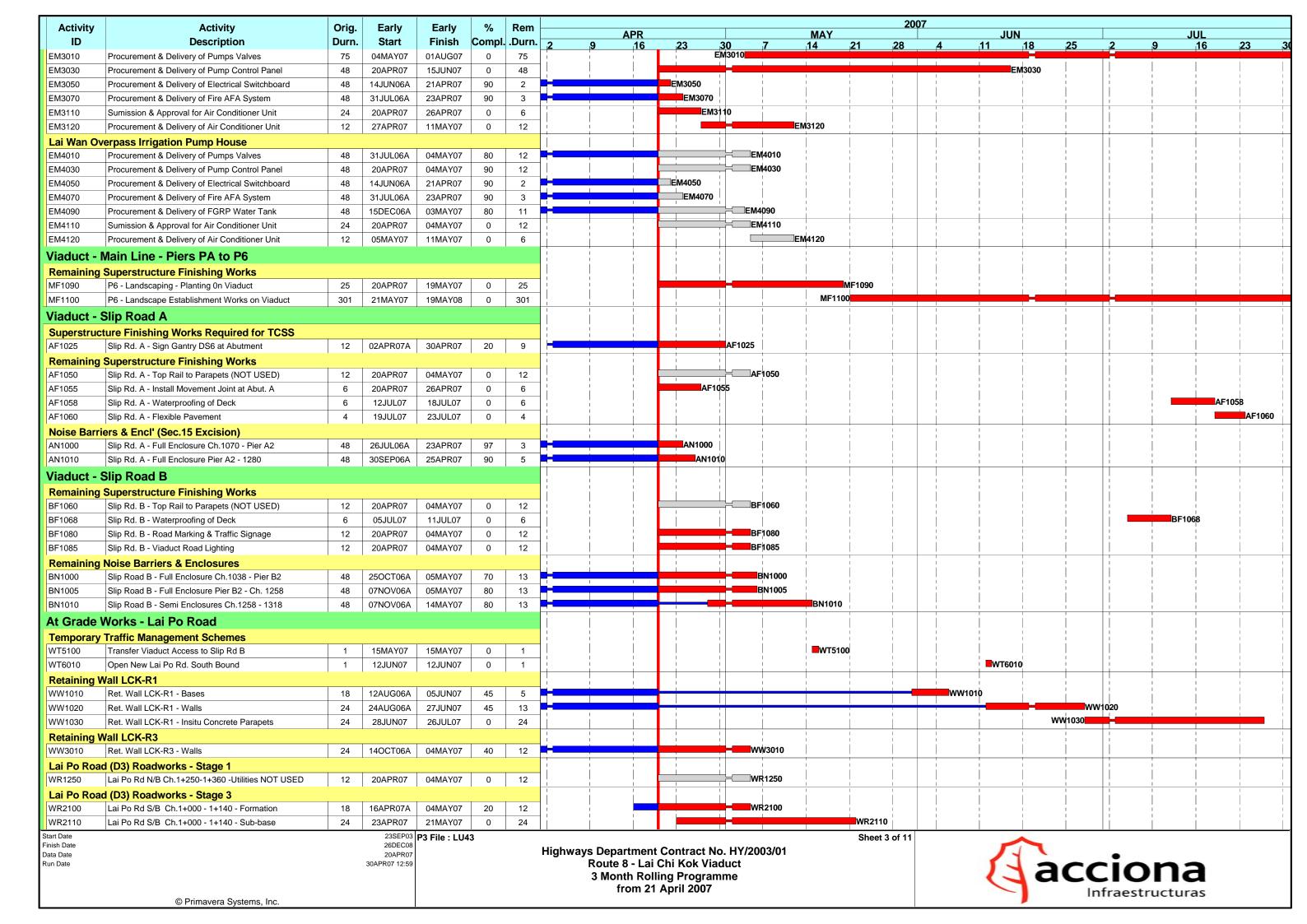
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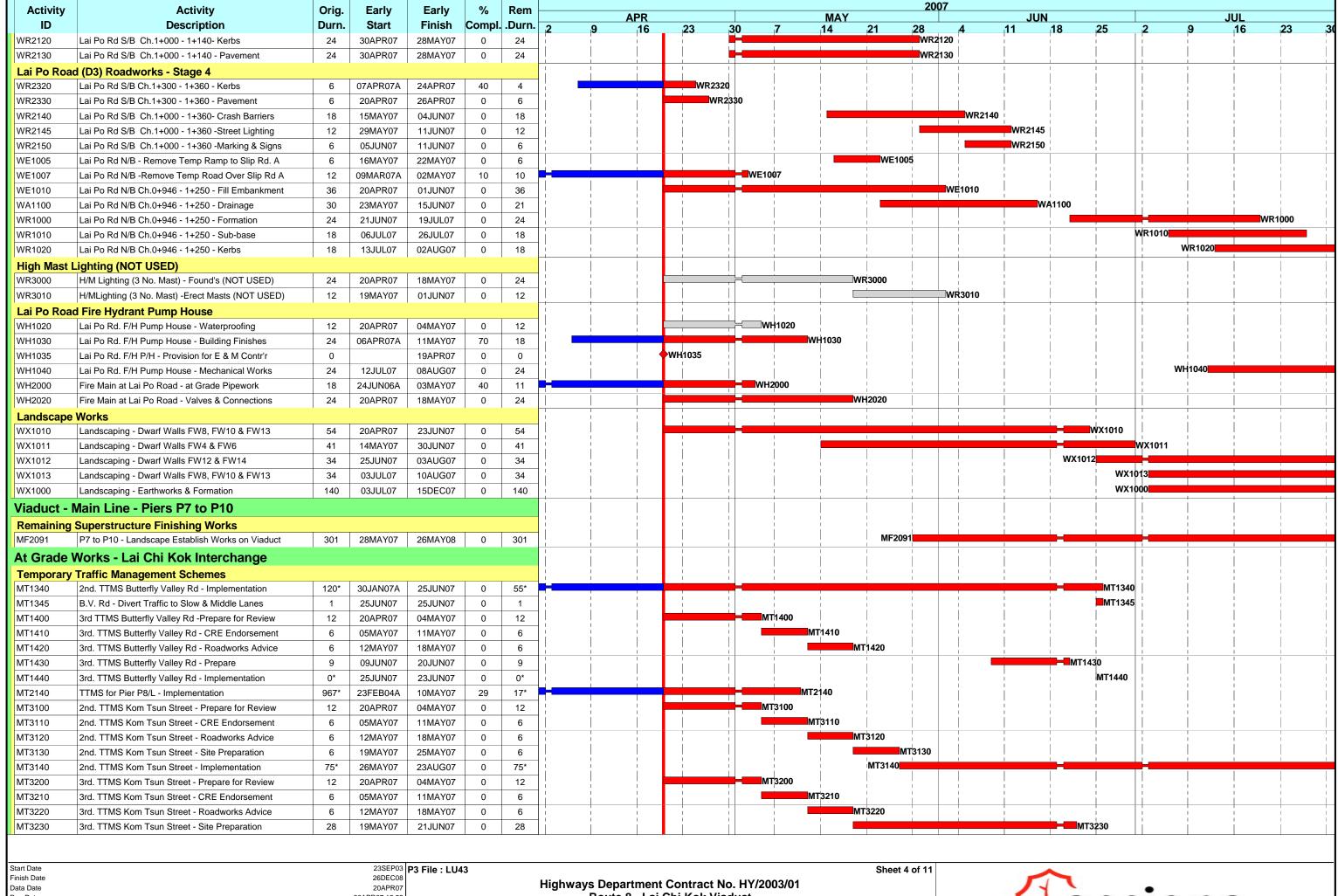
Non-compliance of mitigation measure; Non-compliance but rectified by the contractor N/A •

APPENDIX L CONSTRUCTION PROGRAMME









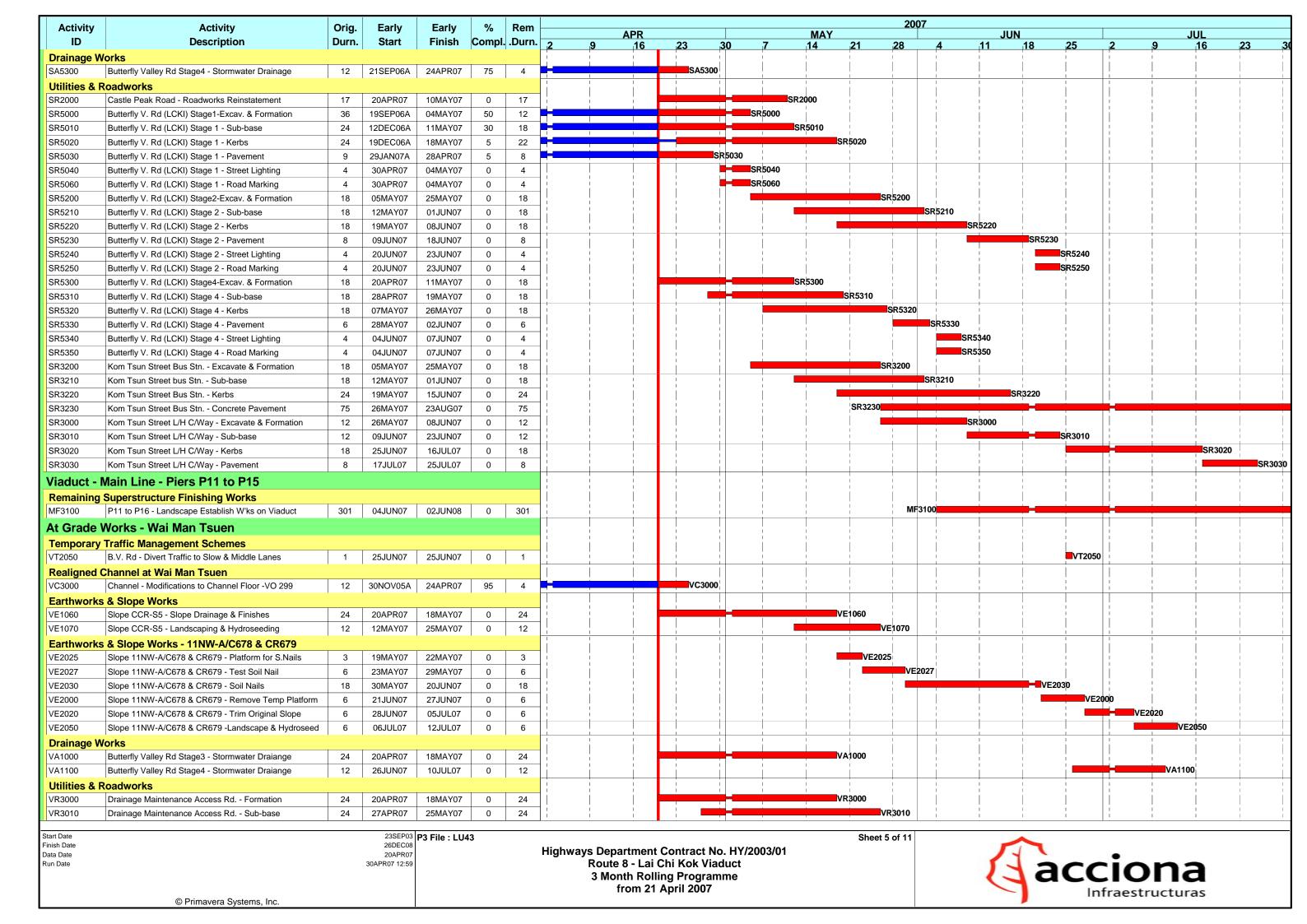
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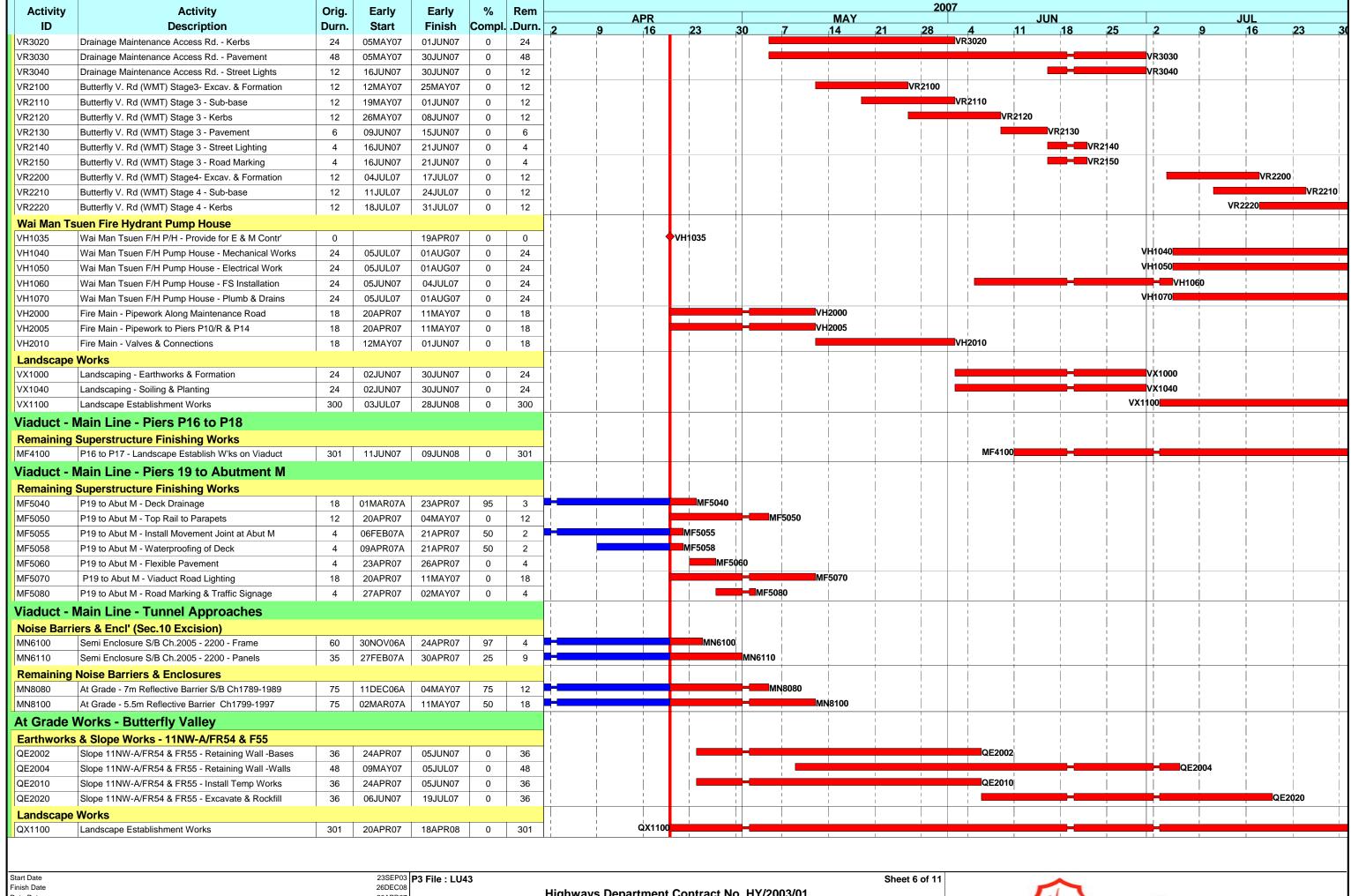
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Route 8 - Lai Chi Kok Viaduct 3 Month Rolling Programme from 21 April 2007







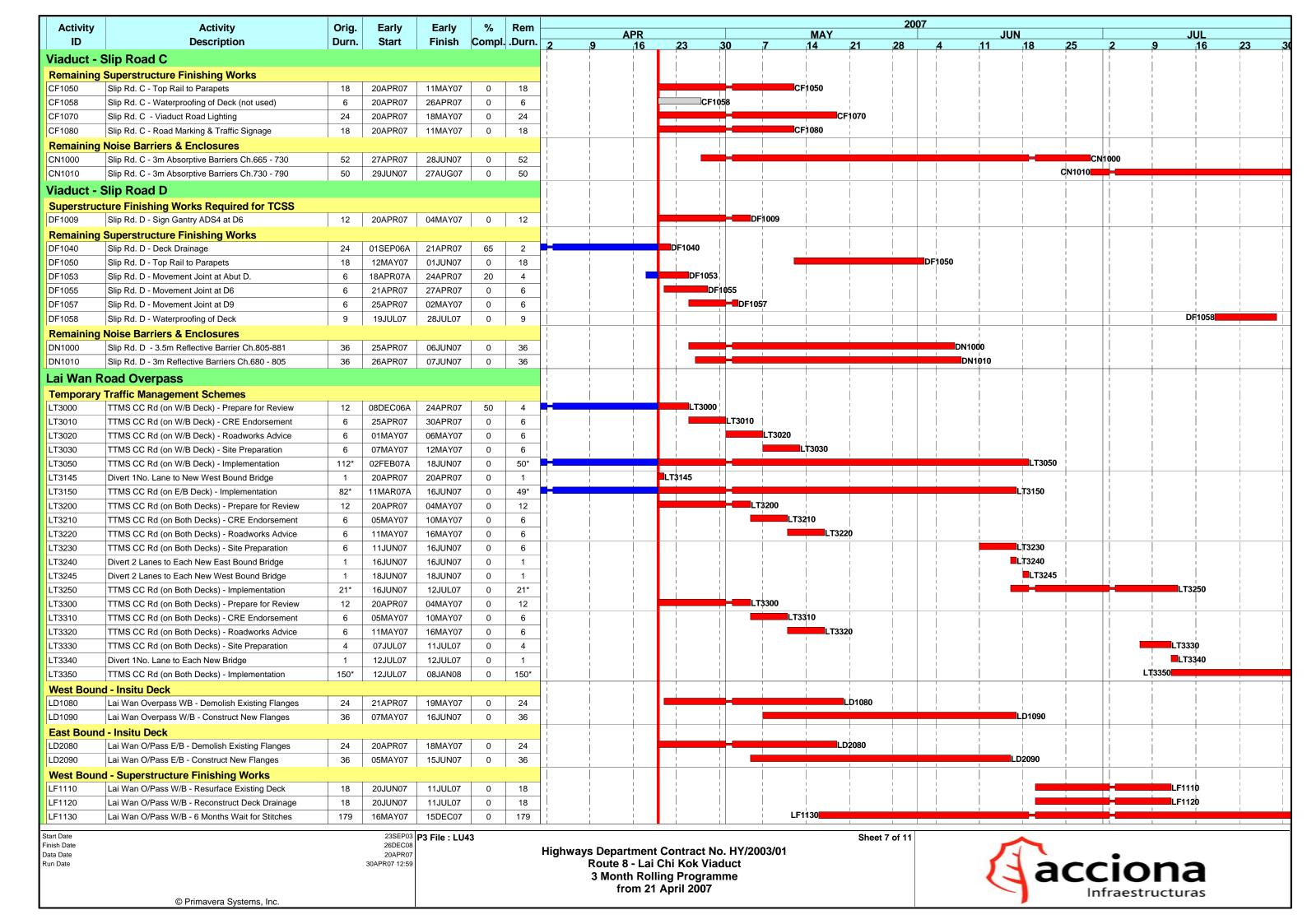
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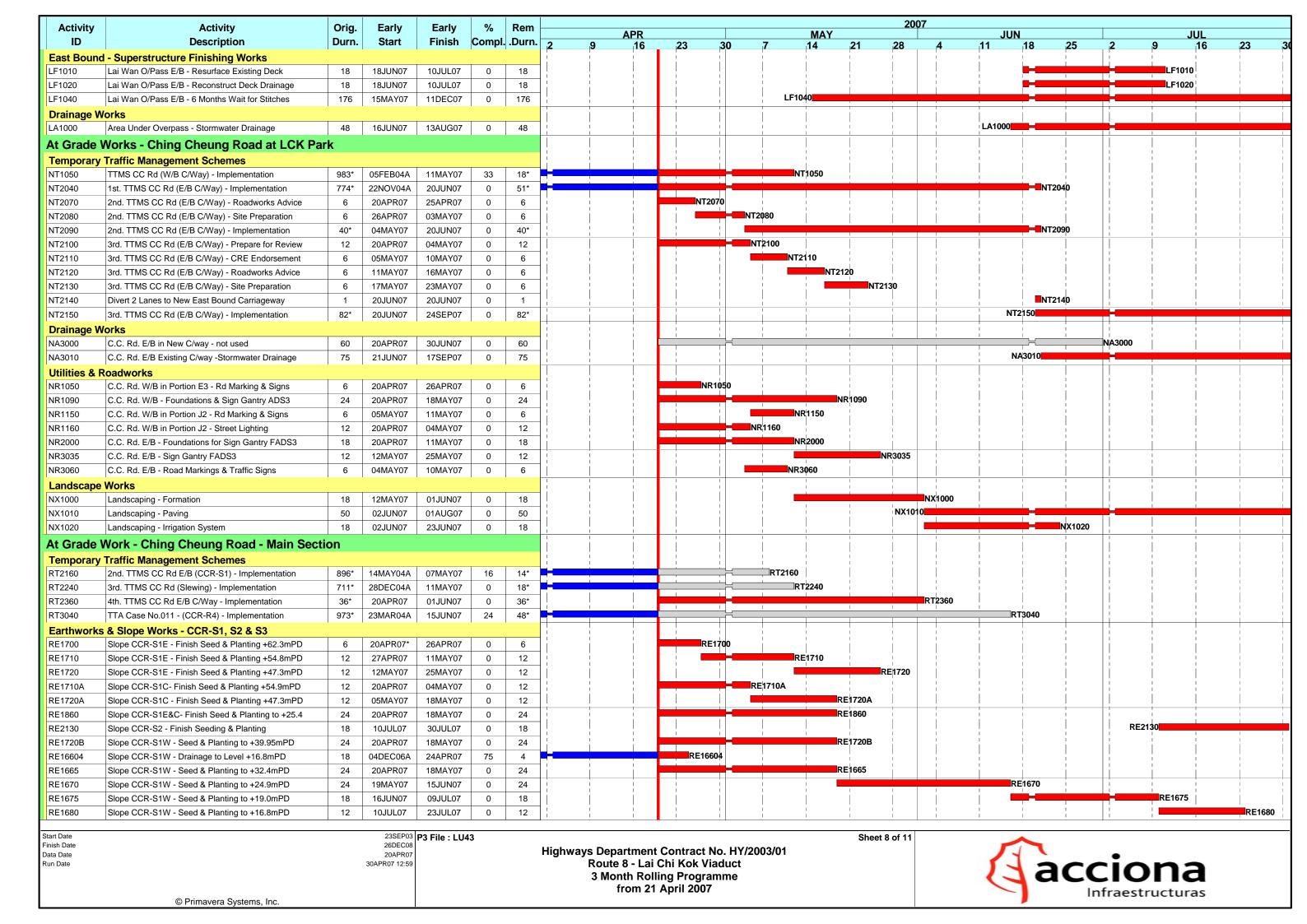
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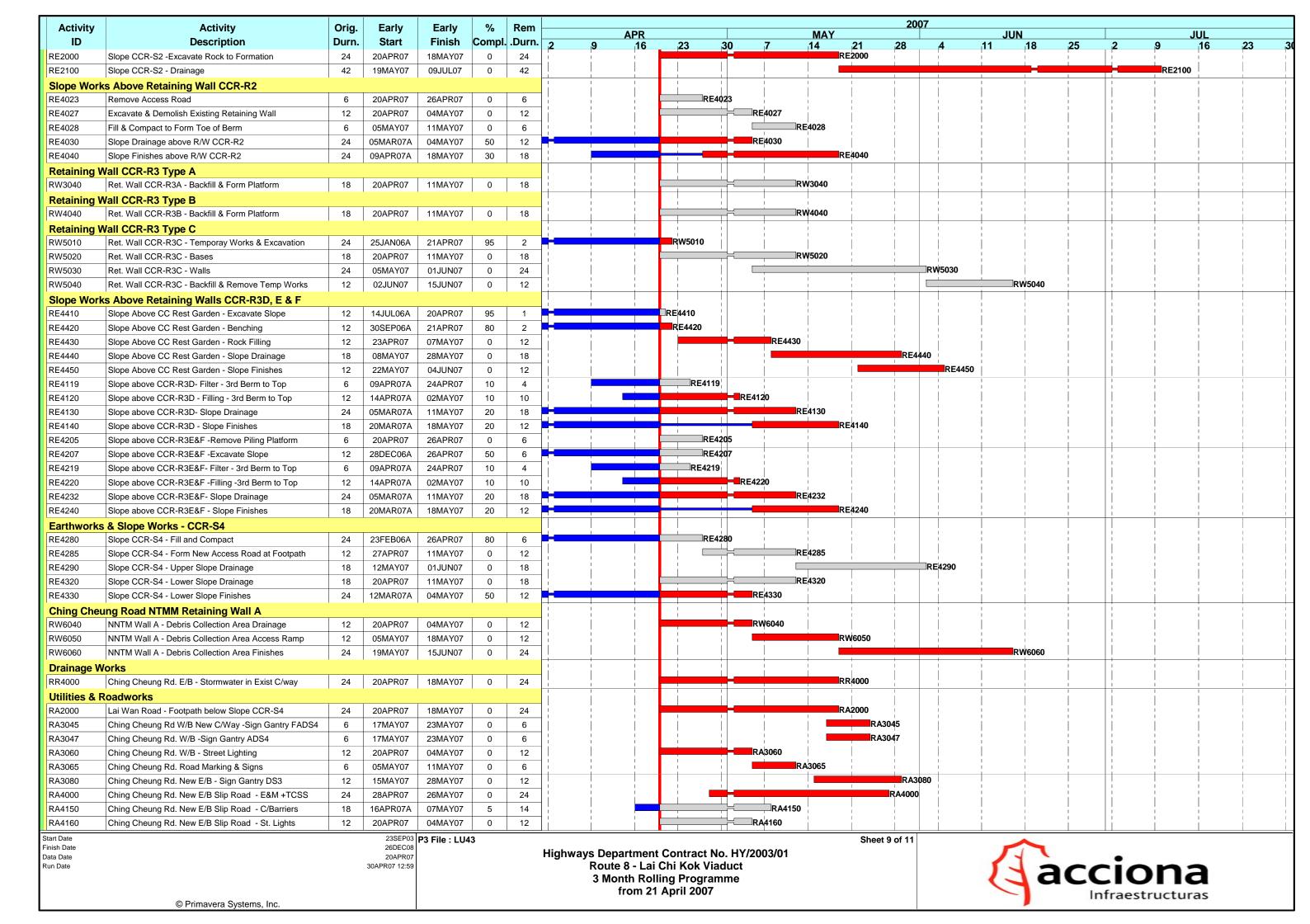
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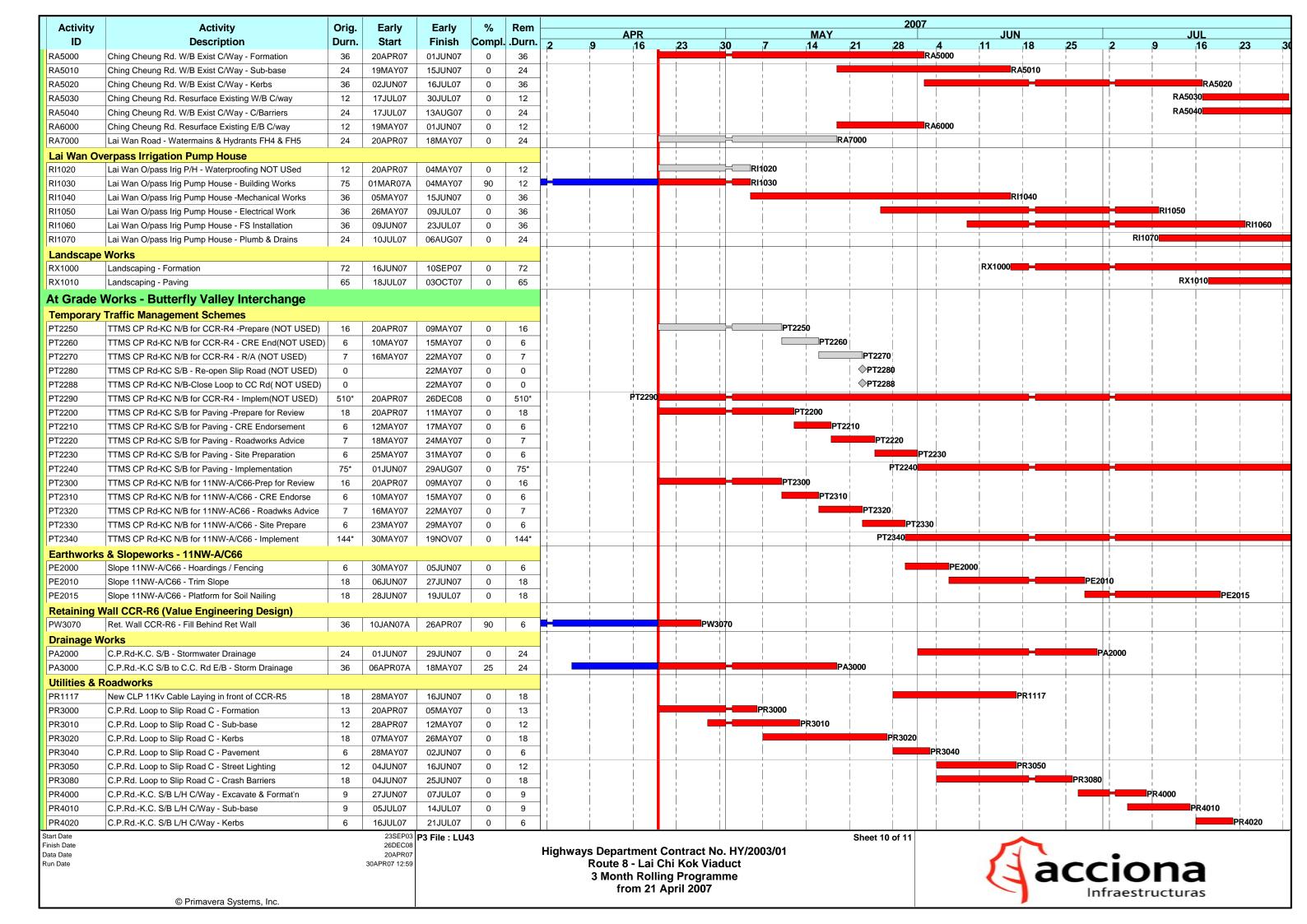
Highways Department Contract No. HY/2003/01 Route 8 - Lai Chi Kok Viaduct 3 Month Rolling Programme from 21 April 2007











Activity	Activity	Orig.	Early	Early	%	Rem									2007	<u> </u>							
ID	Description	Durn.	Start	_		Durn.			APR				MAY				JUI					JUL	
PR5010	C.P.Rd-K.C. S/B to C.C.Rd E/B - Formation	12	19MAY07	01JUN07	0	12	2	9	16	23	30		14	21	28	4 PR5010	_11	18	25	<u> </u>	9	16	23
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PR5020	C.P.Rd-K.C. S/B to C.C.Rd E/B - Sub-base	12	29MAY07	11JUN07	0	12		ļ ļ								1	PR5020	<u>' </u>	<u> </u>		!	!	
PR5030	C.P.Rd-K.C. S/B to C.C.Rd E/B - Kerbs	18	06JUN07	27JUN07	0	18	i	Ì		i	i l		ì	Ì	ì				PR	5030		i	
PR5040	C.P.Rd-K.C. S/B to C.C.Rd E/B - Pavement	6	28JUN07	05JUL07	0	6		ļ	-					ļ					-		PR5040		
PR5045	C.P.Rd-K.C. S/B to C.C.Rd E/B - Street Lighting	6	06JUL07	12JUL07	0	6															F	R5045	
PR5050	C.P.Rd-K.C. S/B to C.C.Rd E/B - Rd Marks & Signs	6	13JUL07	19JUL07	0	6	i I						İ	1			i	İ					IPR5050
PR5060	C.P.Rd-K.C. S/B to C.C.Rd E/B - Re-open Road	0		19JUL07	0	0	i	İ	į	i	i l	İ	j	j	i l	j	i	j	i	Ιi	j	i 🖣	PR5060
PR5100	C.C. Rd. W/B - Sign Gantry FADS7 at P15-P16	18	20APR07	11MAY07	0	18	i I	i I	i i	· ·			□PR5100	i		i i	i i	i	į		į	į	i
Kiosk at S	ip Road C																		ļ				
PK1010	Kiosk at Slip Rd. C - Building Finishes	24	20APR07	18MAY07	0	24	1		į					■PK1010					į				
PK1015	Kiosk at Slip Rd. C - Provision for E & M Contr'	0		18MAY07	0	0								♦ PK1015									
PK1020	Kiosk at Slip Rd. C - MVAC Installations	24	20APR07	18MAY07	0	24	j	i	į					■PK1020		į	i	i	į	Hi	i	į	i
PK1030	Kiosk at Slip Rd. C - Electrical Works	24	05MAY07	01JUN07	0	24	i i									PK1030	l I						
PK1035	Kiosk at Slip Rd. C - FS Installation	24	05MAY07	01JUN07	0	24	1			i	<u> </u>					PK1035				l¦		i	
PK1040	Kiosk at Slip Rd. C - Drainage Works	24	19MAY07	15JUN07	0	24	1	İ		İ	i	İ	İ				P	K1040		i		İ	
Landscape	Works							İ		j	i		İ				İ		i	li	İ	İ	
PX1000	Landscaping - Earthworks & Formation	30	28JUN07	02AUG07	0	30	1	1	 		1	1	1	1	1	1	1	1	PX1000	-			
PX1030	Landscaping - Irrigation System	24	13JUL07	09AUG07	0	24															PX1030		
PX1040	Landscaping - Soiling & Planting	24	13JUL07	09AUG07	0	24	1	l I		1			1	l I		1	1		I I		PX1040		

Start Date Finish Date Data Date Run Date

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Sheet 11 of 11



Delcan-Imtech-GTECH Joint Venture Contract No. HY/2003/05

Route 8 - Traffic Control and Surveillance System

道易通聯營公司 DELCAN-IMTECH-GTECH JOINT VENTURE

Record Date: 20-04-2007

5-week Rolling Programme of Site Works

Rev:	0	-							1																	
Item	Civil Area	Portion	Work Area	Activity	[8]Type of major equipment				*					J						May-0	7					
No.				·	/ plant to be used						M T W T				ΓWT		SS	M				_		W		_
						14 <mark>1</mark>	<mark>5</mark> 16 17 1	8 19	20 2	1 22	23 24 25 26	3 27 2	28 <mark>29</mark>	30	1 2 3	4 :	5 6	7	8 9	10 1	1 12	<mark>13</mark> 14	15	16 17	18 1	9 20
1	Works Area	A	DIGJV Site Office	Pesticide spraying	N.A.				R	_			Ш	_			_									
3	Works Area Works Area	A	Subcontractor warehouse DIGJV Site Office	Material preparation for cable containment / Cable laying Assemble of control cabinet	N.A. N.A.	D	RRI		D					-			_				++					4
3	Works Area	А	DIGJV Site Office	Assemble of control cabinet	N.A.	K	K K I	X K	K	-		++	\exists	\dashv	++		╁	+	_		+ +	_	+	_		_
4	Road T3	G	Road T3	Routine Checkings	Van																					
5	Road T3	G	Road T3 / Road Gantry / underpass	[1], [3] & [7]Cable Containment (niche G)	Scissor lift	Α	AA	4		_		+	\top	\dashv			_									_
6	Road T3	G	Road T3 / Road Gantry / underpass	[1], [3] & [7] TCSS Traffic field equipment	Special design lorry									_							1 1		1 1			
7	Road T3	G	Road T3 / Road Gantry / underpass	Cable laying	Scissor lift																					
8	SHT	H1A, H1B, H1C	SHT (SB,NB, NPB, SPB)	Routine Checkings	Van					_		\bot	ш	_			_				44					
9	SHT	H1B & H1C	SHT(N/B, then S/B)	TCSS Traffic field equipment and accessories installation	Scissor lift		R	R																		
10	SHT	H1B, H1C	SHT (S/B & N/B)	Cable laying / cable marking	Special design lorry	R		V N	N								_	П								7
11	SHT	H1A, H1B, H1C	SHT - S/B & N/B, CP	Cable termination	Scissor lift	Ν	N N I	N N	Ν																	
12	SHT	H1A, H1B, H1C	SHT (S/B & N/B, CP)	SCT - Cable testing	Van	R																				
13	SHT	H1A	SHT - NPB & SPB	SCT - PA cable testing	Van	R	R		R																	
14	SHT	H1A	SHT - NPB & SPB	Remaining cable containment	Van	R	RRI	R N						_												
15	SHT	H1A	SHT - NPB & SPB	PA System, remaining work	Van		-	N	N	_		+	_	_			4					_	1			_
16 17	SHT SHT	H1A H1B, H1C	SHT - Outside SPB & NPB SHT - SB & NB	Cable laying / cable marking ET krone box installation	Special design lorry Van	-	R		R	+		++	_	-	+	++	╬	+	_		╁┼	_	1			_
- ' '	SHI	HID, HIC	OTT - OD & ND	LT MOTE DON HISIAHALIOTI	Vali	H		+	\vdash		 	++		+	+	++	H	+	+	\vdash	┿		++	-	\vdash	-
18	SHT	H2	SHT - Open road Section	Routine Checkings	Van	+																				
19	SHT	H2	SHT Open road section	Cable termination	Van		RRI	R R	R					1												
20	SHT	H2	SHT Open road section	SCT - Cable testing	Van		RRI	R R	R			1 1		一	11	t			1		1 1		$\dagger \dagger$			
21	SHT	H2	SHT Open road section	Cable Laying	Van		R R I	R R															\Box			
22	SHT	H2	SHT Open road section	[1] & [7] Cabinet installation & termination	Van																					
23	SHT	H2	SHT Open road section	TCSS Traffic field equipment (Remaining)	Special design lorry	H				_				_			_	<u> </u>								_
24	SHT	H3	SHT - RCFE	Routine Checkings	Van					_				_			_				+	_	Н			_
25	SHT	H3	SHT - RCFE (S/B first, then N/B)	[1], [3] & [7] Installation of cable containment	Special design lorry				R	_		++		\dashv	+++	+	+				+ +					4
26	SHT	H3	SHT - RCFE (S/B first, then N/B)	[1], [3] & [7] TCSS Traffic field equipment	Special design lorry				IX	_		++		\dashv	+++	+	+				1 1		1 1	-		+
27	SHT	H3	SHT - RCFE	Cable termination	Special design lorry					_				_			+									
28	SHT	H3	SHT - RCFE	Cable laying	Special design lorry		R	R R	R	1							╅									
	SHT	H3	SHT - RCFE	Joint site inspection for mockup ALCS installation	Van			N																		
										_																
29	ENT	11, 12 & 13	ENT Tunnel (SB, NB, NPB, SPB, ADB, VB, Toll Plaza & Butterfly Valley)	Routine checkings	Van																					
30	ENT	12	ENT Tunnel (S/B & N/B)	[3] Cable laying & Cable termination	Special design lorry		N I	N N						1			╅				11					
31	ENT	12	ENT -S/B & N/B	[2] & [8]Cable bracket and cable laying for leaky coaxial cable	Scissor lift	N	N																			
32	ENT	12	ENT - S/B & N/B	[2],[3] Cabling remedial work / cable marking			N	-	N	+		+ +	╅	-	++	1 1	╅		-		+ +	_	+	-		+
33	ENT	12	ENT - S/B & N/B, CP	Cable testing	Scissor lift	H				+											1 1					
34	ENT	13	ENT - Toll plaza, Subway	Cable laying & cable marking	Special design lorry	R	R R I	R R	R																	
35	ENT	13	ENT - Toll Plaza, foot bridge	[3] & [7] PA system remining work	Special design lorry																					
36	ENT	11,12 & 13	ENT - ADB	BPBX'S cable laying	Metal scaffolding		R		Ν																	
37	ENT	13	ENT - ADB, 2/F (Computer Rm & Telecom. Rm)	[3] & [7]Installation of TCSS equipment rack	Metal scaffolding		R R I	R	R																	
38	ENT	I1 & I3	ENT - NPB &SPB	SCT - PA cable testing	Van																					
										_							┸									
39	LCKV	J1	LCKV	Routine checkings	Van									4									\Box			
40	LCKV	J1 & J2	LCKV	[3] & [7] TCSS's field equipment and related cable containment installation	Special design lorry	R	R R I	R	R																	
41	LCKV	J1	LCKV - Section A	Cable laying	Special design lorry																					
				, ,	, ,																					
42	LCKV	J2	LCKV - Section F	Join site inspection for civil provision	Special design lorry			Ν																		
43	LCKV	J2	LCKV - Gantry DS1, FADS2, GT101	Site inspection for civil provision	Van					T		++		\dashv	++	++	T		\dashv	++	╅┪		$\dagger \dagger$	-		
				·					IN			$\perp \perp$			$\bot \bot$	$\bot \bot$		lacksquare			$\perp \downarrow$		\sqcup		\sqcup	
40	Neov	D	NSCV	Routine checkings	Van	H		_		F				4			-				+					
43	NSCV NSCV	D D	NSCV - Gantry FADS-G4, DS-G2, DS-G3,	Routine checkings [3] & [7] TCSS's field equipment and related containment	Van Mobile working platform	H												F				-				4
	NOOV	D	GT10, GT7 & ADS-G3	installation	woodie working platfollii		N N I	N N																		
45	NSCV	D	NSVC	Join site inspection for civil provision	Van				Ν					1							11					
45	NI)A/T	D 0 C	NIA/T (E/D \A//D & \A/ED)	Douting checkings	1/22									4												
45 46	NWT NWT	B & C B	NWT (E/B, W/B & WEB) NWT, E/B & W/B	Routine checkings [2],[3] Cabling remedial work / cable marking	Van Special design lorry	R	RI	2						-								-				4
47	NWT	В В	NWT, E/B & W/B	[2],[3]TCSS Traffic field equipment installation	Scissor lift	T.	N					++		\dashv	+	++			+	\vdash	 		++	+	\vdash	-
48	NWT	В	NWT, E/B, W/B & CP	[2]Cable termination	Scissor lift	N			Ν			1 1		一	11	t			1		1 1		+			
49	NWT	C	NWT - WCB, control room	[1]Console installation	Metal scaffolding		RRI	R R	R					一十					╛		<u> </u>		口巾		ĽТ	
50	NWT	С	NWT - EPB, G/F - 3/F	[3]Cable containment installation	Metal scaffolding				R															1		
51	NWT	С	NWT - WCB	Joint site inspection for mock up speaker installation	Van			Ν			\Box	$+ \mathbb{I}$		\Box	$\perp \perp$	$\perp \Gamma$		LТ	\perp	\Box	$+$ \mathcal{I}		Ш		Ш	
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- R Re-scheduled
- N New activity
- A Awaiting information for TCSS installation

Distribution: Arup-Johnny Mac, Hara, Alex C, Franco L, Hamlyn K, Joseph C, KT Chan, Patrick L, Simon Cheung,
Philip C, PF Li, Sharon H, Tony C, Wilson W, Winnie M, Donald L, Johnny L, Kenny C, Thomas Wong, Andy Wong
Remark: 1) The schedule only shows the anticipated works planned and shall be subject to changes which will be reported by daily labour forecast on ad-hoc bases.

2) Should it have any query on the above activity, please approach the following personnel. R8K: KY Chan / J. Lam / A. Kwok / A. Luk ; R8T: KY Chan / A. Kan / CK Fung / A. Luk

- [1] Works depends on spatial co-ordination among related Main Contractor and TCSS.
- [2] Works Subject to Traffic Tube arrangement
- [3] Works subject to condition of site access & civil provision.
 [4] Works subject to SCURVY to relocate their containers in N/B
- [5] Works subject to coordination with other services
 [6] Works depend on ENT's contractor to complete their raised floor installation
- [7] Works depend on Civil Contractor to complete / rectify their provision
- [8] Works subject to the site access of the major equipment.

APPENDIX M COMPLAINT LOG

Appendix M - Complaint Log

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
			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.	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: Item 1 – Breaking off existing planter and excavate trial trench to expose underground utilities (using one to two backhoes) Item 2 – Erect rock fall fence & forming platform for predrilling (using one backhoe and occasionally one crane lorry) Item 4 – Excavate further to expose all underground utilities (using hand tools) Item 5 – Pre-drilling works (using one drilling rig)	
			18 March 2004 19 March 2004, which was two datafter the issue date of this complaint, so this activity was not select that the construction noise impact at Nob Hill from above construction activities of R8-LCKV was not signific. The bored piling work (Item 3) using one crawler crane and oscillator was started on 19 March 2004, which was two datafter the issue date of this complaint, so this activity was not select noise impact at Nob Hill from above construction noise impact at Nob Hill from above construction activities of R8-LCKV was not signific. The bored piling work (Item 3) using one crawler crane and oscillator was started on 19 March 2004, which was two datafter the issue date of this complaint, so this activity was not select noise Monitoring Location (NML) for the Project. Therefore direct noise monitoring data could be provided for the complaint, so this activity was not select noise Monitoring Location (NML) for the Project. Therefore direct noise monitoring data could be provided for the complaint, so this activity was not select noise Monitoring Location (NML) for the Project. Therefore direct noise monitoring data could be provided for the complaint.	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.	
40318	Nob Hill	18 March 2004		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.	Closed
				According to the EM&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.	
			residents living in the vicinity.	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. 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	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				Cheung Road, which is located very close to this building, especially at or above the Podium Floor (i.e. 5/F).	
				 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: To space out noisy equipment and position it as far away as possible from the sensitive receivers; To avoid concurrent uses of noisy equipment near the sensitive area; To ensure the equipment are maintaining in good operation condition; and To turned off any idle equipment on site. 	
				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.	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
40330	Site Areas near Nob Hill	30 March 2004	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. 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.	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. 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: To space out noisy equipment and position it as far away as possible from the sensitive receivers; To avoid concurrent uses of noisy equipment near the sensitive area; To ensure the equipment are maintaining in good operation condition; and To turned off any idle equipment on site.	Closed
40402	Nob Hill	06 April 2004	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. NECSO referred the complaint to the RSS and subsequently referred to the ET Leader of the Project on 6 April 2004	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. 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. 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 Road in front of Nob Hill.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				During ET's weekly environmental site inspections on 17, 24 & 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.	
				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).	
				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 • To space out noisy equipment and position it as far away as possible from the sensitive receivers;	
				 To avoid concurrent uses of noisy equipment near the sensitive area; To ensure the equipment are maintaining in good operation condition; and 	
				To turned off any idle equipment on site.	
			A public complaint was raised on 30 th June 2004 regarding the washout of muddy water from the site area of the Route 8 – Lai Chi Kok Viaduct (R8-	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.	
40710	Pier P7 in	10 July 2004	LCKV) Project, at Pier P7 onto Lai Chi Kok Road.	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	Classi
40710	Portion E1	10 July 2004	The complaint was referred to the RSS on 3 rd July 2004 and subsequently	area on 5 th July 2004.	Closed
			referred to the ET Leader of the Project on 10 th July 2004.	During ET's weekly environmental site inspection on 14 th July 2004, no serious water quality nuisance induced by the Project works was observed at the construction sites near Pier P7. It was also noted that the back of profile barriers along the site	
			The complaint was raised by Mr. Chan,	boundary had been sealed up by cement as preventive measures.	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
			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.	During ET's weekly environmental site inspections on 17, 24 & 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.	
			amiger to the motoremen.	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.	
				Nevertheless, the Contractor was recommended to adopt the following measures to avoid re-occurrence of similar incidents: to enhance surface runoff control measures along the site boundary; to provide adequate training to the frontline workers; and to regularly inspect temporary water supply equipment, such as hose pipe to make sure the equipment is in good condition.	
40809	Ching Cheung Road area near Nob Hill	22-Jul-04 (by EPD) 09-Aug-04 (by ET Leader)	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. 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:	 Information Provided by RSS 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. Area A: Item 1 – Drainage works by using 1 x backhoe; 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; Item 3 – Trial trench excavation by man power; Item 4 – Gas main diversion by 1 x backhoe (performed by TGC's Contractor) Area B: No construction activity was undertaken in the concerned period. 	Closed
			 Area A: Works area between Nob Hill and Lai Chi Kok Park Swimming Pool Area B: Works area between Ching 	Review of Environmental Monitoring Results The routine monitoring stations, which are in the vicinity of the concerned works areas, include: Noise Monitoring	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
			Cheung Road and Mei Lai Road /	NM4: R/F of Mei Foo Sun Chuen (Phase 5)	
			Lai Wan Road opposite to Mei Foo	NM8a: M/F of Nob Hill	
			Sun Cheung (Phase 5) and Lai Chi	NM8b: 3/F of Nob Hill	
			Kok Public Library.	Air Quality (1-hr TSP / 24-hr TSP) Monitoring	
				AM2: R/F of Lai Chi Kok Sports Centre	
				No Action / Limit level exceedance was identified in July 2004.	
				Environmental Site Inspection	
				During the ET site inspections on 8 th , 14 th and 20 th July 04, no	
				major environmental deficiency with regard to noise and air	
				quality was identified by the auditors.	
				Conclusions	
				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:	
				To space out noisy equipment and position it as far away as	
				possible from the sensitive receivers;	
				To avoid concurrent uses of noisy equipment near the sensitive area;	
				To ensure the equipment are maintaining in good operation	
				condition;	
				To turn off any idle equipment on site.	
				To cover excavated dusty materials by impervious sheeting;	
				To provide water spray for haul roads, loading/unloading and	
				concrete breaking operations;	
				To perform wheel wash for every vehicle immediately before	
				leaving the site.	
	Mei Foo Sun		A public complaint was raised on 8 th	Construction Activities	
50215	Chuen, Phase 5	15-Feb-05	Feb 2005 regarding construction noise		Closed
30213	(Retaining Wall	(by ET Leader)	from the site area of the Route 8 – Lai	During the weekly site inspection on 17 Feb 05, piling work was	Closed
	CC-R3)		Chi Kok Viaduct (R8-LCKV) Project	being conducted at the concerned. The major powered	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
			near Mei Foo Sun Chuen. The complaint was referred to the Resident Site Staff on 14 th Feb 2005 and subsequently referred to the ET Leader of the Project on 15 th Feb 2005. 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.	mechanical equipment (PME) in operation included a mobile crane, an air compressor, a reverse circulation drill and a generator. 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. Environmental Monitoring	
				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)). 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). Conclusions	
				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. Nevertheless, the Contractor was recommended to adopt good site practice to minimize the construction noise impacts.	
50322	Seung Lai House, Wah Lai Estate (Slope S1)	11-Mar-05 (by EPD) 22-Mar-05 (by ET Leader)	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	Construction Activities 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	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
			complaint to the Environmental Team (ET) Leader of the Project on 22 Mar 05. 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.	nail work and installation of u-channel and manholes. The major powered mechanical equipment included excavators, drilling machine and air compressor. 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. **Environmental Monitoring** Ad-hoc noise measurement was conducted at Seung Lai House on 30th 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. **Conclusion** 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.	
50330, 50331, 50404 & 50407	Wah Lai Estate	30-Mar-05, 31- Mar-05, 4-Apr- 05 & 7-Apr-05 (by ET Leader via RSS)	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	Construction Activities 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.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
			referred by the Resident Site Staff to the Environmental Team (ET) Leader on 30 th , 31 st March, 4 th and 7 th April 2005, respectively.	Environmental Monitoring Ad-hoc noise measurement was conducted at Seung Lai House on 30 th Mar 05 and 7 th 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.	
				Conclusion	
				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.	
				Mitigation	
				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).	
			A 111 cot		
50404-v2	Mei Foo Sun Chuen	4-Apr-05 (by ET Leader via RSS)	A public complaint was raised on 1st 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 4th	Construction Activities 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.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
			April 2005.	Environmental Monitoring	
				According to the EM&A Manual, Mei Foo Sun Chuen, Phase 5 (NM4) is designated as one of the noise monitoring stations.	
				Since the commencement of the impact monitoring programme, the construction noise levels recorded at this station were all below the noise criterion.	
				Conclusion	
				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.	
				Mitigation	
				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.	
50613	Mei Foo Sun Chuen	7-Jun-05 (by EPD) 13-Jun-05 (by ET Leader)	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.	Site Activities 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.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
			The complainant was particularly concerned about the fugitive dust emission during rock / concrete breaking activities.	Observations 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.	
				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.	
				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.	
				Conclusion	
				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.	
				However, corrective action had been taken by the Contractor and the situation was found improved during the follow-up inspections.	
50721	Hei Lai House,	21-Jul-05	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	Site Activities 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.	Closed
50721	Wah Lai Estate	(by ET Leader) (by ET	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.	Siosed	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
			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. 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.	Noise Measurement Ad-hoc measurements were carried out on the roof of Hei Lai House on 25 July 2005. 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. Conclusion Since the noise measurement results at Wah Lai Estate were below 75 dB(A), the complaint was considered not justifiable. Nevertheless, noise mitigation measures have been implemented by the Contractor to minimize the noise impact arising from the breaking activities: 1. Employment of silenced-type breakers; 2. Temporary noise barriers, attached with sound adsorption materials, were erected to screen the site of breaking from sensitive receivers 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.	
51107	Ching Cheung Road near Mei Foo Sun Chuen	7-Nov-05 (by the ET Leader)	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. According to EPD, the complaint was	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. Site Inspection After receipt of the complaint, an ad-hoc site inspection was carried by ET on 9 November 2005 and the following	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
			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.	observations were made: 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. 2. The haul roads and exposed works areas were observed wet. A water sprinkler was installed at the CCR-S4 for water spraying. 3. Most of the slope was shot-creted to avoid wind erosion. 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. Environmental Monitoring 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. Conclusion Based on the ad-hoc site inspection and the environmental monitoring results, this complaint was considered not justifiable.	
60118	Lai Po Road near Hoi Lai Estate	18-Jan-06 (by the ET Leader)	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. According to EPD, the complaint was lodged by a resident of Hoi Ming	 Site Activities 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: Delivery of segment from storage yard near Pier P5/L to Pier 15 for erection; Stressing to temporary PT bars of segments at Pier B3. The above night works, which involved operation of tractor, 	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
			House of Hoi Lai Estate. The complaint was about construction noise nuisance caused by construction work of R8-LCKV carried out at Lai Po	mobile crane, lifting frame and generator, were undertaken under the two construction noise permits CNP no. GW-RW0739-05 and GW-RW0740-05.	
			Road near Hoi Lai Estate. The noise	Environmental Monitoring	
			to 0600 hrs.	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).	
				Conclusion	
				Based on the information collected and the monitoring results, the complaint is considered not justifiable.	
				Nevertheless, the Contractor was reminded to take sufficient noise mitigation measures to minimize the environmental impact on the nearby community.	
60119	Mei Foo Sun Chuen (Phase 5)	18-Jan-06 (by the ET Leader)	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.	Site Activities The site of concern was likely to be CCR-S4, CCR-R2 and CCR-R3. According to RSS's records, site activities included: • Trimming of existing rock slope at CCR-S4; • Excavation and rock dowel installation at CCR-R2; and • Construction of cable trough at CCR-R3 by CLP's contractor.	Closed
			According to EPD, the complaint was raised by a resident of Mei Foo Sun	Site Inspection After receipt of the complaint, an ad-hoc site inspection was	
			Chuen via a Sham Shui Po District	carried by ET on 19 January 2006. No environmental deficiency	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
Log Kei.	Location	Received Date	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.	regarding construction dust was identified during the inspection. Environmental Monitoring All monitoring results in Jan 06 revealed that no exceedance was recorded for the air quality (1-hr and 24-hr TSP) criteria. Contractor's Action The Contractor of R8-LCKV had implemented several dust mitigation measures: • Haul roads, exposed slope surface and soil stockpiles were watered regularly by hose pipes and sprinklers; • Idled exposed slope were shot-creted; and • Watering was applied for the dust emissive activities, such as loading and unloading of dusty materials, excavation and breaking works. Conclusion 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.	Status
60213 60216 60220 60222	Hoi Lai Estate (Lai Po Road)	13-Feb-06 16-Feb-06 20-Feb-06 22-Feb-06 (by the ET Leader)	Four environmental complaints were received in this reporting month. Three of them were referred by EPD on 13 th , 20 th and 22 nd Feb 06 and the other one was referred by HyD via MHJV on 16 th Feb 06. All about construction noise due to night works at Lai Po Road near Hoi Lai Estate.	Site Activities Since around mid-January 2006, segments were transported to Piers P15 and B4, under the permission of construction noise permit (CNP). It was suspected that the sound of concern was generated from tractors for precast segment transportation. In view of the safety of workers, an alert sound and flashing are maintained during backing action of the tractors. Site Inspection	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				An ad-hoc inspection was carried out by the ET on 16 Feb 06 from 00:30 to 02:30 am. Noise measurement was carried out during the inspection to evaluate the noise impact onto the residents of Hoi Lai Estate. During the monitoring, the major noise source identified was the road traffic noise from Sham Mong Road and Lai Po Road. No alarm sound or alike from the construction equipment was noted. The above monitoring results revealed that the measured noise levels were close to the reference baseline level. After correction of the mean background level, most of data were below the noise criterion of 55 dB(A).	
				Conclusion	
				Based on the information collected and the monitoring results, the complaints are considered not justifiable.	
				It was suspected that the nuisance was caused by the alert sound of tractors during backward movement which servers as a safety measure. However, the RSS and the Contractor are considering the possibility of lowering the alert sound level or replacing by a less disturbing pitch in order to minimize the noise nuisance to residents of Hoi Lai Estate.	
			Environmental Protection Department (EPD) received a public complaint	Site Activities	
			about environmental nuisance generated from Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project. EPD subsequently referred the complaint to the ET Leader on 20 April 2006.	According to the Resident Site Staff (RSS)'s records, the construction works were carried out by the Contractor from daytime to 2230 hours on 14 April and from 2000 hours to 0600 hours16 April 2006.	
			The complaint is about construction noise nuisance caused by construction work of night works at location near both Hoi Lai Estate and West Kowloon Highway between 14 and 17 April 2006.	 The construction activities near Hoi Lai estate included: - Erecting segments at column PA/R; Stressing of top tendon wires of segments and erecting segments at column P1/R; and Transporting segments to storage yard. 	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
			•	The above construction activities were undertaken under a construction noise permit CNP no. GW-RW0172-06.	
60420	Near both Hoi Lai Estate and West Kowloon Highway	20-Apr-06 (by the ET Leader)		Base on the RSS's preliminary investigation, it was suspected that the noise nuisance of concern was caused by loading and unloading of materials, hammering and/or dropping of materials on ground during the stressing works and transportation of precast segment by tractors.	Close
				Contractor's Action	
				The Contractor had implemented a short term mitigation measures:-	
				 Turned off the alert sound of tractors during backward movement in order to reduce the potential for noise impact; Strengthened their management on worker's working manner such as avoid dropping of material on ground, wrapping up of hammering equipment and etc.; and Conducted training of worker in order to reducing noise nuisance during the night works. 	
				Conclusion	
				Based on the information collected and the monitoring results, the complaints are considered not justified.	
				It was suspected that the nuisance was caused by loading and unloading of materials, hammering and/or dropping of materials on ground during the stressing works and transportation of precast segment by tractors.	
				The Contractor has strictly complied with PME allowed in the CNP No. GW-RW0172-06. Besides, night work at the concerned location was completed. No further construction work at night at this location is anticipated.	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status	
			•	Site Activities		
					According to the Resident Site Staff (RSS)'s records, current construction activities included segment erection works for Slip Road D, excavation works for cut slope CCR-S4 and retaining wall construction at CCR-R2 and CCR-R3.	
			Environmental Protection Department	Since excavation for cut slopes and construction of slip road D are required at this area, tree cutting is unavoidable. Tree felling application was approved by DLO/KW.		
			(EPD) received a public complaint about tree cutting in the area between	Contractor Action		
Detect	Between Ching		Ching Cheung Road and Mei Lai Roa (near Phase 5 of Mei Foo Sun Chuen) EPD subsequently referred th complaint to the ET Leader on 28 April	Under the EP condition and EIA, there is no need for this project to mitigate the traffic noise barrier effect due to the removal of tress.		
	Cheung Road	28-Apr-06	2006.	No follow up action was required for this complaint.	Close	
60428	and Mei Lai Road (near	(by the ET	The complaint was about the Contractor cu trees in the area between	Conclusion		
	Foo Sun Chuen)	ase 5 of Mei Leader) Sun Chuen)	Ching Cheung Road and Mei Lai Road (near Phase 5 of Mei Foo Sun Chuen). This had removed the traffic noise barrier effect of the trees and hence made the residents of Mei Foo Sun Chuen becoming being seriously affected by the traffic noise nuisance.	Under the EP conditions and EIAO, there is no need for this project to mitigate the traffic noise barrier effect due to the removal of trees.		
				Based on the information collected, the complaint is considered not justifiable.		
				Since excavation for cut slopes and construction of slip road D are required at this area, tree cutting is unavoidable. Tree felling application was approved by DLO/KW.		
				Compensatory planting will be provided at the concerned area after completion of the construction works in order to improve the landscape and visual impacts.		
				No follow up action will be required for this complaint.		

Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
i Lai Estate i Fai House)	22-May-06 (by ET Leader)	Environmental Protection Department (EPD) received a public complaints about noise nuisance generated from Route 8 – Lai Chi Kok Viaduct Project. EPD subsequently referred the complaint to ET Leader on 22 May 2006. The complaint was concerned about the noise produced from construction work during the period between 2300 hours and 0100 hours every night since 3 weeks ago. The complaint described the noise being like sound of poring concrete.	According to the RSS's records, only precast segment transportation works at the concerned area which was used as the segment storage yard near Pier P5L to Piers near Mui Kong Tsuen. No concreting activities were carried out at the abovementioned area between 2300 hours and 0100 hours every night in concerned period. In addition, the transportation works were usually carried out from 2000 hours to 0300 hours (or before 0300 hours). Contractor Action The idle and backup equipments such as tractors has turned off or throttled down in order to reduce the noise impact since the last complaint on this issue near Hoi Lai Estaet. Besides, the above night works were undertaken with three construction noise permits. Site Inspection An ad-hoc inspection was carried out by the ET at 2300 on 26 May 2006. During the inspection, no construction activities were carried out at the concerned area, where the tractor and mobile crane were throttled down. Conclusion According to RSS's information, no concreting activities were carried out at the concerned area. Therefore, the major noise nuisance (pouring concrete) might not be generated from the abovementioned area. Besides, the Contractor strictly complied with PME allowed in the CNP No. GW-RW0172-06. In	Closed
	i Lai Estate	i Lai Estate 22-May-06	Environmental Protection Department (EPD) received a public complaints about noise nuisance generated from Route 8 – Lai Chi Kok Viaduct Project. EPD subsequently referred the complaint to ET Leader on 22 May 2006. The complaint was concerned about the noise produced from construction work during the period between 2300 hours and 0100 hours every night since 3 weeks ago. The complaint described the noise being like sound of poring concrete.	Environmental Protection Department (EPD) received a public complaints about noise nuisance generated from Route 8 – Lai Chi Kok Viaduct Project. EPD subsequently referred the complaint to ET Leader on 22 May 2006. The complaint was concerned about the noise produced from construction work during the period between 2300 hours and 0100 hours every night since 3 weeks ago. The complaint described the noise being like sound of poring concrete. **Contractor Action** The iLai Estate i Fai House) Environmental Protection Department (EPD) received a public complaint about noise nuisance (popuring concrete). **Site Activities** According to the RSS's records, only precast segment transportation works at the concerned area which was used as the segment storage yard near Pier P5L to Piers near Mui Kong Tsuen. No concreting activities were carried out at the abovementioned area between 2300 hours and 0100 hours every night in concerned period. In addition, the transportation works were usually carried out from 2000 hours to 0300 hours (or before 0300 hours). **Contractor Action** Contractor Action* The idle and backup equipments such as tractors has turned off or throttled down in order to reduce the noise impact since the last complaint on this issue near Hoi Lai Estaet. Besides, the above night works were undertaken with three construction noise permits. **Site Inspection** According to RSS's information, no concreting activities were carried out at the concerned area, where the tractor and mobile crane were throttled down. Conclusion According to RSS's information, no concreting activities were carried out at the concerned area. Therefore, the major noise nuisance (pouring concrete) might not be generated from the abovementioned area. Besides, the Contractor strictly complied

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				not justifiable.	
				However, the Contractor was reminded to continuously implement their practice to prevent noise nuisance generation due to the construction works. The site situation will be continuously reviewed by ET and RSS also.	
			The Integrated Complaint Centre (ICC) of HKSAR received a public complaint	Site Activities	
			about environment nuisance generated from Route 8 – Lai Chi Kok Viaduct (R8-LVKC). Resident Site Staff (RSS)	As advised by the RSS, the site of concerned area was likely to be CCR-S4.	
			subsequently referred the complaint to the ET Leader on 9 June 2006. The complaint was about the noise	According to the RSS's records, 1 number of excavator mounted breaker was unsed to carry out rock breaking work at CCR-S4 during the period between 9 a.m. and 6 p.m.	
			generated from rock excavation work from 9 a.m. to 6 p.m. at the area between Ching Cheung Road and Mei Lai Road (near Phase 5 of Mei Foo Sun	The excavation and rock breaking activities at the concerned area will likely be completed by end of September 2006.	
			Cheun).	Contractor Action	
60609	Near Phase 5 of Mei Foo Sun Chuen	9-Jun-06 (by ET Leader)		The silent rock breaking equipment has been used and noise barriers were erected to minimize the noise impact generated from the breaking activity.	Closed
				Site Inspection and Environmental Monitoring	
				An ad-hoc inspection was carried out by ET on 14 June 2006 from 1:30 p.m. to 4:30 p.m. and 16 June 2006 from 4:00 p.m. to 4:45 p.m.	
				During the inspections, the construction activities at CCR-S4 included handheld breaking, excavation and rock breaking activities were carried out at CCR-S4. However, the temporary noise barriers were erected at the abovementioned location as same as RSS's mentioned.	
				Noise measurement was carried out during the inspection to	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				evaluate the noise impact onto the residents of Mei Foo Sun Chuen. The monitoring location was original monitoring location NM4 (Mei Foo Sun Chuen Phase 5).	
				The measured monitoring results were close to the reference baseline level. After correction of the mean background level, the monitoring data were below the noise criterion of 75 dB(A).	
				Conclusion	
				Base on the information collection and the monitoring result, the complaint was considered not justifiable.	
				The Contractor had implemented noise mitigation measures to minimize the noise impact. Besides, the monitoring result were below the noise criteria of 75dB(A). However, the Contractor was still reminded to continuously implement their practice to prevent noise nuisance generation from the construction works.	
				The environmental conditions of the site will be continuously reviewed by the RSS and the ET.	
			The Integrated Complaint Centre (ICC) of HKSAR received a public complaint through a facsimile on 12 June 2006	Site Activities As advised by the RSS, the site of concerned area was likely to	
	New Plant 5 of		about an environmental nuisance generated from Route 8 – Lai Chi Kok Viaduct 9R8-LCKV) Project. Resident Site Staff (RSS) subsequently referred the complaint to the ET Leader on 26	be CCR-S4. According to the RSS's records, 1 number of excavator mounted breaker was unsed to carry out rock breaking work at CCR-S4 during the period between 9 a.m. and 6 p.m.	
60626	Near Phase 5 of Mei Foo Sun Chuen	26-Jun-06 (by ET Leader)	June 2006. According to the explanation from the RSS, this complaint was indeed the	The excavation and rock breaking activities at the concerned area will likely be completed by end of September 2006.	Closed
			same as that received by the ET on 9 June 2006. The complaint initiated the complaint verbally to the ICC on 8	Contractor Action	
			June 2006 and then also issued a facsimile to the ICC. The facsimile was transferred to the RSS on 12 June 06	The silent rock breaking equipment has been used and noise barriers were erected to minimize the noise impact generated from the breaking activity.	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
			and eventually reached the ET on 26 June 2006.	Site Inspection and Environmental Monitoring	
			The complaint was about the noise generated from rock excavation work from 9 a.m. to 6 p.m. at the area between Ching Cheung Road and Mei Lai Road (near Phase 5 of Mei Foo Sun Cheun).	As the complaint was identical to the one received on 9 June 06 by the ET, the ad-hoc inspections carried out on 14 June 2006 from 1:30 p.m. to 4:30 p.m. and 16 June 2006 from 4:00 p.m. to 4:45 p.m. were still applicable to this report. In addition, further ad-hoc inspections were carried out on 28 June 2006 from 1:30 p.m. to 4:00 p.m. and 3 July 2006 from 9:30 a.m. to 11:30 a.m.	
			This complaint was made by the same complainant to the ICC through two different channels (by phone and by facsimile) and the ET of the Project was firstly notified on 9 June 2006. A complaint investigation report was	During the aforesaid inspections, the construction activities at CCR-S4 included handheld breaking, excavation and rock breaking activities were carried out at CCR-S4. However, the temporary noise barriers were erected at the abovementioned location.	
			issued on 22 June 06. As the ET received this separate complaint after the issue of the complaint investigation report and considered the nature of the	In addition to the noise measurement conducted on 14 and 16 June 2006, further noise measurement was carried out on 30 June 2006 to evaluate the noise impact onto the residents of Mei Foo Sun Chuen. The monitoring location was original monitoring location NM4 (Mei Foo Sun Chuen Phase 5).	
			complained event (general construction during daytime but not single event at a particular moment), the complaint investigation procedures were initiated.	Noise measurement carried out on 30 June 06, after correction of the mean background level, the monitoring data were below the noise criterion of 75 dB(A) **Conclusion**	
				This complaint was identical to the one received by the ET on 9 June 06 because the complainant addressed the complaint to the ICC through two different channels (by phone and by facsimile). The facsimile was transferred to the RSS on 12 June 06 and eventually reached the ET on 26 June 06.	
				Base on the information collection and the monitoring result, the complaint was considered not justifiable.	
				The Contractor had implemented noise mitigation measures to minimize the noise impact. Besides, the monitoring result were	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
Log Ref.	Location	Received Date	The Integrated Complaint Centre (ICC) of HKSAR received a public complaint on 25 August 2006 about an environmental nuisance generated from	below the noise criteria of 75dB(A). However, the Contractor was still reminded to continuously implement their practice to prevent noise nuisance generation from the construction works. The environmental conditions of the site will be continuously reviewed by the RSS and the ET. Site Activities According to RSS's record, rock dowel installation for slope	Status
60830	Near Mei Foo and Lai King Hill Road	30-Aug-06 (by ET Leader)	Route 8 – Lai Chi Kok Viaduct 9R8-LCKV) Project. Resident Site Staff (RSS) subsequently referred the complaint to the ET Leader on 30 August 2006. The complaint was concerned about dust generated from the rock drilling works affected the nearby ASRs. The complaint described that spraying of water during rock drilling works was not implemented.	stabilization at CCR-S1 was commenced on 22 August 2006 and would likely last for at least 6 months. Contractor Action After receiving the complaint, the Contractor has further enhanced the dust mitigation measures as follows: • Enclosing the rock dowel drilling work on three sides, i.e. top, back and the left hand side, with tarpaulin sheets; • Spraying of water at the hole during drilling; • Wrapping the head of the drilling rig with a wet thick towel. Site Inspection and Environmental Monitoring	Closed
				During the monthly site inspection on 4th September 2006, rock drilling at the slope CCR-S1 was carrying out. The ET observed that the work area was enclosed by tarpaulin sheets at three sides. Water was sprayed continuously at the drilling hole and head of the drilling rig was enclosed with a wet thick towel. All the mitigation measures mentioned by the RSS were implemented.	
				Conclusion Base on the information collected and the monitoring results, the complaints are considered not justifiable. It was because there was no exceedance of the air quality	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				monitoring results and dust mitigation measures were implemented by the Contractor during the rock drilling works.	
				However, the Contractor was still reminded to take sufficient dust mitigation measures to minimize the environmental impact on the nearby community:	
				Enclose dusty activity such as rock drilling with tarpaulin sheet;	
				Apply water spraying for any dust emissive activities, such as breaking, excavation, loading and unloading of dusty materials;	
				Cover long-term idle exposed slope surfaces and stockpiles with tarpaulin sheets.	
				The environmental conditions of the site will be continuously reviewed by the RSS and the Environmental Team through site inspections and monitoring exercises.	
			Environmental Protection Department	Site Activities	
			(EPD) received a public complaint about environment nuisance generated from Route 8 – Lai Chi Kok Viaduct Project. EPD subsequently referred the	According to RSS's record, rock dowel installation for slope stabilization at CCR-S1 was commenced on 22 August 2006 and would likely last for at least 6 months.	
			complaint to ET Leader on 31 August 2006.	Contractor Action	
60831	Between Lai Wan Road and Lai King Hill Road	(an Road and Lai King Hill Road Road Road Road Road Road Road Road	The complaint was concerned about construction noise, dust and waste water generated from the construction work affect the nearby NSRs after 19.00 hrs, the nearby ASRs and discharged to exiting road respectively	With reference to RSS's site diary, all site activities including drilling works at the concerned area were conducted between 8:00 and 18:00 daily. Ad hoc site observation carried out by the RSS confirmed that no construction activity was carried out after 18:00.	Closed
			discharged to exiting road respectively	As advised by the RSS, tarpaulin sheet covering and water spraying were provided by the Contractor to mitigate the dust nuisance generated from the rock drilling works. On 31 August 2006, the Contractor was further enhanced the dust mitigation measures as follows:-	
				• Enclosing the rock dowel drilling work on three sides, i.e.	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				top, back and the left hand side (LHS) with tarpaulin sheets;	
				 Spraying water at the hole during drilling; 	
				• Wrapping the head of the drilling rig with a wet thick towel.	
				Site Inspection and Environmental Monitoring	
				During the monthly site inspection on 4 th September 2006, rock drilling at the slope CCR-S1 was carrying out. The ET observed that the work area was enclosed by tarpaulin sheets at three sides. Water was sprayed continuously at the drilling hole and head of the drilling rig was enclosed with a wet thick towel. All the mitigation measures mentioned by the RSS were implemented.	
				Conclusion	
				Base on the information collected and the monitoring results, the complaint was considered not justifiable.	
				It was because there was no exceedance of the air quality monitoring results and dust mitigation measures were implemented by the Contractor during the rock drilling works. No construction activities were carried after 18:00 in the period mentioned by the complainant. In addition, no wastewater discharge was observed.	
				However, the Contractor was still recommended to take the following mitigation measures to minimize the environmental impact on the nearby community:	
				<u>Dust Nuisance</u>	
				Enclose dusty activity such as rock drilling by tarpaulin sheet;	
				 Apply water spraying for any dust emissive activities, such as breaking, excavation, loading and unloading of dusty materials; 	
				Cover long-term idle exposed slope surfaces and stockpiles with tarpaulin sheets.	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				Construction Noise	
				The Contractor was reminded that construction activities during restricted hours could only be carried out with a valid Construction Noise Permit (CNP). In addition, appropriate noise mitigation measures described in the CNP should be implemented in order to minimize the noise impact on the nearby noise sensitive receivers.	
				Wastewater Discharge	
				Fill up the gaps under the footings of hoarding fence along Lai King Hill Road so as to prevent spillage of muddy water during heavy rain onto the existing road.	
				The environmental conditions of the site will be continuously reviewed by the Resident Site Staff and the Environmental Team through site inspections and monitoring exercises.	
			The Integrated Complaint Centre (ICC) of HKSAR received a public complaint	Site Activities	
			on 25 September 2006 about the an environmental nuisance generated from Route 8 – Lai Chi Kok Viaduct 9R8-LCKV) Project. Resident Site Staff (RSS) subsequently referred the complaint to the ET Leader on 25	According to RSS's record, rock dowel installation for slope stabilization at the Slope CCR-S1 was commenced on 22 August 2006 and would last for at least 6 months and the first batch of rock drilling works at the Slope CCR-S4 was commenced on 19 September 2006 and completed on 23 September 2006.	
	Near Ching		September 2006.	Contractor Action	
60925	Cheung Road, Nob Hill and Mei Lai Road	25-Sep-06 (by ET Leader)	The complaint was concerned about the	After receiving the complaint, the Contractor has further enhanced the noise mitigation measures as follows:-	Closed
			noise generated from the construction works after 19:00 at the area near	Placing of a wooden box to cover the head of drilling;	
			Ching Cheung Road, Nob Hill and Mei Lai Road	Spraying of water at the hole during drilling and erecting of nylon sheets;	
				Providing silent type drilling rigs for the drilling works at both Slopes CCR-S1 and CCR-S4	
				Site Inspection and Environmental Monitoring	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				During the weekly site inspection on 27 September 2006, rock drilling at the Slope CCR-S1 was not carrying out. The ET observed that the work area was enclosed by tarpaulin sheets at three sides. Temporary noise barrier was erected at the working platform of the Slope CCR-S1.	
				The ET also undertook an ad hoc site inspection at the concerned areas after 19:00 on 27 September 2006. No construction activities were observed and noise monitoring was not conducted.	
				Conclusion	
				Base on the information collected and the monitoring results, there was no exceedance of the noise monitoring results and noise mitigation measures were implemented by the Contractor during the rock drilling works.	
				However, the Contractor was still reminded to carry out construction activities only within the permitted working hours (i.e. 07:00 – 19:00 on weekday) and to take sufficient noise mitigation measures to minimize the environmental impact on the nearby community:	
				Provide silent type drilling rigs for the drilling works;	
				Placing of wooden box to cover the head of drilling;	
				Apply water spraying for at the hole during drilling;	
				The environmental conditions of the site will be continuously reviewed by the RSS and the Environmental Team through site inspections and monitoring exercises.	
61025	Lai Chi Kok Road Flyover near PCCW building	25-Oct-06 (by ET Leader)	The Integrated Complaint Centre (ICC) of HKSAR received a public complaint on 25 th October 2006 regarding noise nuisance generated from Route 8 – Lai Chi Kok Viaduct R8-LCKV) Project. Resident Site Staff (RSS) subsequently	Site Activities: According to RSS's record, installation of catchfan at Pier P5/L to P6 near PCCW was carried out at around 0115 to 0500 at both nights of 19 th and 20 th October 2006. The construction equipment used in both nights included one mobile crane, one crane lorry and one generator.	Closed

Log Ref. Log	ocation	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
Log Ref. Lo	ocation	Received Date	referred the complaint to the ET Leader on 25 th October 2006. The complaint was concerned about the noise nuisance generated from workers and construction vehicles during the mid-night between 0100 and 0200 on both 19 th and 20 th October 2006 at Lai Chi Kok Road Flyover near PCCW building.	Contractor Action According to RSS' record, acoustic material wrapping the head of chain blocks and hessian bags placing on ground around catchfans to suppress noise generation when hand tools were dropped onto ground. Environmental Monitoring An ad-hoc site observation and noise monitoring at Hoi Fai House of Hoi Lai Estate were conducted by the Contractor on 26th October 2006 between 0100 and 0130. The ET also carried out an ad-hoc inspection on 28th October 2006 from 0100 to 0200. During the inspection, segment erection work was carried out at Pier P5 to P6, which involved the operation of mobile crane and movement of lorry and trucks. During the monitoring, the major noise source identified was the road traffic noise. The 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) which consists with the noise monitoring results from the Contractor. Conclusion Based on the information collected, the complaint is considered justifiable although the monitoring results complied with the noise criteria. Nevertheless, the Contractor was reminded to take sufficient noise mitigation measures to minimize the environmental impact on the nearby community: • To strengthen management on worker's working manner, such as avoiding dropping materials on ground; • No hammering is allowed during restricted hours; and • To provide adequate training to workers working, esp. for night works.	Status

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				reviewed by the Resident Site Staff and the Environmental Team.	
61103	Pier C13 and C14 at Lai Wan Road Overpass	3-Nov-06 (by ET Leader)	The Integrated Complaint Centre (ICC) of HKSAR received a public complaint on 28 th October 2006 regarding noise nuisance generated from Route 8 – Lai Chi Kok Viaduct R8-LCKV) Project. Resident Site Staff (RSS) subsequently referred the complaint to the ET Leader on 3 rd November 2006. The complaint was concerned about noise generated from the general cleaning work of deck surface using water jet between Pier C13 and C14 at Lai Wan Road Overpass, at the evening of 28 th October 2006.	According to the RSS's record, there is a CNP (CNP no. GW-RW0563-06) at the concerned location. Construction activities were allowed to be carried out between 19:00hr and 23:00hr (any day not being a general holiday) under the CNP. Environmental Monitoring During the weekly site inspections in October 2006, no noncompliance or observation on noise was recorded. Accordance to the EM&A program, two noise monitoring stations at Nob Hill, namely (NM8a and NM8b), have been set up in order to monitor the noise level generated from the construction activities. The Station (NM8b) is strongly influenced by road traffic noise from Ching Cheung Road. The measurement at this station is for reference purpose, but not for compliance check for construction noise. All measured value were lower than the noise criterion of 75 dB(A). No exceedance of noise level has been recorded in October 2006. Moreover, based on our site observation record during monitoring, road traffic noise from Ching Cheung Road was the major noise source. Conclusion Based on the information collected, the complaint is considered not justifiable. Nevertheless, the Contractor was reminded to take sufficient noise mitigation measures to minimize the environmental impact on the nearby community: As the general cleaning work could be carried out during normal working hours (i.e. 07:00 to 19:00hr) instead as the work was not critical. RSS would remind the Contractor to programme their works better in order to minimize nuisance to nearby residents. The environmental conditions of the site will be continuously reviewed by the Resident Site Staff and the Environmental	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
61121-1	Area near Lai Chi Kok Swimming Pool	21-Nov-06 (by ET Leader)	The Integrated Complaint Centre (ICC) of HKSAR received a public complaint through telephone on 18th November 2006 regarding noise nuisance generated from Route 8 – Lai Chi Kok Viaduct R8-LCKV) Project. Resident Site Staff (RSS) subsequently referred the complaint to the ET Leader on 21st November 2006. The complaint was concerned about noise generated from the construction works between 09:00 and 18:30 at the area near Lai Chi Kok Swimming Pool.	Site Activities According to RSS's record, rebar fixing, formwork erection, placing concrete and preparation work for construction joint were carried out at the concerned site during the period of 13th to 18th November 2006 and the construction works within the mentioned period were occasionally finished at 18:30. As advised by the RSS, the RSS has recommended the Contractor to finish the construction works at the concerned areas before 18:00 in order to minimize the noise nuisance to the public. Environmental Monitoring During the weekly site inspections in November 2006, no noncompliance or observation on noise was recorded. Accordance to the EM&A programme, one noise monitoring station at Mei Foo Sun Chuen, Phase 5 (NM4) and two noise monitoring stations at Nob Hill, namely (NM8a and NM8b), were set up in order to monitor the noise level generated from the construction activities. The Station (NM8b) is strongly influenced by road traffic noise from Ching Cheung Road. The measurement at this station is for reference purpose, but not for compliance check for construction noise. The noise monitoring results in the period between 1st and 21st November 2006 at the M/F of Nob Hill and at Mei Foo Sun Chuen, Phase 5 are all lower than or equal to the noise criterion of 75 dB(A). No exceedance of noise level has been recorded in the above mentioned period. Moreover, based on our site observation record during monitoring, road traffic noise from Ching Cheung Road was the major noise source. Conclusion Base on the information collected and the monitoring results, the complaint was considered not justifiable. However, the Contractor was still reminded to finish the	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				construction works at the concerned areas before 18:00 and to carry out construction activities only within the permitted working hours (i.e. 07:00 – 19:00 on weekday).	
				The environmental conditions of the site will be continuously reviewed by the RSS and the Environmental Team through site inspections and monitoring exercises.	
	Construction works opposite Tong Nai Kan College	21-Nov-06 (by ET Leader)	The Integrated Complaint Centre (ICC) of HKSAR received a public complaint through telephone on 17 th November 2006 regarding dust and noise nuisance generated from Route 8 – Lai Chi Kok Viaduct R8-LCKV) Project. Resident Site Staff (RSS) subsequently referred the complaint to the ET Leader on 21 st November 2006. The complaint was concerned about dust and noise generated from the construction works opposite Tong Nai Kan College in the past years.	Site Activities According to RSS's record, construction works adjacent to Tong Nai Kan College in the past years included the construction of Retaining Wall CCR-R3 and Slip Road D. As advised by the RSS, noise and dust mitigation measures such	
				as provision of noise barriers and acoustic materials at drill pit, dust suppression system and water browser were provided in order to minimize the noise and dust nuisance generated from the above mentioned construction activities.	Closed
				Environmental Monitoring	
61121-2				During the weekly site inspections in November 2006, no non-compliance or observation on noise and air at the concerned site was recorded.	
01121-2				Accordance to the EM&A programme, one noise monitoring station at Mei Foo Sun Chuen, Phase 5 (NM4) and one air monitoring station at Lai Chi Kok Sports Centre (AM2), were set up in order to monitor the noise and dust level generated from the construction activities.	2.000
				The monitoring results revealed that no exceedance was recorded for the noise and air quality (1-hr and 24-hr TSP).	
				Conclusion Base on the information collected and the monitoring results, the complaint was considered not justifiable.	
				However, the Contractor was still reminded to continuously implement their practice, such as providing noise barrier with	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				acoustic materials at drill pit and applying water spraying for any dust emissive activities to minimize the noise and dust nuisance generated from these construction activities. The environmental conditions of the site will be continuously reviewed by the RSS and the Environmental Team through site inspections and monitoring exercises.	
61205	Banyan Garden	5 th December 2006 (by ET Leader)	Environmental Protection Department (EPD) received a public complaint about environment nuisance generated from Route 8 – Lai Chi Kok Viaduct Project. EPD subsequently referred the complaint to ET Leader on 5 th December 2006. The complaint was concerned construction noise near Banyan Garden within the period of 01:00 – 02:00hr on 29 th November 2006.	Site Activities According to RSS's record, a catchfan was moved from bay (AL-62) to (AL-58) from 22:00 to 02:00hr. Installation of catchfan at parapet bay (MS-R-74) was carried out from 00.00 to 04:00hr on 29 th November 2006. As advised by the RSS, the Contractor has been requested to: - Wrapping of tools with acoustic material - Erection of noise barrier (mill barrier with acoustic material) adjacent to isolated noise source - Placing of hessin bags on ground to mitigate noise generated as a result of the dropping of tools on ground. According to the RSS, there is no evidence of hammering of metals on site. Conclusion Based on the information collected, the complaint is considered unjustifiable. Nevertheless, the Contractor was reminded to take sufficient noise mitigation measures to minimize the environmental impact on the nearby community: - To strengthen management on worker's working manner, such as avoiding dropping materials on ground; - No hammering is allowed during restricted hours; and - To provide adequate training to workers working, esp. for night works. The environmental conditions of the site will be continuously reviewed by the Resident Site Staff and the Environmental Team.	Closed

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70117-1	P6 – P8 near Lai Chi Kok Road Interchange	17 th January 2007 (by ET Leader)	The Integrated Complaint Centre (ICC) of HKSAR received a public complaint through telephone on 16 th January 2007 regarding noise nuisance generated from Route 8 – Lai Chi Kok Viaduct R8-LCKV) Project. Resident Site Staff (RSS) subsequently referred the complaint to the ET Leader on 17 th January 2007. The complaint was concerned about noise generated from the P6 – P8 near Lai Chi Kok Road Interchange in the past months.	Site Activities According to RSS's record, the construction activities at the concerned area was mainly central stitch construction and parapet erection and similar works will be carried out in the concerted site in coming one month. The equipment used on site during the complaint period was covered under the construction noise permit (CNP) no. GW-RW0624-06. Based on the RSS's record of PME used in the concerned area from 15 November 2006 to 30 December 2006, the construction works complied with the CNP no. GW-RW0624-06. Conclusion Based on the information collected, the complaint is considered unjustifiable as the equipment used complied with the CNP conditions. Nevertheless, the Contractor was recommended to take further noise mitigation measures to minimize the environmental impact on the nearby community: To strengthen management on worker's working manner, such as avoiding dropping materials on ground; No hammering is allowed during restricted hours; and To provide adequate training to workers working, esp. for night works.	Closed
70117-2	P3 – P6 near Banyan Garden	17 th January 2007 (by ET Leader)	Environmental Protection Department (EPD) received a public complaint about environment nuisance generated from Route 8 – Lai Chi Kok Viaduct Project. EPD subsequently referred the complaint to ET Leader on 17 th January 2007. The complaint was concerned construction noise near Banyan Garden within the period of 01:00 – 02:00hr on 11 th January 2007.	According to RSS's record, the construction activities at the concerned area was mainly central stitch construction and parapet erection and similar works will be carried out in the concerned site in coming one month. The equipment used on site during the complaint period was covered under the construction noise permit (CNP) no. GW-RW0624-06. Based on the RSS's record of PME used in the concerned area from 1st December 2006 to 13th January 2007, the construction	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				works complied with the CNP no. GW-RW0624-06.	
				Conclusion Based on the information collected, the complaint is considered unjustifiable as the equipment used complied with the CNP conditions.	
				Nevertheless, the Contractor was recommended to take further noise mitigation measures to minimize the environmental impact on the nearby community: - To strengthen management on worker's working manner, such as avoiding dropping materials on ground; - No hammering is allowed during restricted hours; and - To provide adequate training to workers working, esp. for night works.	