# **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 1.1)

January 2007

Approved By	Church
	(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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# 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 38<sup>th</sup> monthly Environmental Monitoring and Audit (EM&A) Report prepared by Cinotech Consultants Limited for the "Route 8 (previously known as Route 9) between Cheung Sha Wan & Sha Tin, Lai Chi Kok Viaduct & Eagle's Nest Tunnel". This report documents the findings of EM&A Works conducted in January 2007 for Contract No. HY/2003/02, Eagle's Nest Tunnel and Associated Works (the Project).
- The major site activities for civil works undertaken in the reporting month included Sreeding, Rendering, Fire Services, Mechanical Ventilation Air Conditioning, T&C for HV, LV cable & switchboard, Plumbing & drainage and Tunnel Ventilation System.
- The major site activities for Traffic Control and Surveillance System (TCSS) works undertaken in the reporting month included:
  - Cable Laying; and
  - Field Equipment Installation.

#### **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	Action Taken
<i>I urumeter</i>	Action Level	Limit Level	Due to the Project	Action Tuken
1-hr TSP	0	0	0	N/A
24-hr TSP	0	0	0	N/A
Noise	0	0	0	N/A

1

## **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). No 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 Details		A ation Takan	Status	Domaril
Event	Number	Nature	— Action Taken	Status	Remark
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	
<ul> <li>Rendering;</li> <li>Vent Shaft erection;</li> <li>Tunnel Ventilation System</li> <li>T&amp;C for HV, LV cable &amp; s</li> <li>Fire Services;</li> <li>Mechanical Ventilation Air</li> <li>Drainage Works &amp; Road w</li> </ul>	switchboard; r Conditioning orks.	-			

works.

## 1. INTRODUCTION

#### Background

- 1.1 Route 9 (Kowloon Section) (R9K) (hereinafter call the R9K-Project) forms part of the Route 9 between Cheung Sha Wan and Sha Tin (R9-CSWST) project, which will be a new expressway connecting West Kowloon and Sha Tin. It will be the fourth external link between Sha Tin and Kowloon and will form an important link between the northeast New Territories and the west Kowloon, Lantau Island and the western New Territories. R9K is being managed and implemented by the Highways Department (HyD).
- 1.2 The engineering design of R9K is covered under Agreement No. CE 50/98 "Route 9 between Cheung Sha Wan and Sha Tin Design Construction Assignment". The main consultant engaged under Agreement No. CE 50/98 is Maunsell Hyder Joint Venture (MHJV), who 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 15<sup>th</sup> 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 38<sup>th</sup> monthly EM&A report summarizing the EM&A works for the Project in January 2007.

# **Project Organizations**

- 1.8 Different parties with different levels of involvement in the project organization include:
  - Project Proponent Major Works Project Management Office (MWPMO) of Highways Department (HyD)
  - Engineer / 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)
  - Engineer's Representative for TCSS works Ove Arup & Partners Hong Kong Limited
  - Contractor for TCSS works Delcan-Imtech-Gtech Joint Venture
- 1.9 The responsibilities of respective parties are detailed in Section 1.8.3 of the EM&A Manual (1999) of the Project.
- 1.10 The key contacts of the Project are shown in **Table 1.1**.

#### **Construction Programme**

The major site activities for civil works undertaken in the reporting month included Sreeding, Rendering, Fire Services, Mechanical Ventilation Air Conditioning, T&C for HV, LV cable & switchboard, Plumbing & drainage and Tunnel Ventilation System.

- 1.11 The major site activities for TCSS works undertaken in the reporting month included:
  - Cable Laying; and
  - Field Equipment Installation;

Party	Role	Name	Position	Phone No.	Fax No.	
HyD Permit Holder		Mr. Kroc Leung	Mr. Kroc Leung SE2/R8K		2714 5198	
		Mr. George Law	E4/R8K	2762 3675	2/14 5198	
	Engineer	Mr. Conrad Ng	Project Manager	2605 6262	2691 2649	
MHJV		Mr. Peter Poon	CRE	3552 2500		
IVITIJ V	Engineer's Representative	Mr. Eric Wong	RE (S & EP)	3552 2551	2743 9200	
	representative	Ms. Sammie Chan	TO (EN)	3552 2605		
		Dr. Priscilla Choy	ET Leader	2151 2089		
		Mr. Jesse Yuen	Project Manager	2151 2091		
Cinotech	Environmental	Mr. Edmond Wu	Project Coordinator	2151 2092	3107 1388	
	Team	Mr. Ray Yan	Audit Team Leader	2947 8682		
		Mr. Henry Leung	Monitoring Team Leader	2151 2087		
CH2M	Independent Environmental	Mr. David Yeung	Independent Environmental Checker	2507 2203	2507 2293	
СП2М	Checker	Mr. Billy Yu	Assistant Independent Environmental Checker	2872 2949	2307 2295	
LKJV	Contractor	Mr. Ray Brewster	Project Director	9092 6128	2743 1600	
LKJV	Contractor	Mr. Danny Cheng	QA/E Manager	3552 2113	2743 1000	
	Engineer's	Mr. Donald Leung	RE	2436 7489	2426 1902	
ARUP	Representative (TCSS)	Mr. Joseph Chow	ARE	2436 7435	2436 1803	
DIGJV	Contractor (TCSS)	Ms. Joyce Chan	Quality Manager	2123 0845	2123 0889	
Enquiries l	Hotline			3552 2226	-	
Complaint	Hotline	Complaint Hotline				

Table 1.1Key Project Contacts

#### 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 2.1Locations 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 <sup>1</sup>

Note: <sup>1</sup>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<sup>3</sup>/min. and 1.4 m<sup>3</sup>/min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50. 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  $\pm 3$ °C; the relative humidity (RH) should be < 50% and not vary by more than  $\pm 5$ %. A convenient working RH is 40%.

#### Maintenance/Calibration

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

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

#### Table 3.1Noise Monitoring Stations

Note: <sup>1</sup> 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 3.2Noise 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 <sup>1</sup>	Frequency	Measurement
NM1	L <sub>10</sub> (30 min.)dB(A) L <sub>90</sub> (30 min.)dB(A) L <sub>ea</sub> (30 min.)dB(A)	(a) 0700 1000 hrs. on weakdawa		Façade
NM5		$ \begin{array}{c} (6) & 1900-2300 \text{ mrs. on weekdays} \\ (c) & 0700-2300 \text{ hrs. on holidays} \\ (c) & 0700-2300 \text{ hrs. on holidays} \end{array} $	Once per week	Façade
NM6				Free Field
NM7		(d) 2300-0700 hrs on any days		Façade

Note: <sup>1</sup>(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 as scheduled for the daytime period (0700-1900 hours) 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 (i.e. Measured Leq Baseline Leq = Measured CNL), 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 provided in **Appendix I**.
- 4.2 Site audits for Civil and TCSS contract and were conducted on 4<sup>th</sup>, 10<sup>th</sup>, 17<sup>th</sup>, 24<sup>th</sup> and 31<sup>st</sup> January 2007 by ET. No environmental deficiency was recorded for TCSS contract during site inspections. The joint site audit for civil works and TCSS works was conducted on 4<sup>th</sup> and 31<sup>st</sup> January 2007 with representatives from 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 valid permits/licenses obtained for the Project are summarized in **Table 4.1**. No 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	States
rermit No.	From	То	Detans	Status
<b>Environmental Per</b>	mit (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
<b>Registration of Che</b>	mical Waste	Producer		
WPN 5213-761- L2595-01	26/01/04	N/A	Regulation for disposal of spent oil and waste batteries arising from construction activities in all project areas.	Valid
Water Discharge Li	icence		· · · · · · · · · · · · · · · · · · ·	
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
<b>Construction Noise</b>			· · · · · · · · · · · · · · · · · · ·	
GW-RW0392-06	6/8/06	5/2/07	<i>Location:</i> Tai Po Road Shell Petrol Filling Station and opposite to Villa Carlton <i>Time Period:</i> General holidays including Sundays between 0700-2300 and any day not being a general holiday between 1900-2300.	Valid
GW-RW0422-06	4/8/06	3/2/07	<i>Location:</i> Butterfly Valley <i>Time Period:</i> General holidays including Sundays between 0700-2300 and any day not being a general holiday between 1900-2300.	Valid

Permit No.	Valid Period		Details	Status
I CI IIII INO.	From To		Details	Status
GW-RN0473-06 25/9/06 24/3/07 <i>Location:</i> Turk Keng Hau Row <i>Time period</i> between 0700		<i>Location:</i> Tunnel North Portal near Tai Po Road and Keng Hau Road <i>Time period:</i> General holiday including Sundays between 0700 and 2300 and any day not being a general holiday including Sundays between 1900 and 2300.	Valid	
GW-RN0486-06	25/9/06	24/3/07	<i>Location:</i> ENT-North Portal <i>Time period:</i> Any day between 2300 and 0700 on next day.	Valid
GW-RN0487-06	10/10/06	9/4/07	<i>Location:</i> ENT-North Portal <i>Time Period:</i> General holidays including Sundays between 0700-2300 and any day not being a general holiday between 1900-2300.	Valid
GW-RN0488-06	10/10/06	9/4/07	<i>Location:</i> ENT-South Portal <i>Time Period:</i> Any day between 2300 and 0700 on next day.	Valid
GW-RN0489-06	10/10/06	9/4/07	<i>Location:</i> ENT-South Portal <i>Time Period:</i> General holidays including Sundays between 0700-2300 and any day not being a general holiday between 1900-2300.	Valid
GW-RN0492-06	11/11/06	10/5/07	<i>Location:</i> Administration Building <i>Time Period:</i> General holidays including Sundays between 0700-2300 and any day not being a general holiday between 1900-2300.	Valid
GW-RW0536-06	20/9/06	19/3/07	<i>Location:</i> Butterfly Valley <i>Time Period:</i> General holidays including Sundays between 0700-2300 and any day not being a general holiday between 1900-2300.	Valid
GW-RN0564-06	7/12/06	6/6/07	<i>Location:</i> SHT – South Portal Tunnel near Garden Villa <i>Time Period:</i> Any day between 2300-0700 on next day.	Valid
GW-RN0575-06	7/12/06	6/6/07	<i>Location:</i> SHT – South Portal Tunnel near Tai Po Road and Keng Hau Road <i>Time Period:</i> Any day between 2300-0700 on next day.	Valid
GW-RN0600-06	18/12/06	17/6/07	<i>Location:</i> SHT - South Portal near Garden Villa <i>Time Period:</i> General holidays including Sundays between 0000-0700 and any day not being a general holiday between 1900-2400.	Valid

- 4.6 No non-conformance was identified during the site inspections in the reporting month. The observations and recommendations are summarized in **Table 4.2**.
- 4.7 Spot checks on truck overloading were also conducted during the site inspections since June 2006. No overloading incident was observed during the site inspections in the reporting month.

#### **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.

Parameters	Date	<b>Observations / Recommendations</b>	<b>Remedial Actions</b>
Water Quality	4-Jan-07	<i>Reminder</i> - Standing water was observed on the ground floor of ENT North Portal Building. It should be cleaned up to avoid mosquito breeding.	Rectification / improvement was observed during the site inspection on 10 January 07.
	17-Jan-07	<i>Reminder</i> - Step Channel at Mui Kong Tsuen needed desiltation for the silt deposited at the base of Channel. The Contractor was reminded to remove silt after rainstorm.	Rectification / improvement was observed during the site inspection on 24 January 07.
Waste/Chemical Management	4-Jan -07	<i>Observation</i> - Some general refuse was accumulated inside the U-channel at portion D4. The contractor was reminded to clean it up.	Rectification / improvement was observed during the site inspection on 10 January 07.
	4-Jan-07	<i>Reminder</i> - Some general refuse was scattered on bare ground at culvert A. It should be cleaned up and disposal of on suitable area.	Rectification / improvement was observed during the site inspection on 10 January 07.

#### **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:
  - Potential dust emission from shotcreting, drainage and road works.

#### 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 civil works is provided in **Appendix L**. The major construction activities for civil works in the coming months include:

#### ENT Tunnel

• VE panel, road work for NB tunnel, door installation, E&M cabling dampers, dampers, tunnel ventilation system, fire services and testing of circuitry for tunnel lighting

#### Butterfly Valley

• Haul road, rock dowel, road and drainage works, DN200 & DN200 twin water-main, utility, shotcreting, hydro-mulching, high mast erection, irrigation pipe & system, culvert A & gabion wall, erection of sign gantries.

#### South Portal Building

• Louvre/ Cladding, Door & Hand Rail installation, screeding, painting (final) plumbing & drainage, vent shaft erection, plumbing & drainage, fire services, mechanical ventilation air condition, Tunnel Ventilation System and T&C for HV, LV cable & switchboard.

#### North Portal Building

• Louvre/ Cladding, Door & Hand Rail installation, rendering, fire services, mechanical ventilation air condition, Tunnel Ventilation System, T&C for HV, LV cable & switchboard.

#### Toll Plaza's Structures and Administration Building

• Footbridge and Toll Collector construction, utility (draw pit/ ducting), drainage & road works, construction of car park shelter no.1, curtain wall & glazing installation, rendering, fire services, mechanical ventilation air condition, plumbing & drainage, cabling, lift installation, T&C for HV, LV cable & switchboard and fire services.

#### Ventilation Building & Tai Po Road

• Louvre /cladding, door & handrail installation, vent shaft construction, rendering, earth works, plumbing & drainage, fire service, mechanical ventilation air condition, T&C for HV, LV cable & switchboard and Tunnel Ventilation System.

#### SHT – South Portal Building

• Louvre installation, screeding, rendering, tunnel ventilation system, plumbing & drainage, fire services, mechanical ventilation air conditioning, T&C for HV, LV cable & switchboard.

#### SHT – North Portal Building

• Louvre installation, screeding, rendering, tunnel ventilation system, plumbing & drainage, fire services, mechanical ventilation air conditioning, T&C for HV, LV cable & switchboard.

#### SHT Tunnel & Remaining SHT/T3 Area

• Lighting installation, fire services ,tunnel ventilation system & cabling & sand filing on SHT OHVD

#### LCKV Viaduct Area

- E&M installation in pump house and lighting installation in noise enclosure.
- 5.4 The tentative construction program for TCSS works is provided in **Appendix L**. The major site activities for TCSS works in the coming months include:
  - Cable laying, field equipment installation and control cabinet installation at Tunnel
  - Cable laying, field equipment installation, control cabinet installation and highmast installation at Butterfly Valley
  - Cable laying at Kiosk K3, K4
  - Cable laying, control equipment installation and antenna pole installation at South Portal Building
  - Cable laying, control equipment installation and antenna pole installation at North Portal Building
  - Cable laying and field equipment installation at Toll Plaza
  - Cable laying, control equipment installation and antenna pole installation at Administration Building
  - Cable laying, control equipment installation and antenna pole installation at Ventilation Building

#### 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.

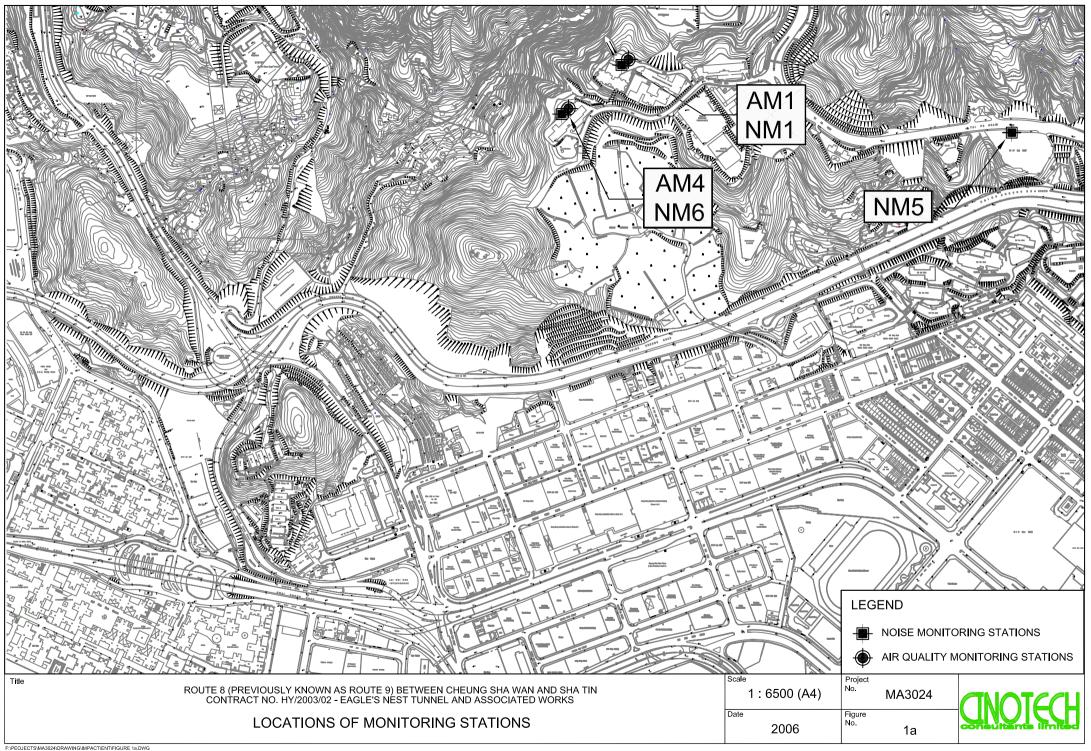
#### Noise Impact

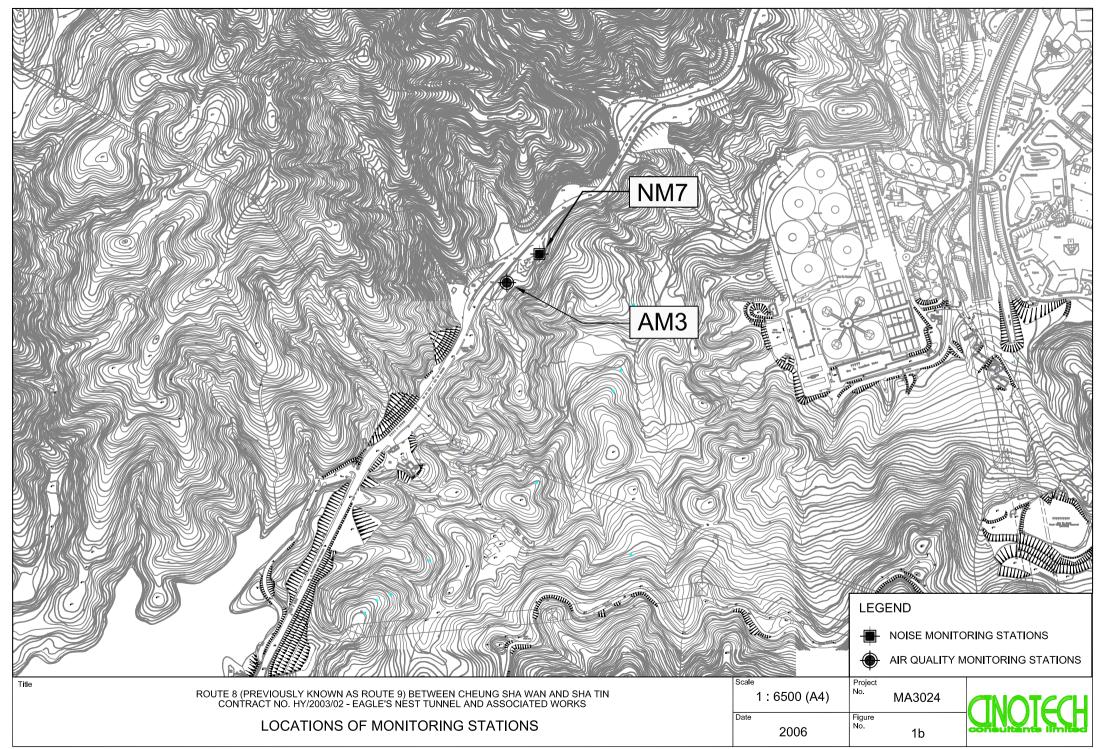
- To provide temporary noise barriers for noisy activities (such as breaking works).
- To reduce the number of noisy equipment in concurrent operation.

# 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.

FIGURES





APPENDIX A ACTION AND LIMIT LEVELS

# Appendix A - Action and Limit Levels (ENT)

#### **1-Hour TSP**

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

#### **24-Hour TSP**

Location Action Level, µg/m <sup>3</sup>		Limit Level, µg/m <sup>3</sup>
AM1	168	
AM3	200	260
AM4	170	

## **Construction Noise**

Period	Action Level	Limit Level, dB(A)			
1 er ioù	for all stations	NM1	NM5	NM6	NM7
0700-1900 hrs on normal weekdays		70/65*	75	75	75
0700-2300 hrs on holidays & 1900- 2300 hrs on all other days	When one documented complaint is received	-	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

CINOTECH

File No. MA3024/18/0020

Station	Po Leung Kuk Choi I	(ai Vau School		Operator:	WK	File No. MA3024/18/0020
- Date:	NUMB VIOLA		Next Due Date:			07
Equipment No.: A-01-18						
	IT OF TO					
			Ambient (	Condition		
Temperatur	e, Ta (K)	299	Pressure, Pa	(mmHg)		765
		Or	ifice Transfer Sta	andard Inform	ation	
Equipme	nt No.:	A-04-04	Slope, mc	0.0575	Intercept	, bc 0.0395
Last Calibra		13-Mar-06		mc x Qstd + b	$c = [\Delta H \times (Pa/76)]$	0) x $(298/Ta)$ ] <sup>1/2</sup>
Next Calibra		12-Mar-07			k (Pa/760) x (298/	
			Calibration of	TSP Sampler		
Calibration		Or	fice	125 (1072/5400 KR)		HVS
Point	$\Delta H$ (orifice), in. of water	[ΔH x (Pa/76	0) x (298/Ta)] <sup>1/2</sup>	Qstd (CFM) X - axis	ΔW (HVS), in. of oil	$\frac{[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}}{axis}$
1	12.5		3.54	60.90	8.5	2.92
2	11.5		3.40	58.38	7.3	2.71
3	7.7	3	2.78	47.65	5.1	2.26
4	5.3		2.31	39.42	3.1	1.76
5	3.1		1.76	29.98	1.8	1.34
Slope, mw =	$\frac{0.0503}{\text{coefficient}^*} =$	_	9977	Intercept, bw	-0.17	80
	 Coefficient < 0.99	90, check and rec	alibrate.			
	12 carolina c		Set Point	Calculation		
From the TSP F	ield Calibration (	Curve, take Qstd	= 43 CFM			
From the Regre	ssion Equation, th	ne "Y" value acco	ording to			
		mw x	Qstd + bw = $[\Delta W]$	/ x (Pa/760) x (	298/Ta)] <sup>1/2</sup>	
Therefore, S	Set Point; W = ( r	nw x Qstd + bw ]	) <sup>2</sup> x ( 760 / Pa ) x (	(Ta / 298) =	3.9	3
Remarks:						
Nomarico;	-					
Conducted by: Checked by	WK-Tang	Signature: Signature:	-King:		_	Date: 18/11/06 Date: 18 Nov 2.0
checked by		5.5		)	_	

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						File No.	MA3024/18/0021
Station					WK	WK	
Date:					16-Mar-07		
Equipment No.:	A-01-18			Serial No.	0723		
			Ambient	Condition			
Temperatu	ire, Ta (K)	289.3	Pressure, P			767.4	
			,		•		
		Ori	fice Transfer St	andard Inform	ation		
Equipm	Equipment No.: A-04-04		Slope, mc	0.0575	Intercept	t, bc	0.0395
Last Calibr	ation Date:	13-Mar-06		mc x Qstd + b	$bc = [\Delta H \ x \ (Pa/76)]$	0) x (298/Ta)	)] <sup>1/2</sup>
Next Calibi	ration Date:	12-Mar-07		$Qstd = \{[\Delta H]\}$	x (Pa/760) x (298	/Ta)] <sup>1/2</sup> -bc} /	me
			Calibration o	f TSP Sampler			
Calibration		Orf	ice			HVS	
Point	$\Delta H$ (orifice), in. of water	[ΔH x (Pa/760	[ΔH x (Pa/760) x (298/Ta)] <sup>1/2</sup>		ΔW (HVS), in. of oil	[ΔW x (Pa/7	60) x (298/Ta)] <sup>1/2</sup> Y- axis
1	12.6	3	.62	62.27	8.6		2.99
2	11.5	3	.46	59.46	7.7		2.83
3	7.6	2	.81	48.21	5.2		2.33
4	5.4	2	.37	40.53	3.2		1.82
5	3.1	1	.80	30.54	1.9		1.41
Slope, mw =	ression of Y on X 	- 0.99	980	Intercept, bw	-0.159	4	
*If Correlation	Coefficient < 0.99	0, check and reca	librate.	-			
			Set Point	Calculation			
From the TSP F	ield Calibration C	urve, take Qstd =	43 CFM				
From the Regre	ssion Equation, th	e "Y" value accor	ding to				
					1/2		
		mw x Q	$bstd + bw = [\Delta W]$	x (Pa/760) x (2	(98/Ta)]		
Therefore, S	Set Point; W = ( m	w x Qstd + bw $)^2$	x ( 760 / Pa ) x (	Ta / 298 ) =	3.89		
Remarks:							
			1 .				
Conducted by:	6.6 Cong	/Signature:	Pepal	<b>b</b>		Date:	7/107
Checked by		Signature:			-	Date: \	7 Janary
		-	1/1	/	_	-	0

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						Flie No.	MA2027/A14/0020	
Station	Garden Vilia			Operator:	WK			
Date:	1-Dec-06		Next Due Date:		31-Jan-07			
Equipment No.:	A-01-14			Serial No.	1354			
			Ambient	Condition	the second second			
Temperatu	Temperature, Ta (K) 291.5			(mmHg)				
		0	ifice Transfer Sta	andard Inform	ation	teoret en la	- Maria	
Equipme	ent No.:	A-04-04	Slope, mc	0.0575	Intercept	, bc	0.0395	
Last Calibr		13-Mar-06		$mc x Qstd + bc = [\Delta H x (Pa/760) x (298/Ta)]^{1/2}$				
Next Calibr		12-Mar-07		$Qstd = \{[\Delta H \ x \ (Pa/760) \ x \ (298/Ta)]^{1/2} -bc\} / mc$				
e ante			Collibuation of	TSP Samplar				
	Γ	Calibration of Orfice			HVS			
Calibration Point	$\Delta H$ (orifice), in. of water		0) x (298/Ta)] <sup>1/2</sup>	Qstd (CFM) X - axis	ΔW (HVS), in. of oil		760) x (298/Ta)] <sup>1/2</sup> Y- axis	
1	12.0		3.52	60.45	9.2		3.08	
2	10.2		3.24	55.68	8.1		2.89	
3	6.9	2.67		45.68	5.2		2.31	
4	5.3		2.34	39.95	3.3		1.84	
5	3.5		.90	32.33	1.7		1.32	
Slope , mw = Correlation of	coefficient* =	- 0.9	955	Intercept, bw -	-0.674	10		
*If Correlation (	Coefficient < 0.99	o, check and reca						
		and the second sec		Calculation				
	ield Calibration (	Curve, take Qstd =	= 43 CFM					

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 Jik Tang
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# CINOTECH

						File No.	MA3024/17/0022
Station	Government Qua	arter			WK. 17-Jan-07		
Date:	18-Nov-06						
equipment No.:	o.: A-01-17					3460	
			Ambient	Condition			
Temperature, Ta (K)		299	Pressure, Pa (mmHg)		765		
		Ori	fice Transfer St	andard Inform	ation		
Equipm	Equipment No.: A-04-04 Slop		Slope, mc	0.0575	Intercept		0.0395
Last Calibr	ration Date:	13-Mar-06			$bc = [\Delta H x (Pa/76)]$	0) x (298/Ta	$(1)^{1/2}$
Next Calibr	ration Date:	12-Mar-07		$Qstd = \{[\Delta H]$	x (Pa/760) x (298	$(Ta)]^{1/2} - bc\}$	/ mc
		•		92			
			Calibration of	f TSP Sampler			State of the state
Calibration		Orf	ice				
Point	$\Delta H$ (orifice), in. of water	[ΔH x (Pa/760	)) x (298/Ta)] <sup>1/2</sup>	Qstd (CFM) X - axis	ΔW (HVS), in. of oil		760) x (298/Ta)] <sup>1/2</sup> Y- axis
1	13.0	.3	.61	62.12	7.9		2.82
2	10.9	3	.31	56.82	6.7	2.59	
3	8.3	2	.89	49.50	5.4	2.33	
4	5.5	2	.35	40.16	3.3	1.82	
5	3.2	1	.79	30.47	1.9	1.38	
Slope , mw =	ression of Y on X 0.0458 coefficient* =	-	981	Intercept, bw	-0.002	29	-
	Coefficient < 0.99			_			
II Correlation		o, encer and ree	morate.				
			Set Point	Calculation			
From the TSP I	Field Calibration C	Curve, take Qstd =	= 43 CFM				
From the Regre	ession Equation, th	ne "Y" value acco	rding to				
					1/2		
		mw x (	$Qstd + bw = [\Delta W]$	/ x (Pa/760) x (	298/Ta)] <sup>1/2</sup>		
Therefore	Set Point; W = ( n	$\Delta w \times Octd + bw)$	$^{2}$ x (760 / Pa) x (	(To / 208.) =	3.85		
rneretore,	Set rollit, $w - (n$	IW X QSIU + UW )	x(1001 ra)X(	14/290)-	3.0.	, 	-
Remarks:							
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Checked by	11 1	Signature:	T			Date:	18 100 200
					-		

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						File No.	MA3024/17/0023	
Station					WK	-		
Date:					16-Mar-07			
Equipment No.: A-01-17								
_			Ambient					
Temperatu	re, Ta (K)	289.3	Pressure, Pa	(mmHg)		767.4		
		Or	ifice Transfer Sta	ndard Inform	ation			
Equipme	ent No.:	A-04-04	Slope, mc	0.0575	Intercept	t, bc	0.0395	
Last Calibration Date:		13-Mar-06			$bc = [\Delta H \times (Pa/76)]$			
Next Calibration Date:		12-Mar-07	Qstd = { $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ -bc} / mc					
			Calibration of	TSP Sampler				
Calibration		Or	fice			HVS		
Point	$\Delta H$ (orifice), in. of water	[ΔH x (Pa/760) x (298/Ta)] <sup>1/2</sup>		Qstd (CFM) X - axis	ΔW (HVS), in. of oil		760) x (298/Ta)] <sup>1/2</sup> Y- axis	
1	12.0	3	3.53	60.75	8.7		3.01	
2	10.7	3.34		57.33	7.3		2.76	
3	8.0	2	2.88	49.48	5.6		2.41	
4	5.6	2.41		41.29	3.2		1.82	
5	3.0	1.77		30.03	1.7		1.33	
Slope , mw = Correlation c		- 0.9	964	Intercept, bw -	-0.358	36		
			Set Point C	algulation				
From the TSP Fi	ield Calibration C	urve_take Ostd =						
	sion Equation, th							
C .			$2std + bw = [\Delta W]$	x (Pa/760) x (2	(98/Ta)] <sup>1/2</sup>			
Therefore, S	et Point; W = ( m	1  w x Qstd + bw	<sup>2</sup> x ( 760 / Pa ) x ( 1	Γa / 298 ) =	3.86			
Remarks:								
Conducted by: \ Checked by:	(	Signature: Signature:	- Cura	1		Date: Date:	17/1/07 17-January 07	

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

### **TEST REPORT**

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

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

ATTN:

Mr. Henry Leung

### **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
est cor	iditions:	
	Room Temperature	: 21 degree Celsius

#### Tes

Room Temperature Relative Humidity Pressure

: 66% : 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.

Patriel

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 - Ma Operator		Rootsmeter Orifice I.I		833620 0993	Ta (K) - Pa (mm) -	294 746.76
PLATE OR Run #	VOLUME START (m3)	VOLUME STOP (m3)	DIFF VOLUME (m3)	======================================	METER DIFF Hg (mm)	ORFICE DIFF H2O (in.)
1 2 3 4 5	NA NA NA NA NA	NA NA NA NA NA	1.00 1.00 1.00 1.00 1.00 1.00	1.3890 0.9850 0.8810 0.8410 0.6950	3.2 6.3 7.8 8.6 12.5	2.00 4.00 5.00 5.50 8.00

#### DATA TABULATION

Vstd	(x axis) Qstd	(y axis)		Va	(x axis) Qa	(y axis)
0.9917 0.9876 0.9854 0.9844 0.9792	0.7139 1.0026 1.1185 1.1706 1.4090	1.4113 1.9959 2.2315 2.3405 2.8227		0.9957 0.9916 0.9894 0.9884 0.9832	0.7168 1.0067 1.1231 1.1753 1.4147	0.8874 1.2549 1.4030 1.4715 1.7747
Qstd sloj intercep coeffici	t (b) =	2.03154 -0.03970 0.99999		Qa slop intercep coefficie	t (b) =	1.27212 -0.02496 0.99999
y axis =	SQRT [H20 (I	Pa/760)(298/5	Ta)]	y axis =	SQRT [H20 (1	[a/Pa)]

#### CALCULATIONS

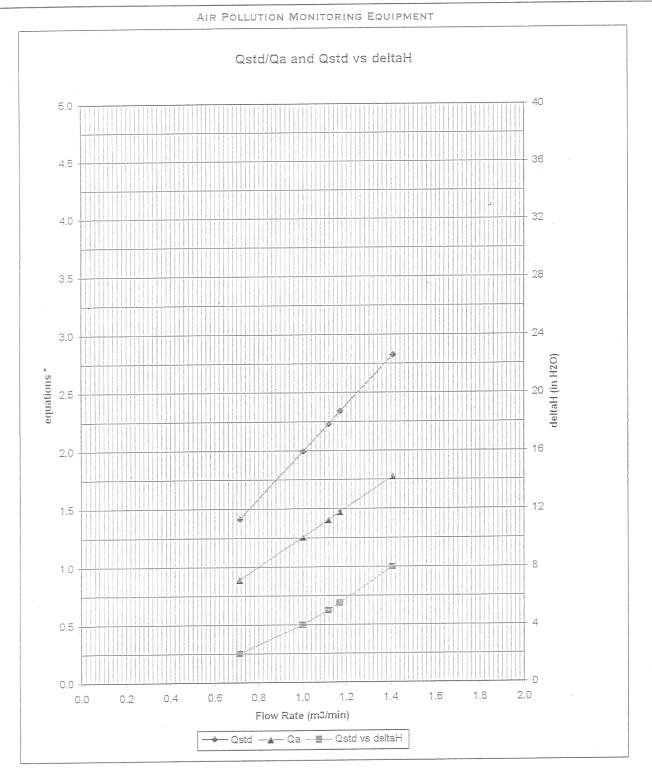
Vstd = Diff. Vol[(Pa-Diff. Hg)/760](298/Ta) Qstd = Vstd/Time

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



\* y-axis equations: Qstd series:  $\sqrt{\Delta H \left(\frac{Pa}{Pstd}\right) \left(\frac{Tstd}{Ta}\right)}$   $\sqrt{\left(\Delta H \left(Ta / Pa\right)\right)}$ 

#0993

Qa series:

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**

<b>APPLICANT:</b>	<b>Cinotech Consultants Limited</b>	Test Report No.:	C/N/61215/1
	1602-1610 Delta House,	Date of Issue:	2006-12-15
	3 On Yiu Street,	Date Received:	2006-12-14
	Shatin, N.T.	Date Tested:	2006-12-15
		Date Completed:	2006-12-15
		Next Due Date:	2007-12-14

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#### Mr. Henry Leung

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## **Certificate of Calibration**

Page:

### Item for calibration:

ATTN:

	Description Manufacturer Model No. Serial No. Microphone No.	: Integrating Sound Level Meter : Brüel & Kjær : B&K 2238 : 2337665 : 2289749
	Equipment No.	: N-01-01
Test condition	s:	
	Room Temperatre Relative Humidity	: 20 degree Celsius : 60%

#### **Test Specifications:**

Performance checking at 94 and 114 dB

#### Methodology:

In-house method, according to manufacturer instruction manual

#### **Results:**

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

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

PATRICK TSE Operation Manager

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

<b>APPLICANT:</b>	<b>Cinotech Consultants Limited</b>	Test Report No.:	C/N/61116/1
	1602-1610 Delta House,	Date of Issue:	2006-11-16
	3 On Yiu Street,	Date Received:	2006-11-15
	Shatin, N.T.	Date Tested:	2006-11-15
		Date Completed:	2006-11-16
		Next Due Date:	2007-11-15

#### ATTN:

Mr. Henry Leung

## Certificate of Calibration

Page:

1 of 1

#### 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 Temperatr	e : 20 degree Celsius

#### Room Temperatre Relative Humidity

**Test Specifications:** 

Performance checking at 94 and 114 dB

#### Methodology:

In-house method, according to manufacturer instruction manual

: 59%

#### **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.

Patriels

**PATRICK TSE** Operation Manager

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

### **TEST REPORT**

<b>APPLICANT:</b>	<b>Cinotech Consultants Limited</b>	Test Report No.:	C/N/60904-1
	1601-1610 Delta House,	Date of Issue:	2006-09-04
	3 On Yiu Street,	Date Received:	2006-09-02
	Shatin, N.T.	Date Tested:	2006-09-02
		Date Completed:	2006-09-04

ATTN:

#### Mr. Henry Leung

### **Certificate of Calibration**

#### Item for calibration:

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

Next Due Date:

Page:

2007-09-03

1 of 1

**Test conditions:** 

Room Temperatre Relative Humidity : 23 degree Celsius : 64%

#### **Test Specifications:**

Performance checking at 94 and 114 dB

#### Methodology:

In-house method, according to manufacturer instruction manual

#### **Results:**

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

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

Patrick

PATRICK TSE Laborary Manager

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

### **TEST REPORT**

<b>APPLICANT:</b>	<b>Cinotech Consultants Limited</b>	Test Report No.:	C/N/60904-2
	1602-1610 Delta House,	Date of Issue:	2006-09-04
	3 On Yiu Street,	Date Received:	2006-09-02
	Shatin, N.T.	Date Tested:	2006-09-02
		Date Completed:	2006-09-04
		Next Due Date:	2007-09-03

ATTN:

#### Mr. Henry Leung

### **Certificate of Calibration**

#### Item for calibration:

Description Manufacturer Model No. Serial No. Equipment No.

**Test conditions:** 

Room Temperatre Relative Humidity Pressure : Integrating Sound Level Meter : Brüel & Kjær : B&K 2238 : 2359303 : N-01-04

Page:

1 of 1

: 23 degree Celsius : 63% : 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

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**

<b>APPLICANT:</b>	<b>Cinotech Consultants Limited</b>	Test Report No.:	C/N/61014/1
	1602-1610 Delta House,	Date of Issue:	2006-10-14
	3 On Yiu Street,	Date Received:	2006-10-13
	Shatin, N.T.	Date Tested:	2006-10-14
		Date Completed:	2006-10-14
		Next Due Date:	2007-10-13

ATTN:

### Mr. Henry Leung

### **Certificate of Calibration**

#### Item for calibration:

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

Page:

1 of 1

#### **Test conditions:**

Room Temperatre Relative Humidity : 21 degree Celsius : 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

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**

<b>APPLICANT:</b>	<b>Cinotech Consultants Limited</b>	Test Report No.:	C/N/61116/2
	1602-1610 Delta House,	Date of Issue:	2006-11-16
	3 On Yiu Street,	Date Received:	2006-11-15
	Shatin, N.T.	Date Tested:	2006-11-15
		Date Completed:	2006-11-16
		Next Due Date:	2007-11-15
ATTN:	Mr. Henry Leung	Page:	1 of 1

#### Item for calibration:

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

#### **Test conditions:**

Room Temperatre	: 20 degree Celsius
Relative Humidity	: 59%
Pressure	: 1015.2 hPa

### Methodology:

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

### **Results:**

Sound Pressure Level	Measured SPL	Tolerance
At 94 dB SPL	94.0	$94.0\pm~0.1~\mathrm{dB}$

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

Patrick

PATRICK TSE Operation Manager

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

## **TEST REPORT**

APPLICANT	Cinotech Consultants I	imited	Test Report No.:	C/06/60304	
	1602-1610 Delta House	,	Date of Issue:	2006-03-04	
	3 On Yiu Street,		Date Received:	2006-03-03	
	Shatin, N.T.		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	: Acoustica	al Calibrator		
	Manufacturer	: Brüel & I	Kjær		
	Model No.	: 4231			
, ×	Serial No.	: 2343007			
	Project No.	: C13			
	Equipment No.	: N-02-02			
Test condition	s:				
	Decay Terret	00 1	<b>C</b> 1 :		

Room Temperatre: 20 degree CelsiusRelative 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	$94.0\pm~0.2~\mathrm{dB}$	

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

Patrick

**PATRICK TSE** Operation Manager

606 - 608 Cornell Centre, 50 Wing Tai Road, Chai Wan, Hong Kong. Tel: (852) 2898 7388 Fax: (852) 2898 7076

## **TEST REPORT**

<b>APPLICANT:</b>	<b>Cinotech Consultants Limited</b>	Test Report No.:	C/N/60904-3
	1601-1610 Delta House,	Date of Issue:	2006-09-04
	3 On Yiu Street,	Date Received:	2006-09-02
	Shatin, N.T.	Date Tested:	2006-09-02
		Date Completed:	2006-09-04
		Next Due Date:	2007-09-03

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	: 23 degree Celsius
Relative Humidity	: 63%
Pressure	: 1020.1hPa

#### **Methodology:**

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

#### **Results:**

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

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

Patriele

**PATRICK TSE** Operation Manager

APPENDIX C ENVIRONMENTAL MONITORING AND AUDIT SCHEDULE

### Environmental Monitoring for Eagle's Nest Tunnel Air Quality and Noise Monitoring Schedule for January 2007

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
31-Dec	1-Jan	2-Jan	3-Jan	4-Jan	5-Jan	6-Jan
		1 hr TSP Noise 24 hr TSP	1 hr TSP		1 hr TSP	
7-Jan	8-Jan	9-Jan	10-Jan	11-Jan	12-Jan	13-Jan
		1 hr TSP Noise		1 hr TSP	1 hr TSP	
	24 hr TSP					24 hr TSP
14-Jan	15-Jan	16-Jan	17-Jan	18-Jan	19-Jan	20-Jan
	1 hr TSP Noise	1 hr TSp		1 hr TSP		
					24 hr TSP	
21-Jan	22-Jan	23-Jan	24-Jan	25-Jan	26-Jan	27-Jan
	1 hr TSP Noise	1 hr TSP			1 hr TSP	
				24 hr TSP		
28-Jan	29-Jan	30-Jan	31-Jan	1-Feb	2-Feb	3-Feb
	1 hr TSP Noise	1 hr TSP		1 hr TSP		
			24 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 February 2007

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

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

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

Date	Time	Wind Speed m/s	Direction
3-Jan-2007	06:00	3.6	WNW
3-Jan-2007	07:00	4.0	WNW
3-Jan-2007	08:00	3.6	WNW
3-Jan-2007	09:00	2.7	W
3-Jan-2007	10:00	0.4	WNW
3-Jan-2007	11:00	1.3	WNW
3-Jan-2007	12:00	2.7	WNW
3-Jan-2007	13:00	1.3	WNW
3-Jan-2007	14:00	1.8	W
3-Jan-2007	15:00	0.9	SW
3-Jan-2007	16:00	0.4	SW
3-Jan-2007	17:00	1.3	W
3-Jan-2007	18:00	1.3	WSW
3-Jan-2007	19:00	0.4	SW
3-Jan-2007	20:00	0.9	W
3-Jan-2007	21:00	0.0	
3-Jan-2007	22:00	0.0	
3-Jan-2007	23:00	0.9	W
4-Jan-2007	00:00	0.9	WNW
4-Jan-2007	01:00	1.8	WNW
4-Jan-2007	02:00	0.4	WNW
4-Jan-2007	03:00	1.3	WNW
4-Jan-2007	04:00	0.4	W
4-Jan-2007	05:00	1.8	W
4-Jan-2007	06:00	1.8	WNW
4-Jan-2007	07:00	2.7	W
4-Jan-2007	08:00	2.7	WNW
4-Jan-2007	09:00	2.2	W
4-Jan-2007	10:00	2.2	WNW
4-Jan-2007	11:00	2.2	WNW
4-Jan-2007	12:00	1.8	WNW
4-Jan-2007	13:00	1.3	W
4-Jan-2007	14:00	0.4	W
4-Jan-2007	15:00	1.3	SW
4-Jan-2007	16:00	1.3	SW
4-Jan-2007	17:00	0.9	SW
4-Jan-2007	18:00	0.9	WNW
4-Jan-2007	19:00	2.2	WNW
4-Jan-2007	20:00	0.0	
4-Jan-2007	21:00	0.0	WSW
4-Jan-2007	22:00	0.9	W
4-Jan-2007	23:00	1.8	WNW
5-Jan-2007	00:00	1.3	W
5-Jan-2007	01:00	1.3	WSW
5-Jan-2007	02:00	2.7	WNW
5-Jan-2007	03:00	2.2	W
5-Jan-2007	04:00	2.2	WSW
5-Jan-2007	05:00	2.2	WNW
5-Jan-2007	06:00	2.2	WNW
5-Jan-2007	07:00	0.4	WNW
5-Jan-2007	08:00	0.9	WNW
5-Jan-2007	09:00	0.9	NW
5-Jan-2007	10:00	0.4	WNW
5-Jan-2007	11:00	0.4	W

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

Date	Time	Wind Speed m/s	Direction
7-Jan-2007	18:00	0.4	W
7-Jan-2007	19:00	0.0	W
7-Jan-2007	20:00	0.0	
7-Jan-2007	21:00	0.0	
7-Jan-2007	22:00	0.0	
7-Jan-2007	23:00	0.0	
8-Jan-2007	00:00	0.0	
8-Jan-2007	01:00	0.0	
8-Jan-2007	02:00	0.0	
8-Jan-2007	03:00	0.0	W
8-Jan-2007	04:00	0.0	W
8-Jan-2007	05:00	1.8	WNW
8-Jan-2007	06:00	2.2	WNW
	07:00	3.1	WNW
8-Jan-2007 8-Jan-2007	07:00	2.7	WNW
		2.7	WNW
8-Jan-2007	09:00		
8-Jan-2007	10:00	2.2	NW
8-Jan-2007	11:00	1.3	WNW
8-Jan-2007	12:00	1.8	WNW
8-Jan-2007	13:00	2.2	WSW
8-Jan-2007	14:00	1.8	WSW
8-Jan-2007	15:00	2.7	WSW
8-Jan-2007	16:00	2.7	WSW
8-Jan-2007	17:00	3.1	WSW
8-Jan-2007	18:00	2.2	WSW
8-Jan-2007	19:00	2.2	WSW
8-Jan-2007	20:00	2.7	SW
8-Jan-2007	21:00	1.8	WSW
8-Jan-2007	22:00	2.7	SW
8-Jan-2007	23:00	1.8	WSW
9-Jan-2007	00:00	0.9	WSW
9-Jan-2007	01:00	1.8	WSW
9-Jan-2007	02:00	1.8	WNW
9-Jan-2007	03:00	2.7	W
9-Jan-2007	04:00	2.7	WNW
9-Jan-2007	05:00	3.1	WNW
9-Jan-2007	06:00	3.1	WNW
9-Jan-2007	07:00	3.1	WNW
9-Jan-2007	08:00	2.7	WNW
9-Jan-2007	09:00	2.2	WNW
9-Jan-2007	10:00	2.2	WNW
9-Jan-2007	11:00	2.2	WNW
	12:00	2.2	NW
9-Jan-2007 9-Jan-2007	13:00	2.2	WNW
		1.8	WNW
9-Jan-2007	14:00		
9-Jan-2007	15:00	1.8	WNW
9-Jan-2007	16:00	2.2	NW
9-Jan-2007	17:00	2.2	WNW
9-Jan-2007	18:00	0.9	W
9-Jan-2007	19:00	0.9	W
9-Jan-2007	20:00	0.4	W
9-Jan-2007	21:00	0.4	W
9-Jan-2007	22:00	0.4	W
9-Jan-2007	23:00	0.9	W

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

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

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

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

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

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

Date	Time	Wind Speed m/s	Direction
23-Jan-2007	12:00	0.4	W
23-Jan-2007	13:00	0.9	W
23-Jan-2007	14:00	0.9	W
23-Jan-2007	15:00	1.8	WNW
23-Jan-2007	16:00	0.4	WNW
23-Jan-2007	17:00	1.8	WNW
23-Jan-2007	18:00	1.3	WNW
23-Jan-2007	19:00	2.7	WNW
23-Jan-2007	20:00	3.1	WNW
23-Jan-2007	21:00	3.1	WNW
23-Jan-2007	22:00	2.7	WNW
23-Jan-2007	23:00	2.7	WNW
23-Jan-2007 24-Jan-2007	00:00	2.7	WNW
24-Jan-2007	01:00	2.2	WNW
24-Jan-2007	02:00	3.1	WNW
24-Jan-2007	03:00	2.7	WNW
24-Jan-2007	04:00	2.2	WNW
24-Jan-2007	05:00	2.2	WNW
24-Jan-2007	06:00	0.4	WNW
24-Jan-2007	07:00	0.9	WNW
24-Jan-2007	08:00	1.3	WNW
24-Jan-2007	09:00	0.9	WNW
24-Jan-2007	10:00	0.0	NW
24-Jan-2007	11:00	0.0	NW
24-Jan-2007	12:00	0.0	
24-Jan-2007	13:00	0.0	NW
24-Jan-2007	14:00	0.0	SSW
24-Jan-2007	15:00	0.0	WSW
24-Jan-2007	16:00	0.0	WSW
24-Jan-2007	17:00	0.9	WNW
24-Jan-2007	18:00	0.0	W
24-Jan-2007	19:00	0.4	WSW
24-Jan-2007	20:00	1.3	SW
24-Jan-2007	21:00	1.3	SW
24-Jan-2007	22:00	1.3	WSW
24-Jan-2007	23:00	0.9	SW
25-Jan-2007	00:00	1.3	W
25-Jan-2007	01:00	1.3	WSW
25-Jan-2007	02:00	2.2	WSW
25-Jan-2007	03:00	2.7	WNW
25-Jan-2007	04:00	2.2	W
25-Jan-2007	05:00	1.3	W
25-Jan-2007	06:00	2.7	W
25-Jan-2007	07:00	2.7	WSW
25-Jan-2007	07:00	2.2	WSW
25-Jan-2007	09:00	1.8	WSW
25-Jan-2007 25-Jan-2007	10:00	1.8	WNW
		2.7	WNW
25-Jan-2007	11:00		WNV
25-Jan-2007	12:00	3.1	
25-Jan-2007	13:00	2.7	W
25-Jan-2007	14:00	1.8	W
25-Jan-2007	15:00	2.2	WNW
25-Jan-2007	16:00	2.7	WSW
25-Jan-2007	17:00	2.2	WNW

Date	Time	Wind Speed m/s	Direction
25-Jan-2007	18:00	0.9	W
25-Jan-2007	19:00	1.3	WNW
25-Jan-2007	20:00	3.1	WNW
25-Jan-2007	21:00	2.2	WNW
25-Jan-2007	22:00	2.7	WNW
25-Jan-2007	23:00	0.4	WNW
26-Jan-2007	00:00	0.9	WSW
26-Jan-2007	01:00	0.9	WSW
26-Jan-2007	02:00	0.4	WSW
26-Jan-2007	03:00	0.4	WSW
26-Jan-2007	03:00	1.8	WNW
26-Jan-2007	05:00	1.8	WNW
26-Jan-2007	06:00	1.8	WNW
26-Jan-2007	07:00	1.8	WNW
26-Jan-2007	08:00	1.3	WSW
26-Jan-2007	09:00	1.3	SW
26-Jan-2007	10:00	1.3	WSW
26-Jan-2007	11:00	0.9	WSW
26-Jan-2007	12:00	0.9	W
26-Jan-2007	13:00	0.4	W
26-Jan-2007	14:00	1.3	W
26-Jan-2007	15:00	1.8	WNW
26-Jan-2007	16:00	2.2	WNW
26-Jan-2007	17:00	2.2	WNW
26-Jan-2007	18:00	2.2	WNW
26-Jan-2007	19:00	2.7	WNW
26-Jan-2007	20:00	2.2	W
26-Jan-2007	21:00	2.2	W
26-Jan-2007	22:00	2.7	WNW
26-Jan-2007	23:00	1.8	WNW
27-Jan-2007	00:00	1.3	W
27-Jan-2007	01:00	1.8	WNW
27-Jan-2007	02:00	3.1	W
27-Jan-2007	03:00	3.6	WNW
27-Jan-2007	04:00	4.9	WNW
27-Jan-2007	05:00	4.0	WNW
27-Jan-2007	06:00	3.1	WNW
27-Jan-2007	07:00	2.2	WNW
27-Jan-2007	08:00	1.3	WNW
27-Jan-2007	09:00	2.2	WNW
27-Jan-2007	10:00	2.7	WNW
27-Jan-2007	11:00	1.8	W
			WNW
27-Jan-2007 27-Jan-2007	12:00 13:00	1.8	W
			WSW
27-Jan-2007	14:00	2.2	
27-Jan-2007	15:00	2.7	SW
27-Jan-2007	16:00	1.8	WSW
27-Jan-2007	17:00	1.3	W
27-Jan-2007	18:00	1.3	W
27-Jan-2007	19:00	1.3	W
27-Jan-2007	20:00	0.9	WSW
27-Jan-2007	21:00	0.4	WSW
27-Jan-2007	22:00	0.0	SSW
27-Jan-2007	23:00	0.4	SSW

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

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

APPENDIX E 1-HOUR TSP MONITORING RESULTS AND GRAPHICAL PRESENTATION

### Appendix E - 1-hour TSP Monitoring Results

Date	Weather	Filter We	eight (g)	Flow Rate	e (m <sup>3</sup> /min.)	Elaps	se Time	Air	Atmospheric	Particulate	Av. flow	Total vol.	Sampling	Conc.
	Condition	Initial	Final	Initial	Final	Initial	Final	Temp. (K)	Pressure(Pa)	weight(g)	(m <sup>3</sup> /min)	(m <sup>3</sup> )	Time(hrs.)	(µg/m <sup>3</sup> )
2-Jan-07	Cloudy	2.8818	2.8943	1.23	1.23	5286.1	5287.1	292.4	764.8	0.0125	1.23	73.5	1.0	170.0
3-Jan-07	Cloudy	2.8680	2.8740	1.22	1.22	5311.1	5312.1	293.7	763.0	0.0060	1.22	73.3	1.0	81.9
5-Jan-07	Sunshine	2.8904	2.8926	1.24	1.24	5312.1	5313.1	288.0	768.5	0.0022	1.24	74.2	1.0	29.6
9-Jan-07	Sunshine	2.9058	2.9110	1.25	1.25	5337.1	5338.1	284.9	772.3	0.0052	1.25	74.7	1.0	69.6
11-Jan-07	Sunshine	2.8915	2.9076	1.23	1.23	5338.1	5339.1	290.3	768.2	0.0161	1.23	73.9	1.0	217.8
12-Jan-07	Cloudy	2.8585	2.8647	1.23	1.23	5339.1	5340.1	291.3	768.3	0.0062	1.23	73.8	1.0	84.0
15-Jan-07	Sunshine	2.8682	2.8700	1.22	1.22	5364.1	5365.1	285.2	771.3	0.0018	1.22	73.3	1.0	24.6
16-Jan-07	Sunshine	2.8795	2.8845	1.23	1.22	5365.1	5366.1	293.2	766.5	0.0050	1.23	73.5	1.0	68.0
18-Jan-07	Sunshine	2.8680	2.8742	1.22	1.22	5366.1	5367.1	286.6	768.8	0.0062	1.22	73.5	1.0	84.4
22-Jan-07	Cloudy	2.8843	2.8869	1.22	1.22	5391.1	5392.1	288.2	768.5	0.0026	1.22	73.3	1.0	35.5
23-Jan-07	Sunshine	2.8479	2.8536	1.23	1.23	5392.1	5393.1	289.1	769.6	0.0057	1.23	73.2	1.0	77.9
26-Jan-07	Sunshine	2.8692	2.8760	1.23	1.23	5418.1	5419.1	286.7	776.2	0.0068	1.23	73.8	1.0	92.2
29-Jan-07	Cloudy	2.8891	2.9025	1.23	1.23	5419.1	5420.1	283.6	772.1	0.0134	1.23	74.0	1.0	181.2
30-Jan-07	Sunshine	2.8658	2.8762	1.23	1.23	5420.1	5421.1	285.9	771.5	0.0104	1.23	73.7	1.0	141.2
													Min	24.6
													Max	217.8

Average 97.0

#### Location AM 3 - Garden Villa

Date	Weather	Filter W	eight (g)	Flow Rate	e (m <sup>3</sup> /min.)	Elaps	se Time	Air	Atmospheric	Particulate	Av. flow	Total vol.	Sampling	Conc.
	Condition	Initial	Final	Initial	Final	Initial	Final	Temp. (K)	Pressure(Pa)	weight(g)	(m <sup>3</sup> /min)	(m <sup>3</sup> )	Time(hrs.)	$(\mu g/m^3)$
2-Jan-07	Cloudy	2.8473	2.8531	1.22	1.22	5129.1	5130.1	293.7	763.0	0.0058	1.22	73.0	1.0	79.4
3-Jan-07	Cloudy	2.8915	2.9065	1.22	1.22	5154.1	5155.1	292.4	764.7	0.0150	1.22	73.1	1.0	205.2
5-Jan-07	Sunshine	2.8861	2.8897	1.23	1.23	5155.1	5156.1	288.5	768.1	0.0036	1.23	73.6	1.0	48.9
9-Jan-07	Sunshine	2.8583	2.8691	1.23	1.23	5180.1	5181.1	284.7	772.4	0.0108	1.23	74.1	1.0	145.7
11-Jan-07	Cloudy	2.8647	2.8806	1.22	1.22	5181.1	5182.1	290.1	768.4	0.0159	1.22	73.4	1.0	216.5
12-Jan-07	Cloudy	2.8932	2.9075	1.22	1.22	5182.1	5183.1	291.1	768.5	0.0143	1.22	73.3	1.0	195.0
15-Jan-07	Sunshine	2.8984	2.9095	1.22	1.22	5207.1	5208.1	290.9	768.2	0.0111	1.22	73.4	1.0	151.3
16-Jan-07	Sunshine	2.8757	2.8870	1.22	1.22	5208.1	5209.1	293.2	766.5	0.0113	1.22	73.1	1.0	154.6
18-Jan-07	Cloudy	2.8652	2.8765	1.23	1.23	5209.1	5210.1	286.4	769.0	0.0113	1.23	73.8	1.0	153.1
22-Jan-07	Cloudy	2.8857	2.8936	1.23	1.23	5234.1	5235.1	288.2	768.5	0.0079	1.23	73.6	1.0	107.3
23-Jan-07	Cloudy	2.8757	2.8945	1.23	1.23	5235.1	5236.1	288.9	769.7	0.0188	1.23	73.6	1.0	255.4
26-Jan-07	Sunshine	2.8709	2.8759	1.23	1.23	5260.1	5261.1	286.9	769.9	0.0050	1.23	73.8	1.0	67.8
29-Jan-07	Cloudy	2.8793	2.9036	1.24	1.24	5261.1	5262.1	283.6	772.1	0.0243	1.24	74.2	1.0	327.5
30-Jan-07	Sunshine	2.8871	2.9005	1.23	1.23	5262.1	5263.1	285.9	771.5	0.0134	1.23	74.0	1.0	181.2
													Min	48.9

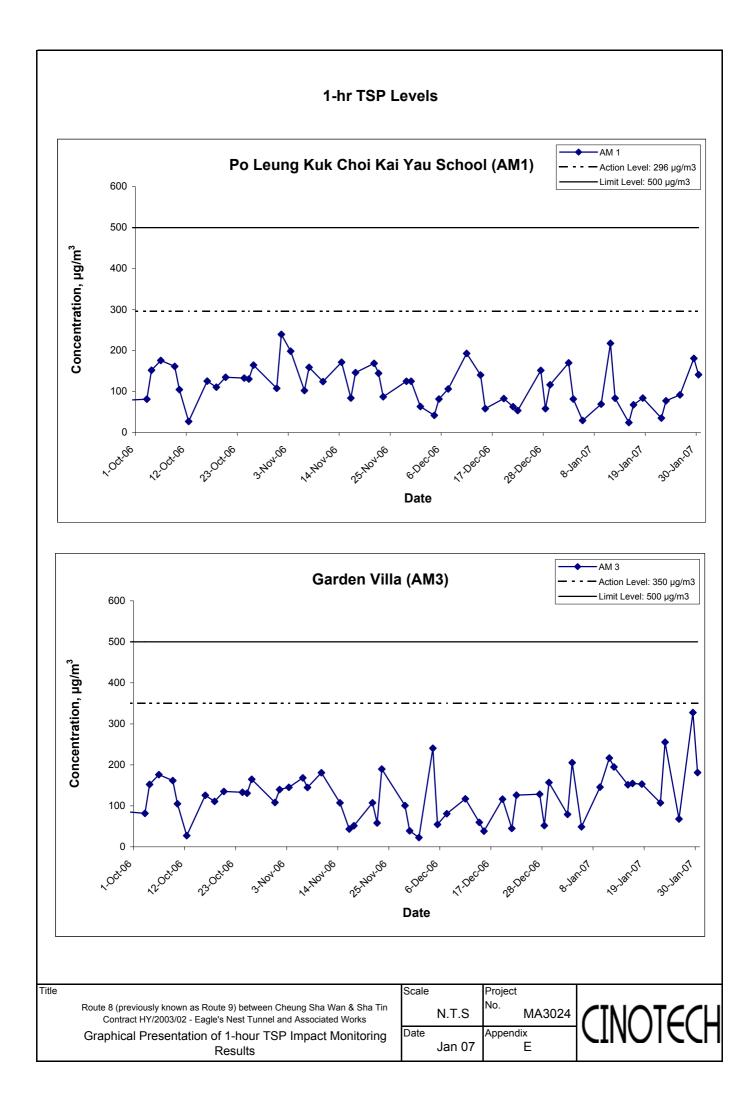
1.0	101.2
Min	48.9
Max	327.5
Average	163.5

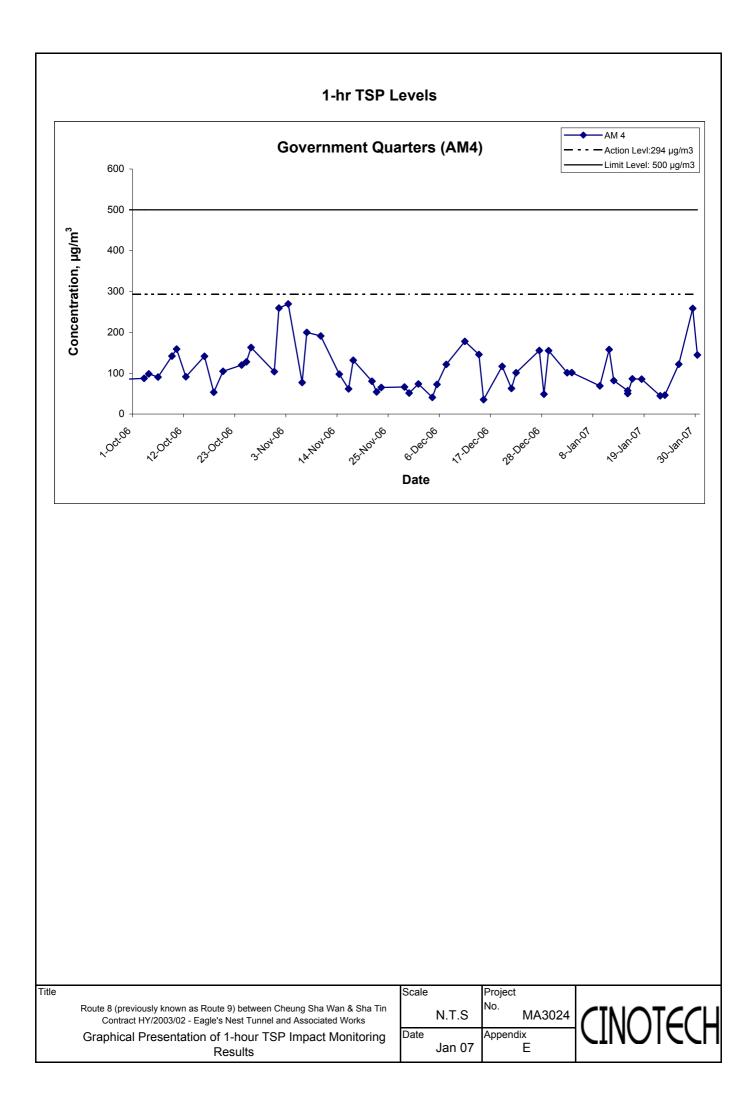
### Appendix E - 1-hour TSP Monitoring Results

#### Location AM 4 - Government Quarters

Date	Weather	Filter Weight (g)		Flow Rate (m <sup>3</sup> /min.)		Elapse Time		Air	Atmospheric	Particulate	Av. flow	Total vol.	Sampling	Conc.
	Condition	Initial	Final	Initial	Final	Initial	Final	Temp. (K)	Pressure(Pa)	weight(g)	(m <sup>3</sup> /min)	(m <sup>3</sup> )	Time(hrs.)	(µg/m <sup>3</sup> )
2-Jan-07	Cloudy	2.8764	2.8839	1.24	1.24	5241.5	5242.5	292.4	764.8	0.0075	1.24	74.3	1.0	101.0
3-Jan-07	Cloudy	2.8516	2.8591	1.23	1.23	5266.5	5267.5	293.7	763.0	0.0075	1.23	74.0	1.0	101.6
15-Jan-07	Sunshine	2.8809	2.8852	1.25	1.25	5267.5	5268.5	288.0	768.5	0.0043	1.25	75.0	1.0	57.3
9-Jan-07	Sunshine	2.8609	2.8661	1.26	1.26	5292.5	5293.5	284.9	772.3	0.0052	1.26	75.6	1.0	68.8
11-Jan-07	Sunshine	2.8903	2.9021	1.25	1.25	5293.5	5294.5	290.3	768.2	0.0118	1.25	74.7	1.0	158.0
12-Jan-07	Cloudy	2.8639	2.8700	1.24	1.24	5294.5	5295.5	291.3	768.3	0.0061	1.24	74.6	1.0	81.8
15-Jan-07	Sunshine	2.8777	2.8814	1.23	1.23	5319.5	5320.5	285.2	766.3	0.0037	1.23	74.0	1.0	50.0
16-Jan-07	Sunshine	2.8310	2.8374	1.24	1.24	5320.5	5321.5	293.2	766.5	0.0064	1.24	74.2	1.0	86.2
18-Jan-07	Sunshine	2.8762	2.8825	1.23	1.23	5321.5	5322.5	286.6	768.8	0.0063	1.23	73.7	1.0	85.4
22-Jan-07	Cloudy	2.8792	2.8825	1.23	1.23	5346.5	5347.5	288.2	768.5	0.0033	1.23	73.6	1.0	44.9
23-Jan-07	Sunshine	2.8799	2.8833	1.23	1.23	5347.5	5348.5	289.1	769.6	0.0034	1.23	73.5	1.0	46.3
26-Jan-07	Sunshine	2.8671	2.8761	1.23	1.23	5372.5	5373.5	286.5	770.4	0.0090	1.23	73.8	1.0	121.9
29-Jan-07	Cloudy	2.8716	2.8908	1.24	1.24	5373.5	5374.5	283.6	772.1	0.0192	1.24	74.2	1.0	258.8
30-Jan-07	Sunshine	2.8577	2.8684	1.23	1.23	5374.5	5375.5	285.9	771.5	0.0107	1.23	73.9	1.0	144.8
													Min	44.9
														0 - 0 0

Max 258.8 Average 100.5





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	Filter Weight (g)		Flow Rate (m <sup>3</sup> /min.)		Elapse Time		Air	Atmospheric	Particulate	Av. flow	Total vol.	Sampling	Conc.
	Condition	Initial	Final	Initial	Final	Initial	Final	Temp. (K)	Pressure(Pa)	weight(g)	(m <sup>3</sup> /min)	(m <sup>3</sup> )	Time(hrs.)	(µg/m <sup>3</sup> )
2-Jan-07	Cloudy	2.9134	2.9987	1.22	1.22	5287.1	5311.1	292.9	764.1	0.0853	1.22	1762.4	24.0	48.4
8-Jan-07	Sunshine	2.8904	3.0504	1.25	1.25	5313.1	5337.1	284.1	773.0	0.1600	1.25	1796.8	24.0	89.0
13-Jan-07	Sunshine	2.8545	3.0230	1.24	12.24	5340.1	5364.1	288.5	769.5	0.1685	6.74	1781.2	24.0	94.6
19-Jan-07	Cloudy	2.8661	3.0458	1.22	1.22	5367.1	5391.1	288.4	768.5	0.1797	1.22	1757.6	24.0	102.2
25-Jan-07	Sunshine	2.8890	2.9917	1.23	1.23	5394.1	5418.1	286.1	771.2	0.1027	1.23	1767.0	24.0	58.1
31-Jan-07	Sunshine	2.8351	3.0417	1.22	1.22	5421.1	5445.1	289.5	770.2	0.2066	1.22	1756.3	24.0	117.6
													Min	48.4
													Max	117.6
													Average	85.0

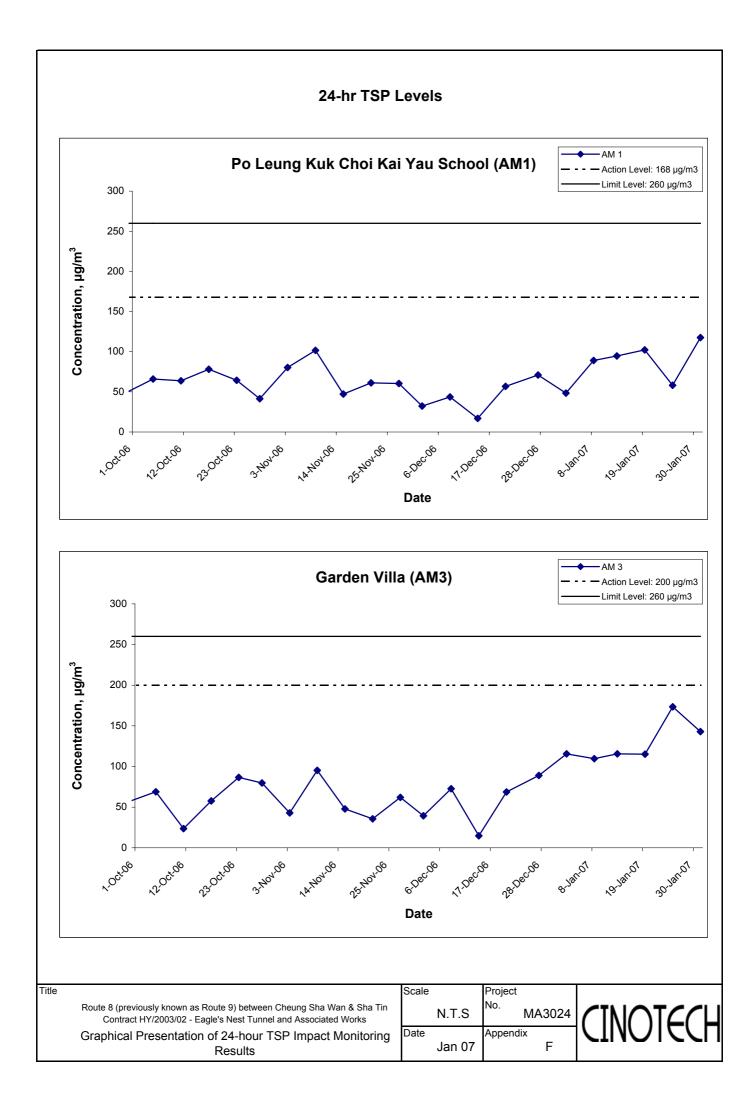
#### Location AM 3 - Garden Villa

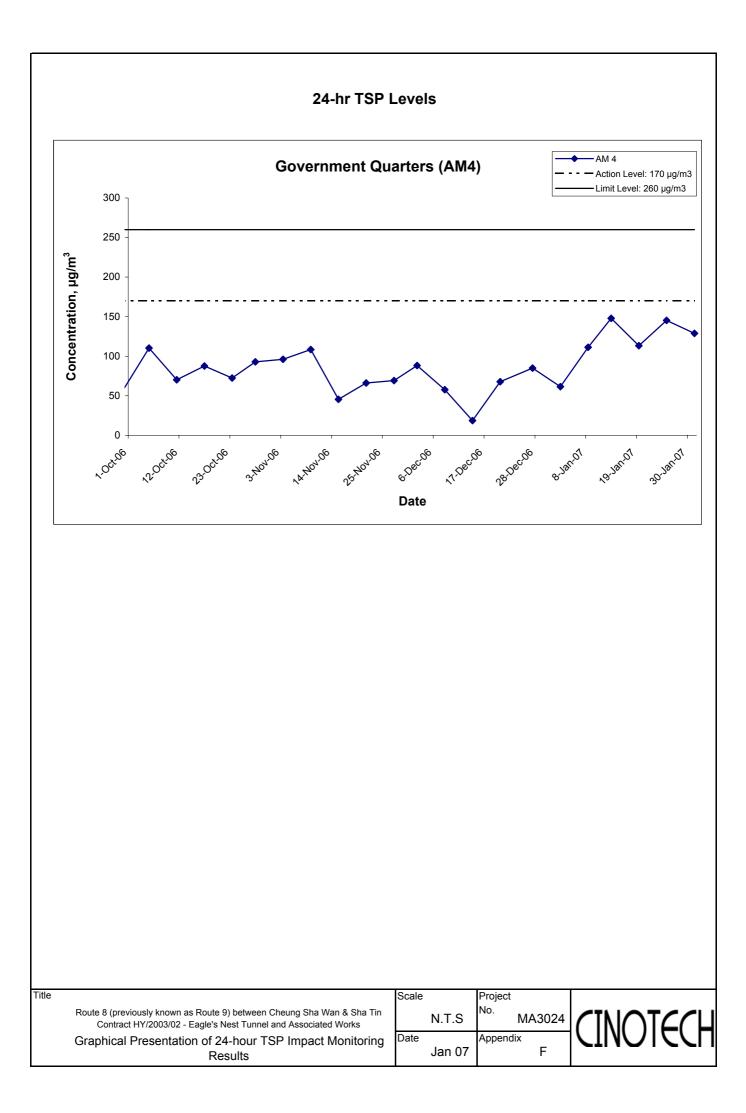
Date	Weather	Filter Weight (g)		Flow Rate (m <sup>3</sup> /min.)		Elapse Time		Air	Atmospheric	Particulate	Av. flow	Total vol.	Sampling	Conc.
	Condition	Initial	Final	Initial	Final	Initial	Final	Temp. (K)	Pressure(Pa)	weight(g)	(m <sup>3</sup> /min)	(m <sup>3</sup> )	Time(hrs.)	(µg/m <sup>3</sup> )
2-Jan-07	Cloudy	2.8626	3.0649	1.22	1.22	5130.1	5154.1	293.2	764.3	0.2023	1.22	1751.8	24.0	115.5
8-Jan-07	Sunshine	2.8553	3.0507	1.24	1.24	5156.1	5180.1	283.9	773.1	0.1954	1.24	1780.9	24.0	109.7
13-Jan-07	Sunshine	2.8296	3.0337	1.23	1.23	5183.1	5207.1	288.5	769.5	0.2041	1.23	1767.0	24.0	115.5
19-Jan-07	Cloudy	2.8771	3.0107	1.23	1.23	5210.1	5234.1	288.2	768.7	0.2036	1.23	1767.0	24.0	115.2
25-Jan-07	Sunshine	2.8763	3.1841	1.23	1.23	5236.1	5260.1	286.1	771.2	0.3078	1.23	1774.1	24.0	173.5
31-Jan-07	Sunshine	2.8599	3.1121	1.23	1.23	5263.1	5287.1	289.5	770.2	0.2522	1.23	1765.3	24.0	142.9
													Min	109.7
													Max	173.5
													Average	128.7

#### Location AM 4 - Government Quarters

Date	Weather	Filter Weight (g)		Flow Rate (m <sup>3</sup> /min.)		Elapse Time		Air	Atmospheric	Particulate	Av. flow	Total vol.	Sampling	Conc.
	Condition	Initial	Final	Initial	Final	Initial	Final	Temp. (K)	Pressure(Pa)	weight(g)	(m <sup>3</sup> /min)	(m <sup>3</sup> )	Time(hrs.)	(µg/m <sup>3</sup> )
2-Jan-07	Cloudy	2.8677	2.9771	1.24	1.24	5242.5	5266.5	292.9	764.1	0.1094	1.24	1779.8	24.0	61.5
8-Jan-07	Sunshine	2.8686	3.0707	1.26	1.26	5268.5	5292.5	284.1	773.0	0.2021	1.26	1817.5	24.0	111.2
13-Jan-07	Sunshine	2.8551	3.1211	1.25	1.25	5295.5	5319.5	288.5	769.5	0.2660	1.25	1799.6	24.0	147.8
19-Jan-07	Cloudy	2.8576	3.0576	1.23	1.23	5322.5	5346.5	288.4	768.5	0.2000	1.23	1764.6	24.0	113.3
25-Jan-07	Sunshine	2.8812	3.1386	1.23	1.23	5348.5	5372.5	286.1	771.2	0.2574	1.23	1773.3	24.0	145.2
31-Jan-07	Sunshine	2.8410	3.0682	1.22	1.22	5375.5	5399.5	289.5	770.2	0.2272	1.22	1763.4	24.0	128.8
													Min	61.5
													Max	147.8

Average 118.0





APPENDIX G NOISE MONITORING RESULTS AND GRAPHICAL PRESENTATION

## Appendix G - Noise Monitoring Results

					-	
Location NM	1 - Po Le	ung Kuk Ch	ioi Kai Y	au Scho	ol	
				(A) (30-	1	
Date	Time	Weather	weasu	red Nois	e Levei	Remarks
			L <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>	
2-Jan-07	10:47	Sunny	56.3	59.0	53.0	
9-Jan-07	09:12	Sunny	61.1	64.0	57.5	
15-Jan-07	09:10	Sunny	66.4	69.5	63.0	-
22-Jan-07	16:04	Cloudy	62.2	64.5	58.0	
29-Jan-07	10:50	Sunny	66.3	69.0	62.0	

Date	Time	Weather	Measu	red Nois	e Level	Baseline Level	Construction Noise Level	Remarks
			L <sub>eq</sub>	L <sub>10</sub>	L 90	L <sub>eq</sub>	L <sub>eq</sub>	
2-Jan-07	09:17	Sunny	74.7	78.5	69.5		74.7, Measured $\leq$ Baseline	
9-Jan-07	11:22	Sunny	74.2	77.5	68.5		74.2, Measured $\leq$ Baseline	The major noise source
15-Jan-07	10:00	Sunny	75.7	78.5	70.5	77.1	77.1, Measured $\leq$ Baseline	was identified as traffic
22-Jan-07	16:50	Fine	73.9	76.5	68.0		73.9, Measured $\leq$ Baseline	noise from Tai Po Road.
29-Jan-07	0;00	Sunny	74.2	78.5	71.0		74.2, Measured $\leq$ Baseline	

Location NM	6 - Gove	rnment Qua	rters			
Date	Time	Weather		(A) (30- red Nois	1	Remarks
			L <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>	
2-Jan-07	09:59	Sunny	53.8	55.5	48.0	
9-Jan-07	10:09	Sunny	57.1	59.0	55.5	
15-Jan-07	11:00	Sunny	63.1	68.0	59.5	-
22-Jan-07	17:38	Sunny	56.0	58.0	53.0	
29-Jan-07	11:30	Sunny	66.1	69.0	62.5	

Location NM	7 - Gard	en Vilia						
						Unit: dB (A) (30-	-min)	
Date	Time	Weather	Measu	red Nois	e Level	<b>Baseline Level</b>	Construction Noise Level	Remarks
			L <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>	L <sub>eq</sub>	L <sub>eq</sub>	
2-Jan-07	09:00	Cloudy	67.8	69.0	65.5		67.2	
9-Jan-07	09:05	Sunny	68.8	71.0	64.0		68.3	
15-Jan-07	13:10	Sunny	68.7	71.0	62.5	59.0	68.2	-
22-Jan-07	09:00	Cloudy	67.8	70.5	63.0		67.2	
29-Jan-07	09:00	Sunny	68.7	70.5	65.0		68.2	

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

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

Location NM	5 - Villa	Carlton							
Dete	Time	Weather		dB	5 (A) (5-m	nin)	Baseline Level	Construction Noise Level	
Date	Time	Weather	L <sub>eq</sub>	L <sub>10</sub>	L 90	Average L <sub>eq</sub>	L <sub>eq</sub>	L <sub>eq</sub>	Remarks
	20:20		70.8	74.5	68.5				
2-Jan-07	20:25	Cloudy	70.9	75.0	68.5	70.8		70.8, Measured $\leq$ Baseline	
	20:30		70.8	74.5	69.0				
	20:15		71.0	74.5	68.0				
9-Jan-07	20:20	Cloudy	70.7	74.0	68.5	70.9		70.9, Measured $\leq$ Baseline	
	20:25		70.9	74.0	68.5				
	20:10		70.7	74.0	67.5				The major noise source
15-Jan-07	23:15	Cloudy	70.9	74.5	68.0	70.8	75.8	70.8, Measured $\leq$ Baseline	was identified as traffic
	20:20		70.9	74.5	68.0				noise from Tai Po Road.
	20:05		70.1	73.5	67.5				
22-Jan-07	20:10	Cloudy	70.3	73.0	68.0	70.2		70.2, Measured $\leq$ Baseline	
	20:15		70.1	73.0	68.0				
	20:05		70.1	73.5	67.0				
29-Jan-07	20:10	Cloudy	70.3	73.5	67.5	70.1		70.1, Measured $\leq$ Baseline	
	20:15		70.0	73.0	67.5				

Location NM	6 - Gove	rnment Quai	rters						
Date	Time	Weather		dB (A) (5-m		nin)	Baseline Level	Construction Noise Level	
Date	Time	weather	L <sub>eq</sub>	L <sub>10</sub>	L 90	Average L <sub>eq</sub>	L <sub>eq</sub>	L <sub>eq</sub>	Remarks
	19:35		54.8	58.0	50.5				
2-Jan-07	19:40	Cloudy	55.0	57.5	50.5	54.8		54.8, Measured $\leq$ Baseline	
	19:45		54.7	57.8	51.0				
	19:35		55.0	57.5	50.5				
9-Jan-07	19:40	Cloudy	54.9	57.5	50.5	55.0		55.0, Measured $\leq$ Baseline	
	19:45		55.1	57.0	51.0				
	19:35		55.0	57.5	51.0				
15-Jan-07	19:40	Cloudy	54.8	57.0	50.5	54.8	56.1	54.8, Measured $\leq$ Baseline	-
	19:45		54.7	57.0	50.5				
	19:30		51.0	53.0	49.5				
22-Jan-07	19:35	Cloudy	51.2	53.5	49.0	51.0		51.0, Measured $\leq$ Baseline	
	19:40		50.9	53.0	49.5				
	19:35		51.3	53.0	49.0				
29-Jan-07	19:40	Cloudy	51.0	52.5	48.5	51.2		51.2, Measured $\leq$ Baseline	
	19:45		51.3	53.0	49.0				

Location NM	7 - Gard	en Villa							
Dete	Time	Weathar		dB (A) (5-mi		nin)	Baseline Level	Construction Noise Level	
Date	Time	Weather	L <sub>eq</sub>	L <sub>10</sub>	L 90	Average L <sub>eq</sub>	L <sub>eq</sub>	L <sub>eq</sub>	Remarks
	19:00		58.3	60.0	54.0				
2-Jan-07	19:05	Cloudy	58.2	60.0	54.0	58.3		58.3, Measured $\leq$ Baseline	
	19:10		58.3	59.5	53.5				
	19:05		58.3	61.0	54.0				
9-Jan-07	19:10	Cloudy	58.3	62.0	53.0	58.2		58.2, Measured $\leq$ Baseline	
	19:15		57.9	61.0	53.5				
	19:10		58.7	62.0	54.5				The major noise source
15-Jan-07	19:15	Cloudy	58.4	61.5	54.5	58.5	58.3	45.0	was identified as traffic
	19:20		58.3	61.5	54.0				noise from Tai Po Road.
	19:00		57.3	61.0	53.5				
22-Jan-07	19:05	Cloudy	57.0	61.0	53.0	57.1		57.1, Measured $\leq$ Baseline	
	19:10		57.0	61.0	53.0				
	19:00		58.3	59.5	56.5				
29-Jan-07	19:05	Cloudy	58.4	59.5	57.0	58.3		58.3, Measured $\leq$ Baseline	
	19:10		58.2	59.5	57.0				

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

\*Bolded value indicated limit level exceedance

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

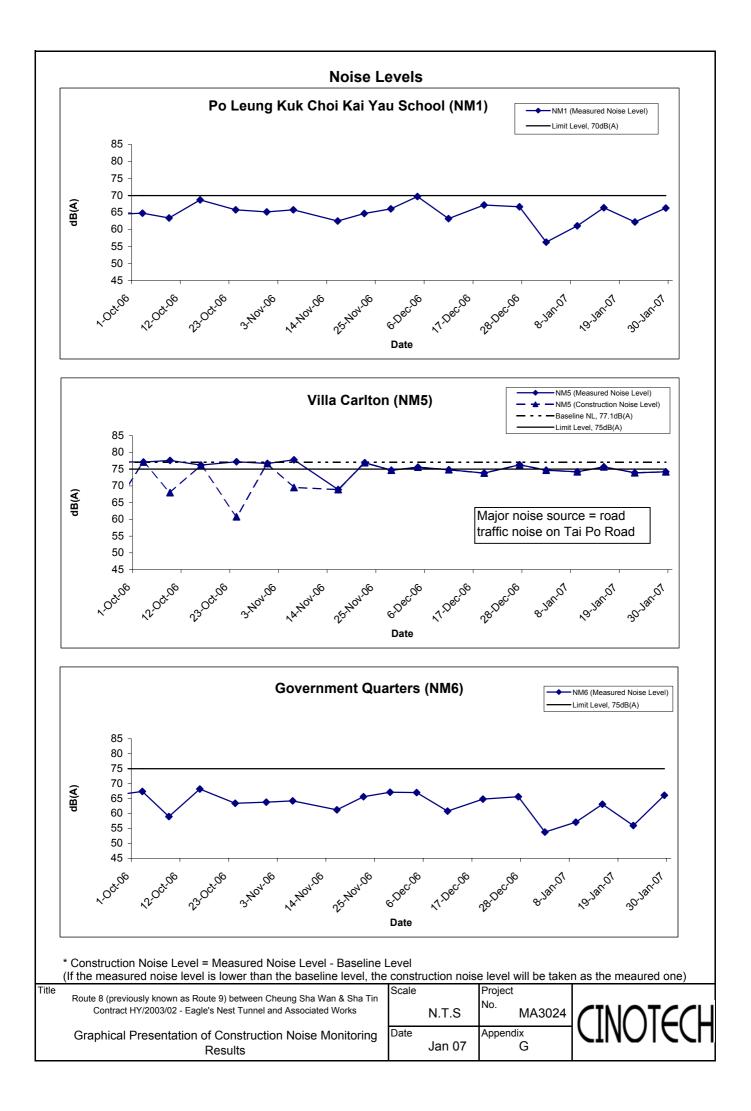
Location NM	5 - Villa	Carlton							
Dete	Time	Weathar		dB (A) (5-m		iin)	Baseline Level	Construction Noise Level	
Date	Time	Weather	L <sub>eq</sub>	L <sub>10</sub>	L 90	Average L <sub>eq</sub>	L <sub>eq</sub>	L <sub>eq</sub>	Remarks
	23:00		70.0	73.5	68.0				
2-Jan-07	23:05	Cloudy	70.1	73.5	68.5	69.7		69.7, Measured $\leq$ Baseline	
	23:10		68.9	73.0	68.0				
	23:00		70.2	73.5	67.5				
9-Jan-07	23:05	Cloudy	70.0	74.0	68.0	70.1		70.1, Measured $\leq$ Baseline	
	23:10		70.0	73.5	68.0				
	23:00		70.3	73.5	67.5				The major noise source
15-Jan-07	23:05	Cloudy	70.1	73.0	68.0	70.3	74.3	70.3, Measured $\leq$ Baseline	was identified as traffic
	23:10		704	73.5	68.0				noise from Tai Po Road.
	23:00		70.1	73.5	68.0				
22-Jan-07	23:05	Cloudy	70.2	73.5	68.5	70.2		70.2, Measured $\leq$ Baseline	
	23:10		70.2	74.0	68.5				
	23:00		70.1	73.5	68.0				
29-Jan-07	23:05	Cloudy	69.8	73.5	68.0	70.0		70.0, Measured $\leq$ Baseline	
	23:10		70.0	73.0	67.5				

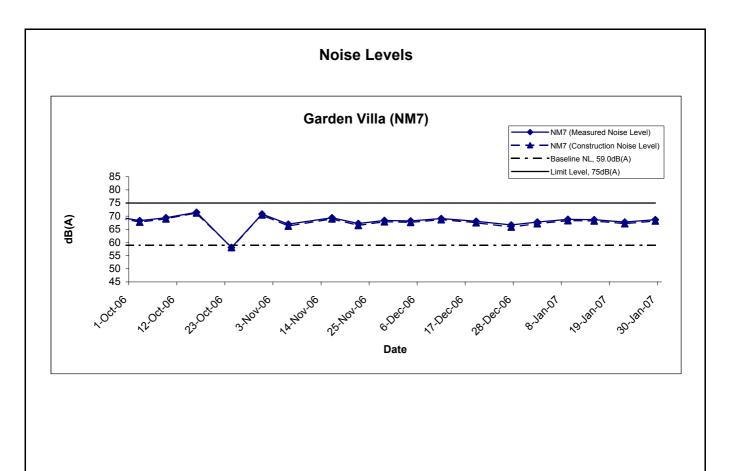
Location NM	6 - Gove	rnment Quai	rters						
Data	Time			dB	5 (A) (5-m	nin)	Baseline Level	Construction Noise Level	
Date	Time	Weather	L <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>	Average L <sub>eq</sub>	L <sub>eq</sub>	L <sub>eq</sub>	Remarks
	23:25		51.6	53.0	48.0				
2-Jan-07	23:30	Cloudy	51.7	53.5	48.0	51.6		51.6, Measured $\leq$ Baseline	
	23:35		51.4	52.5	48.5				
	23:25		51.5	53.0	49.0				The noise monitoring
9-Jan-07	23:30	Cloudy	51.7	53.5	49.5	51.6		51.6, Measured $\leq$ Baseline	results are well within the
	23:35		51.7	53.5	49.0				range of Baseline
	23:25		50.9	53.0	49.0				Monitoring Level and
15-Jan-07	23:30	Cloudy	51.0	53.5	49.5	51.0	52.8	51.0, Measured $\leq$ Baseline	there is no evidence
	23:35		51.2	53.0	49.5				showing that the
	23:25		51.0	53.0	49.0				dominant noise was
22-Jan-07	23:30	Cloudy	50.8	53.5	49.5	50.9		50.9, Measured $\leq$ Baseline	generated from the
	23:35		51.0	53.5	49.5				construction activities.
	23:25		51.3	53.0	49.0				1
29-Jan-07	23:30	Cloudy	51.4	53.5	49.5	51.4		51.4, Measured $\leq$ Baseline	
	23:35		51.4	53.5	49.5				

Location NM	7 - Gard	en Villa							
Data	Time	Weather		dB (A) (5-m		iin)	Baseline Level	Construction Noise Level	
Date	Time	Weather	L <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>	Average $L_{eq}$	L <sub>eq</sub>	L <sub>eq</sub>	Remarks
	23:50		54.2	58.0	50.5				
2-Jan-07	23:55	Cloudy	54.0	58.0	51.0	54.0		56.5, Measured $\leq$ Baseline	
	00:00		53.9	58.0	50.5				
	23:50		54.2	58.5	50.5				
9-Jan-07	23:55	Cloudy	54.0	58.0	51.0	54.1		54.1, Measured $\leq$ Baseline	
	00:00		54.1	58.5	51.0				
	23:50		54.3	58.0	50.5				The major noise source
15-Jan-07	23:55	Cloudy	54.0	58.0	51.0	54.1	56.5	54.1, Measured $\leq$ Baseline	was identified as traffic
	00:00		54.1	58.0	51.0				noise from Tai Po Road.
	23:50		55.9	61.0	53.5				
22-Jan-07	23:55	Cloudy	55.3	62.0	54.0	55.5		55.5, Measured $\leq$ Baseline	
	00:00		55.2	61.5	53.5				
	23:50		54.1	57.0	50.0				
29-Jan-07	23:55	Cloudy	54.3	57.5	50.5	54.2		54.2, Measured $\leq$ Baseline	
	00:00		54.3	57.5	50.5				

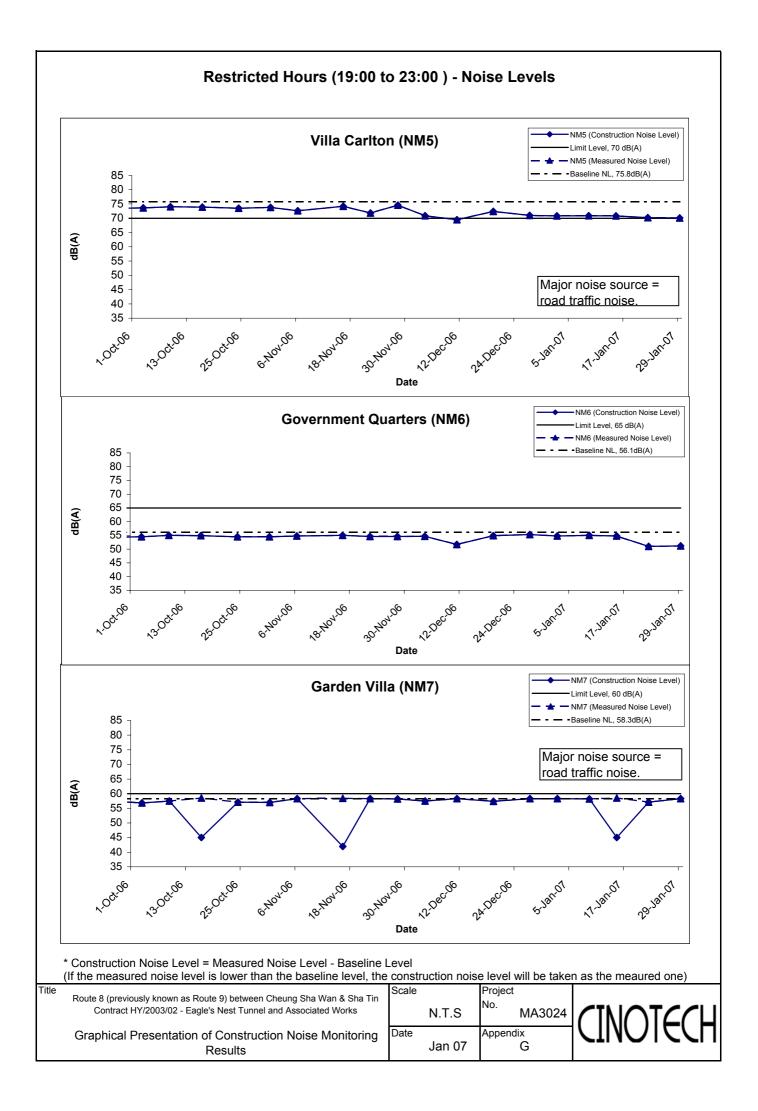
# Construction Noise Level (Leq) = Measured Noise Level (Leq) - Baseline Noise Level (Leq)

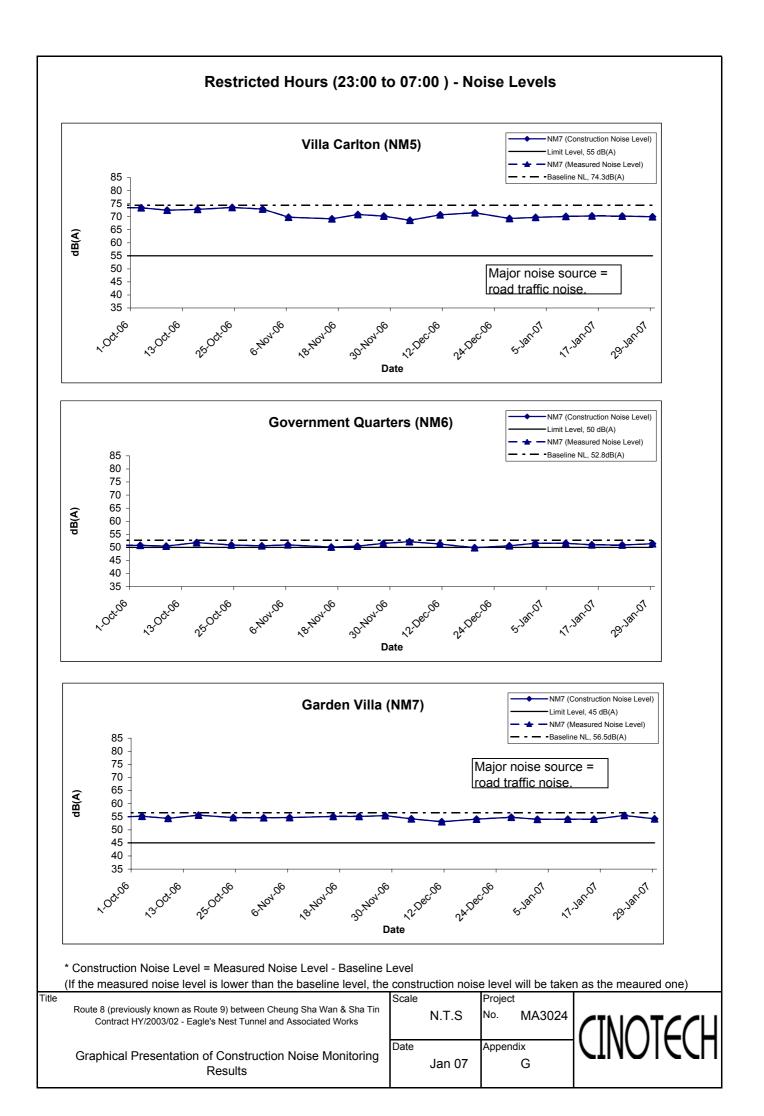
\*Bolded value indicated limit level exceedance





	* Construction Noise Level = Measured Noise Level - Baseline I (If the measured noise level is lower than the baseline level, the		uction noise	e level	will be take	n 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	
	Graphical Presentation of Construction Noise Monitoring Results	Date	Jan 07	Append	dix G	





APPENDIX H SUMMARY OF EXCEEDANCE

# Summary of Exceedances Recorded in the Reporting Month

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

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

APPENDIX I SITE AUDIT SUMMARY

Checklist Reference Number	70104-ENT	
Date	4 January 2007 (Thu)	
Time	14:00 - 17:00	

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

Ref. No.	Remarks/Observations	Related Item No.
70104E-02R	<ul> <li>A. Water Quality</li> <li>Standing water was observed on the ground floor of ENT North Portal Building. It should be cleaned up to avoid mosquito breeding.</li> </ul>	B14
	<ul><li>B. Air Quality</li><li>No environmental deficiency was identified during the site inspection.</li></ul>	
	<ul><li><i>C. Noise</i></li><li>No environmental deficiency was identified during the site inspection.</li></ul>	
	<ul><li>D. Waste / Chemical Management</li><li>No environmental deficiency was identified during the site inspection.</li></ul>	
70104E-01O	<ul> <li><i>E. Permit / Licenses</i></li> <li>Some general refuse was accumulated inside the U-channel at portion D4. The contractor was reminded to clean it up.</li> </ul>	E1i & iii
70104E-03R	• Some general refuse was scattered on bare ground at culvert A. It should be cleaned up and disposal of on suitable area.	Eliii
	<ul> <li>F. Others</li> <li>Follow-up on previous audit (Ref. No.: 61227-ENT), no environmental deficiency was identified during the site inspection.</li> </ul>	
	• Spot checking for dump truck (loaded) was carried out during site inspection for duration of 15 minutes. There was no dump truck with loads without proper cover leaving the construction site was observed.	

1977 <del>4</del> - 722	Name	Signature	Date
Recorded by	Tommy Ho	an	5 January 2007
Checked by	Dr. Priscilla Choy	SIL	5 January 2007

Checklist Reference Number	70110-ENT	
Date	10 January 2007 (Wed)	
Time	9:15 – 11:30 a.m.	

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	
	• Follow-up on previous audit (Ref. No.: 70104-ENT), all environmental	
	deficiencies were rectified by the Contractor.	
	• Spot checking for dump truck (loaded) was carried out during site	
	inspection for duration of 15 minutes. There was no dump truck with	
L	loads without proper cover leaving the construction site was observed.	

	Name	Signature	Date
Recorded by	Mr. Ray Yan	Kan.	10 January 2007
Checked by	Dr. Priscilla Choy	WI	10 January 2007

1.2

### Weekly Site Inspection Record Summary

#### **Inspection Information**

Checklist Reference Number	70117-ENT	
Date	17 January 2007 (Wed)	
Time	9:30 – 12:00 noon	

 $K(\theta, \theta_1) = - \theta$ 

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

Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality	
70117E-01R	• Step Channel at Mui Kong Tsuen needed desiltation for the silt deposited	
	at the base of Channel. The Contractor was reminded to remove silt after rainstorm.	B9
	B. Air Quality	
	• No environmental deficiency was identified during the site inspection.	
	C. Noise	
	• No environmental deficiency was identified during the site inspection.	
	D. Waste / Chemical Management	
	• No environmental deficiency was identified during the site inspection.	
	E. Permit / Licenses	
	• No environmental deficiency was identified during the site inspection.	
	F. Others	
	• Follow-up on previous audit (Ref. No.: 70110-ENT), no environmental	
	<ul><li>deficiency was identified during the site inspection.</li><li>Spot checking for dump truck (loaded) was carried out during site</li></ul>	
	inspection for duration of 15 minutes. There was no dump truck with	
	loads without proper cover leaving the construction site was observed.	

	Name	Signature	Date
Recorded by	Ray Yan	Ran.	18 January 2007
Checked by	Dr. Priscilla Choy	NT	18 January 2007

Checklist Reference Number	70124-ENT
Date	24 January 2007 (Wed)
Time	9:30 – 11:30 a.m.

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

Ref. No.	Remarks/Observations	<b>Related Item No.</b>
	A. Water Quality	
	• No environmental deficiency was identified during the site inspection.	
	B. Air Quality	
	• No environmental deficiency was identified during the site inspection.	
	C. Noise	
	• No environmental deficiency was identified during the site inspection.	
	D. Waste / Chemical Management	
	• No environmental deficiency was identified during the site inspection.	
	E. Permit / Licenses	
	• No environmental deficiency was identified during the site inspection.	
	F. Others	
	• Follow-up on previous audit (Ref. No.: 70117-ENT), all environmental	
	deficiencies were rectified by the Contractor.	
	• Spot checking for dump truck (loaded) was carried out during site	5
	inspection. No dump truck leaving the construction site was observed.	

	Name	Signature	Date
Recorded by	Ray Yan	Fan.	24 January 2007
Checked by	Dr. Priscilla Choy	WI	24 January 2007

Checklist Reference Number	70131-ENT
Date	31 January 2007 (Wed)
Time	14:00 - 16:00

Ref. No.	Non-Compliance	<b>Related Item No.</b>
-	None identified	-

Ref. No.	Remarks/Observations	<b>Related Item No.</b>
	A. Water Quality	
	• No environmental deficiency was identified during the site inspection.	
	B. Air Quality	
	• No environmental deficiency was identified during the site inspection.	
	C. Noise	
	• No environmental deficiency was identified during the site inspection.	
	D. Waste / Chemical Management	
	• No environmental deficiency was identified during the site inspection.	
	E. Permit / Licenses	
	• No environmental deficiency was identified during the site inspection.	
	F. Others	
	• Follow-up on previous audit (Ref. No.: 70124-ENT), no environmental	
	deficiency was observed during site inspection.	
	• Spot checking for dump truck (loaded) was carried out during site	
	inspection. No dump truck leaving the construction site was observed.	

	Name	Signature	Date
Recorded by	Edmond Wu	M	31 January 2007
Checked by	Dr. Priscilla Choy	W7	31 January 2007

Checklist Reference Number	70104-ENT-TCSS
Date	4 January 2007 (Thu)
Time	14:00 - 17:00

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

<ul> <li>A. Water Quality</li> <li>No environmental deficiency was identified during the site inspection.</li> <li>B. Air Quality</li> <li>No environmental deficiency was identified during the site inspection.</li> </ul>	
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	
<ul> <li>No environmental deficiency was identified during the site inspection.</li> </ul>	
F. Others	
• Follow-up for previous audit session (Ref. No.: 61227-ENT-TCSS), no environmental deficiency was identified during the site inspection.	
	<ul> <li>No environmental deficiency was identified during the site inspection.</li> <li><i>D. Waste / Chemical Management</i></li> <li>No environmental deficiency was identified during the site inspection.</li> <li><i>E. Permit / Licenses</i></li> <li>No environmental deficiency was identified during the site inspection.</li> <li><i>F. Others</i></li> <li>Follow-up for previous audit session (Ref. No.: 61227-ENT-TCSS), no</li> </ul>

	Name	Signature	Date
Recorded by	Tommy Ho	Ton	5 January 2007
Checked by	Dr. Priscilla Choy	hit	5 January 2007

Checklist Reference Number	70110-ENT-TCSS	
Date	10 January 2007 (Wed)	
Time	10:30 – 10:50 a.m.	

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

Ref. No.	Remarks/Observations	<b>Related Item No.</b>
	A. Water Quality	
	No environmental deficiency was identified during the site inspection.	
	B. Air Quality	
	• No environmental deficiency was identified during the site inspection.	
	C. Noise	
	• No environmental deficiency was identified during the site inspection.	
	D. Waste / Chemical Management	
	• No environmental deficiency was identified during the site inspection.	
	E. Permit / Licenses	
	• No environmental deficiency was identified during the site inspection.	
	F. Others	
	• Follow-up for previous audit session (Ref. No.: 70110-ENT-TCSS), no environmental deficiency was identified during the site inspection.	

	Name	Signature	Date
Recorded by	Mr. Ray Yan	Lan.	10 January 2007
Checked by	Dr. Priscilla Choy	WIL	10 January 2007

Checklist Reference Number	70117-ENT-TCSS	
Date	17 January 2007 (Wed)	
Time	10:35 – 11:10 a.m.	

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	
	• Follow-up for previous audit session (Ref. No.: 70110-ENT-TCSS), no environmental deficiency was identified during the site inspection.	

	Name	Signature	Date
Recorded by	Ray Yan	Han.	18 January 2007
Checked by	Dr. Priscilla Choy	NT	18 January 2007

Checklist Reference Number	70124-ENT-TCSS	
Date	24 January 2007 (Wed)	
Time	10:30 – 11:15 a.m.	

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	
	<ul> <li>No environmental deficiency was identified during the site inspection.</li> </ul>	
	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	
	<ul> <li>Follow-up for previous audit session (Ref. No.: 70117-ENT-TCSS), no environmental deficiency was identified during the site inspection.</li> </ul>	

	Name	Signature	Date
Recorded by	Ray Yan	Ran.	24 January 2007
Checked by	Dr. Priscilla Choy	WI	24 January 2007

Checklist Reference Number	70131-ENT-TCSS	
Date	31 January 2007 (Wed)	
Time	14:00-14:45	

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

Ref. No.	Remarks/Observations	<b>Related Item No.</b>
	A. Water Quality	
	• No environmental deficiency was identified during the site inspection.	
	B. Air Quality	
	• No environmental deficiency was identified during the site inspection.	
	C. Noise	
	• No environmental deficiency was identified during the site inspection.	
	D. Waste / Chemical Management	
	No environmental deficiency was identified during the site inspection.	
	E. Permit / Licenses	
	• No environmental deficiency was identified during the site inspection.	
	F. Others	
	• Follow-up for previous audit session (Ref. No.: 70124-ENT-TCSS), no environmental deficiency was identified during the site inspection.	

	Name	Signature	Date
Recorded by	Edmond Wu	111	31 January 2007
Checked by	Dr. Priscilla Choy	with	31 January 2007

APPENDIX J EVENT ACTION PLANS

# **Appendix J - Event Action Plans**

# Event/Action Plan for Air Quality

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

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

## Event/Action Plan for Construction Noise

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

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

APPENDIX K ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

Types of Impacts	Mitigation Measures
Construction Dust	<ul> <li>Any stockpile of dusty materials or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water so as to maintain the entire surface wet.</li> <li>A stockpile of dusty materials should not extend beyond the pedestrian barriers, fencing or traffic cones.</li> <li>Vehicle washing facilities should be provided at every exit point.</li> <li>The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores.</li> <li>Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length of that portion of the site boundary except for a site entrance or exit.</li> <li>Every main haul road should be sprayed with water or a dust suppression chemical so as to maintain the entire road surface wet.</li> <li>The portion of any road leading only to a construction site that is within 30m of a discernible or designated vehicle entrance or exit should be kept clear of dusty materials.</li> <li>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.</li> <li>All dusty materials should be sprayed with water or a dust suppression chemical immediately prior to any loading, unloading or transfer operation so as to maintain the dusty materials wet.</li> <li>Every vehicle should be sprayed with water or a dust suppression chemical immediately before leaving a construction site.</li> <li>The working area of any excavation should be sprayed with water or a dust suppression chemical immediately before leaving a construction site.</li> <li>The working area of any excavation should be sprayed with water or a dust suppression chemical immediately before leaving a constru</li></ul>
Construction Noise	<ul> <li>Only well-maintained plant should be operated on –site and plant should be serviced regularly during the construction works.</li> <li>Machines and plant that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.</li> <li>Plant know to emit noise strongly in one direction, should where possible, be orientated to direct noise away from the NSRS.</li> <li>Mobile plant should be sited as far away from NSRs as possible.</li> <li>Material stockpiles and other structures should be effectively utilised, where practicable, to screen noise from on-site</li> </ul>
	<ul> <li>Waternal stockplies and other structures should be effectively utilised, where practicable, to screen holse from on-site construction activities.</li> <li>Use quite plant and Working Method</li> </ul>

Status

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## Appendix K - Summary of Environmental Mitigation Implementation Schedule

• 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	۸
	• Sand silt in the wash water from the wheel washing facilities, which ensure no earth, mud and debris is deposited on roads, should be settled out the removed before discharging into storm drains. A section of the road between the wheel washing bay and the public road should be paved with backfill to prevent wash water or other site runoff form entering public road drains.	۸
	• 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.	٨
	<ul> <li>All generators, fuel and oil storage shall be within bunded areas. Drainage from the areas shall be connected to storm drains via a petrol interceptor.</li> </ul>	^
	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.	٨
	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.	^
	<ul> <li>Authorised or licensed waste hauliers shall be used and they shall only collect wastes prescribed by their permits.</li> </ul>	^
	• 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.	^
	<ul> <li>Obtain necessary waste disposal permits from the appropriate authorities if they are required.</li> </ul>	^
	• 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.	^
	<ul> <li>Maintain records of the quantities of wastes generated, recycled and disposed.</li> </ul>	~

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.	^
	<ul> <li>The handling and disposal of bentonite slurries shall be undertaken in accordance with Practice Note for Professional Persons – Construction Site Drainage (ProPECC PN 1/94) on construction site drainage.</li> </ul>	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.	^
	<ul> <li>Containers used for the storage of chemical wastes should:</li> <li>a. Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed;</li> <li>b. Have a capacity of less than 450 litres unless the specifications have been approved by the EPD;</li> </ul>	~
	<ul> <li>c. Display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Chemical Waste Regulations.</li> <li>The storage area for chemical wastes should: <ul> <li>a. Be clearly labelled and used solely for the storage of chemical waste;</li> <li>b. Be enclosed on at least 3 sides;</li> </ul> </li> </ul>	
	<ul> <li>c. Have an impermeable floor and bunding of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in the area, whichever is largest;</li> <li>d. Have adequate ventilation;</li> </ul>	^
	<ul><li>e. Be covered to prevent rainfall entering (water collected within the bund must be tested and disposed as chemical waste if necessary);</li><li>f. Be arranged so that incompatible materials are adequately separated.</li></ul>	
	<ul> <li>Disposal of chemical waste shall be via a licensed waste collector; and to a facility licensed to receive chemical waste; or a reuser of the waste (under approval from EPD).</li> </ul>	^

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.	^
	• 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.	^
Ecology	• 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	<ul> <li>Landscape mitigation measure 1 (LMM1) – Construction programming and management. The periphery of the works areas at street level shall be managed so that they do not appear cluttered, untidy and unattractive and inconvenient to pedestrians. For example, all hoarding shall be colorfully designed with interesting motifs demonstrating the work of Highways Department. Hoardings with bland colours shall be avoided.</li> </ul>	^
	<ul> <li>Landscape mitigation measure 2 (LMM2) – Advanced planting and erosion control works. Where possible, the transplantation of existing valuable trees, the stockpiling of topsoil, new planting and erosion control works shall be carried out as early as possible in the construction period instead of at the end. This will assist in maximizing the time for carrying out transplantation and new planting, resulting in a higher success rate for the survival of transplantation and new planting, resulting in a higher success rate for the survival of transplantation and new planting, resulting of topsoil will provide an abundant use of on-site material for growing media. During detailed design, the issue of stockpiling of topsoil in a manner that would avoid washing into the drainage scheme should be examined comprehensively.</li> </ul>	٨
	<ul> <li>Measurement of vibration would also be carried out on a need basis during the piling work</li> </ul>	^

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

APPENDIX L CONSTRUCTION PROGRAMME

Data Date Run Date	20JAN07 29JAN07 15:38			3 MON	ITH R	OLLING	PRC	GRA	MME		Monthly U Detailed W Progress E Critical Act	/orks Pro Bar	ogr.(DV	/P) r₁			
Act.	Activity	Orig	Early	Early	%	Target 1		Total		NOV 38	DEC 39	4	AN IO	FEB 41	MAR 42	APR 43	MAY 44
	Description	Dur	Start	Finish	Compl.	% Comp	Dur	Float	Early Finish	13 20 27	4 <sub>1</sub> 11 18 2	5 <mark>1 8</mark> 1	15 22 2	9 <sub>.</sub> 5 <sub>.</sub> 12 <sub>.</sub> 19	26 5 12 19 26	2 9 16 23	30 7 14
	AL als & Approvals																
	Submittal & Approval																
8034	Prep.& Sub. Independ't Serv. Dwgs for SHT&T3&LCK	48	04AUG04A	02FEB07	98	98	12	215	-215								
8024	Engineer Comment / Approve ENT ISD Submissions	18	06AUG04A	29JAN07	85	85	8	-111	-215								
8030	Res-sub. & Approv of ENT ISD	24	06SEP04A	02FEB07	70	70	12	-111	-215								
					0.5	05			045	-							
8035	Engineer Comment / Approve SHT&T3LCK ISD Sub.	24	13SEP04A	06MAR07	85	85	36	215	-215								
8032	Engineer Comment / Approve SHT&T3&LCK CSD Sub.	18	250CT04A	06FEB07	90	90	15	215	-215				1				
8036	Re-sub. & Approv of SHT & T3 & LCK ISD	36	31MAR05A	06MAR07	70	70	36	215	-215								
8033	Re-sub. & Approv. of SHT & T3 & LCK CSD	24	28JUN05A	16FEB07	60	60	24	215	-215				-				
8022	Engineer Comment / Approve ENT CSD Submissions	12	20JAN07	02FEB07	0	0	12	215	-215	-							
8029	Re-sub. & Approv. of ENT CSD	24	03FEB07	06MAR07	0	0	24	215	-215	_							
LAI CH	KOK VIADUCT																
	ACT DEFINED DATES, STAGES & SECTION	S															
	N ACCESS & VACATION			0414107*	0		0	00	000	-							
ACS_M2	Access to Portions - M2	0		24JAN07*	0	0	0	-86	-266								
ACS_M3	Access to Portions - M3	0		24JAN07*	0	0	0	-282	-266				•				
CS_M11	Frecast Delay in Access to Portion M1	60	28APR06A	03MAR07	0	0	34	-219	0				-				
CS_M12	Forecast Delay in Access to Portion M2	30	28APR06A	24JAN07	0	0	4	-71	0	_							

		LEIGHTON - KUMUGAI JV	Proj. Name: W27E	LKJV/ENT/DWP/B				
Leighton-Kumagai Joint Venture			Layout: 3 MONTHS ROLLING PROGRAMME Filter: 3 MONTH ROLLING PROGRAMME	Date	Revision	Checked	Approvec	
			Current Proi: W27E	20JAN0	Prog update Jan 07	GW	RB	
		R8 - EAGLES'S NEST TUNNEL	Target 1 Proj: BE02					
		CONTRACTORS TARGET PROGRAMME REV.1	Sheet 1 of 37					
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Act.	Activity	Orig Early	Early	%	Target 1	Rem	Total	Variance	NOV	DEC	JAN		FEB	MAR	APR	MAY
ID	Description	Dur Start	Finish	Compl.	% Comp	Dur	Float	Early Finish	38 13 20 2	39 7 4 11 18 25	40 1 8 15		41 9 5 12 19 26	42 5 12 19 26	43 2 9 16 23	44 30 7 14
PORTIO	N ACCESS & VACATION															
ACS_M13	Forecast Delay in Access to Portion M3	30 28APR06A	24JAN07	0	0	4	-232	0								
Constru	iction Works															
CMCS L	eased Lines at Pump Houses															
6817	E&M at Lai Po Rd Pump House	6 12FEB07	21FEB07	0	0	6	-70	-214								
6827	E&M at Wai Man Tsuen Pump House	6 12FEB07	21FEB07	0	0	6	-70	-208								
BUTTE	RFLY VALLEY															
Contrac	t Key Dates & Milestones															
Area Ac	cess & Vacation Dates															
ACS_A	Access to Portions - A	0 200CT03A		100	100	0		-261								
Constru	iction Works	-	1		L		1 1									
BUTTE	RFLY VALLEY 3RD PARTY WORKS															
	t Butterfly valley Approach			-												
S2462	TCSS Access to Gantry MLS-CAP13 (NB) (15MAY06)	0	22JAN07	0	0	0	-208	-202				<b>•</b>				
S2602	TCSS Access to Gantry MLS-CAP11 (NB) (15MAY06)	0	22JAN07	0	0	0	-208	-202				•				
S2622	TCSS Access to Gantry MLS-CAP12 (SB) (11JUN06)	0	22JAN07	0	0	0	-186	-202	-			•				
S2402	TCSS Access to Gantry MLS-CAP16 (S.E.) (11JUN06)	0	24JAN07	0	0	0	-188	-83				•				
S2632	TCSS Access to VMS MLS-CAP14,15 (11JUN06)	0	24JAN07	0	0	0	-188	-203				•				
Noise Ba	arrier Works by ACCIONA															
S2562	Access for 7m N.B. Works by Acciona at BV South	77 23JUN06A	16MAR07	30	0	45	206	-149								
S2612	Access for S-Enclosure Works (Primary Elements)	90 08JUL06A	19MAY07	0	0	95	-188	-178	-							
S2662	1Access for 5m N.B. Works by Acciona at BV South	90 27SEP06A	14APR07	0	0	66	185	-125								
BUTTE	RFLY VALLEY E&M WORKS		l 		l 											
Noise Er	nclosure 6 at South Portal Area															
8372	LckVd NE6 - Elect Works 1st Fix	30 20JAN07*	01JUN07	0	0	30	-179	-168								
8382	LckVd NE6 - Elect Works 2nd Fix	24 03FEB07	08JUN07	0	0	24	-179	-168								
8392	LckVd NE6 - Elect Cabling ENT SPB to N.E.	9 28FEB07	15JUN07	0	0	9	-179	-168								
8402	LckVd NE6 - Elect Works Fin Fix	12 28FEB07	15JUN07	0	0	12	-179	-168								

ID         Description         Dur         Start         Finith         Comple         % Comp         Dur         Finith         Start         Finith         Start         Finith         % Start	Act.	Activity	Orig	Early	Early	%	Target 1	Rem	Total	Variance	NOV	DEC	JAN		FEB	MAR	APR	MAY
United Wides Elect Works 18 Pix         42         27JANR7         0         0         42         87         -121           8400         Butterfly Valley - Elect Works 16 Pix         42         10FEB07         27MAR07         0         0         42         47         -121           8410         Butterfly Valley - Elect Works 2nd Fix         24         07MAR07         0         0         42         47         -121           8420         Butterfly Valley - Elect Works Fin Fix         24         07MAR07         0         0         47         -121           8420         Butterfly Valley - Elect Works Fin Fix         24         07MAR07         0         0         47         -121           8420         Butterfly Valley - Ready for Energization         0         0         0         9         227         -197           8420         Butterfly Valley - Ready for Energization         0         0         0         -181         -181         -181           8420         Clovert         8         10MAY06A         0         0         0         -129           82000         Clovert As connection to Bay 45         10MAY06A         0         0         0         -1219           82000		•			•						38	39	40	22 29 5	41 j 12 19 2	42 6 5 12 19 26	43 2 9 16 23	30 7 14
440       Dutler(h) Valley - Eliett Works 1st Fix       42       27JAN07       20MAR07       0       0       42       47       1/21         8430       Butter(h) Valley - Eliett Works 2nd Fix       36       10FEB07       27MAR07       0       0       24       47       1/21         8440       Butter(h) Valley - Cleating       24       07MAR07       0       0       24       47       1/21         8400       Butter(h) Valley - Cleating       24       07MAR07       0       0       24       47       1/21         8400       Butter(h) Valley - Cleating       24       07MAR07       0       0       0       47       1/21         8400       Butter(h) Valley - Ready for Energization       0       0       0       47       1/21         8400       Butter(h) Valley - Ready for Energization       0       0       0       9       227       -197         Box Calvert       Scalor       Scalor       0       0       0       -181       0       0       -181         Scalor       Scalor       Scalor       Scalor       Scalor       -181       -190       0       -129       -190       -129         Scalor       Scalor	Butterfly	Valley Miscellaneous E&M Works																
8410       Buttleffly valley - Ellect Works Fin Fix       24       07MAR07       0       0       24       47       -121         9420       Buttleffly Valley - Cabling       24       07MAR07       0       0       24       47       -121         9420       Buttleffly Valley - Ready for Energization       0       0       0       27       -121         MAJOR DRAINAGE DIVERSIONS       0       0       0       9       227       -197         Box Culvert       52800       Fillion top of Box Culvert 45 & culvet A       0       0       0       0       0       -181         PM-R1 Remaining Works       8       10MAY06A       03JAN07A       100       0       0       -181         S2800       Divider A Sinuclure & connection to Bay 45       18       19NOv06A       13JAN07A       100       0       0       -181         S2800       Divider A Sinuclure & connection to Bay 45       18       19NOv06A       03JAN07A       100       0       0       -129         S200E       Divider A Sinuclure & Signes SP-S3       2       2       19JUL06A       12FEB07       5       0       0       6       71       -206         S1007E       Disiti Bit VS2 Berm 10 hydro			42	27JAN07	20MAR07	0	0	42	-87	-121								
4420       Burterfly Valley - Cabling       24       07MAR07       03APR07       0       0       24       -87       -121         MADOR DRAINAGE DIVERSIONS	8430	Butterfly Valley - Elect Works 2nd Fix	36	10FEB07	27MAR07	0	0	36	-87	-121								
4400       Butterfly Valley - Randy for Energization       0       0       0       -87       -121       -121       -121       -121         MAUCH DRAINAGE DIVERSIONS	8410	Butterfly valley - Elect Works Fin Fix	24	07MAR07	03APR07	0	0	24	-87	-121								
MAUOR DRAINAGE DIVERSIONS       Image: Select of the select	8420	Butterfly Valley - Cabling	24	07MAR07	03APR07	0	0	24	-87	-121								
Image: See See See See See See See See See S	8400	Butterfly Valley - Ready for Energization	0		04APR07	0	0	0	-87	-121							•	
VINT NOT NOT NOT NOT NOT NOT NOT NOT NOT N	MAJOR	DRAINAGE DIVERSIONS																
S2680       Fill on top of Box Culvert A       9       20JAN07       16FEB07       0       0       9       227       -197         Box Culvert       S2800       Culvert A Structure & connection to Bay 45       18       18NOV06A       18JAN07A       100       0       0       -181         EARTHWORKS & SLOPEWORKS       B       S2360       DK-14       Box Culvert       B       DK-16       DK-16 </td <td></td>																		
S2800       Culvert A Structure & connection to Bay 45       18       18NOV06A       18JAN07A       100       0       -181         EARTHWORKS & SLOPEWORKS         BV-R1 Remaining Works         S2300       BV-R1 - Backfill       48       10MAY06A       03JAN07A       100       0       0       -129         S2300       BV-R1 - Backfill       48       10MAY06A       03JAN07A       100       0       0       -129         S2307       Remaining Works to Slopes SP-S3 & SP-S2       24       19JUL06A       12FEB07       5       0       20       -64       -193         SLOPE EV-S2       S2       Super SP-S3 & SP-S2       24       19JUL06A       06FEB07       90       0       6       -71       -206         103811       BV-S2 Berm 9 hydro-seeding & tensar mat       12       16FEB07       050       06       6       -71       -206         103812       BV-S2 Berm 9 hydro-seeding & tensar mat       12       16FEB07       0       12       -79       -214         SUPERCE DRAINGE       Intra 9 Surface drainage       14       01MAR06A       30JAN07       40       30       9       -79       -214         SUPER ENSHES       Intra 9 Surface drainage       <		Fill on top of Box Culvert 45 & culvert A	9	20JAN07	16FEB07	0	0	9	227	-197								
S2800       Culvert A Structure & connection to Bay 45       18       18NOV06A       18JAN07A       100       0       0       -181         EARTHWORKS & SLOPEWORKS         BV-R1 Remaining Works         S2300       BV-R1 - Backfill       48       10MAY06A       03JAN07A       100       0       0       -129         SLOPE SP-S2 & SP-S3	Box Cul	/ert		· · · · · ·				1	1									
BV-R1 Remaining Works         S2360       BV-R1 - Backfill       48       10MAY06A       03JAN07A       100       0       0       -129         SLOPE SP-S2 & SP-S3       S       -	S2800	Culvert A Structure & connection to Bay 45	18	18NOV06A	18JAN07A	100	0	0		-181								
BV-R1 Remaining Works         S2360       BV-R1 - Backfill       48       10MAY06A       03JAN07A       100       0       0       -129         SLOPE SP-S2 & SP-S3       S       -	EARTH	VORKS & SLOPEWORKS		I					1	I								
S2360       BV-R1 - Backfill       48       10MAY06A       0JAN07A       100       0       0       -129         SLOPE SP-S2       SS270       Remaining Works to Slopes SP-S3 & SP-S2       24       19JUL06A       12FEB07       5       0       20       -64       -193         SLOPE BV-S2       24       19JUL06A       12FEB07       5       0       20       -64       -193         SLOPE BV-S2       24       19JUL06A       06FEB07       90       0       6       -71       -206         103812       BV-S2 Berm 9 hydro-seeding & tensar mat       12       24OCT06A       06FEB07       0       0       12       -79       -214         SURFACE DRAINAGE       12       16FEB07       05MAR07       0       0       14       -79       -214         103896       BV-S2 Berm 10 Surface drainage       14       01MAR06A       30JAN07       40       30       9       -79       -214         103697       BV-S2 Berm 10 Surface drainage       14       31JAN07       15FEB07       0       0       14       -79       -214         103697       BV-S4       SLOPE FINISHES       Image: Standard																		
S2370       Remaining Works to Slopes SP-S3 & SP-S2       24       19JUL06A       12FEB07       5       0       20       -64       -193         SLOPE BV-S2       20.500.130.180.035			48	10MAY06A	03JAN07A	100	0	0		-129								
S2370       Remaining Works to Slopes SP-S3 & SP-S2       24       19JUL06A       12FEB07       5       0       20       -64       -193         SLOPE BV-S2       20.500.130.180.035	SLOPE S	SP-S2 & SP-S3				1												
20.300.130.180.035       12       24OCT06A       06FEB07       90       0       6       71       -206         103812       BV-S2 Berm 10 hydro-seeding & tensar mat       12       16FEB07       05MAR07       0       02       12       79       -214       14       14       15FEB07       05MAR07       12       79       -214       14       14       14       01MAR06A       30JAN07       40       30       9       -79       -214       14       14       15FEB07       0       0       14       79       -214       14       14       14       15FEB07       0       0       14       79       -214       14       14       15FEB07       15       15       15       15       15       15       15       <			24	19JUL06A	12FEB07	5	0	20	-64	-193	l							
103811       BV-S2 Berm 9 hydro-seeding & tensar mat       12       240CT06A       06FEB07       90       0       6       -71       -206         103812       BV-S2 Berm 10 hydro-seeding & tensar mat       12       16FEB07       05MAR07       0       0       12       -79       -214         SURFACE DRAINAGE       14       01MAR06A       30JAN07       40       30       9       -79       -214         103697       BV-S2 Berm 10 Surface drainage       14       01MAR06A       30JAN07       40       30       9       -79       -214         103697       BV-S2 Berm 10 Surface drainage       14       31JAN07       15FEB07       0       0       14       -79       -214         SLOPE FINISHES       12       12SEP05A       15MAR07       90       70       30       -163       -229         101139       11nw/434 BV-S4/1-2-3bcd-4b Hydro-seed/Tensarmat       18       13FEB07       08MAR07       0       0       18       -57       -229       163       -229         SURFACE DRAINAGE       18       13FEB07       08MAR07       0       0       18       -57       -229       164       164       165         SURFACE DRAINAGE       12 <t< td=""><td>SLOPE E</td><td>3V-S2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	SLOPE E	3V-S2																
In 103812       BV-S2 Berm 10 hydro-seeding & tensar mat       12       16FEB07       05MAR07       0       0       12       -79       -214       -214       -	20.500.130	.180.035																
SURFACE DRAINAGE       14       01MAR06A       30JAN07       40       30       9       -79       -214         103696       BV-S2 Berm 10 Surface drainage       14       01MAR06A       30JAN07       40       30       9       -79       -214         103697       BV-S2 Berm 10 Surface drainage       14       31JAN07       15FEB07       0       0       14       -79       -214         SLOPE BV-S4       SLOPE FINISHES       12       12SEP05A       15MAR07       90       70       30       -163       -229	103811	BV-S2 Berm 9 hydro-seeding & tensar mat	12	24OCT06A	06FEB07	90	0	6	-71	-206								
103696       BV-S2 Berm 9 Surface drainage       14       01MAR06A       30JAN07       40       30       9       -79       -214         103697       BV-S2 Berm 10 Surface drainage       14       31JAN07       15FEB07       0       0       14       -79       -214         SLOPE BV-S4         SLOPE FINISHES         102380       BV-S4/3a-4a & 5 hydro-seeding & tensarmat       12       12SEP05A       15MAR07       90       70       30       -163       -229	103812	BV-S2 Berm 10 hydro-seeding & tensar mat	12	16FEB07	05MAR07	0	0	12	-79	-214								
103697       BV-S2 Berm 10 Surface drainage       14       31 JAN07       15FEB07       0       0       14       -79       -214       -																		
SLOPE BV-S4       SLOPE FINISHES       SLOPE SA/3a-4a & 5 hydro-seeding & tensarmat       12       12SEP05A       15MAR07       90       70       30       -163       -229			14			40	30	9		-214								
SLOPE FINISHES       SLOPE FINISHES       Image: Constraint of the state	103697	BV-S2 Berm 10 Surface drainage	14	31JAN07	15FEB07	0	0	14	-79	-214								
102380       BV-S4/3a-4a & 5 hydro-seeding & tensarmat       12       12SEP05A       15MAR07       90       70       30       -163       -229         101139       11nw/434 BV-S4/1-2-3bcd-4b Hydro-seed/Tensarmat       18       13FEB07       08MAR07       0       0       18       -157       -229	SLOPE E	3V-S4																
101139     11nw/434 BV-S4/1-2-3bcd-4b Hydro-seed/Tensarmat     18     13FEB07     08MAR07     0     0     18     -229       SURFACE DRAINAGE     0																		
SURFACE DRAINAGE	102380	BV-S4/3a-4a & 5 hydro-seeding & tensarmat	12	12SEP05A	15MAR07	90	70	30	-163	-229								
	101139	11nw/434 BV-S4/1-2-3bcd-4b Hydro-seed/Tensarmat	18	13FEB07	08MAR07	0	0	18	-157	-229								
103705       BV-S4/3 Surface Drainage       8       17MAR05A       12FEB07       75       70       20       -163       -229				·		· · ·			-									
	103705	BV-S4/3 Surface Drainage	8	17MAR05A	12FEB07	75	70	20	-163	-229								
103706       BV-S4/4 Surface Drainage       12       07SEP05A       01MAR07       75       5       18       -163      229	103706	BV-S4/4 Surface Drainage	12	07SEP05A	01MAR07	75	5	18	-163	-229								

Act.	Activity	Orig Early	Early	%	Target 1		Total		NOV 38	DEC 39	JAN 40		FEB 41	MAR 42	APR 43	MAY 44
	Description	Dur Start	Finish	Compl.	% Comp	Dur	Float	Early Finish	13 20 27	4 <sub>1</sub> 11 18 25	1 <mark>8 15</mark>	22 29	5 <sub>1</sub> 12 19 26	5 12 19 26	2 9 16 23	30 7 14
SURFAC	SP-S1 DRAINAGE															
	Sp-S1/4 Surface Drainage	7 06JUL04A	12FEB07	55	40	20	-64	-228								
			_					_								
RC STF	UCTURES															
RETAIN	ING WALL BV-R2															
BACKFIL						1	1	1								
101126	BV-R2(C) Granular Drain & Compacted Backfill	6 20JAN07	26JAN07	0	0	6	-63	-211								
ROADV	/ORKS - North End of BV															
Stormw	ater Drainage															
	West Loop Rd. Drainage	20 19JAN06A	02FEB07	40	30	12	-99	-170								
S2420	Outstanding East Loop Rd. Drainage	28 24AUG06A	23JAN07	95	0	3	-103	-200								
	arrier Footings & Sign Gantries		0.4.4.8.107				100									
\$3360	Installation of Sign Gantry on Semi Encl.	4 20JAN07	24JAN07	0	0	4	-188	-83			T					
Road Pa	vement & Associated Work															
S2252	BV North - Bitu Pavement to Sth Bnd Carrig'way	24 29SEP06A	22JAN07	95	0	2	-68	-66								
S2262	BV North - Typ IV Pavement	40 19OCT06A	23FEB07	90	0	4	224	-81								
62222	BV North - Subbase to Nrth Bound Carriageway	43 11NOV06A	14FEB07	50	0	22	-84	-94								
32222	By North - Subbase to Nith Bound Carnageway	43 TINO V00P	14FEDU7	50	0	22	-04	-94								
S2540	BV North - Kerbs & CPB to Nrth Bound Carriageway	36 13NOV06A	01FEB07	70	0	11	-80	-81								
S2242	BV North - Bitu. Pavement to Nrth Bnd Carrig'way	24 20JAN07	24FEB07	0	0	24	-84	-92			· •					
00000								100								
S2920	Road Works to East Loop Rd Typ III (EVA)	13 01FEB07	15FEB07	0	0	13	-67	-189								
S2900	Road Marking & White Lining (Staged for Access)	24 03FEB07	10MAR07	0	0	24	-84	-92								
02000		21 001 2201		Ŭ	Ũ			02	-							
S3010	Installation of Road Signage (Sign Plates Only)	24 03FEB07	10MAR07	0	0	24	-84	-92								
S2930	Road Works to West Loop Road Typ III (EVA)	13 14MAR07	28MAR07	0	0	13	-99	-170								
<u> </u>		40 0055007	1014007	0	0	10	04	0					_			
53000	NEW ACTIVITY - Road Pavement Friction Course	12 26FEB07	10MAR07	0	0	12	-84	0					_			
Miscella	nenous Works			1 1		1	1									
	Erect HML 1	4 30JAN07	02FEB07	0	0	4	-56	-194								
				-				-								
S3100	Erect HML 2	4 30JAN07	02FEB07	0	0	4	-56	-223								
									-							
S3450	Erect HML 3	4 30JAN07	02FEB07	0	0	4	-56	-172								

D       Description       Dur       Start       Find       Correl       % Corre       Dur       Pearlier       Early Find       3 22 d       1 3 2 d       1 3 2 d       1 3 2 d       1 3 2 d       1 3 2 d       1 3 2 d       1 3 2 d       1 3 2	Act.	Activity	Orig	Early	Early	%	Target 1	Rem	Total	Variance	NOV	DEC	JAN	FEB	MAR	APR	MAY	
S270       Insult Twin DN200 Pipes to SPB via E. Long Rd       16       200CT00A       31 JANOT       00       0       7       103       -188         S2500       Insultation of Dxip Feed kingsion System       12       02FEB07       15FEB07       0       0       12       47       41         S3000       Construct Recreated Stream       00       05FEB07       15FEB07       0       0       2       44       -106         S3000       Construct Recreated Stream       00       05FEB07       15FEB07       0       0       2       -106         S2001       Construct Recreated Stream       00       05FEB07       13MAR07       0       0       2       -106       -2022         S2451       Sign gamity installation MLS-CAP11.13       3       20DEC06A       22JANO7       25       0       2       206       -206       -2022         S3205       Sign Gamity Installation MLS-CAP14 & 15       4       20JANO7       24       106       -2022         S241       Sign Gamity Installation MLS-CAP14 & 15       4       20JANO7       0       6       105       -138         S2420       DV Son - From Soft Bio Sond Carriageway       30       12AUC06A       23JANO7       75			-				-				38 13 20 27	39  4  11  18  25	40 1 8 15	41 5 12 19 20	42 5 5 12 19 26	43 2 9 16 23	44 30 7 14	
S2500       Installation of DN200 Fire Hydrant Pipe and FH's       24       180/V08A       22.ANU7       95       0       2       44       -106         S2500       Installation of Drop Feed Ingation System       12       02/FEB07       15/FEB07       0       0       30       49       -170         ROADWORKS       Social Construct Recreated Stream       30       03/FEB07       13/MAR07       0       0       30       49       -170         ROADWORKS       Social Construct Recreated Stream       30       03/FEB07       13/MAR07       0       0       2       188       -202         Social Sign Gamity Installation MLS-CAP11.13       3       200EC08A       22.JAN07       75       0       2       188       -202         Social Sign Gamity Installation MLS-CAP14 & 15       4       2UAN07       70       0       4       188       -203         Ducing A browpits       Social Advance																		
22690       Installation of Drip Feed Irrigation System       12       02FEB07       0       0       12       47       -811         3000       Construct Recreated Stream       30       03FEB07       13MAR07       0       00       9       49       -170         Recreating Stream       30       03FEB07       13MAR07       0       0       2       186       -202         Stream - footing A Sign Garrise         Stream - footing A Sign Garrise <td colspa<="" td=""><td>S2670</td><td>Install Twin DN200 Pipes to SPB via E. Loop Rd</td><td>18</td><td>20OCT06A</td><td>31JAN07</td><td>60</td><td>C</td><td>) 7</td><td>-103</td><td>-189</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td>	<td>S2670</td> <td>Install Twin DN200 Pipes to SPB via E. Loop Rd</td> <td>18</td> <td>20OCT06A</td> <td>31JAN07</td> <td>60</td> <td>C</td> <td>) 7</td> <td>-103</td> <td>-189</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	S2670	Install Twin DN200 Pipes to SPB via E. Loop Rd	18	20OCT06A	31JAN07	60	C	) 7	-103	-189							
S3000       Construct Recreased Stream       30       03FEB07       13MAR07       0       00       90       49       -170         ROADWORKS - South End of BV       Stream       <	S2590	Installation of DN200 Fire Hydrant Pipe and FH's	24	18NOV06A	22JAN07	95	C	2	-84	-106								
Note Ender 6 BV         Note Ender 6 BV         S2461       Sign Qantry Installation MLS-CAP12       3       200EC06A       22JAN07       25       0       2       -186       -202         S3380       Sign Qantry Installation MLS-CAP11.13       3       200EC06A       22JAN07       25       0       2       -208       -202         Dubing A Drawpits       3       200EC06A       22JAN07       25       0       2       -208       -202         S3370       Signal Gantry Installation MLS-CAP14.8 15       4       2UAN07       70       0       6       -106       -138         Chaing A Drawpits       20       01JUN06A       2UAN07       70       0       6       -106       -138         Road Payment A Associated Work       70       0       6       -106       -138         S2510       BV Sh - Trim Formation & Sbase - Nh Bnd       5       14JUG6A       2JAN07       70       0       8       -92         S2540       BV Sh - Neths & CPB to Sh Bnd Carringeway       20       15EP6A       05FEB07       70       0       8       -92         S2540       BV Sh - Bitu. Payment to Sh Bnd Carringeway       20       25EB607       10       <	S2690	Installation of Drip Feed Irrigation System	12	02FEB07	15FEB07	0	C	) 12	-67	-81								
Noise Barrier Footings & Sign Cantry         <	S3000	Construct Recreated Stream	30	03FEB07	13MAR07	0	C	30	-99	-170								
S2461       Sign garty Installation MLS-CAP12       3       20DEC064       2JAN07       50       0       2       -186       -202         S3380       Sign Gartry Installation MLS-CAP11.13       3       20DEC06A       2JAN07       0       0       4       -188       -202         S3370       Signal Gartry Installation MLS-CAP14 & 15       4       2UAN07       0       0       4       -188       -203         Ducting & Drawpits       20       01JUN06A       2BAN07       70       0       6       -105       -138         S2560       V Such - LV Ducts & Drawpits       20       01JUN06A       2BAN07       95       0       2       -82       -92         S2560       V Such - LV Ducts & Drawpits       30       12AUG06A       2BAN07       75       0       8       -88       -105         S2560       V Sth - Nethe & CPE to Sth Bound Carriageway       30       12AUG06A       2PAE0       90       0       2       -82       -91         S2590       V Sth - Bitu - Pavement to Sth Bond Carriageway       20       0SEFE07       70       0       1       -88       -93         S2990       V Sth - Bitu - Pavement to Nth Bnd Carriageway       20       0SEFE07	ROADW	ORKS - South End of BV																
S3300       Sign Garry Installation MLS-CAP11,13       3       20DEC06A       2JAN07       25       0       2       202       -202 <td>Noise Ba</td> <td>arrier Footings &amp; Sign Gantries</td> <td></td>	Noise Ba	arrier Footings & Sign Gantries																
S3370       Signal Ganty Installation MLS-CAP14 & 15       4       20JAN07       24JAN07       0       0       4       188       -203       1	S2461	Sign gantry Installation MLS-CAP12	3	20DEC06A	22JAN07	50	C	2	-186	-202								
Ducing & Drawpits         Surveyits         20         01/JUN06A         26JAN07         70         0         6         105         -138           Road Pavement & Associated Work         S2960         BV Sh - Karbs & CPB to Sh Bound Carriageway         30         12AUG06A         29JAN07         95         0         2         -62         -92           S2500         BV Sh - Karbs & CPB to Sh Bound Carriageway         30         12AUG06A         29JAN07         75         0         8         -88         -105           S2500         BV Sh - Trim Formation & Sbase - Nh Bnd         35         14AUG06A         29JAN07         75         0         8         -88         -105           S2500         BV Sh - Karbs & CPB to Nth Bound Carriageway         30         18SEP06A         05FEB07         70         0         9         -88         -93           S2970         BV Sh - Bitu. Pavement to Sh Bnd Carrig'way         20         20SEP06A         12FEB07         90         0         2         -82         -81           S2980         BV Sh - Bitu. Pavement to Nrth Bnd Carrig'way         23         06NOV06A         22FEB07         15         0         10         -88         -82           S2980         Net - Bitu. Pavement Friction Course         <	S3380	Sign Gantry Installation MLS-CAP11,13	3	20DEC06A	22JAN07	25	C	2	-208	-202								
S2740       BV South - LV Ducts & Drawpits       20       01JUN06A       26JAN07       70       0       6       -105       -138         Road Parement & Associated Work       S2960       BV Sth - Kerbs & CPB to Sth Bound Carriageway       30       12AUG06A       29JAN07       95       0       2       -82       -92         S2510       BV Sth - Trim Formation & Sbase - Nth Bnd       35       14AUG06A       29JAN07       75       0       8       -88       -105         S2500       BV Sth - Trim Formation & Sbase - Nth Bnd       35       14AUG06A       29JAN07       75       0       8       -88       -105         S2500       BV Sth - Kerbs & CPB to Nrth Bound Carriageway       30       18SEP06A       05FEB07       70       0       9       -88       -93         S2970       BV Sth - Bitu. Pavement to Sth Bnd Carrig/way       20       20SEP06A       12FEB07       45       0       10       -88       -82         S2990       Road Marking & White Lining (Staged Access)       18       23FEB07       15MAR07       0       0       18       -88       -82         S3100       Installation of Road Signage (Sign Plates Only)       18       23FEB07       0       0       12       -82	S3370	Signal Gantry Installation MLS-CAP14 & 15	4	20JAN07	24JAN07	0	C	) 4	-188	-203								
Road Parement & Associated Work       UN       UN <td>Ducting</td> <td>&amp; Drawpits</td> <td></td>	Ducting	& Drawpits																
S2960       BV Sth - Kerbs & CPB to Sth Bound Carriageway       30       12AUG06A       29JAN07       95       0       2       -82       -92         S2510       BV Sth - Trim Formation & Sbase - Nth Bnd       35       14AUG06A       29JAN07       75       0       8       48       -105         S2950       BV Sth - Kerbs & CPB to Nrth Bound Carriageway       30       18SEP06A       05FEB07       70       0       9       -88       -93         S2970       BV Sth - Kerbs & CPB to Nrth Bound Carriageway       20       20SEP06A       12FEB07       90       0       2       -82       -81         S2980       BV Sth - Bitu. Pavement to Nrth Bnd Carrig'way       23       06NOV06A       22FEB07       45       0       10       -88       -82         S2990       Road Marking & White Lining (Staged Access)       18       23FEB07       15MAR07       0       0       18       -88       -82         S3190       Installation of Road Signage (Sign Plates Only)       18       23FEB07       15MAR07       0       0       12       48       -82         S3670       NEW ACTIVITY - Road Pavement Friction Course       12       23FEB07       15MAR07       0       0       12       42       0	S2740	BV South - LV Ducts & Drawpits	20	01JUN06A	26JAN07	70	C	6	-105	-138								
S2510       BV Sth - Trim Formation & S'base - Nh Bnd       35       14AUG06A       29JAN07       75       0       8       -88       -105         S2950       BV Sth - Kerbs & CPB to Nrth Bound Carriageway       30       18SEP06A       05FEB07       70       0       9       -88       -93         S2970       BV Sth - Bitu. Pavement to Sth Bnd Carrig'way       20       20SEP06A       12FEB07       90       0       2       -82       -81         S2980       BV Sth - Bitu. Pavement to Nrth Bnd Carrig'way       23       06NOV06A       22FEB07       45       0       10       -88       -82         S2990       Road Marking & White Lining (Staged Access)       18       23FEB07       15MAR07       0       0       18       -88       -82         S3190       Installation of Road Signage (Sign Plates Only)       18       23FEB07       15MAR07       0       0       18       -88       -82         S3670       NEW ACTIVITY - Road Pavement Friction Course       12       23FEB07       15MAR07       0       0       18       -88       -82         S2790       Installation of DN 200 Fire Hydrant Pipe & FH's       12       19OCT06A       22JAN07       0       0       12       42       0	Road Pa	vement & Associated Work																
Subscription       Subscription <th< td=""><td>S2960</td><td>BV Sth - Kerbs &amp; CPB to Sth Bound Carriageway</td><td>30</td><td>12AUG06A</td><td>29JAN07</td><td>95</td><td>C</td><td>2</td><td>-82</td><td>-92</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	S2960	BV Sth - Kerbs & CPB to Sth Bound Carriageway	30	12AUG06A	29JAN07	95	C	2	-82	-92								
S2970       BV Sth - Bitu. Pavement to Sth Bnd Carrig'way       20       20SEP06A       12FEB07       90       0       2       -82       -81         S2980       BV Sth - Bitu. Pavement to Nrth Bnd Carrig'way       23       06NOV06A       22FEB07       45       0       10       -88       -82         S2990       Road Marking & White Lining (Staged Access)       18       23FEB07       15MAR07       0       0       18       -88       -82         S3190       Installation of Road Signage (Sign Plates Only)       18       23FEB07       15MAR07       0       0       18       -88       -82         S3670       NEW ACTIVITY - Road Pavement Friction Course       12       23FEB07       15MAR07       0       0       12       -82       0         Miscellaneous Works       12       23FEB07       08MAR07       0       0       12       -82       0       -	S2510	BV Sth - Trim Formation & S'base - Nth Bnd	35	14AUG06A	29JAN07	75	C	8	-88	-105								
S2980       BV Sth - Bitu. Pavement to Nrth Bnd Carrig'way       23       06NOV06A       22FEB07       45       0       10       88       -82         S2990       Road Marking & White Lining (Staged Access)       18       23FEB07       15MAR07       0       00       18       88       -82         S3190       Installation of Road Signage (Sign Plates Only)       18       23FEB07       15MAR07       0       00       18       88       -82         S3670       NEW ACTIVITY - Road Pavement Friction Course       12       23FEB07       05MAR07       0       00       12       82       0         Miscellaneous Works       12       23FEB07       05MAR07       0       00       12       82       0       12       12       10 <td< td=""><td>S2950</td><td>BV Sth - Kerbs &amp; CPB to Nrth Bound Carriageway</td><td>30</td><td>18SEP06A</td><td>05FEB07</td><td>70</td><td>C</td><td>9</td><td>-88</td><td>-93</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	S2950	BV Sth - Kerbs & CPB to Nrth Bound Carriageway	30	18SEP06A	05FEB07	70	C	9	-88	-93								
S2990       Road Marking & White Lining (Staged Access)       18       23FEB07       15MAR07       0       0       18       -88       -82       -4       -4       -4       -4       -4       -4       -88       -82       -4       -4       -4       -4       -4       -4       -88       -82       -4       -4       -4       -4       -4       -4       -88       -82       -4	S2970	BV Sth - Bitu. Pavement to Sth Bnd Carrig'way	20	20SEP06A	12FEB07	90	C	2	-82	-81								
Same       Marcine	S2980	BV Sth - Bitu. Pavement to Nrth Bnd Carrig'way	23	06NOV06A	22FEB07	45	C	0 10	-88	-82	2							
S3670 NEW ACTIVITY - Road Pavement Friction Course 12 23FEB07 08MAR07 0 0 12 -82 0   Miscellaneous Works   S2790 Installation of DN 200 Fire Hydrant Pipe & FH's 12 19OCT06A 22JAN07 90 0 2 249 -142   S2780 Install & Commission Weighbridge 24 23FEB07 22MAR07 0 0 24 -76 -82   S2850 Erect HML9 4 23FEB07 27FEB07 0 0 4 -74 -203 1 1	S2990	Road Marking & White Lining (Staged Access)	18	23FEB07	15MAR07	0	C	18	-88	-82		•						
Miscellareous Works       Miscellation of DN 200 Fire Hydrant Pipe & FH's       12       19OCTO6A       22JAN07       90       0       2       249       -142         S2780       Install & Commission Weighbridge       24       23FEB07       22MAR07       0       0       24       -76       -820       - <td>S3190</td> <td>Installation of Road Signage (Sign Plates Only)</td> <td>18</td> <td>23FEB07</td> <td>15MAR07</td> <td>0</td> <td>C</td> <td>) 18</td> <td>-88</td> <td>-82</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	S3190	Installation of Road Signage (Sign Plates Only)	18	23FEB07	15MAR07	0	C	) 18	-88	-82								
S2790       Installation of DN 200 Fire Hydrant Pipe & FH's       12       190CT06A       22JAN07       90       0       2       249       -142         S2780       Install & Commission Weighbridge       24       23FEB07       22MAR07       0       0       24       -76       -82       - </td <td>S3670</td> <td>NEW ACTIVITY - Road Pavement Friction Course</td> <td>12</td> <td>23FEB07</td> <td>08MAR07</td> <td>0</td> <td>C</td> <td>) 12</td> <td>-82</td> <td>0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	S3670	NEW ACTIVITY - Road Pavement Friction Course	12	23FEB07	08MAR07	0	C	) 12	-82	0								
S2780       Install & Commission Weighbridge       24       23FEB07       22MAR07       0       0       24       -76       -82       -	Miscellar	neous Works																
S2850       Erect HML9       4       23FEB07       27FEB07       0       0       4       -74       -203       -203	S2790	Installation of DN 200 Fire Hydrant Pipe & FH's	12	19OCT06A	22JAN07	90	C	) 2	249	-142								
LKJV Works at Abutment M	S2780	Install & Commission Weighbridge	24	23FEB07	22MAR07	0	C	24	-76	-82								
	S2850	Erect HML9	4	23FEB07	27FEB07	0	C	) 4	-74	-203								
	LKJV W	orks at Abutment M				1 1		1										
			36	11DEC06A	29JAN07	80	C	8	-52	-131								

Act.	Activity O	ig Early	Early	%	Target 1	Rem	Total	Variance	NOV	DEC 39	JAN 40	FEB	MAR 42	APR 43	MAY
ID	Description	ur Start	Finish	Compl.	% Comp	Dur	Float	Early Finish	38  13  20  27			41 29 5 12 19 p			44 30 7 14
DSD MA	INTENANCE ROAD														
	intenance Rd DSD1-1 (Acciona Interface)			<u> </u>				1	-						
S3570	WSD Slope Reinstatement 1	8 10FEB07	06MAR07	0	0	18	-80	-191							
S2340	ACCIONA - Remove Crane Platform 1	8 20JAN07	09FEB07	0	0	18	-82	-215	-		<b>⊨</b> _				
S2380	Complete DSD1-1 Surface Drainage & CP's 1	8 20JAN07*	09FEB07	0	0	18	-82	-101			<b>–</b>				
S2460	LKJV Regain Access at Pier 20	)	09FEB07	0	0	0	-82	-215	-			•			
S3140	Complete Sub-base & kerbs at DSD1-1 1	2 10FEB07	27FEB07	0	0	12	-82	-101	-				•		
S3150	Complete Surfacing at DSD1-1 (Type IV)	3 28FEB07	08MAR07	0	0	8	-82	-101							
DSD Ma	intenanace Rd DSD1 (Parallel to Channel)							·							
S3210	2 No. Cross Rd Pipes & Roadside Gullies 1	2 01MAR06A	22JAN07	90	80	2	-105	-213							
60000	Twin DN200 Weter Dine		02FEB07	50	1	5	-105	-184							
52830	Twin DN200 Water Pipe 4	5 02MAY06A	UZFEBU/	50	I	5	-105	-184				-			
S3390	Complete Formation at DSD1	02DEC06A	23JAN07	50	0	3	-132	-169	[						
\$2700	Access rd DSD1 -barrier footings 1	2 20JAN07	02FEB07	0	0	12	-68	-172	-			_			
	-	200/1107	021 2007	Ū	0			172							
S3120	DN 200 Watermain Diversion EB18 - EB70 4	0 24JAN07	14MAR07	0	0	40	-132	-169							
S2730	Construct Recreated Stream 4	5 15MAR07	11MAY07	0	0	45	-132	-150							
S3220	Subbase & Kerbs 1	8 15DEC06A	27FEB07	30	0	12	-77	-95					•		
S2720	Access rd DSD1 - Barriers 1	2 03FEB07	16FEB07	0	0	12	-68	-172							
S3160	REINSTATE BV ACCESS	)	08MAR07	0	0	0	-82	-101	-				•		
S3230	Surfacing (Type IV) 1	2 10FEB07	02MAR07	0	0	12	-77	-92							
Terrain	Mitigation	·													
NTMM -	BV-S2														
102350	NTMM - Afforestation of Area 6	0 22MAR06A	21FEB07	50	5	25	-69	-214							
Landsca	ping & Establishment														
101476	BV - Soft Landscaping & Planting 11	00 03JUN06A	19APR07	38	0	30	-43	1							
101475	BV - Hard Landscaping 9	0 03JAN07A	17APR07	36	0	24	-137	-163							
101477	BV - Establishment works 30	5 20APR07	18APR08	0	0	365	-146	1							
			1			1	I	1							

L0       Description       Dur       Number Version       Private	Act.	Activity	Orig	-	Early	%	Target 1		Total	Variance	NOV 38	DEC 39	JA 40		FEB 41	MAR 42	APR 43	MAY 44
SUBERITALS & APPROVALS           EAR EQPT & MATERIAL APPROVALS           1019 IS Piling Neprovo doubin         24         0 MAYOSA         25.0400         65         138         -211           PROCUREMENT - MATERIAL           AMMY WORKS         1779 IS Piling Protout oxymuthdo motal mech diadding         100         0 20.04N07         0         132         -163           2010 SP-Bidg Initial deliver di alte cladding         0         0         0         0         0         12         -163         0         0         12         10         0         132         -163           CONSTRUCTION         Convice & Abord         Convice & Abord	ID	Description	Dur	Start	Finish	Compl.	% Comp	Dur	Float	Early Finish								30 7 14
EXA TERIAL APPROVALS       26       07MAYUSA       25JAN07       80       80       5       -38       -211         PROCUREMENT       Approve according details       26       07MAYUSA       25JAN07       80       80       -211         PROCUREMENT       Marterial According       150       06JUN05A       30JAN07       80       80       9       132       -215         1979       SP.Big Initial deliver fail arrest root syst       0       20JAN077       0       0       0       75       -168         2030       SP.Big Initial deliver of slate deadding       0       20JAN077       0       0       0       73       -168         2020       SP.Big Initial deliver of slate deadding       0       20JAN077       0       0       0       73       -163         2020       SP.Big Initial deliver of slate deadding       0       20JAN077       0       0       6       51       -163         South Portal Big CULL & ABWF WORKS       2       22NOV06A       27JAN07       70       0       6       6       51       -163         PMW WORKS       -       2       2NOV06A       27JAN07       70       0       6       6       51       -163<																		
1919       SP. Biog Approve doors details       24       07MAYUSA       25JAN07       80       80       5       138       -211         PROCURENENT - MATERIAL       ABWF WORKS	SUBMIT	ITALS & APPROVALS																
PROCUREMENT - MATERIAL ABUF         Construction         Construction <t< td=""><td></td><td></td><td></td><td></td><td></td><td>1 1</td><td></td><td>1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>						1 1		1										
ABWE WORKS         Image: SP.Bidg Procure expended metal mesh metal deading         180         0.04UND6A         80         80         9         -132         -215           2018         SP.Bidg Initial deliver fail arcset root syst         0         20JAN07*         0         0         0         -75         -158           2018         SP.Bidg Initial deliver of site cladding         0         20JAN07*         0         0         0         -75         -158           2020         SP.Bidg Initial deliver of site cladding         0         20JAN07*         0         0         0         -75         -158           2020         SP.Bidg Initial deliver of site cladding         0         20JAN07*         0         0         0         -75         -158           2020         SP.Bidg Initial deliver or op metal mesh cladding         0         0JANR7*         0         0         -132         -183           2020         SP.Bidg. Initial deliver of site cladding         12         2NOVMORK         2         -144         -183         -143         -143         -143         -143         -143         -143         -143         -143         -143         -143         -143         -144         -143         -143         -143 <t< td=""><td>1919</td><td>SP.Bldg Approve doors details</td><td>24</td><td>07MAY05A</td><td>25JAN07</td><td>80</td><td>80</td><td>5</td><td>-138</td><td>-211</td><td></td><td></td><td></td><td>╷┛</td><td></td><td></td><td></td><td></td></t<>	1919	SP.Bldg Approve doors details	24	07MAY05A	25JAN07	80	80	5	-138	-211				╷┛				
1979       SP.Bidg Procure expanded metal mesh cladding       180       06.UNN5A       30.ANN7       80       80       9       -132       -215         2018       SP.Bidg Initial deliver fail arrest root syst       0       20.ANN7*       0       0       0       75       -168         2019       SP.Bidg Initial deliver of state cladding       0       20.ANN7*       0       0       0       75       -168         2020       SP.Bidg Initial deliver systemations of state cladding       0       20.ANN7*       0       0       0       75       -168         2020       SP.Bidg Initial deliver systemations of state cladding       0       0.MAR07*       0       0       0       -132       -163         2025       SP.Bidg Initial deliver systemations of state cladding       0       0.MAR07*       0       0       0       -132       -163         2026       SP.Bidg Initial deliver systemations of state cladding       0       0.MAR07*       70       0       6       -51       -134         SP.Bidg. Interest Works 4* LP       T2760       GF - Paint touch up & Doors       12       22NOV06A       12FEB07       0       0       12       -70       -150         27270       GF - Paint to	PROCU	REMENT - MATERIAL																
2018       SP.Bidg Initial deliver fall arrest nof syst       0       20JAN07       0       0       -76       -168         2019       SP.Bidg Initial deliver of slate cladding       0       20JAN07       0       0       -96       -143         2020       SP.Bidg Initial deliver of slate cladding       0       20JAN07       0       0       -75       -168         2020       SP.Bidg Initial deliver ox metal mesh cladding       0       20JAN07       0       0       -163         2020       SP.Bidg Initial deliver ox metal mesh cladding       0       20JAN07       0       0       -163         2020       SP.Bidg Initial deliver ox metal mesh cladding       0       20JAN07       0       0       -163         2020       SP.Bidg Initial deliver ox metal mesh cladding       0       20JAN07       70       0       6       -51       -134         SP.Bidg Initial deliver ox metal mesh cladding       12       2NV0K6A       2Z/AN07       70       0       6       -51       -134         SP.Bidg Initial deliver ox metal mesh cladding       12       2NV0K6A       0Z/EB07       70       0       4       -56       -98         BP.Bidg. Initent Model g. Doors       12       0SHOR	ABWF	WORKS																
Construction         Construction<	1979	SP.Bldg Procure expanded metal mesh cladding	180	06JUN05A	30JAN07	80	80	9	-132	-215				i I				
2030       SP.Bidg Initial deliver balusit & metal works       0       2040       0       -75       -168         2025       SP.Bidg Initial deliver exp metal mesh cladding       0       0       0       0       0       0       0       -163         CONSTRUCTION         South Portal Bidg CiVIL & ABWF WORKS         ABWF WORKS         Segment works 0         T2760 (GF - Paint touch up & Doors       12       27JAN07       70       0       6       -51       -1134         Segment works 06         T2770 (JF & & LP - Paint touch up & Doors       12       27JAN07       70       0       6       -51       -134         Segment works 06         T2770 (JF & & LP - Paint touch up & Doors       12       2TJAN07       70       0       6       -51       -134         Segment works 06         T2770 (JF & & LP - Paint touch up & Doors       12       2FEB07       0       0       12       -70       -150         Segment works 06         T2780 (JF - Paint touch up & Doors       12       0BFEB07       0       0       12       -70       -150	2018	SP.Bldg Initial deliver fall arrest roof syst	0	20JAN07*		0	C	0	-75	-168			•	•				
2025       SP.Bdg- Initial deliver exp metal mesh cladding       0       0       0       0       12       163       0       0       12       163       0       0       0       0       12       163       0       0       0       12       163       0       0       0       12       163       0       0       0       12       163       0       0       0       12       163       0       0       0       12       163       0       0       0       0       12       163       0       0       0       12       163       0 <t< td=""><td>2019</td><td>SP.Bldg Initial deliver of slate cladding</td><td>0</td><td>20JAN07*</td><td></td><td>0</td><td>C</td><td>0</td><td>-99</td><td>-143</td><td></td><td></td><td></td><td>•</td><td></td><td></td><td></td><td></td></t<>	2019	SP.Bldg Initial deliver of slate cladding	0	20JAN07*		0	C	0	-99	-143				•				
CONSTRUE         South Portal Bidg CIVIL & ABWF WORKS           ABWF WORKS         SB Bidg-internal Works 1F         Image: Construction of the second sec	2030	SP.Bldg Initial deliver balust & metal works	0	20JAN07*	<u></u>	0	C	0	-75	-168				•				
South Portal Bidg CIVIL & ABWF WORKS           ABWF WORKS           ABWF WORKS           Set Bidg Heard Works GF           T2760         GF - Paint touch up & Doors         12         22NOV06A         27JAN07         70         0         6         -51         -134           SP Bidg Heard Works 1F & LP           T2770         1F & LP - Paint touch up & Doors         12         29NOV6A         02FBE07         70         0         4         -58         -98           SP Bidg Heard Works 3F           T2780         2F - Paint touch up & Doors         12         0         2FEB07         0         0         12         -70         -150           SP Bidg Heard Works 3F           T2800         3F - Paint touch up & Doors         12         0         0         0         12         -70         -150           SP BidgHeard Works 3F           T2800         3F - Paint touch up & Doors         12         0         0         0         12         -70         -150           SP BidgHeard Works 3F           T2800         3F - Paint touch up & Doors         12         0         0         0 <t< td=""><td>2025</td><td>SP.Bldg- Initial deliver exp metal mesh cladding</td><td>0</td><td>03MAR07*</td><td></td><td>0</td><td>C</td><td>0</td><td>-132</td><td>-163</td><td></td><td></td><td></td><td></td><td></td><td>•</td><td></td><td></td></t<>	2025	SP.Bldg- Initial deliver exp metal mesh cladding	0	03MAR07*		0	C	0	-132	-163						•		
ABWF WORKS         Stellag-Internal Works GF         Control up & Doors         12         2NOV06A         ZTANO         70         0         6         -51         -134           9F Bidg-Internal Works IF & LP			1		<u> </u>			I										
SB Bigg- Internal Works GF         TZ760       GF - Paint touch up & Doors       12       22NOV06A       27JAN07       70       0       6       -51       -134         SP Bigg- Internal Works 1F & LP		-																
T2760       GF - Paint touch up & Doors       12       22NOV06A       27JAN07       70       0       6       -51       -134         SP Bidg- Internal Works 1F & LP       T2700       1F & LP - Paint touch up & Doors       12       11DEC06A       12FEB07       85       0       2       -64       -183         SP Bidg- Internal Works 2F       T       T       T       0       4       -56       -98         SP Bidg- Internal Works 3F       T       T       0       0       12       -70       -150         SP Bidg- Internal Works 3F       T       T       0       0       12       -70       -150         SP Bidg- Internal Works 3F       T       T       0       0       12       -70       -150         SP Bidg- Internal Works 4F       T       T       0       0       12       -70       -150         SP Bidg- Internal Works 4F       T       T       0       0       0       12       -89       -91																		
SP Bidg - Internal Works 1F & LP       Image: Control of the second			12	22NO\/06A	27 14 107	70	0	6	-51	-13/				┶┓				
T2770       1F & LP - Paint touch up & Doors       12       11DEC06A       12FEB07       85       0       2       -64       -183         SP Bidg - Internal Works 2F       T2780       2F - Paint touch up & Doors       12       29NOV06A       02FEB07       70       0       4       -56       -98         SP Bidg - Internal Works 3F       T2800       3F - Paint touch up & Doors       12       06FEB07       22FEB07       0       0       12       -70       -150         SP Bidg - Internal Works 3F       T2700       4F - Paint touch up & Doors       12       06FEB07       22FEB07       0       0       12       -70       -150         SP Bidg - Internal Works 3F       T2700       4F - Paint touch up & Doors       12       06FEB07       0       0       12       -89       -91         SP Bidg - Internal Works 4F & Above       T2700       4F - Paint touch up & Doors       12       03MAR07       16MAR07       0       0       12       -89       -91         Root & External Facade       T2700       Ext Wall Watterproof Render       18       20JUL06A       15JAN07A       100       0       -150       -150       -150       -150       -150       -150       -150       -150       -150 <td< td=""><td>12700</td><td></td><td>12</td><td>22110 0000</td><td>213/1107</td><td>10</td><td></td><td></td><td>-51</td><td>-134</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	12700		12	22110 0000	213/1107	10			-51	-134								
SP Bidg-Internal Works 2F       Image: Second						· ·		1	· ·									
T2780       2F - Paint touch up & Doors       12       29NOV06A       02FEB07       70       0       4       -56       -98         SP Bidg Internal Works 3F       T2800       3F - Paint touch up & Doors       12       06FEB07       22FEB07       0       0       12       -70       -150         SP Bidg Internal Works 4F & Above       T2790       4F - Paint touch up & Doors       12       03MAR07       16MAR07       0       0       12       -89       -91         Root & External Facade       T2710       Ent SPB - Ext. Wall Waterproof Render       18       20JUL06A       15JAN07A       100       0       -150         T2730       Ent SPB - Install Aluminum louvres & doors       90       26JUL06A       16MAR07       50       0       9       -84       -118         T2740       Ent SPB - Stekrnal Wall Painting       34       20DEC06A       16FEB07       30       0       24       -99       -138	T2770	1F & LP - Paint touch up & Doors	12	11DEC06A	12FEB07	85	C	2	-64	-183								
SP Bidg - Internal Works 3/F       T2800       3F - Paint touch up & Doors       12       06FEB07       22FEB07       0       0       12       -70       -150       1       0       0       12       -70       -150       0       0       12       -70       -150       0       0       12       -70       -150       0       0       12       -70       -150       0       0       12       -70       -150       0       0       12       -70       -150       0       0       12       -70       -150       0       0       12       -70       -150       0       0       0       12       -70       -150       0       0       0       0       12       -80       -91       -90       -90       -91       -90       -90       -91       -90       -90       -91       -90						· · ·			· · ·		_							
T2800       3F - Paint touch up & Doors       12       06FEB07       22FEB07       0       0       12       -70       -150       Image: Contract of the contract of t			12	29NOV06A	02FEB07	70	C	4	-56	-98								
Internal Works 4F & Above       Intern			10	0055007	0055007			10	70	450	-							
T2790       4F - Paint touch up & Doors       12       03MAR07       16MAR07       0       0       12       -89       -91			12	0655807	22FEB07	0	U	12	-70	-150								
Normal Facade       T2820       Ent SPB - Ext. Wall Waterproof Render       18       20JUL06A       15JAN07A       100       0       0      150         T2710       Ent SPB - Install Aluminum louvres & doors       90       26JUL06A       16MAR07       50       0       45       -138       -109         T2730       Ent SPB - 25thk Roof Screed & Roofing Tiles       18       18DEC06A       30JAN07       50       0       9       -84       -118         T2410       Ent SPB - External Wall Painting       34       20DEC06A       16FEB07       30       0       24       -99       -138			10	02144.007				10	00	01	-							
T2820Ent SPB - Ext. Wall Waterproof Render1820JUL06A15JAN07A10000-150T2710Ent SPB - Install Aluminum louvres & doors9026JUL06A16MAR0750045-138-109T2730Ent SPB - 25thk Roof Screed & Roofing Tiles1818DEC06A30JAN075009-84-118T2410Ent SPB - External Wall Painting3420DEC06A16FEB0730024-99-138	12790	4F - Faint touch up & Doors	12	USIVIARU/	τοινιΑΚυ/	U	Ŭ		-89	-91								
T2710Ent SPB - Install Aluminum louvres & doors9026JUL06A16MAR0750045-138-109T2730Ent SPB - 25thk Roof Screed & Roofing Tiles1818DEC06A30JAN075009-84-118T2410Ent SPB - External Wall Painting3420DEC06A16FEB0730024-99-138						· · ·		-	· ·									
T2710       Ent Or D       Indian Additional Functional Control of Contrelet of Contrelation of Contrelating Control of Contrel	T2820	Ent SPB - Ext. Wall Waterproof Render	18	20JUL06A	15JAN07A	100	C	0		-150								
T2410     Ent SPB - External Wall Painting     34     20DEC06A     16FEB07     30     0     24     -99     -138	T2710	Ent SPB - Install Aluminum louvres & doors	90	26JUL06A	16MAR07	50	C	45	-138	-109								
	T2730	Ent SPB - 25thk Roof Screed & Roofing Tiles	18	18DEC06A	30JAN07	50	C	9	-84	-118								
T2400       Ent SPB - Alum. Comp Panel Cladding to Ext Walls       60       20JAN07       03APR07       0       0       60       -123       -117	T2410	Ent SPB - External Wall Painting	34	20DEC06A	16FEB07	30	C	24	-99	-138								
	T2400	Ent SPB - Alum. Comp Panel Cladding to Ext Walls	60	20JAN07	03APR07	0	C	60	-123	-117				-				

Ac		Orig	-	Early	%	Target 1	Rem		Variance	NOV 38	DEC 39	JAN 40	FEB 41	MAR 42	APR 43	MAY 44
10		Dur	Start	Finish	Compl.	% Comp	Dur	Float	Early Finish		4 11 18 25		29 5 12 19 2		2 9 16 23	
	& External Facade									-						
T2	540 Ent SPB - Slate Cladding above NB/SB Carriageway	36	20JAN07	06MAR07	0	(	36	-99	-143			<b>–</b>				
TO		0.1	0455007	00140007	0				400	-						
123	Big Ent SPB - GMS,S/S Channel, Balustrade & Railing	24	21FEB07	20MAR07	0	(	24	-99	-133							
TO	390 Ent SPB - Expanded metal cladding to Ext Walls	36	03MAR07	18APR07	0		36	-132	100	-				_		
12,	Ent SPB - Expanded metal cladding to Ext walls	30	U3IVIARU7	ISAPRU/	0	(	30	-132	-163							
TO	365 Ent SPB - Removed External Scaffolding	12	19APR07	03MAY07	0		) 12	-132	-126	-						
12,	Eni SPB - Removed External Scarolding	12	ISAPRU/	03IVIA 107	0	(		-132	-120							
CNT					1 1											
	South Portal Bldg BUILDING SERVICES															
	M WORKS															
	South Portal Bldg (G/F) - E & M Works	10							(=0							
EM1	300 Installation of FS Pumps and Pipework at GF	18	250CT06A	20JAN07	98	(	) 1	-51	-176							
To																
T23	320 Installation of Earth Mat at SP Bldg	30	08NOV06A	22JAN07	98	(	2	-141	-177							
																-
	South Portal Bldg (1F/Lwr Plen) - E & M Work	18		09FEB07	0		10	64	102	-						
EMI	310 Installation of Compressor	18	20JAN07	09FEB07	0	(	18	-64	-193			<b>–</b>				
	 South Portal Bldg (2F/Silencer) - E & M Work															
	110 BS Works for Genset	18	24JUN06A	20JAN07	98	(	) 1	-134	-162							
		10	24301004	2034107	30	(		-134	-102							
EM1	140 E&M Works in Corridors 2/F	24	24JUN06A	20JAN07	98	(	) 1	-165	-144							
		24	24301004	2034107	30	(		-105	-144							
EM1	D30 BS Works for HV Sw + Tx	12	12JUL06A	22JAN07	98	(	) 2	-147	-169	-						
		12	1200200/(	220/1107	50	,		171	100							
EM1	120 Genset Installation	36	04SEP06A	03FEB07	98	(	) 2	-134	-138							
		00	010210071	001 2001	00		-		100							
EM1	175 BS Works for TVS Plenums	30	11SEP06A	23JAN07	90	(	) 3	-132	-151							
ENT	South Portal Bldg (3F/ Fan Rm) - E & M Works		·		· · ·											
	070 LV Sw, MCC, UPS, LCC Installation	30	25JUL06A	10JAN07A	100	(	0 0		-128							
EM1	D60 BS Works for LV Sw, MCC, UPS, LCC	12	31JUL06A	22JAN07	98	(	) 2	-158	-168							
EM1	150 E&M Works in Corridors 3/F	24	31JUL06A	22JAN07	98	(	2	-166	-144							
EM1	090 BS Works for 110V Charger Rm	12	01AUG06A	29JAN07	98	(	2	-166	-138							
EM1	170 Termination of overall Elect HV & LV Sys	30	15OCT06A	01MAR07	50	(	8 (	-172	-100					<b>—</b>		
	South Portal Bldg (4F/Upr Plen) - E & M Work															
EM1	180 TVS Installation	100	22AUG06A	02MAR07	90	(	20	-132	-91					-		
		0.0			50			4 4-	70	-						
EM10	050 HV Sw + Tx Termination + T&C	30	04DEC06A	29JAN07	50	(	5	-147	-76							

Act.	Activity	Orig	Early	Early	%	Target 1	Rem	Total	Variance	NOV	DEC		JAN	FEB		MAR	APR	MAY
ID	Description	Dur	Start	Finish	Compl.	% Comp		Float		38 13 20 j	39 27 4 11 18	25 1 8	40 15 22	29 5 12 1	19 26 5	42	43 2 9 16 23	30 7 14
	d Commissioning																	
EM1100	110V Charger Rm Installation + T&C	12 20	0DEC06A	05FEB07	50	0	6	-166	-132									
EM1080	LV Sw, MCC, UPS, LCC Termination + T&C	30 0	6JAN07A	22FEB07	50	0	5	-166	-114									
EM1130	Genset Termination + T&C	12 2	20JAN07	10FEB07	0	0	12	-134	-132				•					
EM1190	Integrated E&M System T&C	52 3	30MAR07	07JUN07	0	0	52	-173	-102					-				
Statutory Ir	Inspection & Issued Certificates	1 1	1		1 1		1	1 1										
EM1200	Submit WR1 to CLP	1 0	)2MAR07	02MAR07	0	0	1	-172	-100						-			
EM1210	CLP insp.	18 0	3MAR07	23MAR07	0	0	18	-172	-100									
EM1220	Energization at ENT SP Bldg	0		23MAR07	0	0	0	-172	-100	Û						•		
EM1320	Submit Form WWO46 for Water Supply to WSD	30 0	03FEB07	13MAR07	0	0	30	-105	-184									
EM1340	Water Supply Certificate issued	0		13MAR07	0	0	0	-105	-184							•		
EAGLE	S NEST TUNNEL																	
Contrac	t defined dates, stages & sections																	
Area ac	cess & vacation dates																	
ACS_F1	Access to Portions - F1 (U/Gnd Sth Portal)	0 20	0OCT03A		100	100	0		-261									
ACS_F2	Access to Portions - F2 (U/Gnd Sth Tunnel)	0 20	0OCT03A		100	100	0		-261									
Design	& Engineering - Temporary Works																	
Perman	ent Works																	
Tunnel							_											
1668	Eng Approve Dsg X-passage/Adit Fire Doors	12 2	20JAN07	02FEB07	0	0	12	189	-215									
1669	Issue Constr Dwgs X-passage/Adit Fire Doors	0		02FEB07	0	0	0	189	-215					$\diamond$				
Procure	ement - Material		1															
Tunnelli	ing Project Wide																	
	Order/Manufact/Del Fire Doors	50 0	03FEB07	10APR07	0	0	50	189	-215									
Constru	uction Works		1		1 1			1 1										
Tunnel I	Drive North Bound																	
Tunnel F	inishing Works																	
	Pavement				, ,													
3601	NB Base Course - RHS 650m Ch 1730->1080	4 28	8NOV06A	20JAN07	98	0	1	-69	-188									

Ac	t. Activity	Orig	Early	Early	%	Target 1	Rem	Total	Variance	NOV 38	DEC 39	JAN 40		FEB 41	MAR 42	APR 43	MAY 44
10	Description	Dur	Start	Finish	Compl.	% Comp	Dur	Float	Early Finish						5 12 19 26		
	inous Pavement	1		1	1 1		1	1	1	_			L				
3	605 NB Base Course - LHS 650m Ch 1730->1080	4	28NOV06A	20JAN07	98	0	1	-69	-176								
3	600 NB Base Course - RHS 650m Ch 2380->1730	4	30NOV06A	27DEC06A	100	0	0		-172								
3	604 NB Base Course - LHS 650m Ch 2380->1730	4	30NOV06A	27DEC06A	100	0	0		-160								
3	599 NB Base Course - RHS 650m Ch 3030->2380	4	02JAN07A	16JAN07A	100	0	0		-192								
3	603 NB Base Course - LHS 650m Ch 3030->2380	4	02JAN07A	16JAN07A	100	0	0		-180								
1;	349 NB Wearing Course - RHS 650m Ch3030->2380	4	27MAR07	30MAR07	0	0	4	-121	-89		_						
1;	359 NB Wearing Course - RHS 650m Ch2380->1730	4	31MAR07	04APR07	0	0	4	-121	-89		_				-		
1:	369 NB Wearing Course - RHS 650m Ch1730->1080	4	10APR07	13APR07	0	0	4	-121	-89		_						
1:	879 NB Wearing Course - LHS 650m Ch3030->2380	4	14APR07	18APR07	0	0	4	-121	-89		_						
1;	389 NB Wearing Course - LHS 650m Ch2380->1730	4	19APR07	23APR07	0	0	4	-121	-89								
1;	399 NB Wearing Course - LHS 650m Ch1730->1080	4	24APR07	27APR07	0	0	4	-121	-89								
1:	339 NB Road Marking 1950m	18	28APR07	19MAY07	0	0	18	-121	-89								
	Installation 516 NB - VE Panel Sub-Frame Installation	60	310CT06A	23JAN07	95	0	3	-105	0								
3	536 NB - VE Panel Installation	55	02JAN07A	09MAR07	32	0	37	-107	0								
3	556 NB - Niche Cabinets	50	09JAN07A	02MAR07	70	0	15	-81	0					_	•		
3	646 NB - Bespoke Panels (Niches)	20	20JAN07	14MAR07	0	0	20	-81	0								
ENT	NB TUNNEL - (E&M) BUILDING SERVICES																
MVAC	C / Tunnel Ventilation Syst Above OHVD			1				1	1								
2779	263 Ent NB - Install Motorised Smoke & Fire Dampers	72	04JAN06A	20JAN07	99	45	1	-171	-187								
2779	D64 Ent NB - Comp Air Pipes/Condts to E/P16 to E/P21	36	10FEB06A	22JAN07	95	40	2	-169	-182								
2779	265 Ent NB - Comp Air Pipes/Condts to E/P15 to E/P8	36	27MAR06A	22JAN07	95	30	2	-171	-176								
2779	Bee Ent NB - Comp Air Pipes/ Condts to E/P1to E/P7	36	13JUN06A	29JAN07	95	0	2	-171	-146								
2779	967 Ent NB - Cabling, Wiring and Termination	60	100CT06A	12FEB07	70	0	18	-171	-122								
2779	968 Ent NB - MVAC Testing and T&C	36	13FEB07	29MAR07	0	0	36	-171	-116								
	1			1	1			1	1								

D       Description       Puice       Stant       Price       Corry       No       Price       Rest       First       F	Act.	Activity	Orig	Early	Early	%	Target 1	Rem	Total	Variance	NOV	DEC	JAN		FEB	MAR	APR	MAY
277000       Ent NB - Install FS Conduit for Nintrea       64       07FEB004       24JAN07       93       44       4       151       -147         277001       Ent NB - Install Bottedicin system © CL       00       20JUL06       23JAN07       96       0       3       141       -147         277081       Ent NB - Install Indetection system © CL       00       20JUL06       23JAN07       100       0       0       100       100       0       100       100       100       0       100       0       0       100       100       0       100       0       0       100       100       0       0       100       0       0       100       0       0       100       100       0       100       100       0       100       100       100       100       100       100       100       110       <	ID		Dur	Start	Finish	Compl.	% Comp	Dur	Float	Early Finish	38  13  20  27	39  4  11  18  25	40 1 8 15	22 29 5	41  12  19  26	42 5 12 19 26	43  2  9  16  23	44 30 7 14
277901       Ert NB - Instail Dricks for detection sys @ CL       60       20.20L06A       23.3400       95       0       3       161       -165         27782       Ert NB - Instail detection sys @ CL       60       100 CT06A       0.34       101       -105         27783       Ert NB - Instail detection system @ Celling LV       42       205EP06A       11JAN07A       100       0       0       -105         27786       Ert NB - Instail detection system @ Celling LV       42       205EP06A       1173       -1139         27796       Ert NB - Instail Hose Ruel Cabinots & Egrt @ GL       48       20JAN07       0       0       4       173       -205         27790       Ert NB - Instail Mose Ruel Cabinots & Egrt @ GL       48       20JAN07       0       0       0       -124         27800       Ert NB - M & LV MNShumain Cables to CP21-CP11       72       2UlnoeA       15JAN07A       100       0       0       -124         27800       Ert NB - HV & LV MNShumain Cables to CP21-CP11       72       2UlnoeA       15JAN07A       100       0       -169         27800       Ert NB - Codint Work Above & Belev OHVD       60       01MAR66A       15JAN07A       100       20       -164       -169 <t< td=""><td></td><td></td><td>-</td><td></td><td></td><td>1 1</td><td></td><td>1</td><td>1 1</td><td></td><td></td><td></td><td></td><td>_</td><td></td><td></td><td></td><td></td></t<>			-			1 1		1	1 1					_				
27782       Ent NB - Instail detection system & Geling Lu       42       205EP064       10,0,N07A       100       0       -       105         277826       Ent NB - Instail detection system & Geling Lu       42       205EP064       55       6       6       173       169         277866       Ent NB - FB Wing and Termination       30       100C0T064       3APR07       25       0       24       173       139         277864       Ent NB - Instail Hose Reel Cabinets & Egni & GAL       48       20,0N07       0       0       24       173       139         277807       Ent NB - Instail Mose Reel Cabinets & Egni & GAL       48       20,0N07       0       0       0       172       139         27800       Ent NB - Instail Mose Reel Cabinets & Egni & GAL       48       20,0N07       100       0       0       124       149         27800       Ent NB - Instail Mose Reel Cabinets & Egni & GAL       101       100       0       110       110       129       110       129       111       129       111       129       110       120       110       120       110       120       110       120       110       120       110       120       1100       110       120	277990	Ent NB - Install FS Conduit for Niches	54	07FEB06A	24JAN07	93	40	4	-151	-187								
277965       Ent NB       100 CH // HR Pipeworks & Entings @ G/L       60       100 CT66       03APR07       25       0       23       173       -169         277965       Ent NB       FN SWining and Terministions       30       100 CT66       03APR07       2       0       23       173       -139         277965       Ent NB       FN SWining and Terministions       30       100 CT66       03APR07       0       0       48       173       -206         277967       Ent NB       FN S Steing and T&C       24       4AAPR07       07MAY07       0       0       24       173       -139         278000       Ent NB       FN NB V & LV MivSubmain Cables to CP1-CP11       72       22JUN06A       15JAN07A       100       0       0       -1124         278001       Ent NB - HV & LV MivSubmain Cables to CP1-CP10       72       25JUN06A       15JAN07A       100       0       0       -1124         278003       Ent NB - Condult Works (Above & Below OHVD)       60       01MAR06A       15JAN07A       100       20       -1469         278004       Ent NB - Lighting Fisture @ CLW       72       02MAY66A       15JAN07A       100       20       -167       -144         278	277991	Ent NB - Install brckts for detection sys @ C/L	60	29JUL06A	23JAN07	95	0	3	-151	-158								
277966       Ent NB - FS Wining and Terminations       30       100CT06A       03APR07       25       0       23       -173       -139         277946       Ent NB - Install Hose Red Cabinets & Expt @ GA       48       20JAN07       20MAR07       0       0       48       -173       -205         277977       Ent NB - FS Tosting and T&C       24       04APR07       07MAY07       0       0       2       -173       -139         278000       Ent NB - FV & LV MnSubmain Cables to CP21-CP11       72       22 JUN08A       15JAN07A       100       0       0       -124         278000       Ent NB - FW & LV MnSubmain Cables to CP21-CP11       72       22 JUN08A       15JAN07A       100       0       0       -102         278000       Ent NB - FW & LV MnSubmain Cables to CP01-CP10       72       28JUN08A       15JAN07A       100       0       0       -112         278001       Ent NB - Conduit Works (Above & Below OH/D)       60       11MAR08A       15JAN07A       100       20       -140         278012       Ent NB - Cabling, Winings&Term @ Celling' Grd Lu1       48       13JUN06A       15JAN07A       20       -140         278013       Ent NB - Lighting / Equipt Testing and T&C       60       15JAN07A	277992	Ent NB - Install detection system @ Ceiling Lvl	42	20SEP06A	10JAN07A	100	0	0		-105								
277994       Ent NB - Install Hose Real Cabinets & Eqpt @ GL       48       20JAN07       0       0       0       48       172       -205         277997       Ent NB - FS Testing and T&C       24       04APR07       0       0       0       2       1       130         27897       Ent NB - FS Testing and T&C       24       04APR07       0       0       0       1       132       130       1	277995	Ent NB - 100d FH / HR Pipeworks & Fittings @ G/L	60	10OCT06A	03APR07	95	0	6	-173	-169								
277907       Ent NB - FS Testing and T&C       24       04APR07       07MAY07       0       0       24       173       139       139       130       131	277996	Ent NB - FS Wiring and Terminations	30	10OCT06A	03APR07	25	0	23	-173	-139								
Betweed Wesk Allow OHYD         Bit Ministry OHYD         Control of Samphane         Control of Samphane <td>277994</td> <td>Ent NB - Install Hose Reel Cabinets &amp; Eqpt @ G/L</td> <td>48</td> <td>20JAN07</td> <td>20MAR07</td> <td>0</td> <td>0</td> <td>48</td> <td>-173</td> <td>-205</td> <td></td> <td></td> <td>•</td> <td></td> <td></td> <td></td> <td></td> <td></td>	277994	Ent NB - Install Hose Reel Cabinets & Eqpt @ G/L	48	20JAN07	20MAR07	0	0	48	-173	-205			•					
278000       Ent NB - HV & LV Mn/Submain Cables to CP21-CP11       72       22 JUN06A       15JAN07A       100       0       0       -124         278001       Ent NB - HV & LV Mn/Submain Cables to CP01-CP10       72       22 JUN06A       15JAN07A       100       0       0       -102         278003       Ent NB - Placing Sandfill and PC Covers       36       29AUG06A       01FEB07       70       0       11       -132       -93         Planticiti Works Bitwo CM0       72       01MAR06A       15JAN07A       100       30       0       -169         278010       Ent NB - Conduit Works (Above & Below OHVD)       60       01MAR06A       15JAN07A       100       2       0       -140         278012       Ent NB - Cabling,Wrings&Term @ Celling' Grd Lv1       48       13JUN06A       05MAR07       90       0       35       -151       -142         278012       Ent NB - Cabling,Wrings&Term @ Celling' Grd Lv1       48       13JUN06A       05MAR07       0       0       72       -116       -197         278013       Ent NB - Lighting / Equipt Testing and T&C       60       15JAN07A       26MAR07       0       0       72       -116       -197         278032       Place Covers on C, Trough	277997	Ent NB - FS Testing and T&C	24	04APR07	07MAY07	0	0	24	-173	-139								
278000       Ent NB - HV & LV Mn/Submain Cables to CP21-CP11       72       22 JUN06A       15JAN07A       100       0       0       -124         278001       Ent NB - HV & LV Mn/Submain Cables to CP01-CP10       72       22 JUN06A       15JAN07A       100       0       0       -102         278003       Ent NB - Placing Sandfill and PC Covers       36       29AUG06A       01FEB07       70       0       11       -132       -93         Planticiti Works Bitwo CM0       72       01MAR06A       15JAN07A       100       30       0       -169         278010       Ent NB - Conduit Works (Above & Below OHVD)       60       01MAR06A       15JAN07A       100       2       0       -140         278012       Ent NB - Cabling,Wrings&Term @ Celling' Grd Lv1       48       13JUN06A       05MAR07       90       0       35       -151       -142         278012       Ent NB - Cabling,Wrings&Term @ Celling' Grd Lv1       48       13JUN06A       05MAR07       0       0       72       -116       -197         278013       Ent NB - Lighting / Equipt Testing and T&C       60       15JAN07A       26MAR07       0       0       72       -116       -197         278032       Place Covers on C, Trough	Electrical V	I Vorks Above OHVD	1					1	1									
278003       Ent NB - Placing Sandfill and PC Covers       36       29AUG06A       01FEB07       70       0       11       -132       -933         Electrical Works Below OHVD       60       01MAR06A       15JAN07A       100       20       -			72	22JUN06A	15JAN07A	100	0	0		-124								
Electrical Works (Above & Below OHYO)         Even works         International and the set of the set	278001	Ent NB - HV & LV Mn/Submain Cables to CP01-CP10	72	26JUN06A	15JAN07A	100	0	0		-102								
278009       Ent NB - Conduit Works (Above & Below OHVD)       60       01MAR06A       15JAN07A       100       30       0       -169         278010       Ent NB - Earthing & Lighting Fixture @ C/Lvl       72       02MAY06A       15JAN07A       100       2       0       -140         278012       Ent NB - Cabling, Wirings&Term @ Ceiling/ Grd Lvl       48       13JUN06A       05MAR07       90       0       35       -151       -142         278013       Ent NB - Cabling, Wirings&Term @ Ceiling/ Grd Lvl       48       13JUN06A       05MAR07       5       0       50       -167       -184         278011       Ent NB - Isighting / Equipt Testing and T&C       60       15JAN07A       28MAY07       5       0       50       -167       -184         278011       Ent NB-Install CCTV,Camera,Eqpt @C/Lvl (By TCSS)       72       20JAN07       21APR07       0       0       18       -121       -142       - <td< td=""><td>278003</td><td>Ent NB - Placing Sandfill and PC Covers</td><td>36</td><td>29AUG06A</td><td>01FEB07</td><td>70</td><td>0</td><td>11</td><td>-132</td><td>-93</td><td></td><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td></td<>	278003	Ent NB - Placing Sandfill and PC Covers	36	29AUG06A	01FEB07	70	0	11	-132	-93				-				
278010       Ent NB - Earthing & Lighting Fixture @ C/Lvl       72       02MAY06A       15JAN07A       100       2       0       -140         278012       Ent NB - Cabling, Wirings&Term @ Ceiling/ Grd Lvl       48       13JUN06A       05MAR07       90       00       35       -151       -140         278013       Ent NB - Cabling, Wirings&Term @ Ceiling/ Grd Lvl       48       13JUN06A       05MAR07       90       00       35       -151       -140         278013       Ent NB - Lighting / Equipt Testing and T&C       60       15JAN07A       28MAY07       5       0       50       -167       -184         278013       Ent NB-Install CCTV,Camera,Eqpt @C/Lvl (By TCSS)       72       2JAPR07       0       0       72       -116       -197         278083       Place Covers on C, Trough       18       06MAR07       20       18       -121       -142	Electrical V	I Vorks Below OHVD	1	1		1 1		1	1 1									
278012       Ent NB - Cabling,Wirings&Term @ Ceiling/ Grd Lvi       48       13JUN06A       05MAR07       90       0       35       -151       -142         278013       Ent NB - Lighting / Equipit Testing and T&C       60       15JAN07A       28MAY07       5       0       50       -167       -184         278013       Ent NB - Lighting / Equipit Testing and T&C       60       15JAN07A       28MAY07       5       0       50       -167       -184         278013       Ent NB -Install CCTV, Camera, Eqpt @C/Lvl (By TCSS)       72       20JAN07       21APR07       0       0       72       -116       -197         278083       Place Covers on C, Trough       18       06MAR07       26MAR07       0       0       18       -121       -142	278009	Ent NB - Conduit Works (Above & Below OHVD)	60	01MAR06A	15JAN07A	100	30	0		-169								
278012       Ent NB - Cabling,Wirings&Term @ Ceiling/ Grd Lvi       48       13JUN06A       05MAR07       90       0       35       -151       -142         278013       Ent NB - Lighting / Equipit Testing and T&C       60       15JAN07A       28MAY07       5       0       50       -167       -184         278013       Ent NB - Lighting / Equipit Testing and T&C       60       15JAN07A       28MAY07       5       0       50       -167       -184         278013       Ent NB -Install CCTV, Camera, Eqpt @C/Lvl (By TCSS)       72       20JAN07       21APR07       0       0       72       -116       -197         278083       Place Covers on C, Trough       18       06MAR07       26MAR07       0       0       18       -121       -142																		
And	278010	Ent NB - Earthing & Lighting Fixture @ C/Lvl	72	02MAY06A	15JAN07A	100	2	0		-140								
278011       Ent NB-Install CCTV, Camera, Eqpt @C/Lvl (By TCSS)       72       20JAN07       21APR07       0       0       72       116       -197         278083       Place Covers on C, Trough       18       06MAR07       26MAR07       0       0       18       121       -142       142	278012	Ent NB - Cabling, Wirings&Term @ Ceiling/ Grd Lvl	48	13JUN06A	05MAR07	90	0	35	-151	-142								
278083       Place Covers on C, Trough       18       06MAR07       26MAR07       0       0       18       -142       Image: Constrained on the cons	278013	Ent NB - Lighting / Equipt Testing and T&C	60	15JAN07A	28MAY07	5	0	50	-167	-184								
Image: Control of the state of the stat	278011	Ent NB-Install CCTV,Camera,Eqpt @C/LvI (By TCSS)	72	20JAN07	21APR07	0	0	72	-116	-197			•					
Tunnel Finishing Works       2172       SB Cleaning/Inspection & Install Induction Loop       12       19APR07       03MAY07       0       0       12       -107       -63       -63       - </td <td>278083</td> <td>Place Covers on C, Trough</td> <td>18</td> <td>06MAR07</td> <td>26MAR07</td> <td>0</td> <td>0</td> <td>18</td> <td>-121</td> <td>-142</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	278083	Place Covers on C, Trough	18	06MAR07	26MAR07	0	0	18	-121	-142								
2172       SB Cleaning/Inspection & Install Induction Loop       12       19APR07       03MAY07       0       0       12       107       -63       Image: Constant of the stant of the	Tunnel	Drive South Bound		·		. 1												
2172       SB Cleaning/Inspection & Install Induction Loop       12       19APR07       03MAY07       0       0       12       107       -63       Image: Constant of the stant of the	Tunnel F	inishing Works																
1350       SB Wearing Course - RHS 650m Ch3030->2380       4       03MAR07       07MAR07       0       0       4       -107       -63         1370       SB Wearing Course - RHS 650m Ch 2380->1730       4       08MAR07       12MAR07       0       0       4       -107       -63         1390       SB Wearing Course - RHS 650m Ch 1730->1080       4       13MAR07       16MAR07       0       0       4       -107       -63       -63       -		5	12	19APR07	03MAY07	0	0	12	-107	-63					-			
1370       SB Wearing Course - RHS 650m Ch 2380->1730       4       08MAR07       12MAR07       0       0       4       -107       -63         1390       SB Wearing Course - RHS 650m Ch 1730->1080       4       13MAR07       16MAR07       0       0       4       -107       -63	Bituminous	Pavement																
1390       SB Wearing Course - RHS 650m Ch1730->1080       4       13MAR07       0       0       4       -107       -63			4	03MAR07	07MAR07	0	0	4	-107	-63		-						
	1370	SB Wearing Course - RHS 650m Ch 2380->1730	4	08MAR07	12MAR07	0	0	4	-107	-63		-						
1360       SB Wearing Course - LHS 650m Ch3030->2380       4       17MAR07       0       0       4       -107       -63	1390	SB Wearing Course - RHS 650m Ch1730->1080	4	13MAR07	16MAR07	0	0	4	-107	-63		_						
	1360	SB Wearing Course - LHS 650m Ch3030->2380	4	17MAR07	21MAR07	0	0	4	-107	-63			-					

Act.	Activity	Orig	Early	Early	%	Target 1	Rem	Total	Variance	NOV	DEC	JA		FEB	MAR	APR	MAY
ID	Description	Dur	-	Finish	Compl.	% Comp		Float		38	39 7 4 11 18 25	40		41 9 5 12 19 26	42 5 12 19 26	43 2 9 16 23	<u>44</u> 30 7 14
	Pavement				· · ·			· ·					T .				
1380	SB Wearing Course - LHS 650m Ch2380->1730	4	22MAR07	26MAR07	0	0	4	-107	-63			-					
1400	SB Wearing Course - LHS 650m Ch1730->1080	4	27MAR07	30MAR07	0	0	4	-107	-63			-					
1340	SB Road Marking	18	31MAR07	25APR07	0	0	18	-107	-63					-	-		
VE Panel	nstallation																
	SB - VE Panel Installation	55	16AUG06A	22JAN07	98	0	2	-107	0				1				
3663	SB - Niche Cabinets	50	28NOV06A	25JAN07	90	0	5	-79	0								
3653	SB - Bespoke Panels (Niches)	20	26JAN07	21FEB07	0	0	20	-63	0								
ENT SB	TUNNEL - (E&M) BUILDING SERVICES						1										
	Innel Ventillation System Above OHVD																
	Ent SB - Install Motorised Smoke & Fire Dampers	72	31DEC05A	22JAN07	99	40	2	-154	-186				•				
278015	Ent SB - Comp Air Pipes/Condts to E/P16 to E/P21	36	27MAR06A	22JAN07	95	58	2	-154	-198				•				
278017	Ent SB - Comp Air Pipes/ Condts to E/P1 to E/P7	36	13JUN06A	22JAN07	95	0	2	-154	-150				•				
278018	Ent SB - Cabling, Wiring and Termination	60	13JUN06A	05FEB07	90	0	8	-154	-102								
278019	Ent SB - MVAC Testing and T&C	36	20JAN07	08MAR07	0	0	36	-153	-94	•			•				
Fire Prote	 xtion System	1															
	Ent SB - Install detection system @ Ceiling Lvl	42	20SEP06A	22JAN07	95	0	2	-137	-131				•				
278039	Ent SB - FS Wiring and Terminations	30	100CT06A	03APR07	25	0	22	-173	-153								
278037	Ent SB - Install Hose Reel Cabinets & Eqpt @ G/L	48	20DEC06A	20MAR07	50	0	48	-173	-195	-							
278040	Ent SB - FS Testing and T&C	24	04APR07	07MAY07	0	0	24	-173	-153	-							
Electrical	Vorks Above OHVD																
278044	Ent SB - HV & LV Mn/submain Cables to CP01-CP10	72	09JUN06A	15JAN07A	100	0	0		-102								
278043	Ent SB - HV & LV Mn/Submain Cables to CP21-CP11	72	15JUN06A	15JAN07A	100	0	0		-127								
278046	Ent SB - Placing Sandfill and PC Covers	36	07JUL06A	24JAN07	90	0	4	-125	-74				-∎				
Electrical	I Vorks Below OHVD		ı		· · ·		·	· · · ·									
278055	Ent SB - Cabling, Wirings&Term @ Ceiling/ Grd Lvl	48	07AUG06A	06FEB07	90	0	15	-131	-98								
278056	Ent SB - Lighting / Equipt Testing and T&C	60	15JAN07A	28MAY07	5	0	50	-167	-160				†				
	1	1	II		<u> </u>		1				1		•	1			

Act.	Activity	Orig	Early	Early	%	Target 1	Rer	m To	tal	Variance	NOV	DEC	AN	FEB	MAR	APR	MAY
ID	Description	Dur		Finish	Compl.	% Comp	Du	r Flo	bat	Early Finish	38  13  20  27	39 _4 _11 _18 _2	40 15_22_2	41 9 5 12 19	42 26 5 12 19 2	43 5 2 9 16 23	44 30 7 14
	Works Below OHVD	1					1	-									
278054	Ent SB-Install CCTV,Camera,Eqpt @C/LvI (by TCSS)	72	20JAN07	21APR07	0	0	72	2 -11	16	-179			-				
278096	Place Covers on C. Trough	18	07FEB07	02MAR07	0	0	18	3 -10	07	-98							
Vent Ac	dit Tunnel / Cross Passage 7	1															
ENT CR	ROSS PASSAGE CP07 - (E&M) BUILDING SERVICES																
MVAC / T	unnel Ventillation System Above OHVD						_	_									
278059	CP7 - Cabling, Wiring, Termination & Test	18	28AUG06A	24JAN07	95	0	2	-1	19	-149							
	ction System																
278062	2 CP7 - Cabling, Wiring, FS detectn & Alarm Bell	48	100CT06A	06FEB07	90	0	15	5 -15	54	-130							
278063	3 CP7 - FS Termination & Test	24	07FEB07	09MAR07	0	0	24	-1	54	-130							
Electrical	l Works	1			1 1		1	1									
278086	B HGC - Cabling	36	20JAN07	06MAR07	0	0	36	5 21	15	-142			<b>—</b>				
278066	6 CP7 - Install Conduit, lighting & switches @ C/L	48	03JUL06A	25JAN07	90	0	5	-12	24	-120			<b>†</b> •				
278069	P CP7 - HV/ LV Cabling, Wiring & Term to CP7 LV Rm	48	20SEP06A	23JAN07	95	0	3	-12	23	-118			 ¢.				
278070	0 CP7 - HV / LV Cables Testing and T&C	24	15DEC06A	29JAN07	90	0	5	-12	23	-99			<b>-</b> 1				
278067	CP7 - Cabling, Wiring & Termination and Test	24	20DEC06A	30JAN07	90	0	4	-12	24	-100							
ENT Cr	oss Passages	1	1				1	1									
CROSS	PASSAGES (CP1-CP6 & CP8-CP21) - (E&M) WORK																
Electrical									-								
278077	(CP21-CP11) - MCCB/ MCB Brd,CMCS,Busbar,Switches	72	03MAY06A	22JAN07	98	0	2	-17	72	-145							
278078	3 (CP1-CP10) - MCCB/ MCB Brd,CMCS,Busbar,Switches	72	03MAY06A	22JAN07	98	0	2	-17	72	-147							
278075	(CP1-CP21) - Conduit,light,Signage fixt,Switches	60	17JUL06A	31JAN07	50	0	10	) -16	68	-165			+ 1				
278079	(CP1-CP21) - HV & LV Cables Terminations & Test	60	08AUG06A	01MAR07	80	0	12	2 -17	72	-100			-		-		
278076	CP1-CP21) - Cabling, Wiring, Termination & Test	36	15AUG06A	24FEB07	70	0	7	-16	68	-147			-				
278080	(CP1-CP21) - Cables Testing and T&C	36	01NOV06A	19MAR07	80	0	7	-16	62	-91							
VENTI	LATION ADIT & BUILDING						1										
Submit	ttals & Approvals																
1	& Builders Works																
	2 VA Bldg Approve door details	24	07MAY05A	21DEC06A	100	70	0			-184							
	1	1	1		1			- 1			]				-	-	

Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp		Total Float		NOV 38	DEC 39	JAN 40		FEB 41	MAR 42	APR 43	MAY
	REMENT	Dur	Start	Finish	Compi.	% Comp	Dur	Float	Early Finish	13  20  27	4  11  18  25	1  8  15	22 29 5	12 19 2	6 5 12 19 <u>26</u>	2 9 16 23	30 7
	ECTURAL																
	VA Bldg Procure expanded metal mesh cladding	60	06JUN05A	30JAN07	50	50	9	-136	-215								
2031	VA Bldg Initial delivery slate cladding	0	20JAN07*		0	0	0	-119	-130			•					
2034	VA Bldg Initial delivery fall arrest roof sys	0	20JAN07*		0	0	0	-81	-161	-		-					
2035	VA Bldg Initial delivery balust & metal works	0	20JAN07*		0	0	0	-81	-161								
2043	VA Bldg Initial deliv exp metal mesh cladding	0	10MAR07		0	0	0	-136	-169						•		
CONST	RUCTION WORKS						1										
EXTERN	IAL WORKS																
Drainag				i	1 1		1	-	1								
S1900	Petrol interceptor & Storm Drain at East Side	48	20JAN07	20MAR07	0	0	48	-169	-184			- 7					
S1940	Foul Drain Pipe & Holding Tank	24	20JAN07	16FEB07	0	0	24	-153	-184			•					
S1960	Storm Drain at West Side	24	20JAN07	16FEB07	0	0	24	-171	-198	-		•					
S1970	Storm Drain & Gullies at Access Apron	24	21FEB07	20MAR07	0	0	24	-171	-198	-							
Ducting	& Drawpits			1	1 1		1	1									
	Ducting & Drawpits	18	06MAR07	31MAR07	0	0	18	-169	-166								
S1980	HGC Ducting & Drawpits	18	06MAR07	31MAR07	0	0	18	-169	-148	-							
Waterm	ain Works				1 1												
	Watermain & Valve Chambers at Building Apron	24	07MAR07	03APR07	0	0	24	-171	-186								
S1990	Irrigation Pipework	18	04APR07	28APR07	0	0	18	-171	-186	-							
Constructio	on of Watermains Across Tai Po Rd				1 1												
SB3100	Stage 4 - Watermain Crossing Tai Po Rd	22	06DEC06A	29DEC06A	100	0	0		-29								
SB3110	Stage 5 - Watermain Crossing Tai Po Rd	4	10JAN07A	13JAN07A	100	0	0		-30		_ \						
SB3120	Stage 6 - Watermain Crossing Tai Po Rd	4	15JAN07A	18JAN07A	100	0	0		-22								
SB3130	Stage 7 - Watermain Crossing Tai Po Rd	4	19JAN07A	23JAN07	90	0	3	-48	-13								
SB3150	Stage 4(R) - Watermain Crosssing Tai Po Rd	4	05JAN07A	09JAN07A	100	0	0		0								

Act.	Activity	Orig Early	Early	%	Target 1	Rem	Total	Variance	NOV	DEC	JAN	FEB	MAR	APR	MAY
ID	Description	Dur Start	Finish	Compl.	% Comp		Float	Early Finish	38  13  20  27	39  4  11  18  25	40 1 <sub>1</sub> 8 <sub>1</sub> 15 µ	41 22 29 5 12 19	42 26 5 12 19 26	43 2 9 16 23	44 30 7 14
Road Pa	avement & Associated Work														
S1920	Preparation and Block Paving	48 04APR07	05JUN07	0	(	) 48	-171	-150							
VENTIL	ATION BUILDING														
VA Buildi	ing - Structure														
T2130	Installation of Exhaust Shaft Steelwork	24 03JAN07A	06FEB07	20	C	) 15	-130	-198							
T3140	Backfilling Around Ventillation Building	24 20DEC06A	14FEB07	10	(	) 22	229	0							
T3130	Installation of Earth mat	24 20JAN07	16FEB07	0	(	24	-139	-162	_		, t				
T3360	NEW ACTIVITY - Waiting for Earth Mat Detail	2 15FEB06A	21DEC06A	100	(	0 0		0							
T3370	NEW ACTIVITY - Preparation of Revised CSD	6 22DEC06A	08JAN07A	100	(	0 0		0							
T3380	NEW ACTIVITY - Complete Tunnel Eart Tape	24 20JAN07	16FEB07	0	(	) 24	-145	0							
VA Buildi	ing - ABWF														
T3030	ABWF - GL Paint Touch Up & Doors	12 17MAR07	30MAR07	0	(	) 12	-102	-130						•	
T3040	ABWF - 1FL Paint Touch Up & Doors	12 17MAR07	30MAR07	0	(	) 12	-102	-130						•	
T3050	ABWF - Fan Rooms & Plenums Touch Up & Doors	12 17MAR07	30MAR07	0	(	) 12	-102	-130							
	g - External Finishes	1 1				-	1					_			
	VA Bldg Ext. Wall Waterproof Render	20 10JUL06A	23JAN07	95	(	) 3	-96	-181				•			
	VA Bldg Install Aluminum louvres & doors	60 11NOV06A	28MAR07	50	(	0 40	-130	-168							
	VA Bldg 25thk Roof Screed & Roofing Tiles	18 16DEC06A	07FEB07	5	C	0 16	-97	-151							
	VA Bldg External Wall Painting	22 18DEC06A	06FEB07	10	C	) 12	-96	-165							
T2140	VA Bldg Slate Cladding	44 20JAN07	15MAR07	0	(	) 44	-119	-130			f				
	VA Bldg Alum Comp Panel Cladding to Ext Walls	60 20JAN07	03APR07	0	(	60	-135	-133			<b>P</b>				
T3100	VA Bldg GMS,S/S Channel, Balustrade & Railing	18 08FEB07	03MAR07	0	(	) 18	-97	-151							
T2110	VA Bldg Expanded metal cladding to Ext Walls	22 10MAR07	04APR07	0	(	) 22	-136	-169							
T3105	VA Bldg Removed External Scaffolding	12 10APR07	23APR07	0	(	) 12	-136	-134							
E&M V	VORKS														
	Adit Bldg (GF/Lwr Plen) - E & M Work		1	· · · ·											
EM2040	BS Works for HV Sw + Tx	12 17JUL06A	20JAN07	99	C	0 1	-155	-188			-				
			1			1								1	-

Act.	Activity	Orig		Early	%	Target 1		Tota		NOV 38	DEC 39	JAN 40	FEB 41	MAR 42	APR 43	MAY 44
ID	Description	Dur	Start	Finish	Compl.	% Comp	Dur	Float	Early Finish					26 5 12 19 26		
	Adit Bldg (GF/Lwr Plen) - E & M Work BS Works for Genset	19	01AUG06A	27JAN07	98	0	2	-155	-176							
	BS Works for Genser	10	UTAUGUUA	ZIJANUI	90	0	2	-155	-170				-			
EM2260	E&M Works in Corridors G/F	24	01AUG06A	06FEB07	99	0	1	-157	-176							
EM2300	E&M Works in Risers	48	04AUG06A	23FEB07	98	0	3	-157	-142							
									170							
EM2310	BS Works in TVS Plenums	30	14AUG06A	26JAN07	80	0	6	-169	-156				•			
FM2220	Genset Installation	36	13SEP06A	10FEB07	95	0	2	-155	-152							
						Ū	-									
	Adit Bldg (1F) - E & M Work		I						1							
EM2100	BS Works for LV Sw, MCC, UPS, LCC	12	18JUL06A	23JAN07	98	0	3	-160	-188							
EM2290	E&M Works in Corridors 1/F	24	04AUG06A	22JAN07	98	0	2	-144	-165							
		24	04406004	ZZJANUI	90	0	2	-144	-105							
EM2160	BS Works for 110V Charger Rm	12	11SEP06A	30JAN07	98	0	2	-160	-182							
	-															
EM2120	LV Sw, MCC, UPS, LCC Installation	30	02OCT06A	25JAN07	98	0	2	-151	-145							
EM2340	Termination of overall Elect HV & LV Sys	30	100CT06A	16MAR07	25	0	15	-160	-130							
Ventilation	Adit Bldg (2F/Upr Plen) - E & M Work						1	1	1							
	TVS Installation	90	23AUG06A	20JAN07A	100	0	0		-71							
		00	44050004	0055007	50		45	100								
EM2080	HV Sw + Tx Termination + T&C	30	11DEC06A	06FEB07	50	0	15	-130	-111							
EM2180	110V Charger Rm Installation + T&C	12	20JAN07	06FEB07	0	0	12	-160	-176							
			200, 1101	001 2001	Ŭ	Ŭ		100								
EM2240	Genset Termination + T&C	12	20JAN07	21FEB07	0	0	12	-155	-146			<b> </b>				
EM2140	LV Sw, MCC, UPS, LCC Termination + T&C	30	03FEB07	13MAR07	0	0	30	-160	-152				-			
	Integrated E&M System T&C	52	28MAR07	02JUN07	0	0	52	-169	-104	-						
EIVI2360	Integrated Early System 1 aC	52	ZÖIVIARUT	02JUN07	0	0	52	-169	-104					_		
Statutory Ir	spection & Issued Certificates	I	1 1		1 1		1	1	1							
EM2440	Permanent power energization from SHT NP Bldg	6	13MAR07	19MAR07	0	0	6	-162	-97							
EM3001	Submit Form WWO46 for Water Supply to WSD	30	04APR07	14MAY07	0	0	30	-153	-106							
EVTERA	IAL AREAS						1									
	APING & ESTABLISHMENT WORKS Planting Works	10	02SEP06A	28APR07	65	0	18	-123	169							
13180	Fianting WORS	10	023EF00A	ZOAFRUI	00	0	10	-123	-168							
			1]		1 1		1		1			I	-	+	ł	-

Act.	Activity	Orig	Early	Early	%	Target 1		Total	Variance	NOV 38	DEC 39	JAN 40		FEB 41	MAR 42	APR 43	MAY 44
ID	Description	Dur	Start	Finish	Compl.	% Comp	Dur	Float	Early Finish	13 20 2	7 4 11 18 25	40 I ∣8 ∣15	22 29	9 [5  12  19  20	5 5 12 19 26	2 9 16 23	30 7 14
ENT NO	RTH PORTAL VENTILATION BUILDING																
PROCU	REMENT - MATERIAL																
ABWF V	NORKS																
1981	NP.Bldg Procure expanded metal cladding	180	06JUN05A	30JAN07	50	50	9	-138	-215								
2039	NP.Bldg Initial delivery of doors	0	20DEC06A		100	0	0		-144		<b>♦</b>						
2051	NP.Bldg Initial delivery slate cladding	0	20JAN07*		0	0	0	-99	-156	-							
2052	NP.Bldg Initial delivery balust & metal works	0	20JAN07*		0	0	0	-87	-168	-							
2053	NP.Bldg Initial delivery fall arrest roof sys	0	20JAN07*		0	0	0	-87	-168	-							
2066	NP.Bldg Initial deliv expanded metal cladding	0	10MAR07*		0	0	0	-138	-169						•		
CONST	RUCTION		I				1	1 1									
1	ortal Bldg CIVIL & ABWF WORKS																
STRUCT	_																
T1390	NP Bldg - Exhaust Shaft (+110.38mPD)	18	24MAY06A	29JAN07	80	0	8	-135	-197	_							
ABWF W					1 1												
	GF ABWF Initial finishes	18	04MAR06A	20JAN07A	100	28	0		-203								
T1910	GF - paint touch up & doors	12	27NOV06A	10APR07	5	0	10	-107	-133								
NP Bldg - Ir	nternal Works 1F		1														
T1920	1F - paint touch up & doors	12	20NOV06A	02APR07	40	0	7	-104	-130								
NP Bldg - Ir	nternal Works 2F	1			1 1		1	1 1									
T1930	2F - paint touch up & doors	12	11DEC06A	10APR07	10	0	10	-107	-133								
	ernal Works 3/F																
T1880	3F - paint touch up & doors	12	20NOV06A	14FEB07	50	0	6	-67	-159								
	g - Internal Works	6-															
	4F ABWF initial finishes	12		12FEB07	95	0	1	231	-197	_							
	4F - paint touch up & doors	12	26MAR07	12APR07	0	0	12	-109	-135								
	Roofing & External Facade	1.2.5			1 1		-										
	Ent NPB - Ext. Wall Waterproof Render	18		25JAN07	70	0		-132	-194								
T1740	Ent NPB - Install Aluminum louvres & doors	90	14AUG06A	12FEB07	85	0	13	-135	-119								
T1800	Ent NPB - Roof Waterproofing & Test	12	200CT06A	06FEB07	40	0	7	-130	-192								

Ac	. Activity	Orig	Early	Early	%	Target 1	Rem	Total	Variance	NOV	DEC	JA		FEB	MAR	APR	MAY
ID	,	Dur	-	,	Compl.	% Comp		Float		38	39	40 5 1 8 1		41 9 5 12 19	42 26 5 12 19	43 26 2 9 16 2	44 3 30 7 14
NP BI	lg - Roofing & External Facade	1	1 1			•	1		,								
T17	50 Ent NPB - Alum. Comp Panel Cladding to Ext Walls	60	09NOV06A	16MAR07	25	0	45	-108	-102								
T17	80 Ent NPB - Slate cladding above NB/SB carriageway	36	25NOV06A	14FEB07	40	0	22	-99	-142				÷				
T17	00 Ent NPB - 25thk Roof Screed & Roofing Tiles	18	08DEC06A	14MAR07	10	0	16	-130	-190				-				
T17	30 Ent NPB - External Wall Painting	34	02FEB07	16MAR07	0	0	34	-132	-194				<b>_</b>				
T17	70 Ent NPB - Expanded metal cladding to Ext Walls	36	10MAR07	25APR07	0	0	36	-138	-169	-							
T17	90 Ent NPB - GMS,S/S Channel, Balustrade & Railing	24	17MAR07	18APR07	0	0	24	-132	-192	-							
T17	95 Ent NPB - Removed External Scaffolding	12	26APR07	10MAY07	0	0	12	-138	-132								╺┼╌⋑│
ENT	North Portal Bldg BUILDING SERVICES		· · · · · · · · · · · · · · · · · · ·														
	M WORKS																
ENT N	orth Portal Bldg (G/F) - E & M Works																
T17	20 Installation of FS Pumps & Pipework at GF	18	15SEP06A	22JAN07	98	0	2	-95	-186								
ENT	orth Portal Bldg (2F/Silencer) - E & M Work	I	1 1		1 1		1	1	I								
EM29	30 BS Works for TVS Plenums	30	17JUN06A	10JAN07A	100	0	0		-163								
EM25	80 BS Works for HV Sw + Tx	12	20JUN06A	20JAN07	98	0	1	-144	-192				•				
EM27	00 BS Works for LV Sw	12	20JUN06A	20JAN07	98	0	1	-146	-192				•				
EM28	60 E&M Works in Corridors 2/F	24	17JUL06A	20JAN07	95	0	1	-146	-180				•				
EM28	00 BS Works for Genset	18	01AUG06A	20JAN07	98	0	1	-144	-186								
EM29	00 E&M Works in Risers	48	10AUG06A	05FEB07	95	0	2	-147	-143				T T				
	orth Portal Bldg (3F/ Fan Rm) - E & M Works												L				
EM26	40 BS Works for MCC, UPS, LCC	12	20JUN06A	20JAN07	98	0	1	-150	-190				T.				
EM28	80 E&M Works in Corridors 3/F	24	17JUL06A	22JAN07	95	0	2	-147	-179								
EM27	60 BS Works for 110V Charger Rm	12	01AUG06A	22JAN07	98	0	2	-155	-191								
EM28	20 Genset Installation	30	01SEP06A	27JAN07	95	0	2	-144	-156								
EM26	60 MCC, UPS, LCC Installation	30	18SEP06A	10JAN07A	100	0	0		-157								
EM29	20 Termination of overall Elect HV & LV Sys	30	15OCT06A	10MAR07	25	0	10	-155	-147								
EM28	90 Compressor Room Installation	18	15DEC06A	07FEB07	10	0	16	-131	-199								

Act.	Activity	Orig Early	Early	%	Target 1	Rem	Total	Variance	NOV 38	DEC 39	JAN 40		FEB 41	MAR 42	APR 43	MAY 44
ID	Description	Dur Start	Finish	Compl.	% Comp	Dur	Float	Early Finish					9 5 12 19	26 5 12 19 26		
	Portal Bldg (4F/Upr Plen) - E & M Work					1 -										
EM2940	TVS Installation	100 02AUG06A	24MAR07	98	0	5	-163	-135								
Testing and	d Commissioning					1										+
	HV Sw + Tx Termination + T&C	30 06JAN07A	14FEB07	10	0	10	-147	-90								
EM2680	MCC, LCC Termination + T&C	30 06JAN07A	14FEB07	10	0	10	-155	-157			H	-				
									-							
EM2740	LV Sw Termination + T&C	30 06JAN07A	14FEB07	10	0	10	-155	-153								
EM2790	110V Charger Rm Installation + T&C	12 20JAN07	02FEB07	0	0	12	-155	-189	-							
	TTOV Charger Riff Installation + T&C	12 20JAN07	UZFEDU/	0	0	12	-155	-109			-	Γ				
FM2840	Genset Termination + T&C	12 29JAN07	10FEB07	0	0	12	-144	-156								
				Ŭ	0											
EM2960	Integrated E&M System T&C	52 31MAR07	06JUN07	0	0	52	-172	-100								
	Ispection & Issued Certificates	0 0444505	00144505			0	170	100	-							
EM3040	Permanent power energization from ENT SP Bldg	6 24MAR07	30MAR07	0	0	6	-172	-100								
																+
	LAZA & ANCILLIARY STRUCTURES															
SUBMIT	TALS & APPROVALS															
ABWF &	BW SUBMITTALS															
1522	TP/FB - Approve footbridge details	24 28JUL05A	02FEB07	50	50	12	239	-215				-				
Constru	ction Works															
TOLL PL	AZA EAST SIDE															
K1232	Carriageway Drainage Prior to TCSS	36 27APR06A	21DEC06A	100	10	0		-161								
K1222	Main carriageway Ducting & Drawpits	54 02MAY06A	08JAN07A	100	0	0		-120								
0.1.170			00.141107			-		150								
S1170	FW Watermains Centre to Admin Bldg & FH12, FH13	36 02MAY06A	23JAN07	99	0	2	-112	-158								
S1160	Installation of Ducting and Drawpits for TCSS	32 08MAY06A	28DEC06A	100	0	0		-133								
31100	Installation of Ducting and Drawpits for TCSS	32 00IVIA1007	ZODECUOA		0			-135			-					
K1212	Main Carid'way Drain (D3 & D4) - after stockpile	57 20MAY06A	23JAN07	95	0	3	-124	-161								
K1242	Main carriageway - East Subbase and kerbs	53 16OCT06A	17MAR07	40	0	31	-124	-135								
S1420	Road Pavement Surfacing (Flex & Rigid)	56 18OCT06A	04APR07	40	0	34	-124	-135				-				
			0.5.14.10.5			-		100	-							
K1182	East Loop Road - Drainage	28 12DEC06A	25JAN07	90	0	5	-82	-192								
K1102	East Loop Road - Formation & Roadworks	36 12JAN07A	07MAR07	10	0	32	-82	-86	-							
1192	Last Loop Road - I officiation & Roadworks			10	0	52	-02	-00								
K1252	E&M / Lighting works	24 20JAN07	16FEB07	0	0	24	-93	-203								
	5 0				-											
												-				-

Act.	Activity	Orig	-	Early	%	Target 1		Total		NOV 38	DEC 39	JAN 40	FEB 41	MAR 42	APR 43	MAY 44
ID	Description	Dur	Start	Finish	Compl.	% Comp	Dur	Float	Early Finish					26 5 12 19 26		
	LAZA EAST SIDE	18	1040007	2040007	0	0	10	104	-135							<b>⊥</b>
51140	Furniture, signage (face only), white lining	18	10APR07	30APR07	0	0	18	-124	-135							T
TOLL P	LAZA WEST SIDE						1	1								
K1241	Main Carriageway - West side drainage - FB-SHT	45	19JUN06A	25JAN07	95	0	5	-168	-155							
<u>81510</u>	FW Waterminam Centre to Admin Bldg & FH12, FH13	24	10JUL06A	23JAN07	99	0	3	-154	-147				-			
51510	rw waterminam Centre to Aumin Blug & FH12, FH13	24	TUJULUBA	ZSJANU7	99	0		-154	-147				-			
K1221	Main Carriageway - West Subbase & kerbs	54	140CT06A	28MAR07	30	0	38	-168	-112							
K1171	West Loop road - Roadworks	36	20JAN07	06MAR07	0	0	36	215	-176	_			1			
KII71	West Loop Toad - Roadworks	50	20071107		U	0	50	215	-170							
K1211	E&M / Lighting works	24	20JAN07	28MAR07	0	0	24	-124	-112			•				
\$1310	Road Pavement Surfacing	57	09FEB07	24APR07	0	0	57	-137	-115							
51510		57	031 2007	24/11/07	U	0	51	-137	-115							
S1410	Furniture, signage (face only), white lining	18	25APR07	16MAY07	0	0	18	-137	-115							
	LAZA - works adjacent to building															
	SHT SPB - Drainage & Ducting	18	28FEB06A	22JAN07	95	90	2	-47	-209							
01410				22541107	30	50			-203				_			
S1427	Admin Blg & Wshop - Drainage & ducting	36	07MAR06A	29JAN07	80	25	8	-83	-206							
S1380	ENT NPB - Drainage & Ducting	18	01APR06A	10JAN07A	100	25	0		-199	_						
51500	LINT IN D - Drainage & Ducting	10	UTAFILUUA	IUJANUTA	100	20			-155							
S1440	Install Earth Mat for Admin Bldg & SHT NP Bldg	36	06NOV06A	23JAN07	95	0	3	-124	-182							
<u><u> </u></u>	ENT NPB - Kerbs & Rwks & misc Finishes	12	15NOV06A	23JAN07	75	0	3	-48	-198				-			
31400		12	ISNOVUOA	ZOJANUT	75	0		-40	-190				-			
S1417	SHT SPB - Kerbs & Rwks & misc finishes	12	20JAN07	02FEB07	0	0	12	-57	-205			<b>4</b>				
<u>61427</u>	Admin Blg & Wshop - kerbs, Rwks & misc finishes	30	30JAN07	08MAR07	0	0	30	-83	-167	_						
51437	Admin big & wshop - kerbs, Kwks & misc infishes	30	30JAN07	UOIVIARUI	0	0	30	-03	-107							
TOLL P	LAZA COLLECTOR'S SUBWAY	,		1												
ABWF																
S1290	Toll Subway - E&M	54	20NOV06A	01FEB07	80	0	11	-56	-122							
ABWF																
	Installation of Aluminium Cladding	38	20JAN07	08MAR07	0	0	38	-167	-207	-						
	-							-		_						
S1250	Toll Ftbrdge - Finishes	54	18APR07	22JUN07	0	0	54	-167	-207							
S1340	Toll Plaza - Erection of Lift Steel Work	24	30MAY06A	24JAN07	95	0	4	-145	-195							

Description Descri	24 2 30 0 18 7 88 2 51 1 54 0	Start 25JAN07 27APR07 09MAR07 18APR07 18APR07 28OCT06A 13NOV06A 09MAR07 03AUG06A	Finish 26APR07 26MAY07 17APR07 09MAY07 31MAR07 27FEB07 16MAY07	Compl. 0 0 0 0 50 25 0 70	% Comp 0 0 0 0 0 0 0 0 0 0	72 24 30 18 44 30	Float -145 -145 -167 -131 -145 -145 -153 -161	Early Finish -195 -195 -207 -207 -207 -105 -186 -111	38 13 20 27	39 4 11 18 25	40					
oridge - Lift Commissioning a at Footbridge a T&C S sooths - 22No. slands 17 No. E&M, CMCS & TCS KSHOP ernal Finishes maining internal Finishes	24 2 30 0 18 7 88 2 51 1 54 0	27APR07 09MAR07 18APR07 28OCT06A 13NOV06A 09MAR07 03AUG06A	26MAY07 17APR07 09MAY07 31MAR07 27FEB07 16MAY07	0 0 0 50 25 0	000000000000000000000000000000000000000	24 30 18 44 30	-145 -167 -131 -131 -145 -153	-195 -207 -207 -105 -186								
oridge - Lift Commissioning a at Footbridge a T&C S sooths - 22No. slands 17 No. E&M, CMCS & TCS KSHOP ernal Finishes maining internal Finishes	24 2 30 0 18 7 88 2 51 1 54 0	27APR07 09MAR07 18APR07 28OCT06A 13NOV06A 09MAR07 03AUG06A	26MAY07 17APR07 09MAY07 31MAR07 27FEB07 16MAY07	0 0 0 50 25 0	000000000000000000000000000000000000000	24 30 18 44 30	-145 -167 -131 -131 -145 -153	-195 -207 -207 -105 -186								
a at Footbridge	30 ( 18 / 18 / 88 2 51 1 54 ( 60 0)	09MAR07 18APR07 28OCT06A 13NOV06A 09MAR07 03AUG06A	17APR07 09MAY07 31MAR07 27FEB07 16MAY07	0       0       50       25       0	0	30 18 44 30	-167 -131 -145 -153	-207 -207 -105 -186								
s T&C S Sooths - 22No. Slands 17 No. E&M, CMCS & TCS KSHOP ernal Finishes maining internal Finishes	88 2 51 1 54 0	18APR07 28OCT06A 13NOV06A 09MAR07 03AUG06A	09MAY07 31MAR07 27FEB07 16MAY07 09FEB07	0       50       25       0	0	18 44 30	-131 -145 -153	-207 -105 -186								<b>_</b> _
S sooths - 22No. slands 17 No. E&M, CMCS & TCS KSHOP ernal Finishes maining internal Finishes	88 2 51 1 54 0 60 0	280CT06A 13NOV06A 09MAR07 03AUG06A	31MAR07 27FEB07 16MAY07 09FEB07	50 25 0	0	44 30	-145 -153	-105 -186								
iooths - 22No. slands 17 No. E&M, CMCS & TCS <b>KSHOP</b> ernal Finishes maining internal Finishes	51 13 54 0 60 0	I3NOV06A 09MAR07 03AUG06A	27FEB07 16MAY07 09FEB07	25	0	30	-153	-186							1	
slands 17 No. E&M, CMCS & TCS <b>KSHOP</b> ernal Finishes maining internal Finishes	51 13 54 0 60 0	I3NOV06A 09MAR07 03AUG06A	27FEB07 16MAY07 09FEB07	25	0	30	-153	-186		_						
E&M, CMCS & TCS <b>(SHOP</b> ernal Finishes maining internal Finishes	54 C	09MAR07 03AUG06A	16MAY07 09FEB07	0	0											
KSHOP ernal Finishes maining internal Finishes	60 0	)3AUG06A	09FEB07			54	-161	-111								
ernal Finishes naining internal Finishes				70		1										
ernal Finishes naining internal Finishes				70												
-	36 2	20AUG06A			0	18	-63	-131								
			27JAN07	85	0	7	-52	-120								
TABLISHMENT WORKS		ļ		1 1		1										
at Toll Plaza	24 2	29MAR07	25APR07	0	0	24	-48	-24						<b></b>		
Vorks at Toll Plaza	365 2	26APR07	24APR08	0	0	365	-152	-28								
BUILDING																
PROVALS																
TALS																
rep & submit wood ceiling details	24 2	20NOV04A	02FEB07	50	50	12	191	-215								
rep & sub GRP water tank details	24 1	12JAN05A	02FEB07	50	50	12	185	-215								
rep & sub suspend ceiling details	24 12	12AUG05A	02FEB07	50	50	12	155	-215								
pprove GRP water tank details	24 (	03FEB07	06MAR07	0	0	24	185	-215								
pprove wood ceiling details	24 (	03FEB07	06MAR07	0	0	24	191	-215								
	24 (	03FEB07	06MAR07	0	0	24	155	-215								
pprove suspended ceiling details				1		1										
pprove suspended ceiling details				100	100	0		-215								
•	prove wood ceiling details	prove wood ceiling details 24 prove suspended ceiling details 24 JBMITTALS	prove wood ceiling details 24 03FEB07 prove suspended ceiling details 24 03FEB07	prove wood ceiling details 24 03FEB07 06MAR07 prove suspended ceiling details 24 03FEB07 06MAR07 JBMITTALS	prove wood ceiling details     24     03FEB07     06MAR07     0       prove suspended ceiling details     24     03FEB07     06MAR07     0	prove wood ceiling details 24 03FEB07 06MAR07 0 00 prove suspended ceiling details 24 03FEB07 06MAR07 0 00 JBMITTALS	prove wood ceiling details2403FEB0706MAR070024prove suspended ceiling details2403FEB0706MAR070024JBMITTALS	prove wood ceiling details2403FEB0706MAR070024191prove suspended ceiling details2403FEB0706MAR070024155JBMITTALS	prove wood ceiling details2403FEB0706MAR070024191-215prove suspended ceiling details2403FEB0706MAR070024155-215JBMITTALS	Image: state of the state of	Image: Second	Image: Section of the section of th	Image: Second Control of	Image: Section of the section of th	Image: Section of the section of th	Image: Section of the section of t

Act.	Activity	Orig	Early	Early	%	Target 1	Rem	Total	Variance	NOV 38	DEC 39	JAI 40		FEB 41	MAR 42	APR 43	MAY 44
ID	Description	Dur	Start	Finish	Compl.	% Comp	Dur	Float	Early Finish						6 5 12 19 26		
DESIG	N & ENGINEERING																
ТЕМРО	RARY WORKS																
1373	Design/ICE Temp False/Formwork Admin Bldg	48	20JAN07	20MAR07	0	0	48	203	-215			[					
PROCU	REMENT - MATERIAL																
ABWF														_			
1904	Admin.Bldg Procure wood ceiling	90	19JAN05A	02FEB07	87	87	12	189	-215								
1902	Admin.Bldg Procure GRP water tank	90	16MAR05A	02FEB07	87	87	12	209	-215					1			
1302	Admin.bldg Frocure CRF water tank	30	TOMAROSA		07	07	12	203	-215					-			
1905	Admin.Bldg Procure suspended ceiling	120	09MAY05A	06MAR07	70	70	36	155	-215						<u>+</u>		
1910	Admin.Bldg Procure expanded metal cladding	90	06JUN05A	12FEB07	87	87	20	-163	-215								
1938	Admin.Bldg Initial delivery glass canopy	0	20JAN07*		0	0	0	-105	-194								
1000	riamin.blag. I milar denvery glass carlopy		200/ 110/		Ŭ	0	Ŭ	100	104								
2056	Admin.Bldg Initial delivery sheet decking	0	20JAN07		0	0	0	251	-173			<	$\geq$				
2059	Admin.Bldg Initial deliv fall arrest roof syst	0	20JAN07*		0	0	0	-84	-168								
2060	Admin.Bldg Initial deliver balust & metal wks	0	20JAN07*		0	0	0	-84	-168								
2000		U	20071107		0	0	Ŭ	-04	-100				T				
2058	Admin.Bldg Initial delivery wood ceiling	0	11APR07		0	0	0	189	-215							$\diamond$	
																~	
2063	Admin.Bldg Initial delivery GRP water tank	0	16APR07		0	0	0	185	-215							$\diamond$	
2061	Admin.Bldg Initial del expanded metal cladding	0	20APR07*		0	0	0	-163	-213							•	
2001		Ũ	20/11/10/		Ŭ	0	Ŭ	100	210							•	
CONST	RUCTION	,			i.												
TCSS A	ccess at Admin Bldg																
	TCSS Works Within Admin Bldg / Tunnel & Ext	140	15SEP06A	23JUN07	0	0	110	-174	-149								L
	-																
CIVIL &	ABWF WORKS																
ABWF																	
	g (G/F) - Internal Work @ Grid 1 to 21				1 - 1												
T1682	AB (G/F to 1/F) - Staircase Finishing Works	30	18APR06A	01FEB07	65	5	11	-166	-198								
T1685	AB G/F (Grid 1-21) - Wall Plaster & Flr Screed	20	19APR06A	22JAN07	95	10	2	-157	-203								
11000		20		220/1107	33	10	2	-107	-203								
T1680	AB G/F (Grid 1-21) - Windows & door frames	18	24APR06A	22JAN07	90	56	2	-157	-209								
T3245	Rm (G39/G40/G45/G46) - Wdws & door frames	8	24APR06A	21DEC06A	100	70	0		-191								
T1075	AP G/E (Grid 1 21) Page Skirting	18	15JUN06A	19MAR07	90	0	2	-98	-165								
11975	AB G/F (Grid 1-21) - Base Skirting	18	AdUNUECI	19IVIARU7	90	0	2	-98	- 105								

A		Activity	Orig		Early	%	Target 1	Rem		Variance	NOV 38	DEC 39	JA 40		FEB 41	MAR 42	APR 43	MAY 44
	D	Description	Dur	Start	Finish	Compl.	% Comp	Dur	Float	Early Finish						26 5 12 19 26		
		lg (G/F) - Internal Work @ Grid 1 to 21	1			1 1		1										
T2	995	AB G/F (Grid 1-21) - Wall & Ceiling Base Paint	30	02AUG06A	05FEB07	90	0	6	-155	-179								
T2	990	AB G/F (Grid 1-21) - Tileworks & Sanitary Fixt	30	15SEP06A	30JAN07	70	0	9	-155	-194				┆	l i			
															_			
T3	285	Rm (G39/G40/G45/G46) - Door Leaf & Final Paints	4	04JAN07A	31JAN07	90	0	2	-55	-134								
ТЗ	275	AB G/F (Critical Rooms) - Access to E&M Works	0		25JAN07	0	0	0	-166	-199				•				
T1	970	AB G/F (Grid 1-21) - Install Ceiling Grids	18	06FEB07	01MAR07	0	0	18	-99	-179						-		
T2	160	AB G/F (Grid 1-21) - Install Ceiling Panels	10	13MAR07	23MAR07	0	0	10	-108	-177								
T2	150	AB G/F (Grid 1-21) - Door Leaf & Final Paints	12	24MAR07	11APR07	0	0	12	-108	-175								
Admi	n Bld	 lg (1/F) - Internal Work @ Grid 1 to 18	1					1										
		AB (1/F to 2/F) - Staircase Finishing Works	30	18APR06A	30JAN07	70	5	9	242	-196					1			
	302		50		000/1107	10	0	5	272	-150					-			
T1	985	AB 1/F (Grid 1-18) - Wall Plaster & Flr Screed	24	18APR06A	23JAN07	95	35	3	-146	-203								
	000		24	10/11/100/1	200/1107		00	Ŭ	140	200								
T1	980	AB 1/F (Grid 1-18) - Wdws & Door Frames	18	24APR06A	26JAN07	90	56	6	-143	-212								
	000		10	2 // 1 / 100/1	200/ 1107	00	00	Ŭ	1.10	212								
T2	165	AB 1/F (Grid 1-18) - Install Skirting	14	15JUN06A	12FEB07	90	0	2	-65	-119								
	100			10001100,1		00	0	-		110								
T2	015	AB 1/F (Grid 1-18) - Wall & Ceiling Base Paint	30	10JUL06A	11JAN07A	100	0	0		-156								
	010		00	100020071	110/110//	100	0	Ŭ		100								
T2	010	AB 1/F (Grid 1-18) - Tileworks & Sanitary Fixt	21	20SEP06A	02FEB07	70	0	9	-143	-206								
	010			20021 00/1	021 2001		0	Ŭ	1.10	200								
T3	268	UPS&UPS Bat Rm (112/115) - Door Lf & Final Paint	6	19DEC06A	09FEB07	20	0	5	-63	-165			 					
	200		Ŭ	ISECOUNT	USI LDUI	20	0	Ŭ	00	100								
T2	012	AB 1/F (Grid 10-18) - Proprietary Toilet Cubicle	18	24JAN07	13FEB07	0	0	18	-146	-203								
12	012			240/1107		Ŭ	0		140	200								
T3	იიი	AB 1/F (Grid 1-18) - Install Ceiling Grids	18	14FEB07	09MAR07	0	0	18	-118	-174								
	000				00111/11/07	Ŭ	0		110	174								
Т2	185	AB 1/F (Grid 1-18) - Install Ceiling Panels	10	10MAR07	21MAR07	0	0	10	-118	-174								
12	100			1000/01007	2110/11/07	Ŭ	0		110	174								
ТЗ	015	AB 1/F (Grid 1-18) - Floor Carpets	12	22MAR07	04APR07	0	0	12	-118	-174								
	010		12	2200/0007	04/11/07	Ŭ	0	12	110	174								
T2	170	AB 1/F (Grid 1-18) - Door Leaf & Final Paints	12	10APR07	23APR07	0	0	12	-118	-174								
				10/ 1110/	20/11/10/	Ũ	0											
Admi	n Bld	Ig (2/F) - Internal Work @ Grid 1 to 18	1	1		1 1		1										
		AB 2/F (Grid 1-18) - Wdws & Door Frames	12	11APR06A	22JAN07	90	50	2	-146	-211								
							50	_										
ТЗ	012	AB 2/F (Tel, Comp, Cont Rm) - Wdws & door frames	8	11APR06A	20DEC06A	100	70	0		-189								
T2	062	AB (2/F to Rf/Lvl) - Staircase Finishing Works	30	18APR06A	30JAN07	70	5	9	-146	-196					1			

ID       Description         Admin Bldg (2/F) - Internal Work @ Grid 1 to 18         T2065       AB 2/F (Grid 1-18) - Wall Plaster & Flr Screen and the second s	Screed 12 21 aaint 30 ing 12 Fixt 18 oors 21	01JUN06A 01JUN06A 03JUL06A 10JUL06A	Finish           22JAN07           25JAN07           08FEB07           12JAN07A           15FEB07           29JAN07	Compl.           95           95           90           100           90	% Comp 0 0 0 0	2 5 3 0	Float -127 -161 -62	Early Finish -193 -208 -87 -148		4 11 18 25	22 29 5 12 	2 19 26 5	12 19 26 2	9 16 23	<u>30 <sub>1</sub>7 14</u>
T2065AB 2/F (Grid 1-18) - Wall Plaster & Flr ScreetT3025AB 2/F (Tel, Comp, Cont Rm) - Plaster & ST2190AB 2/F (Grid 1-18) - Base SkirtingT2025AB 2/F (Grid 1-18) - Ceiling & Wall Base PT1860AB 2/F (Tel, Comp, Cont Rm) - Base SkirtiT2020AB 2/F (Tel, Comp, Cont Rm) - Base SkirtiT2020AB 2/F (Grid 1-18) - Tileworks & Sanitary FT3055AB 2/F (Tel, Comp, Cont Rm) - Raised Flo	Screed 12 21 aaint 30 ing 12 Fixt 18 oors 21	01JUN06A 03JUL06A 10JUL06A 15JUL06A 01OCT06A	25JAN07 08FEB07 12JAN07A 15FEB07	95 90 100 90	0	5 3 0	-161	-208 -87			• • •				
T2190AB 2/F (Grid 1-18) - Base SkirtingT2025AB 2/F (Grid 1-18) - Ceiling & Wall Base PT1860AB 2/F (Tel, Comp, Cont Rm) - Base SkirtiT2020AB 2/F (Grid 1-18) - Tileworks & Sanitary FT3055AB 2/F (Tel, Comp, Cont Rm) - Raised Flo	21raint30ing12Fixt18ors21	03JUL06A 10JUL06A 15JUL06A 010CT06A	08FEB07 12JAN07A 15FEB07	90 100 90	0	3		-87			<b>.</b>				
T2025 AB 2/F (Grid 1-18) - Ceiling & Wall Base P T1860 AB 2/F (Tel, Comp, Cont Rm) - Base Skirti T2020 AB 2/F (Grid 1-18) - Tileworks & Sanitary F T3055 AB 2/F (Tel, Comp, Cont Rm) - Raised Flo	aint 30 ing 12 Fixt 18 ors 21	10JUL06A 15JUL06A 01OCT06A	12JAN07A 15FEB07	100 90	0	0	-62	-							
T1860 AB 2/F (Tel, Comp, Cont Rm) - Base Skirti T2020 AB 2/F (Grid 1-18) - Tileworks & Sanitary F T3055 AB 2/F (Tel, Comp, Cont Rm) - Raised Flo	ing 12 Fixt 18 ors 21	15JUL06A 01OCT06A	15FEB07	90				-148							
T2020 AB 2/F (Grid 1-18) - Tileworks & Sanitary F T3055 AB 2/F (Tel, Comp, Cont Rm) - Raised Flo	Fixt 18 ors 21	01OCT06A			0							_			
T3055 AB 2/F (Tel, Comp, Cont Rm) - Raised Flo	ors 21		29JAN07				-68	-90							
		11NOV06A		70	0		-127	-181							
11865 AB 2/F (Tel, Comp, Cont) - Door Lf & Final	Paint 12		03MAR07	50	0		-105	-125							
T2220 AB 2/F (Grid 1-18) - Door Leaf & Final Pair	nts 12	08JAN07A 10JAN07A	04APR07 26APR07	30 20	0		-106 -121	-122	-						
T3045 AB 2/F (Tel, Comp, Cont Rm) - Ceiling Gri			15FEB07	0	0		-121	-143	-						
T2028 AB 2/F (Grid 1-18) - Proprietary Toilet Cub			09FEB07	0	0		-127	-181	-						
T2035 AB 2/F (Non-Critical Room) - Access to E8			30JAN07	0	0		242	-175	-		$\diamond$				
T2045 AB 2/F (Grid 1-18) - Install Ceiling Grids	18	13FEB07	08MAR07	0	0	18	-121	-162							
T3068 AB 2/F (Corridor & Cont Rm) - Floor Carpe	ets 12	05MAR07	17MAR07	0	0	12	-99	-125	-						
T3065 AB 2/F (Corridor & Cont Rm) - Ceiling Pan	els 18	06MAR07	26MAR07	0	0	18	-106	-126	-						
T2058 AB 2/F (Grid 1-18) - Install Ceiling Panels	18	23MAR07	17APR07	0	0	18	-121	-147	-						
T2068 AB 2/F (Grid 1-18) - Floor Carpets	18	23MAR07	17APR07	0	0	18	-121	-159							
Admin Bldg (Roof/Flr) - Inter Works Grid 3 to 16		· · ·		· ·							_				
T3280 AB R/F (Grid 3-16) - Wall Plaster & Flr Scr		28APR06A	20JAN07	95	50		-174	-207							
T2250 AB R/F (Grid 3-16) - Ceiling & Wall Base F		15JUN06A	05JAN07A	100	0			-175	_						
T2235 AB R/F (Grid 3-16) - Door Leaf & Final Pai	nts 6	22DEC06A	21FEB07	80	0	2	-70	-161							
Admin Bldg - Upper Roof & External Facade	20	03APR06A	23JAN07	00	30	2	02	-197							
T2340 AB Ext (GL 11-21) - Slate Cladding T2850 AB Ext (GL 1-11) - Install Louvres & Wdw		03APR06A	02FEB07	90 80	30		-82 -127	-197			-				
AB EXL(GL 1-11) - INSTAIL LOUVIES & WOW	Giazing 60	UJAPKUbA	UZFEBU/	80	70	12	-12/	-209							

	Act.	Activity	Orig	Early	Early	%	Target 1		Total	Variance	NOV 38	DEC 39	JAN 40		FEB 41	MAR 42	APR 43	MAY 44
	ID	Description	Dur	Start	Finish	Compl.	% Comp	Dur	Float	Early Finish				22 29		42 5  12  19  26		
		- Upper Roof & External Facade	60	03APR06A	02FEB07	00	70	) 6	107	-209								
	12860	AB Ext (GL 11-21)- Install Louvres & Wdw Glazing	60	UJAPRUDA	02FEB07	90	70	0	-127	-209								
-	T2870	AB Ext UR/LR - Roof Screeding	18	30JUN06A	22JAN07	95	C	2	-131	-199								
		-																
-	T2230	AB Ext (GL 6-11) - Curtain Wall & Glass Canopy	30	03JUL06A	27FEB07	90	C	) 3	-105	-173								
	T2232	AB Ext (GL 11-18) - Curtain Wall Installation	21	03JUL06A	09FEB07	90	C	5	-105	-191					-			
-	T20/1	AB Ext UR/LR - Render&wall paint to Open Area Rf	12	25JUL06A	05FEB07	75	C	) 3	-131	-175								
	12041	AB EXTOR/ER - Renderawall paint to Open Area Ri	12	2000L00A	USFEDUI	75	L L		-131	-175					-			
-	Г2840	AB Ext UR/LR - Roof Waterproofing & Test	24	12AUG06A	22FEB07	90	C	) 3	-131	-199								
		1 5																
-	Т2330	AB Ext (GL 1-11) - Slate Cladding	45	15OCT06A	27JAN07	95	C	) 4	-82	-156								
-	T2900	AB Ext UR/LR - Insulation & Conc Roof Tile	30	06NOV06A	19MAR07	50	C	15	-131	-178								
	10050	AB Ext (GL 1-11) - Ceramic Wall Tiles	20	18DEC06A	13FEB07	30	0	) 21	-96	-165					_			
	12350	AB EXt (GL 1-11) - Ceramic Wall Tiles	30	TODECUOA	I3FEBU/	30	ť		-96	-105								
-	T2830	AB Ext (GL 11-21) - Ceramic Wall Tiles	30	20JAN07	27FEB07	0	C	30	-123	-204	-							
				2007 11 101	211 2201	Ū			0	201								
•	T2915	AB Ext UR/LR- Install GMS, Balustrades & Railing	21	20MAR07	17APR07	0	C	21	-131	-160								
																	_	
-	T2245	AB Ext (GL 1-21) - Remove External Scaffolding	12	20APR07	26MAY07	0	C	12	-163	-189								
						-					_						_	
	12270	AB Ext (GL 3-11) - Expanded metal mesh cladding	24	20APR07	18MAY07	0	C	24	-139	-189								
	T2280	AB Ext (GL 11-16) - Expanded metal mesh cladding	24	20APR07	18MAY07	0	C	) 24	-163	-213								
	12200	AD EXI (OE 11-10) - Expanded metal mean cladding	27	2041107	101017-107	Ū	C C	27	-105	-215								
BL	JILDIN	IG SERVICES							II									
		ldg (G/F) - E & M Works																
		BS Works in G/F	90	01JUN06A	12MAR07	95	12	2 5	-166	-177								
EN	//3620	E&M Works in Risers	90	12JUN06A	24JAN07	95	C	) 4	-129	-121								
														_				
E	/3220	BS Works for HV Sw + Tx	12	14JUN06A	22JAN07	98	C	2	-166	-205			i					
	10000		10	4.4.11.10.00.4	00 14 107	00	C		400	400								
En	/13280	BS Works for LV Sw	12	14JUN06A	22JAN07	98	Ĺ	2	-166	-193								
EN	13340	BS Works for 110V Charger Rm	12	14JUN06A	22JAN07	98	C	2	-169	-205								
				11001100/1	220/ 1107	00	, and the second s			200								
EN	//3420	BS Works for Genset	12	14JUN06A	25JAN07	98	C	) 5	-166	-184			· · ·					
EN	/3300	LV Sw Installation	30	01OCT06A	29JAN07	90	C	3	-160	-161								

Act.	Activity	Orig Early	Early	%	Target 1		Total	Variance	NOV 38	DEC 39	JAN 40		FEB 41	MAR 42	APR 43	MAY 44
ID	Description	Dur Start	Finish	Compl.	% Comp	Dur	Float	Early Finish	13 20 27	4 11 18 25	1 8 15	22 29 5	12 19 26	5 5 12 19 <u>2</u> 6	2 9 16 23	
Admin E	Bldg (1/F) - E & M Works					,										
EM3560	BS Works in 1/F	90 08JUN06A	13FEB07	90	12	9	-146	-157								
			0.0141107				100	10-								
EM3380	BS Works for UPS Rm (2x)	12 03JUL06A	20JAN07	98	0	1	-168	-185								
Admin F	l Idg (2/F) - E & M Works															+
	BS Works in 2/F	90 08JUN06A	13FEB07	90	0	9	-146	-118					-			
LINICOCC				00	0			110								
Admin E	Bldg (Int. & Ext. Roof Lvl) - E & M Works															
	BS Works in R/F	78 06JUN06A	15FEB07	70	1	23	-148	-165								
EM3190	Admin Bldg - Lift Installation	72 19JUN06A	27JAN07	95	0	7	-76	-66								
												_				
EM3720	Chiller System in R/F (inc. All AC Units)	72 20JUN06A	24JAN07	95	0	4	-119	-63				-				
A due in D																
	Bldg - Testing and Commissioning Termination of overall Elect HV & LV Sys	36 10OCT06A	27MAR07	20	0	10	-169	-115								
EM3640	Termination of overall Elect HV & LV Sys	36 100C106A	27MAR07	20	0	10	-169	-115								
EM3260	HV Sw + Tx Termination + T&C	30 09JAN07A	26FEB07	10	0	15	-154	-127								
LINOLOG			201 2201	10	0											
EM3360	110V Charger Rm Installation + T&C	12 23JAN07	05FEB07	0	0	12	-169	-155								
	-															
EM3460	Genset Termination + T&C	12 23JAN07	05FEB07	0	0	12	-139	-143								
														_		
EM3520	MCC Termination + T&C	30 24JAN07	02MAR07	0	0	30	-158	-148								
EM3320	LV Sw Termination + T&C	30 06FEB07	15MAR07	0	0	30	-169	-155								
E1013320		30 UOFEBUT	15IVIARU7	0	0	30	-109	-155				-				
EM3740	Integrated E&M System T&C	52 28MAR07	02JUN07	0	0	52	-169	-98								
	<b>5</b> ,															
Admin E	Bldg - Statutory Inspection and Handover															
EM3370	Admin Bldg - Lift Commissioning	24 29JAN07	28FEB07	0	0	24	-76	-66								
									-							
EM3820	Permanent power energization from SHT NP Bldg	6 20MAR07	26MAR07	0	0	6	-168	-97								
SHATIN	I HEIGHTS SOUTH PORTAL BUILDING															
CONTR	ACT DEFINED DATES & SECTIONS															
AREA A	CCESS & VACATION DATES															
	Access to - J2 (T.Plate & above) SH-S.Vent.Bldg.	0 10DEC05A		100	100	0		-261								
ACS_D8	Access to Portion - D8	0 03JAN06A		100	100	0		-261								

ID       Description       Dur       Finith       Compl.       % Comp       Dur       Finith       Barly Finith       M Test A       N to 2 / P 3       <	Act.	Activity	Orig Early	Early	%	Target 1		Total		NOV 38	DEC 39	JAN 40	FE 41	MAR 42	APR 43	MAY 44
ABS         Unit         Unit <thu< td=""><td>ID</td><td>Description</td><td>Dur Start</td><td>Finish</td><td>Compl.</td><td>% Comp</td><td>Dur</td><td>Float</td><td>Early Finish</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></thu<>	ID	Description	Dur Start	Finish	Compl.	% Comp	Dur	Float	Early Finish							
2077       SHT SPB - Procure expanded metal meah cladding       180       OCULNOSA       08750       50       15       134       210         2082       SHT SPB - Initial delivery of slate cladding       0       2UANN77       0       0       0       99       1177         2083       SHT SPB - Initial delivery of slate cladding       0       2UANN77       0       0       0       15       -168         2085       SHT SPB - Initial deliver expanded metal cladding       0       3MAR07       0       0       0       -164       -184         2085       SHT SPB - Initial delivery of slate cladding       0       3MAR07       0       0       0       -184       -184         CONSTRUCTION       TCSS Access to SHT Source Portal Bldg       12       150/0004       12/0407A       100       0       0       -188         EM6700       TCSS Access to SF (Room G01-G06, G08-G10)       0       13/0407A       100       0       0       -188         EM6720       TCSS Access to SF (Room G01-G01, G12)       0       13/0407A       100       0       2       107       -188         Absete       Backlil, GF Slabe and Willes under bldg       24       01APR06A       23/AN07       90       90       3	PROCU	REMENT - MATERIAL														
2022       SHT SPB - Initial delivery of slate cladding       0       204007*       0       0       9       -177         2023       SHT SPB - Initial delivery of slate cladding       0       204007*       0       0       75       -168         2026       SHT SPB - Initial delivery of slate cladding       0       13MAR07*       0       0       75       -168         2026       SHT SPB - Initial delivery anded metal cladding       0       13MAR07*       100       0       0       144       -184         CONSTRUCTION         TCSS Access to SHT Sour Portal Bldg         EM6700       TCSS Access GF(Room G07.G11.G12)       0       19JAN07A       100       0       0       -186         EM6700       TCSS Access GF(Room G07.G11.G12)       0       19JAN07A       100       0       0       -186         AB5968       JUC Drainages and Utilities under bldg       24       01APR06A       22JAN07       95       0       2       -107       -181         AB5968       JUC Drainages and Utilities under bldg       24       01APR06A       22JAN07       95       0       2       -107       -181         AB5968       JUC Drainages and Utilities under bldg       24       10	ABWF W	VORKS														
2023       SHT SPB - Initial deliv fall arrest roof syst.       0       20JAN07       0       0       0       75       -168         2026       SHT SPB - Initial deliv expanded metal cladding       0       13MAR077       0       0       0       134       -184         2026       SHT SPB - Initial deliv expanded metal cladding       0       13MAR077       100       0       134       -184         CONSTRUCTION       TCSS Access to SHT Sout Portal Bldg       -       <	2077	SHT SPB - Procure expanded metal mesh cladding	180 06JUN0	5A 06FEB07	50	50	15	-134	-210							
2085       SHT SPB - Initial deliv oxpanded metal cladding       0       13MAR07*       0       0       -184       -184       - <t< td=""><td>2082</td><td>SHT SPB - Initial delivery of slate cladding</td><td>0 20JAN0</td><td>7*</td><td>0</td><td>0</td><td>0</td><td>-99</td><td>-177</td><td></td><td></td><td>•</td><td></td><td></td><td></td><td></td></t<>	2082	SHT SPB - Initial delivery of slate cladding	0 20JAN0	7*	0	0	0	-99	-177			•				
CONSTRUCTION         CONSTRUCTION         EM6700       TCSS Access to SHT Sout Portal Bidg         EM6720       TCSS Access to SHT Sout Portal Bidg         Passes       Backfill, GF Siabs and Walls       24       20APR06A       05FEB07       95       0       2       107       -181         AB6022       GPF Paint Touch Up & Doors       12       2GJAN07       90       3       166       -213         AB6024       GFF Paint Touch Up & Doors       12       2GJAN07       100       5       12       -199	2083	SHT SPB - Initial deliv fall arrest roof syst.	0 20JAN0	7*	0	0	0	-75	-168	-		•				
TOSS Access to SHT Sout Portal Bidg         EM6700       TCSS Containment in G/F       12       15NOV06A       19JAN07A       100       0       0	2085	SHT SPB - Initial deliv expanded metal cladding	0 13MAR	)7*	0	0	0	-134	-184	-				•		
EM6700       TCSS Containment in G/F       12       15NOV06A       19JAN07A       100       0       -186         EM6710       TCSS ACCESS GF (Room G01-G05, G08-G10)       0       19JAN07A       100       0       -188         EM6720       TCSS ACCESS GF (Room G07,G11,G12)       0       19JAN07A       100       0       -188         EM6720       TCSS ACCESS GF (Room G07,G11,G12)       0       19JAN07A       100       0       -188         CIVIL & ABWF WORKS	CONST	RUCTION														
EMORY 1000 1000 0001-005, G08-G10)       12       100-1001       100       0       1-198         EMORY 10       TCSS ACCESS GF (Room G07-G05, G08-G10)       0       19JAN07A       100       0       0       1-198         EMORY 20       TCSS ACCESS GF (Room G07.G11,G12)       0       19JAN07A       100       0       0       1-198         CMUL       ABS983       U/G Drainages and Uhillies under bldg       24       01APR06A       22JAN07       95       0       2       107       -193         AB5996       Backfill, G/F Slabs and Walls       24       20APR06A       05FEB07       95       0       2       107       -181         AB6022       Renedy SHT Contractor Defects       25       12DEC05A       23JAN07       90       90       3       -166       -213         AB6022       Renedy SHT Contractor Defects       25       12DEC05A       23JAN07       100       5       0       -199         AB6022       Renedy SHT Contractor Defects       25       12DEC05A       23JAN07       100       5       0       -199         AB6022       G/F       18       11FEB06A       20JAN07A       100       5       12       -207         AB6042       G/	TCSS Ac	ccess to SHT Sout Portal Bldg														
EM6720       TCSS ACCESS GF(Room G07,G11,G12)       0       19JAN07A       100       0       0       -186	EM6700	TCSS Containment in G/F	12 15NOV0	6A 19JAN07A	100	0	0		-186							
OUNCES         AB5983       U/G Drainages and Utilities under bidg       24       01APR06A       22JAN07       95       0       2       107       -193         AB5983       Backfill, G/F Slabs and Walls       24       01APR06A       05FEB07       95       0       2       107       -193         AB5986       Backfill, G/F Slabs and Walls       24       01APR06A       05FEB07       95       0       2       -107       -181         AB6022       Remedy SHT Contractor Defects       25       12DEC05A       23JAN07       90       90       3       -166       -213         AB6022       G/F       18       11FEB06A       20JAN07A       100       5       0       -1199         AB6042       G/F       18       11FEB06A       20JAN07A       100       5       0       -1199         AB6042       G/F Paint Touch Up & Doors       12       26JAN07       08FEB07       0       0       12       62       -90         AB6052       Initial Finishes to Lower Plenum       12       10APR06A       30JAN07       95       15       5       120       -207         AB6052       IP Faint Touch Up & Doors       12       01APR06A	EM6710	TCSS ACCESS GF (Room G01-G05, G08-G10)	0	19JAN07A	100	0	0		-198	-		<b></b>				
AB5983       U/G Drainages and Utilities under bldg       24       01APR06A       22JAN07       95       0       2       -107       -193         AB5986       Backfill, G/F Slabs and Walls       24       20APR06A       05FEB07       95       0       2       -107       -181         AB602       Remedy SHT Contractor Defects       25       12DEC05A       23JAN07       90       90       3       -166       -213         ABWF at GF	EM6720	TCSS ACCESS GF(Room G07,G11,G12)	0	19JAN07A	100	0	0		-186	-		<b></b>				
AB5983       U/G Drainages and Utilities under bldg       24       01APR06A       22JAN07       95       0       2       -107       -193         AB5986       Backfill, G/F Slabs and Walls       24       20APR06A       05FEB07       95       0       2       -107       -181         AB602       Remedy SHT Contractor Defects       25       12DEC05A       23JAN07       90       90       3       -166       -213         ABWF at GF	CIVIL &	ABWF WORKS			1	ļ	1	1	1							
ABM/F       AB6022       Remedy SHT Contractor Defects       25       12DEC05A       23JAN07       90       90       3       -166       -213         AB6022       Remedy SHT Contractor Defects       25       12DEC05A       23JAN07       90       90       3       -166       -213       -			24 01APR0	6A 22JAN07	95	0	2	-107	-193							
AB6022       Remedy SHT Contractor Defects       25       12DEC05A       23JAN07       90       90       3       -166       -213         ABWF at GF       AB5989       Initial Finishes to G/F       18       11FEB06A       20JAN07A       100       5       0       -199         AB6042       G/F Paint Touch Up & Doors       12       26JAN07       0       0       12       -62       -90         AB6042       G/F Paint Touch Up & Doors       12       10APR06A       30JAN07       95       15       5       -120       -207         AB6032       IF & LP	AB5986	Backfill, G/F Slabs and Walls	24 20APR0	6A 05FEB07	95	0	2	-107	-181	_						
AB6022       Remedy SHT Contractor Defects       25       12DEC05A       23JAN07       90       90       3       -166       -213         ABWF at GF       AB5989       Initial Finishes to G/F       18       11FEB06A       20JAN07A       100       5       0       -199         AB6042       G/F Paint Touch Up & Doors       12       26JAN07       0       0       12       -62       -90         AB6042       G/F Paint Touch Up & Doors       12       10APR06A       30JAN07       95       15       5       -120       -207         AB6032       IF & LP	ABWE			1			1	1	1							
AB5989       Initial Finishes to G/F       18       11FEB06A       20JAN07A       100       5       0       -199         AB6042       G/F Paint Touch Up & Doors       12       26JAN07       08FEB07       0       0       12       -62       -90         ABWF at 1F & LP		Remedy SHT Contractor Defects	25 12DEC0	5A 23JAN07	90	90	3	-166	-213							
AB6042       G/F Paint Touch Up & Doors       12       26JAN07       08FEB07       0       0       12       -62       -90	ABWF at G	F							1							
ABWF at IF & LP       ABWF at IF & LP       Image: ABWF at	AB5989	Initial Finishes to G/F	18 11FEB0	6A 20JAN07A	100	5	0		-199							
AB5995       Initial Finishes to Lower Plenum       12       10APR06A       30JAN07       95       15       5       -207       -207         AB6032       1F & LP Paint Touch Up & Doors       12       03NOV06A       01FEB07       50       0       6       -56      84         ABWF at 2F	AB6042	G/F Paint Touch Up & Doors	12 26JAN	07 08FEB07	0	0	12	-62	-90	-						
AB6032       IF & LP Paint Touch Up & Doors       12       03NOV06A       01FEB07       50       0       6       -56       -84	ABWF at 1	F & LP				1	1	1	1							
ABWF at 2F         AB6052       2/F Paint Touch Up & Doors       12       11NOV06A       01FEB07       50       0       6       -56       -84	AB5995	Initial Finishes to Lower Plenum	12 10APR0	6A 30JAN07	95	15	5	-120	-207							
AB6052       2/F Paint Touch Up & Doors       12       11NOV06A       01FEB07       50       0       6       -56       -84	AB6032	1F & LP Paint Touch Up & Doors	12 03NOV0	6A 01FEB07	50	0	6	-56	-84				-			
ABWF at 3F     AB6062     3/F Paint Touch Up & Doors     12     11NOV06A     01FEB07     50     0     6     -56     -84       ABWF at 4F and above	ABWF at 2	F			1			1								
AB6062       3/F Paint Touch Up & Doors       12       11NOV06A       01FEB07       50       0       6       -56       -84         ABWF at 4F and above	AB6052	2/F Paint Touch Up & Doors	12 11NOV0	6A 01FEB07	50	0	6	-56	-84							
ABWF at 4F and above         Image: ABWF at 4F and above         Image	ABWF at 3	F		1												
	AB6062	3/F Paint Touch Up & Doors	12 11NOV0	6A 01FEB07	50	0	6	-56	-84							
AB6004 Initial Finishes to 4/F and above 24 13APR06A 30JAN07 90 10 9 -108 -189			·	·			1	1	1							
	AB6004	Initial Finishes to 4/F and above	24 13APR0	6A 30JAN07	90	10	9	-108	-189							
AB6072       4/F and above Paint Touch Up & Doors       12       26JAN07       08FEB07       0       12       -62       -90	AB6072	4/F and above Paint Touch Up & Doors	12 26JAN	07 08FEB07	0	0	12	-62	-90							

D         Description         Piero         Stant         Piero         Ranty         <		Act.	Activity	Orig	Early	Early	%	Target 1	Rem	Total	Variance	NOV	DEC	JAN		FEB	MAR	APR	MAY
AB6008       Bits RPB - Ext, Wall Waterproof Render       21       02MA8004       00FEB07       90       90       14       152       -216         AB6007       Bits RPB - Ext, Wall Waterproof Membrane       24       (4MA8006       00FEB07       90       90       14       152       -216         AB6007       Bits SPB - Ext, Wall Waterproof Membrane       24       (4MA8006       00FEB07       90       90       14       152       -216         AB607       Bits SPB - Lat, Wall Waterproof Membrane       24       (4MA8006       00FEB07       20       18       48       -99         AB607       Sits SPB - Aum. composite diading to ext walls       60       07AUG064       27EB07       70       0       18       48       -99         AB607       Sits SPB - Aum. composite diading to ext walls       16       164       174       126       -01       -216         AB607       Sits SPB - External Wall Paning       30       14FEB07       20MR07       0       0       30       -18       -101       -215         AB607       Sits SPB - External Wall Paning       30       13MA807       20AN07       0       0       30       -134       -184         AB608       Sits SPB - External Wa		ID	Description	Dur	Start	Finish	Compl.		Dur	Float	Early Finish	38  13  20  27	39 4 <sub> </sub> 11 <sub> </sub> 18 <sub> </sub> 25	40 1 8 15	22 29	41 5 12 19 2	42 26 5 12 19 26	43 2 9 16 23	44 3 30 7 14
ABB07       Sht SPB - Ext. Wall Waterproof Membrane       24       MAR0eA       05FEB07       90       00       1       122       -215         ABB07       Sht SPB - Install Aluminum Jouves & doors       75       ISMAR06       07MAR07       80       07       14       122       -215         ABB07       Sht SPB - Install Aluminum Jouves & doors       75       ISMAR06       07MAR07       80       07       14       128       -176         ABB07       Sht SPB - Mann.compashe diading to ext walls       60       07ML0606       22FEB07       25       0       14       126       198         ABB07       Sht SPB - Roof Waterproofing & Test       12       1S0ECo64       22FEB07       25       0       0       101       -215         ABB037       Sht SPB - Roof Waterproofing & Test       12       1S0ECo64       22FEB07       0       0       10       -216         ABB037       Sht SPB - External Wall Panning       30       14FEB07       2MAR07       0       0       10       -101       -216         ABB037       Sht SPB - External Wall Panning       10       14RA07       0       0       10       10       -216       -214       -204       -204       -204       -20																			
AB6007       SNi SPB - Install Aluminum Jouvres & doors       70       ISAR906       OVAMR07       80       0       37       152       -176         AB6077       Shi SPB - CMM, composite dadding to ext walls       60       OVAUG06       22FE807       70       0       1       80       409         AB6047       Shi SPB - CMS, SiS Charmol, Balustrade & Railing       10       HAUG06A       11/PR07       25       0       0       10       -215         AB6047       Shi SPB - Rod Waterproofing & Test       12       150E066A       22FE807       25       0       0       36       -113       -191         AB6037       Shi SPB - Rod Waterproofing & Test       12       150E066A       22FE807       0       0       36       -113       -191         AB6037       Shi SPB - Rod Waterproofing & Test       12       150E066A       22FE807       0       0       36       -113       -191         AB6038       Shi SPB - Stafk Cloading above NB/SB Carriageway       36       0FE807       23MAR07       0       0       38       -134       -144         AB6038       Shi SPB - Semoned Ender Bill Jone SetVICES       23MAR07       0       0       12       -134       -148         AB6038 <td>P</td> <td>B6018</td> <td>Sht SPB - Ext. Wall Waterproof Render</td> <td>21</td> <td>02MAR06A</td> <td>06FEB07</td> <td>95</td> <td>0</td> <td>2</td> <td>-126</td> <td>-204</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	P	B6018	Sht SPB - Ext. Wall Waterproof Render	21	02MAR06A	06FEB07	95	0	2	-126	-204								
AB6007       SNi SPB - Install Aluminum Louvres & doors       76       ISMAR060.       7MAR07       80       0       37       152       -176         AB6077       SNi SPB - Colum. composite dadding to ext walls       60       07AUG06.       22FEB07       70       0       18       90       -00       -00       14       128       -191         AB6077       SNi SPB - ColM Science A Railing       10       IAPG06.       27EB07       25       0       8       -101       -215         AB6077       SNi SPB - Roof Waterproofing & Test       12       15DEC06A       22FEB07       25       0       8       -101       -215         AB6007       SNi SPB - Roof Waterproofing & Test       12       15DEC06A       22FEB07       0       0       36       -151       -191         AB6007       SNi SPB - Roof Waterproofing & Test       12       15DEC06A       22FEB07       0       0       36       -151       -191         AB603       SNi SPB - Roof Waterproofing & Test       12       15DEC06A       22FEB07       0       0       0       12       -161       -204       -204       -204       -204       -204       -204       -204       -204       -204       -204       -204 <td></td> <td>B6017</td> <td>Sht SPB - Ext. Wall Waterproof Membrane</td> <td>24</td> <td>04MAR06A</td> <td>05FEB07</td> <td>90</td> <td>90</td> <td>14</td> <td>-152</td> <td>-215</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		B6017	Sht SPB - Ext. Wall Waterproof Membrane	24	04MAR06A	05FEB07	90	90	14	-152	-215								
ABGO77       SN SPB - Alum. composite dadding to ext walls       60       07AUGG6A       22FEB07       70       0       18       -99         ABGO77       SN SPB - GMS, S/S Channel, Balatarade & Railing       11       14AUGG6A       11AFP07       25       0       14       -126       -198         ABGO77       SN SPB - GMS, S/S Channel, Balatarade & Railing       12       15DECGA       22FEB07       22       0       14       -126       -198         ABGO7       SN SPB - State Cladding above NB/SB Carriageway       60       0FEB07       22MAR07       0       0       36       -101       -215         ABGO7       SN SPB - State Cladding to ext walls       30       14FB07       23MAR07       0       0       36       135       -191         ABGO7       SN SPB - State Cladding to ext walls       30       14FB07       23MAR07       0       0       18       101       -215         ABGO3       SN SPB - State Cladding to ext walls       30       13MAR07       20APR07       0       0       18       101       -215         ABGO3       SN SPB - State Cladding to ext walls       30       13MAR07       20APR07       0       0       12       134       -144         ABGO3 <td>Í</td> <td>BOOT</td> <td></td> <td>27</td> <td>04101/0700/0</td> <td></td> <td>00</td> <td>50</td> <td>14</td> <td>102</td> <td>210</td> <td></td> <td></td> <td></td> <td></td> <td>_</td> <td></td> <td></td> <td></td>	Í	BOOT		27	04101/0700/0		00	50	14	102	210					_			
ABGOVT       Shr SPB - OMS, Six Channel, Balustrade & Railing       18       14AUGGA       114 PR07       25       0       14       -136       -198         ABGOVT       Shr SPB - OMS, Six Chanel, Balustrade & Railing       18       14AUGGA       114 PR07       25       0       9       -101       -215         ABGOVT       Shr SPB - State Cladding above NB/SB Carriageway       36       06FEB07       22MAR07       0       0       36       -113       -191         ABGOVT Shr SPB - State Cladding above NB/SB Carriageway       36       06FEB07       22MAR07       0       0       36       -113       -191         ABGOVT Shr SPB - State Cladding above NB/SB Carriageway       36       06FEB07       23MAR07       0       0       36       -113       -191         ABGOVT Shr SPB - State Cladding above NB/SB Carriageway       30       14FEB07       23MAR07       0       0       31       -161       -215         ABGOVT Shr SPB - State Cladding above NB/SB Carriageway       30       13MAR07       20APR07       0       0       13       -114       -126       -144         ABGOVT Shr SPB - State Cladding above NB/SB Carriageway       30       13MAR07       20APR07       0       0       12       134       -144	Ā	B6067	Sht SPB - Install Aluminum louvres & doors	75	15MAR06A	07MAR07	80	0	37	-152	-176								
ABGOVT       Shr SPB - OMS, Six Channel, Balustrade & Railing       18       14AUG06A       11A PR07       25       0       14       -168         ABGOVT       Shr SPB - OMS, Six Chanel, Balustrade & Railing       18       14AUG06A       11A PR07       25       0       10       -118         ABGOVT       Shr SPB - Roof Wateproofing & Test       18       0       0       0       0       0       0       101       -215         ABGOVT       Shr SPB - State Cladding above NB/SB Carriageway       36       0       0       0       131       -101       -215         ABGOVT       Shr SPB - State Cladding above NB/SB Carriageway       30       14FEB07       20MAR07       0       0       30       -126       -204         ABGOVT Shr SPB - State Cladding above NB/SB Carriageway       30       0       14FEB07       20MAR07       0       0       30       -126       -204         ABGOVT Shr SPB - State Cladding above NB/SB Carriageway       30       134AR07       20AR07       0       0       134       -184         ABGOVT Shr SPB - State Note       30       134AR07       20 APR07       0       0       13       -114       -215         ABGOST Shr SPB - State Note       30       134AR07																			
ABG037       Sht SPB - Rool Waterproofing & Test       12       15DEC06A       22FEB07       25       0       9       -101       -215         ABG037       Sht SPB - Slate Cladding above NB/SB Carriageway       36       0FEFB07       25       0       9       -101       -215         ABG037       Sht SPB - Slate Cladding above NB/SB Carriageway       36       0FEFB07       25       0       9       -101       -215         ABG037       Sht SPB - External Wall Painting       30       147EB07       20       0       0       12       204AR07       0       0       13       -116       -215         ABG034       Sht SPB - Expanded metal cladding to ext walls       30       147EB07       0       0       13       -144       -84       -64 <td< td=""><td>P</td><td>B6077</td><td>Sht SPB - Alum. composite cladding to ext walls</td><td>60</td><td>07AUG06A</td><td>22FEB07</td><td>70</td><td>0</td><td>18</td><td>-89</td><td>-99</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	P	B6077	Sht SPB - Alum. composite cladding to ext walls	60	07AUG06A	22FEB07	70	0	18	-89	-99								
ABG037       Sht SPB - Rool Waterproofing & Test       12       15DEC06A       22FEB07       25       0       9       -101       -215         ABG037       Sht SPB - Slate Cladding above NB/SB Carriageway       36       0FEFB07       25       0       9       -101       -215         ABG037       Sht SPB - Slate Cladding above NB/SB Carriageway       36       0FEFB07       25       0       9       -101       -215         ABG037       Sht SPB - External Wall Painting       30       147EB07       20       0       0       12       204AR07       0       0       13       -116       -215         ABG034       Sht SPB - Expanded metal cladding to ext walls       30       147EB07       0       0       13       -144       -84       -64 <td< td=""><td></td><td>DC047</td><td>Cht CDD CMC C/C Channel Delustrade &amp; Deiling</td><td>10</td><td>444110004</td><td>11007</td><td>05</td><td>0</td><td>4.4</td><td>100</td><td>100</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>		DC047	Cht CDD CMC C/C Channel Delustrade & Deiling	10	444110004	11007	05	0	4.4	100	100								
AB6007       Sht SPB - Slate Cladding above NB/SB Carriageway       36       0 0FEB07       22MAR07       0       0       36       113       -191         AB6027       Sht SPB - External Wall Painting       30       14FEB07       23MAR07       0       0       36       132       -204         AB6057       Sht SPB - Zshk Roof Screed & Roofing Tiles       18       0MAR07       20       0       30       134       -101       -215         AB6043       Sht SPB - Scpanded metal clading to ext walls       30       13MAR07       20       0       30       134       -104         AB6043       Sht SPB - Removed External Scatfolding       12       21APR07       0       0       30       134       -104       -2144         AB6048       Sht SPB - Removed External Scatfolding       12       21APR07       05MAY07       0       0       2       134       -144         SHT SMB Potal Bidge - BULDING SERVICES       External Works	ľ	B0047	Shi SPB - GMS, S/S Channel, Balustrade & Railing	18	14AUG06A	TIAPRU/	25	0	14	-120	-198								
AB6007       Sht SPB - Slate Cladding above NB/SB Carriageway       36       00FEB07       22M/AR7       0       0       36       113       -191         AB6027       Sht SPB - External Wall Painting       30       14FEB07       23M/AR7       0       0       36       113       -191         AB6057       Sht SPB - Zshh Roof Screed & Roofing Tiles       18       0M/AR07       29M/AR7       0       0       30       134       -184         AB6054       Sht SPB - Scpanded metal cladding to ext walls       30       13M/AR07       29M/AR7       0       0       30       134       -184         AB6048       Sht SPB - Removed External Scatfolding       12       21APR07       05M/A77       0       0       12       134       -184         AB6048       Sht SPB - Removed External Scatfolding       12       21APR07       05M/A77       0       0       12       134       -144         SHT Som Portal Bidgs - BullcDNO SERVICES       External Works		B6037	Sht SPB - Roof Waterproofing & Test	12	15DEC06A	22FEB07	25	0	9	-101	-215								
AB6027       Sht SPB- External Wall Painting       30       14FEB07       23MAR07       0       0       30       126       -204         AB6067       Sht SPB- 25thk Roof Screed & Rooting Tiles       18       09MAR07       29MAR07       0       0       18       101       -215         AB6048       Sht SPB - Expanded metal cladding to ext walls       30       13MAR07       20AR07       0       0       12       134       -184         AB6048       Sht SPB - Removed External Scaffolding       12       21APR07       05MAY07       0       0       12       -134       -144       0       0       0       0       12       -134       -144       0       0       0       0       0       12       -134       -144       0       0       0       0       0       0       12       -124       -144       -144       0       0       0       0       0       0       0       0       0       12       -134       -144       0       0       0       0       0       12       120       -185       -185       -185       -185       -185       -185       -185       -185       -185       -185       -185       -185       -185 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td>									-										
AB6007       Shr SPB - 25ihk Roof Screed & Roofing Tiles       18       09MAR07       20MAR07       0       0       18       -101       -215         AB6036       Shr SPB - Expanded metal cladding to ext walls       30       13MAR07       0       0       0       134       -114         AB6048       Shr SPB - Removed External Scaffolding       12       21APR07       0       0       12       -134       -144 <td>A</td> <td>B6007</td> <td>Sht SPB - Slate Cladding above NB/SB Carriageway</td> <td>36</td> <td>06FEB07</td> <td>22MAR07</td> <td>0</td> <td>0</td> <td>36</td> <td>-113</td> <td>-191</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	A	B6007	Sht SPB - Slate Cladding above NB/SB Carriageway	36	06FEB07	22MAR07	0	0	36	-113	-191								
AB6007       Shr SPB - 25ihk Roof Screed & Roofing Tiles       18       09MAR07       20MAR07       0       0       18       -101       -215         AB6036       Shr SPB - Expanded metal cladding to ext walls       30       13MAR07       0       0       0       134       -114         AB6048       Shr SPB - Removed External Scaffolding       12       21APR07       0       0       12       -134       -144 <td></td> <td>_</td> <td></td> <td></td> <td></td>																_			
AB6034       Sht SPB - Expanded metal clading to ext walls       30       13MAR07       20APR07       0       0       30       -134       -184         AB6034       Sht SPB - Removed External Scaffolding       12       21APR07       05MAY07       0       0       12       -134       -144       Image: Constraint of the state	P	B6027	Sht SPB - External Wall Painting	30	14FEB07	23MAR07	0	0	30	-126	-204								
AB6034       Sht SPB - Expanded metal clading to ext walls       30       13MAR07       20APR07       0       0       30       -134       -184         AB6034       Sht SPB - Removed External Scaffolding       12       21APR07       05MAY07       0       0       12       -134       -144       Image: Constraint of the state		DOOF7		10	00144 D07	00140007	0	0	40	404	045								
AB6048       Sht SPB - Removed External Scaffolding       12       21APR07       0       0       12       -144       1       1       1       1         SHT South Portal Bldg BUILDING SERVICES       E       Works       Image: Staffolding       11       1500/000       12       -134       -144       1	ſ	B0057	Sht SPB - 25thk Roof Screed & Roofing Tiles	18	09MAR07	29MAR07	0	0	18	-101	-215								
AB6048       Sht SPB - Removed External Scaffolding       12       21APR07       0       0       12       -144       1       1       1       1         SHT South Portal Bldg BUILDING SERVICES       E       Works       Image: Staffolding       11       1500/000       12       -134       -144       1		B6034	Sht SPB - Expanded metal cladding to ext walls	30	13MAR07	20APR07	0	0	30	-134	-184								
SHT South Portal Bidg BUILDING SERVICES         B: A WORKS         B: M Works         B: M Works         B: M Works for Genset         18       14AUG06A       22JAN07       95       0       2       -120       -185         B: M Works in Corridors 2/F       24       17JUL06A       20JAN07       95       0       1       -163         EM6260       Genset Installation       36       14AUG06A       22JAN07       95       0       2       -113       -163         B:ME South Portal Bidg (2F)E A M Works       12       17JUL06A       20JAN07       95       0       1       -138       -163         B:ME 200       E&M Works in Corridors 3/F       12       12JUN06A       20JAN07       90       0       4       -135       -148         SHT South Portal Bidg (2F)Fan Rm) - E & M Work						20/11/10/	Ŭ	0	00		101								
E & M WORKS         SHT South Portial Bidg (GP): E & M Works         Installation of FS Pumps & Pipework at GF       18       15NOV06A       25JAN07       95       0       2       120       -185         BM0605       Installation of FS Pumps & Pipework at GF       12       17JUL06A       20JAN07       98       0       1       -150       -187         EM6300       E & M Works for HV Sw + TX       12       17JUL06A       20JAN07       95       0       1       -138       -163         EM6200       BS Works for Genset       18       01AUG06A       22JAN07       95       0       1       -138       -163         EM6260       Genset Installation       36       14AUG06A       24JAN07       90       0       4       -135       -148         EM6260       Genset Installation       36       14AUG06A       20JAN07A       100       0       -187       -	A	B6048	Sht SPB - Removed External Scaffolding	12	21APR07	05MAY07	0	0	12	-134	-144								
E & M WORKS         SHT South Portial Bidg (GP): E & M Works         IM South Portial Bidg (GP): E & M Work         BMO055 Installation of FS Pumps & Pipework at GF       18       15NOV06A       25JAN07       95       0       2       120       -185         BM0050 Installation of FS Pumps & Pipework at GF       12       17JUL06A       20JAN07       98       0       1       -150       -187         EM6080 BS Works for HV Sw + TX       12       17JUL06A       20JAN07       95       0       1       -138       -163         EM6240 BS Works for Genset       18       01AUG06A       2JAN07       95       0       2       -141       -182         EM6260 Genset Installation       36       14AUG06A       2JAN07       90       0       4       -135       -148         EM6260 Genset Installation       36       14AUG06A       2JAN07       90       0       -187         EM6260 Genset Installation       36       14AUG06A       2JAN07       98       0       2       -142       -188         EM6260 BS Works for LV Sw, MCC, UPS, LCC       12       12JUN06A       2JAN07       95       0       1       -138       -163         EM6320 E&M Works in Corridors 3/F       24																			
SHT South Portal Bidg (G/F): E & M Works       IS       15N VV6A       25J AN07       95       0       2       120       185       Image: Control of Portal Bidg (Pice Por	S	HT So	uth Portal Bldg BUILDING SERVICES																
EM6066       Installation of FS Pumps & Pipework at GF       18       15NOV06A       25JAN07       95       0       2       -120       -185         SHT South Portal Bidg (2F/Silencor) - E & M Work       12       17JUL06A       20JAN07       98       0       1       -150       -187         EM6080       BS Works for HV Sw + Tx       12       17JUL06A       20JAN07       95       0       1       -180       -187         EM6300       EAM Works in Corridors 2/F       24       17JUL06A       20JAN07       95       0       1       -183       -163         EM6240       BS Works for Genset       18       01AUG06A       22JAN07       95       0       2       -131       -182         EM6260       Genset Installation       36       14AUG06A       24JAN07       90       0       4       -135       -148         SHT South Portal Bidg (3F/Fan Rm) - E & M Work       T       T       12       12JUN06A       2JAN07       98       0       2       -142       -148         SHT South Portal Bidg (3F/Fan Rm) - E & M Work       T       T       12       12JUN06A       2JAN07       98       0       2       -142       -187         EM6200       BS Works for																			
SHT South Portal Bidg (2F/Silence) - E & M Work       I       12       17 JUL06A       20 JAN07       98       0       1       -150       -187       I       I       I       I       I       -187         EM6300       E&M Works in Corridors 2/F       24       17 JUL06A       20JAN07       95       0       1       -138       -163       I<							1		-										
EM6080       BS Works for HV Sw + Tx       12       17JUL06A       20JAN07       98       0       1       -150       -187         EM6300       E&M Works in Corridors 2/F       24       17JUL06A       20JAN07       95       0       1       -138       -163         EM6240       BS Works for Genset       18       01AUG06A       22JAN07       95       0       2       -131       -182         EM6260       Genset Installation       36       14AUG06A       24JAN07       90       0       4       -135       -148         SHT South Portal Bldg (3F/Fan Rm) - E & M Work       T       12       12JUN06A       20JAN07       96       0       0       -187         EM6200       BS Works for LV Sw, MCC, UPS, LCC       12       12JUN06A       20JAN07       100       0       -187         EM6200       BS Works for 110V Charger Rm       12       12JUN06A       20JAN07       95       0       1       -188         EM6300       E&M Works in Corridors 3/F       24       14JUL06A       20JAN07       95       0       1       -187         EM6400       LV Sw, MCC, UPS, LCC Installation       30       16AUG06A       20JAN07       95       0       1		M6065	Installation of FS Pumps & Pipework at GF	18	15NOV06A	25JAN07	95	0	2	-120	-185								
EM6080       BS Works for HV Sw + Tx       12       17JUL06A       20JAN07       98       0       1       -150       -187         EM6300       E&M Works in Corridors 2/F       24       17JUL06A       20JAN07       95       0       1       -138       -163         EM6240       BS Works for Genset       18       01AUG06A       22JAN07       95       0       2       -131       -182         EM6260       Genset Installation       36       14AUG06A       24JAN07       90       0       4       -135       -148         SHT South Portal Bldg (3F/Fan Rm) - E & M Work       T       12       12JUN06A       20JAN07       96       0       0       -187         EM6200       BS Works for LV Sw, MCC, UPS, LCC       12       12JUN06A       20JAN07       100       0       -187         EM6200       BS Works for 110V Charger Rm       12       12JUN06A       20JAN07       95       0       1       -188         EM6300       E&M Works in Corridors 3/F       24       14JUL06A       20JAN07       95       0       1       -187         EM6400       LV Sw, MCC, UPS, LCC Installation       30       16AUG06A       20JAN07       95       0       1	S S	SHT Sout	Portal Bldg (2F/Silencer) - E & M Work																
EM6240       BS Works for Genset       18       01AUG06A       22JAN07       95       0       2       -131      182         EM6260       Genset Installation       36       14AUG06A       24JAN07       90       0       4       -135      148         SHT South Portal Bidg (3F/Fan Rm) - E & M Work				12	17JUL06A	20JAN07	98	0	1	-150	-187								
EM6240       BS Works for Genset       18       01AUG06A       22JAN07       95       0       2       -131      182         EM6260       Genset Installation       36       14AUG06A       24JAN07       90       0       4       -135      148         SHT South Portal Bidg (3F/Fan Rm) - E & MWork																			
M6260       Genset Installation       36       14AUG06A       24JAN07       90       0       4       -135      148	E	M6300	E&M Works in Corridors 2/F	24	17JUL06A	20JAN07	95	0	1	-138	-163								
M6260       Genset Installation       36       14AUG06A       24JAN07       90       0       4       -135      148																			
SHT South Portal Bldg (3F/Fan Rm) - E & M Work       Image: Constant of the constant o	IF	M6240	BS Works for Genset	18	01AUG06A	22JAN07	95	0	2	-131	-182								
SHT South Portal Bldg (3F/Fan Rm) - E & M Work       Image: Constant of the constant o		Medeo	Genset Installation	26	144110064	24 14 107	00	0	Λ	-125	-1/19								
EM6140       BS Works for LV Sw, MCC, UPS, LCC       12       12JUN06A       20JAN07A       100       0       -187         EM6200       BS Works for 110V Charger Rm       12       12JUN06A       22JAN07       98       0       2       -142       -188         EM6320       E&M Works in Corridors 3/F       24       14JUL06A       20JAN07       95       0       1       -138       -163         EM6160       LV Sw, MCC, UPS, LCC Installation       30       16AUG06A       20JAN07A       100       0       0       -157		10200		30		24071107	90	0	4	-150	-140								
EM6200BS Works for 110V Charger Rm1212JUN06A22JAN079802-142-188EM6320E&M Works in Corridors 3/F2414JUL06A20JAN079501-138-163EM6160LV Sw, MCC, UPS, LCC Installation3016AUG06A20JAN07A10000-157	5	HT Sout	Portal Bldg (3F/Fan Rm) - E & M Work				· · ·												
EM6320       E&M Works in Corridors 3/F       24       14JUL06A       20JAN07       95       0       1       -138       -163         EM6160       LV Sw, MCC, UPS, LCC Installation       30       16AUG06A       20JAN07A       100       0       0       -157	E	M6140	BS Works for LV Sw, MCC, UPS, LCC	12	12JUN06A	20JAN07A	100	0	0		-187								
EM6320       E&M Works in Corridors 3/F       24       14JUL06A       20JAN07       95       0       1       -138       -163         EM6160       LV Sw, MCC, UPS, LCC Installation       30       16AUG06A       20JAN07A       100       0       0       -157																			
EM6160 LV Sw, MCC, UPS, LCC Installation 30 16AUG06A 20JAN07A 100 0 0 -157	IF	M6200	BS Works for 110V Charger Rm	12	12JUN06A	22JAN07	98	0	2	-142	-188								
EM6160         LV Sw, MCC, UPS, LCC Installation         30         16AUG06A         20JAN07A         100         0         -157		Meano	E8M Works in Corridors 2/E	04		20 14 107	05	^	4	100	160								
		110320		24	14JUL06A	ZUJANU/	90	0		-130	-103								
		M6160	LV Sw. MCC. UPS. LCC Installation	30	16AUG06A	20JAN07A	100	0	0		-157								
EM6360       Termination of overall Elect HV & LV Sys       30       100CT06A       16FEB07       25       0       10       -139       -120			,,	1				· ·	-										
	E	M6360	Termination of overall Elect HV & LV Sys	30	100CT06A	16FEB07	25	0	10	-139	-120								

Act.	Activity	Orig	-	Early	%	Target 1		Total	Variance	NOV 38	DEC 39	JAN 40		FEB 41	MAR 42	APR 43	MAY 44
ID	Description	Dur	Start	Finish	Compl.	% Comp	Dur	Float	Early Finish				22 29 5		6 5 12 19 26		30 7 14
	Portal Bldg (4F/Upr Plen) - E & M Work TVS Installation	100	12JUN06A	25JAN07	99	0	5	120	-90				_				
E1VI6400	1 vs installation	100	12JUN06A	25JAINU7	99	0	Э	-120	-90								
Testing and	Commissioning	1	I	I	1 1		1	1 1									
	HV Sw + Tx Termination + T&C	30	27NOV06A	23FEB07	50	0	15	-142	-153		1						
EM6180	LV Sw, MCC, UPS, LCC Termination + T&C	30	27DEC06A	09FEB07	10	0	10	-139	-144								
										_							
EM6280	Genset Termination + T&C	12	15JAN07A	31JAN07	5	0	6	-135	-142								
										-		L 1					
EM6220	110V Charger Rm Installation + T&C	12	20JAN07	02FEB07	0	0	12	-142	-186			Ι Τ					
EM6420	Integrated E&M System T&C	52	31MAR07	06JUN07	0	0	52	-172	-100	-							
E1VI0420	Integrated Eath System Tac	52	3 INIARU7	00301107	0	0	52	-172	-100	•					_		
Statutory Ir	spection & Issued Certificates	1	1	1	1 1		1	1 1									
	Perm't power energ. (From ENT SPB)	6	24MAR07	30MAR07	0	0	6	-172	-100								
SHT TU	INNEL																
	RUCTION																
	RTHBOUND TUNNEL																
	BUILDING SERVICES																
	nnel Ventillation System Above OHVD	10	00550004	0010070	400			1 1	0.07								
207004	Sht NB - Install Motorized Smoke & Fire Damper	48	22FEB06A	20JAN07A	100	80	0		-207								
207006	Sht NB - Comp Air Pipes/Condts to E/P1 to E/P5	36	12APR06A	26JAN07	98	5	2	-142	-199	_							
207000		50	12AF ROOA	20371107	30	5	2	-142	-133								
207005	Sht NB - Comp Air Pipes/Condts to E/P10 to E/P6	36	20JUN06A	02FEB07	98	0	2	-142	-169								
						-											
207007	Sht NB - Cabling, wiring and termination	24	20JUN06A	06FEB07	95	0	3	-142	-148		1						
207008	Sht NB - MVAC Testing and T&C	12	07FEB07	23FEB07	0	0	12	-142	-148								
	nd Drainage	10	(-14)(00)					40-					_				
214030	Sht NB - Pipe Testing & T&C	12	15MAY06A	22JAN07	90	0	2	-135	-177								
21 40 20	Sht NB - Pipe Connectn, pumps, tanks to SP / NP	18	23JAN07	12FEB07	0	0	18	-135	-207					_			
214028	Shi NB - Pipe Connecin, pumps, tanks to SP / NP	18	Z3JANU7	12FEBU/	0	0	18	-135	-207					_			
Fire Protec	ion System	I	1	1	1 1		1	1 1									
	Sht NB - Install FS Conduits for Niches	30	22MAR06A	22JAN07	95	20	2	-153	-193								
221057	Sht NB - Hose Reel Cabinets & Equipts	40	08MAY06A	05FEB07	98	0	2	-153	-159								
221052	Sht NB - Install brckt for detection sys @ C/L	30	200CT06A	23JAN07	90	0	3	-145	-188								
							-										
221053	Sht NB - Install detection system @ Ceiling Lvl	24	250CT06A	26JAN07	90	0	3	-145	-167								

D         Description         Duit         Name         Price         Early Field         Price         Price         Price         Price         Price         Price         Price         Pric         Price         Pric	Act.	Activity	Orig	Early	Early	%	Target 1	Rem	Total	Variance	NOV	DEC	JAN		FEB	MAR	APR	MAY
Intermediate system       241       94N/0V08       09FEB07       00       0       4       153       153       154         221081       SN NB - FS Testing and T&C       12       10FEB07       08MAR07       20       00       0       0       143       145       145       145	ID				•					Early Finish	38 13 20 27	39 4 11 18 25	40 1 8 15	22 29	41 9 5 12 19 26	42 5 12 19 26	43 2 9 16 23	44 30 7 14
22101 Sit NB - FS Testing and T&C       12       10FEB07       08AAR07       20       0       20       153       -145         225105 Sit NB - FS Testing and T&C       12       10FEB07       08AAR07       20       0       0       -142         225105 Sit NB - FS Testing and T&C       124       15AU006A       15JAN07A       100       0       0       -142         225106 Sit NB - FS Testing and T&C       24       15AU066A       15JAN07A       100       0       0       -142         225106 Sit NB - FS Testing and T&C       24       15AU066A       15JAN07A       100       0       0       -136         225106 Sit NB - FS Testing and T&C       26       0       15JAN07A       100       44       0       -136         225161 Sit NB - Concluits for Lightings & Celling Level       48       14MAR06A       15JAN07A       100       40       20       -154         255163 Sit NB - Concluits for Lightings and Termination       36       30MAY06A       12       196       -154         255163 Sit NB Access to CVIC Contractor for RP Pavement       0       20       165       -154         255163 Sit NB Access to CVIC Contractor for RP Pavement       0       20/LinN87       100       74       0       155						· ·												
Control on the Order         Deviced Web Access to CWI       Call of CCO       4       ISAN 07A       100       0       0       1 <td>221059</td> <td>Sht NB - FS wiring &amp; termination</td> <td>24</td> <td>09NOV06A</td> <td>09FEB07</td> <td>90</td> <td>0</td> <td>4</td> <td>-153</td> <td>-137</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	221059	Sht NB - FS wiring & termination	24	09NOV06A	09FEB07	90	0	4	-153	-137								
Image: Provide Decomposition Randow Decomposition Cable Pulling (CPs-CP1)       24       15AUG06A       15JAN07A       100       0       0       -142         Image: Provide Decomposition Randow Decomposite Randow Decomposition Randow Decompositio	221061	Sht NB - FS Testing and T&C	12	10FEB07	08MAR07	20	0	20	-153	-145								
Value         Value <th< td=""><td>Electrical V</td><td>Vorks Above OHVD</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	Electrical V	Vorks Above OHVD																
228108         EAM Inspection & Access to Civil Contractor         0         15JAN07A         100         0         0         -136           288161         BH NB - Conclust Works (Above & below OHVD)         48         01MAR064         15JAN07A         100         44         0         1         -136           238161         BH NB - Conclust Works (Above & below OHVD)         48         01MAR064         15JAN07A         100         44         0         1         -184           238166         SH1 NB - Conclust for Lightings & Celling Level         48         14MAR06A         15JAN07A         100         80         0         -2022           238168         SH1 NB - Cabling, Wining and Termination         28         30MAY06A         12FEB07         35         0         0         -154           238168         Sh1 NB - Cabling, Wining and Termination         28         30MAY06A         12FEB07         35         0         0         -156           238168         Sh1 NB - Coaling, Wining and Tarting to CP1-CP10         38         27CCT066         15JAN07A         100         0         0         -156           238169         Sh1 NB - Lighting Test and T&C         12         13FE07         01MAR07         0         0         -158         -154	228105	Sht NB-HV&LV Mn/Submain Cable Pulling (CP5-CP1)	24	15AUG06A	15JAN07A	100	0	0		-142								
Betwork Works Serve OH/01       2325161       Sht NB - Conduits Works (Above & below OH/VD)       48       01MAR06A       15JAN07A       100       44       0       -184         235161       Sht NB - Conduits Works (Above & below OH/VD)       48       01MAR06A       15JAN07A       100       80       0       -2022         235161       Sht NB - Turnel Lightings Futures       60       26APR06A       15JAN07A       100       5       0       -1154         235162       Sht NB - Turnel Lightings Futures       60       26APR06A       15JAN07A       100       0       -1154         235163       Sht NB - Turnel Lightings and Termination       36       30MAY06A       12FEB07       35       0       20       -166         235163       Sht NB - Contract for Rd Pavement       0       20JAN07       0       0       -139       -156         235163       Sht NB - Lighting Test and T&C       12       13FEB07       01MAR07       0       0       159       -154         235167       Sht NB - Lighting Test and T&C       12       13FEB07       01MAR07       0       0       159       -154         242270       Sht NB - Lighting Test and T&C       12       01MAR07       0       0       -159	228108	Sht NB-HV&LV Mn/Submain Cable Pulling (CP10-CP6)	24	15AUG06A	15JAN07A	100	0	0		-166								
235161       Sht NB - Conduits Works (Above & below OHVD)       48       01MAR06A       15JAN07A       100       44       0        -184         235160       Sht NB - Brackets for Lightings @ Ceiling Level       48       14MAR06A       15JAN07A       100       80       0        -2020         235163       Sht NB - Tunnel Lightings Fixtures       60       26APR06A       15JAN07A       100       55       0        -154         235163       Sht NB - Cabling, Wiring and Termination       36       30MAY06A       12FEB07       35       0       20       -165	228109	E&M Inspection & Access to Civil Contractor	0		15JAN07A	100	0	0		-136			<b></b>					
233160       Shi NB - Brackets for Lightings @ Ceiling Level       48       14MAR06A       15JAN07A       100       80       0       -202         235164       Shi NB - Tunnel Lightings Fixtures       60       26APR06A       15JAN07A       100       50       0       -154         235165       Shi NB - Cabling, Wiring and Termination       36       30MAY06A       12FE07       35       0       20       -166       -154         235162       Shi NB - Tunnel Earthing to CP1-CP10       36       27OCT06A       15JAN07A       100       0       -166         235163       Shi NB - Cabling, Wiring and Termination       36       20JAN07       0       0       -168         235165       Shi NB - Costo Civil Contractor for Rd Pavement       0       20JAN07       0       0       139       -158         235167       Shi NB - Costo Civil Contractor for Top Layer       0       01MAR07       0       0       159       -154         235167       Shi NB - Costo Civil Contractor for Top Layer       0       01MAR07       0       0       159       -154         24270       Shi SB - Install Motorizado Shirings & Condu to E/P1 to E/P5       36       00MAY06A       20JAN07       3       3       159       -149 <td>Electrical V</td> <td>Vorks Below OHVD</td> <td></td>	Electrical V	Vorks Below OHVD																
235164       Sht NB - Tunnel Lightings Fixtures       60       26APR06A       15JAN07A       100       5       0       -154         235165       Sht NB - Cabling, Wiring and Termination       36       30MAY06A       12FEB07       35       0       20       -165       -154         235165       Sht NB - Tunnel Earthing to CP1-CP10       36       27C0T06A       15JAN07A       100       0       0       -166         235163       Sht NB - Compact for Rd Pavement       0       20JAN07       0       0       0       -166         235165       Sht NB - Lighting Test and T&C       12       13FEB07       01MAR07       0       0       12       159       -154         235167       Sht NB - Lighting Test and T&C       12       13FEB07       01MAR07       0       0       159       -154         235167       Sht NB - Access to Civil Contractor for Top Layer       0       01MAR07       0       0       159       -154         235167       Sht NB - Cabling, Wiring and termination       24       02MAR06A       20JAN07A       100       74       0       -204         242270       Sht SB - Install Motorized Smoke & Fire Damper       48       02MAR06A       20JAN07A       100       74	235161	Sht NB - Conduits Works (Above & below OHVD)	48	01MAR06A	15JAN07A	100	44	0		-184								
235165       Sht NB - Cabling, Wiring and Termination       36       30MAY06A       12FEB07       35       0       20       -166         235162       Sht NB - Tunnel Earthing to CP1-CP10       36       27C0T06A       15JAN07A       100       0       0       -166         235163       Sht NB - Access to Civil Contract for Rd Pavement       0       20JAN07       0       0       -166         235165       Sht NB - Lighting Test and T&C       12       13FEB07       01MAR07       0       0       -166         235167       Sht NB - Access to Civil Contract for Top Layer       0       01MAR07       0       0       -158         235167       Sht NB Access to Civil Contractor for Top Layer       0       01MAR07       0       0       -159       -154         SHT SOUTHBOUND TUNNEL         EXAM BUILDING SERVICES	235160	Sht NB - Brackets for Lightings @ Ceiling Level	48	14MAR06A	15JAN07A	100	80	0		-202								
235162       Sht NB - Tunnel Earthing to CP1-CP10       36       270CT06A       15JAN07A       100       0       0       -166         235163       Sht NB Access to Civil Contractr for Rd Pavement       0       20JAN07       0       0       0       -158         235165       Sht NB - Lighting Test and T&C       12       13FEB07       01MAR07       0       0       159       -154         235167       Sh NB Access to Civil Contractor for Top Layer       0       01MAR07       0       0       159       -154         235167       Sh NB Access to Civil Contractor for Top Layer       0       01MAR07       0       0       159       -154         235167       Sh NB Access to Civil Contractor for Top Layer       0       01MAR07       0       0       159       -154         SHT SOUTHBOUND TUNNEL         242270       Sht SB - Install Motorized Smoke & Fire Damper       48       02MAR06A       20JAN07       93       0       3       -159       -149         242272       Sht SB - Cabling, wiring and termination       24       20JUN06A       65FEB07       70       0       8       -159       -133         242274       Sht SB - Cabling, wiring and T&C       12       06FEB07	235164	Sht NB - Tunnel Lightings Fixtures	60	26APR06A	15JAN07A	100	5	0		-154								
235163       Sh NB Access to Civil Contractr for Rd Pavement       0       20JAN07       0       0       0       139       -158         235165       Sht NB - Lighting Test and T&C       12       13FEB07       01MAR07       0       0       12       159         235167       Sh NB Access to Civil Contractor for Top Layer       0       01MAR07       0       0       159       -154         SHT SOUTHBOUND TUNNEL         (E & M) EUILDING SERVICES         MAC/7 furnet Ventilation System Above OH/D         242270       Sht SB - Install Motorized Smoke & Fire Damper       48       02MAR06A       26JAN07       93       0       3       -159       -149         242272       Sht SB - Comp Air Pipes/Condts to E/P1 to E/P5       36       08MAY06A       26JAN07       93       0       3       -159       -149         242272       Sht SB - Cabling, wiring and termination       24       20JUN06A       05FEB07       70       0       8       159       -133         242274       Sht SB - NVAC Testing and T&C       12       06FEB07       22FEB07       0       0       12       -141       -133         242274       Sht SB - NVAC Testing and T&C       12       06FEB07       213	235165	Sht NB - Cabling, Wiring and Termination	36	30MAY06A	12FEB07	35	0	20	-165	-154								
235 166       Sht NB - Lighting Test and T&C       12       13FEB07       01MAR07       0       0       12       159       -154         235 167       Stn NB Access to Civil Contractor for Top Layer       0       0       01MAR07       0       0       -159       -154         SHTSOUTHBOUND TUNNEL         (MAR07 100       0       0       -159       -154         SHTSOUTHBOUND TUNNEL         (MAR07 100       74       0       -204         AVAC/ Tunnel Versilation System Above OHVD         242270       Sht SB - Install Motrized Smoke & Fire Damper       48       02MAR06A       20JAN07A       100       74       0       -204         242272       Sht SB - Cabling, wiring and termination       24       20JUN06A       26FB07       70       0       8       159       -113         242274       Sht SB - MVAC Testing and T&C       12       0       0       0       12       141       -133         Plumbing and Drainage       2       2JUN06A       2ZJAN07       90       0       2       135       -153         243932       Sht SB - Pipe Connectn, pumps, tanks to SP / NP       18       2JAN07       90       0	235162	Sht NB - Tunnel Earthing to CP1-CP10	36	270CT06A	15JAN07A	100	0	0		-166								
Image: Contraction of the part of t	235163	Stn NB Access to Civil Contractr for Rd Pavement	0	20JAN07		0	0	0	-139	-158								
SH       C	235166	Sht NB - Lighting Test and T&C	12	13FEB07	01MAR07	0	0	12	-159	-154								
(E & M) BUILDING SERVICES         WAC/Turnel Ventilation System Above OHVD         242270       Sht SB - Install Motorized Smoke & Fire Damper       48       02MAR06A       20JAN07A       100       74       0       -204         242272       Sht SB - Comp Air Pipes/Condts to E/P1 to E/P5       36       08MAY06A       26JAN07       93       0       3       -159       -149         242273       Sht SB - Cabling, wiring and termination       24       20JUN06A       05FEB07       70       0       8       -159       -133         242274       Sht SB - MVAC Testing and T&C       12       06FEB07       22FEB07       0       0       12       -141       -133         Plumbing and Drainage	235167	Stn NB Access to Civil Contractor for Top Layer	0		01MAR07	0	0	0	-159	-154								
MVAC / Turnel Ventilation System Above OHVD       Vacuum Ventilation System Above	SHT SO	UTHBOUND TUNNEL																
MVAC / Turnel Ventilation System Above OHVD       Vacuum Ventilation System Above	(E & M) I	BUILDING SERVICES																
242270       Sht SB - Install Motorized Smoke & Fire Damper       48       02MAR06A       20JAN07A       100       74       0       -204         242272       Sht SB - Comp Air Pipes/Condts to E/P1 to E/P5       36       08MAY06A       26JAN07       93       0       3       -159       -149         242273       Sht SB - Cabling, wiring and termination       24       20JUN06A       05FEB07       70       0       8       -159       -1133         242274       Sht SB - MVAC Testing and T&C       12       06FEB07       22FEB07       0       0       12       -141       -133         Plumbing and Drainage	<u> </u>																	
242273       Sht SB - Cabling, wiring and termination       24       20JUN06A       05FEB07       70       0       8       -159       -133         242274       Sht SB - MVAC Testing and T&C       12       06FEB07       22FEB07       0       0       12       -141       -133         Plumbing and Drainage       24       22JUN06A       22JAN07       90       0       2       -135       -153       -153       -153       -153       -153       -153       -153       -153       -163<	242270	Sht SB - Install Motorized Smoke & Fire Damper	48	02MAR06A	20JAN07A	100	74	0		-204								
242274       Sht SB - MVAC Testing and T&C       12       06FEB07       22FEB07       0       0       12       -141       -133	242272	Sht SB - Comp Air Pipes/Condts to E/P1 to E/P5	36	08MAY06A	26JAN07	93	0	3	-159	-149								
Plumbing and Drainage     Image     Image <th< td=""><td>242273</td><td>Sht SB - Cabling, wiring and termination</td><td>24</td><td>20JUN06A</td><td>05FEB07</td><td>70</td><td>0</td><td>8</td><td>-159</td><td>-133</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	242273	Sht SB - Cabling, wiring and termination	24	20JUN06A	05FEB07	70	0	8	-159	-133								
249393       Sht SB - Pipe Testing and T&C       12       22JUN06A       22JAN07       90       0       2       -135       -153         249392       Sht SB - Pipe Connectn, pumps, tanks to SP / NP       18       23JAN07       12FEB07       0       0       18       -135       -183         Fire Protection System	242274	Sht SB - MVAC Testing and T&C	12	06FEB07	22FEB07	0	0	12	-141	-133								
249392     Sht SB - Pipe Connectn, pumps, tanks to SP / NP     18     23JAN07     12FEB07     0     0     18     -183	Plumbing a	and Drainage	1	· · · · · ·														
Fire Protection System	249393	Sht SB - Pipe Testing and T&C	12	22JUN06A	22JAN07	90	0	2	-135	-153								
	249392	Sht SB - Pipe Connectn, pumps, tanks to SP / NP	18	23JAN07	12FEB07	0	0	18	-135	-183								
	Fire Protec	، tion System	1	ı		I I		1	1									
		-	30	12JUN06A	15JAN07A	100	0	0		-127								

Act.	Activity	Orig	Early	Early	%	Target 1	Rem	Total	Variance	NOV	DEC	JA		FEB	MAR	APR	MAY
ID	Description	Dur		Finish	Compl.	% Comp		Float		38 13 20 27	39  4  11  18  25	4     1   8   1	0 5 22 29	41 5 12 19 26	42 5 5 12 19 26	43 2 9 16 23	44 30 7 14
	tion System																
256518	Sht SB - Hose Reel Cabinets & Equipts	40	30JUN06A	29JAN07	98	0	5	-141	-99								
256514	Sht SB - Install brckt for detection sys @ C/L	30	04SEP06A	23JAN07	96	0	3	-138	-188								
256515	Sht SB - Install detection system @ Ceiling LvI	24	01OCT06A	25JAN07	90	0	2	-138	-166								
256520	Sht SB - FS Wiring & Termination	24	10NOV06A	05FEB07	60	0	6	-141	-79			-					
256521	Sht SB - FS Testing and T&C	12	06FEB07	22FEB07	0	0	12	-141	-79	_			1				
Electrical V	I Vorks Above OHVD	1	1		1 1		1	1	1								
l r	Sht SB-HV&LV Mn/Submain Cable Pulling (CP6-CP10)	24	10AUG06A	15JAN07A	100	0	0		-94				]				
263658	Sht SB-HV&LV Mn/Submain Cable Pulling (CP1-CP5)	24	10AUG06A	15JAN07A	100	0	0		-118				]				
263659	E&M Inspection & Access to Civil Contractor	0		15JAN07A	100	0	0		-88				>				
Electrical V	l Vorks Below OHVD	1	I		1 1		1	1	1								
	Sht SB - Conduits Works (Above & below OHVD)	48	01MAR06A	15JAN07A	100	42	0		-183				]				
270798	Sht SB - Brackets for Lightings @ Ceiling Level	48	01JUN06A	15JAN07A	100	0	0		-186				ו				
270800	Sht SB - Tunnel Earthing to CP1-CP10	36	01AUG06A	15JAN07A	100	0	0		-150				ו				
270803	Sht SB - Cabling, Wiring and Termination	36	01OCT06A	10FEB07	50	0	19	-164	-107		-						
270801	Stn SB Access to Civil Contractr for Rd Pavement	0	20JAN07		0	0	0	-139	-154				•				
270804	Sht SB - Lighting Test and T&C	12	12FEB07	28FEB07	0	0	12	-158	-107								
270805	Stn SB Access to Civil Contractor for Top Layer	0		28FEB07	0	0	0	-158	-107					•			
SHT CR	OSS PASSAGES (CP1 to CP10)	1	I 		1 1		1	1	I								
	BUILDING SERVICES																
Electrical V																	
	(CP1-CP10) - Cable Containment & Equipt Support	60	03MAY06A	05JAN07A	100	2	0		-145								
277959	(CP1-CP10) - MCCB / MCB Bd,CMCS,Busbar,Switches	72	13JUN06A	25JAN07	95	0	5	-168	-105								
277960	(CP1-CP10) - Conduit, light Fixture, Swt & Test	36	15AUG06A	25JAN07	40	0	5	-162	-141								
277961	(CP1-CP10) - HV & LV Cables Termination & Test	48	15NOV06A	15FEB07	20	0	10	-168	-97								
277962	(CP1-CP10) - Switchboard, CMCS, Eqpt, Testing	48	20JAN07	12FEB07	0	0	20	-165	-94								
<u>   </u>	1							1	1								

Act.	Activity	Orig		Early	%	Target 1		Total	Variance	NOV 38	DEC 39	JAN 40	FEB 41	4	AR 2	APR 43	MAY
ID	Description	Dur	Start	Finish	Compl.	% Comp	Dur	Float	Early Finish	13 20 27	4 <sub> </sub> 11 <sub> </sub> 18  25	1 <sub>1</sub> 8 <sub>1</sub> 15 22	2  29  5  12	19 26 5 12	19 26	2 <mark>9  </mark> 16  23	3 30 7 (
	H PORTAL BUILDING																
	ENT - MATERIAL																
			00 14 10 74					400	400	-							
2102 SHI I	NPB - Initial delivery of slate claddings	0	20JAN07*		0	(	0 0	-129	-168								
2104 SHT N	NPB - Initial deliv fall arrest roofing syst	0	20JAN07*		0	(	0	-93	-161			•					
2106 SHT N	NPB - Initial deliv alum. composite cladding	0	20JAN07*		0	(	0	-115	-133			•					
CONSTRUC	TION						1										
TCSS Access	s to SHT North Portal Bldg		1														
EM7286 TCSS	Containment in 1/F	12	20JAN07	02FEB07	0	C	12	239	-199								
EM7289 TCSS	Containment in Lower Plenum	18	20JAN07	09FEB07	0	(	) 18	233	-194	-							
EM7292 TCSS	Containment in 2/F	18	20JAN07	09FEB07	0	(	) 18	233	-199								
EM7295 TCSS	Containment in 3/F and above	18	20JAN07	09FEB07	0	(	18	233	-194	-							
EM7283 TCSS	Containment in G/F	12	30JAN07	12FEB07	0	(	12	-243	-202	-							
EM7290 TCSS	S ACCESS - GF (Room G02-G03, G04-G08)	0		29JAN07	0	(	0	-239	-202				•				
EM7293 TCSS	ACCESS - GF (Room G09,G15)	0		12FEB07	0	(	0	-243	-202				•				
CIVIL & ABW	FWORKS	I						1									
	G Drainages and Utilities under bldg	24	20JUL06A	02FEB07	50	(	) 12	225	-203								
AB7060 Backf	ill, G/F Slabs and Walls	24	04SEP06A	22FEB07	40	(	0 14	225	-193								
ABWF Works																	
ABWF at GF																	
AB7080 Initial	Finishes to G/F	18	25APR06A	29JAN07	95	7	8	-243	-202								
AB7330 G/F p	aint Touch Up & Doors	12	15FEB07	03MAR07	0	(	12	-79	-86								
ABWF at 1F & LP		I			1		1	1									
AB7120 Initial	Finishes to Lower Plenum	12	22APR06A	29JAN07	95	(	8 (	-137	-202								
AB7320 1F & I	LP Paint Touch Up & Doors	12	18JAN07A	21FEB07	80	(	) 3	-70	-77								
ABWF at 2F		I					1	1									
	aint Touch Up & Doors	12	18JAN07A	21FEB07	80	(	) 3	-70	-77			_ <b>F</b>					

Act.	Activity	Orig		Early	%	Target 1		Total		NOV 38	DEC 39	JAN 40	FEB 41	MAF 42		APR 43	MAY 44
ID	Description	Dur	Start	Finish	Compl.	% Comp	Dur	Float	Early Finish	13  20  27	4 <sub>1</sub> 11 18 25	1 8 15 22	2 29 5 12 1	19 26 5 12	19 26	2 9 <mark>16 2</mark> 3	30 7 14
ABWF at 3	3/F Paint Touch Up & Doors	12	18JAN07A	21FEB07	80	0	3	-70	-77								
ABWF at 4	i IF								1								
AB7180	Initial Finishes to 4/F and above	24	02MAY06A	29JAN07	90	0	8	243	-190								
AB7360	4/F and above Paint Touch Up & Doors	12	15FEB07	03MAR07	0	0	12	-79	-86	-							
Roofing &	External Facade																
B70205	Sht NPB - Ext. Wall Waterproof Render	21	04MAY06A	25JAN07	80	0	5	-116	-190								
AB7290	Sht NPB - Install Aluminum louvres & doors	75	06MAY06A	14FEB07	70	0	22	-97	-161								
AB7280	Sht NPB - Alum. composite cladding to ext walls	60	160CT06A	10MAR07	30	0	40	-115	-113								
AB7270	Sht NPB - Roof Waterproofing & Test	12	22DEC06A	30JAN07	15	0	9	-132	-197								
AB7220	Sht NPB - Expanded metal cladding to Ext Walls	30	20JAN07	27FEB07	0	0	30	-105	-143	-		•					
AB7310	Sht NPB - Slate Cladding above NB/SB Carriageway	36	20JAN07	06MAR07	0	0	36	-129	-168			•					
AB7260	Sht NPB - External Wall Painting	30	02FEB07	12MAR07	0	0	30	-116	-190								
AB7300	Sht NPB - 25thk Roof Screed & Roofing Tiles	18	14FEB07	09MAR07	0	0	18	-132	-197								
AB7250	Sht NPB - GMS, S/S Channel, Balustrade & Railing	18	10MAR07	30MAR07	0	0	18	-132	-171								
AB7255	Sht NPB - Removed External Scaffolding	12	31MAR07	18APR07	0	0	12	-132	-130	-					•		
Sht Nor	th Portal Bldg BUILDING SERVICES																
E & M	WORKS																
SHT North	Portal Bldg (G/F) - E & M Works																
EM7280	E&M Access to G/F	0	30JAN07		0	0	0	-243	-202				•				
EM7281	Installation of FS Pumps & Pipework at GF	18	30JAN07	22FEB07	0	0	18	-141	-202								
SHT North	Portal Bldg (2F/Silencer) - E & M Work																
EM7600	BS Works for TVS Plenums	30	26JUN06A	24JAN07	90	0	4	-137	-168								
EM7460	BS Works for Genset	18	20JUL06A	15JAN07A	100	0	0		-177								
EM7300	BS Works for HV Sw + Tx	12	01AUG06A	18JAN07A	100	0	0		-186								
EM7520	E&M Works in Corridors 2/F	24	01AUG06A	25JAN07	95	0	2	-162	-168								
EM7560	E&M Works in Risers	48	15AUG06A	19JAN07A	100	0	0		-122								
	1						1	1									

Act.		Orig	-	Early	%	Target 1		Total	Variance	NOV 38	DEC 39	JAN 40		FEB 41	MAR 42	APR 43	MAY 44
ID	•	Dur	Start	Finish	Compl.	% Comp	Dur	Float	Early Finish	13 20 27	4 11 18 25	1 8 15	22 J	9 5 12 19 26	5 12 19 26	2 9 16 23	
	h Portal Bldg (2F/Silencer) - E & M Work						-						L				
EM7480	Genset Installation	30	01SEP06A	23JAN07	90	0	3	236	-148								
SHT Nort	 h Portal Bldg (3F/Fan Rm) - E & M Work	1	1 1				1										
	BS Works for LV Sw, MCC, UPS, LCC	12	17JUL06A	20JAN07	98	0	1	-165	-183								
EM7540	E&M Works in Corridors 3/F	24	01AUG06A	27JAN07	95	0	3	-164	-165								
EM7420	BS Works for 110V Charger Rm	12	15AUG06A	15JAN07A	100	0	0		-178								
EM7380	LV Sw, MCC, UPS, LCC Installation	30	04SEP06A	05JAN07A	100	0	0		-140								
	Termination of everall Float LIV & LV Ove	20	10007004	4555007	50	0	F	100	07								
EIVI7580	Termination of overall Elect HV & LV Sys	29	10OCT06A	15FEB07	50	0	5	-168	-97								
SHT Nort	l h Portal Bldg (4F/Upr Plen) - E & M Work	1	1 1				I	1									
	TVS Installation	100	17JUL06A	05JAN07A	100	0	0		-52								
	nd Commissioning																
EM7340	HV Sw + Tx Termination + T&C	30	16NOV06A	25JAN07	50	0	3	-152	-132								
										-							
EM7400	ULV Sw, MCC, UPS, LCC Termination + T&C	30	22DEC06A	14FEB07	50	0	5	229	-144			· · · ·					
	110V Charger Rm Installation + T&C	12	22DEC06A	22JAN07	50	0	2	-152	-172	-							
EN17440	110V Charger Rm Installation + 1&C	12	22DEC06A	ZZJANU7	50	0	2	-152	-172								
EM7500	Genset Termination + T&C	12	20JAN07	06FEB07	0	0	12	236	-148	-							
		12	200/ 110/		Ŭ	0	12	200	140								
EM7640	Integrated E&M System T&C	52	20MAR07	25MAY07	0	0	52	-162	-97								
	Inspection & Issued Certificates				1 1		1										
EM7691	Room Available for CLP Equipment Installation	0	20JAN07*		0	0	0	-112	0				<b>?</b>				
		0		4555007	-		-	100	07								
EM7660	D Submit WR1 to CLP (SHT NP Bldg)	6	22JAN07	15FEB07	0	0	6	-168	-97				-				
EM7690	) CLP insp.	18	16FEB07	12MAR07	0	0	18	-168	-97	-							
	CLP Insp.	10	IOFEDU/	I ZIVIARU I	0	0	10	-100	-97	•							
EM7700	CLP connection/ready for energization	0		12MAR07	0	0	0	-168	-97						•		
		Ŭ		12100 1100	Ŭ	Ũ	ľ	100	01	Û					·		
EM7720	Perm't power energ. (From SHT NPB)	6	13MAR07	19MAR07	0	0	6	-168	-97								
SHT R	C ENCLOSURE & T3 UNDERPASS																
	FACE DATES																
	C FULL ENCLOSURE / T3 UNDERPASS																
EM4020	LKJV - Posession of T3 Underpass	0	20JAN07*		0	0	0	-58	-195								
		20	0240007	401441/07			20	1.40	67	-							
EIVI4030	Integrated T&C	30	03APR07	12MAY07	0	0	30	-140	-67								
<b>*</b>		1			1 1		1										+

Act.	Activity	Orig	Early	Early	%	Target 1	Rem	Total	Variance	NOV 38	DEC 39	JAN 40		FEB 41	MAR 42	APR 43	MAY 44
ID	Description	Dur	Start	Finish	Compl.	% Comp	Dur	Float	Early Finish		4 11 18 25		22 29 5				
CONST	RUCTION WORKS																
SHT RC	FULL ENCLOSURE / T3 UNDERPASS																
Koisk S1	1 at Shatin North Control Point																
	Kiosk S1 - Structure & Fittings	24	03OCT06A	05FEB07	40	C	) 14	-58	-205								
	-																
EM3952	Kiosk S1 - Install E&M Works	18	20JAN07	22FEB07	0	C	18	-58	-199			T					
EM3960	Wighbridge S1 - Install	12	20JAN07	02FEB07	0	C	) 12	-68	-215	-		•					
EM3970	Weighbridge S1 - Test and T&C	30	03FEB07	13MAR07	0	C	0 30	-68	-215								
EM3954	Kiosk S1 - E&M Testing and T&C	6	23FEB07	01MAR07	0	C	) 6	-58	-199	-					<b>–</b>		
	Enclosure - LV Switch Room																+
	E&M Access to Southern LV Switch Room	0	20JAN07		0		0 0	-169	-215	_							
			20JAIN07		0					_		Ī					
280072	LV SW Rm - Cable Containment & Equipt Supports	24	20JAN07	16FEB07	0	C	24	-157	-215			Ī					
280074	LV SW Rm - SWGR, MCCB/ MCB Board, FS Panels	24	27JAN07	27FEB07	0	C	) 24	209	-185								
280076	LV SW Rm - Elect Lightings & Conduits	18	03FEB07	06MAR07	0	C	) 18	-157	-209	-			•				
280079	LV SW Rm - MCCB,MCB,LV Sw,FS panels Term & Test	18	10FEB07	13MAR07	0	C	0 18	209	-179	-			1				
280080	LV SW Rm - Connect HV / LV Cables from SHT NPB	24	10FEB07	13MAR07	0	C	24	209	-167								
280078	LV SW Rm - Lightings wiring, term & test	6	07MAR07	13MAR07	0	C	6	-157	-209	-							
STN RC	FULL ENCLOSURE (North Bound) - E&M WORKS																
	unnel Ventillation System																
280000	RCFE NB - Ductworks Supports / Containment @ C/L	36	18FEB06A	22JAN07	92	30	2	-133	-200								
280002	RCFE NB - MVAC Ducts, TVF & MSFD Units @ C/L	48 (	02MAR06A	10JAN07A	100	25	5 0		-172								
280004	RCFE NB - MVAC Pipeworks & Conduits @ C/L	30 (	08AUG06A	15JAN07A	100	C	0 0		-146								
280006	RCFE NB - Cabling, wiring and termination	24	25NOV06A	03FEB07	80	C	) 5	-106	-139								
280008	RCFE NB - MVAC Testing and T&C	12	20MAR07	02APR07	0	C	) 12	-140	-97		-						
Fire Protect	 ction System				1		1										
	RCFE NB - (100d) FH / HR Pipeworks & Fittings	18	10JUL06A	10JAN07A	100	C	0 0		-127								
280026	RCFE NB - FS Conduit, Hose Reel Cabinets & Eqpt.	16	31JUL06A	22JAN07	60	C	) 2	-123	-141								
280029	RCFE NB - Install Smoke detector @ N1-N3	10	23JAN07	02FEB07	0	C	0 10	-111	-141	-		I					

	Act.	Activity	Orig	-	Early	%	Target 1		Total	Variance	NOV 38	DEC 39	JAN 40	FEB 41	MAR 42	APR 43	MAY 44
	ID	Description	Dur	Start	Finish	Compl.	% Comp	Dur	Float	Early Finish					26 5 12 19 26		
			0.1	07.14.1107	0755007			0.4	100								
28	80030	RCFE NB - FS Wiring & Termination	24	27JAN07	27FEB07	0	0	24	-123	-141							
25	0033	RCFE NB - FS Testing and T&C	12	20MAR07	02APR07	0	0	12	-140	-97	-						
20	0032	KOPE ND - PO Testing and Tac	12	201014607	UZAFKUI	0	0	12	-140	-97						_	
Ele	ctrical \	l Vorks		<u> </u>													
		RCFE NB - Brackets for Lightings @ Ceiling Level	60	30MAY06A	10JAN07A	100	0	0		-147							
28	80048	RCFE NB - Earthing, Lighting, Equipt. @ C/L	48	26JUN06A	24JAN07	90	0	4	-107	-111							
28	80046	RCFE NB - Conduits Works @ Ceiling Level	36	11DEC06A	08FEB07	50	0	17	-120	-136							
											-						
28	80034	RCFE NB - E&M Access to Southern LV Sw Room	0	20JAN07		0	0	0	-169	-179							
				00.141107					100	170							
28	80038	RCFE NB - HV & LV Cabling Works @ C Trough	36	20JAN07	06MAR07	0	0	36	-169	-179							
	0040	RCFE NB - Install Power Distn Panels & Test	20	07140007	4440007	0	0	20	100	-179							
28	60040	RCFE NB - Install Power Distri Panels & Test	30	07MAR07	14APR07	0	0	30	-169	-179							
25	0054	RCFE NB - Tunnel Signage, Wiring, Term & Test	40	16APR07	02JUN07	0	0	40	-169	-155	-						
20	00004	KOPE ND - Tulliel Signage, Willing, Term & Test	40	TOAF NUT	02301107	0	0	40	-109	-155						_	
ST		FULL ENCLOSURE (South Bound) - E&M WORKS		1		1 1		1									
		Innel Ventillation System															
		RCFE SB - Ductworks Supports / Containment @ C/L	36	02MAR06A	24JAN07	90	30	4	-139	-202							
								-									
28	80084	RCFE SB - MVAC Ducts, TVF & MSFD Units @ C/L	48	02MAR06A	10JAN07A	100	25	0		-172							
28	80086	RCFE SB - MVAC Pipeworks & Conduits @ C/L	30	230CT06A	10JAN07A	100	0	0		-142							
28	80088	RCFE SB - Cabling, wiring and termination	24	15FEB07	17MAR07	0	0	24	-139	-172							
											-						
28	80090	RCFE SB - MVAC Testing and T&C	12	20MAR07	02APR07	0	0	12	-140	-97							
	_																
		tion System	10	041001/0004	00 14 107	00	0	0	400	-178							
28	60096	RCFE SB - FS Conduit, Hose Reel Cabinets & Eqpt.	16	01NOV06A	22JAN07	90	0	2	-123	-178							
25	0100	RCFE SB - Install Smoke detector @ S1-S4	10	23JAN07	02FEB07	0	0	10	-111	-178	-						
20	0100		10	20041107		0	0	10		-170							
28	0102	RCFE SB - FS Wiring & Termination	24	27JAN07	27FEB07	0	0	24	-123	-178							
<u> </u>	0102			210, 401	211 2001	Ũ	•		120								
28	80104	RCFE SB - FS Testing and T&C	12	20MAR07	02APR07	0	0	12	-140	-97							
							•			~ ~							
Ele	ctrical \	Vorks															
28	80110	RCFE SB - E&M Access to Southern LV Sw Room	0	20JAN07*		0	0	0	-169	-179			•				
28	80112	RCFE SB - HV & LV Cabling Works @ C Trough	36	20JAN07	06MAR07	0	0	36	-169	-179							
28	80118	RCFE SB - Conduits Works @ Ceiling Level	36	20JAN07	06MAR07	0	0	36	-139	-155							

Act. ID Electrical V	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp		Total Float		NOV 38 13 20 21	DEC 39 7_4_111_18_25	JAN 40 1 <sub>1</sub> 8 <sub>1</sub> 15	FEB 41 12 19 26	MAR 42 5 5 12 19 26	APR 43  2  9  16  23	MAY 44 30 7 14
	RCFE SB - Earthing, Lighting, Equipt. @ C/L	48	20JAN07	25JAN07	90	0	5	-108	-112			[				
280114	RCFE SB - Install Power Distn Panels & Test	30	07MAR07	14APR07	0	0	30	-169	-179							
280124	RCFE SB - Tunnel Signage, Wiring, Term & Test	40	16APR07	02JUN07	0	0	40	-169	-155							
	ERPASS															
Kiosks S	2 at T3 Underpass Portal															
EM3980	Kiosk S2 - Structure & Fittings	24	11SEP06A	05FEB07	40	0	14	-58	-185							
EM4000	Kiosk S2 - Install E&M Works	18	20JAN07	22FEB07	0	0	18	-58	-179							
EM4002	Kiosk S2 - E&M Testing and T&C	6	23FEB07	01MAR07	0	0	6	-58	-179							

## 5-week Rolling Programme of Site Works

Rev:	0	_																											
Item	Civil Area	Portion	Work Area	Activity	[8]Type of major equipment				Jan-								_				Feb								
No.					/ plant to be used	F S										S M	ΤV	/ T	FS				TF		S M	TW	/ T	FS	S
						19 20	<mark>21</mark> 23	2 23	24 25	5 26 3	27 <mark>28</mark>	3 29 3	30 31	1 2	3 4	5	67	8	9 10	0 11	12 1	3 14	15 16	17 <sup>-</sup>	<mark>18</mark> 19	20 21	1 22 2	23 24	25
1	Works Area	A	DIGJV Site Office	Pesticide spraying	N.A.	N				N																			
2	Works Area	A	Subcontractor warehouse	Material preparation for cable containment	N.A.		<u> </u>											_									4	<b>4</b>	
3	Works Area	A	DIGJV Site Office	Assemble of control cabinet	N.A.	N			_	R		-								_						<u> </u>	+	<b></b>	
4	Works Area	A	DIGJV Site Office	FVMS assemble	N.A.			R	R R	R	_		_					_		_						<u> </u>	+++	<b></b>	_
5	Dood T2	<u> </u>	Deed T2	Pouting Chaptings	Man						_									_					┿				
5	Road T3	G	Road T3	Routine Checkings	Van				_																		4	44	
6	Road T3	G	Road T3 / Road Gantry	[3]Installation of cable containment & Field equipment	Special design lorry	R R		R	RR	R										_						<u> </u>	+	<b></b>	
/	Road T3	G	Road T3 W/B (CCTV ref: C0405W)	CCTV high mast installation	Lorry																				╉	<u> </u>	++	+	
8	SHT	H1A, H1B, H1C	SHT (SB,NB, NPB, SPB)	Routine Checkings	Van																				++				
9	SHT	H1B & H1C	SHT(N/B, then S/B)	TCSS Traffic field equipment installation	Scissor lift	R	F	R R	RR	R															++				
10	SHT	H1B & H1C	SHT(N/B, then S/B)	Cable bracket for leaky coaxial cable	Scissor lift				R																				
11	SHT	H1B & H1C	SHT (N/B & S/B)	Leaky cable installation	Scissor lift																								
12	SHT	H1A, H1B, H1C	SHT (S/B & N/B)	Cable laying	Special design lorry	N R	F	R R	R																				
13	SHT	H1A	SHT SPB & NPB, G/F	[1] & [3]Installation of cable containment	Metal scaffolding	A A	A	A A	A A	Α																		$\square$	
14	SHT	H1C	SHT - CP, LV switch room	Wiring of control cabinet	Van	R	F	२ 💦		N																			
15	SHT	H1B	SHT, N/B (near CP10)	Niche ET mock-up preparation	Van	Ν	F	<b>२</b>																					
16	SHT	H1B & H1C	SHT. N/B first, then S/B	Niche ET Installation	Van			R	RR	R																	$\square$		
17	SHT	H1A	SHT, NPB / SPB (1/F - 3/F)	Cable Laying	Van	N	N	N N	Ν																				
18	SHT	H1A	SHT, NPB/SPB (1/F - 3/F)	Telephone outlet plate	Van			N																					
19	SHT	H1B & H1C	SHT Tunnel	Site inspection for VSLS leveling	Van			+							┼╴┠				$\vdash$		$\vdash$	+			44	<mark>_</mark> _	++	+	
	OUT	110		Deutine Checkings																							┿┿	╧╧┛	
20	SHT	H2	SHT - Open road Section	Routine Checkings	Van								_			_		_		_							4	44	_
21	SHT	H2	SHT Open road section	Cable laying remedial work of cable containment	special design lorry	N			D		_															<u> </u>	+		_
22	SHT SHT	H2 H2	SHT Open road section		special design lorry	N		K R	R		_	-				_		_		_						<u> </u>	+		_
23	581	HZ	SHT Open road section	TCSS Cabinet installation	Van				IN		_									_						<u> </u>	+	+	<u> </u>
24	SHT	H3	SHT - RCFE	Routine Checkings	Van						_														┿			_ <b></b>	_
													_			_		_		_							4-		_
25	SHT SHT	H3 H3	SHT - RCFE SHT - RCFE	[1] & [3]Installation of cable containment Cable laving	Special design lorry	R R		۲								_											4-		_
26 27	SHT	H3	SHT - RCFE	Emergency telephone installation	Special design lorry Van						_		_							_						<u> </u>	+		_
21	301	пэ	SHI-ROFE		Vall			×			_									_						<u> </u>	+-+		_
28	ENT	11, 12 & 13	ENT Tunnel (SB, NB, NPB, SPB, ADB, VB	Boutine checkings	Van																								
20	2.11	11, 12 0 10	Toll Plaza & Butterfly Valley)		van																								
29	ENT	12	ENT Tunnel (S/B & N/B)	[3] Cable laying	Special design lorry																				++				
30	ENT	11, 12 & 13	ENT - S/B & N/B	Cable laying	Special design lorry					Ν															++				
31	ENT	12	ENT Tunnel (S/B & N/B)	[3]TCSS Traffic field equipment	Scissor lift																								
32	ENT	l1	ENT, E/B (CCTV ref:C0140E)	CCTV high mast installation	Lorry																								
33	ENT	13	ENT - ABD	Cable laying	Van			N	N	N																			
34	ENT	1 &  3	ENT - NPB / SPB	Cable laying	Van				N N																				
35	ENT	11, 12 & 13	ENT - Kiosk 3 & 4	Cable laying	Van				N																				
36	ENT	I1 & I3	ENT - NPB / SPB	PBX cable wiring	Van				N													$\perp$					$\square$	$\square$	
37	ENT	11	ENT, CP01, 07 & 21	Spatial site coordination	Van			Ν														+					++	-	
38	ENT	12	ENT Tunnel	Site inspection for VSLS leveling	Van			+							┝╌┣╴							+			_		++	_ <b></b>	
39	ENT	12	ENT - Approach road East / West side	Cable laying		┣─┤─┤		+		++											$\vdash$	+					++	_ <b>_</b>	
40		14		Douting checkings	\/																						╺╈╼╼╈	╧╋╧╋	
40	LCKV	J1		Routine checkings CCTV high mast installation	Van					R																			_
41 42	LCKV LCKV	J1 / J2 J2	LCKV (CCTV ref: C0120E & C0130E) LCKV (CCTV ref: C0090E)	CCTV high mast installation	Lorry			+	R	R		╉┼┼									$\vdash$					<u> </u>	++	+	
42	LCKV	J2 J2	LCKV (Section E)	Joint inspection	Van		N			+											$\vdash$					<u> </u>	++	╧	
+5	LOUV	JZ			van					+		╉┼┼			+						$\vdash$	+				<u> </u>	++		
44	NWT	B & C	NWT (E/B, W/B & WCB)	Routine checkings	Van																						┢╼╼╆	┍┼╾╋	
45	NWT	Bac	NWT - E/B	[3]Cable containment installation	Scissor lift			N	NN	N																			
46	NWT	B	NWT - W/B	[3]Cable containment installation	Scissor lift				R																				
47	NWT	В	NWT. E/B & W/B	[3] cable laving	Special design lorry	R R	F	R R		R																			
48	NWT	В	NWT, E/B first, then W/B	[3]TCSS Traffic field equipment installation	Scissor lift	RR		R R																					
49	NWT	B	NWT - CP, TCSS Room	Cable containment installation	Van																								
50	NWT	C	NWT, WCB (control & computer room)	Under floor trunking installation	Van		Ν	N R																					
51	NWT	В	NWT, E/B & W/B	Emergency Telephone Installation	Van		N	N																					
ſ																													
		•	•		•	-						i							•										

Legend :

= Planned activity = Work Done = Public Holiday

R - Re-scheduled N - New activity A - Awaiting of site access

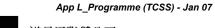
Distribution: Aurp-Johnny Mak, Hara,Alex C, Franco L, Hamlyn K, Joseph C, KT Chan, Patrick L, Philip C, PF Li, Sharon H, Tony C, Wilson W, Winnie M, Donald L, Johnny L, Kenny C

Note:

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[1] Works depends on spatial co-ordination among related Main Contractor and TCSS.
[2] Works Subject to Traffic Tube arrangement by CSCRJV
[3] Works subject to condition of site access & civil provision.
[4] Works subject to CSCRJV to relocate their containers in N/B [5] Works subject to coordination with other services

[7] Works depend on Civil Contractor to rectify their provision[8] Works subject to the site access of the major equipment.





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

Record Date: 26-01-2007

[6] Works depend on ENT's contractor to complete their raised floor installation

APPENDIX M COMPLAINT LOG

## Appendix M - Complaint Log

Log Ref.	Location of Concern	<b>Received Date</b>	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.	<ul> <li><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.</li> <li><u>Noise during day-time</u></li> <li>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.</li> <li>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.</li> </ul>	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,	<ul> <li><u>Environmental Permits</u> <ul> <li>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.</li> <li><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.         </li> </ul> </li></ul>	Closed

Log Ref.	Location of Concern	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
			<ol> <li>the complainant was particularly concerned of two issues:</li> <li>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.</li> <li>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.</li> </ol>	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.1</u> According to Condition 3d of the above-mentioned CNP, there was restriction on the use of site vehicles traveling on TAR no.1. The usage of site vehicles on TAR no.1 in a 2-week period before the date of complaint, i.e. 30 <sup>th</sup> August to 12 <sup>th</sup> 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 30 <sup>th</sup> August and 6 <sup>th</sup> 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 30 <sup>th</sup> August and 12 <sup>th</sup> 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	<b>Received Date</b>	Details of Complaint	Investigation/Mitigation Action	Status
			Environmental Protection Department	<ul> <li>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).</li> <li>Nevertheless, the Contractor was reminded to ensure the compliance of the CNP conditions and adopt good site practice to minimize the construction noise.</li> <li>According to the information provided by the RSS, no</li> </ul>	
41021	Garden Villa	09-Oct-04 (by EPD) 21-Oct-04 (by ET Leader)	<ul> <li>(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.</li> <li>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:</li> <li>Construction works undertaken by the Contractor (Leighton–Kumagai Joint Venture) were noted after 2300 hour.</li> <li>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.</li> </ul>	<ul> <li>construction activity was undertaken in the nighttime period (2300 – 0700 hours) at the concerned site area.</li> <li>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: <ol> <li>Driving the vehicles too fast, which generated excessive engine noise;</li> <li>Noise inside the vehicles (such as staff talking or radios) escaping through the open vehicle windows; and</li> <li>Vehicle beeping horn to request the guards to open the gate.</li> </ol> </li> <li>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: <ol> <li>to drive slowly in order to reduce the engine noise, especially when approaching Garden Villa;</li> <li>to roll up the vehicle windows to contain any noise from talking or radios; and</li> </ol> </li> </ul>	Closed

Log Ref.	Location of Concern	<b>Received Date</b>	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 20 <sup>th</sup> October 2004. The complaint was raised by a resident of the Government Quarters at Caldecott Road, concerning dust generation as a result of the construction activities at Butterfly Valley. The ER subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 23 <sup>rd</sup> October 2004.	<ul> <li>The complaint was considered valid based on: <ol> <li>ER's site observations;</li> <li>ET's weekly site audit; and</li> <li>1-hr TSP exceedance record.</li> </ol> </li> <li>Also, the sources of dust generation were identified as <ol> <li>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.</li> <li>Dust impact due to the haulage of excavated materials at the South Portal.</li> </ol> </li> <li>Enhanced dust suppression measures had been implemented by the Contractor: <ol> <li>added rockfill to the haul road between South Portal Tunnel and the Gully fill area;</li> <li>maintained watering to haul road at Slope BV-S2;</li> <li>requested the fill material supplier to ensure the material was in a damp condition before leaving quarry;</li> <li>provided for material not dampened at the Quarry to be directed to the wheel wash for water spray before entering the site;</li> <li>when cleaning drill holes along slope BV-S4 to ensure adequate water was available for flushing to suppress dust emission; AND</li> <li>provided damper stockpiles of cleared material at BV-S2 before loading.</li> </ol> </li> <li>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 29<sup>th</sup> Oct 04. No significant fugitive dust emission has been found.</li> <li>During ET's site inspections on 27<sup>th</sup> Oct and 3<sup>rd</sup> Nov 2004, the situation was found improved. No deficiency relating to air quality impact was noted by ET during the two audit sessions.</li> <li>The results of air quality monitoring (1-hr and 24-hr TSP) in the period between 21<sup>st</sup> Oct and 2<sup>nd</sup> Nov 2004 were all found to be complied with the Action / Limit Levels.</li> </ul>	Closed

Log Ref.	Location of Concern	<b>Received Date</b>	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 21 <sup>st</sup> November 2004 (Sunday). The complaint was concerned about excessive noise generation from construction machinery at Butterfly Valley on the same day. The Engineer's Representative (ER) subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 24 <sup>th</sup> November 2004.	According to the ER, the only construction activity at Butterfly Valley undertaken on 21 <sup>st</sup> Nov 04 was formation of access road near Slope BV-S2. The activity only involved operations of 1 no. of excavator and 1 no. of dump truck with grab, which complied with the condition stipulated in a valid CNP GW-RW0484-04, which was hold by the Contractor. Routine noise monitoring was conducted on 21 <sup>st</sup> and 28 <sup>th</sup> Nov 2004 at NM6. All the measured noise levels (48.5 to 56.4 dB(A)) were well below the noise limit level. In addition, the measurement results were within the baseline noise level. Therefore, the complaint was considered to be invalid. Nevertheless, the Contractor was reminded to ensure the compliance of the conditions stipulated in CNP. The Contractor was also recommended to adopt good site practice in order to minimize the construction noise.	Closed
41201	Government Quarters (Butterfly Valley)	01-Dec-04 (by MHJV & ET Leader)	A public complaint was received by the Engineer's Representative (ER) of Route 8 – Eagle's Nest Tunnel and Associated Works (R8-ENT) Project on 1 <sup>st</sup> 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.	<ul> <li>The complaint was considered valid based on: <ol> <li>ER's site observations;</li> <li>ET's weekly site audit</li> </ol> </li> <li>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.</li> <li>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.</li> <li>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</li> </ul>	Closed

Log Ref.	Location of Concern	<b>Received Date</b>	Details of Complaint	Investigation/Mitigation Action	Status
				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)	<ul> <li>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.</li> <li>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:</li> <li>Noise from tunnel blasting work carrying out at around 7:30am and 10:00pm; and</li> <li>Dump trucks without covering of canvas when leaving the construction site.</li> </ul>	<ul> <li>Noise from blasting</li> <li>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:</li> <li>To inform the residents around the area about the time of blasting in advance; and</li> <li>To re-schedule the blasting time table, if possible, in order to avoid nuisance.</li> <li>Uncovered dump trucks</li> <li>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.</li> <li>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.</li> <li>LKJV was reminded to keep closely monitoring on the condition and the effectiveness of the proposed control measures.</li> </ul>	Closed

Log Ref.	Location of Concern	<b>Received Date</b>	Details of Complaint	Investigation/Mitigation Action	Status
50308	Garden Villa (North Portal)	05-Mar-05 (by EPD) 08-Mar-05 (by ET Leader)	<ul> <li>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.</li> <li>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:</li> <li>Nighttime &amp; Sunday construction noise</li> <li>Noise from tunnel blasting at early morning and nighttime</li> <li>Dust from construction activities</li> </ul>	<ul> <li>Nighttime &amp; Sunday construction noise <ul> <li>no exceedance for noise monitoring</li> <li>restricted hour works were found complied with the CNPs</li> <li>records of vehicular trips on TAR1 did not show non-compliance of CNP conditions</li> </ul> </li> <li>Noise from tunnel blasting at early morning and nighttime <ul> <li>no exceedance for noise monitoring</li> <li>valid blasting permit had been obtained from CEDD</li> <li>blasting work is not under the jurisdiction of EPD</li> </ul> </li> <li>Dust from construction activities <ul> <li>dump trucks with uncovered / inadequately covered materials were observed leaving site</li> <li>no exceedance for TSP monitoring</li> <li>enhanced dust suppression measures had been implemented by the Contractor</li> </ul> </li> <li>Conclusions <ul> <li>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.</li> </ul> </li> </ul>	Closed
50330	Garden Villa (TAR1)	30-Mar-05 (by EPD & ET Leader)	Environmental Protection Department (EPD) received a public complaint on 30 <sup>th</sup> 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 29 <sup>th</sup> 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

Log Ref.	Location of Concern	<b>Received Date</b>	Details of Complaint	Investigation/Mitigation Action	Status
				<ul> <li>criterion of 75 dB(A).</li> <li>Based on the results of routine noise monitoring and the adhoc measurement on 1<sup>st</sup> 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.</li> <li>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).</li> </ul>	
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 9 <sup>th</sup> 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 $15^{th}$ 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.	<ul> <li>Governmental Quarters (Station NM6) is one of the designated noise monitoring stations in the EM&amp;A programme. Routine monitoring is undertaken on a weekly basis in accordance with the EM&amp;A Manual.</li> <li>Since the commencement of the Project, no exceedance of daytime noise criterion of 75 dB(A) was recorded at this station.</li> <li>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).</li> <li>Based on the results of routine noise monitoring and the adhoc 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.</li> </ul>	Closed

Log Ref.	Location of Concern	<b>Received Date</b>	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 15 <sup>th</sup> 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 19 <sup>th</sup> 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 14 <sup>th</sup> April 2005 and at 4am on 15 <sup>th</sup> 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 11 <sup>th</sup> and 15 <sup>th</sup> 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 (11 <sup>th</sup> to 15 <sup>th</sup> April 2005) is justifiable or not.	Closed

Log Ref.	Location of Concern	<b>Received Date</b>	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	<b>Received Date</b>	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.	<ul> <li>Site Observations</li> <li>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.</li> <li><i>Corrective Actions</i></li> <li>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).</li> <li>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.</li> <li><i>Environmental Outcome</i></li> <li>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.</li> <li><i>Conclusions</i></li> <li>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.</li> </ul>	Closed

Log Ref.	Location of Concern	<b>Received Date</b>	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).	<ul> <li>Site Activity</li> <li>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.</li> <li>Environmental Requirements</li> <li>In the EP, the EM&amp;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.</li> <li>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.</li> <li>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.</li> <li>Contractor's Actions</li> <li>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).</li> <li>Conclusions</li> <li>The subjected blasting operations were carried out by the Contractor under a valid blasting permit. The complaint lodged is therefore considered not justifiable.</li> </ul>	Closed

Log Ref.	Location of Concern	<b>Received Date</b>	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). <i>Conclusion and Recommendation</i> 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	<ul> <li>The RSS received a public complaint from a resident of Government Quarters addressing two noise issues:</li> <li>1. Noise nuisance caused by drilling works at Butterfly Valley;</li> <li>2. Noise nuisance due to blasting 0045 hrs of 28 August 2005.</li> </ul>	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	<b>Received Date</b>	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.	<ul> <li>Environmental Monitoring</li> <li>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).</li> <li>Conclusion</li> <li>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.</li> </ul>	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.	<ul> <li>Site Observations</li> <li>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.</li> <li><i>Contractor's Actions</i></li> <li>Mitigation actions were taken by the Contractor: <ol> <li>One labour was appointed to water spray the concerned road junction and clear up of dusty materials deposited on the WTW access road.</li> <li>Regular watering on access road by hose pipe was performed to keep the road wet.</li> <li>All vehicles would be wheel-washed and loads of dusty materials would be covered before leaving the site.</li> </ol> </li> <li><i>Conclusions</i></li> <li>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.</li> </ul>	Closed

Log Ref.	Location of Concern	<b>Received Date</b>	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	<ul> <li>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.</li> <li>The complainant was concerned about the following environmental issues:</li> <li>1. Noise nuisance due to tunnel blasting works undertaken at midnights and in early mornings (3am to 5am);</li> <li>2. Noise nuisance due to operation of a generator after 11pm;</li> <li>3. Construction dust and daytime noise due to processing and stockpiling of crushed rocks at Butterfly Valley;</li> <li>4. Noise nuisance due to works outside tunnel in the early morning of 2 Nov 05.</li> </ul>	Item 1: Noise nuisance due to tunnel blastingFor carrying out the above-mentioned blasting operations, theContractor 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 theblasting operations had been completed by 12 Nov 05.Item 2: Noise due to operation of a generator after 11pmAccording to the Construction Noise Permit issued by EPD,one generator was allowed to be operated after 11pm at SouthPortal area outside the tunnel. In view of the provision ofacoustic enclosure and the separation distance from thegenerator to Government Quarters (around 300m), the noiseimpact arising from this generator onto the residents of theQuarters was believed to be insignificant. During the ET'sinvestigation on 11 Nov 05, no engine-like noise generatedfrom the construction site could be identified.Item 3: Dust and noise due to handling of crushed rocksNo noise exceedance was recorded. During the weekly siteinspections, deficiencies regarding inadequate dust mitigationmeasures for the crushed rock processing and stockpiling wereoccasionally observed. Dry / uncovered stockpiles and dustemissions from crushed rocks handling were sometimes noted.Item 4: Noise from works out of tunnel in morning of 2 Nov 05According to the RSS's site records, there has been no activityoutside the tunnel in the early morning of 2 November 2005.Work was undertaken deep inside the tunnel during theconcerned period. The mentioned noise musance might not be<	Closed

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

Log Ref	Location of Concern	<b>Received Date</b>	Details of Complaint	Investigation/Mitigation Action	Status
60204 Ga	Garden Villa	4-Jan-06 (by ETL)	<ul> <li>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.</li> <li>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:</li> <li>Time of concern: 1-2 January 2006 (Daytime)</li> <li>Suspected site area of concern: ENT's Toll Plaza and Administration Building.</li> <li>Dust and noise nuisance was noted by the complainant when he passed Garden Villa.</li> <li>Noise from wood saw and crane or alike was noted.</li> </ul>	<ul> <li>A. Construction Noise Impact</li> <li>According to the Contractor's information, construction activities were carried out on 1 and 2 Jan 06, including: <ul> <li>Erection and dismantling of formwork</li> <li>Fixing water pipe</li> </ul> </li> <li>All the equipment operated by the Contractor on 1-2 Jan 06 complied with the permissible equipment stated in the CNP.</li> <li>On 1 Jan 06, noise monitoring was carried out. All the results complied with the noise criterion.</li> <li>B. Construction Dust Impact</li> <li>Erection and dismantling of formwork and fixing water pipe were considered not dust emissive in nature.</li> <li>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.</li> <li>Since December 2005, all TSP monitoring results complied with the Action / Limit Level.</li> <li>Conclusion</li> <li>Based on the information given, site observations and environmental monitoring results, this complaint was considered not justifiable.</li> <li>Nevertheless, the Contractor was reminded to adopt good site practice to minimize the environmental impacts at the nearby sensitive receivers</li> </ul>	Closed