

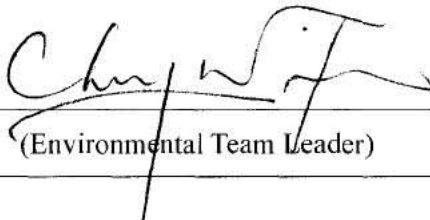
Highways Department

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

Quarterly EM&A Report Part II – Eagle's Nest Tunnel and Associated Works (Version 1.0)

December 2007 to February 2008

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.

CINOTECH accepts no responsibility for changes made to this report by third parties.

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EXECUTIVE SUMMARY

- This is the 17th Quarterly 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 summary report documents the findings of EM&A works performed in the period between December 2007 and February 2008 for Contract No. HY/2003/02, Route 8 – Eagle’s Nest Tunnel and Associated Works (the Project).

- The major site activities undertaken in the reporting quarter included:
 - Cladding and Hand Rail Installation;
 - Tunnel Ventilation System and Lighting (T&C);
 - Plumbing & Drainage;
 - Mechanical Ventilation Air Conditioning and T&C;
 - Road and drainage works;
 - Metal curtain and mesh cladding;
 - Cat ladder for vent shaft;
 - Tiling and Upper roof railing;
 - Fencing at Ventilation Building;
 - Testing on fire services and lighting;
 - Metal cladding on footbridge, painting, fire services, carpet file, false and external metal ceiling, painting, hand rail installation on roof and signages at Toll Plaza’s structures & Administration Building; and
 - Haul road diversion, step channel, fill slope at SP-S2, irrigation pipe and system (T&C), u-channel and lighting for noise enclosure at Butterfly Valley.

- The major site activities for Traffic Control and Surveillance System (TCSS) works undertaken in the reporting quarter included:
 - Equipment Cabinet Installation;
 - SAT for TCSS equipment;
 - Remedial works for TCSS equipment; and
 - Minor rectification works to field equipment.

Environmental Monitoring Works

- Environmental monitoring for the Project was performed regularly as stipulated in the EM&A Manual and the results were checked and reviewed. Environmental 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 quarter is tabulated in **Table I**.

Table I Summary Table for Events Recorded in the Reporting Quarter

| <i>Parameter</i> | <i>No. of Events</i> | | <i>No. of Events Due to the Project</i> | <i>Action Taken</i> |
|----------------------|----------------------|--------------------|---|---------------------|
| | <i>Action Level</i> | <i>Limit Level</i> | | |
| <i>December 2007</i> | | | | |
| 1-hr TSP | 0 | 0 | 0 | N/A |
| 24-hr TSP | 0 | 0 | 0 | N/A |
| Noise | 0 | 0 | 0 | N/A |
| <i>January 2008</i> | | | | |
| 1-hr TSP | 0 | 0 | 0 | N/A |
| 24-hr TSP | 0 | 0 | 0 | N/A |
| Noise | 0 | 0 | 0 | N/A |
| <i>February 2008</i> | | | | |
| 1-hr TSP | 0 | 0 | 0 | N/A |
| 24-hr TSP | 0 | 0 | 0 | N/A |
| Noise | 0 | 0 | 0 | N/A |

Environmental Licensing and Permitting

- Licenses/Permits granted to the Project include the Environmental Permit (EP) for the Project, Construction Noise Permits (CNPs) and Water Discharge Licenses (WDLs). The Contractor had also registered as a Chemical Waste Producer.

Key Information in the Reporting Quarter

- Summary of key information in the reporting quarter is tabulated in **Table II**.

Table II Summary Table for Key Information in the Reporting Quarter

| Event | Event Details | | Action Taken | Status | Remark |
|--|---------------|-----------------------------------|--|------------|--------|
| | Number | Nature | | | |
| 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 | 3 | Monthly EM&A Report (November 07) | Submitted to EPD on 12 th December 2007 (EP condition 4.6). | No comment | --- |
| | | Monthly EM&A Report (December 07) | Submitted to EPD on 14 th January 2008 (EP condition 4.6). | No comment | |
| | | Monthly EM&A Report (January 08) | Submitted to EPD on 14 th February 2008 (EP condition 4.6). | No comment | |
| Notifications of any summons & prosecutions received | 0 | --- | N/A | N/A | --- |
| <p><u>Future Key Issues:</u></p> <p>Major site activities for civil works in the coming months include:</p> <ul style="list-style-type: none"> • Hand Rail Installation; • Metal Mesh Cladding; • Tunnel Ventilation System (T&C); • Plumbing & Drainage (T&C); • Mechanical Ventilation Air Conditioning (T&C); • Roof tiles; • Boundary Fencing; • Slope Fencing; • Fire services (T&C); • Irrigation pipe & system (T&C); • Re-created stream (DSD Access Rd); and • 7m Noise Barrier (Mesh Panel) at Butterfly Valley. <p>Major site activities for TCSS works in the coming months include:</p> <ul style="list-style-type: none"> • Site Acceptance Tests (SAT) for TCSS equipment. <p>The anticipated environmental issues will be mainly on dust emission and noise nuisance from road works, and waste/ chemical management from finishing the construction activities.</p> | | | | | |

1. INTRODUCTION

- 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. 449) (EIAO). An environmental impact assessment (EIA) report has been prepared in 1998 for the R9-CSWST project (1998 R9 EIA) to consider the key issues of noise, air quality, water quality, ecological, construction waste, landscape and visual, land use and cultural impacts, and identify possible mitigation measures.
- 1.4 An Updated Final EIA report was subsequently completed in August 1999 for the R9-CSWST project (1999 R9 EIA), to cater for some changes in R9K portion as mentioned in paragraph 1 in the report. The 1999 R9 EIA was endorsed by Environmental Protection Department (EPD) in November 1999. The 1998 R9 EIA and the 1999 R9 EIA (R9 EIA Reports) were included in the EIA register under the EIAO as report no. EIA-135/BC and AEIAR-022/1999 respectively. An Environmental Monitoring and Audit (EM&A) Manuals for each of the R9 EIA Reports (EM&A Manuals) were also included as part of the EIA reports in the register.
- 1.5 Subsequent to the endorsement of the R9 EIA Reports by EPD in November 1999, the project programme was deferred to start in 2002/2003 for completion by 2006/07. The implementation of the project was then separated into the R9S and R9K portion. An Environmental Permit (EP) No. EP-103/2001 was issued on 17 September 2001 for R9K to the HyD as Permit Holder. A revised EP No. EP-103/2001/A was 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 (previously known as Route 9) 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 was appointed as the ET Leader under Condition 2.2 of the EP. Mr. Damien KU of CH2M HILL Hong Kong Ltd. was appointed as the IEC under Condition 2.1 of the EP. This is the 17th quarterly EM&A report summarizing the EM&A works for the ENT Project between December 2007 and February 2008.

2 PROJECT CHARACTERISTICS

Project Organization and Contacts of Key Management

- 2.1 An organization structure and the line of communication were set up for the Project between the Project Proponent, Engineer's Representative (ER), Independent Environmental Checker (IEC), the Contractor and Environmental Team (ET). The organization chart and contact details are shown in **Appendix A** and **Figure 2**.

Construction Programme and Synopsis of Work

- 2.2 The construction programme is presented in **Appendix B**.
- 2.3 The site activities for Civil Works undertaken in the reporting quarter included:

ENT Tunnel

- T&C for Tunnel ventilation lighting.

Butterfly Valley

- Haul road diversion, road works, step channel works, fill slope at SP-S2, u-channel, T&C on irrigation pipe & system, lighting for noise enclosure, DSD access road of the re-created stream and installation on the mesh panel for the 7m Noise Barrier.

South Portal Building

- Metal meshing cladding, Cat Ladder for vent shaft, upper roof railing, plumbing & drainage (T&C), tunnel ventilation system (T&C), mechanical ventilation air condition and T&C.

North Portal Building

- Metal meshing cladding, cat ladder for vent shaft, upper roof railing, plumbing & drainage and T&C, tunnel ventilation system (T&C), mechanical ventilation air condition and T&C.

Toll Plaza's Structures and Administration Building

- Road works (including EVA Road & Loop Road No.2), Footbridge (metal cladding), roof tiling, metal curtain mesh cladding, mechanical ventilation air condition and T&C, false & external metal ceiling, plumbing and drainage (T&C), external hand rail installation, skirting and rubber & vinyl flooring, signage, carpet file, roof hand rail installation, lighting testing, fire services and wall painting and T&C.

Toll Plaza's Structures and Administration Building

- Road works, roof tiling, metal curtain mesh cladding, T&C for mechanical ventilation air condition, false & external metal ceiling, T&C for plumbing and drainage, roof hand rail installation, signage, T&C for fire services and wall painting.

Ventilation Building

- Cladding & hand rail installation, drainage works, fencing, mechanical ventilation air conditioning and T&C, plumbing & drainage and T&C, lighting installation, Tunnel Ventilation System and T&C.

SHT – South Portal Building

- Cat Ladder for vent shaft, mesh cladding, plumbing & drainage (T&C), upper roof railing, mechanical ventilation air conditioning and T&C, tunnel ventilation system (T&C).

SHT – North Portal Building

- Cat Ladder for vent shaft, mesh cladding, upper roof railing, plumbing & drainage and T&C, mechanical ventilation air conditioning and T&C, tunnel ventilation system (T&C).

SHT Tunnel & Remaining SHT/T3 Area

- Lighting testing, tunnel ventilation system (T&C) and fire services (T&C).

2.4 The site activities for TCSS works undertaken in the reporting quarter included:

- Equipment Cabinet Installation;
- SAT for TCSS equipment; and
- Remedial works for TCSS equipment.

3 ENVIRONMENTAL MONITORING AND AUDIT REQUIREMENTS

Monitoring Parameters and Monitoring Locations

- 3.1 The EM&A Manual designated locations for the ET to monitor environmental impacts in terms of noise and air quality due to the Project. The monitoring locations are depicted in **Figures 1a** and **1b**. **Appendix C** gives details of monitoring requirements.

Monitoring Methodology and Calibration Details

- 3.2 Monitoring works/equipments were conducted/calibrated regularly in accordance with the EM&A Manual. Copies of calibration certificates are attached in the appendices of the Monthly EM&A Reports.

Environmental Quality Performance Limits (Action and Limit Levels)

- 3.3 The environmental quality performance limits, i.e. Action and Limit Levels were derived from the baseline monitoring results. Should the measured environmental quality parameters exceed the Action/Limit Levels, the respective Event Action Plans would be implemented. The Action/Limit Levels for each environmental parameter are provided in **Appendix D**.

Environmental Mitigation Measures

- 3.4 Relevant mitigation measures as recommended in the project EIA report have been stipulated in the EM&A Manuals for the Contractor to implement. A list of mitigation measures is given in **Appendix G**.

4 MONITORING RESULTS

Weather Conditions

- 4.1 The weather during monitoring sessions was mainly cloudy and sometimes sunny. The weather conditions for each individual monitoring session were presented in the field record sheets.

Air Quality

1-hr TSP Monitoring

- 4.2 All 1-hour TSP monitoring was conducted as scheduled during the reporting quarter.
- 4.3 No Action/Limit Level exceedance was recorded in this reporting quarter.

24-hr TSP Monitoring

- 4.4 All 24-hr TSP monitoring was conducted as scheduled in this reporting quarter.
- 4.5 No Action / Limit Level exceedance was recorded in the reporting quarter.
- 4.6 The monitoring data of 1-hr and 24-hr TSP Levels are attached in the appendices of the Monthly Reports for December 2007 to February 2008. The graphical presentations of the monitoring results are shown in **Appendix E**.

Construction Noise

- 4.7 Noise monitoring was performed at the four designated locations during the daytime period (0700-1900 hours) on normal as scheduled in this reporting quarter. Restricted-hour monitoring was also conducted at NM5, NM6 and NM7.
- 4.8 No Action/Limit Level exceedance was recorded in the reporting quarter.
- 4.9 All the Construction Noise Levels (CNLs) reported in this report 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.
- 4.10 The monitoring data of construction noise are attached in the appendices of the Monthly Reports for December 2007 to February 2008. The graphical presentations of the monitoring results are shown in **Appendix F**.
- 4.11 Construction noise exceedances recorded in the reporting quarter and the associated actions taken are summarized in **Appendix J**.

5 ENVIRONMENTAL AUDIT

Implementation Status of Environmental Mitigation Measures

- 5.1 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 Environmental Mitigation Implementation Status (EMIS) is provided in **Appendix G**.

Site Audit Summary

- 5.2 ET's weekly site audits for Civil works were conducted on 5th, 12th, 19th and 28th December 2007, 2nd, 9th, 16th, 23rd and 30th January 2008, 4th, 13th, 20th and 27th February 2008.
- 5.3 The joint site audits for Civil works were conducted on 5th December 2007, 2nd January 2008 and 13th February 2008 with representatives from IEC, ER, the Contractor and ET. The site audits for TCSS works were also conducted on 5th December 2007, 2nd January 2008 and 13th February 2008 with representatives from IEC, ER, the Contractor and ET.
- 5.4 During site inspections in the reporting period, no non-conformance was identified. The observations and recommendations are summarized in **Table 5.1**.

Table 5.1 Observations and Recommendations of the Site Audits

| Parameters | Date | Observations / Recommendations | Remedial Actions |
|--------------------|----------|---|---|
| <i>Air Quality</i> | 02/01/08 | Dusty construction site was observed at the stockpile station next to the BV-Southbound of Loop Road 1. The Contractor was reminded to spray the water frequently over there | Rectification / improvement were observed during the site inspection on 09/01/08. |
| | 16/01/08 | Stockpile was found without covered next to the sub-contractor's container of ENT-South Portal. The Contractor was advised to cover them properly with impervious sheeting to suppress the dust generatio | Rectification / improvement were observed during the site inspection on 23/01/08 |
| | 20/02/08 | Uncovered stockpile was observed near ENT South Portal Building. The Contractor was advised to cover it with tarpaulin. | Rectification / improvement were observed during the site inspection on 27/02/08 |

Status of Environmental Licensing and Permitting

- 5.5 Environmental licenses and permits including the Environmental Permit for the Project were in place and valid during the reporting quarter. The status of these licenses and permits obtained for the Project is summarized in **Appendix H**.

6 NON-COMPLIANCE (EXCEEDANCES) OF THE ENVIRONMENTAL QUALITY PERFORMANCE LIMITS (ACTION AND LIMIT LEVELS)

Summary of Exceedances

Air Quality

- 6.1 No Action/Limit Level exceedance was recorded in the reporting quarter.

Construction Noise Monitoring

- 6.2 No Action/Limit Level exceedance was recorded in the reporting quarter.

Review of the Reasons for and the Implications of Non-compliance

- 6.3 There was no non-compliance from the site audits in the reporting quarter. As mentioned previously in the Section 5.2 of this report, the observations and recommendations made in each individual site audit session were presented.

7 ENVIRONMENTAL COMPLAINTS

- 7.1 No environmental complaints were received in the reporting quarter.
- 7.2 The details of the complaints, the investigation results and the mitigation actions are summarized in **Appendix I**. There were 22 environmental complaints received since the Project commencement.

8 NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS

- 8.1 No notification of summon or successful prosecution was recorded in this reporting quarter.
- 8.2 There was no notification of summon or successful prosecution received since the Project commencement.

9 COMMENTS, CONCLUSIONS AND RECOMMENDATIONS

9.1 Major site activities for Civil works in the coming months include:

Butterfly Valley

- Boundary fencing, re-created stream (DSD access Rd), 7m Noise Barrier (Mesh Panel) and irrigation pipe & system (T&C).

South Portal Building

- Metal meshing cladding, plumbing & drainage (T&C), tunnel ventilation system (T&C) and the mechanical ventilation air conditioning (T&C).

North Portal Building

- Metal meshing cladding, plumbing & drainage (T&C), tunnel ventilation system (T&C) and the mechanical ventilation air conditioning (T&C).

Toll Plaza's Structures and Administration Building

- Roof tiles, fire services (T&C), mechanical ventilation air conditioning (T&C) and plumbing & drainage (T&C).

Ventilation Building

- Hand rail installation, slope fencing, metal mesh cladding, plumbing & drainage (T&C), mechanical ventilation air conditioning (T&C) and Tunnel Ventilation System (T&C).

SHT – South Portal Building

- Mesh cladding, plumbing & drainage (T&C), mechanical ventilation air conditioning (T&C) and tunnel ventilation system (T&C).

SHT – North Portal Building

- Mesh cladding, plumbing & drainage (T&C), mechanical ventilation air conditioning (T&C) and tunnel ventilation system (T&C).

SHT Tunnel & Remaining SHT/T3 Area

- Tunnel ventilation system (T&C) and fire services (T&C).

9.2 The major site activities for TCSS works in the coming months include:

- Site Acceptance Tests (SAT) for TCSS equipment.

9.3 The anticipated environmental issues will be mainly on dust emission and noise nuisance from road works, and waste/ chemical management from finishing the construction activities.

9.4 According to the environmental audit performed in the reporting quarter and anticipated environmental issues, the following recommendations were made:

Water Impact

- To review and implement temporary drainage system especially for the areas at Butterfly Valley and Toll Plaza.
- To closely monitor the capacity of existing de-silting facility on site, especially for the discharge at the site in Butterfly Valley and Toll Plaza.
- To keep the sedimentation facilities well maintained and perform de-silting regularly.
- To avoid accumulation of stagnant water on site.

Dust Impact

- To ensure that adequate water spray or other dust suppression measures are applied for slope cutting and the haul roads and stockpile on site.
- To cover idle soil slope surface and stockpile of dusty materials to prevent wind erosion.
- To ensure that all vehicles carrying dusty materials are properly covered before leaving the site.

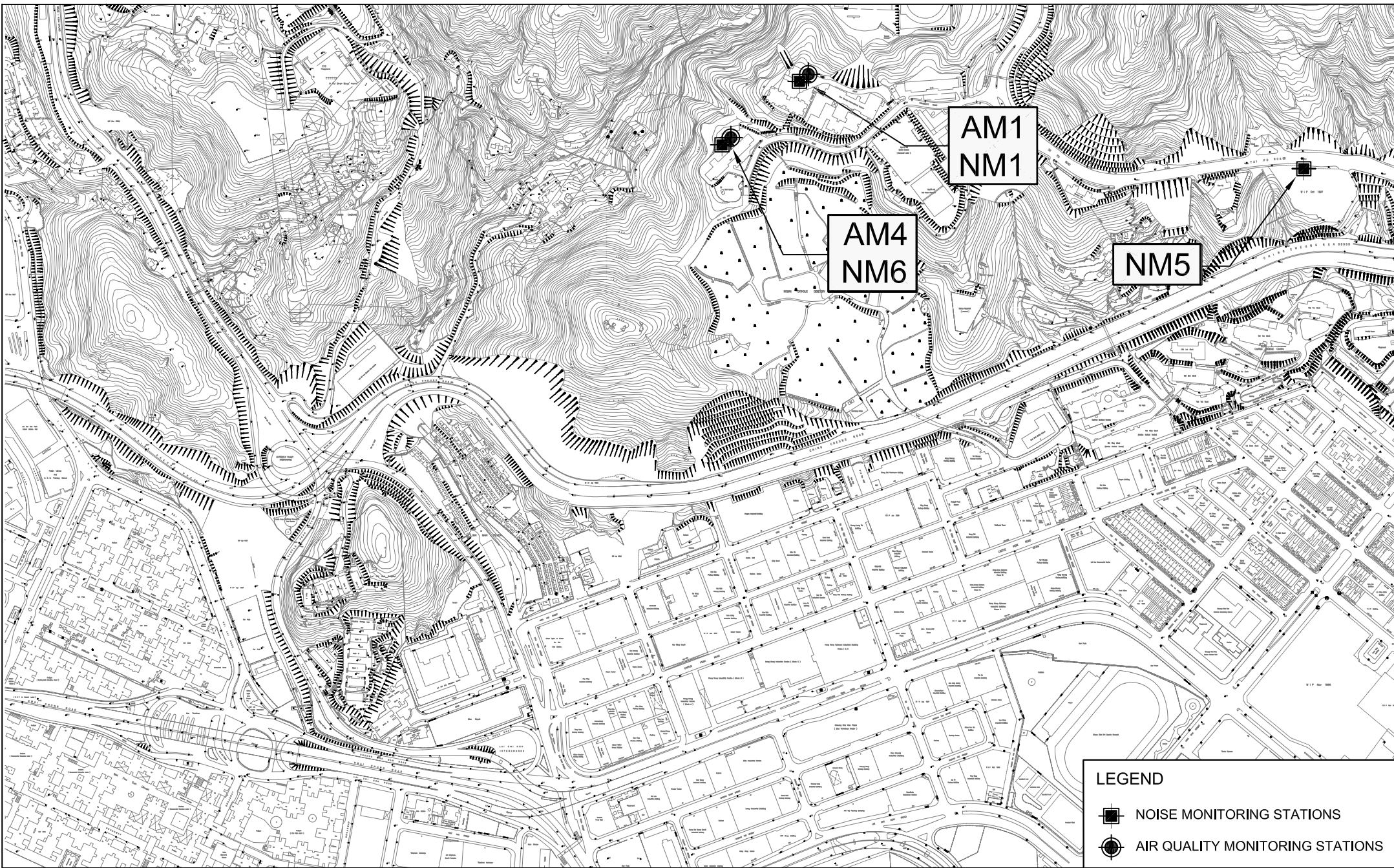
Noise Impact

- To provide temporary noise barriers for noisy activities (such as breaking works).
- To reduce the number of noisy equipment in concurrent operation.

Waste/Chemical Management

- To ensure proper storage of chemical and chemical waste on site.
- To check for any accumulation of waste materials or rubbish on site.
- To avoid any discharge or accidental spillage of chemical waste or oil directly.

FIGURES



| LEGEND | |
|--------|---------------------------------|
| | NOISE MONITORING STATIONS |
| | AIR QUALITY MONITORING STATIONS |

Title

ROUTE 8 (PREVIOUSLY KNOWN AS ROUTE 9) BETWEEN CHEUNG SHA WAN AND SHA TIN
 CONTRACT NO. HY/2003/02 - EAGLE'S NEST TUNNEL AND ASSOCIATED WORKS

LOCATIONS OF MONITORING STATIONS

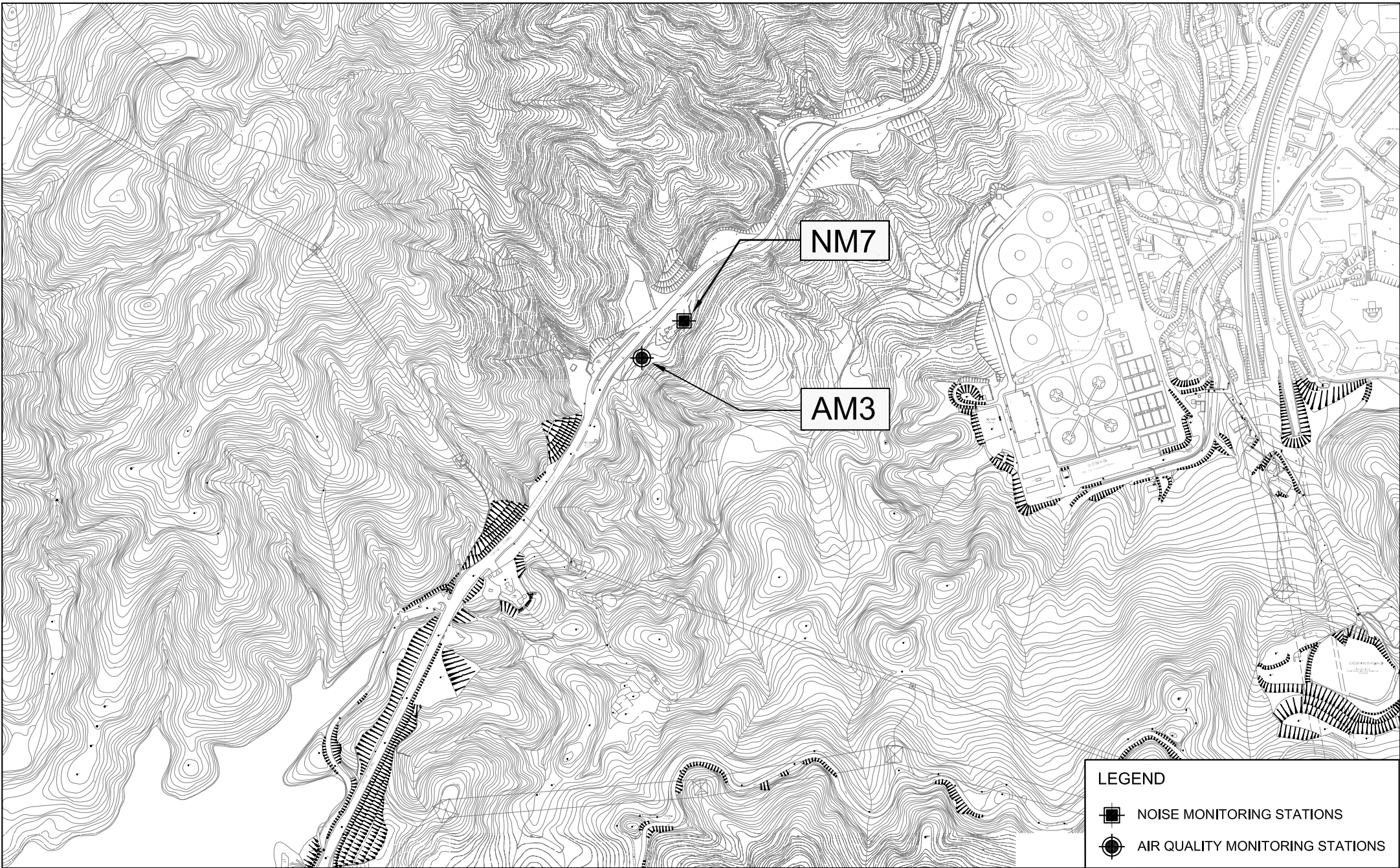
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2006

Project No.
 MA3024

Figure No.
 1a





| LEGEND | |
|--------|---------------------------------|
| | NOISE MONITORING STATIONS |
| | AIR QUALITY MONITORING STATIONS |

Title

ROUTE 8 (PREVIOUSLY KNOWN AS ROUTE 9) BETWEEN CHEUNG SHA WAN AND SHA TIN
 CONTRACT NO. HY/2003/02 - EAGLE'S NEST TUNNEL AND ASSOCIATED WORKS

LOCATIONS OF MONITORING STATIONS

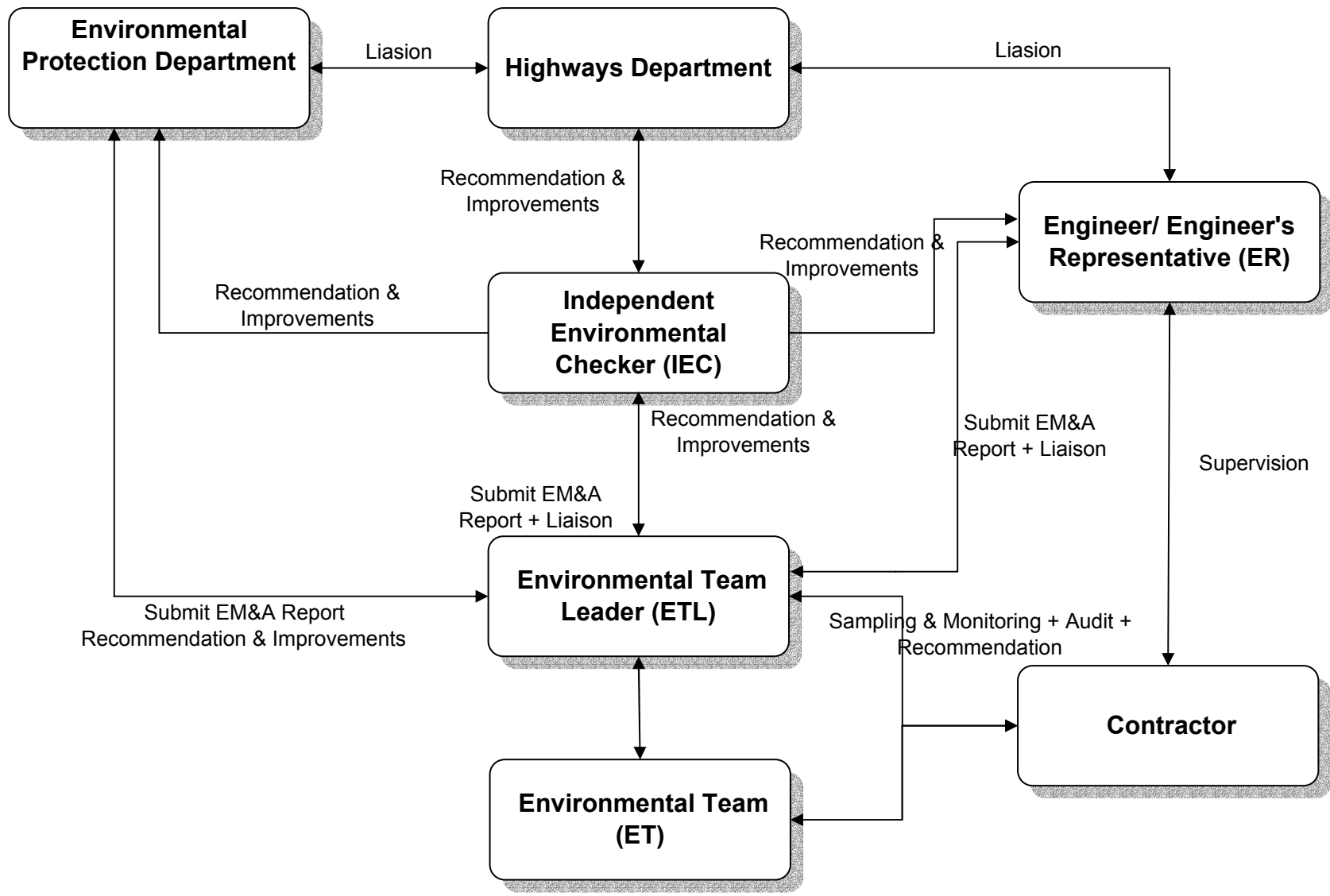
Scale
 1 : 6500 (A4)

Date
 2006

Project No.
 MA3024

Figure No.
 1b





Title ROUTE 8 (PREVIOUSLY KNOWN AS ROUTE 9) BETWEEN CHEUNG SHA WAN AND SHA TIN
 CONTRACT NO. HY/2003/02 - EAGLE'S NEST TUNNEL AND ASSOCIATED WORKS

Environmental Monitoring and Audit Organization Chart

Scale N.T.S
 Date 2006

Project No. MA3024
 Figure 2



**APPENDIX A
CONTACT DETAILS OF THE PROJECT
ORGANISATION**

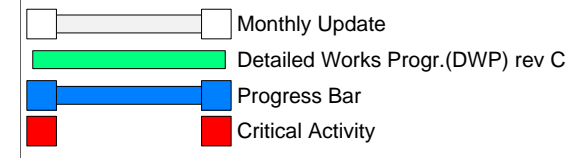
Appendix A - Contact Details of the Project Organisation (ENT)

| Party | Role | Name | Position | Phone No. | Fax No. |
|-------------------|-----------------------------------|--------------------|---|-----------|-----------|
| HyD | Permit Holder | Mr. Kroc Leung | SE2/R8K | 2762 3662 | 2714 5198 |
| | | Mr. George Law | E4/R8K | 2762 3675 | |
| MHJV | Engineer | Mr. Conrad Ng | Project Manager | 2605 6262 | 2691 2649 |
| | Engineer's Representative | Mr. Peter Poon | CRE | 3552 2500 | 2743 9200 |
| | | Mr. Eric Wong | RE (S & EP) | 3552 2551 | |
| Ms. Sammie Chan | TO (EN) | 3552 2605 | | | |
| Cinotech | Environmental Team | Dr. Priscilla Choy | ET Leader | 2151 2089 | 3107 1388 |
| | | Mr. Robert Tsang | Audit Team Leader and Project Coordinator | 2151 2095 | |
| | | Mr. Henry Leung | Monitoring Team Leader | 2151 2087 | |
| CH2M | Independent Environmental Checker | Mr. Damien Ku | Independent Environmental Checker | 2872 2921 | 2507 2293 |
| | | Mr. Simon Lam | Assistant Independent Environmental Checker | 2872 2946 | |
| LKJV | Contractor | Mr. Ray Brewster | Project Director | 9092 6128 | 2743 1600 |
| | | Mr. W. C. Lam | QA/E Engineer | 3552 2134 | |
| ARUP | Engineer's Representative (TCSS) | Mr. Donald Leung | RE | 2436 7489 | 2436 1803 |
| | | Mr. Daniel So | ARE | 2436 7435 | |
| DIGJV | Contractor (TCSS) | Ms. Joyce Chan | Quality Manager | 2123 0845 | 2123 0889 |
| Enquiries Hotline | | | | 3552 2226 | - |
| Complaint Hotline | | | | 3552 2380 | - |

APPENDIX B
CONSTRUCTION PROGRAMME

Data Date 20FEB08
Run Date 25FEB08 08:50

3 MONTH ROLLING PROGRAMME



| Act. ID | Activity Description | Orig Dur | Early Start | Early Finish | % Compl. | Target 1 % Comp | Rem Dur | Total Float | Variance Early Finish | DEC | | JAN | | | FEB | | | MAR | | | APR | | | MAY | | | JUN | | | | | | | |
|--|---|----------|-------------|--------------|----------|-----------------|---------|-------------|-----------------------|--|----|-----|----|---|-----|----|----|-----|----|----|-----|---|----|-----|----|----|-----|----|----|----|---|----|----|----|
| | | | | | | | | | | 51 | 17 | 24 | 31 | 7 | 14 | 21 | 28 | 4 | 11 | 18 | 25 | 3 | 10 | 17 | 24 | 31 | 7 | 14 | 21 | 28 | 5 | 12 | 19 | 26 |
| BUTTERFLY VALLEY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Construction Works | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ROADWORKS - North End of BV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Road Pavement & Associated Work | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S2920 | Road Works to East Loop Rd Typ III (EVA) | 13 | 15FEB07A | 05FEB08A | 100 | 0 | 0 | | -474 | [Gantt bar: 15FEB07A to 05FEB08A, 100% complete] | | | | | | | | | | | | | | | | | | | | | | | | |
| S2900 | Road Marking & White Lining (Staged for Access) | 18 | 10DEC07A | 14FEB08A | 100 | 0 | 0 | | -364 | [Gantt bar: 10DEC07A to 14FEB08A, 100% complete] | | | | | | | | | | | | | | | | | | | | | | | | |
| ROADWORKS - South End of BV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Road Pavement & Associated Work | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S2990 | Road Marking & White Lining (Staged Access) | 18 | 10DEC07A | 14FEB08A | 100 | 0 | 0 | | -350 | [Gantt bar: 10DEC07A to 14FEB08A, 100% complete] | | | | | | | | | | | | | | | | | | | | | | | | |
| DSD MAINTENANCE ROAD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DSD Maintenance Rd DSD1 (Parallel to Channel) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S2700 | Access rd DSD1 -barrier footings | 6 | 10SEP07A | 26FEB08 | 90 | 0 | 6 | -30 | -482 | [Gantt bar: 10SEP07A to 26FEB08, 90% complete] | | | | | | | | | | | | | | | | | | | | | | | | |
| S2720 | Access rd DSD1 - Barriers | 6 | 10SEP07A | 26FEB08 | 90 | 0 | 6 | -30 | -470 | [Gantt bar: 10SEP07A to 26FEB08, 90% complete] | | | | | | | | | | | | | | | | | | | | | | | | |
| S3160 | REINSTATE BV ACCESS | 0 | | 22JAN08A | 100 | 0 | 0 | | -361 | [Milestone: 22JAN08A] | | | | | | | | | | | | | | | | | | | | | | | | |
| Landscaping & Establishment | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 101476 | BV - Soft Landscaping & Planting | 100 | 03JUN06A | 26FEB08 | 94 | 0 | 6 | -30 | -251 | [Gantt bar: 03JUN06A to 26FEB08, 94% complete] | | | | | | | | | | | | | | | | | | | | | | | | |
| 101477 | BV - Establishment works | 365 | 24NOV06A | 24NOV08 | 0 | 0 | 279 | -315 | -219 | [Gantt bar: 24NOV06A to 24NOV08, 0% complete] | | | | | | | | | | | | | | | | | | | | | | | | |
| 101475 | BV - Hard Landscaping | 90 | 03JAN07A | 26FEB08 | 90 | 0 | 6 | -30 | -417 | [Gantt bar: 03JAN07A to 26FEB08, 90% complete] | | | | | | | | | | | | | | | | | | | | | | | | |
| ENT SOUTH PORTAL VENTILATION BUILDING | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSTRUCTION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| South Portal Bldg. - CIVIL & ABWF WORKS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ABWF WORKS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Roof & External Facade | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T2360 | Ent SPB - GMS,S/S Roof Balustrade & Railing | 24 | 24MAR07A | 20FEB08A | 100 | 0 | 0 | | -402 | [Gantt bar: 24MAR07A to 20FEB08A, 100% complete] | | | | | | | | | | | | | | | | | | | | | | | | |
| T2390 | Ent SPB - Expanded metal cladding to Ext Walls | 18 | 08SEP07A | 28FEB08 | 90 | 0 | 8 | -32 | -418 | [Gantt bar: 08SEP07A to 28FEB08, 90% complete] | | | | | | | | | | | | | | | | | | | | | | | | |
| VENTILATION ADIT & BUILDING | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSTRUCTION WORKS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EXTERNAL WORKS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Road Pavement & Associated Work | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S1930 | Signage, furniture and finishes | 24 | 20JUL07A | 03MAR08 | 90 | 0 | 11 | -35 | -345 | [Gantt bar: 20JUL07A to 03MAR08, 90% complete] | | | | | | | | | | | | | | | | | | | | | | | | |
| VENTILATION BUILDING | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| VA Building - ABWF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| VA Building - External Finishes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T2110 | VA Bldg. - Expanded metal cladding to Ext Walls | 18 | 20OCT07A | 11MAR08 | 85 | 0 | 18 | -42 | -442 | [Gantt bar: 20OCT07A to 11MAR08, 85% complete] | | | | | | | | | | | | | | | | | | | | | | | | |
| T3100 | VA Bldg. - Balustrades | 11 | 10DEC07A | 03MAR08 | 60 | 0 | 11 | -35 | -444 | [Gantt bar: 10DEC07A to 03MAR08, 60% complete] | | | | | | | | | | | | | | | | | | | | | | | | |
| EXTERNAL AREAS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LANDSCAPING & ESTABLISHMENT WORKS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T3180 | Planting Works | 18 | 02SEP06A | 26FEB08 | 95 | 0 | 6 | -30 | -412 | [Gantt bar: 02SEP06A to 26FEB08, 95% complete] | | | | | | | | | | | | | | | | | | | | | | | | |
| T3200 | Establishment Works | 365 | 31OCT07A | 24OCT08 | 0 | 0 | 248 | -334 | -391 | [Gantt bar: 31OCT07A to 24OCT08, 0% complete] | | | | | | | | | | | | | | | | | | | | | | | | |



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LEIGHTON - KUMUGAI JV
R8 - EAGLES' NEST TUNNEL
CONTRACTORS TARGET PROGRAMME REV.1

Proj. Name: W40E
Layout: A4 3 MONTHS ROLLING PROGRAMME
Filter: 3 MONTH ROLLING PROGRAMME
Current Proj: W40E
Target 1 Proj: BE02
Sheet 1 of 2

| LKJV/ENT/DWP/B | | | |
|----------------|--------------------|---------|----------|
| Date | Revision | Checked | Approved |
| 20FEB07 | Prog update Feb 07 | GW | RB |
| | | | |
| | | | |

| Act. ID | Activity Description | Orig Dur | Early Start | Early Finish | % Compl. | Target 1 % Comp | Rem Dur | Total Float | Variance Early Finish | DEC | | | JAN | | | FEB | | | MAR | | | APR | | | MAY | | | JUN | | | | | | |
|--|--|----------|-------------|--------------|----------|-----------------|---------|-------------|-----------------------|------|----|----|-----|---|----|-----|----|---|-----|----|----|-----|----|----|-----|----|---|-----|----|----|---|----|----|----|
| | | | | | | | | | | 51 | 17 | 24 | 31 | 7 | 14 | 21 | 28 | 4 | 11 | 18 | 25 | 3 | 10 | 17 | 24 | 31 | 7 | 14 | 21 | 28 | 5 | 12 | 19 | 26 |
| ENT NORTH PORTAL VENTILATION BUILDING | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSTRUCTION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| North Portal Bldg. - CIVIL & ABWF WORKS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ABWF WORKS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NP Bldg - Roofing & External Facade | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T1790 | Ent NPB - GMS,S/S Channel, Balustrade & Railing | 24 | 05MAR07A | 13FEB08A | 100 | 0 | 0 | | | -434 | | | | | | | | | | | | | | | | | | | | | | | | |
| T1770 | Ent NPB - Expanded metal cladding to Ext Walls | 18 | 12SEP07A | 13FEB08A | 100 | 0 | 0 | | | -405 | | | | | | | | | | | | | | | | | | | | | | | | |
| TOLL PLAZA & ANCILLIARY STRUCTURES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Construction Works | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOLL PLAZA WEST SIDE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S1410 | Furniture, signage (face only), white lining | 18 | 06OCT07A | 11FEB08A | 100 | 0 | 0 | | | -332 | | | | | | | | | | | | | | | | | | | | | | | | |
| LANDSCAPING & ESTABLISHMENT WORKS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S1480 | Planting Works at Toll Plaza | 24 | 10APR07A | 26FEB08 | 80 | 0 | 6 | -326 | | -267 | | | | | | | | | | | | | | | | | | | | | | | | |
| S1490 | Establishment Works at Toll Plaza | 365 | 09OCT07A | 09OCT08 | 0 | 0 | 226 | -407 | | -196 | | | | | | | | | | | | | | | | | | | | | | | | |
| ADMINISTRATION BUILDING | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSTRUCTION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CIVIL & ABWF WORKS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ABWF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Admin Bldg - Upper Roof & External Facade | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T2340 | AB Ext (GL 11-21) - Slate Replacement Cladding | 30 | 03APR06A | 02FEB08A | 100 | 30 | 0 | | | -502 | | | | | | | | | | | | | | | | | | | | | | | | |
| T2330 | AB Ext (GL 1-11) - Slate replacement Cladding | 45 | 15OCT06A | 02FEB08A | 100 | 0 | 0 | | | -457 | | | | | | | | | | | | | | | | | | | | | | | | |
| T2900 | AB Ext UR/LR - Insulation & Conc Roof Tile | 30 | 06NOV06A | 26FEB08 | 80 | 0 | 6 | -30 | | -453 | | | | | | | | | | | | | | | | | | | | | | | | |
| T2280 | AB Ext (GL 11-16) - Expanded metal mesh cladding | 18 | 13NOV07A | 26FEB08 | 99 | 0 | 6 | -30 | | -441 | | | | | | | | | | | | | | | | | | | | | | | | |
| T2915 | AB Ext UR/LR- Install GMS, Balustrades & Railing | 18 | 13NOV07A | 20FEB08A | 100 | 0 | 0 | | | -409 | | | | | | | | | | | | | | | | | | | | | | | | |
| T2270 | AB Ext (GL 3-11) - Expanded metal mesh cladding | 18 | 03DEC07A | 26FEB08 | 99 | 0 | 6 | -30 | | -417 | | | | | | | | | | | | | | | | | | | | | | | | |
| BUILDING SERVICES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Admin Bldg (Int. & Ext. Roof Lvl) - E & M Works | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EM3600 | BS Works in R/F | 78 | 06JUN06A | 22FEB08 | 98 | 1 | 3 | -27 | | -461 | | | | | | | | | | | | | | | | | | | | | | | | |
| SHATIN HEIGHTS SOUTH PORTAL BUILDING | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSTRUCTION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CIVIL & ABWF WORKS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ABWF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Roof & External Facade | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AB6047 | Sht SPB - GMS, S/S Channel, Balustrade & Railing | 18 | 14AUG06A | 13FEB08A | 100 | 0 | 0 | | | -446 | | | | | | | | | | | | | | | | | | | | | | | | |
| AB6034 | Sht SPB - Expanded metal cladding to ext walls | 18 | 08OCT07A | 13FEB08A | 100 | 0 | 0 | | | -424 | | | | | | | | | | | | | | | | | | | | | | | | |
| SHT NORTH PORTAL BUILDING | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSTRUCTION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CIVIL & ABWF WORKS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ABWF Works | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Roofing & External Facade | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AB7250 | Sht NPB - GMS, S/S Channel, Balustrade & Railing | 18 | 16APR07A | 13FEB08A | 100 | 0 | 0 | | | -425 | | | | | | | | | | | | | | | | | | | | | | | | |
| AB7220 | Sht NPB - Expanded metal cladding to Ext Walls | 18 | 15OCT07A | 13FEB08A | 100 | 0 | 0 | | | -424 | | | | | | | | | | | | | | | | | | | | | | | | |

| Activity Description | Orig Dur | Early Start | Early Finish | % Comp | Total Float | 2007 | | | | | | | | | | | | 2008 | | | | | |
|---|----------|-------------|--------------|--------|-------------|------|-----|-----|-----|-----|-----|-----|-----|-----|---|-----|-----|----------|-----|-----|-----|-----|-----|
| | | | | | | O | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | O | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN |
| Installation @TD Wanchai TCC | | | | | | | | | | | | | | | | | | | | | | | |
| Install Communication Devices@TD Wanchai TCC | 4 | 20-02-08 | 23-02-08 | 0 | -260 | | | | | | | | | | | | | OGO2010 | | | | | |
| Install Computer Equipment @TD Wanchai TCC | 4 | 25-02-08 | 28-02-08 | 0 | -261 | | | | | | | | | | | | | OGO2020 | | | | | |
| Install Remote Workstations @TD Wanchai TCC | 5 | 25-02-08 | 29-02-08 | 0 | -261 | | | | | | | | | | | | | OGO2030 | | | | | |
| Install CCTV system @TD Wanchai TCC | 5 | 25-02-08 | 29-02-08 | 0 | -256 | | | | | | | | | | | | | OGO2040 | | | | | |
| Installation @HyD ECC | | | | | | | | | | | | | | | | | | | | | | | |
| Install Computer Equipment @HyD ECC | 4 | 20-02-08 | 23-02-08 | 0 | -260 | | | | | | | | | | | | | OGO3010 | | | | | |
| Install Remote Workstation @HyD ECC | 4 | 20-02-08 | 23-02-08 | 0 | -258 | | | | | | | | | | | | | OGO3020 | | | | | |
| Install Communication Devices@HyD ECC | 4 | 20-02-08 | 23-02-08 | 0 | -258 | | | | | | | | | | | | | OGO3030 | | | | | |
| Install CCTV system @HyD ECC | 6 | 20-02-08 | 25-02-08 | 0 | -258 | | | | | | | | | | | | | OGO3040 | | | | | |
| Installation @HKPF South Operational Base | | | | | | | | | | | | | | | | | | | | | | | |
| Install Remote Workstation @HKPF South Base | 4 | 20-02-08 | 23-02-08 | 0 | -258 | | | | | | | | | | | | | OGO5020 | | | | | |
| Install Communication Devices@HKPF South Base | 4 | 20-02-08 | 23-02-08 | 0 | -258 | | | | | | | | | | | | | OGO5030 | | | | | |
| Install CCTV system @HKPF South Base | 7 | 20-02-08 | 26-02-08 | 0 | -258 | | | | | | | | | | | | | OGO5040 | | | | | |
| Installation @HKPF Tai Po RCCC | | | | | | | | | | | | | | | | | | | | | | | |
| Install Computer Equipment @HKPF Tai Po RCCC | 5 | 22-02-08 | 26-02-08 | 0 | -258 | | | | | | | | | | | | | OGO6010 | | | | | |
| Install Remote Workstation @HKPF Tai Po RCCC | 7 | 20-02-08 | 26-02-08 | 0 | -256 | | | | | | | | | | | | | OGO6020 | | | | | |
| Install Communication Devices@HKPF Tai Po RCCC | 6 | 20-02-08 | 25-02-08 | 0 | -251 | | | | | | | | | | | | | OGO6030 | | | | | |
| Install CCTV system @HKPF Tai Po RCCC | 4 | 20-02-08 | 23-02-08 | 0 | -256 | | | | | | | | | | | | | OGO6040 | | | | | |
| Installation @HKPF West Kowloon (WK) RCCC | | | | | | | | | | | | | | | | | | | | | | | |
| Install Remote Workstation @HKPF WK RCCC | 6 | 25-02-08 | 01-03-08 | 0 | -256 | | | | | | | | | | | | | OGO7020 | | | | | |
| Install CCTV system @HKPF WK RCCC | 6 | 25-02-08 | 01-03-08 | 0 | 1,116 | | | | | | | | | | | | | OGO7040 | | | | | |
| Installation of SEC system for R8K & Portion B | | | | | | | | | | | | | | | | | | | | | | | |
| Install SEC System (Stage 1 & 2) @Portion B | 6 | 20-02-08* | 25-02-08 | 0 | 75 | | | | | | | | | | | | | B-1700 | | | | | |
| Install SEC system in Existing & Early-Rtd @G | 2 | 20-02-08 | 21-02-08 | 0 | -277 | | | | | | | | | | | | | G-6060 | | | | | |
| Install & Demo. SEC System (Stage 1) @Portion G | 5 | 01-03-08 | 05-03-08 | 0 | -313 | | | | | | | | | | | | | G-7080 | | | | | |
| Install SEC System (Stage 2) @Portion G | 5 | 06-03-08* | 10-03-08 | 0 | -290 | | | | | | | | | | | | | G-7790 | | | | | |
| Install SEC System (Stage 1) @Portion H1B | 2 | 20-02-08* | 21-02-08 | 0 | -278 | | | | | | | | | | | | | H1B1100 | | | | | |
| Install SEC System (Stage 2) @Portion H1B | 2 | 07-03-08* | 08-03-08 | 0 | -291 | | | | | | | | | | | | | H1B1600 | | | | | |
| Install SEC System (Stage 1) @Portion H1C | 2 | 20-02-08* | 21-02-08 | 0 | -299 | | | | | | | | | | | | | H1C1070 | | | | | |
| Install SEC System (Stage 2) @Portion H1C | 2 | 07-03-08* | 08-03-08 | 0 | -312 | | | | | | | | | | | | | H1C1700 | | | | | |
| Install SEC System (Stage 1) @Portion I2 | 5 | 01-03-08* | 05-03-08 | 0 | -289 | | | | | | | | | | | | | I2-1040 | | | | | |
| Install SEC System (Stage 2) @Portion I2 | 5 | 07-03-08 | 11-03-08 | 0 | -291 | | | | | | | | | | | | | I2-1750 | | | | | |
| Install SEC System (Stage 1) @Portion J2 | 4 | 20-02-08* | 23-02-08 | 0 | -274 | | | | | | | | | | | | | J-1100 | | | | | |
| Install SEC System (Stage 2) @Portion J2 | 5 | 07-03-08* | 11-03-08 | 0 | -291 | | | | | | | | | | | | | J-1700 | | | | | |
| Install SEC Server & system (Stage 2) @R8K AB | 8 | 20-02-08* | 27-02-08 | 0 | -274 | | | | | | | | | | | | | KAB1180 | | | | | |
| Installation for R8T | | | | | | | | | | | | | | | | | | | | | | | |
| Portion B - Nam Wan Tunnel (NWT) Tubes | | | | | | | | | | | | | | | | | | | | | | | |
| Installation @Portion B | | | | | | | | | | | | | | | | | | | | | | | |
| Install CCTV System @Portion B | 30 | 20-02-08 | 20-03-08 | 0 | 31 | | | | | | | | | | | | | B-1090 | | | | | |
| Install Manual fallback Control System @B | 27 | 20-02-08 | 17-03-08 | 0 | 31 | | | | | | | | | | | | | B-1200 | | | | | |
| Install Emergency Telephone System @Portion B | 34 | 03-03-07A | 04-03-08 | 60 | 22 | | | | | | | | | | | | | B-1300 | | | | | |
| Portion C - Sections except Portion B @NWT&WTYY | | | | | | | | | | | | | | | | | | | | | | | |
| Installation @Portion C (except WCB & TMCA) | | | | | | | | | | | | | | | | | | | | | | | |
| Electrical Installation @Portion C | 6 | 20-02-08 | 25-02-08 | 80 | -14 | | | | | | | | | | | | | C-1005 | | | | | |
| Install ITRR System @Portion C (EPB,WPK) | 12 | 10-05-08 | 21-05-08 | 0 | -206 | | | | | | | | | | | | | C-1010 | | | | | |
| Install TCSS Equipment Cabinet @Portion C | 13 | 20-02-08 | 03-03-08 | 60 | 34 | | | | | | | | | | | | | C-1040 | | | | | |
| Install SDH Node 1&3, Comm. Sys @C(WPK,EPB,Cabinet) | 51 | 26-02-08 | 16-04-08 | 0 | -12 | | | | | | | | | | | | | C-1150 | | | | | |
| Install Traffic Control Field Devices @Portion C | 28 | 20-02-08 | 18-03-08 | 60 | -1 | | | | | | | | | | | | | C-1150 | | | | | |
| Installation @West Control Building (WCB) | | | | | | | | | | | | | | | | | | | | | | | |
| Install ITRR System @WCB | 24 | 10-05-08 | 02-06-08 | 0 | -175 | | | | | | | | | | | | | WCB1050 | | | | | |
| Install MFCP & its system @WCB | 14 | 10-05-08 | 23-05-08 | 0 | -175 | | | | | | | | | | | | | WCB1080 | | | | | |
| Install Oper. Facilities (Racks, Furniture) @WCB | 35 | 20-02-08 | 25-03-08 | 0 | -131 | | | | | | | | | | | | | WCB1150 | | | | | |
| Install SEC Server & system (Stage 2) @WCB | 14 | 20-05-08 | 02-06-08 | 0 | -41 | | | | | | | | | | | | | WCB1650 | | | | | |
| Portion D - Ngong Shuen Chau Viaduct (including VO103) | | | | | | | | | | | | | | | | | | | | | | | |
| TTA in Existing Roads, WKH & Ramps E1&G @Portion D | | | | | | | | | | | | | | | | | | | | | | | |
| Prepare & Submit TMCP to TMLG members, Portion D | 25 | 20-02-08* | 15-03-08 | 0 | -243 | | | | | | | | | | | | | TMPD01A | | | | | |
| Review & Comment TMCP by TMLG members, Portion D | 14 | 16-03-08 | 29-03-08 | 0 | -229 | | | | | | | | | | | | | TMPD01AT | | | | | |
| Prepare & Resubmit TMCP to TMLG members, Portion D | 25 | 30-03-08 | 23-04-08 | 0 | -229 | | | | | | | | | | | | | TMPD01BJ | | | | | |
| Accept TMCP by TMLG members, Portion D | 14 | 08-05-08 | 21-05-08 | 0 | -219 | | | | | | | | | | | | | TMPD01BT | | | | | |
| Propose TIA, TTA measures in TMLG meeting, D | 25 | 20-04-08 | 14-05-08 | 0 | -229 | | | | | | | | | | | | | TTAD02AJ | | | | | |
| Comment TIA, TTA measures by TMLG members, D | 14 | 24-04-08 | 07-05-08 | 0 | -229 | | | | | | | | | | | | | TTAD02AT | | | | | |
| Prepare & Repropose TIA, TTA measures, Portion D | 10 | 08-05-08 | 17-05-08 | 0 | -229 | | | | | | | | | | | | | TTAD02BJ | | | | | |
| Accept TIA, TTA measures by TMLG members, D | 14 | 18-05-08 | 31-05-08 | 0 | -229 | | | | | | | | | | | | | TTAD02BT | | | | | |
| Installation @Portion D | | | | | | | | | | | | | | | | | | | | | | | |
| Laying Backbone Cables @Portion D | 24 | 18-05-07A | 06-03-08 | 30 | -109 | | | | | | | | | | | | | D-8040 | | | | | |
| Install Operation Facilities @Portion D (Kiosk F) | 7 | 20-05-08 | 26-05-08 | 0 | -185 | | | | | | | | | | | | | D-8090 | | | | | |
| Install SDH Node 4,5,6 & COMMUNICATION SYSTEM @D | 23 | 20-02-08 | 13-03-08 | 0 | -109 | | | | | | | | | | | | | D-8100 | | | | | |
| Install Traffic Control Field Devices @Portion D | 36 | 04-04-07A | 07-03-08 | 50 | -106 | | | | | | | | | | | | | D-8150 | | | | | |
| Install CCTV System @Portion D | 15 | 20-06-07A | 26-02-08 | 50 | -125 | | | | | | | | | | | | | D-8250 | | | | | |
| Install Vehicle Detector System @Portion D | 29 | 20-02-08 | 19-03-08 | 0 | -125 | | | | | | | | | | | | | D-8270 | | | | | |
| Install SEC System (Stage 1 & 2) @Portion D | 8 | 20-05-08 | 27-05-08 | 0 | -185 | | | | | | | | | | | | | D-9300 | | | | | |
| Portion E - East Tsing Yi Viaduct (ETVY) | | | | | | | | | | | | | | | | | | | | | | | |
| Pre-Inspection of Civil Provisions @Portion E | | | | | | | | | | | | | | | | | | | | | | | |
| Civil Provisions Inspection & Submit Report @E | 7 | 20-02-08* | 26-02-08 | 0 | -14 | | | | | | | | | | | | | E-0100 | | | | | |
| Rectify Civil Provisions Defects by others @E | 14 | 27-02-08 | 11-03-08 | 0 | -14 | | | | | | | | | | | | | E-0200 | | | | | |
| Site Access of East Tsing Yi Viaduct (ETVY) | 0 | 27-02-08* | | 0 | 0 | | | | | | | | | | | | | E-0300 | | | | | |
| Installation @Portion E | | | | | | | | | | | | | | | | | | | | | | | |
| Install Cable Containment @Portion F | 15 | 07-04-08 | 21-04-08 | 0 | -30 | | | | | | | | | | | | | E-1001 | | | | | |
| Electrical Installation @Portion E | 23 | 07-04-08 | 29-04-08 | 0 | -19 | | | | | | | | | | | | | E-1010 | | | | | |
| Install TCSS Equipment Cabinet @Portion E | 23 | 07-04-08 | 29-04-08 | 0 | -30 | | | | | | | | | | | | | E-1030 | | | | | |
| Laying Backbone Cables @Portion E | 26 | 07-04-08 | 02-05-08 | 0 | -4 | | | | | | | | | | | | | E-1050 | | | | | |
| Install Traffic Control Field Devices @Portion E | 47 | 05-05-08 | 20-06-08 | 0 | -58 | | | | | | | | | | | | | E-1200 | | | | | |
| Install COMMUNICATION SYSTEM @Portion E | 17 | 07-04-08 | 23-04-08 | 0 | -4 | | | | | | | | | | | | | E-1300 | | | | | |
| Install CCTV System @Portion E | 13 | 07-04-08 | 19-04-08 | 0 | 4 | | | | | | | | | | | | | E-1500 | | | | | |
| Install Vehicle Detector System @Portion E | 30 | 21-04-08 | 20-05-08 | 0 | -10 | | | | | | | | | | | | | E-1600 | | | | | |

| Activity Description | Orig Dur | Early Start | Early Finish | % Comp | Total Float | 2007 | | | | | | | | | | | | 2008 | | | | | | | | | | | | | | | | | | | | | |
|---|----------|-------------|--------------|--------|-------------|----------|---|----|---|-----|----|----|----|---|----|----|----|------|---|----|----|----|---|----|----|----|---|-----|----|----|----|----|---|----|----|----|---|----|----|
| | | | | | | O | 2 | 29 | 5 | NOV | 12 | 19 | 26 | 3 | 10 | 17 | 24 | 31 | 7 | 14 | 21 | 28 | 4 | 11 | 18 | 25 | 3 | MAR | 10 | 17 | 24 | 31 | 7 | 14 | 21 | 28 | 5 | 12 | 19 |
| System Acceptance Tests (SAT) @R8K | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAT Procedure Document @R8K | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prepare & Resubmit SAT Procedure for R8K | 10 | 17-01-08A | 26-01-08A | 100 | | SAT8K1BJ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Implement SAT @R8K | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Central System PointToPoint (Part1) | 35 | 24-12-07A | 27-01-08A | 100 | | R8K2005 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAT of MFC System @R8K | 15 | 09-01-08A | 23-01-08A | 100 | | R8K2010 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAT of CCTV System @R8K | 15 | 08-01-08A | 22-01-08A | 100 | | R8K2030 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAT of Traffic Control Devices @R8K | 30 | 25-12-07A | 23-01-08A | 100 | | R8K2040 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAT of Vehicle Detection System @R8K | 15 | 09-01-08A | 23-01-08A | 100 | | R8K2050 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAT of Electrical Installation @R8K | 20 | 05-01-08A | 24-01-08A | 100 | | R8K2130 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Central System External Integation (Part2) | 20 | 13-01-08A | 01-02-08A | 100 | | R8K2150 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Central System External Integation (Part3) | 5 | 26-01-08A | 30-01-08A | 100 | | R8K2160 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAT Result Document @R8K | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Submit & Approve SAT Result of Central System@R8K | 14 | 17-01-08A | 30-01-08A | 100 | | R8K4005 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Submit & Approve SAT Result of MFC System @R8K | 14 | 24-01-08A | 06-02-08A | 100 | | R8K4010 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Submit & Approve SAT Result of Comm.Sys. @R8K | 14 | 09-01-08A | 22-01-08A | 100 | | R8K4020 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Submit & Approve SAT Result of CCTV System @R8K | 14 | 18-01-08A | 31-01-08A | 100 | | R8K4030 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Submit & Approve SAT Result of TCD @R8K | 14 | 24-01-08A | 06-02-08A | 100 | | R8K4040 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Submit & Approve SAT Result of VDS @R8K | 14 | 24-01-08A | 06-02-08A | 100 | | R8K4050 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Submit & Approve SAT Result of PBX System @R8K | 14 | 19-01-08A | 01-02-08A | 100 | | R8K4060 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Submit & Approve of Tunnel Radio Sys. @R8K | 14 | 19-01-08A | 01-02-08A | 100 | | R8K4070 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Submit & Approve SAT Result of O&M Radio Sys.@R8K | 14 | 19-01-08A | 01-02-08A | 100 | | R8K4080 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Submit & Approve SAT Result of ET System @R8K | 14 | 09-01-08A | 22-01-08A | 100 | | R8K4090 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Submit & Approve SAT Result of PA System @R8K | 14 | 19-01-08A | 01-02-08A | 100 | | R8K4100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Submit & Approve SAT Result of Oper.Facilities@R8K | 14 | 09-01-08A | 22-01-08A | 100 | | R8K4110 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Submit & Approve SAT Result of Elect.Install.@R8K | 14 | 25-01-08A | 07-02-08A | 100 | | R8K4130 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Implement Interface Test with Others @R8K | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Interface Test with ENT Contractor for CMCS | 5 | 26-01-08A | 30-01-08A | 100 | | ITR8K001 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Interface Test with HKPF, HyD, TD & FSD | 3 | 28-01-08A | 30-01-08A | 100 | | ITR8K002 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Interface Test with R8K Toll System | 3 | 28-01-08A | 30-01-08A | 100 | | ITR8K003 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| System Acceptance Tests @R8 (with EOT) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAT Procedure Document @R8T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prepare & Submit SAT Procedure for R8T | 14 | 16-05-08* | 29-05-08 | 0 | -76 | SAT8T1AJ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Operability Test (OPT) @R8K | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Implement Operability Test @ R8K | 30 | 20-02-08 | 20-03-08 | 0 | -287 | R8K2500 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Submit & Approve OPT Report @R8K | 10 | 11-03-08 | 20-03-08 | 0 | -268 | R8K2510 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Repeat SAT of VDS & Calibrate if required @R8K | 12 | 09-03-08 | 20-03-08 | 0 | -277 | R8K2900 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Submit & Approve re-SAT Result of VDS @R8K | 7 | 14-03-08 | 20-03-08 | 0 | -277 | R8K4140 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAT & OPT for SEC system @R8K | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAT of SEC System @R8K | 20 | 30-03-08 | 18-04-08 | 0 | -311 | R8K2120 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Submit & Approve SAT Result of SEC System @R8K | 14 | 19-04-08 | 02-05-08 | 0 | -311 | R8K2300 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Implement Operability Test of SEC system @R8K | 30 | 03-05-08 | 01-06-08 | 0 | -245 | R8K2800 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Submit & Approve OPT Report of SEC system @R8K | 14 | 19-05-08 | 01-06-08 | 0 | -245 | R8K2810 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Operation and Maintenance Documents & Training | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Documentation for R8K Opening | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| System Description for R8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Accept System description by Engineer | 28 | 01-03-08 | 28-03-08 | 0 | -213 | R8K301BT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Operation Manual for R8K | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Accept Operation Manual by Engineer | 28 | 25-02-08 | 23-03-08 | 0 | -208 | R8K302BT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| System Administration Manual for R8K | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Accept System Administration Manual by Engineer | 28 | 25-02-08 | 23-03-08 | 0 | -208 | R8K303BT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maintenance Plan for R8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prepare&SubmitDraftMaintenancePlan for R8K & R8T | 14 | 20-02-08 | 04-03-08 | 0 | -433 | R8314AJ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Review Maintenance Plan for R8K&R8T by Engineer | 28 | 05-03-08 | 01-04-08 | 0 | -277 | R8314AT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prepare&Re-submitMaintenancePlan for R8K&R8T | 10 | 02-04-08 | 11-04-08 | 0 | -277 | R8314BJ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Accept Maintenance Plan for R8K&R8T | 28 | 12-04-08 | 09-05-08 | 0 | -255 | R8314BT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maintenance & Services Manual for R8K | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prepare Spares & Maintenance Tools List for R8K | 14 | 02-04-08 | 15-04-08 | 0 | -277 | GEN009AJ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prepare & Submit Maintenance Manual for R8K | 14 | 07-04-08 | 20-04-08 | 0 | -277 | R8K304AJ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Review Maintenance Manual for R8K by Engineer | 28 | 16-04-08 | 13-05-08 | 0 | -277 | R8K304AT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prepare & Re-submit Maintenance Manual for R8K | 10 | 09-05-08 | 18-05-08 | 0 | -277 | R8K304BJ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Accept Maintenance Manual for R8K by Engineer | 28 | 04-05-08 | 31-05-08 | 0 | -277 | R8K304BT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Training Plan for R8K | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Accept Training Plan for R8K by Engineer | 28 | 01-03-08 | 28-03-08 | 0 | 0 | GEN008BT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Training Material for R8K | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prepare&Submit Training Material | 21 | 29-03-08 | 18-04-08 | 0 | 0 | R8K305AJ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Review Training Material for R8K by Engineer | 28 | 19-04-08 | 16-05-08 | 0 | 0 | R8K305AT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prepare&Re-submit Training Material | 10 | 17-05-08 | 26-05-08 | 0 | 0 | R8K305BJ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Documentation for R8 Opening | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Revised Operation Manual for R8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prepare&Submit Operation Manual for R8T | 14 | 25-02-08* | 09-03-08 | 0 | -148 | R8T307AJ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Review Operation Manual for R8T by Engineer | 28 | 10-03-08 | 06-04-08 | 0 | -148 | R8T307AT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prepare&Re-submit Operation Manual for R8T | 10 | 07-04-08 | 16-04-08 | 0 | -148 | R8T307BJ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Accept Operation Manual for R8T by Engineer | 28 | 17-04-08 | 14-05-08 | 0 | -148 | R8T307BT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Revised System Administration Manual for R8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prepare&Submit System Administration Manual, R8T | 14 | 15-05-08 | 14-05-08 | 0 | -148 | R8T308AJ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Review System Administration Manual R8T by Eng'r | 28 | 15-05-08 | 14-05-08 | 0 | -148 | R8T308AT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prepare&Re-submit System Administration Manual | 10 | 15-05-08 | 24-05-08 | 0 | -148 | R8T308BJ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Training Plan for R8T Opening | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prepare&Submit Training Plan for R8 | 14 | 20-02-08* | 04-03-08 | 0 | -41 | R8K309AJ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Review Training Plan for R8 by Engineer | 28 | 05-03-08 | 01-04-08 | 0 | -41 | R8K309AT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prepare&Resubmit Training Plan for R8 | 10 | 02-04-08 | 11-04-08 | 0 | -41 | R8K309BJ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Accept Training Plan for R8 by Engineer | 28 | 12-04-08 | 09-05-08 | 0 | -41 | R8K309BT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

APPENDIX C
MONITORING REQUIREMENTS

Appendix C - Environmental Impact Monitoring Requirements for Eagle's Nest Tunnel and Associated Works

| Type of Monitoring | Parameter | Frequency | Location | Measurement Conditions |
|--------------------|--|--|--|--|
| Air Quality | 1-hour TSP | 3 times every 6 days | <ul style="list-style-type: none"> AM1⁽³⁾ (Yew Chung Internation School / PLK Choi Kai Yau School) AM3⁽⁴⁾ (Garden Villa) AM4 (Government Quarters) | <ul style="list-style-type: none"> AM1 – Rooftop⁽³⁾ AM3 – On ground AM4 – Ground floor close to the refuse collection station of Government Quarters |
| | 24-hour TSP | Once every 6 days | | |
| Noise | L _{eq} , L ₉₀ & L ₁₀ at 30 minute intervals during (0700 to 1900 on normal weekdays) | Once per week | <ul style="list-style-type: none"> NM1⁽³⁾ (Yew Chung Internation School / PLK Choi Kai Yau School) NM5 (Villa Carlton) NM6 (Government Quarters) NM7 (Garden Villa) | <ul style="list-style-type: none"> NM1 – Rooftop (Façade measurement)⁽³⁾ NM5 – Ground Floor⁽²⁾ - (Façade measurement) NM6 – Rooftop of Refuse Collection Station (Free field measurement) NM7 – Rooftop (Façade measurement) |
| | L _{eq} , L ₉₀ & L ₁₀ at 5 minute intervals during (1900 to 2300) ⁽¹⁾ | Once per week (include 3 consecutive 5-min measurements) | | |
| | L _{eq} , L ₉₀ & L ₁₀ at 5 minute intervals during (2300 to 0700 of next day) ⁽¹⁾ | Once per week (include 3 consecutive 5-min measurements) | | |
| | L _{eq} , L ₉₀ & L ₁₀ at 5 minute intervals during (0700 to 1900 on holidays) ⁽¹⁾ | Once per week (include 3 consecutive 5-min measurements) | | |

⁽¹⁾ – Conduct noise monitoring only when construction work is carried out.

⁽²⁾ – The measurement was taken at 2.3 m above ground floor of Villa Carlton, where has a line of sight of the construction site in the opposite.

⁽³⁾ – Yew Chung International School / PLK Choi Kai Yau School (Station AM1 and NM1) had ceased operated and been demolished since February 2007. The monitoring at AM1 and NM1 has been suspended since February 2007, as approved by EPD on 26th April 2007.

⁽⁴⁾ – Station AM3 was relocated from Garden Villa to the nearby slope no. 07SW-D/FR4 and the monitoring was resumed on 14 February 2005.

**APPENDIX D
ENVIRONMENTAL QUALITY
PERFORMANCE (ACTION/LIMIT)
LEVELS**

Appendix D - Action and Limit Levels (ENT)

1-Hour TSP

| Location | Action Level, $\mu\text{g}/\text{m}^3$ | Limit Level, $\mu\text{g}/\text{m}^3$ |
|----------|--|---------------------------------------|
| AM1 | 296 | 500 |
| AM3 | 350 | |
| AM4 | 294 | |

24-Hour TSP

| Location | Action Level, $\mu\text{g}/\text{m}^3$ | Limit Level, $\mu\text{g}/\text{m}^3$ |
|----------|--|---------------------------------------|
| AM1 | 168 | 260 |
| AM3 | 200 | |
| AM4 | 170 | |

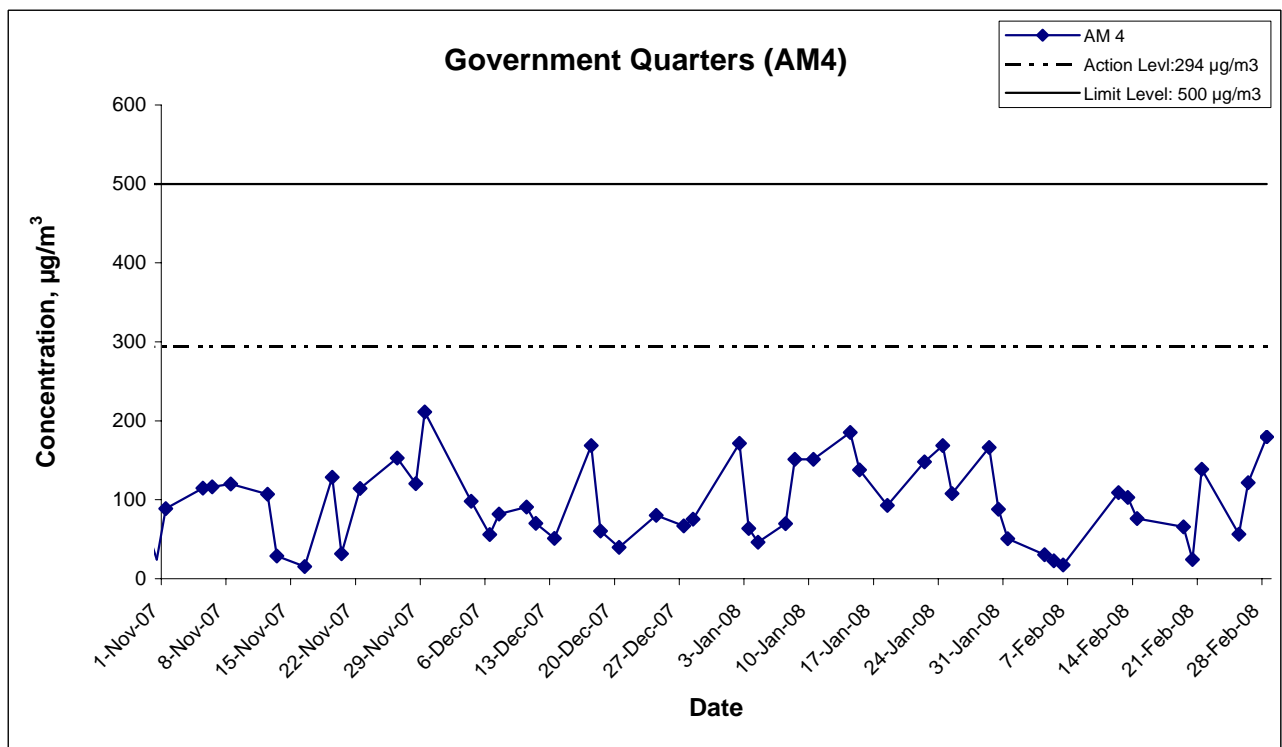
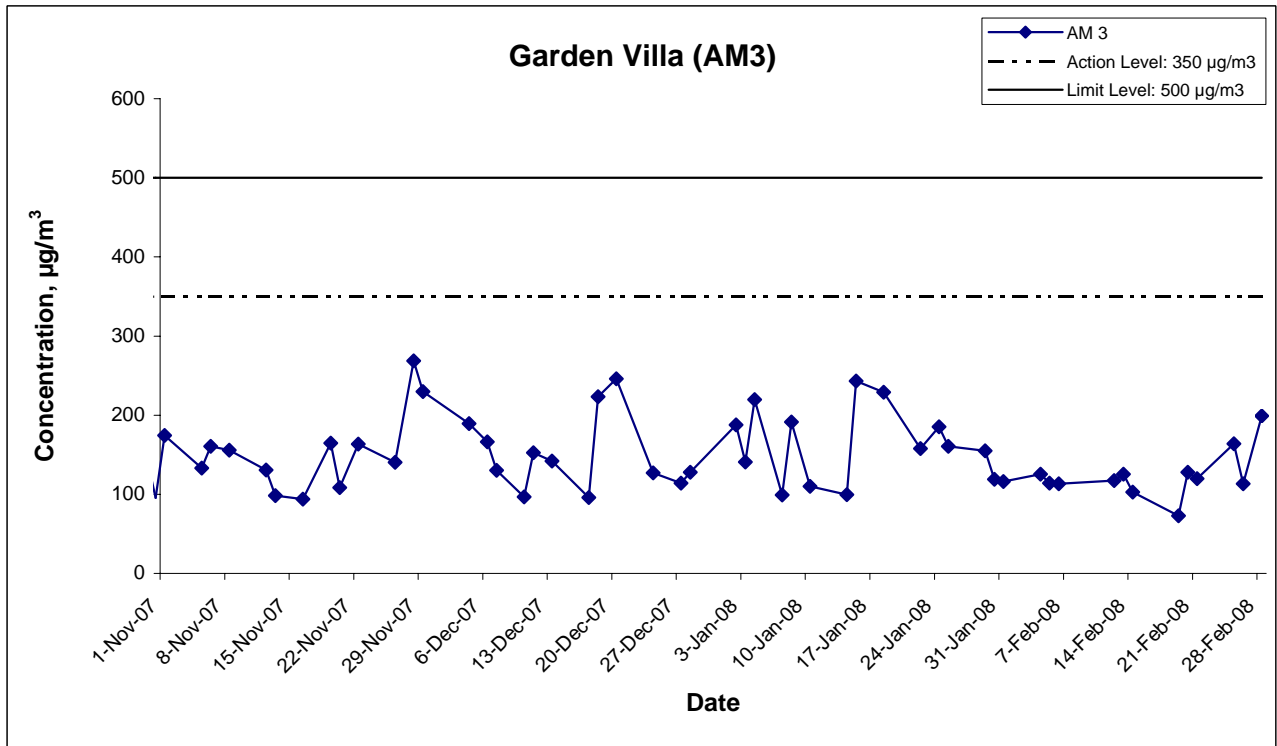
Construction Noise

| Period | Action Level | Limit Level, dB(A) | | | |
|---|---|--------------------|-----|-----|-----|
| | for all stations | NM1 | NM5 | NM6 | NM7 |
| 0700-1900 hrs on normal weekdays | When one documented complaint is received | 70/65* | 75 | 75 | 75 |
| 0700-2300 hrs on holidays & 1900-2300 hrs on all other days | | - | 70 | 65 | 60 |
| 2300-0700 hrs of next day | | - | 55 | 50 | 45 |

- (*) Since NM1 is an educational institution, the noise Limit Level (0700-1900 hrs on normal days) is taken as 70 dB(A). The Limit Level will be reduce to 65 dB(A) during school examination periods.

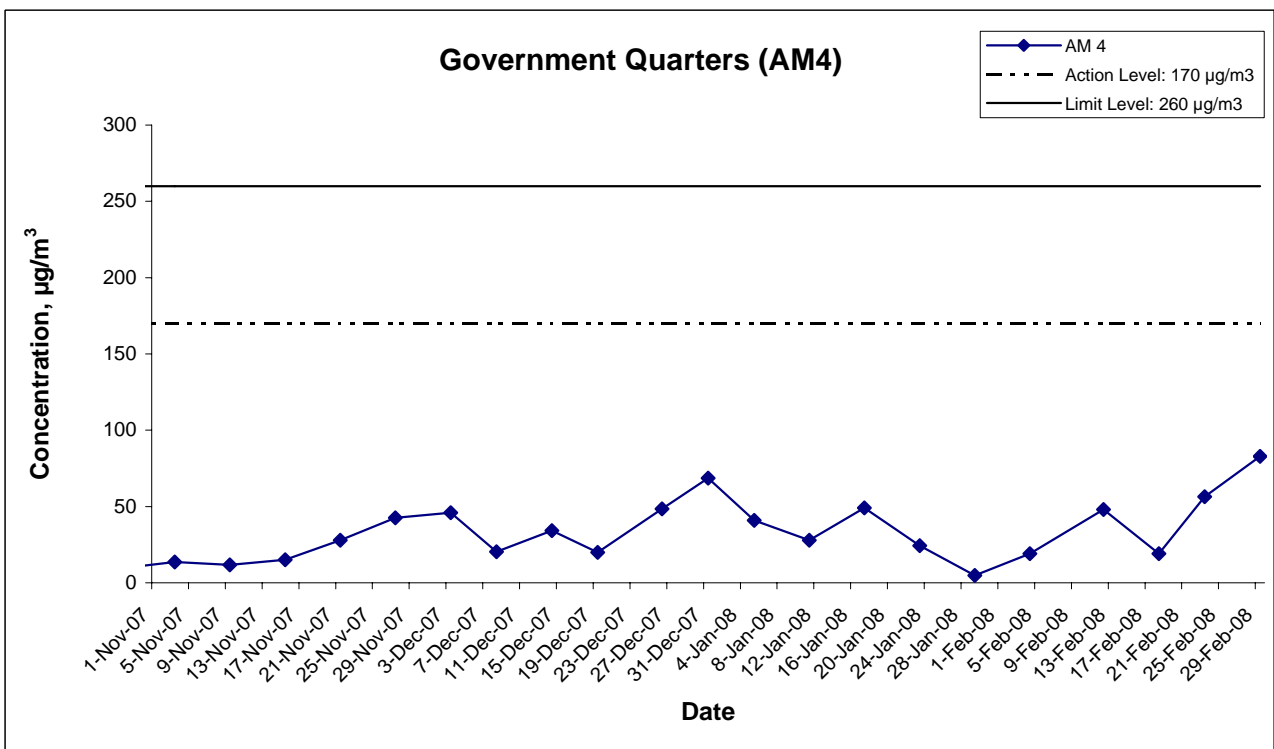
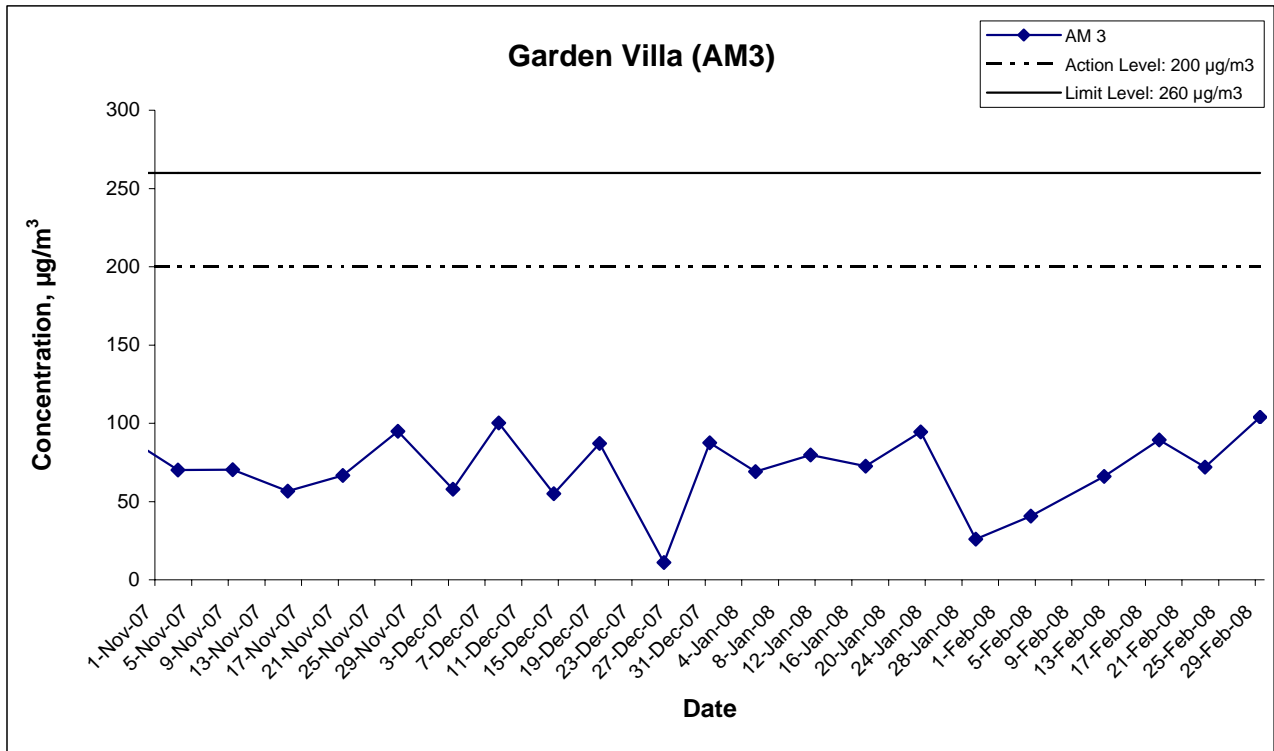
**APPENDIX E
GRAPHICAL PRESENTATION OF AIR
QUALITY MONITORING RESULTS**

1-hr TSP Levels



| | | | |
|---|----------------|-----------------------|--|
| Title Route 8 (previously known as Route 9) between Cheung Sha Wan & Sha Tin Contract HY/2003/02 - Eagle's Nest Tunnel and Associated Works Graphical Presentation of 1-hour TSP Impact Monitoring Results | Scale N.T.S | Project No. MA3024 | |
| | Date Feb 08 | Appendix E | |

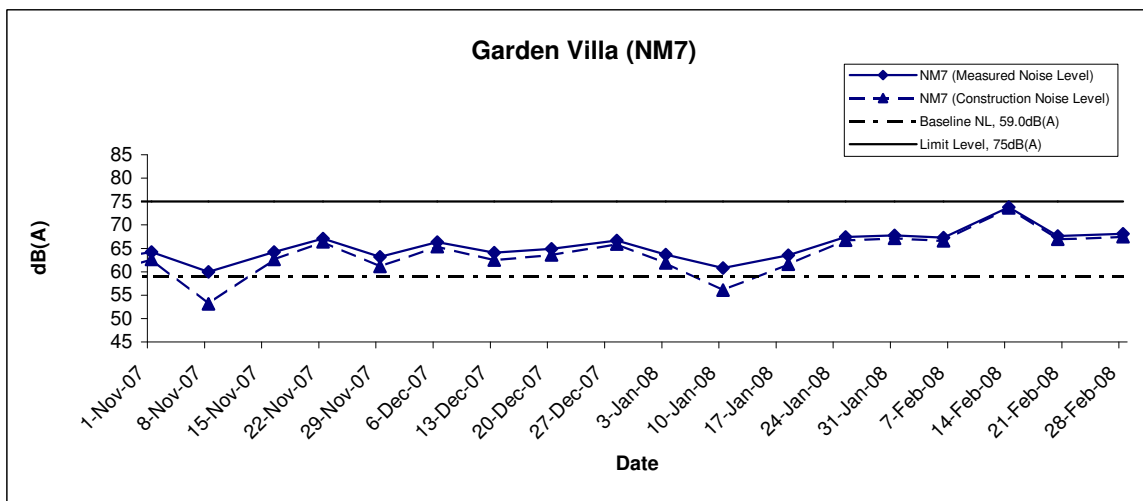
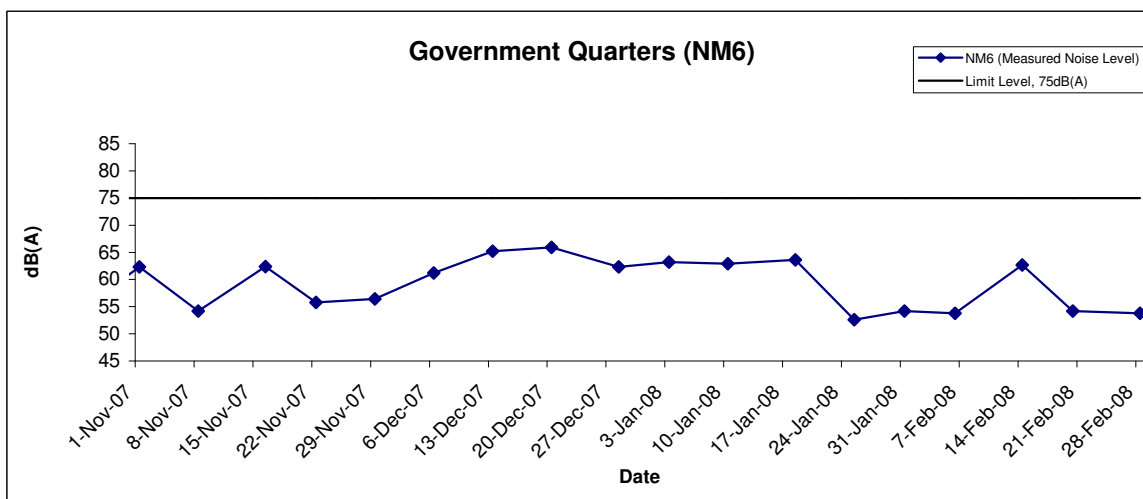
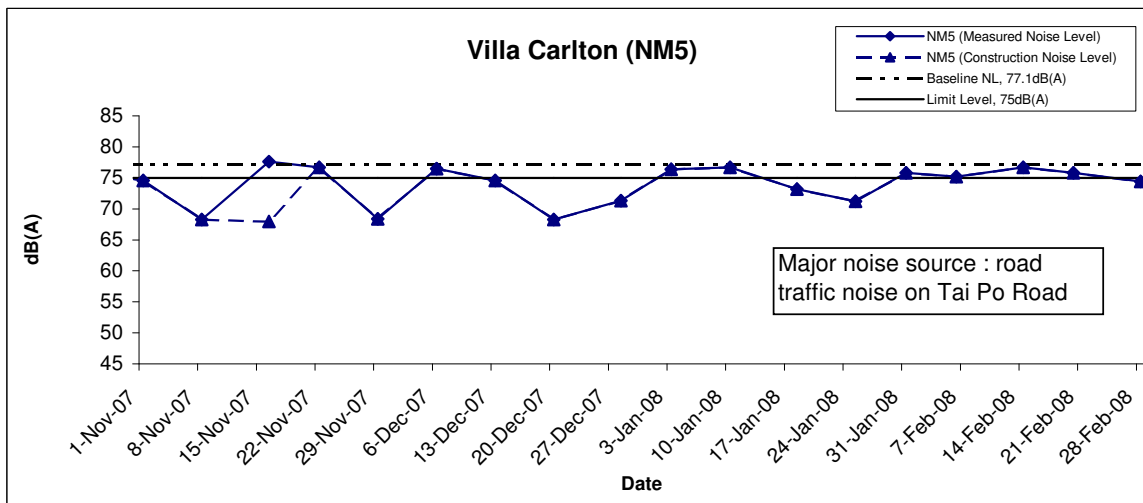
24-hr TSP Levels



| | | | |
|--|----------------|-----------------------|--|
| Title Route 8 (previously known as Route 9) between Cheung Sha Wan & Sha Tin Contract HY/2003/02 - Eagle's Nest Tunnel and Associated Works Graphical Presentation of 24-hour TSP Impact Monitoring Results | Scale N.T.S | Project No. MA3024 | |
| | Date Feb 08 | Appendix E | |

**APPENDIX F
GRAPHICAL PRESENTATION OF
NOISE MONITORING RESULTS**

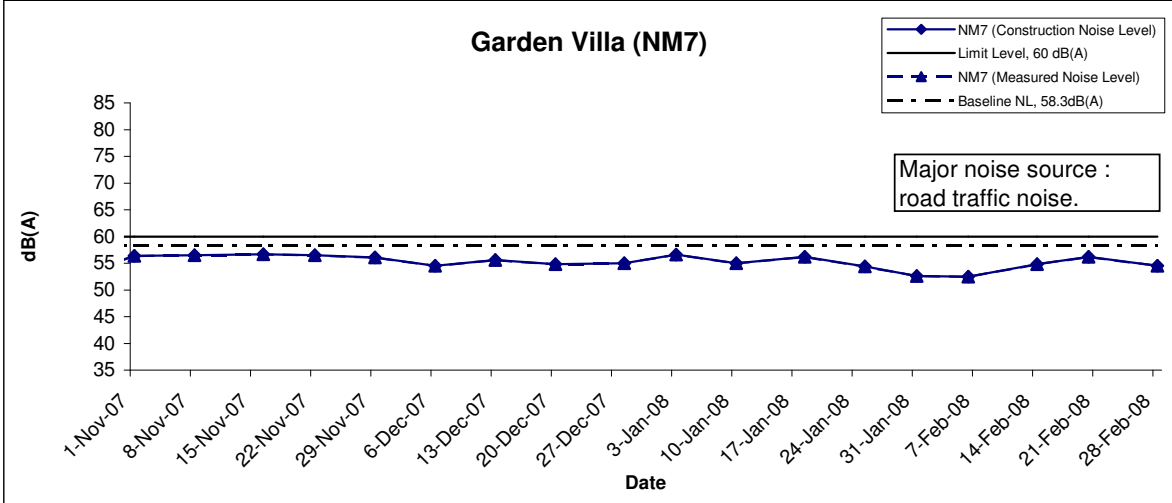
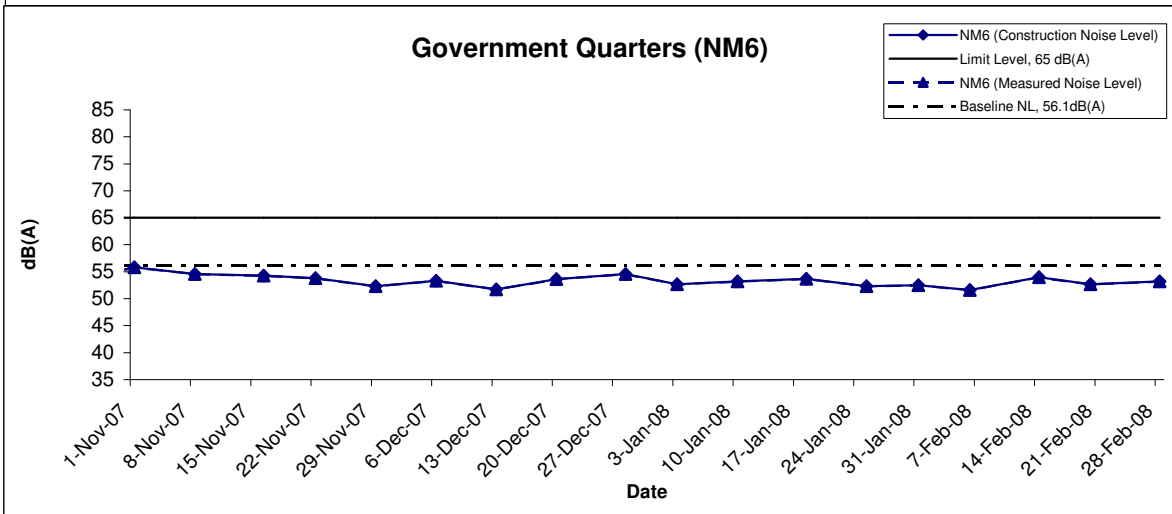
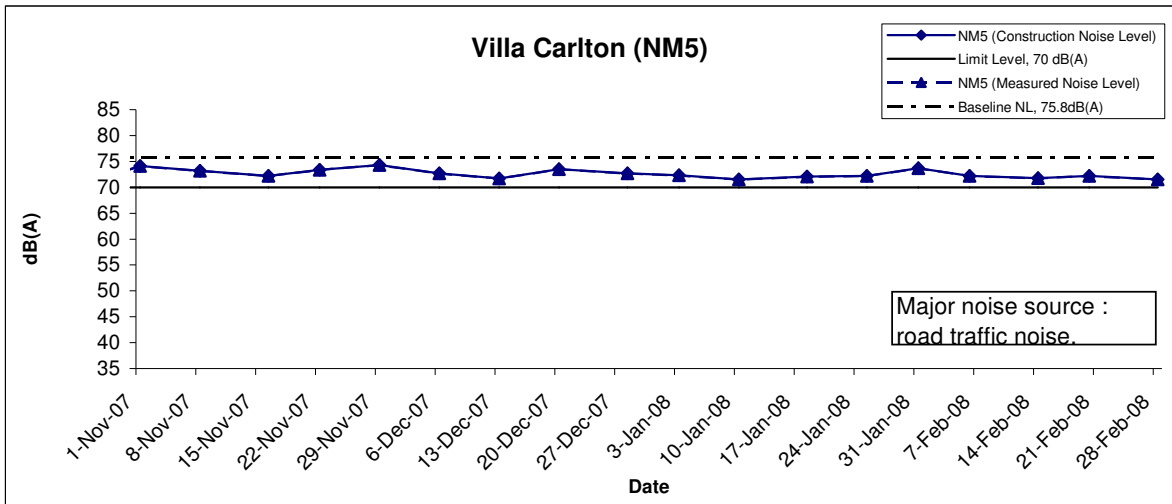
Noise Levels



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

| | | | |
|--|----------------|-----------------------|--|
| Title Route 8 (previously known as Route 9) between Cheung Sha Wan & Sha Tin Contract HY/2003/02 - Eagle's Nest Tunnel and Associated Works Graphical Presentation of Construction Noise Monitoring Results | Scale N.T.S | Project No. MA3024 | |
| | Date Feb 08 | Appendix F | |

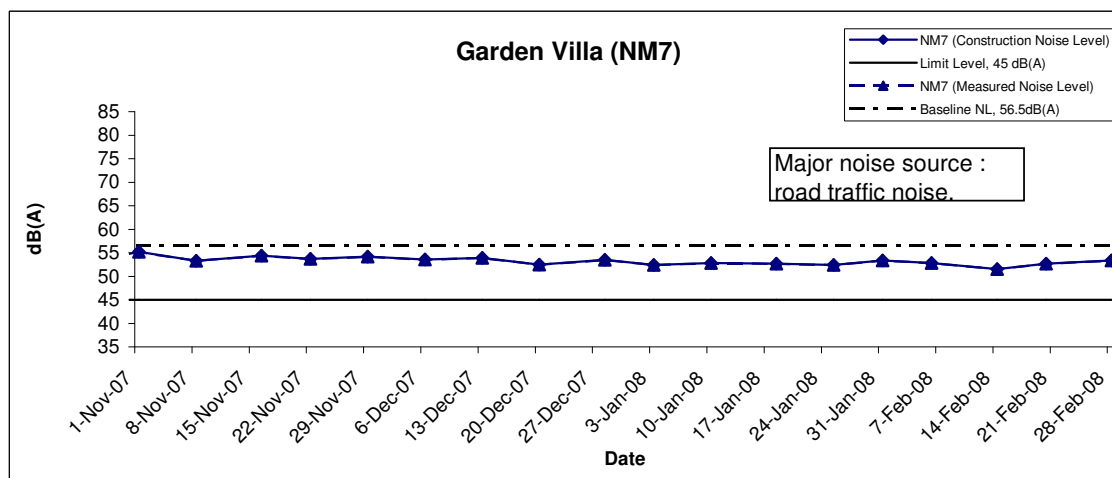
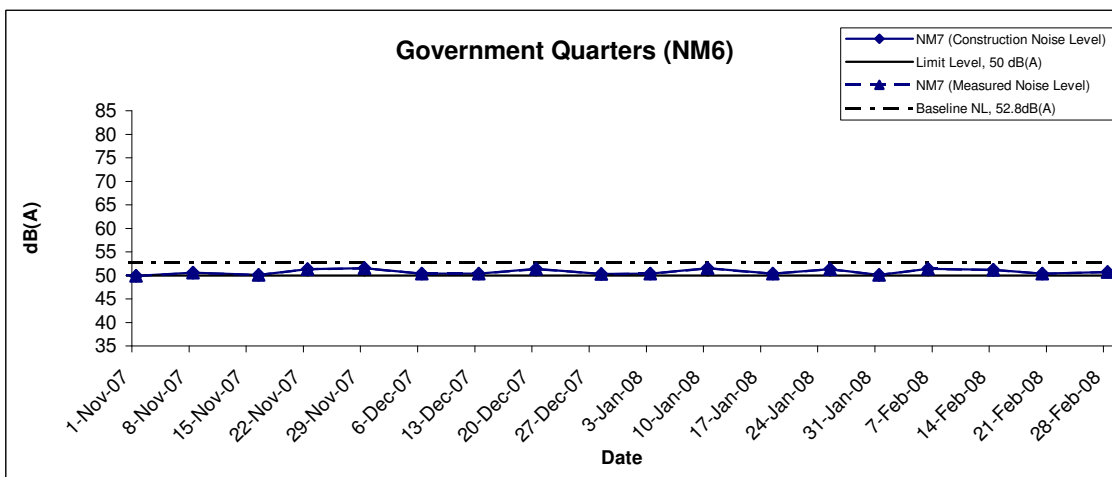
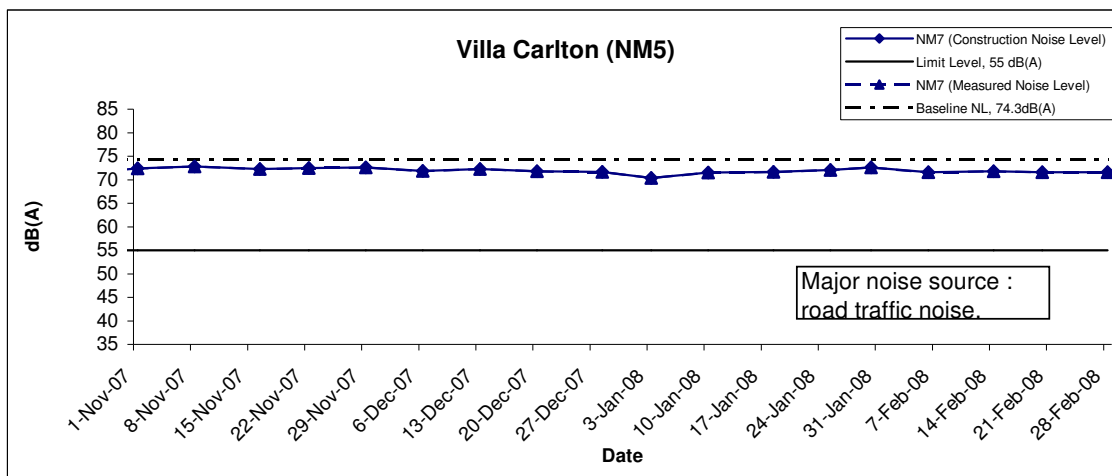
Restricted Hours (19:00 to 23:00) - Noise Levels



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

| | | | |
|--|----------------|-----------------------|--|
| Title Route 8 (previously known as Route 9) between Cheung Sha Wan & Sha Tin Contract HY/2003/02 - Eagle's Nest Tunnel and Associated Works Graphical Presentation of Construction Noise Monitoring Results | Scale N.T.S | Project No. MA3024 | |
| | Date Feb 08 | Appendix F | |

Restricted Hours (23:00 to 07:00) - Noise Levels



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

| | | | |
|--|----------------|-----------------------|--|
| Title Route 8 (previously known as Route 9) between Cheung Sha Wan & Sha Tin Contract HY/2003/02 - Eagle's Nest Tunnel and Associated Works Graphical Presentation of Construction Noise Monitoring Results | Scale N.T.S | Project No. MA3024 | |
| | Date Feb 08 | Appendix F | |

**APPENDIX G
IMPLEMENTATION SCHEDULE OF
ENVIRONMENTAL MITIGATION
MEASURES (EMIS)**

Appendix G - Summary of Environmental Mitigation Implementation Schedule

| Types of Impacts | Mitigation Measures | Status |
|---------------------------|---|---|
| Construction Dust | <ul style="list-style-type: none"> • 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. • 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. • 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. • Every main haul road should be sprayed with water or a dust suppression chemical so as to maintain the entire road surface wet. • 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. • Any stockpile of dusty materials should be either covered entirely by impervious sheeting, placed in an area sheltered on the top and the 3 sides or sprayed with water or a dust suppression chemical so as to maintain the entire surface wet. • 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. | <p>^</p> <p>^</p> <p>^</p> <p>^</p> <p>^</p> <p>^</p> <p>^</p> <p>^</p> <p>^</p> <p>^</p> |
| Construction Noise | <ul style="list-style-type: none"> • Only well-maintained plant should be operated on –site and plant should be serviced regularly during the construction works. • Machines and plant that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum. • Plant known to emit noise strongly in one direction, should where possible, be orientated to direct noise away from the NSRS. • Mobile plant should be sited as far away from NSRs as possible. • Material stockpiles and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities. • Use quiet plant and Working Method • Reduce the number of plant operating in critical areas close NSRs. | <p>^</p> <p>^</p> <p>^</p> <p>^</p> <p>^</p> <p>^</p> <p>^</p> |

| Types of Impacts | Mitigation Measures | Status |
|--|--|--------|
| | <ul style="list-style-type: none"> Construct temporary and movable noise barriers | ^ |
| Water Quality | <i>Construction Runoff and Drainage</i> | |
| | <ul style="list-style-type: none"> Use of sediment traps and the adequate maintenance of drainage systems to prevent flooding and overflow. | ^ |
| | <ul style="list-style-type: none"> 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. | ^ |
| | <ul style="list-style-type: none"> 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 | ^ |
| <ul style="list-style-type: none"> 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. | ^ | |
| <ul style="list-style-type: none"> 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. | ^ | |
| <ul style="list-style-type: none"> Catchpits and perimeter channels shall be constructed in advance of site formation works and earthworks. | ^ | |
| <ul style="list-style-type: none"> 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. | ^ | |
| <ul style="list-style-type: none"> 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. | ^ | |
| <ul style="list-style-type: none"> 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. | ^ | |
| | <i>Tunnelling Work</i> | |
| | <ul style="list-style-type: none"> 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. | ^ |
| | <ul style="list-style-type: none"> 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. | ^ |

| Types of Impacts | Mitigation Measures | Status |
|--|---|--------------|
| | <ul style="list-style-type: none"> Spent 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 |
| | <i>General Construction Activities</i> | |
| | <ul style="list-style-type: none"> Debris and rubbish on site should be collected, handled and disposed of properly to avoid entering the water column and cause water quality impacts. | ^ |
| | <ul style="list-style-type: none"> 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). | ^ |
| | <i>Sewage Effluent</i> | |
| Waste | <ul style="list-style-type: none"> Construction work force sewage discharges from fixed toilet facilities on-site should be connected to the nearby existing trunk sewer wherever feasible. However, for areas where existing trunk sewer is not available, it is recommended that appropriate and adequate on site portable chemical toilets should be provided by a licensed contractor who will be responsible for appropriate disposal and maintenance of these facilities. It is considered that sewage discharges could also be treated by on-site septic tanks and soakaway. Minimum clearance away from streams and catchments and other requirements for the proposed septic tank and soakaway should be referred to EPD's Practice Note for Professional Persons, Drainage Plans. | ^ N/A |
| | <i>General</i> | |
| | <ul style="list-style-type: none"> 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. | ^ |
| | <i>Storage, Collection and Transportation of Waste</i> | |
| | <ul style="list-style-type: none"> Wastes shall be handled and stored in a manner to ensure that they are held securely without loss or leakage. | ^ |
| | <ul style="list-style-type: none"> Authorised or licensed waste hauliers shall be used and they shall only collect wastes prescribed by their permits. | ^ |
| | <ul style="list-style-type: none"> Waste shall be removed on a daily basis. | ^ |
| <ul style="list-style-type: none"> Waste storage area shall be maintained and cleaned on a daily basis. | ^ | |
| <ul style="list-style-type: none"> Windblown litter and dust during transportation shall be minimised by either covering trucks or transporting wastes in enclosed containers. | ^ | |
| <ul style="list-style-type: none"> Obtain necessary waste disposal permits from the appropriate authorities if they are required. | ^ | |
| <ul style="list-style-type: none"> Wastes shall be disposed of at licensed waste disposal facilities. | ^ | |
| <ul style="list-style-type: none"> 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. | ^ | |
| <ul style="list-style-type: none"> Maintain records of the quantities of wastes generated, recycled and disposed. | ^ | |
| <i>Surplus Excavated Materials</i> | | |

| Types of Impacts | Mitigation Measures | Status |
|------------------------------------|--|---|
| | <ul style="list-style-type: none"> Reusable rather than disposable dishware shall be used if feasible. | N/A |
| Ecology | <ul style="list-style-type: none"> 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. 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. 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 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. | <p>N/A</p> <p>^</p> <p>N/A</p> <p>N/A</p> <p>^</p> <p>N/A</p> |
| Landscape and Visual Impact | <ul style="list-style-type: none"> 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 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 | <p>N/A</p> <p>N/A</p> <p>N/A</p> |

Remarks:

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

**APPENDIX H
SUMMARY OF ENVIRONMENTAL
LICENCES AND PERMITS**

Appendix H - Summary of Environmental Licensing and Permit Status (ENT)

| Permit No. | Valid Period | | Details | Status |
|--|--------------|----------|--|---------|
| | From | To | | |
| Environmental Permit (EP) | | | | |
| EP-103/2001/C | 22/07/05 | N/A | <p><u>Construction and operation of</u></p> <p>(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;</p> <p>(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;</p> <p>I The permanent slope works above the northern portal of the Eagle's Nest Tunnel;</p> <p>(d) The architectural works (including fitting out and furnishings) of the portal buildings of the Sha Tin Heights Tunnel.</p> | Valid |
| Registration of Chemical Waste Producer | | | | |
| WPN 5213-761-L2595-01 | 26/01/04 | N/A | Regulation for disposal of spent oil and waste batteries arising from construction activities in all project areas. | Valid |
| Water Discharge Licence | | | | |
| EP482/261/0327/I | 03/05/04 | 31/05/09 | Discharge of industrial trade effluent and effluent arising from construction activities at the construction site at Ventilation Adit on Tai Po Road (behind Shell Filling Station) opposite Pinehill Development Highways. | Valid |
| EP482/261/0326/I | 01/04/04 | 30/04/09 | Discharge of industrial trade effluent and effluent arising from construction activities at the construction site at Mui Kong Tsuen, Butterfly Valley, Lai Chi Kok, Kowloon. | Valid |
| No. 3156 | 23/02/04 | 22/02/09 | Discharge of industrial trade effluent and all other wastewater arising from the works areas at North Portal of Route 9 – Eagle's Nest Tunnel and Associated Works (Contract HY/2003/02). | Valid |
| Construction Noise Permit (CNP) | | | | |
| GW-RN0230-07 | 06/06/07 | 05/12/07 | <p><i>Location:</i> SHT-South Portal near Garden Villa</p> <p><i>Time Period:</i> Any day between 2300-0700 on next day</p> | Expired |
| GW-RN0231-07 | 06/06/07 | 05/12/07 | <p><i>Location:</i> SHT-North Portal near Tai Po Road and Keng Hau Road</p> <p><i>Time Period:</i> Any day between 2300-0700 on next day</p> | Expired |
| GW-RN0252-07 | 18/06/07 | 17/12/07 | <p><i>Location:</i> SHT-South Portal near Garden Villa</p> <p><i>Time Period:</i> 0700-2300 (general holiday including Sundays) and 1900-2300 (any day not being a general holiday).</p> | Expired |
| GW-RN0380-07 | 27/07/07 | 26/01/08 | <p><i>Location:</i> Butterfly Valley, Lai Chi Kok</p> <p><i>Time Period:</i> 0700-2300 (general holiday including Sundays) and 1900-2300 (any day not being a general holiday).</p> | Expired |

| Permit No. | Valid Period | | Details | Status |
|--------------|--------------|----------|--|--------|
| | From | To | | |
| GW-RN0514-07 | 30/11/07 | 29/05/08 | <i>Location:</i> SHT-North Portal near Tai Po Road and Keng Hau Road <i>Time Period:</i> 0700-2300 (general holiday including Sundays) and 1900-2300 (any day not being a general holiday). | Valid |
| GW-RN0515-07 | 30/11/07 | 29/05/08 | <i>Location:</i> Tunnel North Portal Site near Garden Villa <i>Time Period:</i> 0700-2300 (general holiday including Sundays) and 1900-2300 (any day not being a general holiday). | Valid |
| GW-RN0513-07 | 30/11/07 | 29/05/08 | <i>Location:</i> Tunnel South Portal Site at Butterfly Valley <i>Time Period:</i> 0700-2300 (general holiday including Sundays) and 1900-2300 (any day not being a general holiday). | Valid |

**APPENDIX I
COMPLAINT LOG**

Appendix I - Complaint Log

| Log Ref. | Location of Concern | Received Date | Details of Complaint | Investigation/Mitigation Action | Status |
|----------|---------------------|---|---|--|--------|
| 40426 | Butterfly Valley | 26 April 2004 | <p>A public noise complaint was recently received by EPD. The complaint was related to the noise generated from the Route 8 – ENT site near Butterfly Valley at the night time on 21 April 2004. EPD subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 23 April 2004.</p> | <p><u>Noise at night time</u> The information provided by the RSS indicated that no works were undertaken by the Contractor during the concerned period. The concerned noise might probably be due to a burglary case occurred at same night.</p> <p><u>Noise during day-time</u> It is believed that the day-time noise complaint was due to the site formation works of the Project. Considering the powered mechanical equipment used at the Butterfly Valley and the echo effect of the valley, ET believe that the day-time construction noise from the site at Butterfly Valley might cause nuisance to the nearby resident to some extent, though there was no noise level exceedance at the Government Quarters during our routine monitoring in last three months.</p> <p>The Contractor agreed to implement mitigation measures, including good site practices, selecting quieter plant and working methods and reduction in numbers of noisy plant operating currently, in order to mitigate noise impacts at the NSRs.</p> | Closed |
| 40914 | Garden Villa | <p>13-Sep-04 (by EPD)</p> <p>14-Sep-04 (by ET Leader)</p> | <p>Environmental Protection Department (EPD) received a public noise complaint on 13 September 2004 about construction noise generated from the Route 8 – Eagle’s Nest Tunnel and Associated Works (R8-ENT) Project, nearby by Garden Villa at Tai Po Road, Sha Tin. EPD subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 14 September 2004.</p> <p>The complaint was about general construction noise generated from a construction site nearby Garden Villa at Tai Po Road, Sha Tin. As informed by EPD,</p> | <p><u>Environmental Permits</u> A Construction Noise Permit (No. GW-RN0405-04) was obtained by the Contractor for the use of powered mechanical equipment (PME) in the concerned works area and use of TAR no.1 during restricted hours.</p> <p><u>Blasting Works</u> According to the information provided by the Resident Site Staff (RSS), for carrying out blasting works, a blasting permit should be issued by the Mines Division of Civil Engineering and Development Department (CEDD), but not under the jurisdiction of EPD. The CNP issued by EPD only specified the use of PME but not the blasting works during restricted hours.</p> | Closed |

| Log Ref. | Location of Concern | Received Date | Details of Complaint | Investigation/Mitigation Action | Status |
|----------|---------------------|---------------|--|---|--------|
| | | | <p>the complainant was particularly concerned of two issues:</p> <ol style="list-style-type: none"> 1. The complainant was informed by the Contractor (Leighton – Kumagai Joint Venture) that blasting works would be conducted during restricted hours. He worried about the noise nuisance would be induced by the blasting works. 2. Noise nuisance from some site vehicles traveling on the Temporary Access Road (TAR no.1) near Garden Villa was noted by the complainant during restricted hours. | <p>As advised by the RSS, the Contractor did intend to apply for a permit to the Mines Division of CEDD for blasting works during restricted hours. However, up to the time of preparation of this report, the Contractor still had not obtained the approval from the Mines Division and therefore, no blasting works were performed by the Contractor during restricted hours.</p> <p><u>Use of TAR no.1</u> According to Condition 3d of the above-mentioned CNP, there was restriction on the use of site vehicles traveling on TAR no.1.</p> <p>The usage of site vehicles on TAR no.1 in a 2-week period before the date of complaint, i.e. 30th August to 12th September 2004 showed that the only vehicle type using TAR no.1 for the concerned period was concrete truck and the number of vehicle pass was limited to 4 times per hour, which was in compliance with the above CNP's conditions.</p> <p>Regular noise monitoring was undertaken by ET at Garden Villa on 30th August and 6th September 2004 during restricted hours (1900 – 2300 hours). The monitoring results were 58.7 dB(A) and 58.6 dB(A), respectively, which were below the noise limit level of 60 dB(A). However, it should be noted that site vehicles were not used by the Contractor on TAR no.1 during restricted hours on these two monitoring day.</p> <p>Based on the information obtained, the validity for the noise complaint in associated with night-time blasting works could not be concluded under ET's investigation, since no blasting works had been performed by the Contractor during restricted hours at the time of the report preparation. Also, it should be highlighted that for carrying out blasting works, permission should be obtained by Mines Division of CEDD, but not under the control of EPD.</p> <p>For the use of TAR no.1, the RSS's records showed that the number of vehicle pass in the period between 30th August and 12th September 2004 was complied with the CNP's conditions. It should be noted that only a maximum of 3 concrete trucks</p> | |

| Log Ref. | Location of Concern | Received Date | Details of Complaint | Investigation/Mitigation Action | Status |
|----------|---------------------|---|---|--|--------|
| | | | | <p>passing the site entrance was recorded. Therefore, it was considered that the nuisance noted by the complainant was not due to the site vehicles adopted by the Contractor (LKJV).</p> <p>Nevertheless, the Contractor was reminded to ensure the compliance of the CNP conditions and adopt good site practice to minimize the construction noise.</p> | |
| 41021 | Garden Villa | <p>09-Oct-04 (by EPD)</p> <p>21-Oct-04 (by ET Leader)</p> | <p>Environmental Protection Department (EPD) received a public noise complaint on 9 October 2004 about construction noise generated from the Route 8 – Eagle’s Nest Tunnel and Associated Works (R8-ENT) Project, nearby by Garden Villa at Tai Po Road, Sha Tin. EPD subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 21 October 2004.</p> <p>The complaint was about nighttime construction noise generated from a construction site nearby Garden Villa at Tai Po Road, Sha Tin. As informed by EPD, the complainant was particularly concerned of two issues:</p> <ul style="list-style-type: none"> • Construction works undertaken by the Contractor (Leighton–Kumagai Joint Venture) were noted after 2300 hour. • Some workers were noted leaving the site through Temporary Access Road (TAR) no.1 at around 2 am, causing nuisance to the residents in Garden Villa. | <p>According to the information provided by the RSS, no construction activity was undertaken in the nighttime period (2300 – 0700 hours) at the concerned site area.</p> <p>LKJV did admit that some vehicles had been operating at midnight for transporting LKJV’s survey workers from the site. Inconsiderate behaviors were noted causing nuisance to Garden Villa residents:</p> <ol style="list-style-type: none"> 1. Driving the vehicles too fast, which generated excessive engine noise; 2. Noise inside the vehicles (such as staff talking or radios) escaping through the open vehicle windows; and 3. Vehicle beeping horn to request the guards to open the gate. <p>In order to rectify the situation, LKJV had notified the relevant staff with the receipt of the complaint and urged them to take appropriate measures when using TAR1 at night:</p> <ol style="list-style-type: none"> 1. to drive slowly in order to reduce the engine noise, especially when approaching Garden Villa; 2. to roll up the vehicle windows to contain any noise from talking or radios; and 3. to prohibit beeping the vehicle horn for gate opening; instead, to park the car and approach the guard on foot. | Closed |

| Log Ref. | Location of Concern | Received Date | Details of Complaint | Investigation/Mitigation Action | Status |
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| 41023 | Government Quarters (Butterfly Valley) | 20-Oct-04 (by MHJV) 23-Oct-04 (by ET Leader) | A public complaint was received by the Engineer's Representative (ER) of Route 8 – Eagle's Nest Tunnel and Associated Works (R8-ENT) Project on 20 th October 2004. The complaint was raised by a resident of the Government Quarters at Caldecott Road, concerning dust generation as a result of the construction activities at Butterfly Valley. The ER subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 23 rd October 2004. | <p>The complaint was considered valid based on:</p> <ol style="list-style-type: none"> 1. ER's site observations; 2. ET's weekly site audit; and 3. 1-hr TSP exceedance record. <p>Also, the sources of dust generation were identified as</p> <ol style="list-style-type: none"> 1. 2 portions of the haul roads, one at Slope BV-S2 and one linking between South Portal Tunnel to Mui Kong Tsuen, were found to be dry. 2. Dust impact due to the haulage of excavated materials at the South Portal. <p>Enhanced dust suppression measures had been implemented by the Contractor:</p> <ul style="list-style-type: none"> • added rockfill to the haul road between South Portal Tunnel and the Gully fill area; • maintained watering to haul road at Slope BV-S2; • requested the fill material supplier to ensure the material was in a damp condition before leaving quarry; • provided for material not dampened at the Quarry to be directed to the wheel wash for water spray before entering the site; • when cleaning drill holes along slope BV-S4 to ensure adequate water was available for flushing to suppress dust emission; AND • provided damper stockpiles of cleared material at BV-S2 before loading. <p>Based on ER's site observations, most of the above mitigation measures have been implementing by the Contractor. Also, an additional water browser was delivered to site on 29th Oct 04. No significant fugitive dust emission has been found.</p> <p>During ET's site inspections on 27th Oct and 3rd Nov 2004, the situation was found improved. No deficiency relating to air quality impact was noted by ET during the two audit sessions.</p> <p>The results of air quality monitoring (1-hr and 24-hr TSP) in the period between 21st Oct and 2nd Nov 2004 were all found to be complied with the Action / Limit Levels.</p> | Closed |

| Log Ref. | Location of Concern | Received Date | Details of Complaint | Investigation/Mitigation Action | Status |
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| 41124 | Government Quarters (Butterfly Valley) | 21-Nov-04 (by LKJV) 24-Nov-04 (by ET Leader) | A public complaint was received by the Contractor of Route 8 – Eagle’s Nest Tunnel and Associated Works (R8-ENT) Project on 21 st November 2004 (Sunday). The complaint was concerned about excessive noise generation from construction machinery at Butterfly Valley on the same day. The Engineer’s Representative (ER) subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 24 th November 2004. | According to the ER, the only construction activity at Butterfly Valley undertaken on 21 st Nov 04 was formation of access road near Slope BV-S2. The activity only involved operations of 1 no. of excavator and 1 no. of dump truck with grab, which complied with the condition stipulated in a valid CNP GW-RW0484-04, which was hold by the Contractor. Routine noise monitoring was conducted on 21 st and 28 th Nov 2004 at NM6. All the measured noise levels (48.5 to 56.4 dB(A)) were well below the noise limit level. In addition, the measurement results were within the baseline noise level. Therefore, the complaint was considered to be invalid. Nevertheless, the Contractor was reminded to ensure the compliance of the conditions stipulated in CNP. The Contractor was also recommended to adopt good site practice in order to minimize the construction noise. | Closed |
| 41201 | Government Quarters (Butterfly Valley) | 01-Dec-04 (by MHJV & ET Leader) | A public complaint was received by the Engineer’s Representative (ER) of Route 8 – Eagle’s Nest Tunnel and Associated Works (R8-ENT) Project on 1 st December 2004. The complaint was raised by a resident of the Government Quarters at Caldecott Road, concerning dust generation at Butterfly Valley. The Environmental Team (ET) of the Project was informed with the complaint on the same day. The resident complained that a large portion of the excavated slopes was not properly covered, which caused dust nuisance to her. | The complaint was considered valid based on: 1. ER’s site observations; 2. ET’s weekly site audit Upon receipt of the complaint, a series dust control measures had been implemented by the Contractor, such as covering of the exposed slopes with appropriate sheeting, regular watering to the haul roads and excavated slope faces, etc. During the ET’s weekly site audit on 08-Dec-04 together with the representative of HyD, IEC, ER and the Contractor, the above mitigation measures were observed. The idle slopes at BVS2 had been covered by tarpaulin sheeting and erosion mat. The left exposed slope surfaces at BVS2 were under excavation, thus being unable to be covered. According to the ER, the complainant has expressed his satisfaction to the site condition on 07-Dec-04, after the implementation of dust mitigation measures by the | Closed |

| Log Ref. | Location of Concern | Received Date | Details of Complaint | Investigation/Mitigation Action | Status |
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| | | | | <p>Contractor.</p> <p>However, owing to the prevailing of the dry season, the Contractor was reminded to ensure the dust control measures are effectively implemented.</p> | |
| 50125 | Garden Villa (North Portal) | <p>21-Jan-05 (by EPD)</p> <p>25-Jan-05 (by ET Leader)</p> | <p>Environmental Protection Department (EPD) received a public noise complaint on 21 January 2005 about construction noise and dust generated from the Route 8 – Eagle’s Nest Tunnel and Associated Works (R8-ENT) Project, nearby by Garden Villa at Tai Po Road, Sha Tin. EPD subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 25 January 2005.</p> <p>The complaint was about construction noise and dust generated from a construction site nearby Garden Villa at Tai Po Road, Sha Tin. The complainant was particularly concerned of two issues:</p> <ol style="list-style-type: none"> 1. Noise from tunnel blasting work carrying out at around 7:30am and 10:00pm; and 2. Dump trucks without covering of canvas when leaving the construction site. | <p><u>Noise from blasting</u> For carrying out the blasting, the Contractor had obtained the permit from relevant authority. The ET’s noise monitoring results did not show any exceedance for the measurement taken when blasting was in place. It should be highlighted that for carrying out blasting works, permission should be obtained by Mines Division of CEDD, but not under the control of EPD. In order to minimize the nuisance from the works, the Contractor was recommended:</p> <ul style="list-style-type: none"> • To inform the residents around the area about the time of blasting in advance; and • To re-schedule the blasting time table, if possible, in order to avoid nuisance. <p><u>Uncovered dump trucks</u> In order to evaluate the situation, two inspections were carried out by the ET at Garden Villa on 27-Jan and 28-Jan-05 to identify the dump trucks leaving the site with uncovered load. On 27-Jan-05, 3 nos. of trucks, which were working for ENT Project, was noted by-passing Garden Villa without proper cover.</p> <p>Enhanced control (penalty system) was implemented by the Contractor after the inspection on 27-Jan. During the inspection on 28-Jan-05, 24 nos. of dump trucks for ENT Project were found leaving the site. No non-compliance was noted for the trucks working for ENT Project.</p> <p>LKJV was reminded to keep closely monitoring on the condition and the effectiveness of the proposed control measures.</p> | Closed |

| Log Ref. | Location of Concern | Received Date | Details of Complaint | Investigation/Mitigation Action | Status |
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| 50308 | Garden Villa (North Portal) | 05-Mar-05 (by EPD) 08-Mar-05 (by ET Leader) | <p>EPD received a public complaint on 5 March 2005 about construction noise and dust generated from the construction sites of Route 8 – Eagle’s Nest Tunnel and Associated Works (R8-ENT) and Route 8 - Sha Tin Heights Tunnel and Approaches (R8-SHT), nearby by Garden Villa at Tai Po Road, Sha Tin. EPD subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 8 March 2005.</p> <p>The complaint was about construction noise and dust generated from the construction sites nearby Garden Villa at Tai Po Road, Sha Tin. The complainant was particularly concerned of the following issues:</p> <ol style="list-style-type: none"> 1. Nighttime & Sunday construction noise 2. Noise from tunnel blasting at early morning and nighttime 3. Dust from construction activities | <p><i>Nighttime & Sunday construction noise</i></p> <ul style="list-style-type: none"> • no exceedance for noise monitoring • restricted hour works were found complied with the CNPs • records of vehicular trips on TAR1 did not show non-compliance of CNP conditions <p><i>Noise from tunnel blasting at early morning and nighttime</i></p> <ul style="list-style-type: none"> • no exceedance for noise monitoring • valid blasting permit had been obtained from CEDD • blasting work is not under the jurisdiction of EPD <p><i>Dust from construction activities</i></p> <ul style="list-style-type: none"> • dump trucks with uncovered / inadequately covered materials were observed leaving site • no exceedance for TSP monitoring • enhanced dust suppression measures had been implemented by the Contractor <p><u>Conclusions</u> The complaint against the dust issue (uncovered / inadequately covered dump trucks) was considered justifiable. The Contractor was reminded to review the current checking system. Continuous spot checks would be performed by ET and RSS.</p> | Closed |
| 50330 | Garden Villa (TAR1) | 30-Mar-05 (by EPD & ET Leader) | <p>Environmental Protection Department (EPD) received a public complaint on 30th March 2005 about construction noise from the sites of Route 8 – Eagle’s Nest Tunnel and Associated Works (R8-ENT) near Garden Villa at Tai Po Road, Sha Tin.</p> <p>The complaint, which was lodged by a resident of Garden Villa on 29th March 2005, was about the noise generated by heavy vehicles traveling in and out of the construction site near Garden Villa. According to the complaint, the noise was made from 7am onwards.</p> | <p>The site of concern was likely to be the Temporary Access Road no.1 (TAR1) connecting Tai Po Road and the construction sites of R8-ENT and Route 8 - Sha Tin Heights Tunnel and Approaches (R8-SHT).</p> <p>The time period of concern was within normal working hours (7am to 7pm) on a weekday not being holidays. According to the EM&A Manual, the criterion of construction noise in term of $L_{eq-30min}$ within this period is 75 dB(A) for domestic premises.</p> <p>Since the commencement of the Project, no exceedance of daytime noise criterion of 75 dB(A) was recorded at Station AM3 (Garden Villa). During the 2-hour measurement period of the ad-hoc monitoring (0700-0900 hrs), all the measured noise levels ($L_{eq-30min}$) were below the daytime noise</p> | Closed |

| Log Ref. | Location of Concern | Received Date | Details of Complaint | Investigation/Mitigation Action | Status |
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| | | | | <p>criterion of 75 dB(A).</p> <p>Based on the results of routine noise monitoring and the ad-hoc measurement on 1st April 2005 at Garden Villa, no exceedance of daytime noise criterion of 75 dB(A) was recorded. The complaint lodged is therefore considered not justifiable.</p> <p>In order to minimize the nuisance generated by the vehicle use at Garden Villa, the Contractor has proposed to limit the frequency of trucks existing from TAR1 at a rate of one truck per minute during the time period of concern (7am to 8:30am).</p> | |
| 50415 | Government Quarters | <p>09-Apr-05 (by EPD)</p> <p>15-Apr-05 (by ET Leader)</p> | <p>The complaint, which was lodged by a resident of 7/F, 38B, 8-10 Caldecott Road (Governmental Quarters) on 9th April 2005, was about the noise generated by the construction works at the Butterfly Valley during daytime. The complainant mentioned that the instant noise level taken by himself was 78 to 82 dB(A).</p> <p>EPD subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 15th April 2005.</p> <p>The time period of concern was within normal working hours (7am to 7pm) on a weekday not being public holidays. According to the EM&A Manual, the criterion of construction noise in term of L_{eq}-30min within this period is 75 dB(A) for domestic premises.</p> | <p>Governmental Quarters (Station NM6) is one of the designated noise monitoring stations in the EM&A programme. Routine monitoring is undertaken on a weekly basis in accordance with the EM&A Manual.</p> <p>Since the commencement of the Project, no exceedance of daytime noise criterion of 75 dB(A) was recorded at this station.</p> <p>Ad-hoc measurement was conducted at the complainant's premises on 22 Apr 05. The measured noise level was 69.0 dB(A), which was well below the daytime noise criterion of 75 dB(A).</p> <p>Based on the results of routine noise monitoring and the ad-hoc measurements conducted in the complainant premises, no exceedance of daytime noise criterion of 75 dB(A) was recorded. The complaint lodged is therefore considered not justifiable.</p> | Closed |

| Log Ref. | Location of Concern | Received Date | Details of Complaint | Investigation/Mitigation Action | Status |
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| 50419 | Government Quarters | <p>15-Apr-05 (by EPD)</p> <p>19-Apr-05 (by ET Leader)</p> | <p>The complaint was lodged by a resident of 8-10 Caldecott Road (Government Quarters) on 15th April 2005 to EPD as well as the Chief Resident Engineer of the Project.</p> <p>EPD subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 19th April 2005.</p> <p>The complainant mentioned that they had experienced quite a lot of noise emanating from the tunnel drilling area after 11pm over several nights and most particularly at the night of 14th April 2005 and at 4am on 15th April 2005.</p> | <p>The site of concern was likely to be the South Portal. For carrying out construction works at this area during restricted hours, two Construction Noise Permits (CNPs no. GW-RW0085-05 and GW-RW0086-06) were obtained by the Contractor in accordance with the requirements stipulated in Noise Control Ordinance.</p> <p>According to the information provided by the Resident Site Staff and the Contractor, the construction activities undertaken in the period between 11th and 15th April 2005 from 1900 to 0700 hours included drilling, breaking, trimming, set up of rock drill, installation of arch-rib and grouting.</p> <p>The powered mechanical equipment (PME) involved in the above works included backhoe, rock drill, loader, dumper, shot-crete machine, group pump, mobile platform and grout machine, which were covered by the CNPs.</p> <p>According to the routine monitoring results, for the time period between 2300-0700 hours, the measured noise levels exceeded the corresponding noise Limit Level of 50dB(A). However, the measured levels were found within the range of baseline level and below the average baseline level.</p> <p>Based on the routine noise monitoring results at Station NM6, the measured noise levels for the period between 2300-0700 hours were below the baseline noise level, which was comparable to the ambient level. According to the RSS's record, the PME items operated during the concerned period were found covered by the 2 CNPs hold by the Contractor.</p> <p>Based on the available information, there is not enough evidence to prove whether the complaint against nighttime construction noise generated in the concerned period (11th to 15th April 2005) is justifiable or not.</p> | Closed |

| Log Ref. | Location of Concern | Received Date | Details of Complaint | Investigation/Mitigation Action | Status |
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| 50512 | Yew Chung International School | 12-May-05 | <p>On 11 May 05, a notice was sent to Yew Chung International School (YCIS) by the Contractor, providing their tentative blasting schedule on 12 May 05. It was shown that one of the blasting operations was scheduled at 09:30am, at when an examination was being held in YCIS.</p> <p>Upon receipt of the notice, a representative of YCIS lodged a complaint to the Contractor via the Project's hotline at 07:40 on 12 May 2005. The complainant expressed her objection to the blasting operation taken at 09:30am when the examination was taken place.</p> <p>The Contractor then agreed on one occasion only to delay the tunnel blast planned for 9:30am until 9:50am (i.e. 5 min after the examination). The complainant satisfied but did expect no future blasting during the examination period. According to the Engineer's Representative, the Contractor did not wish to make any commitment to ensure no blasting would be taken within the examination period.</p> | <p>A 1-day continuous noise measurement was conducted by the Environmental Team at Station NM1 on 26 May 05. According to the ER's record, two blasting operations were taken in the vicinity of YCIS on 26 May 05. One surface blast was taken at Butterfly Valley at 15:42 and one tunnel blasting was taken at South Portal at 16:56.</p> <p>The measurement results showed that the noise impact in term of Leq-5min and Leq-30min arising from the blasting operations was insignificant. No exceedance of construction noise criterion for examination period was recorded (Leq-30min < 65dB(A)).</p> <p>The complaint lodged was therefore considered not justifiable.</p> <p>However, in order to minimize the potential nuisance arising from the blasting noise and the siren sounds prior to blasting, the Contractor was recommended to consider scheduling the blasting operations beyond the examination periods.</p> | Closed |

| Log Ref. | Location of Concern | Received Date | Details of Complaint | Investigation/Mitigation Action | Status |
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| 50610 | Government Quarters | 10-Jun-05 | <p>On 10 June 2005, the Resident Site Staff (Maunsell-Hyder Joint Venture) received a complaint from a resident of the Government Quarters at Caldecott Road. The complaint was concerned about the construction dust generation as a result of the construction activities of the Project at Butterfly Valley.</p> <p>The complainant had not specified which construction activities had contributed to the dust generation.</p> | <p><i>Site Observations</i></p> <p>According to the RSS's preliminary investigation, it was considered that soil nailing at Slope BV-S2 was the dominant dust source and was likely to be the activity of concern. The dust suppression measures taken were found inadequate to control the dust dispersion from the works. Noticeable dust dispersion from the soil nailing work could be observed.</p> <p><i>Corrective Actions</i></p> <p>After the Contractor was notified by the RSS of the complaint, immediate action was taken by the Contractor on the same day (10 June 2005).</p> <p>The dust mitigation measures for the soil nailing were enhanced. An additional thicker cover was used. Also, continuous water spray was applied to suppress the dust emission.</p> <p><i>Environmental Outcome</i></p> <p>The RSS made a response to the complainant on 10 June 2005. The complainant was informed of the rectification actions taken by the Contractor. No further adverse comment was received from the complainant.</p> <p><i>Conclusions</i></p> <p>Based on the RSS's information, 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 immediately and the situation was found improved.</p> | Closed |

| Log Ref. | Location of Concern | Received Date | Details of Complaint | Investigation/Mitigation Action | Status |
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| 50712 | A scattered house near South Portal and Tai Po Road Water Treatment Works Staff Quarters | 12-Jul-05 | <p>On 12 July 2005, a resident, whose house is located near South Portal and Tai Po Road Water Treatment Works Staff Quarters, lodged a complaint to the Contractor via the Project's hotline at 11:40am. The complainant expressed his concern on the nuisance caused by the blasting works at early morning (before 07:00 hours) and late night (after 23:00 hours).</p> | <p><i>Site Activity</i></p> <p>According to the information provided by the RSS, tunnel blasting works have been taken place in the concerned period in north bound tunnel from the Ventilation Adit towards the direction of the South Portal.</p> <p><i>Environmental Requirements</i></p> <p>In the EP, the EM&A Manual of the Project and the NCO, no requirement is specified for the control of blasting operation and the associated environmental impact, such as blasting noise.</p> <p>It should be highlighted that for carrying out blasting works, permission should be obtained by Mines Division of CEDD, but not under the jurisdiction of EPD.</p> <p>For carrying out the above-mentioned blasting operations, the Contractor has obtained a valid blasting permit from CEDD under the Dangerous Goods Ordinance (Cap. 295). Under this permit, the Contractor is allowed to carry out 24-hour blasting works within the designated area.</p> <p><i>Contractor's Actions</i></p> <p>Though the blasting noise is not under the control of any environmental related regulation and the Contractor is allowed to carry out 24-hour blasting, the Contractor would try to keep the blasts of concern undertaken between 07:00 to 23:00 hours. This arrangement could effectively reduce the potential nuisance to the residents within the more sensitive time period (23:00 to 07:00 on next day).</p> <p><i>Conclusions</i></p> <p>The subjected blasting operations were carried out by the Contractor under a valid blasting permit. The complaint lodged is therefore considered not justifiable.</p> | Closed |

| Log Ref. | Location of Concern | Received Date | Details of Complaint | Investigation/Mitigation Action | Status |
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| 50809 | Government Quarters (8-10 Caldecott Road) | 09-Aug-05 | <p>On 9 August 2005, a resident of 8-10 Caldecott Road (Government Quarters) lodged a complaint to the Contractor via the Project's hotline at 14:30. The complainant expressed her concern on the nuisance caused by the blasting works undertaken at Butterfly Valley.</p> <p>Noise impact arising from the blasting works was one of the issues raised by the complainant.</p> | <p><i>Ad-hoc Noise Measurement</i></p> <p>An ad-hoc noise measurement was carried out on the roof of Government Quarters during a surface blast on 16 August 2005. According to the record of the RSS and the site observation, a surface blasting was undertaken at Butterfly Valley at around 15:38 on the monitoring day.</p> <p>The results show that the measured noise level in term of Leq-30min, i.e. 69.1 dB(A) during the surface blasting was well below the daytime construction noise criterion of 75 dB(A).</p> <p><i>Conclusion and Recommendation</i></p> <p>According to the results of ad-hoc noise measurement taken at Government Quarters on 16 August 2005, the measured noise levels (Leq-30min) did not exceed the noise criterion of 75 dB(A). In addition, the subjected blasting operations were carried out by the Contractor under a valid blasting permit. For the concern of noise impact, the complaint was considered not justifiable.</p> | Closed |
| 50830 | Government Quarters (8-10 Caldecott Road) | 30-Aug-05 | <p>The RSS received a public complaint from a resident of Government Quarters addressing two noise issues:</p> <ol style="list-style-type: none"> 1. Noise nuisance caused by drilling works at Butterfly Valley; 2. Noise nuisance due to blasting 0045 hrs of 28 August 2005. | <p><i>Noise Measurement</i></p> <p>No exceedance was recorded for the routine noise monitoring at NM6 (Government Quarters). Ad-hoc noise measurement was conducted on 1 and 2 Sept 05. All measured noise levels complied with the noise criteria.</p> <p><i>Conclusion</i></p> <p>The complaint was considered not justifiable. However, the Contractor had taken proactive actions in order to minimize the nuisance of the residents, (1) to stop the rock breaking works at BVS2 and (2) to install temporary noise barriers for drilling works.</p> | Closed |

| Log Ref. | Location of Concern | Received Date | Details of Complaint | Investigation/Mitigation Action | Status |
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| 50928 | Government Quarters (8-10 Caldecott Road) | 28-Sept-05 | A resident of Government Quarters complaint about a blast undertaken at 0215hr on 28 Sept 05. | <p><i>Environmental Monitoring</i></p> <p>After receiving the complaint, the ET carried out a continuous noise measurement at Station NM6 (Government Quarters) from 29 to 30 September 2005. All the measured noise levels in term of Leq-5min are close to the baseline noise level. The noise levels after correction of baseline levels were all below the noise criterion of 50 dB(A).</p> <p><i>Conclusion</i></p> <p>The subjected blasting operations were carried out by the Contractor under a valid blasting permit. In addition, no noise exceedance was recorded for the ad-hoc noise monitoring. The complaint lodged is therefore considered not justifiable.</p> | Closed |
| 51025 | Caldecott Hill (2 Caldecott Road) | 25-Oct-05 | <p>A public complaint was received by the MWPMO of Highways Department on 25 October 2005. The complaint was subsequently refereed to the RSS and Environmental Team of Route 8 – Eagle’s Nest Tunnel and Associated Works (R8-ENT) Project.</p> <p>The complaint was lodged by the management company of Caldecott Hill (No.2 Caldecott Road). It was about dust generation when construction vehicles, particularly dump trucks and concrete trucks, traveling along the Water Treatment Works (WTW) access road and its junction with Caldecott Road.</p> <p>According to the photos provided by the complainant, noticeable dust generation was observed during construction vehicles movement on the roads of concern.</p> | <p><i>Site Observations</i></p> <p>Ad-hoc site inspections were carried out on 25 and 26 Oct 05. On 26 Oct 05, the WTW access road was observed dry. Deposition of dusty materials was noted. Significant dust generation was identified during vehicle movement.</p> <p><i>Contractor’s Actions</i></p> <p>Mitigation actions were taken by the Contractor:</p> <ol style="list-style-type: none"> 1. One labour was appointed to water spray the concerned road junction and clear up of dusty materials deposited on the WTW access road. 2. Regular watering on access road by hose pipe was performed to keep the road wet. 3. All vehicles would be wheel-washed and loads of dusty materials would be covered before leaving the site. <p><i>Conclusions</i></p> <p>Based on the site observations, this complaint was considered to be valid and related to the Project works. However, enhanced dust mitigation measures were taken by the Contractor and the situation was found improved.</p> | Closed |

| Log Ref. | Location of Concern | Received Date | Details of Complaint | Investigation/Mitigation Action | Status |
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| 51031 | Po Leung Kuk Choi Kai Yau School | 31-Oct-05 | The resident site staff (MHJV) of R8-ENT received a complaint from the Principal of PLKCKY School. She commented that the blasting noise (nighttime and daytime) at Butterfly Valley became louder than before. | An ad-hoc noise measurement was taken by ET on 5 Nov 05 to evaluate the noise impact due to daytime surface blasting at the BV. The measurement results revealed that there has been no exceedance of noise level criteria. The complaint was therefore considered not justifiable. | Closed |
| 51101 | Butterfly Valley (Government Quarters) | 1-Nov-05 | <p>On 1 Nov 05, the Resident Site Staff received a complaint from a resident of the Government Quarters. On 2 Nov 05, a complaint of similar natures and same location was received by the Environmental Protection Department.</p> <p>The complainant was concerned about the following environmental issues:</p> <ol style="list-style-type: none"> 1. Noise nuisance due to tunnel blasting works undertaken at midnights and in early mornings (3am to 5am); 2. Noise nuisance due to operation of a generator after 11pm; 3. Construction dust and daytime noise due to processing and stockpiling of crushed rocks at Butterfly Valley; 4. Noise nuisance due to works outside tunnel in the early morning of 2 Nov 05. | <p><u>Item 1: Noise nuisance due to tunnel blasting</u> For carrying out the above-mentioned blasting operations, the Contractor has obtained a valid blasting permit from CEDD. Under this permit, the Contractor is allowed to carry out 24-hour blasting works. As advised by the Contractor, all the blasting operations had been completed by 12 Nov 05.</p> <p><u>Item 2: Noise due to operation of a generator after 11pm</u> According to the Construction Noise Permit issued by EPD, one generator was allowed to be operated after 11pm at South Portal area outside the tunnel. In view of the provision of acoustic enclosure and the separation distance from the generator to Government Quarters (around 300m), the noise impact arising from this generator onto the residents of the Quarters was believed to be insignificant. During the ET's investigation on 11 Nov 05, no engine-like noise generated from the construction site could be identified.</p> <p><u>Item 3: Dust and noise due to handling of crushed rocks</u> No noise exceedance was recorded. During the weekly site inspections, deficiencies regarding inadequate dust mitigation measures for the crushed rock processing and stockpiling were occasionally observed. Dry / uncovered stockpiles and dust emissions from crushed rocks handling were sometimes noted.</p> <p><u>Item 4: Noise from works out of tunnel in morning of 2 Nov 05</u> According to the RSS's site records, there has been no activity outside the tunnel in the early morning of 2 November 2005. Work was undertaken deep inside the tunnel during the concerned period. The mentioned noise nuisance might not be related to R8-ENT Project. An ad-hoc noise measurement was carried out by ET from 8 to 10 November 2005 in order to evaluate the noise at Quarter's residents and no exceedance was recorded.</p> | Closed |

| Log Ref. | Location of Concern | Received Date | Details of Complaint | Investigation/Mitigation Action | Status |
|----------|-------------------------|---------------|---|---|--------|
| | | | | <p><u>Conclusion</u></p> <p>Based on the information obtained, environmental monitoring results and site observations, this complaint was considered not justifiable, except for the concern of dust nuisance due to crushed rock processing.</p> | |
| 51205 | Caldecott Road junction | 5-Dec-05 | <p>The complaint was lodged by the management company of Villa Carlton. The complainant mentioned that several complaints from the occupants of Villa Carlton were received, against the dust emission when they drove to Kowloon via the Caldecott Road Junction. She also considered that the amount of water spraying by the Contractor was insufficient to suppress dust emission at Caldecott Road Junction.</p> | <p><u>Complaint Record</u></p> <p>A similar complaint (Log no. 51025) was received on 25 Oct 05 from Caldecott Hill. Significant dust emission was noted when construction vehicles traveling along the WTW access road and its junction with Caldecott Road.</p> <p>With implementation of enhanced dust mitigation measures, the situation was found improved and satisfactory.</p> <p><u>Site Observations</u></p> <p>Since Nov 05, in order to observe the Contractor's actions taken for the above-mentioned complaint, the area of interest was included during the weekly environmental audit. No deficiency had been noted at this area during the audit.</p> <p>After receiving this new complaint (Log no.51205), several ad-hoc site inspections were carried out on 6, 8 and 14 Dec 05. In addition, the RSS of the Project had carried out daily checking of the condition of the Caldecott Road Junction.</p> <p>Sufficient dust mitigation measures had been implemented by the Contractor. The condition was found satisfactory. Therefore, this complaint was considered not justifiable.</p> <p>However, it is noted that the Contractor had stepped up dust mitigation measures to further improve the condition at Caldecott Road junction.</p> | Closed |

| Log Ref. | Location of Concern | Received Date | Details of Complaint | Investigation/Mitigation Action | Status |
|----------|---------------------|----------------------|---|---|--------|
| 60204 | Garden Villa | 4-Jan-06 (by ETL) | <p>A public complaint was received by the Environmental Protection Department on 3 January 2006. The complaint was subsequently referred to the Environmental Team of Route 8 – Eagle’s Nest Tunnel and Associated Works (R8-ENT) Project on 4 January 2006.</p> <p>According to EPD’s information, the complaint was lodged by a complainant, who walked along Tai Po Road on 1-2 January 2006. The following information was given by EPD for our investigation:</p> <ul style="list-style-type: none"> • Time of concern: 1-2 January 2006 (Daytime) • Suspected site area of concern: ENT’s Toll Plaza and Administration Building. • Dust and noise nuisance was noted by the complainant when he passed Garden Villa. • Noise from wood saw and crane or alike was noted. | <p>A. Construction Noise Impact</p> <p>According to the Contractor’s information, construction activities were carried out on 1 and 2 Jan 06, including:</p> <ul style="list-style-type: none"> • Erection and dismantling of formwork • Fixing water pipe <p>All the equipment operated by the Contractor on 1-2 Jan 06 complied with the permissible equipment stated in the CNP.</p> <p>On 1 Jan 06, noise monitoring was carried out. All the results complied with the noise criterion.</p> <p>B. Construction Dust Impact</p> <p>Erection and dismantling of formwork and fixing water pipe were considered not dust emissive in nature.</p> <p>For stockpiles of materials in Toll Plaza area, dust mitigation measures had been implementing by the Contractor. The condition in term of dust control was found satisfactory during the audit sessions on 4 and 11 Jan 06.</p> <p>Since December 2005, all TSP monitoring results complied with the Action / Limit Level.</p> <p>Conclusion</p> <p>Based on the information given, site observations and environmental monitoring results, this complaint was considered not justifiable.</p> <p>Nevertheless, the Contractor was reminded to adopt good site practice to minimize the environmental impacts at the nearby sensitive receivers</p> | Closed |

APPENDIX J
SUMMARY OF EXCEEDANCES

Summary of exceedances recorded in the reporting quarter

- a) Exceedance Report for 1-hr TSP (NIL)*
- b) Exceedance Report for 24-hr TSP (NIL)*
- c) Exceedance Report for Construction Noise (NIL)*