Highways Department

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

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

Monthly EM&A Report
Part II – Eagle's Nest Tunnel & Associated Works
(Version 1)

July 2006

Approved By _____

(Environmental Team Leader)

REMARKS:

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

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

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

ABBREVIATION AND ACRONYM

AL Levels	Action and Limit Levels
E / ER	Engineer/Engineer's Representative
EIA	Environmental Impact Assessment
EM&A	Environmental Monitoring and Audit
EMIS	Environmental Mitigation Implementation Schedule
EP	Environmental Permit
EPD	Environmental Protection Department
ET	Environmental Team
HVS	High Volume Sampler
IEC	Independent Environmental Checker
RE	Resident Engineer
RH	Relative Humidity
TSP	Total Suspended Particulates
TDD	Territory Development Department
QA/QC	Quality Assurance / Quality Control
SLM	Sound Level Meter
WMP	Waste Management Plan

EXECUTIVE SUMMARY

Introduction

- This is the thirty-second monthly Environmental Monitoring and Audit (EM&A) Report prepared by Cinotech Consultants Limited for the "Route 8 (previously known as Route 9) between Cheung Sha Wan & Sha Tin, Lai Chi Kok Viaduct & Eagle's Nest Tunnel". This report documents the findings of EM&A Works conducted in July 2006 for Contract No. HY/2003/02, Eagle's Nest Tunnel and Associated Works (the Project).

- The major site activities undertaken in the reporting month included soil nailing/ rock dowel, retaining wall, drainage work, road works, cut slope, haul road and noise barrier foundation.

Environmental Monitoring and Audit Works

- Environmental monitoring and audit works for the Project was performed regularly as stipulated in the EM&A Manual and the results were checked and reviewed. Site audits were conducted once per week. The implementation of the environmental mitigation measures, Event Action Plans and environmental complaint handling procedures were also checked.

- Summary of events and actions taken in the reporting month is tabulated in **Table I**.

Table I Summary of Events Recorded in the Reporting Month

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

Environmental Licenses and Permits

- Licenses/Permits granted to the Project include the Environmental Permit (EP) for the Project, Registration of Chemical Waste Producer (RCWP), Construction Noise Permits (CNPs) and Water Discharge Licenses (WDLs). One new CNP was issued to the Project by EPD in the reporting month.

Key Information in the Reporting Month

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

Table II Summary Table for Key Information in the Reporting Month

Event	Event Details		Action Taken	Status	Remark
	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	0	---	N/A	N/A	---
Notifications of any summons & prosecutions received	0	---	N/A	N/A	---

Future Key Issues:

Major site activities for the coming month include:

- Cut slope and haul road;
- Drainage works;
- Soil nailing/rock dowel;
- Footbridge and toll collector construction;
- Watermains crossing Tai Po Road;
- Concreting of block wall;
- Duct works;
- Louvre & door installation;
- Plumbing & drainage;
- Noise barrier foundation;
- E&M cabling;
- Concreting of staircase and wing wall; and
- Box culvert/open channel & culvert A (railing installation)

The anticipated environmental impacts will be mainly on surface runoff during rainy season, dust from slope work, haul roads and stockpiles, noise impact from soil nailing and rock dowel installation.

1. INTRODUCTION

Background

1.1 Route 9 (Kowloon Section) (R9K) (hereinafter call the R9K-Project) forms part of the Route 9 between Cheung Sha Wan and Sha Tin (R9-CSWST) project, which will be a new expressway connecting West Kowloon and Sha Tin. It will be the fourth external link between Sha Tin and Kowloon and will form an important link between the northeast New Territories and the west Kowloon, Lantau Island and the western New Territories. R9K is being managed and implemented by the Highways Department (HyD).

1.2 The engineering design of R9K is covered under Agreement No. CE 50/98 "Route 9 between Cheung Sha Wan and Sha Tin – Design Construction Assignment". The main consultant engaged under Agreement No. CE 50/98 is Maunsell Hyder Joint Venture (MHJV), who acts as the Engineer for the construction contracts. The works of R9K mainly comprise a 1.4km dual 3-lane Lai Chi Kok Viaduct from Lai Wan Interchange to Butterfly Valley; 0.5 km of dual 3-lane at-grade carriageway linking to the 2.1 km dual 3-lane twin-bore Eagle's Nest Tunnel with associated portal buildings; a toll plaza with an administration building located with the Sha Tin valley woodland; a ventilation building and an adit; associated noise barriers, noise enclosures, drainage, slope and landscape works; and electrical and mechanical works for the whole R9-CSWST. The remainder of the R9-CSWST forms the Sha Tin Section (R9S) of the project and is being managed and implemented separately by the Civil Engineering and Development Department (CEDD).

1.3 The R9-CSWST project is a Designated Project under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO). An environmental impact assessment (EIA) report has been prepared in 1998 for the R9-CSWST project (1998 R9 EIA) to consider the key issues of noise, air quality, water quality, ecological, construction waste, landscape and visual, land use and cultural impacts, and identify possible mitigation measures.

1.4 An Updated Final EIA report was subsequently completed in August 1999 for the R9-CSWST project (1999 R9 EIA), to cater for some changes in R9K portion as mentioned in paragraph 1 of the report. The 1999 R9 EIA was endorsed by Environmental Protection Department (EPD) in November 1999. The 1998 R9 EIA and the 1999 R9 EIA (R9 EIA Reports) were included in the EIA register under the EIAO as report no. EIA-135/BC and AEIAR-022/1999 respectively. An Environmental Monitoring and Audit (EM&A) Manuals for each of the R9 EIA Reports (EM&A Manuals) were also included as part of the EIA reports in the register.

1.5 Subsequent to the endorsement of the R9 EIA Reports by EPD in November 1999, the project programme was deferred to start in 2002/2003 for completion by 2006/07. The implementation of the project was then separated into the R9S and R9K portion. An Environmental Permit (EP) No. EP-103/2001 was issued on 17 September 2001 for R9K to the HyD as Permit Holder and a varied EP No. EP-103/2001/A was subsequently issued on 20 May 2003 for R9K (R9K EP) to HyD as Permit Holder. A varied EP-103/2001/C was recently issued on 22 July 2005.

1.6 The major construction activities of two civil contracts of the R9K project, Contract No. HY/2003/01 entitled "Route 9 – Lai Chi Kok Viaduct" and Contract No. HY/2003/02 entitled "Route 9 – Eagle's Nest Tunnel and Associated Works", were commenced on 15th December 2003 for completion in April 2007.

1.7 "Route 9" was recently re-tiled 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 Consultants Ltd. was appointed as the ET Leader under Condition 2.2 of the EP. Mr. David YEUNG of CH2M HILL Hong Kong Ltd. was appointed as the IEC under Condition 2.1 of the EP. This is the thirty-second monthly EM&A report summarizing the EM&A works for the Project in July 2006.

Project Organizations

1.8 Different parties with different levels of involvement in the project organization include:

- Project Proponent – Major Works Project Management Office (MWPMO) of Highways Department (HyD)
- Engineer / Engineer's Representative (E/ER) – Maunsell-Hyder Joint Venture (MHJV)
- Environmental Team (ET) – Cinotech Consultants Limited
- Independent Environmental Checker (IEC) – CH2M HILL Hong Kong Ltd.
- Contractor – Leighton-Kumagai Joint Venture (LKJV)

1.9 The responsibilities of respective parties are detailed in Section 1.8.3 of the EM&A Manual (1999) of the Project.

1.10 The key contacts of the Project are shown in **Table 1.1**.

Construction Programme

1.11 The site activities undertaken in the reporting month were:

- Soil nailing, box culvert/open channel (railing installation), retaining wall and water-main works, at Butterfly Valley;
- Cut Slope, mini-piles and haul road construction at Butterfly Valley;
- Noise barrier foundation road works and rock dowel at Butterfly Valley;
- Drainage works at Butterfly Valley, Toll Plaza and SHT-North Portal Building;
- Utility (Draw pit/Ducting) at Butterfly Valley and Toll Plaza;
- E&M Cabling and dampers at ENT Tunnel;
- Asphalts pavement construction and VE panel at ENT Tunnel;
- Concreting of columns, walls & slab at South Portal Building, Ventilation Building and Toll Plaza – workshop;
- Plastering, screeding, painting, rendering and plumbing & drainage at all buildings;
- Metal door installation at South Portal Building;
- Footbridge and Toll Collector's staircase construction at Toll Plaza;
- Louver at Administration Building, Ventilation Building, SHT – South Portal Building and

SHT – North Portal Building;
- Concreting of wing walls & staircase at Ventilation Building;
- Fire services and tunnel ventilation works at Toll Plaza, SHT – South Portal Building, SHT – North Portal Building and SHT Tunnel & Remaining SHT/T3 Area;
- Cladding and duct works at SHT Tunnel & Remaining SHT/T3 Area;
- Switch board installation and CLP room at SHT – South Portal Building and SHT – North Portal Building; and
- E&M installation work on site, except Ventilation Building and Butterfly Valley.

Table 1.1 Key Project Contacts

Party	Role	Name	Position	Phone No.	Fax No.
HyD	Permit Holder	Mr. Kroc Leung	SE2/R8K	2762 3662	2714 5198
		Mr. 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	The ET Leader	2151 2089	3107 1388
		Ms. Attle Hui	Audit Team Leader	2151 2093	
		Mr. Henry Leung	Monitoring Team Leader	2151 2087	
CH2M	Independent Environmental Checker	Mr. David Yeung	Independent Environmental Checker	2507 2203	2507 2293
		Mr. Billy Yu	Assistant Independent Environmental Checker	2872 2949	
LKJV	Contractor	Mr. Ray Brewster	Project Director	9092 6128	2743 1600
		Mr. Danny Cheng	QA/E Manager	3552 2113	
Enquiries Hotline				3552 2226	-
Complaint Hotline				3552 2380	-

Summary of EM&A Requirements

1.12 The EM&A programme requires construction phase monitoring for air quality and construction noise, and environmental site audit. The EM&A requirements for each parameter are described in the following sections, including:

- All monitoring parameters;
- Action and Limit levels for all environmental parameters;
- Event / Action Plans;
- Environmental mitigation measures, as recommended in the project EIA study final report; and
- Environmental requirements in contract documents.

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

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

2. AIR QUALITY

Monitoring Requirements

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

Monitoring Locations

2.2 Three designated monitoring stations, AM1, AM3 and AM4 was selected for impact dust monitoring for the Project. **Table 2.1** describes the air quality monitoring locations, which are also depicted in **Figure 1a** and **1b**.

Table 2.1 Locations for Air Quality Monitoring

Station	Description	Location
AM1	Yew Chung International School / PLK Choi Kai Yau School	Rooftop
AM3	Slope no. 07SW-D/FR4 near Garden Villa	On Ground
AM4	Government Quarters	Ground Floor[1]

Note: [1]The HVS was installed on the ground floor, which is close to the refuse collection station of the Government Quarters.

Monitoring Equipment

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

Table 2.2 Air Quality Monitoring Equipment

Equipment	Model and Make	Quantity
Calibrator	GMW25; S/N: 1536	1
HVS Sampler	Graseby GMW Model GS2310 High Volume TSP Sampler and associated equipment and shelter	3

Monitoring Parameters, Frequency and Duration

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

Table 2.3 Impact Dust Monitoring Parameters, Frequency and Duration

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

Monitoring Methodology and QA/QC Procedure

Instrumentation

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

Operating/Analytical Procedures

2.6 Operating/analytical procedures for the operation of HVS were as follows:

- A horizontal platform was provided with appropriate support to secure the samplers against gusty wind.
- No two samplers were placed less than 2 meters apart.
- The distance between the sampler and an obstacle, such as buildings, was at least twice the height that the obstacle protrudes above the sampler.
- A minimum of 2 meters of separation from walls, parapets and penthouses was required for rooftop samples.
- A minimum of 2 meters separation from any supporting structure, measured horizontally was required.
- No furnaces or incineration flues were nearby.
- Airflow around the sampler was unrestricted.
- The sampler was more than 20 meters from the drip line.
- Any wire fence and gate, to protect the sampler, should not cause any obstruction during monitoring.

2.7 Prior to the commencement of the dust sampling, the flow rate of the high volume sampler was properly set (between 1.1 m^3/min. and 1.4 m^3/min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50. For TSP sampling, fiberglass filters (G810) were used.

2.8 The power supply was checked to ensure the sampler worked properly. On sampling, the sampler was operated for 5 minutes to establish thermal equilibrium before placing any filter media at the designated air monitoring station.

2.9 The filter holding frame was then removed by loosening the four nuts and a weighted and conditioned filter was carefully centered with the stamped number upwards, on a supporting screen.

2.10 The filter was aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter. Then the filter holding frame was tightened to the filter holder with swing bolts. The applied pressure should be sufficient to avoid air leakage at the edges.

2.11 The shelter lid was closed and secured with the aluminum strip. The timer was then programmed. Information was recorded on the record sheet, which included the starting time, the weather condition and the filter number (the initial weight of the filter paper can be found out by using the filter number). After sampling, the filter was removed and sent to the laboratory for weighing. The elapsed time was also recorded.

2.12 Before weighing, all filters were equilibrated in a conditioning environment for 24 hours. The conditioning environment temperature should be between 25°C and 30°C and not vary by more than ±3°C; the relative humidity (RH) should be < 50% and not vary by more than ±5%. A convenient working RH is 40%.

Maintenance/Calibration

2.13 The following maintenance/calibration was required for the HVS:

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

Results and Observations

2.14 All TSP monitoring was conducted as scheduled during the reporting month.

2.15 No Action/Limit Level exceedance was recorded for both 1-hour TSP and 24-hour TSP of dust monitoring in the reporting month.

2.16 Wind data monitoring equipment has been installed in Shatin Heights for logging wind speed and wind direction. These wind data is summarized in **Appendix D**.

2.17 The monitoring data and graphical presentations of 1-hour and 24-hour TSP monitoring results are shown in **Appendices E** and **F**, respectively.

3. NOISE

Monitoring Requirements

3.1 Monitoring and audit of construction noise levels is required to be conducted, in accordance with the EM&A Manual, to ensure that any unacceptable noise impacts could be readily detected and timely and appropriate action be undertaken to rectify the situation.

3.2 The construction noise levels shall be measured in terms of the A-weighted equivalent continuous sound pressure level (L_{eq}). L_{eq} (30min) shall be used as the monitoring parameter for the time period between 0700-1900 hours on normal weekdays. For all other time periods, L_{eq} (5min) shall be employed for comparison with the Noise Control Ordinance (NCO) criteria. As supplementary information for data auditing, statistical results such as L_{10} and L_{90} shall also be obtained for reference.

3.3 Three designated noise monitoring stations, namely NM1, NM5 & NM6 were selected for impact monitoring in accordance to the EM&A manual (1999) and the subsequent EPD approval of the relocations.

3.4 Noise monitoring is also required to be conducted at station NM7 in accordance with the EM&A Manual (1998). The noise monitoring at the station is required to be conducted under CEDD's construction Contract No. ST 89/02 "Sha Tin Heights Tunnel and Approaches" in accordance with the requirement of Environmental Permit No. EP104/2001/A. The impact noise monitoring results at station NM7 are also presented in this report.

3.5 **Appendix A** shows the established Action and Limit Levels for the environmental monitoring works.

Monitoring Locations

3.6 Noise monitoring was conducted at four designated monitoring stations as summarized in Table 3.1. Figures 1a & 1b show the locations of these stations.

Table 3.1 Noise Monitoring Stations

Monitoring Station	Description	Location
NM1	Yew Chung International School / PKL Choi Kai Yau School	Rooftop
NM5	Villa Carlton	Ground Floor[1]
NM6	Government Quarters	Rooftop of Refuse Collection Station
NM7	Garden Villa	Rooftop

Note: [1] The noise measurement was taken at 2.3m above the ground floor of Villa Carlton, where has a line of sight of the construction site in the opposite.

Monitoring Equipment

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

Table 3.2 Noise Monitoring Equipment

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

Monitoring Parameters, Frequency and Duration

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

Table 3.3 Noise Monitoring Parameters, Frequency and Duration

Station	Parameter	Period[1]	Frequency	Measurement
NM1	L_{10}(30 min.)dB(A) L_{90}(30 min.)dB(A) L_{eq}(30 min.)dB(A)	(a) 0700-1900 hrs. on weekdays (b) 1900-2300 hrs. on weekdays (c) 0700-2300 hrs. on holidays (d) 2300-0700 hrs on any days	Once per week	Façade
NM5				Façade
NM6				Free Field
NM7				Façade

Note: [1](b), (c) and (d) will only be conducted if construction works are undertaken during these periods.

Monitoring Methodology and QA/QC Procedures

- The Sound Level Meter was generally set on a tripod at a height of 1.2 m above the ground, depending to the actual monitoring condition.
- For free field measurement (if any), the meter was positioned away from any nearby reflective surfaces. All records for free field noise levels were adjusted with a correction of +3 dB(A).
- The battery condition was checked to ensure the correct functioning of the meter.
- Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:
  - frequency weighting : A
  - time weighting : Fast
  - time measurement : 30 minutes / 5 minutes
- Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement was more than 1.0 dB, the measurement would be considered invalid and repeat of noise measurement would be required after re-calibration or repair of the equipment.
- The wind speed was frequently checked with the portable wind meter.

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

Maintenance and Calibration

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

Results and Observations

3.10 Noise monitoring was performed at the four designated locations during the daytime period (0700-1900 hours) as scheduled in this reporting month. Restricted-hour monitoring was also conducted at NM5, NM6 and NM7.

3.11 All the Construction Noise Levels (CNLs), except the monitoring (0700-1900 on weekdays) at NM1 and NM6, reported in this report were adjusted with the corresponding baseline level, in order to facilitate the interpretation of the noise exceedance.

3.12 Noise monitoring results and graphical presentations are shown in **Appendix G**.

3.13 No Action/Limit Level exceedance for noise monitoring was recorded in the reporting month.

4. ENVIRONMENTAL AUDIT

Site Audits

4.1 Site audits were carried out on a weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures in the Project site. The summaries of site audits are attached in **Appendix I**.

4.2 Site audits were conducted on 3rd, 12th, 19th and 26th July 2006 by ET. The audit session on 3rd July 2006 was conducted with the representatives of HyD, IEC, ER, the Contractor and ET.

Review of Environmental Monitoring Procedures

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

Air Quality Monitoring

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

Noise Monitoring

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

Status of Environmental Licensing and Permitting

4.4 All permits/licenses obtained for the Project are summarized in **Table 4.1**. One new CNP was issued to the Project by EPD in the reporting month.

Implementation Status of Environmental Mitigation Measures

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

Table 4.1 Summary of Environmental Licensing and Permit Status

Permit No.	Valid Period		Details	Status
	From	To		
Environmental Permit (EP)				
EP-103/2001/C	22/07/05	N/A	Construction and operation of (a) All civil works (including highways, traffic, geotechnical, drainage, structural, architectural and landscaping works) for the Lai Chi Kok Viaduct, the interchange with Ching Cheung Road, the main road within Butterfly Valley and the Eagle's Nest Tunnel; (b) All E&M works (including ventilation, Traffic Control & Surveillance System (TCSS), toll collection system and lighting) for the whole Route 9 between Cheung Sha Wan and Sha Tin; I The permanent slope works above the northern portal of the Eagle's Nest Tunnel; (d) The architectural works (including fitting out and furnishings) of the portal buildings of the Sha Tin Heights Tunnel.	Valid
Registration of Chemical Waste Producer				
WPN 5213-761-L2595-01	26/01/04	N/A	N/A	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-RW0043-06	6/2/06	5/8/06	*Location*: Ventilation Adit *Time period*: General holiday (including Sundays) between 0700 and 2300 hours, and any other day between 1900 and 2300 hours.	Expired
GW-RN0143-06	3/4/06	2/10/06	*Location:* ENT South Portal Site at Butterfly Valley *Time period:* any day between 2300 and 0700 on next day	Valid
GW-RN0150-06	4/04/06	3/10/06	*Location:* ENT Tunnel North Portal Site near Garden Villa *Time period:* Any day not being a general holiday including Sundays between 1900 and 2300	Valid
GW-RN0151-06	3/4/06	2/10/06	*Location:* ENT North Portal Site near Garden Villa *Time period*: Any day between 2300 and 0700 on next day	Valid

Permit No.	Valid Period		Details	Status
	From	To		
GW-RW0178-06	8/4/06	7/10/06	*Location: Butterfly Valley* *Time period:* General holiday (including Sundays) between 0700 and 2300 and any day not being a general holiday between 1900 and 2300	Valid
GW-RN0222-06	11/5/06	10/11/06	*Location:* Toll Plaza Administration Building *Time period:* Normal weekdays between 1900 and 2300 and general holidays included Sunday between 0900 and 2300	Valid
GW-RN0226-06	11/5/06	10/11/06	*Location:* South Portal *Time period:* Normal weekdays between 1900 and 2300 and general holidays included Sunday between 0900 and 2300	Valid
GW-RN0281-06	8/6/06	7/12/06	*Location:* Tunnel North Portal near Tai Po Road and Keng Hau Road *Time period:* Any day between 2300 and 0700 on next day.	Valid
GW-RN0282-06	8/6/06	7/12/06	*Location:* Tunnel South Portal near Garden Villa *Time period:* Any day between 2300 and 0700 on next day.	Valid
GW-RN0283-06	8/6/06	7/12/06	*Location:* Tunnel South Portal near Garden Villa *Time period:* General holiday including Sundays between 0900 and 2300 and any day not being a general holiday including Sundays between 1900 and 2300.	Valid
GW-RN0284-06	8/6/06	7/12/06	*Location:* Tunnel North Portal near Tai Po Road and Keng Hau Road *Time period:* General holiday including Sundays between 0900 and 2300 and any day not being a general holiday including Sundays between 1900 and 2300.	Valid
GW-RW0392-06	6/8/06	5/2/07	*Location:* Tai Po Road Shell Petrol Filling Station and opposite to Villa Carlton *Time Period*: General holidays including Sundays between 0700-2300 and any day not being a general holiday between 1900-2300	Valid (new)

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

4.7 Spot checking of truck overloading was also conducted during the environmental audits since June 2006. No overloading incident was observed during site inspection.

Summary of Exceedances

1-hr and 24-hr TSP Monitoring

4.8 No Action/Limit Level exceedance for both 1-hour TSP and 24-hour TSP was recorded in the reporting month.

Construction noise

4.9 No Action/Limit Level exceedance for noise monitoring was recorded in the reporting month.

Table 4.2 Observations and Recommendations of Site Audit

Parameters	Date	Observations / Recommendations	Remedial Actions
Water Quality	3-Jul-06	Accumulation of stagnant water was observed at the area of Portion D4, Toll Plaza. The Contractor was reminded to spray larvicide or fill up with soil/sand onto stagnant water to prevent mosquito from breeding.	Rectification / improvement was observed during the site inspection on 12 July 06.
	19-Jul-06	The contractor was reminded to clean up the sand if available in step channel at Mui Kong Tsuen.	Rectification / improvement was observed during the site inspection on 26 July 06.
	19-Jul-06	The contractor was reminded to provide completely cover for the open slope and open stockpiles in BVS3.	Rectification / improvement was observed during the site inspection on 26 July 06.
Noise Quality	19-Jul-06	No door for operating generator was observed at Mui Kong Tsuen.	Rectification / improvement was observed during the site inspection on 26 July 06.
Waste/Chemical Management	3-Jul-06	Chemical drums and generator were placed on bare ground at the area of Portion D4 of Toll Plaza, DN200 of Portion E5 and Ventilation Adit. The Contractor was reminded to provide drip trays preventing oil/chemical from leakage.	Rectification / improvement was observed during the site inspection on 12 July 06.
	19-Jul-06	No drip tray for a drum of admixture was observed at administration building.	Rectification / improvement was observed during the site inspection on 26 July 06.
	26-Jul-06	No drip tray for a drum of diesel oil was observed at BVS2. A drip tray should be provided to prevent spillage.	The environmental situation would be followed in Aug 06.

Implementation Status of Event Action Plans

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

Summary of Complaints and Prosecutions

4.11 No environmental related complaint or prosecution was received in the reporting month.

4.12 There were 22 environmental complaints and no prosecution received since the commencement of the Project. The updated Complaint Log is shown in **Appendix M**.

5. FUTURE KEY ISSUES

Key Issues for the Coming Month

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

- Surface runoff at works area during rainy season;
- Potential dust emission from slope works and haul road construction at Butterfly Valley, soil nailing and vehicle movement on haul roads;
- Noise generation from concreting and installation works at South Portal Building and Ventilation Building; and
- Accumulation of standing water after heavy rainfall.

Monitoring Schedule for the Next Month

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

Construction Program for the Next Month

5.3 The tentative construction program for the Project is provided in **Appendix L**. The major construction activities in the coming months include:

ENT Tunnel
- HV cable trough sand backfilling activities, E&M cabling and dampers.

Butterfly Valley
- Cut slope and haul road, soil nailing/rock dowel, drainage works and road works.

South Portal Building
- Metal door installation, plastering, rendering, plumbing and drainage.

North Portal Building
- Louvre & door installation, plastering, screeding and painting rendering.

Toll Plaza's Structures and Administration Building
- Drainage works, footbridge and toll collector construction and utility (draw pit/ducting).

Ventilation Adit Tunnel and Building
- Concreting of staircase and wing wall, water-mains crossing Tai Po Road and painting.

Other Works Areas
- E&M installation works within SHT/T3 works area.

6. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

6.1 Environmental monitoring works were performed in the reporting month and all monitoring results were checked and reviewed.

6.2 No Action/Limit Level exceedance for 1-hour TSP and 24-hours TSP was recorded in the reporting month.

6.3 No Action/Limit Level exceedance for noise monitoring was recorded in the reporting month.

6.4 No environmental complaint or prosecution was received in the reporting month.

Recommendations

6.5 According to the environmental audit performed in the reporting month, 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.

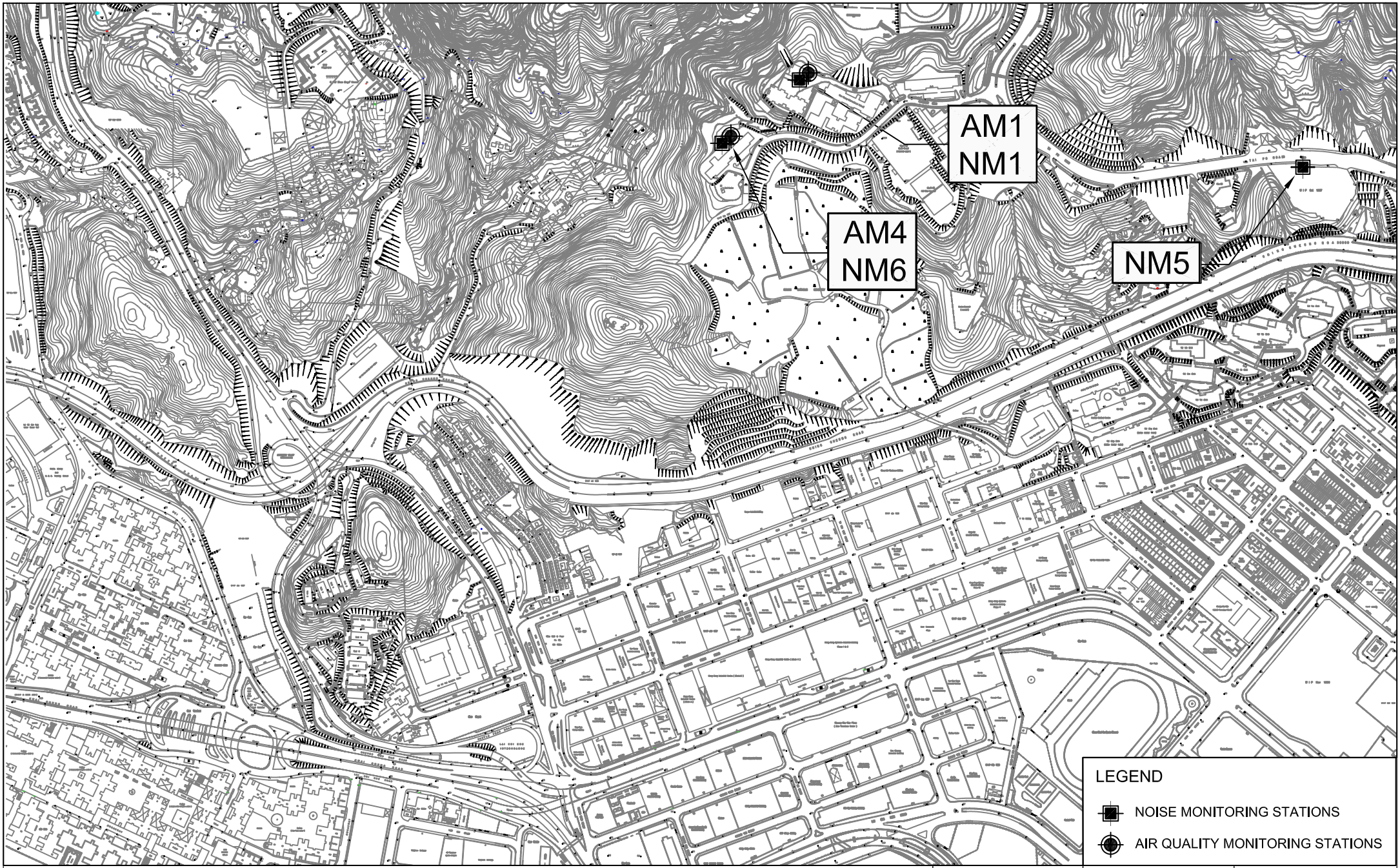
Noise Impact

- 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.
- To provide a training/briefing sessions for handling potential contaminants or chemical wastes to sub-contractor/worker if always reoccurrence of the same item of environmental deficiencies

FIGURES



Title

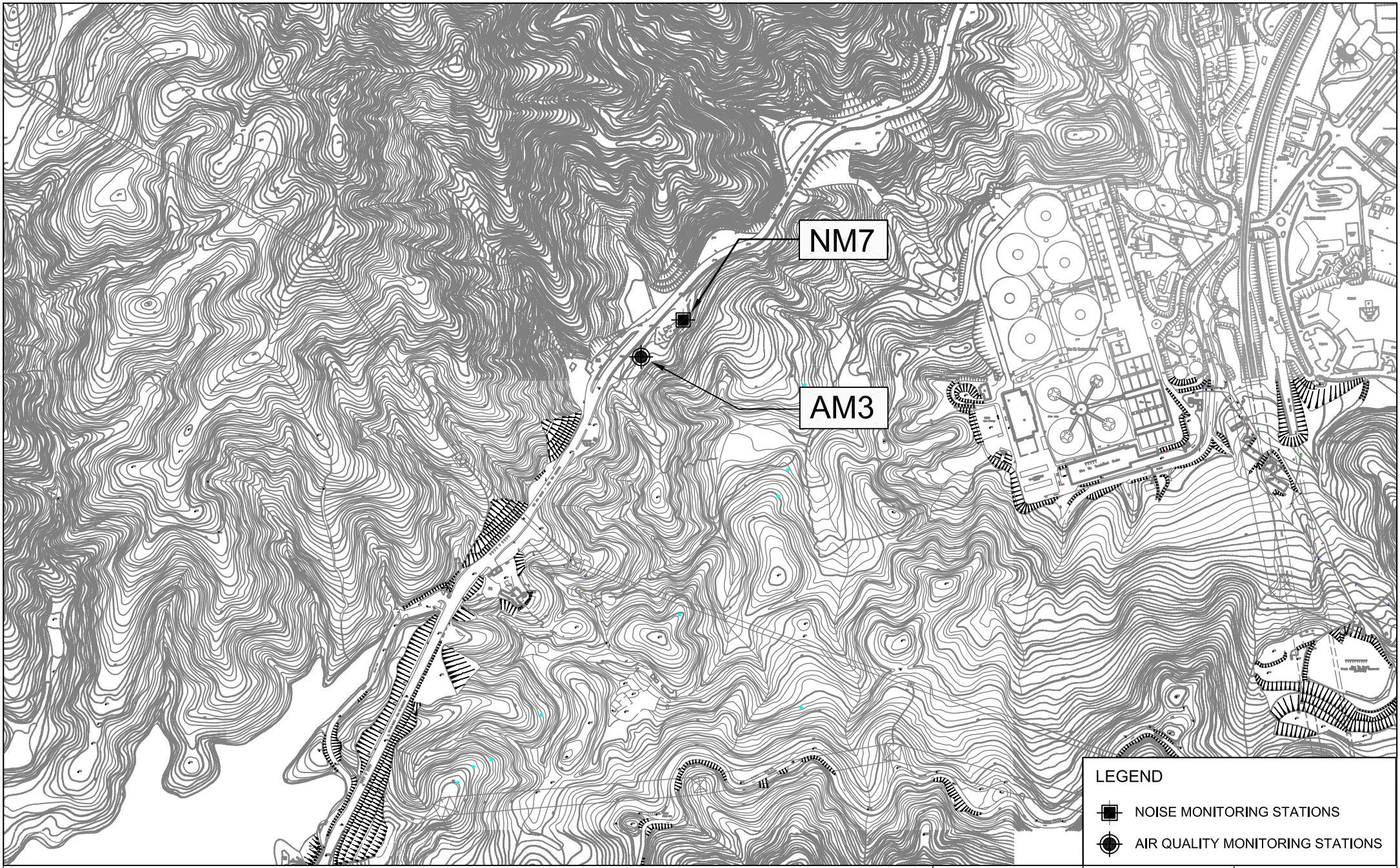
ROUTE 8 (PREVIOUSLY KNOWN AS ROUTE 9) BETWEEN CHEUNG SHA WAN AND SHA TIN
CONTRACT NO. HY/2003/02 - EAGLE'S NEST TUNNEL AND ASSOCIATED WORKS

LOCATIONS OF MONITORING STATIONS

Scale	Project No.
1 : 6500 (A4)	MA3024
Date	Figure No.
2006	1a

CINOTECH consultants limited

F:\PEOJECTS\MA3024\DRAWING\IMPACT\ENT\FIGURE 1a.DWG



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	Project No.
1 : 6500 (A4)	MA3024
Date	Figure No.
2006	1b

CINOTECH consultants limited

F:\PEOJECTS\MA3024\DRAWING\IMPACT\ENT\FIGURE 1b.DWG

APPENDIX A
ACTION AND LIMIT LEVELS

Appendix A - Action and Limit Levels (ENT)

1-Hour TSP

Location	Action Level, µg/m^3	Limit Level, µg/m^3
AM1	296	500
AM3	350	
AM4	294	

24-Hour TSP

Location	Action Level, µg/m^3	Limit Level, µg/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 reduced to 65 dB(A) during school examination periods.

APPENDIX B
COPIES OF CALIBRATION CERTIFCATES

High-Volume TSP Sampler
5-POINT CALIBRATION DATA SHEET

CINOTECH

File No. MA3024/18/0017

Station: Po Leung Kuk Choi Kai Yau School
Operator: WK
Date: 24-May-06
Next Due Date: 23-Jul-06
Equipment No.: A-01-18
Serial No. 0723

Ambient Condition			
Temperature, Ta (K)	301.8	Pressure, Pa (mmHg)	761.7

Orifice Transfer Standard Information					
Equipment No.:	A-04-04	Slope, mc	0.0575	Intercept, bc	0.0395
Last Calibration Date:	13-Mar-06	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	12-Mar-07	$Qstd = \{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of oil	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ **Y-axis**
1	13.4	3.64	62.64	8.6	2.92
2	10.1	3.16	54.30	6.5	2.54
3	8.7	2.93	50.34	5.3	2.29
4	5.6	2.35	40.25	3.2	1.78
5	3.4	1.83	31.21	1.8	1.33

By Linear Regression of Y on X

Slope , mw = 0.0509 **Intercept, bw =** -0.2579

Correlation coefficient* = 0.9995

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 43 CFM

From the Regression Equation, the "Y" value according to

$$mw \times Qstd + bw = [\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$$

Therefore, Set Point; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ **3.76**

Remarks:

Conducted by: W.K. Tang Signature: Date: 24 May 06

Checked by: Signature: Date: 24 May 2006

F:\Equipment\Calibration\HVS\A-01-18\20060524

High-Volume TSP Sampler
5-POINT CALIBRATION DATA SHEET

CINOTECH

File No. MA3024/18/0018

Station: Po Leung Kuk Choi Kai Yau School
Date: 20-Jul-06
Equipment No.: A-01-18

Operator: WK
Next Due Date: 19-Sep-06
Serial No. 0723

Ambient Condition			
Temperature, Ta (K)	302.9	Pressure, Pa (mmHg)	757

Orifice Transfer Standard Information					
Equipment No.:	A-04-04	Slope, mc	0.0575	Intercept, bc	0.0395
Last Calibration Date:	13-Mar-06	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	12-Mar-07	$Qstd = \{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of oil	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ **Y-axis**
1	13.0	3.57	61.39	7.5	2.71
2	10.7	3.24	55.63	6.1	2.44
3	8.6	2.90	49.80	5.0	2.21
4	5.4	2.30	39.32	3.0	1.71
5	3.0	1.71	29.13	2.0	1.40

By Linear Regression of Y on X

Slope , mw = 0.0413 **Intercept, bw :** 0.1545

Correlation coefficient* = 0.9972

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 43 CFM

From the Regression Equation, the "Y" value according to

$$mw \times Qstd + bw = [\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$$

Therefore, Set Point; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ **3.80**

Remarks:

Conducted by: W.K. Tang Signature: [signature] Date: 20/7/06
Checked by: [signature] Signature: [signature] Date: 20 July 06

High-Volume TSP Sampler
5-POINT CALIBRATION DATA SHEET

CINOTECH

File No. MA2027/A14/0018

Station: Garden Vilia | Operator: WK

Date: 7-Jun-06 | Next Due Date: 6-Aug-06

Equipment No.: A-01-14 | Serial No. 1354

Ambient Condition			
Temperature, Ta (K)	302.2	Pressure, Pa (mmHg)	755.8

Orifice Transfer Standard Information					
Equipment No.:	A-04-04	Slope, mc	0.0575	Intercept, bc	0.0395
Last Calibration Date:	13-Mar-06	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	12-Mar-07	$Qstd = \{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of oil	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ **Y-axis**
1	12.1	3.44	59.22	7.4	2.69
2	9.7	3.08	52.95	5.6	2.34
3	7.3	2.68	45.84	4.2	2.03
4	5.2	2.26	38.59	2.9	1.69
5	3.1	1.74	29.64	1.9	1.37

By Linear Regression of Y on X

Slope , mw = 0.0449 **Intercept, bw :** -0.0062

Correlation coefficient* = 0.9972

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 43 CFM

From the Regression Equation, the "Y" value according to

$$mw \times Qstd + bw = [\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$$

Therefore, Set Point; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ 3.77

Remarks:

Conducted by: K. K. Tang Signature: Date: 7 Jun 06

Checked by: Signature: Date: 7 June 06

High-Volume TSP Sampler
5-POINT CALIBRATION DATA SHEET

CINOTECH

File No. MA3024/17/0019

Station: Government Quarter
Operator: WK
Date: 24-May-06
Next Due Date: 23-Jul-06
Equipment No.: A-01-17
Serial No. 3460

Ambient Condition			
Temperature, Ta (K)	301.8	Pressure, Pa (mmHg)	761.7

Orifice Transfer Standard Information					
Equipment No.:	A-04-04	Slope, mc	0.0575	Intercept, bc	0.0395
Last Calibration Date:	13-Mar-06	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	12-Mar-07	$Qstd = \{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of oil	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ **Y-axis**
1	13.6	3.67	63.12	8.5	2.90
2	10.6	3.24	55.64	6.6	2.56
3	8.0	2.81	48.25	4.8	2.18
4	5.6	2.35	40.25	3.3	1.81
5	3.5	1.86	31.68	2.1	1.44

By Linear Regression of Y on X

Slope , mw = 0.0468 **Intercept, bw =** -0.0599

Correlation coefficient* = 0.9996

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 43 CFM

From the Regression Equation, the "Y" value according to

$$mw \times Qstd + bw = [\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$$

Therefore, Set Point; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ **3.85**

Remarks:

Conducted by: W.K. Tang Signature: Date: 24 May 06
Checked by: Signature: Date: 24 May 06

High-Volume TSP Sampler
5-POINT CALIBRATION DATA SHEET

CINOTECH

File No. MA3024/17/0020

Station: Government Quarter
Operator: WK
Date: 20-Jul-06
Next Due Date: 19-Sep-06
Equipment No.: A-01-17
Serial No. 3460

Ambient Condition			
Temperature, Ta (K)	302.9	Pressure, Pa (mmHg)	757

Orifice Transfer Standard Information					
Equipment No.:	A-04-04	Slope, mc	0.0575	Intercept, bc	0.0395
Last Calibration Date:	13-Mar-06	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	12-Mar-07	$Qstd = \{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of oil	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ **Y-axis**
1	12.6	3.51	60.42	7.2	2.66
2	10.7	3.24	55.63	6.4	2.50
3	8.1	2.82	48.31	5.1	2.24
4	4.3	2.05	35.01	3.0	1.71
5	3.2	1.77	30.11	2.1	1.43

By Linear Regression of Y on X

Slope , mw = 0.0398 **Intercept, bw =** 0.2817

Correlation coefficient* = 0.9974

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 43 CFM

From the Regression Equation, the "Y" value according to

$$mw \times Qstd + bw = [\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$$

Therefore, Set Point; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ **4.06**

Remarks:

Conducted by: Wai Tang Signature: Kwan Date: 20/7/06
Checked by: Signature: Date: 20 July 06

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

TEST REPORT

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

ATTN: **Mr. Henry Leung**

Test Report No.:	C/06/60502
Date of Issue:	2006-05-02
Date Received:	2006-05-01
Date Tested:	2006-05-01
Date Completed:	2006-05-02
Page:	1 of 1

Certificate of Calibration

Item for calibration:

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

Test conditions:

Room Temperature	: 21 degree Celsius
Relative Humidity	: 66%
Pressure	: 1018.4 kPa

Methodology:

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

Results:

	Reference Set Point	Instrument Readings
Measuring Air Velocity, m/s	2.00	2.00
Temperature, °C	21.0	21.0

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

Patrick.

PATRICK TSE
Laboratory Manager

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

AIR POLLUTION MONITORING EQUIPMENT

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

Date - Mar 13, 2006 Rootsmeter S/N 9833620 Ta (K) - 294
Operator Tisch Orifice I.D. - 0993 Pa (mm) - 746.76

PLATE OR Run #	VOLUME START (m3)	VOLUME STOP (m3)	DIFF VOLUME (m3)	DIFF TIME (min)	METER DIFF Hg (mm)	ORFICE DIFF H2O (in.)
1	NA	NA	1.00	1.3890	3.2	2.00
2	NA	NA	1.00	0.9850	6.3	4.00
3	NA	NA	1.00	0.8810	7.8	5.00
4	NA	NA	1.00	0.8410	8.6	5.50
5	NA	NA	1.00	0.6950	12.5	8.00

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)		Va	(x axis) Qa	(y axis)
0.9917	0.7139	1.4113		0.9957	0.7168	0.8874
0.9876	1.0026	1.9959		0.9916	1.0067	1.2549
0.9854	1.1185	2.2315		0.9894	1.1231	1.4030
0.9844	1.1706	2.3405		0.9884	1.1753	1.4715
0.9792	1.4090	2.8227		0.9832	1.4147	1.7747
Qstd slope (m) =		2.03154		Qa slope (m) =		1.27212
intercept (b) =		-0.03970		intercept (b) =		-0.02496
coefficient (r) =		0.99999		coefficient (r) =		0.99999
y axis = SQRT[H2O(Pa/760)(298/Ta)]				y axis = SQRT[H2O(Ta/Pa)]		

CALCULATIONS

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

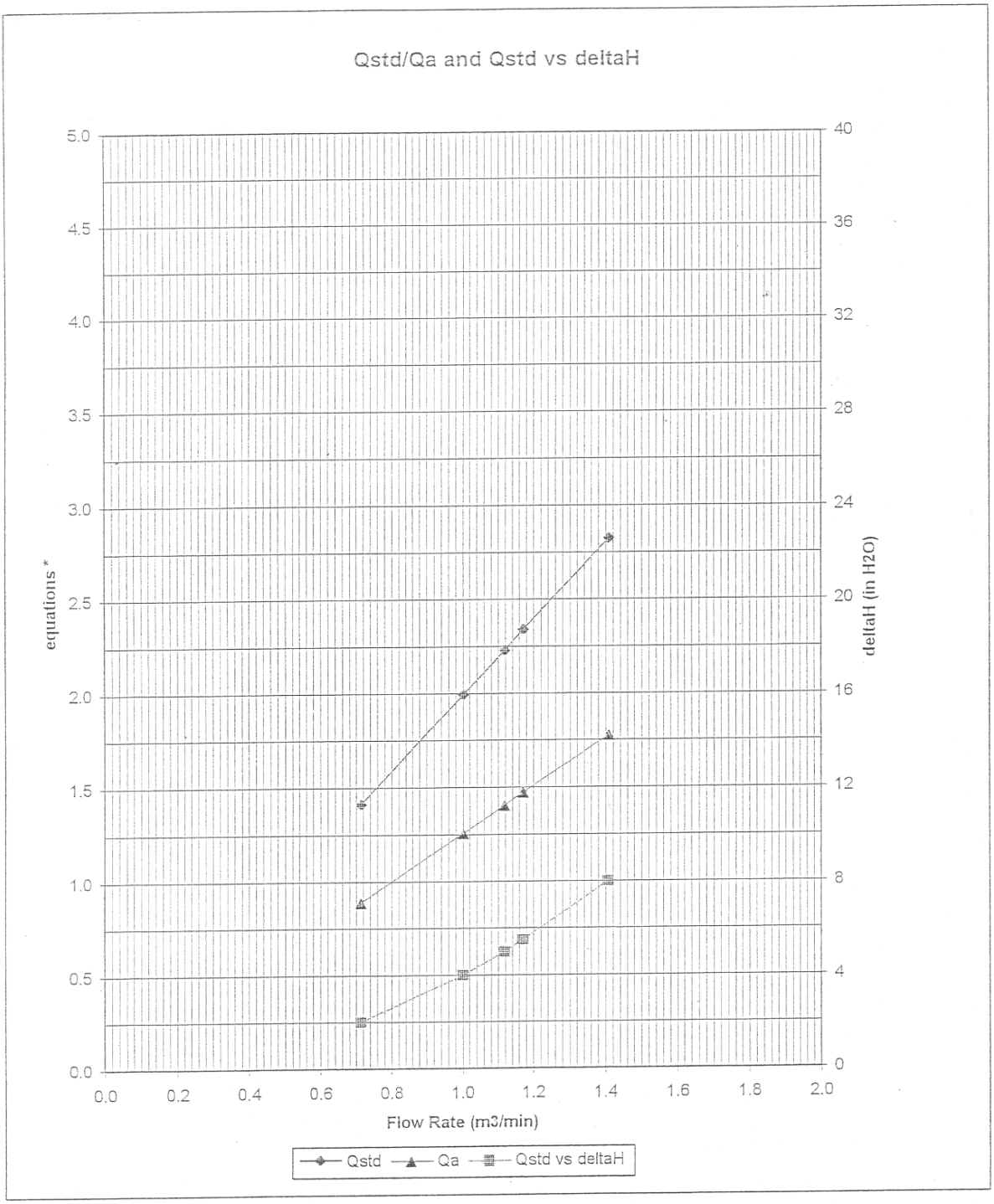
Va = Diff Vol [(Pa-Diff Hg)/Pa]
Qa = Va/Time

For subsequent flow rate calculations:

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

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

AIR POLLUTION MONITORING EQUIPMENT



* y-axis equations:

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

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

#0993

WELLAB LTD.

Unit C, 1/F, Goldlion Holdings Center
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Shatin, Hong Kong.
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Fax: (852) 2898 7076

TEST REPORT

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

ATTN: **Mr. Henry Leung**

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

Certificate of Calibration

Item for calibration:

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

Test conditions:

Room Temperatre	: 20 degree Celsius
Relative Humidity	: 63%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

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

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

Patrick

PATRICK TSE
Operation Manager

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

TEST REPORT

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

ATTN: **Mr. Henry Leung**

Test Report No.:	C/N/51116/1
Date of Issue:	2005-11-16
Date Received:	2005-11-15
Date Tested:	2005-11-15
Date Completed:	2005-11-16
Next Due Date:	2006-11-15
Page:	1 of 1

Certificate of Calibration

Item for calibration:

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

Test conditions:

Room Temperatre	: 20 degree Celsius
Relative Humidity	: 60%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

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

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

Patrick.

PATRICK TSE
Operation Manager

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

TEST REPORT

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

ATTN: **Mr. Henry Leung**

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

Certificate of Calibration

Item for calibration:

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

Test conditions:

Room Temperatre	: 22 degree Celsius
Relative Humidity	: 65%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

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

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

Patrick.

PATRICK TSE
Laborary Manager

WELLAB LTD.

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

TEST REPORT

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

ATTN: **Mr. Henry Leung**

Test Report No.:	C/N/50905-2
Date of Issue:	2005-09-06
Date Received:	2005-09-05
Date Tested:	2005-09-05
Date Completed:	2005-09-06
Next Due Date:	2006-09-05
Page:	1 of 1

Certificate of Calibration

Item for calibration:

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

Test conditions:

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

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

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

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

Patrick.

PATRICK TSE
Operation Manager

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TEST REPORT

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

ATTN: **Mr. Henry Leung**

Test Report No.:	C/N/51015/1
Date of Issue:	2005-10-15
Date Received:	2005-10-13
Date Tested:	2005-10-14
Date Completed:	2005-10-15
Next Due Date:	2006-10-14
Page:	1 of 1

Certificate of Calibration

Item for calibration:

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

Test conditions:

Room Temperatre	: 22 degree Celsius
Relative Humidity	: 65%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

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

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

Patrick.

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Shatin, Hong Kong.
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TEST REPORT

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

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

ATTN: **Mr. Henry Leung**

Item for calibration:

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

Test conditions:

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

Methodology:

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

Results:

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

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

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Shatin, Hong Kong.
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TEST REPORT

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

Test Report No.:	C/06/60304
Date of Issue:	2006-03-04
Date Received:	2006-03-03
Date Tested:	2006-03-03
Date Completed:	2006-03-04
Next Due Date:	2007-03-04

ATTN: **Mr. Henry Leung**

Page: 1 of 1

Item for calibration:

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

Test conditions:

Room Temperatre	: 20 degree Celsius
Relative Humidity	: 71%
Pressure	: 1020.1hPa

Methodology:

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

Results:

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

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

Patrick.

PATRICK TSE
Operation Manager

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13-15 Yuen Shun Circuit,
Shatin, Hong Kong.
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TEST REPORT

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

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

ATTN: **Mr. Henry Leung**

Item for calibration:

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

Test conditions:

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

Methodology:

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

Results:

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

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

Patrick.

PATRICK TSE
Operation Manager

APPENDIX C
ENVIRONMENTAL MONITORING AND AUDIT SCHEDULE

Environmental Monitoring for Eagle's Nest Tunnel
Tentative Air Quality and Noise Monitoring Schedule for July 2006

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

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

AM1	Yew Chung International School /Po Leung Kuk Choi Kai Yau School
AM3	Garden Villa
AM4	Government Quarters

NM1	Yew Chung International School /Po Leung Kuk Choi Kai Yau School
NM5	Villa Carlton
NM6	Government Quarters
NM7	Garden Villa

Environmental Monitoring for Eagle's Nest Tunnel
Tentative Air Quality and Noise Monitoring Schedule for August 2006

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

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

AM1	Yew Chung International School /Po Leung Kuk Choi Kai Yau School
AM3	Garden Villa
AM4	Government Quarters

NM1	Yew Chung International School /Po Leung Kuk Choi Kai Yau School
NM5	Villa Carlton
NM6	Government Quarters
NM7	Garden Villa

APPENDIX D
WIND DATA

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
1-Jul-2006	00:00	0.9	ENE
1-Jul-2006	01:00	1.3	ENE
1-Jul-2006	02:00	0.9	ENE
1-Jul-2006	03:00	0.9	E
1-Jul-2006	04:00	0.9	NE
1-Jul-2006	05:00	0.4	NNE
1-Jul-2006	06:00	0.4	E
1-Jul-2006	07:00	0	E
1-Jul-2006	08:00	0	E
1-Jul-2006	09:00	0	E
1-Jul-2006	10:00	0.4	SE
1-Jul-2006	11:00	0.4	E
1-Jul-2006	12:00	0.9	ENE
1-Jul-2006	13:00	0.9	ESE
1-Jul-2006	14:00	0.9	E
1-Jul-2006	15:00	1.3	SSE
1-Jul-2006	16:00	0.9	WSW
1-Jul-2006	17:00	0.4	SW
1-Jul-2006	18:00	0.4	WSW
1-Jul-2006	19:00	0.9	ENE
1-Jul-2006	20:00	0	SSW
1-Jul-2006	21:00	0	SSW
1-Jul-2006	22:00	0	---
1-Jul-2006	23:00	0	SSW
2-Jul-2006	00:00	0	SSW
2-Jul-2006	01:00	0	---
2-Jul-2006	02:00	0	---
2-Jul-2006	03:00	0	---
2-Jul-2006	04:00	0	SSW
2-Jul-2006	05:00	0.4	ENE
2-Jul-2006	06:00	0.4	ENE
2-Jul-2006	07:00	0.4	---
2-Jul-2006	08:00	0.4	ENE
2-Jul-2006	09:00	0.4	ENE
2-Jul-2006	10:00	0.4	WSW
2-Jul-2006	11:00	0.4	ENE
2-Jul-2006	12:00	0.4	WSW
2-Jul-2006	13:00	0.9	NE
2-Jul-2006	14:00	0.9	WSW
2-Jul-2006	15:00	0.9	SW
2-Jul-2006	16:00	0.4	SW
2-Jul-2006	17:00	0.4	S
2-Jul-2006	18:00	0.4	E
2-Jul-2006	19:00	0	ENE
2-Jul-2006	20:00	0	SE
2-Jul-2006	21:00	0	ESE
2-Jul-2006	22:00	0	NE
2-Jul-2006	23:00	0	---
3-Jul-2006	00:00	0	NE
3-Jul-2006	01:00	0	---
3-Jul-2006	02:00	0	---
3-Jul-2006	03:00	0	ENE
3-Jul-2006	04:00	0	E
3-Jul-2006	05:00	0	---

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
3-Jul-2006	06:00	0	---
3-Jul-2006	07:00	0	E
3-Jul-2006	08:00	0.4	ENE
3-Jul-2006	09:00	0	N
3-Jul-2006	10:00	0.9	NE
3-Jul-2006	11:00	0.4	SW
3-Jul-2006	12:00	0.4	SE
3-Jul-2006	13:00	0.4	S
3-Jul-2006	14:00	0.4	SW
3-Jul-2006	15:00	0.4	S
3-Jul-2006	16:00	0.4	WSW
3-Jul-2006	17:00	0.4	NE
3-Jul-2006	18:00	0	NE
3-Jul-2006	19:00	0.4	SW
3-Jul-2006	20:00	0	SW
3-Jul-2006	21:00	0	---
3-Jul-2006	22:00	0	SSE
3-Jul-2006	23:00	0	E
4-Jul-2006	00:00	0	SE
4-Jul-2006	01:00	0	---
4-Jul-2006	02:00	0	---
4-Jul-2006	03:00	0	---
4-Jul-2006	04:00	0	---
4-Jul-2006	05:00	0.4	---
4-Jul-2006	06:00	0.4	---
4-Jul-2006	07:00	0.4	---
4-Jul-2006	08:00	0.4	SE
4-Jul-2006	09:00	0.4	ESE
4-Jul-2006	10:00	0.4	SW
4-Jul-2006	11:00	0.4	SW
4-Jul-2006	12:00	0.9	SSW
4-Jul-2006	13:00	0.9	SW
4-Jul-2006	14:00	0.9	SW
4-Jul-2006	15:00	1.3	SW
4-Jul-2006	16:00	0.9	SW
4-Jul-2006	17:00	0.4	NE
4-Jul-2006	18:00	0.4	SSW
4-Jul-2006	19:00	0	WNW
4-Jul-2006	20:00	0	SW
4-Jul-2006	21:00	0	SW
4-Jul-2006	22:00	0	---
4-Jul-2006	23:00	0	SW
5-Jul-2006	00:00	0	E
5-Jul-2006	01:00	0	---
5-Jul-2006	02:00	0	---
5-Jul-2006	03:00	0	---
5-Jul-2006	04:00	0	E
5-Jul-2006	05:00	0	---
5-Jul-2006	06:00	0	E
5-Jul-2006	07:00	0	ENE
5-Jul-2006	08:00	0	---
5-Jul-2006	09:00	0	---
5-Jul-2006	10:00	0.9	N
5-Jul-2006	11:00	0.9	NE

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
5-Jul-2006	12:00	0.9	---
5-Jul-2006	13:00	0.9	SSW
5-Jul-2006	14:00	0.9	SW
5-Jul-2006	15:00	0.4	SW
5-Jul-2006	16:00	0.4	NNE
5-Jul-2006	17:00	0.4	N
5-Jul-2006	18:00	0.4	N
5-Jul-2006	19:00	0	WSW
5-Jul-2006	20:00	0	WSW
5-Jul-2006	21:00	0	WSW
5-Jul-2006	22:00	0	WSW
5-Jul-2006	23:00	0	SW
6-Jul-2006	00:00	0	---
6-Jul-2006	01:00	0	SW
6-Jul-2006	02:00	0	---
6-Jul-2006	03:00	0	SW
6-Jul-2006	04:00	0	SW
6-Jul-2006	05:00	0	---
6-Jul-2006	06:00	0	---
6-Jul-2006	07:00	0	SW
6-Jul-2006	08:00	0	---
6-Jul-2006	09:00	0	WSW
6-Jul-2006	10:00	0.9	WSW
6-Jul-2006	11:00	1.3	W
6-Jul-2006	12:00	1.3	WNW
6-Jul-2006	13:00	1.3	NNW
6-Jul-2006	14:00	0.9	WNW
6-Jul-2006	15:00	0.9	N
6-Jul-2006	16:00	0.4	N
6-Jul-2006	17:00	0	WSW
6-Jul-2006	18:00	0	W
6-Jul-2006	19:00	0.4	SW
6-Jul-2006	20:00	0.4	SW
6-Jul-2006	21:00	0.4	SW
6-Jul-2006	22:00	0.4	SW
6-Jul-2006	23:00	0.4	---
7-Jul-2006	00:00	0.4	---
7-Jul-2006	01:00	0.4	SW
7-Jul-2006	02:00	0	SW
7-Jul-2006	03:00	0	---
7-Jul-2006	04:00	0	---
7-Jul-2006	05:00	0	SW
7-Jul-2006	06:00	0	SW
7-Jul-2006	07:00	0	---
7-Jul-2006	08:00	0	SW
7-Jul-2006	09:00	0	SW
7-Jul-2006	10:00	0	SW
7-Jul-2006	11:00	0.4	WNW
7-Jul-2006	12:00	0	WNW
7-Jul-2006	13:00	0.4	WNW
7-Jul-2006	14:00	0.4	W
7-Jul-2006	15:00	1.3	ENE
7-Jul-2006	16:00	0	ENE
7-Jul-2006	17:00	0	ENE

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
7-Jul-2006	18:00	0	SW
7-Jul-2006	19:00	0	---
7-Jul-2006	20:00	0	SW
7-Jul-2006	21:00	0	ENE
7-Jul-2006	22:00	0	ENE
7-Jul-2006	23:00	0	---
8-Jul-2006	00:00	0	ENE
8-Jul-2006	01:00	0.4	SW
8-Jul-2006	02:00	0	NE
8-Jul-2006	03:00	0	ENE
8-Jul-2006	04:00	0.4	W
8-Jul-2006	05:00	0.4	SW
8-Jul-2006	06:00	0.4	SSW
8-Jul-2006	07:00	0.4	NE
8-Jul-2006	08:00	0.4	N
8-Jul-2006	09:00	0	SW
8-Jul-2006	10:00	0.4	ESE
8-Jul-2006	11:00	0.9	W
8-Jul-2006	12:00	0.9	SW
8-Jul-2006	13:00	0.9	W
8-Jul-2006	14:00	0.4	W
8-Jul-2006	15:00	0.4	W
8-Jul-2006	16:00	0.9	W
8-Jul-2006	17:00	0.9	N
8-Jul-2006	18:00	0.9	N
8-Jul-2006	19:00	0	NE
8-Jul-2006	20:00	0	ENE
8-Jul-2006	21:00	0	ENE
8-Jul-2006	22:00	0	ESE
8-Jul-2006	23:00	0	ESE
9-Jul-2006	00:00	0	SE
9-Jul-2006	01:00	0	SE
9-Jul-2006	02:00	0	SSE
9-Jul-2006	03:00	0	SSE
9-Jul-2006	04:00	0	SSE
9-Jul-2006	05:00	0.4	WSW
9-Jul-2006	06:00	0	W
9-Jul-2006	07:00	0	WNW
9-Jul-2006	08:00	0.4	WSW
9-Jul-2006	09:00	0.4	SSE
9-Jul-2006	10:00	0	SSE
9-Jul-2006	11:00	0.4	SSE
9-Jul-2006	12:00	0.4	ESE
9-Jul-2006	13:00	0.4	ESE
9-Jul-2006	14:00	0.4	SE
9-Jul-2006	15:00	0	SSE
9-Jul-2006	16:00	0	SSE
9-Jul-2006	17:00	0	NNE
9-Jul-2006	18:00	0	SW
9-Jul-2006	19:00	0	W
9-Jul-2006	20:00	0	---
9-Jul-2006	21:00	0	NE
9-Jul-2006	22:00	0	---
9-Jul-2006	23:00	0.4	ENE

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
10-Jul-2006	00:00	0.4	ENE
10-Jul-2006	01:00	0	ESE
10-Jul-2006	02:00	0.4	SW
10-Jul-2006	03:00	0.4	SE
10-Jul-2006	04:00	0.4	W
10-Jul-2006	05:00	0.4	N
10-Jul-2006	06:00	0.4	NE
10-Jul-2006	07:00	0.4	WNW
10-Jul-2006	08:00	0.4	NE
10-Jul-2006	09:00	0.4	SW
10-Jul-2006	10:00	0.4	SSW
10-Jul-2006	11:00	0.9	SW
10-Jul-2006	12:00	0.9	W
10-Jul-2006	13:00	1.3	NE
10-Jul-2006	14:00	0.9	WNW
10-Jul-2006	15:00	0.9	WNW
10-Jul-2006	16:00	0.9	WNW
10-Jul-2006	17:00	0.9	WNW
10-Jul-2006	18:00	0.4	ENE
10-Jul-2006	19:00	0	SE
10-Jul-2006	20:00	0	SE
10-Jul-2006	21:00	0	N
10-Jul-2006	22:00	0	ENE
10-Jul-2006	23:00	0	ENE
11-Jul-2006	00:00	0	N
11-Jul-2006	01:00	0	E
11-Jul-2006	02:00	0	NNE
11-Jul-2006	03:00	0	SE
11-Jul-2006	04:00	0	NNE
11-Jul-2006	05:00	0	E
11-Jul-2006	06:00	0	W
11-Jul-2006	07:00	0	NW
11-Jul-2006	08:00	0.4	NE
11-Jul-2006	09:00	0.4	NE
11-Jul-2006	10:00	0.9	ENE
11-Jul-2006	11:00	0.9	W
11-Jul-2006	12:00	0.9	SW
11-Jul-2006	13:00	0.9	NE
11-Jul-2006	14:00	0.9	SW
11-Jul-2006	15:00	0.4	W
11-Jul-2006	16:00	0.4	NE
11-Jul-2006	17:00	0.4	NE
11-Jul-2006	18:00	0	NE
11-Jul-2006	19:00	0	NE
11-Jul-2006	20:00	0	ESE
11-Jul-2006	21:00	0	ESE
11-Jul-2006	22:00	0	ESE
11-Jul-2006	23:00	0	SE
12-Jul-2006	00:00	0	SSE
12-Jul-2006	01:00	0	SSE
12-Jul-2006	02:00	0	---
12-Jul-2006	03:00	0	---
12-Jul-2006	04:00	0	---
12-Jul-2006	05:00	0	---

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
12-Jul-2006	06:00	0	---
12-Jul-2006	07:00	0	---
12-Jul-2006	08:00	0	SSE
12-Jul-2006	09:00	0.4	SSE
12-Jul-2006	10:00	0.4	SW
12-Jul-2006	11:00	0.4	SSW
12-Jul-2006	12:00	0.9	SW
12-Jul-2006	13:00	0.4	WSW
12-Jul-2006	14:00	0.9	SW
12-Jul-2006	15:00	0.4	SW
12-Jul-2006	16:00	0.9	SW
12-Jul-2006	17:00	0.4	SW
12-Jul-2006	18:00	0.4	SW
12-Jul-2006	19:00	0.4	NE
12-Jul-2006	20:00	0	ENE
12-Jul-2006	21:00	0	ENE
12-Jul-2006	22:00	0	SE
12-Jul-2006	23:00	0	E
13-Jul-2006	00:00	0	SSE
13-Jul-2006	01:00	0	SSE
13-Jul-2006	02:00	0	SSE
13-Jul-2006	03:00	0	SSE
13-Jul-2006	04:00	0	S
13-Jul-2006	05:00	0	S
13-Jul-2006	06:00	0.4	S
13-Jul-2006	07:00	0.4	S
13-Jul-2006	08:00	0.4	S
13-Jul-2006	09:00	0.4	ENE
13-Jul-2006	10:00	0.4	W
13-Jul-2006	11:00	0.4	SSW
13-Jul-2006	12:00	0.4	SW
13-Jul-2006	13:00	0.9	WSW
13-Jul-2006	14:00	0.9	WSW
13-Jul-2006	15:00	0.9	WSW
13-Jul-2006	16:00	0.9	WSW
13-Jul-2006	17:00	0.4	NE
13-Jul-2006	18:00	0.9	E
13-Jul-2006	19:00	0.4	ENE
13-Jul-2006	20:00	0	WSW
13-Jul-2006	21:00	0	ESE
13-Jul-2006	22:00	0	NE
13-Jul-2006	23:00	0	E
14-Jul-2006	00:00	0	SW
14-Jul-2006	01:00	0	SW
14-Jul-2006	02:00	0	SW
14-Jul-2006	03:00	0	SW
14-Jul-2006	04:00	0	---
14-Jul-2006	05:00	0	SW
14-Jul-2006	06:00	0	SW
14-Jul-2006	07:00	0	SW
14-Jul-2006	08:00	0.9	SW
14-Jul-2006	09:00	0.4	WSW
14-Jul-2006	10:00	0.4	SW
14-Jul-2006	11:00	1.3	SW

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
14-Jul-2006	12:00	1.8	SW
14-Jul-2006	13:00	1.3	SW
14-Jul-2006	14:00	0.9	W
14-Jul-2006	15:00	0.4	ESE
14-Jul-2006	16:00	0.4	N
14-Jul-2006	17:00	0.4	WSW
14-Jul-2006	18:00	0.4	NNW
14-Jul-2006	19:00	0.4	N
14-Jul-2006	20:00	0	NE
14-Jul-2006	21:00	0	SW
14-Jul-2006	22:00	0	S
14-Jul-2006	23:00	0	ESE
15-Jul-2006	00:00	0	ESE
15-Jul-2006	01:00	0	ESE
15-Jul-2006	02:00	0	---
15-Jul-2006	03:00	0	---
15-Jul-2006	04:00	0	ESE
15-Jul-2006	05:00	0.4	ESE
15-Jul-2006	06:00	0.4	---
15-Jul-2006	07:00	0.4	---
15-Jul-2006	08:00	0.4	---
15-Jul-2006	09:00	0	ENE
15-Jul-2006	10:00	0.4	SW
15-Jul-2006	11:00	0.9	N
15-Jul-2006	12:00	0.9	N
15-Jul-2006	13:00	0.9	W
15-Jul-2006	14:00	0.9	SW
15-Jul-2006	15:00	0.4	SW
15-Jul-2006	16:00	0.9	SW
15-Jul-2006	17:00	0.4	SW
15-Jul-2006	18:00	0.4	WNW
15-Jul-2006	19:00	0	WSW
15-Jul-2006	20:00	0.4	WSW
15-Jul-2006	21:00	0	E
15-Jul-2006	22:00	0	E
15-Jul-2006	23:00	0	E
16-Jul-2006	00:00	0	E
16-Jul-2006	01:00	0	E
16-Jul-2006	02:00	0	---
16-Jul-2006	03:00	0	---
16-Jul-2006	04:00	0	ESE
16-Jul-2006	05:00	0.4	ESE
16-Jul-2006	06:00	0.4	---
16-Jul-2006	07:00	0.4	---
16-Jul-2006	08:00	0.4	---
16-Jul-2006	09:00	0.4	ENE
16-Jul-2006	10:00	0.4	N
16-Jul-2006	11:00	0.4	SW
16-Jul-2006	12:00	0.9	WSW
16-Jul-2006	13:00	1.3	SSW
16-Jul-2006	14:00	0	NE
16-Jul-2006	15:00	0	NW
16-Jul-2006	16:00	0.4	N
16-Jul-2006	17:00	0.9	N

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
16-Jul-2006	18:00	0.4	WNW
16-Jul-2006	19:00	0	WNW
16-Jul-2006	20:00	0	W
16-Jul-2006	21:00	0	W
16-Jul-2006	22:00	0	W
16-Jul-2006	23:00	0	W
17-Jul-2006	00:00	0	---
17-Jul-2006	01:00	0	---
17-Jul-2006	02:00	0	W
17-Jul-2006	03:00	0	---
17-Jul-2006	04:00	0	---
17-Jul-2006	05:00	0	---
17-Jul-2006	06:00	0	W
17-Jul-2006	07:00	0	W
17-Jul-2006	08:00	0	W
17-Jul-2006	09:00	0.4	W
17-Jul-2006	10:00	0.4	SW
17-Jul-2006	11:00	1.3	WSW
17-Jul-2006	12:00	1.3	W
17-Jul-2006	13:00	1.3	WSW
17-Jul-2006	14:00	1.3	W
17-Jul-2006	15:00	1.8	WSW
17-Jul-2006	16:00	1.8	W
17-Jul-2006	17:00	0.9	WSW
17-Jul-2006	18:00	1.3	WSW
17-Jul-2006	19:00	0.4	WSW
17-Jul-2006	20:00	0.4	SW
17-Jul-2006	21:00	0.4	SW
17-Jul-2006	22:00	0	SW
17-Jul-2006	23:00	0	SW
18-Jul-2006	00:00	0	SW
18-Jul-2006	01:00	0	S
18-Jul-2006	02:00	0	---
18-Jul-2006	03:00	0	S
18-Jul-2006	04:00	0	---
18-Jul-2006	05:00	0	S
18-Jul-2006	06:00	0	S
18-Jul-2006	07:00	0	---
18-Jul-2006	08:00	0	S
18-Jul-2006	09:00	0.4	W
18-Jul-2006	10:00	1.3	W
18-Jul-2006	11:00	1.3	W
18-Jul-2006	12:00	1.3	W
18-Jul-2006	13:00	1.3	W
18-Jul-2006	14:00	2.7	WSW
18-Jul-2006	15:00	2.7	WSW
18-Jul-2006	16:00	2.2	WSW
18-Jul-2006	17:00	1.3	SW
18-Jul-2006	18:00	1.3	SW
18-Jul-2006	19:00	0.9	SW
18-Jul-2006	20:00	0.4	SW
18-Jul-2006	21:00	0	SSW
18-Jul-2006	22:00	0.4	SSW
18-Jul-2006	23:00	0	SSW

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
19-Jul-2006	00:00	0.4	S
19-Jul-2006	01:00	0.4	NE
19-Jul-2006	02:00	0.4	NE
19-Jul-2006	03:00	0.4	ENE
19-Jul-2006	04:00	0	ENE
19-Jul-2006	05:00	0.9	W
19-Jul-2006	06:00	0.4	WSW
19-Jul-2006	07:00	0.9	W
19-Jul-2006	08:00	1.3	W
19-Jul-2006	09:00	1.8	W
19-Jul-2006	10:00	2.2	W
19-Jul-2006	11:00	2.7	W
19-Jul-2006	12:00	3.6	W
19-Jul-2006	13:00	3.1	W
19-Jul-2006	14:00	2.7	W
19-Jul-2006	15:00	3.1	W
19-Jul-2006	16:00	2.7	NNW
19-Jul-2006	17:00	1.8	W
19-Jul-2006	18:00	0.4	WNW
19-Jul-2006	19:00	0.4	WNW
19-Jul-2006	20:00	0.9	WSW
19-Jul-2006	21:00	0	WSW
19-Jul-2006	22:00	0	WSW
19-Jul-2006	23:00	0	WSW
20-Jul-2006	00:00	0	---
20-Jul-2006	01:00	0	WSW
20-Jul-2006	02:00	0	WSW
20-Jul-2006	03:00	0	WSW
20-Jul-2006	04:00	0	WSW
20-Jul-2006	05:00	0	WSW
20-Jul-2006	06:00	0	WSW
20-Jul-2006	07:00	0	WSW
20-Jul-2006	08:00	0.4	SW
20-Jul-2006	09:00	1.3	WSW
20-Jul-2006	10:00	1.8	WSW
20-Jul-2006	11:00	2.2	WSW
20-Jul-2006	12:00	2.2	W
20-Jul-2006	13:00	1.8	WNW
20-Jul-2006	14:00	1.8	W
20-Jul-2006	15:00	2.2	WSW
20-Jul-2006	16:00	2.2	SW
20-Jul-2006	17:00	1.3	SSW
20-Jul-2006	18:00	0.4	W
20-Jul-2006	19:00	0.4	W
20-Jul-2006	20:00	0.4	SW
20-Jul-2006	21:00	1.8	SW
20-Jul-2006	22:00	0.9	SW
20-Jul-2006	23:00	1.8	SE
21-Jul-2006	00:00	0.4	ENE
21-Jul-2006	01:00	0	SSE
21-Jul-2006	02:00	0	SSE
21-Jul-2006	03:00	0	SW
21-Jul-2006	04:00	0	---
21-Jul-2006	05:00	0	---

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
21-Jul-2006	06:00	0	SW
21-Jul-2006	07:00	0	---
21-Jul-2006	08:00	0	SW
21-Jul-2006	09:00	0	SW
21-Jul-2006	10:00	0.4	SW
21-Jul-2006	11:00	0.9	SSW
21-Jul-2006	12:00	0.4	SSW
21-Jul-2006	13:00	0.9	WSW
21-Jul-2006	14:00	0.4	W
21-Jul-2006	15:00	0.4	SW
21-Jul-2006	16:00	0.4	SW
21-Jul-2006	17:00	0.9	SW
21-Jul-2006	18:00	0.4	N
21-Jul-2006	19:00	0	NE
21-Jul-2006	20:00	0	E
21-Jul-2006	21:00	0	E
21-Jul-2006	22:00	0	---
21-Jul-2006	23:00	0	---
22-Jul-2006	00:00	0	---
22-Jul-2006	01:00	0	E
22-Jul-2006	02:00	0	---
22-Jul-2006	03:00	0	---
22-Jul-2006	04:00	0	---
22-Jul-2006	05:00	0.4	E
22-Jul-2006	06:00	0.4	ENE
22-Jul-2006	07:00	1.3	N
22-Jul-2006	08:00	1.3	ENE
22-Jul-2006	09:00	0.4	ENE
22-Jul-2006	10:00	0.4	WSW
22-Jul-2006	11:00	0.4	WSW
22-Jul-2006	12:00	0.4	WSW
22-Jul-2006	13:00	0.4	WSW
22-Jul-2006	14:00	0.4	SSW
22-Jul-2006	15:00	0.9	SW
22-Jul-2006	16:00	0.4	SW
22-Jul-2006	17:00	0.4	NW
22-Jul-2006	18:00	0.4	SW
22-Jul-2006	19:00	0.4	SW
22-Jul-2006	20:00	0.4	---
22-Jul-2006	21:00	0.4	WSW
22-Jul-2006	22:00	0	WSW
22-Jul-2006	23:00	0	WSW
23-Jul-2006	00:00	0	WSW
23-Jul-2006	01:00	0	WSW
23-Jul-2006	02:00	0	WSW
23-Jul-2006	03:00	0	---
23-Jul-2006	04:00	0	---
23-Jul-2006	05:00	0	---
23-Jul-2006	06:00	0	WSW
23-Jul-2006	07:00	0	WSW
23-Jul-2006	08:00	0	---
23-Jul-2006	09:00	0	WSW
23-Jul-2006	10:00	0	NE
23-Jul-2006	11:00	0.4	ENE

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
23-Jul-2006	12:00	0.4	SW
23-Jul-2006	13:00	0.9	SW
23-Jul-2006	14:00	0.9	SW
23-Jul-2006	15:00	0.4	SW
23-Jul-2006	16:00	0.4	W
23-Jul-2006	17:00	0.4	W
23-Jul-2006	18:00	0.4	SW
23-Jul-2006	19:00	0.4	E
23-Jul-2006	20:00	0.4	E
23-Jul-2006	21:00	0.4	---
23-Jul-2006	22:00	0	---
23-Jul-2006	23:00	0	---
24-Jul-2006	00:00	0	---
24-Jul-2006	01:00	0	E
24-Jul-2006	02:00	0	E
24-Jul-2006	03:00	0	E
24-Jul-2006	04:00	0	E
24-Jul-2006	05:00	0	---
24-Jul-2006	06:00	0	---
24-Jul-2006	07:00	0	---
24-Jul-2006	08:00	0	---
24-Jul-2006	09:00	0	---
24-Jul-2006	10:00	0.4	NE
24-Jul-2006	11:00	0.4	N
24-Jul-2006	12:00	0.4	WSW
24-Jul-2006	13:00	0.4	SE
24-Jul-2006	14:00	0.4	N
24-Jul-2006	15:00	0.9	SW
24-Jul-2006	16:00	0.4	SW
24-Jul-2006	17:00	0.4	SSW
24-Jul-2006	18:00	0	WNW
24-Jul-2006	19:00	0	SW
24-Jul-2006	20:00	0	SSW
24-Jul-2006	21:00	0	SE
24-Jul-2006	22:00	0	---
24-Jul-2006	23:00	0	---
25-Jul-2006	00:00	0	---
25-Jul-2006	01:00	0	---
25-Jul-2006	02:00	0	SE
25-Jul-2006	03:00	0	SE
25-Jul-2006	04:00	0	---
25-Jul-2006	05:00	0	---
25-Jul-2006	06:00	0	SE
25-Jul-2006	07:00	0	SE
25-Jul-2006	08:00	0	---
25-Jul-2006	09:00	0.4	NNE
25-Jul-2006	10:00	0.4	NNE
25-Jul-2006	11:00	0.4	NNE
25-Jul-2006	12:00	0.9	N
25-Jul-2006	13:00	0.9	WSW
25-Jul-2006	14:00	0.4	SW
25-Jul-2006	15:00	0.4	WSW
25-Jul-2006	16:00	0.4	SW
25-Jul-2006	17:00	0.4	NW

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
25-Jul-2006	18:00	0.4	W
25-Jul-2006	19:00	0.4	SW
25-Jul-2006	20:00	0	S
25-Jul-2006	21:00	0	S
25-Jul-2006	22:00	0	---
25-Jul-2006	23:00	0	S
26-Jul-2006	00:00	1.368	WNW
26-Jul-2006	01:00	1.273	WNW
26-Jul-2006	02:00	1.615	W
26-Jul-2006	03:00	3.306	S
26-Jul-2006	04:00	0.247	SW
26-Jul-2006	05:00	0.418	W
26-Jul-2006	06:00	0.76	WSW
26-Jul-2006	07:00	1.273	W
26-Jul-2006	08:00	1.273	W
26-Jul-2006	09:00	1.102	SW
26-Jul-2006	10:00	1.368	WSW
26-Jul-2006	11:00	1.957	W
26-Jul-2006	12:00	2.033	WNW
26-Jul-2006	13:00	3.401	WNW
26-Jul-2006	14:00	2.033	SSW
26-Jul-2006	15:00	1.444	WSW
26-Jul-2006	16:00	2.375	W
26-Jul-2006	17:00	1.444	W
26-Jul-2006	18:00	1.444	WSW
26-Jul-2006	19:00	1.444	W
26-Jul-2006	20:00	1.368	W
26-Jul-2006	21:00	1.862	W
26-Jul-2006	22:00	1.691	W
26-Jul-2006	23:00	1.691	WSW
27-Jul-2006	00:00	1.691	WSW
27-Jul-2006	01:00	1.273	W
27-Jul-2006	02:00	1.273	SSW
27-Jul-2006	03:00	0.76	SW
27-Jul-2006	04:00	0.513	SW
27-Jul-2006	05:00	0.342	SW
27-Jul-2006	06:00	0.171	SW
27-Jul-2006	07:00	0.247	SW
27-Jul-2006	08:00	0.418	WNW
27-Jul-2006	09:00	0.855	WNW
27-Jul-2006	10:00	1.197	W
27-Jul-2006	11:00	0.855	SSW
27-Jul-2006	12:00	1.026	WNW
27-Jul-2006	13:00	1.026	ENE
27-Jul-2006	14:00	1.026	ENE
27-Jul-2006	15:00	1.026	ENE
27-Jul-2006	16:00	0.855	ENE
27-Jul-2006	17:00	1.444	ENE
27-Jul-2006	18:00	0.931	SSW
27-Jul-2006	19:00	0.418	S
27-Jul-2006	20:00	0.513	E
27-Jul-2006	21:00	0.589	E
27-Jul-2006	22:00	0.342	E
27-Jul-2006	23:00	1.273	ENE

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
28-Jul-2006	00:00	1.273	NE
28-Jul-2006	01:00	1.102	NE
28-Jul-2006	02:00	1.102	ENE
28-Jul-2006	03:00	0.855	NE
28-Jul-2006	04:00	1.102	ENE
28-Jul-2006	05:00	0.76	NE
28-Jul-2006	06:00	0.513	ENE
28-Jul-2006	07:00	0.513	ENE
28-Jul-2006	08:00	0.418	ENE
28-Jul-2006	09:00	0.513	ENE
28-Jul-2006	10:00	0.855	NNE
28-Jul-2006	11:00	0.76	NNE
28-Jul-2006	12:00	0.684	S
28-Jul-2006	13:00	2.128	WNW
28-Jul-2006	14:00	0.589	E
28-Jul-2006	15:00	0.418	NW
28-Jul-2006	16:00	0.418	WNW
28-Jul-2006	17:00	1.273	NNE
28-Jul-2006	18:00	1.026	N
28-Jul-2006	19:00	0.342	NNE
28-Jul-2006	20:00	0.589	NE
28-Jul-2006	21:00	1.026	N
28-Jul-2006	22:00	0.76	N
28-Jul-2006	23:00	0.931	NNE
29-Jul-2006	00:00	1.102	N
29-Jul-2006	01:00	1.444	N
29-Jul-2006	02:00	1.691	N
29-Jul-2006	03:00	2.717	N
29-Jul-2006	04:00	0.855	SSE
29-Jul-2006	05:00	0.855	SSE
29-Jul-2006	06:00	0.931	SSW
29-Jul-2006	07:00	0.342	SW
29-Jul-2006	08:00	0.513	WSW
29-Jul-2006	09:00	0.342	WSW
29-Jul-2006	10:00	2.47	ENE
29-Jul-2006	11:00	0.931	ENE
29-Jul-2006	12:00	0.247	E
29-Jul-2006	13:00	0.342	E
29-Jul-2006	14:00	0.342	SW
29-Jul-2006	15:00	1.026	N
29-Jul-2006	16:00	0.855	NNE
29-Jul-2006	17:00	0.418	SSW
29-Jul-2006	18:00	0.342	WNW
29-Jul-2006	19:00	0.589	W
29-Jul-2006	20:00	0.513	SSW
29-Jul-2006	21:00	1.026	W
29-Jul-2006	22:00	1.615	WNW
29-Jul-2006	23:00	1.026	W
30-Jul-2006	00:00	0.931	WSW
30-Jul-2006	01:00	1.026	SSW
30-Jul-2006	02:00	0.684	SW
30-Jul-2006	03:00	0.589	SW
30-Jul-2006	04:00	0.684	SSW
30-Jul-2006	05:00	0.684	W

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
30-Jul-2006	06:00	0.418	WNW
30-Jul-2006	07:00	0.513	S
30-Jul-2006	08:00	0.855	WSW
30-Jul-2006	09:00	1.273	WSW
30-Jul-2006	10:00	1.197	W
30-Jul-2006	11:00	0.931	W
30-Jul-2006	12:00	1.273	WSW
30-Jul-2006	13:00	1.102	WSW
30-Jul-2006	14:00	1.102	WSW
30-Jul-2006	15:00	1.197	W
30-Jul-2006	16:00	1.197	W
30-Jul-2006	17:00	0.931	W
30-Jul-2006	18:00	0.855	W
30-Jul-2006	19:00	1.026	W
30-Jul-2006	20:00	0.855	W
30-Jul-2006	21:00	0.684	W
30-Jul-2006	22:00	0.855	WSW
30-Jul-2006	23:00	0.589	W
31-Jul-2006	00:00	0.342	W
31-Jul-2006	01:00	0.342	SW
31-Jul-2006	02:00	0.342	SW
31-Jul-2006	03:00	0.418	SSE
31-Jul-2006	04:00	0.418	SSE
31-Jul-2006	05:00	0.418	---
31-Jul-2006	06:00	0.418	WSW
31-Jul-2006	07:00	0.418	WSW
31-Jul-2006	08:00	0.418	WNW
31-Jul-2006	09:00	0.684	WNW
31-Jul-2006	10:00	1.197	WNW
31-Jul-2006	11:00	1.273	W
31-Jul-2006	12:00	1.026	WNW
31-Jul-2006	13:00	0.855	WNW
31-Jul-2006	14:00	0.855	N
31-Jul-2006	15:00	0.931	N
31-Jul-2006	16:00	0.931	NNE
31-Jul-2006	17:00	0.855	NNE
31-Jul-2006	18:00	0.855	ENE
31-Jul-2006	19:00	0.684	ENE
31-Jul-2006	20:00	0.684	ENE
31-Jul-2006	21:00	0.589	E
31-Jul-2006	22:00	0.171	E
31-Jul-2006	23:00	0.076	E

APPENDIX E
1-HOUR TSP MONITORING RESULTS AND GRAPHICAL PRESENTATION

Appendix E - 1-hour TSP Monitoring Results

Location AM1 - Po Leung Kuk Choi Kai Yau School

Date	Weather Condition	Filter Weight (g)		Flow Rate (m^3/min.)		Elapse Time		Air Temp. (K)	Atmospheric Pressure(Pa)	Particulate weight(g)	Av. flow (m^3/min)	Total vol. (m^3)	Sampling Time(hrs.)	Conc. (µg/m^3)
		Initial	Final	Initial	Final	Initial	Final							
4-Jul-06	Cloudy	2.8326	2.8359	1.21	1.21	4465.6	4466.6	303.3	755.6	0.0033	1.21	72.9	1.0	45.3
5-Jul-06	Cloudy	2.8398	2.8452	1.21	1.21	4490.6	4491.6	305.5	755.6	0.0054	1.21	72.6	1.0	74.3
6-Jul-06	Cloudy	2.8494	2.8537	1.21	1.21	4491.6	4492.6	303.4	754.8	0.0043	1.21	72.8	1.0	59.0
11-Jul-06	Sunny	2.8841	2.8945	1.21	1.21	4516.6	4517.6	302.5	753.9	0.0104	1.21	72.9	1.0	142.7
12-Jul-06	Sunny	2.8998	2.9048	1.21	1.21	4517.6	4518.6	303.6	753.6	0.0050	1.21	72.8	1.0	68.7
13-Jul-06	Sunny	2.8843	2.8873	1.21	1.21	4518.6	4519.6	303.6	750.3	0.0030	1.21	72.6	1.0	41.3
17-Jul-06	Sunny	2.8466	2.8632	1.21	0.21	4543.6	4544.6	303.1	753.9	0.0166	0.71	72.8	1.0	228.0
18-Jul-06	Sunny	2.8409	2.8443	1.22	1.22	4544.6	4545.6	303.1	757.8	0.0034	1.22	73.0	1.0	46.6
20-Jul-06	Sunny	2.8613	2.8642	1.22	1.22	4545.6	4546.6	302.5	757.4	0.0029	1.22	73.0	1.0	39.7
24-Jul-06	Sunny	2.8741	2.8841	1.21	1.21	4570.6	4571.6	304.1	754.2	0.0100	1.21	72.7	1.0	137.6
25-Jul-06	Sunny	2.8758	2.8931	1.21	1.21	4571.6	4572.6	305.3	753.2	0.0173	1.21	72.5	1.0	238.8
28-Jul-06	Cloudy	2.8549	2.8708	1.22	1.22	4596.6	4597.6	299.1	753.4	0.0159	1.22	73.3	1.0	216.9
													Min	39.7
													Max	238.8
													Average	111.6

Location AM 3 - Garden Villa

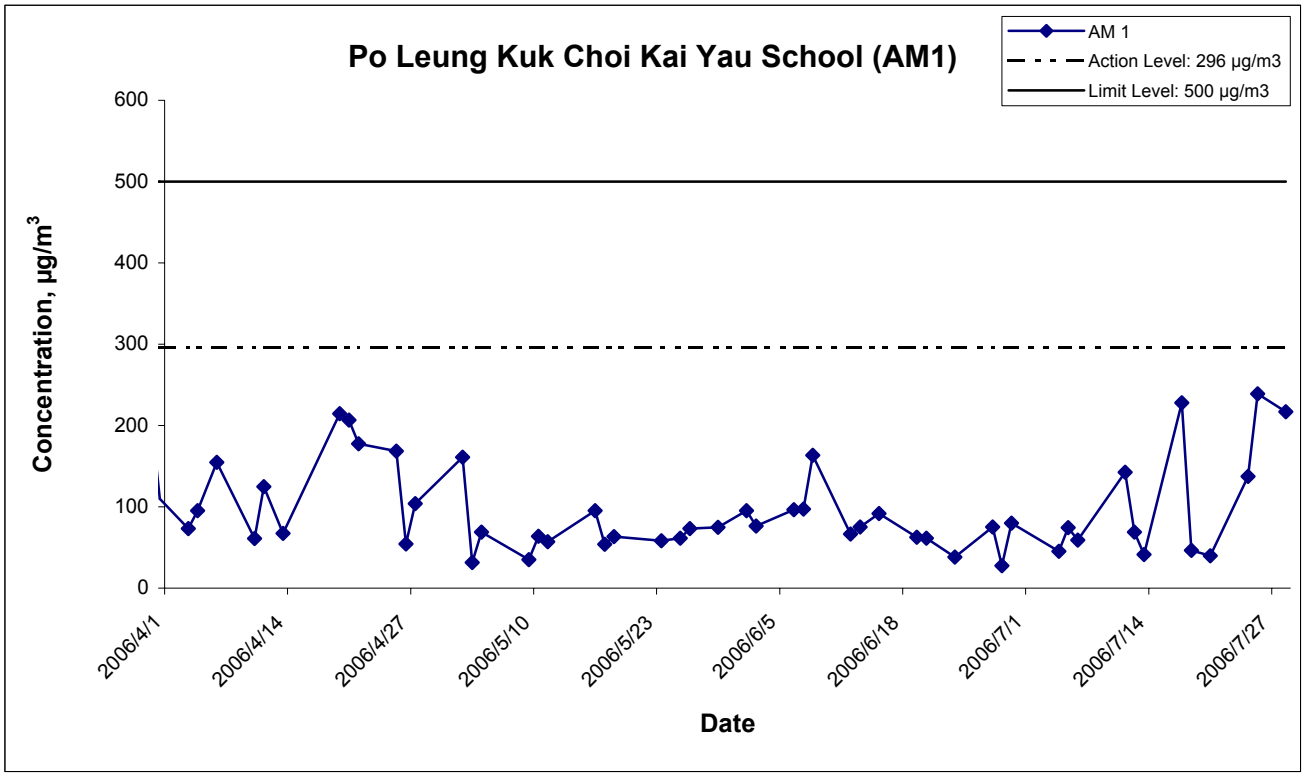
Date	Weather Condition	Filter Weight (g)		Flow Rate (m^3/min.)		Elapse Time		Air Temp. (K)	Atmospheric Pressure(Pa)	Particulate weight(g)	Av. flow (m^3/min)	Total vol. (m^3)	Sampling Time(hrs.)	Conc. (µg/m^3)
		Initial	Final	Initial	Final	Initial	Final							
4-Jul-06	Sunny	2.8559	2.8635	1.22	1.22	4807.1	4808.1	305.5	755.6	0.0076	1.22	73.1	1.0	103.9
5-Jul-06	Sunny	2.8659	2.8758	1.22	1.22	4832.1	4833.1	303.1	756.2	0.0099	1.22	73.2	1.0	135.3
6-Jul-06	Sunny	2.8743	2.8814	1.22	1.22	4833.1	4834.1	303.4	754.8	0.0071	1.22	73.0	1.0	97.2
11-Jul-06	Cloudy	2.8587	2.8685	1.22	1.22	4858.1	4859.1	302.5	753.9	0.0098	1.22	73.1	1.0	134.0
12-Jul-06	Sunny	2.8396	2.8576	1.21	1.21	4859.1	4860.1	304.1	753.1	0.0180	1.21	72.9	1.0	247.0
13-Jul-06	Sunny	2.9329	2.9416	1.21	1.21	4860.6	4861.1	303.6	750.3	0.0087	1.21	72.8	0.5	119.5
17-Jul-06	Cloudy	2.8669	2.8782	1.22	1.22	4885.1	4886.1	302.9	754.0	0.0113	1.22	73.1	1.0	154.7
18-Jul-06	Sunny	2.8755	2.8816	1.22	1.22	4886.1	4887.1	303.1	755.3	0.0061	1.22	73.2	1.0	83.3
20-Jul-06	Sunny	2.8619	2.8658	1.22	1.22	4887.1	4888.1	302.5	757.4	0.0039	1.22	73.3	1.0	53.2
24-Jul-06	Sunny	2.8534	2.8676	1.22	1.22	4912.1	4913.1	304.1	754.2	0.0142	1.22	73.1	1.0	194.2
25-Jul-06	Sunny	2.8336	2.8526	1.21	1.21	4913.1	4914.1	304.9	751.7	0.0190	1.21	72.7	1.0	261.3
28-Jul-06	Cloudy	2.8756	2.8895	1.23	1.23	4550.5	4551.5	298.9	753.6	0.0139	1.23	73.5	1.0	189.0
													Min	53.2
													Max	261.3
													Average	147.7

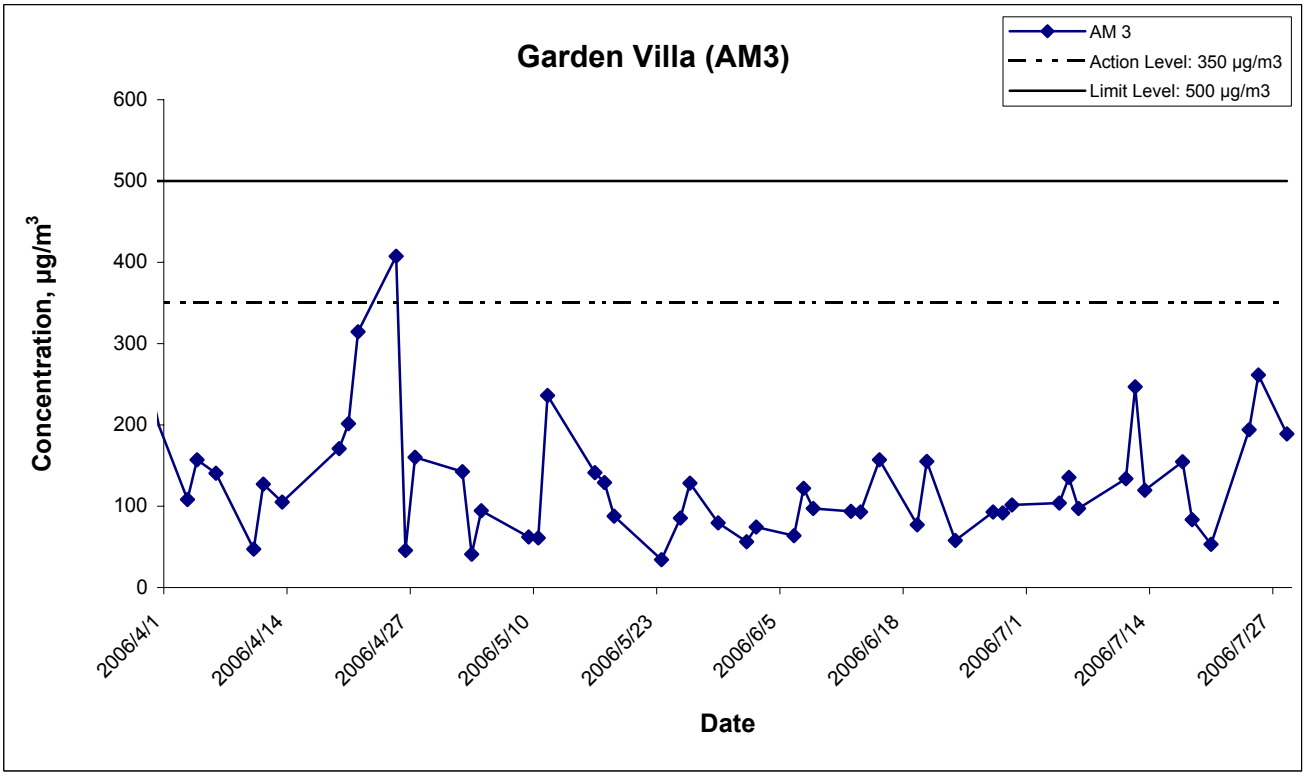
Appendix E - 1-hour TSP Monitoring Results

Location AM 4 - Government Quarters

Date	Weather Condition	Filter Weight (g)		Flow Rate (m^3/min.)		Elapse Time		Air Temp. (K)	Atmospheric Pressure(Pa)	Particulate weight(g)	Av. flow (m^3/min)	Total vol. (m^3)	Sampling Time(hrs.)	Conc. (µg/m^3)
		Initial	Final	Initial	Final	Initial	Final							
4-Jul-06	Cloudy	2.8323	2.8348	1.22	1.22	4419.5	4420.5	303.3	755.6	0.0025	1.22	73.0	1.0	34.3
5-Jul-06	Cloudy	2.8630	2.8662	1.21	1.21	4444.5	4445.5	305.5	755.6	0.0032	1.21	72.7	1.0	44.0
6-Jul-06	Cloudy	2.8451	2.8491	1.22	1.22	4445.5	4446.5	303.4	754.8	0.0040	1.22	72.9	1.0	54.8
11-Jul-06	Sunny	2.8814	2.8878	1.22	1.22	4470.5	4471.5	302.5	753.9	0.0064	1.22	73.0	1.0	87.7
12-Jul-06	Sunny	2.8771	2.8815	1.21	1.21	4471.5	4472.5	303.6	753.6	0.0044	1.21	72.9	1.0	60.4
13-Jul-06	Sunny	2.9221	2.9263	1.21	1.21	4472.5	4473.5	303.6	750.3	0.0042	1.21	72.7	1.0	57.8
17-Jul-06	Sunny	2.8757	2.8841	1.22	1.22	4497.5	4498.5	303.1	753.9	0.0084	1.22	72.9	1.0	115.2
18-Jul-06	Sunny	2.8741	2.8772	1.22	1.22	4498.5	4499.5	303.1	757.5	0.0031	1.22	73.1	1.0	42.4
20-Jul-06	Sunny	2.8548	2.8574	1.22	1.22	4499.5	4500.5	302.5	757.4	0.0026	1.22	73.2	1.0	35.5
24-Jul-06	Sunny	2.8551	2.8612	1.22	1.22	4524.5	4525.5	304.9	753.6	0.0061	1.22	73.0	1.0	83.5
25-Jul-06	Sunny	2.8112	2.8291	1.22	1.22	4525.5	4526.5	304.9	751.7	0.0179	1.22	72.9	1.0	245.5
28-Jul-06	Cloudy	2.8414	2.8506	1.23	1.23	4938.1	4939.1	299.1	753.4	0.0092	1.23	73.8	1.0	124.6
													Min	34.3
													Max	245.5
													Average	82.1

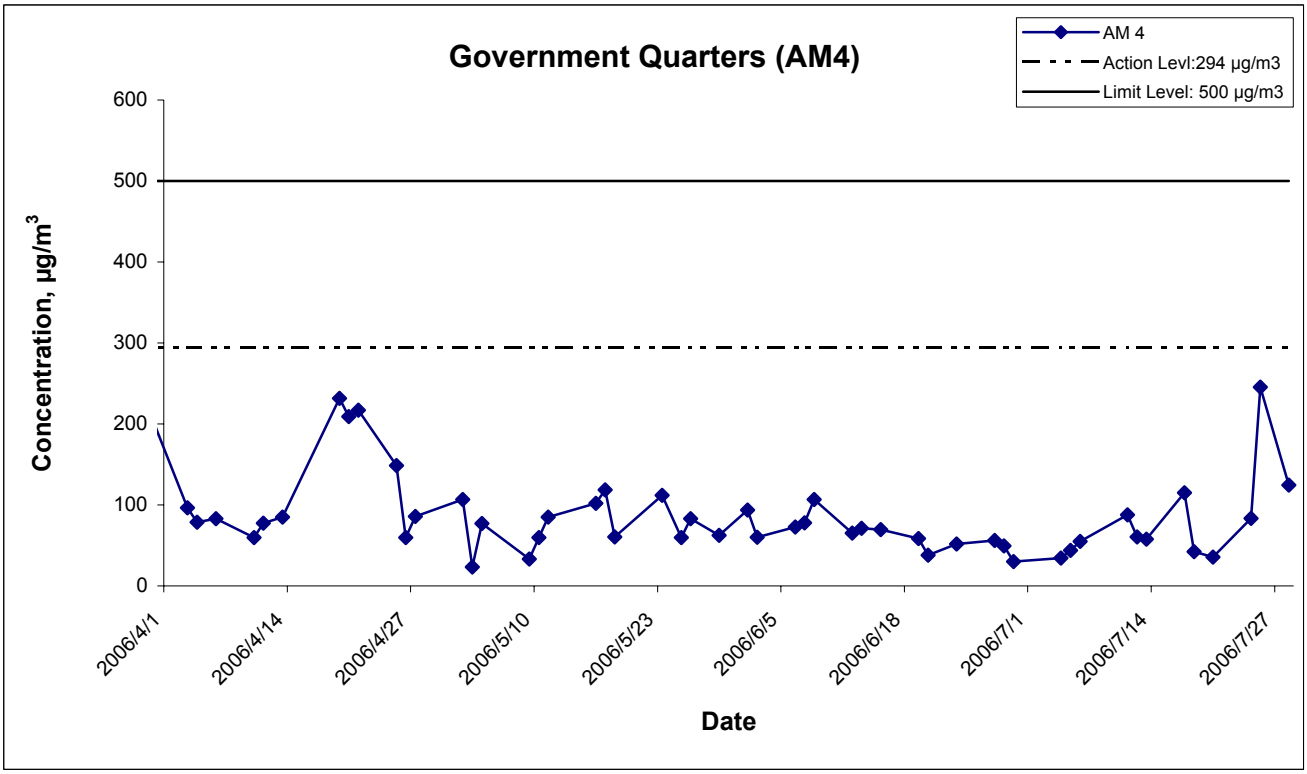
1-hr TSP Levels





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	CINOTECH
	Date Jul 06	Appendix E	

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 Date: Jul 06	Project No.: MA3024 Appendix: E	CINOTECH

APPENDIX F
24-HOUR TSP MONITORING RESULTS AND GRAPHICAL PRESENTATION

Appendix F - 24-hour TSP Monitoring Results

Location AM1 - Po Leung Kuk Choi Kai Yau School

Date	Weather Condition	Filter Weight (g)		Flow Rate (m^3/min.)		Elapse Time		Air Temp. (K)	Atmospheric Pressure(Pa)	Particulate weight(g)	Av. flow (m^3/min)	Total vol. (m^3)	Sampling Time(hrs.)	Conc. ($\mu g/m^3$)
		Initial	Final	Initial	Final	Initial	Final							
4-Jul-06	Cloudy	2.8445	2.8766	1.21	1.21	4466.6	4490.6	303.5	755.4	0.0321	1.21	1748.3	24.0	18.4
10-Jul-06	Sunny	2.8661	2.9175	1.21	1.21	4492.6	4516.6	302.8	752.4	0.0514	1.21	1747.0	24.0	29.4
15-Jul-06	Sunny	2.8781	3.0385	1.21	1.21	4519.6	4543.6	302.0	749.3	0.1604	1.21	1745.8	24.0	91.9
21-Jul-06	Sunny	2.8345	2.8848	1.23	1.23	4546.6	4570.6	303.4	756.2	0.0503	1.23	1773.9	24.0	28.4
27-Jul-06	Cloudy	2.8399	3.0206	1.22	1.22	4572.6	4596.6	299.1	753.3	0.1807	1.22	1759.0	24.0	102.7
													Min	18.4
													Max	102.7
													Average	54.1

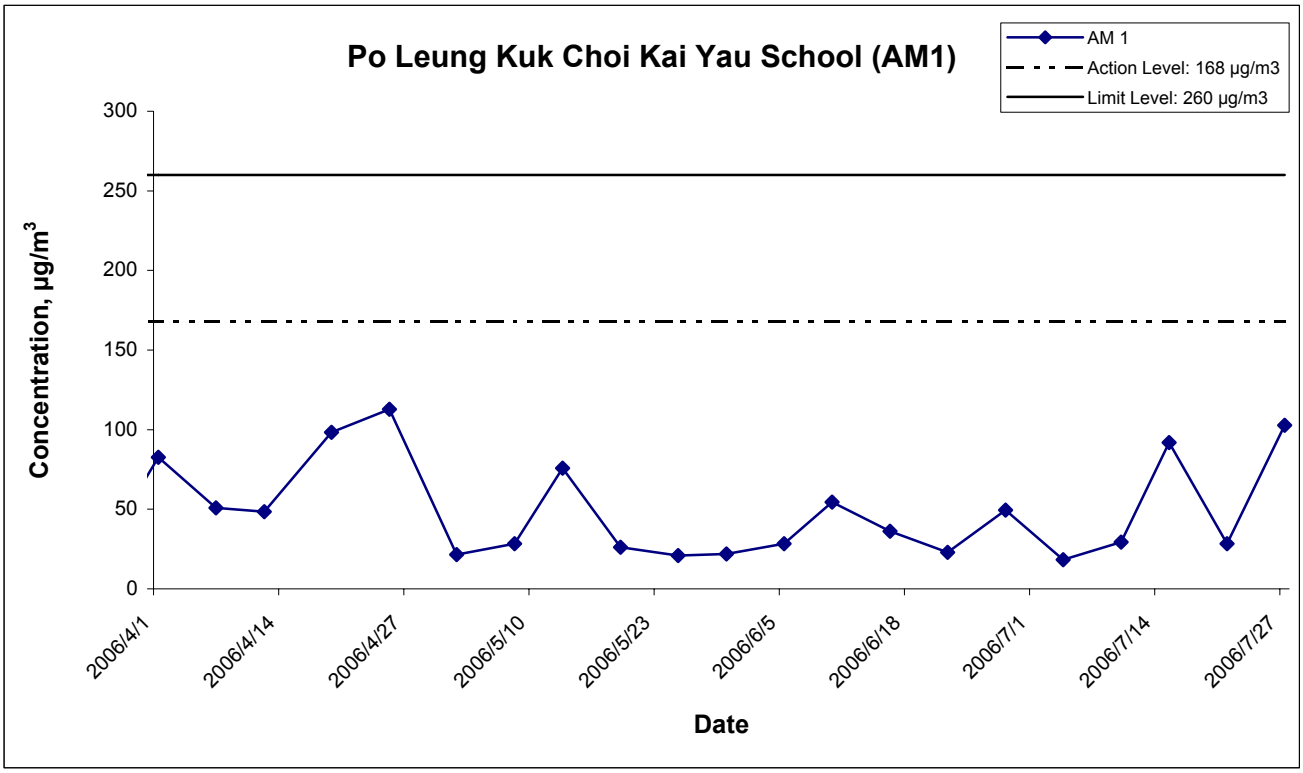
Location AM 3 - Garden Villa

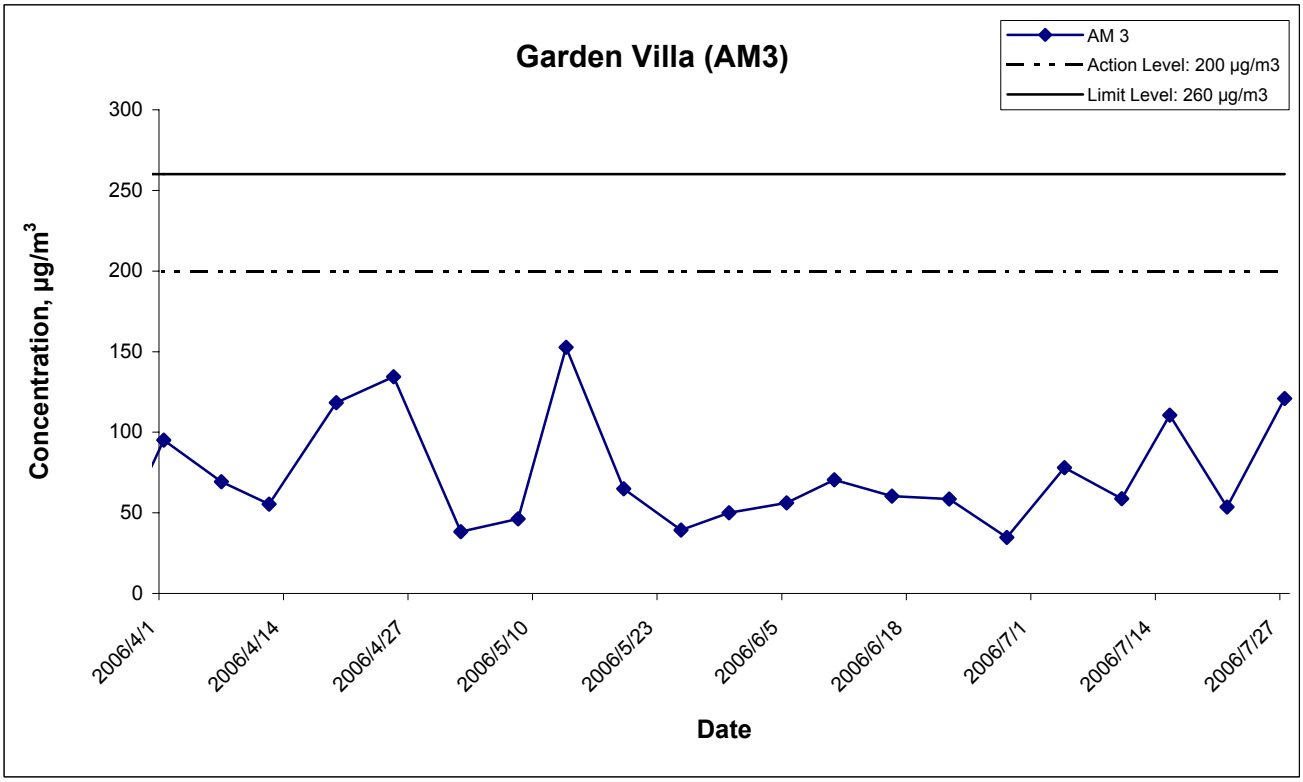
Date	Weather Condition	Filter Weight (g)		Flow Rate (m^3/min.)		Elapse Time		Air Temp. (K)	Atmospheric Pressure(Pa)	Particulate weight(g)	Av. flow (m^3/min)	Total vol. (m^3)	Sampling Time(hrs.)	Conc. ($\mu g/m^3$)
		Initial	Final	Initial	Final	Initial	Final							
4-Jul-06	Sunny	2.8524	2.9892	1.22	1.22	4808.1	4832.1	303.3	755.6	0.1368	1.22	1754.2	24.0	78.0
10-Jul-06	Cloudy	2.9224	3.0254	1.22	1.22	4834.1	4858.1	302.8	752.4	0.1030	1.22	1752.0	24.0	58.8
15-Jul-06	Cloudy	2.8429	3.0364	1.22	1.22	4861.1	4885.1	302.0	749.3	0.1935	1.22	1750.7	24.0	110.5
21-Jul-06	Sunny	2.8315	2.9255	1.22	1.22	4888.1	4912.1	303.4	756.2	0.0940	1.22	1754.7	24.0	53.6
27-Jul-06	Cloudy	2.8450	3.0582	1.22	1.22	4526.5	4550.5	299.1	753.3	0.2132	1.22	1763.8	24.0	120.9
													Min	53.6
													Max	120.9
													Average	84.3

Location AM 4 - Government Quarters

Date	Weather Condition	Filter Weight (g)		Flow Rate (m^3/min.)		Elapse Time		Air Temp. (K)	Atmospheric Pressure(Pa)	Particulate weight(g)	Av. flow (m^3/min)	Total vol. (m^3)	Sampling Time(hrs.)	Conc. ($\mu g/m^3$)
		Initial	Final	Initial	Final	Initial	Final							
4-Jul-06	Cloudy	2.8502	2.9009	1.22	1.22	4420.5	4444.5	303.5	755.4	0.0507	1.22	1751.0	24.0	29.0
10-Jul-06	Sunny	2.8764	2.9481	1.21	1.21	4446.5	4470.5	302.8	752.4	0.0717	1.21	1749.6	24.0	41.0
15-Jul-06	Sunny	2.8697	3.0483	1.21	1.21	4473.5	4497.5	302.0	749.3	0.1786	1.21	1748.2	24.0	102.2
21-Jul-06	Sunny	2.8808	2.9498	1.22	1.22	4500.5	4524.5	303.4	756.2	0.0690	1.22	1761.2	24.0	39.2
27-Jul-06	Cloudy	2.8605	2.9839	1.23	1.23	4914.1	4938.1	299.1	753.3	0.1234	1.23	1771.9	24.0	69.6
													Min	29.0
													Max	102.2
													Average	56.2

24-hr TSP Levels

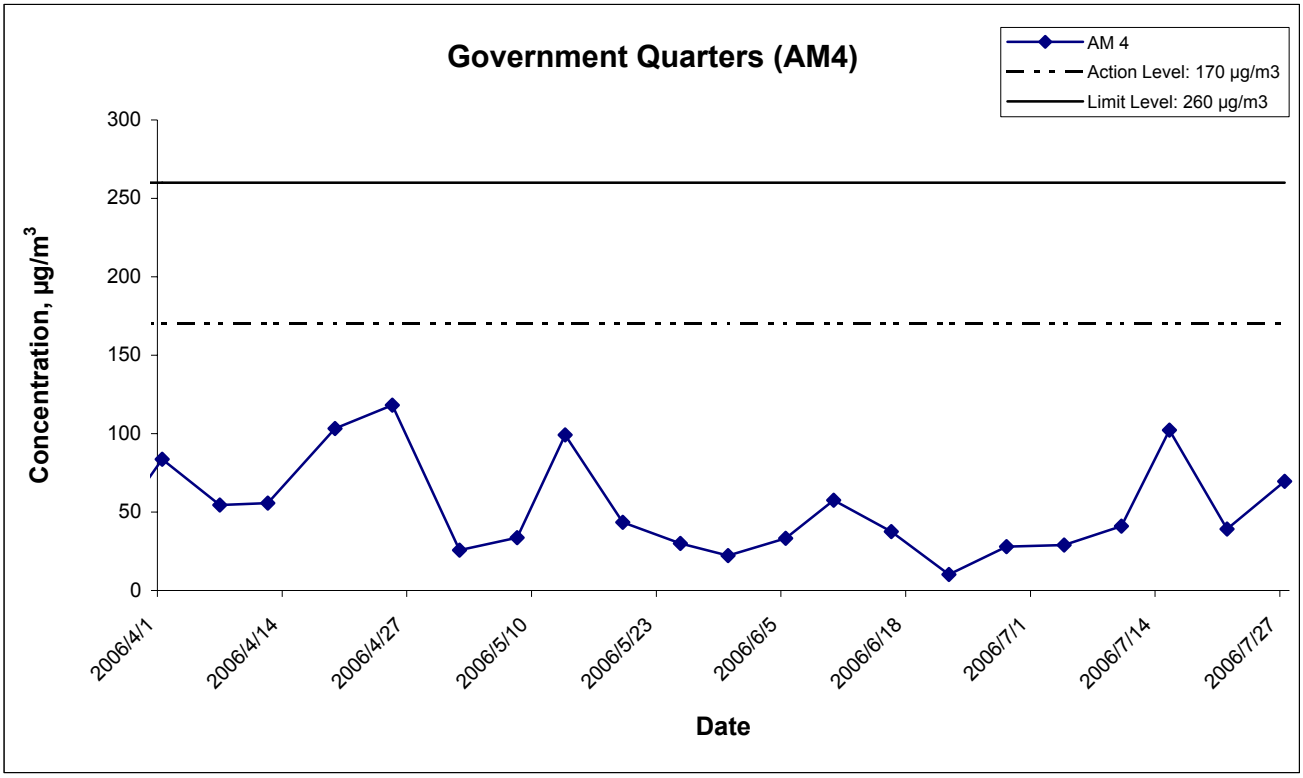




Title	Scale	Project No.
Route 8 (previously known as Route 9) between Cheung Sha Wan & Sha Tin Contract HY/2003/02 - Eagle's Nest Tunnel and Associated Works Graphical Presentation of 24-hour TSP Impact Monitoring Results	N.T.S	MA3024
	Date: Jul 06	Appendix: F

CINOTECH

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 Date Jul 06	Project No. MA3024 Appendix F	CINOTECH

APPENDIX G
NOISE MONITORING RESULTS AND GRAPHICAL PRESENTATION

Appendix G - Noise Monitoring Results

Location NM1 - Po Leung Kuk Choi Kai Yau School						
Date	Time	Weather	Unit: dB (A) (30-min) Measured Noise Level			Remarks
			L_{eq}	L_{10}	L_{90}	
4-Jul-06	14:00	Fine	61.8	63.0	58.0	-
11-Jul-06	10:30	Cloudy	65.8	67.5	60.0	
17-Jul-06	14:00	Cloudy	62.2	63.5	58.0	
24-Jul-06	13:30	Sunny	65.0	69.0	62.5	

Location NM5 - Villa Carlton								
Date	Time	Weather	Unit: dB (A) (30-min) Measured Noise Level			Baseline Level	Construction Noise Level	Remarks
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}	
4-Jul-06	15:45	Fine	76.4	78.0	72.0	77.1	76.4, Measured ≤ Baseline	The major noise source was identified as traffic noise from Tai Po Road.
11-Jul-06	11:15	Cloudy	76.3	78.5	70.5		76.3, Measured ≤ Baseline	
17-Jul-06	15:55	Cloudy	75.8	77.5	71.5		75.8, Measured ≤ Baseline	
24-Jul-06	15:00	Sunny	77.6	80.5	73.5		68.0	

Location NM6 - Government Quarters						
Date	Time	Weather	Unit: dB (A) (30-min) Measured Noise Level			Remarks
			L_{eq}	L_{10}	L_{90}	
4-Jul-06	14:45	Fine	58.9	60.5	56.5	-
11-Jul-06	13:30	Sunny	64.8	66.0	58.5	
17-Jul-06	14:55	Cloudy	69.3	61.0	55.5	
24-Jul-06	16:15	Sunny	65.4	69.0	61.0	

Location NM7 - Garden Vilia								
Date	Time	Weather	Unit: dB (A) (30-min) Measured Noise Level			Baseline Level	Construction Noise Level	Remarks
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}	
4-Jul-06	09:00	Sunny	67.2	69.5	62.5	59.0	66.5	-
11-Jul-06	16:45	Cloudy	67.1	69.5	62.5		66.4	
17-Jul-06	08:00	Cloudy	62.7	64.5	60.0		60.3	
24-Jul-06	09:00	Sunny	71.3	73.5	68.5		71.0	

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

*Bolded value indicated limit level exceedance

Appendix G - Noise Monitoring Results

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

Location NM5 - Villa Carlton									
Date	Time	Weather	dB (A) (5-min)				Baseline Level	Construction Noise Level	Remarks
			L_{eq}	L_{10}	L_{90}	Average L_{eq}	L_{eq}	L_{eq}	
4-Jul-06	19:00	Cloudy	73.7	77.5	70.5	73.7	75.8	73.7, Measured ≤ Baseline	The major noise source was identified as traffic noise from Tai Po Road.
	19:05		73.8	77.5	70.0				
	19:10		73.5	76.0	68.5				
11-Jul-06	19:10	Cloudy	74.1	77.0	71.5	73.8		73.8, Measured ≤ Baseline	
	19:15		73.8	76.5	71.0				
	19:20		73.6	76.0	70.0				
17-Jul-06	19:15	Fine	73.7	77.0	69.5	73.8		73.8, Measured ≤ Baseline	
	19:20		73.6	77.0	69.5				
	19:25		74.0	77.5	70.5				
24-Jul-06	19:05	Fine	74.2	77.5	70.5	74.4		74.4, Measured ≤ Baseline	
	19:10		74.3	77.5	70.5				
	19:15		74.6	78.0	71.0				

Location NM6 - Government Quarters									
Date	Time	Weather	dB (A) (5-min)				Baseline Level	Construction Noise Level	Remarks
			L_{eq}	L_{10}	L_{90}	Average L_{eq}	L_{eq}	L_{eq}	
4-Jul-06	19:45	Cloudy	54.3	57.5	51.5	54.5	56.1	54.5, Measured ≤ Baseline	-
	19:50		54.5	57.5	51.5				
	19:55		54.6	58.0	52.0				
11-Jul-06	20:05	Cloudy	54.7	58.0	51.0	54.6		54.6, Measured ≤ Baseline	
	20:10		54.6	58.0	51.0				
	20:15		54.6	57.5	51.5				
17-Jul-06	20:10	Cloudy	55.4	57.0	51.0	55.6		55.6, Measured ≤ Baseline	
	20:15		55.6	57.0	51.0				
	20:20		55.9	57.5	51.5				
24-Jul-06	20:00	Fine	53.7	59.5	51.0	53.9		53.9, Measured ≤ Baseline	
	20:05		53.8	59.5	51.0				
	20:10		54.1	60.0	52.0				

Location NM7 - Garden Villa									
Date	Time	Weather	dB (A) (5-min)				Baseline Level	Construction Noise Level	Remarks
			L_{eq}	L_{10}	L_{90}	Average L_{eq}	L_{eq}	L_{eq}	
4-Jul-06	19:00	Cloudy	59.1	61.5	56.5	58.9	58.3	50.0	The major noise source was identified as traffic noise from Tai Po Road.
	19:05		58.7	61.0	54.5				
	19:10		58.8	61.0	55.0				
11-Jul-06	19:15	Cloudy	58.5	61.0	52.0	58.5		45.0	
	19:20		58.3	61.0	52.5				
	19:25		58.6	61.5	52.5				
17-Jul-06	19:25	Cloudy	58.7	60.5	52.5	58.6		46.8	
	19:30		58.6	60.5	52.0				
	19:35		58.4	60.0	51.5				
24-Jul-06	19:00	Cloudy	59.4	60.5	56.0	59.4		52.9	
	19:05		59.2	61.0	55.5				
	19:10		59.5	61.0	55.5				

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

*Bolded value indicated limit level exceedance

Appendix G - Noise Monitoring Results

Restricted Hours - 23:00 to 07:00 on normal weekdays

Location NM5 - Villa Carlton									
Date	Time	Weather	dB (A) (5-min)				Baseline Level	Construction Noise Level	Remarks
			L_{eq}	L_{10}	L_{90}	Average L_{eq}	L_{eq}	L_{eq}	
4-Jul-06	23:00	Cloudy	72.8	78.5	68.5	72.8	74.3	72.8, Measured ≤ Baseline	The major noise source was identified as traffic noise from Tai Po Road.
	23:05		72.6	78.5	68.0				
	23:10		73.1	79.0	69.5				
11-Jul-06	23:00	Cloudy	72.8	77.5	69.0	72.7		72.7, Measured ≤ Baseline	
	23:05		72.6	77.5	69.0				
	23:10		72.7	77.0	68.5				
17-Jul-06	23:00	Cloudy	72.3	77.5	69.5	72.4		72.4, Measured ≤ Baseline	
	23:05		72.4	77.5	69.5				
	23:10		72.5	77.5	70.0				
24-Jul-06	23:00	Cloudy	73.6	78.5	70.5	73.4		73.4, Measured ≤ Baseline	
	23:05		73.2	78.0	70.0				
	23:10		73.4	78.5	70.0				

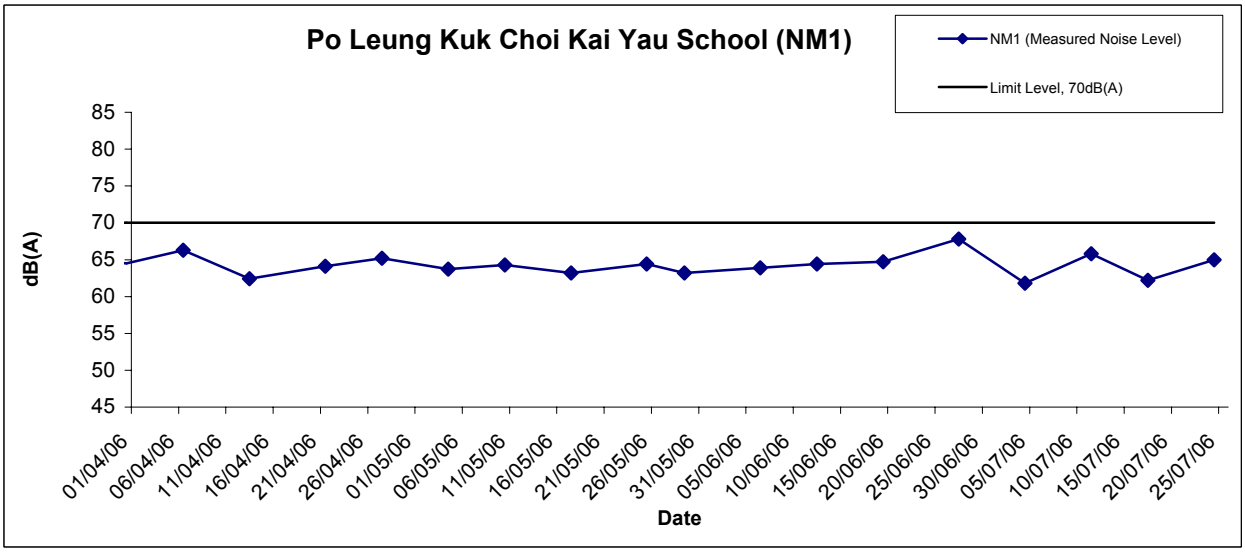
Location NM6 - Government Quarters									
Date	Time	Weather	dB (A) (5-min)				Baseline Level	Construction Noise Level	Remarks
			L_{eq}	L_{10}	L_{90}	Average L_{eq}	L_{eq}	L_{eq}	
4-Jul-06	23:25	Cloudy	50.6	54.5	46.5	50.6	52.8	50.6, Measured ≤ Baseline	-
	23:30		50.5	54.5	46.5				
	23:35		50.8	55.0	47.5				
11-Jul-06	23:25	Cloudy	50.7	53.5	47.5	50.5		50.5, Measured ≤ Baseline	
	23:30		50.4	53.0	48.0				
	23:35		50.3	53.0	48.0				
17-Jul-06	23:25	Cloudy	51.0	52.5	47.5	50.8		50.8, Measured ≤ Baseline	
	23:30		50.8	52.0	48.0				
	23:35		50.7	52.0	47.5				
24-Jul-06	23:25	Cloudy	50.8	54.0	48.5	50.7		50.7, Measured ≤ Baseline	
	23:30		50.6	53.5	48.5				
	23:35		50.7	53.5	48.5				

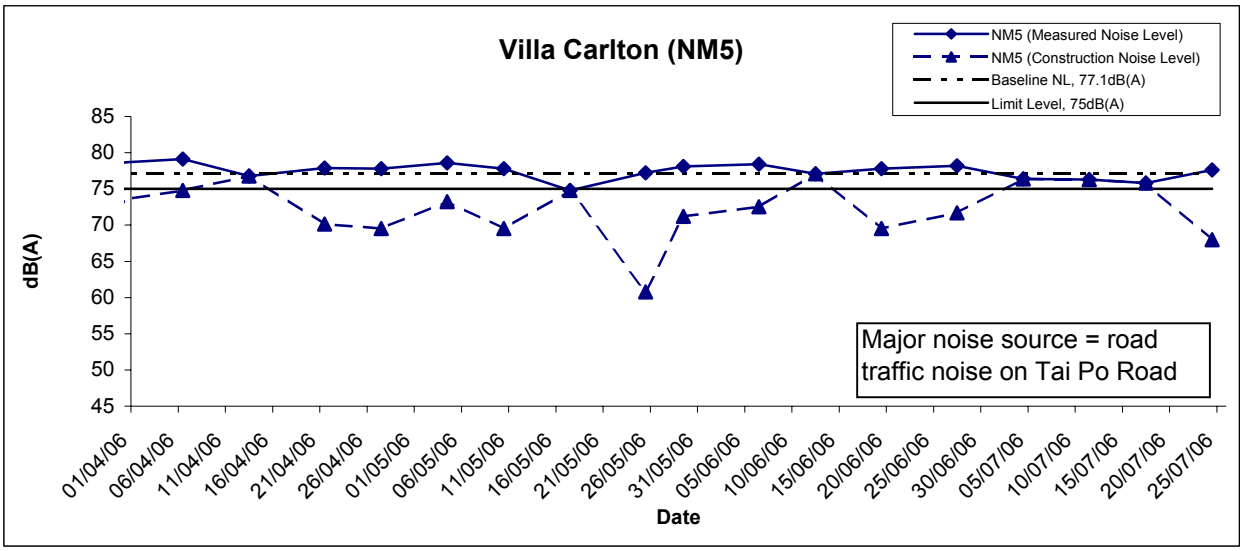
Location NM7 - Garden Villa									
Date	Time	Weather	dB (A) (5-min)				Baseline Level	Construction Noise Level	Remarks
			L_{eq}	L_{10}	L_{90}	Average L_{eq}	L_{eq}	L_{eq}	
4-Jul-06	23:50	Cloudy	55.2	59.5	51.0	55.5	56.5	55.5, Measured ≤ Baseline	The major noise source was identified as traffic noise from Tai Po Road.
	23:55		55.6	59.5	51.5				
	00:00		55.7	59.0	50.5				
11-Jul-06	23:50	Cloudy	54.6	60.0	50.5	54.6		54.6, Measured ≤ Baseline	
	23:55		54.5	60.0	50.5				
	00:00		54.8	61.5	51.0				
17-Jul-06	23:50	Cloudy	54.7	60.0	51.0	54.5		54.5, Measured ≤ Baseline	
	23:55		54.6	60.0	51.0				
	00:00		54.3	59.5	51.0				
24-Jul-06	23:50	Cloudy	54.7	59.5	51.5	54.8		54.8, Measured ≤ Baseline	
	23:55		54.8	59.5	51.0				
	00:00		55.0	60.0	51.0				

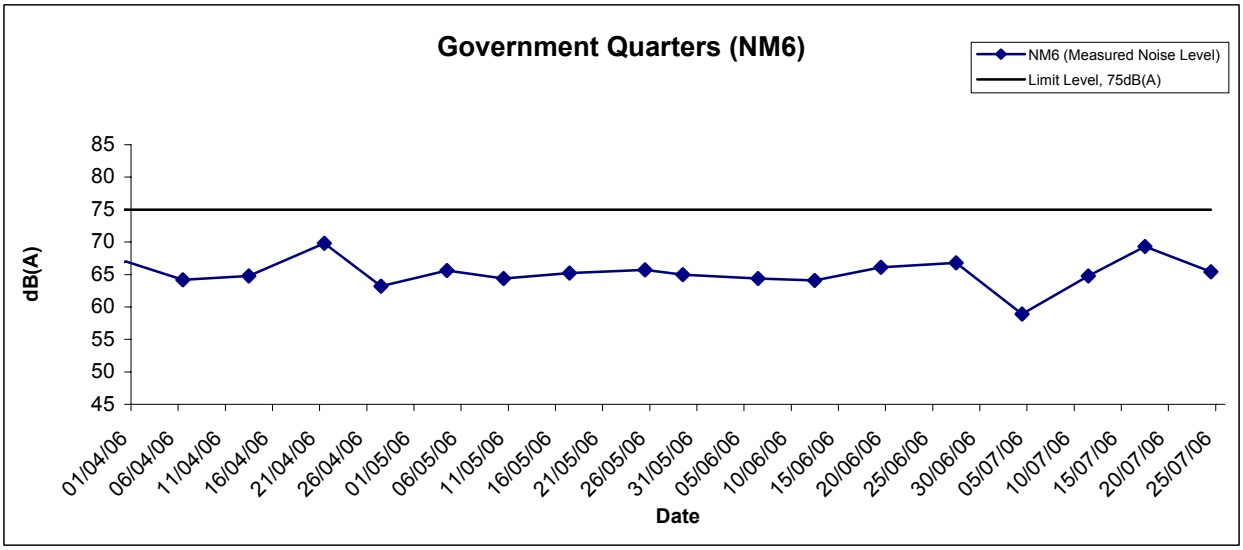
Construction Noise Level (Leq) = Measured Noise Level (Leq) - Baseline Noise Level (Leq)

*Bolded value indicated limit level exceedance

Noise Levels



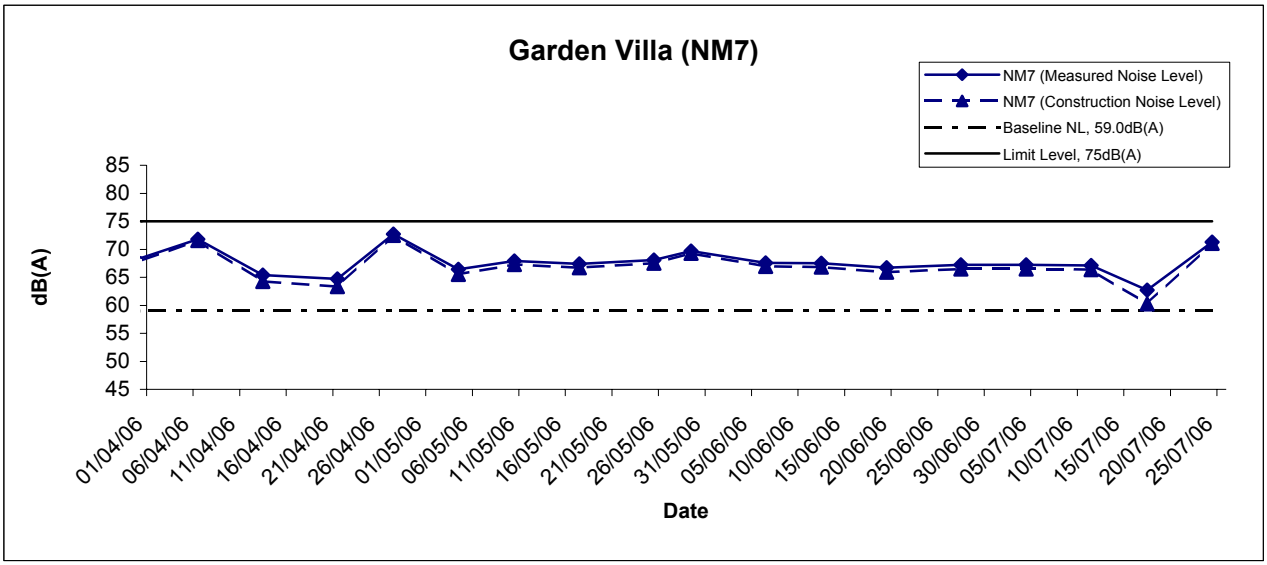




* Construction Noise Level = Measured Noise Level - Baseline Level
(If the measured noise level is lower than the baseline level, the construction noise level will be taken as the meaured one)

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 Date: Jul 06	Project No.: MA3024 Appendix: G	CINOTECH

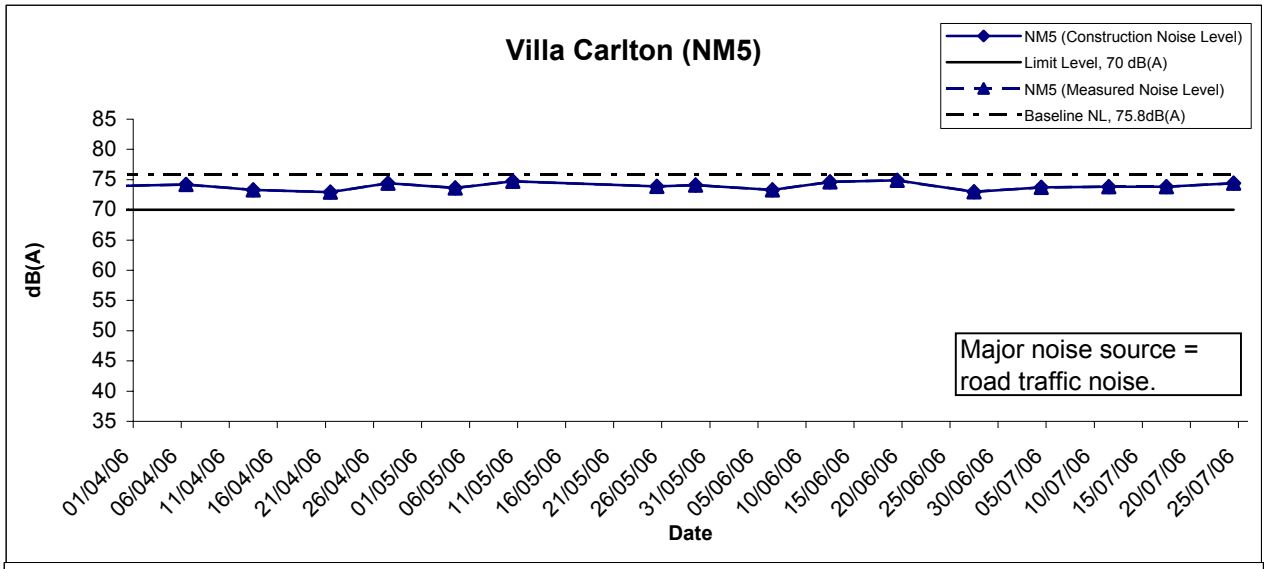
Noise Levels

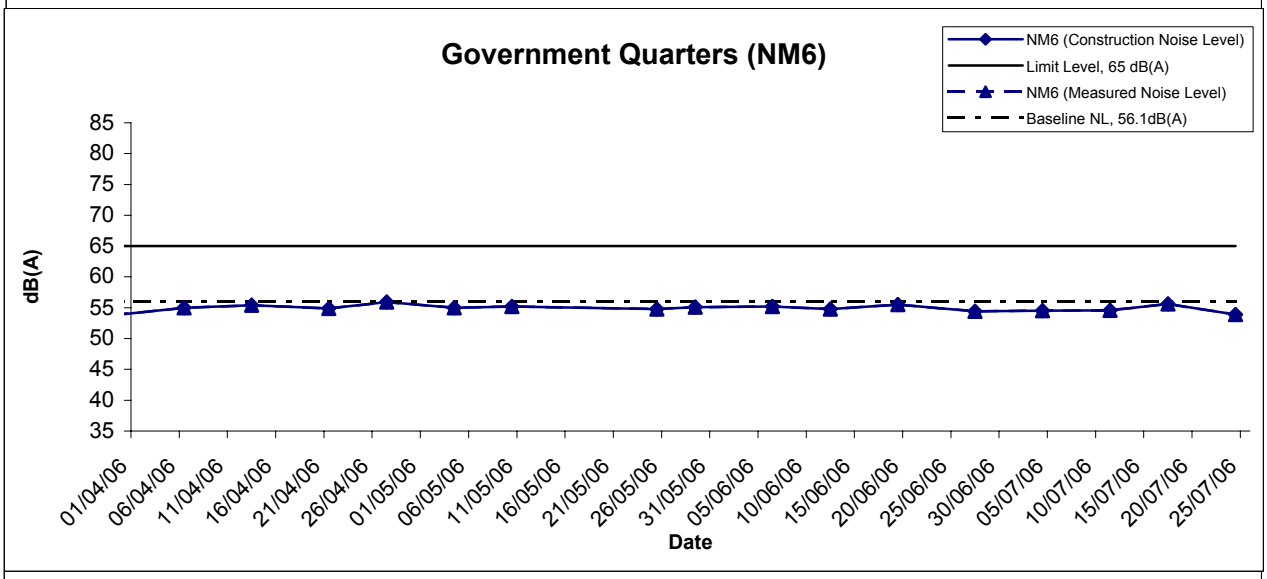


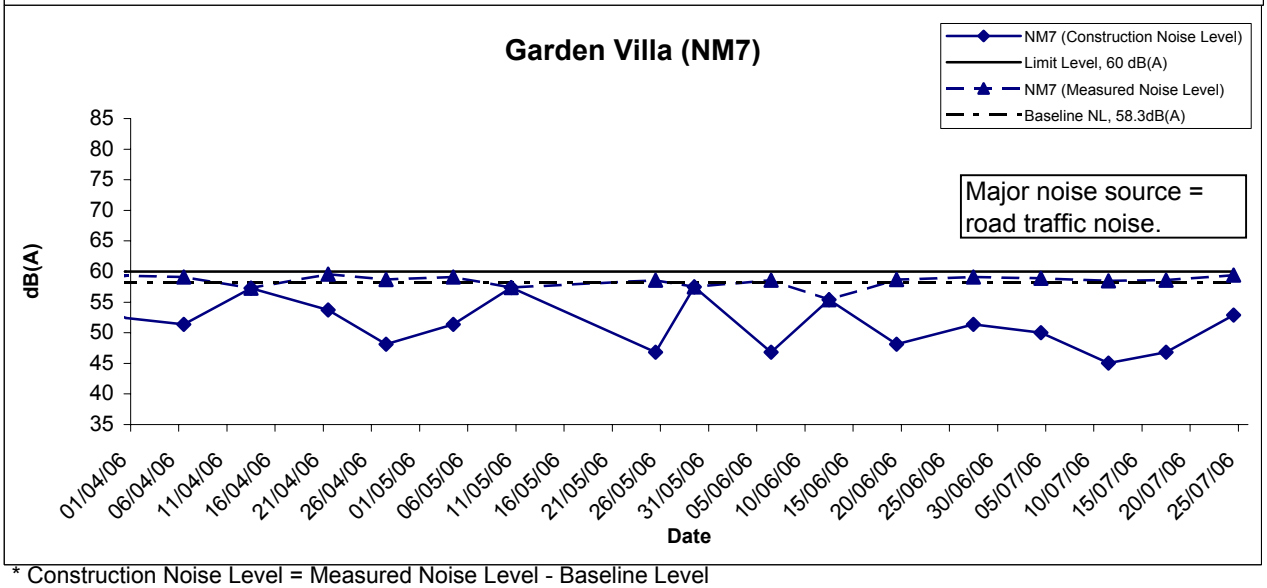
* Construction Noise Level = Measured Noise Level - Baseline Level
(If the measured noise level is lower than the baseline level, the construction noise level will be taken as the meaured one)

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 Date: Jul 06	Project No.: MA3024 Appendix: G	CINOTECH

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



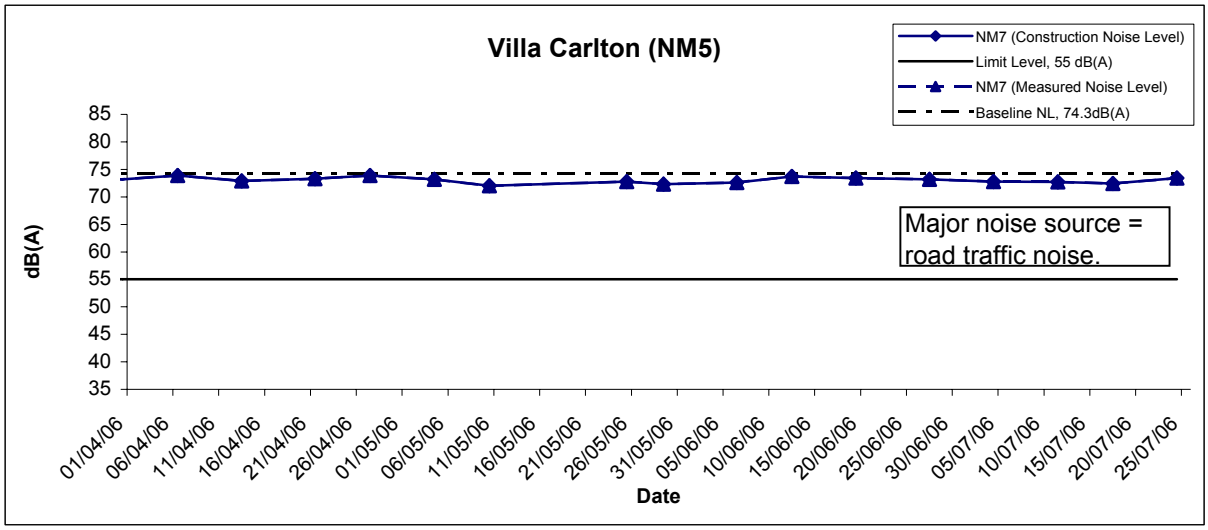


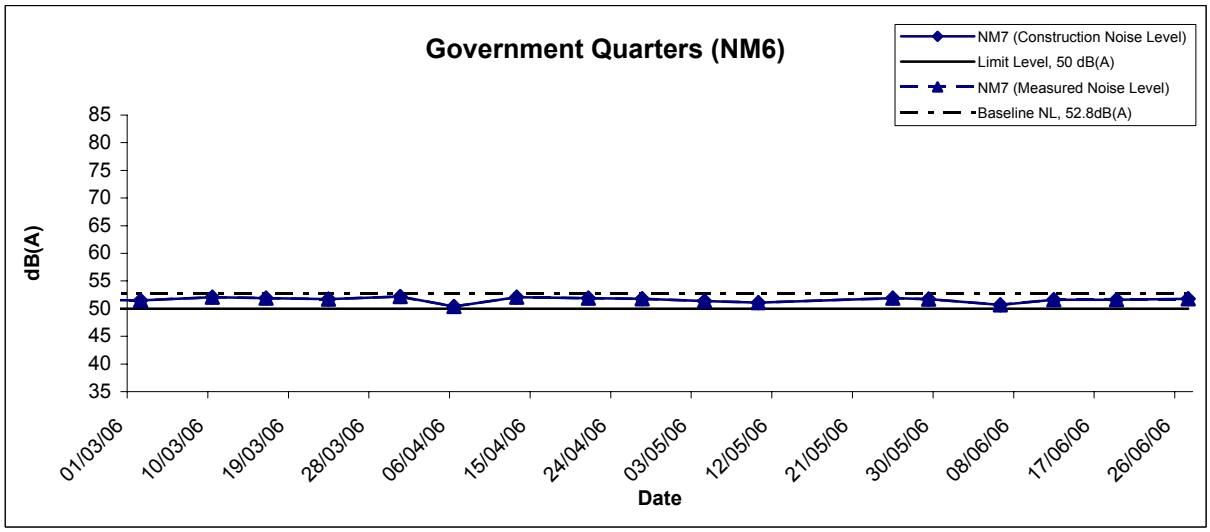


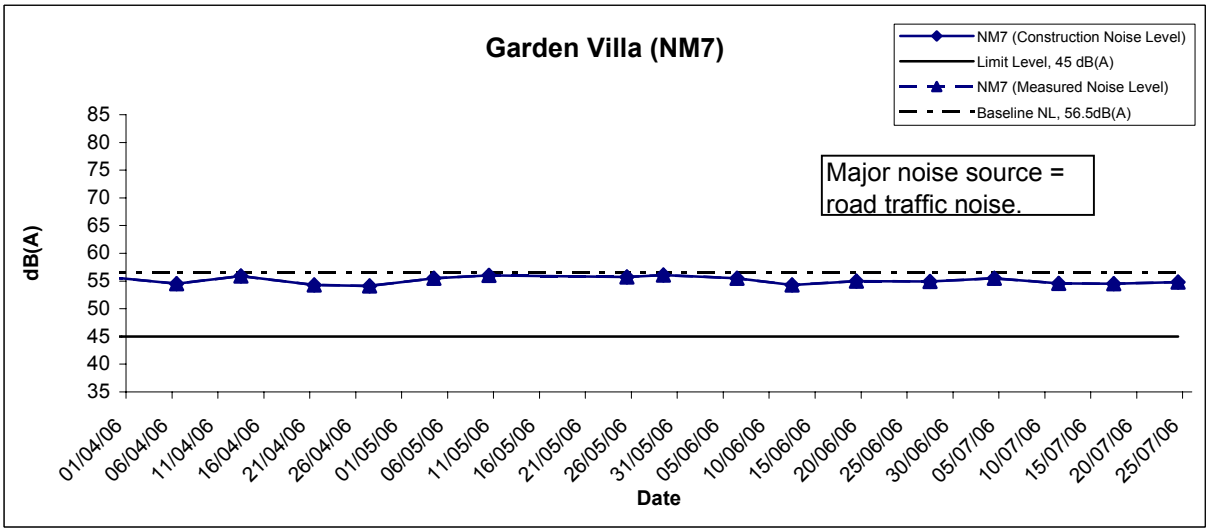
* Construction Noise Level = Measured Noise Level - Baseline Level
(If the measured noise level is lower than the baseline level, the construction noise level will be taken as the meaured one)

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	CINOTECH
	Date: Jul 06	Appendix: G	

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 meaured 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	Scale: N.T.S	Project No.: MA3024	CINOTECH
Graphical Presentation of Construction Noise Monitoring Results	Date: Jul 06	Appendix: G	

APPENDIX H
SUMMARY OF EXCEEDANCE

Summary of Exceedance Recorded in the Reporting Month

a) Exceedance Reports for 1-hr TSP (NIL)

b) Exceedance Reports for 24-hr TSP (NIL)

c) Exceedance Reports for Construction Noise

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

APPENDIX I
SITE AUDIT SUMMARY

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	60703-ENT
Date	3 July 2006 (Mon)
Time	1:30 – 4:15

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

Ref. No.	Remarks/Observations	Related Item No.
60703E-01O	***A. Water Quality*** • Accumulation of stagnant water was observed at the area of Portion D4, Toll Plaza. The Contractor was reminded to spray larvicide or fill up with soil/sand onto stagnant water to prevent mosquito from breeding. ***B. Air Quality*** • No environmental deficiency was identified during the site inspection. ***C. Noise*** • No environmental deficiency was identified during the site inspection.	B14
60703E-02D	***D. Waste / Chemical Management*** • Chemical drums and generator were placed on bare ground at the area of Portion D4 of Toll Plaza, DN200 of Portion E5 and Ventilation Adit. The Contractor was reminded to provide drip trays preventing oil/chemical from leakage. ***E. Permit / Licenses*** • No environmental deficiency was identified during the site inspection. ***F. Others*** • The result of spot check for truck from site to Caldecott Road at 3:30 - 3:45 was zero. • No environmental deficiency was identified during last audit (ref. 60628-ENT) 28 June 2006	E10

	Name	Signature	Date
Recorded by	Attle Hui		3 July 2006
Checked by	Kenneth Lam		3 July 2006

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	60712-ENT
Date	12 July 2006 (Wed)
Time	0930 – 1130

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

Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality • No environmental deficiency was identified during the site inspection. ***B. Air Quality*** • No environmental deficiency was identified during the site inspection. ***C. Noise*** • No environmental deficiency was identified during the site inspection. ***D. Waste / Chemical Management*** • No environmental deficiency was identified during the site inspection. ***E. Permit / Licenses*** • No environmental deficiency was identified during the site inspection. ***F. Others*** • The environmental deficiency identified during last audit (ref. 60712-ENT) 12 July 2006, was rectified / improved by the Contractor.	

	Name	Signature	Date
Recorded by	Tommy Ho		14 June 2006
Checked by	Attle Hui		14 June 2006

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	60719-ENT
Date	19 July 2006 (Wed)
Time	0930 – 1130

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

Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality	
60719-E01	• The contractor was reminded to clean up the sand if available in step channel at Mui Kong Tsuen.	B9
60719-E03	• The contractor was reminded to provide completely cover for the open slope and open stockpiles in BVS3.	B11
	B. Air Quality	
	• No environmental deficiency was identified during the site inspection.	
	C. Noise	
60719-E02	• No door for operating generator was observed at Mui Kong Tsuen.	D10
	D. Waste / Chemical Management	
60719-E04	• No drip tray for a drum of admixture was observed at administration building.	E10
	E. Permit / Licenses	
	• No environmental deficiency was identified during the site inspection.	
	F. Others	
	• The environmental deficiency identified during last audit (ref. 60712-ENT) 12 July 2006, was rectified / improved by the Contractor.	

	Name	Signature	Date
Recorded by	Tommy Ho		19 July 2006
Checked by	Attle Hui		19 July 2006

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	60726-ENT
Date	26 July 2006 (Wed)
Time	0930 – 1130

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

Ref. No.	Remarks/Observations	Related Item No.
60726-E01	***A. Water Quality*** • No environmental deficiency was identified during the site inspection. ***B. Air Quality*** • No environmental deficiency was identified during the site inspection. ***C. Noise*** • No environmental deficiency was identified during the site inspection. ***D. Waste / Chemical Management*** • No drip tray for a drum of diesel oil was observed at BVS2. A drip tray should be provided to prevent spillage. ***E. Permit / Licenses*** • No environmental deficiency was identified during the site inspection. ***F. Others*** • The environmental deficiency identified during last audit (ref. 60719-ENT) 19 July 2006, was rectified / improved by the Contractor. However, for the item 60719-E01, the sand in step channel should be cleaned up if available. And it will be audited at next inspection day. • The result of spot check for truck leaving in all site area at 0930-1130 is zero.	E10

	Name	Signature	Date
Recorded by	Tommy Ho		26 July 2006
Checked by	Attle Hui		26 July 2006

APPENDIX J
EVENT ACTION PLANS

Appendix J - Event Action Plans

Event/Action Plan for Air Quality

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

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

Event/Action Plan for Construction Noise

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

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

APPENDIX K
ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

Appendix K - Summary of Environmental Mitigation Implementation Schedule

Types of Impacts	Mitigation Measures	Status
Construction Dust	• 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 be impervious sheeting, placed in an area sheltered on the top and the 3 sides or sprayed with water or a dust suppression chemical so as to maintain the entire surface wet.	^
	• All dusty materials should be sprayed with water or a dust suppression chemical immediately prior to any loading, unloading or transfer operation so as to maintain the dusty materials wet.	^
	• Every vehicle should be washed to remove any dusty materials from its body and wheels immediately before leaving a construction site.	^
	• The working area of any excavation should be sprayed with water or a dust suppression chemical immediately before, during and immediately after the operation so as to maintain the entire surface wet.	^
Construction Noise	• 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 know 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 quite plant and Working Method	^
	• Reduce the number of plant operating in critical areas close NSRs.	^

Types of Impacts	Mitigation Measures	Status
	• Construct temporary and movable noise barriers	^
Water Quality	*Construction Runoff and Drainage*	
	• Use of sediment traps and the adequate maintenance of drainage systems to prevent flooding and overflow.	^
	• Boundaries of critical areas of earthworks should be marked and surrounded by dykes or embankments for flood protection. Temporary ditches should be provided to facilities runoff discharge into the appropriate watercourses, via a silt retention pond. Permanent drainage channels should incorporate sediment basins or traps and baffles to enhance deposition rates.	^
	• 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	^
	• Sand silt in the wash water from the wheel washing facilities, which ensure no earth, mud and debris is deposited on roads, should be settled out the removed before discharging into storm drains. A section of the road between the wheel washing bay and the public road should be paved with backfill to prevent wash water or other site runoff form entering public road drains.	^
	• Oil interceptors should be provided in the drainage system and regularly emptied to prevent the release of oils and grease into the storm water drainage system after accidental spillage. The interceptor should have a bypass to prevent flushing during periods of heavy rain.	^
	• Catchpits and perimeter channels shall be constructed in advance of site formation works and earthworks.	^
	• Silt removal facilities, channels and manholes shall be suitably maintained with the deposited silt and grit being removed at least once a week, and at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times.	^
	• Earthworks final surfaces shall be well compacted and the subsequent permanent work or surface protection shall be carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms. Appropriate intercepting channels shall be provided along the site boundary or at the locations agreed with the ET Leader. Rainwater pumped out from trenches or foundation excavations shall be discharged into silt removal facilities before discharge into storm drains.	^
	• 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.	^
	Tunnelling Work	
	• Temporary open storage of excavated materials should be covered with tarpaulin or similar fabric during rainstorms. Any washout of construction or excavated materials form the drill and blast tunnelling work should be diverted to the drainage system via appropriate sediment traps.	^
	• 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
	• Spend grouts used in diaphragm wall construction should be collected in a separate slurry collection system, reconditioned and reused wherever practicable. The disposal of used grouting materials will only be permitted if it is treated to the TM standards before discharge to the storm drains or disposal to landfill.	N/A
	General Construction Activities	
	• Debris and rubbish on site should be collected, handled and disposed of properly to avoid entering the water column and cause water quality impacts. • All fuel tanks and storage areas will be provided with locks and be located on sealed areas (within bunds of a capacity equal to 110% of the storage capacity of the largest tank or 20% by volume of the fuel stored in that areas, whichever in the greatest).	^ ^
	Sewage Effluent	
	• Construction work force sewage discharges form fixed toilet facilities on-site should be connected to the nearby existing trunk sewer wherever feasible. However, for areas where existing trunk sewer is not available, it is recommended that appropriate and adequate on site portable chemical toilets should be provided by a licensed contractor who will be responsible for appropriate disposal and maintenance of these facilities. • It is considered that sewage discharges could also be treated by on-site septic tanks and soakaway. Minimum clearance away form streams and catchments and other requirements for the proposed septic tank and soakaway should be referred to EPD's Practice Note for Professional Persons, Drainage Plans.	^ N/A
Waste	*General*	
	• Training and instruction shall be given at a site to construction staff to increase awareness and draw attention to waste management issues and the need to minimise waste generation. The training requirement shall be included in the site waste management plan.	^
	Storage, Collection and Transportation of Waste	
	• Wastes shall be handled and stored in a manner to ensure that they are held securely without loss or leakage. • Authorised or licensed waste hauliers shall be used and they shall only collect wastes prescribed by their permits. • Waste shall be removed on a daily basis. • Waste storage area shall be maintained and cleaned on a daily basis. • Windblown litter and dust during transportation shall be minimised by either covering trucks or transporting wastes in enclosed containers. • Obtain necessary waste disposal permits from the appropriate authorities if they are required. • Wastes shall be disposed of at licensed waste disposal facilities. • Develop procedure such as ticketing system to facilitate tracking of loads, particularly for chemical waste, and to ensure that illegal disposal of wastes does not occur. • Maintain records of the quantities of wastes generated, recycled and disposed.	^ ^ ^ ^ ^ ^ ^ ^ ^

Types of Impacts	Mitigation Measures	Status
	Surplus Excavated Materials	
	• Due to the high risk of loose material being washed into the existing nullah, stockpile materials should be properly compacted and covered from water erosion and located at least 10m away from the nullah wall.	^
	Construction and Demolition (C&D) Waste	
	• Careful design, planning and good site management shall be adopted to minimise over-ordering and generation of waste materials such as concrete grouts.	^
	• The handling and disposal of bentonite slurries shall be undertaken in accordance with Practice Note for Professional Persons – Construction Site Drainage (ProPECC PN 1/94) on construction site drainage.	N/A
	• Construction and demolition (C&D) material shall be segregated to inert and non-inert parts. The inert portion shall re-used at areas of reclamation or land formation, or to public filling area shall such allocation is deemed necessary. The non-inert portion shall be disposed of to landfill.	^
	Chemical Waste	
	• Chemical waste that is produce during construction shall be handled in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Wastes.	^
	• Containers used for the storage of chemical wastes should: a. Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed; b. Have a capacity of less than 450 litres unless the specifications have been approved by the EPD; c. Display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Chemical Waste Regulations.	^
	• The storage area for chemical wastes should: a. Be clearly labelled and used solely for the storage of chemical waste; b. Be enclosed on at least 3 sides; c. Have an impermeable floor and bunding of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in the area, whichever is largest; d. Have adequate ventilation; e. Be covered to prevent rainfall entering (water collected within the bund must be tested and disposed as chemical waste if necessary); f. Be arranged so that incompatible materials are adequately separated.	^
	• Disposal of chemical waste shall be via a licensed waste collector; and to a facility licensed to receive chemical waste; or a reuser of the waste (under approval from EPD).	^

Types of Impacts	Mitigation Measures	Status
	General Refuse	
	• General refuse generated on-site shall be stored in enclosed bins or compaction unit separate from C&D and chemical wastes. A reputable waste collector shall be employed by the contractor to remove general refuse from the site, separately from C&D and chemical wastes, on a daily for every second day basis to minimise odour, pest and litter impacts. The burning of refuse on construction sites is prohibited by law.	^
	• Reusable rather than disposable dishware shall be used if feasible.	^
Ecology	• A sediment barrier shall be erected to minimize stream sedimentation at downstream of the project boundary of the Toll Plaza.	N/A
	• 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.	N/A
	• Loss of the adjacent woodland due to temporary land take shall be returned to the original status immediately.	N/A
	• 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.	N/A
Landscape and Visual Impact	• 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	^

Remarks:

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

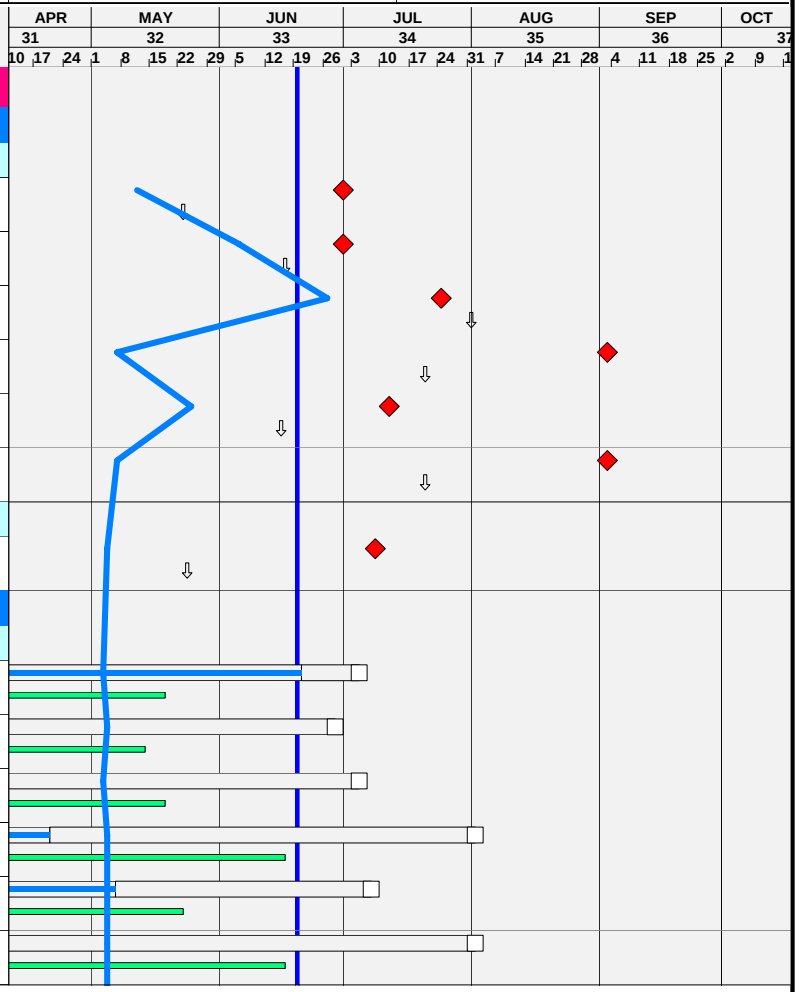
APPENDIX L
CONSTRUCTION PROGRAMME

Data Date 20JUN06
Run Date 26JUN06 10:53

3 MONTH ROLLING PROGRAMME

Monthly Update
Detailed Works Progr.(DWP) r
Progress Bar
Critical Activity

Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
GENERAL									
Contract defined dates, stages and sections									
Stages of the Works									
KD05B	KD-5B TCSS Access NB SPB (04Apr06)	0		30JUN06	0	0	0	-87	-39
KD05D	KD-5D TCSS Access SB SPB (24Apr06)	0		30JUN06	0	0	0	-67	-14
KD05A2	KD-05A Proposed - TCSS Access BV West (15May06)	0		24JUL06	0	0	0	-70	7
KD05C1	KD-5C TCSS Access Toll Plaza East(30Jun06)	0		02SEP06	0	0	0	-64	-44
KD06V	KD-6V TCSS Acc to Adit - incl VB & CP7 (12Jun06)	0		11JUL06	0	0	0	-29	-26
KD07A	KD-7 TCSS Access Toll Plaza east (30.Jun.06)	0		02SEP06	0	0	0	-64	-44
Sections of the Works									
KD22A	KD22 Proposed - Noise enclosure founds (7Jan06)	0		08JUL06	0	0	0	-182	-46
Submittals & Approvals									
Drawing Submittal & Approval									
8034	Prep.& Sub. Independ't Serv. Dwgs for SHT&T3&LCK	48	04AUG04A	04JUL06	98	98	12	412	-38
8024	Engineer Comment / Approve ENT ISD Submissions	18	06AUG04A	28JUN06	85	85	8	66	-38
8030	Res-sub. & Approv of ENT ISD	24	06SEP04A	04JUL06	70	70	12	66	-38
8035	Engineer Comment / Approve SHT&T3LCK ISD Sub.	24	13SEP04A	01AUG06	85	85	12	388	-38
8032	Engineer Comment / Approve SHT&T3&LCK CSD Sub.	18	25OCT04A	07JUL06	90	90	15	388	-38
8036	Re-sub. & Approv of SHT & T3 & LCK ISD	36	31MAR05A	01AUG06	70	70	36	388	-38



Leighton - Kumagai Joint Venture

LEIGHTON - KUMUGAI JV

R8 - EAGLES'S NEST TUNNEL

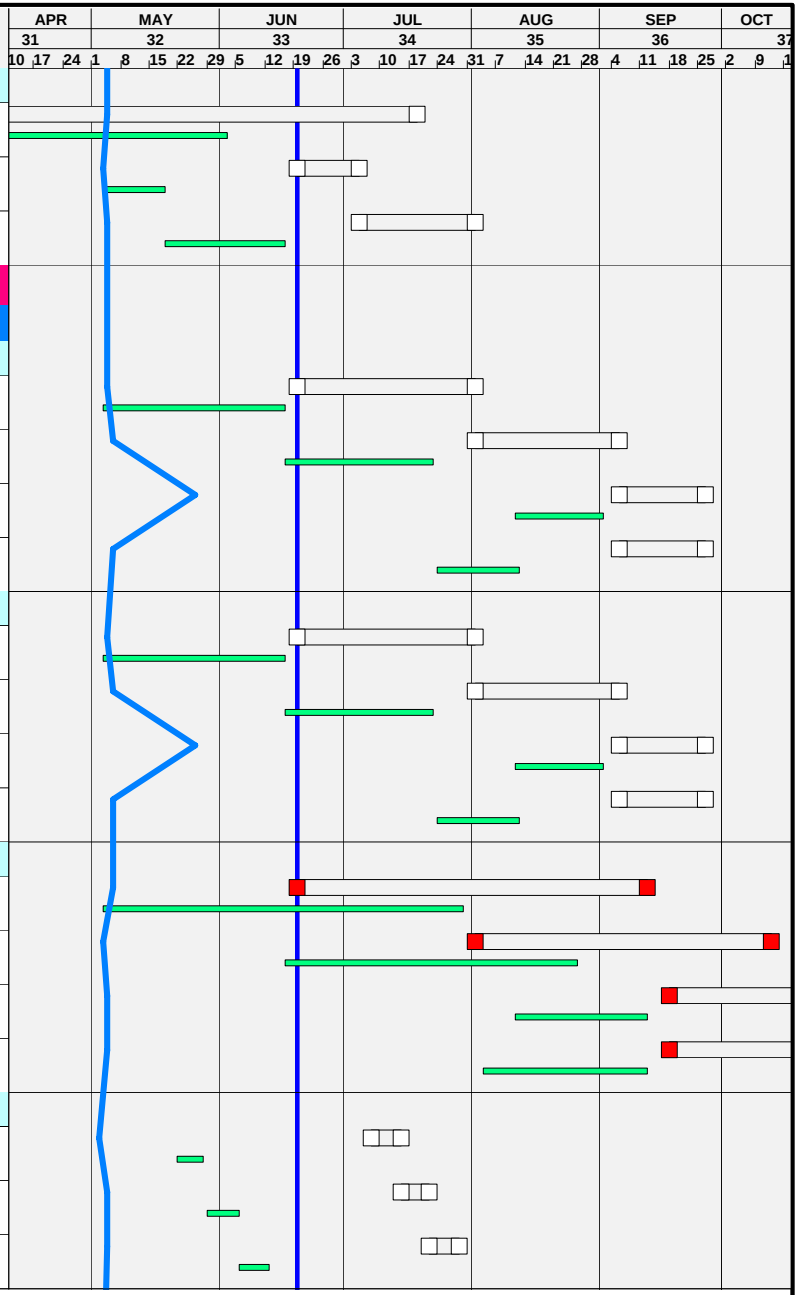
CONTRACTORS TARGET PROGRAMME REV.1

Proj. Name: W20E
Layout: 3 MONTHS ROLLING PROGRAMME
Filter: 3 MONTH ROLLING PROGRAMME
Current Proj: W20E
Target 1 Proj: BE02

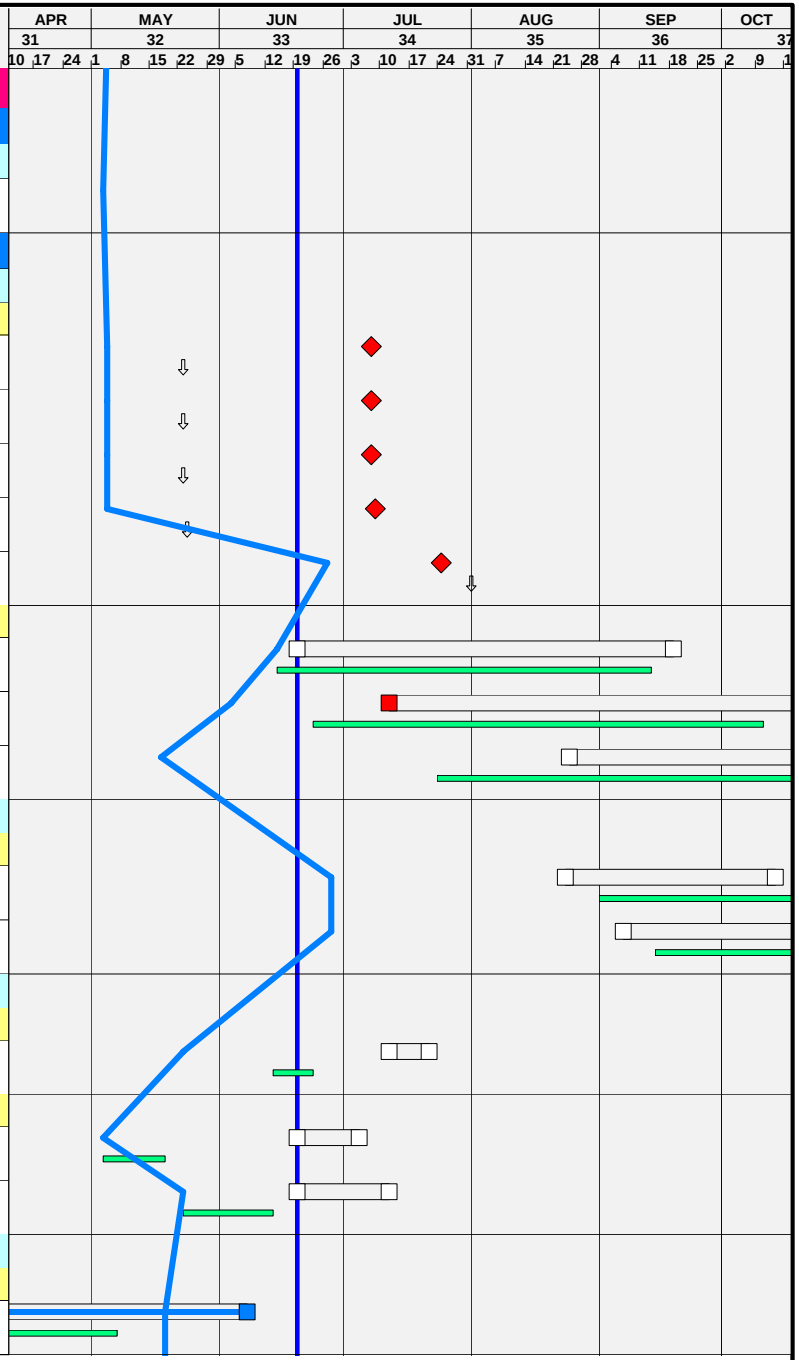
LKJV/ENT/DWP/B

Date	Revision	Checked	Approved
20JUN06	Prog update Jun 06	GW	RB

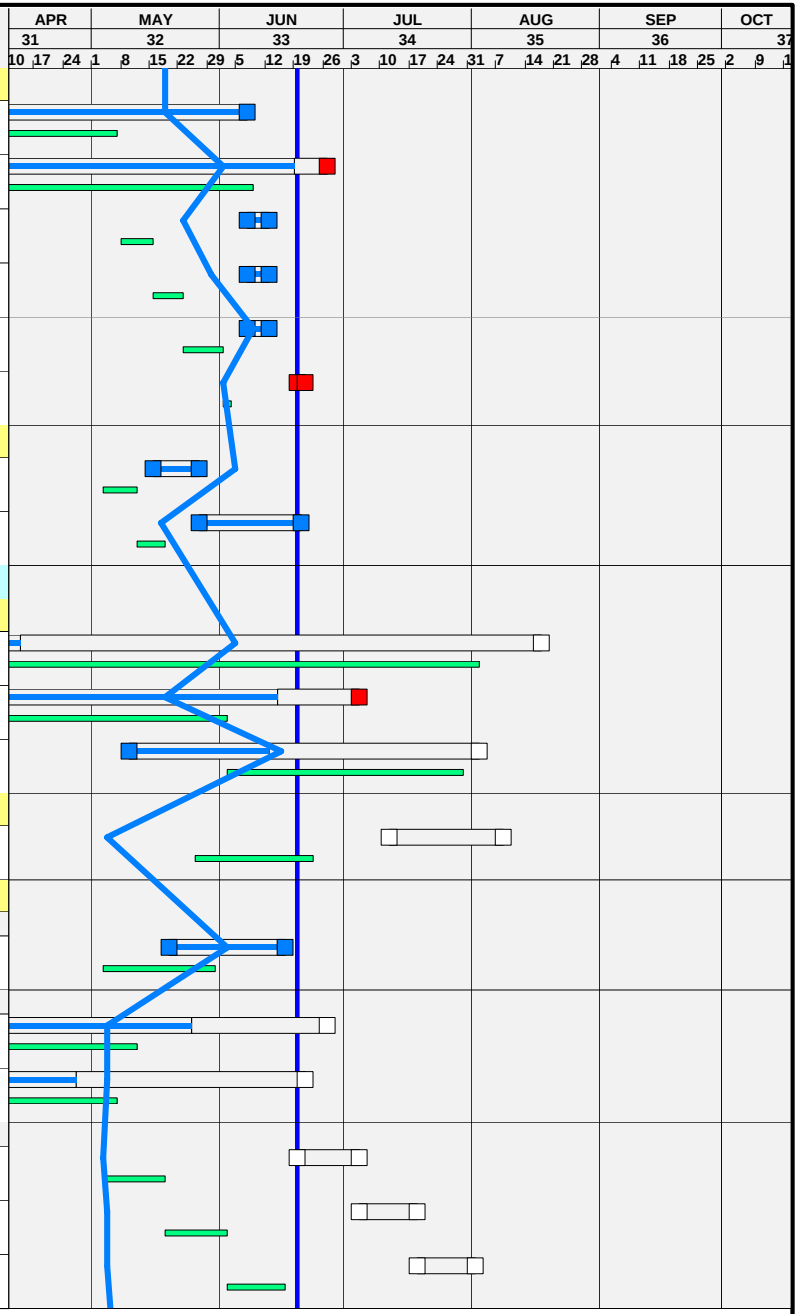
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Drawing Submittal & Approval									
8033	Re-sub. & Approv. of SHT & T3 & LCK CSD	24	28JUN05A	18JUL06	60	60	24	388	-38
8022	Engineer Comment / Approve ENT CSD Submissions	12	20JUN06	04JUL06	0	0	12	388	-38
8029	Re-sub. & Approv. of ENT CSD	24	05JUL06	01AUG06	0	0	24	388	-38
LAI CHI KOK VIADUCT									
Construction Works									
LCK Viaduct Noise Enclosure 1									
8322	LckVd NE1-Elect Works 1st Fix	36	20JUN06*	01AUG06	0	0	36	22	-38
8332	LckVd NE1-Elect Works 2nd Fix	30	02AUG06	05SEP06	0	0	30	22	-38
8342	LckVd NE1- Elect Cabling ENT SPB to N.E.	18	06SEP06	26SEP06	0	0	18	22	-21
8352	LckVd NE1 Elect Works Fin Fix	18	06SEP06	26SEP06	0	0	18	22	-38
LCK Viaduct Noise Enclosure 2									
7400	LckVd NE2-Elect Works 1st Fix	36	20JUN06*	01AUG06	0	0	36	22	-38
7410	LckVd NE2-Elect Works 2nd Fix	30	02AUG06	05SEP06	0	0	30	22	-38
7420	LckVd NE2- Elect Cabling ENT SPB to N.E.	18	06SEP06	26SEP06	0	0	18	22	-21
7430	LckVd NE2 Elect Works Fin Fix	18	06SEP06	26SEP06	0	0	18	22	-38
LCK Viaduct Noise Enclosure 3									
6737	LckVd NE3 & Elect Works 1st Fix	72	20JUN06*	12SEP06	0	0	72	-8	-38
6747	LckVd NE3 Elect Works 2nd Fix	60	02AUG06	12OCT06	0	0	60	-8	-38
6757	LckVd NE3 Cabling ENT SPB to N.E. 3	24	18SEP06	28OCT06	0	0	24	-8	-38
6767	LckVd NE3 Elect Works Fin Fix	24	18SEP06	28OCT06	0	0	24	-8	-38
CMCS Leased Lines at Pump Houses									
6807	E&M at Lai Wan Overpass Pump House	6	08JUL06	14JUL06	0	0	6	99	-39
6817	E&M at Lai Po Rd Pump House	6	15JUL06	21JUL06	0	0	6	99	-39
6827	E&M at Wai Man Tsuen Pump House	6	22JUL06	28JUL06	0	0	6	99	-39



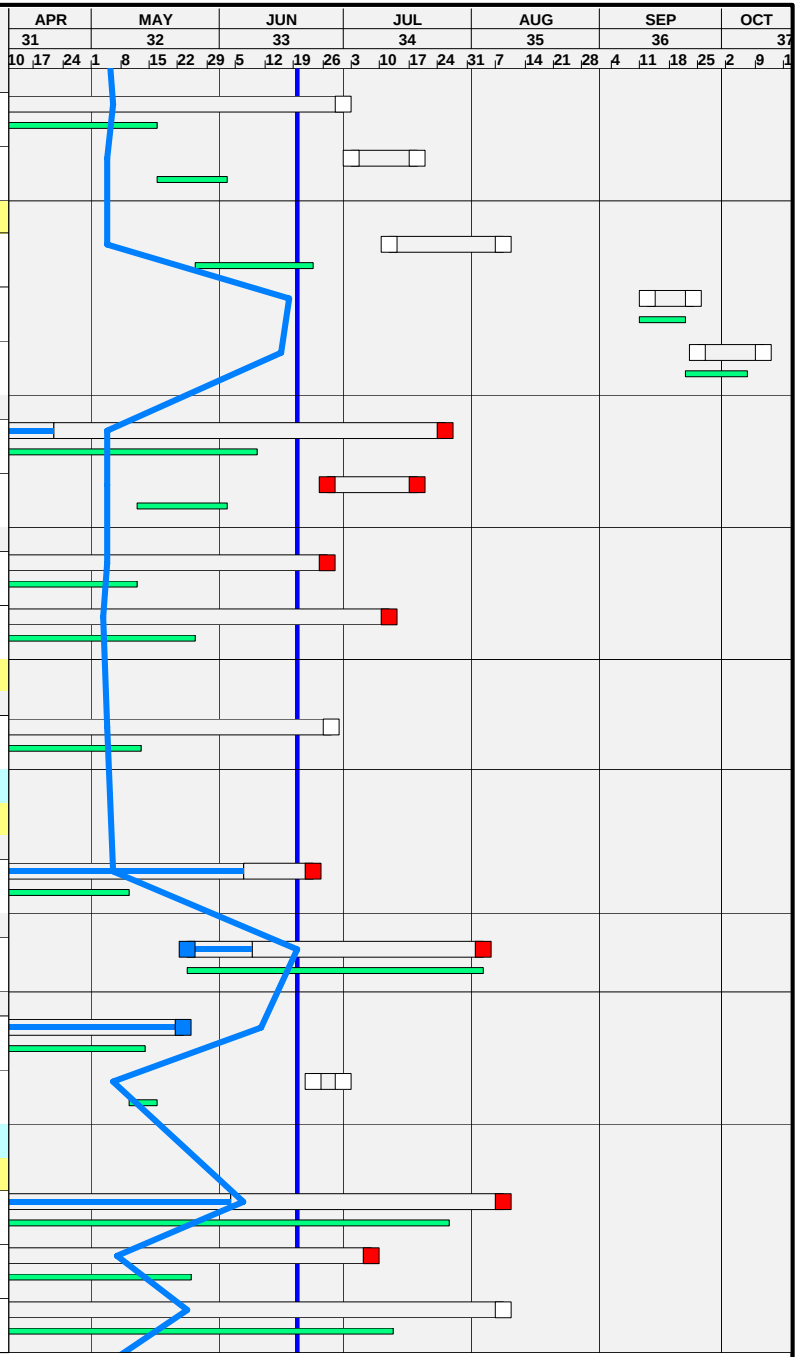
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
BUTTERFLY VALLEY									
Contract Key Dates & Milestones									
Area Access & Vacation Dates									
ACS_A	Access to Portions - A	0	20OCT03A		100	100	0		-47
Construction Works									
BUTTERFLY VALLEY 3RD PARTY WORKS									
TCSS at Butterfly valley Approach									
S2462	TCSS Access to Gantry MLS-CAP13 (NB) (15MAY06)	0		07JUL06	0	0	0	-44	-38
S2602	TCSS Access to Gantry MLS-CAP11 (NB) (15MAY06)	0		07JUL06	0	0	0	-44	-38
S2622	TCSS Access to Gantry MLS-CAP12 (SB) (11JUN06)	0		07JUL06	0	0	0	-22	-38
S2632	TCSS Access to VMS MLS-CAP14,15 (11JUN06)	0		08JUL06	0	0	0	-23	-38
S2592	TCSS Access to Duct & D.Pit West BV (15MAY06)	0		24JUL06	0	0	0	-58	6
Noise Barrier Works by ACCIONA									
S2562	Access for 7m N.B. Works by Acciona at BV South	77	20JUN06	18SEP06	0	0	77	18	-4
S2612	Access for S-Enclosure Works (Primary Elements)	90	12JUL06	26OCT06	0	0	90	-119	-14
S2662	Access for 5m N.B. Works by Acciona at BV South	90	25AUG06	11DEC06	0	0	90	278	-28
BUTTERFLY VALLEY E&M WORKS									
Butterfly Valley Miscellaneous E&M Works									
8440	Butterfly Valley - Elect Works 1st Fix	42	24AUG06	13OCT06	0	0	42	41	7
8430	Butterfly Valley - Elect Works 2nd Fix	36	07SEP06	20OCT06	0	0	36	41	7
MAJOR DRAINAGE DIVERSIONS									
Filling									
S2680	Fill on top of Box Culvert 45 & culvert A	9	12JUL06	21JUL06	0	0	9	48	-23
Box Culvert									
S2710	Box Cul. Final Structure (Strip, Clean & Fill)	12	20JUN06	04JUL06	0	0	12	63	-38
S2800	Culvert A Structure & connection to Bay 45	18	20JUN06	11JUL06	0	0	18	48	-23
MAJOR UTILITY DIVERSIONS									
WSD twin 600mm watermain									
S2191	Ch.100-150 (MB2-12) - on natural slope	19	25FEB06A	07JUN06A	100	90	0		-26



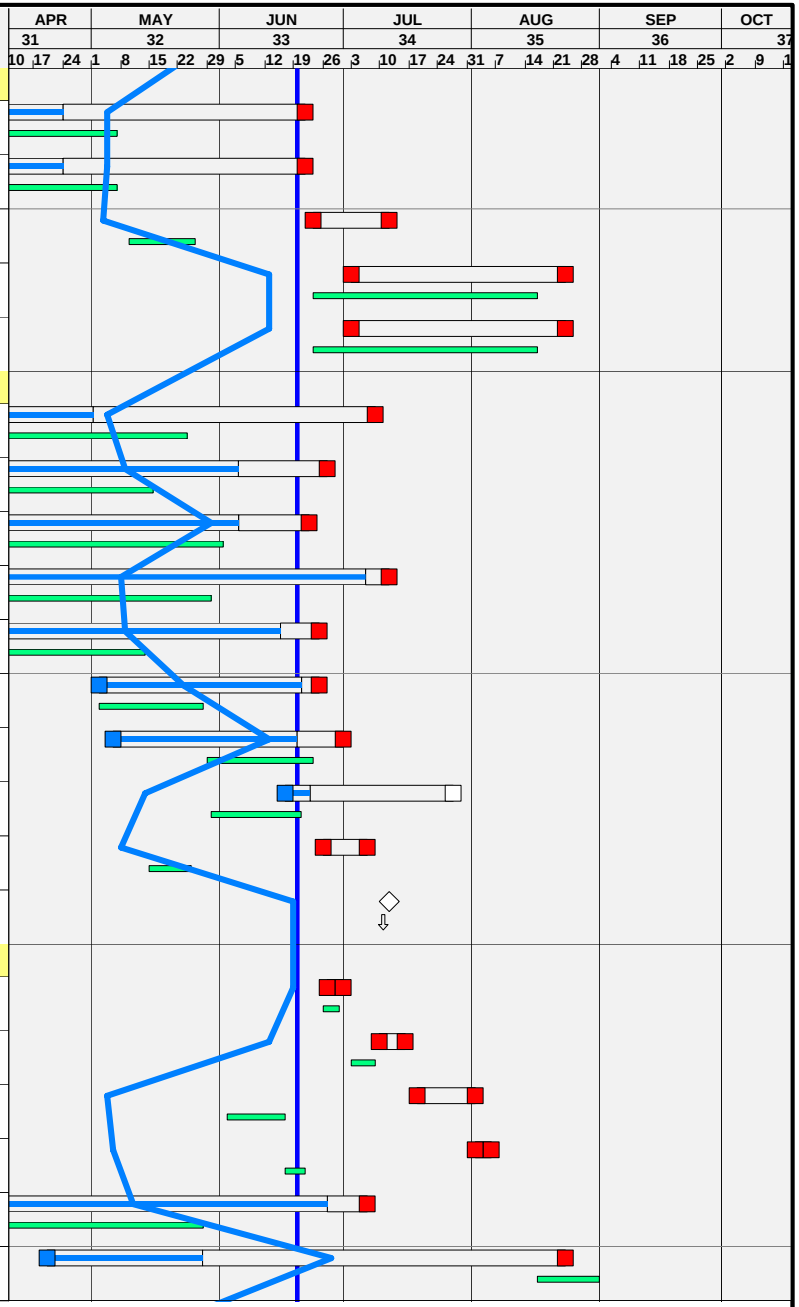
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
WSD twin 600mm watermain									
S2171	Ch. 150-312 (MB12-19) - at Toe of Slope BV-S2	56	31DEC05A	07JUN06A	100	90	0		-26
S2301	Outstanding thrust blocks (NB/MB01 & NB/MB28)	6	08APR06A	26JUN06	90	50	4	-97	-15
S2231	Testing	7	08JUN06A	12JUN06A	100	0	0		-23
S2241	Sterilization	6	08JUN06A	12JUN06A	100	0	0		-17
S2261	Water Sampling (by WSD)	8	08JUN06A	12JUN06A	100	0	0		-9
S2281	Connection (by WSD)	2	20JUN06	21JUN06	0	0	2	-97	-15
900mm watermain									
S2311	900mm - Connection by WSD	6	16MAY06A	26MAY06A	100	0	0		-13
S2331	900mm - Complete Thrust Blocks at Tie-in	6	27MAY06A	20JUN06A	100	0	0		-27
EARTHWORKS & SLOPEWORKS									
BV-R1 Remaining Works									
S3240	BV-R1 - Construction of Lagging Wall	91	20MAR06A	17AUG06	16	5	50	22	-13
S2120	Retaining Wall BV-R1 Structure (Wall)	87	13FEB06A	04JUL06	86	70	12	-133	-26
S2360	BV-R1 - Backfill	48	10MAY06A	02AUG06	40	0	25	78	-3
SLOPE SP-S2 & SP-S3									
S2370	Remaining Works to Slopes SP-S3 & SP-S2	24	12JUL06	08AUG06	0	0	24	91	-38
SLOPE BV-S2									
EXCAVATION (SOFT & ROCK)									
102695	BV-S2/10 (South)Slope excvtn (rock & some soft)	22	20MAY06A	16JUN06A	100	0	0		-14
SLOPE STABILISATION (SOIL NAILS,ROCK BOLTS ETC)									
102691	BV-S2/8 Inst.Rock bolts & Test (60nr.w/3.rig)	22	15FEB06A	26JUN06	75	75	6	103	-38
102694	BV-S2/9 Inst.Rock bolts & Test (4nr.w/1.rig)	5	28MAR06A	21JUN06	35	15	2	107	-38
20.500.130.180.035									
103805	BV-S2 Berm 8 hydro-seeding & tensar mat	12	20JUN06	04JUL06	0	0	12	97	-38
103811	BV-S2 Berm 9 hydro-seeding & tensar mat	12	05JUL06	18JUL06	0	0	12	97	-38
103812	BV-S2 Berm 10 hydro-seeding & tensar mat	12	19JUL06	01AUG06	0	0	12	97	-38



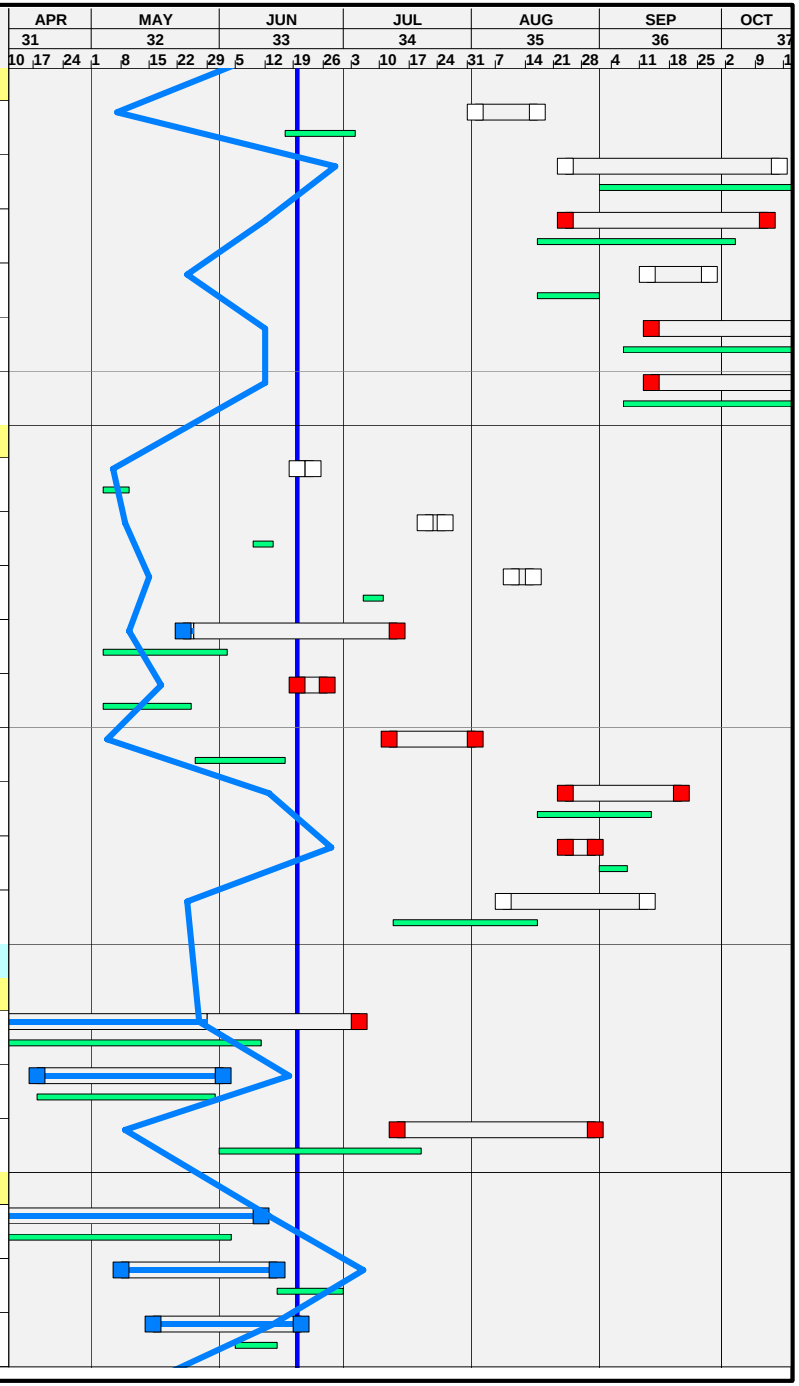
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
	SURFACE DRAINAGE								
103696	BV-S2 Berm 9 Surface drainage	14	01MAR06A	30JUN06	30	30	10	97	-38
103697	BV-S2 Berm 10 Surface drainage	14	03JUL06	18JUL06	0	0	14	97	-38
	SLOPE BV-S4								
S3580	Additional Soil Nails - Base of Pier 19	24	12JUL06	08AUG06	0	0	24	73	-38
S3050	Complete Outstanding Soil Nails for BVS4 (5No.)	10	13SEP06	23SEP06	0	0	10	16	-2
S3520	Remaining Raking Drains (11No.) & Hydroseeding	12	25SEP06	10OCT06	0	0	12	27	-2
	SLOPE FINISHES								
102380	BV-S4/3a-4a & 5 hydro-seeding & tensarmat	12	12SEP05A	25JUL06	70	70	10	-81	-38
101139	11nw/434 BV-S4/1-2-3bcd-4b Hydro-seed/Tensarmat	18	27JUN06	18JUL06	0	0	18	-75	-38
	SURFACE DRAINAGE								
103705	BV-S4/3 Surface Drainage	8	17MAR05A	26JUN06	70	70	6	-81	-38
103706	BV-S4/4 Surface Drainage	12	07SEP05A	11JUL06	5	5	10	-81	-38
	SLOPE SP-S1								
	SURFACE DRAINAGE								
103711	Sp-S1/4 Surface Drainage	7	06JUL04A	27JUN06	40	40	7	126	-38
	RC STRUCTURES								
	RETAINING WALL BV-R2								
	CONCRETE WORKS								
101117	BV-R2 (8) Capping Beam and wall	30	03MAR06A	23JUN06	85	85	4	-141	-38
	FINISHES								
101123	BV-R2 Wall finishes	60	24MAY06A	03AUG06	22	0	22	-129	0
	BACKFILLING								
101122	BV-R2(A&B) Granular Drain & Compacted Backfill	36	07APR05A	22MAY06A	100	80	0		-7
101126	BV-R2(C) Granular Drain & Compacted Backfill	6	24JUN06	30JUN06	0	0	6	110	-38
	ROADWORKS - North End of BV								
	Stormwater Drainage								
S2440	Storm Drainage to Nrth Bnd (Nr. Typ C&E N.B.)	37	31DEC05A	08AUG06	70	40	11	-133	-11
S3200	Storm Drainage to Sth Bnd (Nr. Typ D N.B.)	37	31DEC05A	07JUL06	45	45	15	-106	-36
S2430	West Loop Rd. Drainage	20	19JAN06A	08AUG06	30	30	15	48	-23



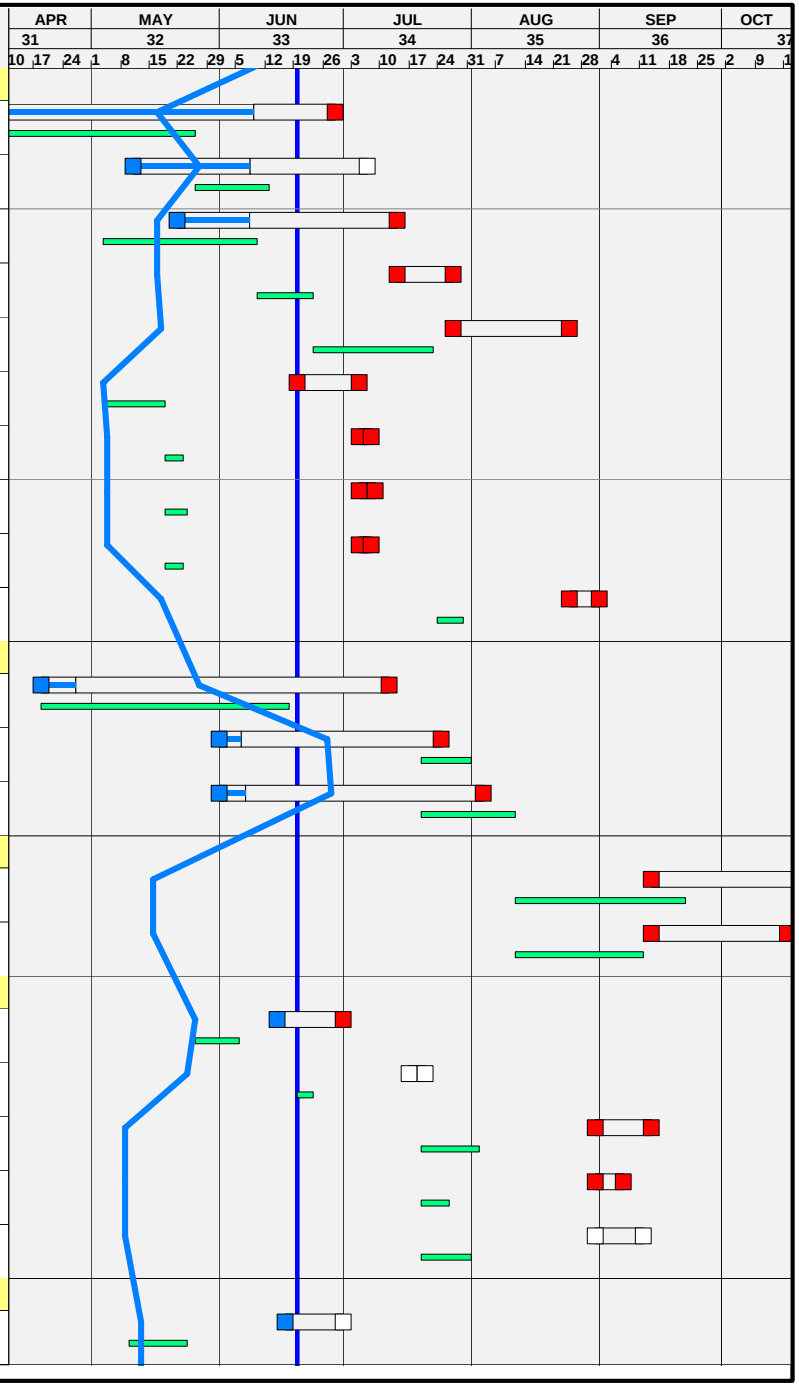
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Stormwater Drainage									
S3020	Storm Drainage to enable TCSS Works at Median	12	24FEB06A	21JUN06	50	50	2	-138	-38
S3040	Storm Drainage to enable CLP Works	12	24FEB06A	21JUN06	50	50	2	-138	-38
S2420	Outstanding East Loop Rd. Drainage	28	24JUN06	11JUL06	0	0	14	-84	-38
S2450	Storm Drainage to Sth Bnd (Nr. Typ B N.B.)	45	03JUL06	23AUG06	0	0	45	-146	-6
S2630	250mm pipe connect E./W. stream + 3No. Chamber	24	03JUL06	23AUG06	0	0	24	-146	-6
Noise Barrier Footings & Sign Gantries									
S2230	Semi Enclosure Footing (Typ B) R-Bay 15-17	16	13DEC05A	08JUL06	67	35	6	-141	-38
S2240	Semi Enclosure Ftng (Typ B) R-Bay 14-7	25	13DEC05A	26JUN06	89	18	6	-142	-35
S3260	Semi Enclosure Footing (Typ E) L-Bay 14-17	18	14MAR06A	22JUN06	83	75	3	-104	-18
S3030	Semi Enclosure Ftng (Typ B) R-Bay 1-6	25	20MAR06A	11JUL06	95	45	4	-119	-35
S3270	Semi Enclosure Ftng (Type C) L-Bay 1-6	36	23MAR06A	24JUN06	90	73	5	-141	-35
S2310	Semi Enclosure Footing (Typ D) L-Bay 7-10	20	03MAY06A	24JUN06	92	23	5	-146	-23
S2270	Semi Enclosure Footing (Type D) L-Bay 11-13	22	06MAY06A	30JUN06	80	0	5	-146	-6
S3550	Base for HML 3 & Dwarf Walls	18	17JUN06A	27JUL06	15	0	14	85	-31
S3530	Base for HML 1	9	26JUN06	06JUL06	0	0	9	-105	-35
S3300	SP Bldg Tower Crane Removed	0		11JUL06*	0	0	0	115	-1
Ducting & Drawpits									
S3640	BV North - CLP Ducts at SP Bldg	4	27JUN06	30JUN06	0	0	4	3	-1
S3630	BV North - CLP Ducts at Median	6	10JUL06	15JUL06	0	0	6	-9	-6
S2570	Bv North - CLP Ducts near DSD Access Ramp	4	19JUL06	01AUG06	0	0	0	-80	-38
S3620	BV North - CLP Ducts Across SB Carriageway	4	02AUG06	05AUG06	0	0	4	-84	-38
S2560	BV North - TCSS Ducting & Drawpits (West)	18	01APR06A	06JUL06	90	5	4	-43	-32
S2770	BV North - LV Ducting & Drawpits	13	20APR06A	23AUG06	30	0	9	-78	7



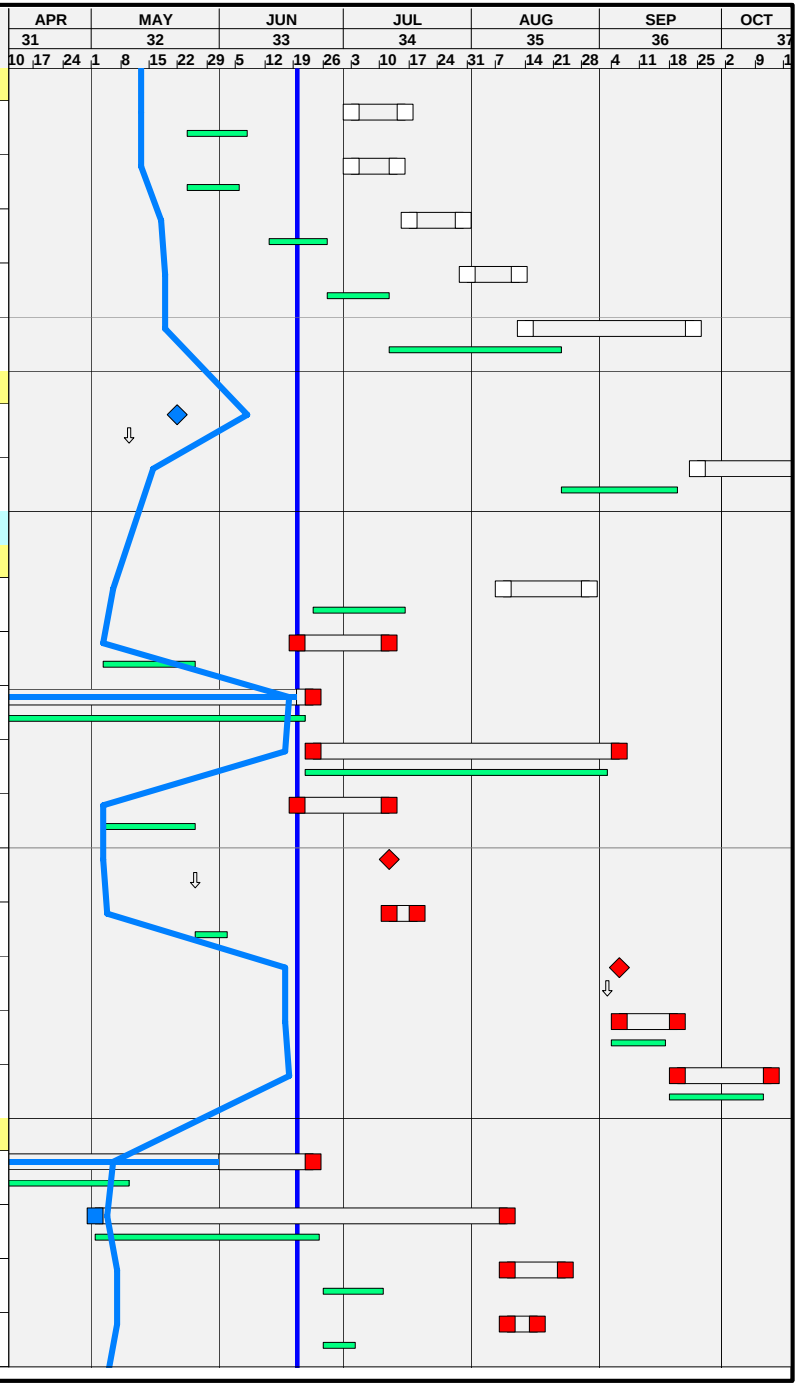
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Road Pavement & Associated Work									
S2920	Road Works to East Loop Rd Typ III (EVA)	13	02AUG06	16AUG06	0	0	13	84	-38
S2222	BV North - Subbase to Nrth Bound Carriageway	43	24AUG06	14OCT06	0	0	43	17	7
S2232	BV North - Subbase to Sth Bound Carriageway	40	24AUG06	11OCT06	0	0	40	-146	-6
S2930	Road Works to West Loop Road Typ III (EVA)	13	13SEP06	27SEP06	0	0	13	48	-23
S2540	BV North - Kerbs & CPB to Nrth Bound Carriageway	36	14SEP06	02NOV06	0	0	36	-146	-6
S2890	BV North - Kerbs & CPB to Sth Bound Carriageway	36	14SEP06	02NOV06	0	0	36	2	-6
Miscellaenous Works									
S3100	Erect HML 2	4	20JUN06	23JUN06	0	0	4	129	-38
S2870	Erect HML 1	4	21JUL06	25JUL06	0	0	4	103	-35
S3450	Erect HML 3	4	11AUG06	15AUG06	0	0	4	85	-31
S2660	Construct Foul Holding Tank & Connections	24	23MAY06A	13JUL06	5	0	20	-111	-34
S2910	Foul Drain Pipe Across SB Tube (3m Below FRL)	6	20JUN06	26JUN06	0	0	6	-97	-27
S2670	Install Twin DN200 Pipes to SPB via E. Loop Rd	18	12JUL06	01AUG06	0	0	18	-84	-38
S2590	Installation of DN200 Fire Hydrant Pipe and FH's	24	24AUG06	20SEP06	0	0	24	-146	-6
S3400	Base for Kiosk K3	6	24AUG06	30AUG06	0	0	6	-78	7
S3000	Construct Recreated Stream	30	09AUG06	12SEP06	0	0	30	48	-23
ROADWORKS - South End of BV									
Stormwater Drainage									
S2640	Storm Drainage to Sth Bnd (Near. 7m N.B.)	30	03APR06A	04JUL06	60	60	12	-141	-19
S2810	Removal of Stockpile at BV-S2	24	18APR06A	01JUN06A	100	8	0		-1
S2490	Storm Drainage to Nrth Bnd (Foot of BVS2)	41	14JUL06	30AUG06	0	0	41	-184	-36
Noise Barrier Footings & Sign Gantries									
S2400	7 Barrier (Typ A) Bay 3-16	54	11JAN06A	10JUN06A	100	52	0		-6
S3180	7m Barrier Ftg (Typ A1, A2) Bay 1-2	14	08MAY06A	14JUN06A	100	0	0		14
S3560	7m Barrier (Typ A) Bay 8 - Including Gantry Foot	9	16MAY06A	20JUN06A	100	0	0		-5



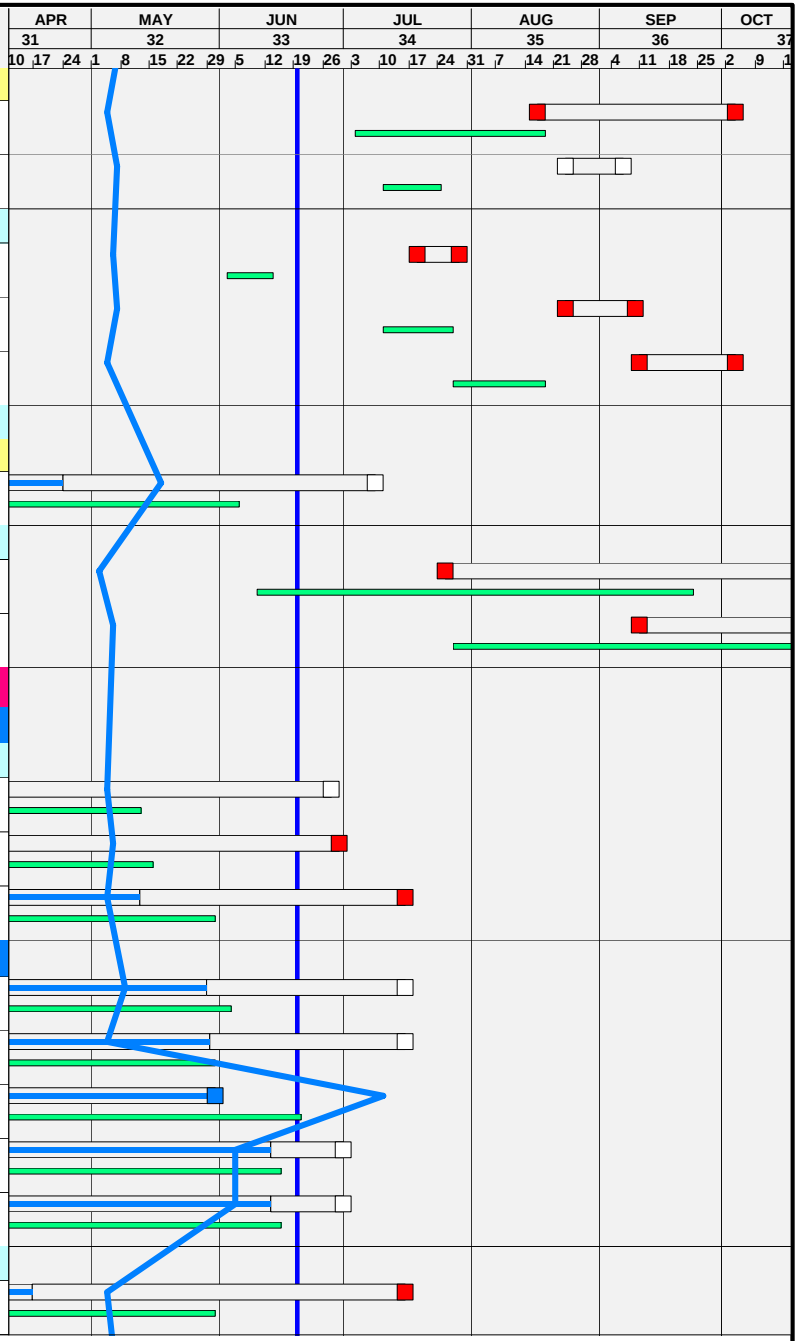
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Noise Barrier Footings & Sign Gantries									
S3170	5.5m Barrier Footings Bay 3-14	42	11MAR06A	28JUN06	82	62	8	-164	-28
S2491	5.5m Barrier Footings Bay 1-2	14	11MAY06A	06JUL06	50	0	6	59	-20
S2471	Mini-piling	30	22MAY06A	13JUL06	33	0	20	-173	-28
S3330	Load Test for mini-piles	12	14JUL06	27JUL06	0	0	12	-173	-28
S2481	5.5m Barrier Footings Bay 15-17	24	28JUL06	24AUG06	0	0	24	-173	-28
S2620	BV South - Sign / Lane Signal Gantry Bases (5no)	12	20JUN06	04JUL06	0	0	12	-44	-38
S2461	Sign gantry Installation MLS-CAP12	3	05JUL06	07JUL06	0	0	3	-22	-38
S3370	Signal Gantry Installation MLS-CAP14 & 15	4	05JUL06	08JUL06	0	0	4	-23	-38
S3380	Sign Gantry Installation MLS-CAP11,13	3	05JUL06	07JUL06	0	0	3	-44	-38
S2250	Footing for CCTV mast	6	25AUG06	31AUG06	0	0	6	-173	-28
Ducting & Drawpits									
S2530	BV South - TCSS Ducts & Drawpits (East)	10	19APR06A	11JUL06	10	10	18	-129	-19
S3350	BV South - TCSS Ducts & Drawpits (West)	10	01JUN06A	24JUL06	10	0	9	-58	6
S2740	BV South - LV Ducts & Drawpits	20	01JUN06A	03AUG06	10	0	18	-149	7
Road Pavement & Associated Work									
S2510	BV Sth - Trim Formation & S'base - Nth Bnd	35	14SEP06	26OCT06	0	0	35	-184	-28
S2940	BV Sth - Trim Formation & S'base - Sth Bnd	26	14SEP06	16OCT06	0	0	26	-29	-28
Miscellaneous Works									
S2610	BV South - Footing HML9 (Adjacent 5.5m NB)	8	15JUN06A	30JUN06	0	0	2	-121	-22
S2850	Erect HML9	4	17JUL06	20JUL06	0	0	4	107	-22
S2790	Installation of DN 200 Fire Hydrant Pipe & FH's	12	31AUG06	13SEP06	0	0	12	-184	-36
S3320	Base for kiosk K4	6	31AUG06	06SEP06	0	0	6	-102	-36
S3340	Construction of Weighbridge Pit	10	31AUG06	11SEP06	0	0	10	56	-36
LKJV Works at Abutment M									
S3250	Backfilling behind Abutment	12	17JUN06A	30JUN06	10	0	10	51	-32



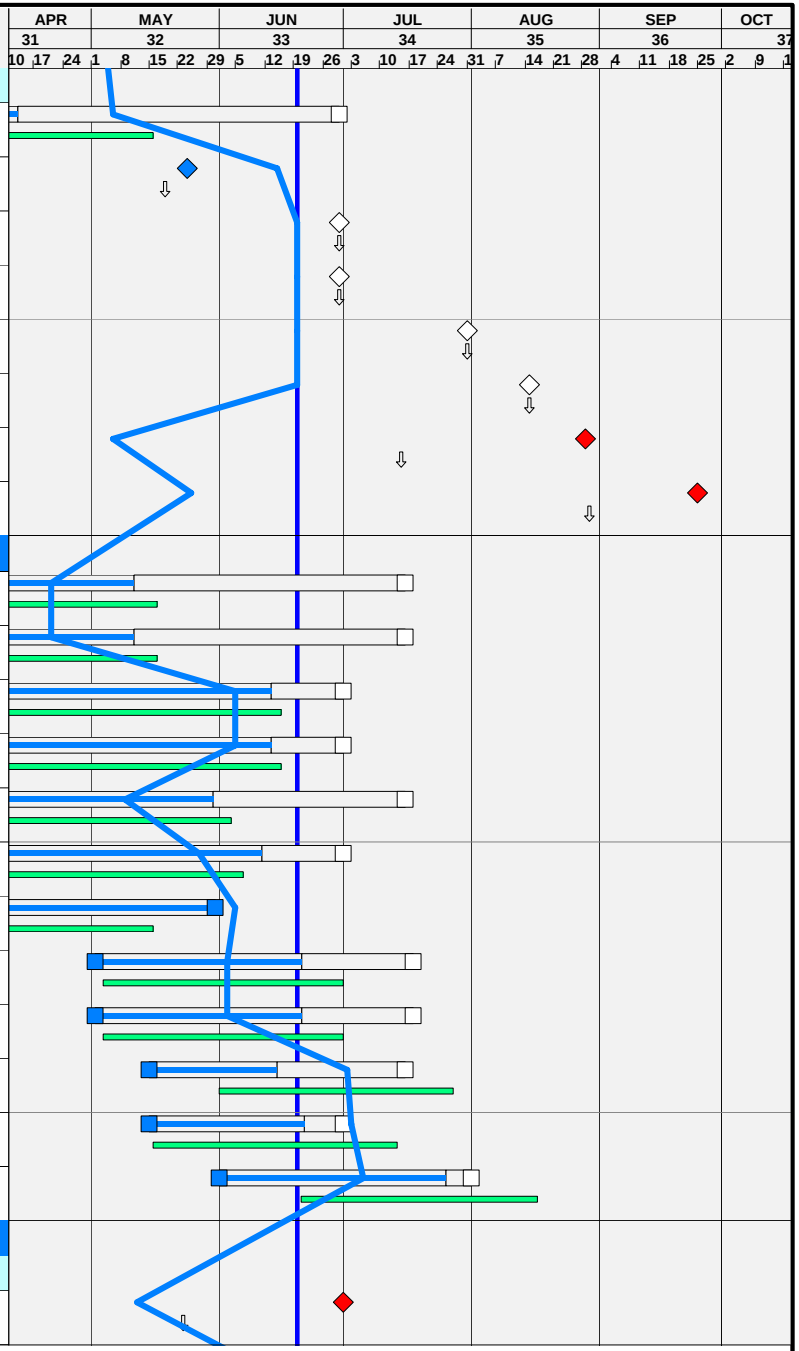
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
LKJV Works at Abutment M									
S3430	Storm Drainage (MH02 & MH09 + 5 Gullies)	12	03JUL06	15JUL06	0	0	12	51	-32
S3600	Storm Drainage (MH07 & MH04)	10	03JUL06	13JUL06	0	0	10	53	-32
S3440	200mm Watermain, valve pit & FH-6	12	17JUL06	29JUL06	0	0	12	51	-28
S3470	Ducting & drawpits in Portion B	12	31JUL06	12AUG06	0	0	12	51	-28
S3420	Complete remaining roadworks within Portion B	36	14AUG06	23SEP06	0	0	36	51	-28
ACCIONA Works at Abutment									
S3590	ACCIONA Vacate Area at Abutment M	0	22MAY06A		100	0	0		-10
S3480	ACCIONA - Dismantle Launching Girder	24	25SEP06	24OCT06	0	0	24	318	-28
DSD MAINTENANCE ROAD									
DSD Maintenance Rd DSD1-1 (Acciona Interface)									
S3570	WSD Slope Reinstatement	18	09AUG06	29AUG06	0	0	18	73	-38
S2340	ACCIONA - Remove Crane Platform	18	20JUN06	11JUL06	0	0	18	-92	-38
S2500	ACCIONA - Construct Pierhead & X-Head - Pier P21	90	15MAR06A	23JUN06	96	50	4	13	-2
S2550	ACCIONA - Cure, Strip & Reinstate Area - Pier 21	62	24JUN06	05SEP06	0	0	62	13	-2
S2330	Com DN200 Div along DSD1-1 - inc. Leak Collect	18	20JUN06*	11JUL06	0	0	18	-77	-38
S2460	LKJV Regain Access at Pier 20	0		11JUL06	0	0	0	-92	-38
S2390	Remaining DN200 Watermain at Pier 20 Access	6	12JUL06	18JUL06	0	0	6	-92	-38
S2410	LKJV Regain Access at Pier 21 for Remaining Work	0		05SEP06	0	0	0	13	-2
S3460	MH R400-05 & Drain from R400-04	12	06SEP06	19SEP06	0	0	12	13	-2
S2380	Complete DSD1-1 Surface Drainage & CP's	18	20SEP06*	12OCT06	0	0	18	13	-2
DSD Maintenanace Rd DSD1 (Parallel to Channel)									
S3210	2 No. Cross Rd Pipes & Roadside Gullies	12	01MAR06A	23JUN06	80	80	4	-114	-38
S2830	Twin DN200 Water Pipe	45	02MAY06A	09AUG06	1	1	43	-114	-38
S2700	Access rd DSD1 -barrier footings	12	10AUG06	23AUG06	0	0	12	-114	-38
S3390	Complete Formation at DSD1	6	10AUG06	16AUG06	0	0	6	-114	-38



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
DSD Maintenanace Rd DSD1 (Parallel to Channel)									
S3120	DN 200 Watermain Diversion EB18 - EB70	40	17AUG06	03OCT06	0	0	40	-1	-38
S2720	Access rd DSD1 - Barriers	12	24AUG06	06SEP06	0	0	12	66	-38
Works By CLP									
S3650	Lay CLP Cables Ch30 - Ch110	9	19JUL06	28JUL06	0	0	9	-92	-38
S2840	Lay CLP Cables Ch110 - Ch230	15	24AUG06	09SEP06	0	0	15	-114	-38
S2860	Lay CLP Cables Ch230 - Ch395 (SB Carriageway)	19	11SEP06	03OCT06	0	0	19	-114	-38
Terrain Mitigation									
NTMM - BV-S2									
102350	NTMM - Afforestation of Area	60	22MAR06A	08JUL06	30	5	16	117	-28
Landscaping & Establishment									
101475	BV - Hard Landscaping	90	26JUL06	10NOV06	0	0	90	-81	-38
101476	BV - Soft Landscaping & Planting	100	11SEP06	04JUN07	0	0	100	-82	-38
ENT SOUTH PORTAL VENTILATION BUILDING									
SUBMITTALS & APPROVALS									
E&M EQPT.& MATERIAL APPROVALS									
6004	EntSpBldg-App. PD irrig. sys	18	05MAY05A	27JUN06	70	70	7	401	-38
1919	SP.Bldg. - Approve doors details	24	07MAY05A	29JUN06	80	80	9	-99	-38
1943	SP.Bldg. - Approve aluminium composite cladding	24	13DEC05A	15JUL06	70	70	22	-40	-38
PROCUREMENT - MATERIAL									
6008	EntSpBldg-Proc & Manuf. LV power dist. equip't	180	21MAR05A	15JUL06	90	80	22	402	-35
6079	EntSpBldg-Proc & Manuf. FS AFA & FM200 sys	120	29MAR05A	15JUL06	90	90	22	402	-38
6193	EntSpBldg-Proc. & Manuf. of CMCS & ELV sys	180	29MAR05A	30MAY06A	100	85	0		17
6009	EntSpBldg-Proc & Manuf. MVAC mech.vent. sys	120	06JAN06A	30JUN06	90	60	10	414	-13
6035	EntSpBldg-Proc & Manuf. MVAC Package AC Units	120	06JAN06A	30JUN06	90	60	10	414	-13
ABWF WORKS									
1951	SP.Bldg. - Procure aluminium composite cladding	180	19APR05A	15JUL06	80	80	22	-40	-38



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
ABWF WORKS									
1979	SP.Bldg. - Procure expanded metal mesh cladding	180	05JUN05A	29JUN06	80	80	9	21	-38
2017	SP.Bldg. - Initial delivery of louvres	0	24MAY06A		100	0	0		-4
2018	SP.Bldg. - Initial deliver fall arrest roof syst	0	30JUN06*		0	0	0	81	0
2030	SP.Bldg. - Initial deliver balust & metal works	0	30JUN06*		0	0	0	81	0
2019	SP.Bldg. - Initial deliver of slate cladding	0	31JUL06*		0	0	0	32	0
2025	SP.Bldg- Initial deliver exp metal mesh cladding	0	15AUG06*		0	0	0	19	0
1977	SP.Bldg. - Initial deliver of doors	0	29AUG06*		0	0	0	-99	-38
2029	SP.Bldg. - Initial deliv alum composite cladding	0	25SEP06*		0	0	0	-40	-22
MAJOR EQUIPMENT DELIVERY									
6033	EntSpBldg-Del. PD pump & tank to G/F	48	06MAR06A	15JUL06	50	55	22	402	-50
6038	EntSpBldg-Del. FS pumps & tank to G/F	48	06MAR06A	15JUL06	50	55	22	402	-50
6050	EntSpBldg-Del. building vent. fans	64	06MAR06A	30JUN06	85	40	10	414	-13
6133	EntSpBldg-Del. Package AC Units	64	06MAR06A	30JUN06	85	40	10	414	-13
6037	EntSpBldg-Del. LV power dist. equip't to 3/F	48	21MAR06A	15JUL06	60	35	22	402	-35
6752	EntSpBldg-Del. MVAC /TVF pneumatic sys to 1/F	48	24MAR06A	30JUN06	80	20	10	414	-21
6762	EntSpBldg-Del. TVS to Plenum & 3/F	48	24MAR06A	30MAY06A	100	70	0		-13
6034	EntSpBldg-Del. PD irrig. pump & tank to G/F	48	02MAY06A	17JUL06	65	0	16	401	-13
6778	EntSpBldg-Del. ENT Tunnel (Hyd/HR) pumps to G/F	48	02MAY06A	17JUL06	65	0	23	401	-13
6163	EntSpBldg-Del. AFA & FM200 sys	48	15MAY06A	15JUL06	50	0	22	402	10
6744	EntSpBldg-Del. MVAC MCC, & control sys to 3/F	48	15MAY06A	30JUN06	80	0	10	414	10
6194	EntSpBldg-Del. CMCS & ELV equip't	48	01JUN06A	31JUL06	90	0	35	389	14
CONSTRUCTION									
South Portal Bldg. - TCSS Access									
T2620	NB carriageway OHVD slab TCSS initial access	0		30JUN06	0	0	0	-87	-39



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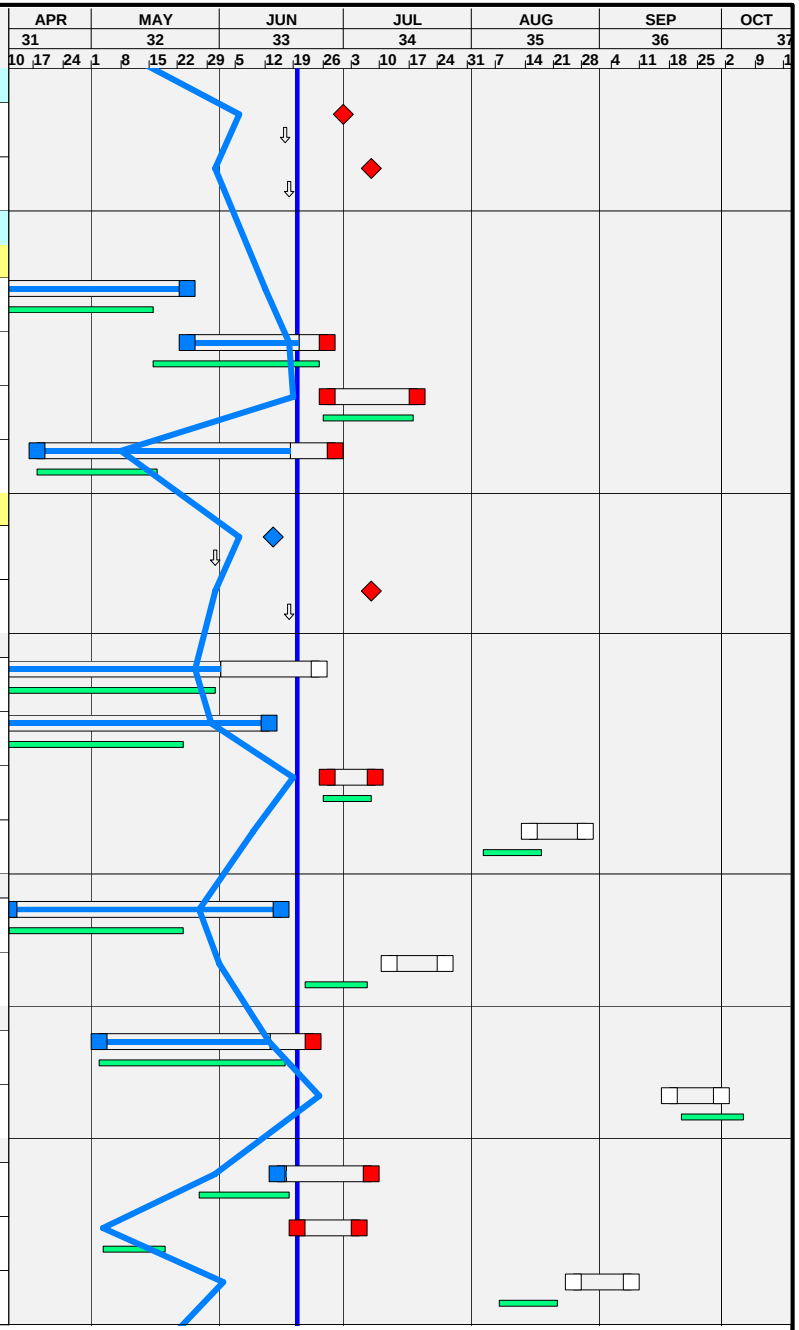
South Portal Bldg. - TCSS Access									
T2640	SB carriageway OHVD slab TCSS initial access	0		30JUN06	0	0	0	-67	-14
T2720	SP Bldg - TCSS Access Entire Structure	0		07JUL06	0	0	0	-60	-16
South Portal Bldg. - CIVIL & ABWF WORKS									
STRUCTURES									
T2480	3rd Flr Walls & Cols & 4th Flr Slab (+95.3mPD)	43	04APR06A	23MAY06A	100	65	0		-7
T2740	4th Flr Walls & Cols & Roof Slab (+102.3mPD)	34	24MAY06A	26JUN06	80	0	6	-64	-1
T2750	Exhaust Shaft (+111.85mPD)	18	27JUN06	18JUL06	0	0	18	-64	-1
T2920	Backfilling at South Portal Building	18	18APR06A	28JUN06	85	60	8	-184	-36
ABWF WORKS									
T2370	Below Transf slab- Available for BB deliveries	0		13JUN06A	0	0	0		-11
T2380	Above Transf slab - Available for BB delivery	0		07JUL06	0	0	0	-76	-16
SB Bldg - Internal Works GF									
T2650	ABWF Initial finishes & Doors to CLP Rm & GF	18	06APR06A	24JUN06	70	5	5	98	-21
T3290	CLP Rm, Scrd, Tile, Paint and Doors	18	06APR06A	12JUN06A	100	20	0		-17
T3300	Complete Works to HV & LV Cable Risers	10	27JUN06	08JUL06	0	0	10	-57	-1
T2760	GF - Paint touch up & Doors	12	15AUG06	28AUG06	0	0	12	74	-9
SP Bldg - Internal Works 1F & LP									
T2670	ABWF Initial finishes LP & 1F	18	11APR06A	15JUN06A	100	15	0		-20
T2770	1F & LP - Paint touch up & Doors	12	12JUL06	25JUL06	0	0	12	103	-16
SP Bldg - Internal Works 2F									
T2660	ABWF Initial finishes 2F	18	03MAY06A	23JUN06	80	5	4	-65	-6
T2780	2F - Paint touch up & Doors	12	18SEP06	30SEP06	0	0	12	45	3
SP Bldg - Internal Works 3/F									
T2680	ABWF Initial finishes 3F	18	15JUN06A	07JUL06	10	0	15	-97	-16
T3160	Installation of Crane beam to underside of 3FL	12	20JUN06	04JUL06	0	0	12	-46	-38
T2800	3F - Paint touch up & Doors	12	26AUG06	08SEP06	0	0	12	64	-16



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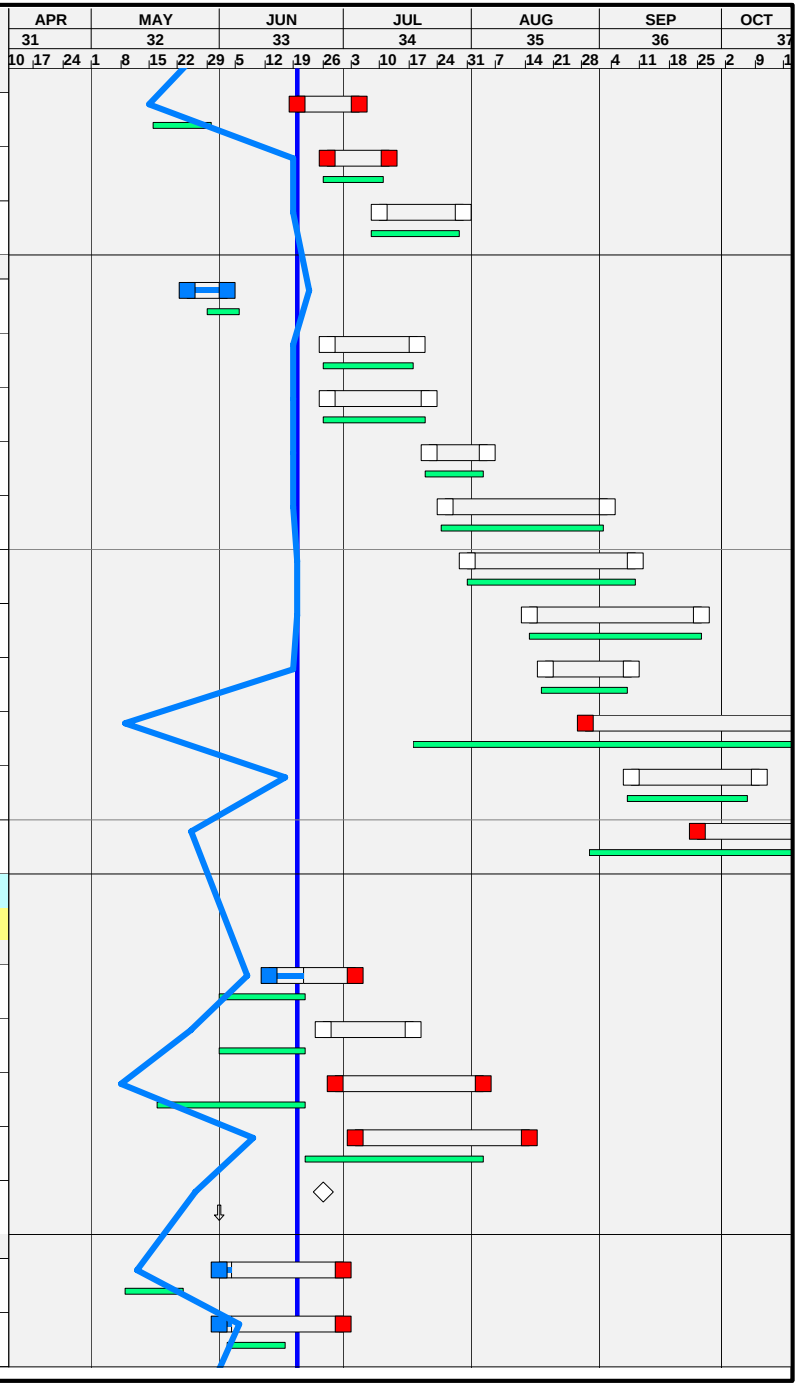
SP Bldg - Internal Works 4F & Above									
T3170	Installation of Crane beam to underside of 4FL	12	20JUN06	04JUL06	0	0	12	-46	-29
T3150	Intallation of Crane beam to underside of 5FL	12	27JUN06	11JUL06	0	0	12	-46	-1
T2690	ABWF Initial finishes 4F	18	10JUL06	29JUL06	0	0	18	87	-1
Roof & External Facade									
T2580	SB carriageway OHVD slab +74 finishes	6	24MAY06A	02JUN06A	100	0	0		2
T2820	Ent SPB - Ext. Wall Waterproof Render	18	27JUN06	18JUL06	0	0	18	26	-1
T2825	Ent SPB - Ext. Wall Waterproof Membrane	21	27JUN06	21JUL06	0	0	21	15	-1
T2530	Ent SPB - Roof Waterproofing & Test	12	22JUL06	04AUG06	0	0	12	21	-1
T2410	Ent SPB - External Wall Painting	34	26JUL06	02SEP06	0	0	34	26	-1
T2540	Ent SPB - Slate Cladding above NB/SB Carriageway	36	31JUL06	09SEP06	0	0	36	32	0
T2390	Ent SPB - Expanded metal cladding to Ext Walls	36	15AUG06	25SEP06	0	0	36	19	0
T2730	Ent SPB - 25thk Roof Screed & Roofing Tiles	18	19AUG06	08SEP06	0	0	18	21	-1
T2710	Ent SPB - Install Aluminum louvres & doors	90	29AUG06	14DEC06	0	0	90	-99	-36
T2360	Ent SPB - GMS,S/S Channel, Balustrade & Railing	24	09SEP06	09OCT06	0	0	24	21	-1
T2400	Ent SPB - Alum. Comp Panel Cladding to Ext Walls	60	25SEP06	06DEC06	0	0	60	-40	-22
ENT South Portal Bldg. - BUILDING SERVICES									
E & M WORKS									
ENT South Portal Bldg (G/F) - E & M Works									
EM1290	BB Work to CLP Room	18	13JUN06A	03JUL06	40	0	11	-22	-9
EM1300	Installation of FS Pumps and Pipework at GF	18	26JUN06	17JUL06	0	0	18	98	-21
T2320	Installation of Earth Mat at SP Bldg	30	29JUN06	03AUG06	0	0	30	-12	-36
T2310	CLP work in CLP room	36	04JUL06	14AUG06	0	0	36	-22	-9
EM1280	E&M Access to G/F	0	26JUN06		0	0	0	98	-21
ENT South Portal Bldg (1F/Lwr Plen) - E & M Work									
T2610	NB carriageway OHVD slab + 74 / BB 1st fix	12	01JUN06A	30JUN06	10	0	10	-68	-33
T2630	SB Carriageway OHVD slab +74 / BB 1st Fix	12	01JUN06A	30JUN06	10	0	10	-55	-12



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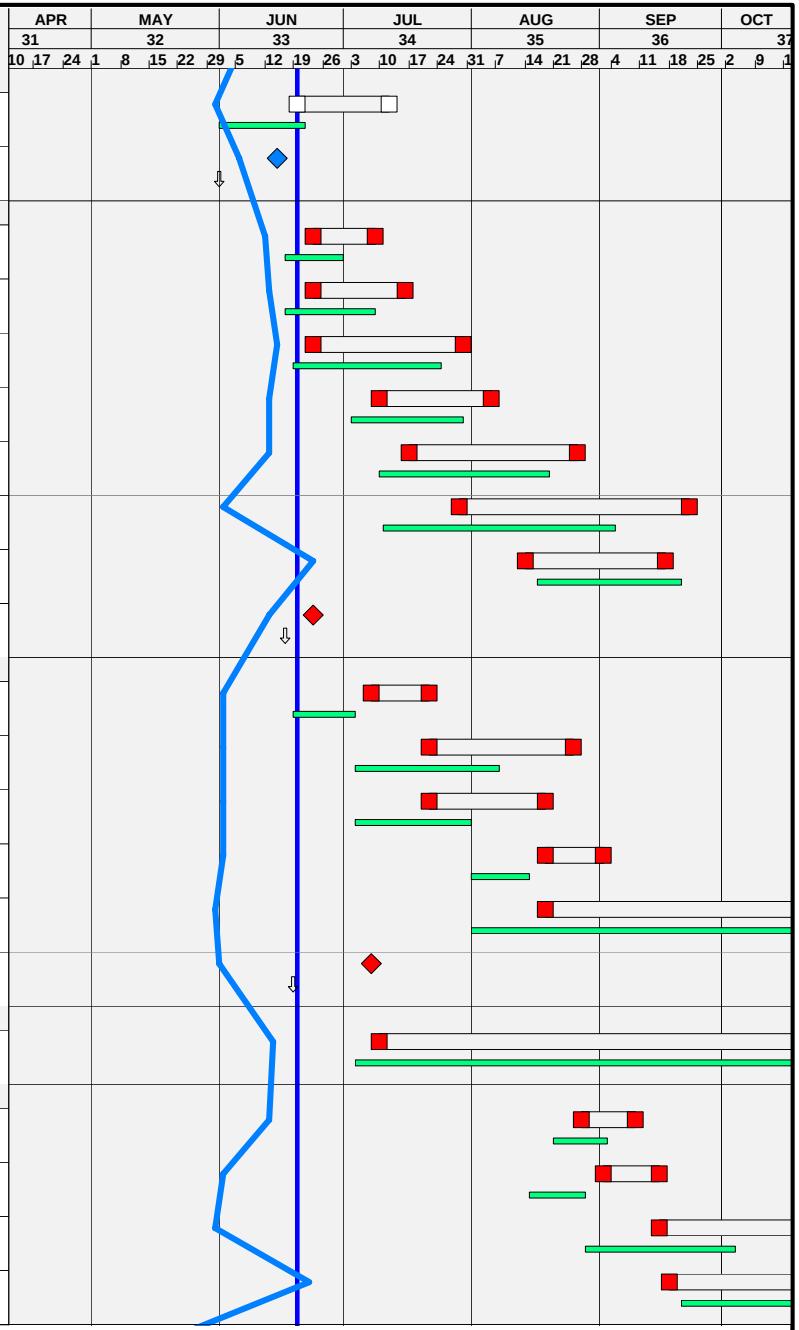
ENT South Portal Bldg (1F/Lwr Plen) - E & M Work									
EM1310	Installation of Compressor	18	20JUN06	11JUL06	0	0	18	103	-16
EM1020	E&M Access to 1/F	0	15JUN06A		100	0	0		-12
ENT South Portal Bldg (2F/Silencer) - E & M Work									
EM1030	BS Works for HV Sw + Tx	12	24JUN06	08JUL06	0	0	12	-56	-6
EM1110	BS Works for Genset	18	24JUN06	15JUL06	0	0	18	-20	-6
EM1175	BS Works for TVS Plenums	30	24JUN06	29JUL06	0	0	30	-58	-5
EM1140	E&M Works in Corridors 2/F	24	10JUL06	05AUG06	0	0	24	-63	-6
EM1120	Genset Installation	36	17JUL06	26AUG06	0	0	36	-20	-6
EM1160	E&M Works in Risers	48	29JUL06	22SEP06	0	0	48	-74	-16
EM1040	HV Sw + Tx Installation	30	14AUG06	16SEP06	0	0	30	-86	3
EM1010	E&M access to 2/F	0	24JUN06		0	0	0	-63	-6
ENT South Portal Bldg (3F/ Fan Rm) - E & M Works									
EM1060	BS Works for LV Sw, MCC, UPS, LCC	12	08JUL06	21JUL06	0	0	12	-62	-16
EM1070	LV Sw, MCC, UPS, LCC Installation	30	22JUL06	25AUG06	0	0	30	-62	-16
EM1150	E&M Works in Corridors 3/F	24	22JUL06	18AUG06	0	0	24	-80	-16
EM1090	BS Works for 110V Charger Rm	12	19AUG06	01SEP06	0	0	12	-80	-16
EM1170	Termination of overall Elect HV & LV Sys	30	19AUG06	16NOV06	0	0	30	-100	-16
EM1000	E&M access to 3/F	0	08JUL06		0	0	0	-80	-16
ENT South Portal Bldg (4F/Upr Plen) - E & M Work									
EM1180	TVS Installation	100	10JUL06	15NOV06	0	0	100	-58	-5
Testing and Commissioning									
EM1130	Genset Termination + T&C	12	28AUG06	09SEP06	0	0	12	-20	-6
EM1100	110V Charger Rm Installation + T&C	12	02SEP06	15SEP06	0	0	12	-80	-16
EM1080	LV Sw, MCC, UPS, LCC Termination + T&C	30	16SEP06	23OCT06	0	0	30	-80	-16
EM1050	HV Sw + Tx Termination + T&C	30	18SEP06	24OCT06	0	0	30	-80	3



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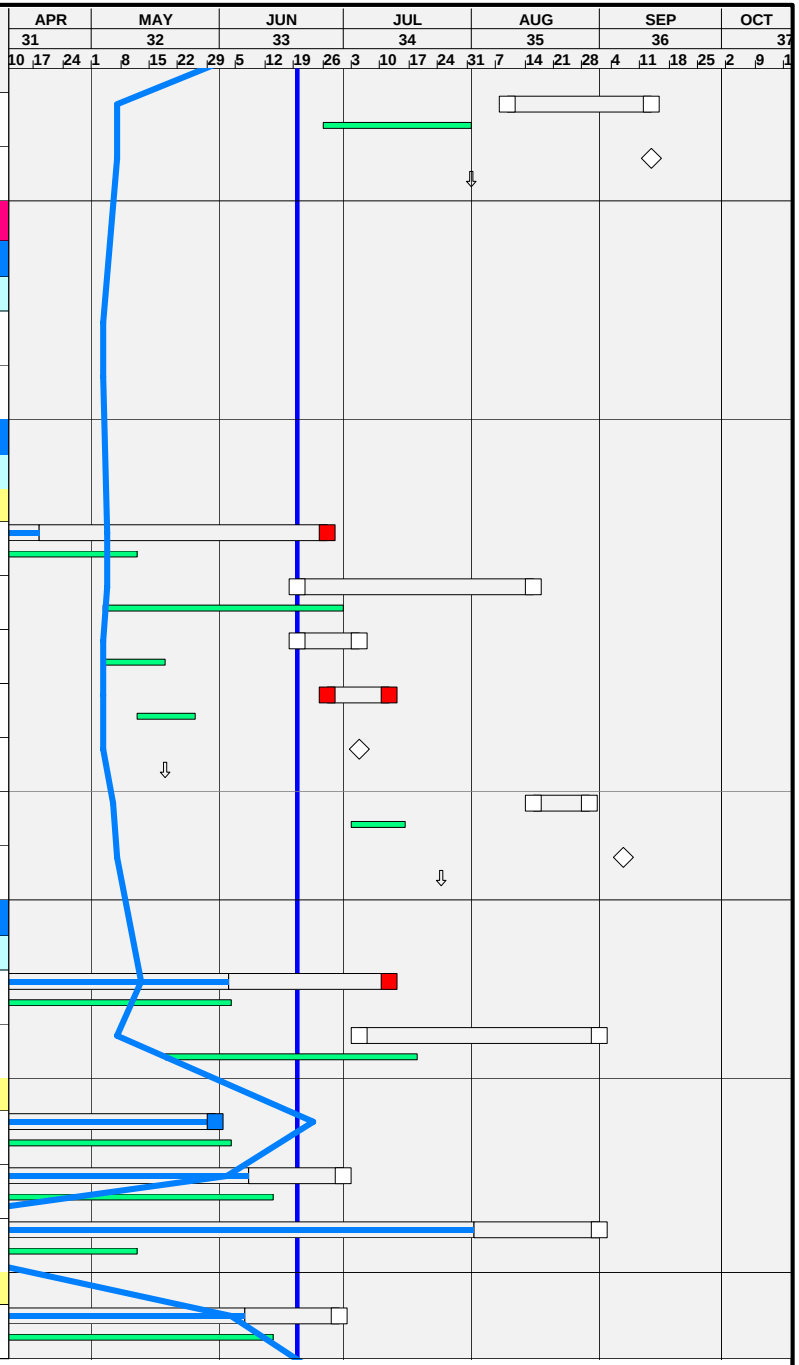
Statutory Inspection & Issued Certificates									
EM1320	Submit Form WWO46 for Water Supply to WSD	30	10AUG06	13SEP06	0	0	30	29	-38
EM1340	Water Supply Certificate issued	0		13SEP06	0	0	0	29	-38
EAGLES NEST TUNNEL									
Contract defined dates, stages & sections									
Area access & vacation dates									
ACS_F1	Access to Portions - F1 (U/Gnd Sth Portal)	0	20OCT03A		100	100	0		-47
ACS_F2	Access to Portions - F2 (U/Gnd Sth Tunnel)	0	20OCT03A		100	100	0		-47
Design & Engineering - Temporary Works									
Permanent Works									
Tunnel									
1657	Design/ICE Check Tunnel Cladding	24	03JAN06A	26JUN06	60	60	6	-75	-38
1662	Design/ICE Check Niche Cabinets	48	20JUN06	15AUG06	0	0	48	357	-38
1668	Eng Approve Dsg X-passage/Adit Fire Doors	12	20JUN06	04JUL06	0	0	12	362	-38
1659	Eng Approve Dsg Tunnel Clading	12	27JUN06	11JUL06	0	0	12	-75	-38
1669	Issue Constr Dwgs X-passage/Adit Fire Doors	0		04JUL06	0	0	0	362	-38
1663	Eng Approve Dsg Niche Cabinets	12	16AUG06	29AUG06	0	0	12	357	-38
1664	Issue Constr Dwgs Niche Cabinets	0		06SEP06	0	0	0	357	-38
Procurement - Material									
Tunnelling Project Wide									
1660	Order/Manufact/Del Tunnel Cladding	200	29DEC05A	11JUL06	80	80	17	-75	-31
1685	Order/Manufact/Del Fire Doors	50	05JUL06	31AUG06	0	0	50	362	-38
NB Tunnel									
6879	EntRtNb-Proc & Manuf. CMCS & ELV sys	180	29MAR05A	30MAY06A	100	90	0		3
6883	EntRtNb-Proc & Manuf. FS AFA & Linear sys	180	29MAR05A	30JUN06	95	90	10	402	-15
6887	EntRtNb-Proc & Manuf. TVS control sys	180	01NOV05A	31AUG06	90	90	62	362	-94
SB Tunnel									
6786	EntRtSb&VA-Proc & Manuf. FS AFA & Linear sys	180	29MAR05A	29JUN06	95	90	9	402	-14



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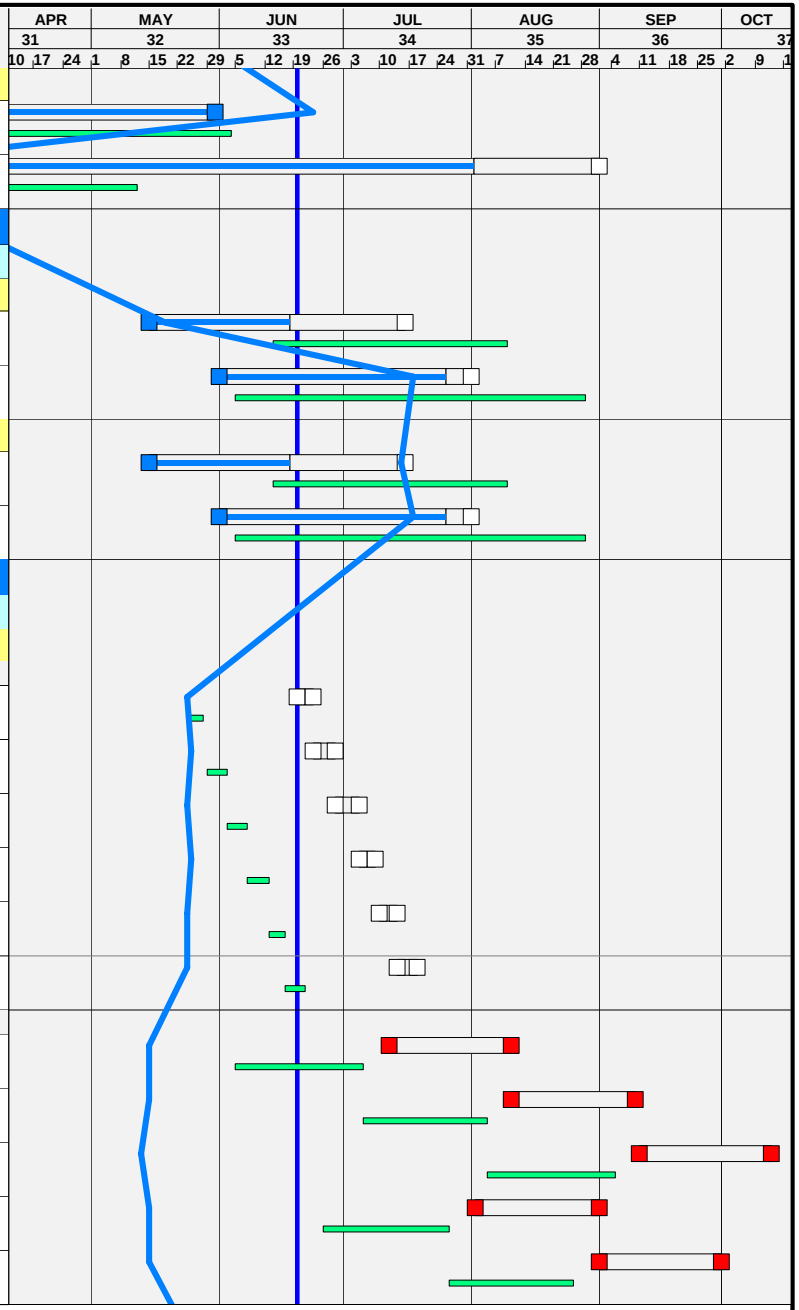
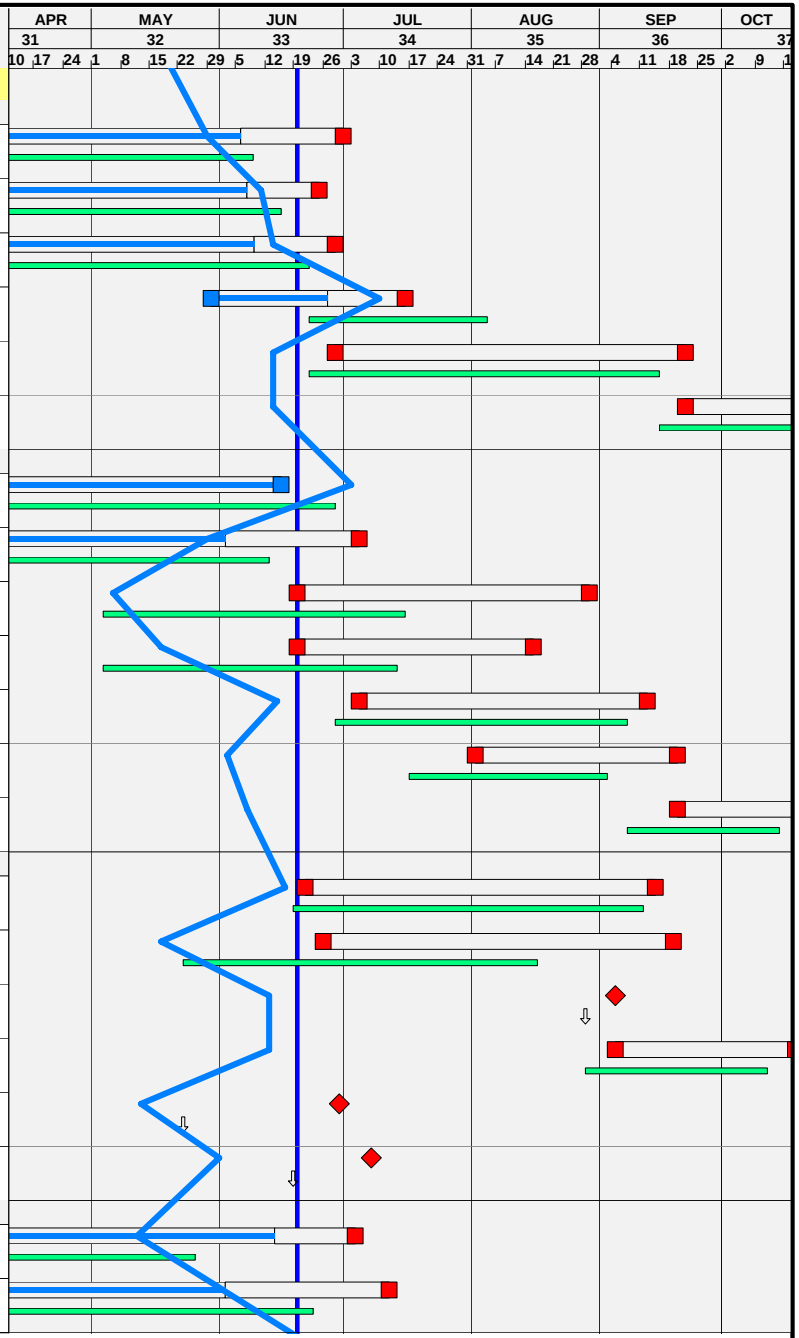
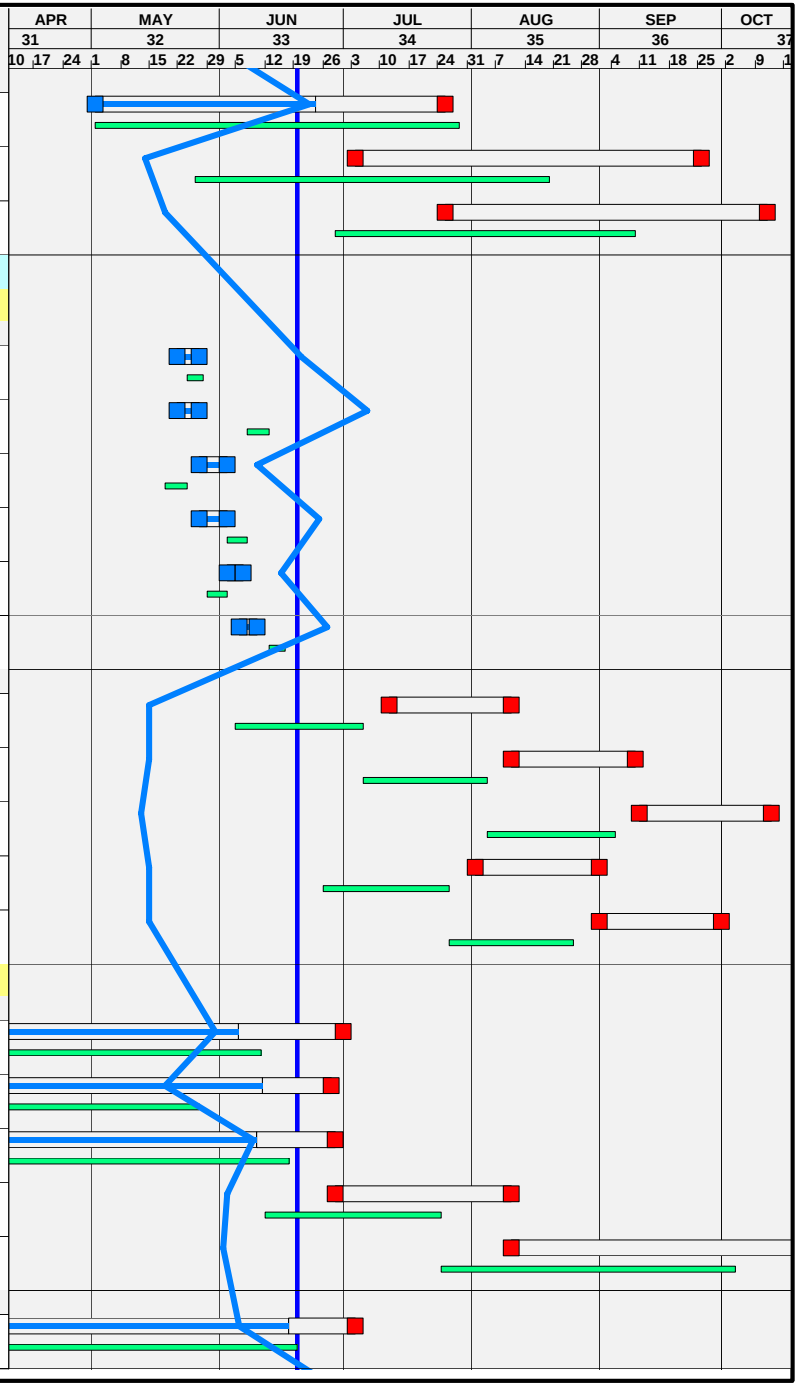
SB Tunnel									
6799	EntRtSb&VA-Proc & Manuf. CMCS & ELV sys	180	29MAR05A	30MAY06A	100	90	0		3
6796	EntRtSb&VA-Proc & Manuf. TVS control sys	180	01NOV05A	31AUG06	90	90	62	362	-94
Major Equipemnt Delivery									
Tunnelling Project Wide									
NB Tunnel									
6888	EntRtNb-Del. AFA & Linear sys	48	15MAY06A	15JUL06	55	0	22	402	-27
6886	EntRtNb-Del. CMCS & ELV sys	35	01JUN06A	31JUL06	90	0	35	389	24
SB Tunnel									
6787	EntRtSb&VA-Del. AFA & Linear sys	48	15MAY06A	15JUL06	55	0	22	402	21
6801	EntRtSb&VA-Del. CMCS & ELV sys	72	01JUN06A	31JUL06	90	0	35	389	24
Construction Works									
Tunnel Drive North Bound									
Tunnel Finishing Works									
Bituminous Pavement									
3599	NB Base Course - RHS 650m Ch 3030->2380	4	20JUN06	23JUN06	0	0	4	85	-22
3600	NB Base Course - RHS 650m Ch 2380->1730	4	24JUN06	28JUN06	0	0	4	85	-22
3601	NB Base Course - RHS 650m Ch 1730->1080	4	29JUN06	04JUL06	0	0	4	85	-22
3603	NB Base Course - LHS 650m Ch 3030->2380	4	05JUL06	08JUL06	0	0	4	85	-22
3604	NB Base Course - LHS 650m Ch 2380->1730	4	10JUL06	13JUL06	0	0	4	85	-22
3605	NB Base Course - LHS 650m Ch 1730->1080	4	14JUL06	18JUL06	0	0	4	85	-22
VE Panel Installation									
3606	NB - VE Panel Supt Sys RHS @ CH3030-2380 (650m)	26	12JUL06	10AUG06	0	0	26	-63	-31
3607	NB - VE Panel Supt Sys RHS @ CH2380-1730 (650m)	26	11AUG06	09SEP06	0	0	26	-63	-31
3608	NB - VE Panel Supt Sys RHS @ CH1730-1080 (650m)	26	11SEP06	12OCT06	0	0	26	-63	-31
3627	NB - VE Panel Claddings RHS @ CH3030-2380 (650m)	26	02AUG06	31AUG06	0	0	26	-63	-31
3628	NB - VE Panel Claddings RHS @ CH2380-1730 (650m)	26	01SEP06	30SEP06	0	0	26	-63	-31



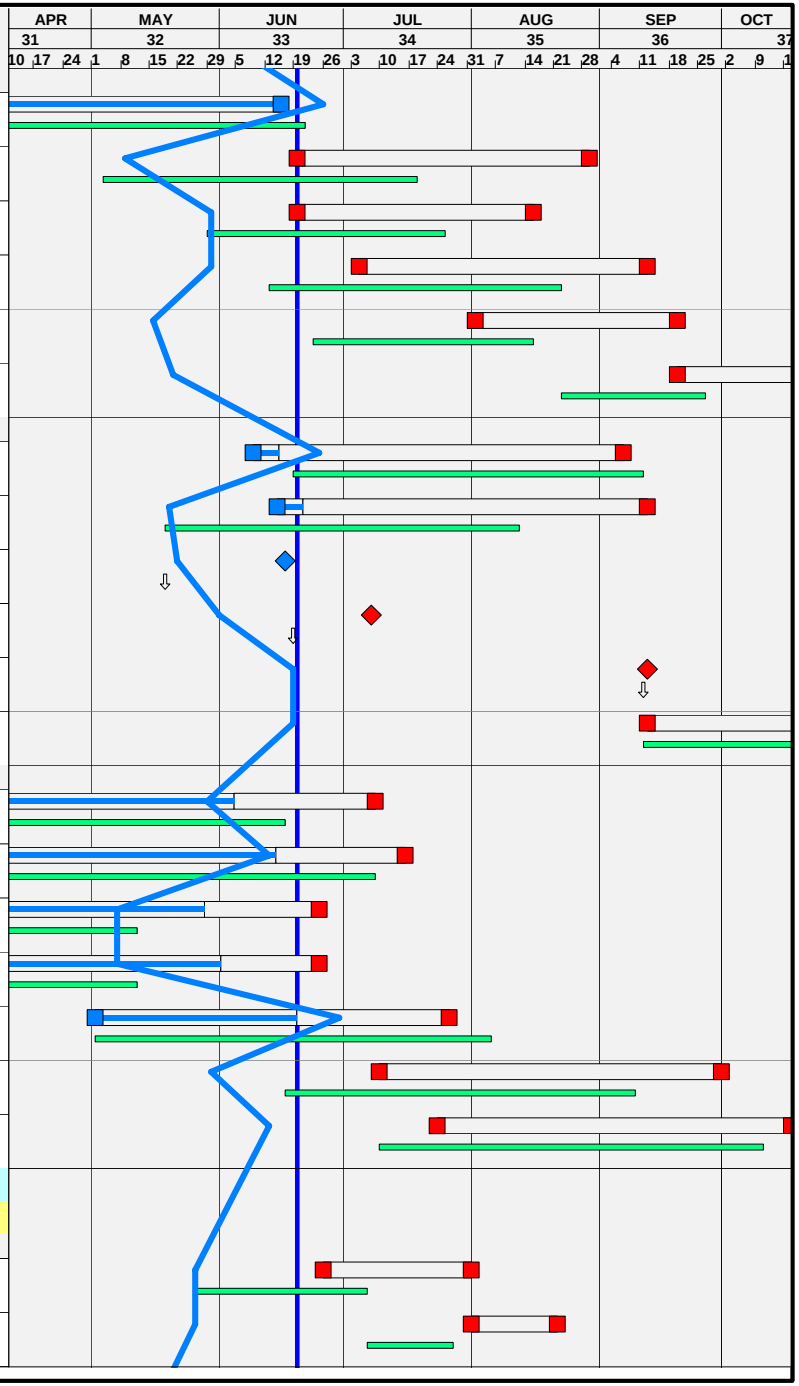
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
ENT NB TUNNEL - (E&M) BUILDING SERVICES									
MVAC / Tunnel Ventilation Syst Above OHVD									
277963	Ent NB - Install Motorised Smoke & Fire Dampers	72	04JAN06A	30JUN06	86	45	10	-72	-19
277964	Ent NB - Comp Air Pipes/Condts to E/P16 to E/P21	36	10FEB06A	24JUN06	87	40	5	-69	-8
277965	Ent NB - Comp Air Pipes/Condts to E/P15 to E/P8	36	27MAR06A	28JUN06	79	30	8	-72	-5
277966	Ent NB - Comp Air Pipes/ Condts to E/P1to E/P7	36	30MAY06A	15JUL06	60	0	14	-38	17
277967	Ent NB - Cabling, Wiring and Termination	72	29JUN06	21SEP06	0	0	72	-72	-5
277968	Ent NB - MVAC Testing and T&C	42	22SEP06	13NOV06	0	0	42	-72	-5
Fire Protection System									
277993	Ent NB - 150d FS Main pipeworks / brackets @ G/L	72	23JAN06A	15JUN06A	100	36	0		11
277990	Ent NB - Install FS Conduit @ C/L to AFA Panels	54	07FEB06A	04JUL06	78	40	12	-82	-18
277991	Ent NB - Install brckts/ Supt for FS dectn @ C/L	60	20JUN06	29AUG06	0	0	60	-82	-38
277994	Ent NB - Install Hose Reel Cabinets & Eqpt @ G/L	48	20JUN06	15AUG06	0	0	48	-76	-28
277995	Ent NB - 100d FH / HR Pipeworks & Fittings @ G/L	60	05JUL06	12SEP06	0	0	60	-76	-4
277992	Ent NB - Install Fire Alarm Detection @ C/L	42	02AUG06	19SEP06	0	0	42	-82	-14
277996	Ent NB - FS Wiring and Terminations	30	20SEP06	26OCT06	0	0	30	-82	-10
Electrical Works Above OHVD									
278001	Ent NB - HV & LV Mn/Submain Cables to CP01-CP10	72	22JUN06	14SEP06	0	0	72	-97	-3
278000	Ent NB - HV & LV Mn/Submain Cables to CP21-CP11	72	26JUN06	18SEP06	0	0	72	-100	-28
278002	Ent NB - E&M Inspn & Access for Sandfill	0		04SEP06	0	0	0	-57	-6
278003	Ent NB - Placing Sandfill and PC Covers	36	05SEP06	18OCT06	0	0	36	-57	-6
277998	Ent NB - E&M Access to 3/F UPS Room (NPVB)	0	30JUN06*		0	0	0	-100	-32
277999	Ent NB - E&M Access to 3/F UPS Room (SPVB)	0	08JUL06		0	0	0	-97	-16
Electrical Works Below OHVD									
278008	Ent NB - Brackets for Lightings @ Ceiling Level	96	07JAN06A	03JUL06	89	82	11	-70	-31
278009	Ent NB - Conduit Works (Above & Below OHVD)	60	01MAR06A	11JUL06	70	30	18	-53	-14



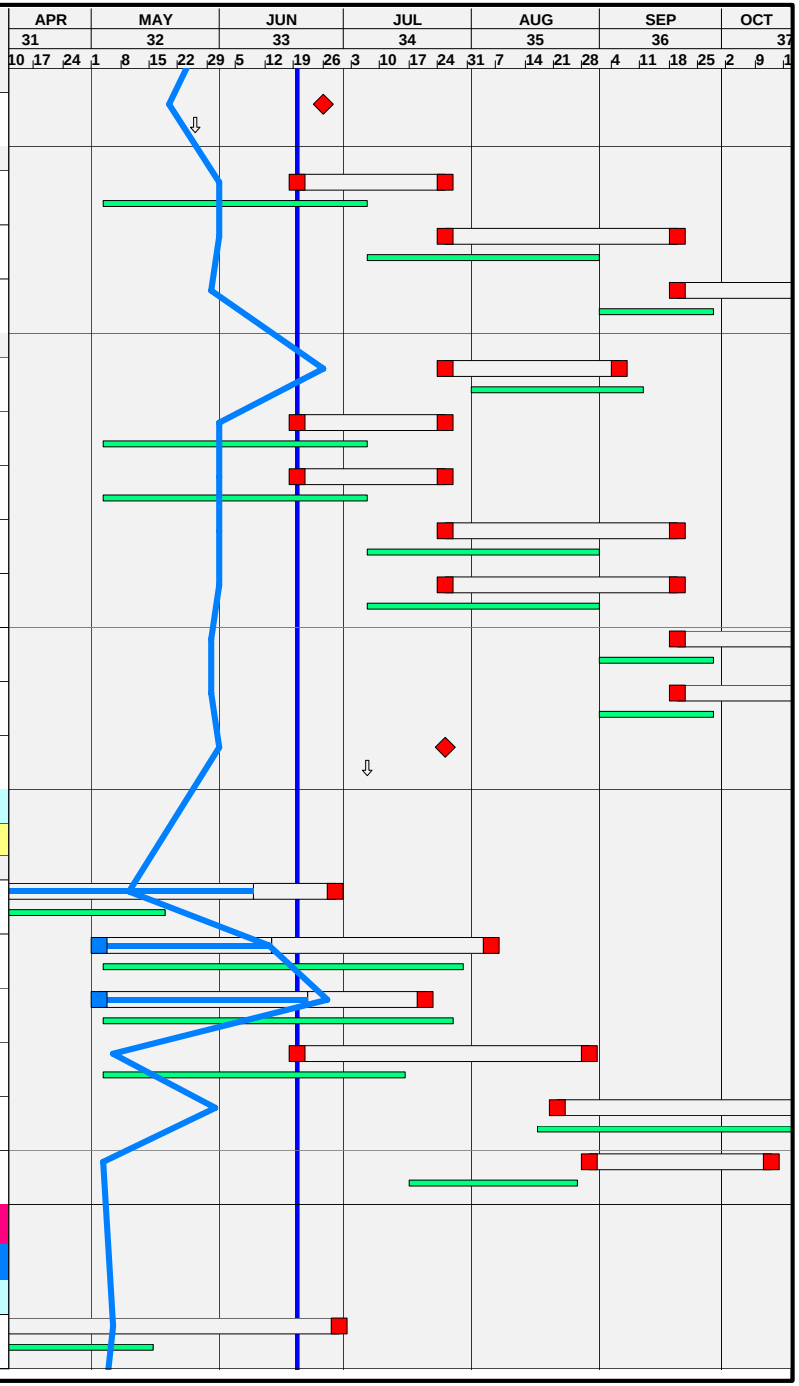
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Electrical Works Below OHVD									
278010	Ent NB - Earthing & Lighting Fixture @ C/Lvl	72	02MAY06A	25JUL06	63	2	27	-53	3
278011	Ent NB-Install CCTV,Camera,Eqpt @C/Lvl (By TCSS)	72	04JUL06	25SEP06	0	0	72	-70	-31
278012	Ent NB - Cabling,Wirings&Term @ Ceiling/ Grd Lvl	48	26JUL06	11OCT06	0	0	48	-70	-25
Tunnel Drive South Bound									
Tunnel Finishing Works									
Bituminous Pavement									
3592	SB Base Course - RHS 650m Ch 2380->1730	4	22MAY06A	26MAY06A	100	0	0		1
3596	SB Base Course - LHS 650m Ch 2380->1730	4	22MAY06A	26MAY06A	100	0	0		13
3591	SB Base Course - RHS 650m Ch 3030->2380	4	27MAY06A	02JUN06A	100	0	0		-8
3595	SB Base Course - LHS 650m Ch 3030->2380	4	27MAY06A	02JUN06A	100	0	0		4
3593	SB Base Course - RHS 650m Ch 1730->1080	4	03JUN06A	06JUN06A	100	0	0		-3
3597	SB Base Course - LHS 650m Ch 1730->1080	4	06JUN06A	09JUN06A	100	0	0		6
VE Panel Installation									
3613	SB - VE Panel Supt Sys RHS @ CH3030-2380 (650m)	26	12JUL06	10AUG06	0	0	26	-75	-31
3614	SB - VE Panel Supt Sys RHS @ CH2380-1730 (650m)	26	11AUG06	09SEP06	0	0	26	-75	-31
3615	SB - VE Panel Supt Sys RHS @ CH1730-1080 (650m)	26	11SEP06	12OCT06	0	0	26	-75	-31
3620	SB - VE Panel Claddings RHS @ CH3030-2380 (650m)	26	02AUG06	31AUG06	0	0	26	-75	-31
3621	SB - VE Panel Claddings RHS @ CH2380-1730 (650m)	26	01SEP06	30SEP06	0	0	26	-75	-31
ENT SB TUNNEL - (E&M) BUILDING SERVICES									
MVAC / Tunnel Ventillation System Above OHVD									
278014	Ent SB - Install Motorised Smoke & Fire Dampers	72	31DEC05A	30JUN06	86	40	10	-86	-17
278015	Ent SB - Comp Air Pipes/Condts to E/P16 to E/P21	36	27MAR06A	27JUN06	82	58	7	-86	-26
278016	Ent SB - Comp Air Pipes/Condts to E/P15 to E/P8	36	30MAR06A	28JUN06	79	28	8	-86	-9
278017	Ent SB - Comp Air Pipes/ Condts to E/P1 to E/P7	36	29JUN06	10AUG06	0	0	36	-86	-15
278018	Ent SB - Cabling, Wiring and Termination	60	11AUG06	21OCT06	0	0	60	-86	-15
Fire Protection System									
278033	Ent SB - Install FS Conduit @ C/L to AFA Panels	54	07FEB06A	03JUL06	89	30	11	-82	-11



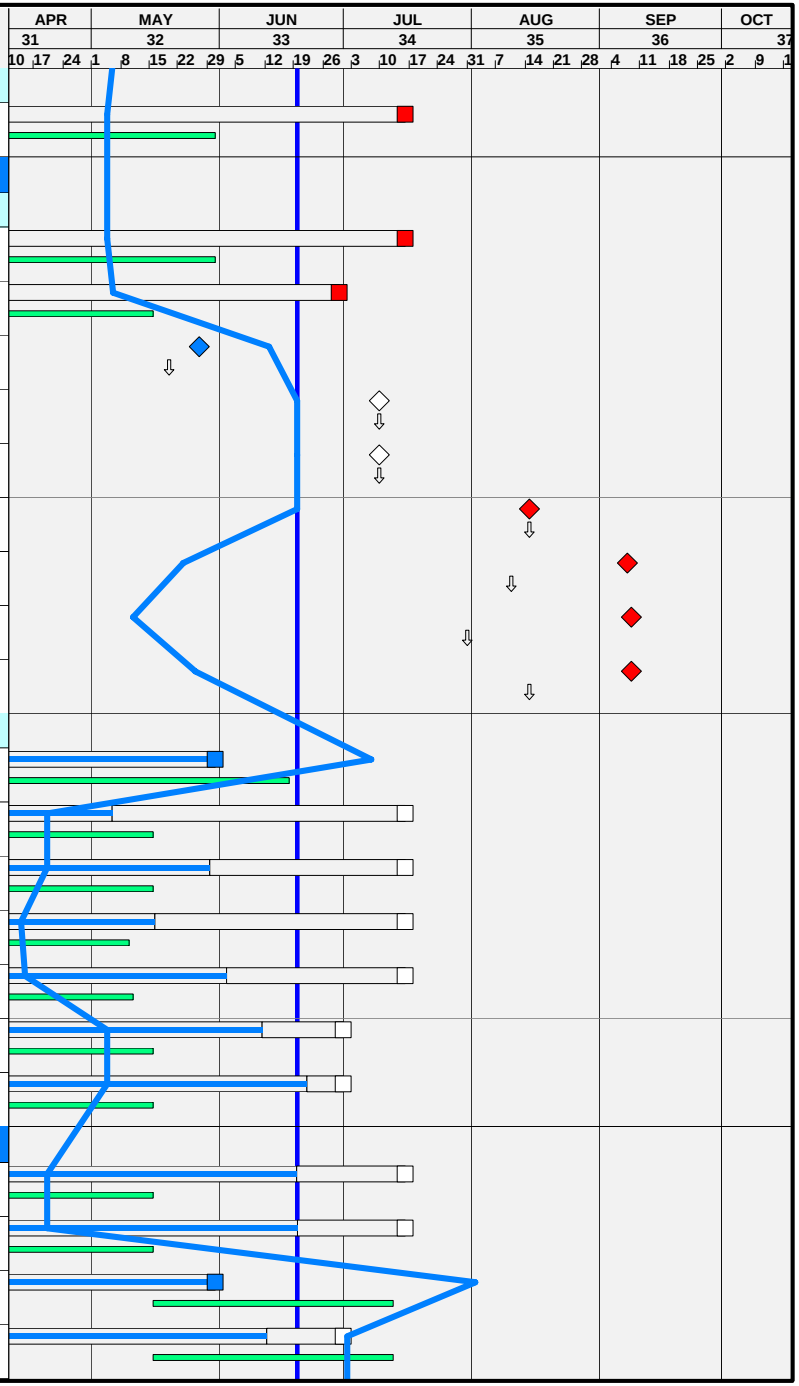
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Fire Protection System									
278036	Ent SB - 150d FS Main pipeworks / brackets @ G/L	72	03APR06A	15JUN06A	100	45	0		5
278034	Ent SB - Install brcts/ Supt for FS detecn @ C/L	60	20JUN06	29AUG06	0	0	60	-82	-36
278037	Ent SB - Install Hose Reel Cabinets & Eqpt @ G/L	48	20JUN06	15AUG06	0	0	48	-76	-18
278038	Ent SB - 100d FH / HR Pipeworks & Fittings @ G/L	60	05JUL06	12SEP06	0	0	60	-76	-18
278035	Ent SB - Install Fire Alarm Detention @ C/L	42	02AUG06	19SEP06	0	0	42	-82	-30
278039	Ent SB - FS Wiring and Terminations	30	20SEP06	26OCT06	0	0	30	-82	-24
Electrical Works Above OHVD									
278044	Ent SB - HV & LV Mn/submain Cables to CP01-CP10	72	09JUN06A	06SEP06	7	0	67	-90	4
278043	Ent SB - HV & LV Mn/Submain Cables to CP21-CP11	72	15JUN06A	12SEP06	7	0	67	-95	-26
278041	Ent SB - E&M Access to 2/F LV Switch Room (NPVB)	0	17JUN06A		100	0	0		-24
278042	Ent SB - E&M Access to 3/F LV Switch Room (SPVB)	0	08JUL06		0	0	0	-38	-16
278045	Ent SB - E&M Inspn & Access for Sandfill	0		12SEP06	0	0	0	-64	-1
278046	Ent SB - Placing Sandfill and PC Covers	36	13SEP06	26OCT06	0	0	36	-64	-1
Electrical Works Below OHVD									
278051	Ent SB - Brackets for Lightings @ Ceiling Level	96	19DEC05A	08JUL06	83	62	16	-75	-18
278052	Ent SB - Conduit Works (Above & Below OHVD)	60	01MAR06A	15JUL06	77	30	14	-33	-6
278049	Ent SB - TCSS Brkt @ C.Trough Ch1010-1660 (650m)	18	27MAR06A	24JUN06	69	69	5	-28	-37
278050	Ent SB - TCSS Brkt @ C.Trough Ch2000-1660 (340m)	10	06APR06A	24JUN06	70	70	5	-28	-37
278053	Ent SB - Earthing & Lighting Fixture @ C/Lvl	72	02MAY06A	26JUL06	57	2	31	-30	9
278054	Ent SB-Install CCTV,Camera,Eqpt @C/Lvl (by TCSS)	72	10JUL06	30SEP06	0	0	72	-75	-18
278055	Ent SB - Cabling,Wirings&Term @ Ceiling/ Grd Lvl	48	24JUL06	17OCT06	0	0	48	-75	-6
Cross Passage 7									
ENT CROSS PASSAGE CP07 - (E&M) BUILDING SERVICES									
MVAC / Tunnel Ventillation System Above OHVD									
278058	CP7 - Comp Air Pipes / Conduits to ENT NB & SB	30	26JUN06	31JUL06	0	0	30	-3	-21
278059	CP7 - Cabling, Wiring, Termination & Test	18	01AUG06	21AUG06	0	0	18	-3	-21



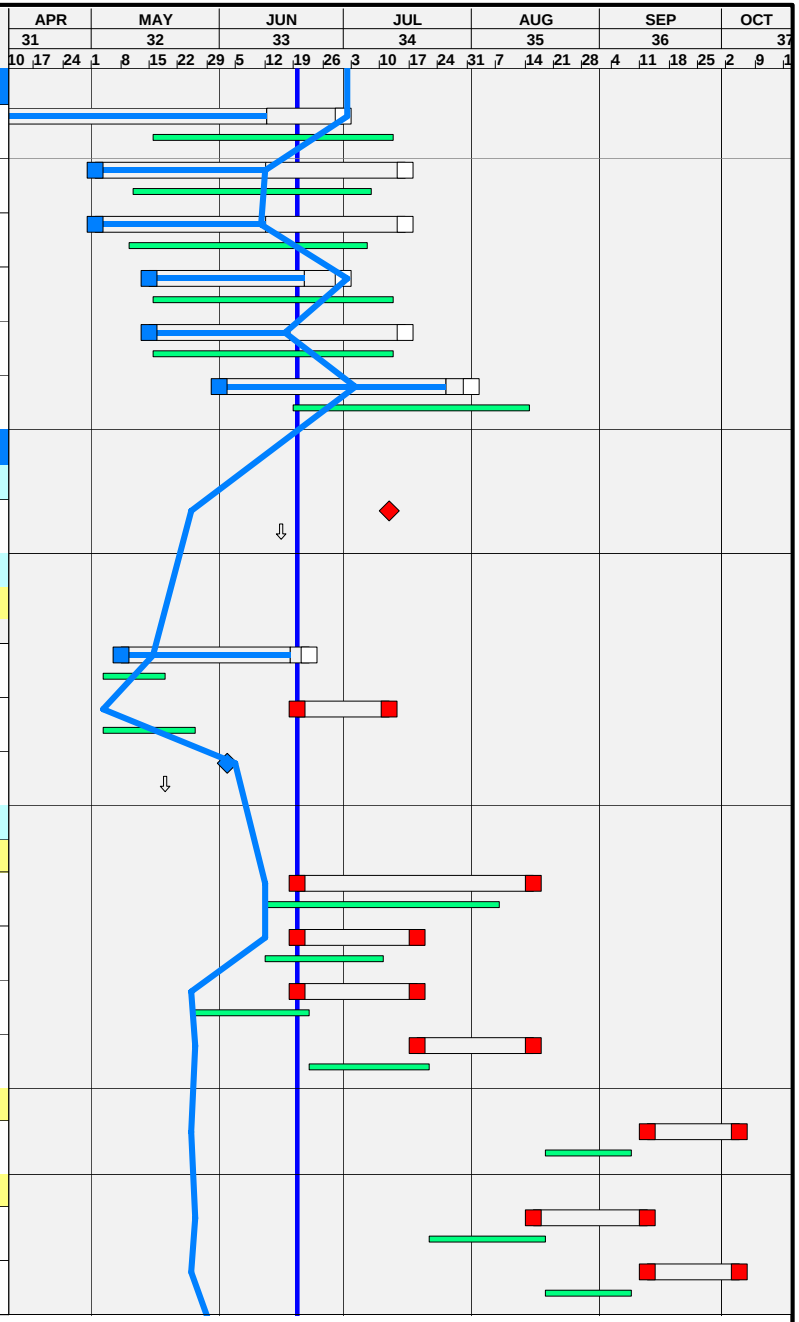
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
MVAC / Tunnel Ventillation System Above OHVD									
278057	E&M Access to 1/F of Ventilation Adit Bldg.	0	26JUN06		0	0	0	-3	-25
Fire Protection System									
278061	CP7 - FS Conduit @ Ceiling Lvl	30	20JUN06	25JUL06	0	0	30	-52	-16
278062	CP7 - Cabling, Wiring, FS detectn & Alarm Bell	48	26JUL06	19SEP06	0	0	48	-52	-16
278063	CP7 - FS Termination & Test	24	20SEP06	19OCT06	0	0	24	-52	-16
Electrical Works									
278086	HGC - Cabling	36	26JUL06	05SEP06	0	0	36	-40	5
278065	CP7 - HV / LV Cable Brackets & Containment	30	20JUN06	25JUL06	0	0	30	-52	-16
278088	HGC - Cable Containment	30	20JUN06	25JUL06	0	0	30	-40	-16
278066	CP7 - Install Conduit, lighting & switches @ C/L	48	26JUL06	19SEP06	0	0	48	-52	-16
278069	CP7 - HV/ LV Cabling, Wiring & Term to CP7 LV Rm	48	26JUL06	19SEP06	0	0	48	-52	-16
278067	CP7 - Cabling, Wiring & Termination and Test	24	20SEP06	19OCT06	0	0	24	-52	-16
278070	CP7 - HV / LV Cables Testing and T&C	24	20SEP06	19OCT06	0	0	24	-52	-16
278068	E&M Access to Vent Adit Bldg 1/F LV Switch Rm	0	26JUL06		0	0	0	-52	-16
ENT Cross Passages									
CROSS PASSAGES (CP1-CP6 & CP8-CP21) - (E&M) WORK									
Electrical Works									
278074	(CP1-CP21) - Cable Containment & Equipt Support	60	07FEB06A	28JUN06	86	80	8	-42	-34
278077	(CP21-CP11) - MCCB/ MCB Brd,CMCS,Busbar,Switches	72	03MAY06A	05AUG06	44	0	40	-51	-6
278078	(CP1-CP10) - MCCB/ MCB Brd,CMCS,Busbar,Switches	70	03MAY06A	20JUL06	64	0	25	-35	6
278075	(CP1-CP21) - Conduit,light,Signage fixt,Switches	60	20JUN06	29AUG06	0	0	60	-82	-38
278079	(CP1-CP21) - HV & LV Cables Terminations & Test	60	22AUG06	16NOV06	0	0	60	-100	-16
278076	(CP1-CP21) - Cabling, Wiring, Termination & Test	36	30AUG06	12OCT06	0	0	36	-82	-38
VENTILATION ADIT & BUILDING									
Submittals & Approvals									
ABWF & Builders Works									
1972	VA Bldg. - Approve door details	24	07MAY05A	29JUN06	70	70	9	-49	-38



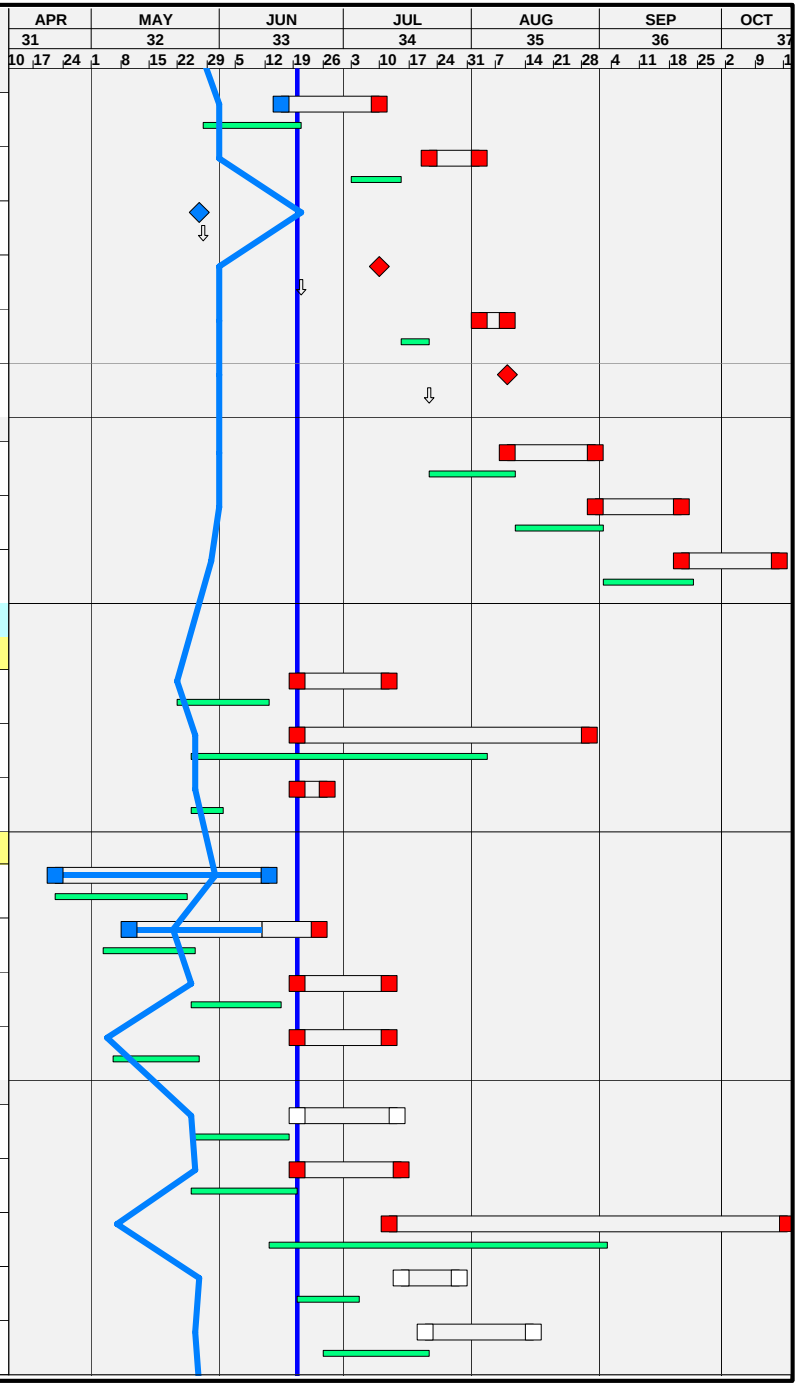
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
ABWF & Builders Works									
1988	VA Bldg. - Approve aluminium composite cladding	24	13DEC05A	15JUL06	50	50	22	-38	-38
PROCUREMENT									
ARCHITECTURAL									
1995	VA Bldg. - Procure aluminium composite cladding	90	19APR05A	15JUL06	60	60	22	-32	-38
2026	VA Bldg. - Procure expanded metal mesh cladding	60	05JUN05A	29JUN06	50	50	9	-1	-38
2033	VA Bldg. - Initial delivery louvres	0	27MAY06A		100	0	0		-6
2034	VA Bldg. - Initial delivery fall arrest roof sys	0	10JUL06*		0	0	0	68	0
2035	VA Bldg. - Initial delivery balust & metal works	0	10JUL06*		0	0	0	68	0
2031	VA Bldg. - Initial delivery slate cladding	0	15AUG06*		0	0	0	-1	0
2038	VA Bldg. - Initial delivery alum comp cladding	0	08SEP06*		0	0	0	-38	-24
2032	VA Bldg. - Initial delivery doors	0	09SEP06*		0	0	0	-49	-35
2043	VA Bldg. - Initial deliv exp metal mesh cladding	0	09SEP06*		0	0	0	-1	-22
E&M MATERIALS									
6591	VaBldg-Proc. & Manuf. of CMCS & ELV sys	180	29MAR05A	30MAY06A	100	85	0		15
6636	VaBldg-Proc & Manuf. FS AFA & FM200 sys	120	29MAR05A	15JUL06	85	90	22	402	-51
6865	VaBldg-Proc & Manuf. MCC, power & control sys	180	29MAR05A	15JUL06	90	90	22	402	-51
6586	VaBldg-Proc & Manuf. FS wet sys	120	06JUN05A	15JUL06	85	95	22	402	-56
6585	VaBldg-Proc & Manuf. PD fresh & flush water sys	120	30SEP05A	15JUL06	85	85	22	402	-55
8516	VaBldg-Proc & Manuf. MVAC Package AC Units	120	16DEC05A	30JUN06	90	80	10	414	-39
6588	VaBldg-Proc & Manuf. MVAC mech.vent. sys	180	06JAN06A	30JUN06	95	80	10	414	-39
MAJOR EQUIPMENT DELIVERY									
6866	VaBldg-Del. MVAC MCC, & control sys to 3/F	48	06MAR06A	15JUL06	80	60	10	402	-51
7592	VaBldg-Del. PD irrig. pump & tank to G/F	48	07MAR06A	15JUL06	80	55	22	402	-51
6852	VaBldg-Del. TVS to Plenum & 3/F	48	30MAR06A	30MAY06A	100	0	0		35
6859	VaBldg-Del. MVAC /TVF pneumatic sys to 1/F	48	30MAR06A	30JUN06	80	0	10	414	9



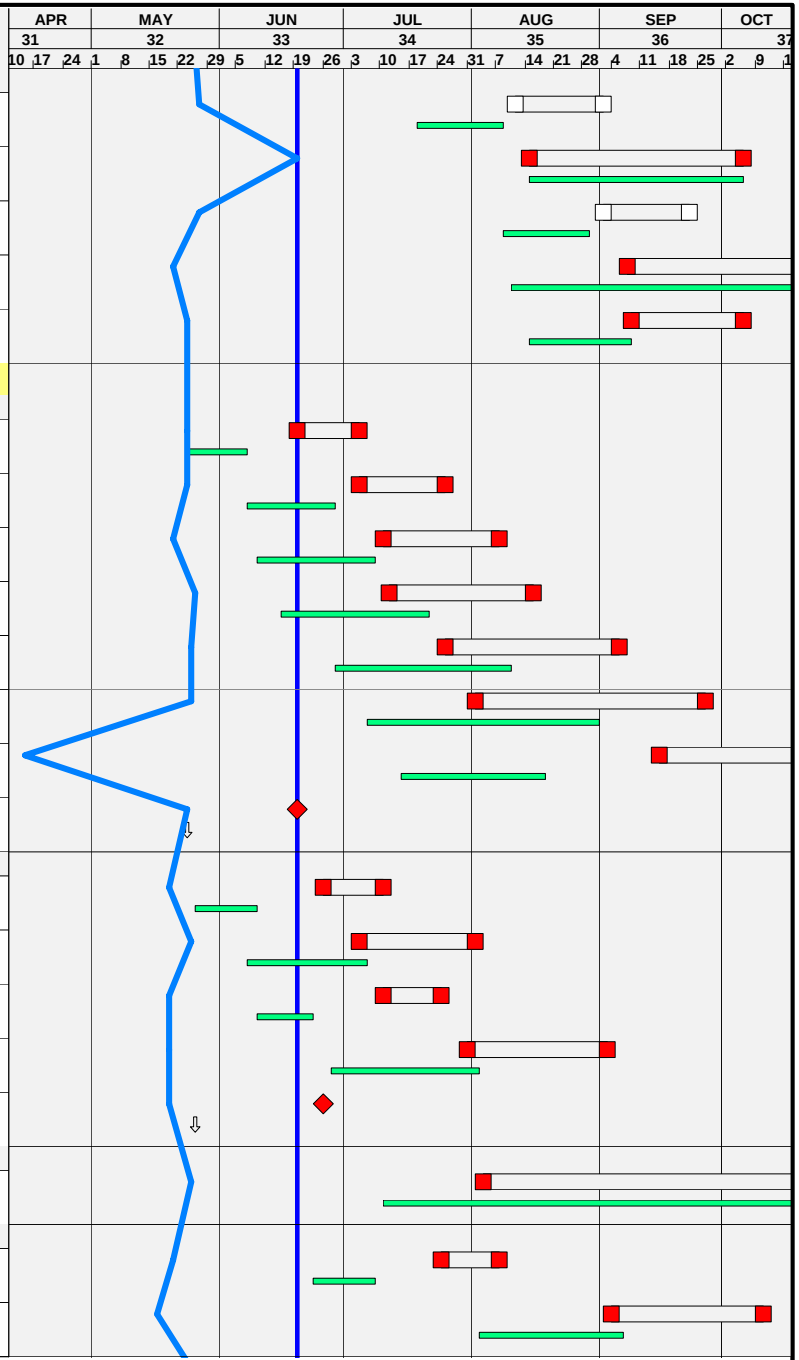
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
MAJOR EQUIPMENT DELIVERY									
8517	VaBldg-Del. Package AC Units	48	30MAR06A	30JUN06	80	0	10	414	9
6608	VaBldg-Del. PD pump & tank to G/F	48	02MAY06A	15JUL06	55	0	22	402	-7
6609	VaBldg-Del. FS pumps & tank to G/F	48	02MAY06A	15JUL06	55	0	22	402	-8
6619	VaBldg-Del. building vent. fans	48	15MAY06A	30JUN06	80	0	10	414	9
6698	VaBldg-Del. AFA & FM200 sys	48	15MAY06A	15JUL06	55	0	22	402	-3
6666	VaBldg-Del. CMCS & ELV equip't	48	01JUN06A	31JUL06	90	0	35	389	12
CONSTRUCTION WORKS									
Vent Bldg & Adit TCSS Access									
0295	Vent Bldg & Adt - TCSS Access	0		11JUL06	0	0	0	-24	-21
ADIT TUNNEL									
Vent Adit									
Type M									
0325	Vent Adit - Cable Bracket Installation	12	08MAY06A	22JUN06	90	0	3	421	-29
0379	Vent Adit - HGC Cable Containment	18	20JUN06	11JUL06	0	0	18	-28	-38
0359	Vent Adit - E&M Access	0		02JUN06A	100	0	0		-12
EXTERNAL WORKS									
Drainage									
S1900	Petrol interceptor & Storm Drain at East Side	48	20JUN06	15AUG06	0	0	48	-30	-7
S1940	Foul Drain Pipe & Holding Tank	24	20JUN06	18JUL06	0	0	24	-6	-7
S1960	Storm Drain at West Side	24	20JUN06	18JUL06	0	0	24	-54	-21
S1970	Storm Drain & Gullies at Access Apron	24	19JUL06	15AUG06	0	0	24	-54	-21
Ducting & Drawpits									
S1910	Ducting & Drawpits	18	13SEP06	04OCT06	0	0	18	-54	-21
Watermain Works									
S1950	Watermain & Valve Chambers at Building Apron	24	16AUG06	12SEP06	0	0	24	-54	-21
S1990	Irrigation Pipework	18	13SEP06	04OCT06	0	0	18	-36	-21



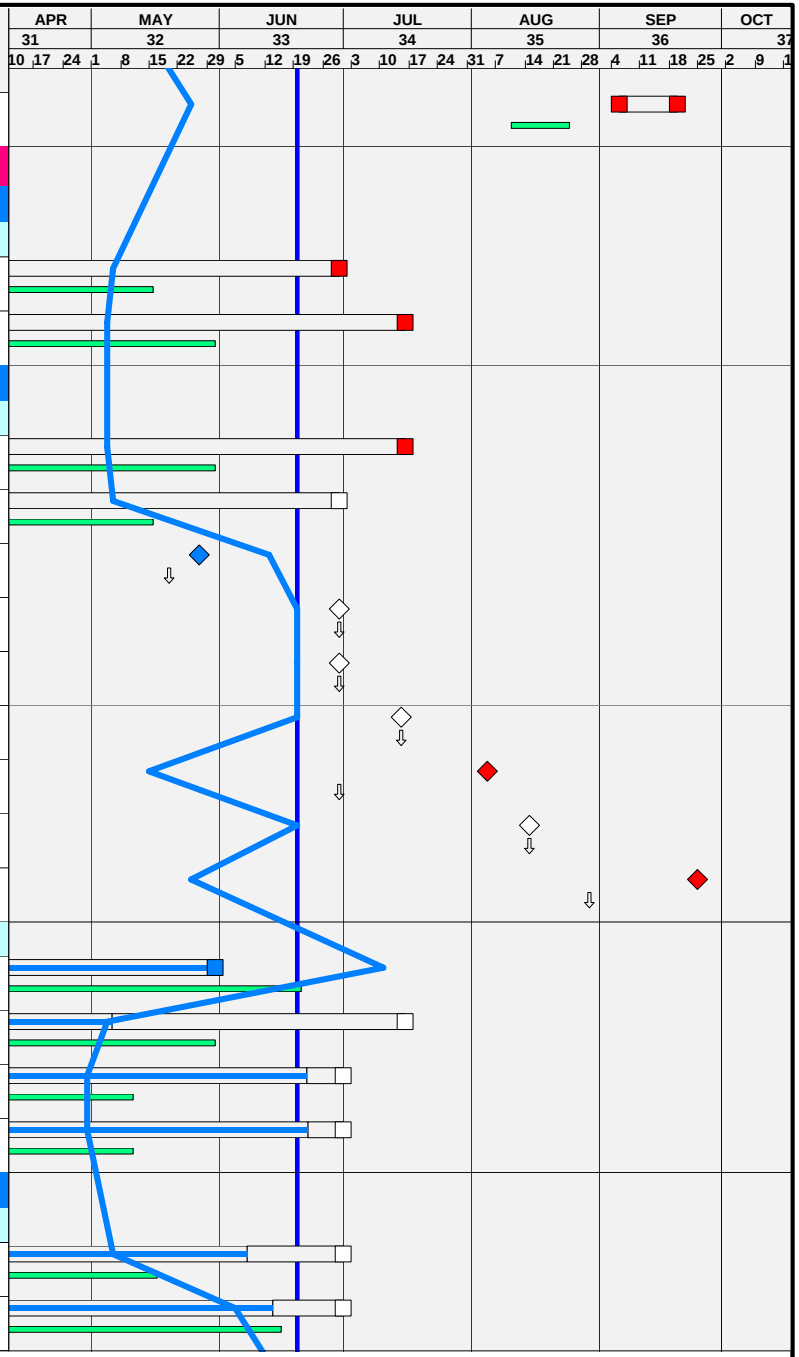
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
TTA for Tai Po Road									
SB3040	Submit TTM Scheme to TMLG for approval	24	16JUN06A	09JUL06	0	0	20	-90	-19
SB3010	Apply for Excavation Permit	12	22JUL06	02AUG06	0	0	12	-90	-19
SB3060	MHJV Confirm FS Watermain Connection Point	0		26MAY06A	100	0	0		1
SB3000	TMLG Meeting	0		09JUL06	0	0	0	-90	-19
SB3030	Apply for Road Works Advice from RMO of HKPF	7	03AUG06	09AUG06	0	0	7	-90	-19
SB3050	TTM Scheme Implemented	0	10AUG06		0	0	0	-90	-19
Construction of Watermains Across Tai Po Rd									
SB3070	Stage 1 - Watermain Crossing Tai Po Rd	18	10AUG06*	30AUG06	0	0	18	-75	-16
SB3080	Stage 2 - Watermain Crossing Tai Po Rd	18	31AUG06	20SEP06	0	0	18	-75	-16
SB3090	Stage 3 - Watermain Crossing Tai Po Rd	19	21SEP06	14OCT06	0	0	19	-75	-16
VENTILATION BUILDING									
VA Building - Structure									
T2130	Installation of Exhaust Shaft Steelwork	18	20JUN06	11JUL06	0	0	18	-28	-24
T3130	Installation of Earth mat	60	20JUN06	29AUG06	0	0	60	-6	-21
T3330	Completion of Cable Riser at Grid D3	6	20JUN06	26JUN06	0	0	6	-34	-21
VA Building - ABWF									
T2200	ABWF Initial finishes GL	18	22APR06A	12JUN06A	100	10	0		-16
T2210	ABWF Initial Finishes 1FL	18	10MAY06A	24JUN06	70	0	5	-71	-25
T2290	ABWF Initial Finishes Fan Rooms & Plemums	18	20JUN06	11JUL06	0	0	18	-78	-21
T3190	Installation of Hoist Beam at 1/F	18	20JUN06	11JUL06	0	0	18	2	-37
VA Building - External Finishes									
T2050	VA Bldg. - Ext. Wall Waterproof Render	20	20JUN06	13JUL06	0	0	20	36	-21
T3060	VA Bldg. - Ext. Wall Waterproof Membrane	21	20JUN06	14JUL06	0	0	21	9	-21
T3110	VA Bldg. - Install Aluminum louvres & doors	60	12JUL06	16OCT06	0	0	60	-49	-35
T3080	VA Bldg. - Roof Waterproofing & Test	12	15JUL06	28JUL06	0	0	12	21	-21
T3070	VA Bldg. - External Wall Painting	22	21JUL06	15AUG06	0	0	22	36	-21



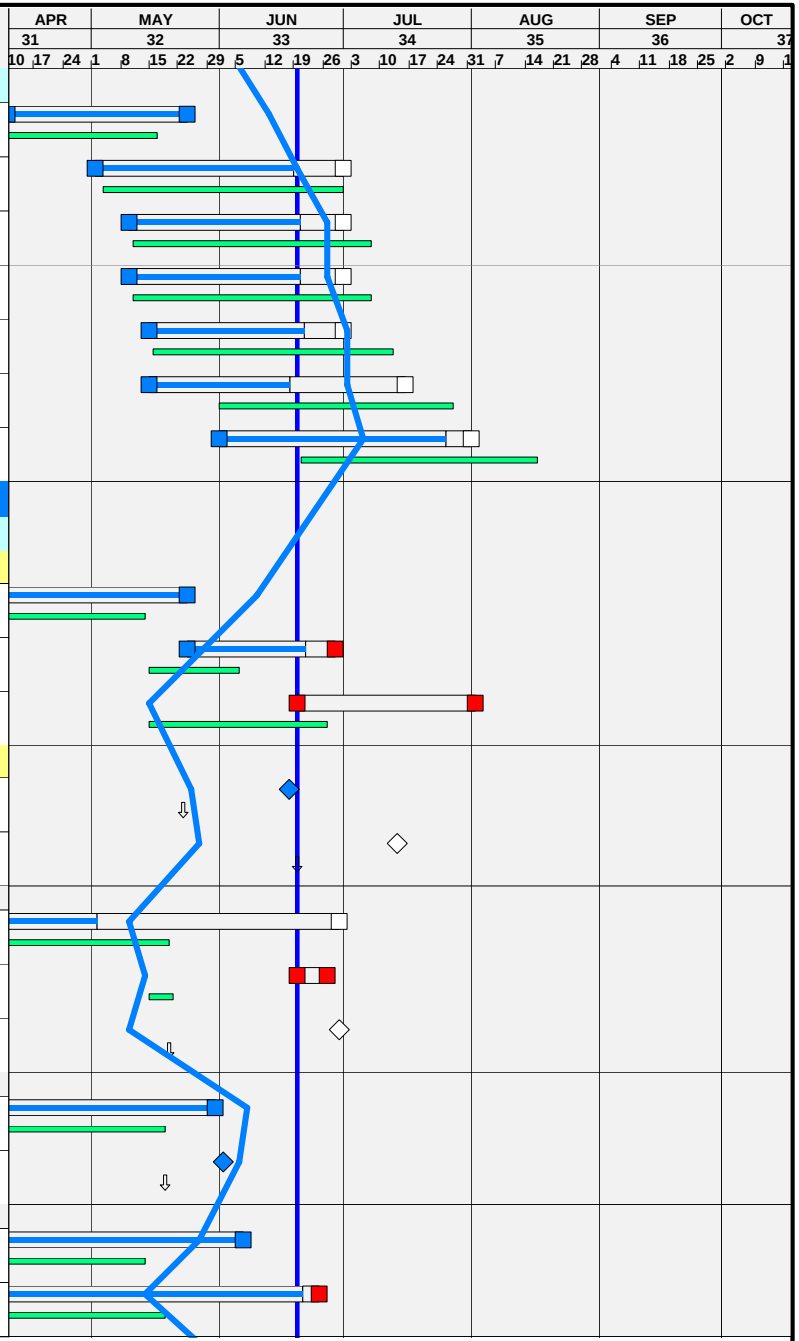
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
VA Building - External Finishes									
T3090	VA Bldg. - 25thk Roof Screed & Roofing Tiles	18	12AUG06	01SEP06	0	0	18	21	-21
T2140	VA Bldg. - Slate Cladding	44	15AUG06	05OCT06	0	0	44	-1	0
T3100	VA Bldg. - GMS,S/S Channel, Balustrade & Railing	18	02SEP06	22SEP06	0	0	18	21	-21
T3120	VA Bldg. - Alum Comp Panel Cladding to Ext Walls	60	08SEP06	20NOV06	0	0	60	-38	-24
T2110	VA Bldg. - Expanded metal cladding to Ext Walls	22	09SEP06	05OCT06	0	0	22	-1	-22
E & M WORKS									
Ventilation Adit Bldg (GF/Lwr Plen) - E & M Work									
EM2040	BS Works for HV Sw + Tx	12	20JUN06	04JUL06	0	0	12	-64	-22
EM2200	BS Works for Genset	18	05JUL06	25JUL06	0	0	18	-58	-22
EM2260	E&M Works in Corridors G/F	24	11JUL06	07AUG06	0	0	24	-57	-25
EM2310	BS Works in TVS Plenums	30	12JUL06	15AUG06	0	0	30	-78	-21
EM2220	Genset Installation	36	26JUL06	05SEP06	0	0	36	-58	-22
EM2300	E&M Works in Risers	48	02AUG06	26SEP06	0	0	48	-64	-22
EM2060	HV Sw + Tx Installation	30	16SEP06	23OCT06	0	0	30	-85	-54
EM2000	E&M access to G/F	0	20JUN06		0	0	0	-64	-22
Ventilation Adit Bldg (1F) - E & M Work									
EM2100	BS Works for LV Sw, MCC, UPS, LCC	12	26JUN06	10JUL06	0	0	12	-57	-25
EM2280	E&M Works in Corridors 1/F	24	05JUL06	01AUG06	0	0	24	-64	-22
EM2160	BS Works for 110V Charger Rm	12	11JUL06	24JUL06	0	0	12	-39	-25
EM2120	LV Sw, MCC, UPS, LCC Installation	30	31JUL06	02SEP06	0	0	30	-62	-27
EM2020	E&M access to 1/F	0	26JUN06*		0	0	0	-71	-25
Ventilation Adit Bldg (2F/Upr Plen) - E & M Work									
EM2320	TVS Installation	90	04AUG06	20NOV06	0	0	90	-78	-21
Testing and Commissioning									
EM2180	110V Charger Rm Installation + T&C	12	25JUL06	07AUG06	0	0	12	-39	-25
EM2140	LV Sw, MCC, UPS, LCC Termination + T&C	30	04SEP06	10OCT06	0	0	30	-62	-27



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Testing and Commissioning									
EM2240	Genset Termination + T&C	12	06SEP06	19SEP06	0	0	12	-58	-22
ENT NORTH PORTAL VENTILATION BUILDING									
SUBMITTALS & APPROVALS									
ABWF & Builders Works									
1954	NP.Bldg. - Approve door details	24	06APR05A	29JUN06	80	80	9	-19	-38
1960	NP.Bldg. - Approve aluminium composite cladding	24	13DEC05A	15JUL06	50	50	22	-40	-38
PROCUREMENT - MATERIAL									
ABWF WORKS									
1967	NP.Bldg. - Procure aluminium composite cladding	180	19APR05A	15JUL06	50	50	22	-40	-38
1981	NP.Bldg. - Procure expanded metal cladding	180	05JUN05A	29JUN06	50	50	9	27	-38
2049	NP.Bldg. - Initial delivery of louvres	0	27MAY06A		100	0	0		-6
2052	NP.Bldg. - Initial delivery balust & metal works	0	30JUN06*		0	0	0	69	0
2053	NP.Bldg. - Initial delivery fall arrest roof sys	0	30JUN06*		0	0	0	69	0
2051	NP.Bldg. - Initial delivery slate cladding	0	15JUL06*		0	0	0	45	0
2039	NP.Bldg. - Initial delivery of doors	0	05AUG06*		0	0	0	-19	-30
2066	NP.Bldg. - Initial deliv expanded metal cladding	0	15AUG06*		0	0	0	19	0
2050	NP.Bldg. - Initial deliv alum composite cladding	0	25SEP06*		0	0	0	-40	-22
E&M WORKS									
6208	EntNpBldg-Proc. & Manuf. of CMCS & ELV sys	180	29MAR05A	30MAY06A	100	85	0		17
6269	EntNpBldg-Proc & Manuf. FS AFA & FM200 sys	120	29MAR05A	15JUL06	85	90	22	402	-38
6206	EntNpBldg-Proc & Manuf. MVAC mech.vent. sys	180	06JAN06A	30JUN06	95	95	10	414	-43
6230	EntNpBldg-Proc & Manuf. MVAC Package AC Units	120	11JAN06A	30JUN06	95	95	10	414	-43
MAJOR EQUIPMENT DELIVERY									
ENT NORTH PORTAL BUILDING									
6231	EntNpBldg-Del. FS pumps & tank to G/F	48	06MAR06A	30JUN06	80	50	10	414	-38
6832	EntNpBldg-Del. MVAC /TVF pneumatic sys to 1/F	48	06APR06A	30JUN06	80	10	10	414	-13



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
ENT NORTH PORTAL BUILDING									
6825	EntNpBldg-Del. TVS to Plenum & 3/F	48	10APR06A	23MAY06A	100	20	0		-6
6845	EntNpBldg-Del. ENT Tunnel (Hyd/HR) pumps to G/F	48	02MAY06A	30JUN06	80	0	10	414	0
6242	EntNpBldg-Del. building vent. fans	48	10MAY06A	30JUN06	80	0	10	414	5
6327	EntNpBldg-Del. Package AC Units	48	10MAY06A	30JUN06	80	0	10	414	5
6229	EntNpBldg-Del. PD pump & tank to G/F	48	15MAY06A	30JUN06	80	0	10	414	9
6359	EntNpBldg-Del. AFA & FM200 sys	48	15MAY06A	15JUL06	55	0	22	402	10
6288	EntNpBldg-Del. CMCS & ELV equip't	48	01JUN06A	31JUL06	90	0	35	389	14
CONSTRUCTION									
North Portal Bldg. - CIVIL & ABWF WORKS									
STRUCTURE									
T1310	NP Bldg - 4th Floor - walls and Roof(+100.63mPD)	34	03APR06A	23MAY06A	100	30	0		-8
T1390	NP Bldg - Exhaust Shaft (+110.38mPD)	18	24MAY06A	28JUN06	80	0	8	-48	-20
S1370	Construct earth mat	36	20JUN06	01AUG06	0	0	36	8	-30
ABWF WORKS									
T1350	BB Access 3rd Floor - critical rooms	0		17JUN06A	100	0	0		-22
T1360	BB Access 4th Floor/Roof - critical rooms	0		13JUL06	0	0	0	499	-24
Internal Works GF									
T1650	GF ABWF Initial finishes	18	04MAR06A	29JUN06	50	28	9	45	-34
T3320	Complete Works to Cable Risers	6	20JUN06	26JUN06	0	0	6	-22	-30
T1320	GF BB Access grnd Floor	0		29JUN06*	0	0	0	45	-34
NP Bldg - Internal Works 1F									
T1590	1F & LP ABWF Initial finishes	18	30MAR06A	30MAY06A	100	32	0		-10
T1330	1F BB access 1st Floor/LPL - critical rooms	0		01JUN06A	100	0	0		-11
NP Bldg - Internal Works 2F									
T1990	Installation of Crane beam to underside of 3FL	12	15MAR06A	06JUN06A	100	10	0		-19
T1600	2F ABWF Initial Finishes	18	06APR06A	24JUN06	95	28	5	-95	-31



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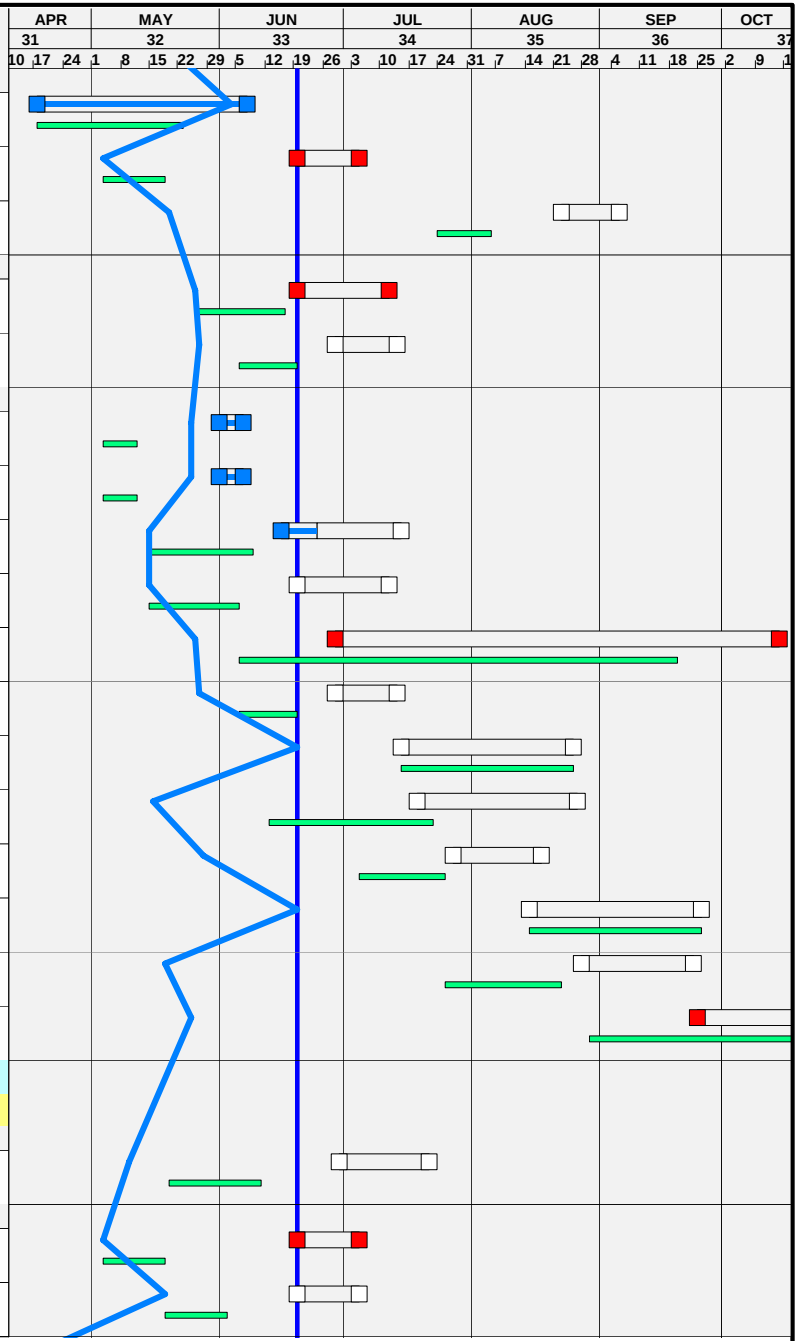
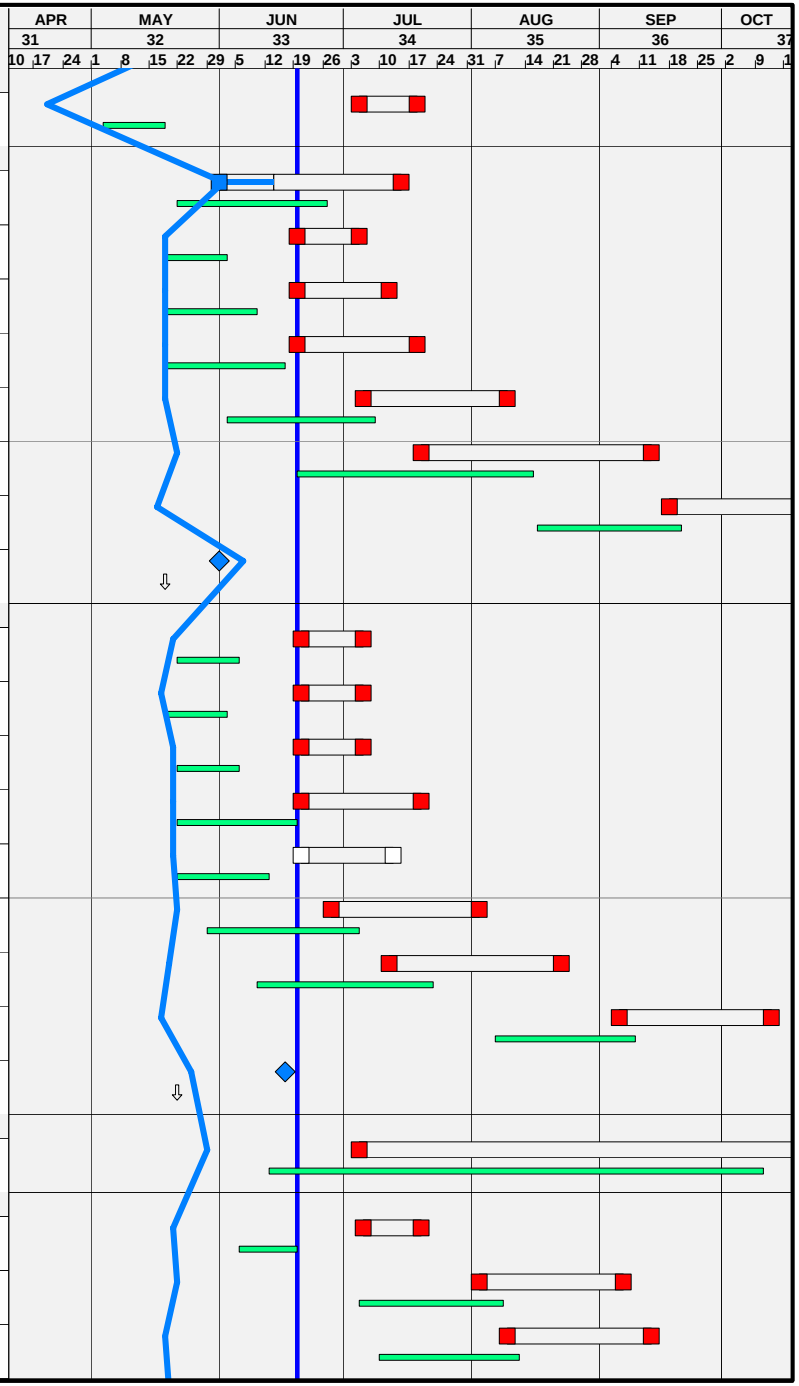
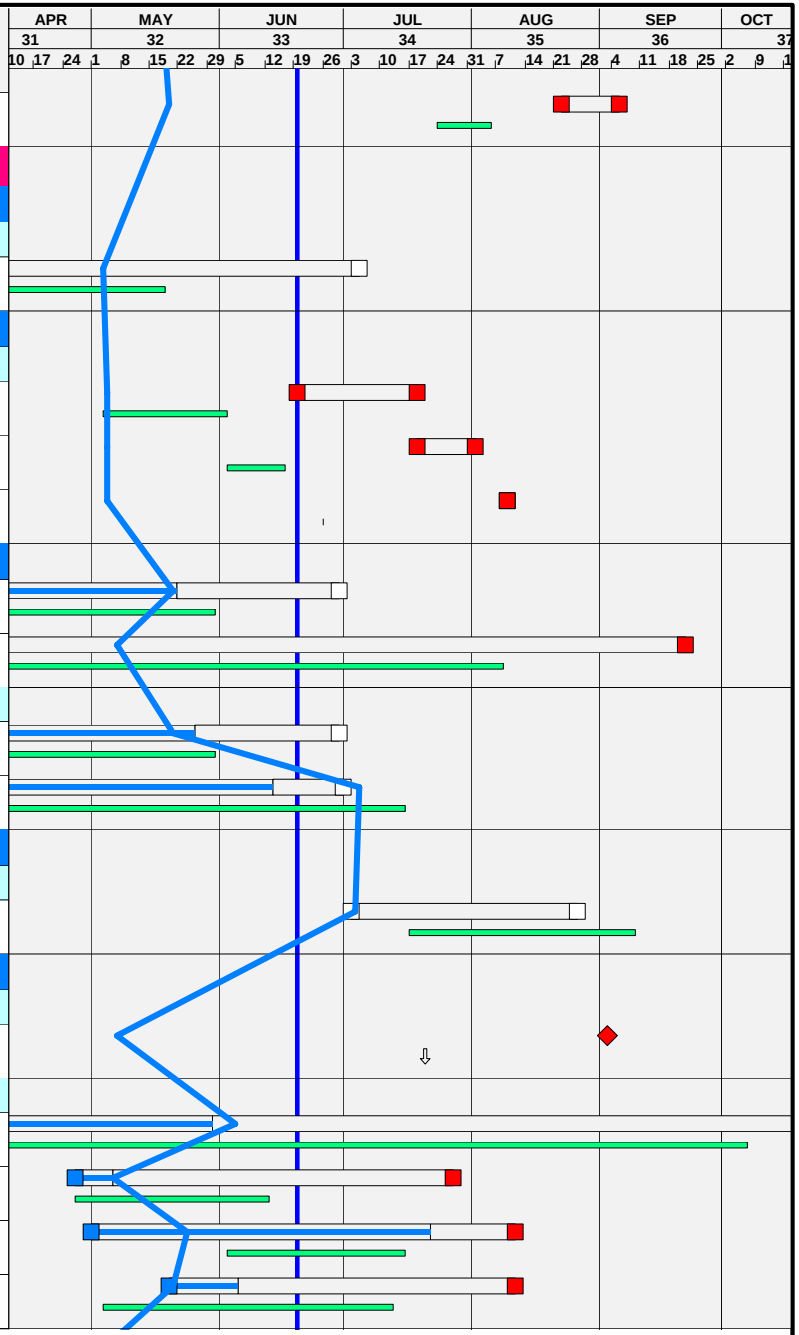
NP Bldg Internal Works 3/F									
T1610	3F ABWF initial finishes	18	18APR06A	07JUN06A	100	18	0		-13
T2000	Installation of Crane beam to underside of 4FL	12	20JUN06	04JUL06	0	0	12	-64	-38
T1880	3F - paint touch up & doors	12	23AUG06	05SEP06	0	0	12	66	-26
NP Building - Internal Works									
T2430	Installation of Crane beam to underside of 5FL	18	20JUN06	11JUL06	0	0	18	-58	-20
T1620	4F ABWF initial finishes	12	29JUN06	13JUL06	0	0	12	404	-20
NP Bldg - Roofing & External Facade									
T1530	Ent NPB - OHVD Slab NB - Finishes	6	01JUN06A	06JUN06A	100	0	0		-21
T1560	Ent NPB - OHVD Slab SB - Finishes	6	01JUN06A	06JUN06A	100	0	0		-21
T2240	Ent NPB - Ext. Wall Waterproof Membrane	21	16JUN06A	14JUL06	30	0	21	21	-30
T2238	Ent NPB - Ext. Wall Waterproof Render	18	20JUN06	11JUL06	0	0	18	20	-30
T1740	Ent NPB - Install Aluminum louvres & doors	90	29JUN06	14OCT06	0	0	90	-48	-20
T1800	Ent NPB - Roof Waterproofing & Test	12	29JUN06	13JUL06	0	0	12	28	-20
T1780	Ent NPB - Slate cladding above NB/SB carriageway	36	15JUL06	25AUG06	0	0	36	45	0
T1730	Ent NPB - External Wall Painting	34	19JUL06	26AUG06	0	0	34	20	-30
T1700	Ent NPB - 25thk Roof Screed & Roofing Tiles	18	28JUL06	17AUG06	0	0	18	28	-20
T1770	Ent NPB - Expanded metal cladding to Ext Walls	36	15AUG06	25SEP06	0	0	36	19	0
T1790	Ent NPB - GMS,S/S Channel, Balustrade & Railing	24	28AUG06	23SEP06	0	0	24	20	-28
T1750	Ent NPB - Alum. Comp Panel Cladding to Ext Walls	60	25SEP06	06DEC06	0	0	60	-40	-22
ENT North Portal Bldg. - BUILDING SERVICES									
E & M WORKS									
ENT North Portal Bldg (G/F) - E & M Works									
T1720	Installation of FS Pumps & Pipework at GF	18	30JUN06	21JUL06	0	0	18	45	-34
ENT North Portal Bldg (1F/Lwr Plen) - E & M Work									
T1570	NP Bldg - OHVD Slab SB - BB 1st Fix	12	20JUN06	04JUL06	0	0	12	-40	-38
T1810	Installation of FM200 at 1F	12	20JUN06	04JUL06	0	0	12	38	-26



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
ENT North Portal Bldg (1F/Lwr Plen) - E & M Work									
T1540	NP Bldg - OHVD Slab NB - BB 1st fix	12	05JUL06	18JUL06	0	0	12	-40	-50
ENT North Portal Bldg (2F/Silencer) - E & M Work									
EM2930	BS Works for TVS Plenums	30	01JUN06A	14JUL06	30	0	21	-61	-15
EM2580	BS Works for HV Sw + Tx	12	20JUN06	04JUL06	0	0	12	-22	-26
EM2800	BS Works for Genset	18	20JUN06	11JUL06	0	0	18	-46	-26
EM2860	E&M Works in Corridors 2/F	24	20JUN06	18JUL06	0	0	24	-40	-26
EM2720	LV Sw Installation	30	06JUL06	09AUG06	0	0	30	-62	-27
EM2900	E&M Works in Risers	48	20JUL06	13SEP06	0	0	48	-41	-25
EM2600	HV Sw + Tx Installation	30	18SEP06	24OCT06	0	0	30	-86	-27
EM2560	E&M access to 2/F	0	01JUN06A		100	0	0		-10
ENT North Portal Bldg (3F/ Fan Rm) - E & M Works									
EM2640	BS Works for MCC, UPS, LCC	12	21JUN06	05JUL06	0	0	12	-35	-25
EM2700	BS Works for LV Sw	12	21JUN06	05JUL06	0	0	12	-62	-27
EM2760	BS Works for 110V Charger Rm	12	21JUN06	05JUL06	0	0	12	-23	-25
EM2880	E&M Works in Corridors 3/F	24	21JUN06	19JUL06	0	0	24	-41	-25
EM2890	Compressor Room Installation	18	21JUN06	12JUL06	0	0	18	31	-25
EM2660	MCC, UPS, LCC Installation	30	28JUN06	02AUG06	0	0	30	-35	-25
EM2820	Genset Installation	36	12JUL06	22AUG06	0	0	36	-46	-26
EM2920	Termination of overall Elect HV & LV Sys	30	06SEP06	12OCT06	0	0	30	-46	-26
EM2540	E&M access to 3/F (rev C Access date 08Oct05)	0	17JUN06A		100	0	0		-22
ENT North Portal Bldg (4F/Upr Plen) - E & M Work									
EM2940	TVS Installation	100	05JUL06	01NOV06	0	0	100	-64	-18
Testing and Commissioning									
EM2780	110V Charger Rm Installation + T&C	12	06JUL06	19JUL06	0	0	12	-23	-25
EM2680	MCC, LCC Termination + T&C	30	03AUG06	06SEP06	0	0	30	-35	-25
EM2740	LV Sw Termination + T&C	30	10AUG06	13SEP06	0	0	30	-41	-27



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Testing and Commissioning									
EM2840	Genset Termination + T&C	12	23AUG06	05SEP06	0	0	12	-46	-26
TOLL PLAZA & ANCILLIARY STRUCTURES									
SUBMITTALS & APPROVALS									
ABWF & BW SUBMITTALS									
1522	TP/FB - Approve footbridge details	24	28JUL05A	04JUL06	50	50	12	412	-38
Design & Engineering - Temporary Works									
50.030.020									
1244	Design/ICE Check Tool Booth Canopy	24	20JUN06	18JUL06	0	0	24	-51	-38
1341	Eng Approve Dsg Tool Booth Canopy	12	19JUL06	01AUG06	0	0	12	-51	-38
1358	Issue Constr Dwgs Tool Booth Canopy	0	10AUG06	09AUG06	0	0	0	-51	-38
Procurement - Major Material									
1518	Admin Bldg - Procure & manufacture lift	270	01JUN05A	29JUN06	90	89	9	27	-25
2185	Order/Fabricate/Deliver Tool Booth Canopy	90	01DEC05A	21SEP06	11	11	80	-88	-38
Toll Plaza									
1512	TP/FB - Procure & manufacture lifts (x2)	270	15JUL05A	29JUN06	90	89	9	415	-25
7548	TP-Proc & Manuf. MVAC Package AC Units	120	11JAN06A	30JUN06	90	50	10	366	12
MAJOR EQUIPMENT DELIVERY									
TOLL PLAZA									
7549	TP-Del. Package AC Units	48	03JUL06	26AUG06	0	0	48	366	12
Construction Works									
Toll Plaza - TCSS Access									
K1162	Toll Plaza - TCSS Access (East Side)	0		02SEP06	0	0	0	-54	-38
TOLL PLAZA EAST SIDE									
K1282	Provision of micro-satelite-office at East Loop	186	13MAR06A	21OCT06	35	17	104	-8	-12
K1232	Carriageway Drainage Prior to TCSS	36	27APR06A	27JUL06	10	10	32	-54	-38
S1170	FW Watermains Centre to Admin Bldg & FH12, FH13	36	01MAY06A	11AUG06	80	0	8	1	-23
K1212	Main Carid'way Drain (D3 & D4) - after stockpile	57	20MAY06A	11AUG06	20	0	45	1	-26



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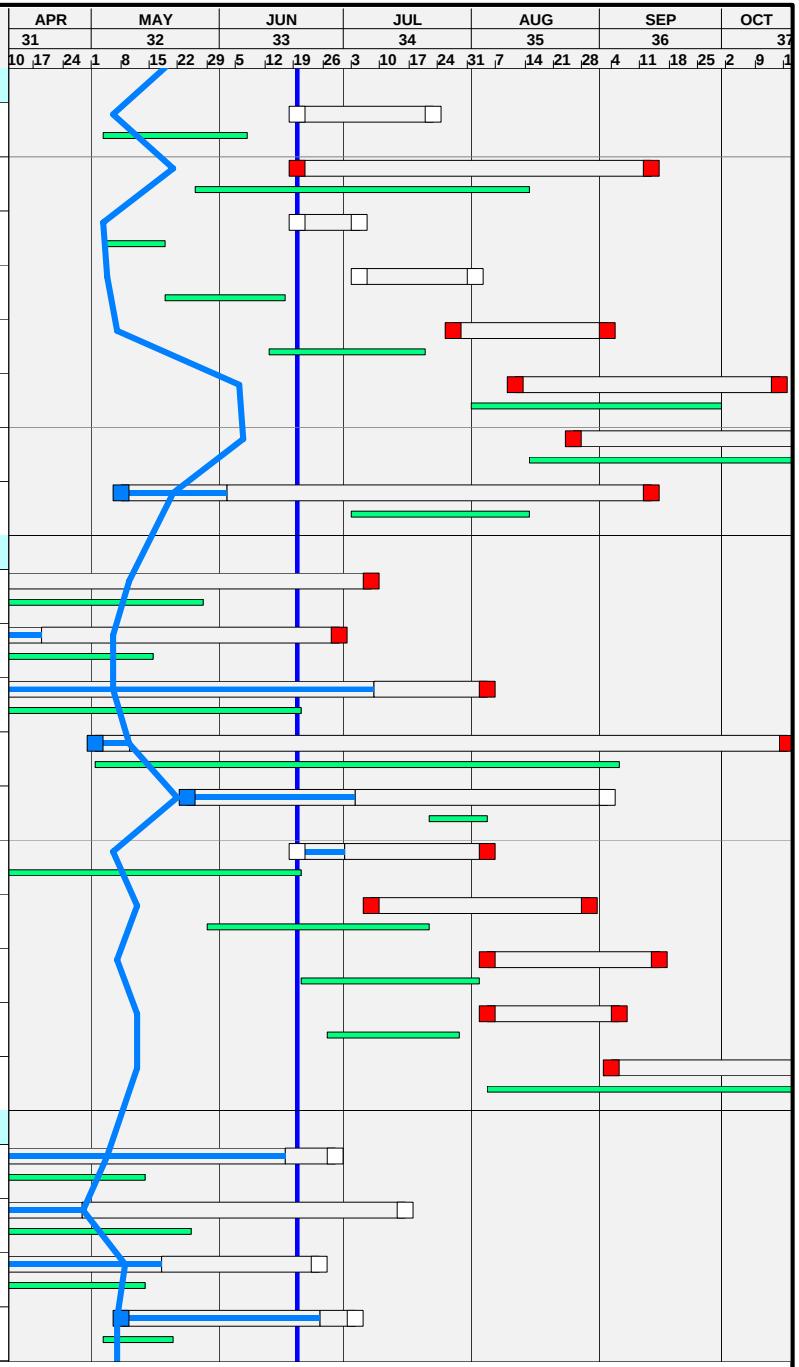
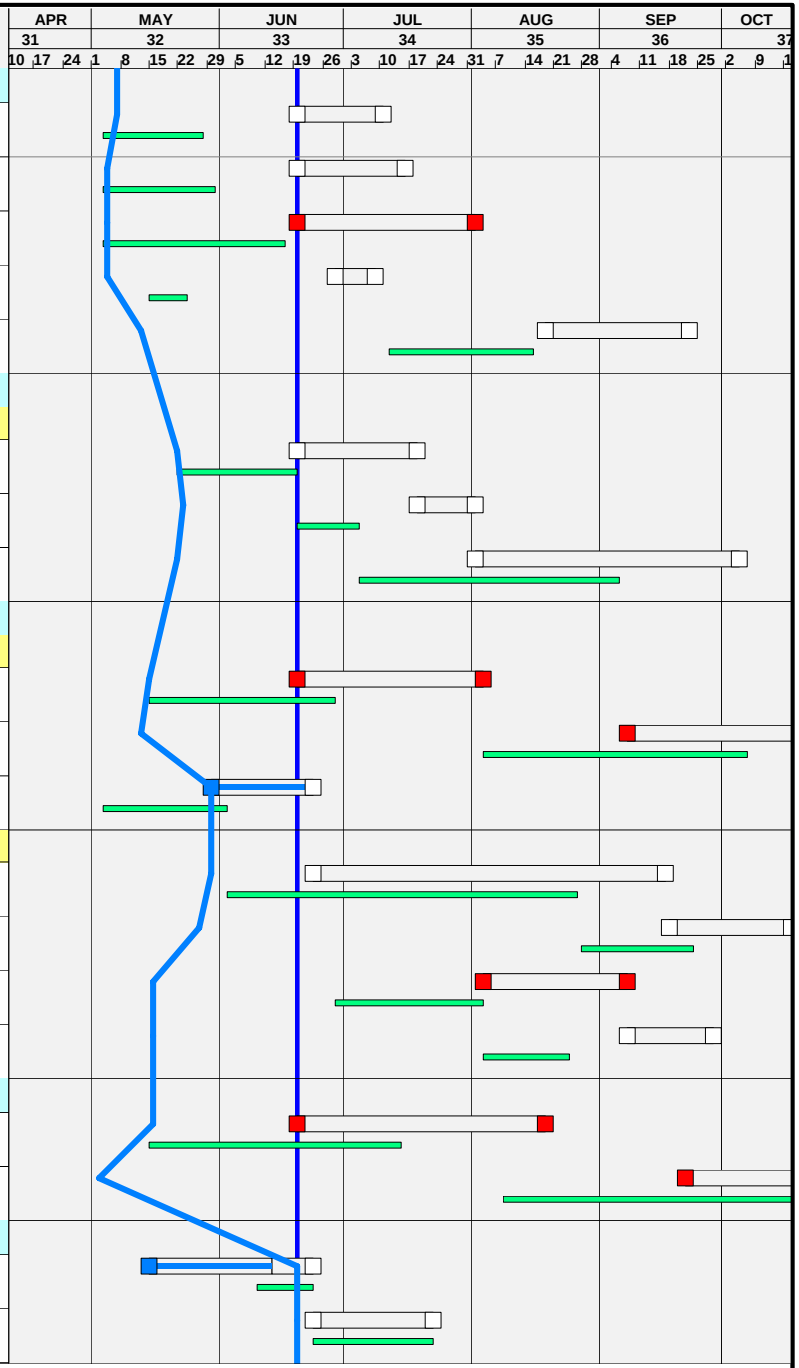
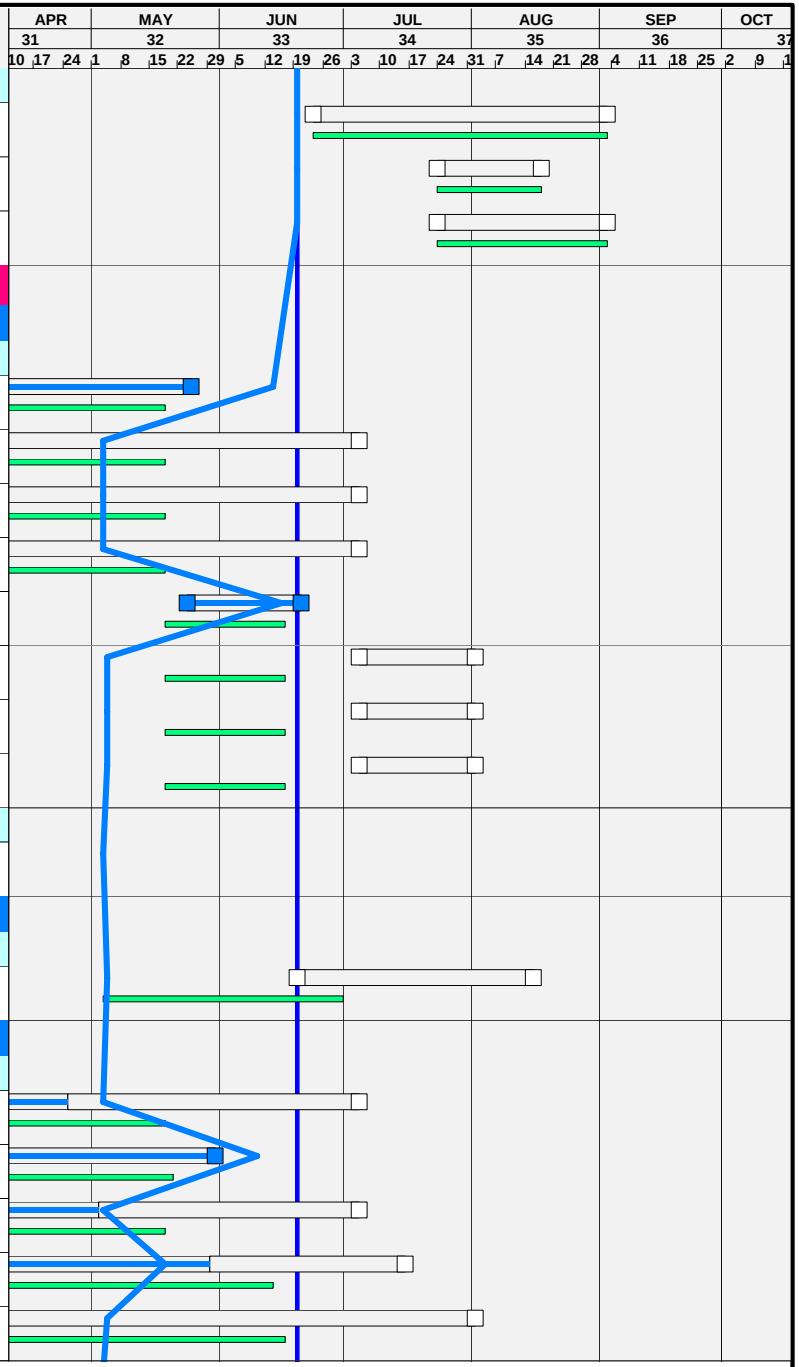
TOLL PLAZA EAST SIDE									
K1182	East Loop Road - Drainage	28	20JUN06	22JUL06	0	0	28	68	-38
K1222	Main carriageway Ducting & Drawpits	54	20JUN06	13SEP06	0	0	54	1	-26
K1262	HML Bases (2no. Loop rd, Admin bldg)	12	20JUN06	04JUL06	0	0	12	34	-38
K1252	E&M / Lighting works	24	05JUL06	01AUG06	0	0	24	72	-38
S1160	Installation of Ducting and Drawpits for TCSS	32	28JUL06	02SEP06	0	0	32	-54	-38
K1242	Main carriageway - East Subbase and kerbs	53	12AUG06	14OCT06	0	0	53	1	-10
S1420	Road Pavement Surfacing (Flex & Rigid)	56	26AUG06	02NOV06	0	0	56	1	-10
S1190	HGC Ducting & Drawpits	24	08MAY06A	13SEP06	20	0	18	1	-26
TOLL PLAZA WEST SIDE									
K1161	CSJV, Remove TAR1, drainage, formation (RE Wall)	56	24SEP05A	07JUL06	60	60	15	-89	-33
K1231	CSJV Complete Drainage & Vacate part	24	31DEC05A	29JUN06	60	60	9	-68	-38
K1181	Main Carriageway - West side drainage - NP-FB	42	20MAR06A	04AUG06	80	15	20	-68	-38
K1191	Drawpits & Ducting (incl TCSS)	42	02MAY06A	16OCT06	5	5	39	-89	-33
S1270	HML bases (2no. - loop rd, lay by,)	12	24MAY06A	02SEP06	40	0	4	20	-25
K1201	West Loop Drainage Works	38	20JUN06	04AUG06	25	25	25	-18	-38
K1241	Main Carriageway - West side drainage - FB-SHT	45	08JUL06	29AUG06	0	0	45	-89	-33
K1171	West Loop road - Roadworks	36	05AUG06	15SEP06	0	0	36	-18	-38
S1510	FW Waterminam Centre to Admin Bldg & FH12, FH13	24	05AUG06	05SEP06	0	0	24	-56	-33
K1211	E&M / Lighting works	24	04SEP06	19DEC06	0	0	24	-45	-33
TOLL PLAZA - works adjacent to building									
S1415	SHT SPB - Drainage & Ducting	18	28FEB06A	28JUN06	90	90	8	110	-38
S1427	Admin Blg & Wshop - Drainage & ducting	36	07MAR06A	15JUL06	40	25	22	80	-43
S1380	ENT NPB - Drainage & Ducting	18	01APR06A	24JUN06	55	25	5	115	-35
S1390	ENT NPB - HML Base	8	08MAY06A	03JUL06	85	0	3	115	-35



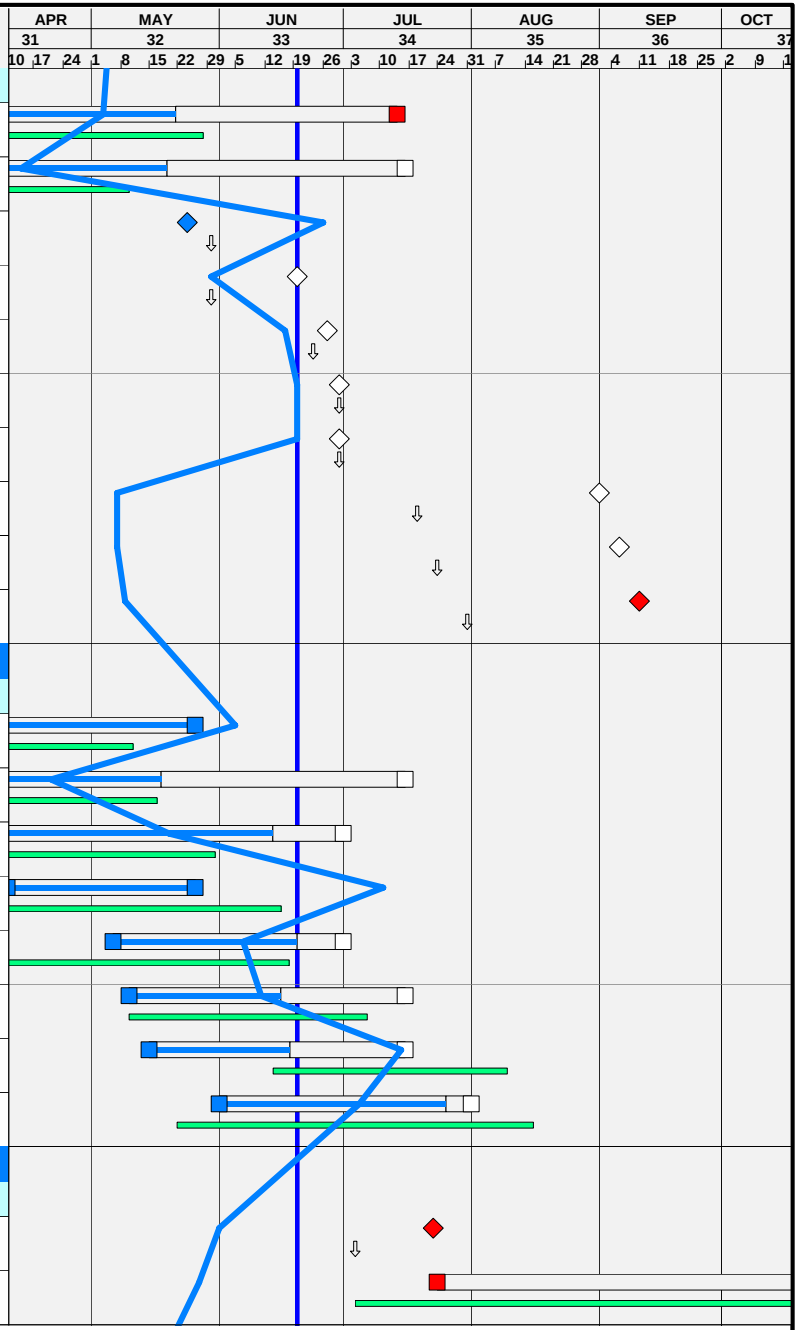
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
TOLL PLAZA - works adjacent to building									
S1400	ENT NPB - Kerbs & Rwks & misc Finishes	12	20JUN06	10JUL06	0	0	12	115	-35
S1417	SHT SPB - Kerbs & Rwks & misc finishes	12	20JUN06	15JUL06	0	0	12	110	-38
S1440	Install Earth Mat for Admin Bldg & SHT NP Bldg	36	20JUN06	01AUG06	0	0	36	8	-38
S1416	SHT SPB - HML Base	8	29JUN06	08JUL06	0	0	8	110	-38
S1437	Admin Blg & Wshop - kerbs, Rwks & misc finishes	30	19AUG06	22SEP06	0	0	30	51	-33
TOLL PLAZA COLLECTOR'S SUBWAY									
ABWF									
101471	TP/CS - Internal Finishes Ptn A, B & C	24	20JUN06	18JUL06	0	0	24	42	-24
101472	TP/CS - Internal Finishes Ptn D	12	19JUL06	01AUG06	0	0	12	42	-24
S1290	Toll Subway - E&M	54	02AUG06	04OCT06	0	0	54	42	-24
TOLL PLAZA FOOTBRIDGE									
ABWF									
S1264	Installation of Aluminium Cladding	38	20JUN06	03AUG06	0	0	38	-28	-30
S1250	Toll Ftbrdge - Finishes	54	08SEP06	13NOV06	0	0	54	10	-30
S1340	Toll Plaza - Erection of Lift Steel Work	24	30MAY06A	23JUN06	95	0	4	32	-18
E & M WORKS									
S1200	Toll Plaza Footbridge - Lift Installation	72	24JUN06	16SEP06	0	0	72	32	-18
S1450	Toll Plaza Footbridge - Lift Commissioning	24	18SEP06	17OCT06	0	0	24	32	-18
S1470	E&M Installation at Footbridge	30	04AUG06	07SEP06	0	0	30	10	-30
S1500	E&M Footbridge T&C	18	08SEP06	28SEP06	0	0	18	46	-30
TOLL PLAZA BOOTHS									
S1210	Construct Toll Islands 17 No.	51	20JUN06	18AUG06	0	0	51	-33	-30
S1220	Construct Toll Booths - 22No.	88	22SEP06	09JAN07	0	0	88	-88	-38
ADMIN.BLDG. - WORKSHOP									
S1430	Workshop Roof Slab +73.0mPD	12	15MAY06A	23JUN06	75	0	4	68	0
S1260	Workshop - initial Finishes incl block walls	24	24JUN06	22JUL06	0	0	24	68	0



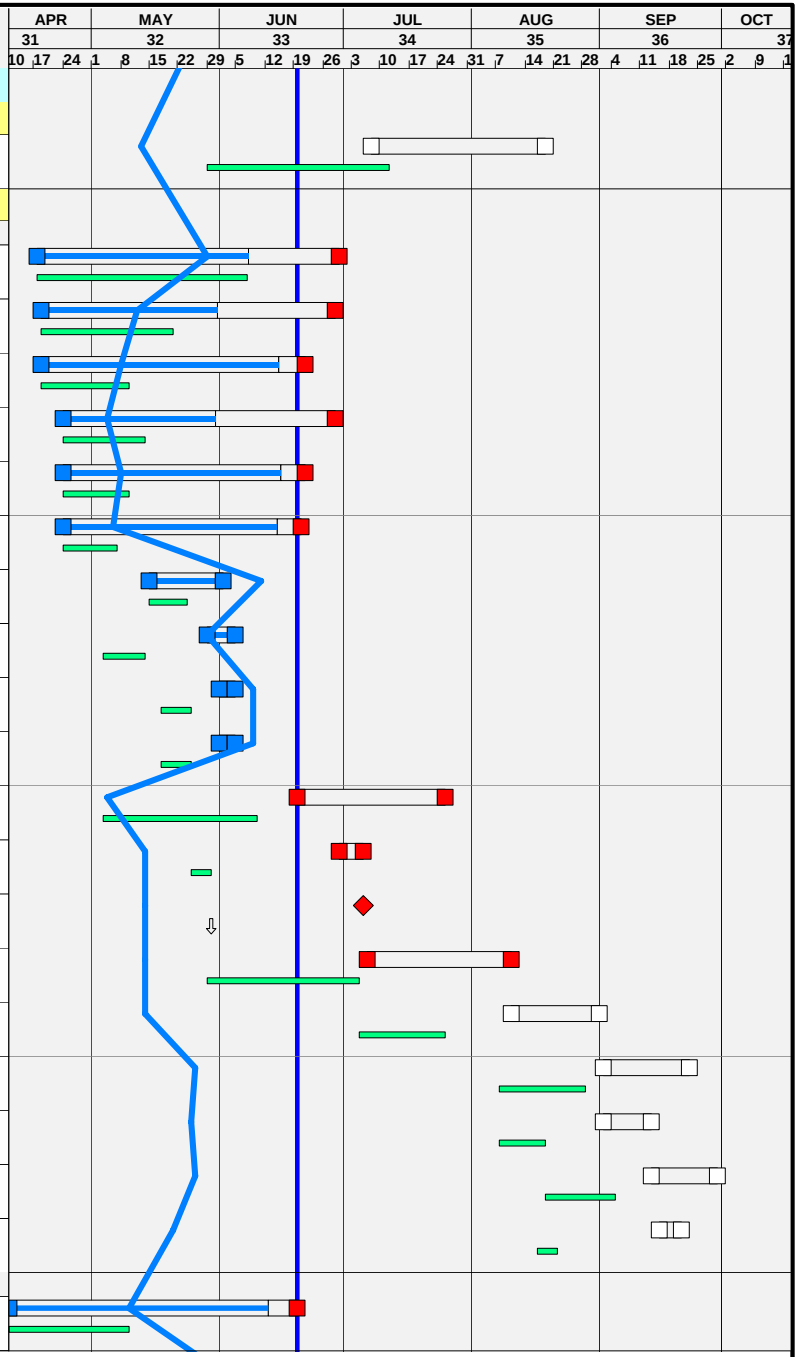
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
ADMIN.BLDG. - WORKSHOP									
S1350	Workshop - External Finishes	60	24JUN06	02SEP06	0	0	60	68	0
S1280	Workshop - Install Roller Shutters	12	24JUL06	17AUG06	0	0	12	82	0
S1320	Workshop - Remaining internal Finishes	36	24JUL06	02SEP06	0	0	36	68	0
ADMINISTRATION BUILDING									
SUBMITTALS & APPROVALS									
ABWF. MTRL SUBMiTTALS									
1883	Admin.Bldg. - Prep & sub sheet decking details	24	13NOV04A	24MAY06A	100	12	0		-5
1885	Admin.Bldg. - Prep & submit wood ceiling details	24	20NOV04A	04JUL06	50	50	12	364	-38
1881	Admin.Bldg. - Prep & sub GRP water tank details	24	12JAN05A	04JUL06	50	50	12	358	-38
1887	Admin.Bldg. - Prep & sub suspend ceiling details	24	12AUG05A	04JUL06	50	50	12	328	-38
1884	Admin.Bldg. - Approve sheet decking details	24	24MAY06A	20JUN06A	100	0	0		-3
1882	Admin.Bldg. - Approve GRP water tank details	24	05JUL06	01AUG06	0	0	24	358	-38
1886	Admin.Bldg. - Approve wood ceiling details	24	05JUL06	01AUG06	0	0	24	364	-38
1888	Admin.Bldg. - Approve suspended ceiling details	24	05JUL06	01AUG06	0	0	24	328	-38
E&M EQPT. / MTRL. SUBMITTALS									
8248	AdmBldg-Engineer to provide Cater'g equip detail	0	07APR05A		100	100	0		-38
DESIGN & ENGINEERING									
TEMPORARY WORKS									
1373	Design/ICE Temp False/Formwork Admin Bldg	48	20JUN06	15AUG06	0	0	48	376	-38
PROCUREMENT - MATERIAL									
ABWF WORKS									
1904	Admin.Bldg. - Procure wood ceiling	90	19JAN05A	04JUL06	87	87	12	362	-38
6397	AdmBldg-Proc & Manuf. of CMCS, ELV & TCS sys	180	31JAN05A	30MAY06A	100	90	0		-8
1902	Admin.Bldg. - Procure GRP water tank	90	16MAR05A	04JUL06	87	87	12	382	-38
6444	AdmBldg-Proc & Manuf. FS AFA & FM200 sys	120	29MAR05A	15JUL06	90	85	22	402	-27
1905	Admin.Bldg. - Procure suspended ceiling	120	09MAY05A	01AUG06	70	70	36	328	-38



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
ABWF WORKS									
1910	Admin.Bldg. - Procure expanded metal cladding	90	05JUN05A	13JUL06	87	87	20	-19	-38
6393	AdmBldg-Proc & Manuf. PD fresh & flush water sys	90	30SEP05A	15JUL06	80	95	22	402	-56
2055	Admin.Bldg. - Initial delivery curtain wall	0	24MAY06A		100	0	0		5
1938	Admin.Bldg. - Initial delivery glass canopy	0	20JUN06*		0	0	0	42	-17
2056	Admin.Bldg. - Initial delivery sheet decking	0	27JUN06		0	0	0	418	-2
2059	Admin.Bldg.- Initial deliv fall arrest roof syst	0	30JUN06*		0	0	0	75	0
2060	Admin.Bldg. - Initial deliver balust & metal wks	0	30JUN06*		0	0	0	75	0
2058	Admin.Bldg. - Initial delivery wood ceiling	0	01SEP06		0	0	0	362	-38
2063	Admin.Bldg. - Initial delivery GRP water tank	0	06SEP06		0	0	0	358	-38
2061	Admin.Bldg.- Initial del expanded metal cladding	0	11SEP06*		0	0	0	-19	-36
MAJOR EQUIPMENT DELIVERY									
ADMINISTRATION BUILDING									
6401	AdmBldg-Del. LV power dist. equip't to 2/F	48	06MAR06A	25MAY06A	100	20	0		-13
6417	AdmBldg-Del. FS pumps & tank to G/F	48	06MAR06A	15JUL06	55	50	22	402	-50
6428	AdmBldg-Del. building vent. fans	48	06APR06A	30JUN06	80	20	10	414	-26
6497	AdmBldg-Del. FCUs & PAUs	48	10APR06A	25MAY06A	100	60	0		17
6480	AdmBldg-Del. Chiller & Pumps	48	06MAY06A	30JUN06	80	20	10	414	-11
6416	AdmBldg-Del. PD pump & tank to G/F	48	10MAY06A	15JUL06	55	0	22	402	-8
6534	AdmBldg-Del. AFA & FM200 sys	48	15MAY06A	15JUL06	55	0	22	402	21
6476	AdmBldg-Del. CMCS, ELV & TCS equip't	72	01JUN06A	31JUL06	90	0	35	389	13
CONSTRUCTION									
TCSS Access at Admin Bldg									
T2910	TCSS Access at Administration Bldg (24JUN06)	0		22JUL06	0	0	0	-48	-17
T3350	TCSS Works Within Admin Bldg / Tunnel & Ext	140	24JUL06	09JAN07	0	0	140	-48	-17



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
CIVIL & ABWF WORKS									
Substructure									
106398	Admin.Bldg. - Earth Mat & Rods - All in ptn D4	36	08JUL06	18AUG06	0	0	36	51	-33
ABWF									
Admin Bldg (G/F) - Internal Work @ Grid 1 to 21									
T1682	AB (G/F to 1/F) - Staircase Finishing Works	30	18APR06A	29JUN06	70	5	9	-64	-19
T1685	AB G/F (Grid 1-21) - Wall Plaster & Flr Screed	20	19APR06A	28JUN06	60	10	8	-85	-32
T3250	Genset & Fuel Rm (G45/G46) - W Plasters & Screed	12	19APR06A	21JUN06	90	70	2	-68	-36
T1680	AB G/F (Grid 1-21) - Windows & door frames	18	24APR06A	28JUN06	56	56	8	-63	-38
T3220	LV & HV Sw Rm (G39/G40) - Wall Plasters & Screed	12	24APR06A	21JUN06	90	70	2	-68	-36
T3245	Rm (G39/G40/G45/G46) - Wdws & door frames	8	24APR06A	20JUN06	90	70	1	-55	-37
T3020	AB G/F (Grid 1-21) - Install Roller Shutters	8	15MAY06A	01JUN06A	100	0	0		-7
T3210	AB G/F (Grid 9B) - Construct Cable Riser	6	29MAY06A	04JUN06A	100	0	0		-17
T3225	LV & HV Sw Rm (G39/G40) - Ceil & Wall Base Paint	6	01JUN06A	04JUN06A	100	0	0		-8
T3258	Genset&Fuel Rm (G45/G46)- Ceil & Wall Base Paint	6	01JUN06A	04JUN06A	100	0	0		-8
T2990	AB G/F (Grid 1-21) - Tileworks & Sanitary Fixt	30	20JUN06	25JUL06	0	0	30	-85	-38
T3255	Genset&Fuel Rm (G45/G46) - Floor Tiles	4	30JUN06	05JUL06	0	0	4	-68	-30
T3275	AB G/F (Critical Rooms) - Access to E&M Works	0		05JUL06	0	0	0	-68	-30
T2995	AB G/F (Grid 1-21) - Wall & Ceiling Base Paint	30	07JUL06	10AUG06	0	0	30	-69	-32
T1970	AB G/F (Grid 1-21) - Install Ceiling Grids	18	11AUG06	31AUG06	0	0	18	46	-32
T1975	AB G/F (Grid 1-21) - Base Skirting	18	02SEP06	22SEP06	0	0	18	45	-22
T2160	AB G/F (Grid 1-21) - Install Ceiling Panels	10	02SEP06	13SEP06	0	0	10	47	-22
T2150	AB G/F (Grid 1-21) - Door Leaf & Final Paints	12	14SEP06	29SEP06	0	0	12	45	-22
T3285	Rm (G39/G40/G45/G46) - Door Leaf & Final Paints	4	16SEP06	20SEP06	0	0	4	53	-26
Admin Bldg (1/F) - Internal Work @ Grid 1 to 18									
T3260	UPS & UPS Bat Rm (112/115) - W Plasters & Screed	12	11APR06A	19JUN06	90	70	0	-74	-34



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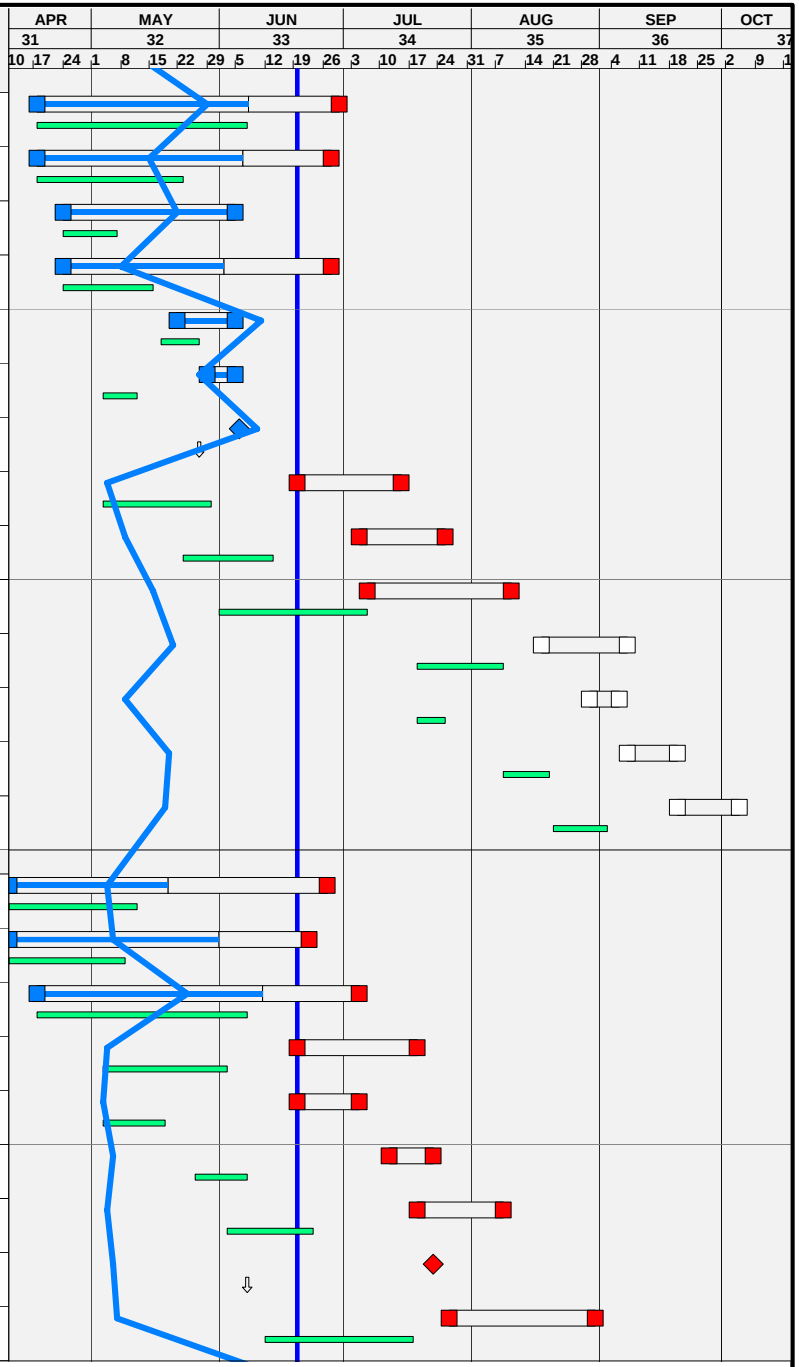
Admin Bldg (1/F) - Internal Work @ Grid 1 to 18									
T1982	AB (1/F to 2/F) - Staircase Finishing Works	30	18APR06A	29JUN06	70	5	9	-22	-19
T1985	AB 1/F (Grid 1-18) - Wall Plaster & Flr Screed	24	18APR06A	27JUN06	70	35	7	-16	-30
T1695	UPS & UPS Bat Rm (112/115) - Wdws & door frames	4	24APR06A	04JUN06A	100	70	0		-23
T1980	AB 1/F (Grid 1-18) - Wdws & Door Frames	18	24APR06A	27JUN06	60	56	7	-9	-36
T3265	UPS&UPS Bat Rm (112/115)- Ceil & Wall Base Paint	8	22MAY06A	04JUN06A	100	0	0		-6
T3270	AB 1/F Grid (9B) - Construct Cable Risers	6	29MAY06A	04JUN06A	100	0	0		-19
T3266	AB 1/F (Critical Rooms)- Access to E&M Works	0		05JUN06A	100	0	0		-7
T2010	AB 1/F (Grid 1-18) - Tileworks & Sanitary Fixt	21	20JUN06	14JUL06	0	0	21	-14	-38
T2012	AB 1/F (Grid 10-18) - Proprietary Toilet Cubicle	18	05JUL06	25JUL06	0	0	18	-14	-35
T2015	AB 1/F (Grid 1-18) - Wall & Ceiling Base Paint	30	07JUL06	10AUG06	0	0	30	-16	-30
T3000	AB 1/F (Grid 1-18) - Install Ceiling Grids	18	18AUG06	07SEP06	0	0	18	28	-26
T3268	UPS&UPS Bat Rm (112/115) - Door Lf & Final Paint	6	30AUG06	05SEP06	0	0	6	66	-36
T2185	AB 1/F (Grid 1-18) - Install Ceiling Panels	10	08SEP06	19SEP06	0	0	10	28	-26
T3015	AB 1/F (Grid 1-18) - Floor Carpets	12	20SEP06	04OCT06	0	0	12	28	-26
Admin Bldg (2/F) - Internal Work @ Grid 1 to 18									
T2060	AB 2/F (Grid 1-18) - Wdws & Door Frames	12	11APR06A	26JUN06	50	50	6	-19	-38
T3012	AB 2/F (Tel, Comp, Cont Rm) - Wdws & door frames	8	11APR06A	22JUN06	70	70	3	-48	-38
T2062	AB (2/F to Rf/Lvl) - Staircase Finishing Works	30	18APR06A	04JUL06	70	5	9	-7	-22
T2065	AB 2/F (Grid 1-18) - Wall Plaster & Flr Screed	24	20JUN06	18JUL06	0	0	24	-19	-38
T3025	AB 2/F (Tel, Comp, Cont Rm) - Plaster & Screed	12	20JUN06	04JUL06	0	0	12	-48	-38
T3035	AB 2/F (Tel, Comp, Cont Rm)- Ceilng & Wall Paint	10	12JUL06	22JUL06	0	0	10	-48	-38
T2020	AB 2/F (Grid 1-18) - Tileworks & Sanitary Fixt	18	19JUL06	08AUG06	0	0	18	-19	-38
T3038	AB 2/F (Critical Rooms) - Access to E&M Works	0		22JUL06	0	0	0	-48	-38
T2025	AB 2/F (Grid 1-18) - Ceiling & Wall Base Paint	30	27JUL06	30AUG06	0	0	30	2	-38



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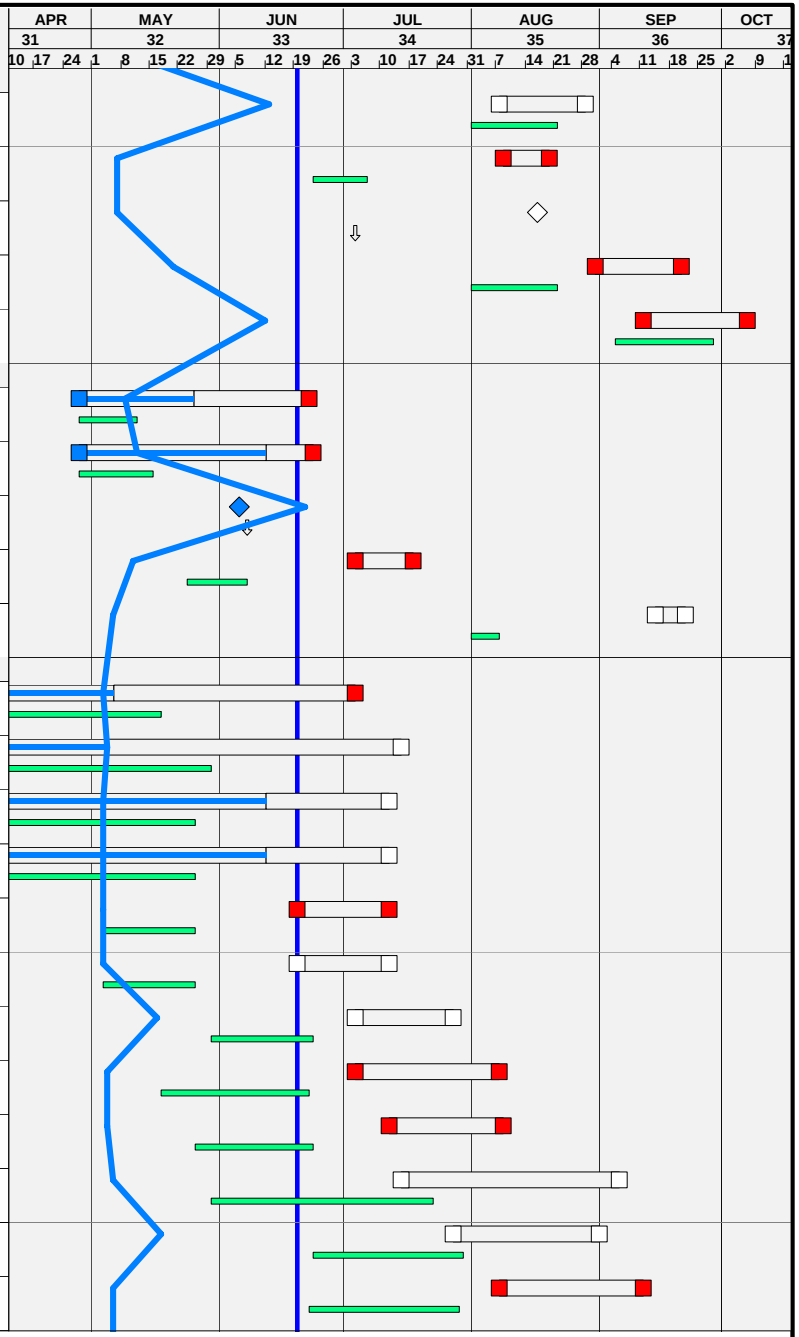
Admin Bldg (2/F) - Internal Work @ Grid 1 to 18									
T3045	AB 2/F (Tel, Comp, Cont Rm) - Ceiling Grids	18	08AUG06	28AUG06	0	0	18	22	-6
T2028	AB 2/F (Grid 1-18) - Proprietary Toilet Cubicle	10	09AUG06	19AUG06	0	0	10	-19	-38
T2035	AB 2/F (Non-Critical Room) - Access to E&M Works	0		16AUG06	0	0	0	375	-38
T2045	AB 2/F (Grid 1-18) - Install Ceiling Grids	18	31AUG06	20SEP06	0	0	18	2	-26
T3055	AB 2/F (Tel, Comp, Cont Rm) - Raised Floors	21	12SEP06	06OCT06	0	0	21	10	-6
Admin Bldg (Roof/Flr) - Inter Works Grid 3 to 16									
T2985	AB R/F (Grid 3-16) - Window & door frames	6	28APR06A	22JUN06	50	35	3	-70	-35
T3280	AB R/F (Grid 3-16) - Wall Plaster & Flr Screed	18	28APR06A	23JUN06	80	50	4	-78	-33
T2255	AB R/F (Critical Rooms) - Access to E&M Works	0		05JUN06A	100	0	0		2
T2250	AB R/F (Grid 3-16) - Ceiling & Wall Base Paint	12	04JUL06	17JUL06	0	0	12	-78	-33
T2235	AB R/F (Grid 3-16) - Door Leaf & Final Paints	6	15SEP06	21SEP06	0	0	6	52	-39
Admin Bldg - Upper Roof & External Facade									
T2890	AB Ext (GL 11-21) - Wall Waterproofing	18	28MAR06A	03JUL06	40	40	11	4	-38
T2340	AB Ext (GL 11-21) - Slate Cladding	30	03APR06A	14JUL06	30	30	21	27	-38
T2850	AB Ext (GL 1-11) - Install Louvres & Wdw Glazing	60	03APR06A	11JUL06	70	70	18	27	-38
T2860	AB Ext (GL 11-21)- Install Louvres & Wdw Glazing	60	03APR06A	11JUL06	70	70	18	35	-38
T2870	AB Ext UR/LR - Roof Screeding	18	20JUN06	11JUL06	0	0	18	-97	-38
T2880	AB Ext (GL 1-11) - Wall Waterproofing	18	20JUN06	11JUL06	0	0	18	27	-38
T2232	AB Ext (GL 11-18) - Curtain Wall Installation	21	04JUL06	27JUL06	0	0	21	31	-28
T2830	AB Ext (GL 11-21) - Ceramic Wall Tiles	30	04JUL06	07AUG06	0	0	30	4	-38
T2840	AB Ext UR/LR - Roof Waterproofing & Test	24	12JUL06	08AUG06	0	0	24	-97	-38
T2330	AB Ext (GL 1-11) - Slate Cladding	45	15JUL06	05SEP06	0	0	45	27	-38
T2230	AB Ext (GL 6-11) - Curtain Wall & Glass Canopy	30	28JUL06	31AUG06	0	0	30	31	-28
T2350	AB Ext (GL 1-11) - Ceramic Wall Tiles	30	08AUG06	11SEP06	0	0	30	4	-38



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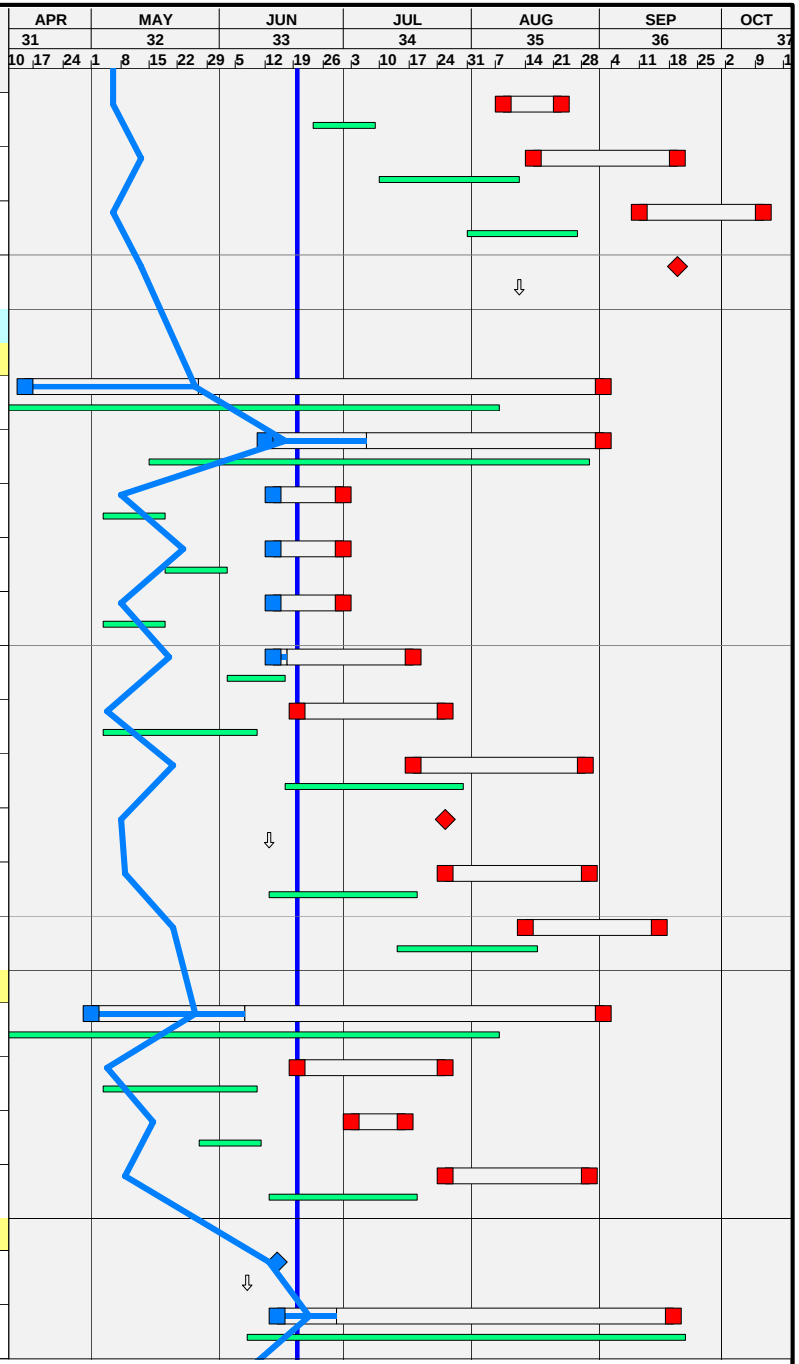
Admin Bldg - Upper Roof & External Facade									
T2841	AB Ext UR/LR - Render&wall paint to Open Area Rf	12	09AUG06	22AUG06	0	0	12	-91	-38
T2900	AB Ext UR/LR - Insulation & Conc Roof Tile	30	16AUG06	19SEP06	0	0	30	-97	-32
T2280	AB Ext (GL 11-16) - Expanded metal mesh cladding	24	11SEP06	10OCT06	0	0	24	-19	-36
T2905	AB Ext UR/LR - Access to E&M Works	0		19SEP06	0	0	0	-97	-32
BUILDING SERVICES									
Admin Bldg (G/F) - E & M Works									
EM3540	BS Works in G/F	90	15APR06A	01SEP06	30	12	63	-46	-22
EM3620	E&M Works in Risers	90	12JUN06A	01SEP06	30	0	63	-46	-3
EM3220	BS Works for HV Sw + Tx	12	14JUN06A	30JUN06	10	0	10	-52	-36
EM3280	BS Works for LV Sw	12	14JUN06A	30JUN06	10	0	10	-53	-24
EM3340	BS Works for 110V Charger Rm	12	14JUN06A	30JUN06	10	0	10	-77	-36
EM3420	BS Works for Genset	12	14JUN06A	17JUL06	10	0	10	-54	-25
EM3660	PAU in G/F	30	20JUN06	25JUL06	0	0	30	-49	-38
EM3440	Genset Installation	36	18JUL06	28AUG06	0	0	36	-54	-25
T1830	Bldg available for BB deliveries excl cont room	0		25JUL06	0	0	0	-85	-36
EM3300	LV Sw Installation	30	26JUL06	29AUG06	0	0	30	-73	-36
EM3240	HV Sw + Tx Installation	29	14AUG06	15SEP06	0	0	29	-88	-26
Admin Bldg (1/F) - E & M Works									
EM3560	BS Works in 1/F	90	01MAY06A	01SEP06	30	12	63	-46	-22
EM3680	PAU in 1/F	30	20JUN06	25JUL06	0	0	30	-49	-38
EM3380	BS Works for UPS Rm (2x)	12	03JUL06	15JUL06	0	0	12	-77	-29
EM3400	UPS (2x) Installation	30	26JUL06	29AUG06	0	0	30	-85	-36
Admin Bldg (2/F) - E & M Works									
EM3160	E&M access to 2/F (rev C Access date 12Aug05)	0	15JUN06A		100	0	0		-6
EM3580	BS Works in 2/F	90	15JUN06A	18SEP06	15	0	77	-60	3



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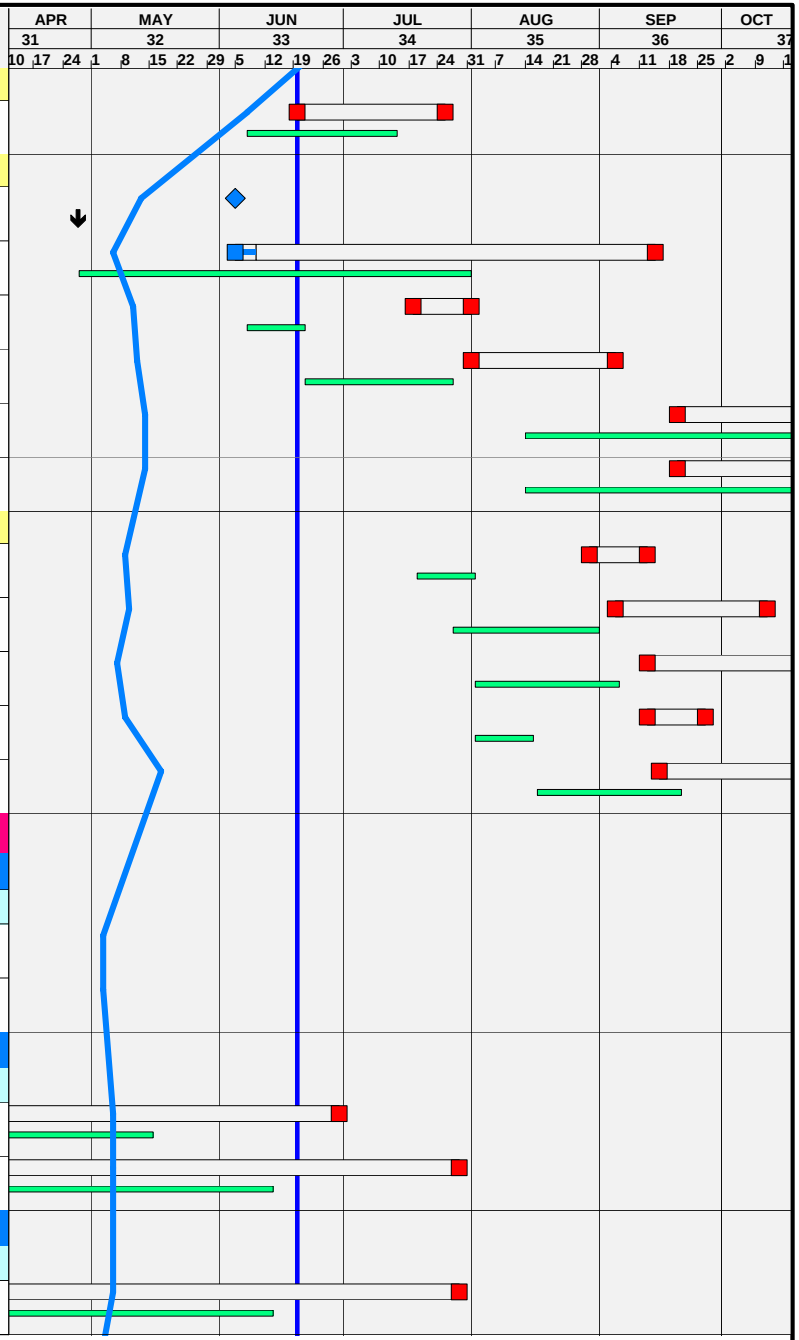
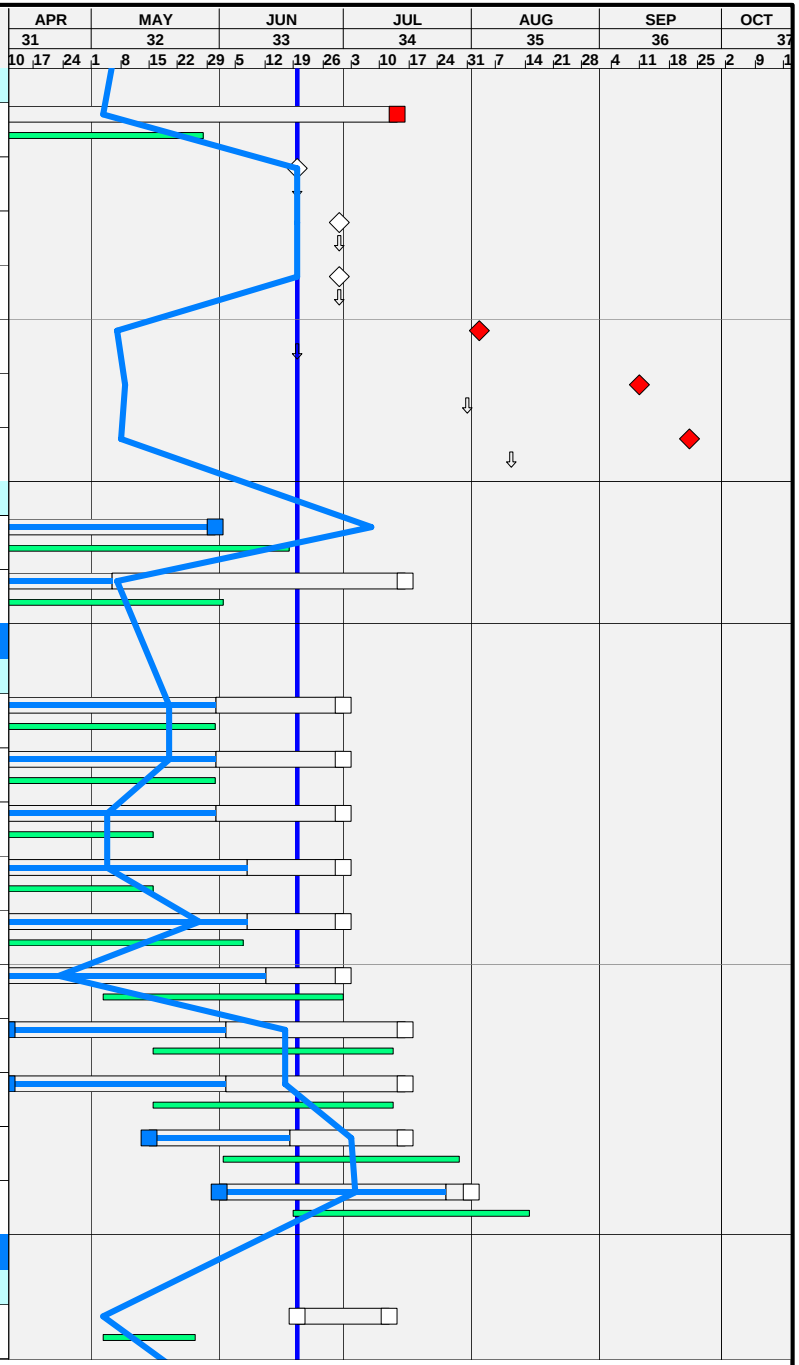
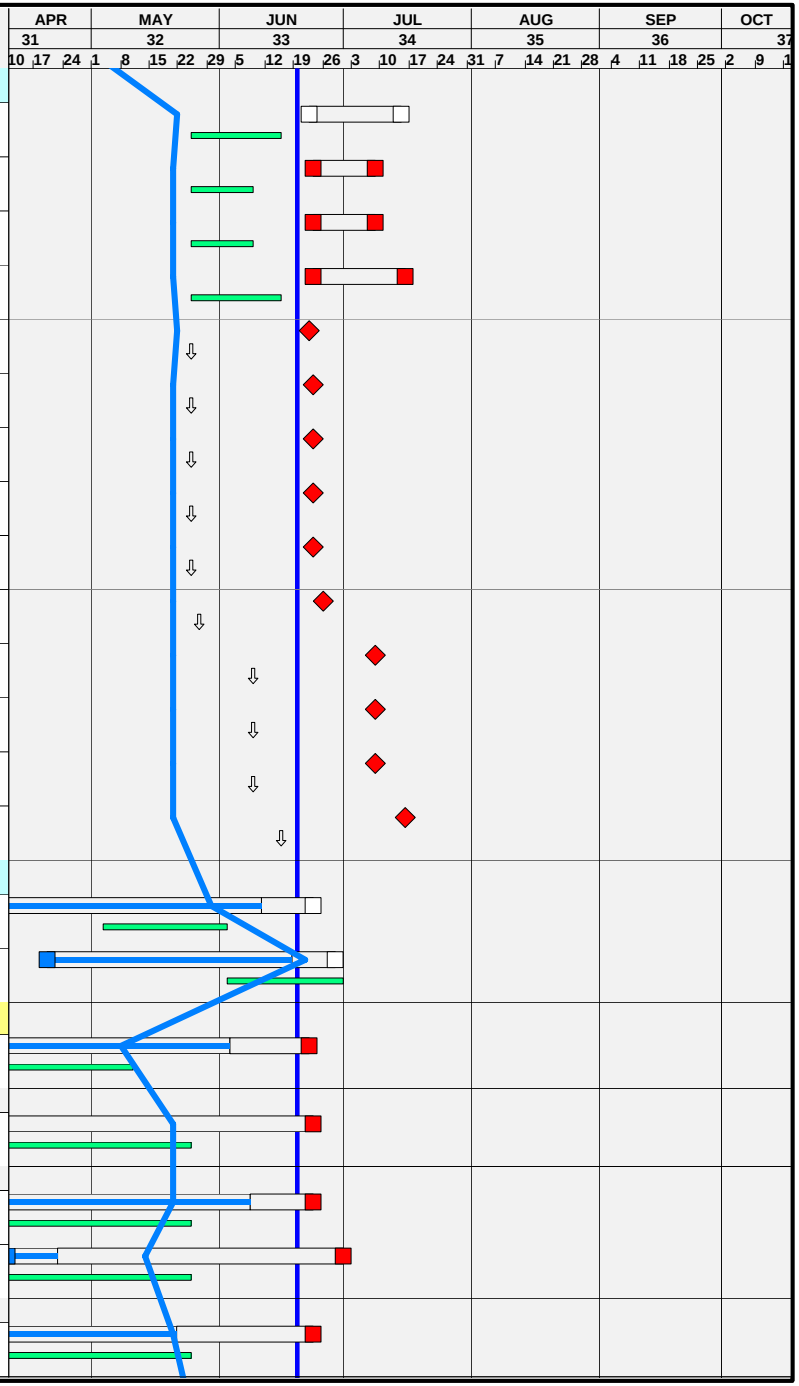
Admin Bldg (2/F) - E & M Works									
EM3700	PAU in 2/F	30	20JUN06	25JUL06	0	0	30	-49	-10
Admin Bldg (Int. & Ext. Roof Lvl) - E & M Works									
EM3140	E&M access to R/F (rev C Access date 29Nov05)	0	05JUN06A		100	100	0		-29
EM3600	BS Works in R/F	78	05JUN06A	14SEP06	5	1	74	-57	-39
EM3480	BS Works for MCC	12	18JUL06	31JUL06	0	0	12	-78	-33
EM3500	MCC Installation	30	01AUG06	04SEP06	0	0	30	-78	-33
EM3190	Admin Bldg - Lift Installation	72	20SEP06	15DEC06	0	0	72	-42	-32
EM3720	Chiller System in R/F (inc. All AC Units)	72	20SEP06	15DEC06	0	0	72	-97	-32
Admin Bldg - Testing and Commissioning									
EM3360	110V Charger Rm Installation + T&C	12	30AUG06	12SEP06	0	0	12	-85	-36
EM3520	MCC Termination + T&C	30	05SEP06	11OCT06	0	0	30	-78	-33
EM3320	LV Sw Termination + T&C	30	13SEP06	19OCT06	0	0	30	-85	-36
EM3460	Genset Termination + T&C	12	13SEP06	26SEP06	0	0	12	-67	-36
EM3260	HV Sw + Tx Termination + T&C	30	16SEP06	23OCT06	0	0	30	-88	-26
SHATIN HEIGHTS SOUTH PORTAL BUILDING									
CONTRACT DEFINED DATES & SECTIONS									
AREA ACCESS & VACATION DATES									
ACS_J2	Access to - J2 (T.Plate & above) SH-S.Vent.Bldg.	0	10DEC05A		100	100	0		-47
ACS_D8	Access to Portion - D8	0	03JAN06A		100	100	0		-47
SUBMITTALS & APPROVALS									
ABWF & BW APPROVALS									
2000	SHT SPB - Approve doors details	24	07MAY05A	29JUN06	70	70	9	13	-38
2074	SHT SPB - Approve aluminum composite cladding	24	13DEC05A	28JUL06	50	50	33	-39	-38
PROCUREMENT - MATERIAL									
ABWF WORKS									
2079	SHT SPB - Procure aluminum composite cladding	180	19APR05A	28JUL06	50	50	22	-39	-38



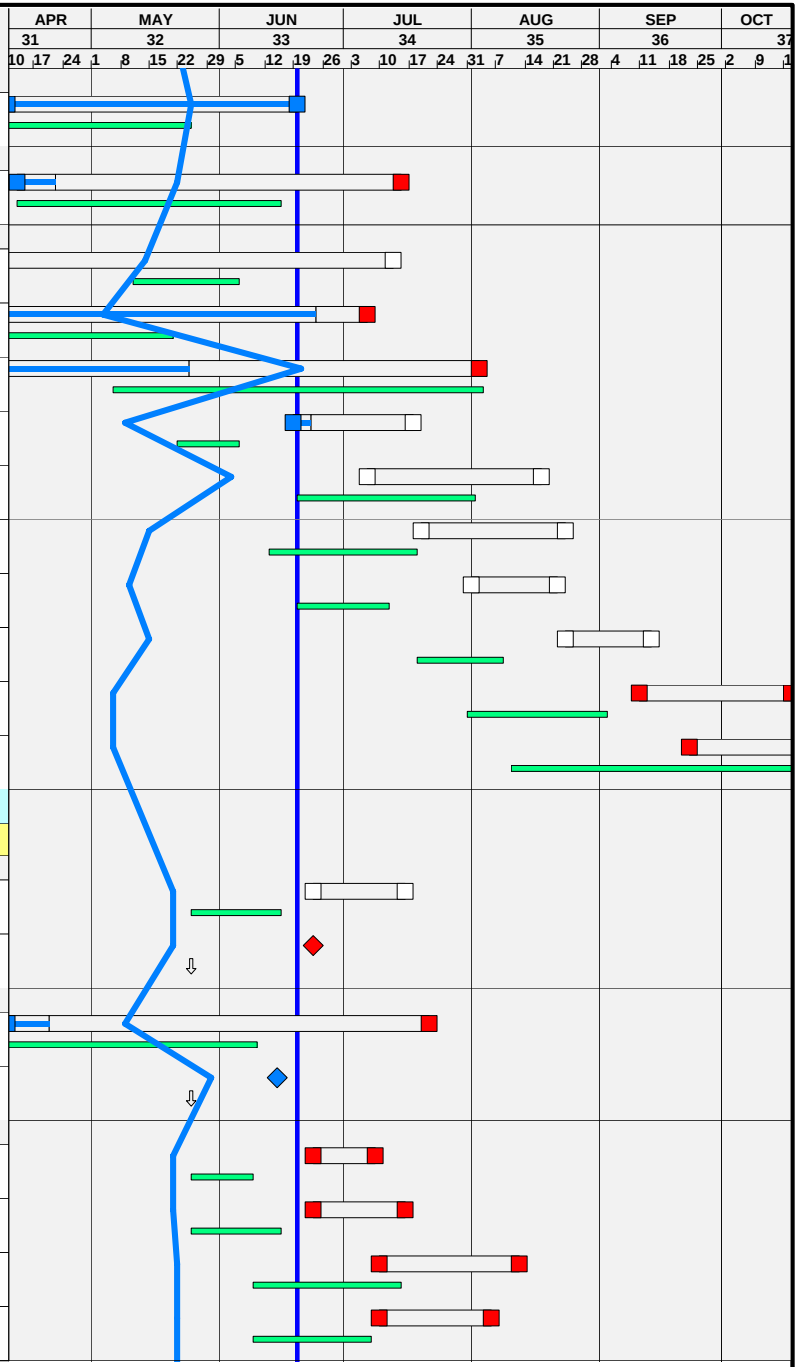
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
ABWF WORKS									
2077	SHT SPB - Procure expanded metal mesh cladding	180	05JUN05A	13JUL06	50	50	20	2	-38
2082	SHT SPB - Initial delivery of slate cladding	0	20JUN06*		0	0	0	66	0
2083	SHT SPB - Initial deliv fall arrest roof syst.	0	30JUN06*		0	0	0	75	0
2084	SHT SPB - Initial delivery balustrd & metal work	0	30JUN06*		0	0	0	75	0
2081	SHT SPB - Initial delivery of doors	0	03AUG06*		0	0	0	13	-37
2085	SHT SPB - Initial deliv expanded metal cladding	0	11SEP06*		0	0	0	2	-36
2086	SHT SPB - Initial deliv alum composite claddings	0	23SEP06*		0	0	0	-39	-37
E & M WORKS									
7086	ShtSpBldg-Proc. & Manuf. of CMCS & ELV sys	180	29MAR05A	30MAY06A	100	85	0		15
7206	ShtSpBldg-Proc & Manuf. FS AFA & FM200 sys	120	29MAR05A	15JUL06	85	90	22	402	-37
MAJOR EQUIPMENT DELIVERY									
E&M WORKS									
7103	ShtSpBldg-Del. Package AC Units	48	27JAN06A	30JUN06	80	60	10	414	-26
7118	ShtSpBldg-Del. building vent. fans	48	27JAN06A	30JUN06	80	60	10	414	-26
7149	ShtSpBldg-Del. MVAC MCC, & control sys to 3/F	48	27JAN06A	30JUN06	80	80	10	414	-39
7157	ShtSpBldg-Del. FS pumps & tank to G/F	48	06MAR06A	30JUN06	80	50	10	414	-39
7162	ShtSpBldg-Del. ENT Tunnel (Hyd/HR) pumps to G/F	48	06MAR06A	30JUN06	80	40	10	414	-21
7142	ShtSpBldg-Del. MVAC /TVF pneumatic sys to 1/F	48	29MAR06A	30JUN06	80	0	10	414	-48
7211	ShtSpBldg-Del. PD pump & tank to G/F	48	10APR06A	15JUL06	55	0	22	402	-3
7231	ShtSpBldg-Del. PD irrig. pump & tank to G/F	48	10APR06A	15JUL06	55	0	22	402	-3
7207	ShtSpBldg-Del. AFA & FM200 sys	48	15MAY06A	15JUL06	55	0	22	402	11
7087	ShtSpBldg-Del. CMCS & ELV equip't	48	01JUN06A	31JUL06	90	0	35	389	12
CONSTRUCTION									
TCSS Access to SHT Sout Portal Bldg									
EM6704	TCSS Containment in Lower Plenum	18	20JUN06	11JUL06	0	0	18	406	-38



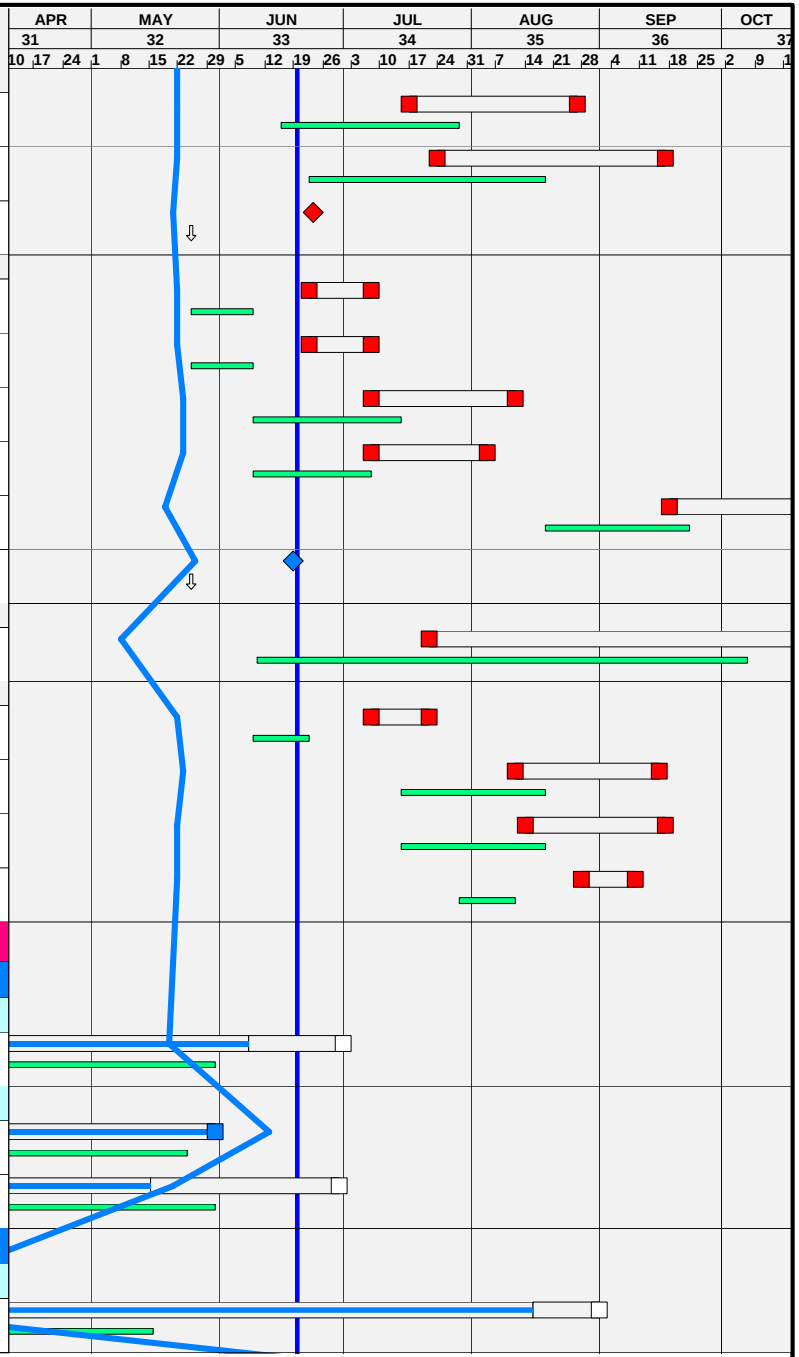
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
TCSS Access to SHT Sout Portal Bldg									
EM6708	TCSS Containment in 3/F and above	18	23JUN06	14JUL06	0	0	18	403	-24
EM6700	TCSS Containment in G/F	12	24JUN06	08JUL06	0	0	12	-101	-25
EM6702	TCSS Containment in 1/F	12	24JUN06	08JUL06	0	0	12	-101	-25
EM6706	TCSS Containment in 2/F	18	24JUN06	15JUL06	0	0	18	-107	-25
AB6021	TCSS ACCESS 3F(Room 307)	0		22JUN06	0	0	0	-155	-24
EM6050	TCSS ACCESS 2F(Room 201-203,205,207,209,212)	0		23JUN06	0	0	0	-140	-30
EM6110	TCSS ACCESS 2F(Room 204)	0		23JUN06	0	0	0	-156	-25
EM6710	TCSS ACCESS GF (Room G01-G05, G08-G10)	0		23JUN06	0	0	0	-63	-25
EM6712	TCSS ACCESS 1F(Room 101,103,104,108-109)	0		23JUN06	0	0	0	-112	-25
AB6024	TCSS ACCESS 4F (Room 402,403)	0		25JUN06*	0	0	0	-68	-30
EM6720	TCSS ACCESS GF(Room G07,G11,G12)	0		08JUL06	0	0	0	-101	-25
EM6722	TCSS ACCESS 1F(Room 107)	0		08JUL06	0	0	0	-101	-25
EM6732	TCSS ACCESS 1F(Room 105)	0		08JUL06	0	0	0	-75	-25
EM6090	TCSS ACCESS 2F(Room 206,210)	0		15JUL06	0	0	0	-107	-25
CIVIL & ABWF WORKS									
AB5983	U/G Drainages and Utilities under bldg	24	01APR06A	23JUN06	85	0	4	64	-18
AB5986	Backfill, G/F Slabs and Walls	24	20APR06A	28JUN06	85	0	4	64	2
ABWF									
AB6022	Remedy SHT Contractor Defects	25	12DEC05A	22JUN06	90	90	3	-156	-36
ABWF at GF									
AB5989	Initial Finishes to G/F	18	11FEB06A	23JUN06	5	5	4	-101	-25
ABWF at 1F & LP									
AB5992	Initial Finishes to 1/F	18	08APR06A	23JUN06	80	20	4	-112	-25
AB5995	Initial Finishes to Lower Plenum	12	10APR06A	30JUN06	15	15	10	-77	-31
ABWF at 2F									
AB5998	Initial Finishes to 2/F	18	11FEB06A	23JUN06	75	15	4	-156	-25



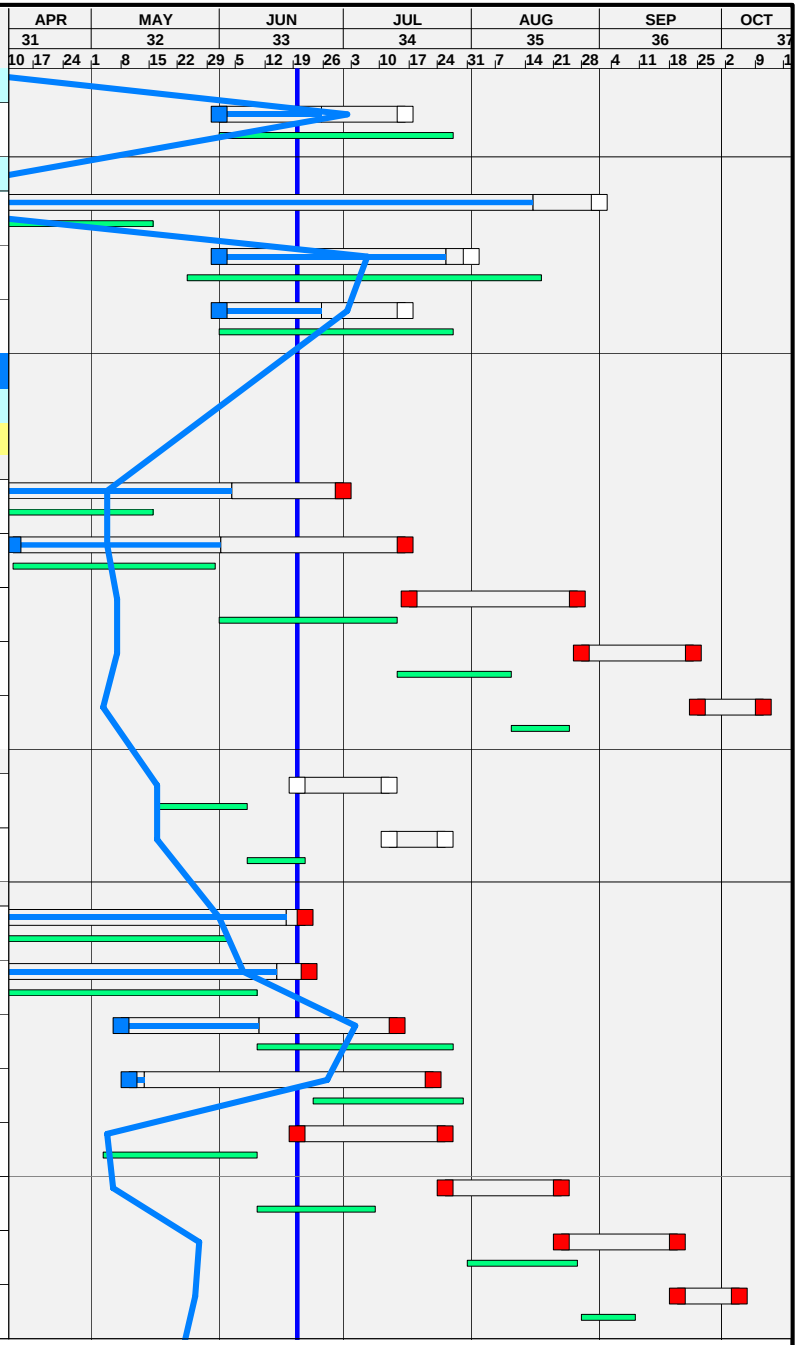
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
	ABWF at 3F								
AB6001	Initial Finishes to 3/F	18	10APR06A	19JUN06A	100	15	0		-21
	ABWF at 4F and above								
AB6004	Initial Finishes to 4/F and above	24	13APR06A	14JUL06	10	10	21	-55	-24
	Roof & External Facade								
AB6018	Sht SPB - Ext. Wall Waterproof Render	21	02MAR06A	12JUL06	20	0	16	29	-31
AB6017	Sht SPB - Ext. Wall Waterproof Membrane	24	04MAR06A	06JUL06	90	90	14	13	-38
AB6067	Sht SPB - Install Aluminum louvres & doors	75	15MAR06A	02AUG06	50	0	37	13	1
AB6037	Sht SPB - Roof Waterproofing & Test	12	19JUN06A	17JUL06	15	0	9	31	-35
AB6007	Sht SPB - Slate Cladding above NB/SB Carriageway	36	07JUL06	17AUG06	0	0	36	52	-14
AB6027	Sht SPB - External Wall Painting	30	20JUL06	23AUG06	0	0	30	29	-31
AB6057	Sht SPB - 25thk Roof Screed & Roofing Tiles	18	01AUG06	21AUG06	0	0	18	31	-35
AB6047	Sht SPB - GMS, S/S Channel, Balustrade & Railing	18	24AUG06	13SEP06	0	0	18	29	-31
AB6034	Sht SPB - Expanded metal cladding to ext walls	30	11SEP06	17OCT06	0	0	30	2	-36
AB6077	Sht SPB - Alum. composite cladding to ext walls	60	23SEP06	05DEC06	0	0	60	-39	-37
	SHT South Portal Bldg. - BUILDING SERVICES								
	E & M WORKS								
	SHT South Portal Bldg (G/F) - E & M Works								
EM6065	Installation of FS Pumps & Pipework at GF	18	24JUN06	15JUL06	0	0	18	28	-25
EM6063	E&M Access to G/F	0	24JUN06		0	0	0	-101	-25
	SHT South Portal Bldg (1F/Lwr Plen) - E & M Work								
EM6380	BS Works for TVS Plenums	30	10APR06A	21JUL06	10	3	27	-77	-35
EM6060	E&M Access to 1/F	0	15JUN06A		100	0	0		-17
	SHT South Portal Bldg (2F/Silencer) - E & M Work								
EM6080	BS Works for HV Sw + Tx	12	24JUN06	08JUL06	0	0	12	-86	-25
EM6240	BS Works for Genset	18	24JUN06	15JUL06	0	0	18	-50	-25
EM6100	HV Sw + Tx Installation	30	10JUL06	12AUG06	0	0	30	-86	-25
EM6300	E&M Works in Corridors 2/F	24	10JUL06	05AUG06	0	0	24	-56	-25



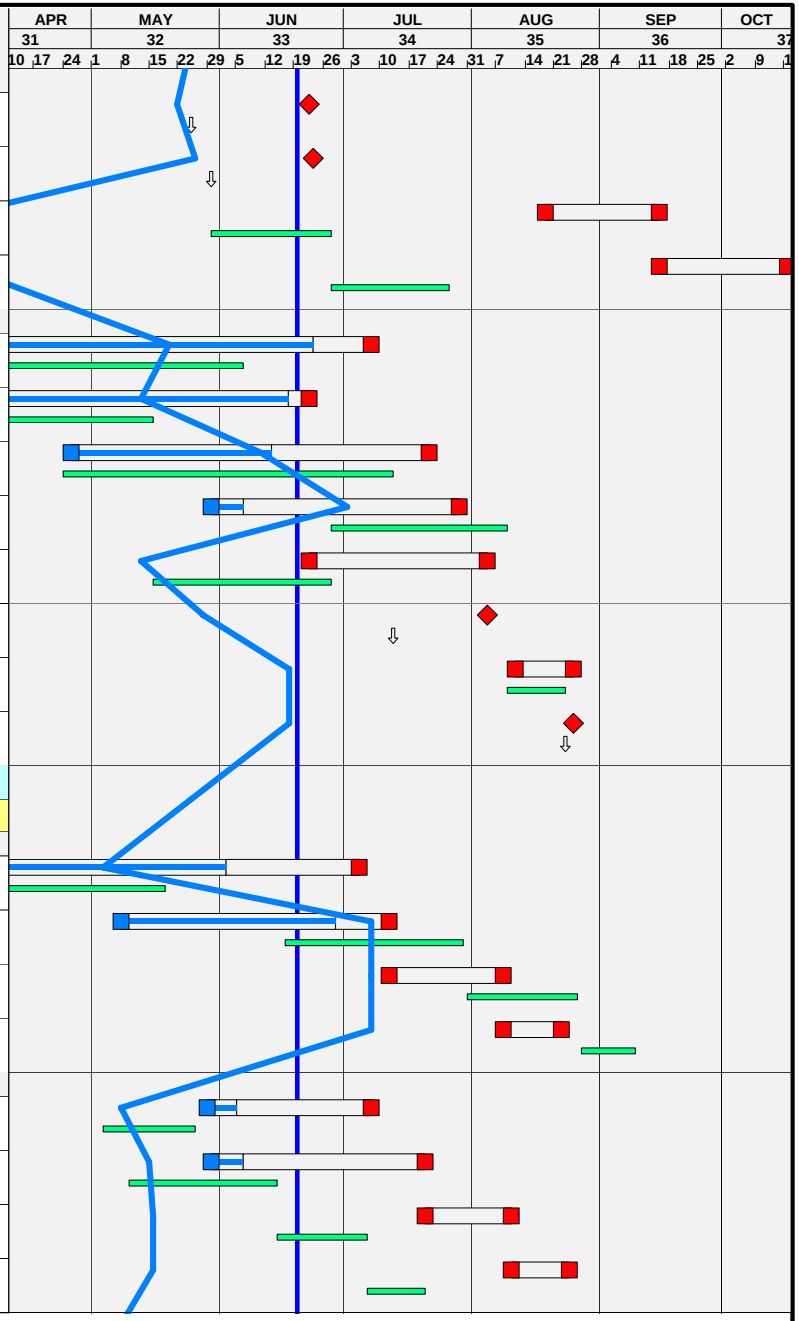
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
	SHT South Portal Bldg (2F/Silencer) - E & M Work								
EM6260	Genset Installation	36	17JUL06	26AUG06	0	0	36	-50	-25
EM6340	E&M Works in Risers (2F & 3F)	48	24JUL06	16SEP06	0	0	48	-56	-25
EM6040	E&M access to 2/F	0	24JUN06		0	0	0	-107	-25
	SHT South Portal Bldg (3F/Fan Rm) - E & M Work								
EM6140	BS Works for LV Sw, MCC, UPS, LCC	12	23JUN06	07JUL06	0	0	12	-70	-24
EM6200	BS Works for 110V Charger Rm	12	23JUN06	07JUL06	0	0	12	-37	-24
EM6160	LV Sw, MCC, UPS, LCC Installation	30	08JUL06	11AUG06	0	0	30	-70	-24
EM6320	E&M Works in Corridors 3/F	24	08JUL06	04AUG06	0	0	24	-55	-24
EM6360	Termination of overall Elect HV & LV Sys	30	18SEP06	24OCT06	0	0	30	-56	-25
EM6020	E&M access to 3/F	0	19JUN06A		100	0	0		-20
	SHT South Portal Bldg (4F/Upr Plen) - E & M Work								
EM6400	TVS Installation	100	22JUL06	18NOV06	0	0	100	-77	-35
	Testing and Commissioning								
EM6220	110V Charger Rm Installation + T&C	12	08JUL06	21JUL06	0	0	12	-37	-24
EM6180	LV Sw, MCC, UPS, LCC Termination + T&C	30	12AUG06	15SEP06	0	0	30	-43	-24
EM6120	HV Sw + Tx Termination + T&C	30	14AUG06	16SEP06	0	0	30	-56	-25
EM6280	Genset Termination + T&C	12	28AUG06	09SEP06	0	0	12	-50	-25
	SHT TUNNEL								
	PROCUREMENT - MATERIAL								
	SHT TUNNEL NORTHBOUND								
7023	ShtRtNb-Proc & Manuf. FS AFA & Linear sys	180	29MAR05A	30JUN06	95	85	10	402	-26
	SHT TUNNEL SOUTHBOUND								
6946	ShtRtSb-Proc & Manuf. CMCS & ELV sys	180	29MAR05A	30MAY06A	100	90	0		-6
6970	ShtRtSb-Proc & Manuf. FS AFA & Linear sys	180	29MAR05A	29JUN06	90	85	9	402	-25
	MAJOR EQUIPMENT DELIVERY								
	SHT TUNNEL NORTHBOUND								
7012	ShtRtNb-Del. TVS control sys	48	24MAR06A	31AUG06	90	60	62	362	-91



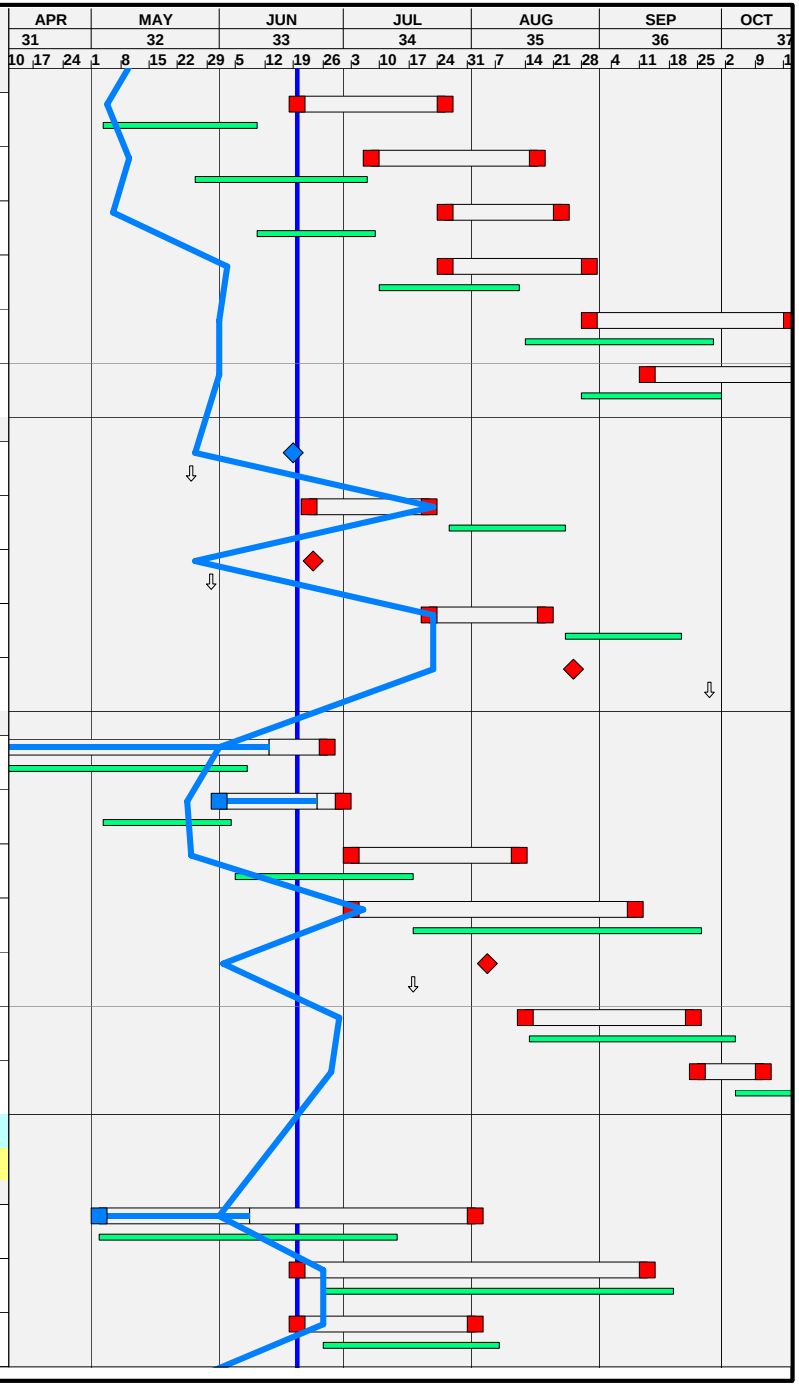
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
SHT TUNNEL NORTHBOUND									
7024	ShtRtNb-Del. AFA & Linear sys	48	01JUN06A	15JUL06	55	0	22	402	10
SHT TUNNEL SOUTH BOUND									
6959	ShtRtSb-Del. TVS control sys	47	24MAR06A	31AUG06	90	40	62	362	-91
6947	ShtRtSb-Del. CMCS & ELV sys	72	01JUN06A	31JUL06	90	0	35	389	15
6971	ShtRtSb-Del. AFA & Linear sys	48	01JUN06A	15JUL06	55	0	22	402	10
CONSTRUCTION									
SHT NORTHBOUND TUNNEL									
(E & M) BUILDING SERVICES									
MVAC / Tunnel Ventillation System Above OHVD									
207004	Sht NB - Install Motorized Smoke & Fire Damper	48	22FEB06A	30JUN06	79	80	10	-71	-39
207006	Sht NB - Comp Air Pipes/Condts to E/P1 to E/P5	36	12APR06A	15JUL06	53	5	17	-71	-38
207005	Sht NB - Comp Air Pipes/Condts to E/P10 to E/P6	36	17JUL06	26AUG06	0	0	36	-71	-38
207007	Sht NB - Cabling, wiring and termination	24	28AUG06	23SEP06	0	0	24	-71	-38
207008	Sht NB - MVAC Testing and T&C	12	25SEP06	10OCT06	0	0	12	-71	-38
Plumbing and Drainage									
214028	Sht NB - Pipe Connectn, pumps, tanks to SP / NP	18	20JUN06	11JUL06	0	0	18	20	-28
214030	Sht NB - Pipe Testing & T&C	12	12JUL06	25JUL06	0	0	12	20	-28
Fire Protection System									
221054	Sht NB - Install FS Conduits to AFA Panels	30	22MAR06A	21JUN06	95	20	2	-14	-16
221055	Sht NB - (150d) FS Main pipeworks @ G/L	34	05APR06A	22JUN06	90	10	3	-14	-11
221057	Sht NB - Hose Reel Cabinets & Equipts	40	08MAY06A	13JUL06	50	0	20	-14	12
221058	Sht NB - (100d) FH / HR Pipeworks & Fittings	30	10MAY06A	22JUL06	5	0	28	-14	6
221052	Sht NB - Install brckt / supt for FS dectn @ C/L	30	20JUN06	25JUL06	0	0	30	-40	-38
221053	Sht NB - Install fire alarm detection @ C/L	24	26JUL06	22AUG06	0	0	24	-40	-38
221059	Sht NB - FS wiring & termination	24	23AUG06	19SEP06	0	0	24	-40	-20
221061	Sht NB - FS Testing and T&C	12	20SEP06	04OCT06	0	0	12	-40	-20



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
	Electrical Works Above OHVD								
228103	Sht NB - E&M Access to 3/F LV Switch Rm (SPB)	0	23JUN06		0	0	0	-28	-24
228104	Sht NB - E&M Access to 3/F LV Switch Rm (NPB)	0	24JUN06		0	0	0	-53	-21
228108	Sht NB-HV&LV Mn/Submain Cable Pulling (CP10-CP6)	24	19AUG06	15SEP06	0	0	24	-100	-68
228105	Sht NB-HV&LV Mn/Submain Cable Pulling (CP5-CP1)	24	16SEP06	16OCT06	0	0	24	-100	-68
	Electrical Works Below OHVD								
235161	Sht NB - Conduits Works (Above & below OHVD)	48	01MAR06A	07JUL06	89	44	6	-34	-26
235160	Sht NB - Brackets for Lightings @ Ceiling Level	48	14MAR06A	22JUN06	95	80	3	-46	-32
235164	Sht NB - Tunnel Lightings Fixtures	60	26APR06A	21JUL06	56	5	26	-34	-8
235165	Sht NB - Cabling, Wiring and Termination	36	30MAY06A	28JUL06	13	0	31	-10	10
235162	Sht NB - Tunnel Earthing to CP1-CP10	36	23JUN06	04AUG06	0	0	36	-46	-32
235163	Stn NB Access to Civil Contractr for Rd Pavement	0	05AUG06		0	0	0	-46	-20
235166	Sht NB - Lighting Test and T&C	12	12AUG06	25AUG06	0	0	12	-19	-2
235167	Stn NB Access to Civil Contractor for Top Layer	0		25AUG06	0	0	0	-19	-2
	SHT SOUTHBOUND TUNNEL								
	(E & M) BUILDING SERVICES								
	MVAC / Tunnel Ventilation System Above OHVD								
242270	Sht SB - Install Motorized Smoke & Fire Damper	48	02MAR06A	04JUL06	74	74	12	-19	-38
242272	Sht SB - Comp Air Pipes/Condts to E/P1 to E/P5	36	08MAY06A	11JUL06	80	0	7	-19	16
242273	Sht SB - Cabling, wiring and termination	24	12JUL06	08AUG06	0	0	24	-19	16
242274	Sht SB - MVAC Testing and T&C	12	09AUG06	22AUG06	0	0	12	-4	16
	Plumbing and Drainage								
249390	Sht SB - Watermain & Cable brackets @ G/L	18	29MAY06A	07JUL06	18	0	15	-77	-35
249391	Sht SB - (50d) Water Supply Pipeworks @ G/L	30	30MAY06A	20JUL06	15	0	26	-66	-30
249392	Sht SB - Pipe Connectn, pumps, tanks to SP / NP	18	21JUL06	10AUG06	0	0	18	-6	-30
249393	Sht SB - Pipe Testing and T&C	12	11AUG06	24AUG06	0	0	12	-6	-30



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Fire Protection System									
256514	Sht SB - Install brckt / Supt for FS dectn @ C/L	30	20JUN06	25JUL06	0	0	30	-88	-38
256517	Sht SB - (150d) FS Main pipeworks @ G/L	34	08JUL06	16AUG06	0	0	34	-77	-35
256515	Sht SB - Install fire alarm detection @ C/L	24	26JUL06	22AUG06	0	0	24	-40	-38
256516	Sht SB - Install FS Conduits to AFA Panels	30	26JUL06	29AUG06	0	0	30	-88	-14
256518	Sht SB - Hose Reel Cabinets & Equipts	40	30AUG06	17OCT06	0	0	40	-88	-14
256519	Sht SB - (100d) FH / HR Pipeworks & Fittings	30	13SEP06	19OCT06	0	0	30	-88	-14
Electrical Works Above OHVD									
263653	Sht SB - E&M Access to 3/F UPS Room (SPB)	0	19JUN06A		100	0	0		-20
263658	Sht SB-HV&LV Mn/Submain Cable Pulling (CP1-CP5)	24	23JUN06	21JUL06	0	0	24	-100	28
263654	Sht SB - E&M Access to 3/F UPS Room (NPB)	0	24JUN06		0	0	0	-77	-21
263655	Sht SB-HV&LV Mn/Submain Cable Pulling (CP6-CP10)	24	22JUL06	18AUG06	0	0	24	-100	28
263659	E&M Inspection & Access to Civil Contractor	0		25AUG06	0	0	0	-52	28
Electrical Works Below OHVD									
270799	Sht SB - Conduits Works (Above & below OHVD)	48	01MAR06A	26JUN06	88	42	6	-55	-16
270798	Sht SB - Brackets for Lightings @ Ceiling Level	48	01JUN06A	30JUN06	79	0	10	-59	-23
270800	Sht SB - Tunnel Earthing to CP1-CP10	36	03JUL06	12AUG06	0	0	36	-59	-23
270802	Sht SB - Tunnel Lightings Fixtures	60	03JUL06	09SEP06	0	0	60	-59	13
270801	Stn SB Access to Civil Contractr for Rd Pavement	0	05AUG06		0	0	0	-46	-16
270803	Sht SB - Cabling, Wiring and Termination	36	14AUG06	23SEP06	0	0	36	-59	7
270804	Sht SB - Lighting Test and T&C	12	25SEP06	10OCT06	0	0	12	-56	7
SHT CROSS PASSAGES (CP1 to CP10)									
(E & M) BUILDING SERVICES									
Electrical Works									
277957	(CP1-CP10) - Cable Containment & Equipt Support	60	03MAY06A	01AUG06	40	2	36	-67	-16
277959	(CP1-CP10) - MCCB / MCB Bd,CMCS,Busbar,Switches	72	20JUN06	12SEP06	0	0	72	-67	5
277960	(CP1-CP10) - Conduit, light Fixture, Swt & Test	36	20JUN06	01AUG06	0	0	36	-61	5



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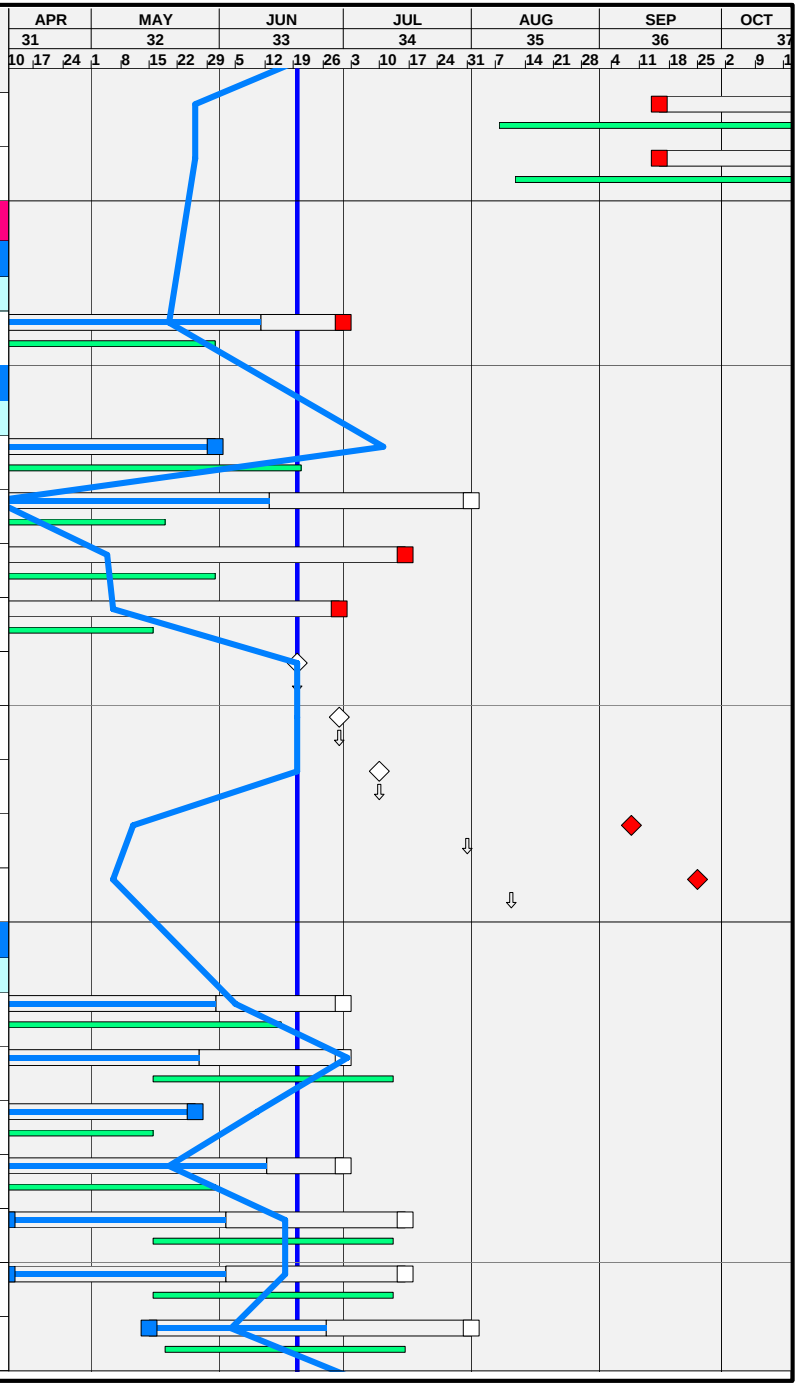
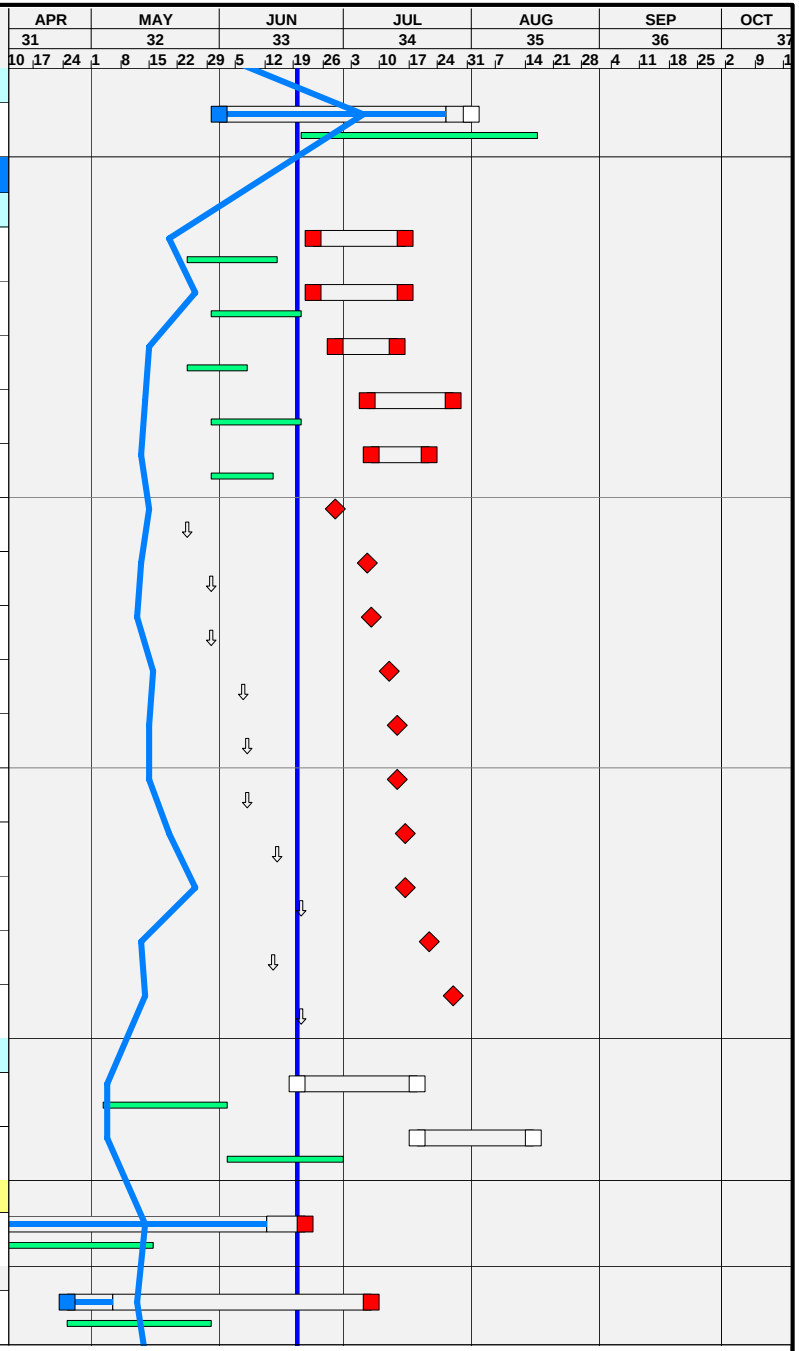
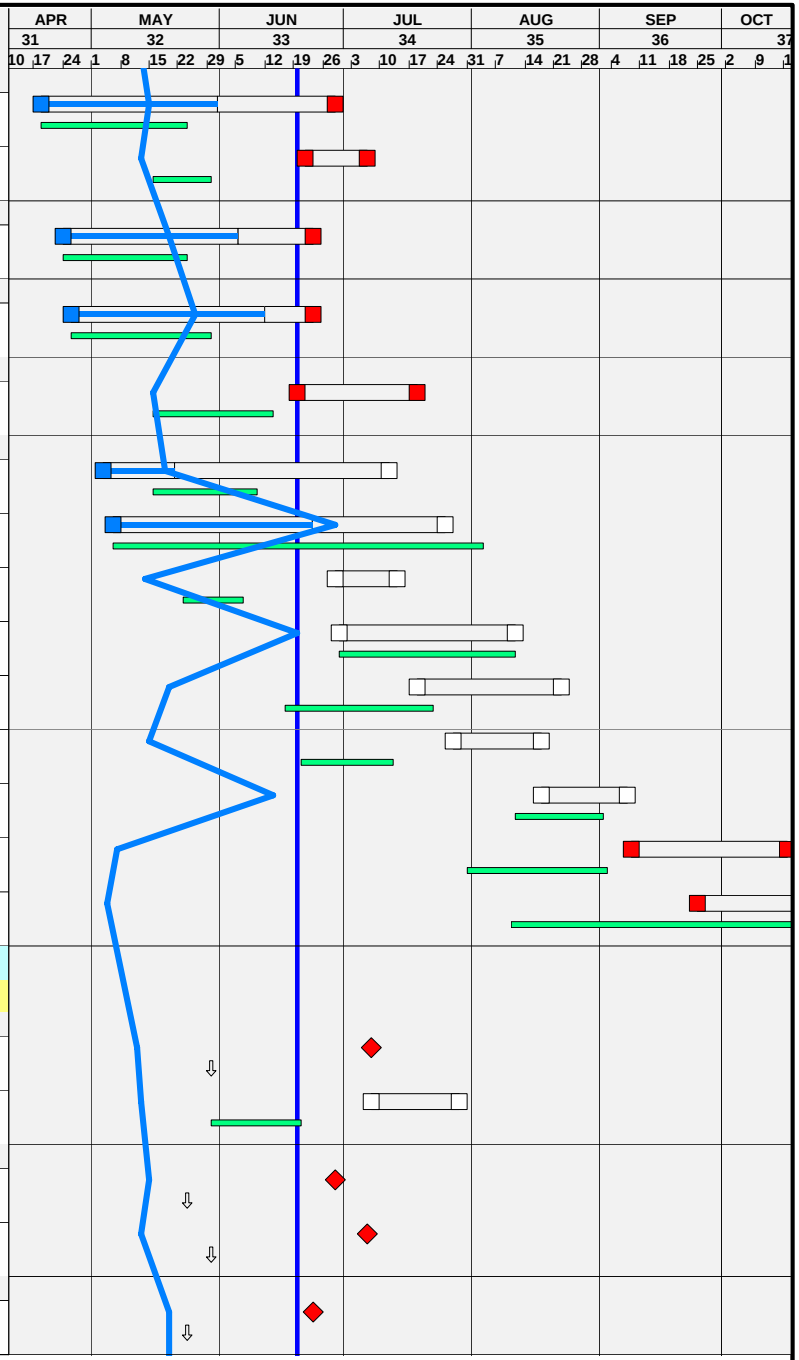
Electrical Works									
277961	(CP1-CP10) - HV & LV Cables Termination & Test	48	16SEP06	14NOV06	0	0	48	-100	-20
277962	(CP1-CP10) - Switchboard, CMCS, Eqpt, Testing	48	16SEP06	14NOV06	0	0	48	-100	-20
SHT NORTH PORTAL BUILDING									
SUBMITTALS & APPROVALS									
ABWF & BUILDERS WORKS									
2094	SHT NPB - Approve alum. composite claddings	24	13DEC05A	30JUN06	90	70	10	-40	-26
PROCUREMENT - MATERIAL									
ABWF WORKS									
7308	ShtNpBldg-Proc. & Manuf. of CMCS & ELV sys	180	29MAR05A	30MAY06A	100	85	0		17
7428	ShtNpBldg-Proc & Manuf. FS AFA & FM200 sys	120	29MAR05A	31JUL06	90	90	35	389	-61
2099	SHT NPB - Procure alum. composite claddings	180	19APR05A	15JUL06	50	50	22	-52	-38
2098	SHT NPB - Procure expanded metal claddings	180	05JUN05A	29JUN06	50	50	9	-9	-38
2101	SHT NPB - Initial delivery of doors	0	20JUN06*		0	0	0	90	0
2102	SHT NPB - Initial delivery of slate claddings	0	30JUN06*		0	0	0	27	0
2104	SHT NPB - Initial deliv fall arrest roofing syst	0	10JUL06*		0	0	0	56	0
2103	SHT NPB - Initial deliv expanded metal claddings	0	09SEP06*		0	0	0	-9	-35
2106	SHT NPB - Initial deliv alum. composite cladding	0	25SEP06*		0	0	0	-52	-38
MAJOR EQUIPMENT DELIVERY									
SHT NORTH PORTAL BUILDING									
7340	ShtNpBldg-Del. building vent. fans	48	27JAN06A	30JUN06	80	60	10	414	-13
7379	ShtNpBldg-Del. FS pumps & tank to G/F	48	06MAR06A	30JUN06	70	0	10	414	9
7357	ShtNpBldg-Del. TVS to Plenum & 3/F	72	24MAR06A	25MAY06A	100	40	0		-9
7364	ShtNpBldg-Del. MVAC /TVF pneumatic sys to 1/F	48	30MAR06A	30JUN06	80	30	10	414	-26
7325	ShtNpBldg-Del. Package AC Units	48	10APR06A	15JUL06	55	0	22	402	-3
7433	ShtNpBldg-Del. PD pump & tank to G/F	48	10APR06A	15JUL06	55	0	22	402	-3
7429	ShtNpBldg-Del. AFA & FM200 sys	48	15MAY06A	31JUL06	55	0	22	389	-13



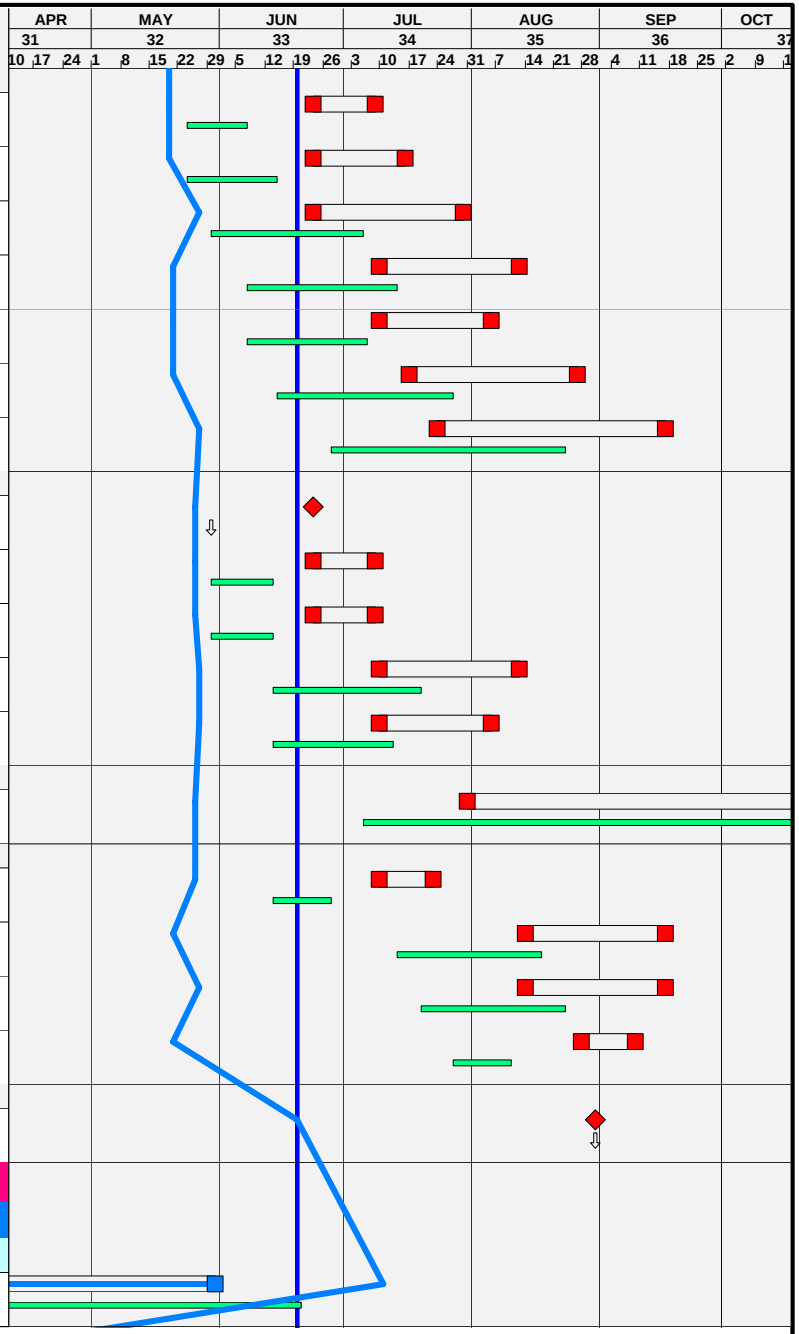
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
SHT NORTH PORTAL BUILDING									
7309	ShtNpBldg-Del. CMCS & ELV equip't	48	01JUN06A	31JUL06	90	0	35	389	14
CONSTRUCTION									
TCSS Access to SHT North Portal Bldg									
EM7292	TCSS Containment in 2/F	18	24JUN06	15JUL06	0	0	18	-98	-26
EM7295	TCSS Containment in 3/F and above	18	24JUN06	15JUL06	0	0	18	-98	-21
EM7286	TCSS Containment in 1/F	12	29JUN06	13JUL06	0	0	12	-99	-30
EM7289	TCSS Containment in Lower Plenum	18	07JUL06	27JUL06	0	0	18	-126	-31
EM7283	TCSS Containment in G/F	12	08JUL06	21JUL06	0	0	12	-73	-32
AB7110	TCSS ACCESS 1F (Room 101,103-105-111)	0		28JUN06	0	0	0	-111	-30
EM7299	TCSS ACCESS LPL (Room L03)	0		06JUL06	0	0	0	-117	-31
EM7290	TCSS ACCESS - GF (Room G02-G03, G04-G08)	0		07JUL06	0	0	0	-69	-32
AB7190	TCSS ACCESS 4F (Room 401,402,403,404)	0		11JUL06	0	0	0	-94	-29
EM7296	TCSS ACCESS - 1F (Room 107,109,104)	0		13JUL06	0	0	0	-99	-30
EM7306	TCSS ACCESS - 1F (Room 108)	0		13JUL06	0	0	0	-74	-30
AB7150	TCSS ACC 2F(201,204,205,207-212,214,215,ST1,ST2)	0		15JUL06	0	0	0	-98	-26
AB7170	TCSS ACC 3F(301,303-305,307-309,311,313-315,317)	0		15JUL06	0	0	0	-98	-21
EM7293	TCSS ACCESS - GF (Room G09,G15)	0		21JUL06	0	0	0	-73	-32
EM7309	TCSS ACCESS LPL (Room L04,L05)	0		27JUL06	0	0	0	-126	-31
CIVIL & ABWF WORKS									
AB7040	U/G Drainages and Utilities under bldg	24	20JUN06	18JUL06	0	0	24	376	-38
AB7060	Backfill, G/F Slabs and Walls	24	19JUL06	15AUG06	0	0	24	376	-38
ABWF Works									
AB7130	Remedy defects to SHT Buildings	24	17DEC05A	21JUN06	95	50	2	-126	-31
ABWF at GF									
AB7080	Initial Finishes to G/F	18	25APR06A	07JUL06	15	7	15	-73	-32



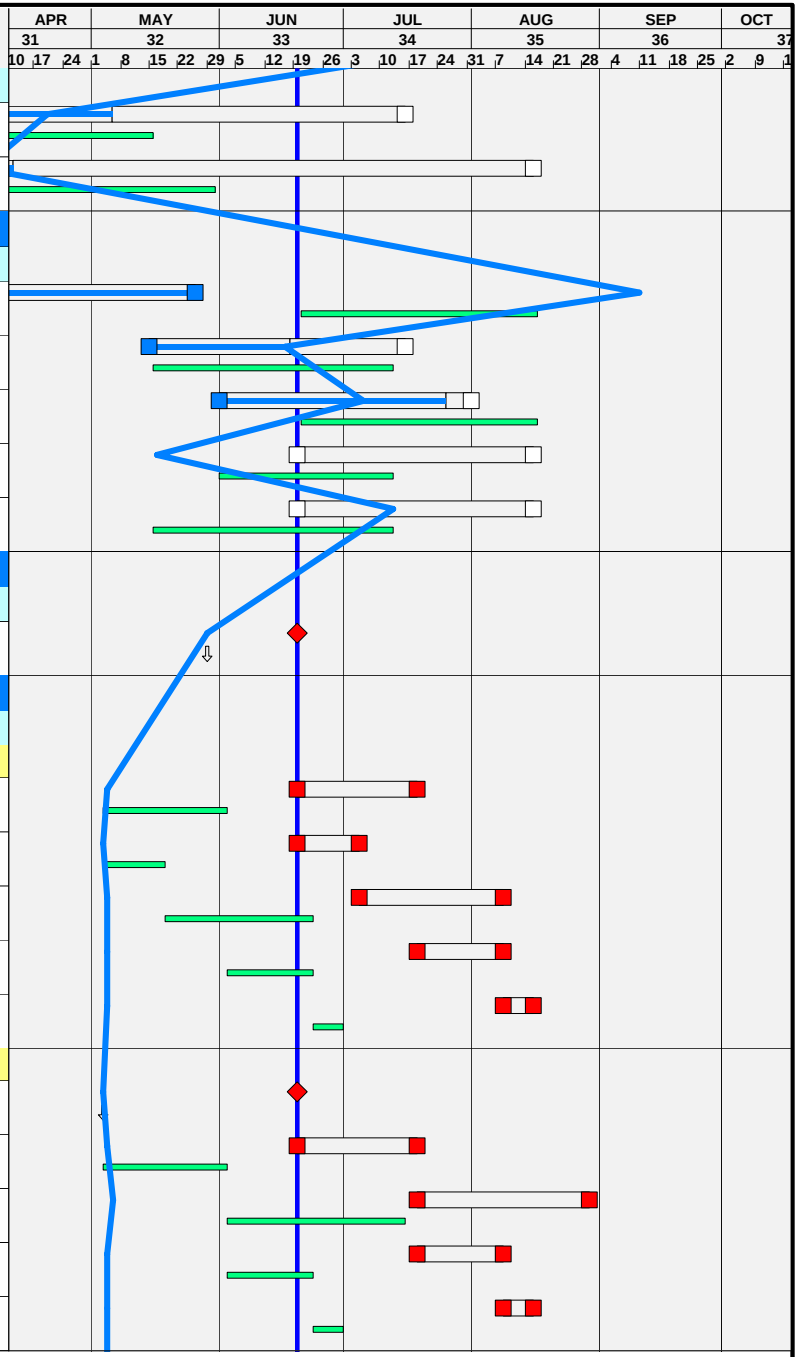
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
ABWF at 1F & LP									
AB7100	Initial Finishes to 1/F	18	19APR06A	28JUN06	60	10	8	-111	-30
AB7120	Initial Finishes to Lower Plenum	12	22JUN06	06JUL06	0	0	12	-126	-31
ABWF at 2F									
AB7140	Initial Finsihes to 2/F	18	24APR06A	23JUN06	70	10	4	-98	-26
ABWF at 3F									
AB7160	Initial Finishes to 3/F	18	26APR06A	23JUN06	80	10	4	-98	-21
ABWF at 4F									
AB7180	Initial Finishes to 4/F and above	24	20JUN06	18JUL06	0	0	24	-94	-29
Roofing & External Facade									
B70205	Sht NPB - Ext. Wall Waterproof Render	21	04MAY06A	11JUL06	25	0	16	36	-26
AB7290	Sht NPB - Install Aluminum louvres & doors	75	06MAY06A	25JUL06	60	0	30	60	8
AB7270	Sht NPB - Roof Waterproofing & Test	12	29JUN06	13JUL06	0	0	12	22	-31
AB7310	Sht NPB - Slate Cladding above NB/SB Carriageway	36	30JUN06	11AUG06	0	0	36	27	0
AB7260	Sht NPB - External Wall Painting	30	19JUL06	22AUG06	0	0	30	36	-26
AB7300	Sht NPB - 25thk Roof Screed & Roofing Tiles	18	28JUL06	17AUG06	0	0	18	22	-31
AB7250	Sht NPB - GMS, S/S Channel, Balustrade & Railing	18	18AUG06	07SEP06	0	0	18	22	-5
AB7220	Sht NPB - Expanded metal cladding to Ext Walls	30	09SEP06	16OCT06	0	0	30	-9	-35
AB7280	Sht NPB - Alum. composite cladding to ext walls	60	25SEP06	06DEC06	0	0	60	-52	-38
Sht North Portal Bldg. - BUILDING SERVICES									
E & M WORKS									
SHT North Portal Bldg (G/F) - E & M Works									
EM7280	E&M Access to G/F	0	08JUL06		0	0	0	-73	-32
EM7281	Installation of FS Pumps & Pipework at GF	18	08JUL06	28JUL06	0	0	18	17	-32
SHT North Portal Bldg (1F/Lwr Plen) - E & M Work									
EM7260	E&M Access to 1/F	0	29JUN06		0	0	0	-99	-30
EM7298	E&M Access to Lower Plenum	0	07JUL06		0	0	0	-126	-31
SHT North Portal Bldg (2F/Silencer) - E & M Work									
EM7240	E&M access to 2/F	0	24JUN06		0	0	0	-98	-26



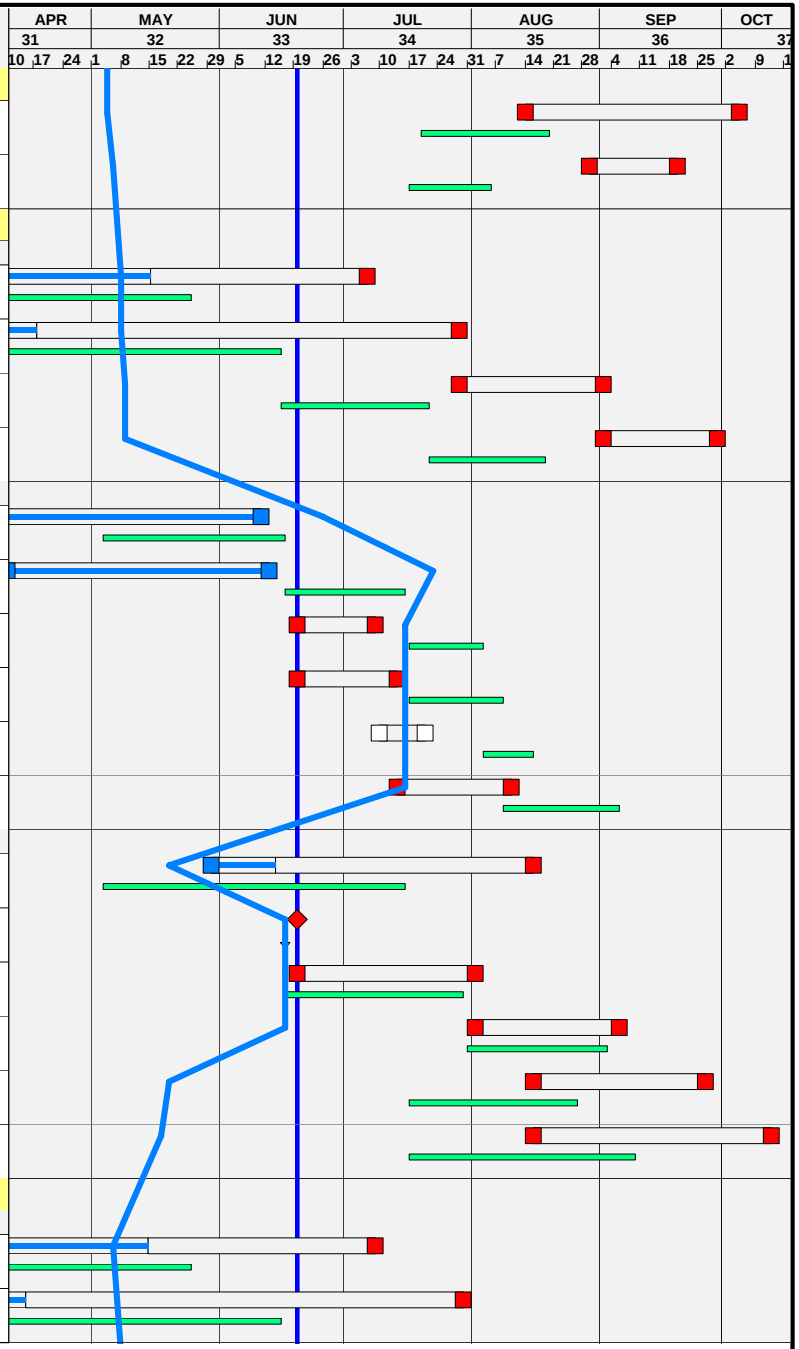
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
	SHT North Portal Bldg (2F/Silencer) - E & M Work								
EM7300	BS Works for HV Sw + Tx	12	24JUN06	08JUL06	0	0	12	-88	-26
EM7460	BS Works for Genset	18	24JUN06	15JUL06	0	0	18	-76	-26
EM7600	BS Works for TVS Plenums	30	24JUN06	29JUL06	0	0	30	-84	-21
EM7320	HV Sw + Tx Installation	30	10JUL06	12AUG06	0	0	30	-88	-26
EM7520	E&M Works in Corridors 2/F	24	10JUL06	05AUG06	0	0	24	-71	-26
EM7480	Genset Installation	36	17JUL06	26AUG06	0	0	36	-76	-26
EM7560	E&M Works in Risers	48	24JUL06	16SEP06	0	0	48	-71	-21
	SHT North Portal Bldg (3F/Fan Rm) - E & M Work								
EM7220	E&M access to 3/F	0	24JUN06		0	0	0	-98	-21
EM7360	BS Works for LV Sw, MCC, UPS, LCC	12	24JUN06	08JUL06	0	0	12	-82	-21
EM7420	BS Works for 110V Charger Rm	12	24JUN06	08JUL06	0	0	12	-64	-21
EM7380	LV Sw, MCC, UPS, LCC Installation	30	10JUL06	12AUG06	0	0	30	-82	-21
EM7540	E&M Works in Corridors 3/F	24	10JUL06	05AUG06	0	0	24	-71	-21
	SHT North Portal Bldg (4F/Upr Plen) - E & M Work								
EM7620	TVS Installation	100	31JUL06	27NOV06	0	0	100	-84	-21
	Testing and Commissioning								
EM7440	110V Charger Rm Installation + T&C	12	10JUL06	22JUL06	0	0	12	-64	-21
EM7340	HV Sw + Tx Termination + T&C	30	14AUG06	16SEP06	0	0	30	-82	-26
EM7400	LV Sw, MCC, UPS, LCC Termination + T&C	30	14AUG06	16SEP06	0	0	30	-82	-21
EM7500	Genset Termination + T&C	12	28AUG06	09SEP06	0	0	12	-76	-26
	Statutory Inspection & Issued Certificates								
EM7681	Power Supply Available (Arrange by SHT)	0		30AUG06*	0	0	0	-44	0
SHT RC ENCLOSURE & T3 UNDERPASS									
PROCUREMENT - MATERIAL									
SHT RC FULL ENCLOSURE / T3 UNDERPASS									
7495	Sht-N.R9-Proc & Manuf. CMCS & ELV sys	180	29MAR05A	30MAY06A	100	85	0		17



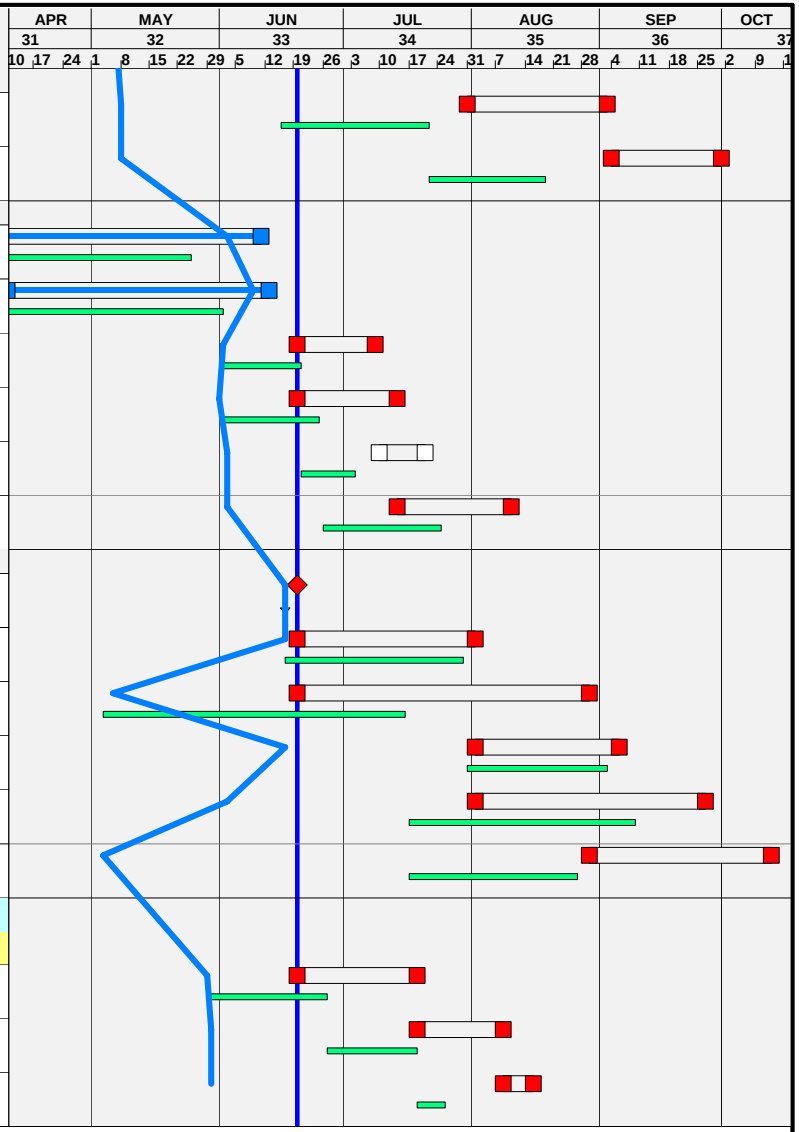
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
SHT RC FULL ENCLOSURE / T3 UNDERPASS									
7518	Sht-N.R9-Proc & Manuf. FS AFA & Linear sys	120	29MAR05A	15JUL06	85	90	22	402	-51
7605	Sht-N.R9-Proc & Manuf. LCC, power & control sys	180	29MAR05A	15AUG06	75	85	48	376	-64
MAJOR EQUIPMENT DELIVERY									
SHT RC FULL ENCLOSURE / T3 UNDERPASS									
7507	Sht-N.R9-Del. TVS control sys	48	27FEB06A	25MAY06A	100	0	0		69
7519	Sht-N.R9-Del. AFA & Linear sys	48	15MAY06A	15JUL06	55	0	22	402	-3
7496	Sht-N.R9-Del. CMCS & ELV sys	48	01JUN06A	31JUL06	90	0	35	389	14
7606	Sht-N.R9-Del. LCC to S & N Sw/R	48	20JUN06	15AUG06	0	0	35	376	-29
7614	Sht-N.R9-Del. MCC, & control sys to S LV S/R	48	20JUN06	19JUN06	0	0	0	424	19
INTERFACE DATES									
SHT RC FULL ENCLOSURE / T3 UNDERPASS									
EM4020	LKJV - Posession of T3 Underpass	0	20JUN06*		0	0	0	-54	-18
CONSTRUCTION WORKS									
SHT RC FULL ENCLOSURE / T3 UNDERPASS									
Koisk S1 at Shatin North Control Point									
EM3950	Kiosk S1 - Structure & Fittings	24	20JUN06	18JUL06	0	0	24	-54	-38
EM3960	Wighbridge S1 - Install	12	20JUN06	04JUL06	0	0	12	-48	-38
EM3970	Weighbirgde S1 - Test and T&C	30	05JUL06	08AUG06	0	0	30	-48	-38
EM3952	Kiosk S1 - Install E&M Works	18	19JUL06	08AUG06	0	0	18	-54	-38
EM3954	Kiosk S1 - E&M Testing and T&C	6	09AUG06	15AUG06	0	0	6	-54	-38
RC Full Enclosure - LV Switch Room									
280070	E&M Access to Southern LV Switch Room	0	20JUN06		0	0	0	-96	-38
280072	LV SW Rm - Cable Containment & Equipt Supports	24	20JUN06	18JUL06	0	0	24	-96	-38
280074	LV SW Rm - SWGR, MCCB/ MCB Board, FS Panels	36	19JUL06	29AUG06	0	0	36	-96	-38
280076	LV SW Rm - Elect Lightings & Conduits	18	19JUL06	08AUG06	0	0	18	-54	-38
280078	LV SW Rm - Lightings wiring, term & test	6	09AUG06	15AUG06	0	0	6	-54	-38



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
RC Full Enclosure - LV Switch Room									
280080	LV SW Rm - Connect HV / LV Cables from SHT NPB	24	14AUG06	04OCT06	0	0	24	-96	-38
280079	LV SW Rm - MCCB,MCB,LV Sw,FS panels Term & Test	18	30AUG06	19SEP06	0	0	18	-96	-38
STN RC FULL ENCLOSURE (North Bound) - E&M WORKS									
MVAC / Tunnel Ventillation System									
280000	RCFE NB - Ductworks Supports / Containment @ C/L	36	18FEB06A	06JUL06	62	30	14	-33	-35
280002	RCFE NB - MVAC Ducts, TVF & MSFD Units @ C/L	48	02MAR06A	28JUL06	31	25	33	-33	-36
280004	RCFE NB - MVAC Pipeworks & Conduits @ C/L	30	29JUL06	01SEP06	0	0	30	-33	-36
280006	RCFE NB - Cabling, wiring and termination	24	02SEP06	29SEP06	0	0	24	-33	-36
Fire Protection System									
280018	RCFE NB - Brackets/ Supt for TCSS @ Cable Trough	36	08APR06A	10JUN06A	100	0	0		5
280024	RCFE NB - (150d) FS Main pipeworks @ G/L	24	10APR06A	12JUN06A	100	0	0		28
280026	RCFE NB - FS Conduit, Hose Reel Cabinets & Eqpt.	16	20JUN06	08JUL06	0	0	16	10	22
280028	RCFE NB - (100d) FH / HR Pipeworks & Fittings	18	20JUN06	13JUL06	0	0	18	10	22
280029	RCFE NB - Install Smoke detector @ N1-N3	10	10JUL06	20JUL06	0	0	10	22	22
280030	RCFE NB - FS Wiring & Termination	24	14JUL06	10AUG06	0	0	24	10	22
Electrical Works									
280044	RCFE NB - Brackets for Lightings @ Ceiling Level	60	30MAY06A	15AUG06	20	0	48	-88	-26
280034	RCFE NB - E&M Access to Southern LV Sw Room	0	20JUN06*		0	0	0	-61	-2
280038	RCFE NB - HV & LV Cabling Works @ C Trough	36	20JUN06	01AUG06	0	0	36	-61	-2
280040	RCFE NB - Install Power Distn Panels & Test	30	02AUG06	05SEP06	0	0	30	-58	-2
280046	RCFE NB - Conduits Works @ Ceiling Level	36	16AUG06	26SEP06	0	0	36	-76	-26
280048	RCFE NB - Earthing, Lighting, Equipt. @ C/L	48	16AUG06	12OCT06	0	0	48	-88	-26
STN RC FULL ENCLOSURE (South Bound) - E&M WORKS									
MVAC / Tunnel Ventillation System									
280082	RCFE SB - Ductworks Supports / Containment @ C/L	36	02MAR06A	08JUL06	57	30	16	-34	-37
280084	RCFE SB - MVAC Ducts, TVF & MSFD Units @ C/L	48	02MAR06A	29JUL06	29	25	34	-34	-37



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
MVAC / Tunnel Ventillation System									
280086	RCFE SB - MVAC Pipeworks & Conduits @ C/L	30	31JUL06	02SEP06	0	0	30	-34	-37
280088	RCFE SB - Cabling, wiring and termination	24	04SEP06	30SEP06	0	0	24	-34	-37
Fire Protection System									
280092	RCFE SB - Brackets/ Supt for TCSS @ Cable Trough	36	08APR06A	10JUN06A	100	30	0		-14
280094	RCFE SB - (150d) FS Main pipeworks @ G/L	24	10APR06A	12JUN06A	100	30	0		-9
280096	RCFE SB - FS Conduit, Hose Reel Cabinets & Eqpt.	16	20JUN06	08JUL06	0	0	16	10	-15
280098	RCFE SB - (100d) FH / HR Pipeworks & Fittings	18	20JUN06	13JUL06	0	0	18	10	-15
280100	RCFE SB - Install Smoke detector @ S1-S4	10	10JUL06	20JUL06	0	0	10	22	-15
280102	RCFE SB - FS Wiring & Termination	24	14JUL06	10AUG06	0	0	24	10	-15
Electrical Works									
280110	RCFE SB - E&M Access to Southern LV Sw Room	0	20JUN06*		0	0	0	-61	-2
280112	RCFE SB - HV & LV Cabling Works @ C Trough	36	20JUN06	01AUG06	0	0	36	-61	-2
280116	RCFE SB - Brackets for Lightings @ Ceiling Level	60	20JUN06	29AUG06	0	0	60	-88	-38
280114	RCFE SB - Install Power Distn Panels & Test	30	02AUG06	05SEP06	0	0	30	-58	-2
280120	RCFE SB - Earthing, Lighting, Equipt. @ C/L	48	02AUG06	26SEP06	0	0	48	-76	-14
280118	RCFE SB - Conduits Works @ Ceiling Level	36	30AUG06	12OCT06	0	0	36	-88	-38
T3 UNDERPASS									
Kiosks S2 at T3 Underpass Portal									
EM3980	Kiosk S2 - Structure & Fittings	24	20JUN06	18JUL06	0	0	24	-54	-18
EM4000	Kiosk S2 - Install E&M Works	18	19JUL06	08AUG06	0	0	18	-54	-18
EM4002	Kiosk S2 - E&M Testing and T&C	6	09AUG06	15AUG06	0	0	6	-54	-18



APPENDIX M
COMPLAINT LOG

Appendix M - Complaint Log

Log Ref.	Location of Concern	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
40426	Butterfly Valley	26 April 2004	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.	<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. <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. 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.	Closed
40914	Garden Villa	13-Sep-04 (by EPD) 14-Sep-04 (by ET Leader)	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. 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,	<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. <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.	Closed

Log Ref.	Location of Concern	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
			the complainant was particularly concerned of two issues: 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.	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. <u>Use of TAR no.l</u> According to Condition 3d of the above-mentioned CNP, there was restriction on the use of site vehicles traveling on TAR no.1. 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. 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. 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. 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	

Log Ref.	Location of Concern	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				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). Nevertheless, the Contractor was reminded to ensure the compliance of the CNP conditions and adopt good site practice to minimize the construction noise.	
41021	Garden Villa	09-Oct-04 (by EPD) 21-Oct-04 (by ET Leader)	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. 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: • 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.	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. 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: 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. 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: 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
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 20th 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 23rd October 2004.	The complaint was considered valid based on: 1. ER's site observations; 2. ET's weekly site audit; and 3. 1-hr TSP exceedance record. Also, the sources of dust generation were identified as 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. Enhanced dust suppression measures had been implemented by the Contractor: • 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. 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. 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. 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.	Closed

Log Ref.	Location of Concern	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
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 21st 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 24th November 2004.	According to the ER, the only construction activity at Butterfly Valley undertaken on 21st 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 21st and 28th 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 1st 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

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				Contractor. However, owing to the prevailing of the dry season, the Contractor was reminded to ensure the dust control measures are effectively implemented.	
50125	Garden Villa (North Portal)	21-Jan-05 (by EPD) 25-Jan-05 (by ET Leader)	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. 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: 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.	**Noise from blasting** 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: • 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. **Uncovered dump trucks** 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. 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. LKJV was reminded to keep closely monitoring on the condition and the effectiveness of the proposed control measures.	Closed

Log Ref.	Location of Concern	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
50308	Garden Villa (North Portal)	05-Mar-05 (by EPD) 08-Mar-05 (by ET Leader)	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. 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: 1. Nighttime & Sunday construction noise 2. Noise from tunnel blasting at early morning and nighttime 3. Dust from construction activities	*Nighttime & Sunday construction noise* • 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 *Noise from tunnel blasting at early morning and nighttime* • no exceedance for noise monitoring • valid blasting permit had been obtained from CEDD • blasting work is not under the jurisdiction of EPD *Dust from construction activities* • 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 <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.	Closed
50330	Garden Villa (TAR1)	30-Mar-05 (by EPD & ET Leader)	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. 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.	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). 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. 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	Closed

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				criterion of 75 dB(A). 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. 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).	
50415	Government Quarters	09-Apr-05 (by EPD) 15-Apr-05 (by ET Leader)	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). EPD subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 15th April 2005. 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.	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. Since the commencement of the Project, no exceedance of daytime noise criterion of 75 dB(A) was recorded at this station. 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). 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.	Closed

Log Ref.	Location of Concern	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
50419	Government Quarters	15-Apr-05 (by EPD) 19-Apr-05 (by ET Leader)	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. EPD subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 19th April 2005. 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.	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. 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. 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. 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. 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. 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.	Closed

Log Ref.	Location of Concern	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
50512	Yew Chung International School	12-May-05	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. 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. 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.	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. 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)). The complaint lodged was therefore considered not justifiable. 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.	Closed

Log Ref.	Location of Concern	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
50610	Government Quarters	10-Jun-05	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. The complainant had not specified which construction activities had contributed to the dust generation.	*Site Observations* 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. *Corrective Actions* 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). 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. *Environmental Outcome* 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. *Conclusions* 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.	Closed

Log Ref.	Location of Concern	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
50712	A scattered house near South Portal and Tai Po Road Water Treatment Works Staff Quarters	12-Jul-05	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).	*Site Activity* 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. *Environmental Requirements* 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. 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. 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. *Contractor's Actions* 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). *Conclusions* The subjected blasting operations were carried out by the Contractor under a valid blasting permit. The complaint lodged is therefore considered not justifiable.	Closed

Log Ref.	Location of Concern	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
50809	Government Quarters (8-10 Caldecott Road)	09-Aug-05	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. Noise impact arising from the blasting works was one of the issues raised by the complainant.	*Ad-hoc Noise Measurement* 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. 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). *Conclusion and Recommendation* 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.	Closed
50830	Government Quarters (8-10 Caldecott Road)	30-Aug-05	The RSS received a public complaint from a resident of Government Quarters addressing two noise issues: 1. Noise nuisance caused by drilling works at Butterfly Valley; 2. Noise nuisance due to blasting 0045 hrs of 28 August 2005.	*Noise Measurement* 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. *Conclusion* 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.	Closed

Log Ref.	Location of Concern	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
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.	*Environmental Monitoring* 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). *Conclusion* 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.	Closed
51025	Caldecott Hill (2 Caldecott Road)	25-Oct-05	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. 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. According to the photos provided by the complainant, noticeable dust generation was observed during construction vehicles movement on the roads of concern.	*Site Observations* 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. *Contractor's Actions* Mitigation actions were taken by the Contractor: 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. *Conclusions* 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.	Closed

Log Ref.	Location of Concern	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
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	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. The complainant was concerned about the following environmental issues: 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.	*Item 1: Noise nuisance due to tunnel blasting* 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. *Item 2: Noise due to operation of a generator after 11pm* 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. *Item 3: Dust and noise due to handling of crushed rocks* 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. *Item 4: Noise from works out of tunnel in morning of 2 Nov 05* 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.	Closed

Log Ref.	Location of Concern	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				Conclusion 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.	
51205	Caldecott Road junction	5-Dec-05	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.	*Complaint Record* 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. With implementation of enhanced dust mitigation measures, the situation was found improved and satisfactory. *Site Observations* 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. 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. Sufficient dust mitigation measures had been implemented by the Contractor. The condition was found satisfactory. Therefore, this complaint was considered not justifiable. However, it is noted that the Contractor had stepped up dust mitigation measures to further improve the condition at Caldecott Road junction.	Closed

Log Ref.	Location of Concern	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
60204	Garden Villa	4-Jan-06 (by ETL)	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. 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: • 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.	**A. Construction Noise Impact** According to the Contractor's information, construction activities were carried out on 1 and 2 Jan 06, including: • Erection and dismantling of formwork • Fixing water pipe All the equipment operated by the Contractor on 1-2 Jan 06 complied with the permissible equipment stated in the CNP. On 1 Jan 06, noise monitoring was carried out. All the results complied with the noise criterion. **B. Construction Dust Impact** Erection and dismantling of formwork and fixing water pipe were considered not dust emissive in nature. 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. Since December 2005, all TSP monitoring results complied with the Action / Limit Level. **Conclusion** Based on the information given, site observations and environmental monitoring results, this complaint was considered not justifiable. Nevertheless, the Contractor was reminded to adopt good site practice to minimize the environmental impacts at the nearby sensitive receivers	Closed